

Service Manual

LG-D802

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1. INTRODUCTION

1.1 Purpose

This manual provides the information necessary to repair, calibration, description and download the features of this model.

1.2 Regulatory Information

A. Security

Toll fraud, the unauthorized use of telecommunications system by an unauthorized part (for example, persons other than your company's employees, agents, subcontractors, or person working on your company's behalf) can result in substantial additional charges for your telecommunications services. System users are responsible for the security of own system. There are may be risks of toll fraud associated with your telecommunications system. System users are responsible for programming and configuring the equipment to prevent unauthorized use. The manufacturer does not warrant that this product is immune from the above case but will prevent unauthorized use of common carrier telecommunication service of facilities accessed through or connected to it. The manufacturer will not be responsible for any charges that result from such unauthorized use.

B. Incidence of Harm

If a telephone company determines that the equipment provided to customer is faulty and possibly causing harm or interruption in service to the telephone network, it should disconnect telephone service until repair can be done. A telephone company may temporarily disconnect service as long as repair is not done.

C. Changes in Service

A local telephone company may make changes in its communications facilities or procedure. If these changes could reasonably be expected to affect the use of the phones or compatibility with the net work, the telephone company is required to give advanced written notice to the user, allowing the user to take appropriate steps to maintain telephone service.

D. Maintenance Limitation

Maintenance limitations on the phones must be performed only by the manufacturer or its authorized agent. The user may not make any changes and/or repairs expect as specifically noted in this manual. Therefore, note that unauthorized alternations or repair may affect the regulatory status of the system and may void any remaining warranty.

E. Notice of Radiated Emission

This model complies with rules regarding radiation and radio frequency emission as defined by local regulatory agencies. In accordance with these agencies, you may be required to provide information such as the following to the end user.

F. Pictures

The pictures in this manual are for illustrative purposes only; your actual hardware may look slightly different.

G. Interference and Attenuation

A phone may interfere with sensitive laboratory equipment, medical equipment, etc. Interference from unsuppressed engines or electric motors may cause problems.

H. Electrostatic Sensitive Devices

ATTENTION

Boards, which contain Electrostatic Sensitive Device (ESD), are indicated by the sign. information is ESD handling: Following



- Service personnel should ground themselves by using a wrist strap when exchange system boards.
- When repairs are made to a system board, they should spread the floor with anti-static mat which is also grounded.
- Use a suitable, grounded soldering iron.
- Keep sensitive parts in these protective packages until these are used.
- When returning system boards or parts like EEPROM to the factory, use the protective package as described.

1. 3. Specifications

KEY FEATURES

- Android 4.2.2 - Powered Smartphone
- Up to 7 Customizable Home Screens
- 5.2" Touch Screen
- 13MP AF with flash, 2.1M VT Image sensor
- 4G Mobile Hotspot
- DivX® H.264, H.263 Capable

ENHANCED USER EXPERIENCE

- Android 4.2.2
- Home Screens – customize 5 or 7 screens with shortcuts to apps, favorites, and widgets
- QWERTY Keyboard with Skype® – use one continuous finger motion to input text when composing a message
- Exchange Support – improved security, remote wipe capability for Exchange administrators, support for Exchange calendars in the Calendar application, auto-discovery for easy setup and syncing of an Exchange account,* and Global Address Lists lookup in the Email application
- Proximity Sensor – locks the touch screen and buttons while talking on the phone
- Motion Sensor – Digital compass , Accelerometer
- USB Charging via Computer
- Airplane Mode (RF Off)

*Available for Exchange 2007 and higher.

DESIGN

- Sleek and Stylish Design
- 5.2" FHD Display
- Capacitive Touch Screen – Glass with fast and accurate response
- Touch Vibration for Tactile Feedback*
- Micro USB Charging Port

*Only available on certain interactions with the touch screen.

MOBILE MEDIA

- Android Market™ – browse and download thousands of free and paid apps from around the world†
- Live Wallpaper – dynamic, animated backgrounds

- Full Web Browsing
- Connect to Social Networks – send quick updates to Twitter™, Facebook®, MySpace™,* or added social networks†
- Mobile Instant Messaging – Google Talk™, AIM®,* Yahoo!® Messenger,* Windows Live™*†
- Gmail™ and Email – mobile personal and corporate email†
- Visual Voice Mail†
- Text, Picture, Video, and Voice Messaging†
- Flash 10.1 for Mobile Devices
- Java Support

*Applications downloaded from Android Market.

CAMERA/VIDEO

- 13MP AF/OIS with flash, 2.1M VT Image sensor and Camcorder*
- Camera Resolutions: 3M(4160x3120(4:3)), W10M(4160x2340(16:9)), 8M(3264x2448(4:3)), 1M(1280 x 960(4:3))
- Camera and Video Zoom: up to 8x
- Image Editor: Zoom, Exposure, Artistic Effect, Color, Adjustment
- Brightness, ISO, White Balance,* Color Effects, Scene Mode, Timer
- Burst Shot – take 20 shots in quick succession
- Video Resolutions: FHD(1920 x 1080(60fps)), FHD(1920 x 1080(30fps)) HD(1280 x 720), QVGA(320 x 240(MMS)), QCIF(176x144(MMS))
- Front-facing camera Resolutions: FHD(1920 x 1080), HD(1280 x 720), QVGA(320 x 240), QCIF(176x144)
- *Available in both video and camera modes.

MULTIMEDIA

- Video Player for WMV, MP4, MKV, 3GP, and 3G2 Formats
- Music Player for MP3, WMA, and Unprotected AAC
- Stereo Sound via Headset or *Bluetooth*
- Multitask While Playing Music in the Background
- Music Library – Organized by Artists, Albums, Songs, Genres, Folders and Playlists
- Repeat and Shuffle Music Playback Modes

- microSD Memory Slot with Support for up to 32GB Storage
 - USB Mass Storage – transfer files between microSD™ card and PC*
- *USB cable (sold separately)

BLUETOOTH®

- Version: 4.0
- Save up to 100 *Bluetooth* Pairings*
- Supported Profiles: headset, hands-free, object push, advanced audio distribution (stereo), audio/video remote control, file transfer, phone book access, message access, serial port
- Listen to Music with Optional Stereo *Bluetooth* Headset**
- Send User-Generated Pictures (JPEG) and Videos via *Bluetooth* Wireless Technology

*Depends on available memory.

**Accessories sold separately.

VOICE/AUDIO

- One-Touch Speakerphone*
- Voice Clarity*
- Voice Commands
- Voice-Activated Dialing
- Text to Speech
- MP3 Music Ringer Support (clips from hit songs)†
- Voice Memo Recording
- More 20 Unique Ringtones + Vibrate and Silent Modes
- TTY Support
- Hearing Aid Compatible M3/T4

*Only available during a call.

TOOLS & DATA

- Android Apps: Browser, Calculator, Calendar (Corporate or Google), Camera, Clock, Contacts, Email, Gallery, Gmail, Market, Messaging, Music, Phone, Settings, Voice Dialer, Voice Recorder, Voice Search
- Metro Navigator® – spoken turn-by-turn directions showing real-time traffic
- Wi-Fi Connectivity – IEEE 802.11b/g/n, a/n

1. INTRODUCTION

- Phone Book – unlimited fields* for numbers, emails, physical addresses, IM screen names, notes, nickname, web addresses, special dates, and a picture ID**
- FOTA Capable – upgrade firmware over the air†
- S-GPS and A-GPS Support for Enhanced Location Accuracy

*Depends on available memory.

**Dependent on photos stored in your gallery.

SPECIFICATIONS

- Technology: GSM/ WCDMA /LTE/GPS/ WiFi/ BT /NFC
- Frequencies:

Support Band	TX Freq (MHz)	RX Freq (MHz)
GSM850	824-849	869-894
GSM900	880-915	925-960
DCS1800	1710-1785	1805-1880
PCS1900	1850-1910	1930-1990
W2100(B1)	1920-1980	2110-2170
W1900(B2)	1850-1910	1930-1990
W850(B5)	824-849	869-894
W900(B8)	880-915	925-960
LTE B1	1920-1980	2110-2170
LTE B3	1710-1785	1805-1880
LTE B7	2500-2570	2620-2690
LTE B8	880-915	925-960
LTE B20	832-862	791-821
BT/WiFi	2400 MHz ~ 2483.5 MHz & 5150 MHz ~ 5825 MHz	
GPS	1574.42 MHz ~ 1576.42 MHz, 1597.55MHz ~ 1605.86MHz	
NFC	13.56MHz	

- Data Transmission: EDGE, GPRS (Class 12) , HSPA+(Cat. 24) HSUPA(Cat. 6), LTE(Cat 3)
- Dimensions: 138.5 (H) x 70.9(W) x 8.99(D) (mm)
- Weight: 140.5g (with Battery)
- Display: 5.2", FHD 1920 x 1080 pixels, TFT
- Standard Battery: min. 2900[mAh]
- Internal Memory Size: 16Gb(SDRAM DDR3) + 32GB eMMC

ACCESSORIES

- Standard Battery*
- Travel Adapter and USB Data Cable*
- Bluetooth Headset (Optional)
- Bluetooth Hands-free kit (Optional)
- Stereo Headset (Optional)
- Vehicle Power Charger (VPC) (Optional)

2. PERFORMANCE

2.1 Product Name

LG-D802 : LTE B1/3/7/8/20+WCDMA850/900/1900/2100+GSM850/EGSM/DCS/PCS (HSPA+ 42Mbps(cat24)/ HSUPA 5.8Mbps(cat6) / GPRS Class12/EDGE Class12)

2.2 Supporting Standard

Item	Feature	Comment
Supporting Standard	LTE (FDD B1/3/7/8/20) WCDMA (FDD1,2,5,8) EGSM/GSM850/DCS1800/PCS1900 with seamless handover	
Frequency Range	LTE(FDD1) Tx : 1920 – 1980 MHz LTE(FDD1) Rx : 2110 – 2170 MHz LTE(FDD3) Tx : 1710 – 1785 MHz LTE(FDD3) Rx : 1805 – 1880 MHz LTE(FDD7) Tx : 2500 – 2570 MHz LTE(FDD7) Rx : 2620 – 2690 MHz LTE(FDD8) Tx : 880 – 915 MHz LTE(FDD8) Rx : 925 – 960 MHz LTE(FDD20) Tx : 832 – 862 MHz LTE(FDD20) Rx : 791 – 821 MHz WCDMA(FDD1) TX : 1920 – 1980 MHz WCDMA(FDD1) RX : 2110 – 2170 MHz WCDMA(FDD2) TX : 1850 – 1910 MHz WCDMA(FDD2) RX : 1930 – 1990 MHz WCDMA(FDD5) TX : 824 – 849 MHz WCDMA(FDD5) RX : 869 – 894 MHz WCDMA(FDD8) TX : 880 – 915 MHz WDMA(FDD8) RX : 925 – 960 MHz GSM850 TX : 824 – 849 MHz GSM850 RX : 869 – 894 MHz EGSM TX : 880 – 915 MHz EGSM RX : 925 – 960 MHz DCS1800 TX : 1710 – 1785 MHz DCS1800 RX : 1805 – 1880 MHz PCS1900 TX : 1850 – 1910 MHz PCS1900 RX : 1930 – 1990 MHz	
Application Standard	WAP 2.0	

2.3 Main Parts & Solution

Item	Part Name	Comment
Digital Baseband	MSM8974 : Qualcomm	
Analog Baseband	MSM8974 : Qualcomm	
RF Chip	WTR1605L : Qualcomm	

2.4 HW Features

Item	Feature	Comment
Form Factor	DOP type	
Battery	1) Capacity Standard : Li-Ion polymer, 3000mAh	
	2) Packing Type : <u>Soft Pack</u>	
Size	Standard : 138.5 x 70.9 x 8.9	
Weight	About 140.5g	With Battery
RX sensitivity	WCDMA(FDD1) : -109 dBm WCDMA(FDD2) : -108 dBm WCDMA(FDD5) : -109 dBm WCDMA(FDD8) : -109 dBm EGSM : -109 dBm GSM850 : -109 dBm DCS 1800 : -108 dBm PCS 1900 : -107 dBm LTE : - 97dBm	
TX output power	WCDMA/ GSM/ LTE/ GPRS	WCDMA B1,2,5,8 : 24dBm/3.84MHz,+1/-3dBm EGSM : 33dBm GSM850 : 33dBm DCS1800 : 30dBm PCS 1900: 30dBm LTE B1/B3/B7/B8/B20 : 23dBm
EDGE compatibility	GPRS Class 12	

2. PERFORMANCE

SIM card type	EDGE Class 12		Class3(WCDMA) Class4 (EGSM) Class4 (GSM850) Class1 (PCS) Class1 (DCS) Class3(LTE)
	Plug-In SIM 3V /1.8V		E2 (GSM900) E2 (PCS) E2 (DCS)
Display		Main LCD TFT Main LCD (5.2", FHD 1920 X 1080 Pixels)	
Built-in Camera		13M AF + 2.1M FHD	
Status Indicator		Yes	
Keypad		Full Touch Screen Back Key : 3	Back Key : Power On Volume up/down
ANT		Main : Internal Fixed Type	
System connector		5 Pin u-USB	
Ear Phone Jack		3.5 pi type	
PC synchronization		Yes	
Memory		2GB(SDRAM DDR2) + 32GB eMMC	
Speech coding		FR, EFR, HR,AMR	
Vibrator		Built in Vibrator	
Blue Tooth		Bluetooth 4.0+BLE	
MIDI(for Buzzer Function)		SW Decoded 72Poly	
Music Player		MP3/WMA/AAC/MIDI/EAAC+/HE AAC/OGG	
Video Player		MPEG4, H.264	
Camcorder		MPEG4 or H.263	
Voice Recording		Yes	
Speaker Phone mode Support		Yes	
Travel Adapter		Yes	
CDROM		No	
Stereo Headset		Yes	
Data Cable		Yes	
T-Flash (External Memory)		No	

1) RSSI Display

	Specification			
	LTE	WCDMA	GSM	
BAR 5->4	-86 dBm ± 4dB	-86 dBm ± 4dB	-90 dBm ± 2dB	Antenna BAR
BAR 4->3	-96 dBm ± 4dB	-92 dBm ± 4dB	-96 dBm ± 2dB	
BAR 3->2	-106 dBm ± 4dB	-98 dBm ± 4dB	-98 dBm ± 2dB	
BAR 2->1	-116 dBm ± 4dB	-102 dBm ± 4dB	-102 dBm ± 2dB	
BAR 1->0	-128 dBm ± 4dB	-108 dBm ± 4dB	-104 dBm ± 2dB	
BAR 1-> No service	No service	No service	No service	

Measure RSSI after 10 seconds if you change power.

2) Charging Time

180 minutes under

3) Travel Charger

Input : 100 ~ 240V, 50/60 Hz

Output : 5.0V, 1800 mA

4) Battery Type

Li-ion polymer Battery Pack, 3000 mAh

Standard Voltage : 3.8V, Battery Full Charge Voltage : 4.35V

5) Current Consumption

Item	WCDMA Only	GSM Only	LTE	Comment
Standby	5mA ↓ (DRX 7)	5mA(PP=5) ↓	5mA (DRX 2.56)	GPS & Wifi Off Neighborhood Cell Off, LCD Off
Talk Mode	- Max Pwr : 450mA ↓ @ Avg - Tx 10dBm : 200 mA ↓ @ Avg	300mA(Tx Lvl: 5) ↓	300mA (10dBm)	GPS & Wifi Off Neighborhood Cell Off, LCD Off
Power Off	300uA ↓	300uA ↓	300uA ↓	

6) Battery Bar

Battery Bar	Specification	Battery Bar	Specification
20	98~100%	10→9	43~47%
20→19	93~97%	9→8	38~42%
19→18	88~92%	8→7	33~37%
18→17	83~87%	7→6	28~32%
17→16	78~82%	6→5	23~27%
16→15	73~77%	5→4	16~22%
15→14	68~72%	4→3	13~15%
14→13	63~67%	3→2	8~12%
13→12	58~62%	2→1	3~7%
12→11	53~57%		
11→10	48~52%		

2.5 SW Features

Item	Feature	Comment
RSSI	0 ~ 5 Levels	
Battery Charging	0 ~ 7 Levels	
Key Volume	0 ~ 7 Level	
Audio Volume	0 ~ 15 Level	
Time / Date Display	Yes	
Multi-Language	Yes	English, Espanol, Franch, Korea, Chinese, etc.
Quick Access Mode	Phone / Message / Browser / Camera / Apps	
PC Sync	No	
Speed Dial	Yes	Voice mail center -> 1 key
Profile	Yes	not same with feature phone setting
CLIP / CLIR	Yes	
Phone Book	Name / Number / Email / Chat Id / Website / Postal addresses / Organizations / Groups / Birthday Notes / Ringtone	There is no limitation on the number of items. It depends on available memory amount.
Last Dial Number	Yes	There is no limitation on the number of items. It depends on available memory amount..
Last Received Number	Yes	There is no limitation on the number of items. It depends on available memory amount...
Last Missed Number	Yes	There is no limitation on the number of items. It depends on available memory amount...
Search by Number / Name	Name / Number	
Group	Yes	There is no limitation on the number of items. It depends on available memory amount.

2. PERFORMANCE

Fixed Dial Number	Yes	
Service Dial Number	No	
Own Number	Yes	Read / Write
Voice Memo	Yes	Support voice recorder
Call Reminder	No	Missed call popup
Network Selection	Automatic	
Mute	Yes	
Call Divert	Yes	
Call Barring	No	MMI code only (setting menu not supplied)
Call Charge (AoC)	No	
Call Duration	Yes	
SMS (EMS)	There is no limitation on the number of items. It depends on available memory amount.	EMS does not support.
SMS Over GPRS	Yes	
EMS Melody / Picture	No	
Send / Receive / Save	No	
MMS MPEG4 Send / Receive / Save	Yes	
Long Message	Yes	
Cell Broadcast	Yes	
Download	No	GOTA download is possible
Game	No	
Calendar	Yes	
Memo	Yes	There is no limitation on the number of items. It depends on available memory amount.
World Clock	Yes	
Unit Convert	No	
Stop Watch	Yes	

2. PERFORMANCE

Wall Paper	Yes	
WAP Browser	No	WAP stack and wml are not supported.
Download Melody / Wallpaper	Yes	Over web browser
SIM Lock	Yes	
SIM Toolkit	Class C, E, L	Partial supported C class, just supported LAUNCH BROWSER
MMS	Yes	
EONS	Yes	
CPHS	Yes	V4.2
ENS	Yes	
Camera	Yes	13M AF VT : 2.4M FHD
JAVA	No	Android do not support JAVA
Voice Dial	Yes	
IrDa	No	IRRC support
Bluetooth	Yes	Ver. 4.0
FM radio	No	
GPRS	Yes	Class 12
EDGE	Yes	Class 12
Hold / Retrieve	Yes	
Conference Call	Yes	
DTMF	Yes	
Memo pad	Yes	
TTY	Yes	
AMR	Yes	
SyncML	Yes	
IM	Yes	GTalk
Email	Yes	

2.6 H/W SPEC.

1) GSM transceiver specification

Item	Specification
Phase Error	Rms : 5° Peak : 20°
Frequency Error	GSM850, EGSM : 0.1 ppm DCS/PCS : 0.1 ppm
EMC(Radiated Spurious Emission Disturbance)	GSM/DCS : < -28dBm
Transmitter Output power and Burst Timing	GSM850, EGSM : 5dBm – 33dBm ± 3dB DCS/PCS : 0dBm – 30dBm ± 3dB
Burst Timing	<3.69us
Spectrum due to modulation out to less than 1800kHz offset	200kHz : -36dBm 600kHz : -51dBm/-56dBm
Spectrum due to modulation out to larger than 1800kHz offset to the edge of the transmit band	GSM850, EGSM : 1800-3000kHz : < -63dBc(-46dBm) 3000kHz-6000kHz : < -65dBc(-46dBm) 6000kHz < : < -71dBc(-46dBm) DCS, PCS : 1800-3000kHz : < -65dBc(-51dBm) 6000kHz < : < -73dBc(-51dBm)
Spectrum due to switching transient	400kHz : -19dBm/-22dBm(5/0), -23dBm 600kHz : -21dBm/-24dBm(5/0), -26dBm
Reference Sensitivity – TCH/FS	Class II(RBER) : -105dBm(2.439%)
Usable receiver input level range	0.012(-15 - -40dBm)
Intermodulation rejection – Speech channels	± 800kHz, ± 1600kHz : -98dBm/-96dBm (2.439%)
AM Suppression – GSM : -31dBm - DCS : -29dBm	-98dBm/-96dBm (2.439%)
Timing Advance	± 0.5T

2) WCDMA transmitter specification

Item	Specification
Transmit Frequency	Band1 : 1920 MHz ~ 1980 MHz Band2 : 1850 ~ 1910 MHz Band5 : 824 ~ 849 MHz Band8 : 880 ~915 MHz
Maximum Output Power	+24 dBm / 3.84 MHz, +1 / -3 dB
Frequency Error	within ± 0.1 PPM
Open Loop Power Control	Normal Conditions : within ± 9 dB, Extreme Conditions : within ± 12 dB
Minimum Transmit Power	< -50 dBm /3.84 MHz
Occupied Bandwidth	< 5 MHz at 3.84 Mcps (99% of power)
Adjacent Channel Leakage Power Ratio (ACLR)	> 33 dB @ ± 5 MHz, > 43 dB @ ± 10 MHz
Spurious Emissions $ f-f_c > 12.5$ MHz	< -36 dBm / 1 kHz RW @ $9 \text{ kHz} \leq f < 150 \text{ kHz}$ < -36 dBm / 10 kHz RW @ $150 \text{ kHz} \leq f < 30 \text{ MHz}$ < -36 dBm / 100 kHz RW @ $30 \text{ MHz} \leq f < 1 \text{ GHz}$ < -30 dBm / 1 MHz RW @ $1 \text{ GHz} \leq f < 12.75 \text{ GHz}$ < -60 dBm / 3.84 MHz RW @ $869 \text{ MHz} \leq f \leq 894 \text{ MHz}$ < -60 dBm / 3.84 MHz RW @ $1930 \text{ MHz} \leq f \leq 1900 \text{ MHz}$ < -60 dBm / 3.84 MHz RW @ $2110 \text{ MHz} \leq f \leq 2155 \text{ MHz}$ < -67 dBm / 100 kHz RW @ $925 \text{ MHz} \leq f \leq 935 \text{ MHz}$ < -79 dBm / 100 kHz RW @ $935 \text{ MHz} < f \leq 960 \text{ GHz}$ < -71 dBm / 100 kHz RW @ $1805 \text{ MHz} \leq f \leq 1880 \text{ MHz}$ < -41 dBm / 300 kHz RW @ $1884.5 \text{ MHz} < f < 1919.6 \text{ MHz}$
Transmit Intermodulation	< -31 dBc @ 5 MHz & < -41 dBc @ 10 MHz when Interference CW Signal Level = -40 dBc
Error Vector Magnitude	< 17.5 %, when Pout \geq -20 dBm
Peak Code Domain Error	< -15 dB at Pout \geq -20 dBm

3) WCDMA receiver specification

Item	Specification																			
Receive Frequency	Band1 : 2110 MHz ~ 2170 MHz Band2 : 1930 ~ 1990 MHz Band5 : 869 ~ 894 MHz Band8 : 925 ~ 960 MHz																			
Reference Sensitivity Level	Band1 : BER < 0.001 when $\hat{I}_{or} = -106.7$ dBm / 3.84 MHz Band2 : BER < 0.001 when $\hat{I}_{or} = -106.7$ dBm / 3.84 MHz Band5 : BER < 0.001 when $\hat{I}_{or} = -106.7$ dBm / 3.84 MHz Band8 : BER < 0.001 when $\hat{I}_{or} = -106.7$ dBm / 3.84 MHz																			
Maximum Input Level	BER < 0.001 when $\hat{I}_{or} = -25$ dBm / 3.84 MHz																			
Adjacent Channel Selectivity (ACS)	ACS > 33 dB where BER < 0.001 when $\hat{I}_{or} = -92.7$ dBm / 3.84 MHz & $I_{oac} = -52$ dBm / 3.84 MHz @ ± 5 MHz																			
Blocking Characteristic	BER < 0.001 when $\hat{I}_{or} = -103.7$ dBm / 3.84 MHz & $I_{blocking} = -56$ dBm / 3.84 MHz @ $F_{uw}(\text{offset}) = \pm 10$ MHz or $I_{blocking} = -44$ dBm / 3.84 MHz @ $F_{uw}(\text{offset}) = \pm 15$ MHz																			
Spurious Response	BER < 0.001 when $\hat{I}_{or} = -103.7$ dBm / 3.84 MHz & $I_{blocking} = -44$ dBm																			
Intermodulation	BER < 0.001 when $\hat{I}_{or} = -103.7$ dBm / 3.84 MHz & $I_{ouw1} = -46$ dBm @ $F_{uw1}(\text{offset}) = \pm 10$ MHz & $I_{ouw2} = -46$ dBm / 3.84 MHz @ $F_{uw2}(\text{offset}) = \pm 20$ MHz																			
Spurious Emissions	< -57 dBm / 100 kHz BW @ $9 \text{ kHz} \leq f < 1 \text{ GHz}$ < -47 dBm / 1 MHz BW @ $1 \text{ GHz} \leq f \leq 12.75 \text{ GHz}$																			
Inner Loop Power Control In Uplink	Adjust output(TPC command) <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>cmd</th> <th>1dB</th> <th>2dB</th> <th>3dB</th> </tr> </thead> <tbody> <tr> <td>+1</td> <td>+0.5/1.5</td> <td>+1/3</td> <td>+1.5/4</td> </tr> <tr> <td>0</td> <td>-0.5/+0.5</td> <td>-0.5/+0.5</td> <td>-0.5/+0.5</td> </tr> <tr> <td>-1</td> <td>-0.5/-1.5</td> <td>-1/-3</td> <td>-1.5/-4</td> </tr> </tbody> </table> group(10equal command group) <table style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td>+1</td> <td>+8/+12</td> <td>+16/+24</td> </tr> </tbody> </table>	cmd	1dB	2dB	3dB	+1	+0.5/1.5	+1/3	+1.5/4	0	-0.5/+0.5	-0.5/+0.5	-0.5/+0.5	-1	-0.5/-1.5	-1/-3	-1.5/-4	+1	+8/+12	+16/+24
cmd	1dB	2dB	3dB																	
+1	+0.5/1.5	+1/3	+1.5/4																	
0	-0.5/+0.5	-0.5/+0.5	-0.5/+0.5																	
-1	-0.5/-1.5	-1/-3	-1.5/-4																	
+1	+8/+12	+16/+24																		

4) HSDPA transmitter specification

Item	Specification																						
Transmit Frequency	Band1 : 1920 MHz ~ 1980 MHz Band2 : 1850 ~ 1910 MHz Band5 : 824 ~ 849 MHz Band8 : 880 ~915 MHz																						
Maximum Output Power	Sub-Test 1=1/15, 2=12/15 21~25dBm / 3.84 MHz 3=13/15 4=15/8 20~25dBm / 3.84 MHz 5=15/7 6=15/0 19~25dBm / 3.84 MHz																						
HS-DPCCH	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Sub-test in table C.10.1.4</th> <th style="text-align: center;">Power step</th> <th style="text-align: center;">Power step slot boundary</th> <th style="text-align: center;">Power step size, P [dB]</th> <th style="text-align: center;">Transmitter power step tolerance [dB]</th> </tr> </thead> <tbody> <tr> <td rowspan="4" style="text-align: center; vertical-align: middle;">5</td> <td style="text-align: center;">1</td> <td style="text-align: center;">Start of Ack/Nack</td> <td style="text-align: center;">6</td> <td style="text-align: center;">+/- 2.3</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">Start of CQI</td> <td style="text-align: center;">1</td> <td style="text-align: center;">+/- 0.6</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">Middle of CQI</td> <td style="text-align: center;">0</td> <td style="text-align: center;">+/- 0.6</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">End of CQI</td> <td style="text-align: center;">5</td> <td style="text-align: center;">+/- 2.3</td> </tr> </tbody> </table>	Sub-test in table C.10.1.4	Power step	Power step slot boundary	Power step size, P [dB]	Transmitter power step tolerance [dB]	5	1	Start of Ack/Nack	6	+/- 2.3	2	Start of CQI	1	+/- 0.6	3	Middle of CQI	0	+/- 0.6	4	End of CQI	5	+/- 2.3
Sub-test in table C.10.1.4	Power step	Power step slot boundary	Power step size, P [dB]	Transmitter power step tolerance [dB]																			
5	1	Start of Ack/Nack	6	+/- 2.3																			
	2	Start of CQI	1	+/- 0.6																			
	3	Middle of CQI	0	+/- 0.6																			
	4	End of CQI	5	+/- 2.3																			
Spectrum Emission Mask	Sub-Test : 1=1/15, 2=12/15, 3=13/15, 4=15/8, 5=15/7, 6=15/0 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Frequency offset from carrier Δf</th> <th style="text-align: center;">Minimum requirement</th> <th style="text-align: center;">Measurement Bandwidth</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2.5 ~ 3.5 MHz</td> <td style="text-align: center;">$-35-15 \times (\Delta f - 2.5) \text{dBc}$</td> <td style="text-align: center;">30 kHz</td> </tr> <tr> <td style="text-align: center;">3.5 ~ 7.5 MHz</td> <td style="text-align: center;">$-35-1 \times (\Delta f - 3.5) \text{dBc}$</td> <td style="text-align: center;">1 MHz</td> </tr> <tr> <td style="text-align: center;">7.5 ~ 8.5 MHz</td> <td style="text-align: center;">$-35-10 \times (\Delta f - 7.5) \text{dBc}$</td> <td style="text-align: center;">1 MHz</td> </tr> <tr> <td style="text-align: center;">8.5 ~ 12.5 MHz</td> <td style="text-align: center;">-49dBc</td> <td style="text-align: center;">1 MHz</td> </tr> </tbody> </table>	Frequency offset from carrier Δf	Minimum requirement	Measurement Bandwidth	2.5 ~ 3.5 MHz	$-35-15 \times (\Delta f - 2.5) \text{dBc}$	30 kHz	3.5 ~ 7.5 MHz	$-35-1 \times (\Delta f - 3.5) \text{dBc}$	1 MHz	7.5 ~ 8.5 MHz	$-35-10 \times (\Delta f - 7.5) \text{dBc}$	1 MHz	8.5 ~ 12.5 MHz	-49dBc	1 MHz							
Frequency offset from carrier Δf	Minimum requirement	Measurement Bandwidth																					
2.5 ~ 3.5 MHz	$-35-15 \times (\Delta f - 2.5) \text{dBc}$	30 kHz																					
3.5 ~ 7.5 MHz	$-35-1 \times (\Delta f - 3.5) \text{dBc}$	1 MHz																					
7.5 ~ 8.5 MHz	$-35-10 \times (\Delta f - 7.5) \text{dBc}$	1 MHz																					
8.5 ~ 12.5 MHz	-49dBc	1 MHz																					
Adjacent Channel Leakage Power Ratio (ACLR)	Sub-Test : 1=1/15, 2=12/15, 3=13/15, 4=15/8, 5=15/7, 6=15/0 > 33 dB @ ± 5 MHz > 43 dB @ ± 10 MHz																						
Error Vector Magnitude	< 17.5 %, when Pout \geq -20 dBm																						

5) HSDPA receiver specification

Item	Specification
Receive Frequency	Band1 : 2110 ~ 2170 MHz Band2 : 1930 ~ 1990 MHz Band5 : 869 ~ 894 MHz Band8 : 925 ~ 960 MHz
Maximum Input Level (BLER or R), 16QAM Only	Sub-Test : 1=1/15, 2=12/15, 3=13/15, 4=15/8, 5=15/7, 6=15/0 BLER < 10% or R >= 700kbps

6) LTE transmitter specification

Item	Spec.	Min	Typ.	Max	
Maximum Output Power(Class III)	Power class 3 (Environmental Test)	20.3 (20.3)	23.0 (23.0)	25.7 (25.7)	dBm 10MHz
Frequency Error	QPSK	-0.1PPM -15hz	-	+0.1PPM -15hz	
EVM	QPSK 16 QAM			17.5 12.5	%
IQ-component	QPSK, 12RB			-24.2	dBc
In-band emissions for non allocated RB	QPSK, 12RB			-24.2	dB
Spectrum Flatness	QPSK, 50RB	-2		+3.4	dBpp
Occupied Bandwidth	QPSK, 50RB			10	MHz
ACLR (Adjacent Channel Leakage Power Ratio)	E-UTRA ACLR1			-29.2	dB
	UTRA ACLR1			-32.2	dB
	UTRA ACLR2			-35.2	dB
Transmitter Spurious emissions	9 kHz < f < 150 kHz			-36	dBm 1kHz
	150 kHz < f < 30 kHz			-36	dBm 10kHz
	30 kHz < f < 1 GHz			-36	dBm 100kHz
	1GHz < f < 12.75 GHz			-30	dBm 1MHz

7) LTE receiver specification

Item	Spec.	Min	Typ.	Max	
Sensitivity Level (DL : QPSK, 50RB UL : QPSK, 25RB)	Dual Receiver			B2: -95 B4 : -97 B17: -94	dBm /10MHz
	Single Receiver (exception in 3GPP)			B2 : -92 B4 : -94.0 B17: -91.0	dBm /10MHz
Maximum input Level	Dual Receiver (DL : 64QAM, 50RB UL : QPSK, 12RB)			-25.7	dBm /10MHz
ACS (Adjacent Channel Selectivity)	Dual Receiver (DL : QPSK, 50RB UL : QPSK, 12RB) $\Delta f \pm 7.5\text{MHz}$, LTE BW 5MHz			33	dB
In-band Blocking (DL : QPSK, 50RB UL : QPSK, 20RB)	Dual Receiver $\Delta f \pm 7.5\text{MHz}$, LTE BW 5MHz $\Delta f \pm 12.5\text{MHz}$, LTE BW 5MHz			-88.3	dBm /10MHz
Out-of band Blocking (DL : QPSK, 50RB UL : QPSK, 20RB)	Dual Receiver $\Delta f \pm 15\text{MHz}$, ~85MHz, CW	-		-88.3	dBm /10MHz
Narrow Band Blocking (DL : QPSK, 50RB UL : QPSK, 20RB)	Dual Receiver $\Delta f \pm 5.2125\text{MHz}$, CW			-81.3	dBm /10MHz
Intermodulation (DL : QPSK, 50RB UL : QPSK, 20RB)	Dual Receiver $\Delta f \pm 12.5\text{MHz}$, CW $\Delta f \pm 25\text{MHz}$, LTE BW 5MHz			-88.3	dBm /10MHz
Spurious Emission (DL : QPSK, 0RB UL : QPSK, 0RB)	Dual Receiver $30\text{MHz} < f < 1\text{GHz}$			-57	dBm /100MHz
	$1\text{GHz} < f < 12.75\text{GHz}$			-47	dBm /1MHz

8) GPS receiver specification

Item	Specification
Receive Frequency	1574.42 MHz ~ 1576.42 MHz
Minimum Sensitivity	1 satellite $\geq -142\text{dBm}$, 7 satellites $\geq -147\text{dBm}$ at coarse time aiding

9) WLAN 802.11b transmit / receive Electrical Characteristics(Conducted)

Parameter	Spec.
Transmit Frequency	2400 MHz ~ 2483.5 MHz (CH1~CH13)
Tx Power Level	≤ 20dBm under (Europe), ≤ 30dBm under (USA)
Frequency Tolerance	within ±25 PPM
Chip clock Frequency Tolerance	within ±25 PPM
Spectrum Mask	≤ -30 @ $f_c - 22\text{MHz} < f < f_c - 11\text{MHz}$ and $f_c + 11\text{MHz} < f < f_c + 22\text{MHz}$ ≤ -50 @ $f < f_c - 22\text{MHz}$ and $f > f_c + 22\text{MHz}$
Power ramp on/off time	≤ 2us
Carrier Suppression	≤ -15dB
Modulation Accuracy (Peak EVM)	≤ 35%
Spurious Emissions	< -36 dBm @ 30MHz ~ 1GHz < -30 dBm above @ 1GHz ~ 12.75GHz < -47 dBm @ 1.8GHz ~ 1.9GHz < -47 dBm @ 5.15GHz ~ 5.3GHz
Rx Min input Sensitivity	≤ -76dBm(1Mbps,2Mbps,5.5Mbps,11Mbps) @ FER ≤ 8%
Rx Max input Sensitivity	≥ -10dBm(1Mbps,2Mbps,5.5Mbps,11Mbps) @ FER ≤ 8%
Rx Adjacent Channel Rejection	≥ 35 dB @FER ≤ 8%, interference input signal -70dBm@ $f_c \pm 25\text{MHz}$ (11Mbps)

10) WLAN 802.11g transmit / receive Electrical Characteristics(Conducted)

Parameter	Spec.
Transmit Frequency	2400 MHz ~ 2483.5 MHz (CH1~CH13)
Tx Power Level	≤ 20dBm under (Europe), ≤ 30dBm under (USA)
Frequency Tolerance	within ±25 PPM
Chip clock Frequency Tolerance	within ±25 PPM
Spectrum Mask	≤ -20 @ ±11MHz offset (9Mhz ~ 11MHz) ≤ -28 @ ±20MHz offset (11MHz ~ 20Mhz) ≤ -40 @ ±30MHz offset (20MHz ~ 30Mhz)\
Transmitter constellation error (rms EVM)	≤ -5dB@6Mbps, ≤ -8dB@9Mbps, ≤ -10dB@12Mbps, ≤ -13dB@18Mbps, ≤ -16dB@24Mbps, ≤ -19dB@36Mbps, ≤ -22dB@48Mbps, ≤ -25dB@54Mbps
Spurious Emissions	< -36 dBm @ 30MHz ~ 1GHz < -30 dBm above @ 1GHz ~ 12.75GHz < -47 dBm @ 1.8GHz ~ 1.9GHz < -47 dBm @ 5.15GHz ~ 5.3GHz
Rx Min input Sensitivity	PER ≤ 10% -82dBm@6Mbps, -81dBm@9Mbps, -79dBm@12Mbps -77dBm@18Mbps, -74dBm@24Mbps, -70dBm@36Mbps -66dBm@48Mbps, -65dBm@54Mbps
Rx Max input Sensitivity	≥ -20dBm(6,9,12,18,24,36,48,54Mbps) @ PER ≤ 10%
Rx Adjacent Channel Rejection	PER ≤ 10%, ACR ≥ 16dB@6Mbps, ACR ≥ 15dB@9Mbps, ACR ≥ 13dB@12Mbps, ACR ≥ 11dB@18Mbps, ACR ≥ 8dB@24Mbps, ACR ≥ 4dB@36Mbps ACR ≥ 0dB@48Mbps, ACR ≥ -1dB@54Mbps * ACR shall be measured by setting the desired signal's strength 3 dB above the rate-dependent sensitivity specified in min input sensitivity

11) WLAN 802.11a transmit / receive Electrical Characteristics(Conducted)

Parameter	Spec.
Transmit Frequency	5170 ~ 5815 MHz (CH36 ~ 64, CH100 ~ 124, CH149 ~ 161)
Tx Power Level	≤ 2.5mW/MHz(CH36 ~ 48), ≤ 10mW/MHz(CH52 ~ 161)
Frequency Tolerance	within ±20 PPM
Chip clock Frequency Tolerance	within ±20 PPM
Spectrum Mask	≤ -20 @ ±11MHz offset (9Mhz ~ 11MHz) ≤ -28 @ ±20MHz offset (11MHz ~ 20Mhz) ≤ -40 @ ±30MHz offset (20MHz ~ 30Mhz)
Transmitter constellation error (rms EVM)	≤ -5dB@6Mbps, ≤ -8dB@9Mbps, ≤ -10dB@12Mbps, ≤ -13dB@18Mbps, ≤ -16dB@24Mbps, ≤ -19dB@36Mbps, ≤ -22dB@48Mbps, ≤ -25dB@54Mbps
Spurious Emissions	< -36 dBm @ 30 MHz to 47 MHz < -54 dBm @ 47 MHz to 74 MHz < -36 dBm @ 74 MHz to 87,5 MHz < -54 dBm @ 87,5 MHz to 118 MHz < -36 dBm @ 118 MHz to 174 MHz < -54 dBm @ 174 MHz to 230 MHz < -36 dBm @ 230 MHz to 470 MHz < -54 dBm @ 470 MHz to 862 MHz < -36 dBm @ 862 MHz to 1 GHz < -30 dBm @ 1 GHz to 5.15 GHz < -30 dBm @ 5.35 GHz to 5.47 GHz < -30 dBm @ 5.725 GHz to 26.5 GHz
Rx Min input Sensitivity	PER ≤ 10% -82dBm@6Mbps, -81dBm@9Mbps, -79dBm@12Mbps -77dBm@18Mbps, -74dBm@24Mbps, -70dBm@36Mbps -66dBm@48Mbps, -65dBm@54Mbps
Rx Max input Sensitivity	≥ -30dBm(6,9,12,18,24,36,48,54Mbps) @ PER ≤ 10%

2. PERFORMANCE

Parameter	Spec.
Rx Adjacent Channel Rejection	PER ≤ 10%, ACR ≥ 16dB@6Mbps, ACR ≥ 15dB@9Mbps, ACR ≥ 13dB@12Mbps, ACR ≥ 11dB@18Mbps, ACR ≥ 8dB@24Mbps, ACR ≥ 4dB@36Mbps ACR ≥ 0dB@48Mbps, ACR ≥ -1dB@54Mbps * ACR shall be measured by setting the desired signal's strength 3 dB above the rate-dependent sensitivity specified in min input sensitivity

12) WLAN 802.11n(HT20) transmit / receive Electrical Characteristics(Conducted)

Parameter	Spec.
Transmit Frequency	2400 ~ 2483.5 MHz (CH1 ~ 13) 5170 ~ 5815 MHz (CH36 ~ 64, CH100 ~ 124, CH149 ~ 161)
Tx Power Level	$\leq 10\text{mW/MHz}$ (CH1 ~ 13) $\leq 2.5\text{mW/MHz}$ (CH36 ~ 48), $\leq 10\text{mW/MHz}$ (CH52 ~ 161)
Frequency Tolerance	within ± 25 PPM(2400 ~ 2483.5 MHz) within ± 20 PPM(5170 ~ 5815 MHz)
Chip clock Frequency Tolerance	within ± 25 PPM(2400 ~ 2483.5 MHz) within ± 20 PPM(5170 ~ 5815 MHz)
Spectrum Mask	≤ -20 @ $\pm 11\text{MHz}$ offset (9MHz ~ 11MHz) ≤ -28 @ $\pm 20\text{MHz}$ offset (11MHz ~ 20MHz) ≤ -45 @ $\pm 30\text{MHz}$ offset (20MHz ~ 30MHz)
Transmitter constellation error (rms EVM)	$\leq -5\text{dB@}6.5\text{Mbps}$, $\leq -10\text{dB@}13\text{Mbps}$, $\leq -13\text{dB@}19.5\text{Mbps}$, $\leq -16\text{dB@}26\text{Mbps}$, $\leq -19\text{dB@}39\text{Mbps}$, $\leq -22\text{dB@}52\text{Mbps}$, $\leq -25\text{dB@}58.5\text{Mbps}$, $\leq -28\text{dB@}65\text{Mbps}$
Spurious Emissions	[2400 MHz ~ 2483.5 MHz (CH1 ~ 13)] < -36 dBm @ 30MHz ~ 1GHz < -30 dBm above @ 1GHz ~ 12.75GHz < -47 dBm @ 1.8GHz ~ 1.9GHz < -47 dBm @ 5.15GHz ~ 5.3GHz [5170 MHz ~ 5815 MHz (CH36 ~ 161)] < -36 dBm @ 30 MHz to 47 MHz < -54 dBm @ 47 MHz to 74 MHz < -36 dBm @ 74 MHz to 87,5 MHz < -54 dBm @ 87,5 MHz to 118 MHz < -36 dBm @ 118 MHz to 174 MHz < -54 dBm @ 174 MHz to 230 MHz < -36 dBm @ 230 MHz to 470 MHz < -54 dBm @ 470 MHz to 862 MHz < -36 dBm @ 862 MHz to 1 GHz < -30 dBm @ 1 GHz to 5.15 GHz < -30 dBm @ 5.35 GHz to 5.47 GHz < -30 dBm @ 5.725 GHz to 26.5 GHz

13) WLAN 802.11n(HT40) transmit / receive Electrical Characteristics(Conducted)

Parameter	Spec.
Transmit Frequency	5170 ~ 5815 MHz (CH36 ~ 64, CH100 ~ 124, CH149 ~ 161)
Tx Power Level	$\leq 2.5\text{mW/MHz}$ (CH36 ~ 48), $\leq 10\text{mW/MHz}$ (CH52 ~ 161)
Frequency Tolerance	within ± 20 PPM(5170 ~ 5815 MHz)
Chip clock Frequency Tolerance	within ± 20 PPM(5170 ~ 5815 MHz)
Spectrum Mask	≤ -20 @ ± 21 MHz offset (19MHz ~ 21MHz) ≤ -28 @ ± 40 MHz offset (21MHz ~ 40MHz) ≤ -45 @ ± 60 MHz offset (40MHz ~ 60MHz)
Transmitter constellation error (rms EVM)	$\leq -5\text{dB@}6.5\text{Mbps}$, $\leq -10\text{dB@}13\text{Mbps}$, $\leq -13\text{dB@}19.5\text{Mbps}$, $\leq -16\text{dB@}26\text{Mbps}$, $\leq -19\text{dB@}39\text{Mbps}$, $\leq -22\text{dB@}52\text{Mbps}$, $\leq -25\text{dB@}58.5\text{Mbps}$, $\leq -28\text{dB@}65\text{Mbps}$
Spurious Emissions	[5170 MHz ~ 5815 MHz (CH36 ~ 161)] < -36 dBm @ 30 MHz to 47 MHz < -54 dBm @ 47 MHz to 74 MHz < -36 dBm @ 74 MHz to 87,5 MHz < -54 dBm @ 87,5 MHz to 118 MHz < -36 dBm @ 118 MHz to 174 MHz < -54 dBm @ 174 MHz to 230 MHz < -36 dBm @ 230 MHz to 470 MHz < -54 dBm @ 470 MHz to 862 MHz < -36 dBm @ 862 MHz to 1 GHz < -30 dBm @ 1 GHz to 5.15 GHz < -30 dBm @ 5.35 GHz to 5.47 GHz < -30 dBm @ 5.725 GHz to 26.5 GHz

2. PERFORMANCE

Parameter	Spec.
Rx Min input Sensitivity	<p>PER ≤ 10%</p> <p>-79dBm@6.5Mbps, -76dBm@13Mbps, -74dBm@19.5Mbps -71dBm@26Mbps, -67dBm@39Mbps, -63dBm@52Mbps -62dBm@58.5Mbps, -61dBm@65Mbps</p>
Rx Max input Sensitivity	<p>≥ -30dBm @ PER ≤ 10%(5170 ~ 5815 MHz)</p>
Rx Adjacent Channel Rejection	<p>PER ≤ 10%, ACR ≥ 16dB@6.5Mbps, ACR ≥ 13dB@13Mbps, ACR ≥ 11dB@19.5Mbps, ACR ≥ 8dB@26Mbps, ACR ≥ 4dB@39Mbps, ACR ≥ 0dB@52Mbps ACR ≥ -1dB@58.5Mbps, ACR ≥ -2dB@65Mbps</p> <p>*ACR shall be measured by setting the desired signal's strength 3 dB above the rate-dependent sensitivity specified in min input sensitivity</p>

14) WLAN 802.11ac(VHT20) transmit / receive Electrical Characteristics(Conducted)

Parameter	Spec.
Transmit Frequency	2400 ~ 2483.5 MHz (CH1 ~ 13) 5170 ~ 5815 MHz (CH36 ~ 64, CH100 ~ 124, CH149 ~ 161)
Tx Power Level	$\leq 10\text{mW/MHz}$ (CH1 ~ 13) $\leq 2.5\text{mW/MHz}$ (CH36 ~ 48), $\leq 10\text{mW/MHz}$ (CH52 ~ 161)
Frequency Tolerance	within ± 25 PPM(2400 ~ 2483.5 MHz) within ± 20 PPM(5170 ~ 5815 MHz)
Chip clock Frequency Tolerance	within ± 25 PPM(2400 ~ 2483.5 MHz) within ± 20 PPM(5170 ~ 5815 MHz)
Spectrum Mask	2.4G (2400 ~ 2483.5 MHz) ≤ -20 @ $\pm 11\text{MHz}$ offset (9Mhz ~ 11MHz) ≤ -28 @ $\pm 20\text{MHz}$ offset (11MHz ~ 20Mhz) ≤ -45 @ $\pm 30\text{MHz}$ offset (20MHz ~ 30Mhz) 5G (5170 ~ 5710 MHz) ≤ -20 @ $\pm 11\text{MHz}$ offset (9Mhz ~ 11MHz) ≤ -28 @ $\pm 20\text{MHz}$ offset (11MHz ~ 20Mhz) ≤ -40 @ $\pm 30\text{MHz}$ offset (20MHz ~ 30Mhz)
Transmitter constellation error (rms EVM)	$\leq -5\text{dB}@6.5\text{Mbps}$, $\leq -10\text{dB}@13\text{Mbps}$, $\leq -13\text{dB}@19.5\text{Mbps}$, $\leq -16\text{dB}@26\text{Mbps}$, $\leq -19\text{dB}@39\text{Mbps}$, $\leq -22\text{dB}@52\text{Mbps}$, $\leq -25\text{dB}@58.5\text{Mbps}$, $\leq -27\text{dB}@65\text{Mbps}$, $\leq -30\text{dB}@78\text{Mbps}$
Spurious Emissions	[2400 MHz ~ 2483.5 MHz (CH1 ~ 13)] < -36 dBm @ 30MHz ~ 1GHz < -30 dBm above @ 1GHz ~ 12.75GHz < -47 dBm @ 1.8GHz ~ 1.9GHz < -47 dBm @ 5.15GHz ~ 5.3GHz

2. PERFORMANCE

Parameter	Spec.
Spurious Emissions	<p>[5170 MHz ~ 5815 MHz (CH36 ~ 161)]</p> <ul style="list-style-type: none"> < -36 dBm @ 30 MHz to 47 MHz < -54 dBm @ 47 MHz to 74 MHz < -36 dBm @ 74 MHz to 87,5 MHz < -54 dBm @ 87,5 MHz to 118 MHz < -36 dBm @ 118 MHz to 174 MHz < -54 dBm @ 174 MHz to 230 MHz < -36 dBm @ 230 MHz to 470 MHz < -54 dBm @ 470 MHz to 862 MHz < -36 dBm @ 862 MHz to 1 GHz < -30 dBm @ 1 GHz to 5.15 GHz < -30 dBm @ 5.35 GHz to 5.47 GHz < -30 dBm @ 5.725 GHz to 26.5 GHz
Rx Min input Sensitivity	<p>PER ≤ 10%</p> <ul style="list-style-type: none"> -82dBm@6.5Mbps, -79dBm@13Mbps, -77dBm@19.5Mbps -74dBm@26Mbps, -70dBm@39Mbps, -66dBm@52Mbps -65dBm@58.5Mbps, -64dBm@65Mbps, -59dBm@78Mbps
Rx Max input Sensitivity	<p>≥ -30dBm @ PER ≤ 10%</p>
Rx Adjacent Channel Rejection	<p>PER ≤ 10%,</p> <ul style="list-style-type: none"> ACR ≥ 16dB@6.5Mbps, ACR ≥ 13dB@13Mbps, ACR ≥ 11dB@19.5Mbps, ACR ≥ 8dB@26Mbps, ACR ≥ 4dB@39Mbps, ACR ≥ 0dB@52Mbps ACR ≥ -1dB@58.5Mbps, ACR ≥ -2dB@65Mbps, ACR ≥ -7dB@78Mbps <p>* ACR shall be measured by setting the desired signal's strength 3 dB above the rate-dependent sensitivity specified in min input sensitivity</p>

15) WLAN 802.11ac(VHT40) transmit / receive Electrical Characteristics(Conducted)

Parameter	Spec.
Transmit Frequency	5170 ~ 5815 MHz (CH36 ~ 64, CH100 ~ 124, CH149 ~ 161)
Tx Power Level	$\leq 2.5\text{mW/MHz}$ (CH36 ~ 48), $\leq 10\text{mW/MHz}$ (CH52 ~ 161)
Frequency Tolerance	within ± 20 PPM(5170 ~ 5815 MHz)\
Chip clock Frequency Tolerance	within ± 20 PPM(5170 ~ 5815 MHz)
Spectrum Mask	≤ -20 @ ± 21 MHz offset (19Mhz ~ 21MHz) ≤ -28 @ ± 40 MHz offset (21MHz ~ 40Mhz) ≤ -40 @ ± 60 MHz offset (40MHz ~ 60Mhz)
Transmitter constellation error (rms EVM)	$\leq -5\text{dB@}13.5\text{Mbps}$, $\leq -10\text{dB@}27\text{Mbps}$, $\leq -13\text{dB@}40.5\text{Mbps}$, $\leq -16\text{dB@}54\text{Mbps}$, $\leq -19\text{dB@}81\text{Mbps}$, $\leq -22\text{dB@}108\text{Mbps}$, $\leq -25\text{dB@}121.5\text{Mbps}$, $\leq -27\text{dB@}135\text{Mbps}$, $\leq -30\text{dB@}162\text{Mbps}$, $\leq -32\text{dB@}180\text{Mbps}$
Spurious Emissions	[5170 MHz ~ 5815 MHz (CH36 ~ 161)] < -36 dBm @ 30 MHz to 47 MHz < -54 dBm @ 47 MHz to 74 MHz < -36 dBm @ 74 MHz to 87,5 MHz < -54 dBm @ 87,5 MHz to 118 MHz < -36 dBm @ 118 MHz to 174 MHz < -54 dBm @ 174 MHz to 230 MHz < -36 dBm @ 230 MHz to 470 MHz < -54 dBm @ 470 MHz to 862 MHz < -36 dBm @ 862 MHz to 1 GHz < -30 dBm @ 1 GHz to 5.15 GHz < -30 dBm @ 5.35 GHz to 5.47 GHz < -30 dBm @ 5.725 GHz to 26.5 GHz

2. PERFORMANCE

Parameter	Spec.
Rx Min input Sensitivity	<p>PER ≤ 10%</p> <p>-79dBm@13.5Mbps, -76dBm@27Mbps, -74dBm@40.5Mbps -71dBm@54Mbps, -67dBm@81Mbps, -63dBm@108Mbps -62dBm@121.5Mbps, -61dBm@135Mbps, -56dBm@162Mbps, -54dBm@180Mbps</p>
Rx Max input Sensitivity	<p>≥ -30dBm @ PER ≤ 10%(5170 ~ 5815 MHz)</p>
Rx Adjacent Channel Rejection	<p>PER ≤ 10%, ACR ≥ 16dB@13.5Mbps, ACR ≥ 13dB@27Mbps, ACR ≥ 11dB@40.5Mbps, ACR ≥ 8dB@54Mbps, ACR ≥ 4dB@81Mbps, ACR ≥ 0dB@108Mbps ACR ≥ -1dB@121.5Mbps, ACR ≥ -2dB@135Mbps ACR ≥ -7dB@162Mbps, ACR ≥ -9dB@180Mbps</p> <p>* ACR shall be measured by setting the desired signal's strength 3 dB above the rate-dependent sensitivity specified in min input sensitivity</p>

16) WLAN 802.11ac(VHT80) transmit / receive Electrical Characteristics(Conducted)

Parameter	Spec.
Transmit Frequency	5170 ~ 5815 MHz (CH36 ~ 64, CH100 ~ 124, CH149 ~ 161)
Tx Power Level	$\leq 2.5\text{mW/MHz}$ (CH36 ~ 48), $\leq 10\text{mW/MHz}$ (CH52 ~ 161)
Frequency Tolerance	within ± 20 PPM(5170 ~ 5815 MHz)
Chip clock Frequency Tolerance	within ± 20 PPM(5170 ~ 5815 MHz)
Spectrum Mask	≤ -20 @ ± 41 MHz offset (39Mhz ~ 41MHz) ≤ -28 @ ± 80 MHz offset (41MHz ~ 80Mhz) ≤ -40 @ ± 120 MHz offset (80MHz ~ 120Mhz)
Transmitter constellation error (rms EVM)	$\leq -5\text{dB@}29.3\text{Mbps}$, $\leq -10\text{dB@}58.5\text{Mbps}$, $\leq -13\text{dB@}87.8\text{Mbps}$, $\leq -16\text{dB@}117\text{Mbps}$, $\leq -19\text{dB@}175.5\text{Mbps}$, $\leq -22\text{dB@}234\text{Mbps}$, $\leq -25\text{dB@}263.3\text{Mbps}$, $\leq -27\text{dB@}292.5\text{Mbps}$, $\leq -30\text{dB@}351\text{Mbps}$, $\leq -32\text{dB@}390\text{Mbps}$
Spurious Emissions	[5170 MHz ~ 5815 MHz (CH36 ~ 161)] < -36 dBm @ 30 MHz to 47 MHz < -54 dBm @ 47 MHz to 74 MHz < -36 dBm @ 74 MHz to 87,5 MHz < -54 dBm @ 87,5 MHz to 118 MHz < -36 dBm @ 118 MHz to 174 MHz < -54 dBm @ 174 MHz to 230 MHz < -36 dBm @ 230 MHz to 470 MHz < -54 dBm @ 470 MHz to 862 MHz < -36 dBm @ 862 MHz to 1 GHz < -30 dBm @ 1 GHz to 5.15 GHz < -30 dBm @ 5.35 GHz to 5.47 GHz < -30 dBm @ 5.725 GHz to 26.5 GHz

2. PERFORMANCE

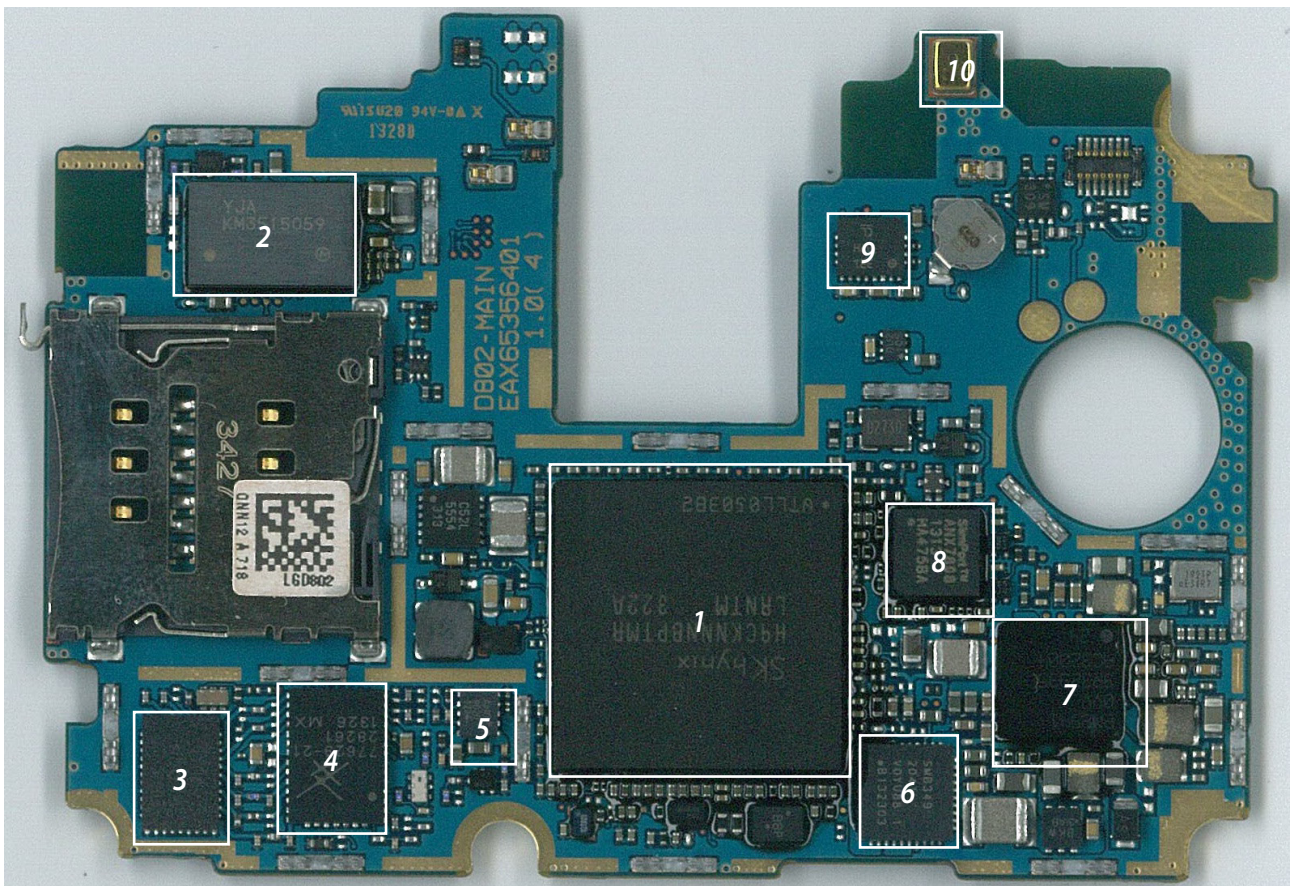
Parameter	Spec.
Rx Min input Sensitivity	<p>PER ≤ 10%</p> <p>-76dBm@29.3Mbps, -73dBm@58.5Mbps, -71dBm@87.8Mbps -68dBm@117Mbps, -64dBm@175.5Mbps, -60dBm@234Mbps -59dBm@263.3Mbps, -58dBm@292.5Mbps, -53dBm@351Mbps, -51dBm@390Mbps</p>
Rx Max input Sensitivity	<p>≥ -30dBm @ PER ≤ 10%(5170 ~ 5815 MHz)</p>
Rx Adjacent Channel Rejection	<p>PER ≤ 10%, ACR ≥ 16dB@29.3Mbps, ACR ≥ 13dB@58.5Mbps, ACR ≥ 11dB@87.8Mbps, ACR ≥ 8dB@117Mbps, ACR ≥ 4dB@175.5Mbps, ACR ≥ 0dB@234Mbps ACR ≥ -1dB@263.3Mbps, ACR ≥ -2dB@292.5Mbps ACR ≥ -7dB@351Mbps, ACR ≥ -9dB@390Mbps</p> <p>*ACR shall be measured by setting the desired signal's strength 3 dB above the rate-dependent sensitivity specified in min input sensitivity</p>

17) NFC

Operate below 3 mode.

- 1) Card mode : Smart Card capability for mobile device(recognition distance : over 20mm)
- 2) Reader mode : Get information from tag(recognition distance : over 20mm)
- 3) Peer-to-peer mode : Device to device communication(recognition distance : over 5mm)

2.7 SMT Components: Top side



1. U3000, U5000 : (MSM8974 + POP) Processor Issue

2. U15012 : (BCM4335) BT/WiFi Issue

3. U1005 (FEMiD) : Call Issue

4. U1000 : (HC-PA) : Call Issue

5. U1001 : (B17 PAM) Call Issue

6. U8000 : (Charger IC) Power Issue

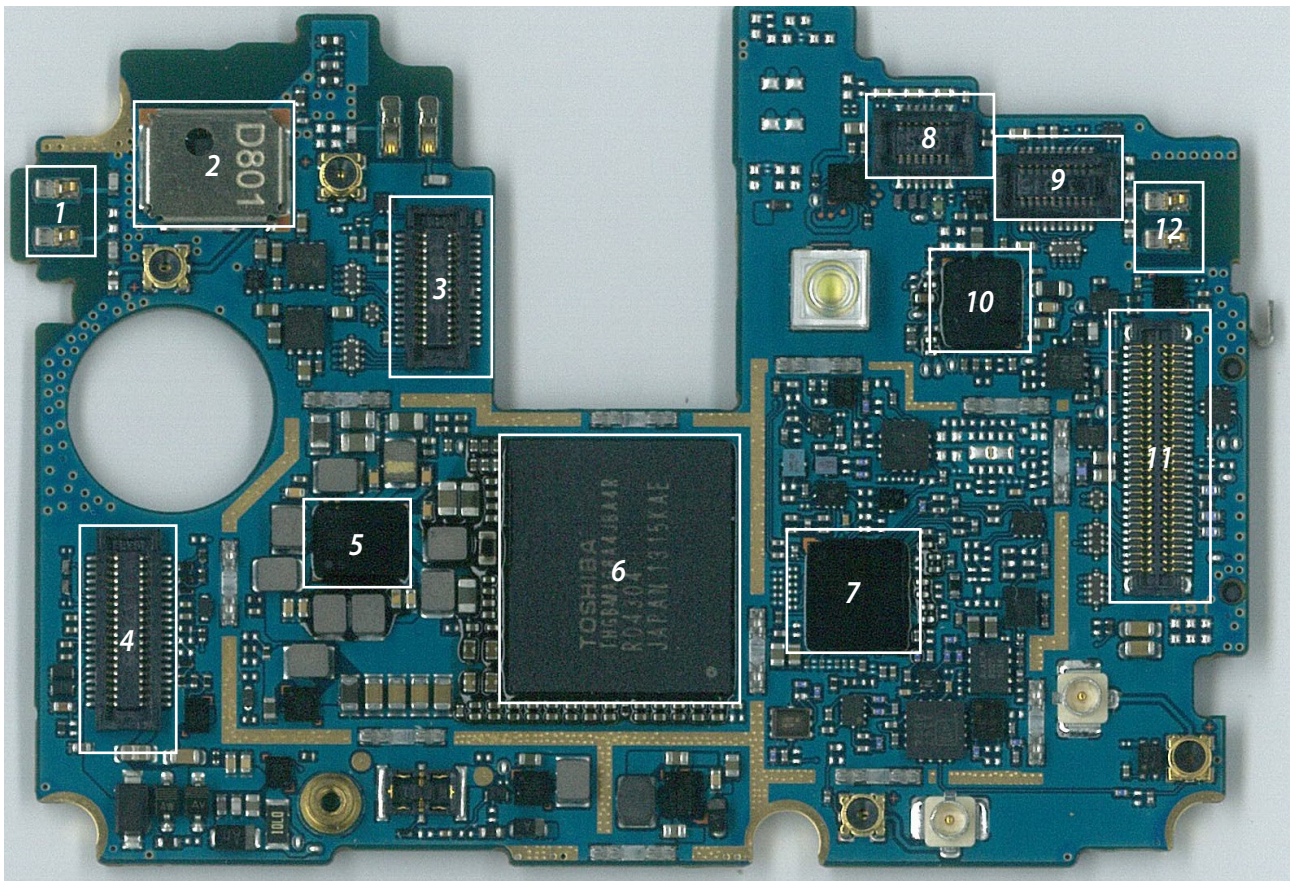
7. U6001 : (PM8941) Power Issue

8. U12001 : (Slimport) HDMI, USB Issue

9. U11001 : (Accelerometer + Gyroscope) Motion Sensor Issue

10. MIC10003 : (MIC) MIC Issue

2.8 SMT Components: Bottom side



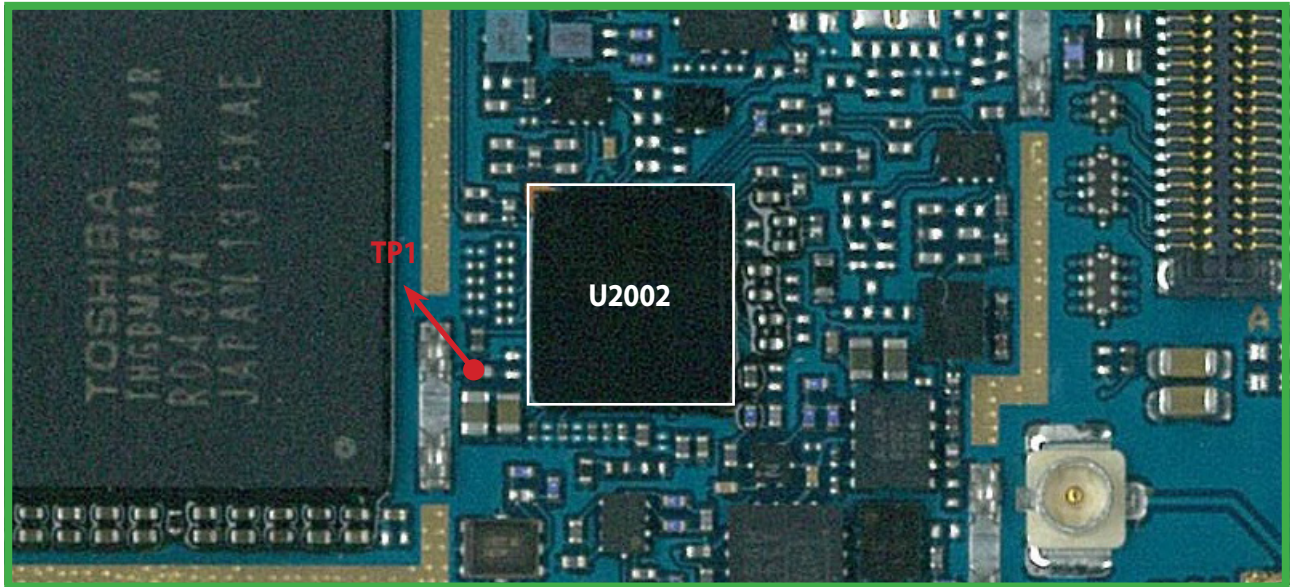
1. ANT2005/ANT2006 : (C-Clip) GPS Issue
2. U2001 : (GPS Module) GPS Issue
3. CN9001 : (Connector) Main Camera Issue
4. CN13001: (Connector) Power on, USB, Speaker Issue
5. U7000 : (PM8841)power Issue
6. U5001 : (eMMC)
7. U2002 (WTR1605L) Call Issue

8. CN13002 : (Connector) Proximity / illuminance Issue
9. CN13002 : (Connector) VT Camera Issue
10. U10000 : (WCD9320) Speaker, Receiver, Mic Issue
11. CN13000 : (Connector) LCD, NFC, Ear-jack, Mic, Touch Issue
12. ANT14000/ANT14001 : (C-Clip) BT/Wi-Fi Issue

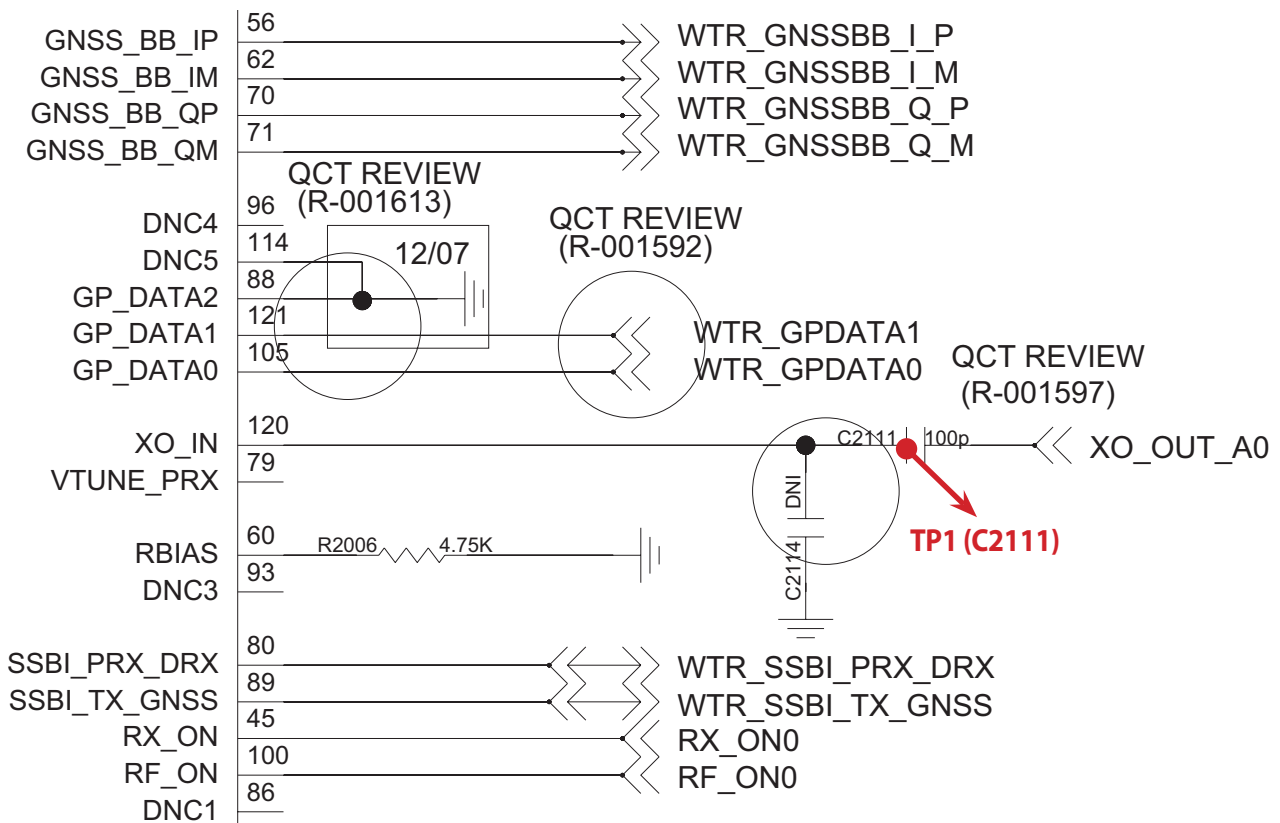
3. TROUBLE SHOOTING

3.1 Checking XO Block

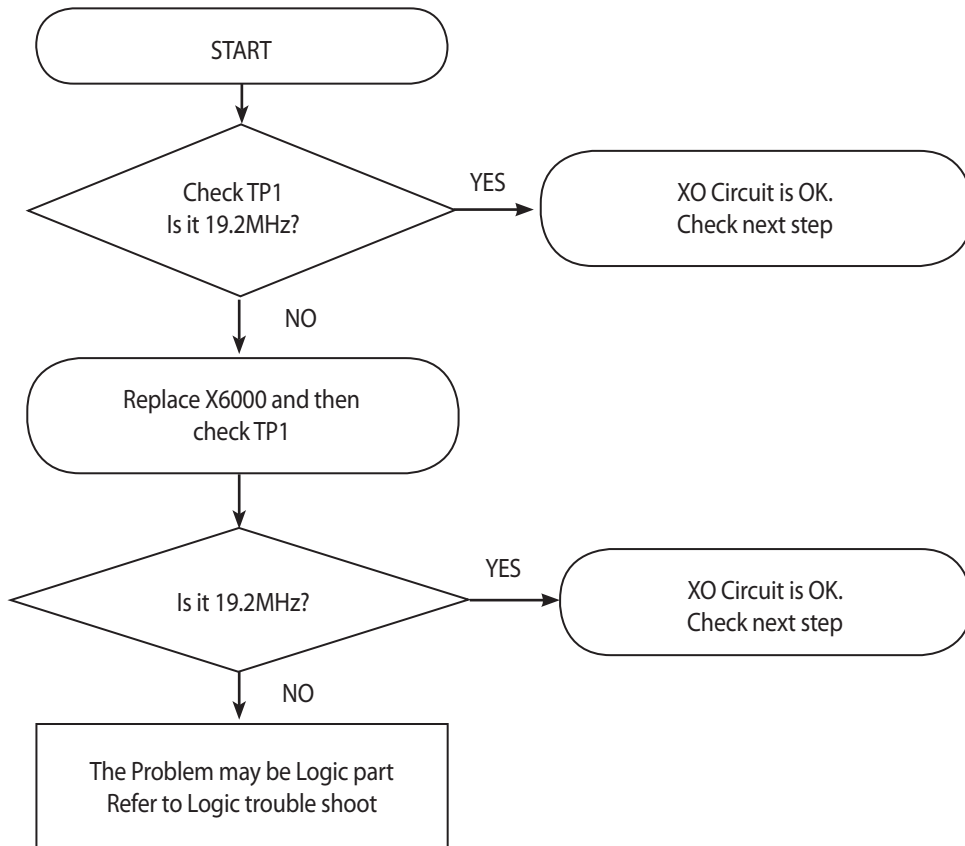
The output frequency(19.2MHz) of XO(X6000) is used as the reference one of WTR1605L and PM8941 internal VCO.



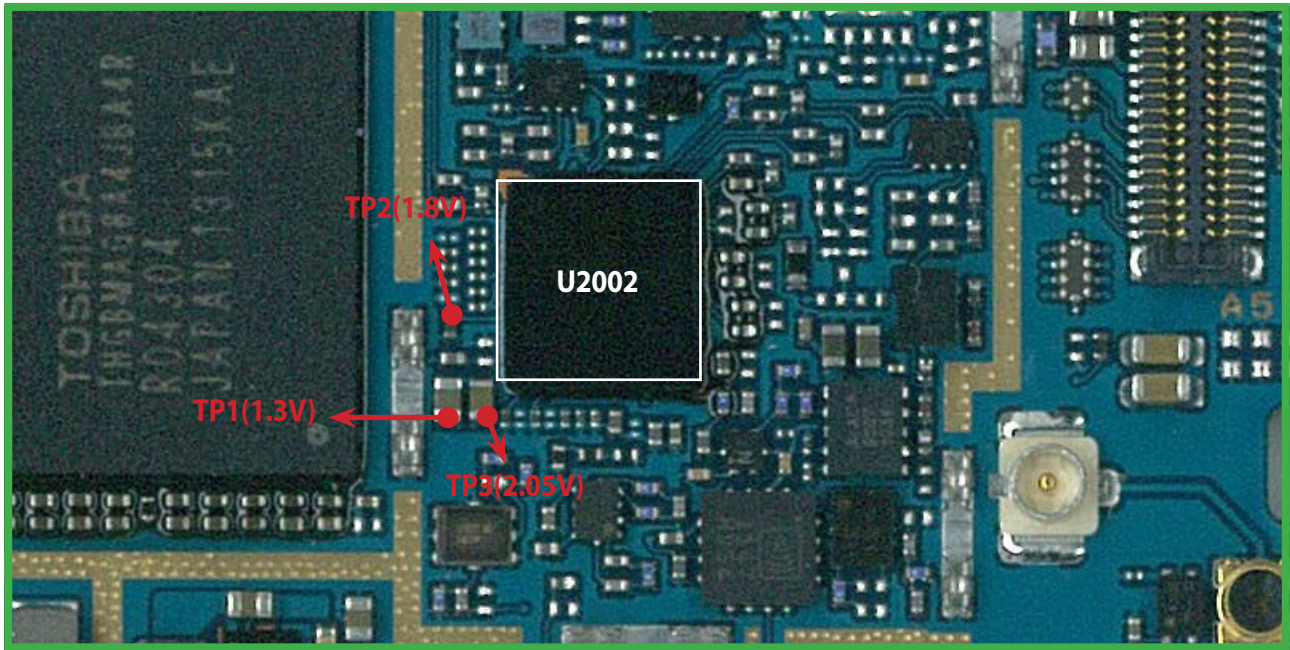
BOT



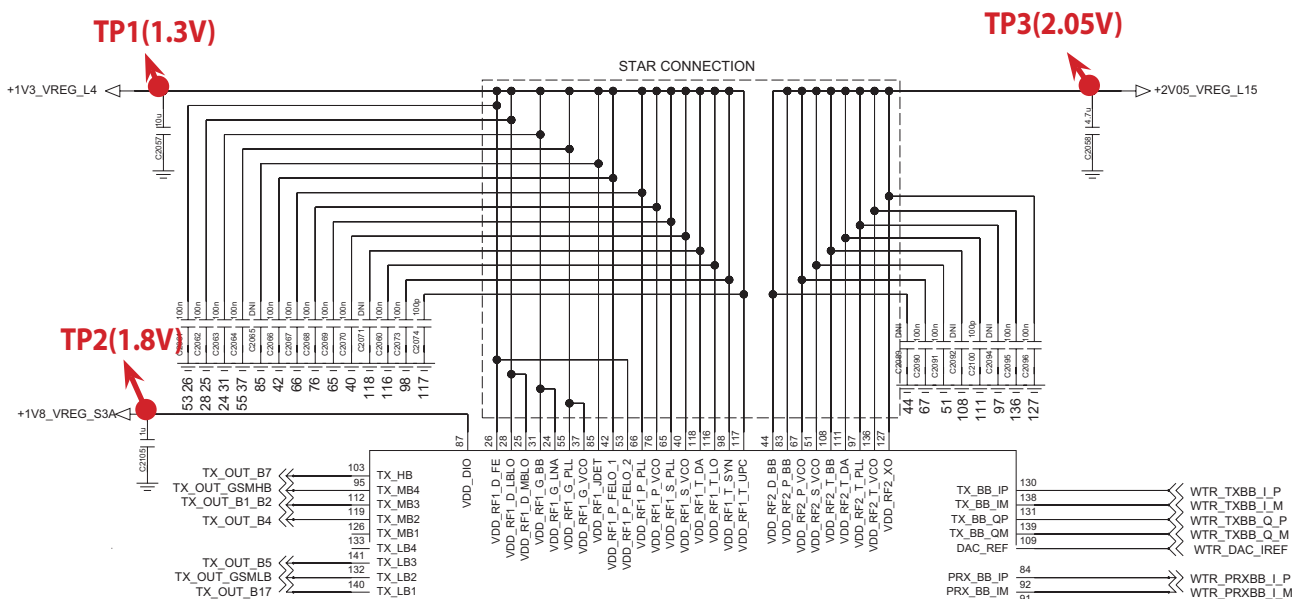
3. TROUBLE SHOOTING



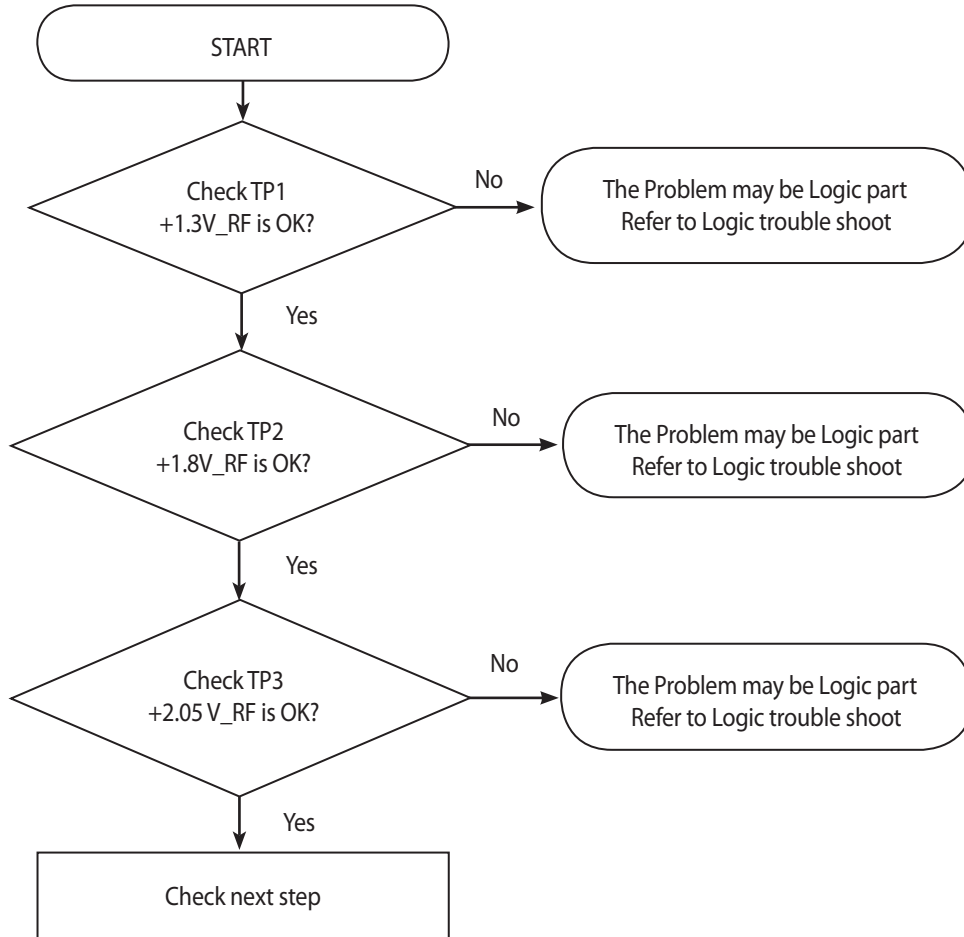
3.2 Checking Transceiver DC Power Supply Circuit Block



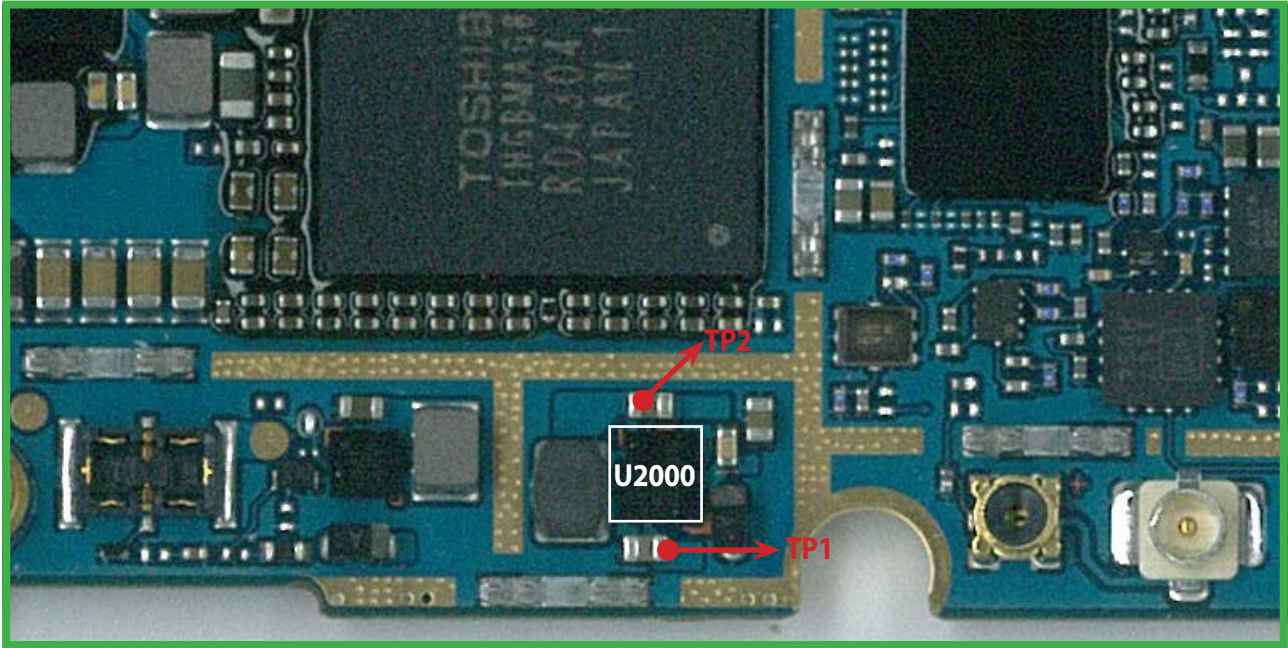
BOT



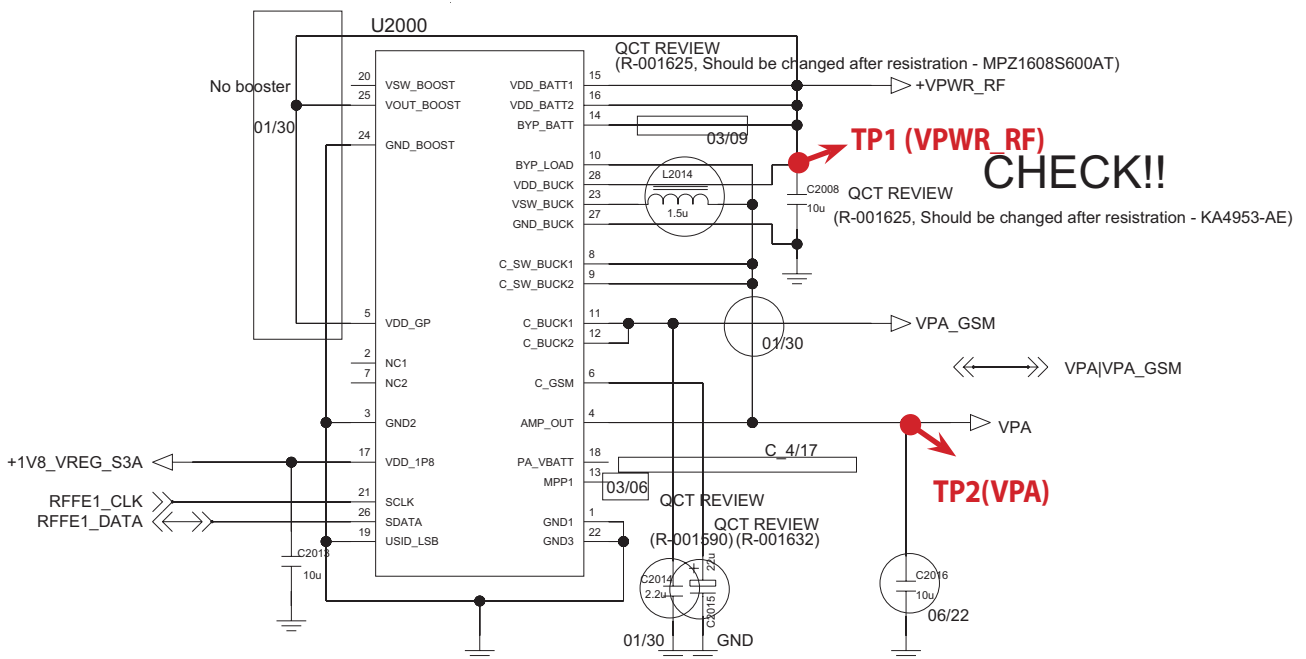
3. TROUBLE SHOOTING



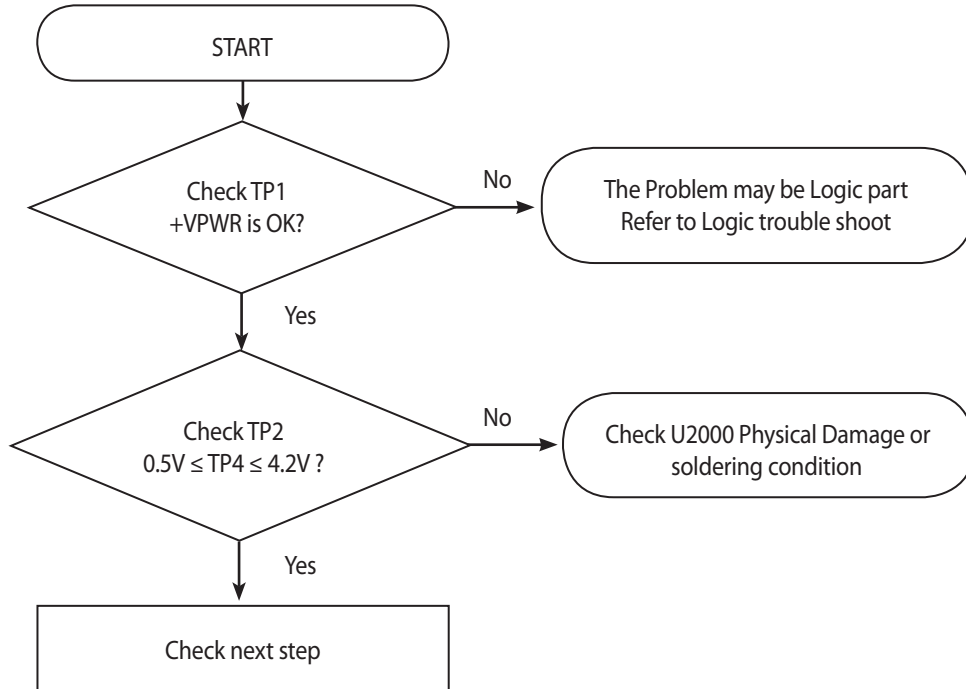
3.3 Checking DC-DC Block



BOT

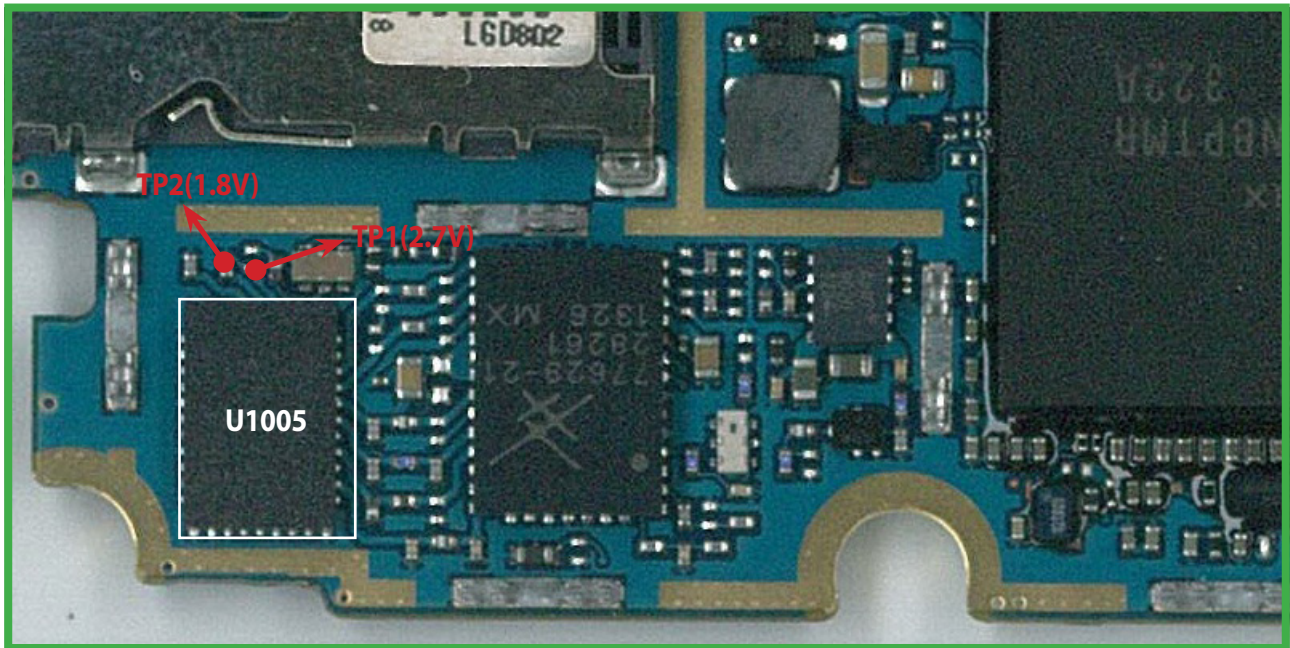


3. TROUBLE SHOOTING

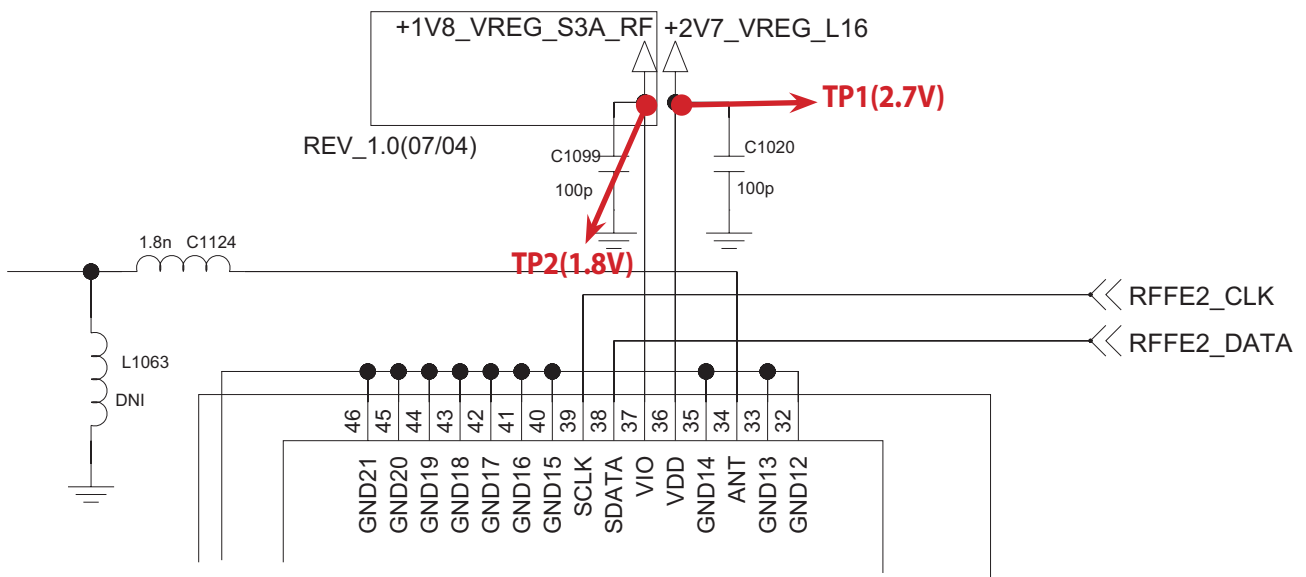


3.4 ASM(Antenna Switch Module) Block

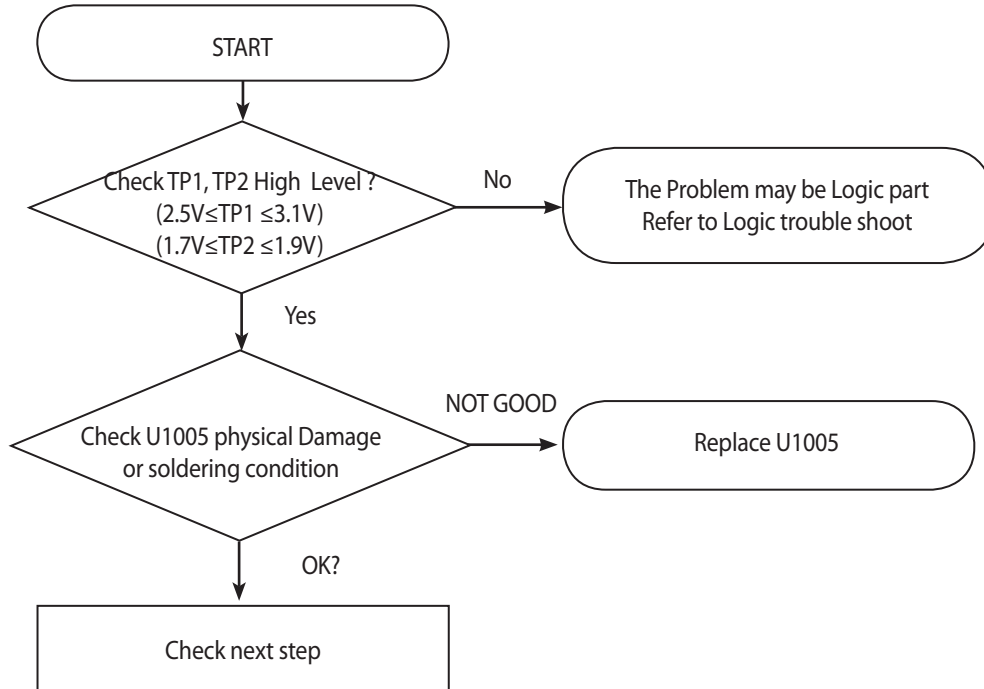
3.4.1 Checking FEMiD (GSM, W B1/2/4/5, LTE B1/B3/B8/B20) Block



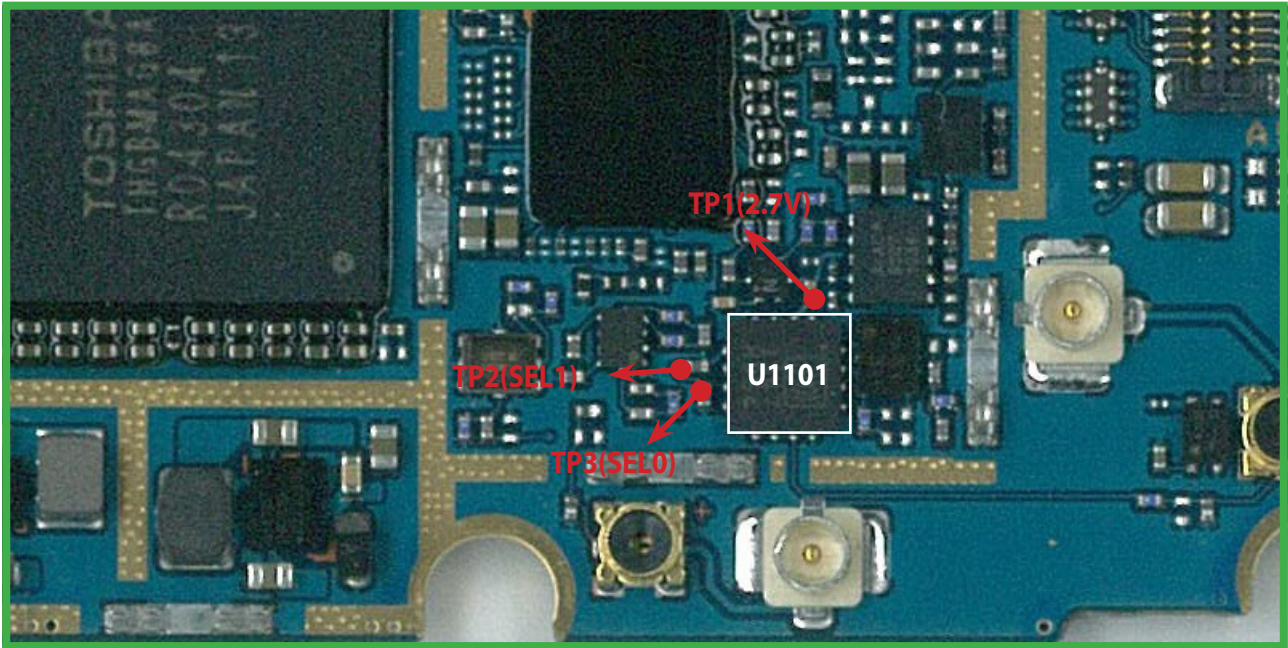
TOP



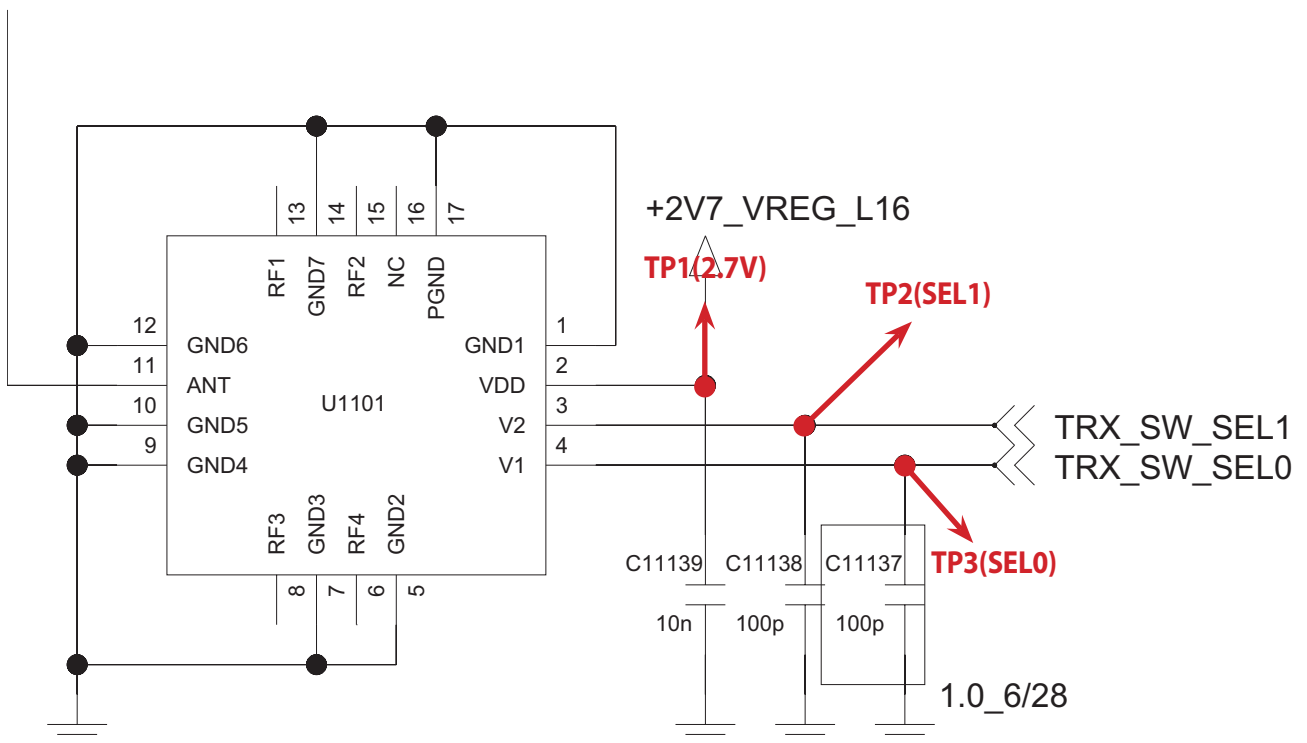
3. TROUBLE SHOOTING



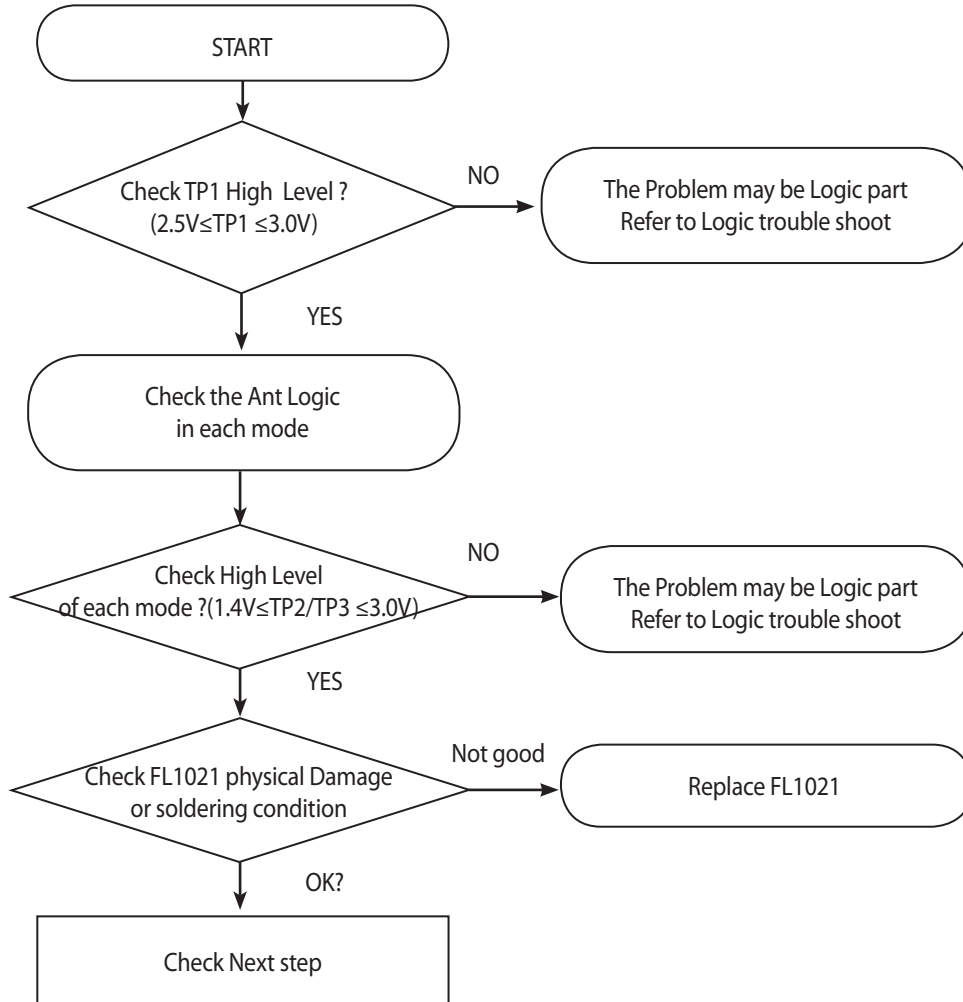
3.4.2 Checking SP4T (LTE B7) Block



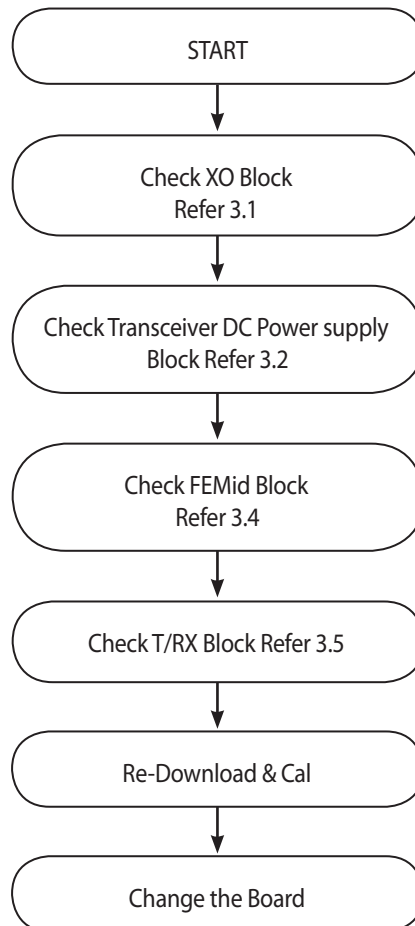
BOT



3. TROUBLE SHOOTING

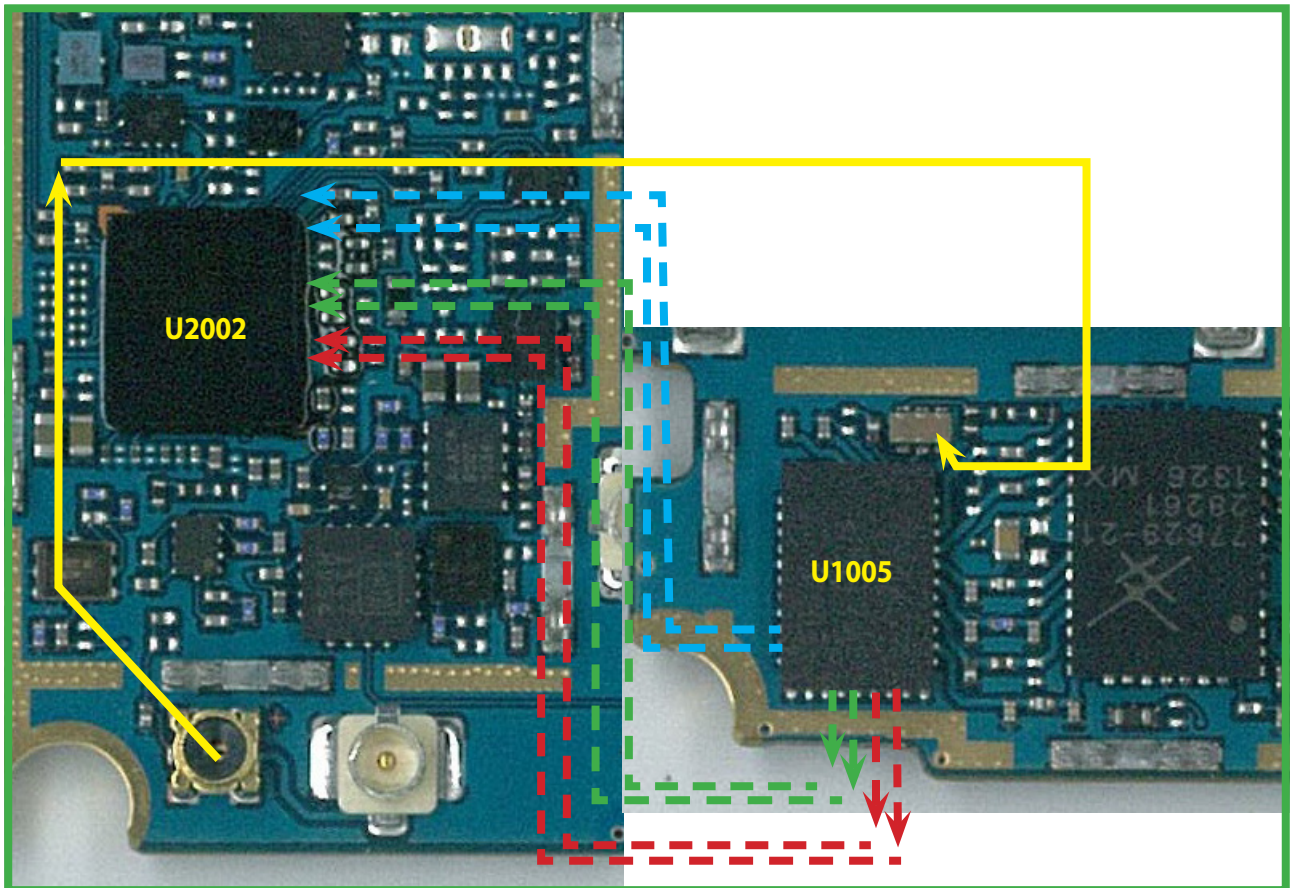


3.5 GSM RF Part



3.5.1 GSM850/900/1800/1900 Rx

GSM850/900/1800/1900 RX RF PATH

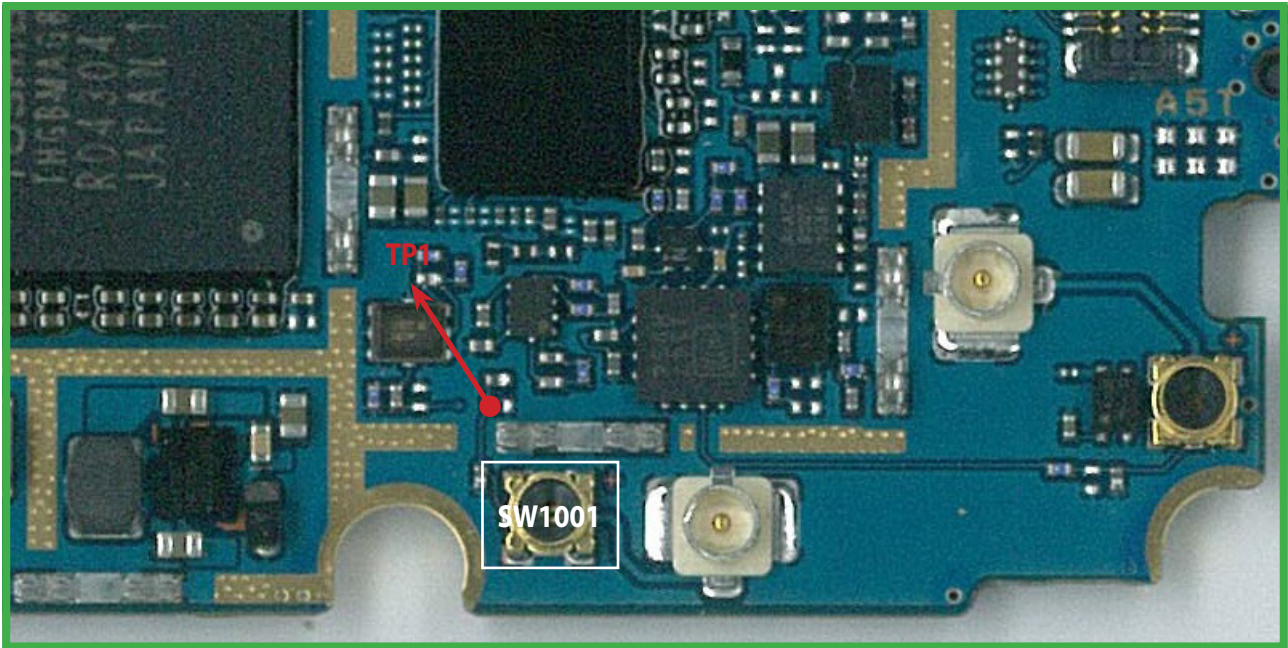


Bottom

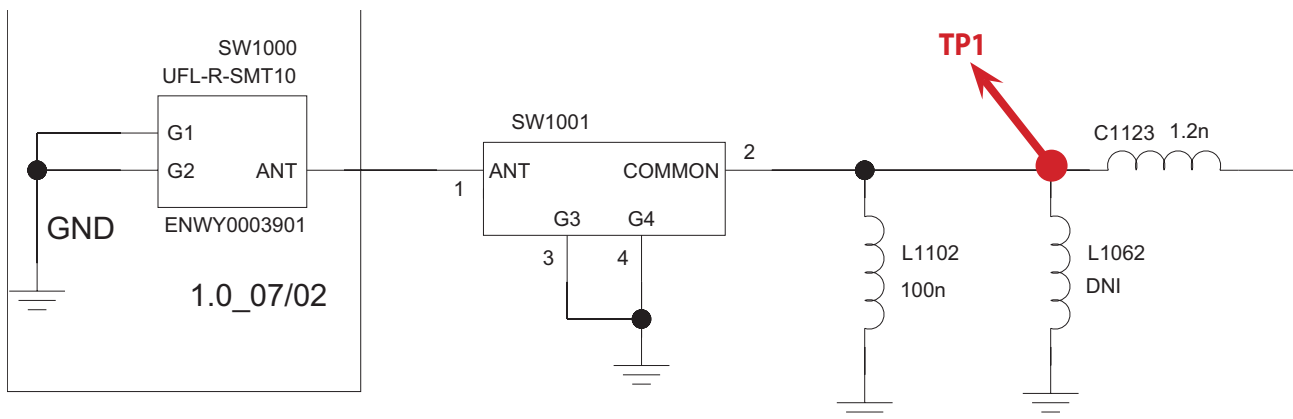
Top

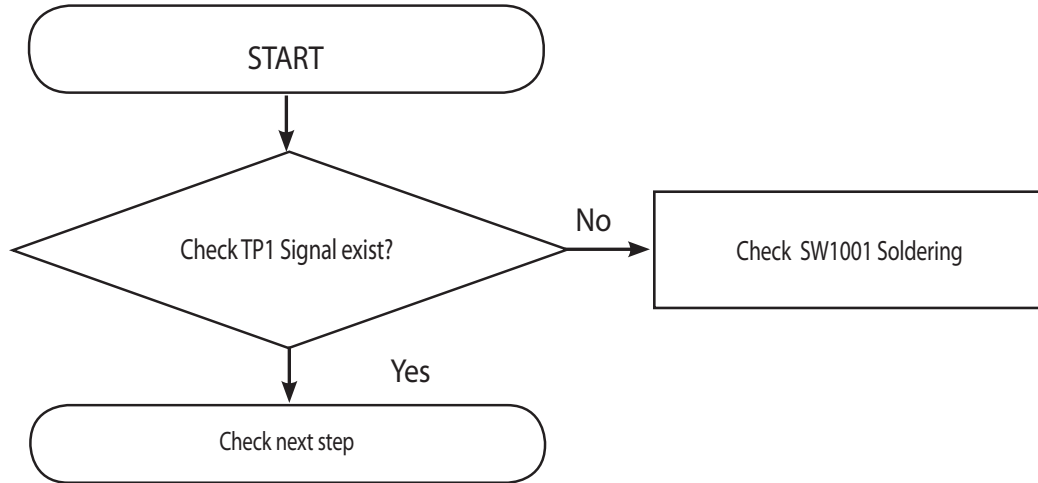
- 1. GSM850 RX PATH
- 2. GSM900 RX PATH
- 3. GSM1800/1900 RX PATH
- 4. COMMON T/RX PATH

3.5.1.1 Checking RF signal path (SW)

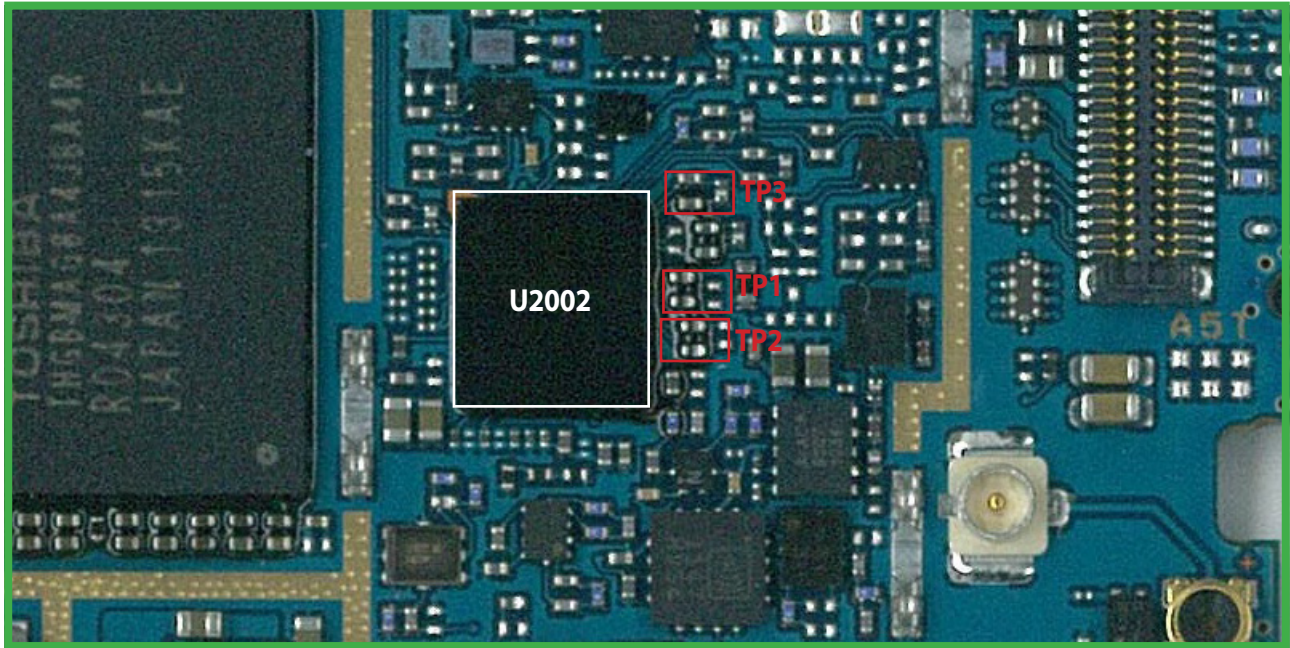


BOT

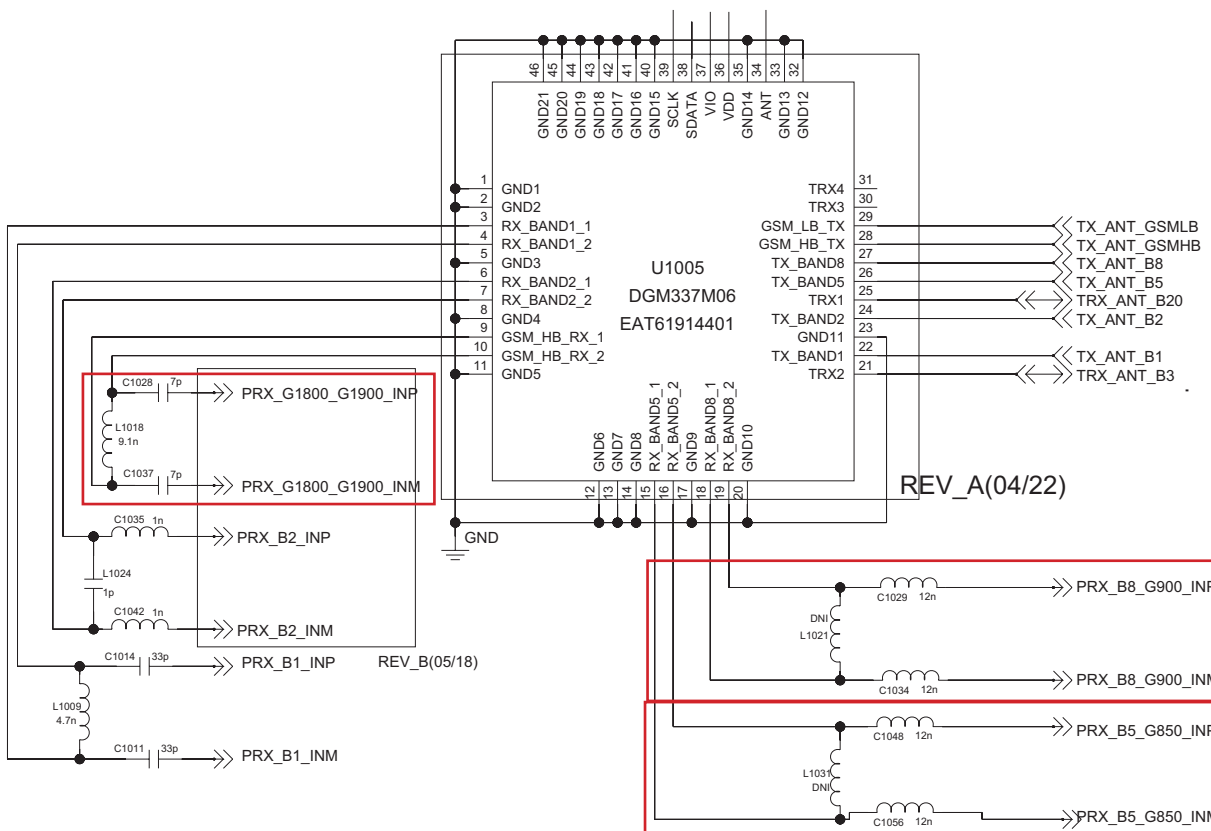




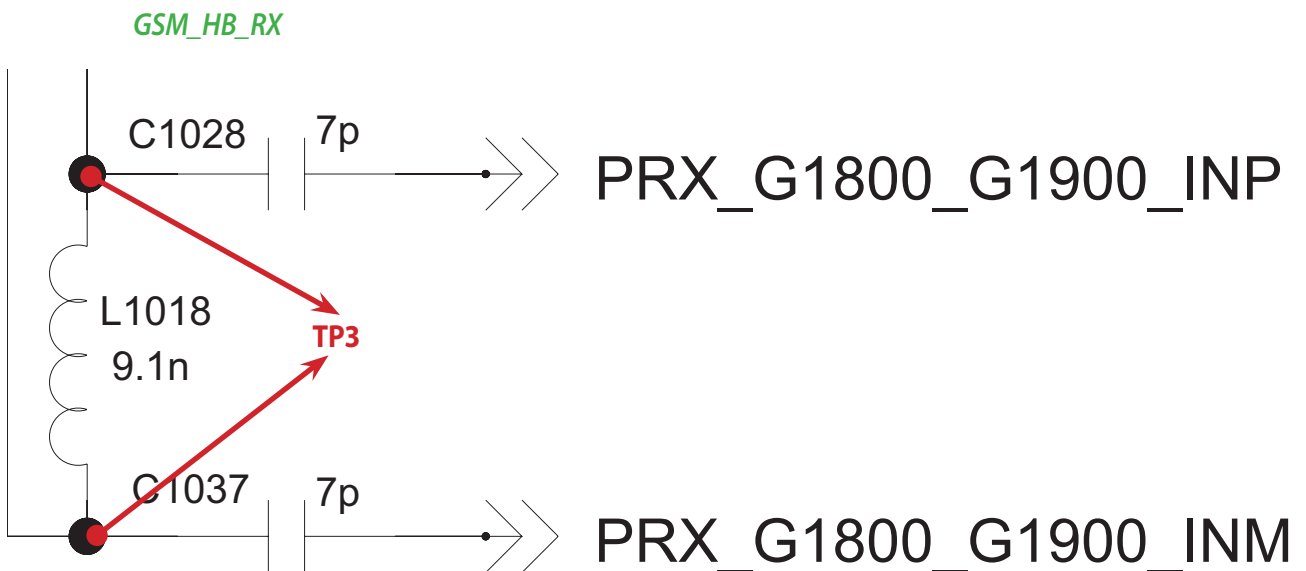
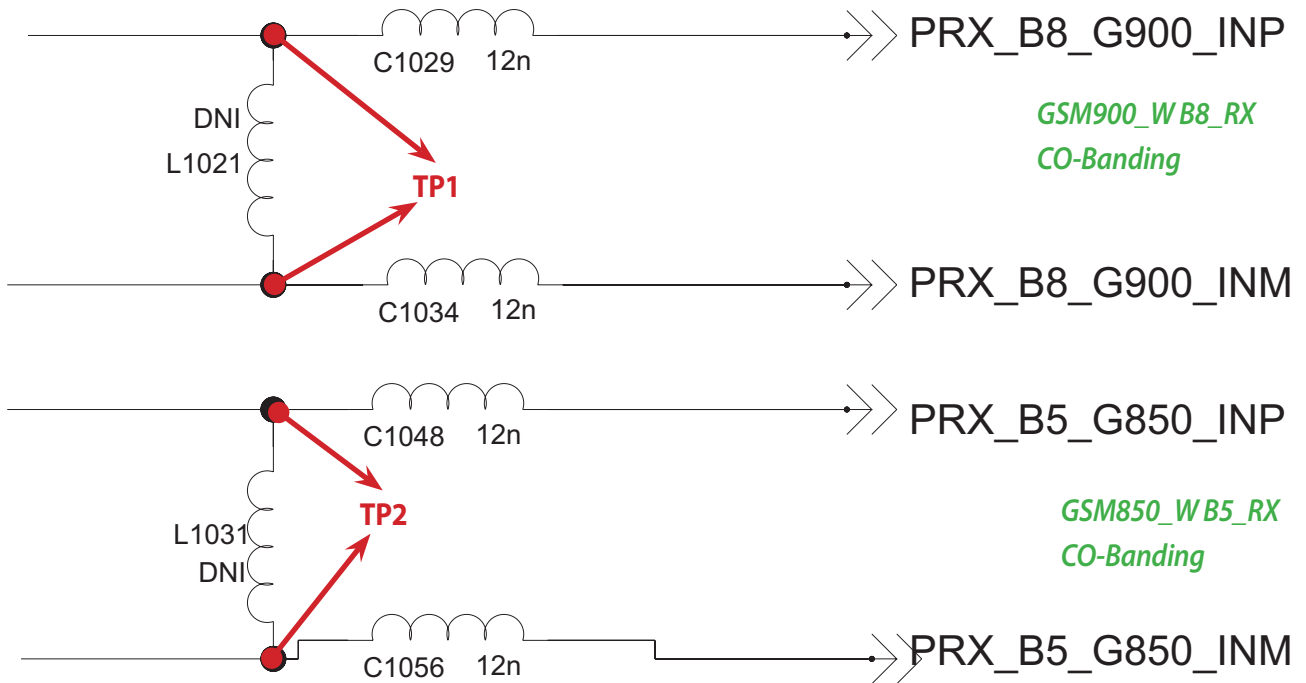
3.5.1.2 Checking RF signal path



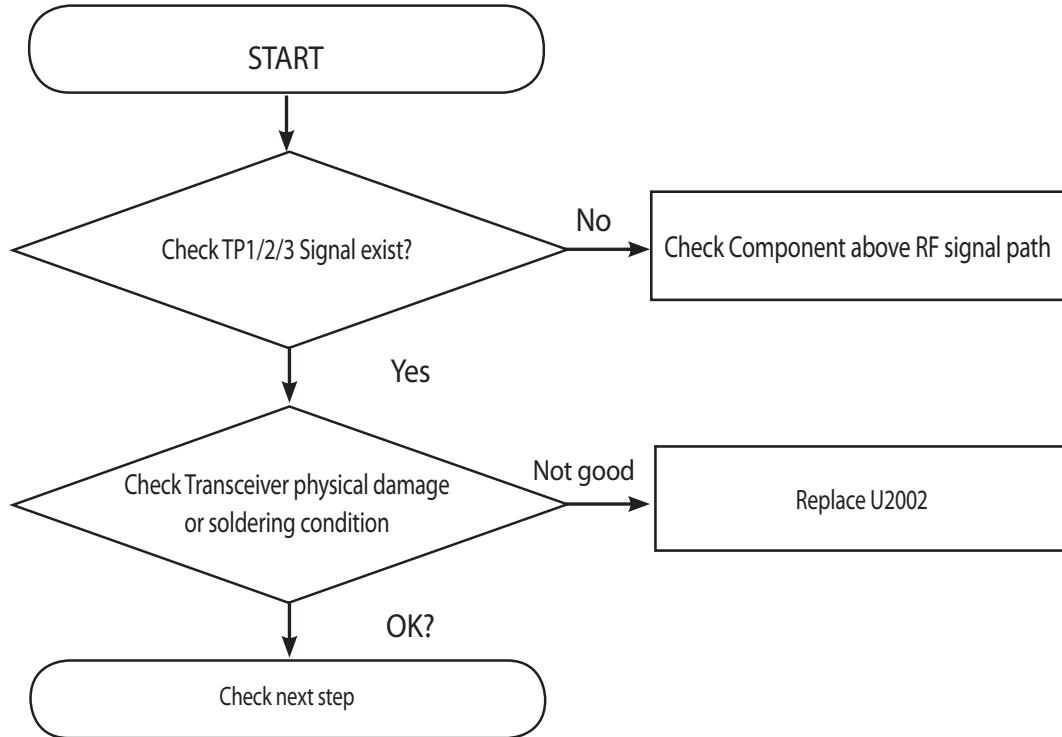
BOT



3. TROUBLE SHOOTING

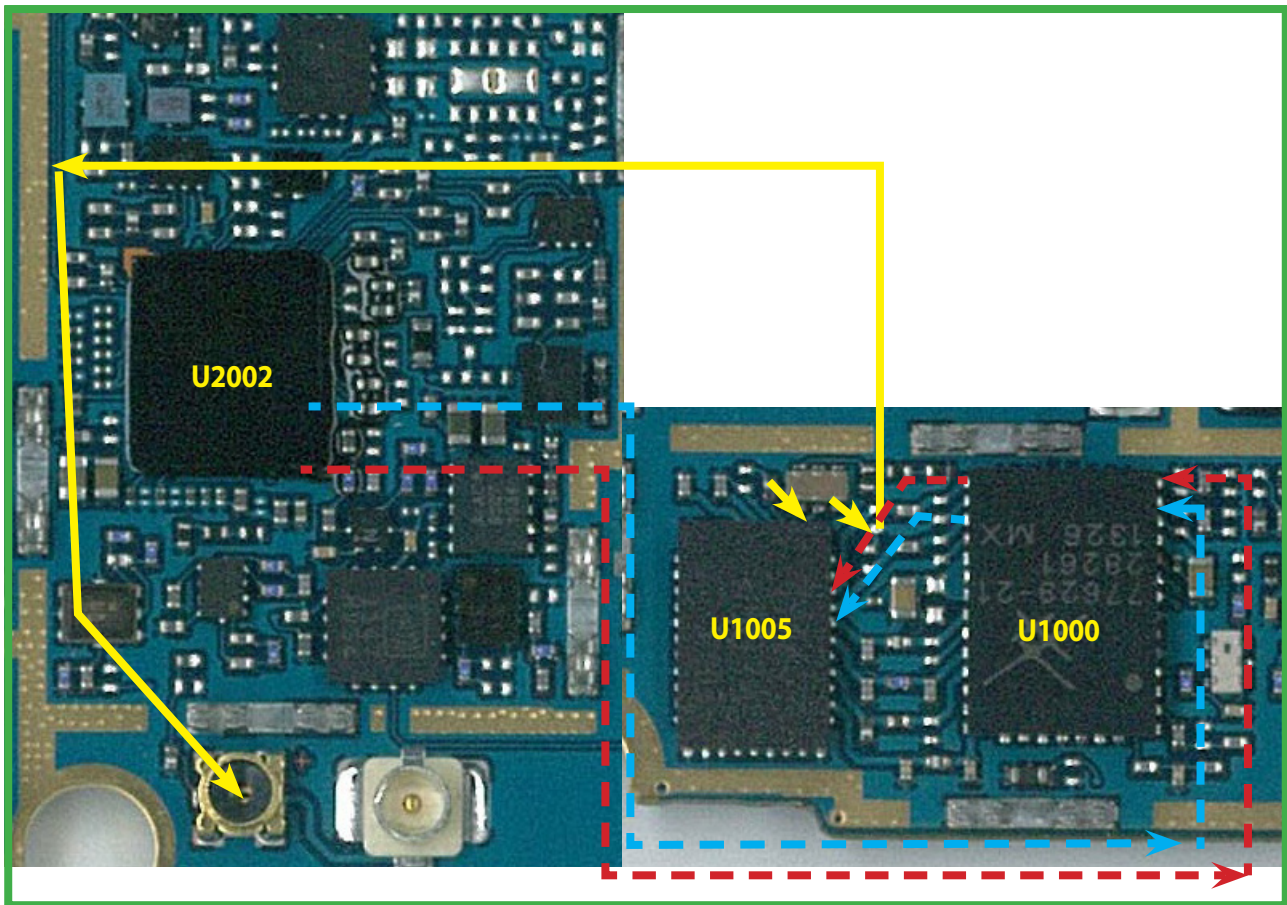


3. TROUBLE SHOOTING



3.5.2 GSM850/900/1800/1900 Tx

GSM850/900/1800/1900 TX RF PATH

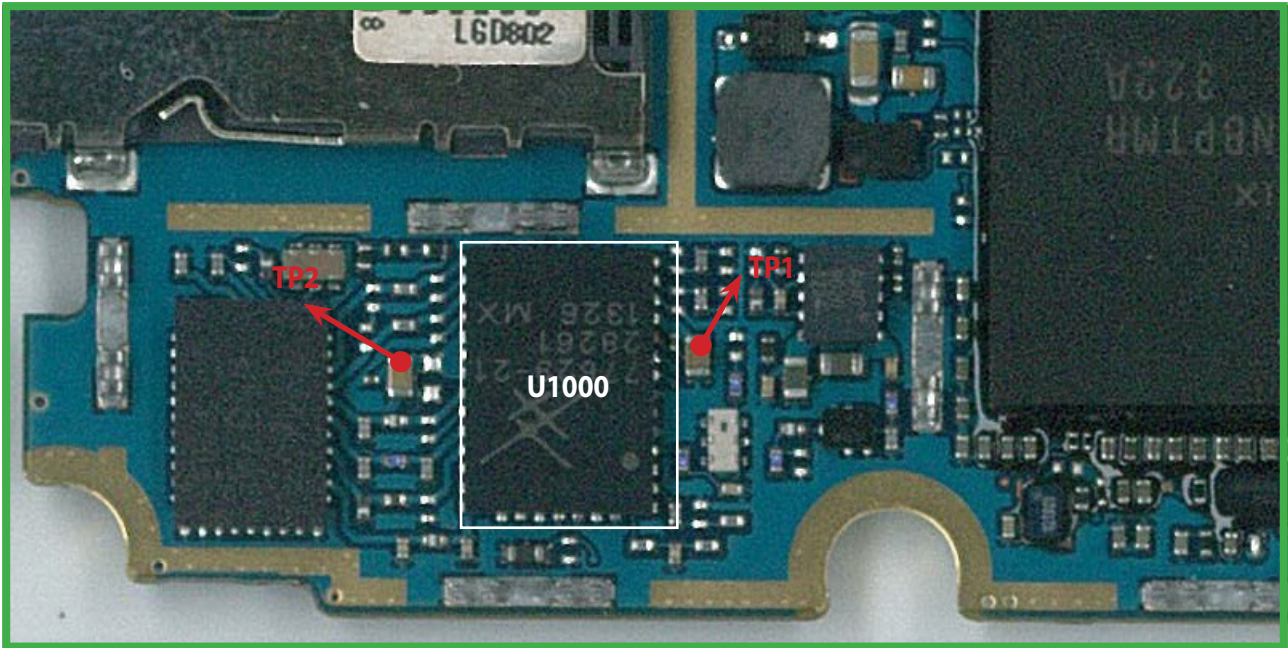


Bottom

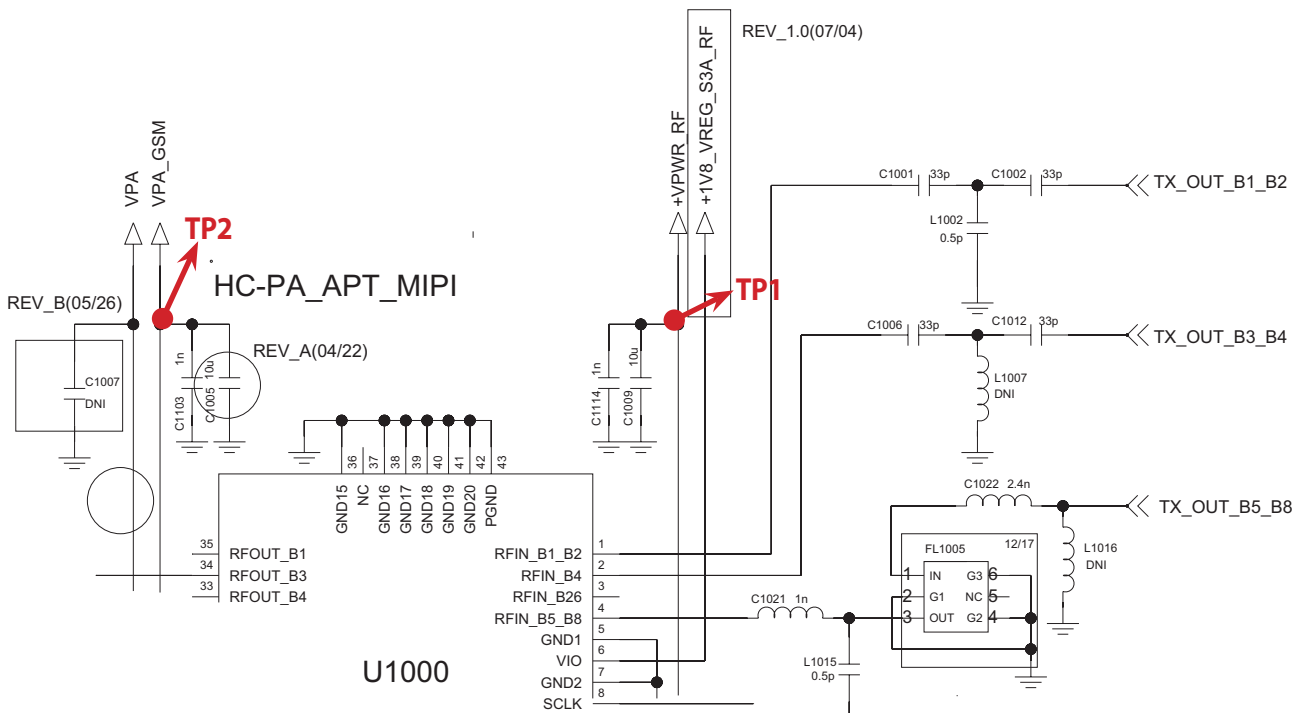
Top

- 1. GSM850/900 TX PATH
- 2. GSM1800/1900 TX PATH
- 3. COMMON T/RX PATH

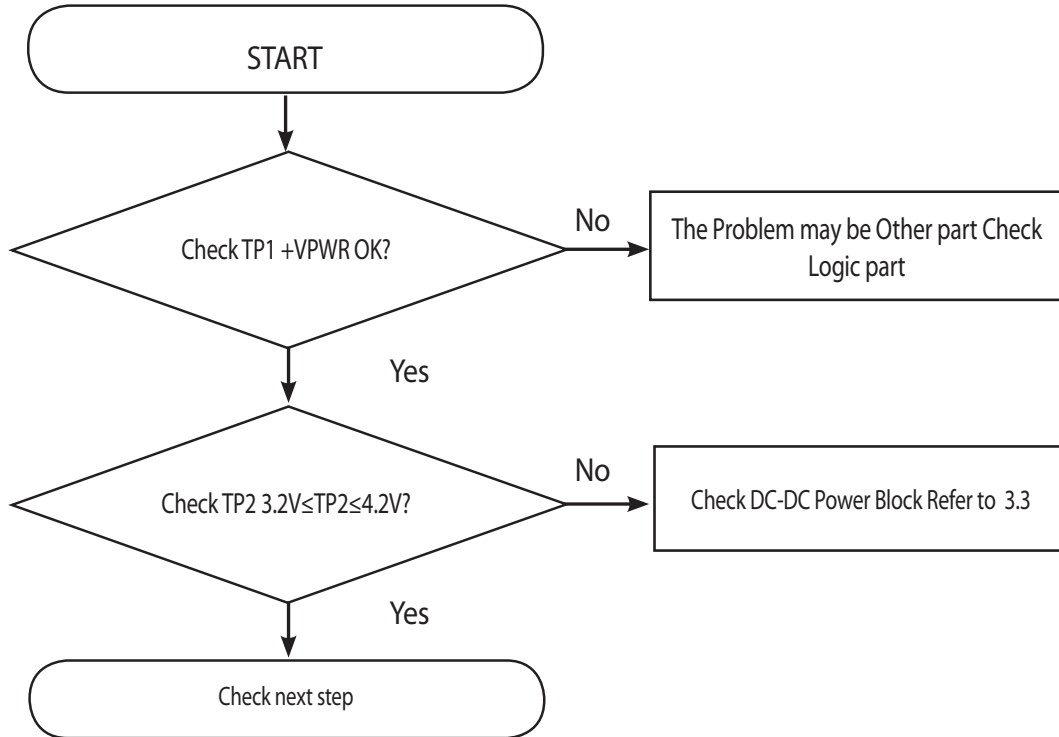
3.5.2.1 Checking GSM PAM DC Power Circuit



TOP

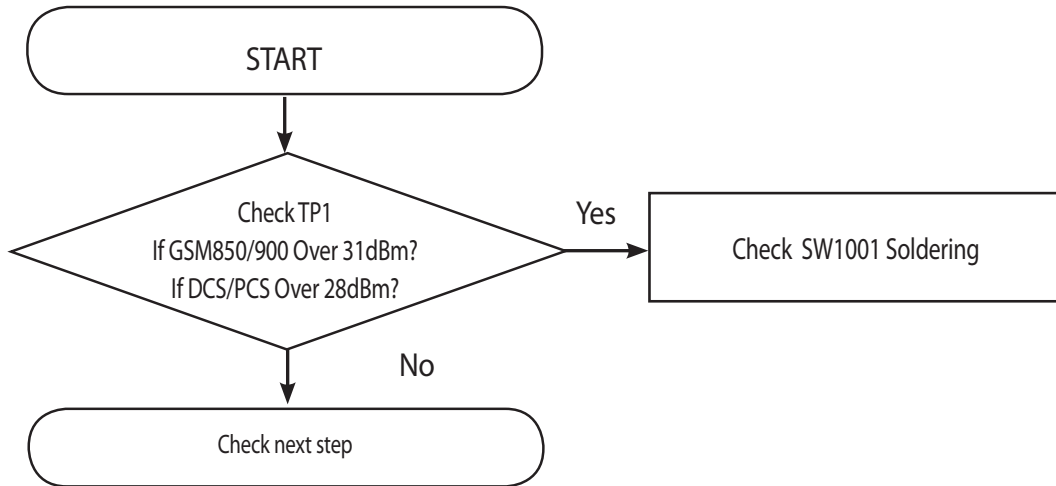


3. TROUBLE SHOOTING

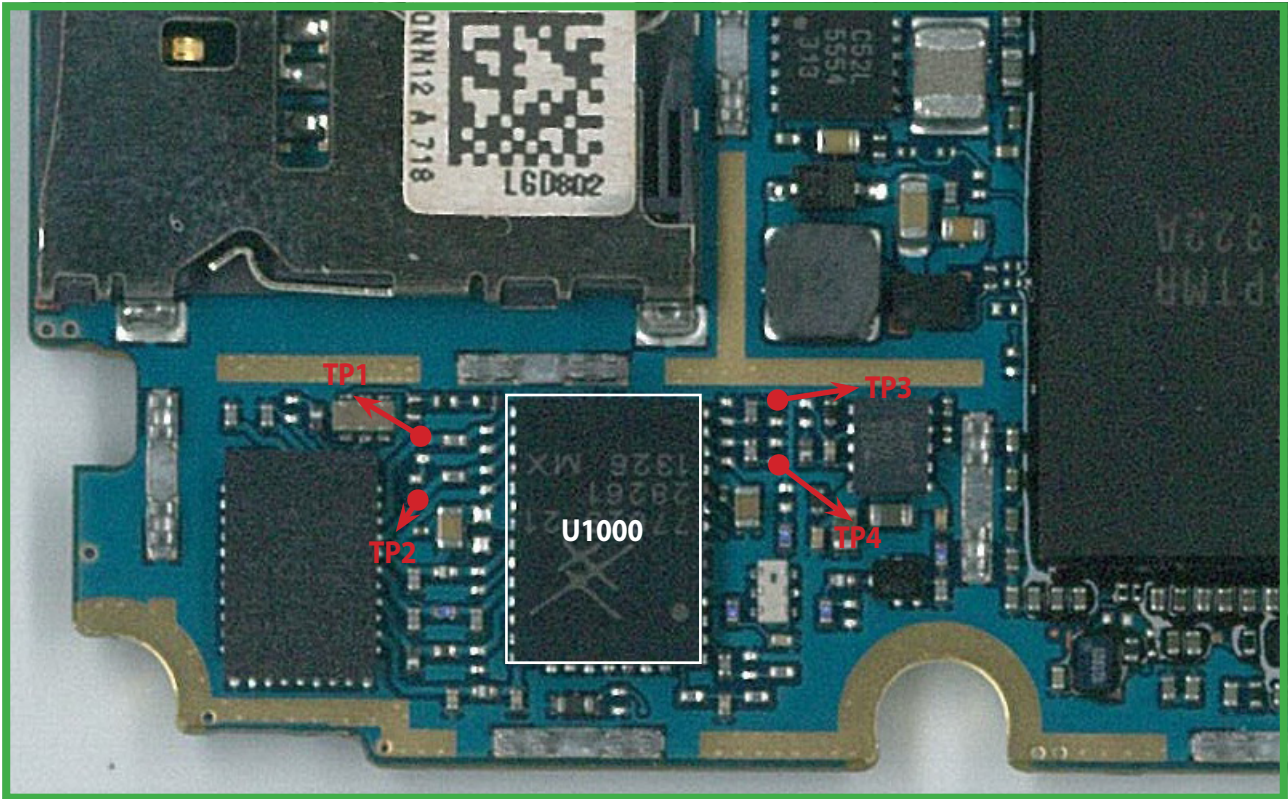


3.5.2.2 Checking RF signal path(SW)

Refer to 3.5.1.1

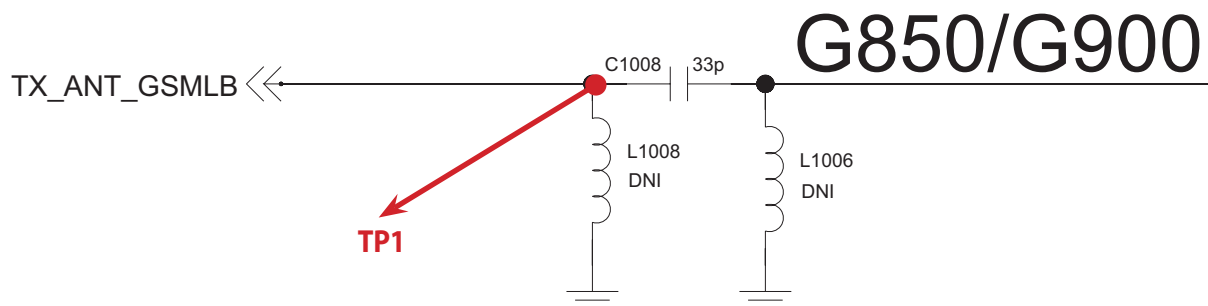
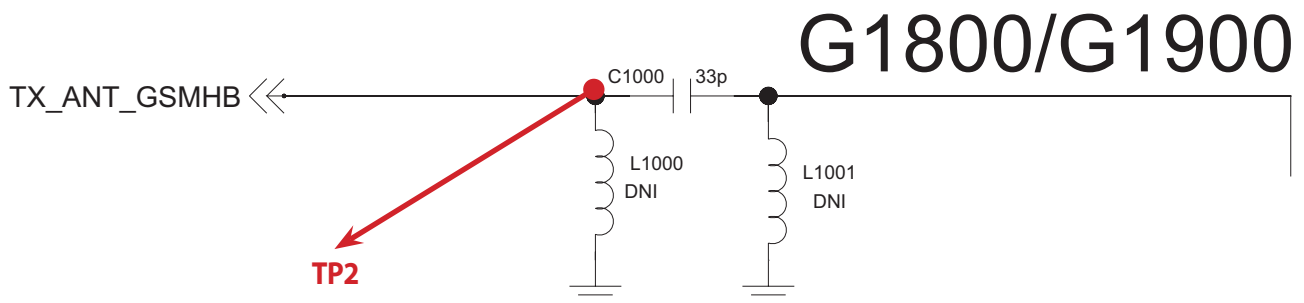
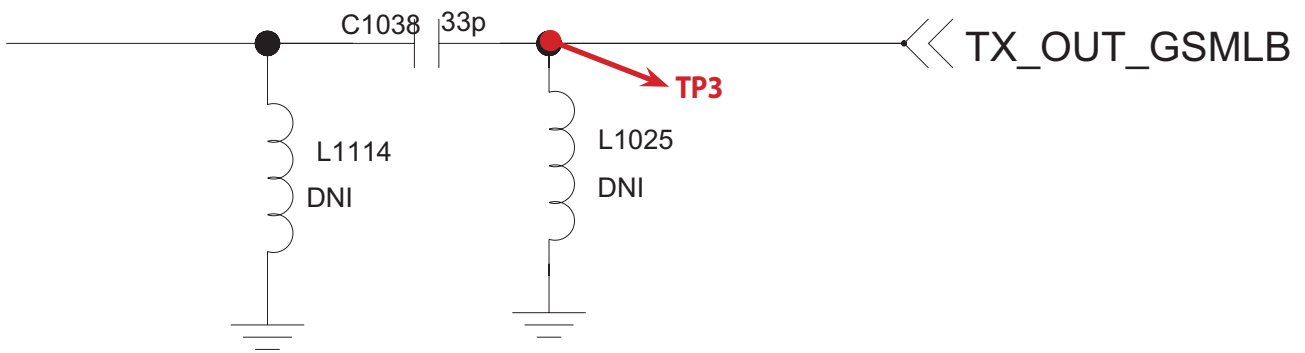
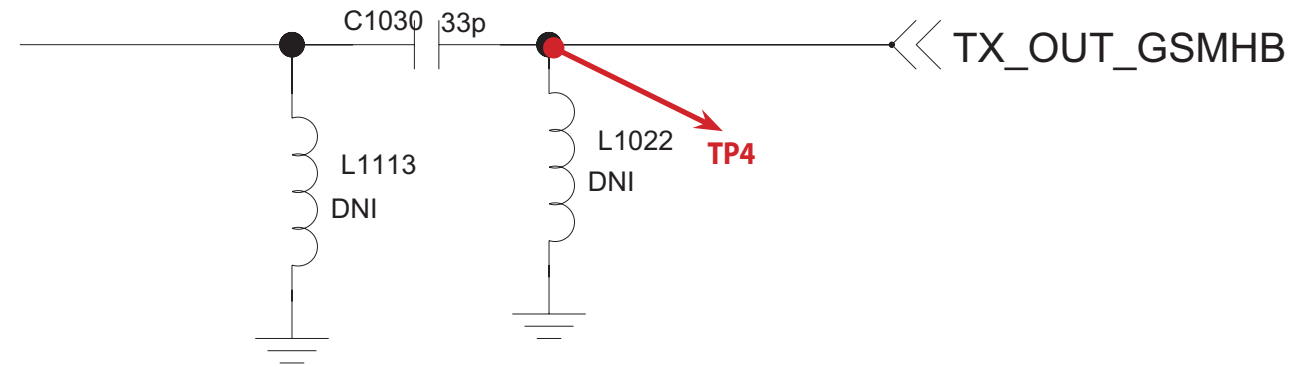


3.5.2.3 Checking RF signal path

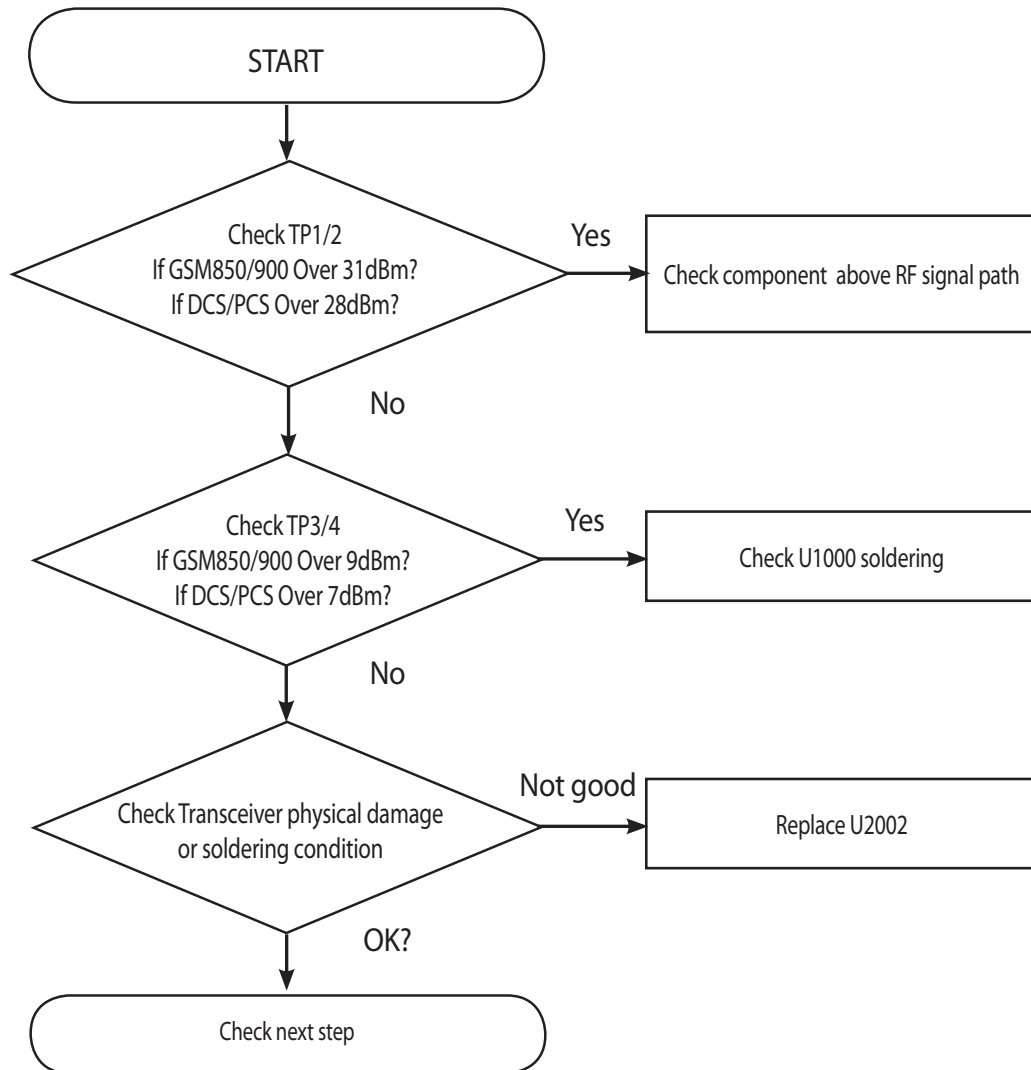


TOP

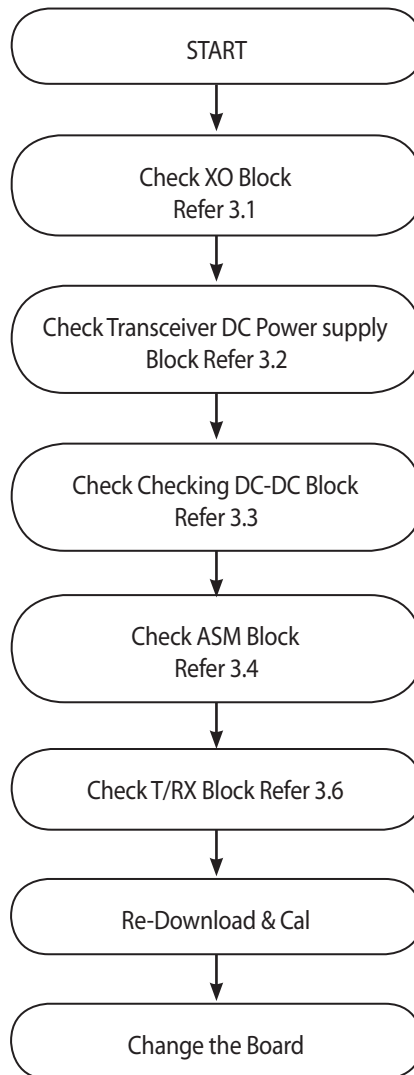
3. TROUBLE SHOOTING



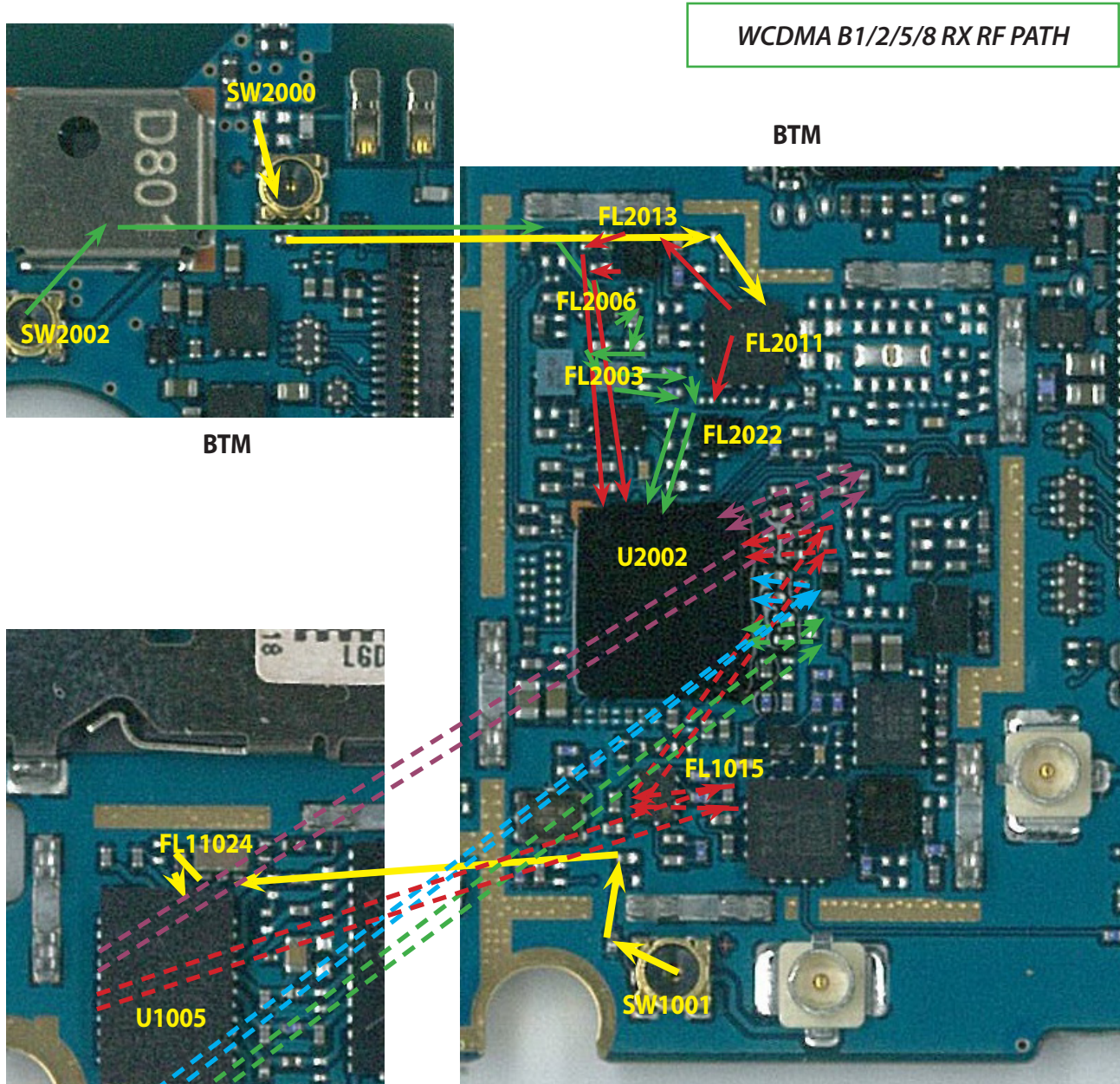
3. TROUBLE SHOOTING



3.6 WCDMA RF Part

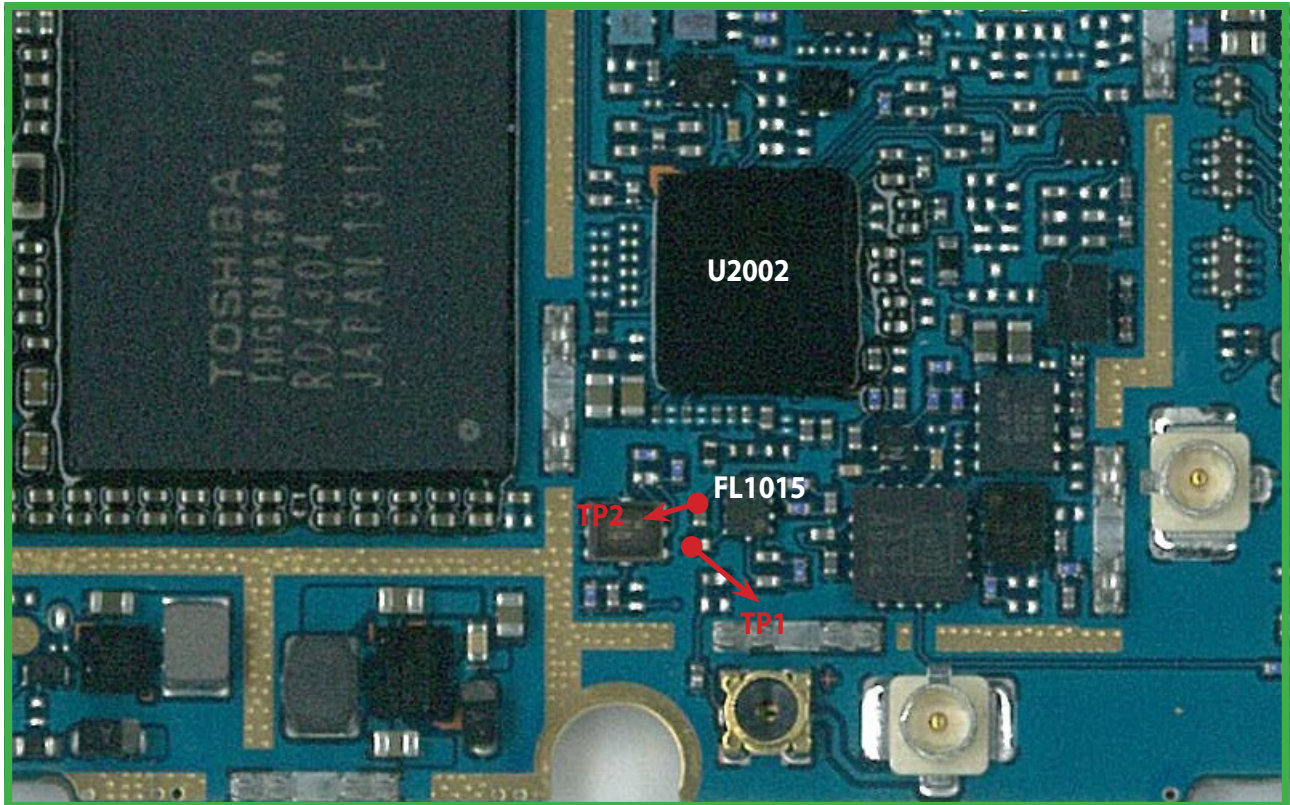


3.6.1 WCDMA B1/2/5/8 Rx



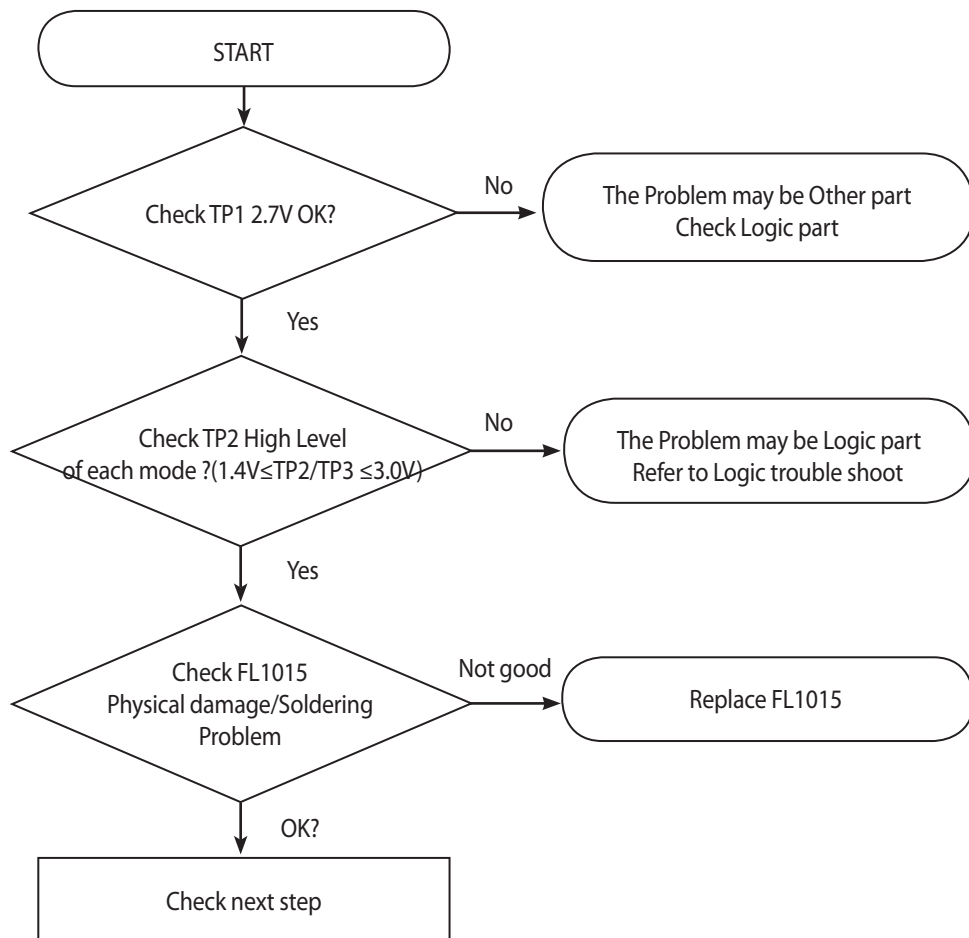
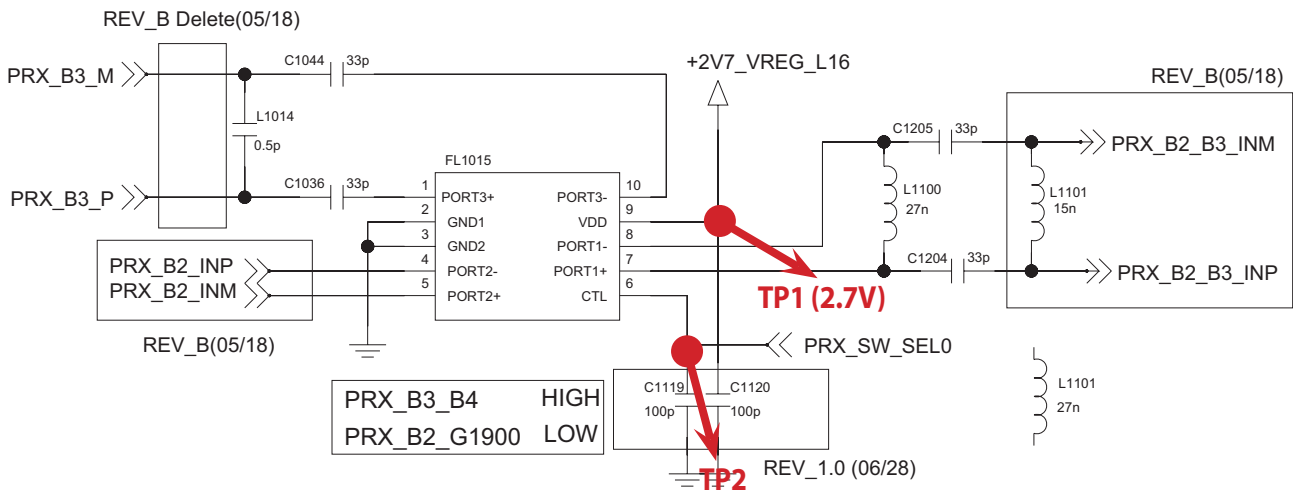
1. WCDMA B1 RX PATH
2. WCDMA B2 RX PATH
3. WCDMA B5 RX PATH
4. WCDMA B8 RX PATH
5. COMMON T/RX PATH
6. WCDMA B2 DRX PATH
7. WCDMA B8 DRX PATH
8. COMMON DRX PATH

3.6.1.1 Checking WCDMA DP4T Switch (B2)



BOT

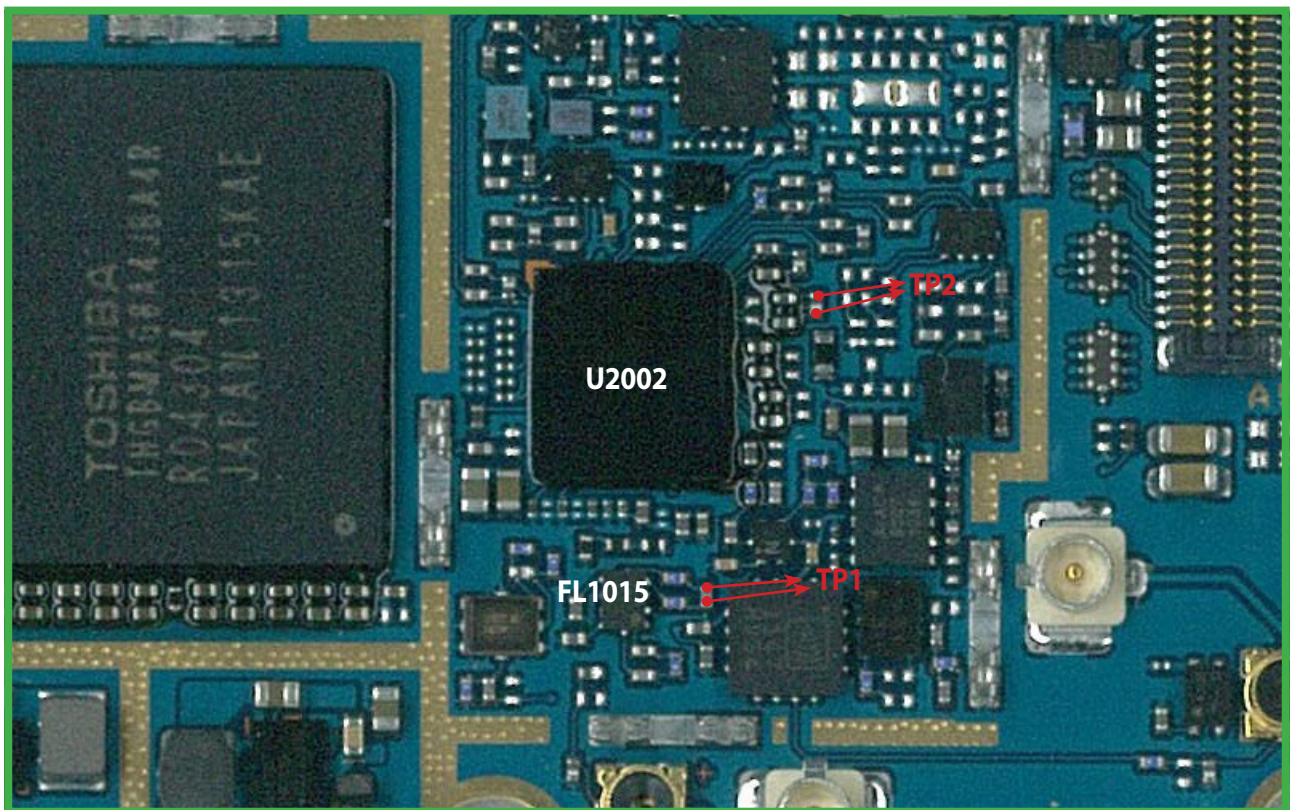
3. TROUBLE SHOOTING



3.6.1.2 Checking RF signal path (SW)

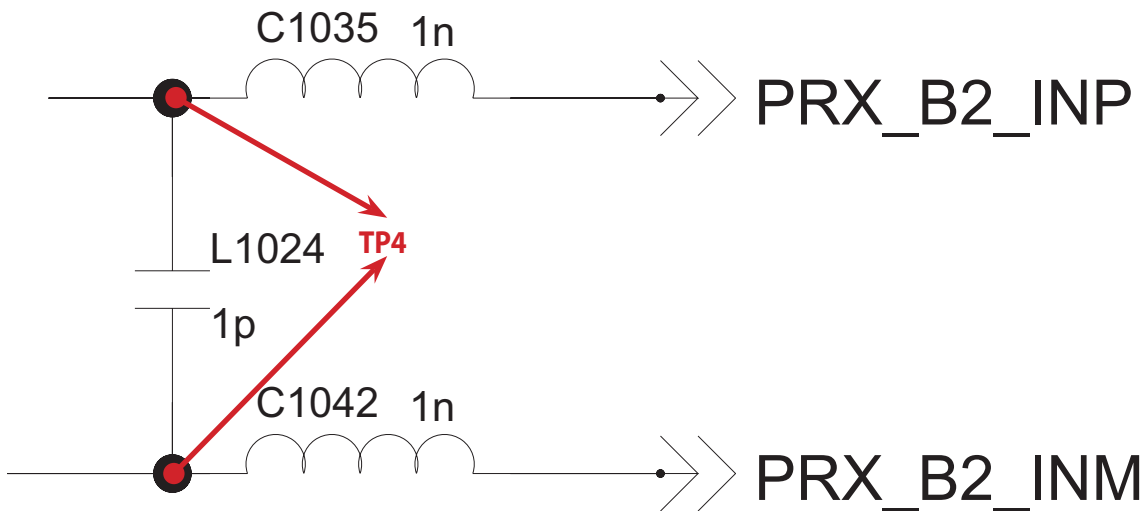
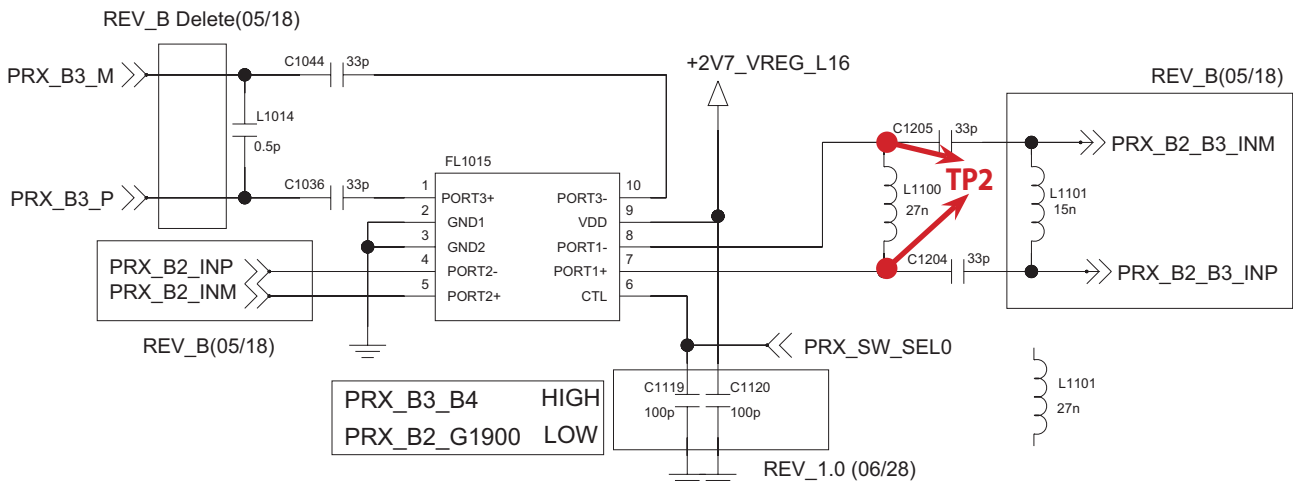
Refer to 3.5.1.1

3.6.1.3 Checking RF signal path(B2)

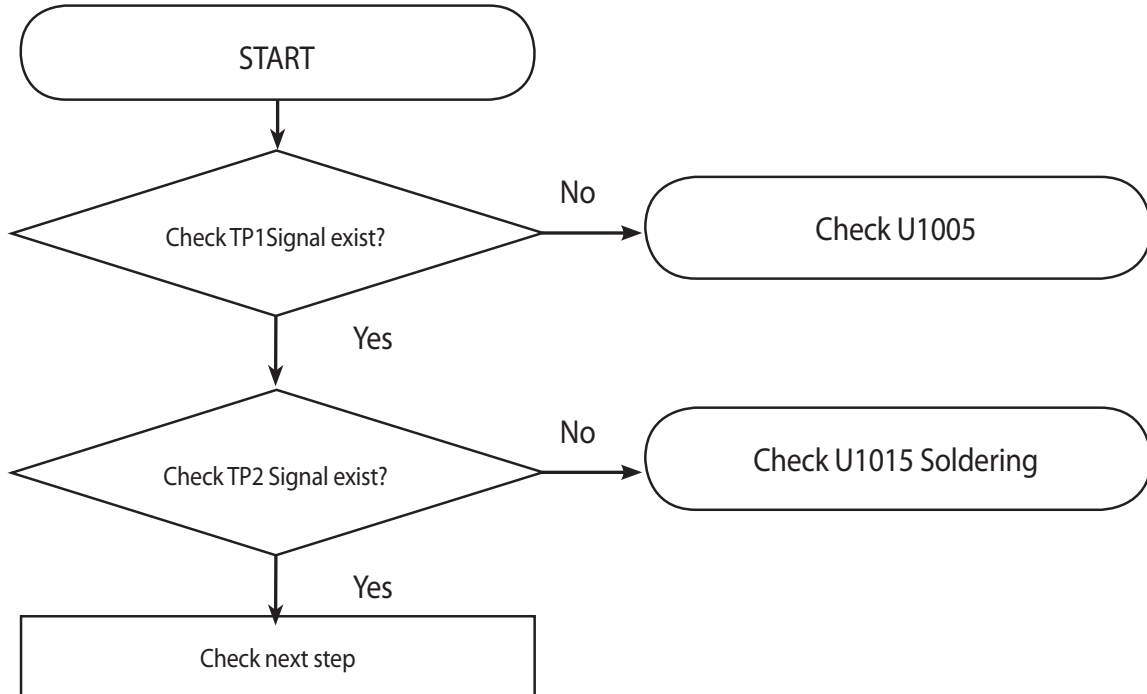


BOT

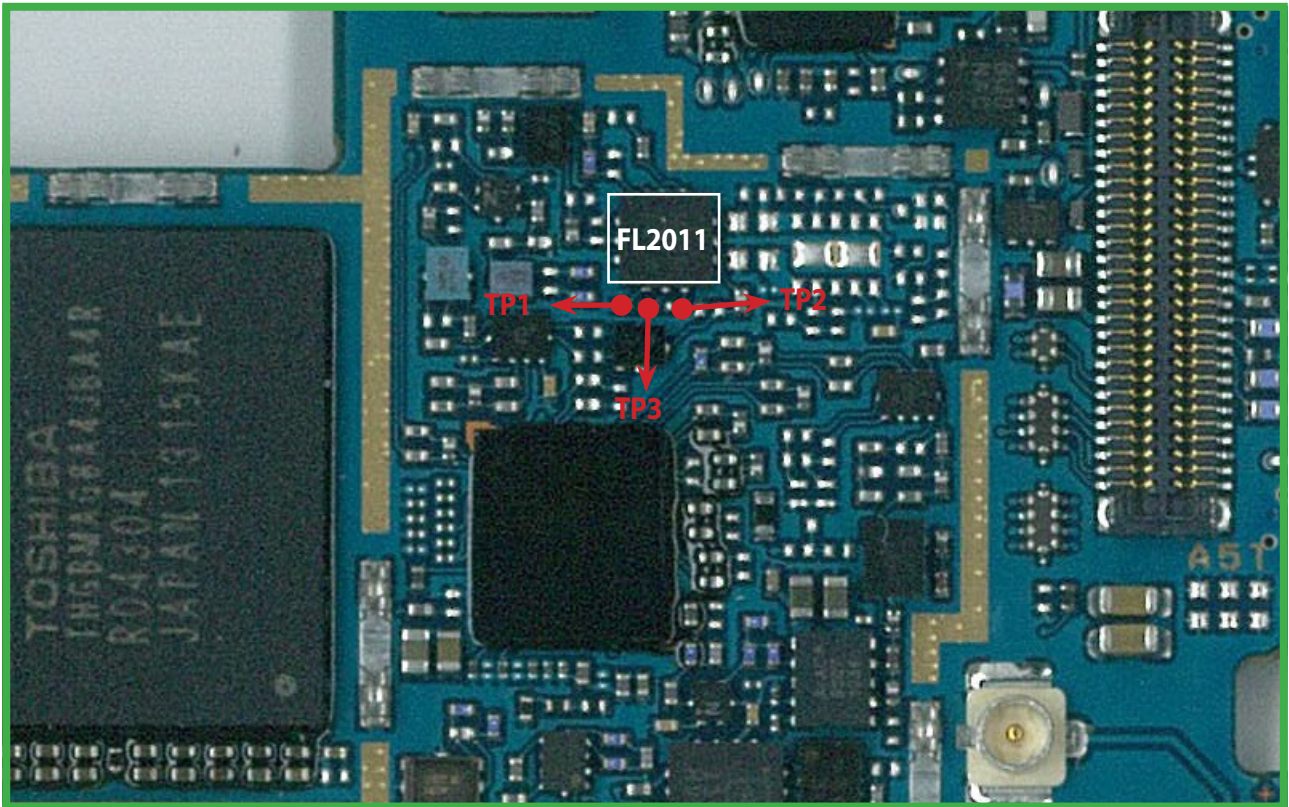
3. TROUBLE SHOOTING



3. TROUBLE SHOOTING

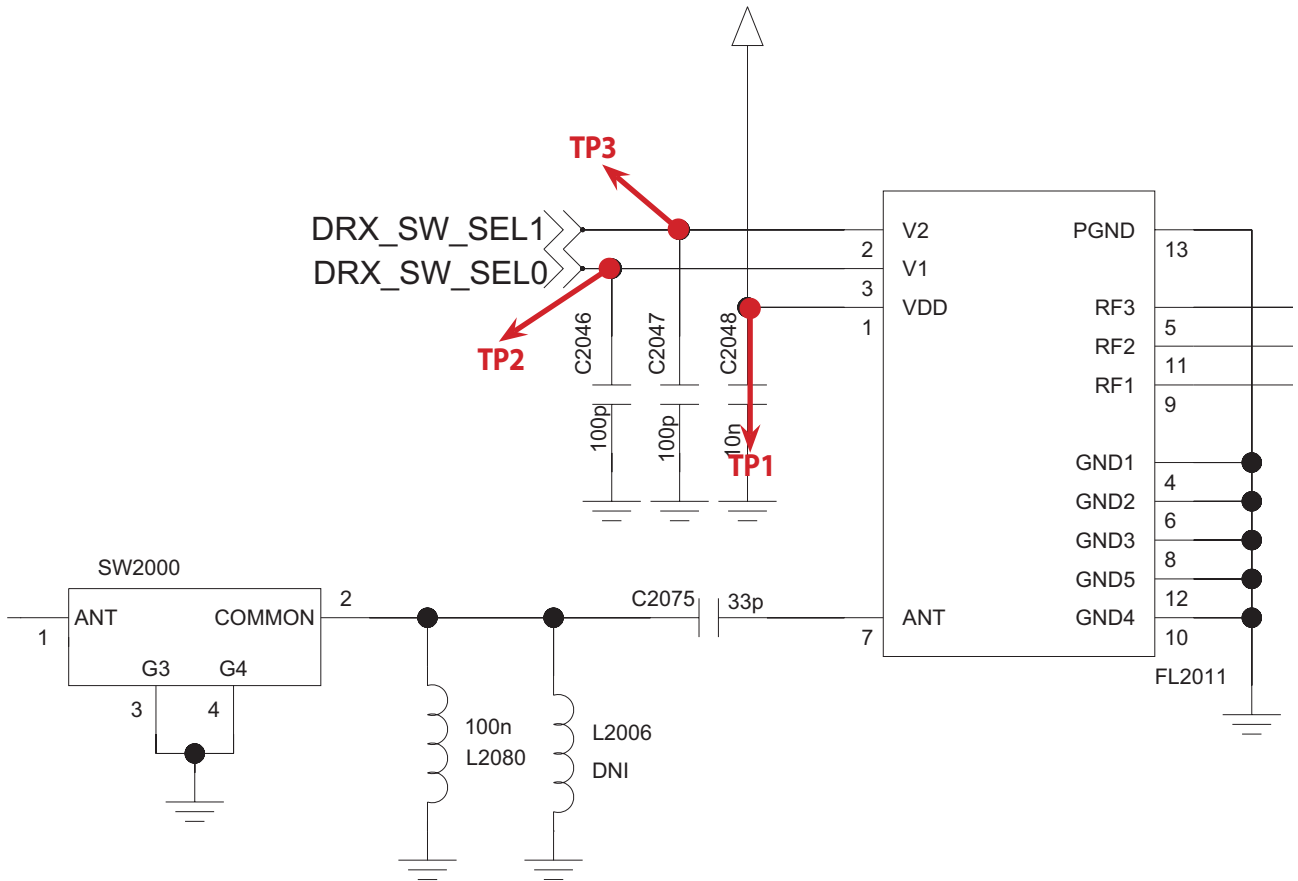


3.6.1.4 Checking DRX Antenna Switching Module(B1)



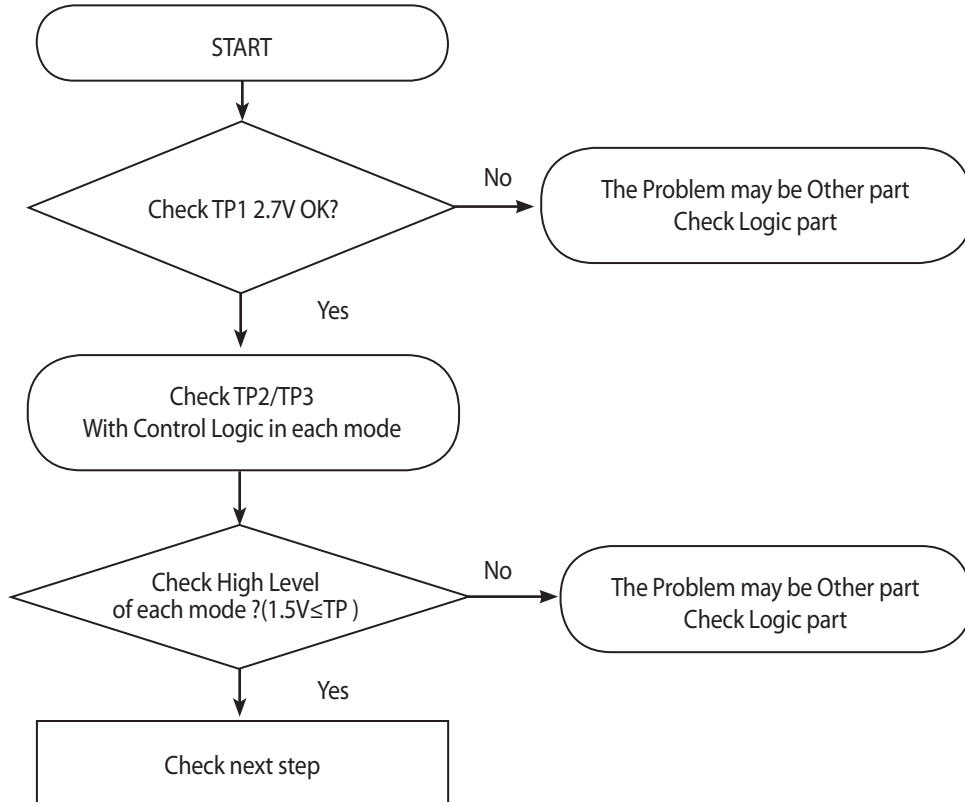
BOT

3. TROUBLE SHOOTING



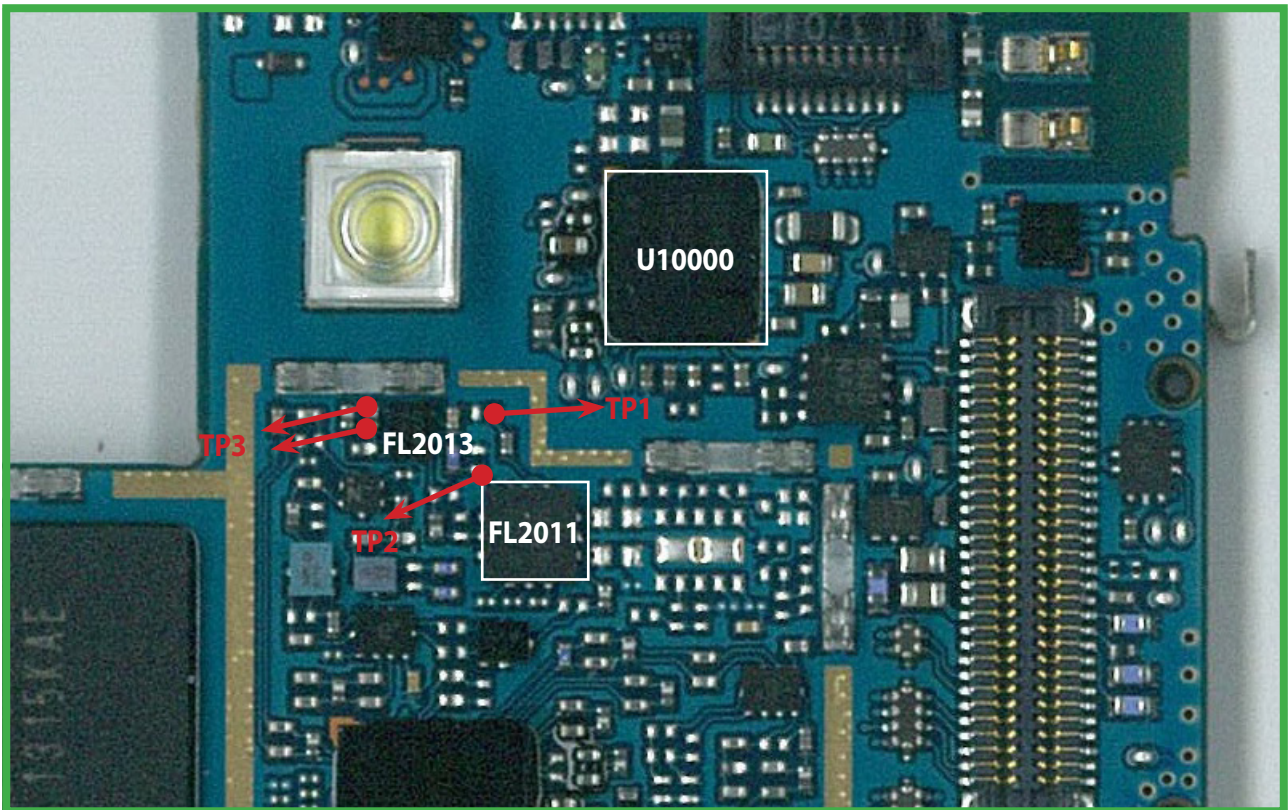
Path	V1	V2
DRX B1_B4	H	L
DRX B2_B3	L	H
DRX B17_B20	L	L

3. TROUBLE SHOOTING

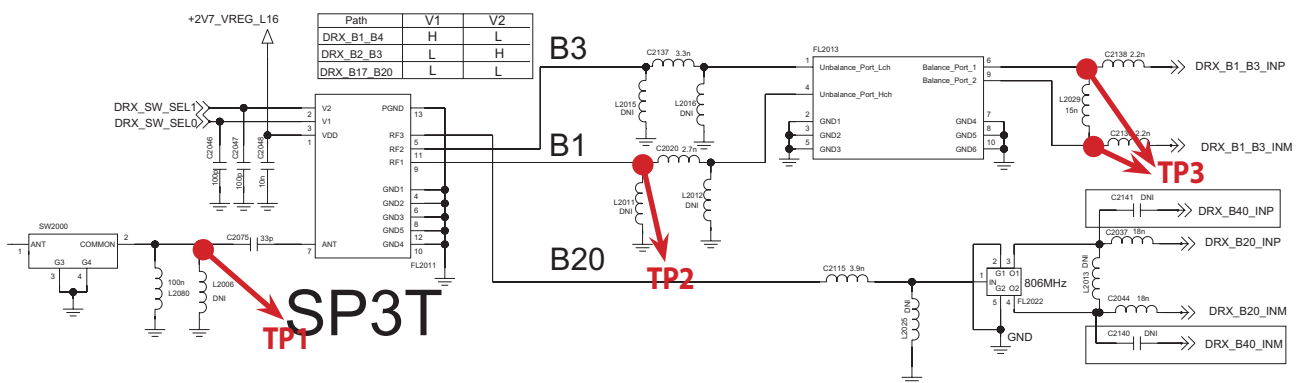


3. TROUBLE SHOOTING

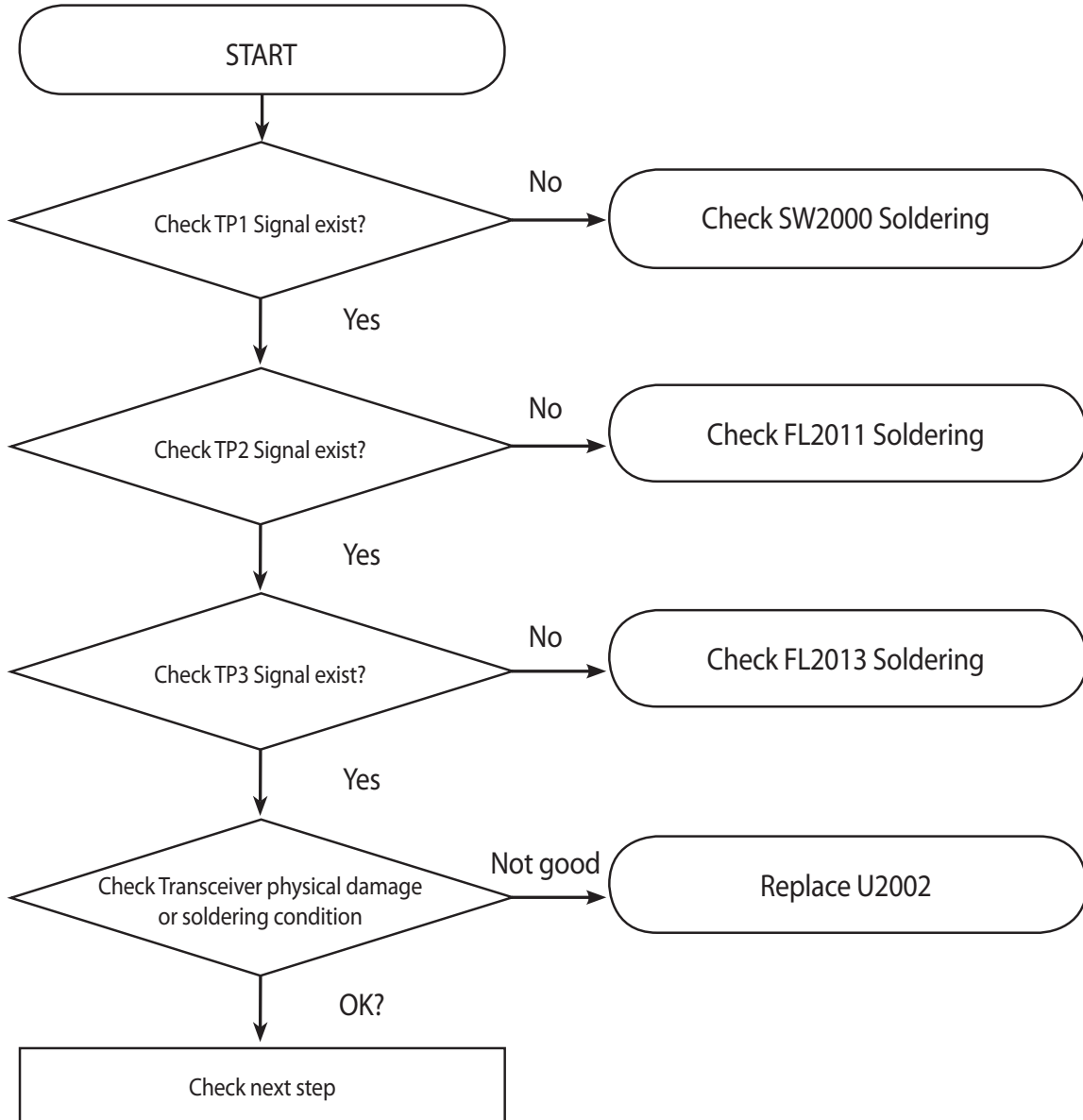
3.6.1.5 Checking DRX RF signal path (B2/4)



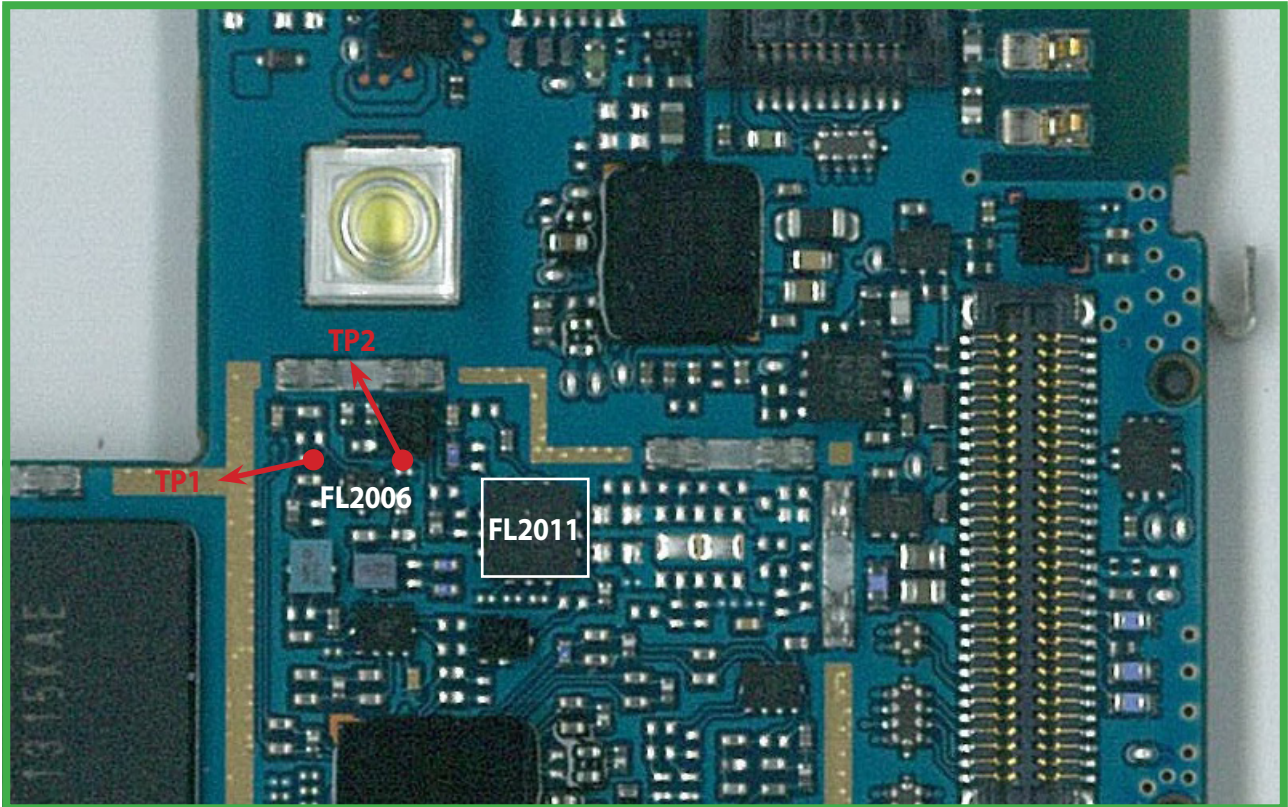
BOT



3. TROUBLE SHOOTING

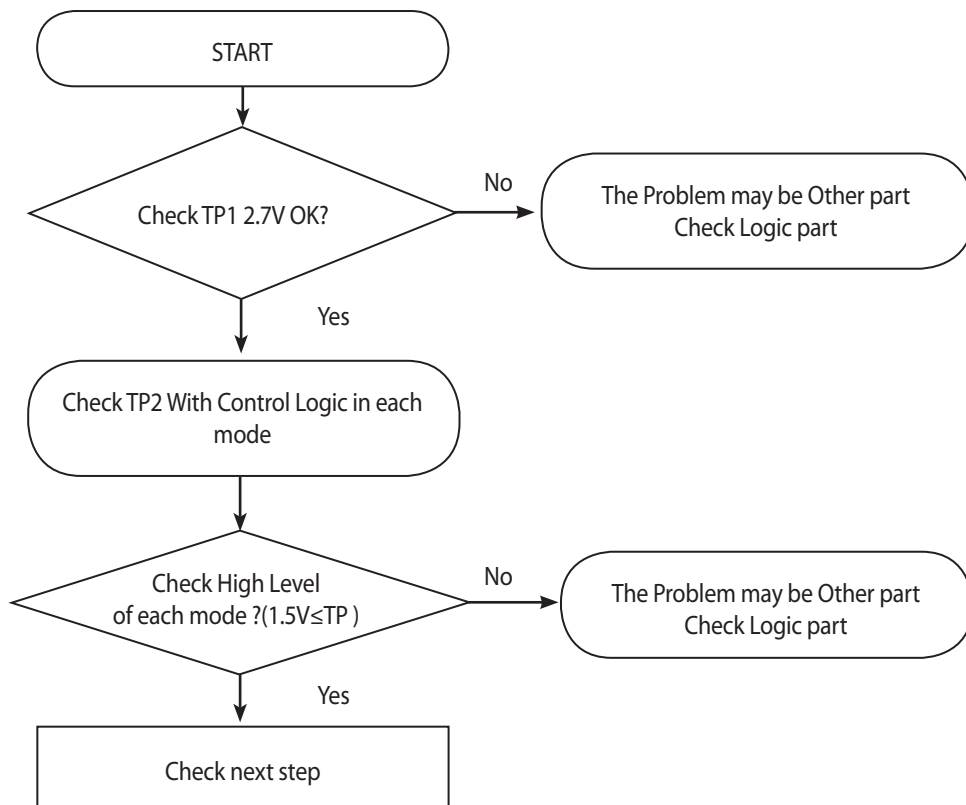
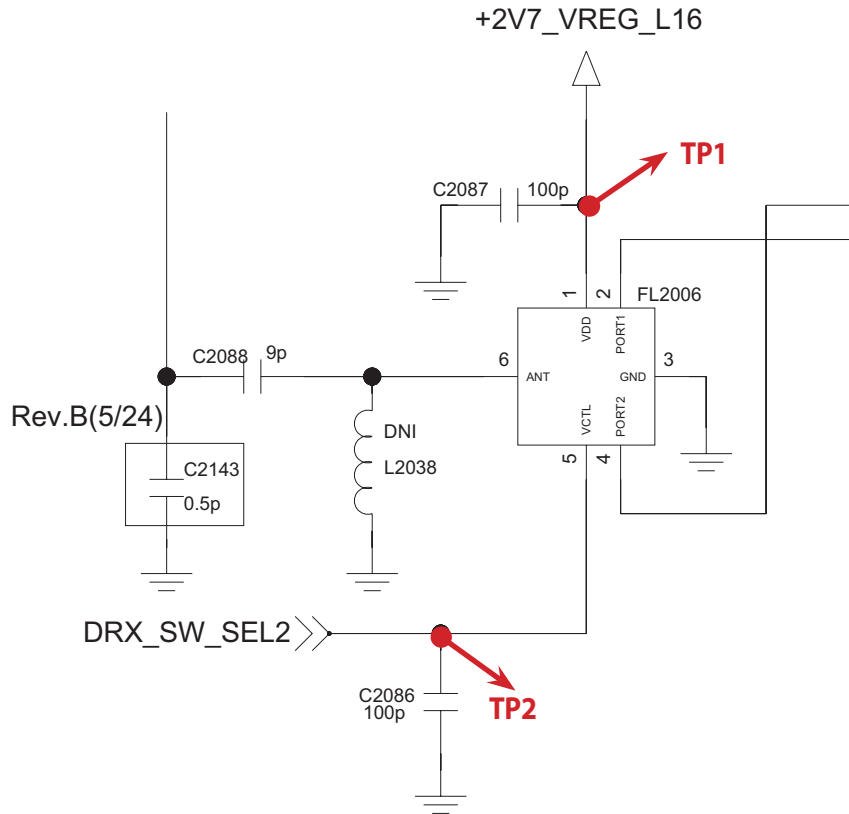


3.6.1.6 Checking DRX Antenna Switching Module(B8)

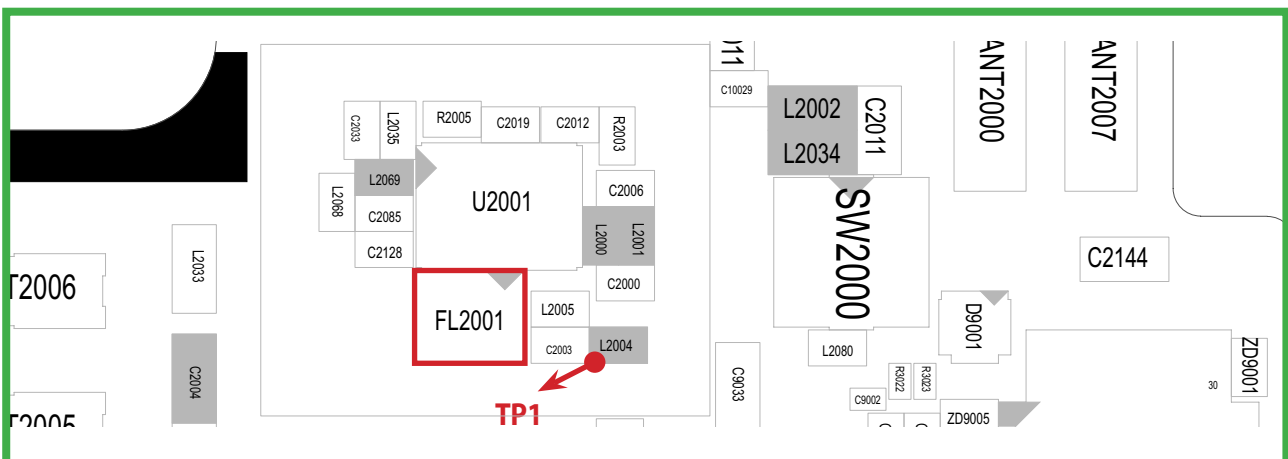
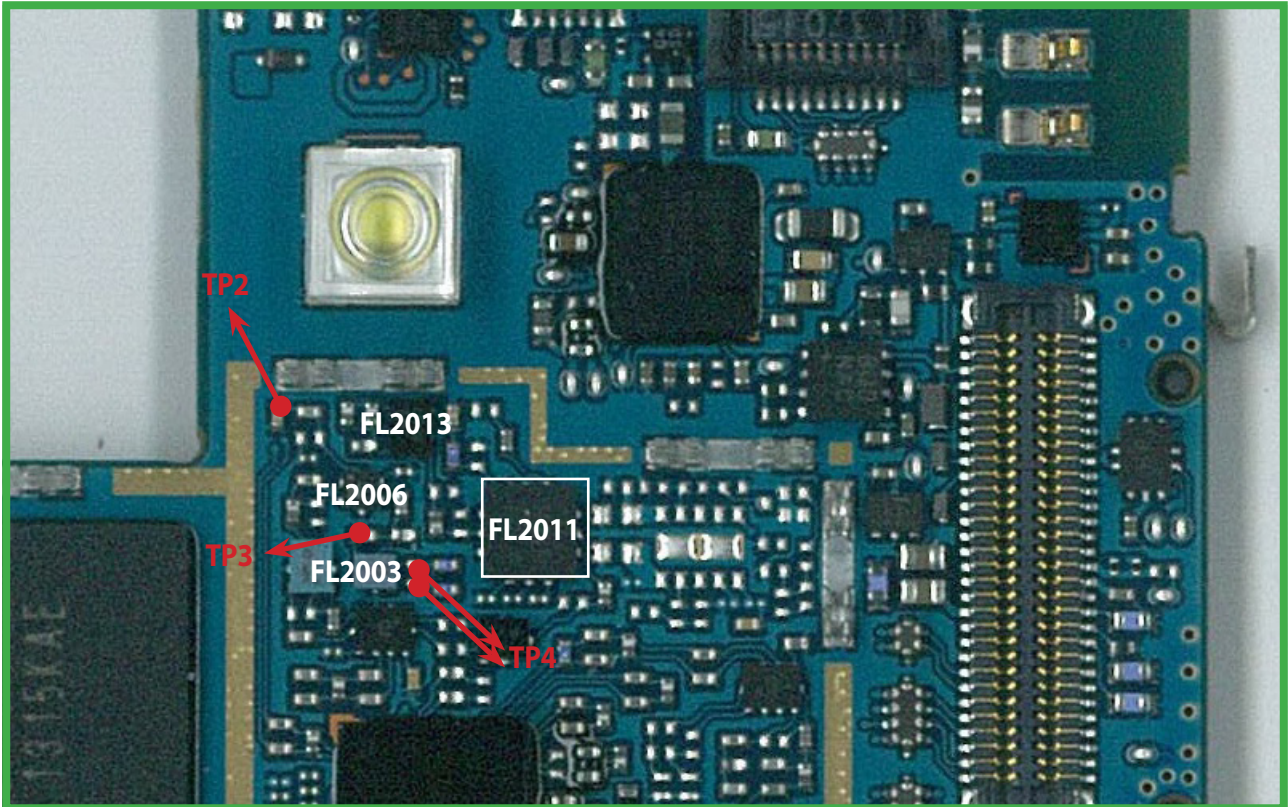


BOT

3. TROUBLE SHOOTING

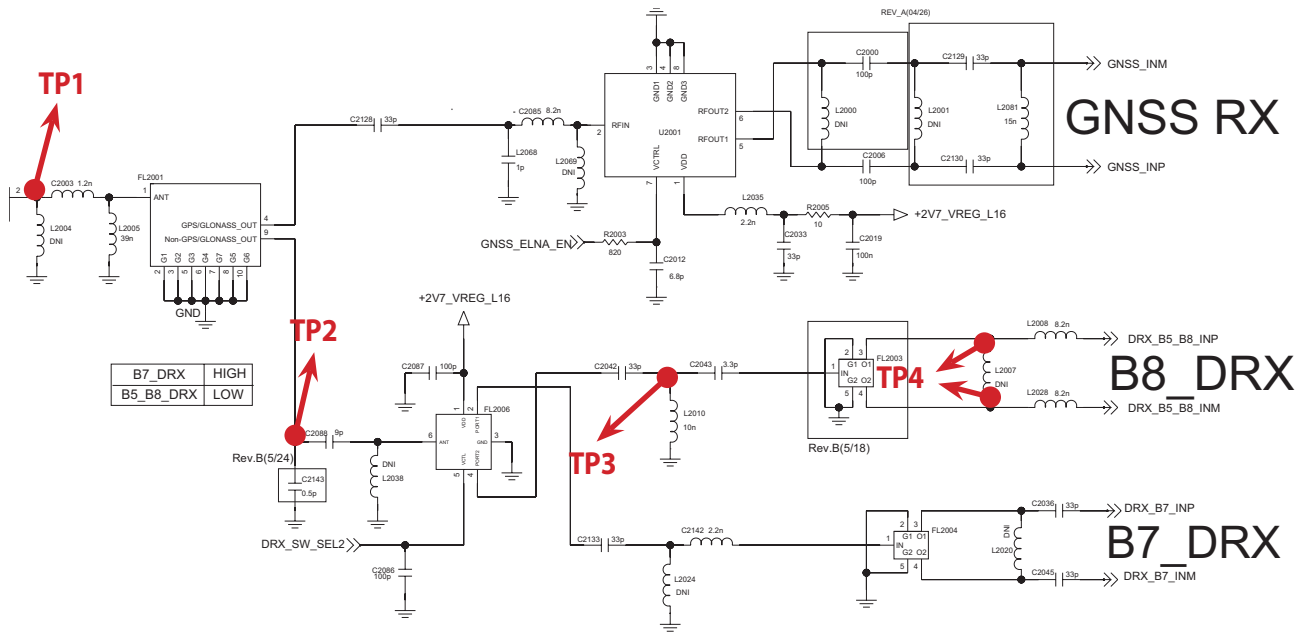


3.6.1.7 Checking DRX RF signal path (B8)

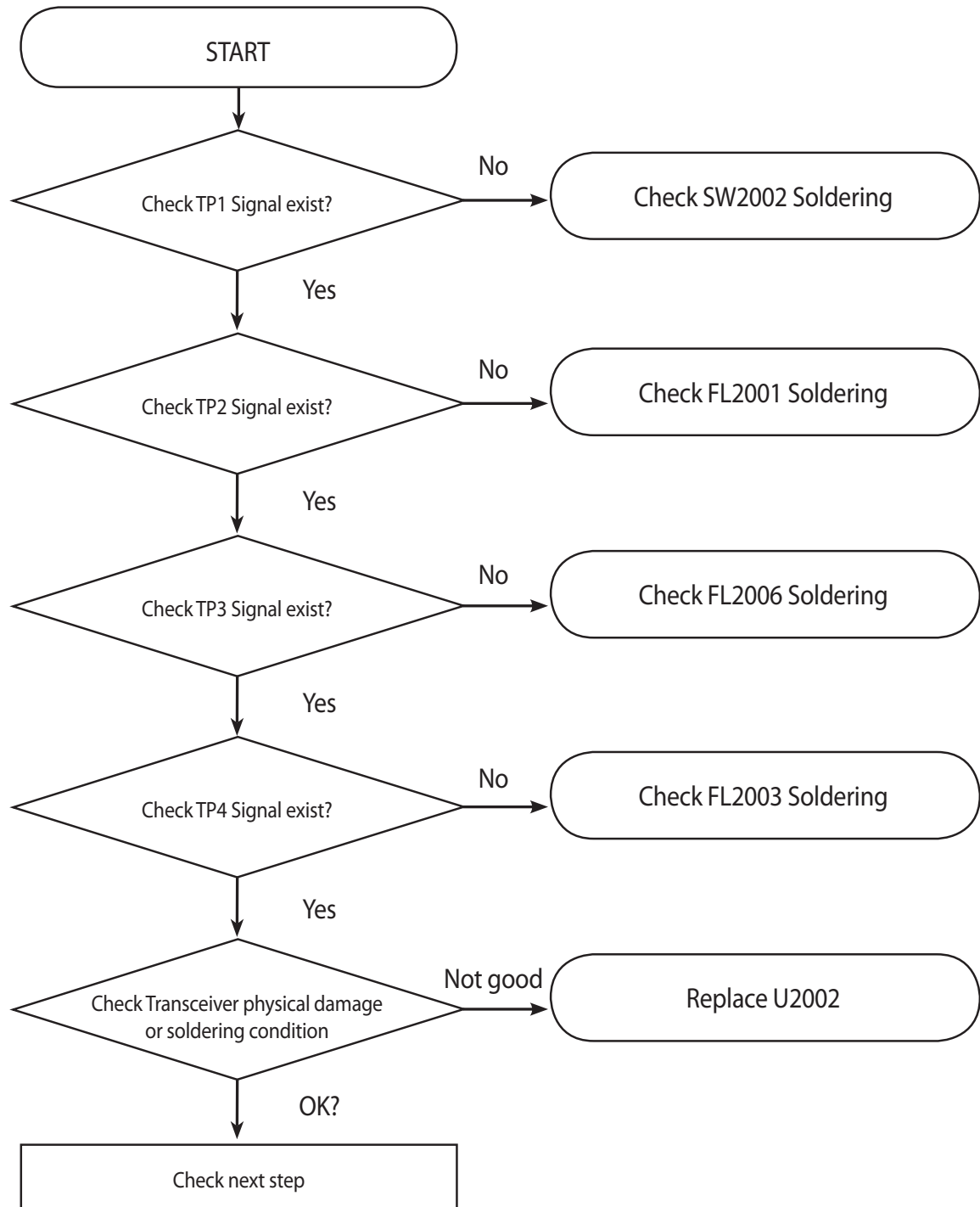


BOT

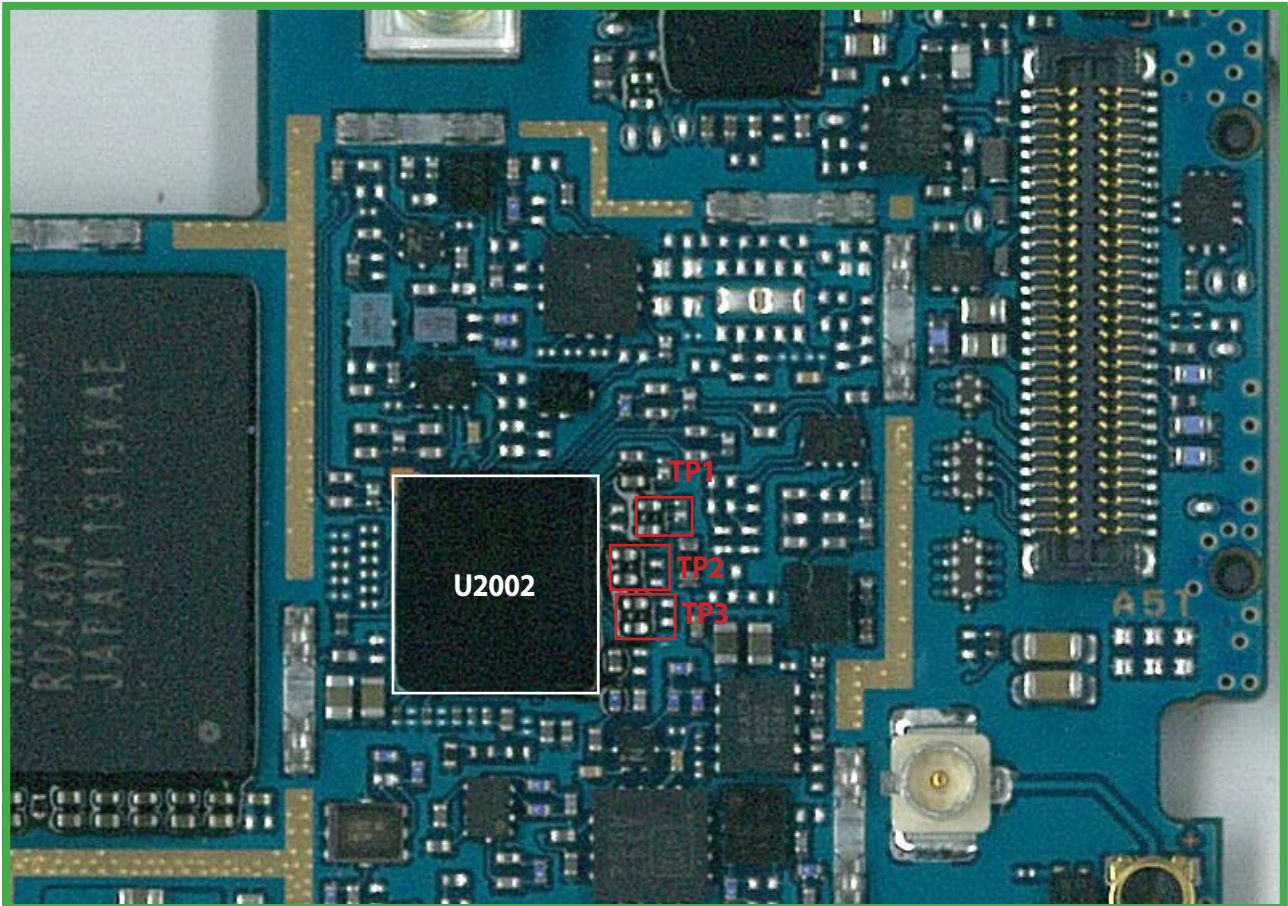
3. TROUBLE SHOOTING



3. TROUBLE SHOOTING

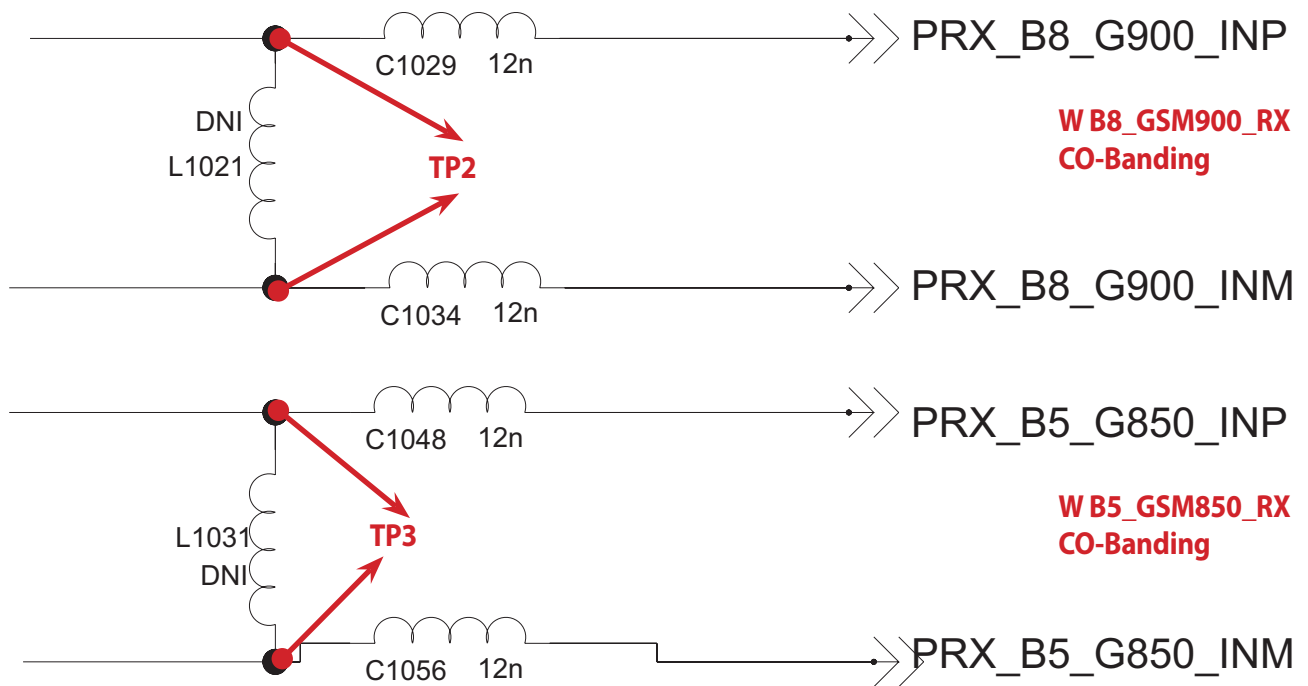
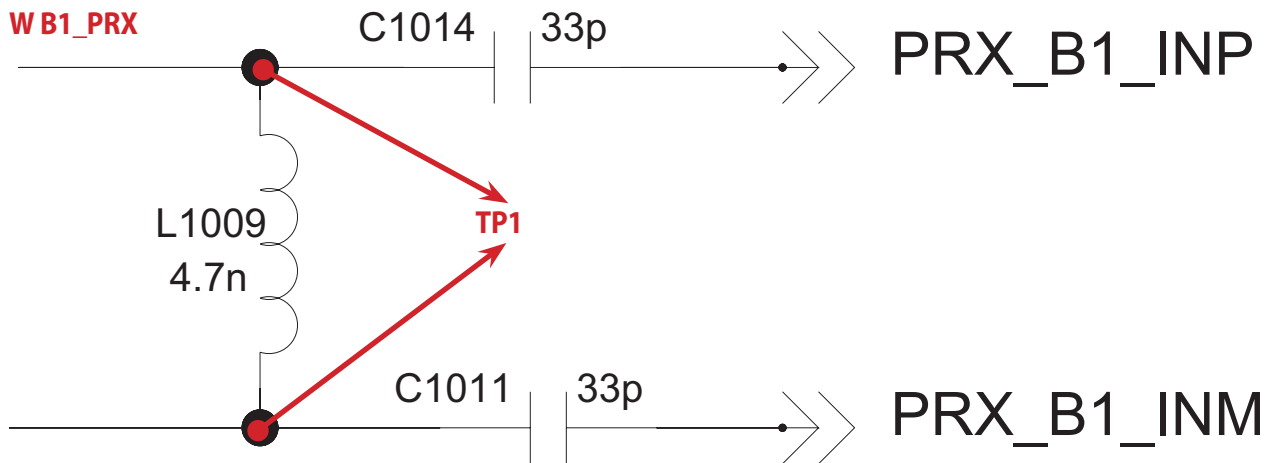


3.6.1.8 Checking RF signal path (B1/5/8)

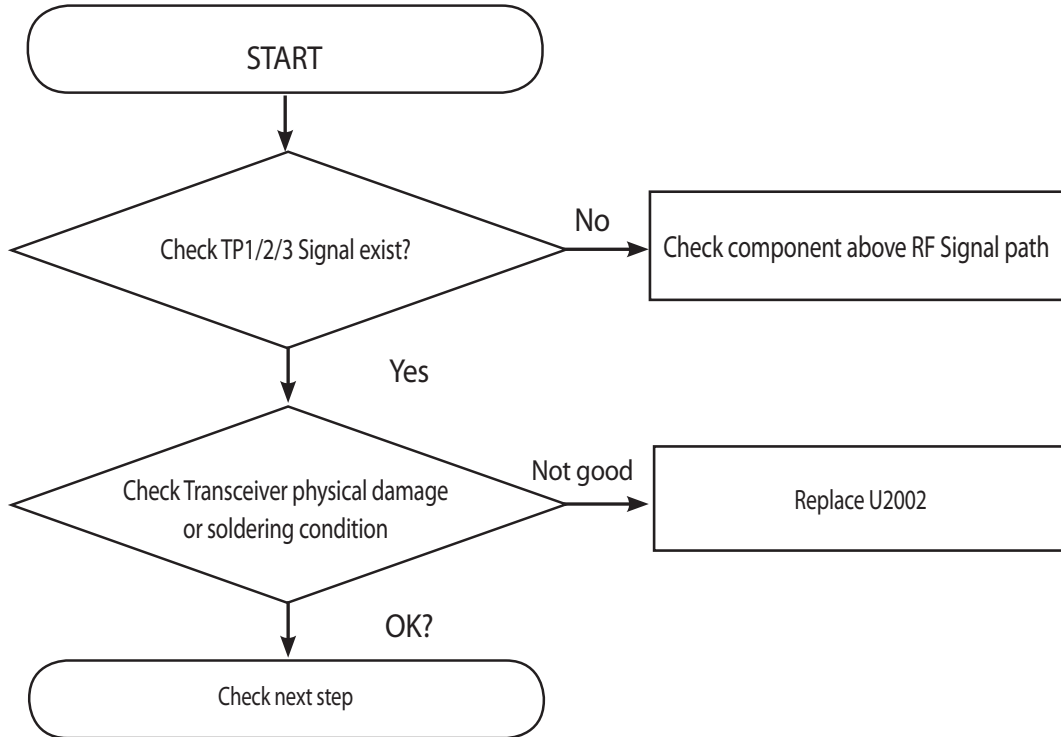


BOT

3. TROUBLE SHOOTING

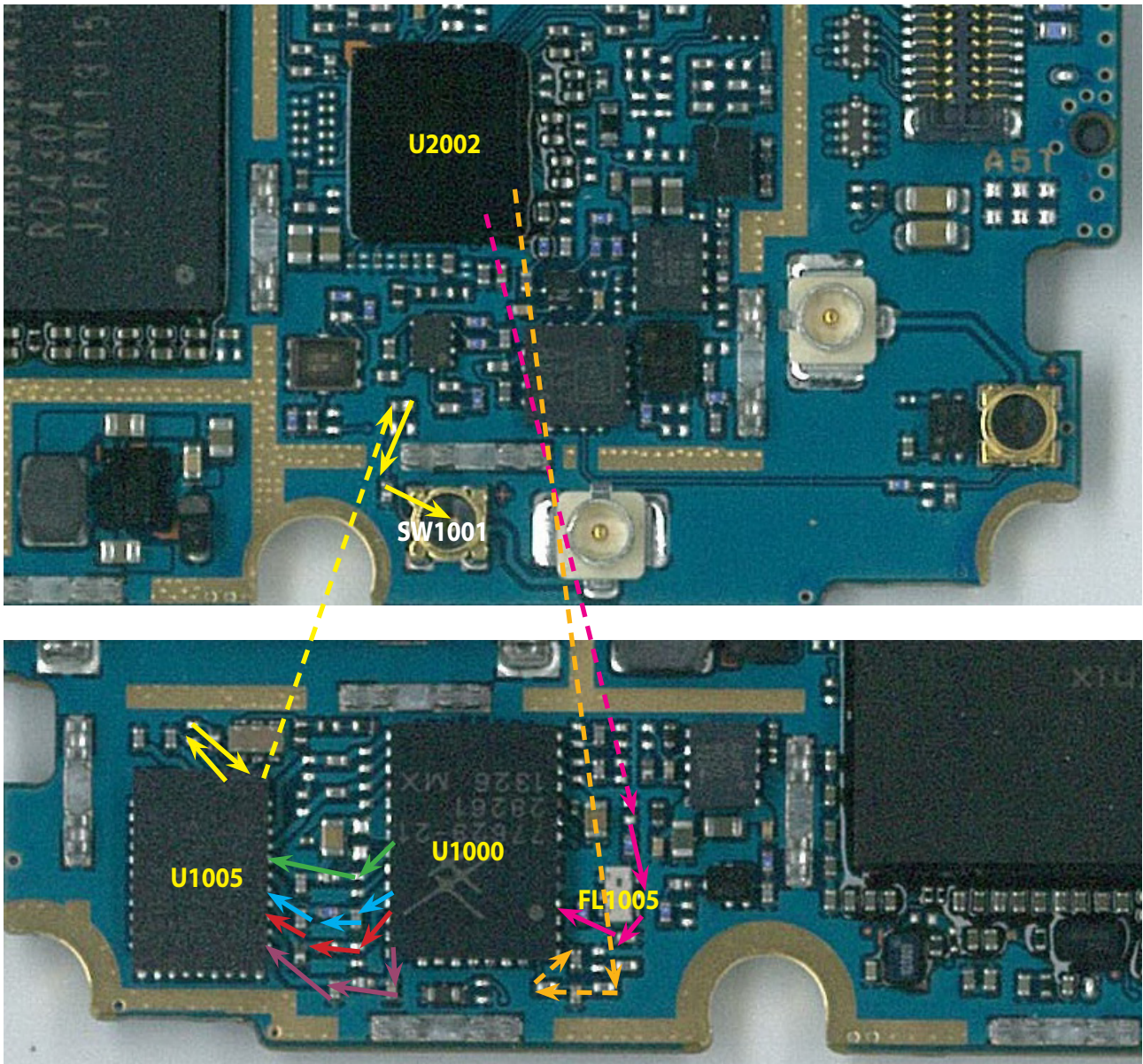


3. TROUBLE SHOOTING



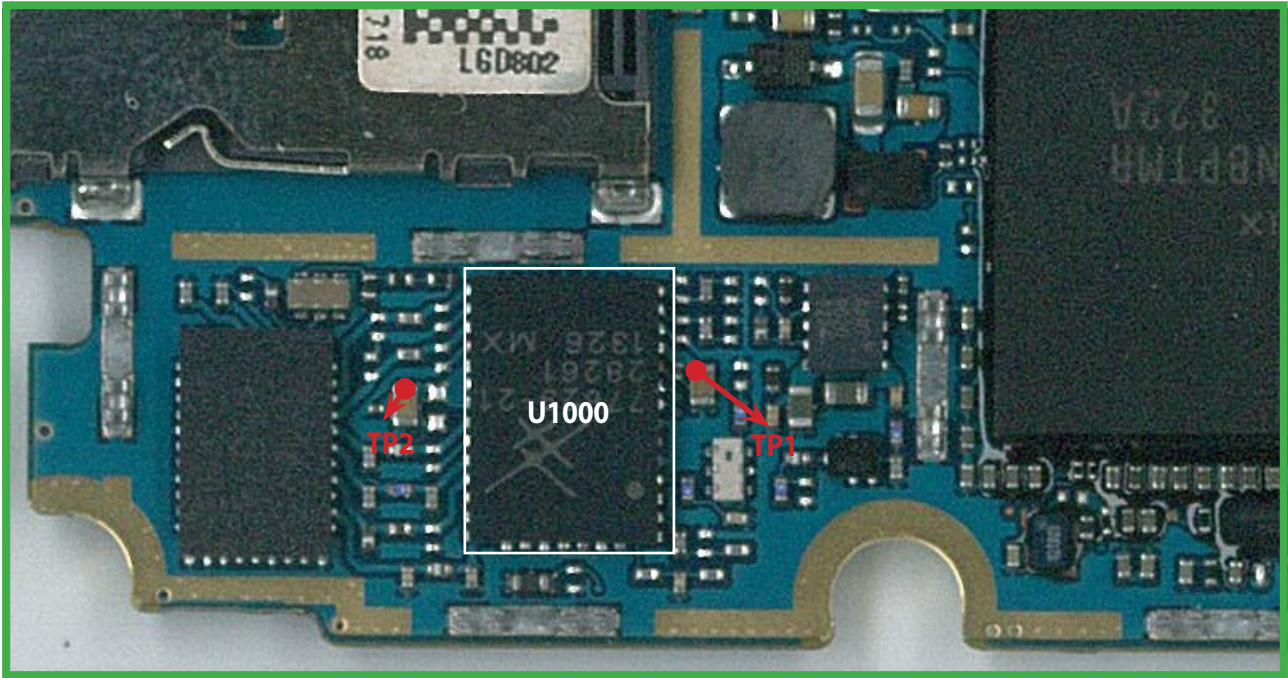
3.6.2 WCDMA B1/2/5/8 Tx

WCDMA B1/2/5/8 TX RF PATH

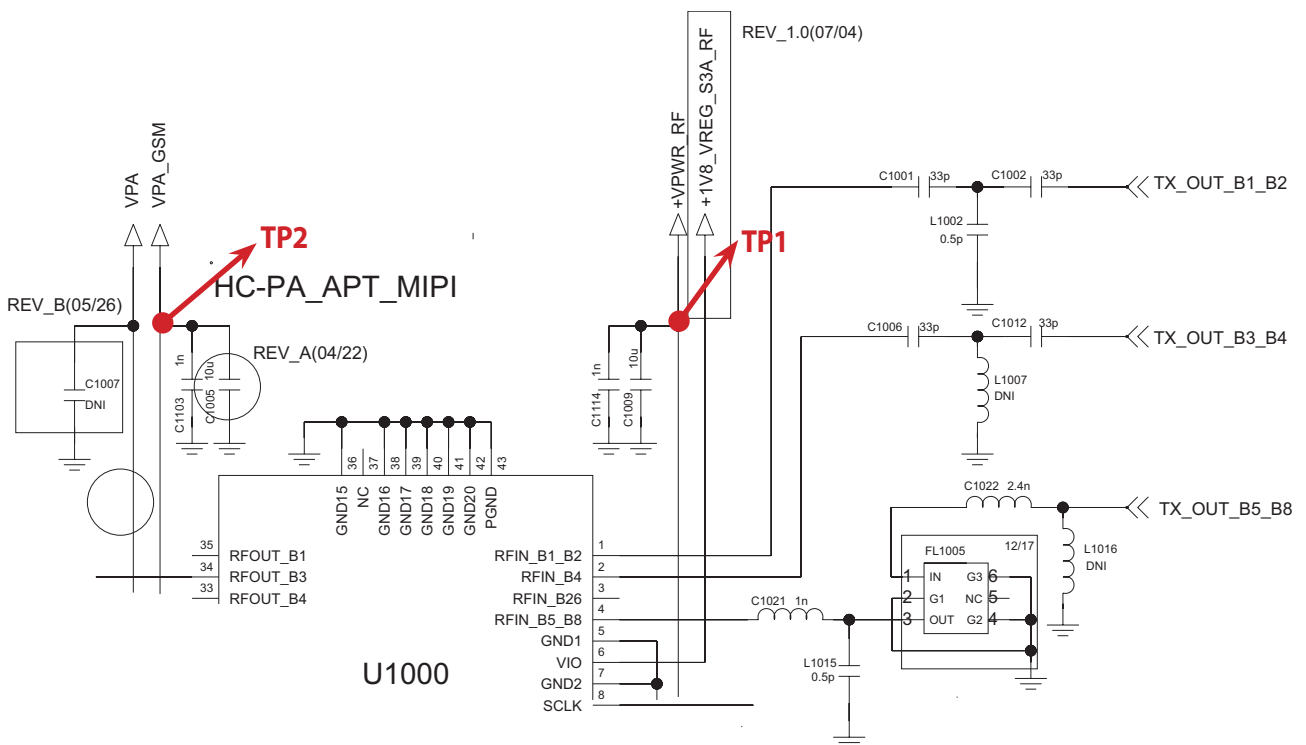


- 1. WCDMA B1 TX PATH
- 2. WCDMA B2 TX PATH
- 3. WCDMA B5 TX PATH
- 4. WCDMA B8 TX PATH
- 5. WCDMA B1/B2 COMMON TX PATH
- 6. WCDMA B5/B8 COMMON TX PATH
- 7. COMMON T/RX PATH

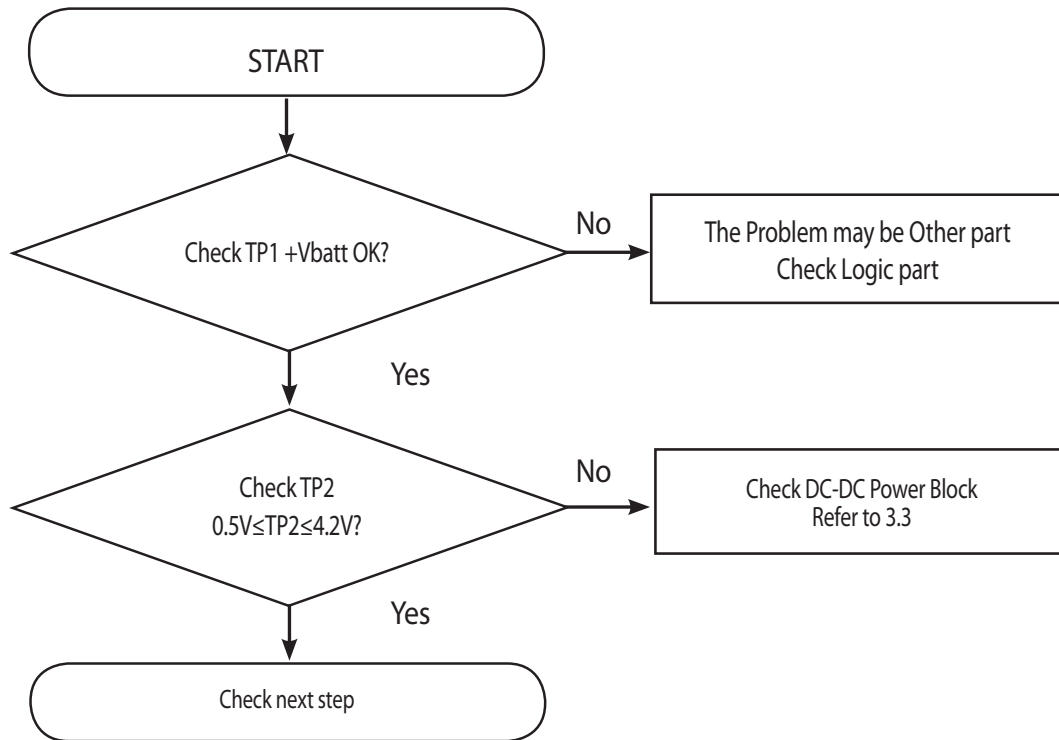
3.6.2.1 Checking WCDMA PAM DC Power&Control Circuit



TOP

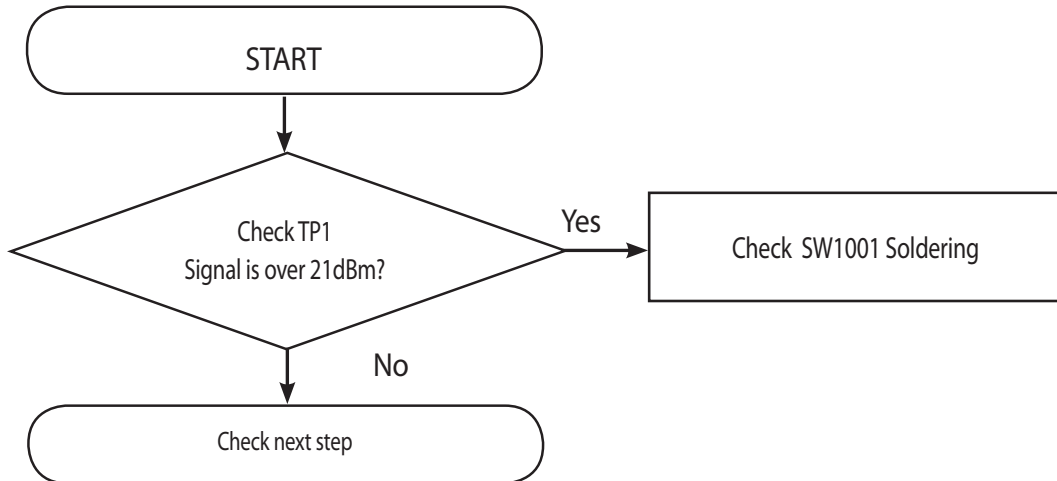


3. TROUBLE SHOOTING

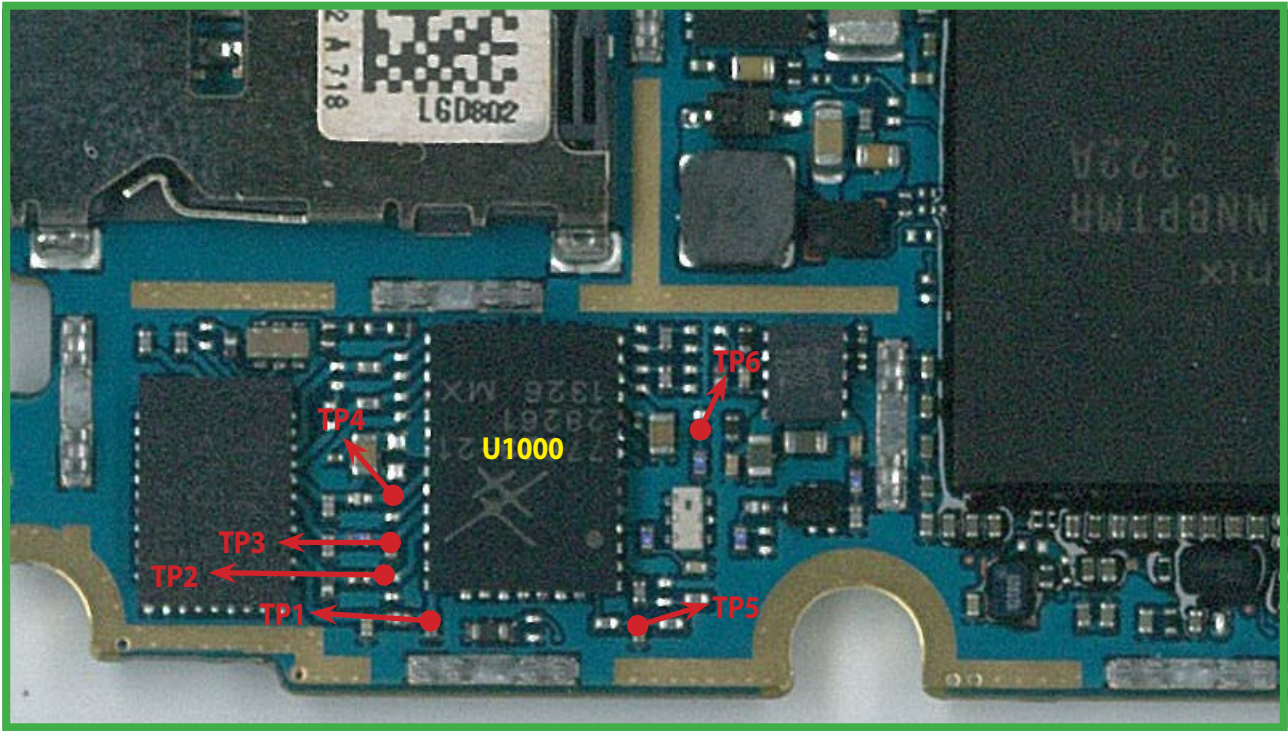


3.6.2.2 Checking RF signal path (SW_B1/2/5/8)

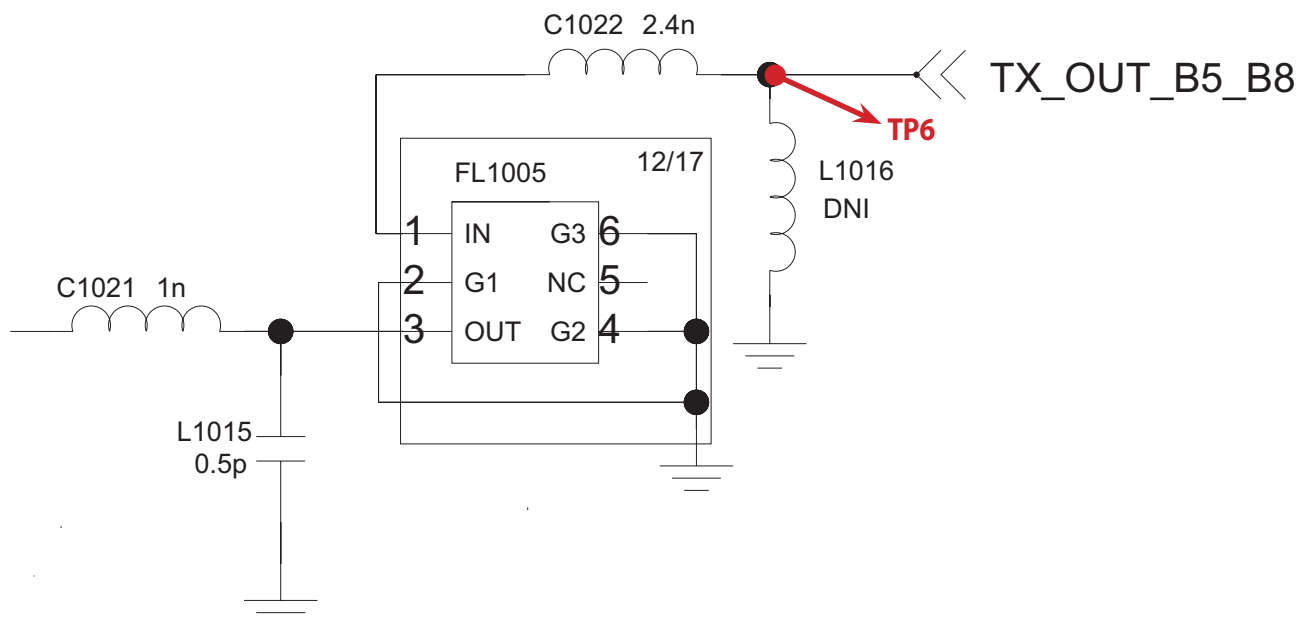
Refer to 3.5.1.1



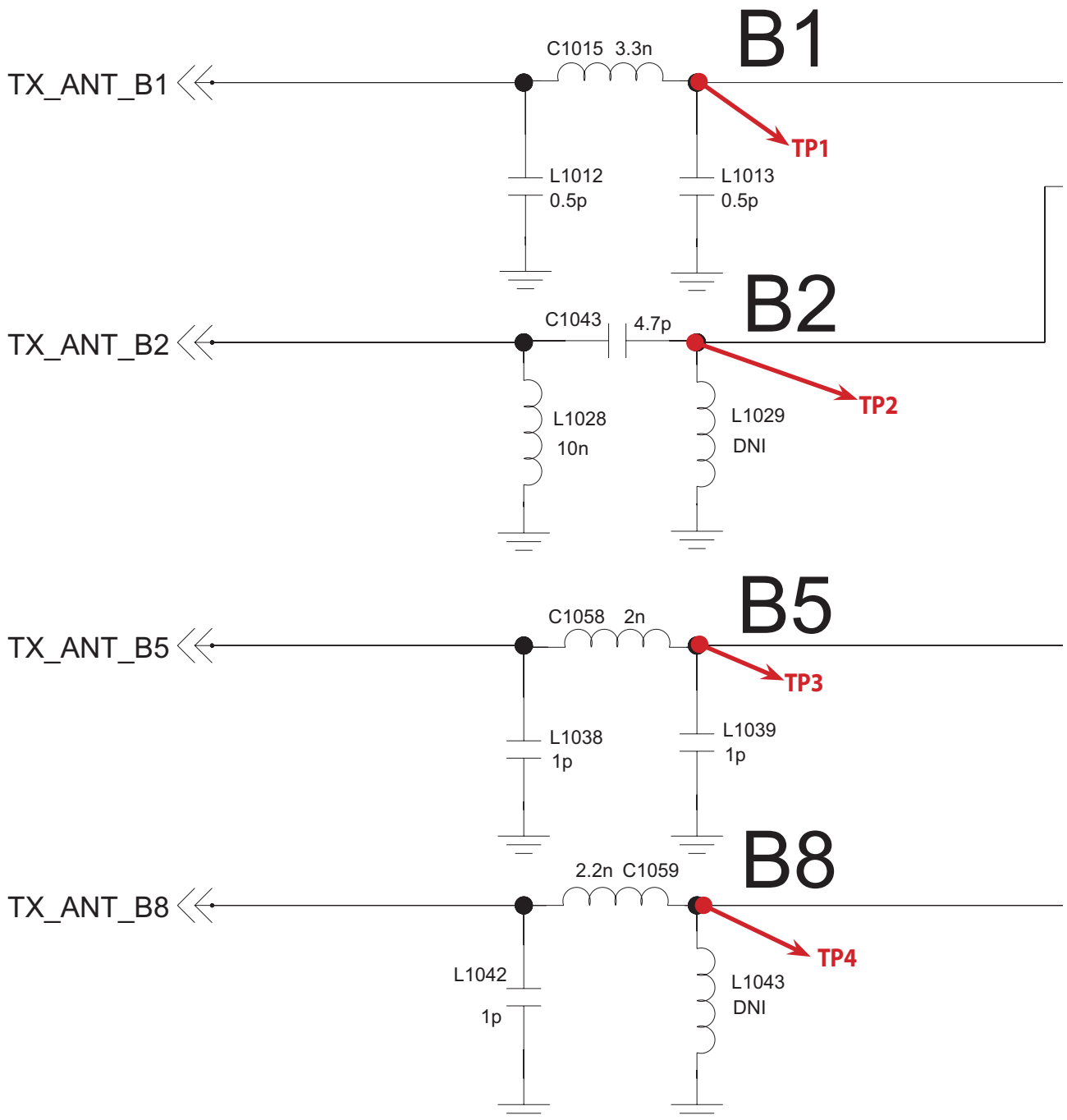
3.6.2.3 Checking RF signal path(B1/B2/B5/B8)



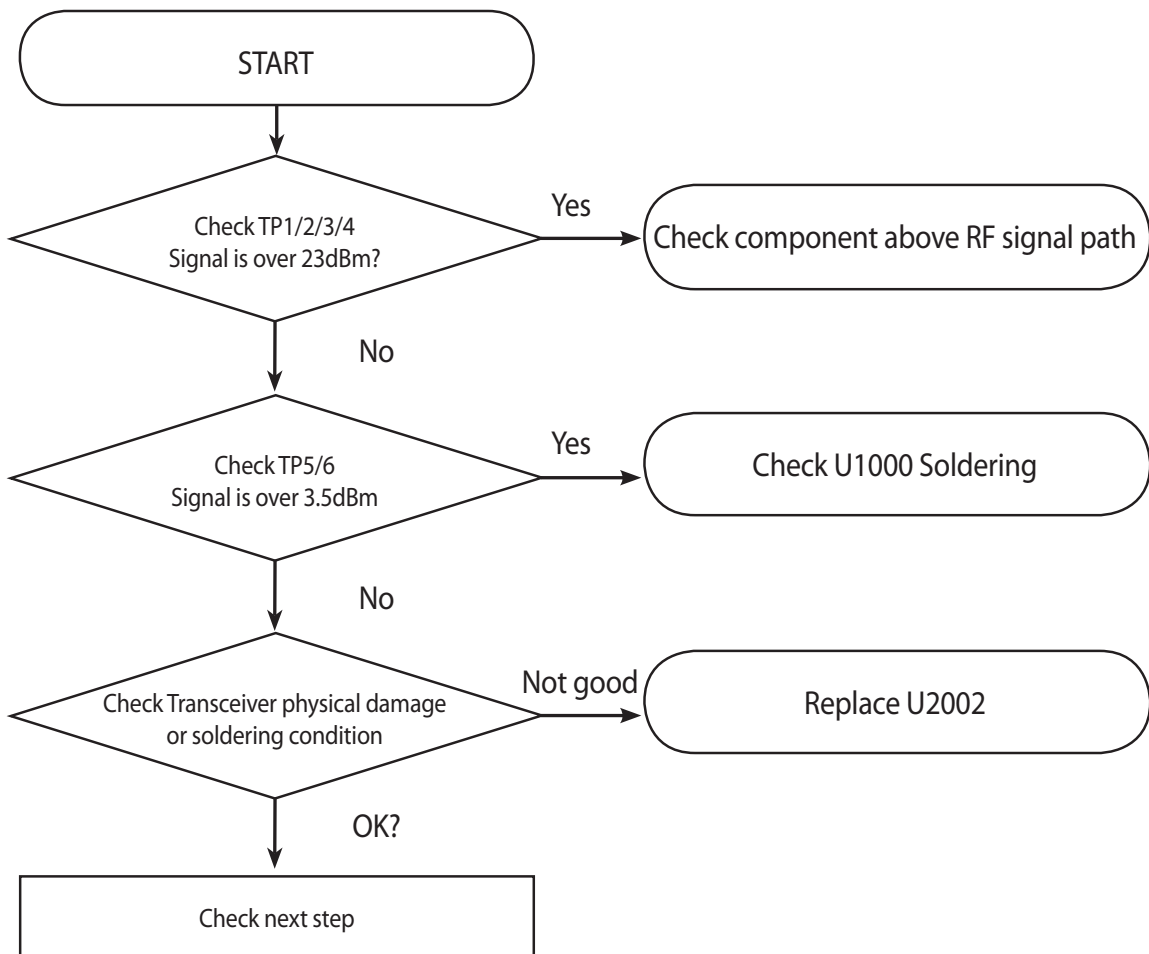
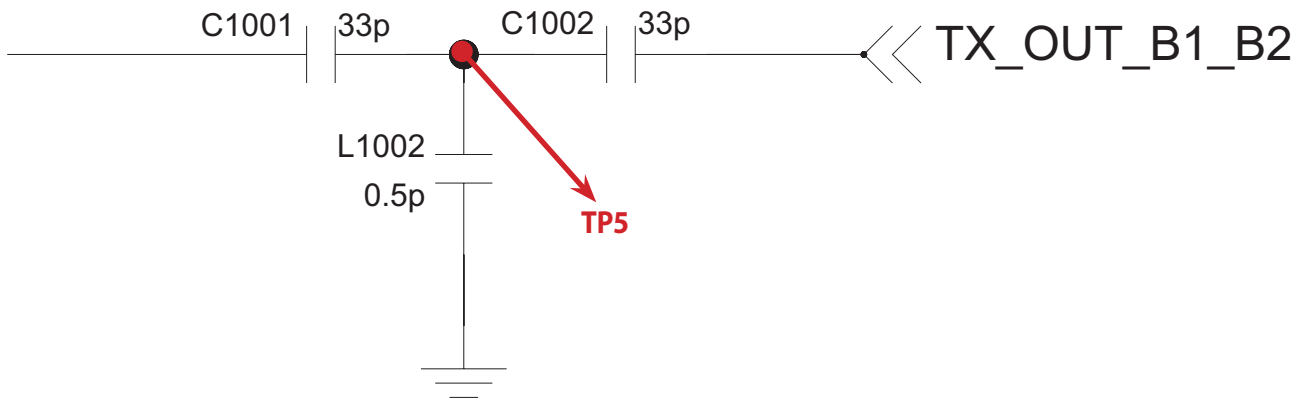
TOP



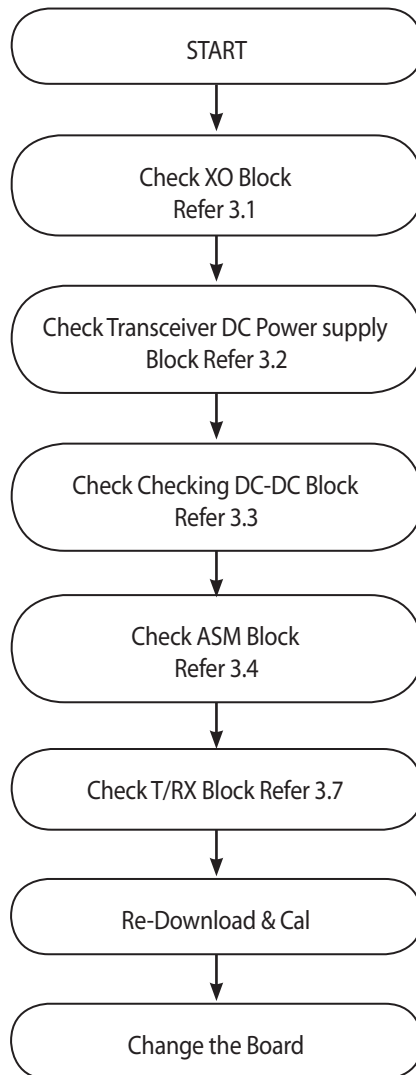
3. TROUBLE SHOOTING



3. TROUBLE SHOOTING

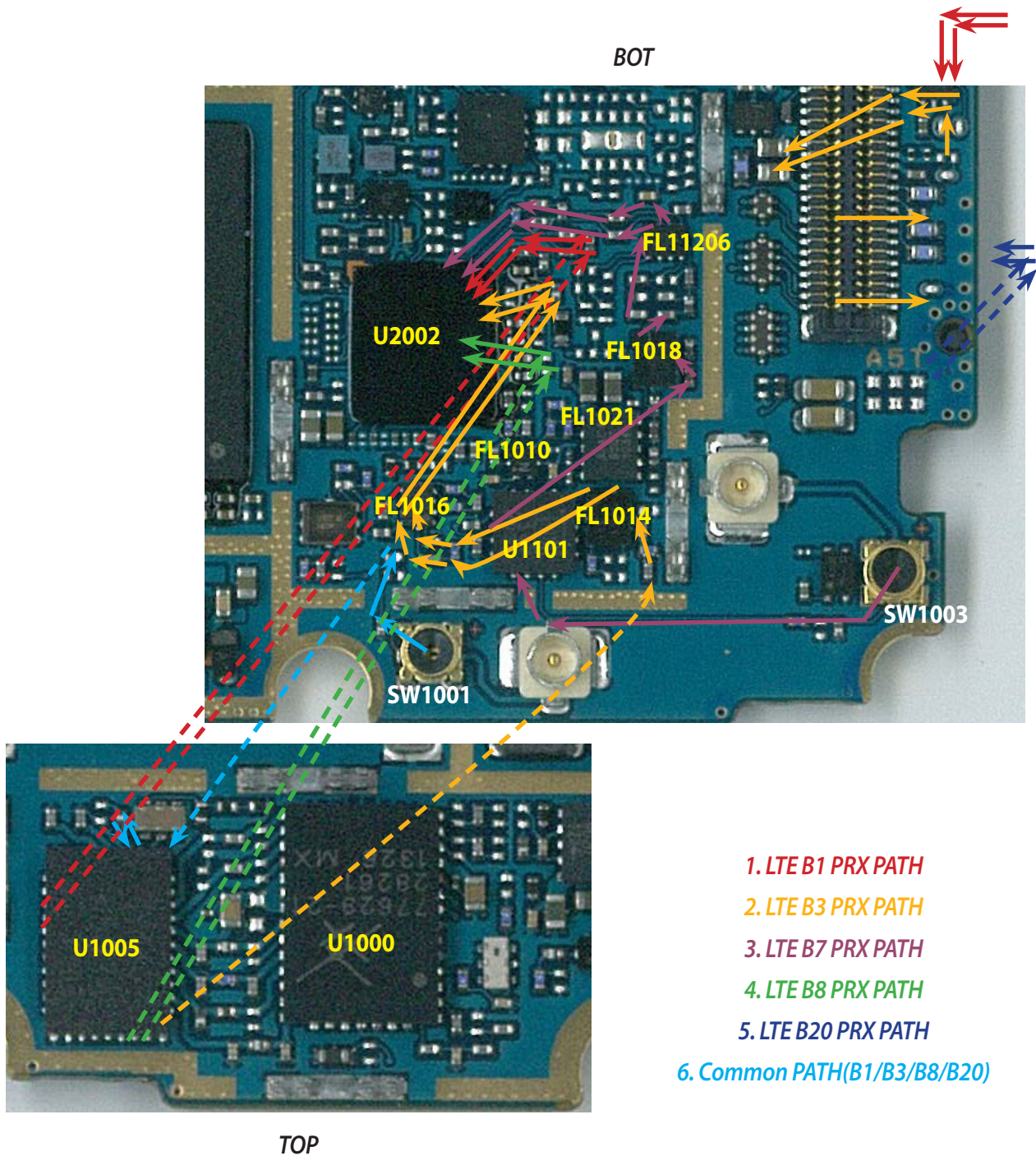


3.7 LTE RF Part



3.7.1 B1/B3/B7/B8/B20 PRX

LTE B1/B3/B7/B8/B20 PRX RF PATH



- 1. LTE B1 PRX PATH
- 2. LTE B3 PRX PATH
- 3. LTE B7 PRX PATH
- 4. LTE B8 PRX PATH
- 5. LTE B20 PRX PATH
- 6. Common PATH(B1/B3/B8/B20)

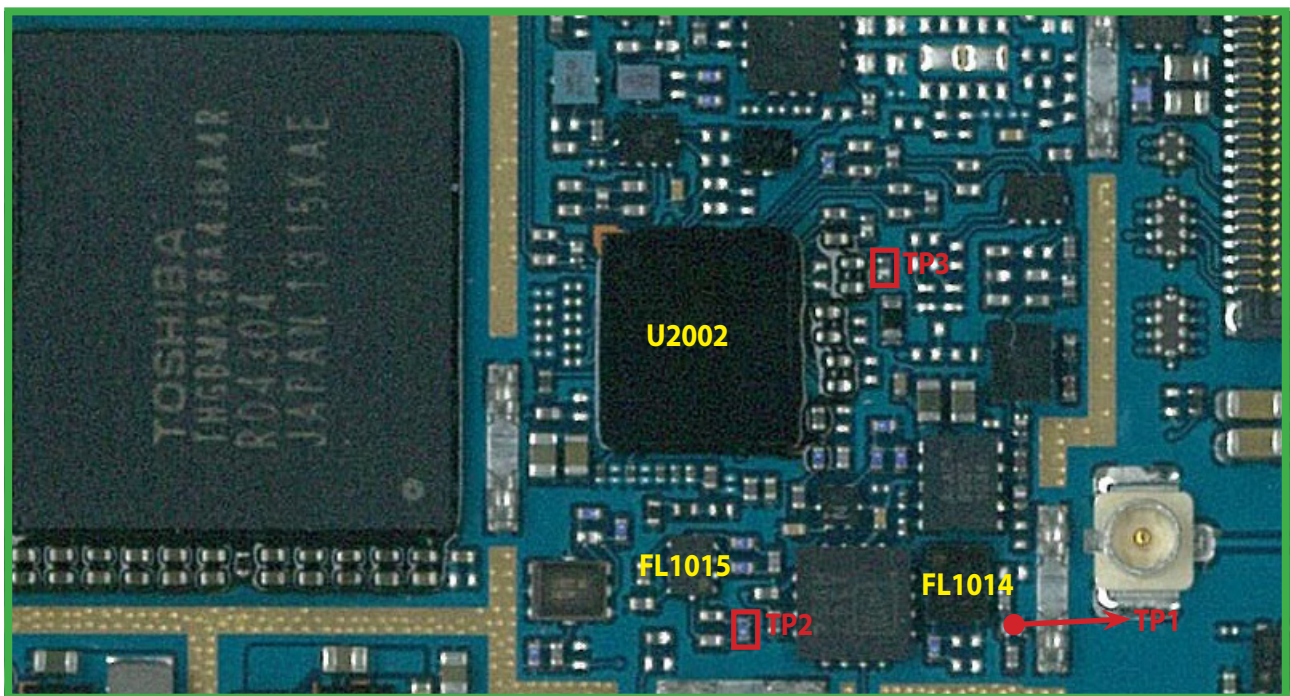
3.7.1.1 Checking LTE Switch (B3)

Refer to 3.6.1.1

3.7.1.2 Checking RF LTE Switch (B3)

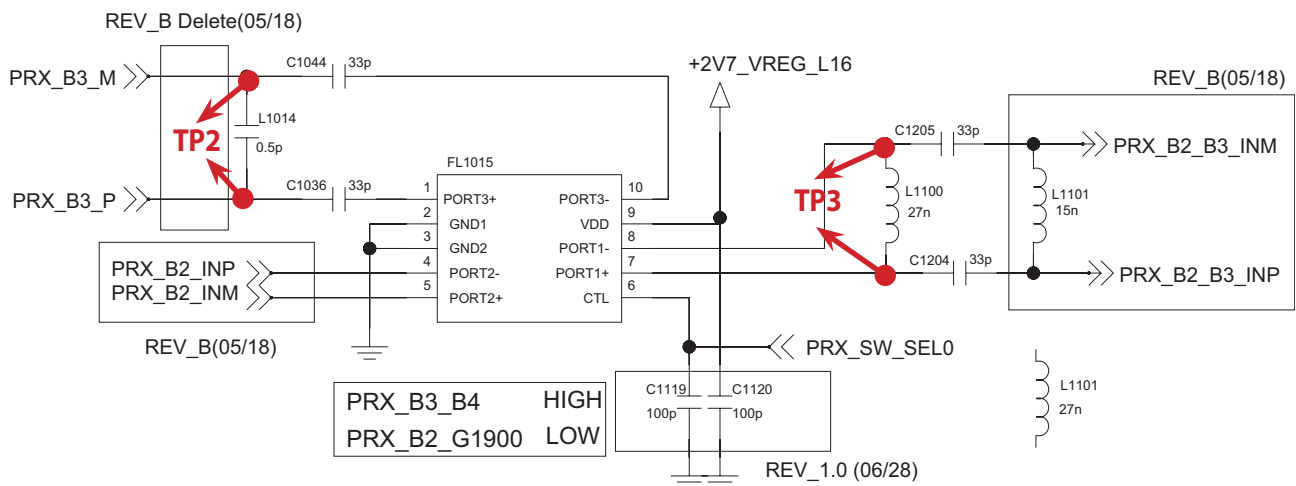
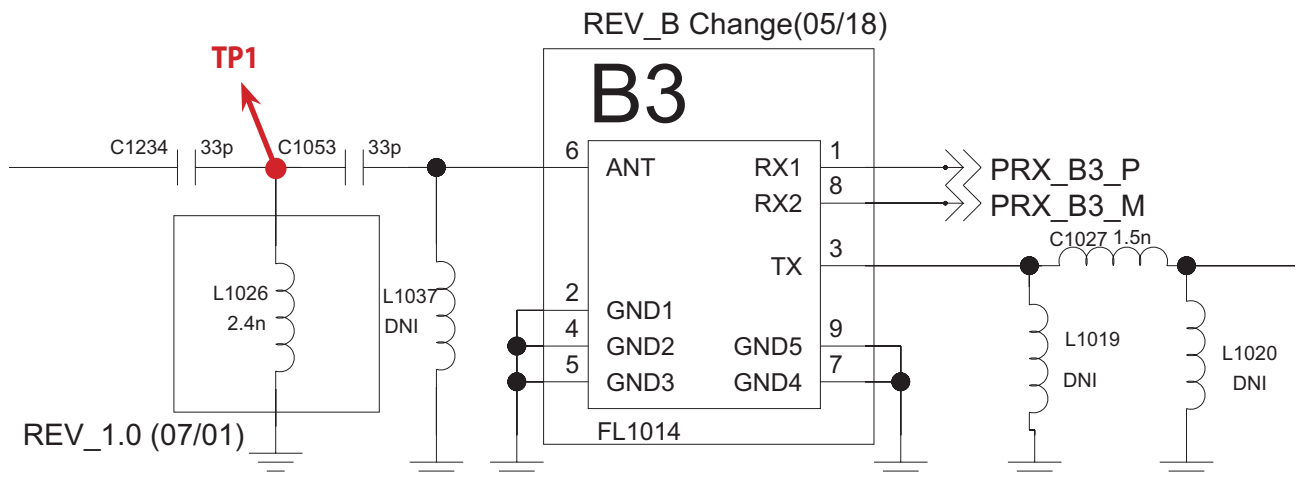
Refer to 3.6.1.1

3.7.1.3 Checking RF signal path (B3)

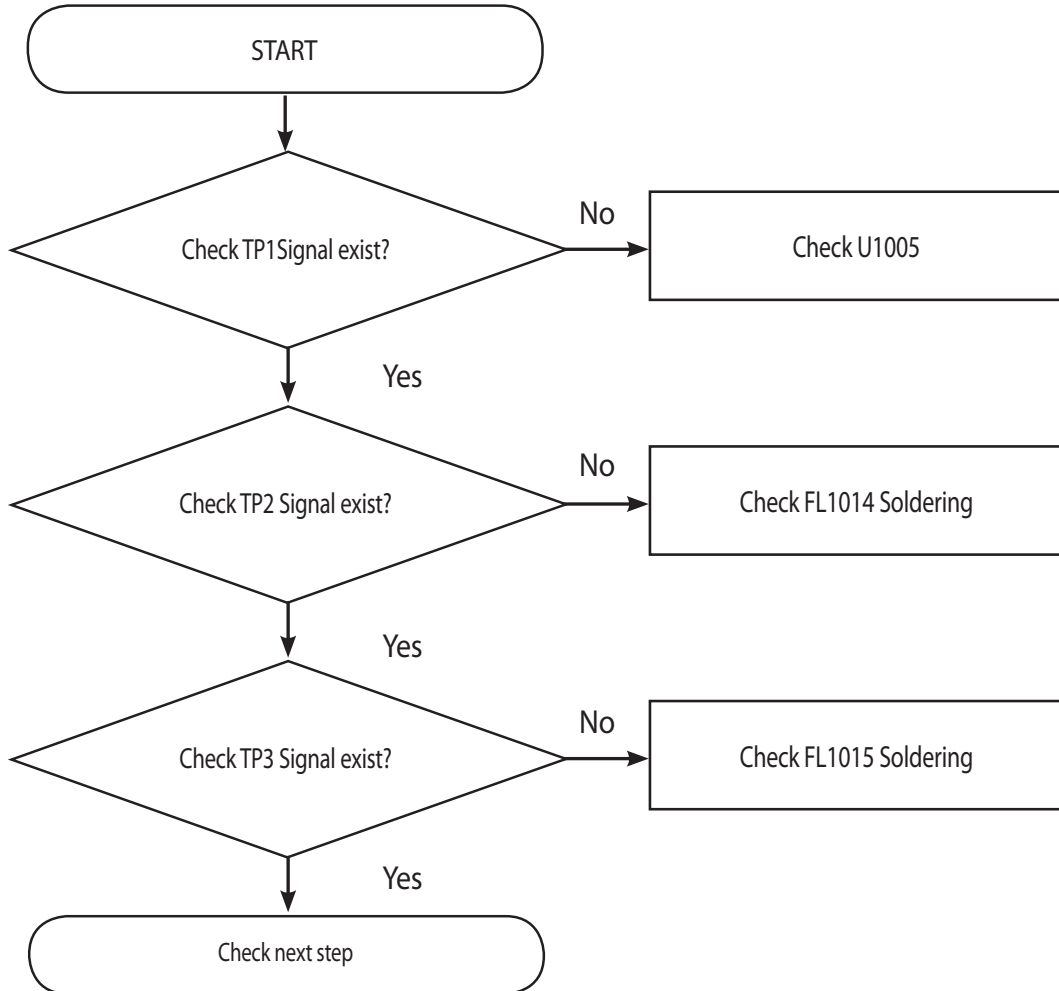


BOT

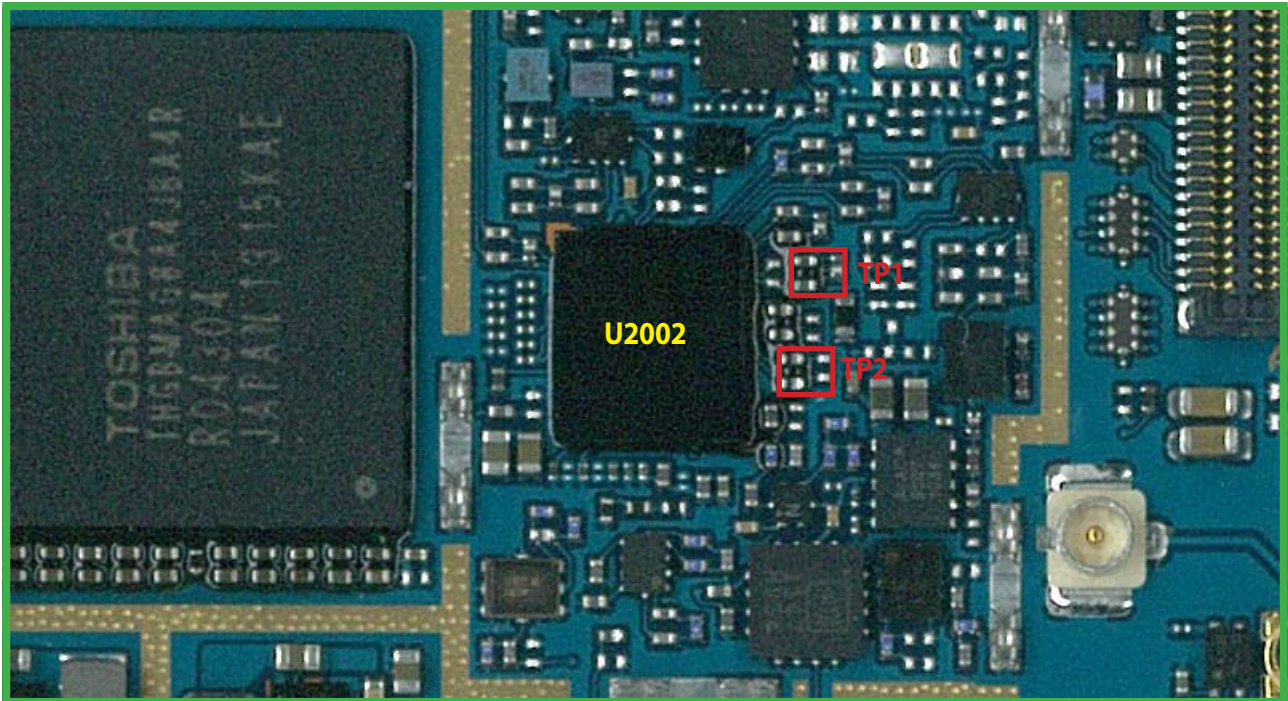
3. TROUBLE SHOOTING



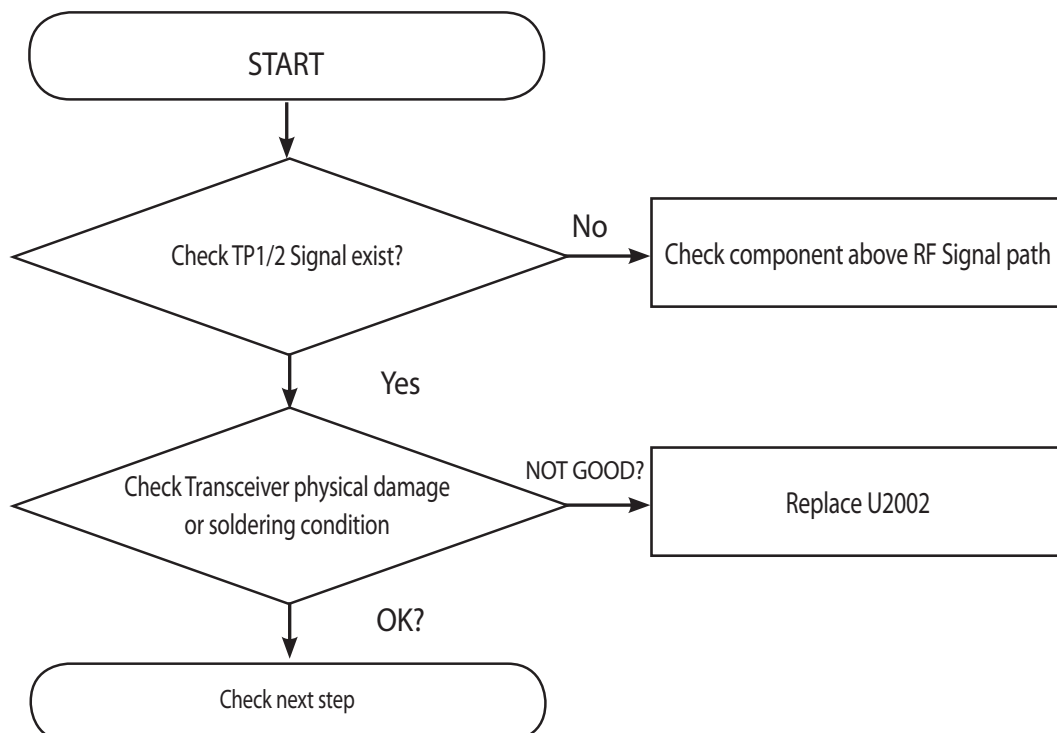
3. TROUBLE SHOOTING



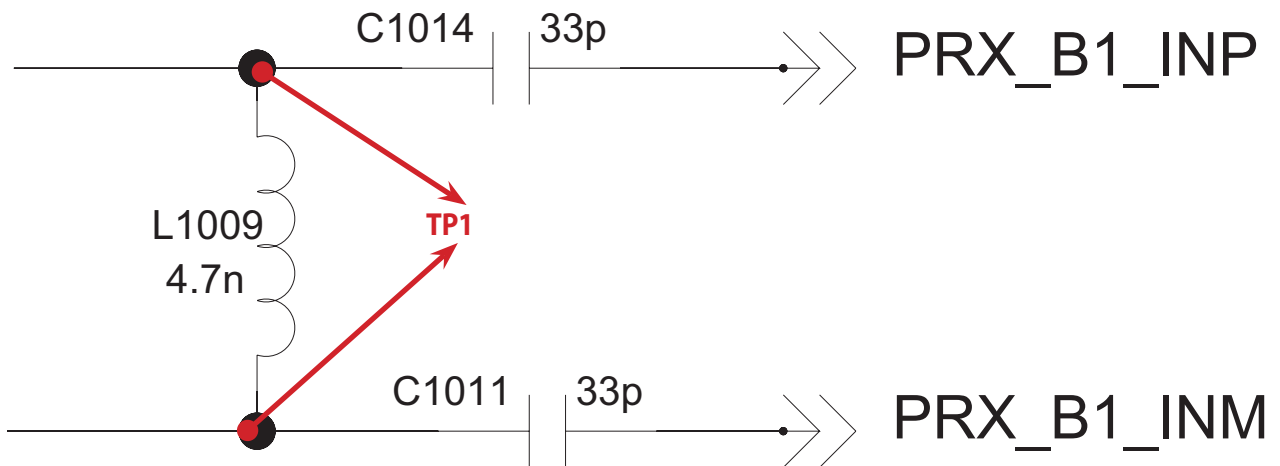
3.7.1.4 Checking RF signal path (B1/B8)



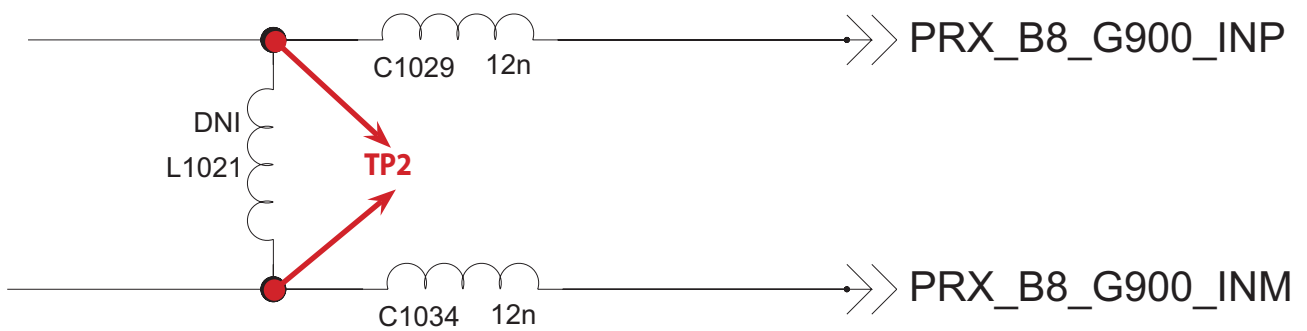
BOT



LTE B1_W B1_PRXCo-Banding



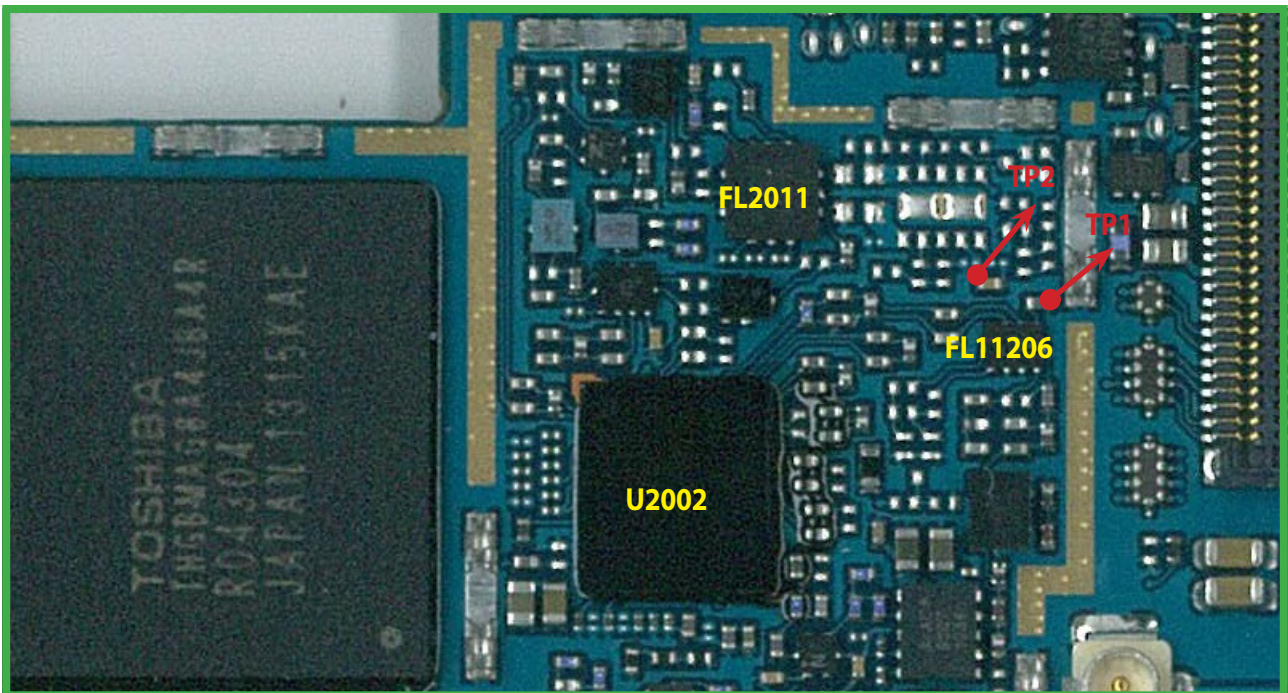
LTE B8_W B8_GSM900_RX CO-Banding



3.7.1.5 Checking LTE Switch (B3)

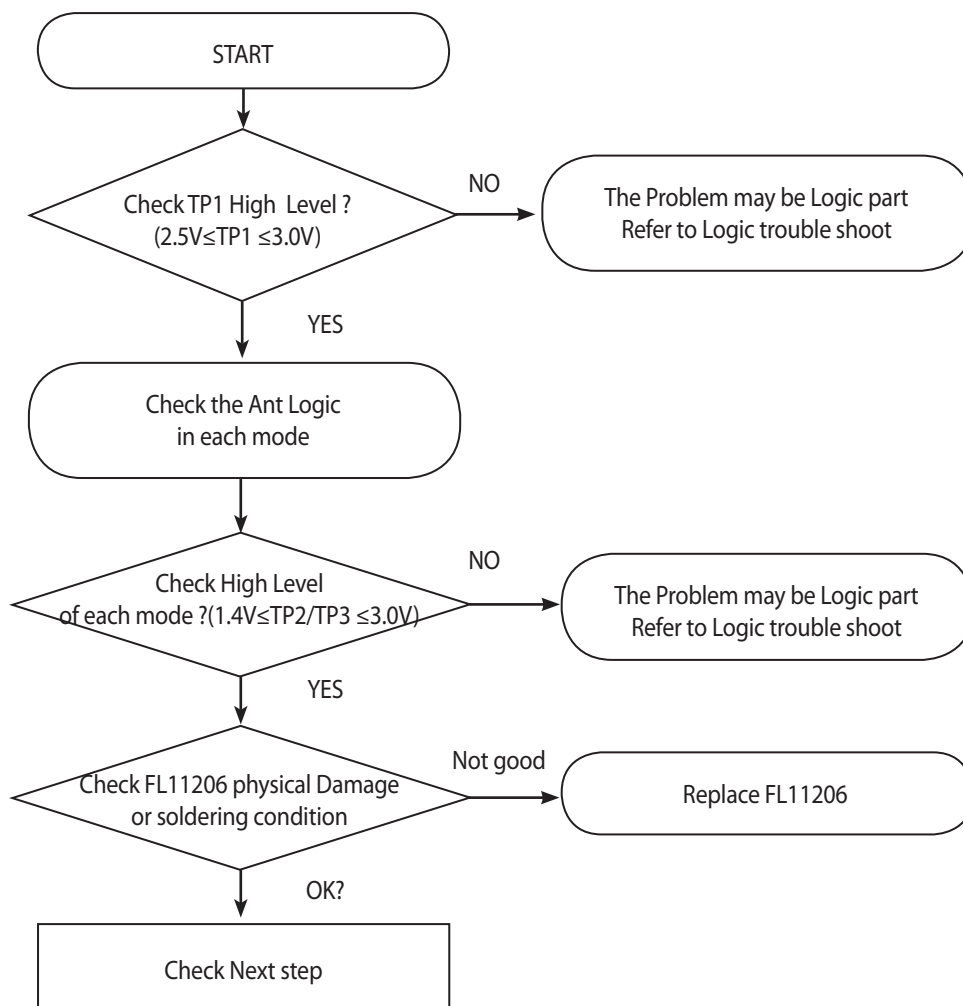
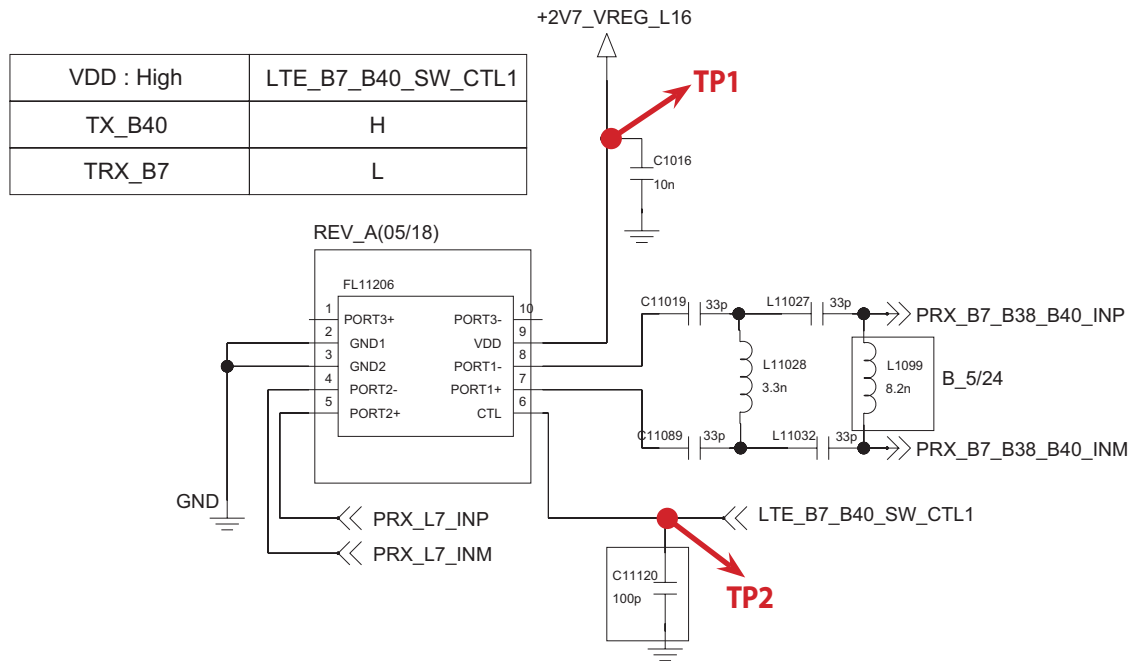
Refer to 3.4.2

3.7.1.6 Checking RF LTE switch (B7)

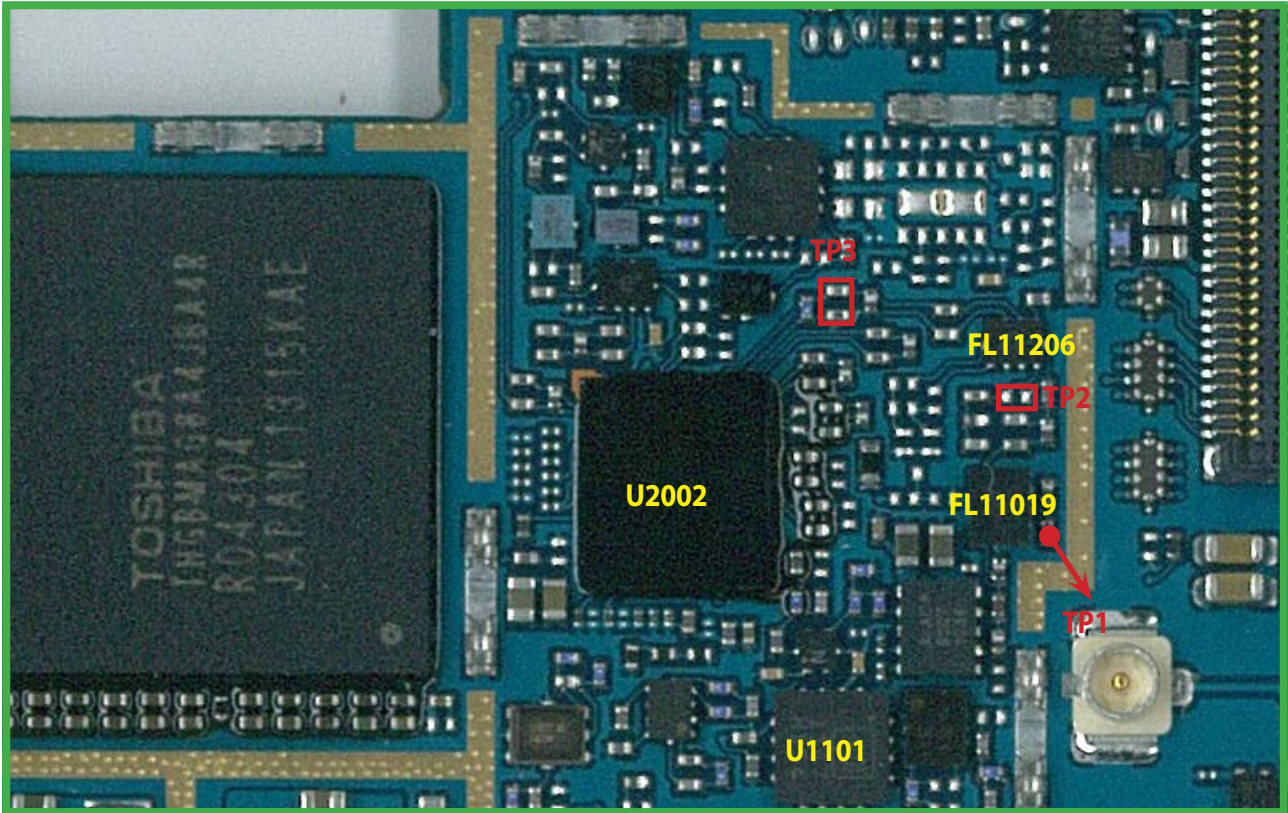


BOT

3. TROUBLE SHOOTING

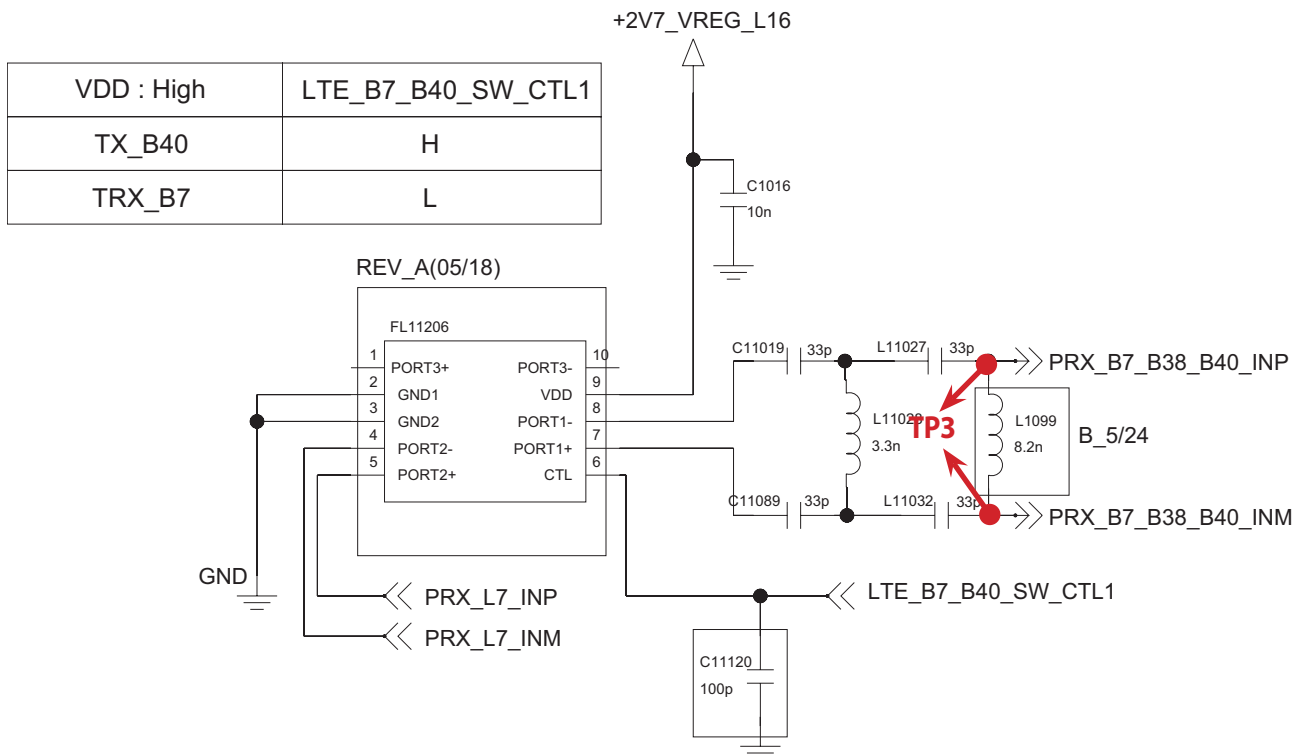
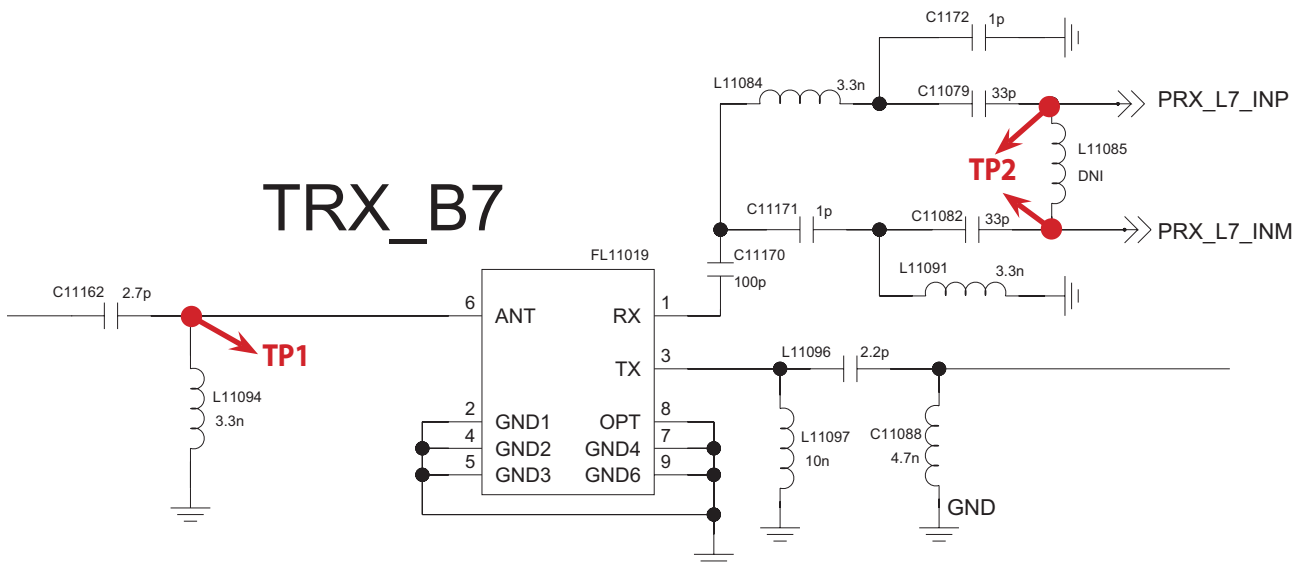


3.7.1.7 Checking RF signal path (B7)

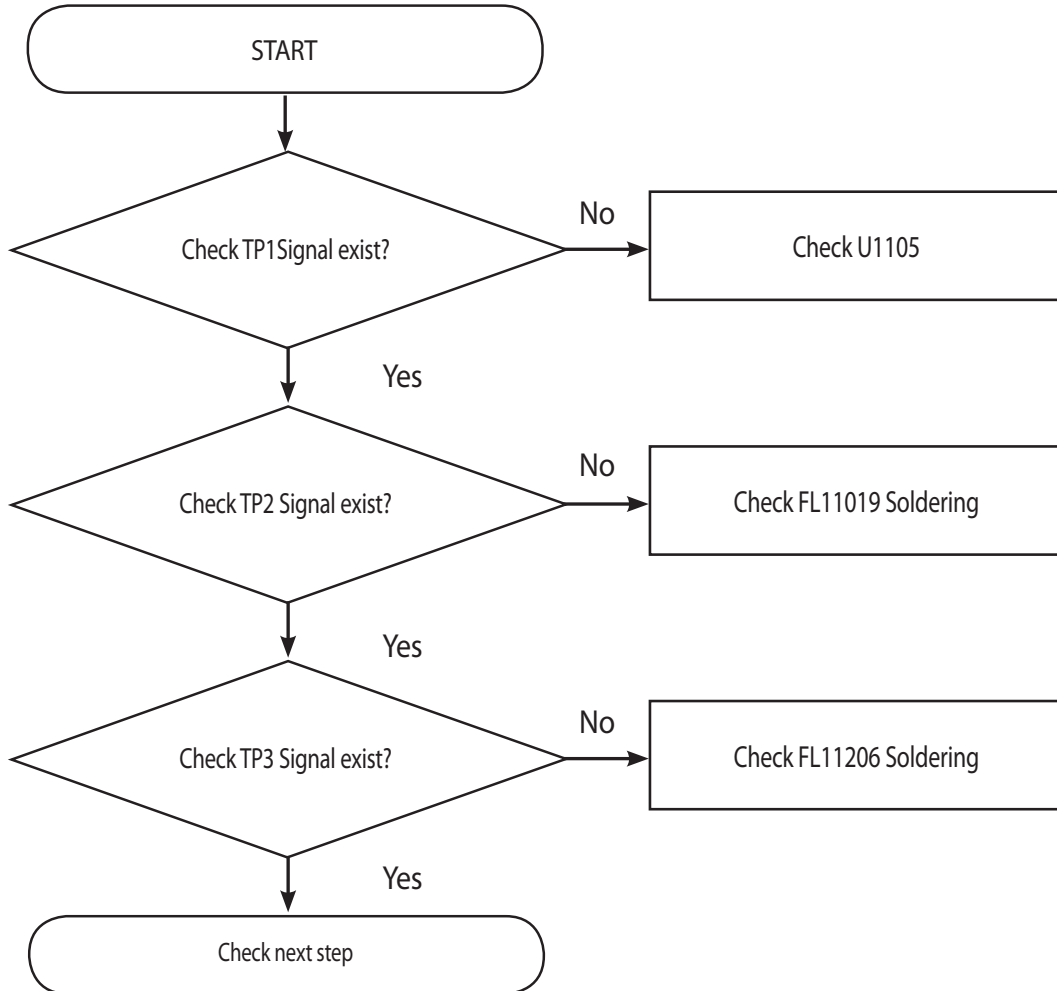


BOT

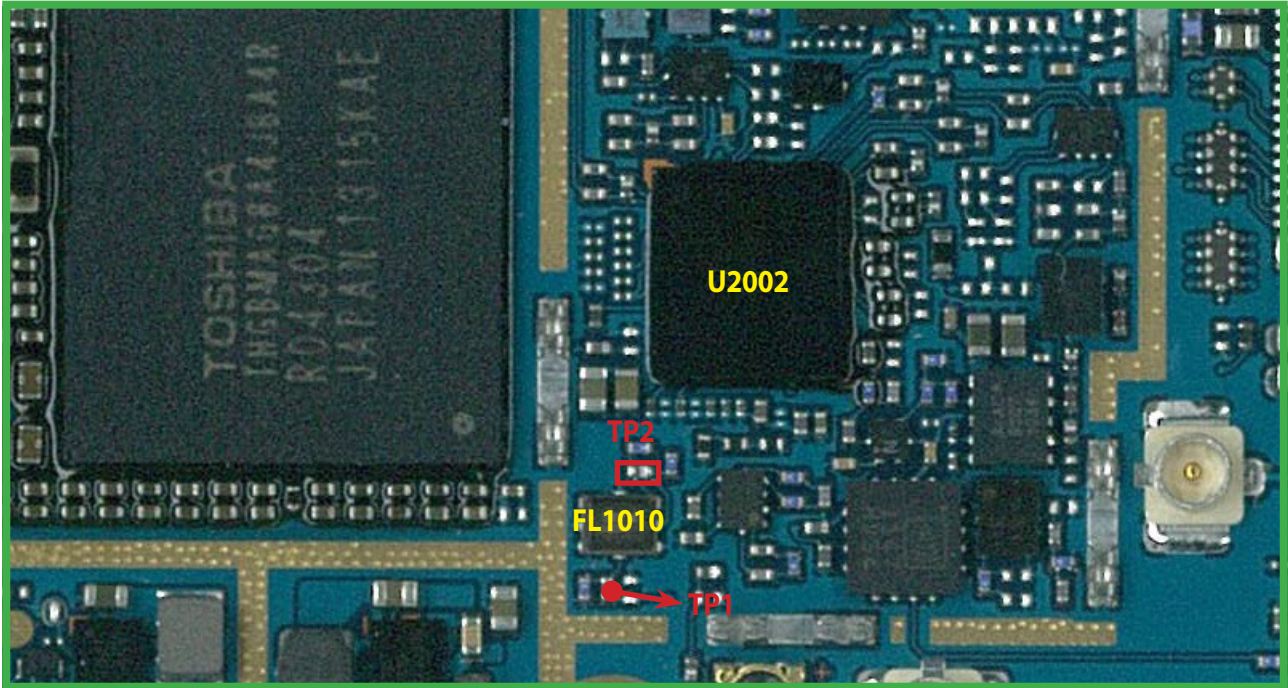
3. TROUBLE SHOOTING



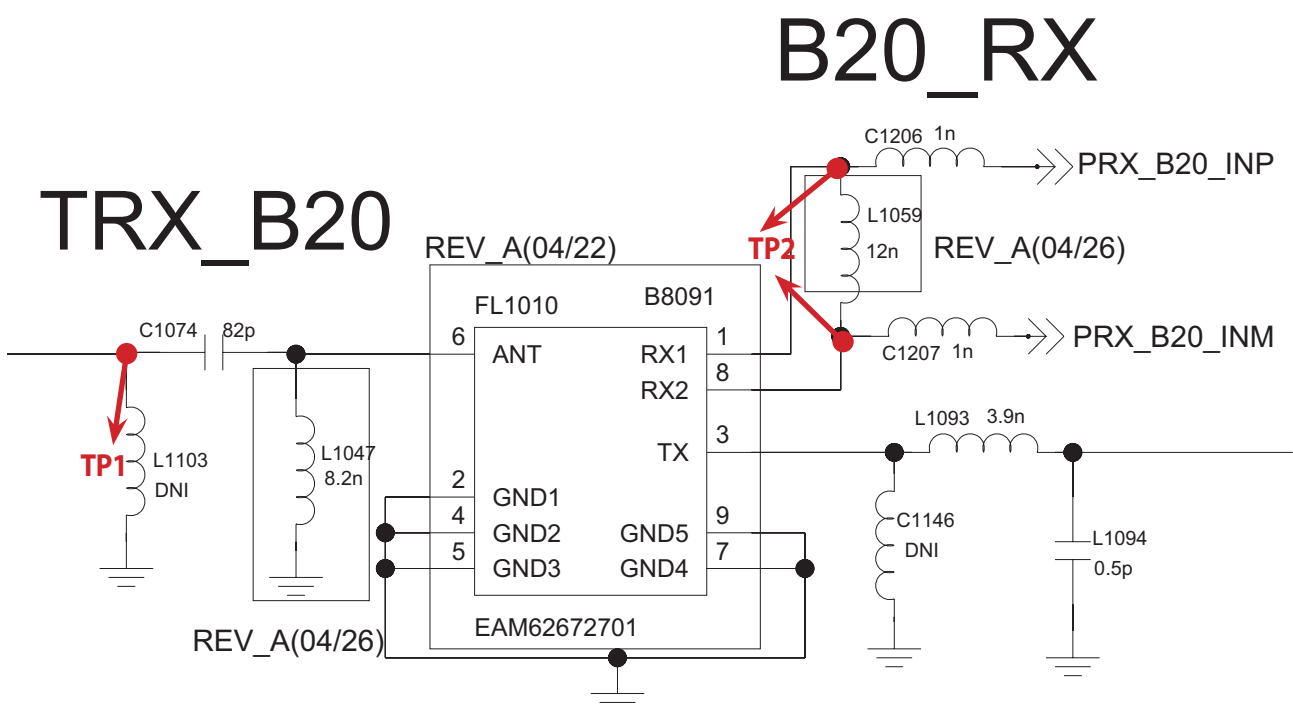
3. TROUBLE SHOOTING



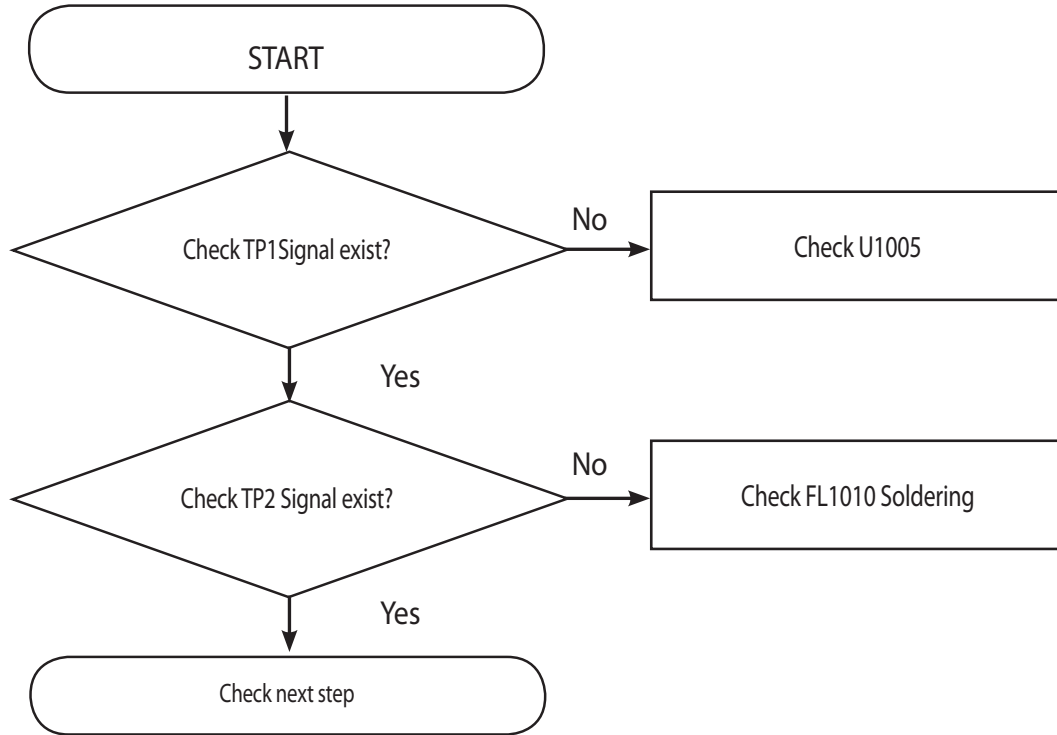
3.7.1.8 Checking RF signal path (B20)



BOT

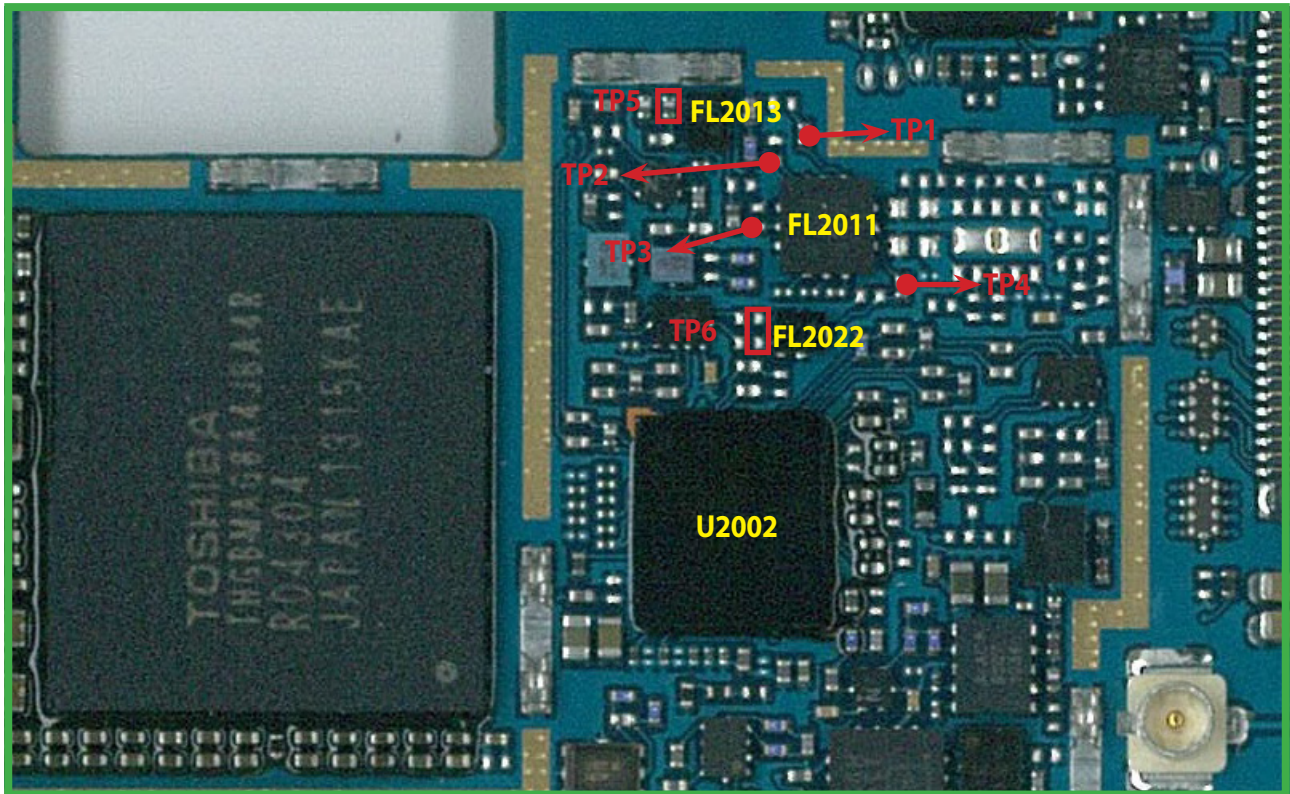


3. TROUBLE SHOOTING



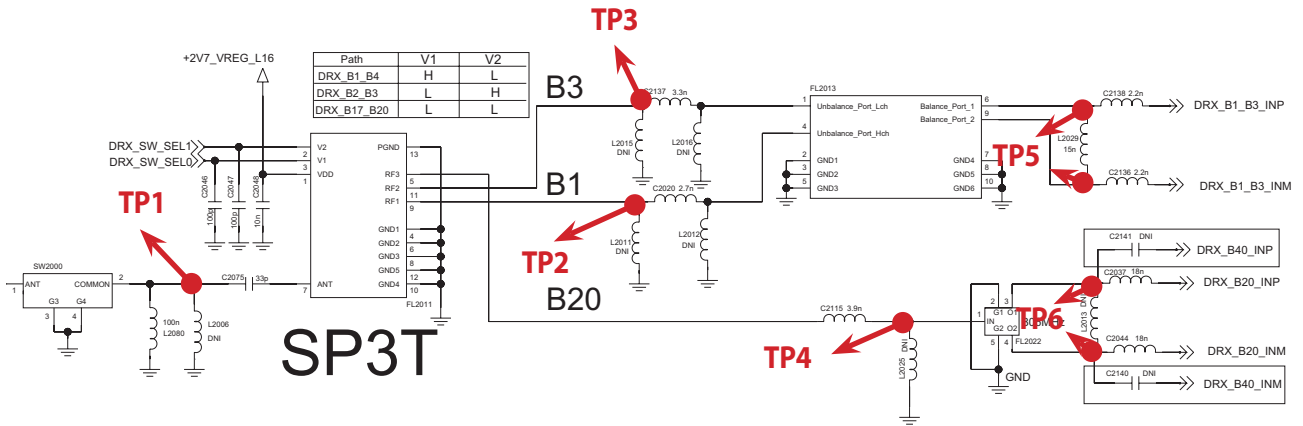
3.7.2 LTE B1/B3/B7/B8/B20 DRX

3.7.2.1 Checking DRX Antenna Switching Module(B1/3/20)



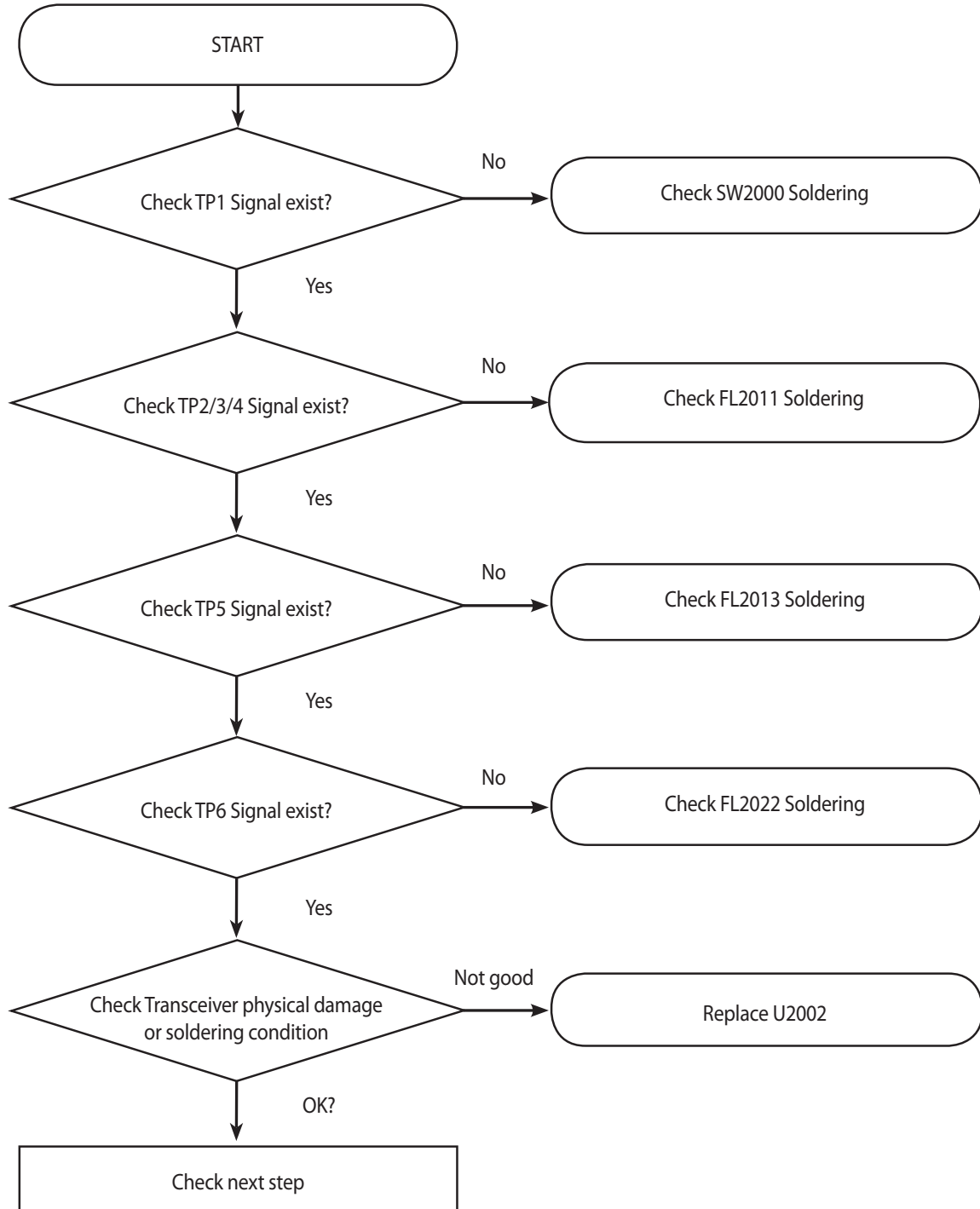
BOT

3. TROUBLE SHOOTING

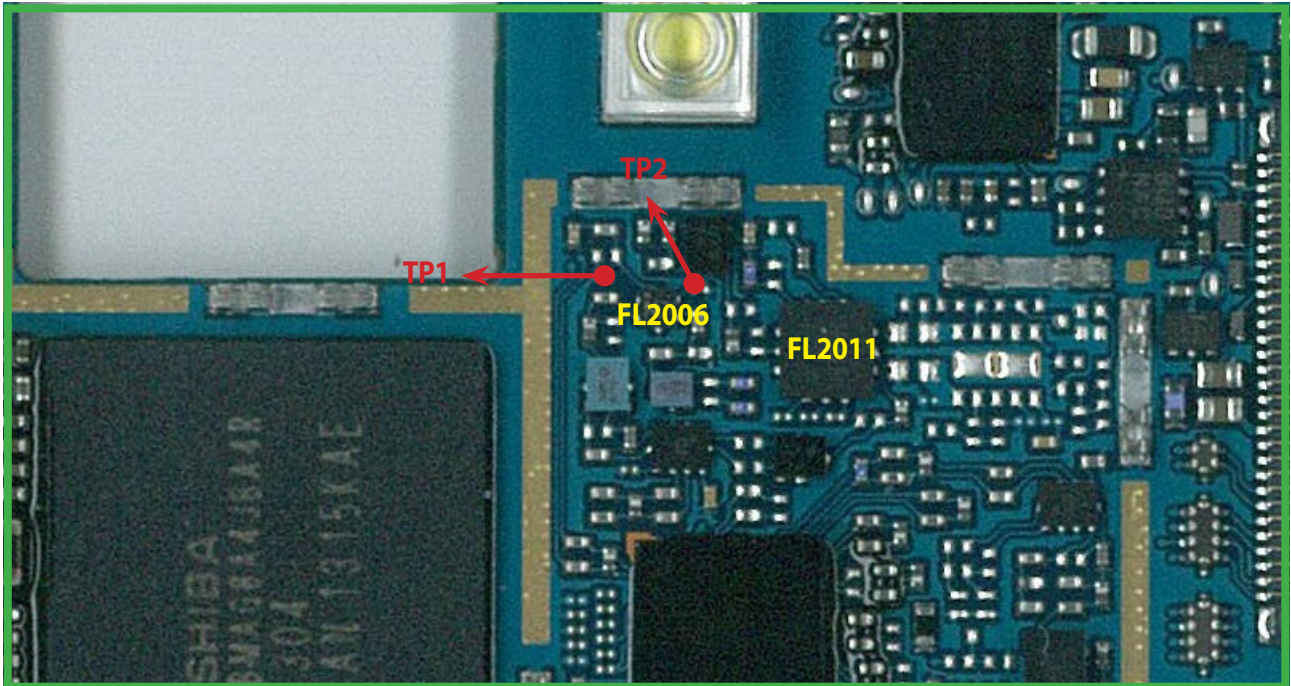


Path	V1	V2
DRX B4	H	L
DRX B2	L	H
DRX B17	L	L

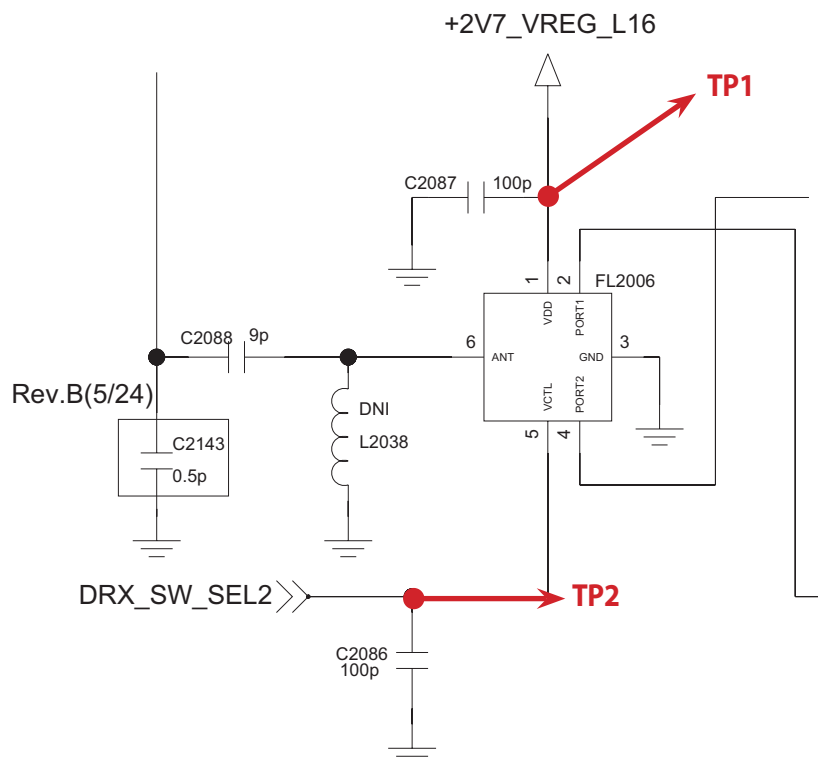
3. TROUBLE SHOOTING



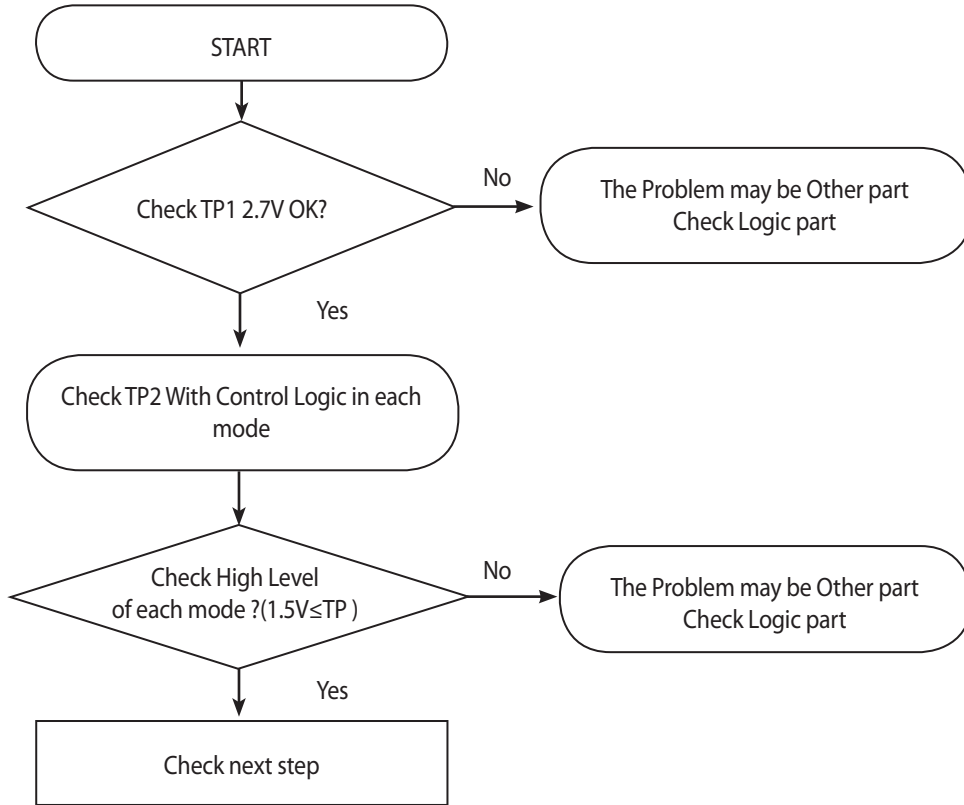
3.7.2.2 Checking DRX Antenna Switching Module(B7/8)



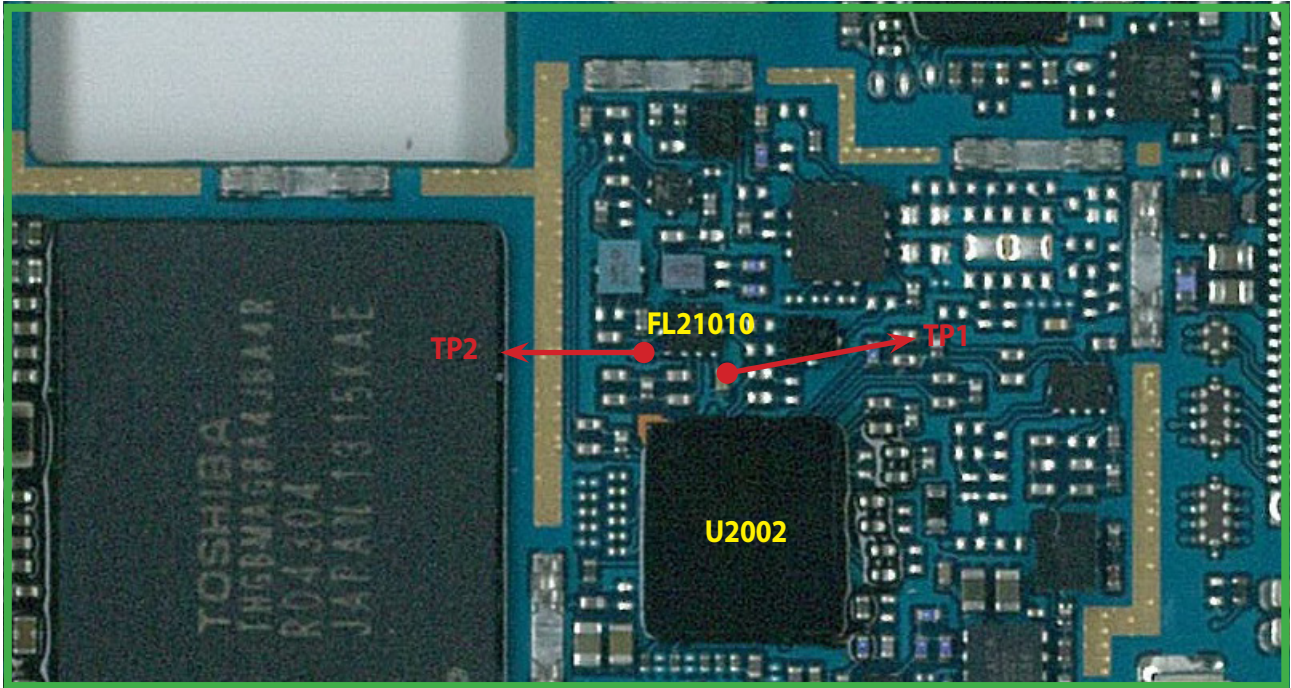
BOT



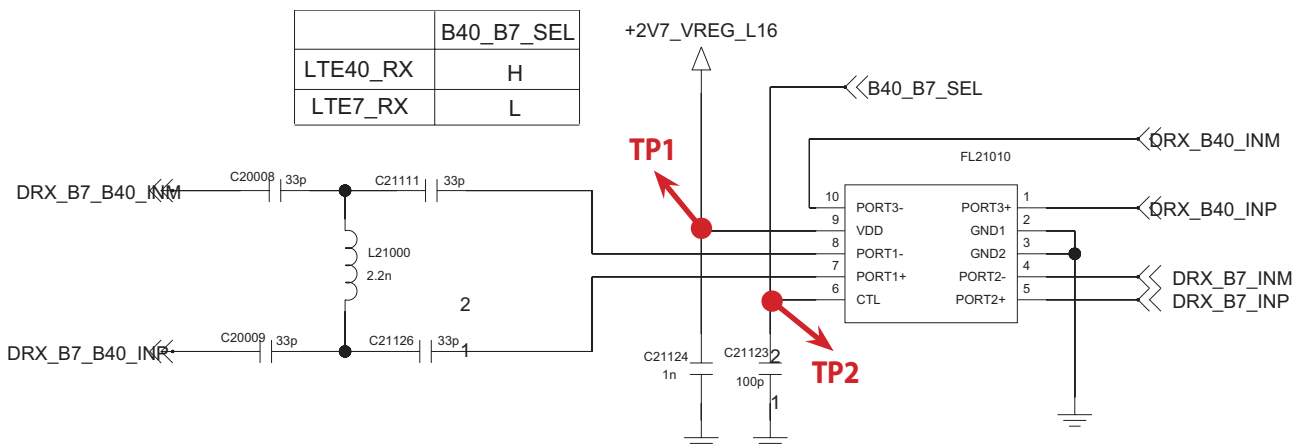
3. TROUBLE SHOOTING



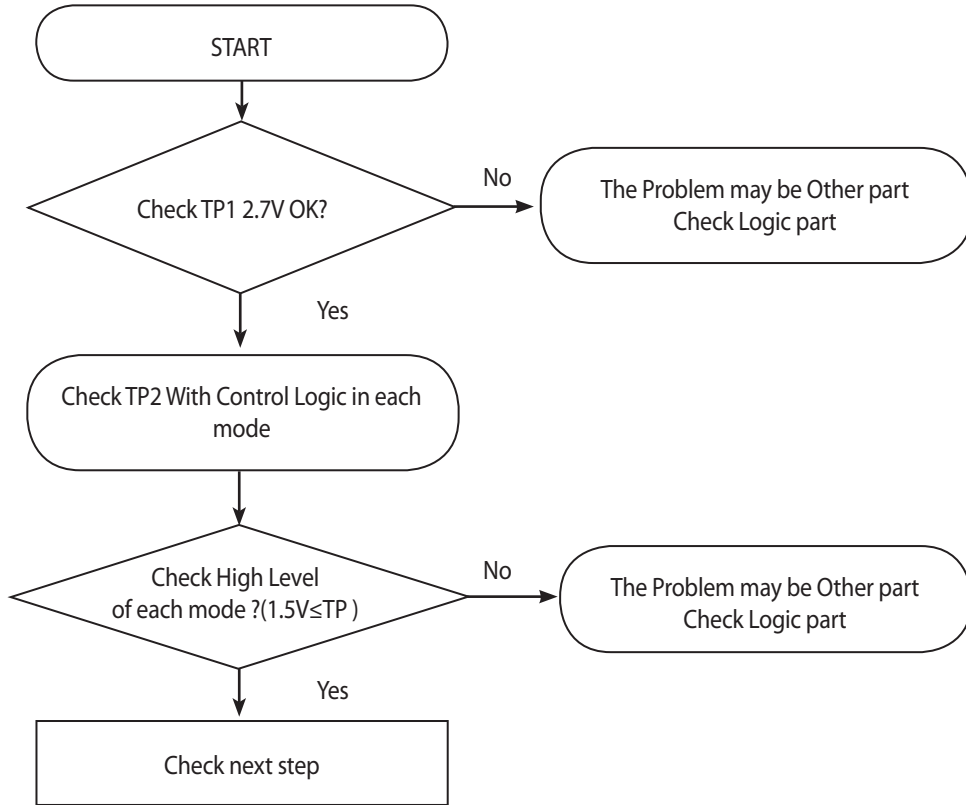
3.7.2.3 Checking Switching Module(B7)



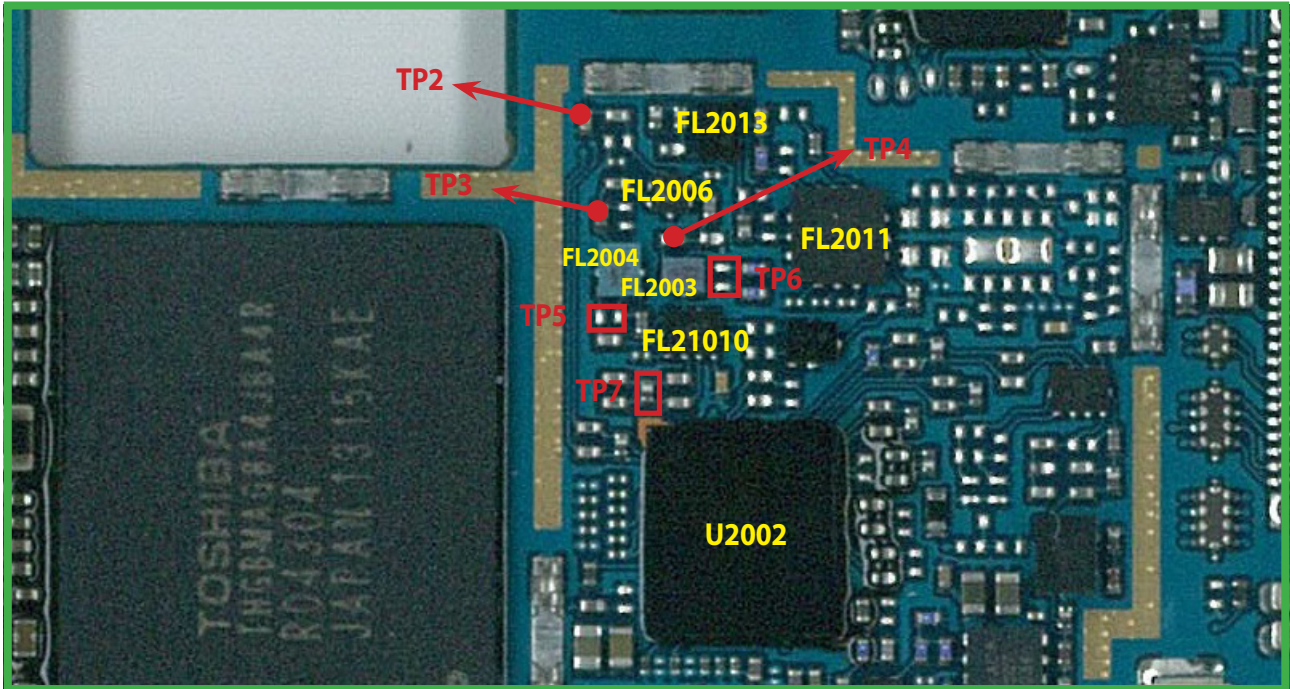
BOT



3. TROUBLE SHOOTING

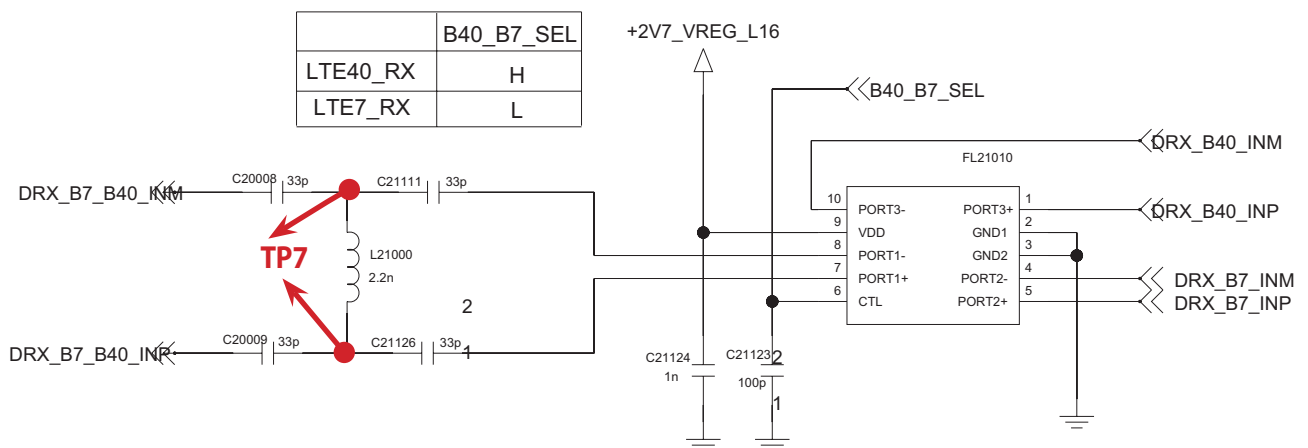
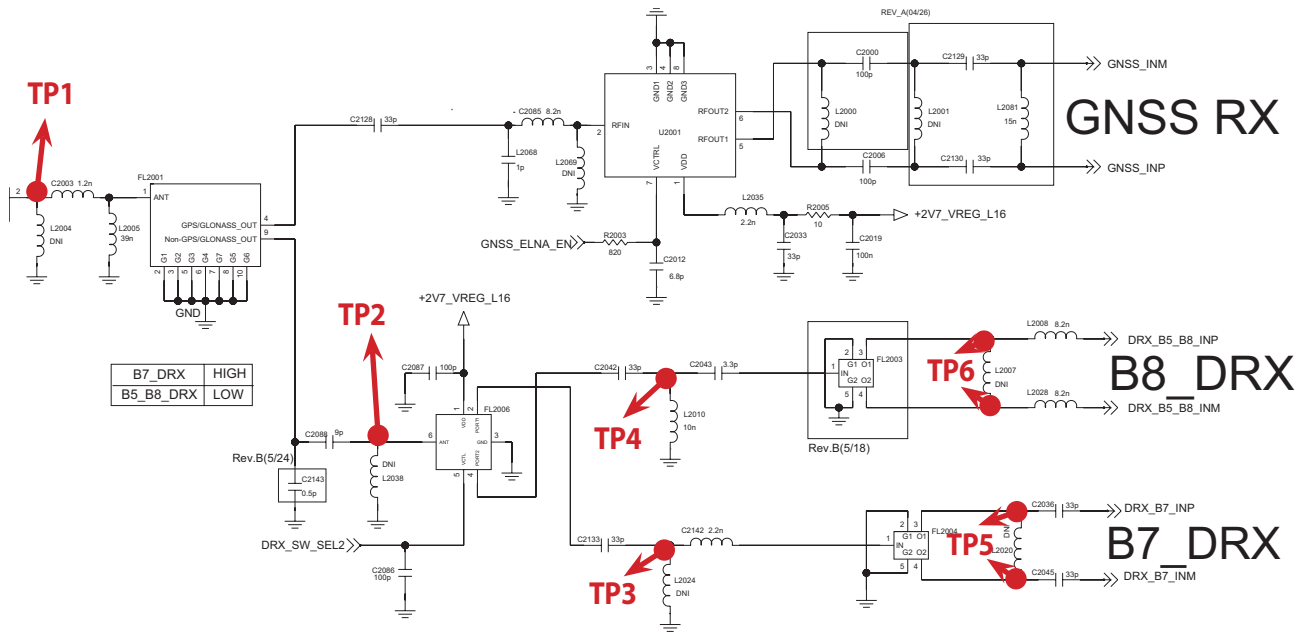


3.7.2.4 Checking DRX RF signal path (B7/8)

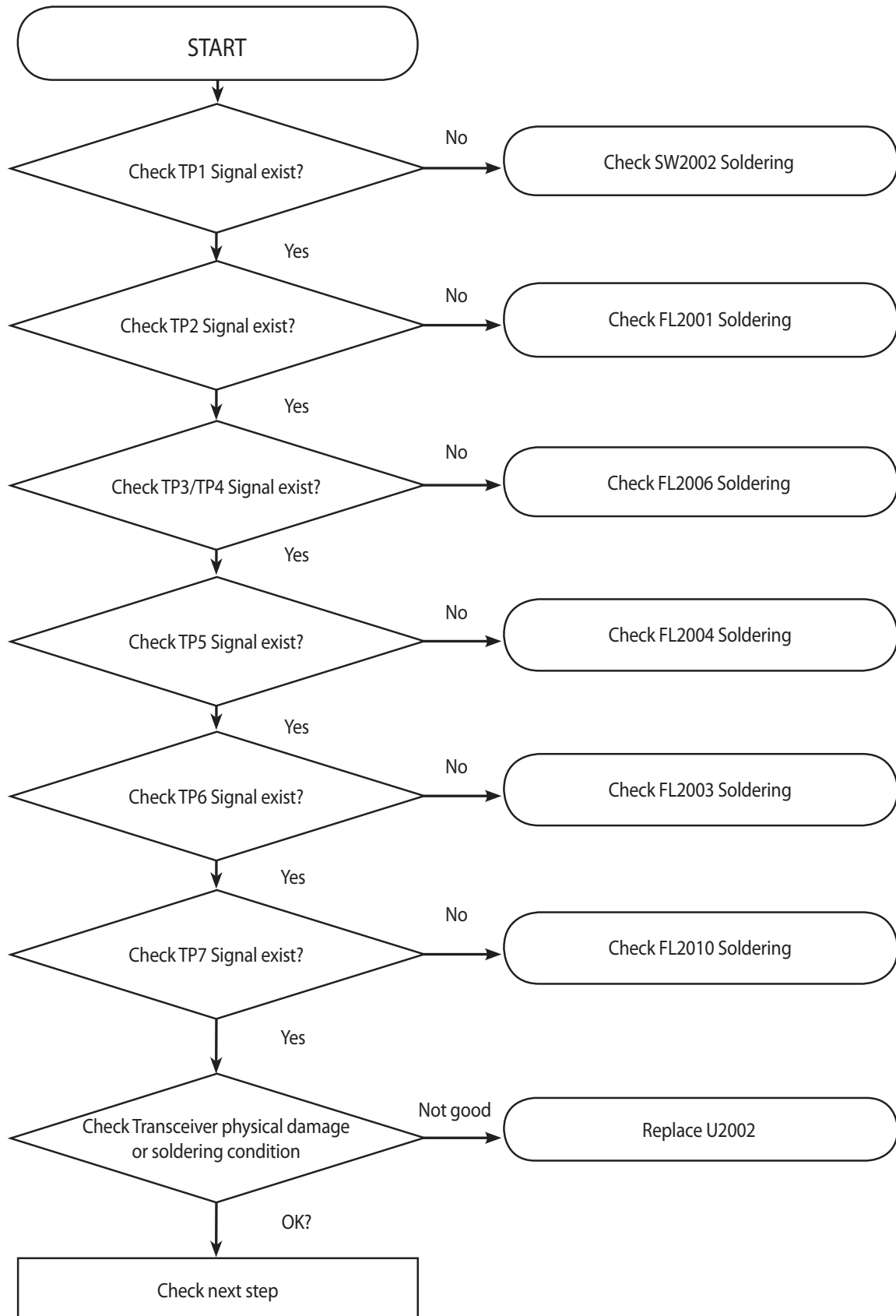


BOT

3. TROUBLE SHOOTING



3. TROUBLE SHOOTING

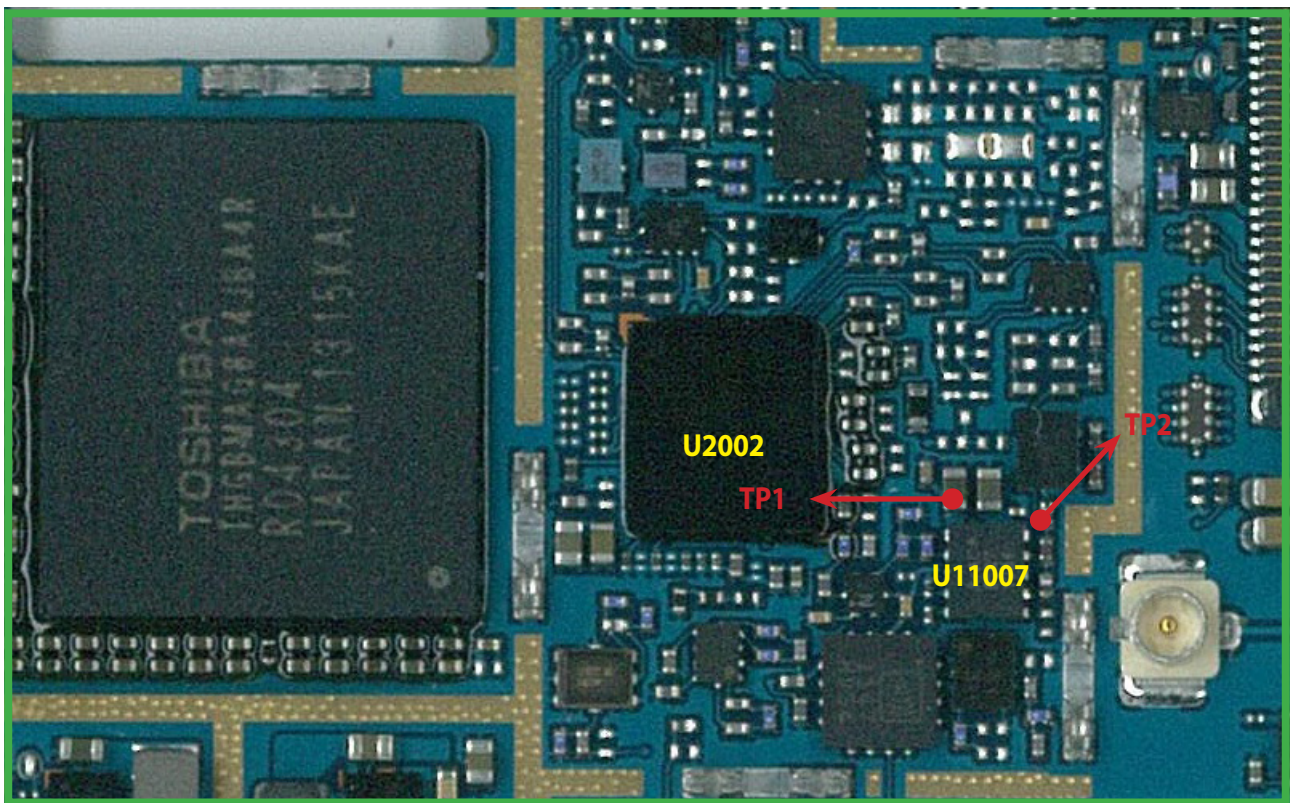


3.7.3 LTE B1/B3/B7/B8/B20 TX

3.7.3.1 . Checking LTE PAM DC Power Circuit (B1/B3/B8)

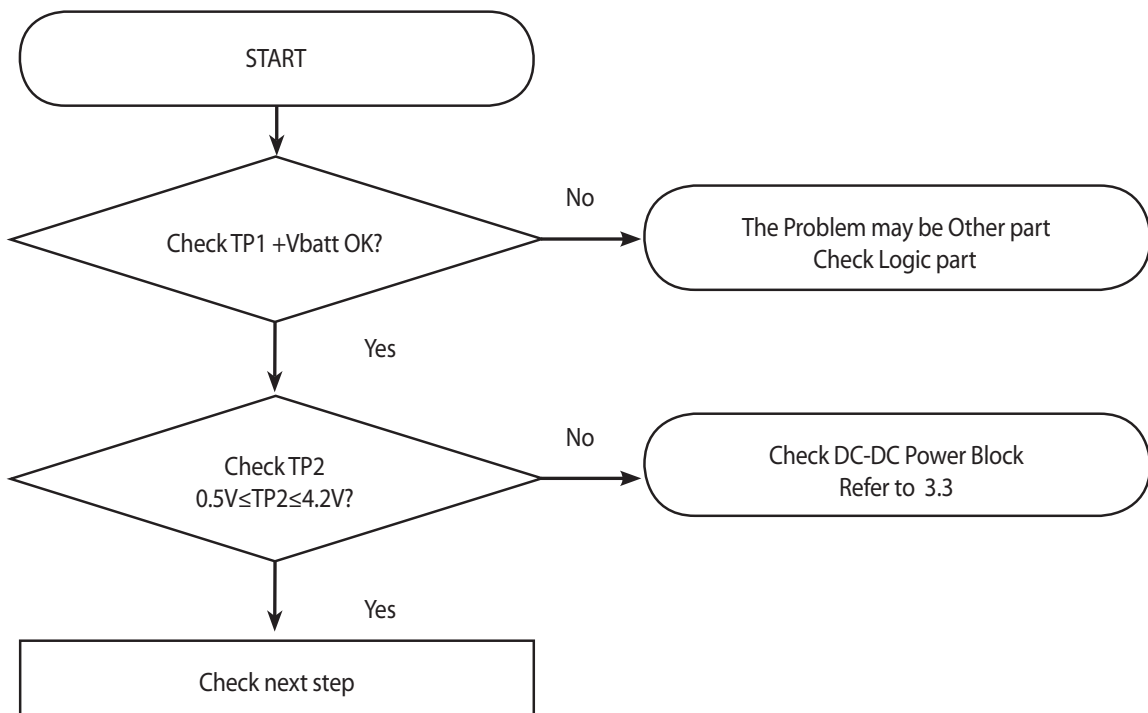
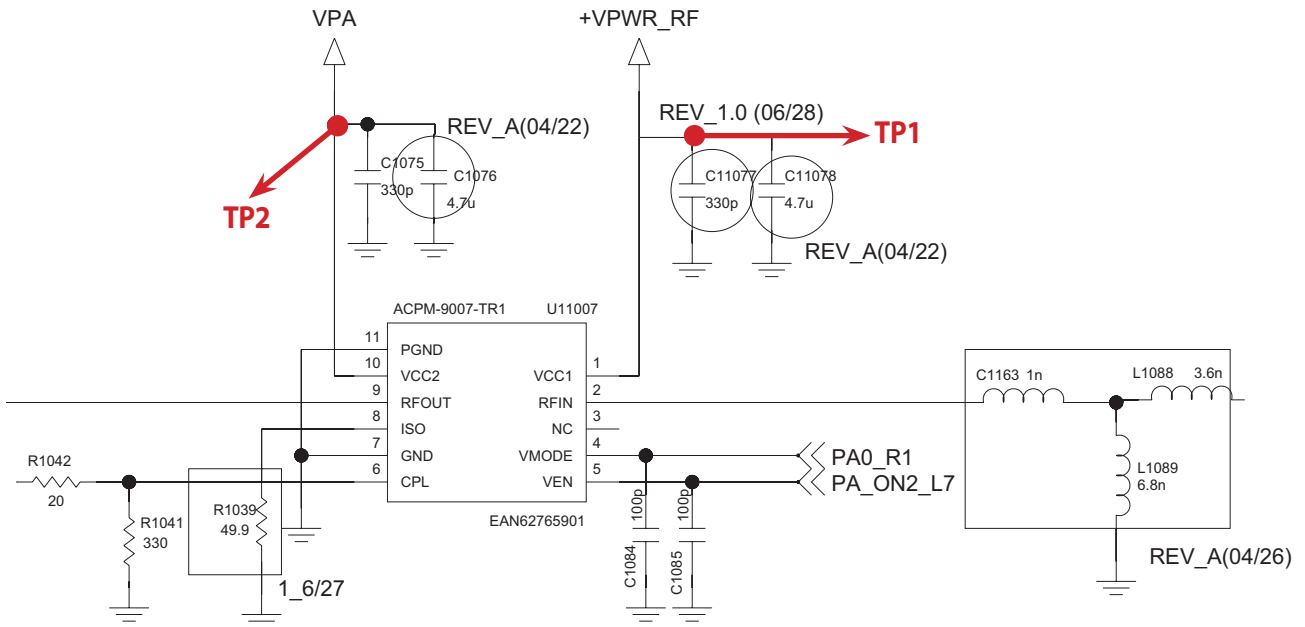
Refer to 3.6.2.1

3.7.3.2 Checking LTE PAM DC Power Circuit (B7)

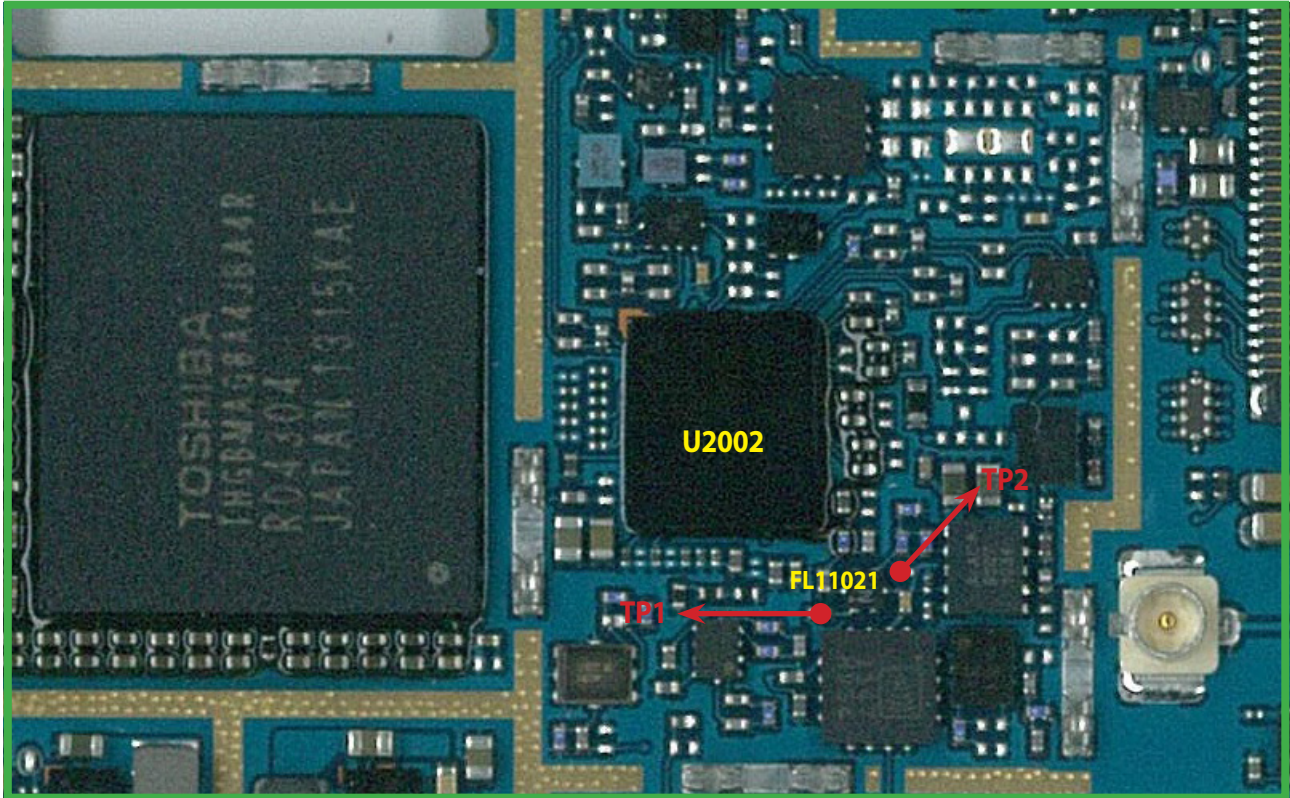


BOT

3. TROUBLE SHOOTING

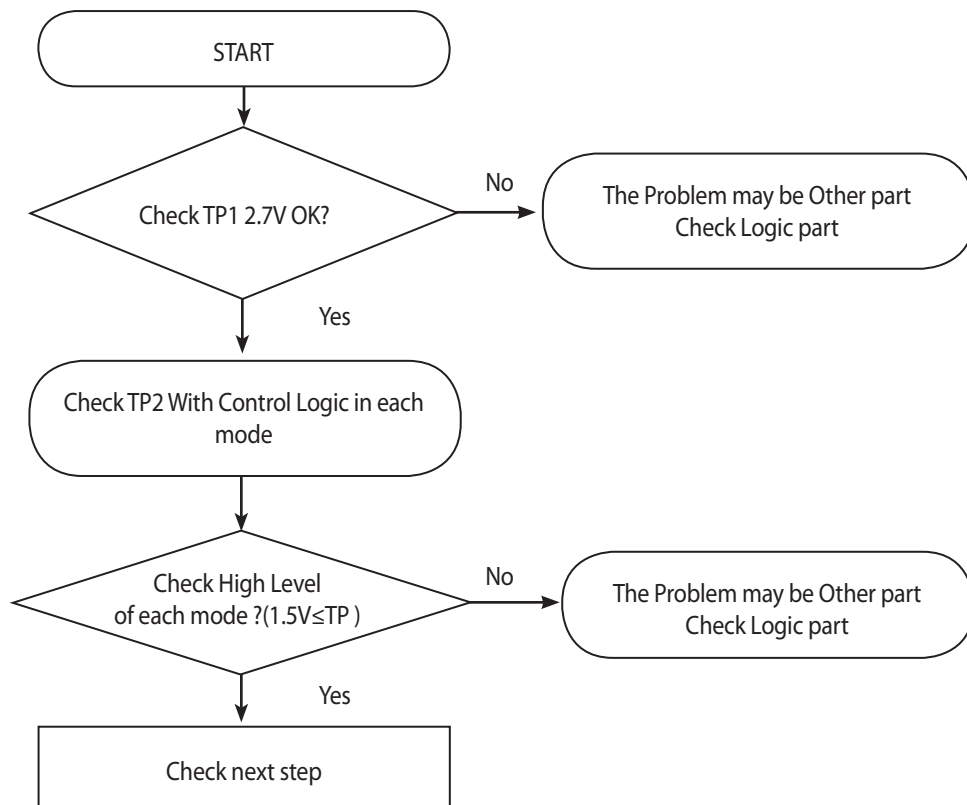
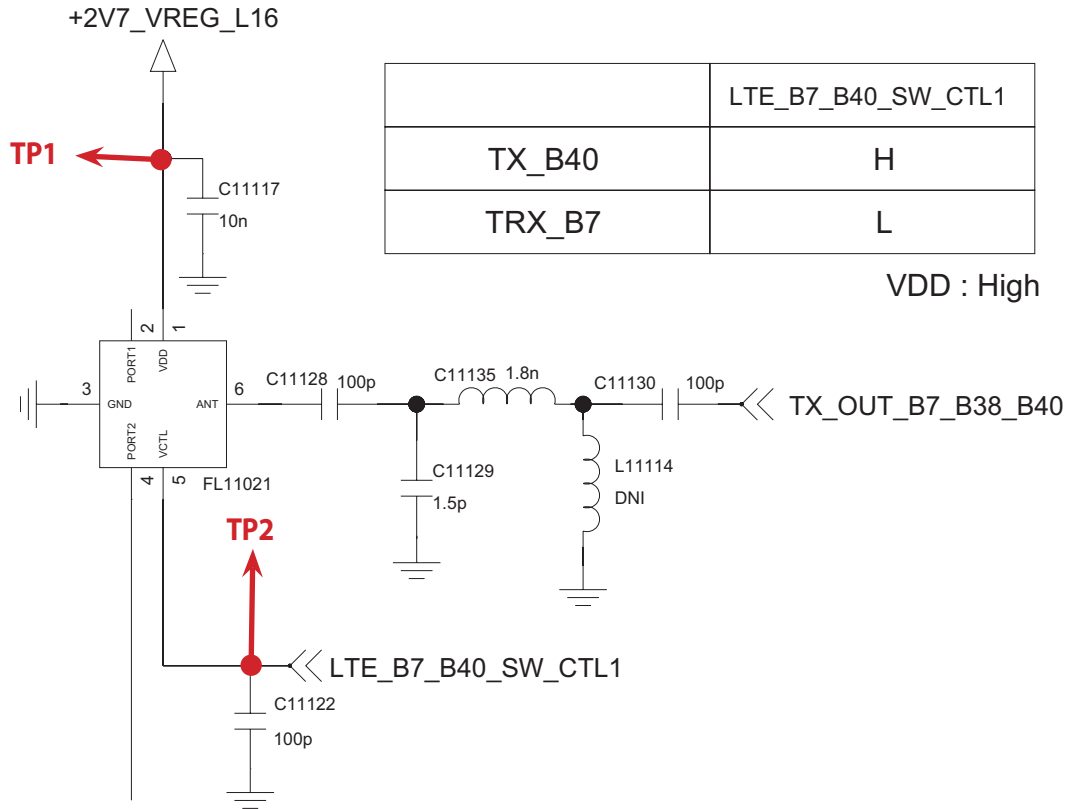


3.7.3.3 Checking LTE SPDT switch (B7)

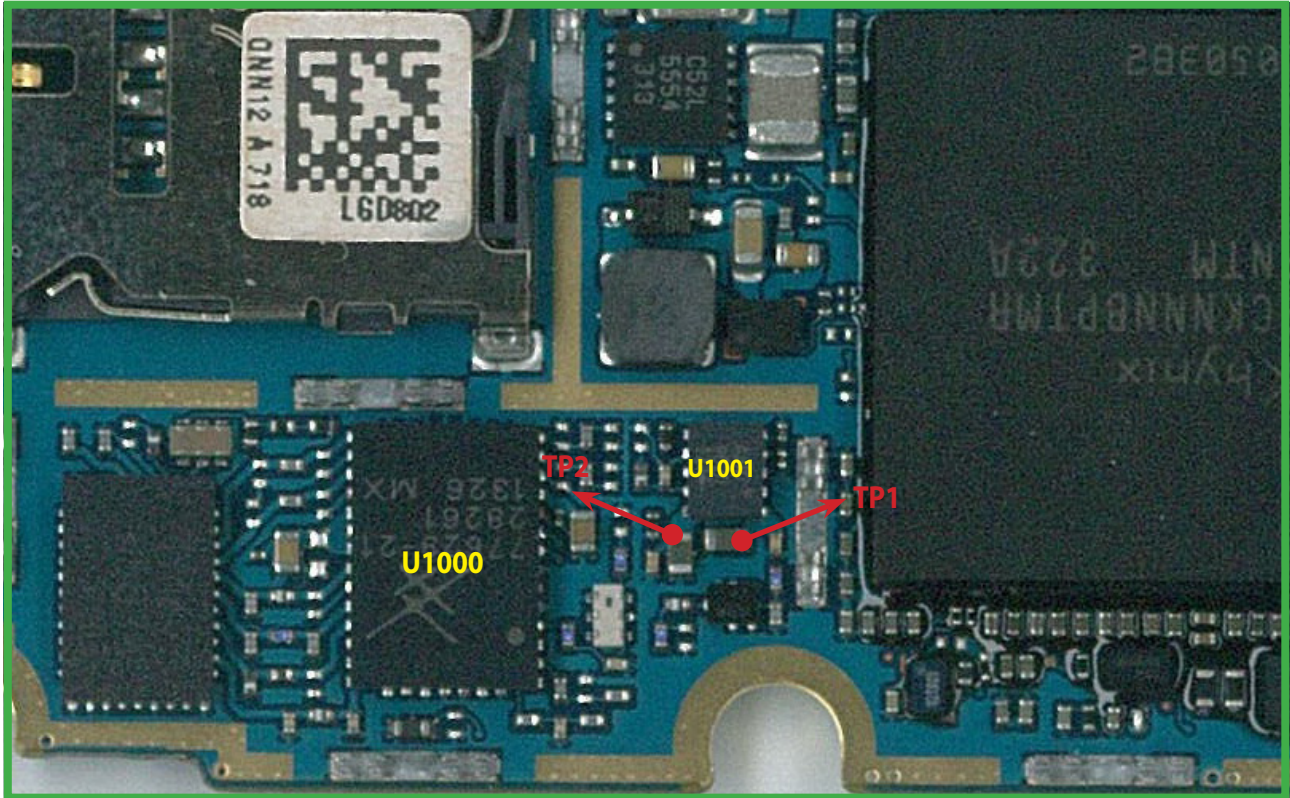


BOT

3. TROUBLE SHOOTING

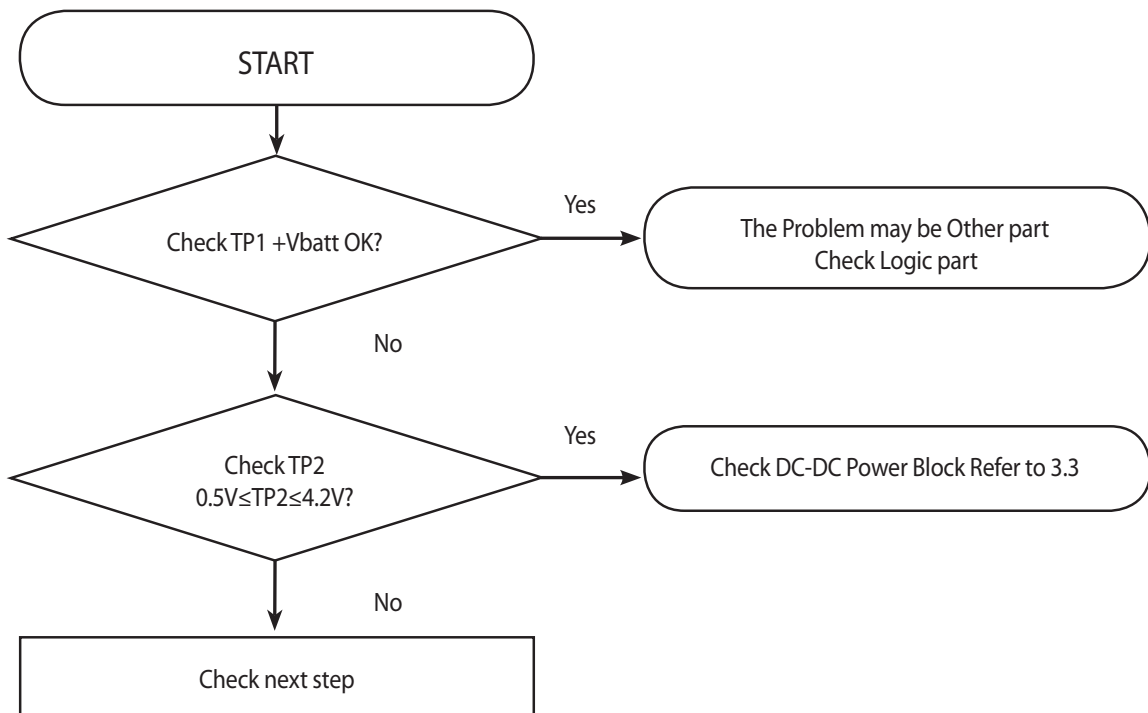
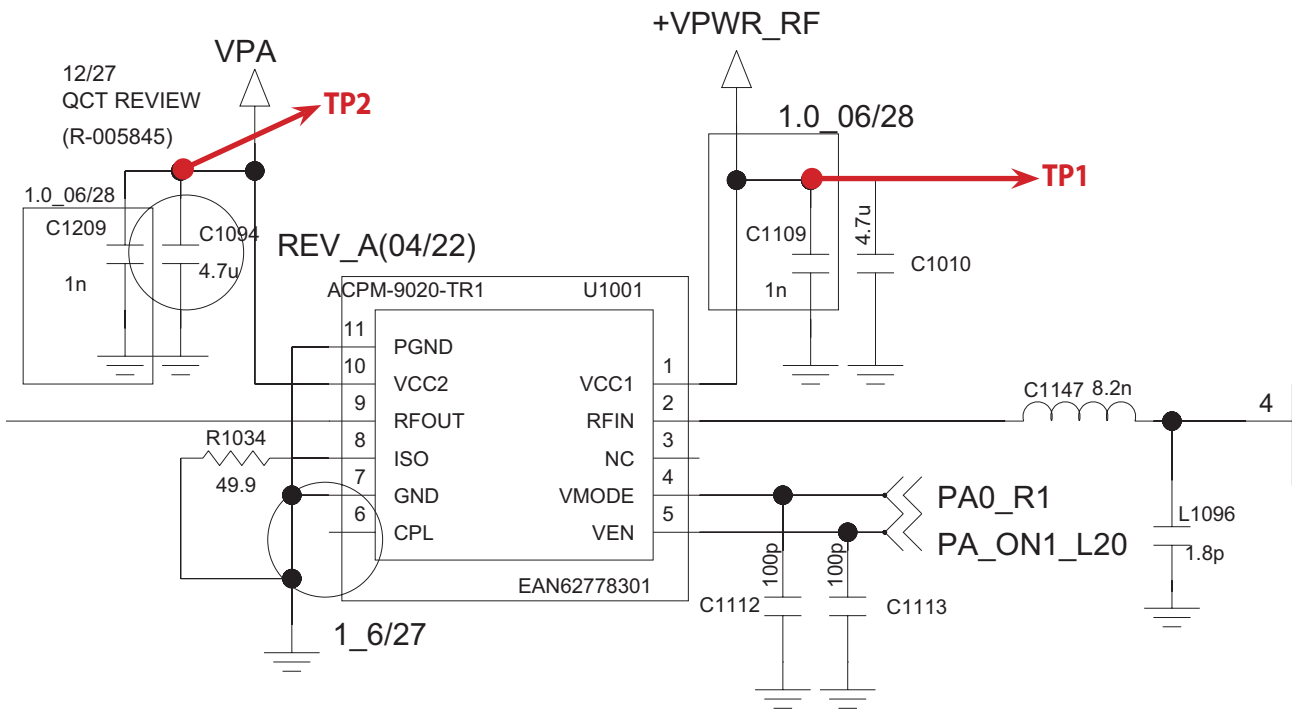


3.7.3.4 Checking LTE PAM DC Power Circuit (B20)



TOP

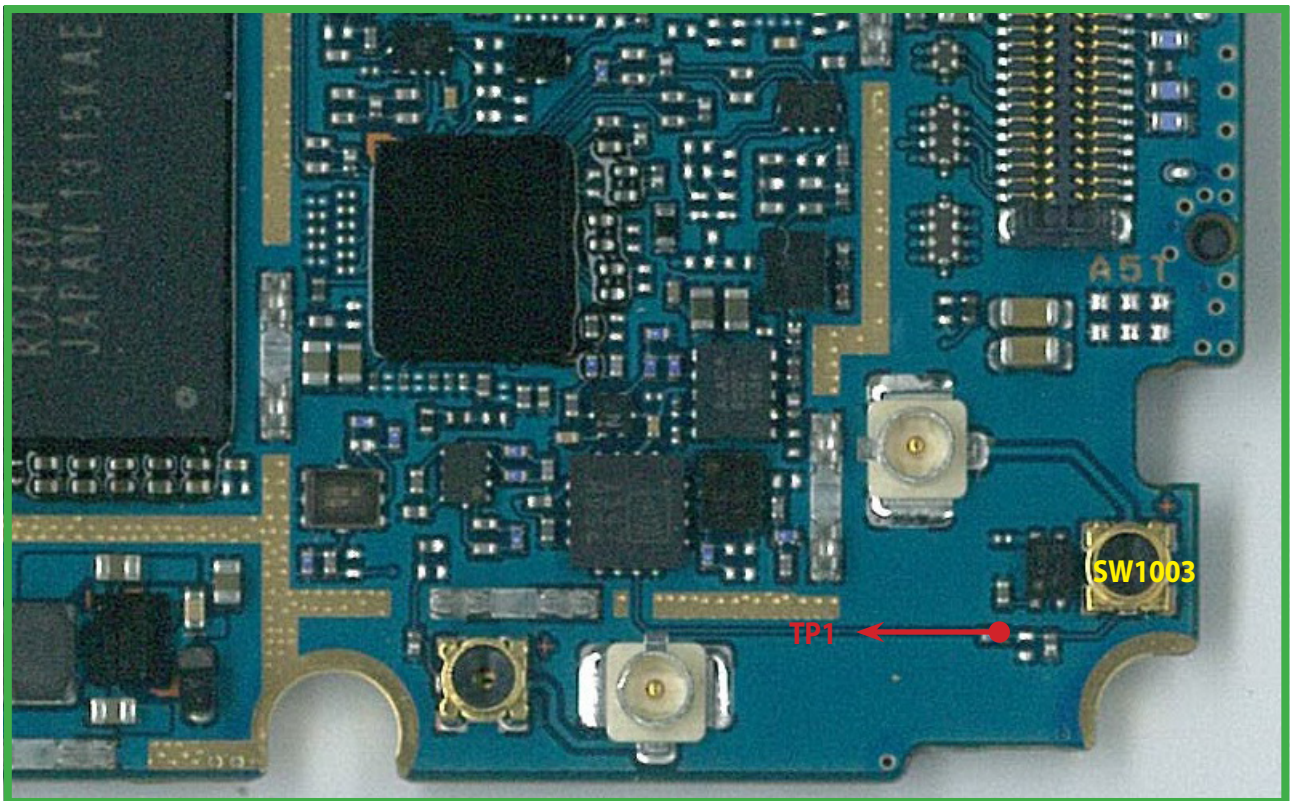
3. TROUBLE SHOOTING



3.7.3.5 Checking RF signal path(SW_LTE B1/B3/B8/B20)

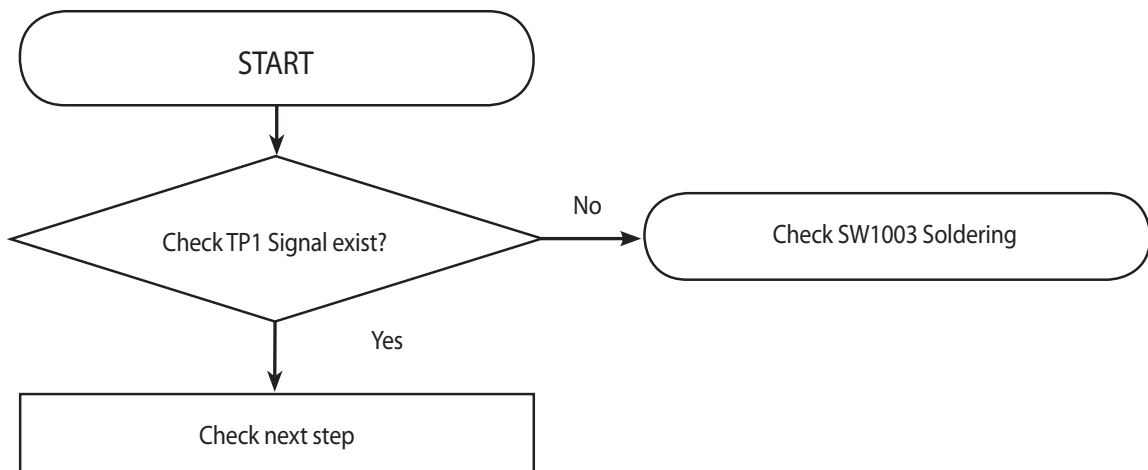
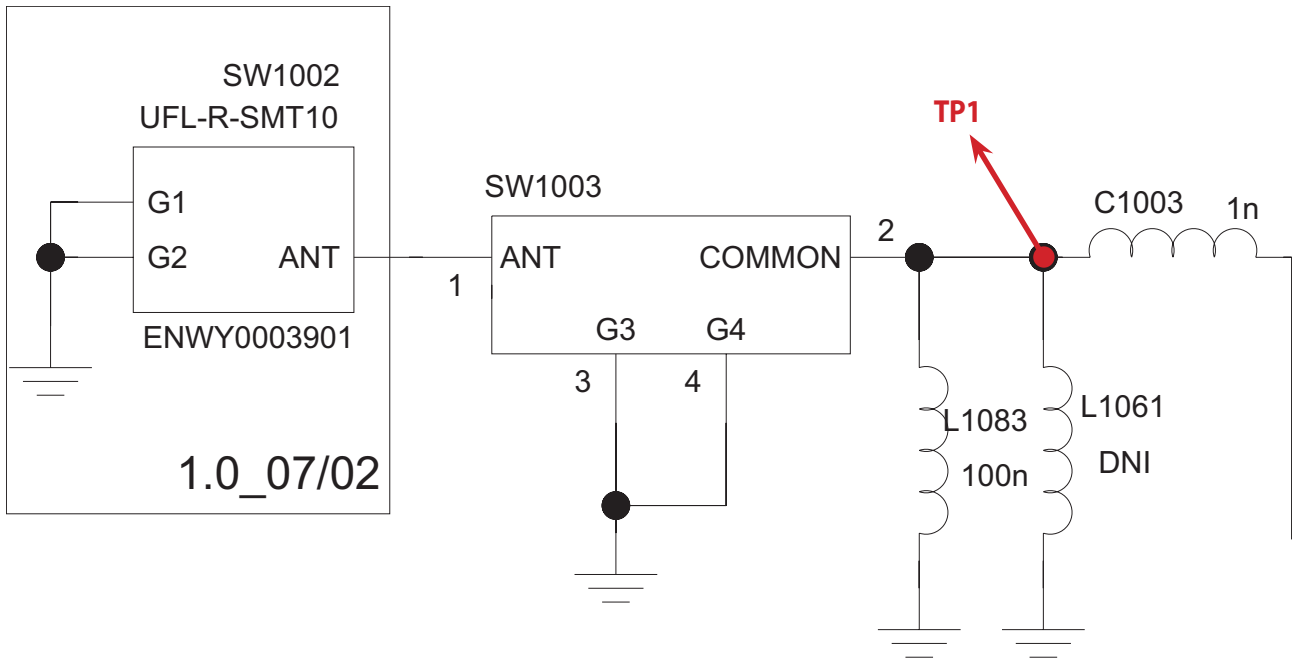
Refer to 3.5.1.1

3.7.3.6 Checking RF signal path(SW_LTE B7)

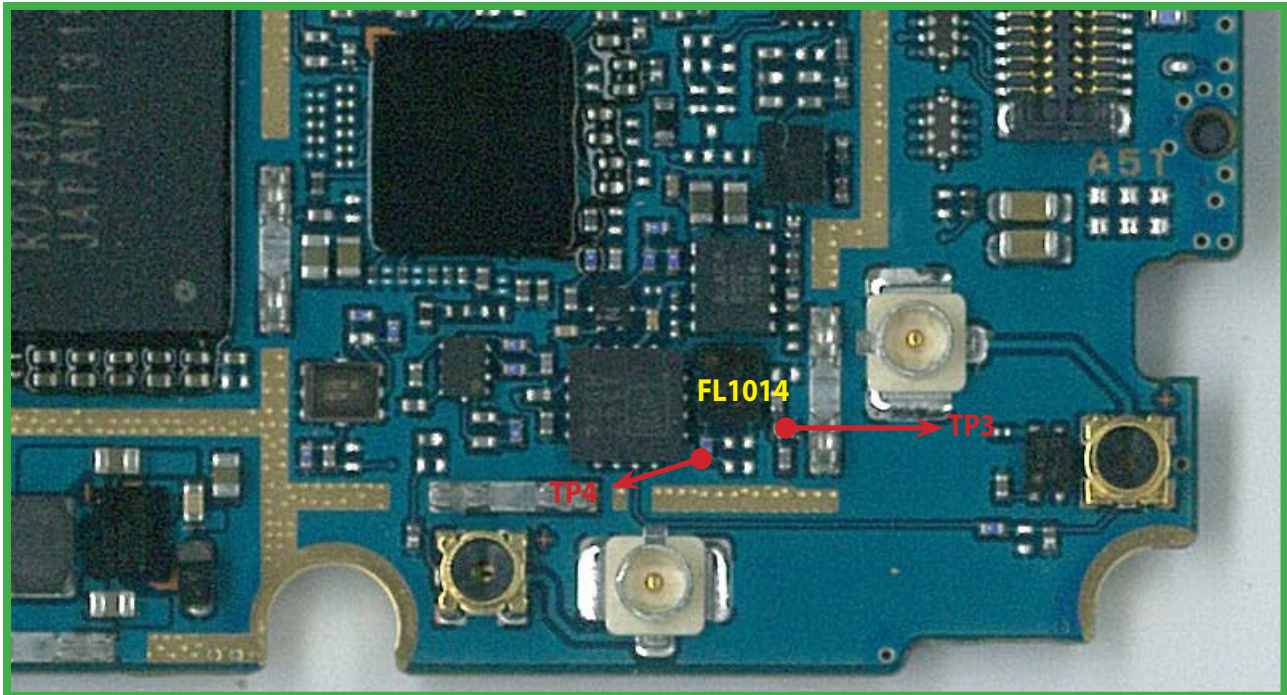


BOT

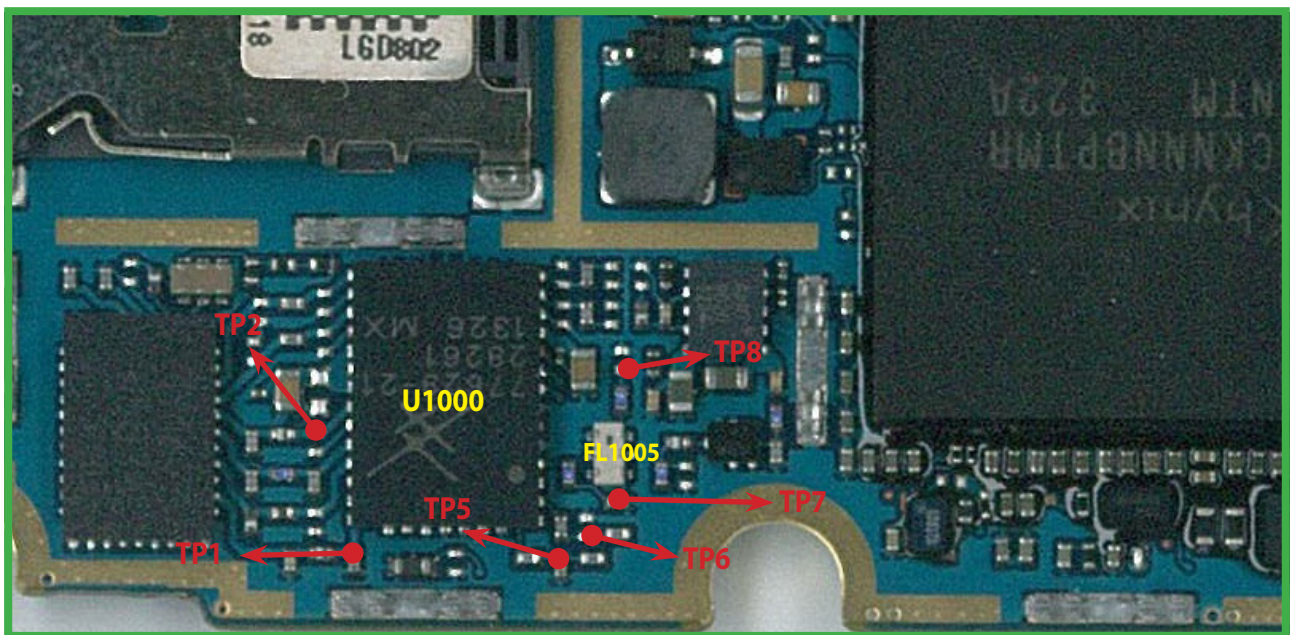
3. TROUBLE SHOOTING



3.7.3.7 Checking RF signal path(B1/B3/B8)

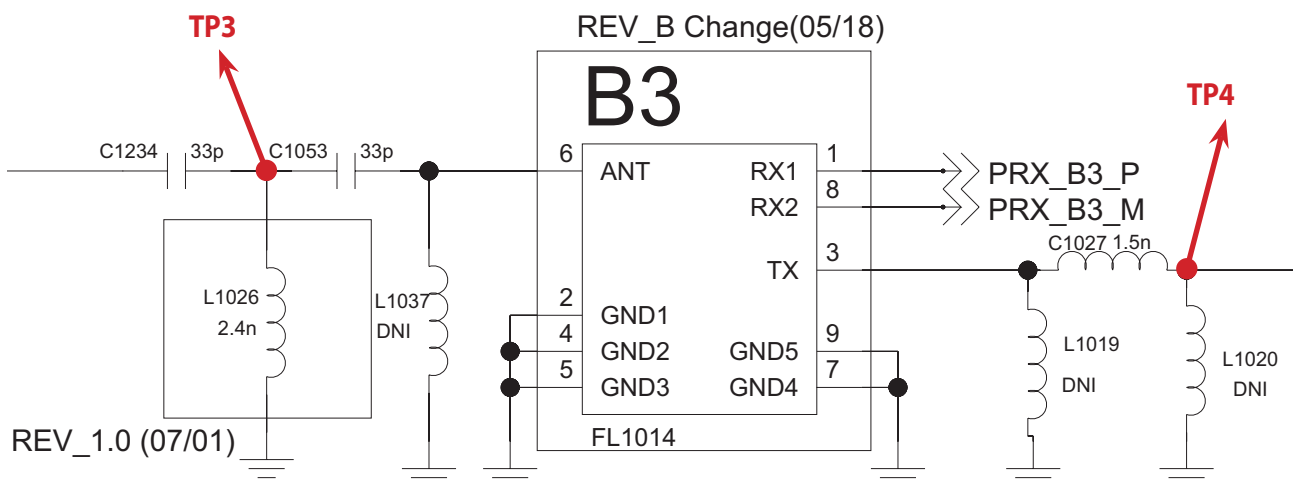
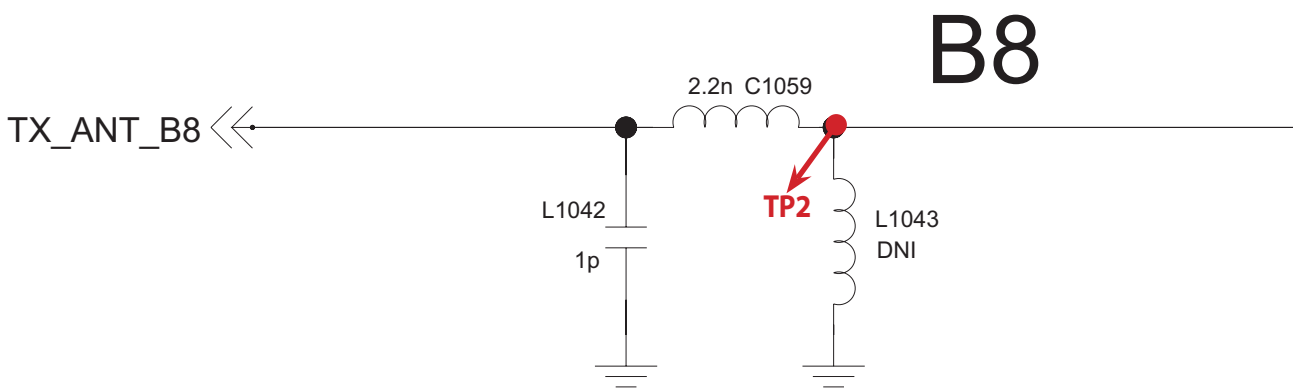
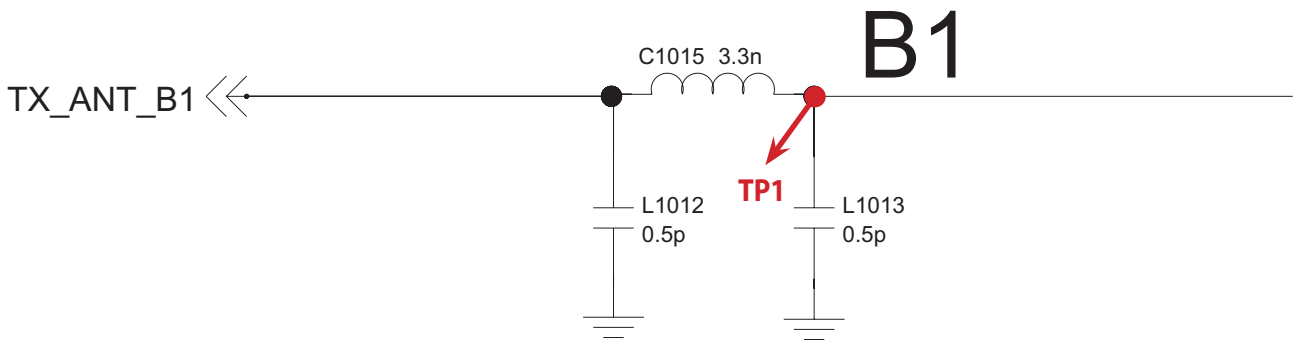


BOT

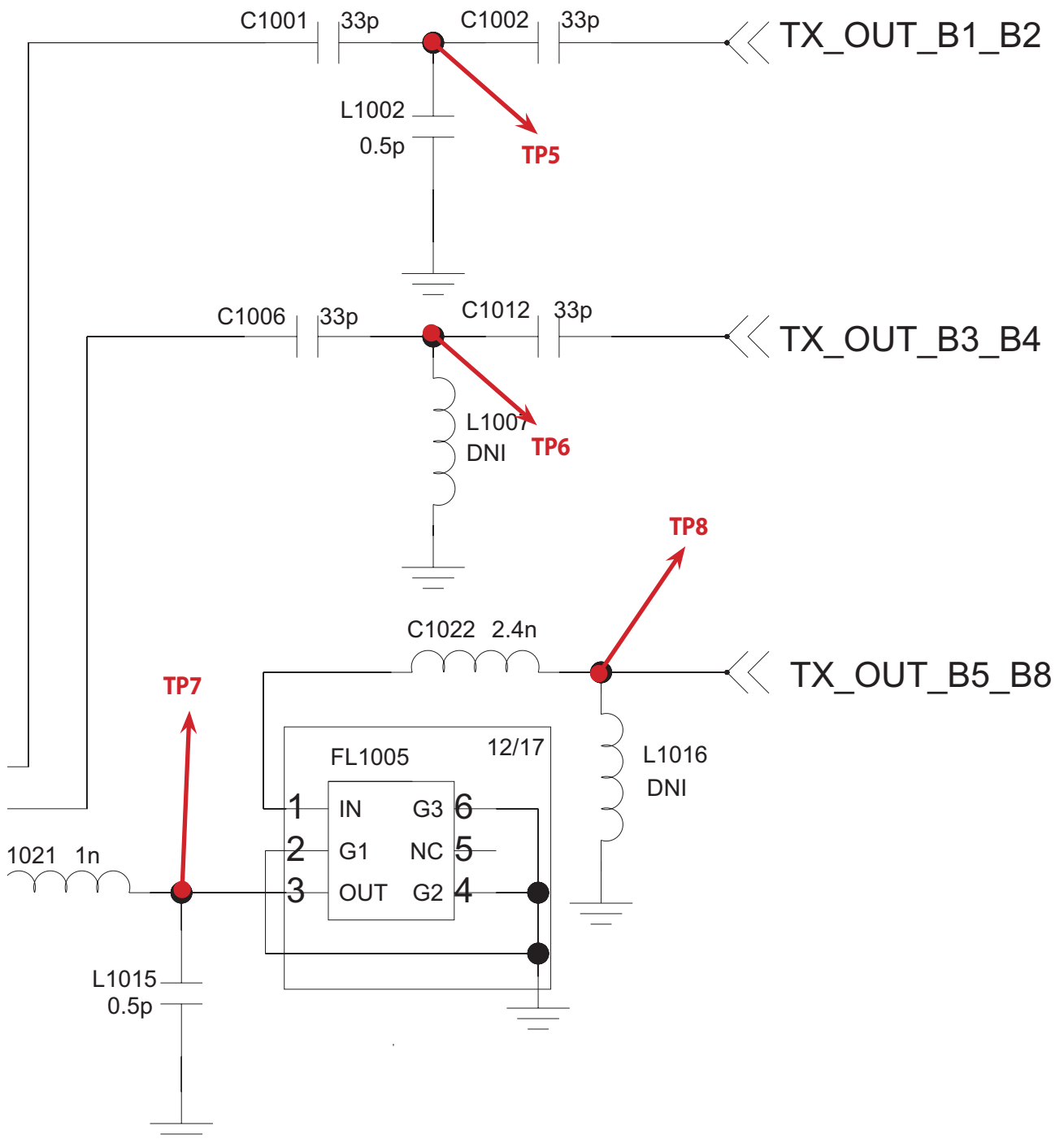


TOP

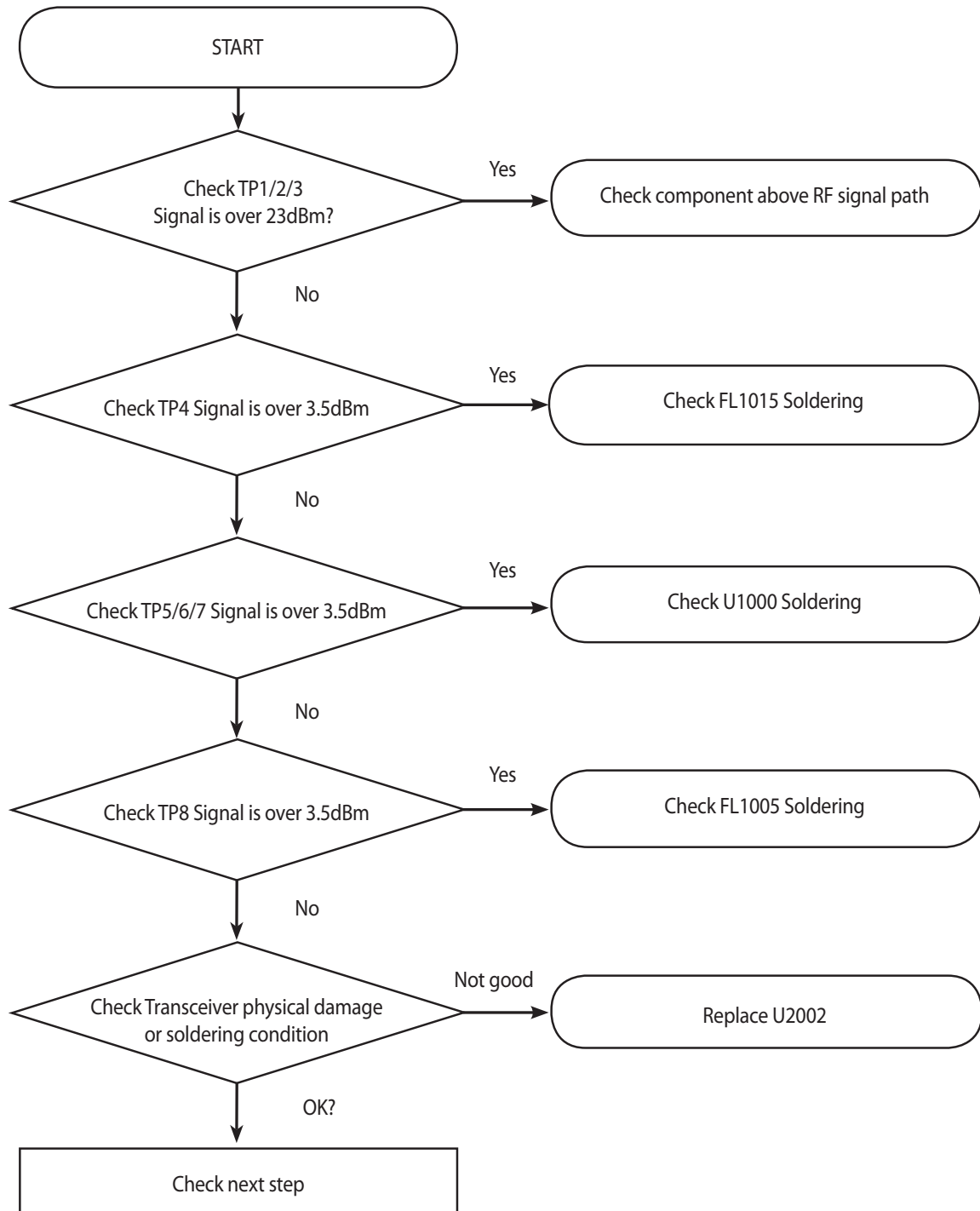
3. TROUBLE SHOOTING



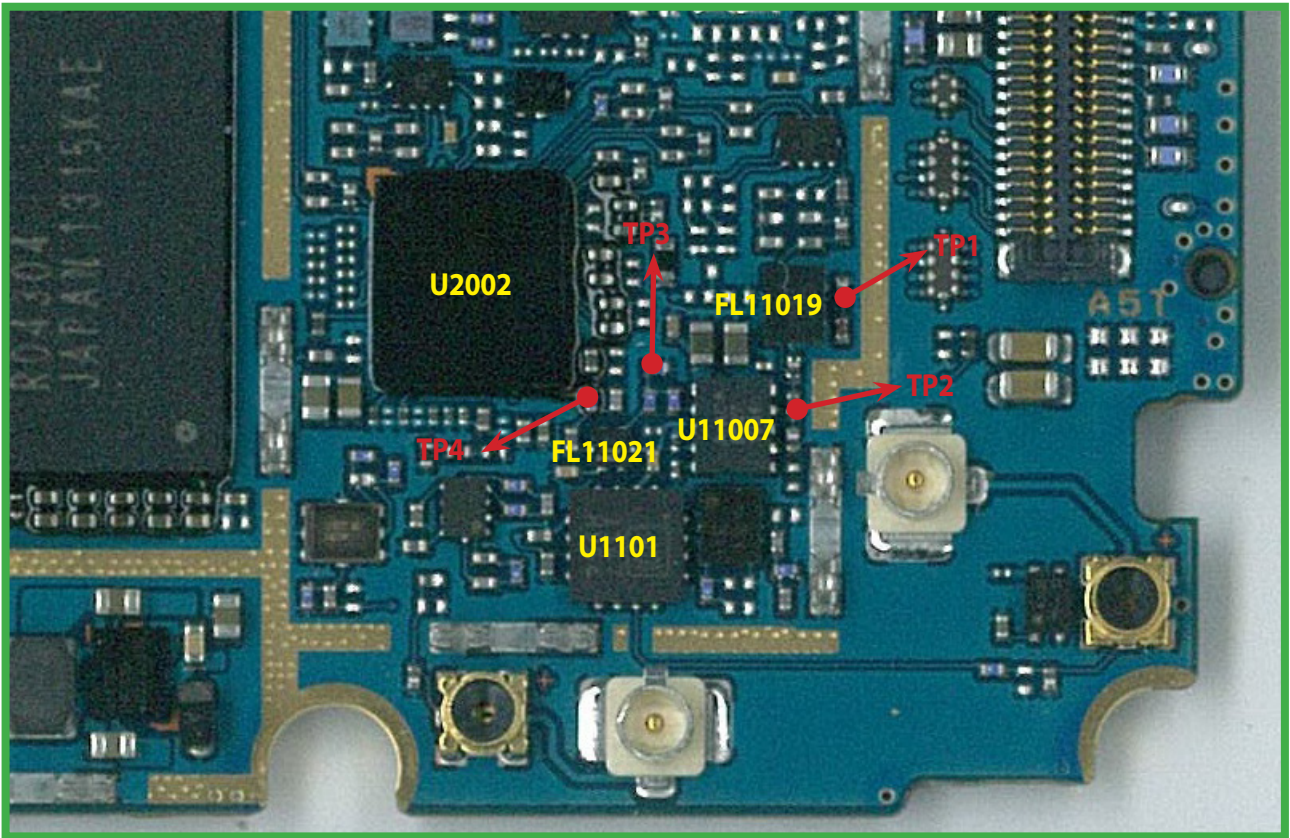
3. TROUBLE SHOOTING



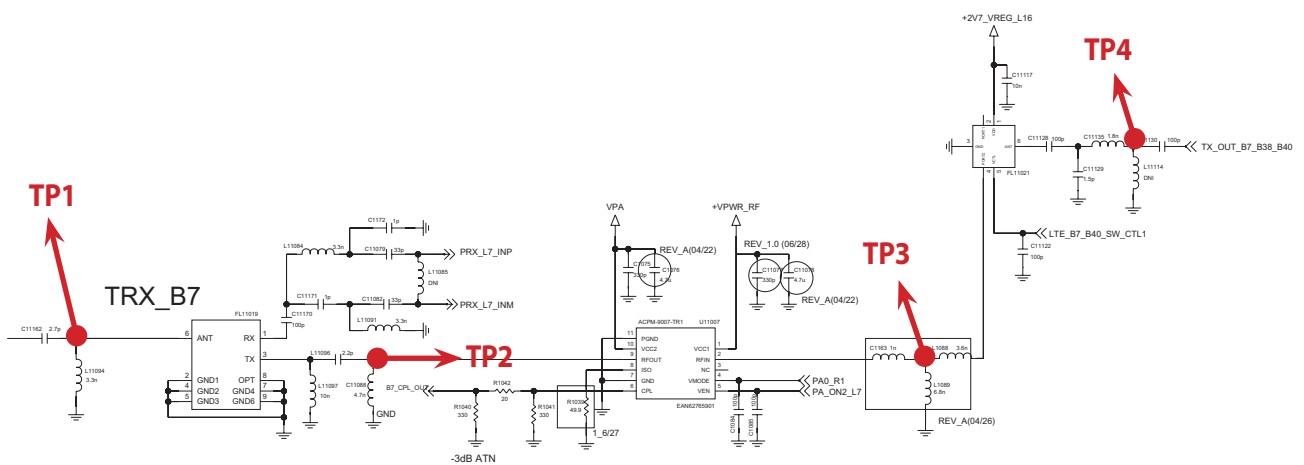
3. TROUBLE SHOOTING



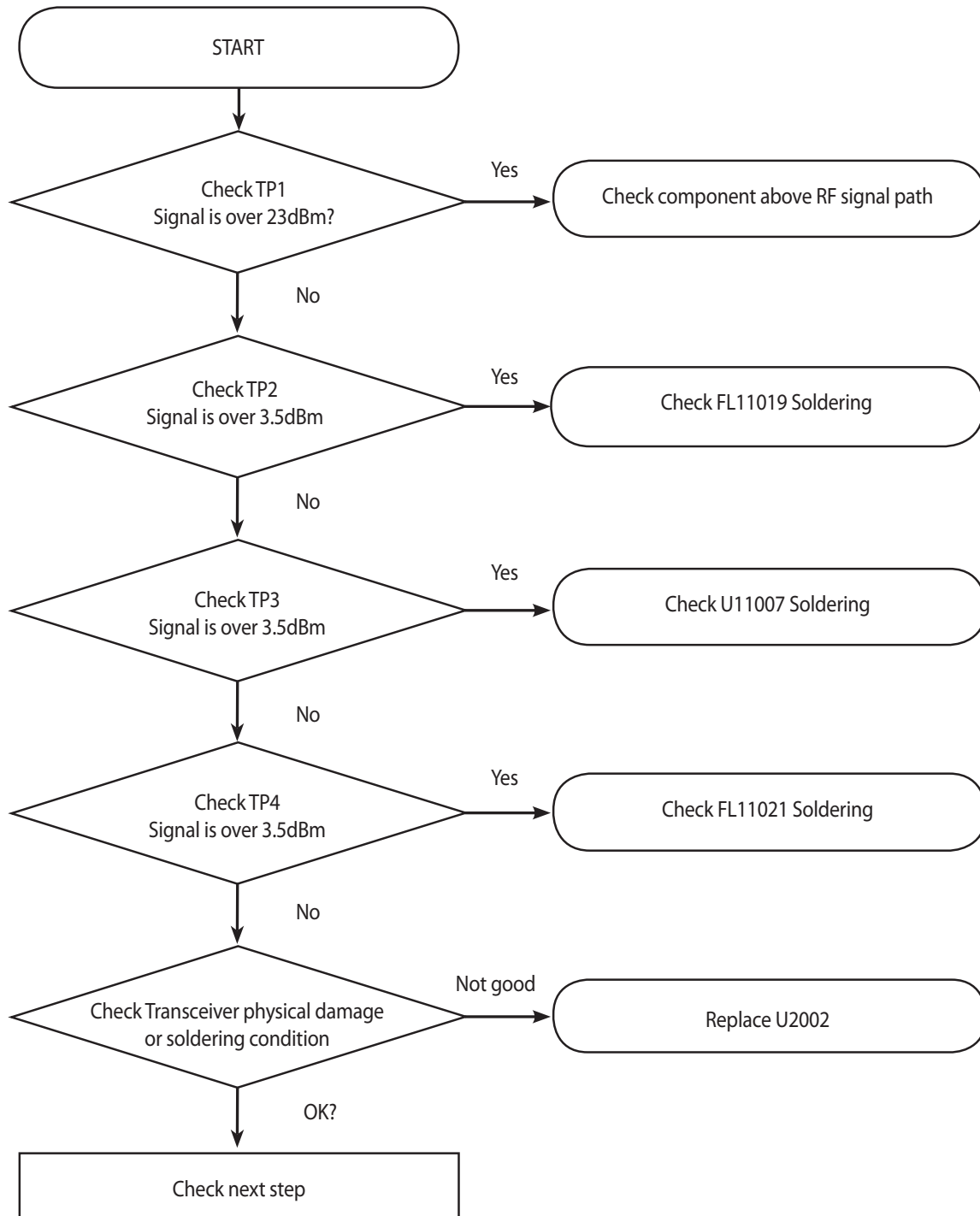
3.7.3.8 Checking RF signal path(B7)



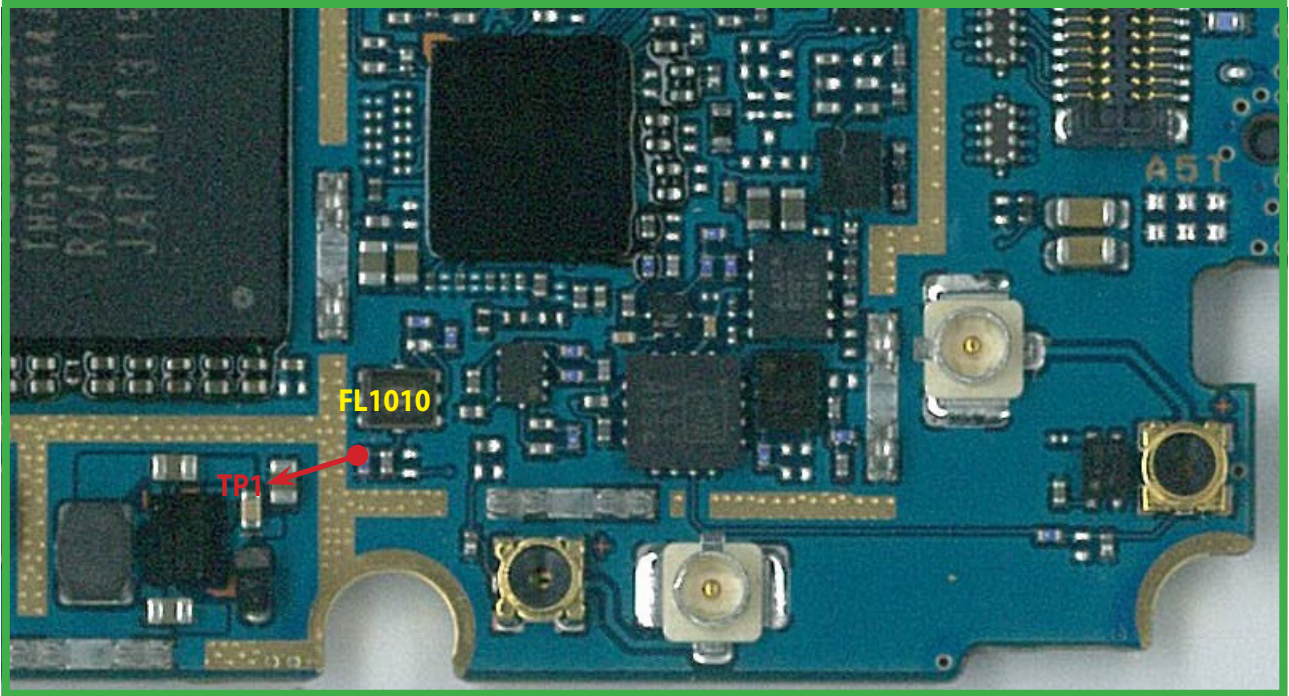
BOT



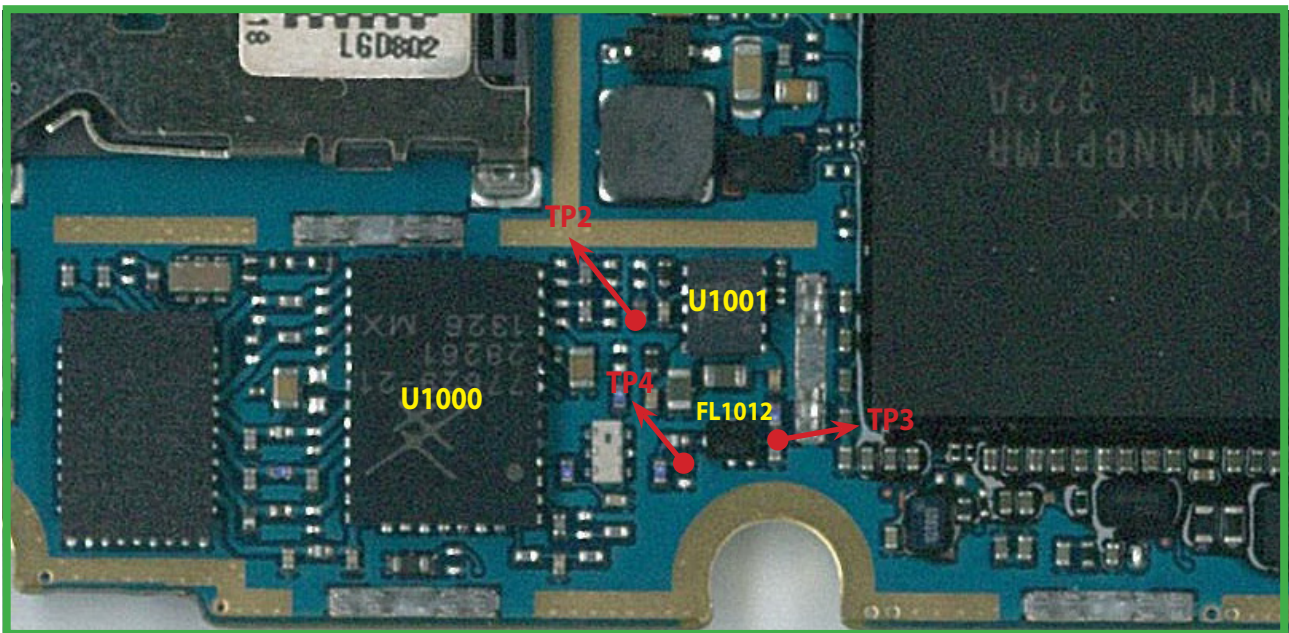
3. TROUBLE SHOOTING



3.7.3.9 Checking RF signal path(B20)



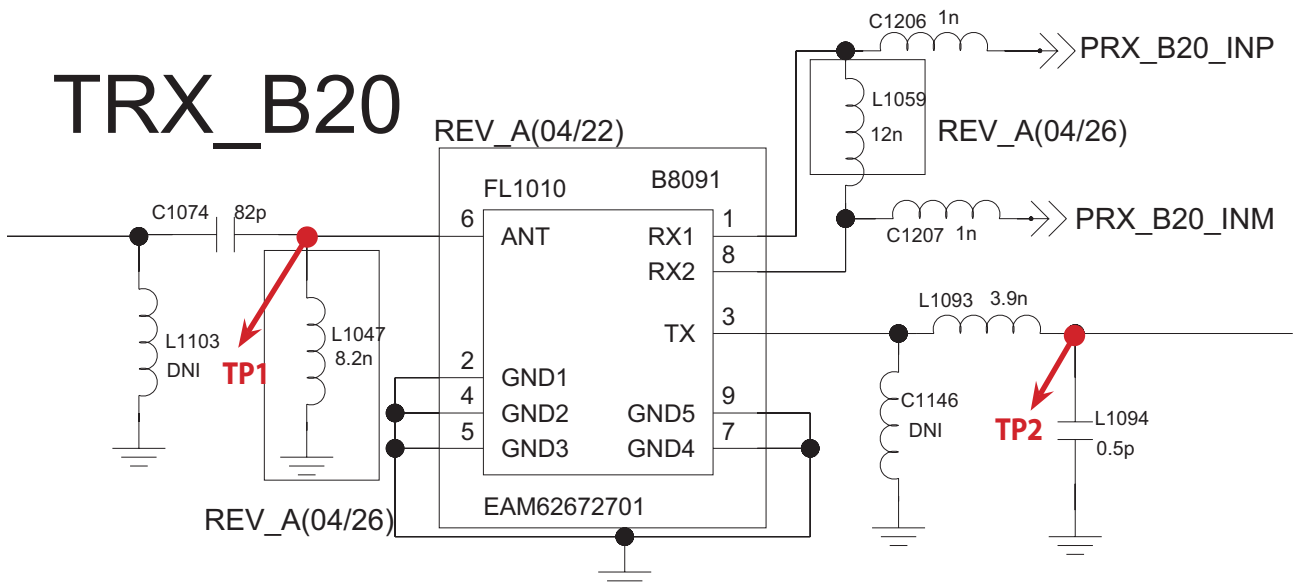
BOT



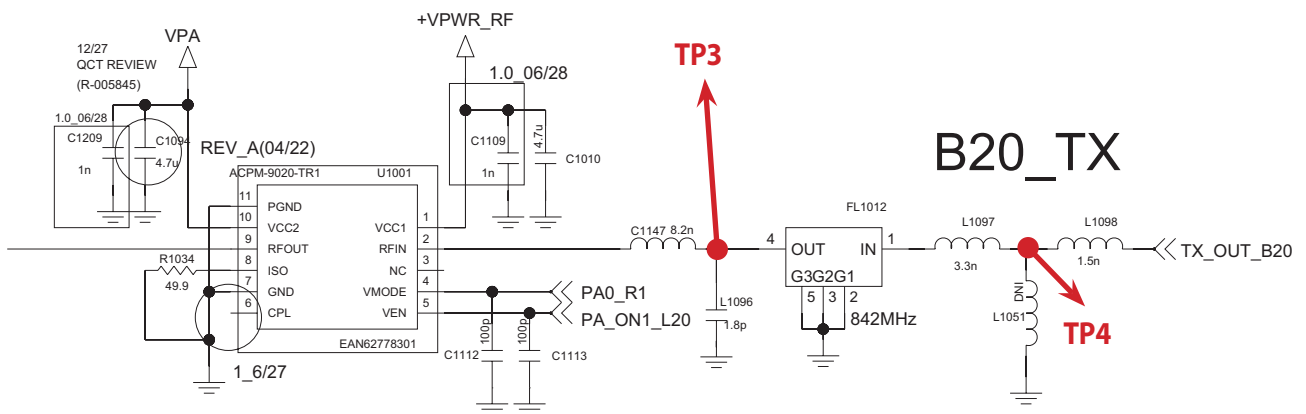
TOP

B20_RX

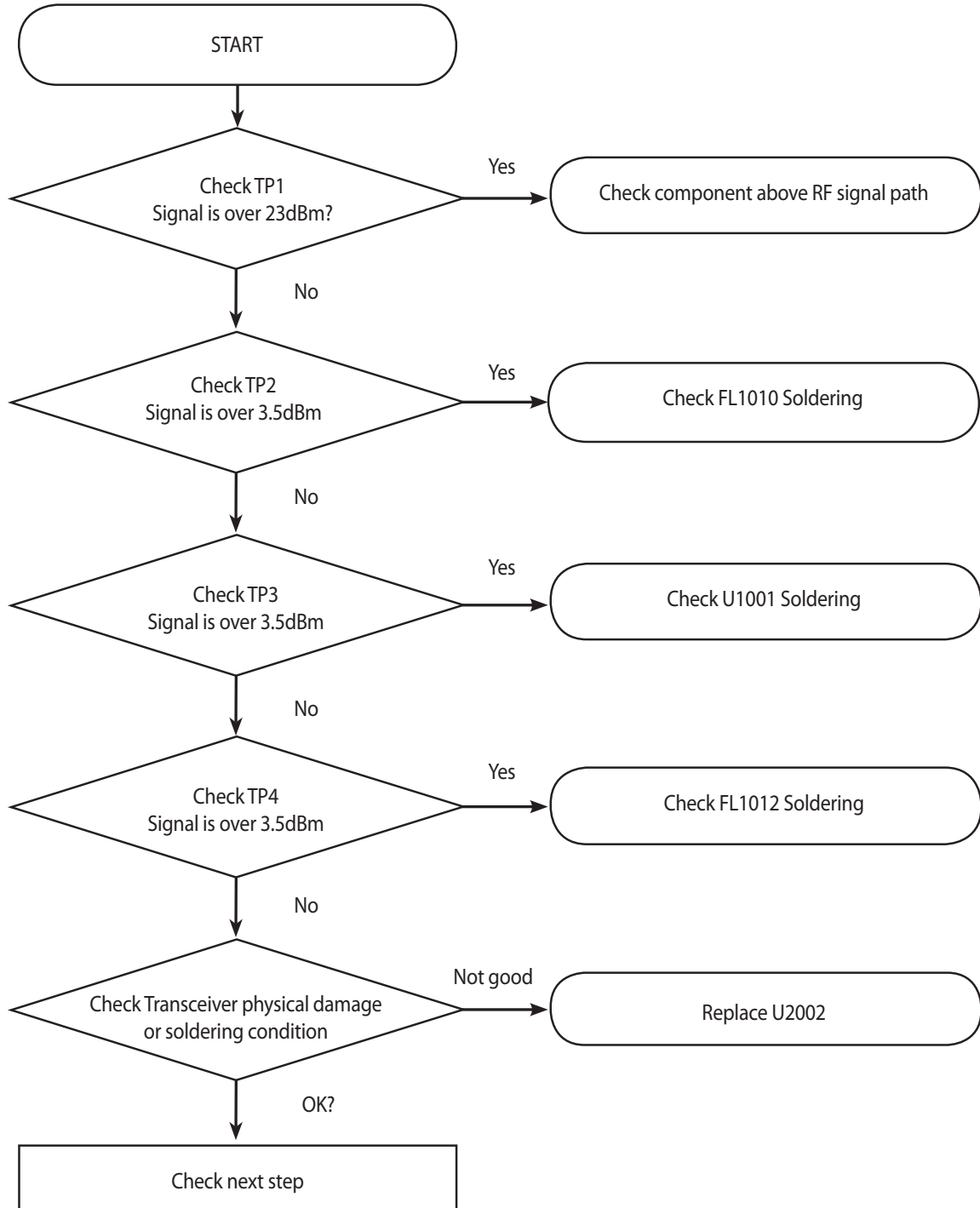
TRX_B20



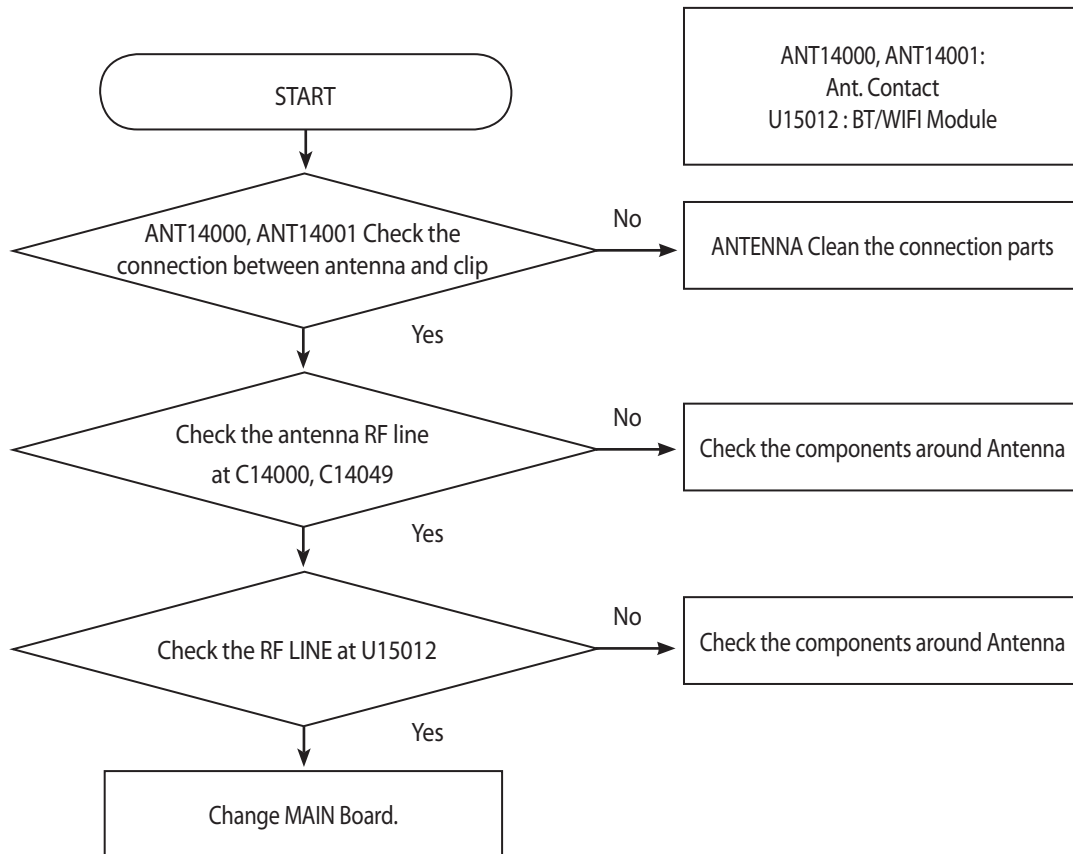
B20_TX



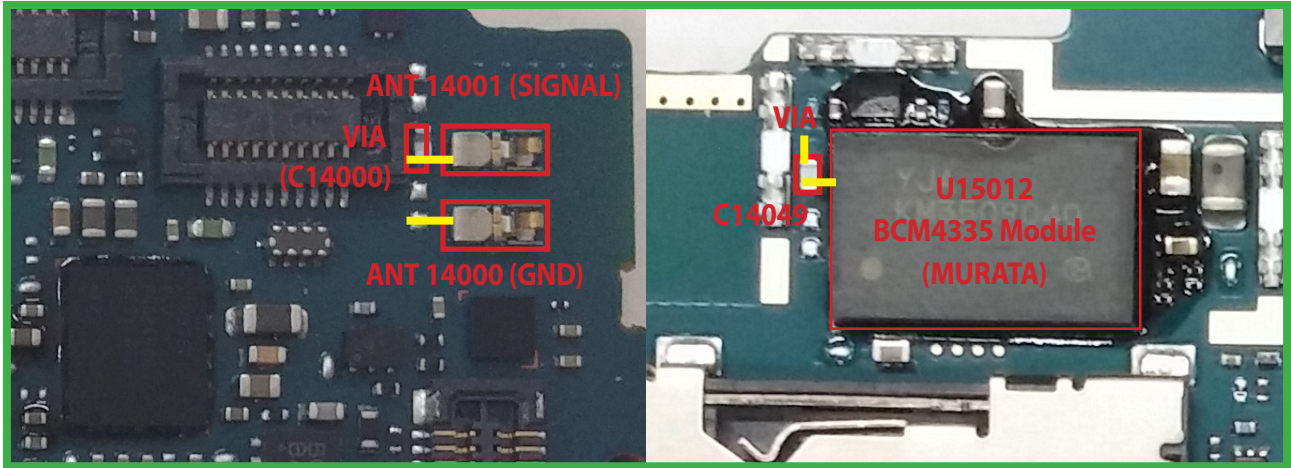
3. TROUBLE SHOOTING



3.8 BT&WIFI&FM PART

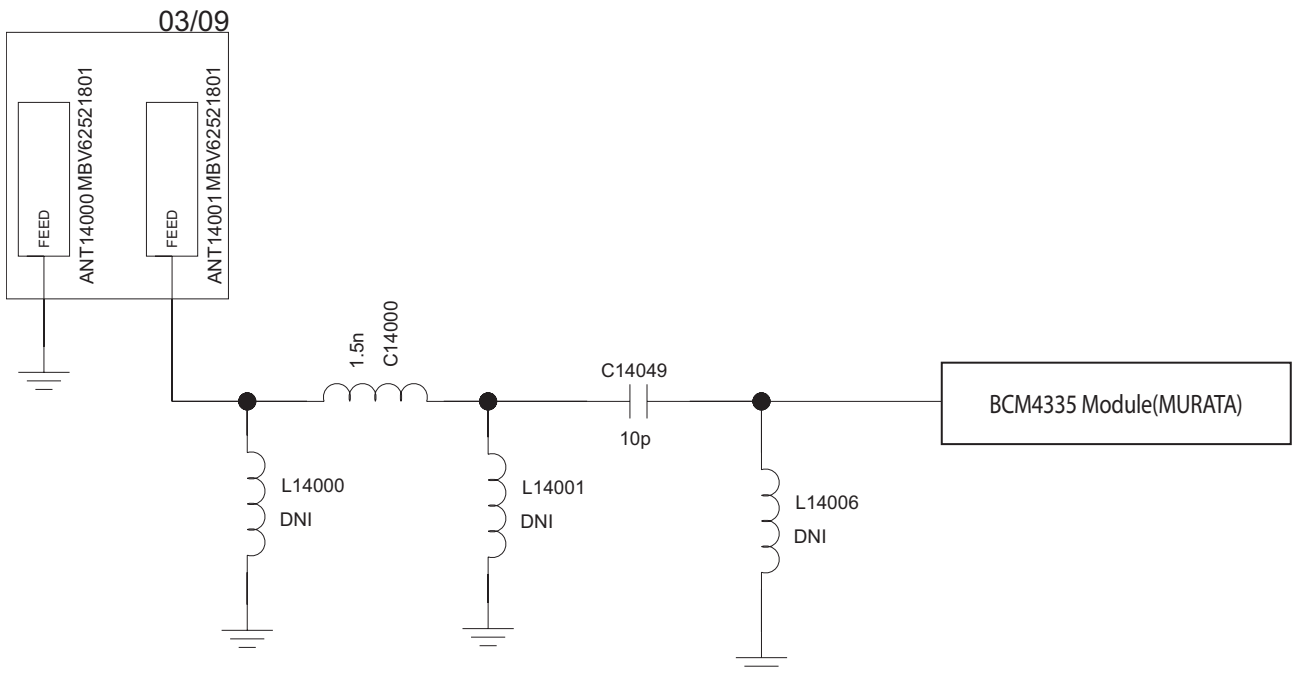


3. TROUBLE SHOOTING

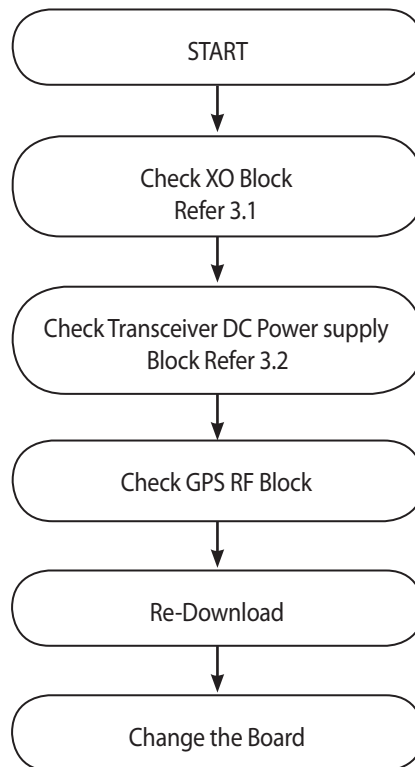


BOTTOM

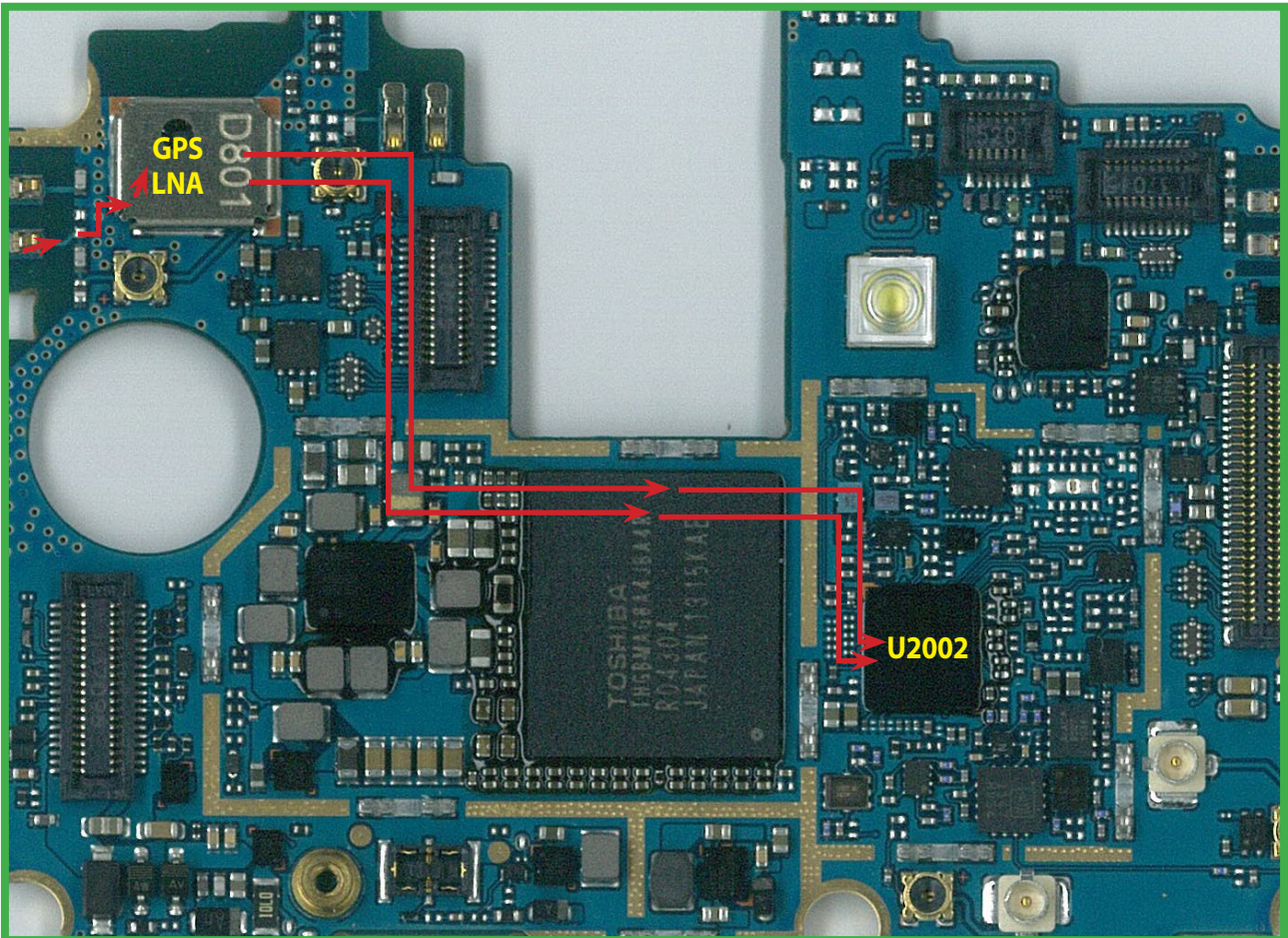
TOP



3.9 GPS Part

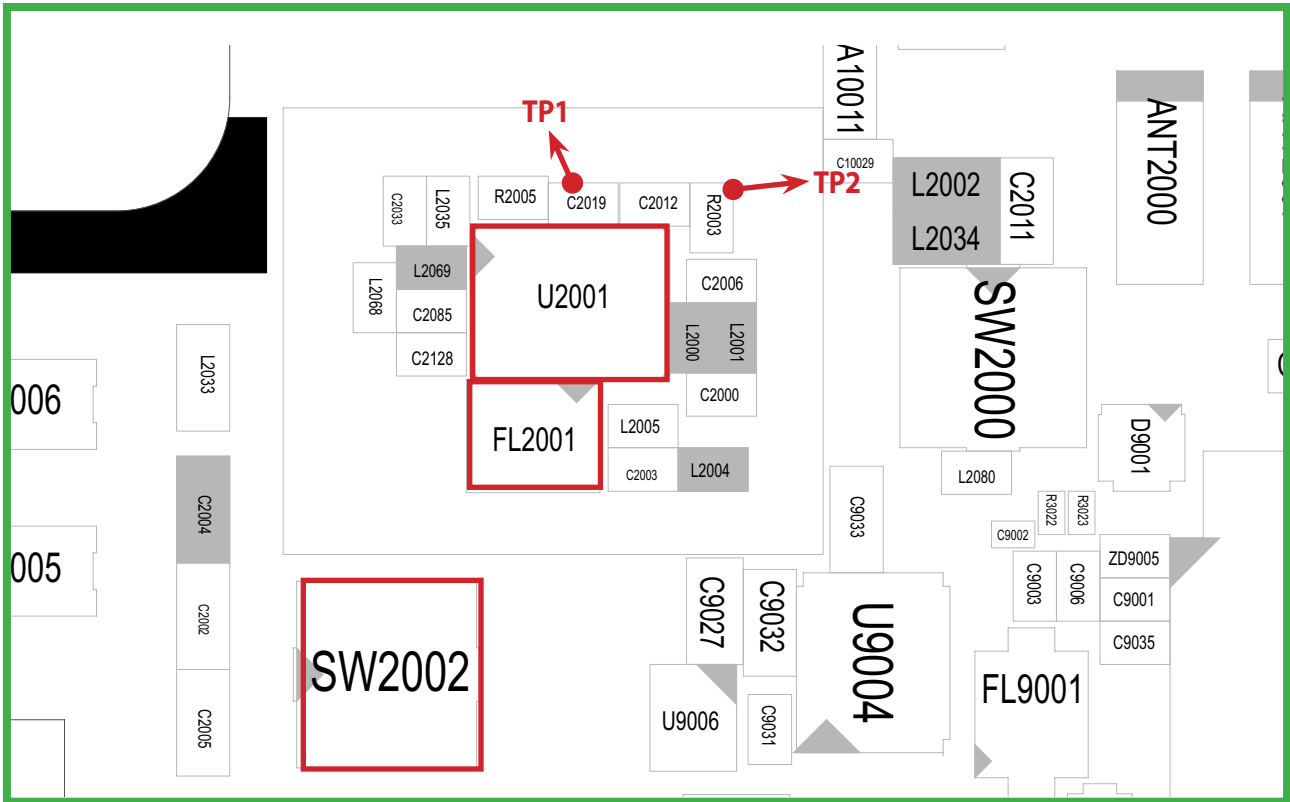


GPS RF PATH

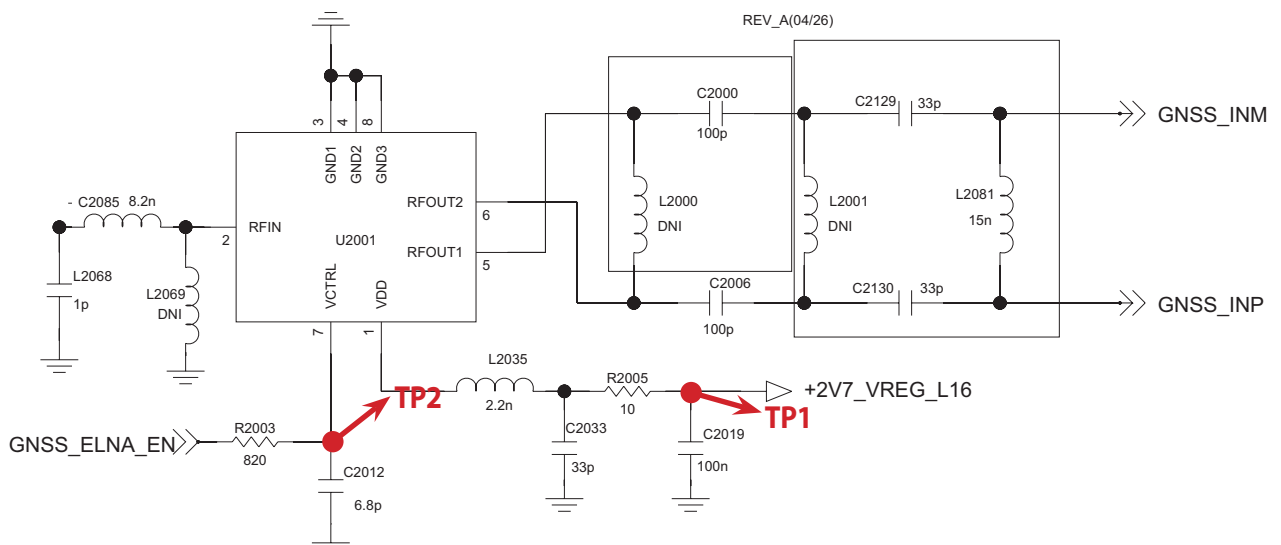


Bottom

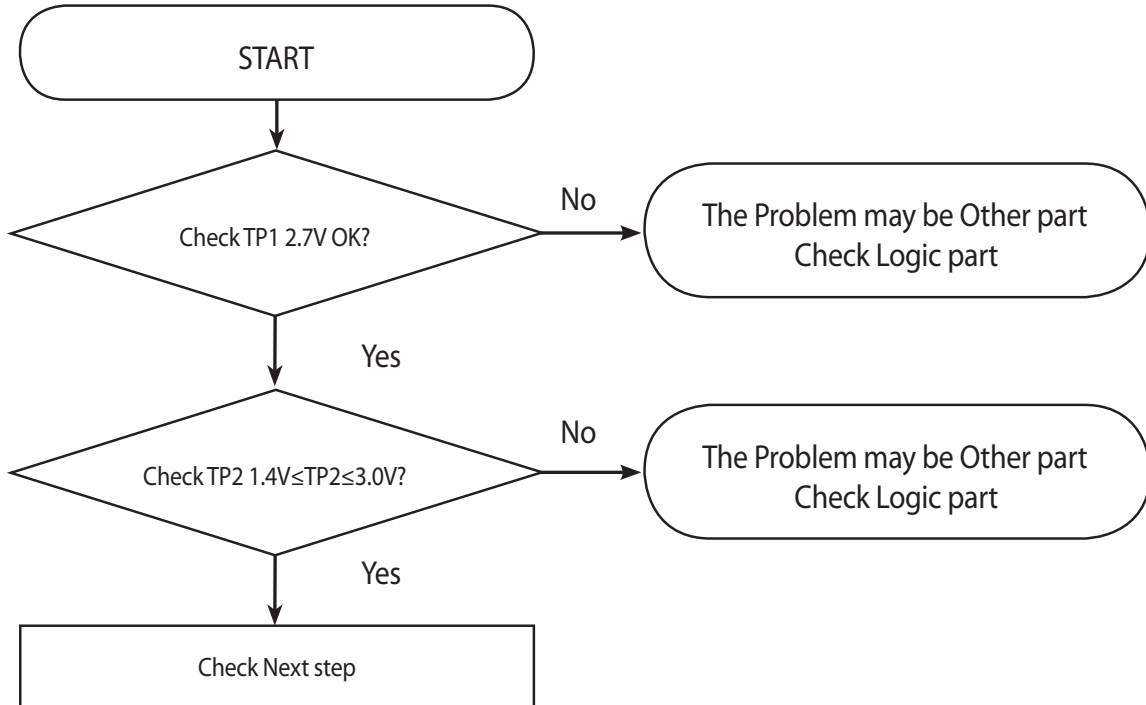
3.9.1 Checking GPS LNA DC Power Circuit



Bottom

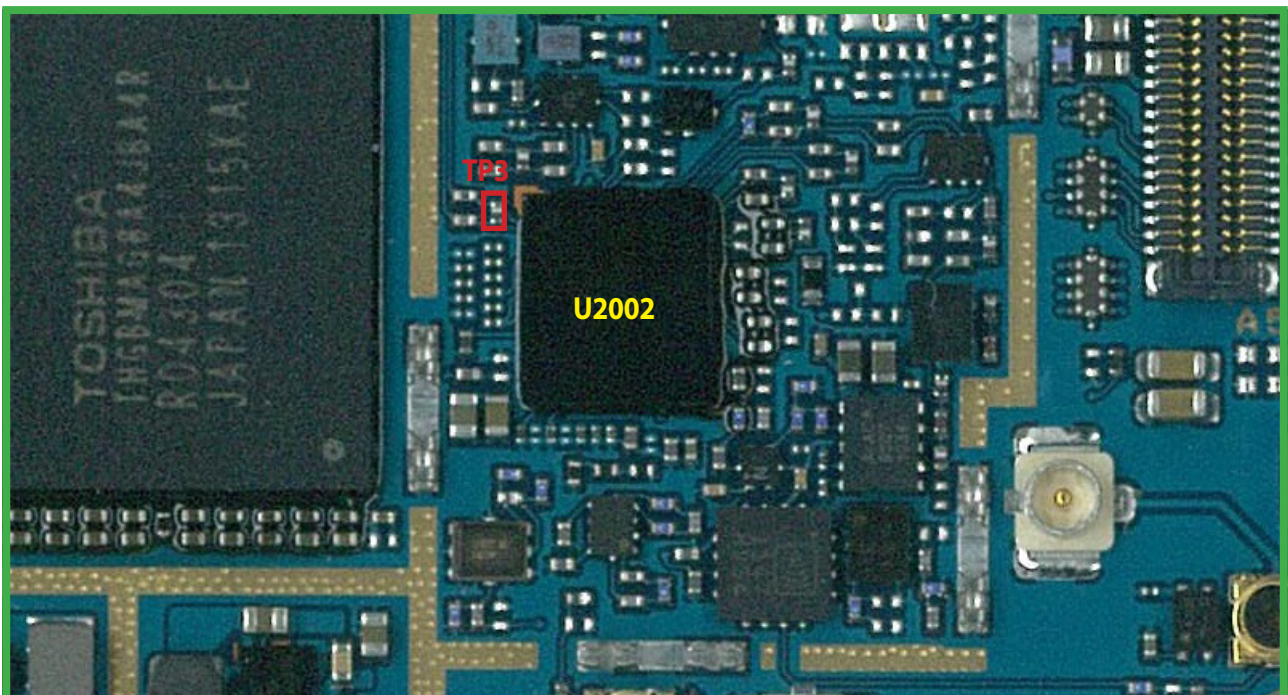
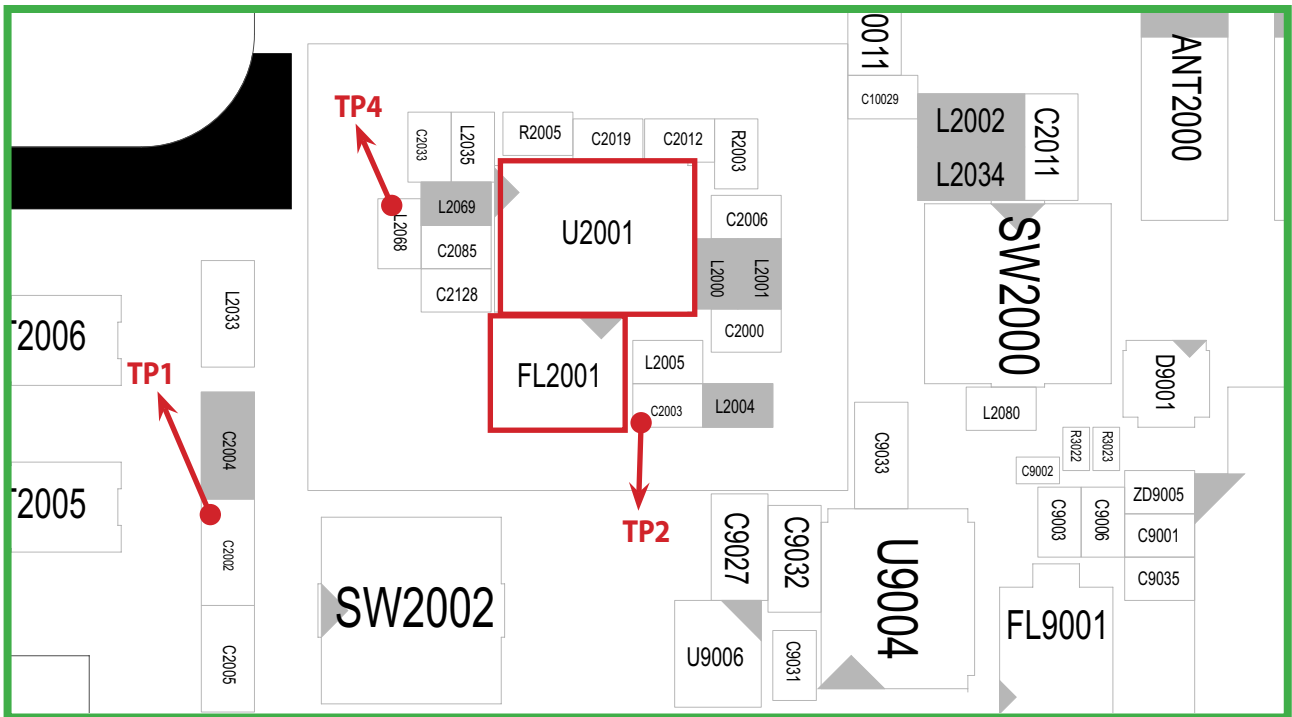


3. TROUBLE SHOOTING

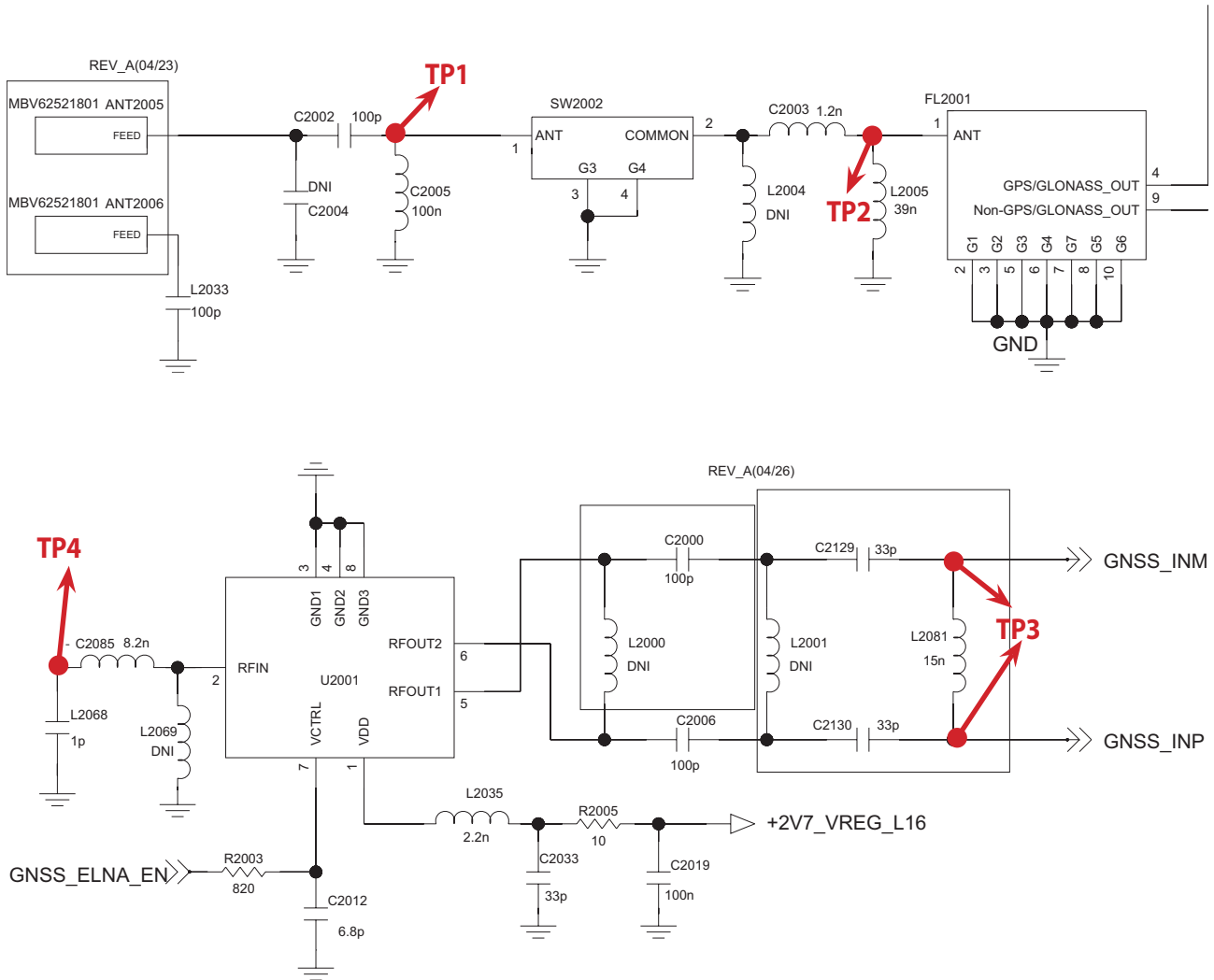


3.9.2 Checking GPS RF Signal path

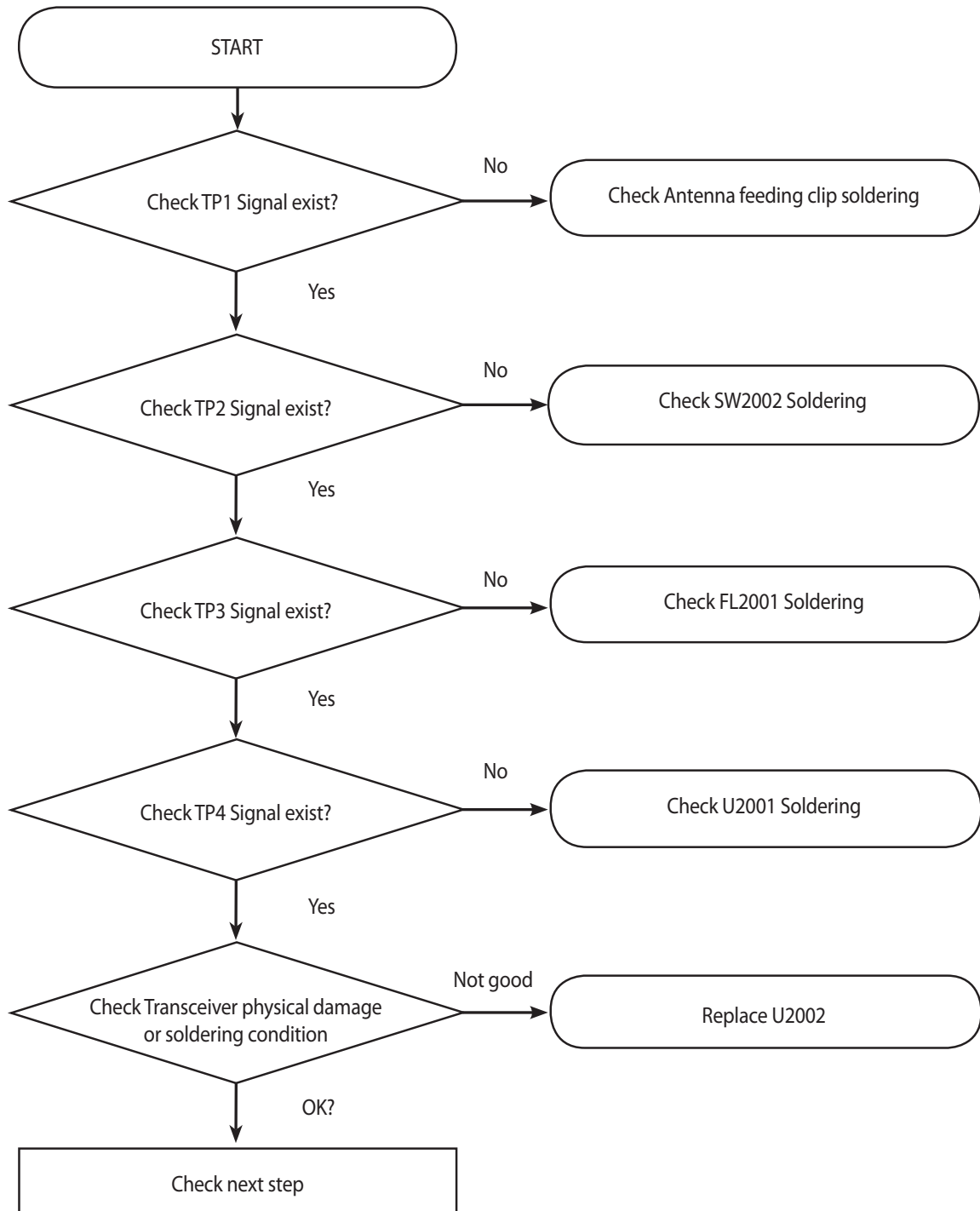
Bottom



3. TROUBLE SHOOTING

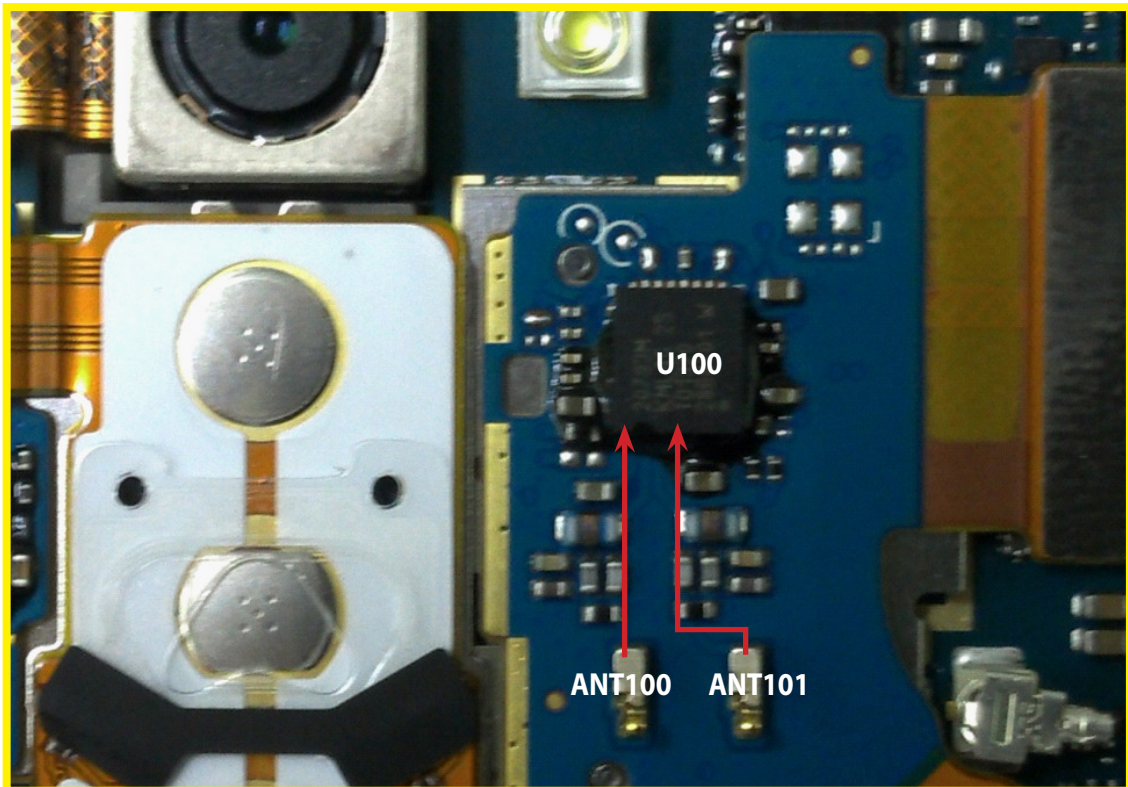


3. TROUBLE SHOOTING

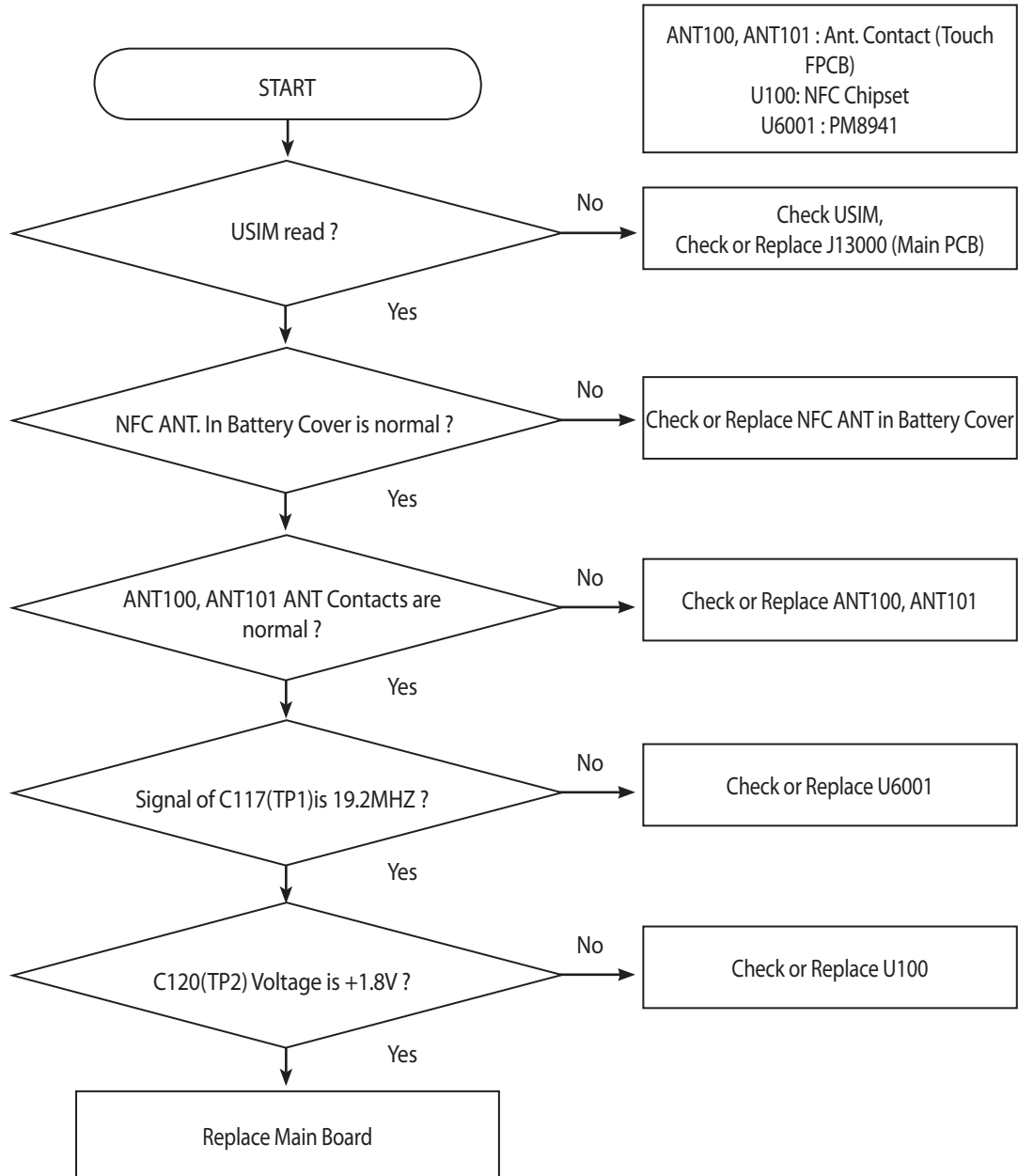


3.10 NFC Part

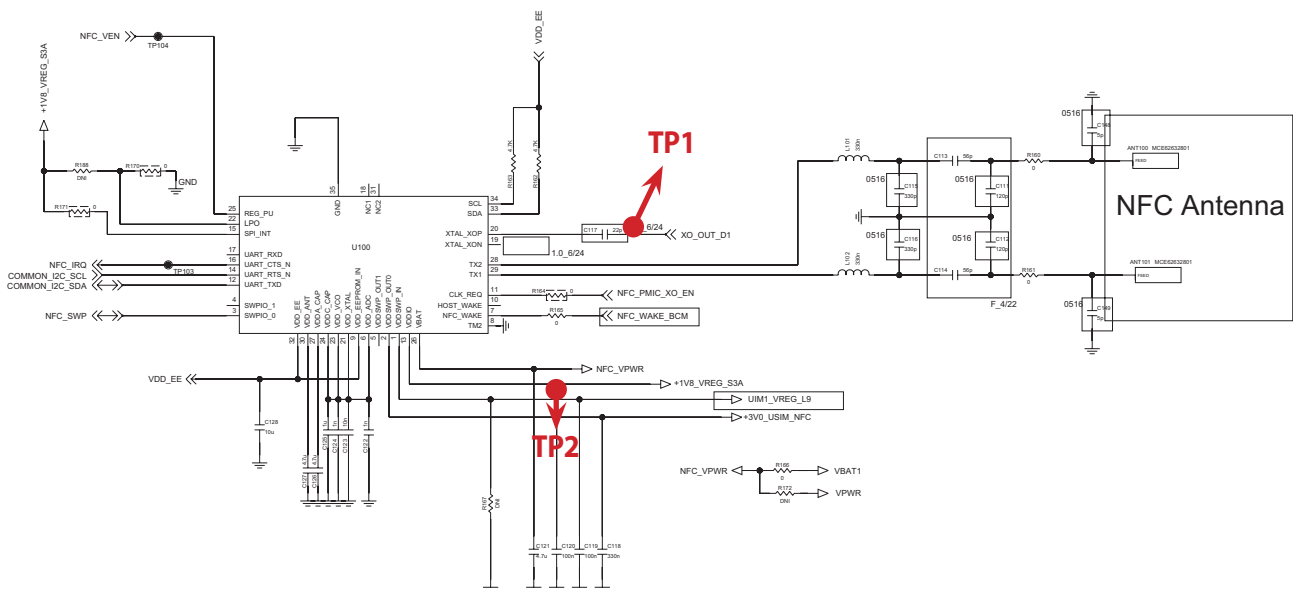
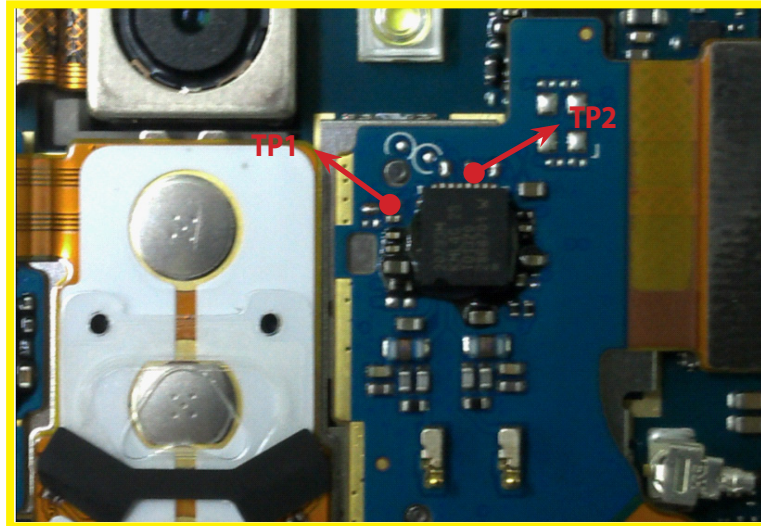
NFC RF PATH



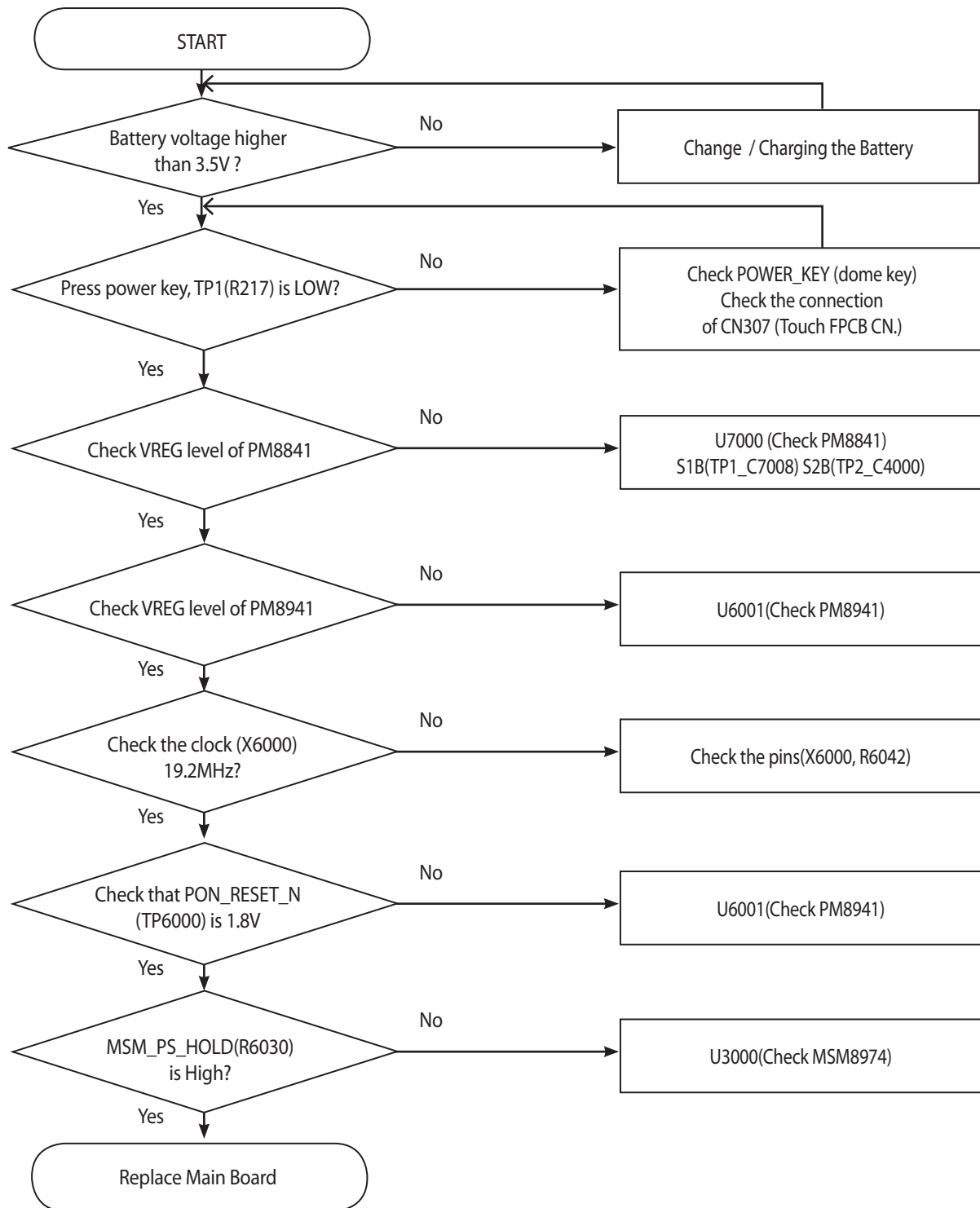
3. TROUBLE SHOOTING



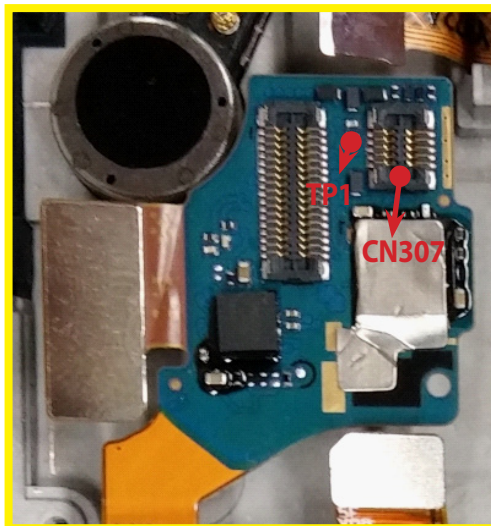
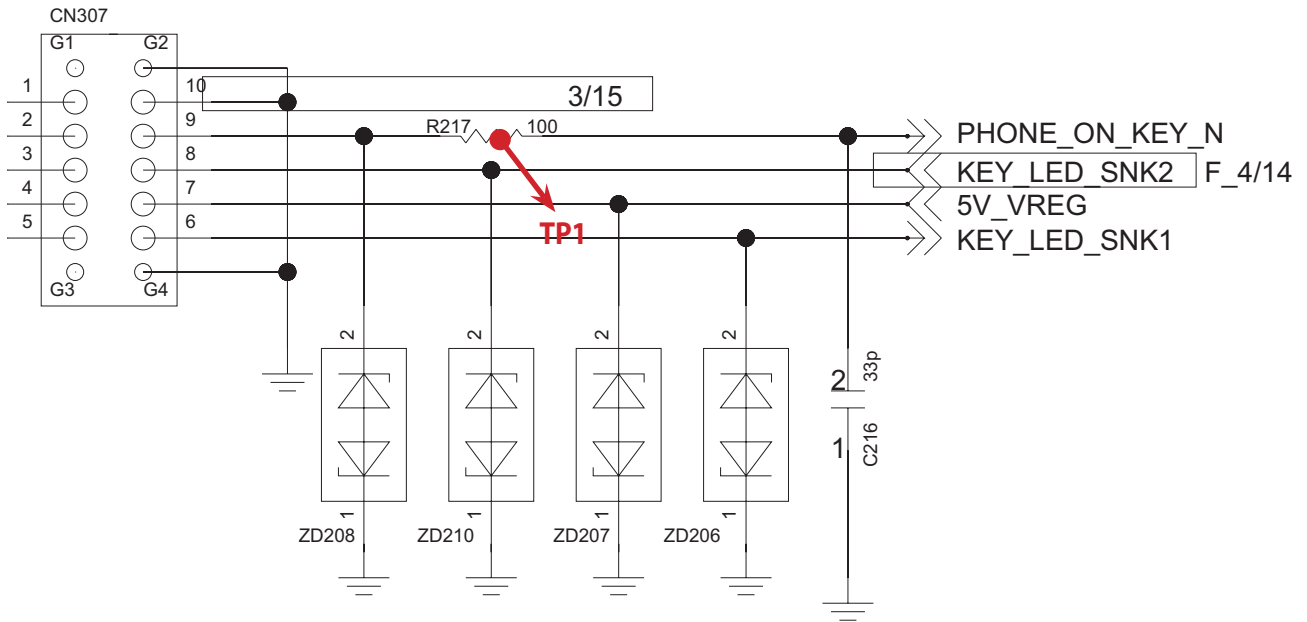
3. TROUBLE SHOOTING



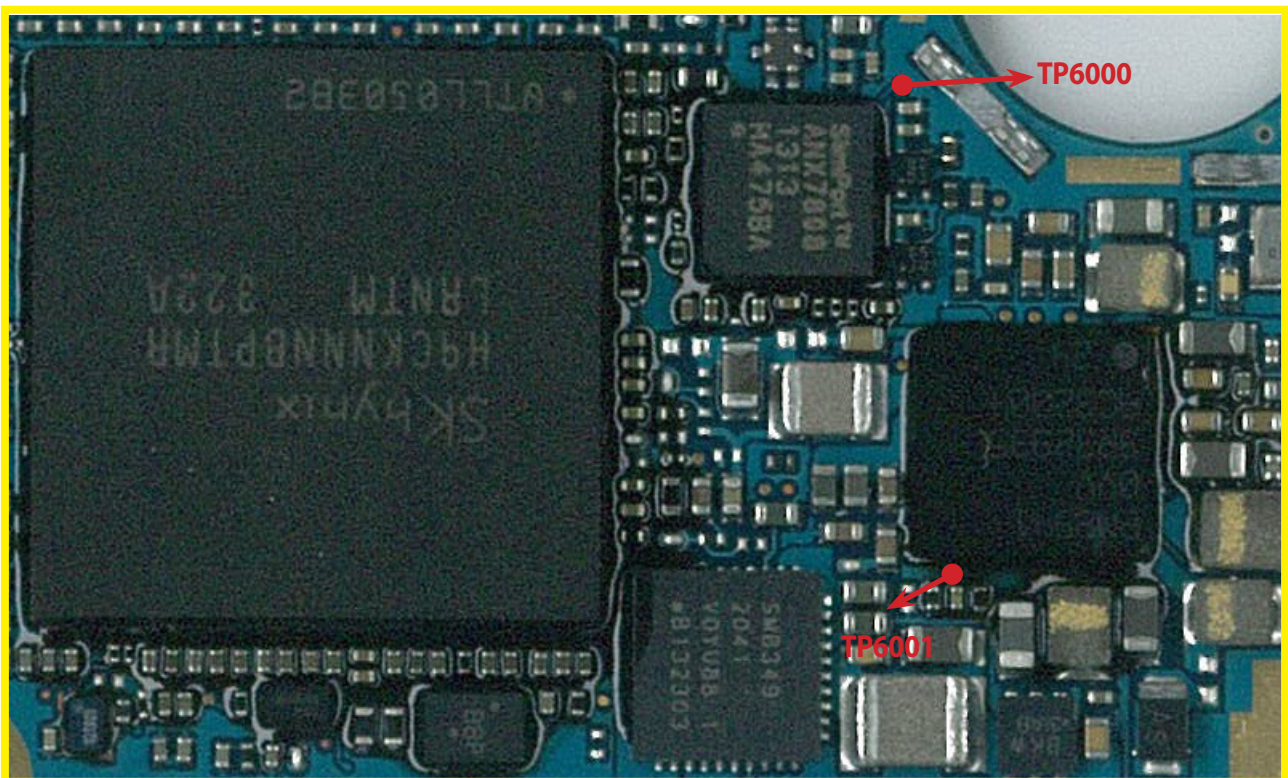
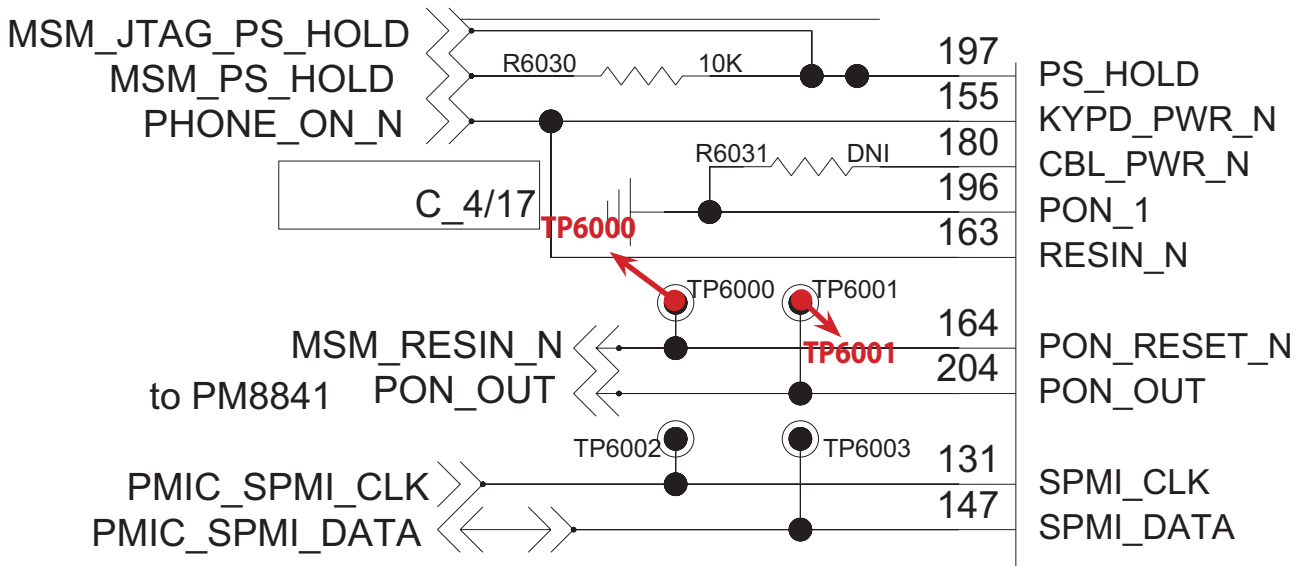
3.11 Power



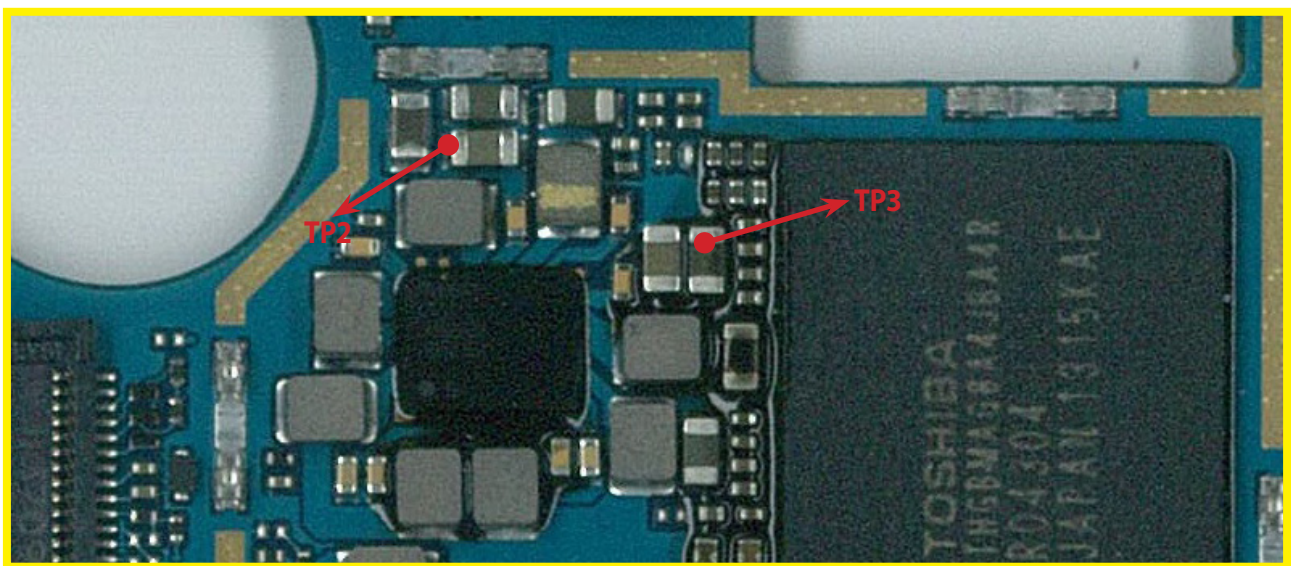
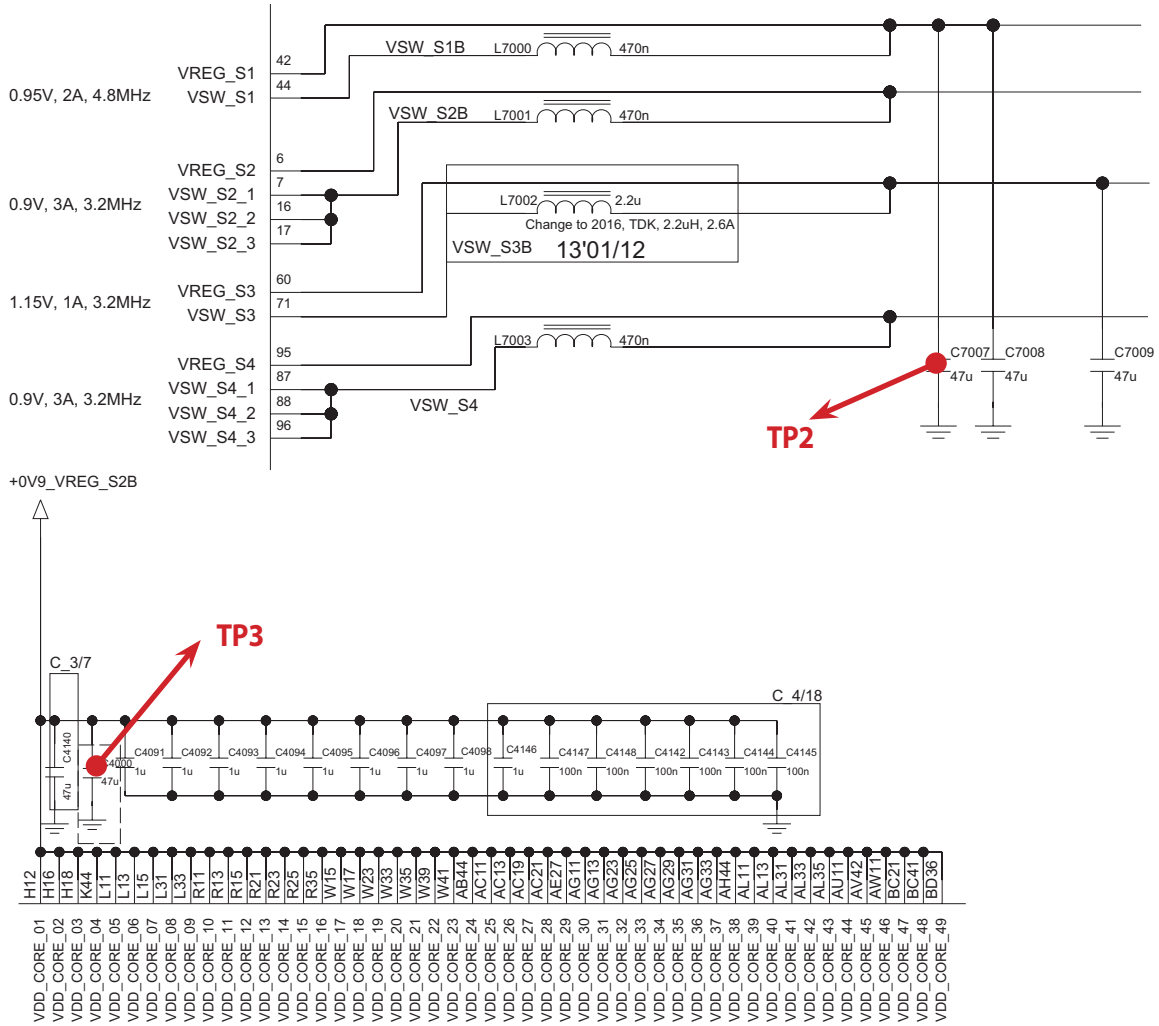
3. TROUBLE SHOOTING



3. TROUBLE SHOOTING



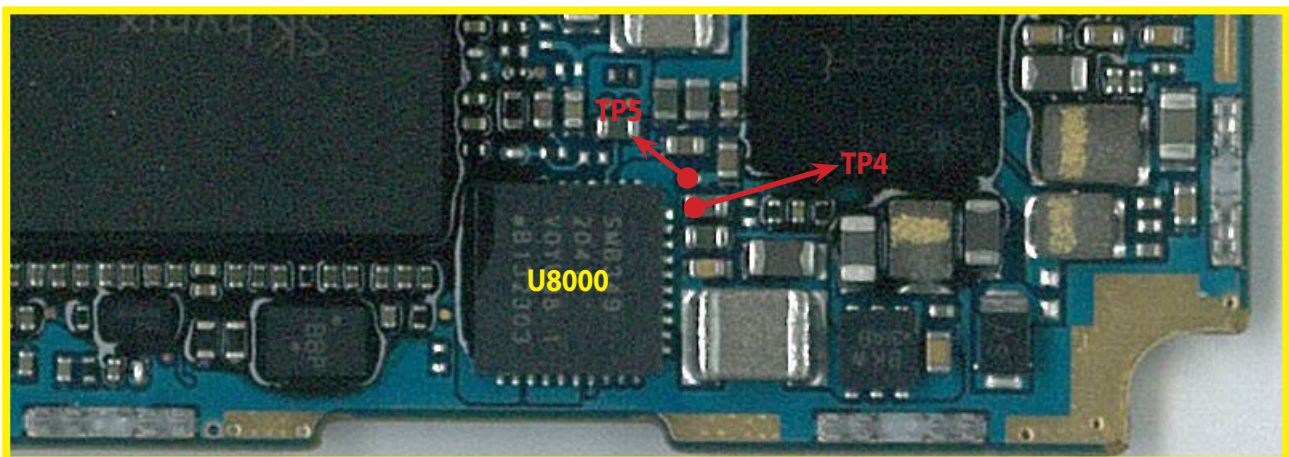
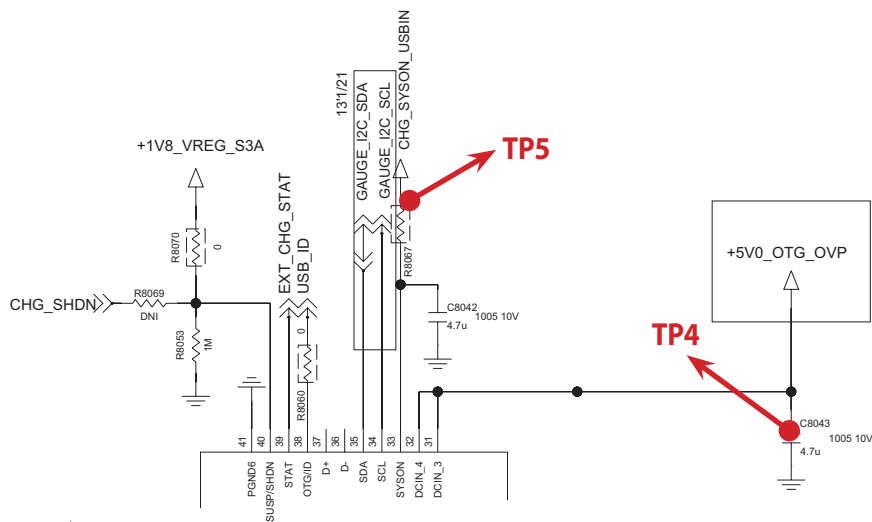
3. TROUBLE SHOOTING



BOT

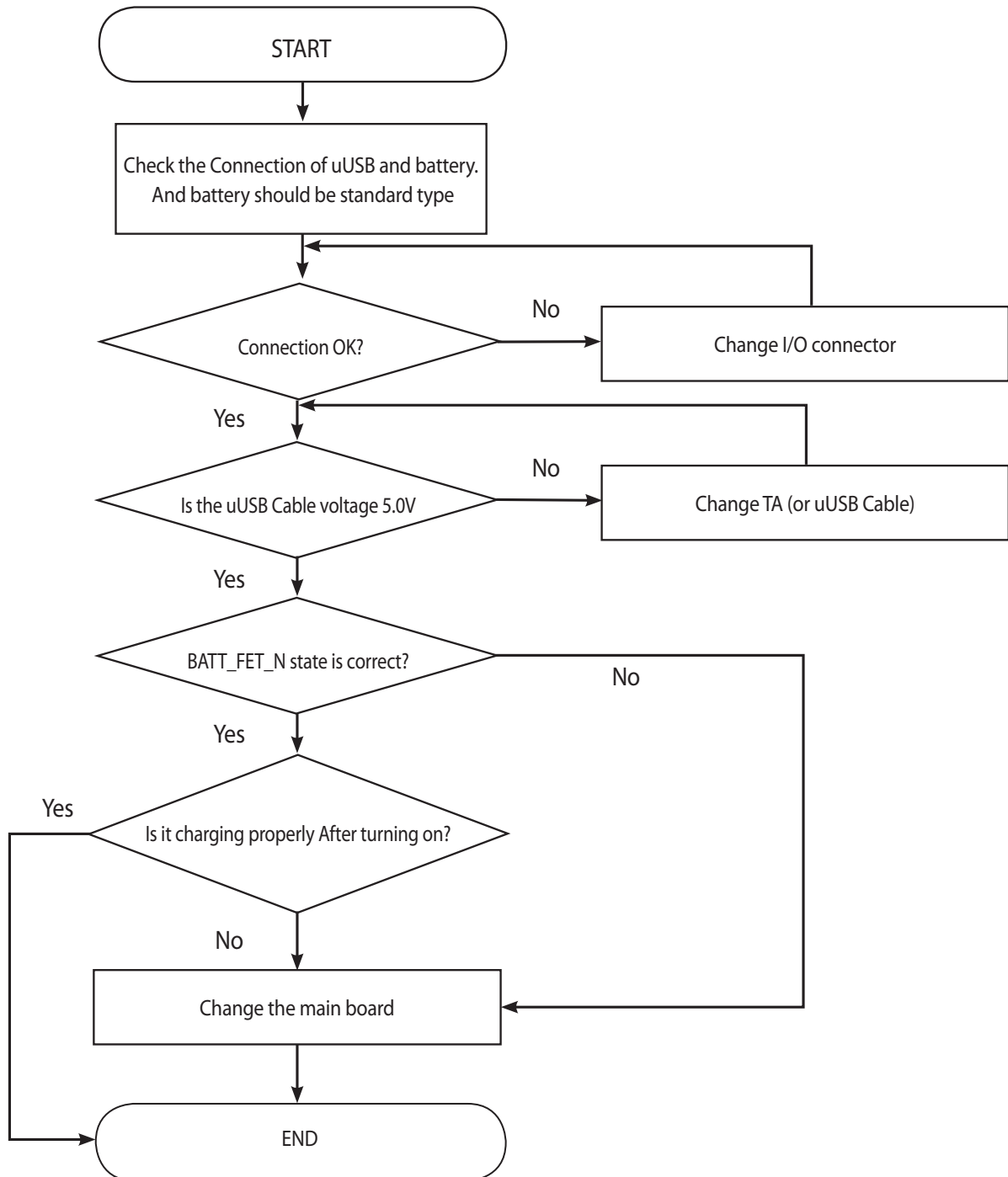
3.12 Charger

- D802 uses SMB349 (External charger IC) for charging control.
- Charging Procedure
 - Supply the VBUS_USB_IN_PM through a TA or u-USB cable
 - SMB349 controls the charging current
 - Charging current flows into the main battery
- Troubleshooting Check Point
 - Connection of the TA or u-USB cable (OVP U12003)
 - Charging current path (Charger IC U8000)
 - Main battery
- During charging operation TP signal goes low and when stop charging goes high.



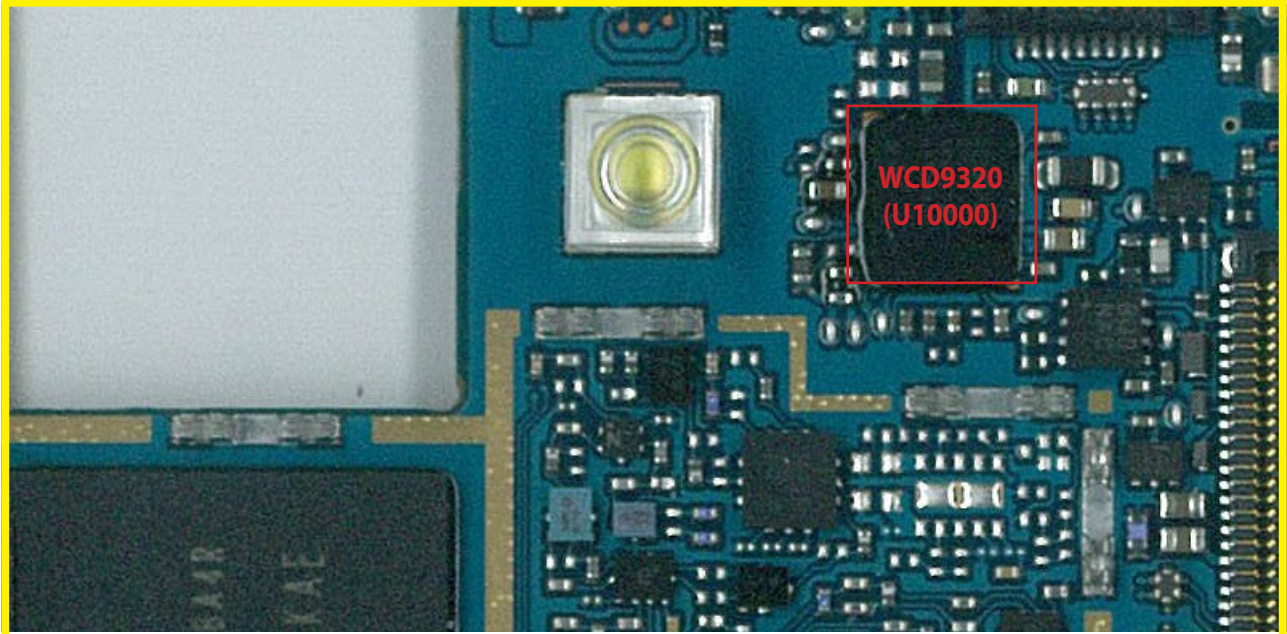
TOP

3. TROUBLE SHOOTING

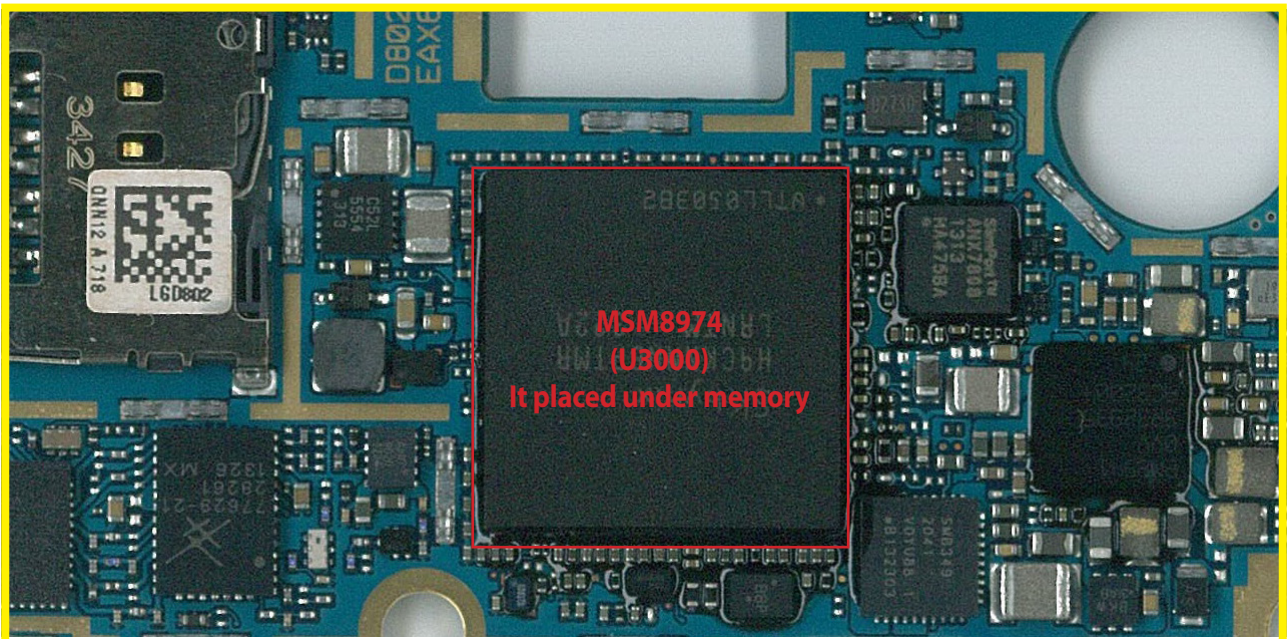


3.13 Audio

3.13.1 Overview

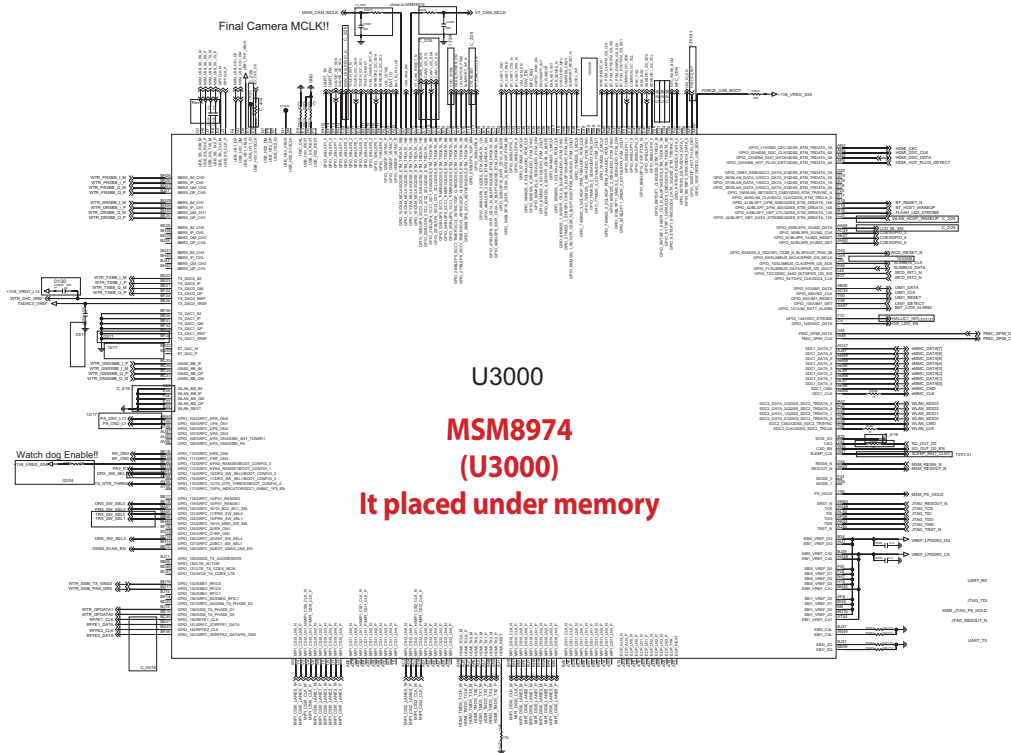


BOT

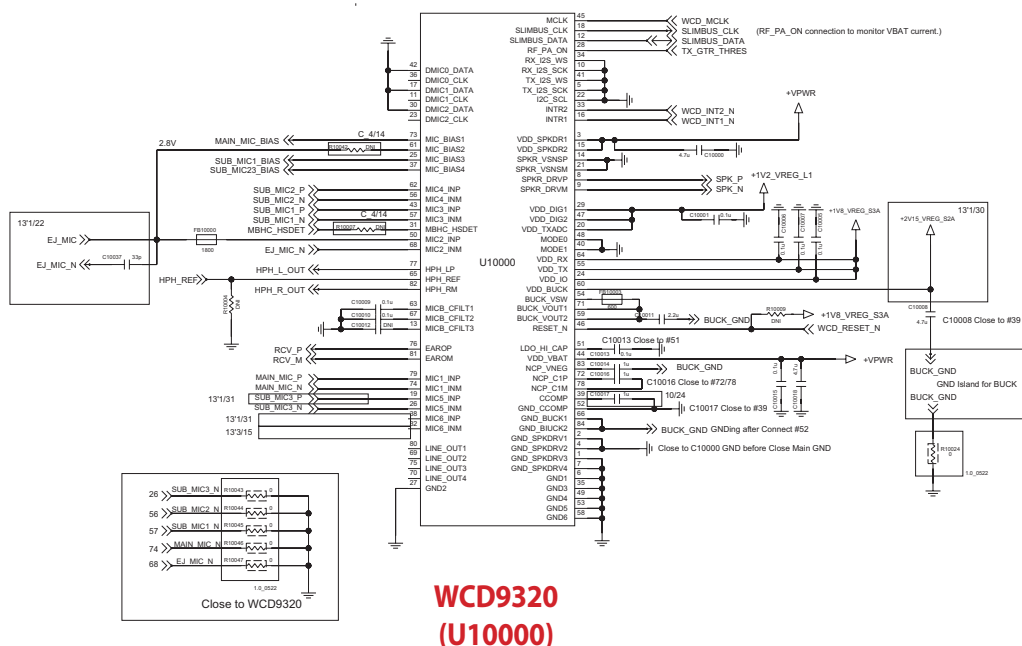


TOP

3. TROUBLE SHOOTING



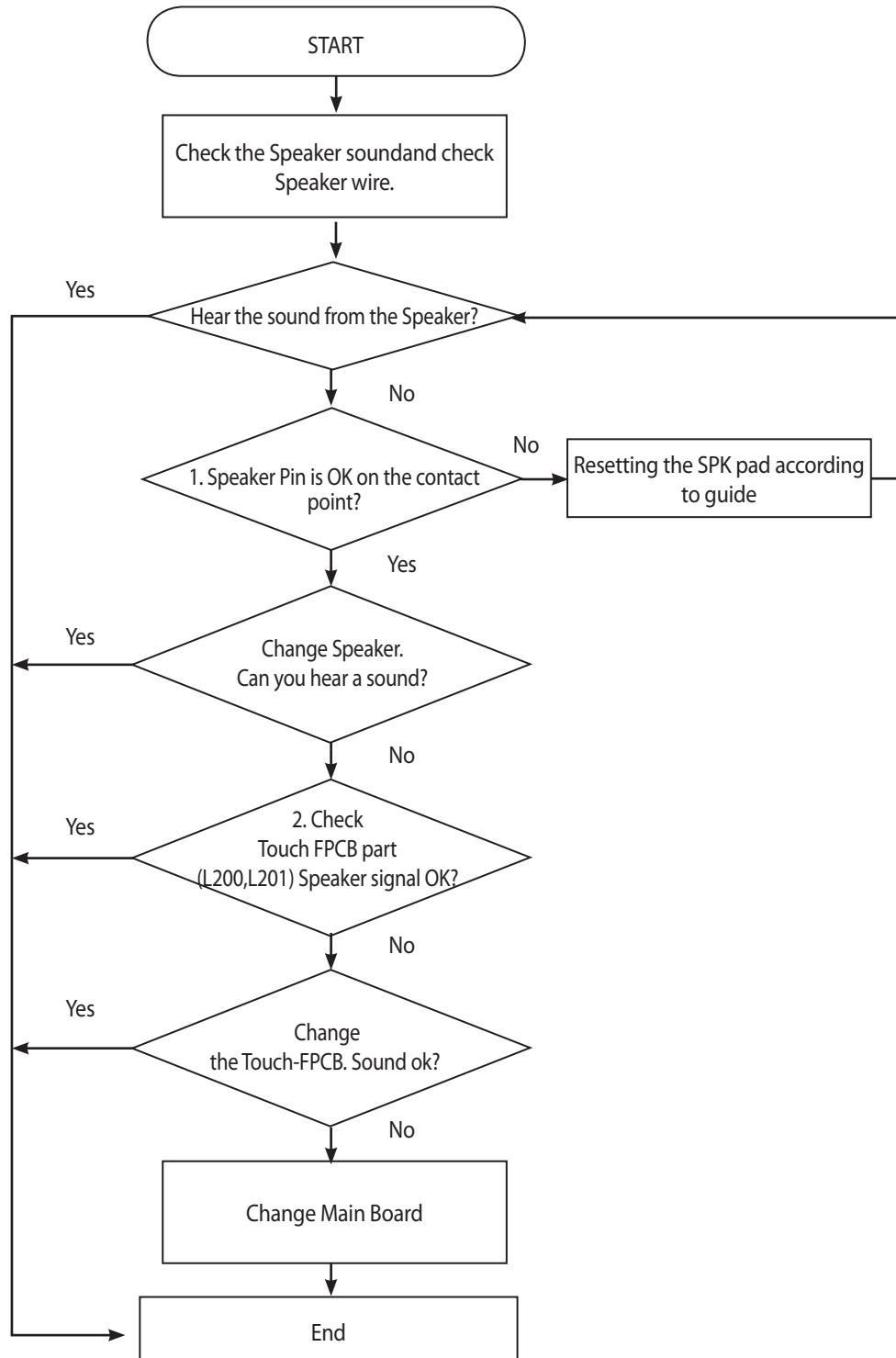
WCD9320(CODEC)

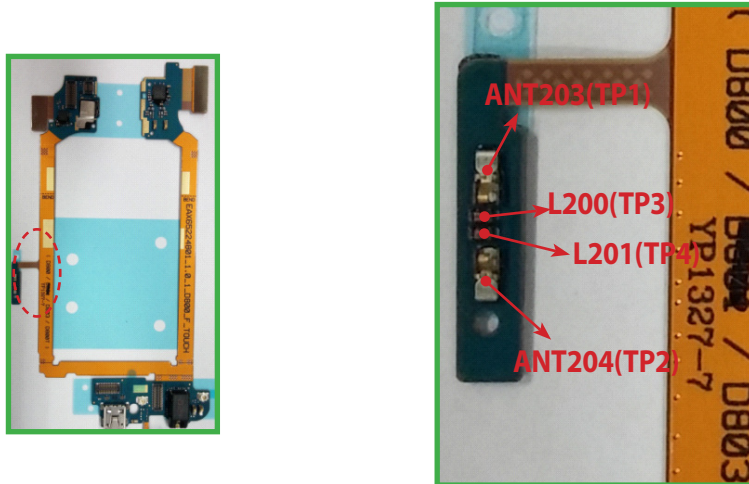


3.13.2 Speaker Trouble Shooting

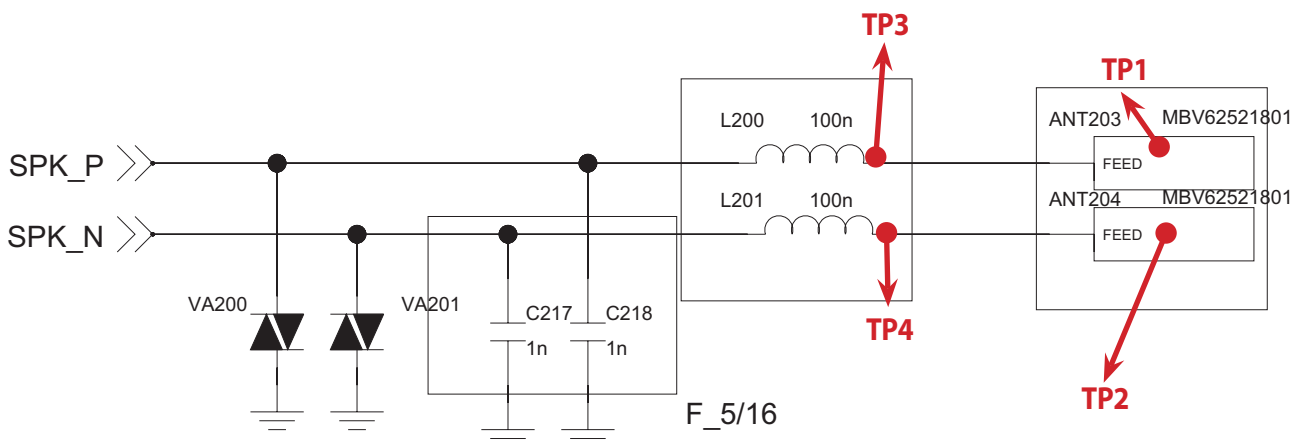
It's trouble shooting guide for no sound case.

Speaker control signals are generate by MSM8974(U3000), WCD9320(U10000)





SPEAKER



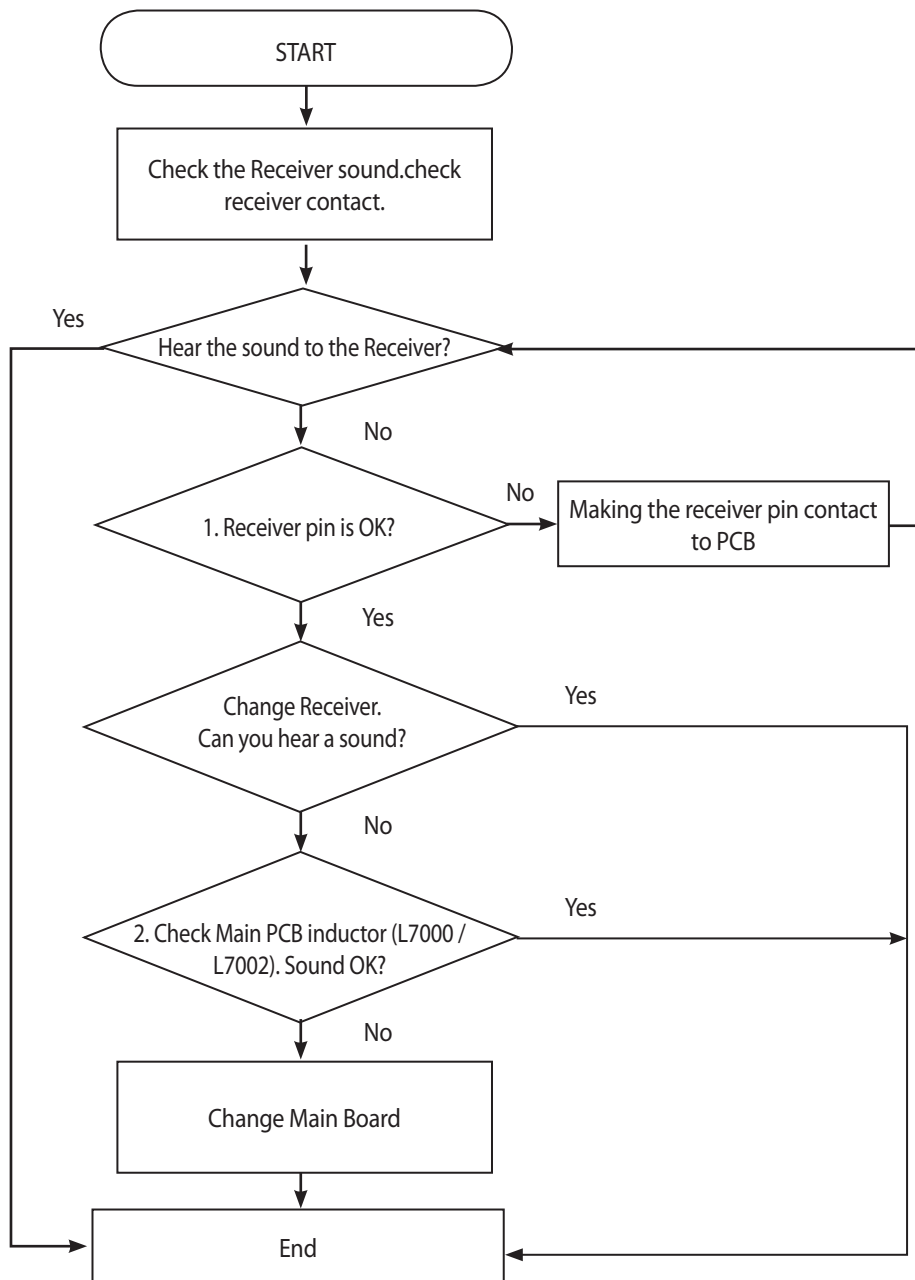
1. Speaker contact is OK on the contact point?
check the ANT203_TP1, ANT204_TP2
2. Check FPCB part (L200_TP3, L201_TP4). Speaker sound OK?

3.13.3 Receiver Trouble Shooting

Receiver control signals are generate by MSM8974(U3000), WCD9320(U10000)

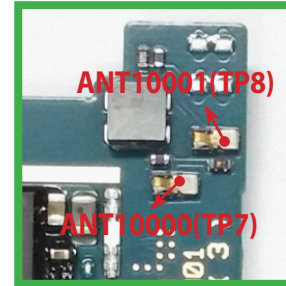
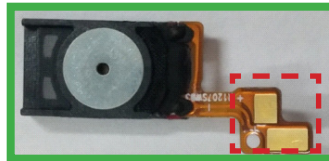
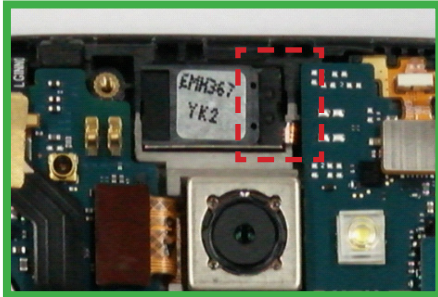
Voice Receiving path as below :

MSM8974 -> WCD9320 -> EAROP/EARON -> Receiver

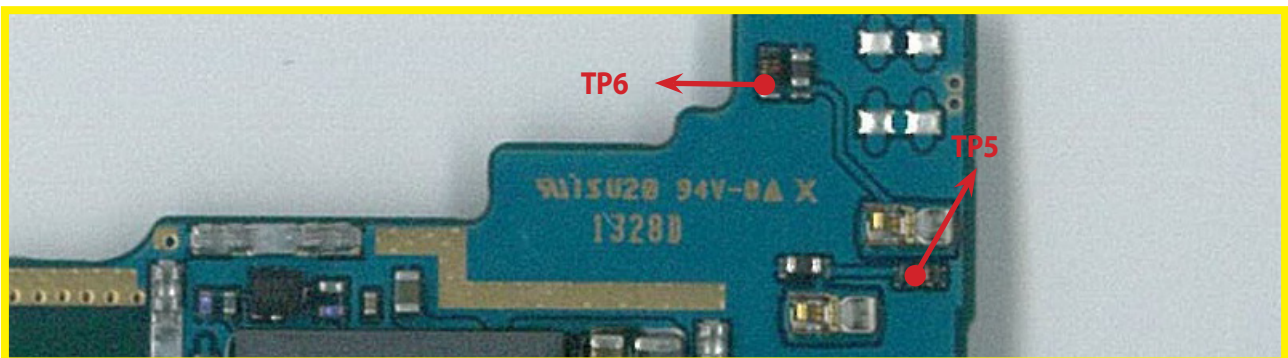
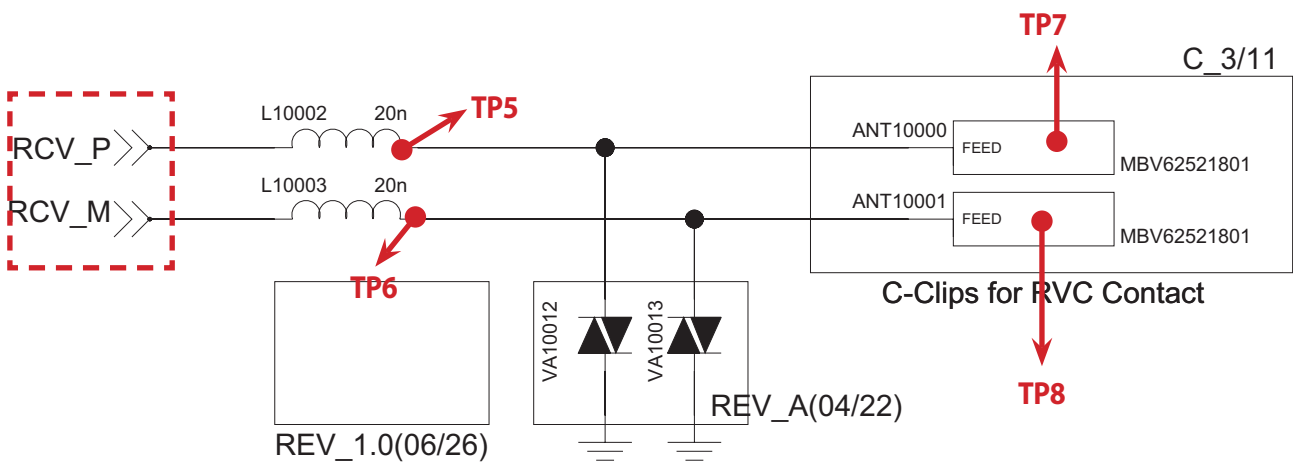


3. TROUBLE SHOOTING

1. Receiver pin is OK? Checking the receiver pin and PCB are contacted well.



2. Check Main PCB inductor (L10002 / L10003).



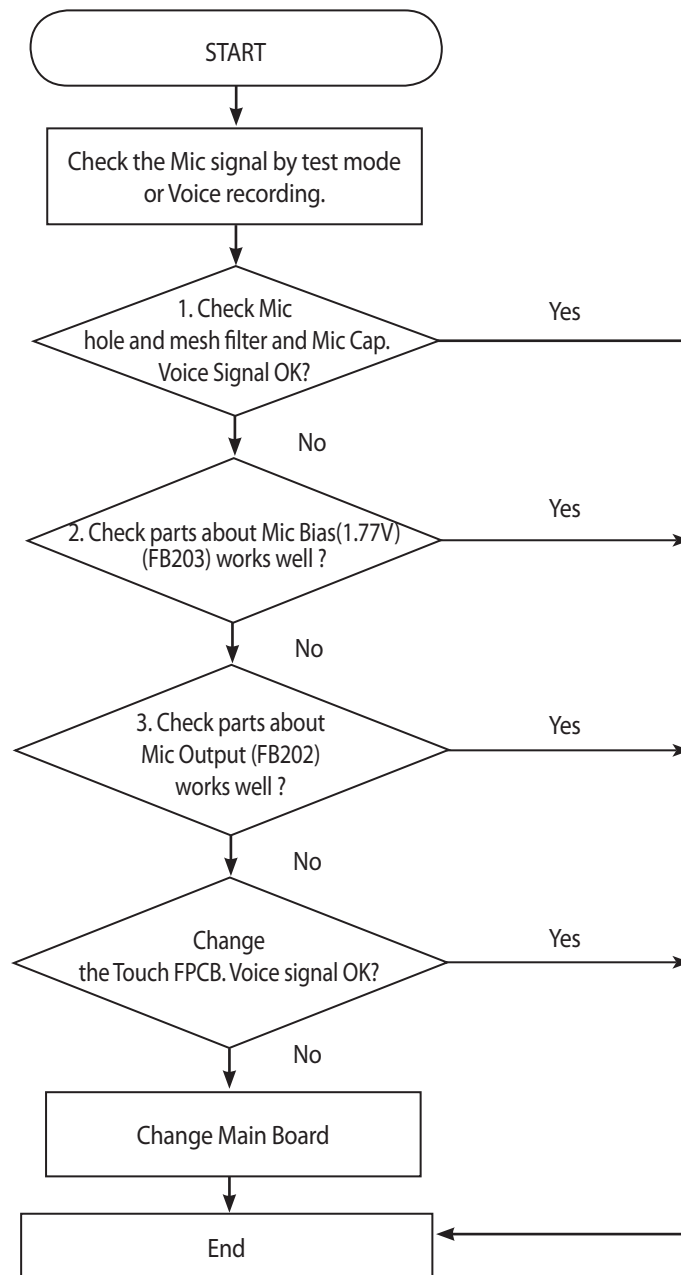
In case of No Receiver sound, not only Receiver fault but MIC fault.

You must check the voice recording test first. After voice recording, if you could hear the recorded sound, It is nor MIC fault And receiver path or parts is something wrong.

3.13.4 Main MIC Trouble Shooting

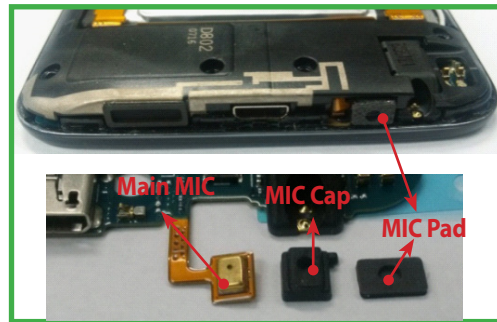
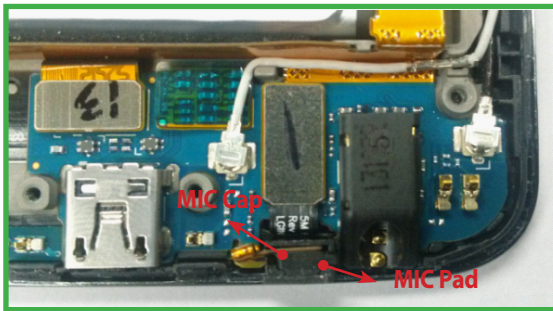
A Main MIC is located on Touch FPCB.

It operates in case of voice call (handset), voice recording, camcorder recording



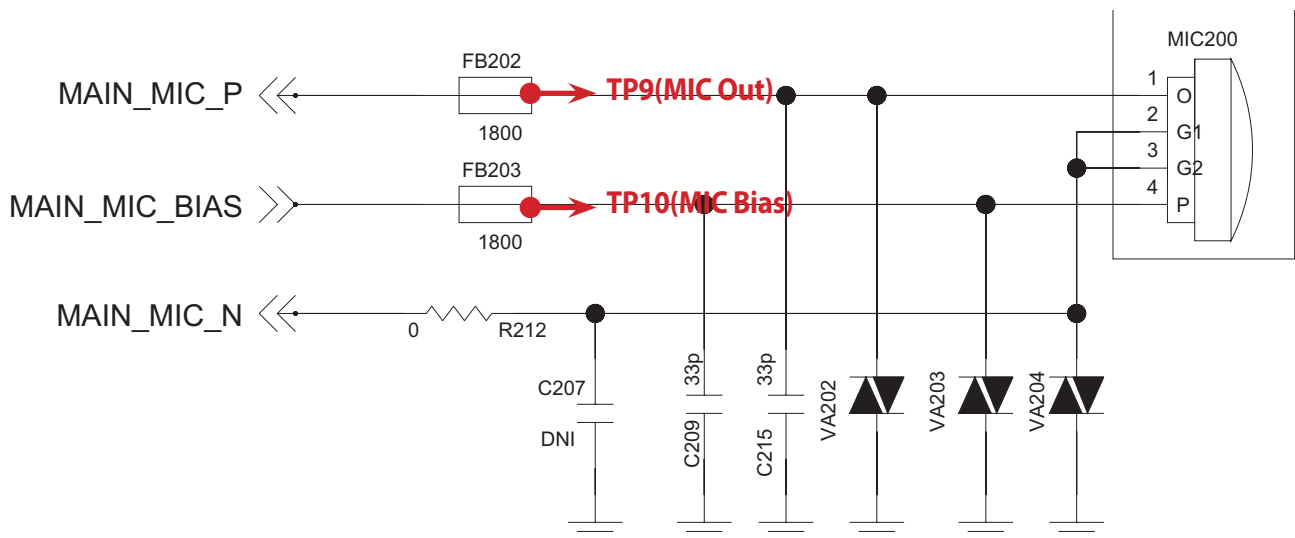
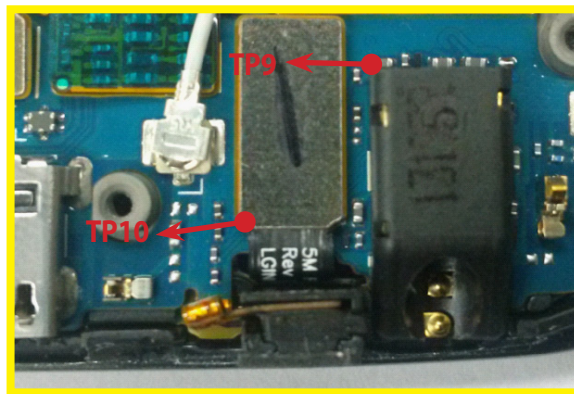
3. TROUBLE SHOOTING

1. Check Mic hole, PAD and Mic Cap. Voice Signal OK?

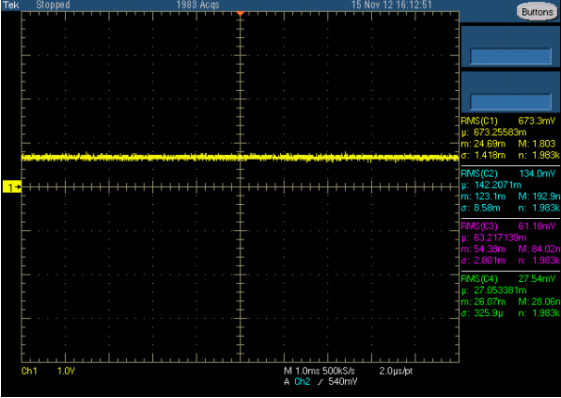
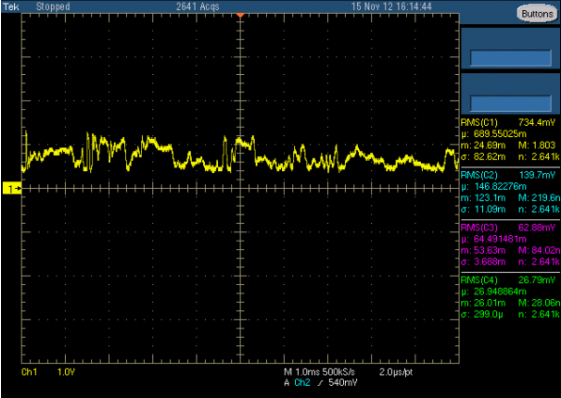
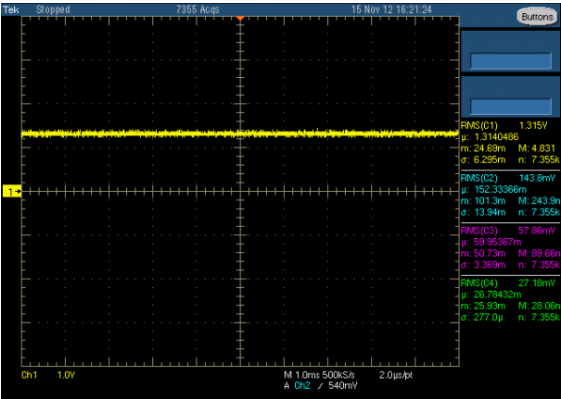


2. Check parts about Mic Bias(FP203_TP10) works well (about 1.77V) ?

3. Check parts about Mic Output (FB202_TP9) works well ?
 – waveform moves with oscilloscope



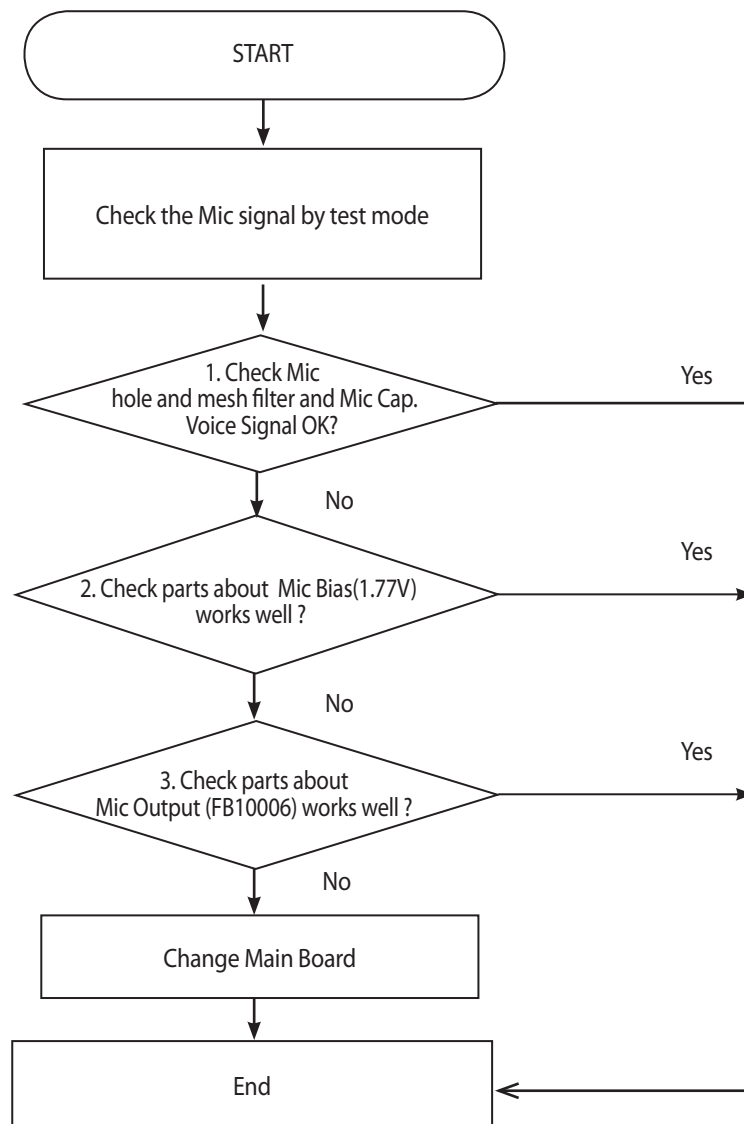
waveform with oscilloscope

<p>Normal MIC Out Signal (Idle)</p>		<p>About 0.7V (Flat)</p>
<p>Normal MIC Out Signal (Voice Input)</p>		<p>Moves(Dynamic)</p>
<p>Malfunction MIC Out Signal (Idle and Voice Input)</p>		<p>1.31V (fixed)</p>

3.13.5 Sub MIC Trouble Shooting

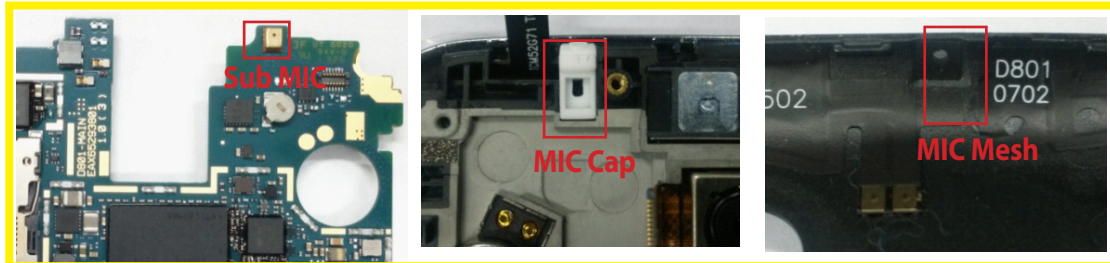
A sub MIC is located on Main PCB.

It operates in case of voice call (Speaker phone).



3. TROUBLE SHOOTING

1. Check Mic hole and mesh filter on Battery Cover and Mic Cap in Front Ass'y. Voice Signal OK?



Main PCB

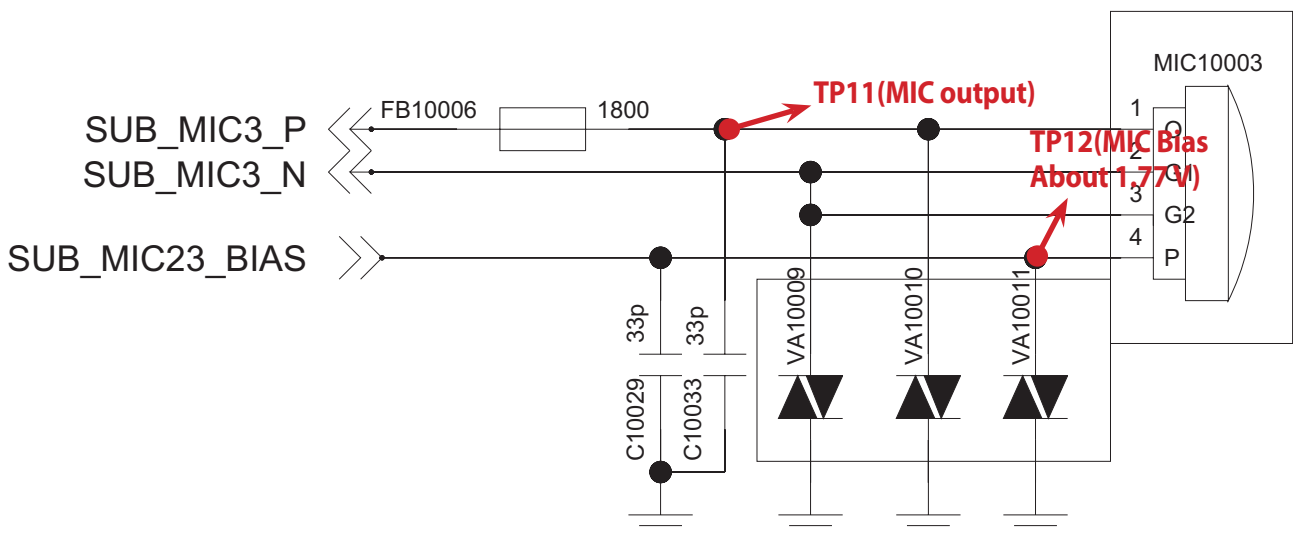
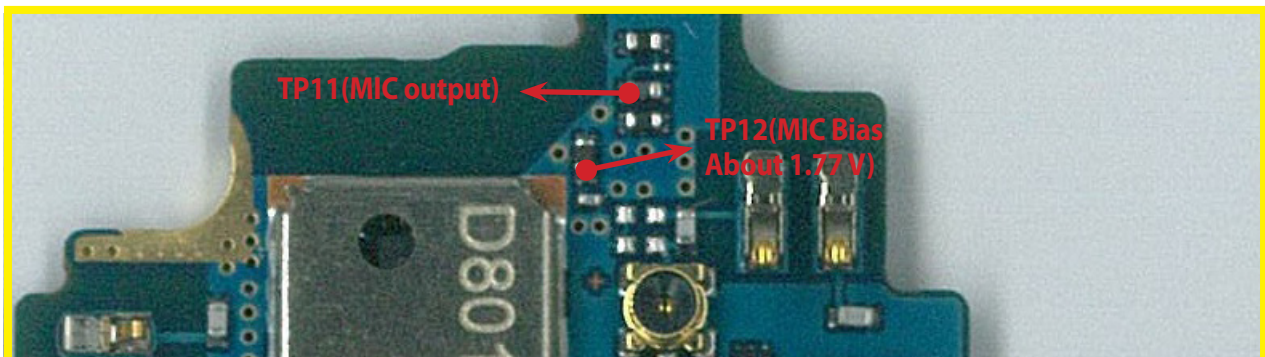
Front Assembly

Battery Cover Assembly

2. Check parts about Mic Bias(VA10011_TP12) works well (about 1.77V) ?

3. Check parts about Mic Output (FB10006_TP11) works well ?

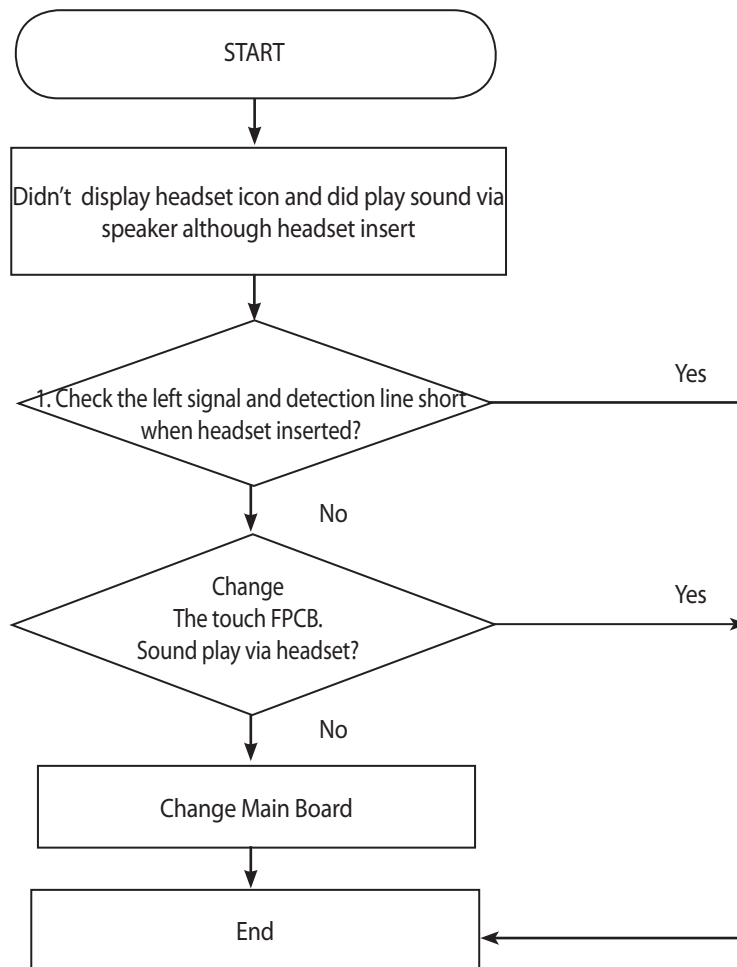
- waveform moves



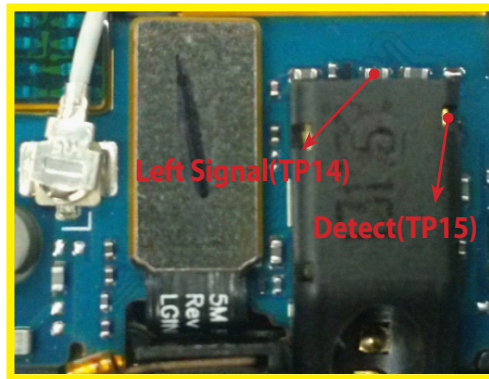
3.13.6 Ear-MIC Trouble Shooting

Ear MIC control signals are generate by MSM8974(U3000), WCD9320(U10000), FSA8008UMX(U7001).

Case A. Unable detection of headset insert.

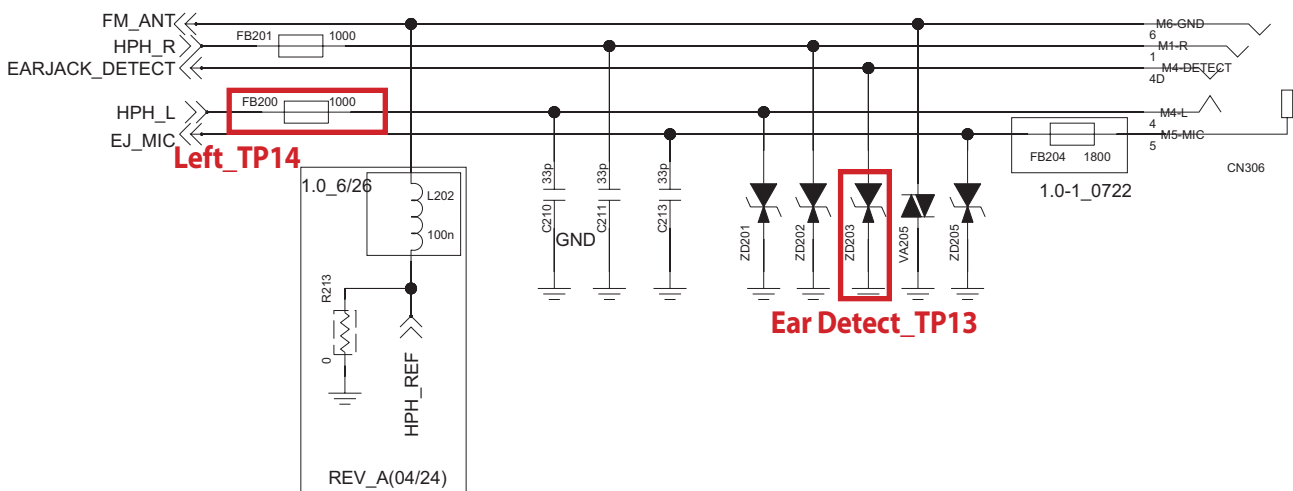


3. TROUBLE SHOOTING

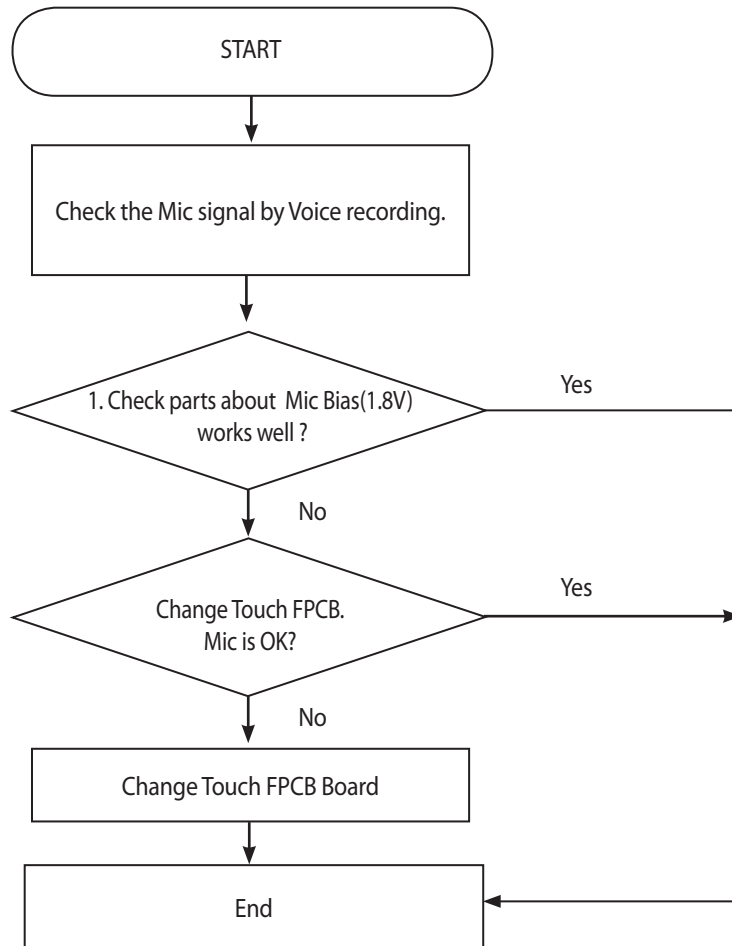


Check they are shorted

1. Check the left signal(HPH_L) and detection line(EAR_SENSE_JACK) are shorted when headset inserted.
See PCB Contact terminal also.

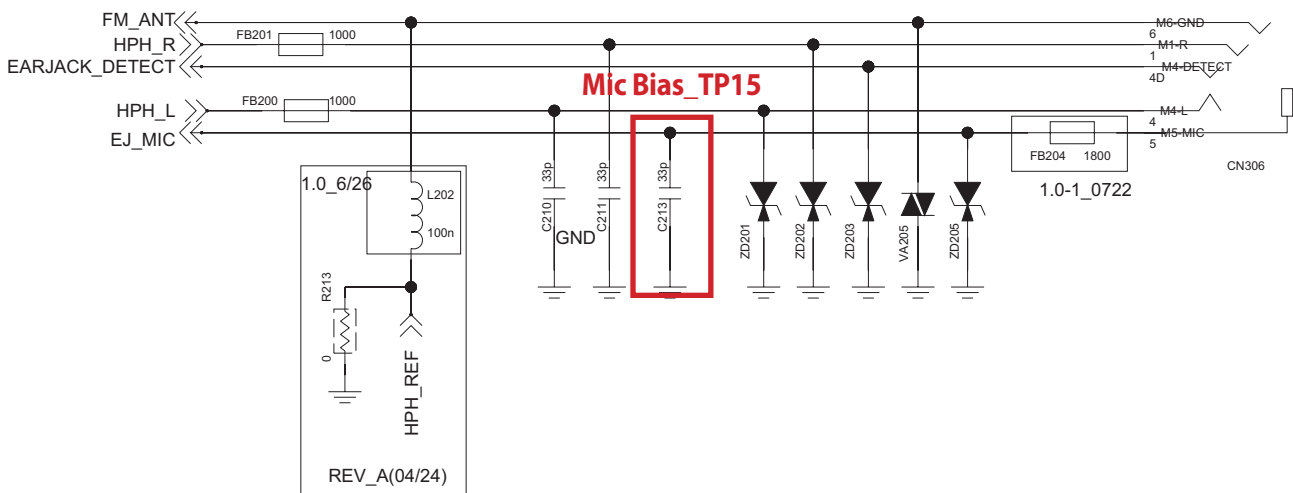
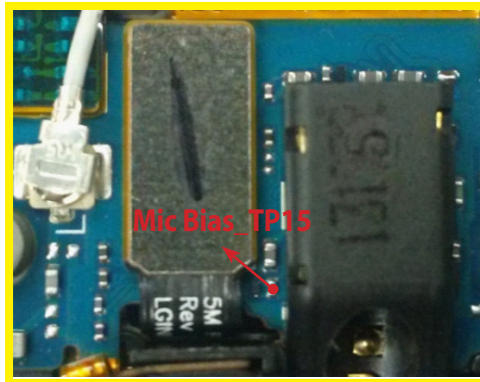


Case B. No Sound from Ear-mic

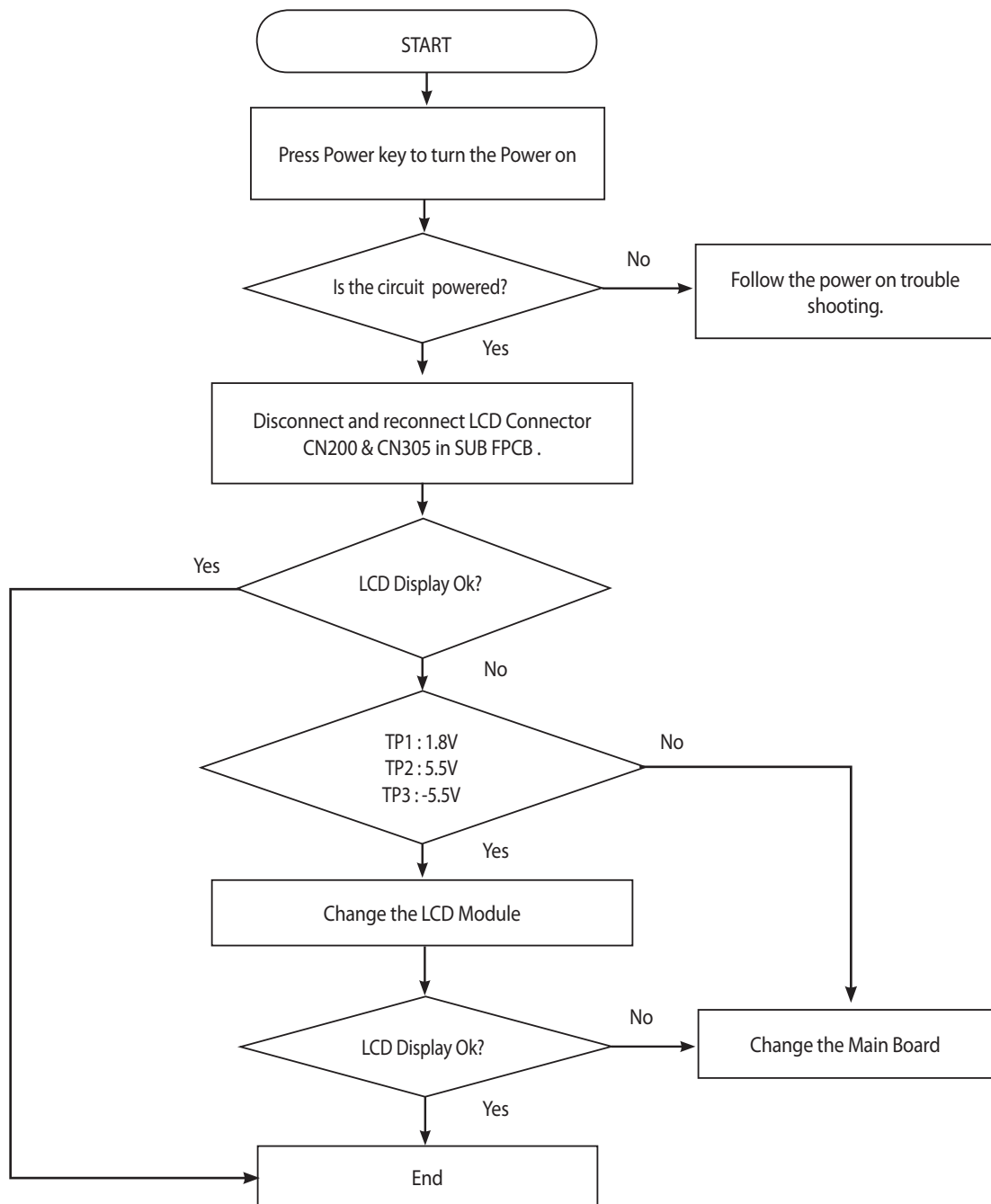


3. TROUBLE SHOOTING

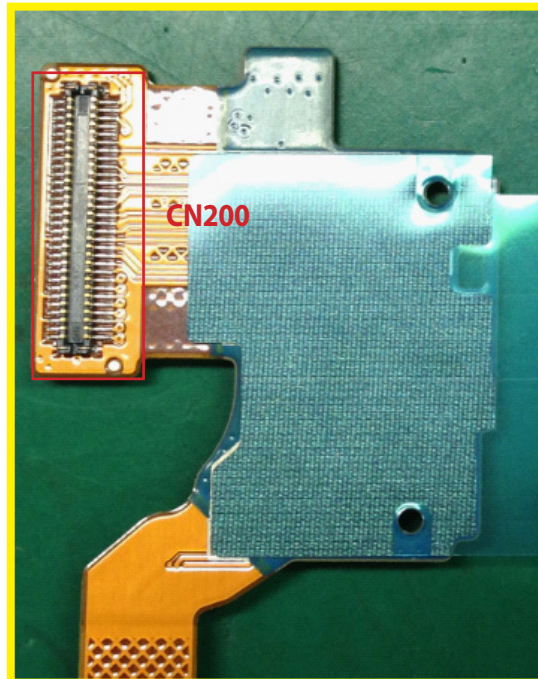
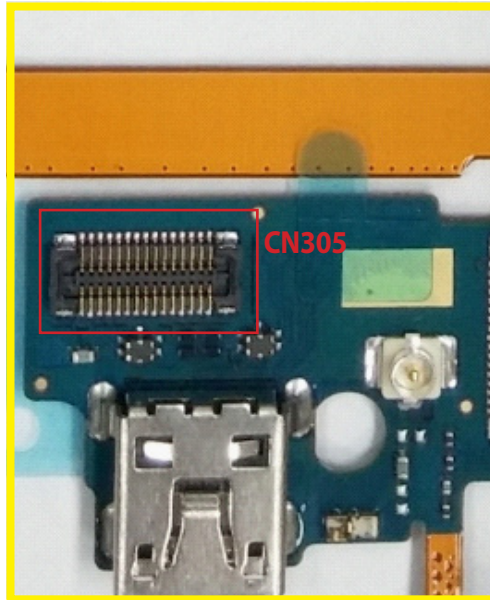
1. Check parts about Mic Bias(1.8V) works well ?



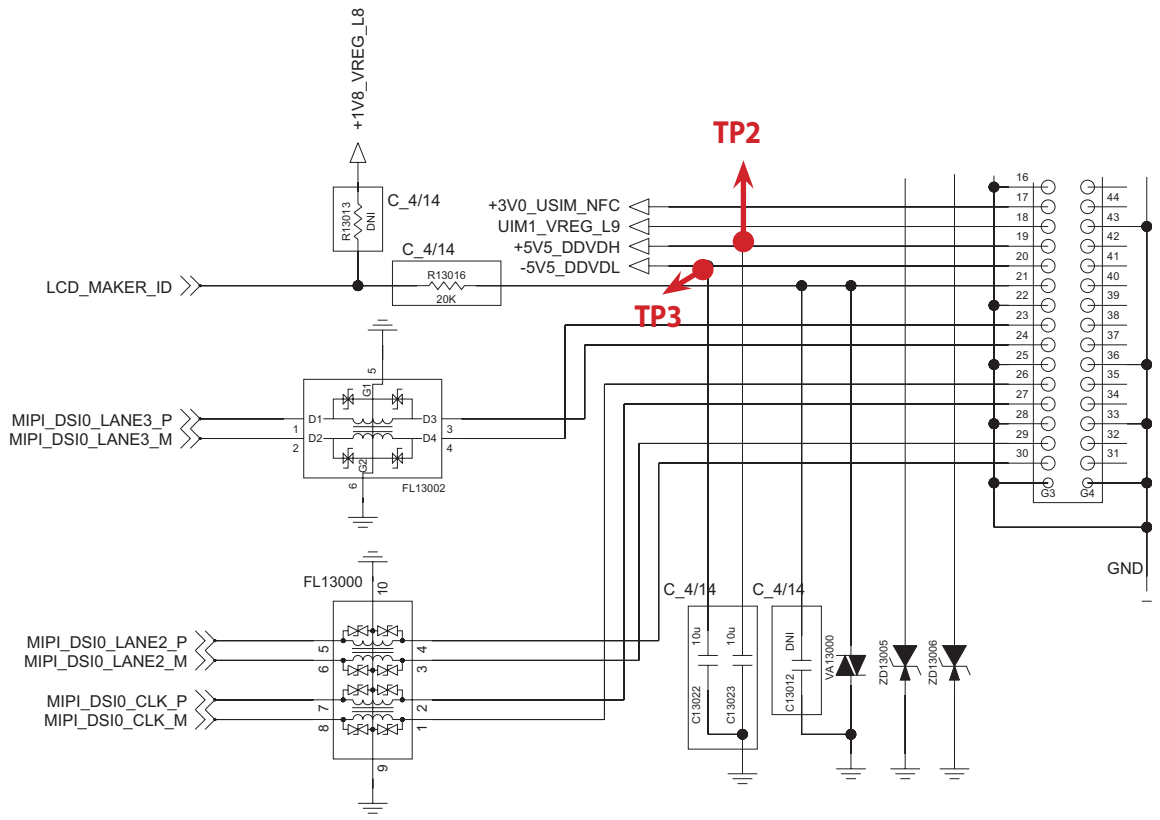
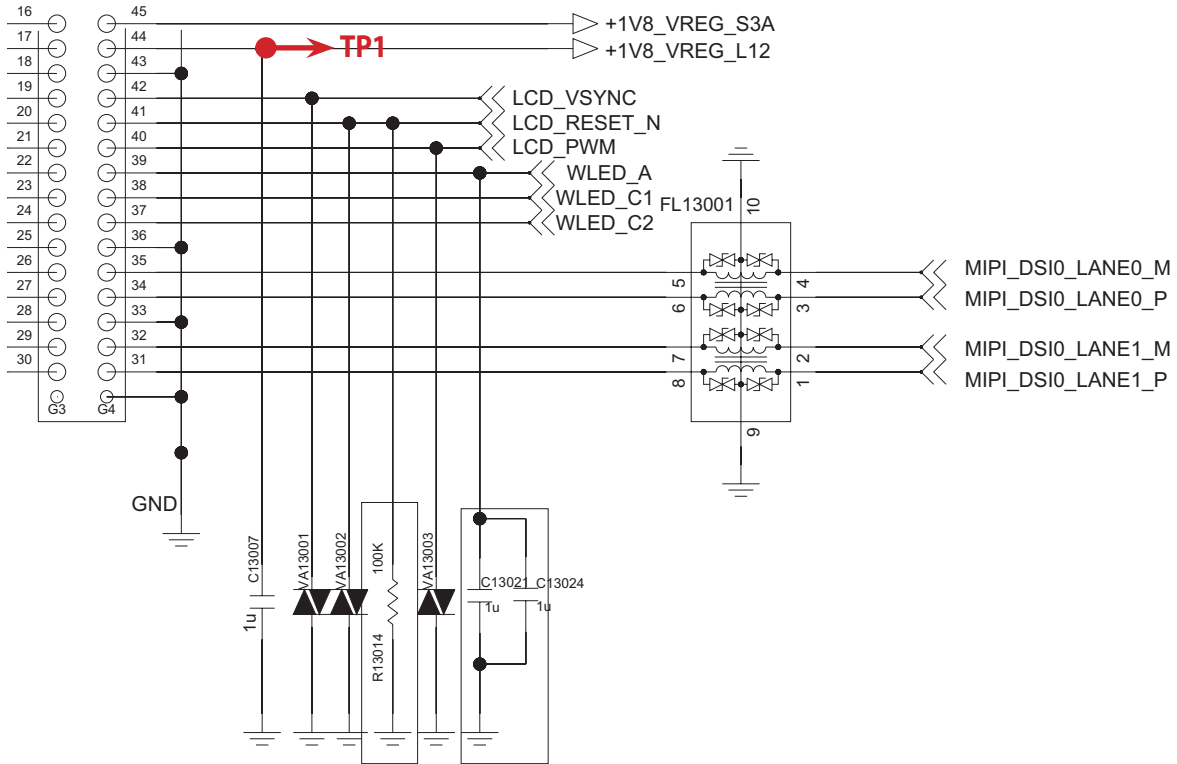
3.14 LCD



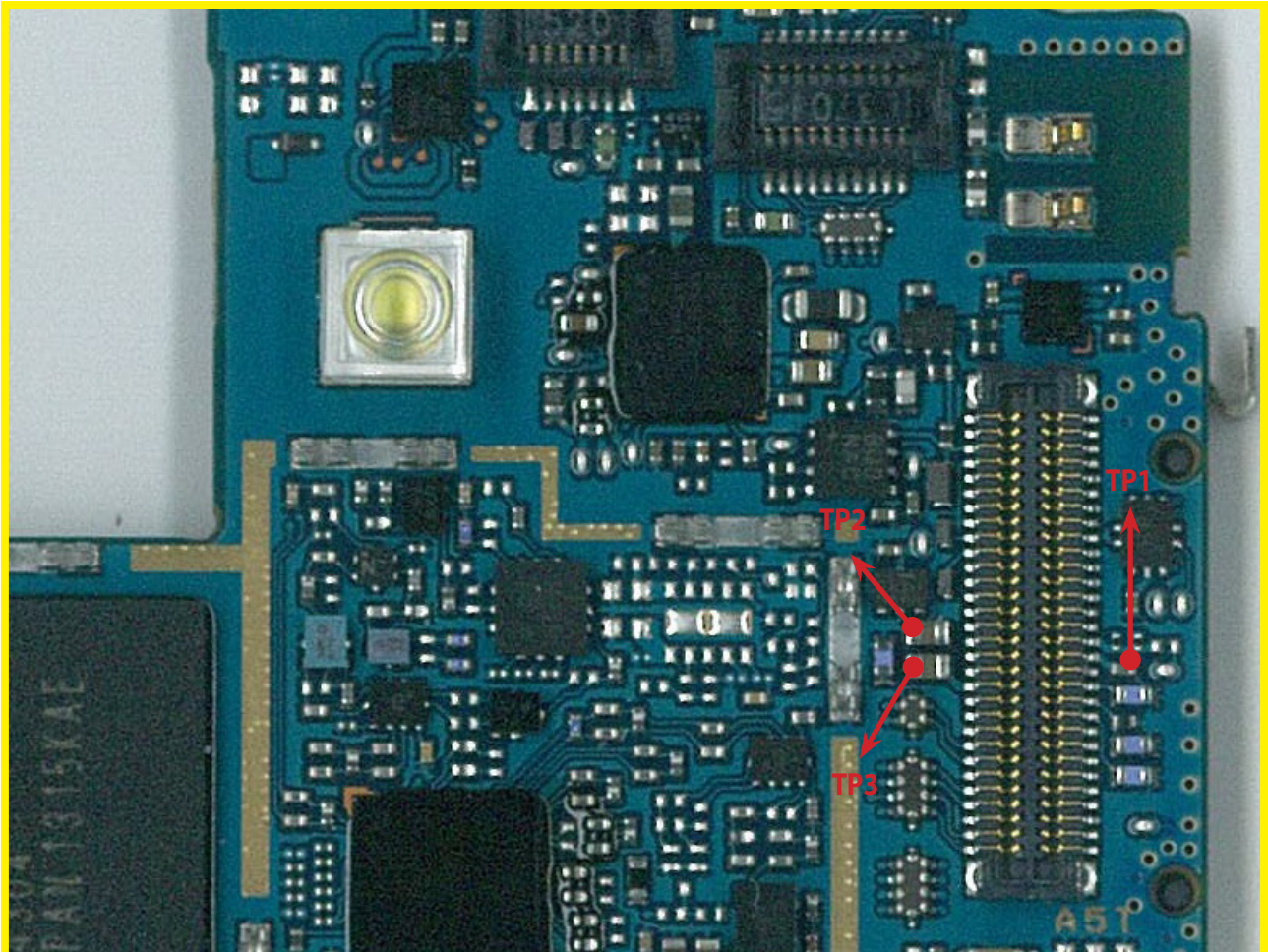
3. TROUBLE SHOOTING



3. TROUBLE SHOOTING



3. TROUBLE SHOOTING

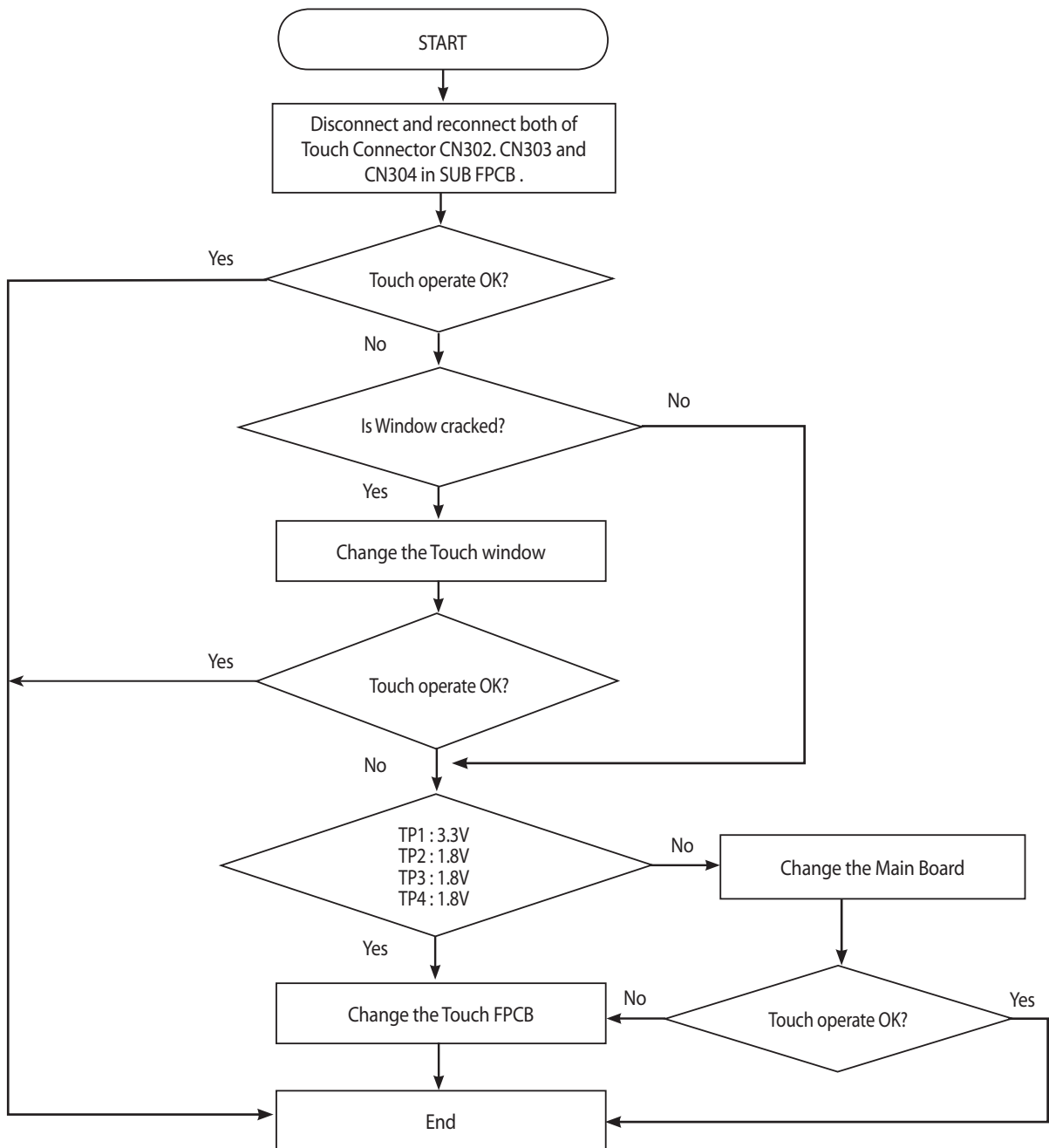


BOT

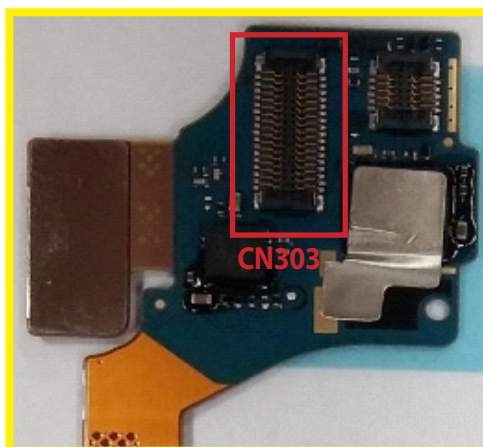
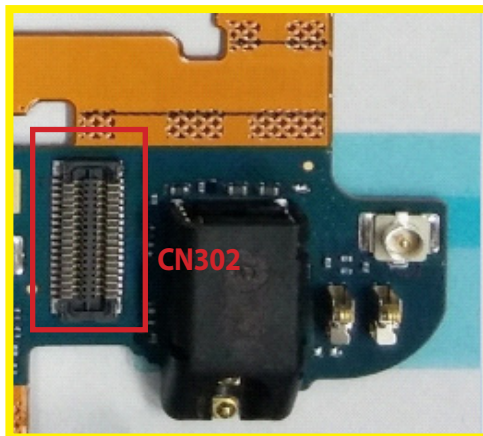
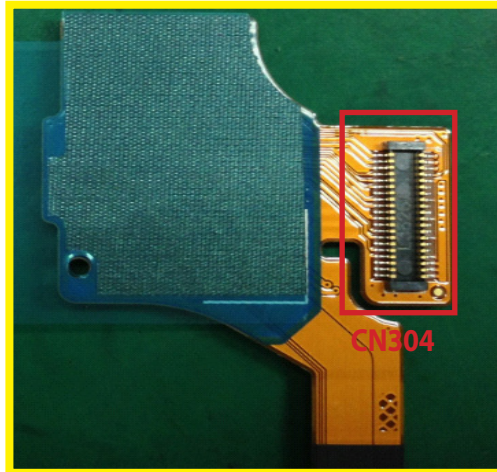
3.15 Touch

Touch control signals are generated by touch sensor.

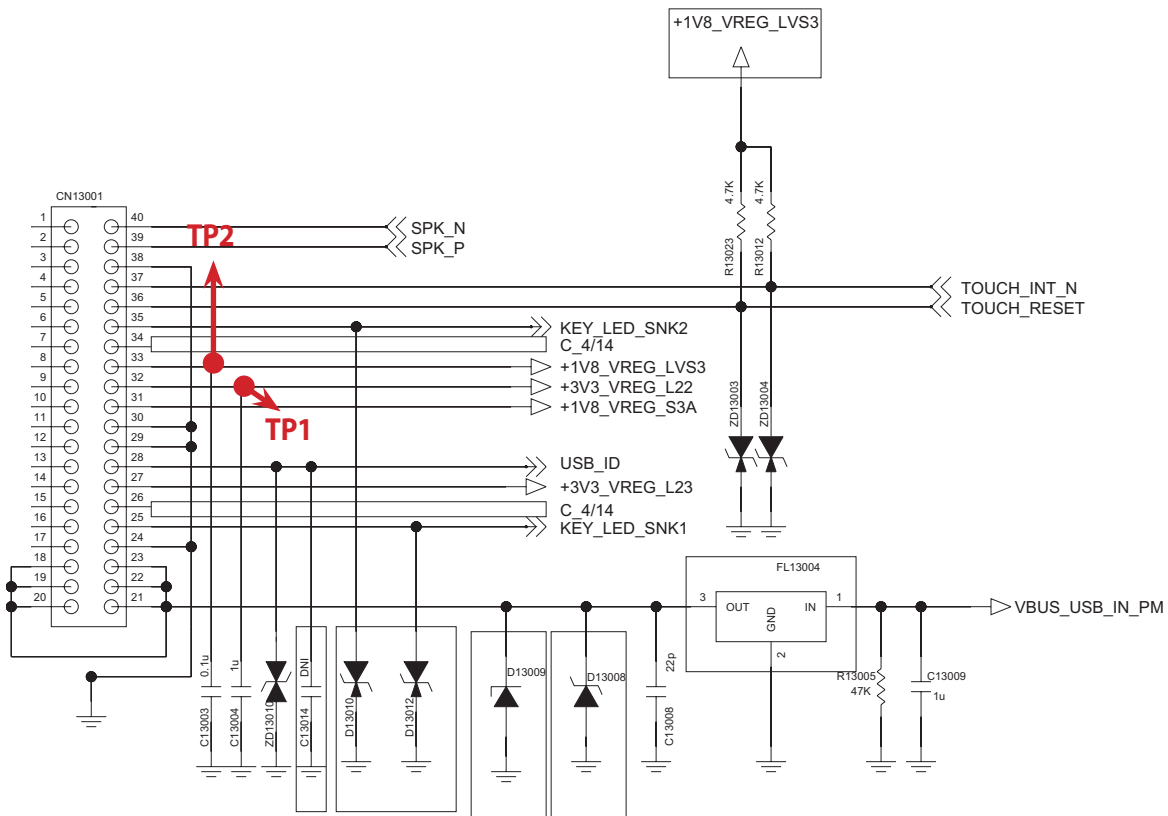
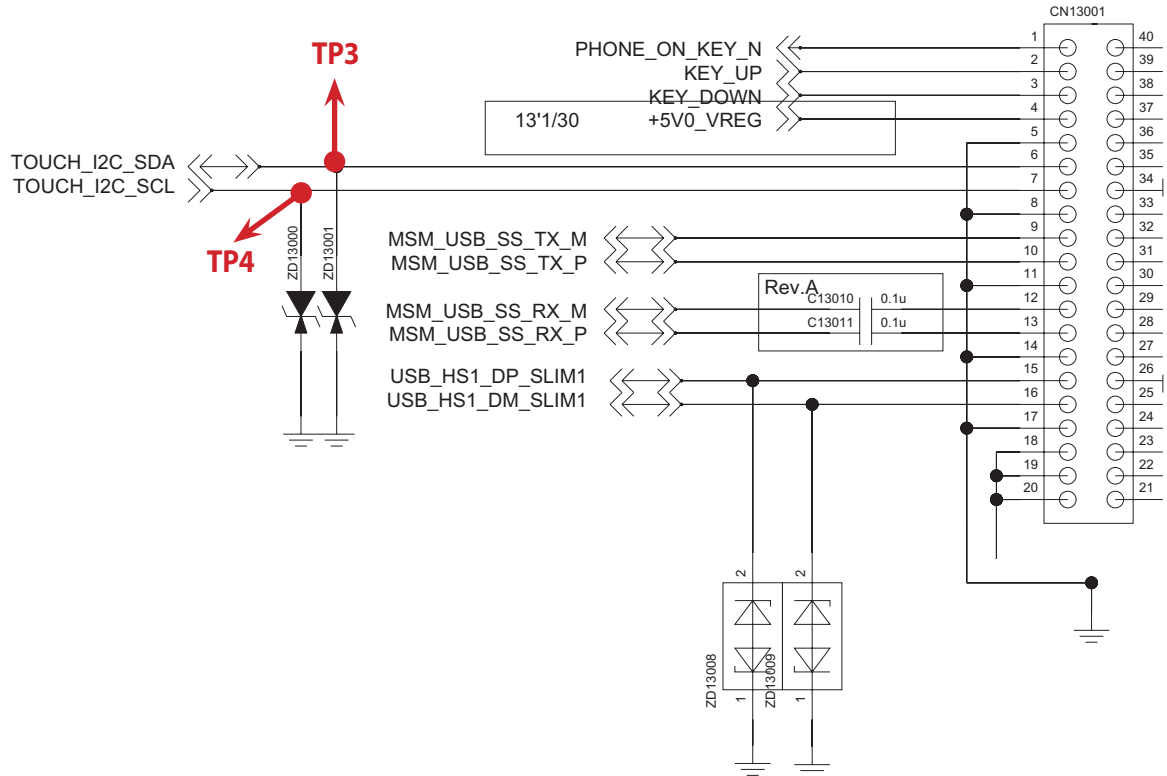
Those signal's path are touch sensor -> MSM8974



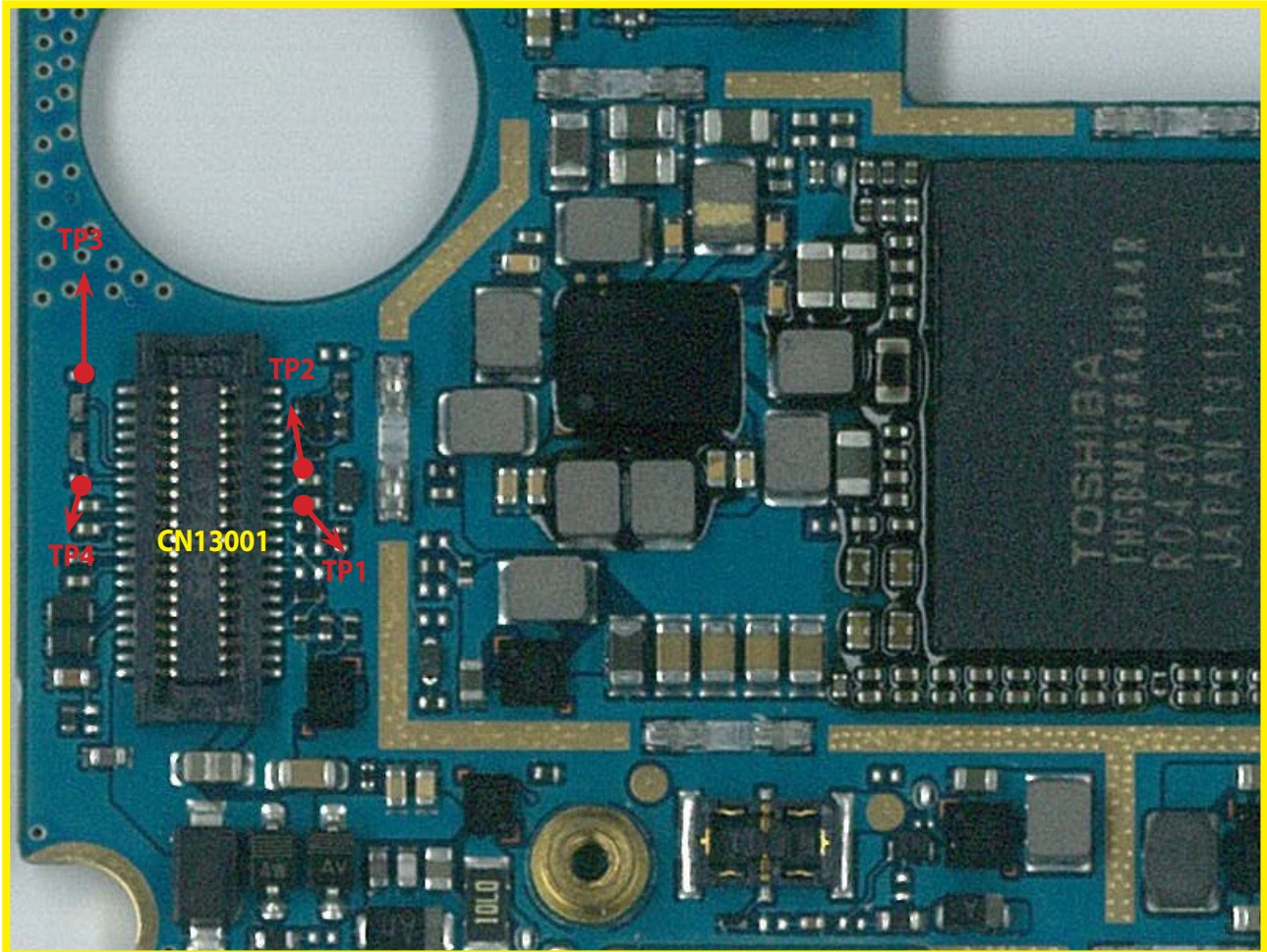
3. TROUBLE SHOOTING



3. TROUBLE SHOOTING



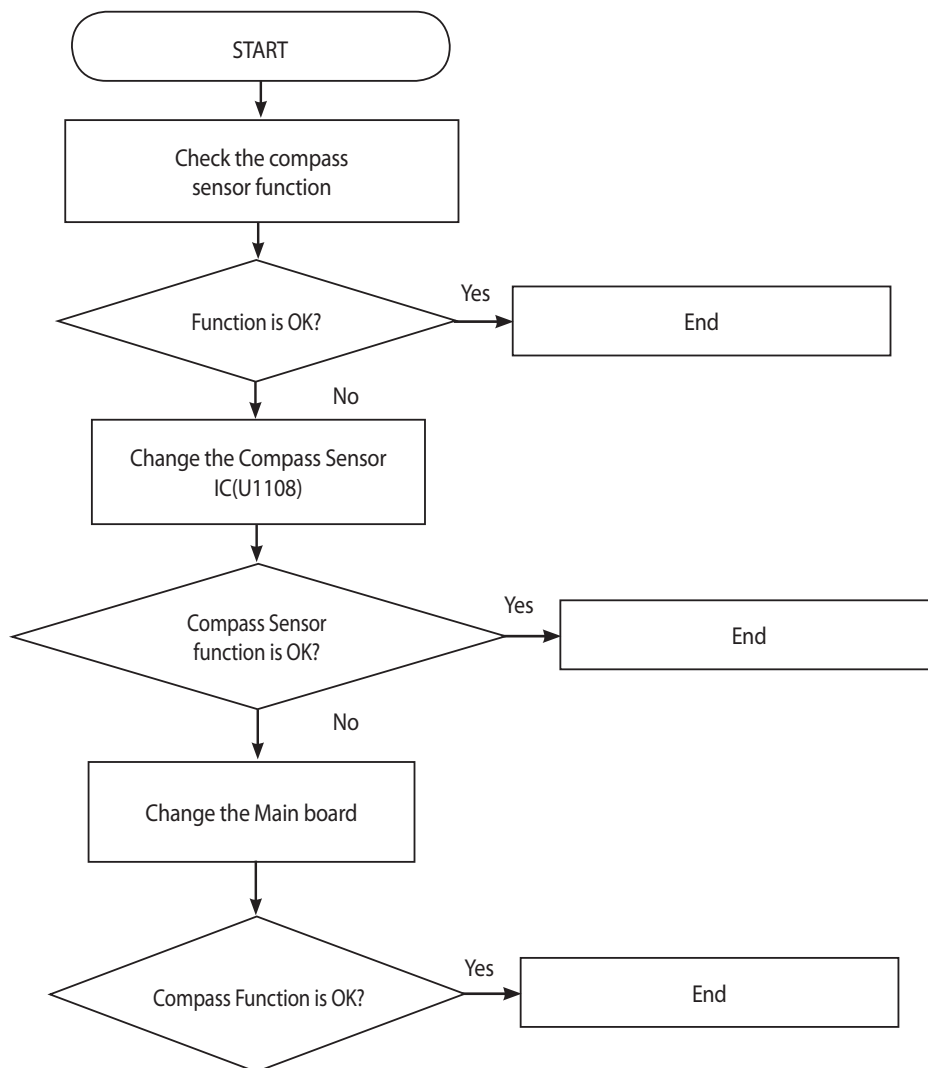
3. TROUBLE SHOOTING



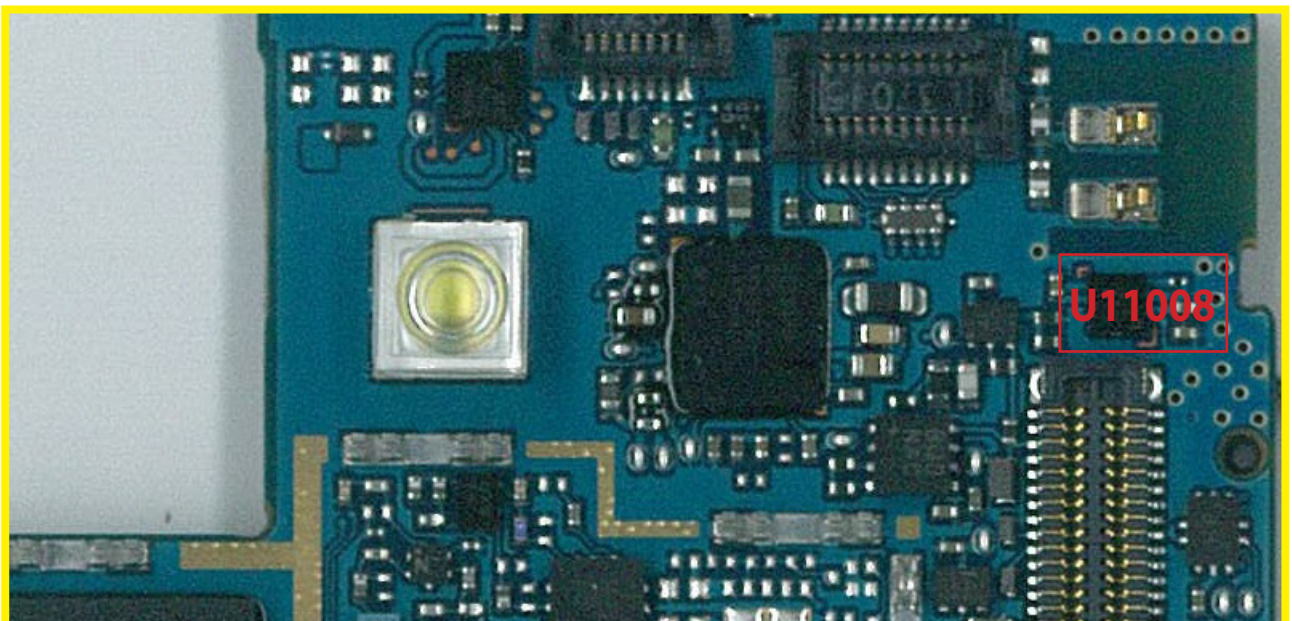
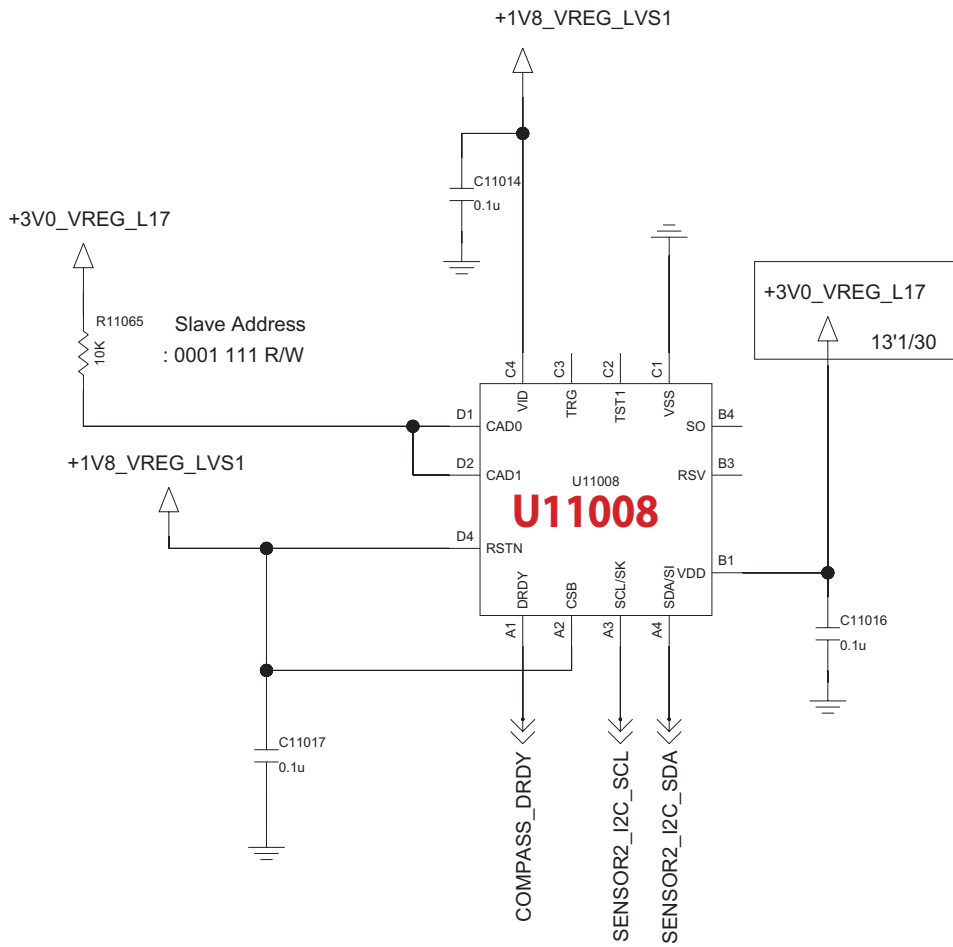
BOT

3.16 Sensor

3.16.1 Compass + Motion Sensor

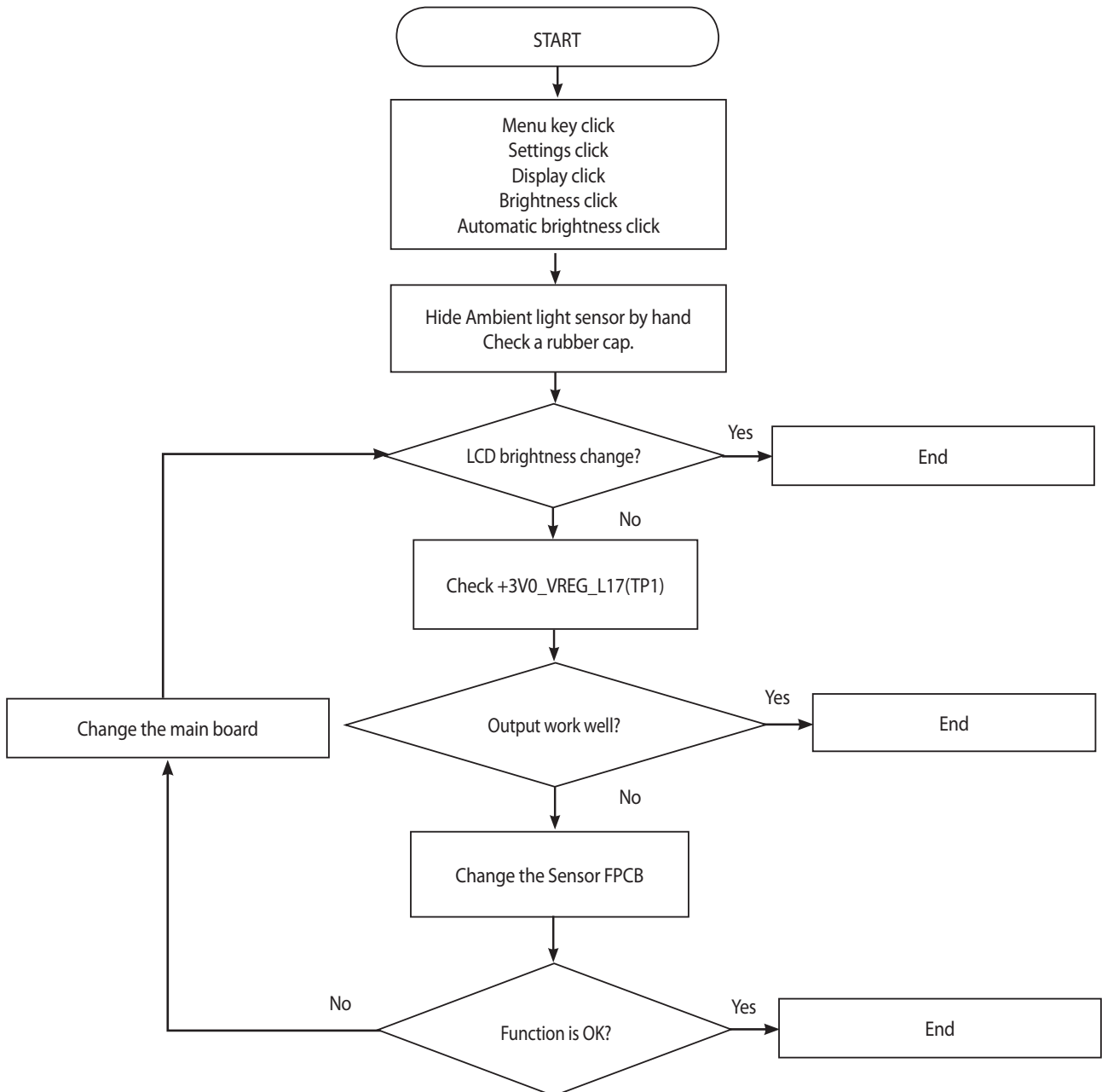


3. TROUBLE SHOOTING



BOT

3.16.2 Ambient light sensor

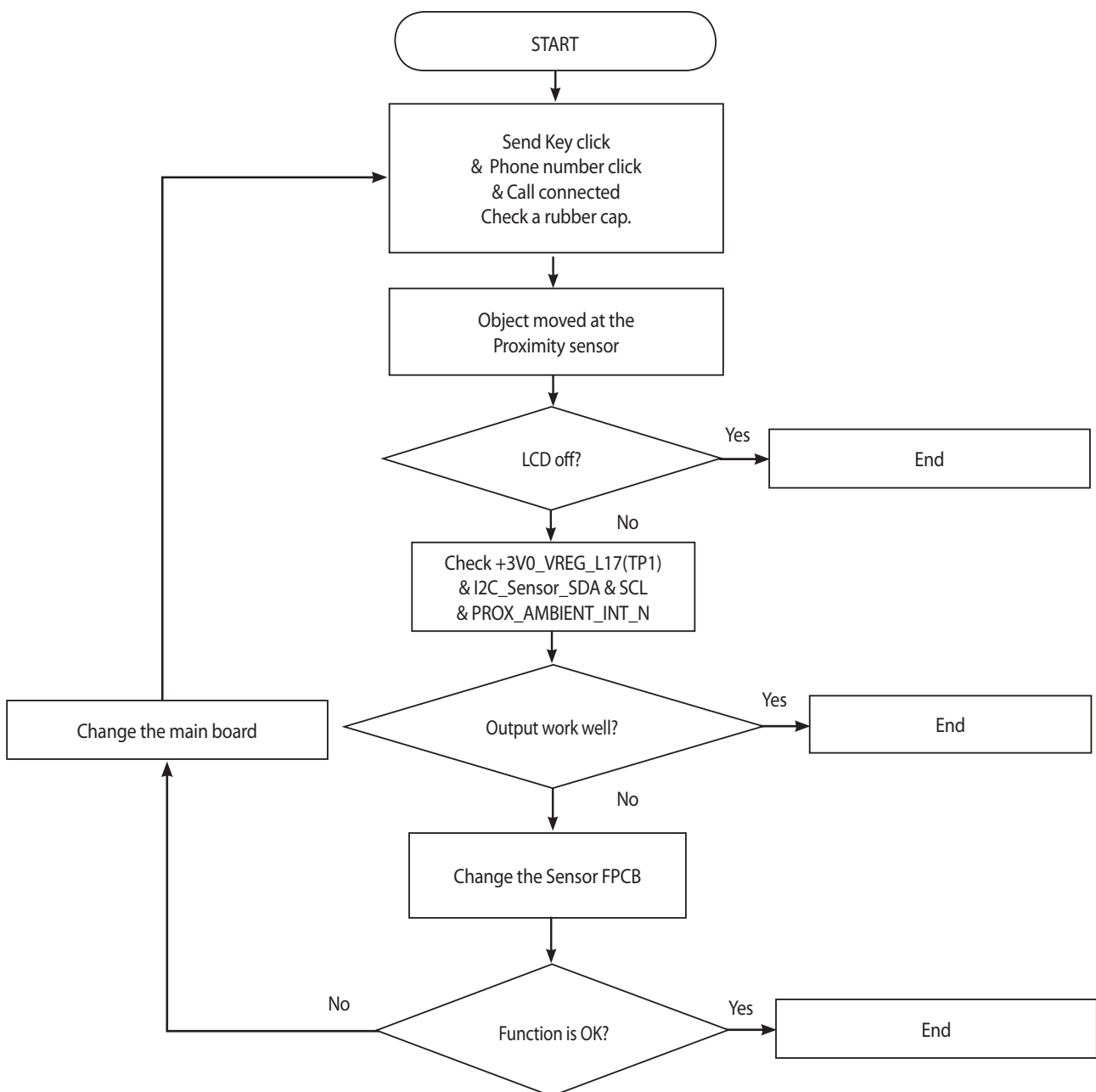


3.16.3 Proximity

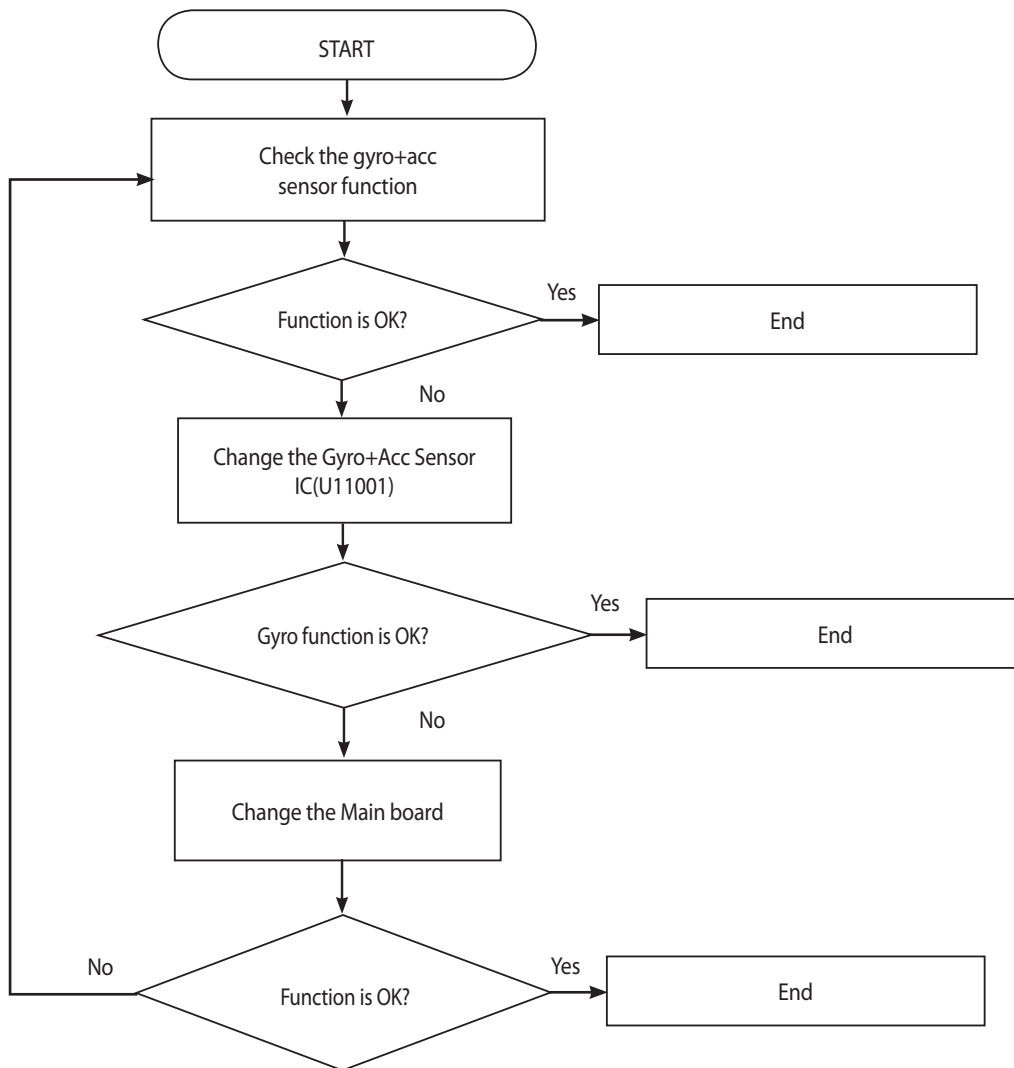
APDS-9130-200 is Proximity sensor.

Proximity Sensor is worked as below:

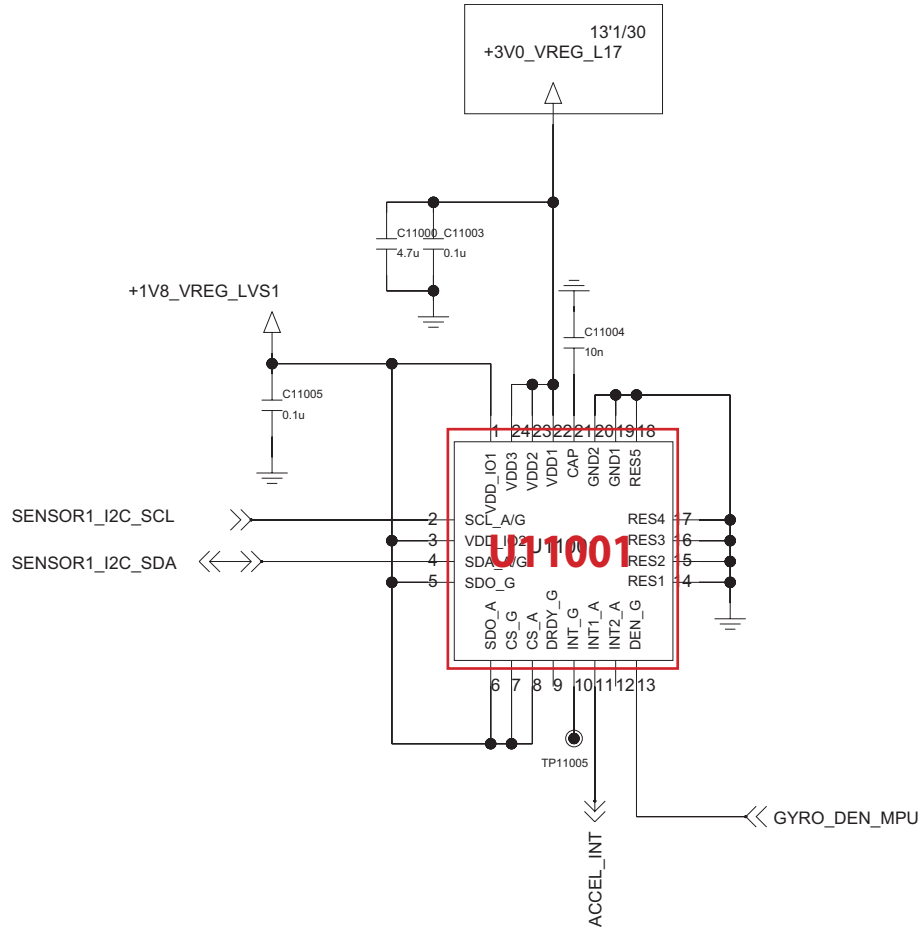
Send Key click -> Phone number click -> Call connected -> Object moved at the sensor -> Control the screen's on/off operation automatically



3.16.4 Gyroscope + Accelometer sensor



3. TROUBLE SHOOTING

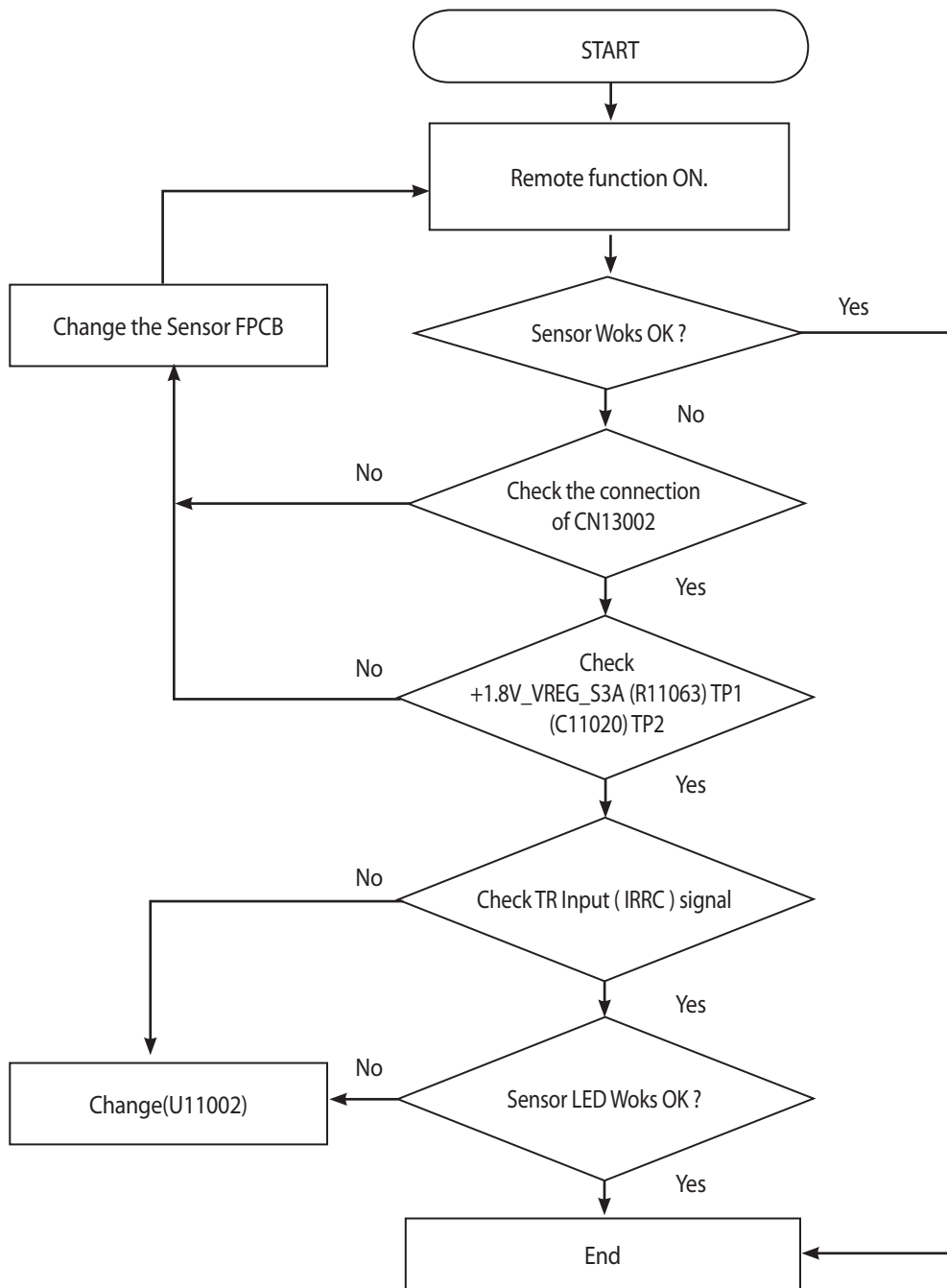


3.17 Remote Sensor (IRRC Sensor)

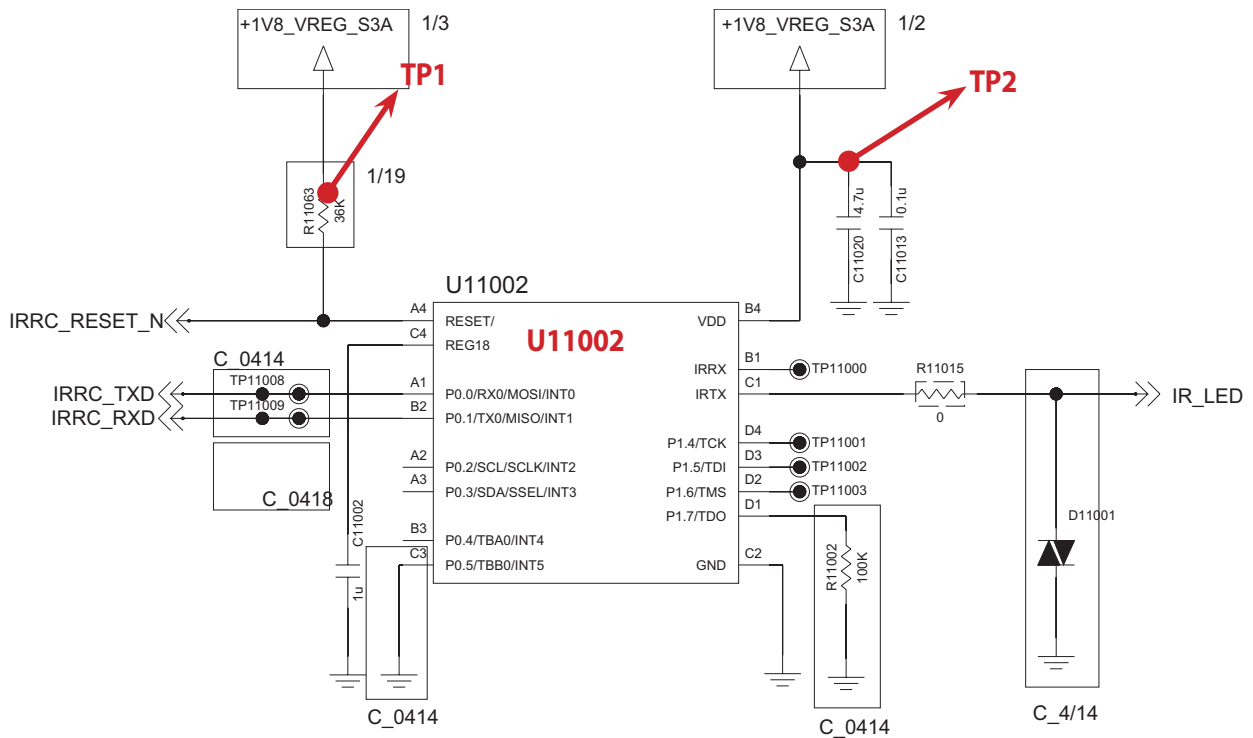
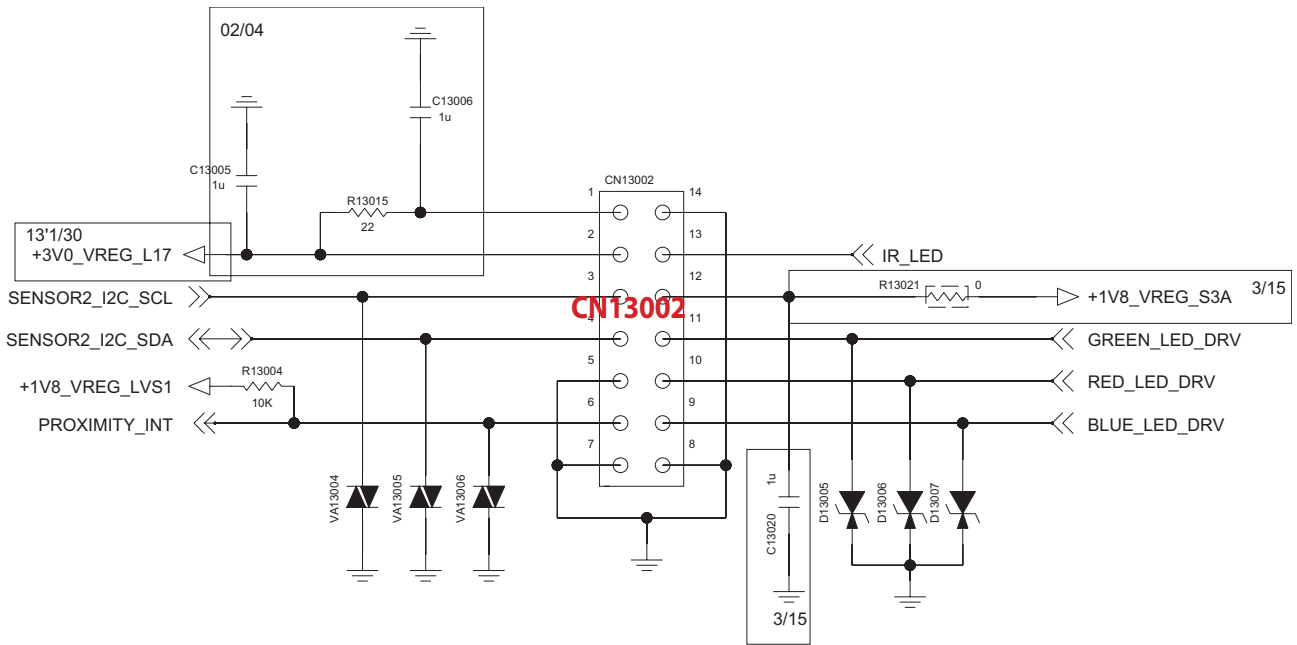
The sequence of QuickRemote Operation Path

Proximity Sensor is worked as below:

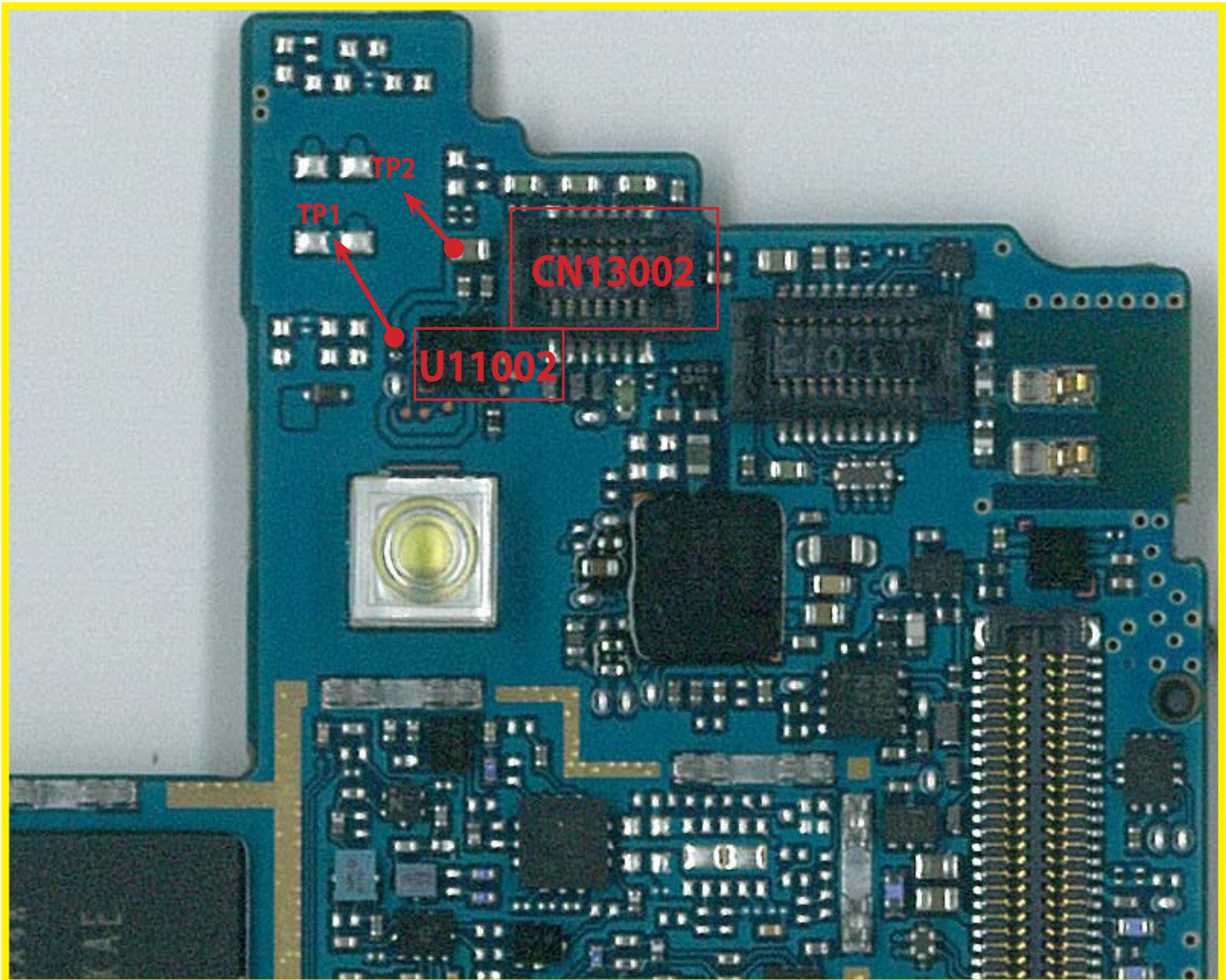
QuickRemote function Check -> Menu Remote on -> TV Setting on



3. TROUBLE SHOOTING

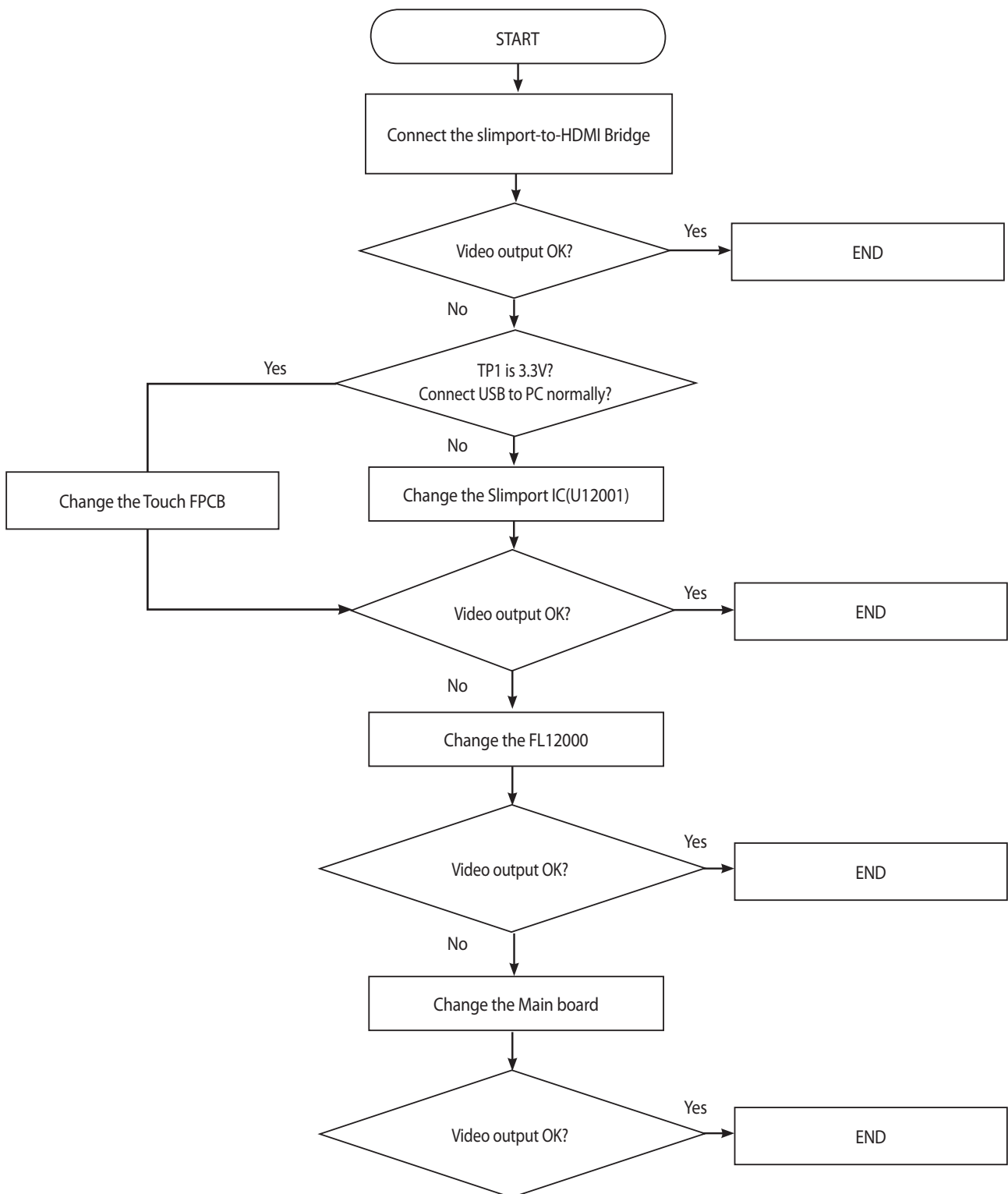


3. TROUBLE SHOOTING

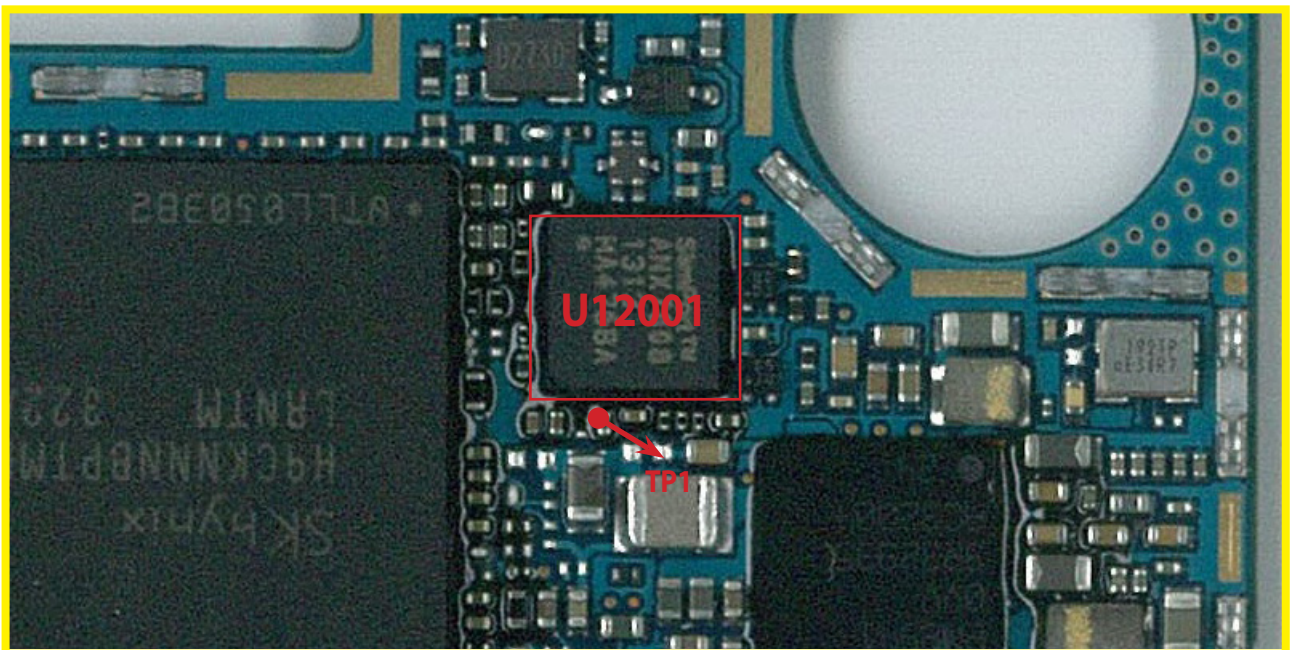
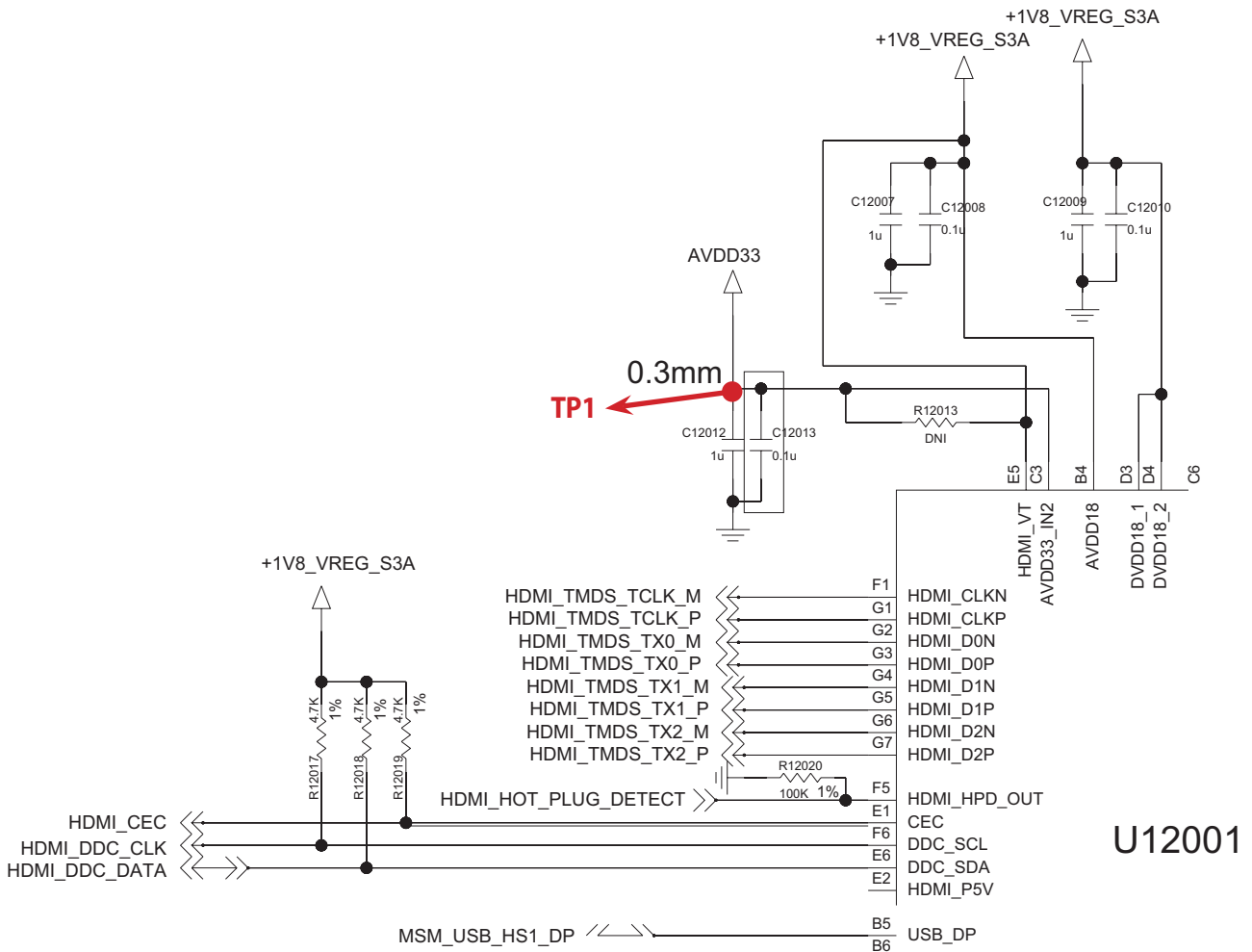


BOT

3.18 USB / Slimport



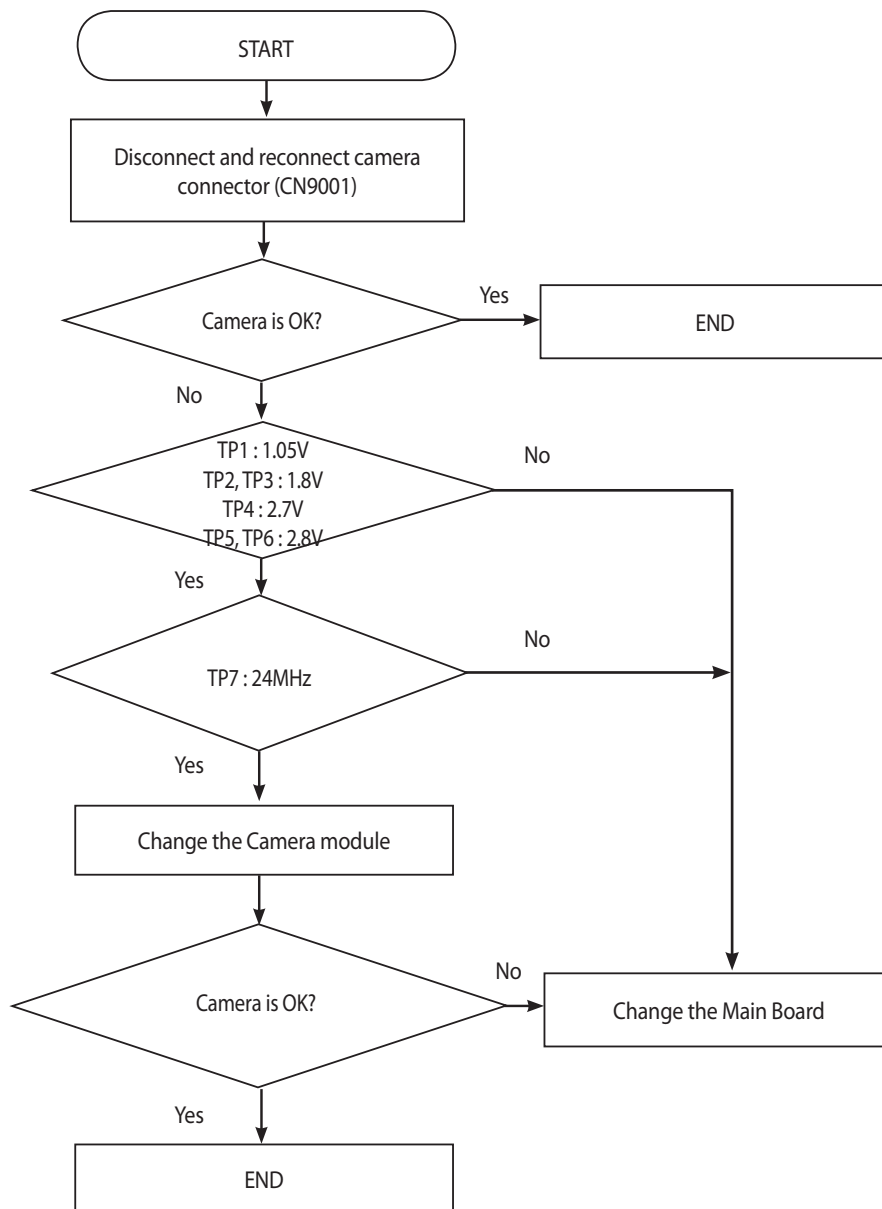
3. TROUBLE SHOOTING



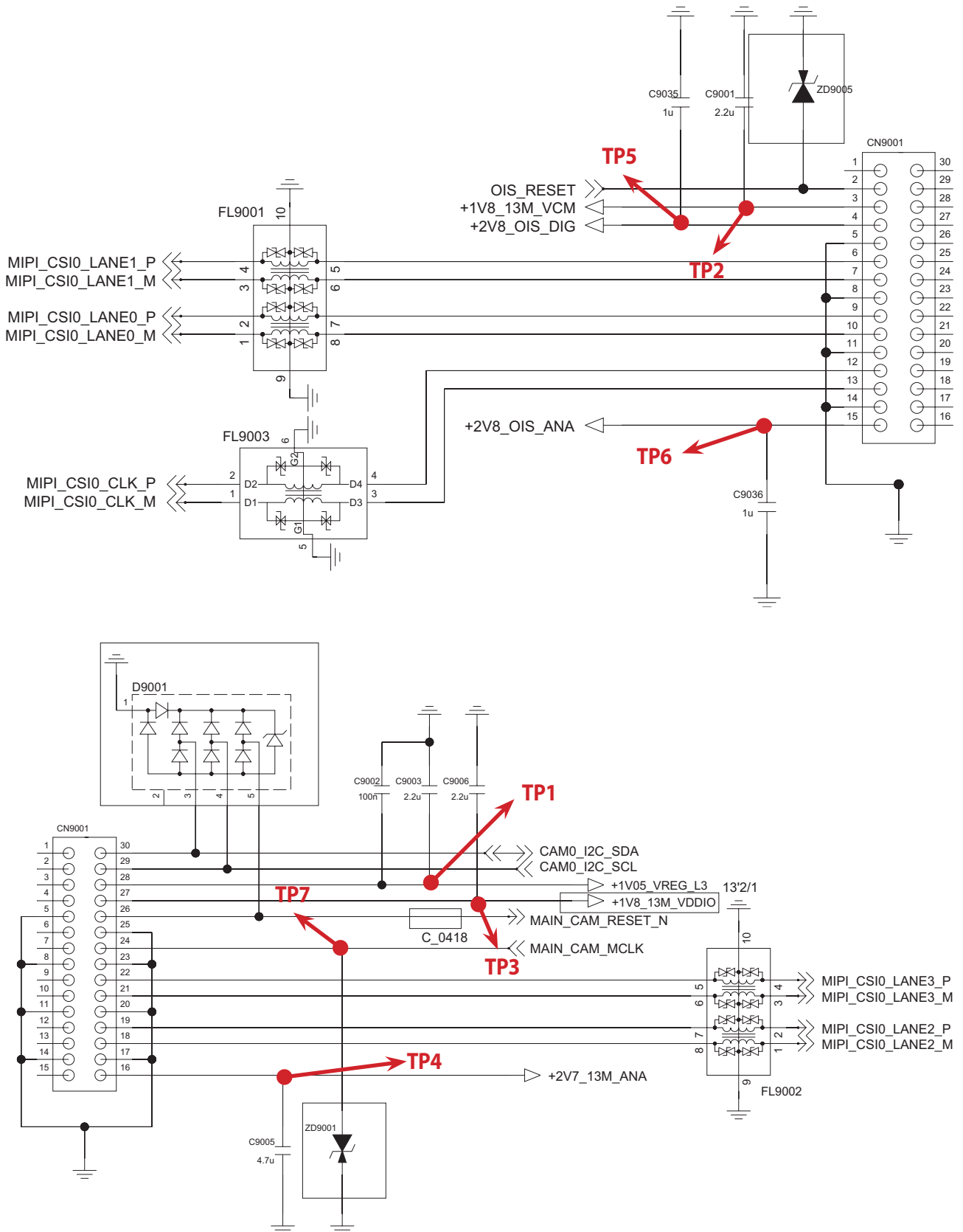
TOP

3.19 CAMERA

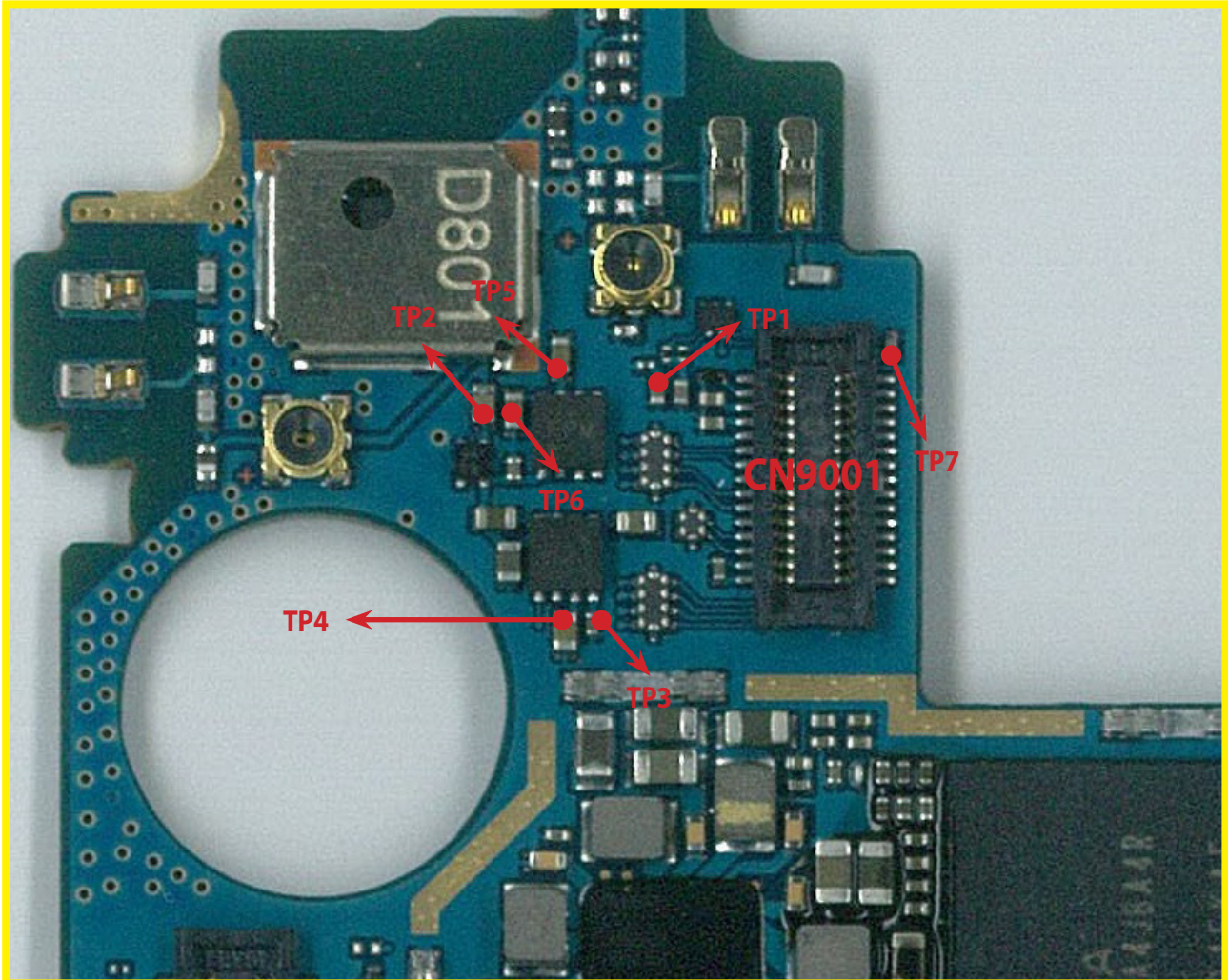
3.19.1 MAIN CAMERA



3. TROUBLE SHOOTING

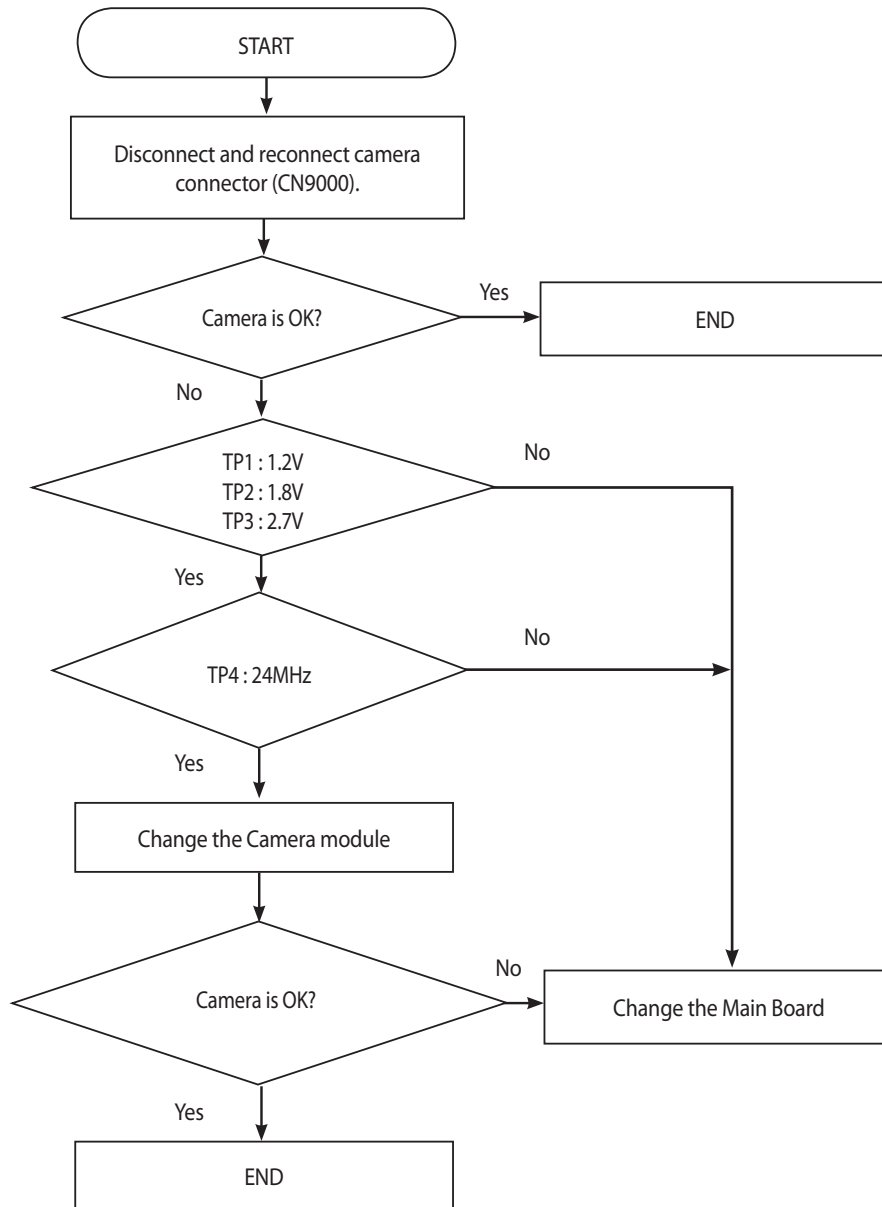


3. TROUBLE SHOOTING

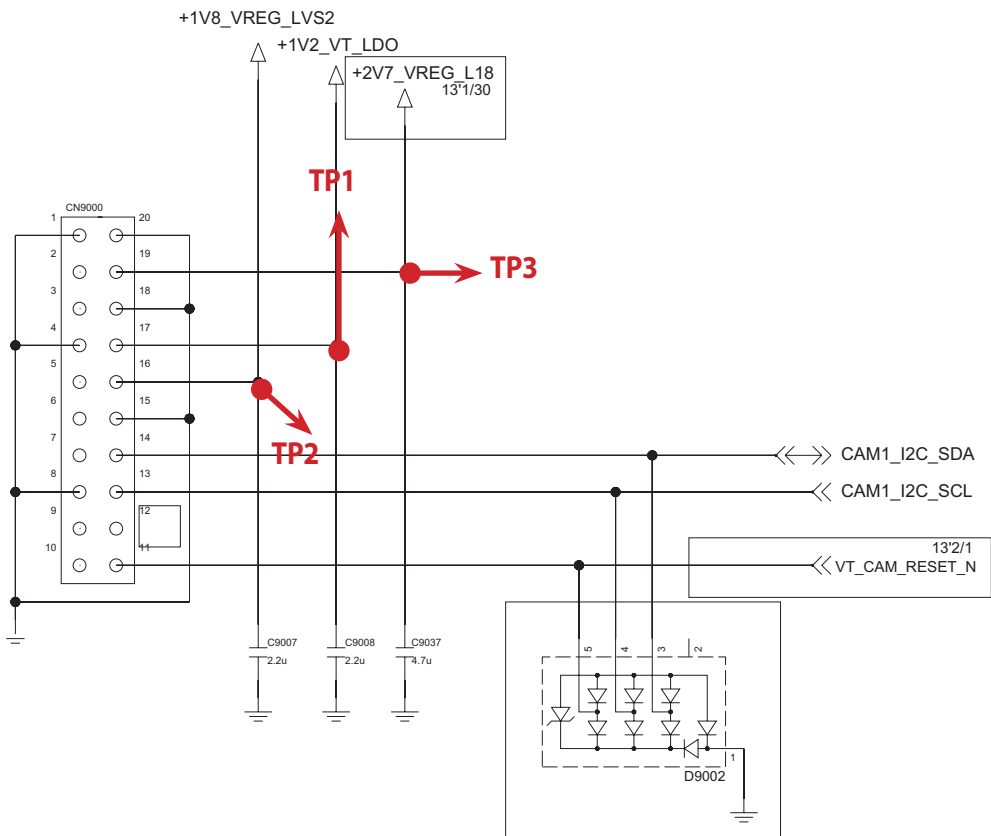
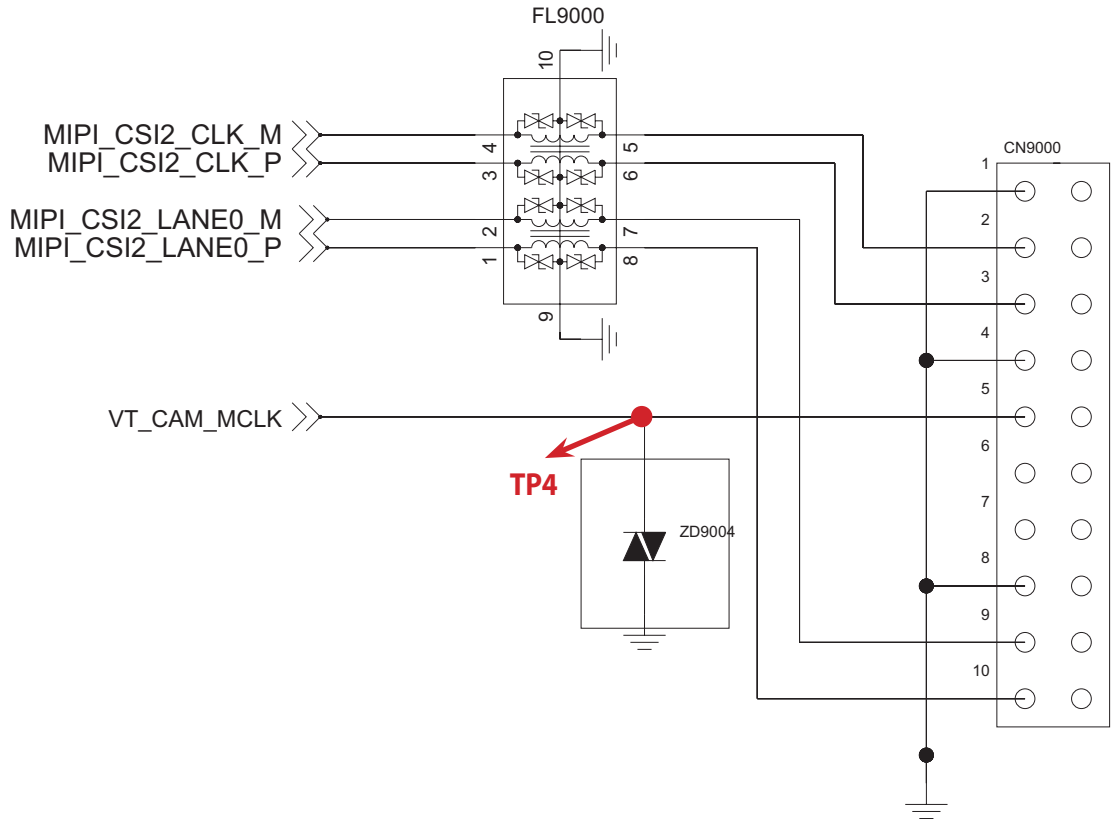


BOT

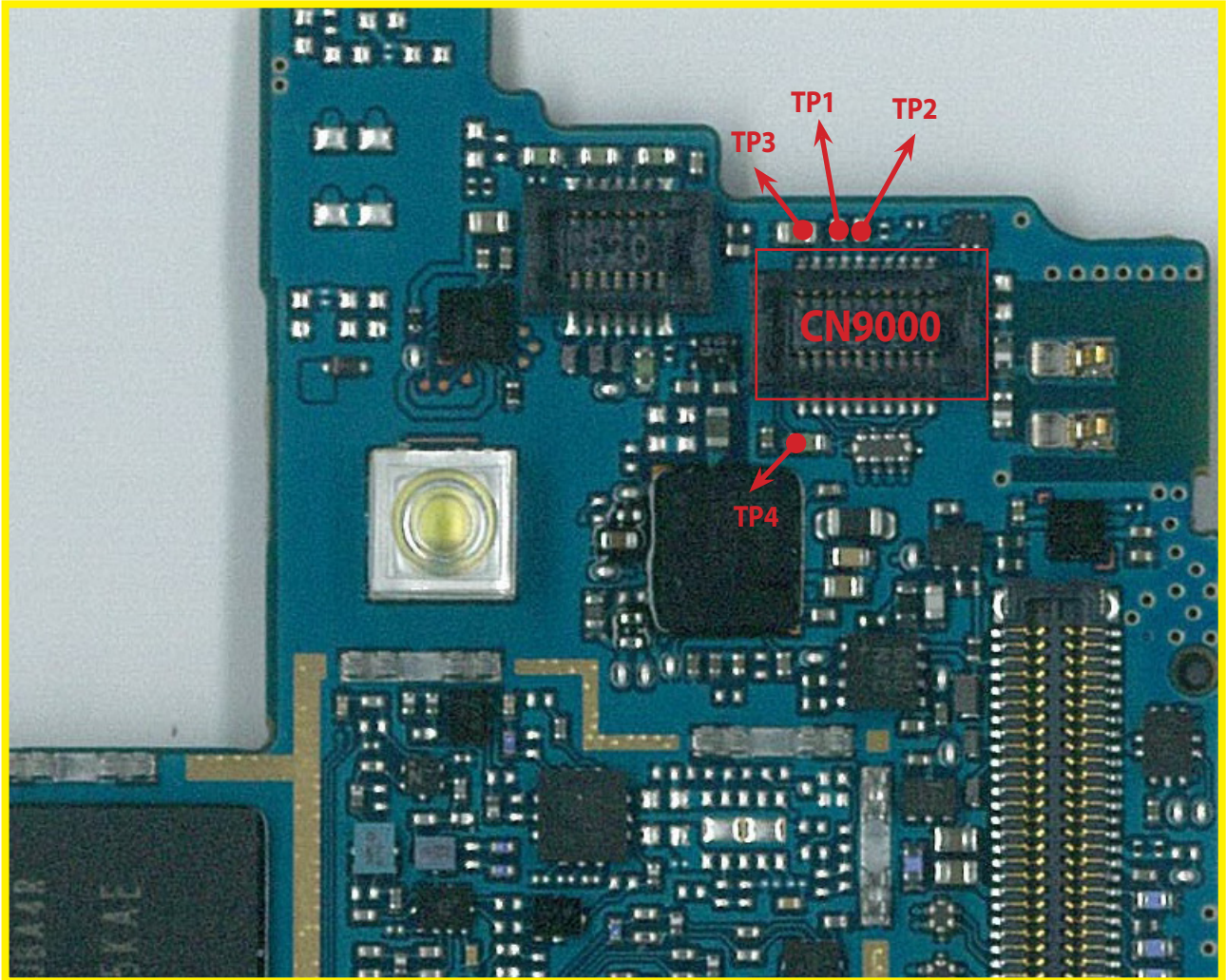
3.19.2 VT CAMERA



3. TROUBLE SHOOTING



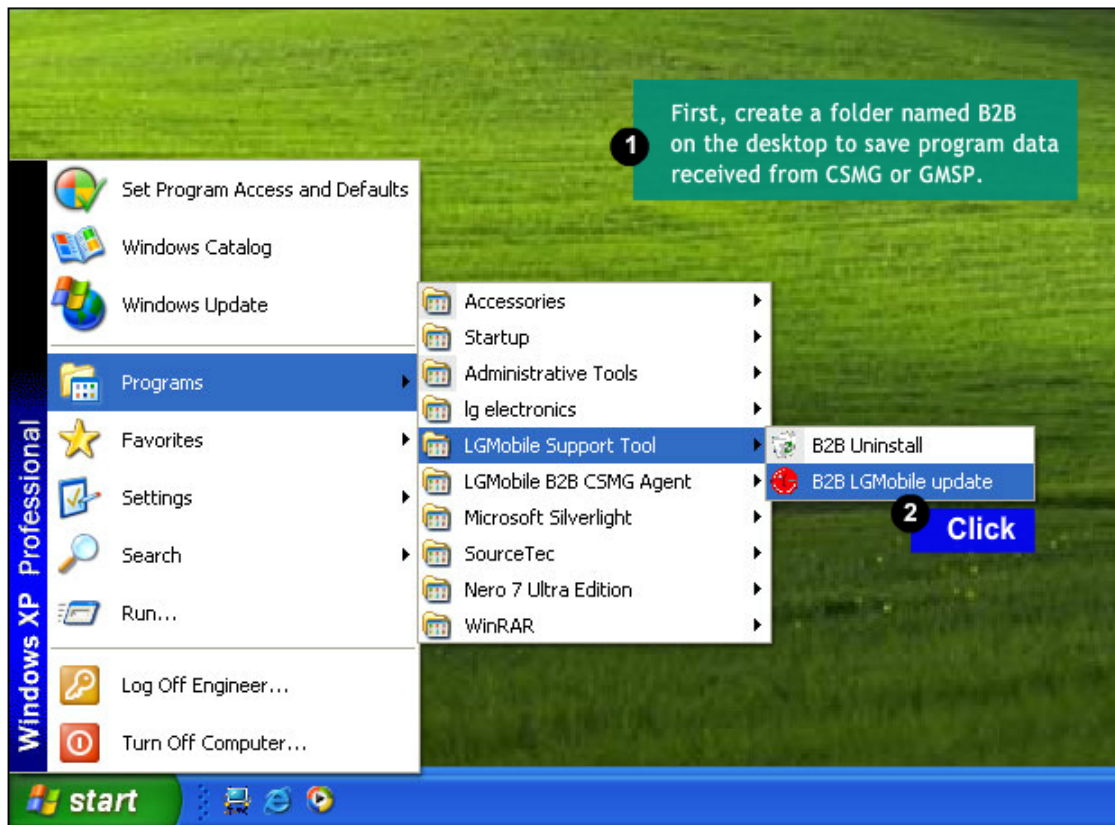
3. TROUBLE SHOOTING



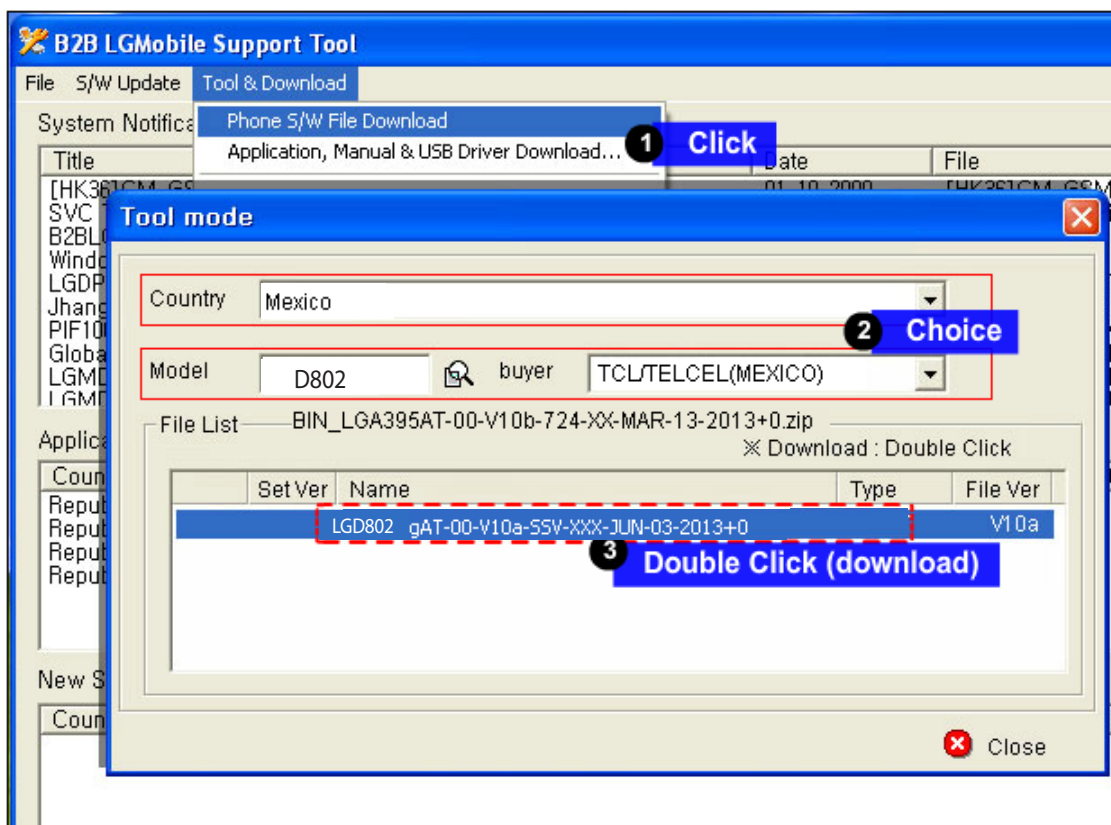
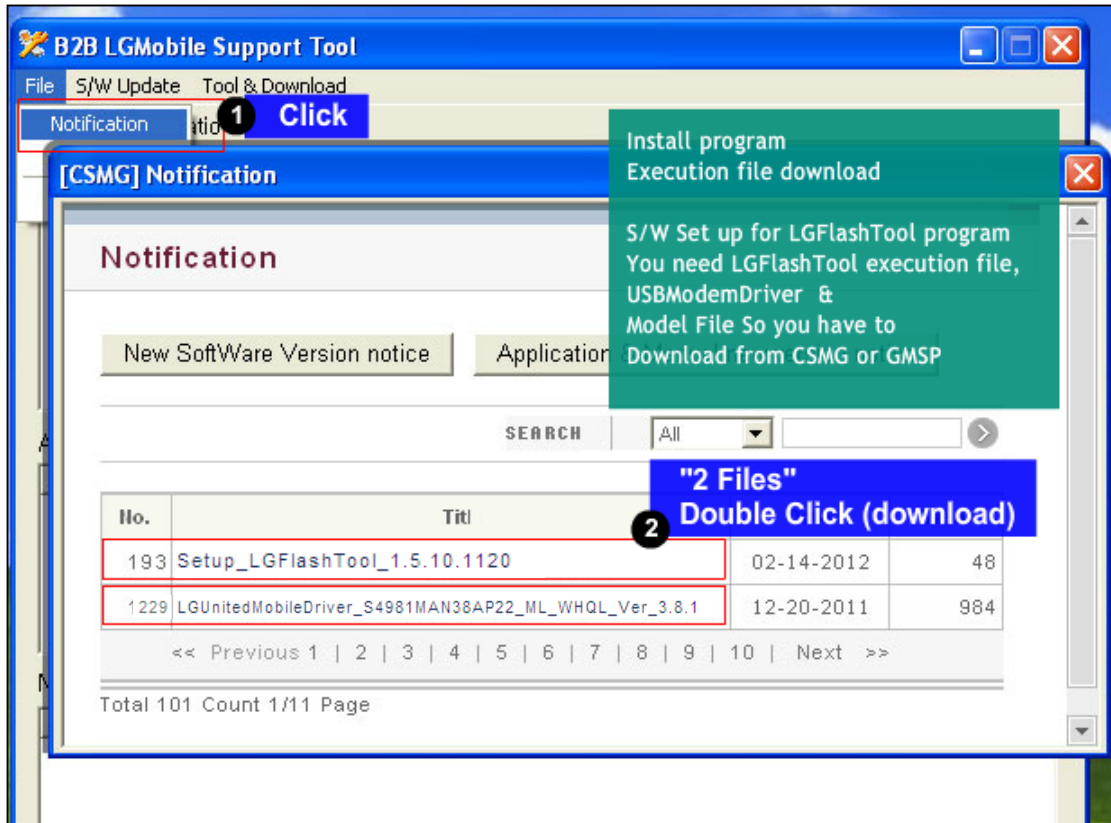
BOT

4. DOWNLOAD

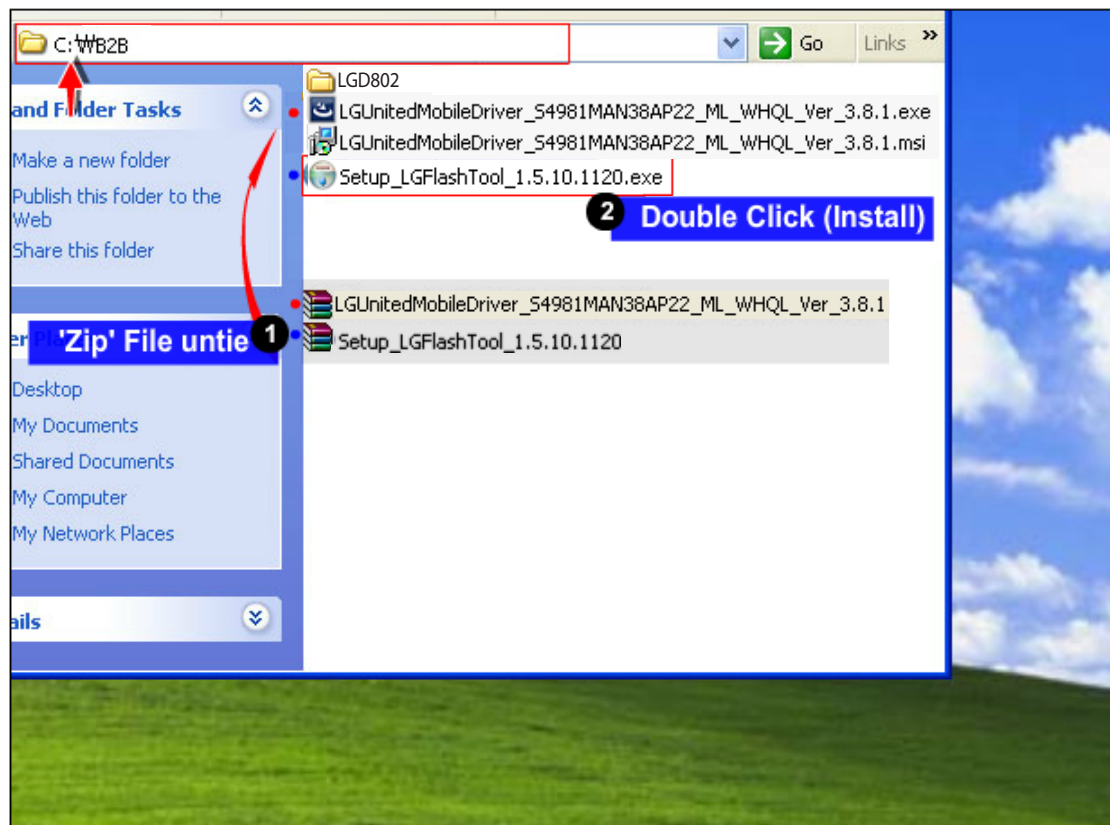
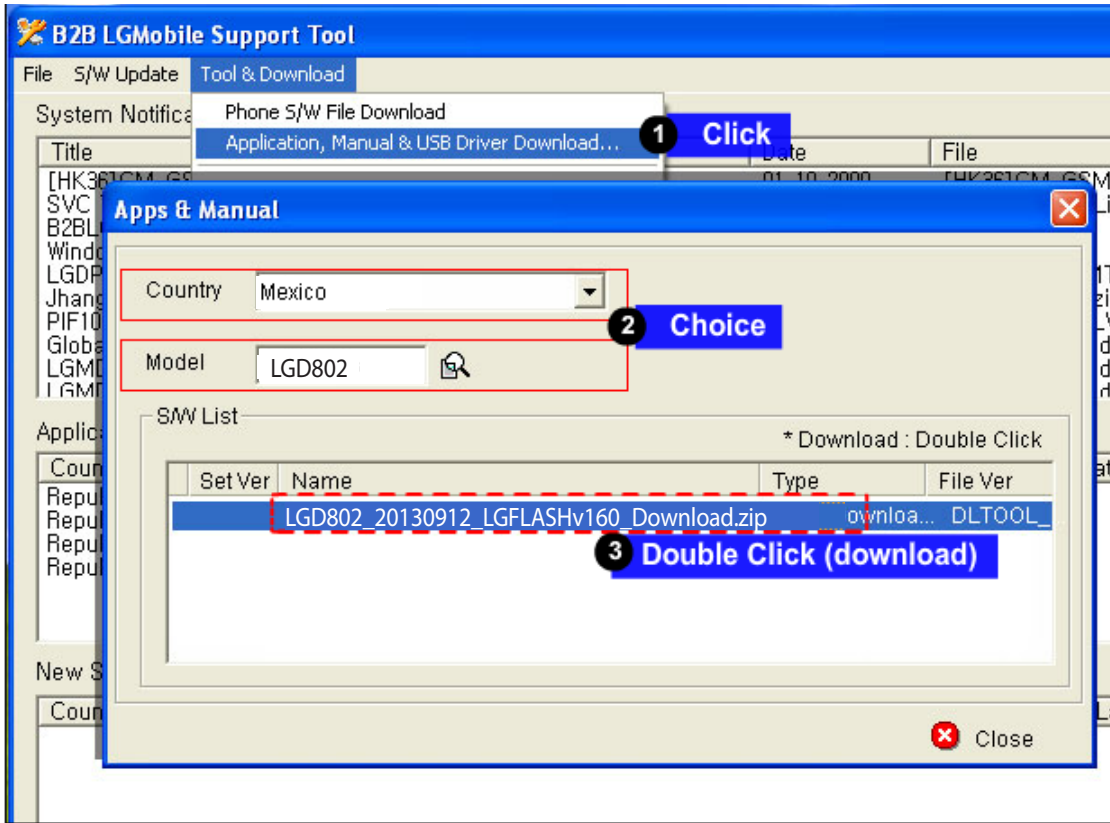
TOOL INFORMATION			
TOOL VERSION	DLL NAME	USB DRIVER	
LGFLASHv160	LGD802_20130912_LGFLASHv160_ Download	LGUnitedMobileDriver_S4981MAN38AP22_ML_WHQL_ Ver_3.8.1	
Please Check the Version to "B2B"			
H/W			
	Name	Part No.	SW
D/L Cable	Micro 5P (56-open-910K) USB DLC	RAD32167835	TOT



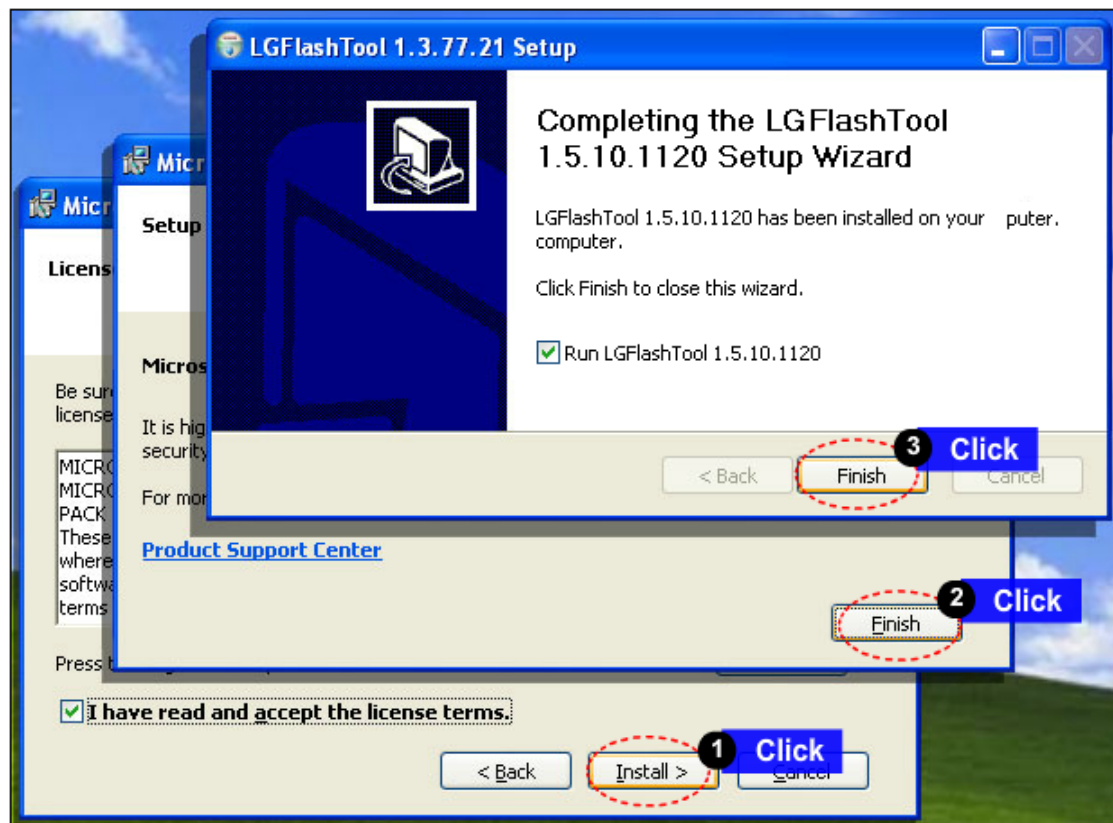
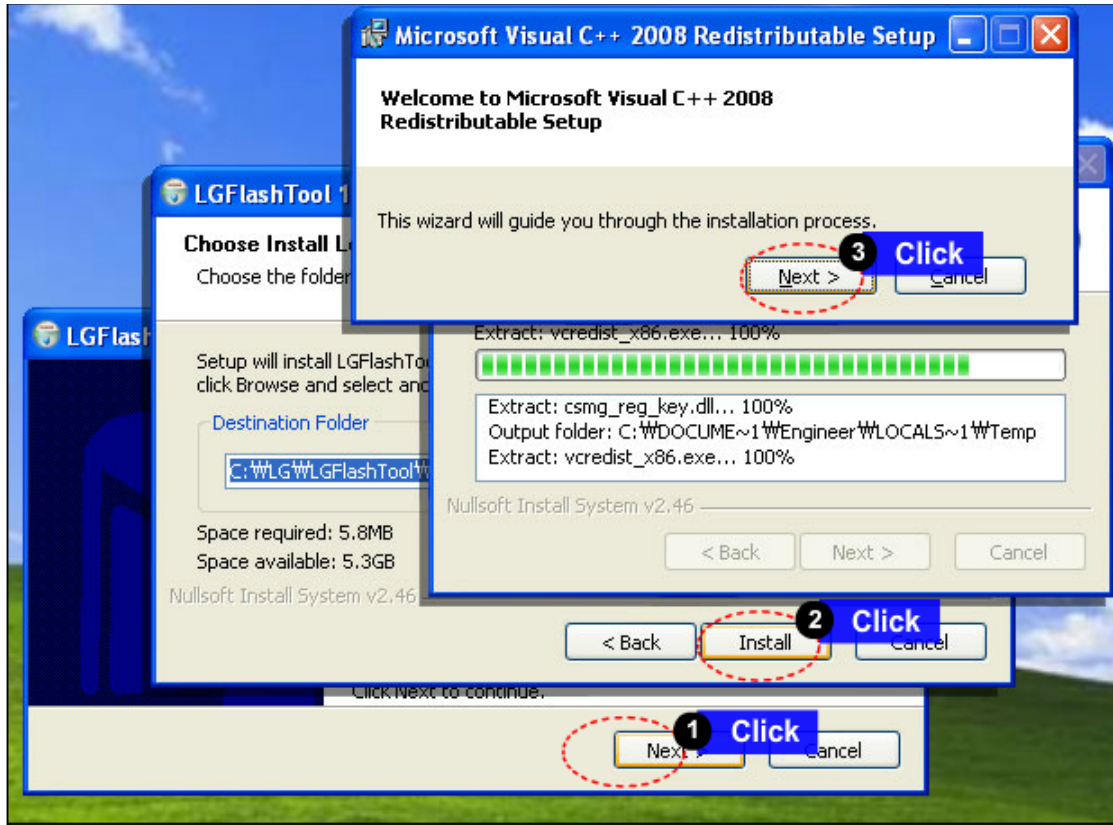
4. DOWNLOAD



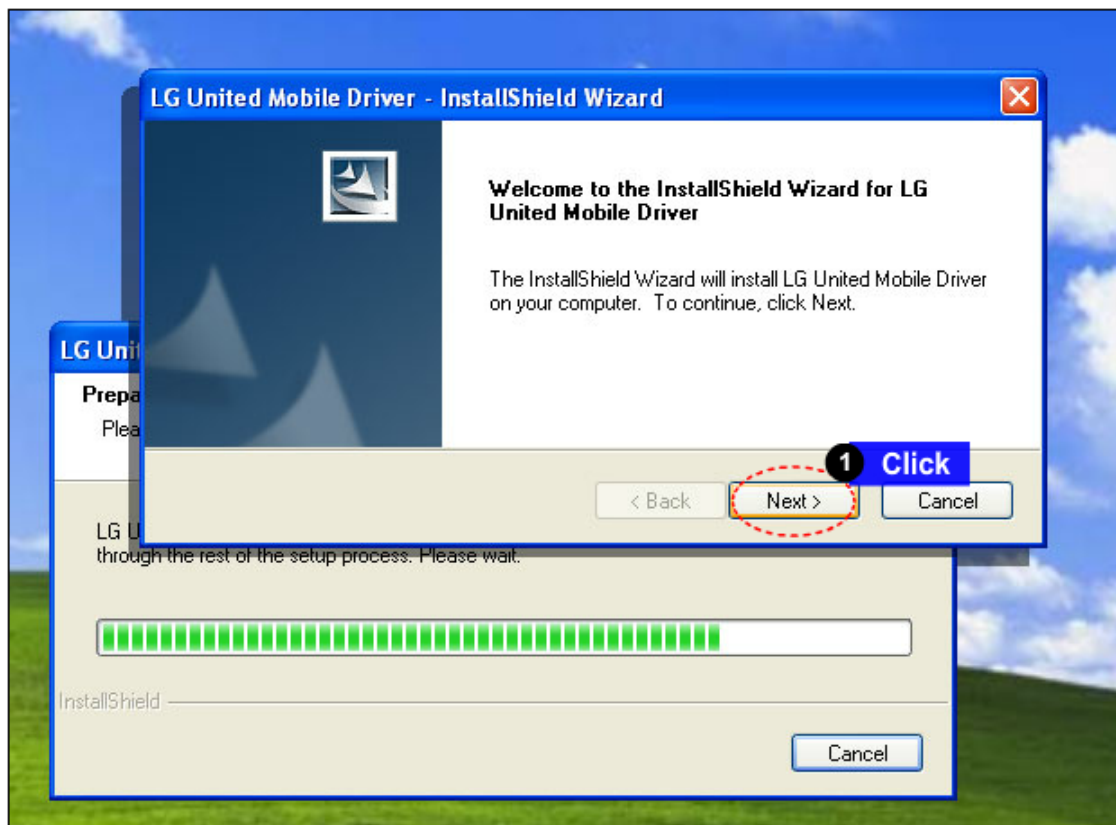
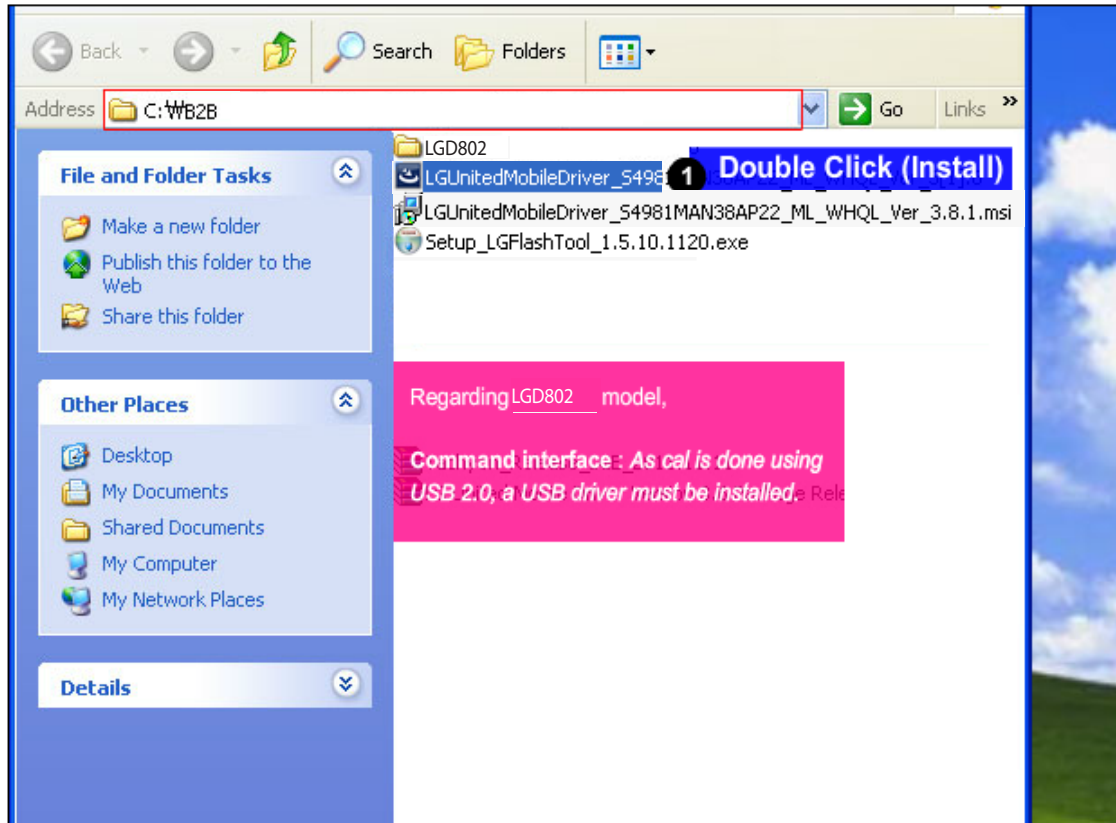
4. DOWNLOAD

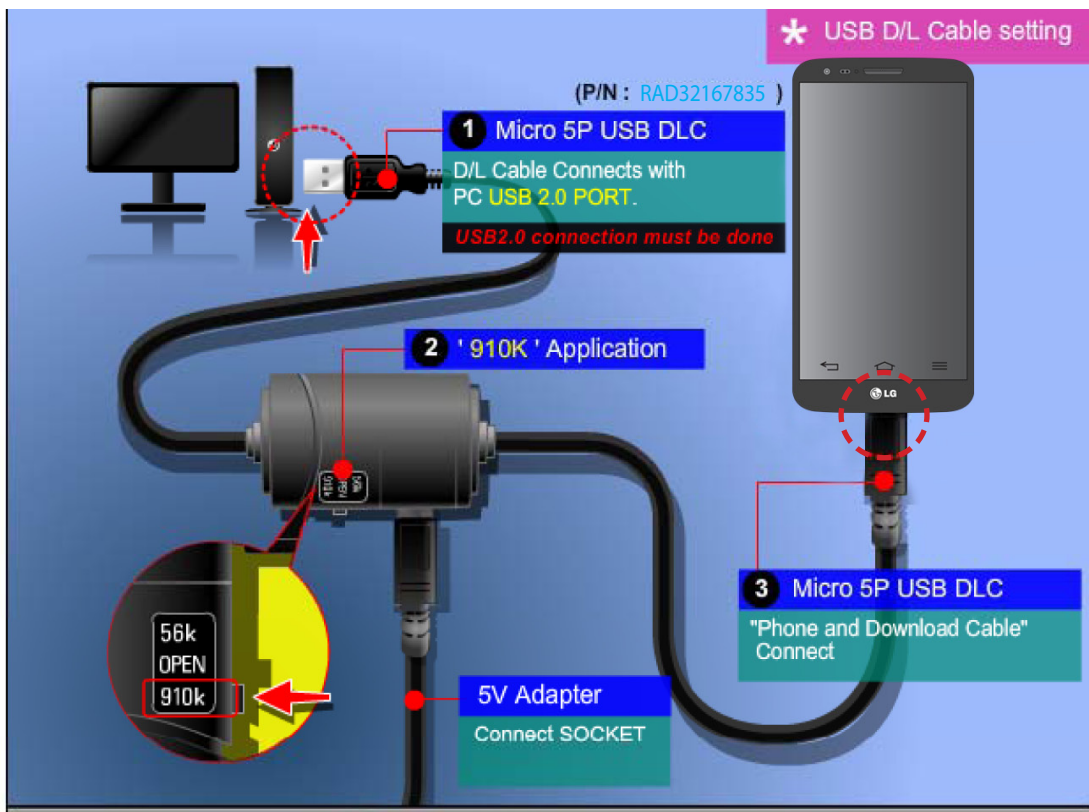
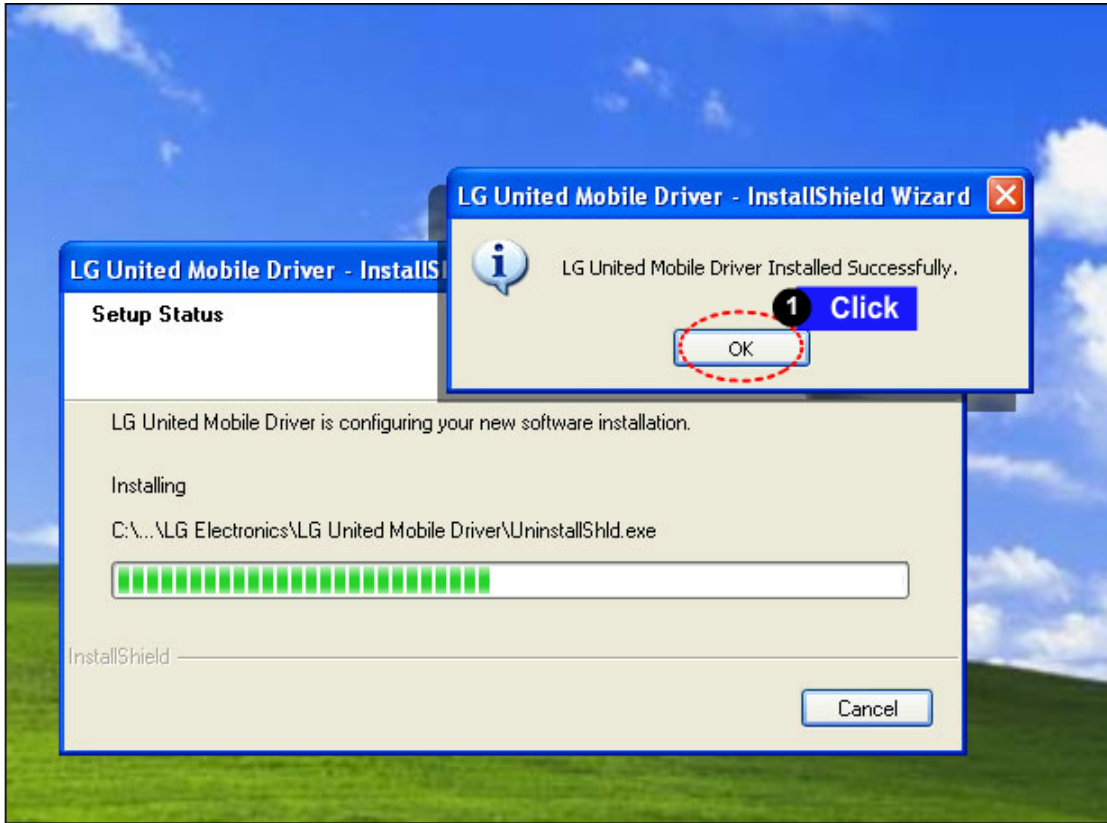


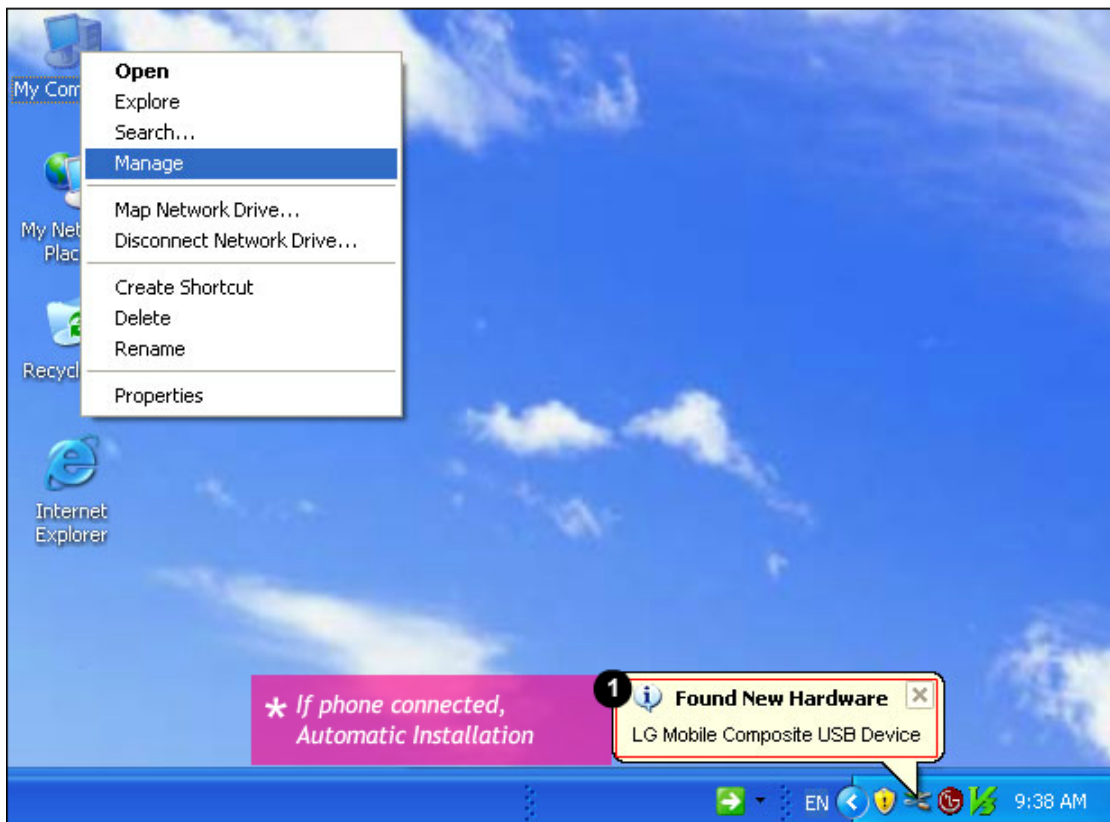
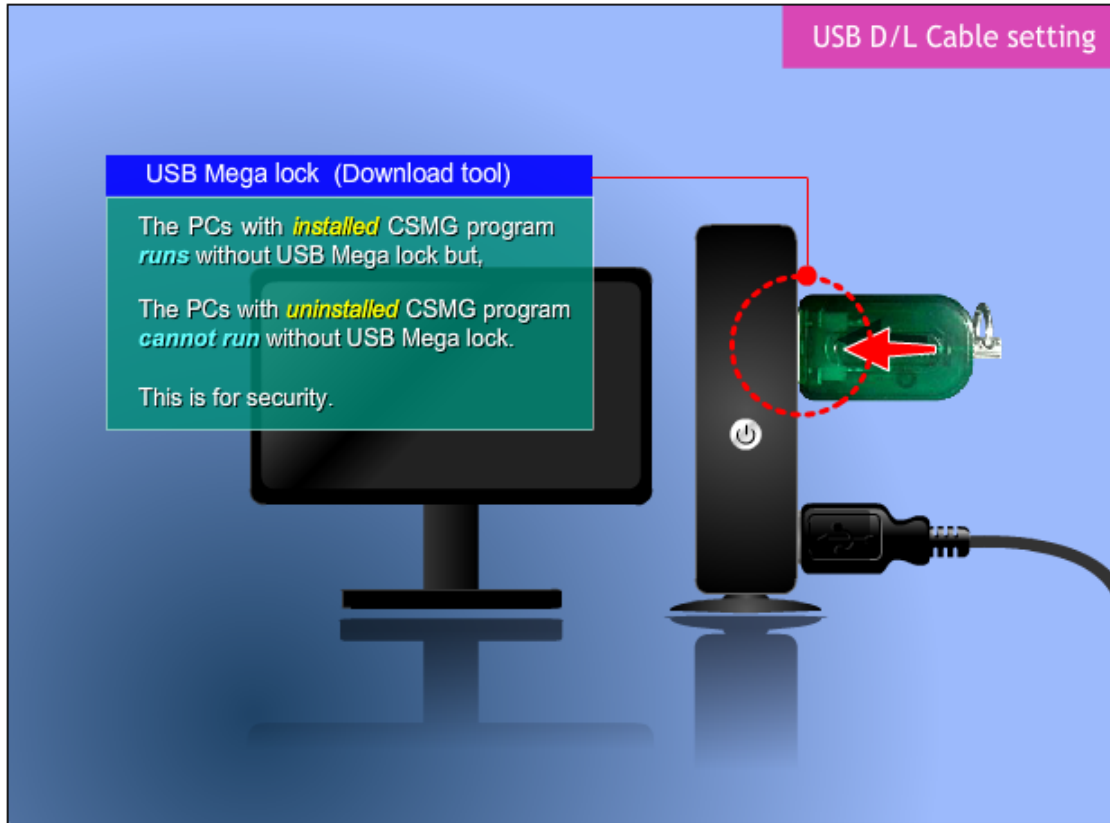
4. DOWNLOAD

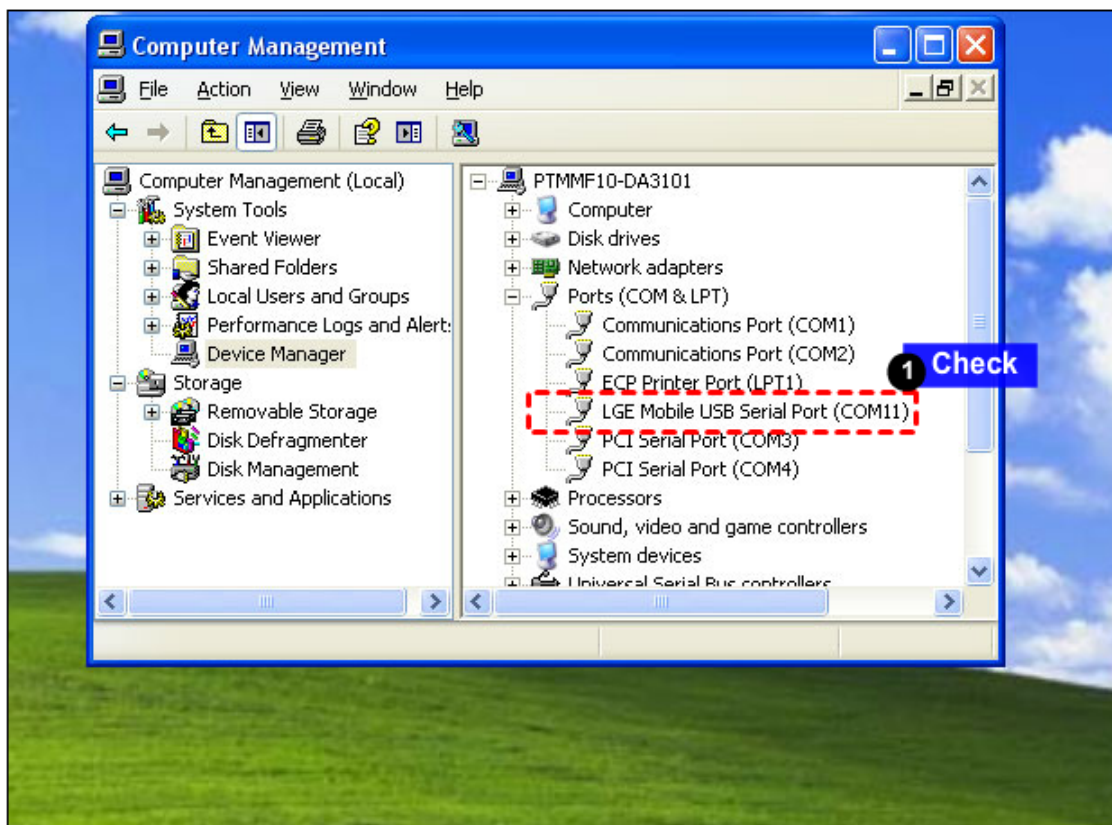
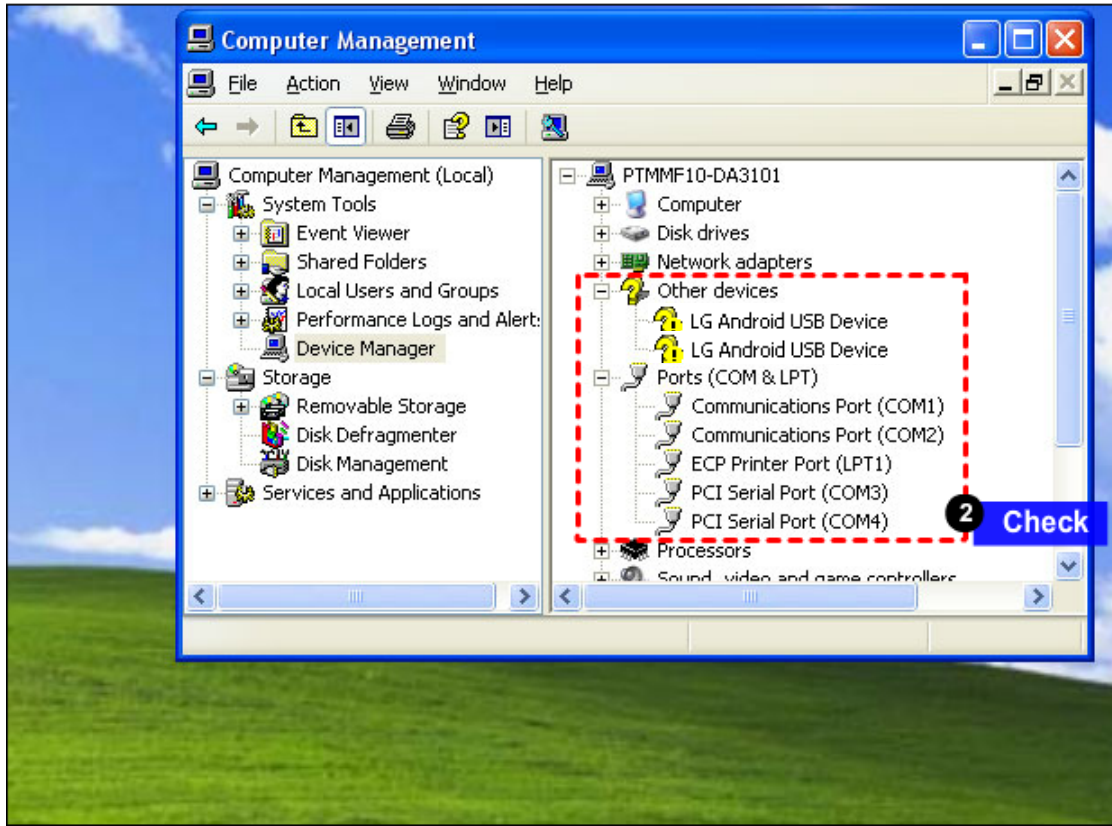


4. DOWNLOAD

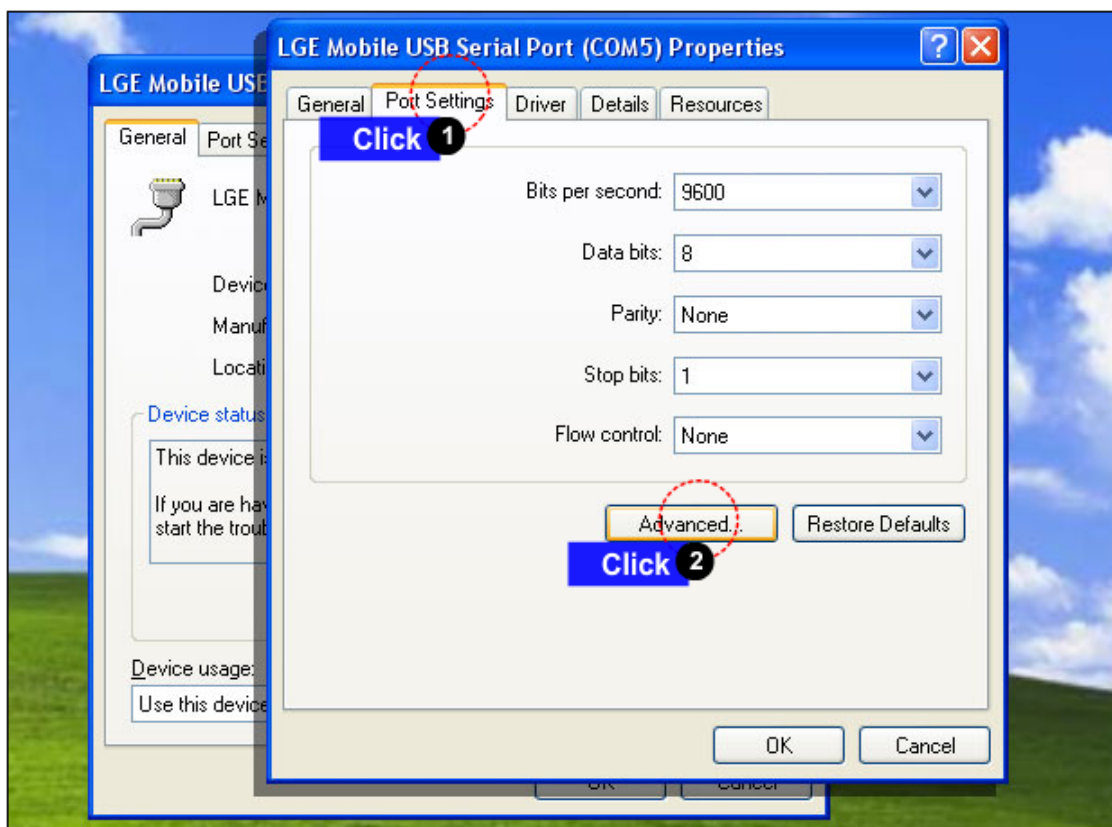
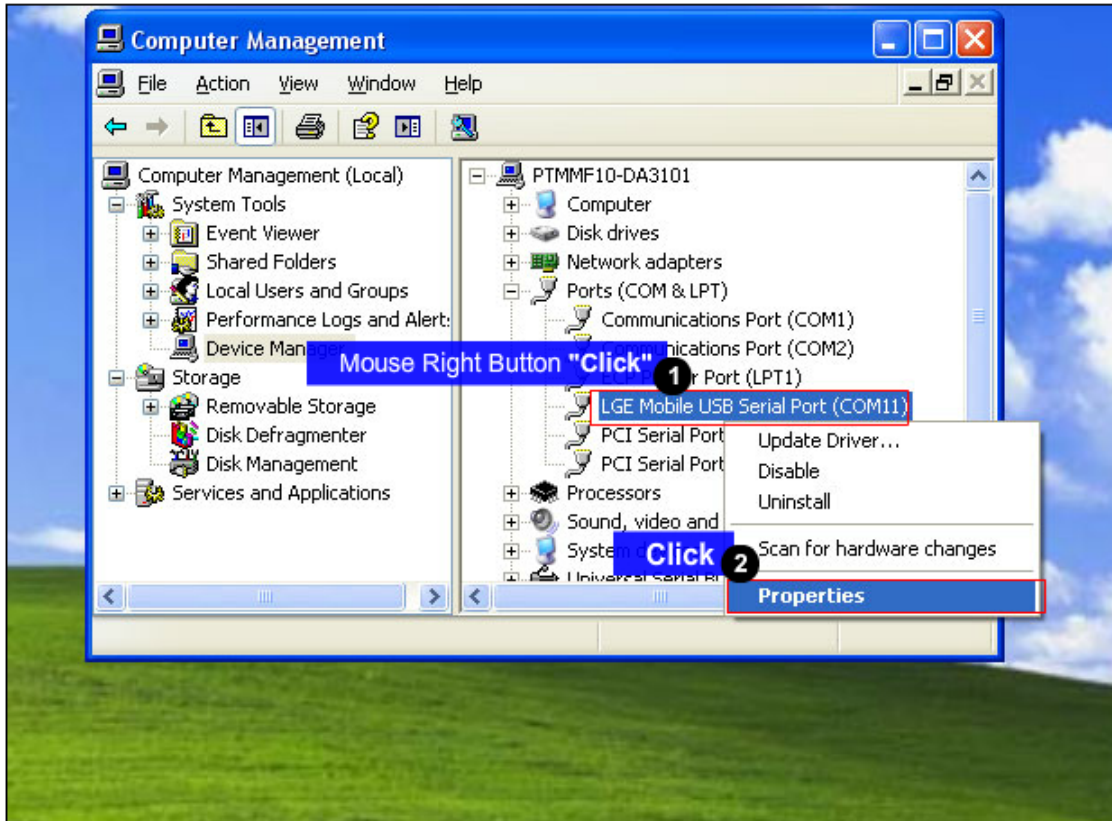




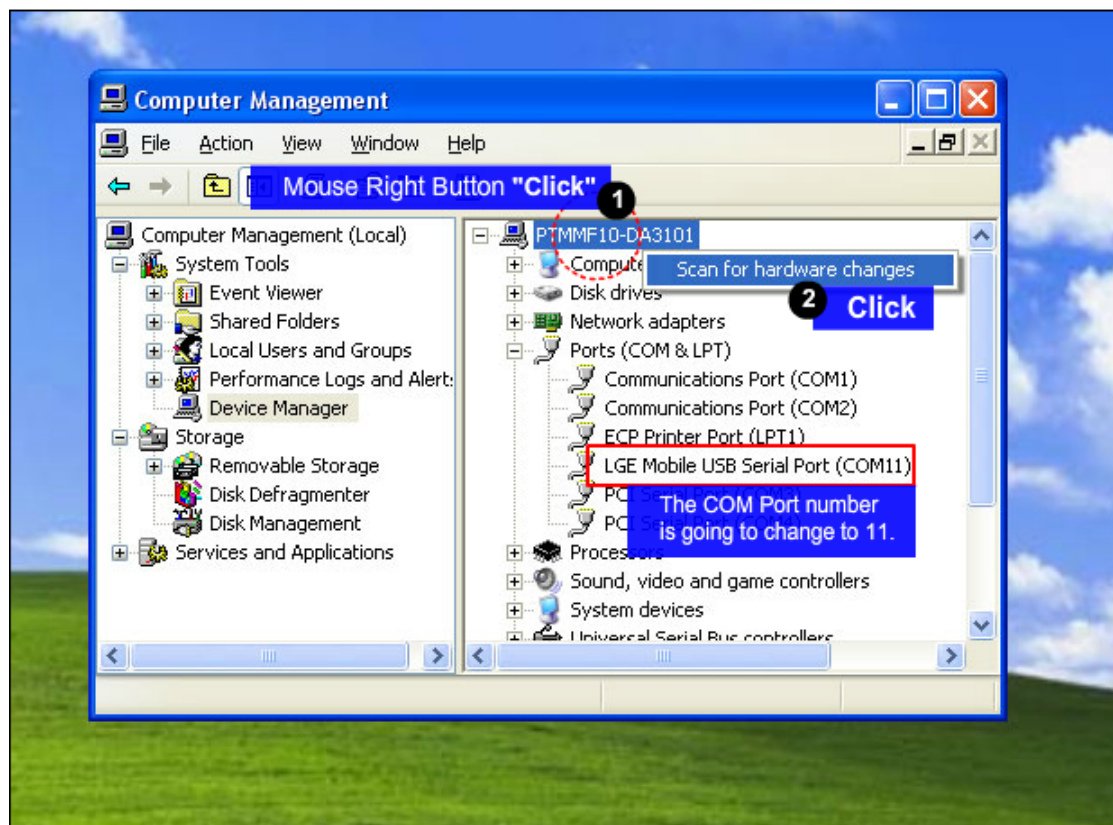
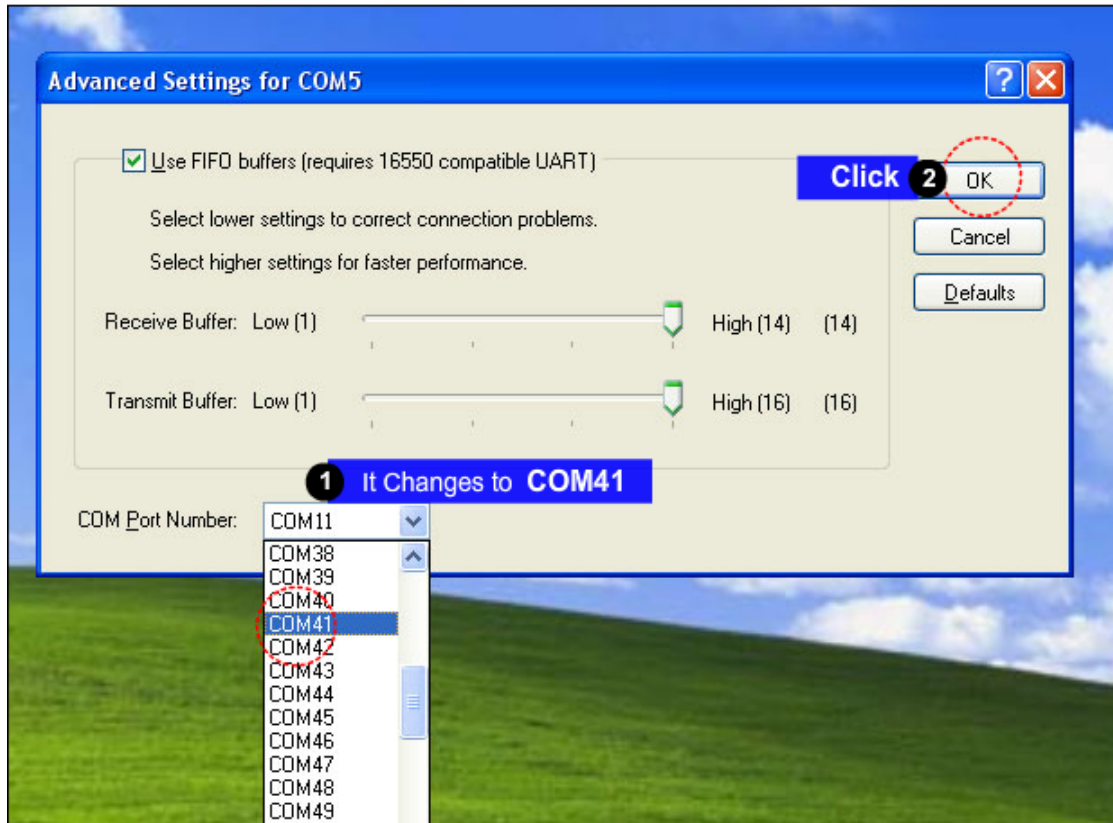


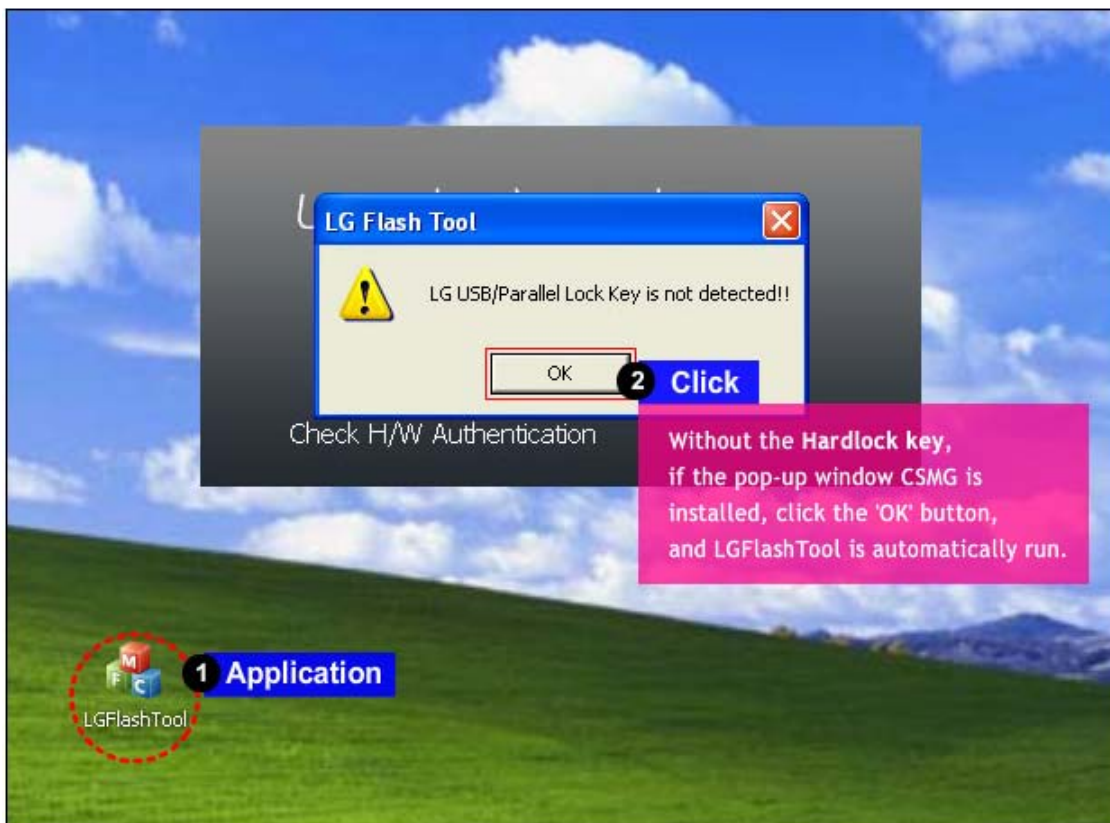
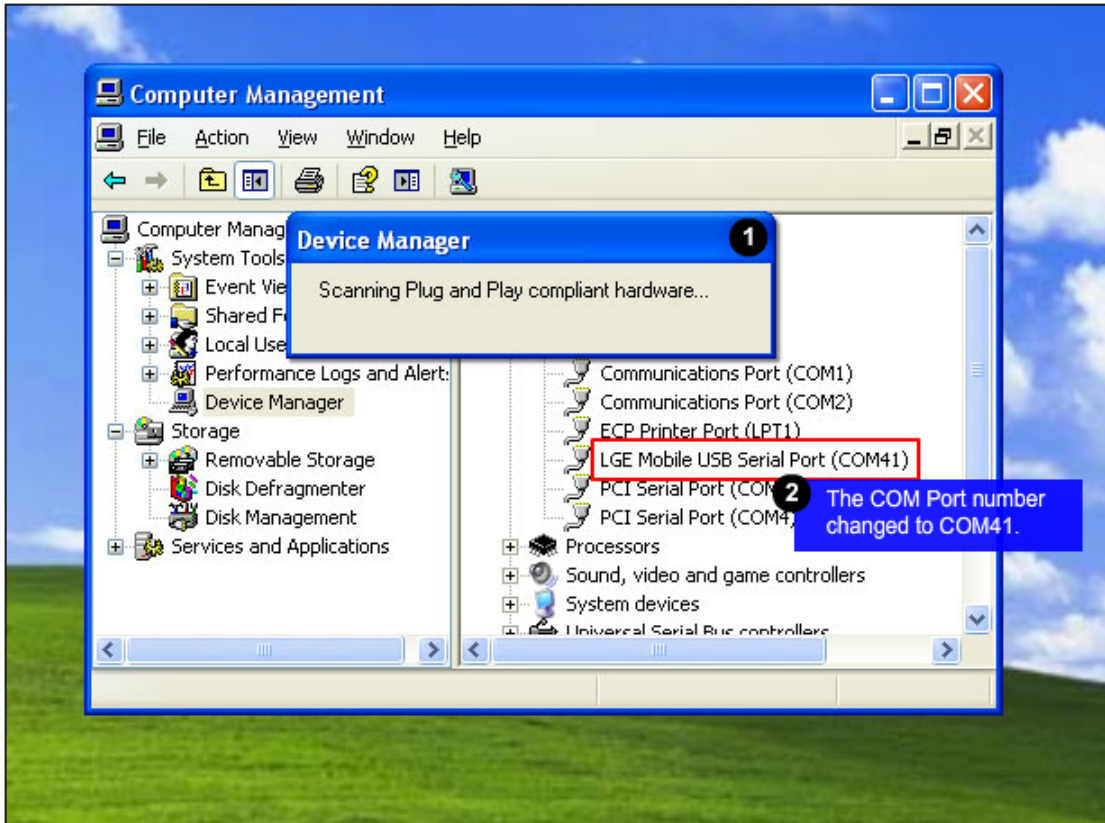


4. DOWNLOAD

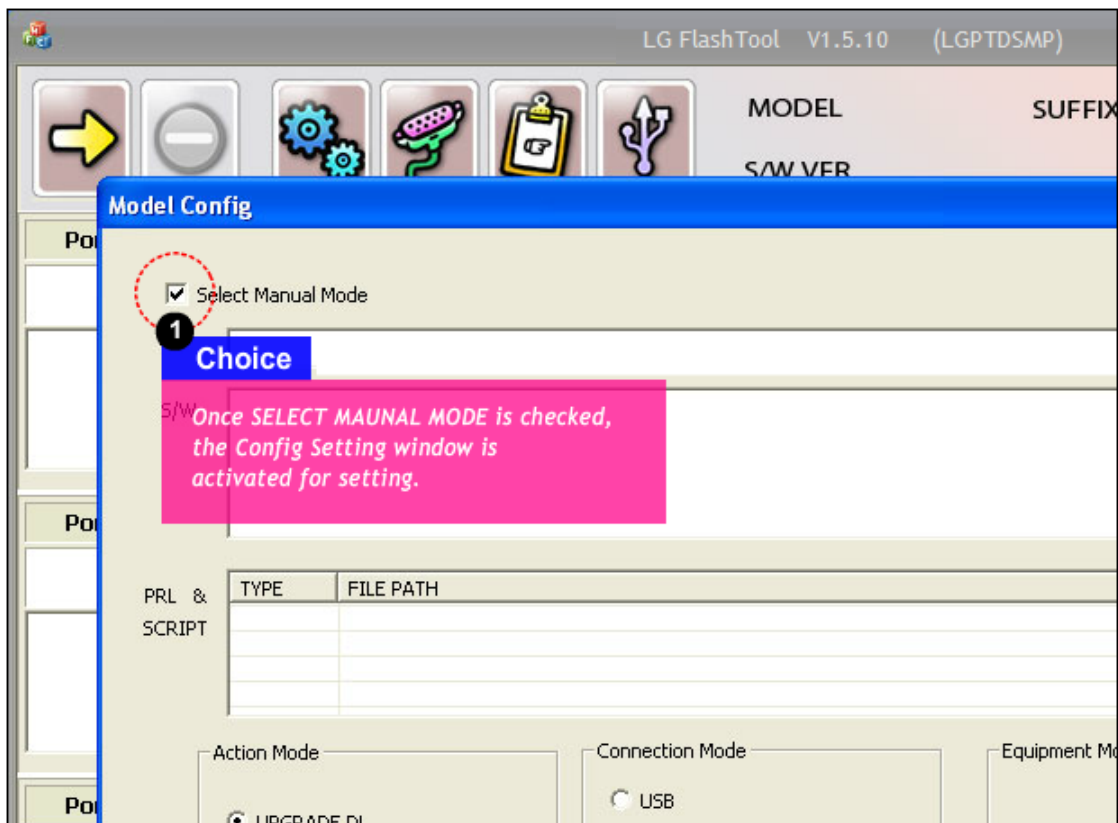
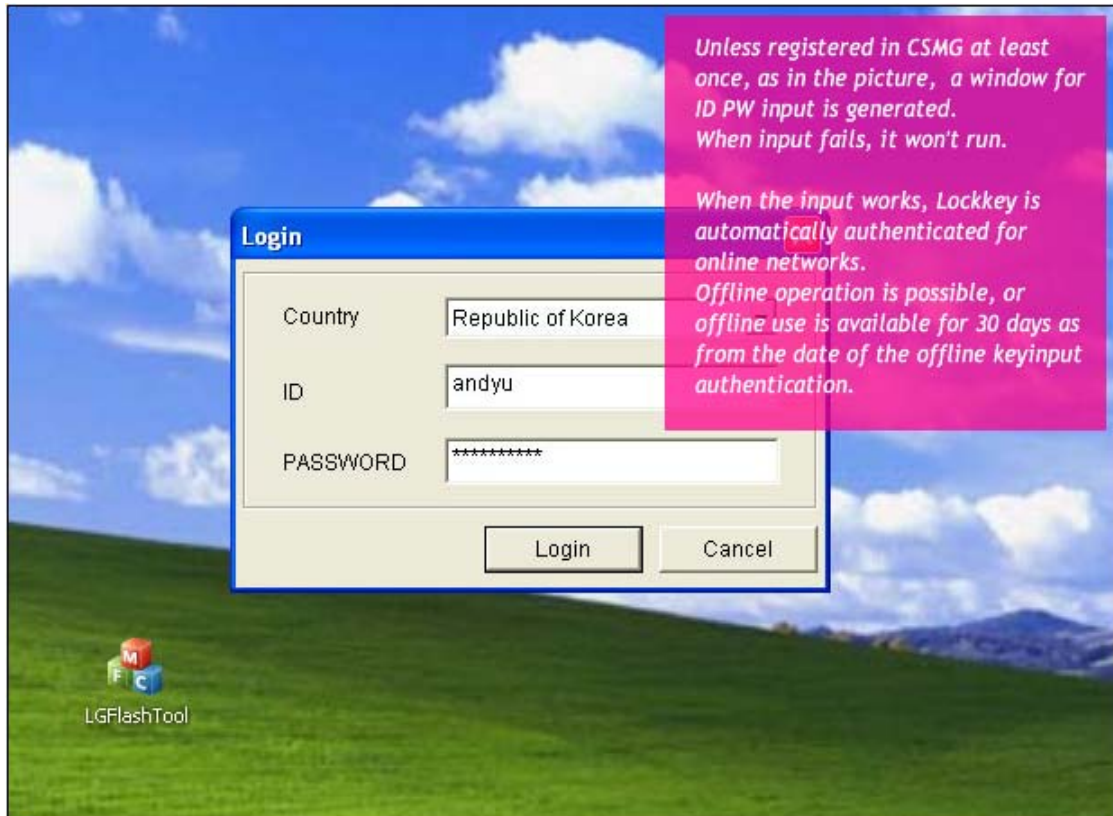


4. DOWNLOAD

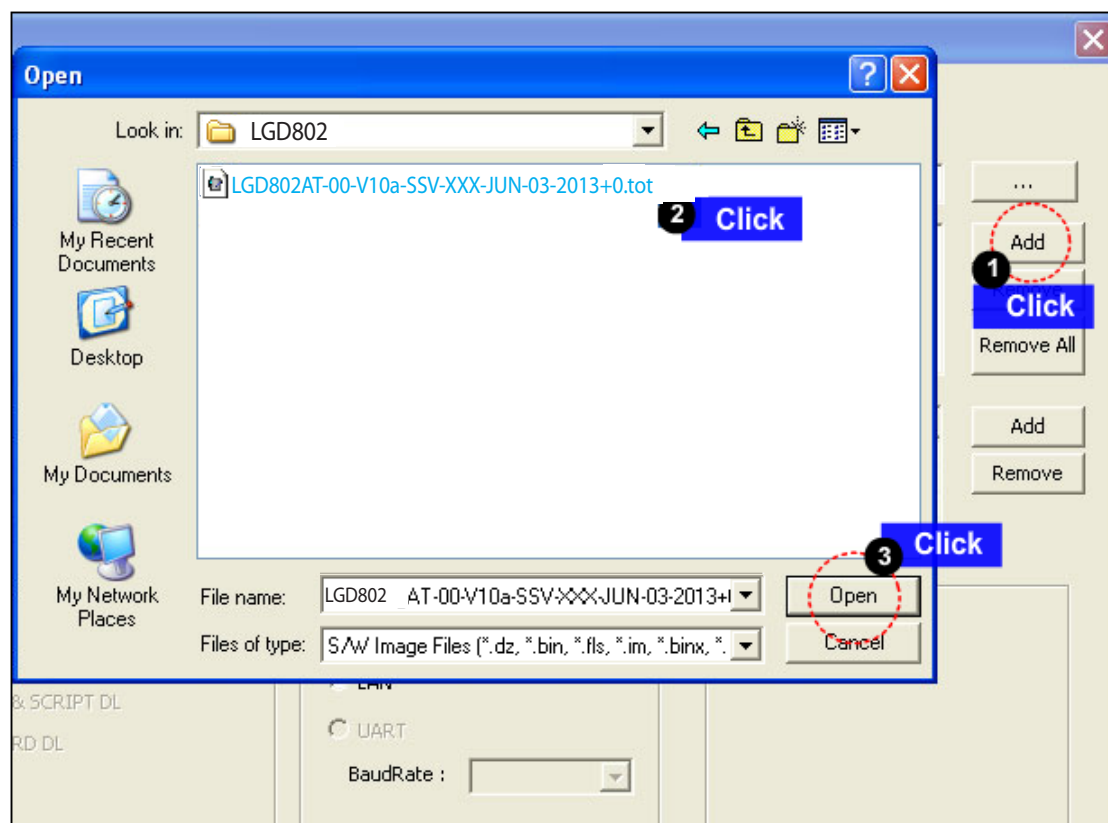
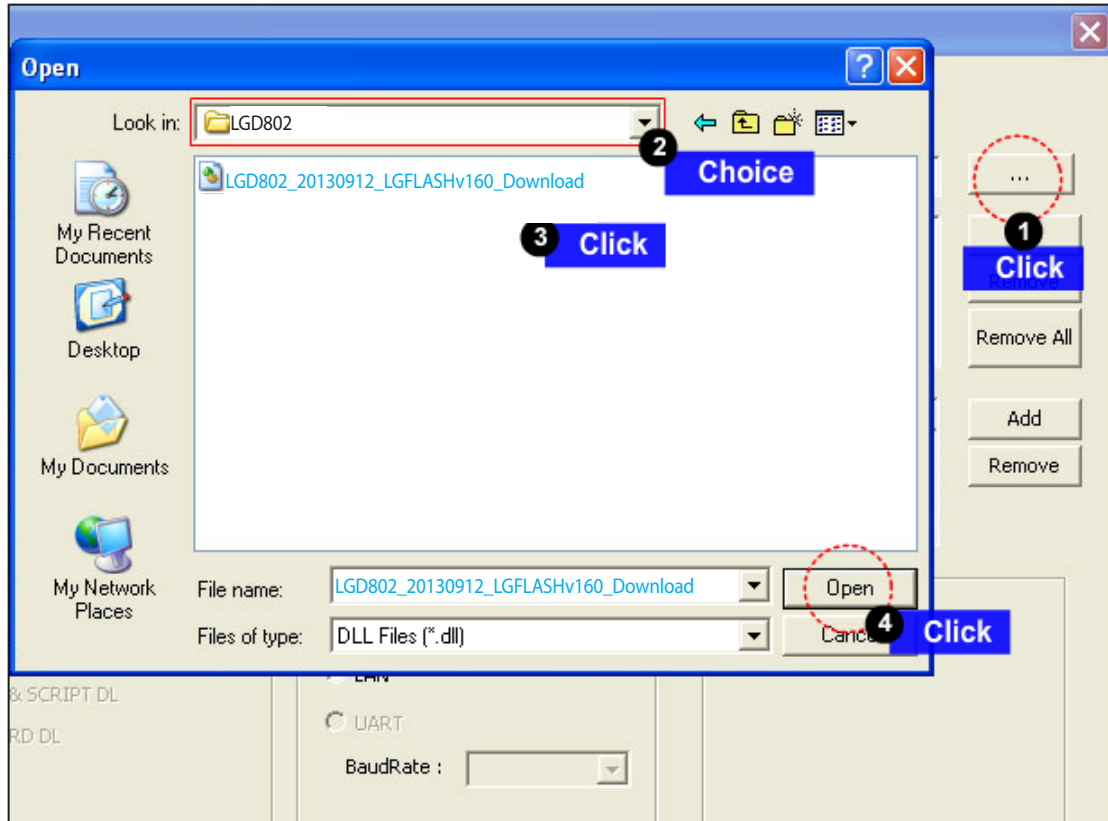




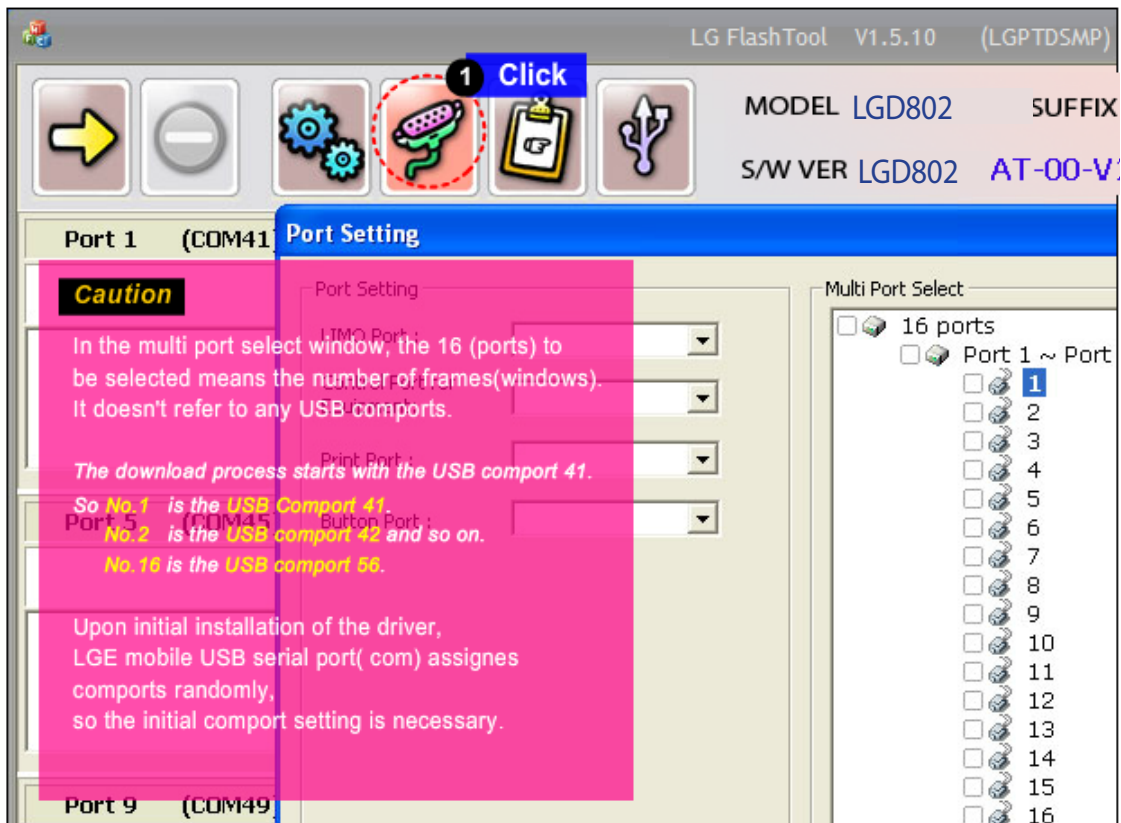
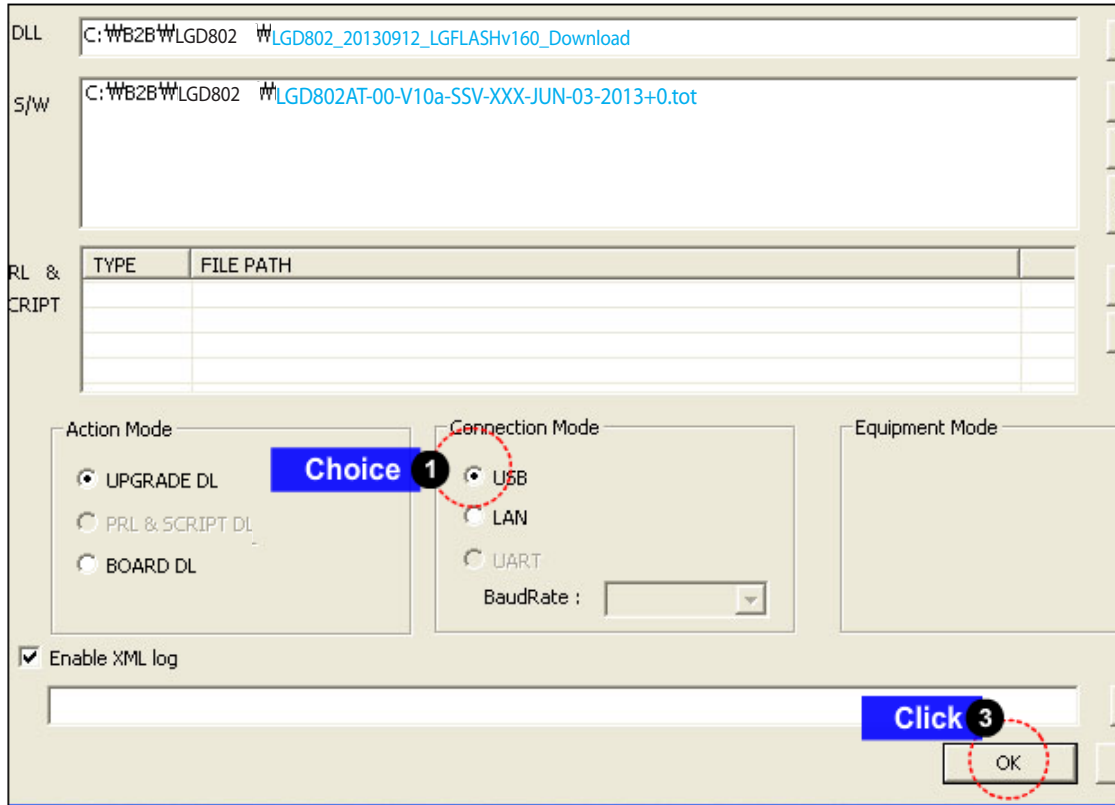
4. DOWNLOAD



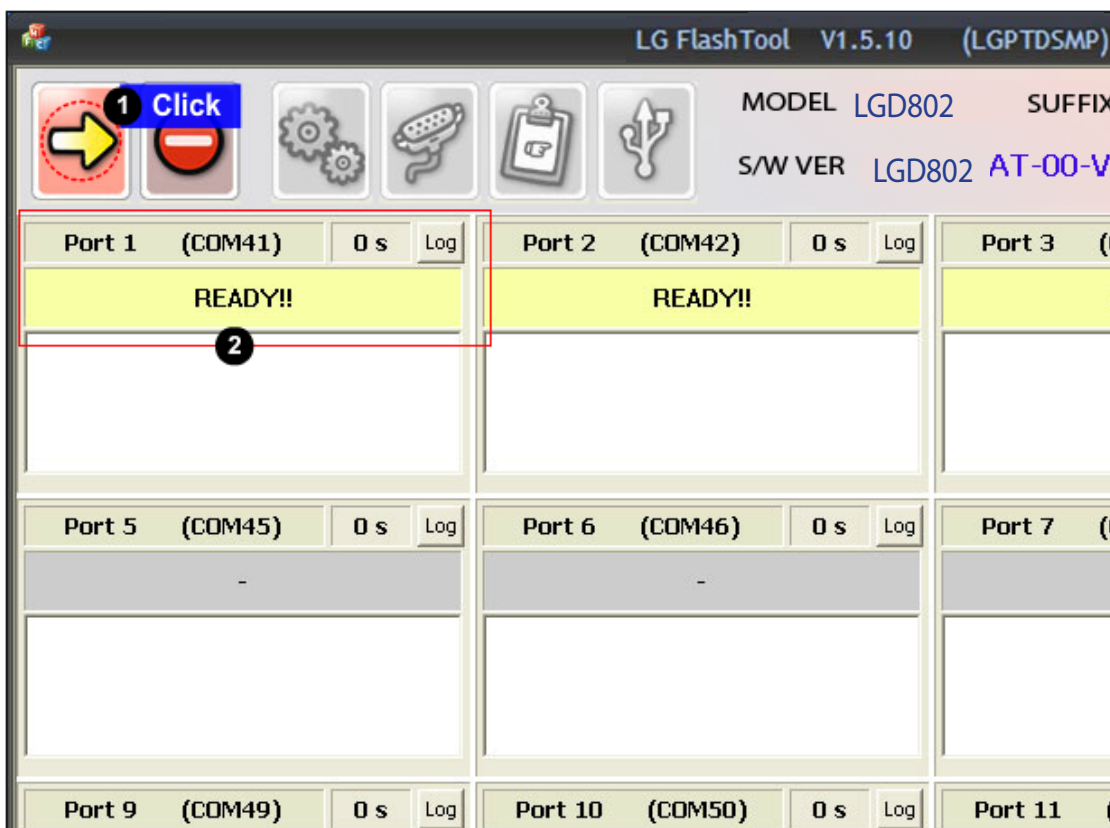
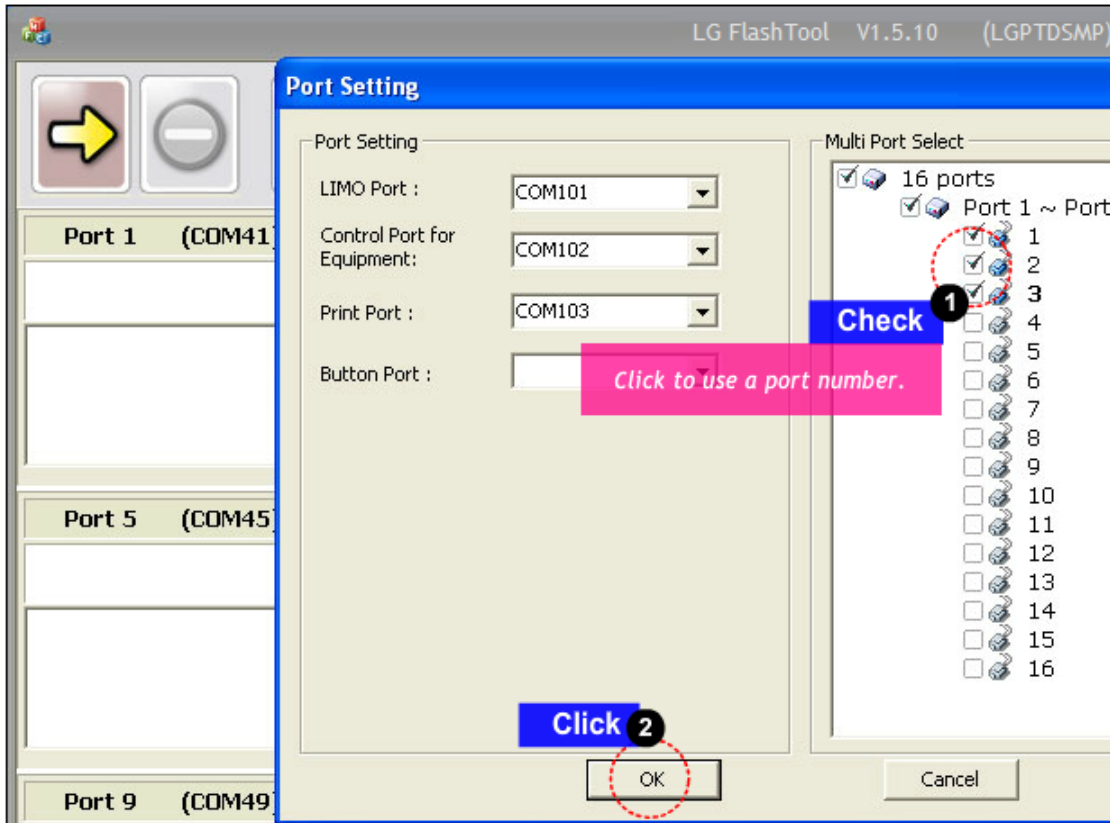
4. DOWNLOAD



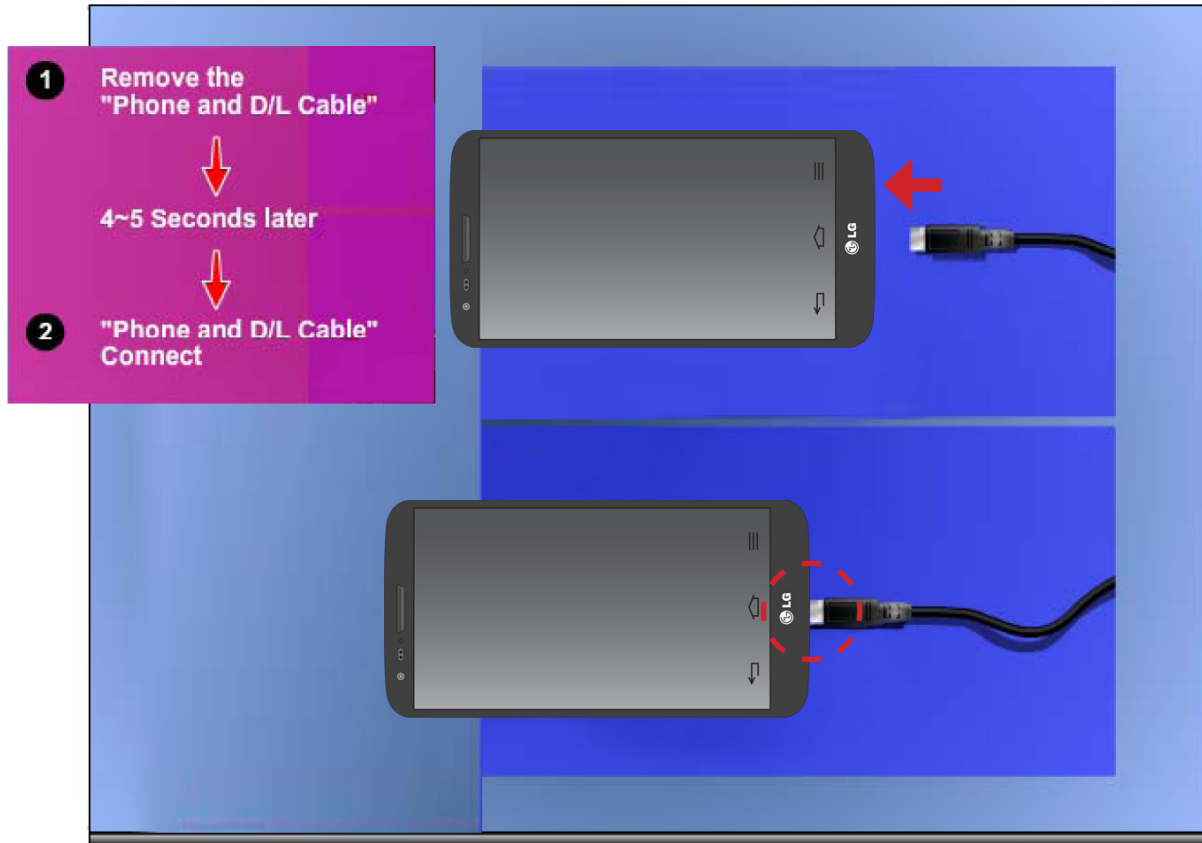
4. DOWNLOAD



4. DOWNLOAD



4. DOWNLOAD



LG FlashTool V1.5.10 (LGPTDSMP)

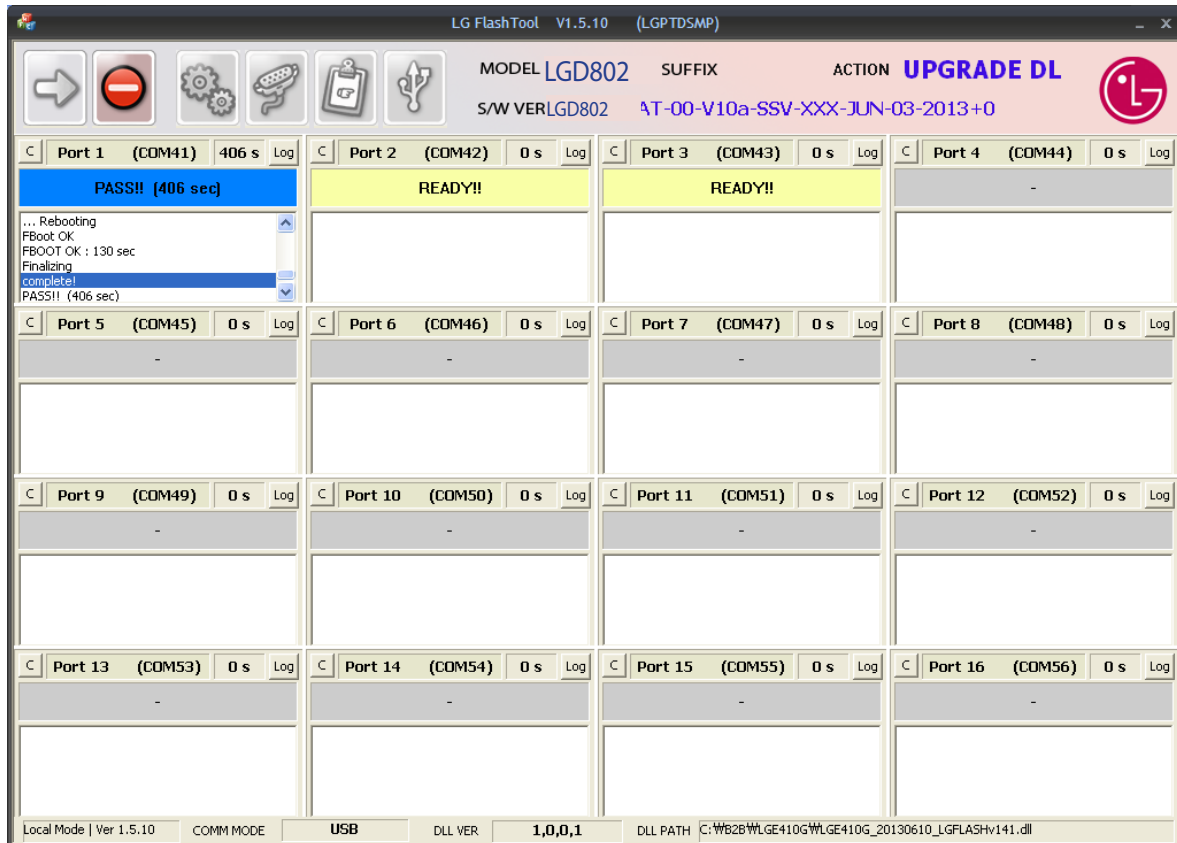
MODEL LGD802 SUFFIX ACTION **UPGRADE DL**

S/W VER LGD802 AT-00-V10a-SSV-XXX-JUN-03-2013+0

Port	COM	Time	Status
Port 1	(COM41)	406 s	PASS!! (406 sec)
Port 2	(COM42)	0 s	READY!!
Port 3	(COM43)	0 s	READY!!
Port 4	(COM44)	0 s	-
Port 5	(COM45)	0 s	-
Port 6	(COM46)	0 s	-
Port 7	(COM47)	0 s	-
Port 8	(COM48)	0 s	-
Port 9	(COM49)	0 s	-
Port 10	(COM50)	0 s	-
Port 11	(COM51)	0 s	-
Port 12	(COM52)	0 s	-
Port 13	(COM53)	0 s	-
Port 14	(COM54)	0 s	-
Port 15	(COM55)	0 s	-
Port 16	(COM56)	0 s	-

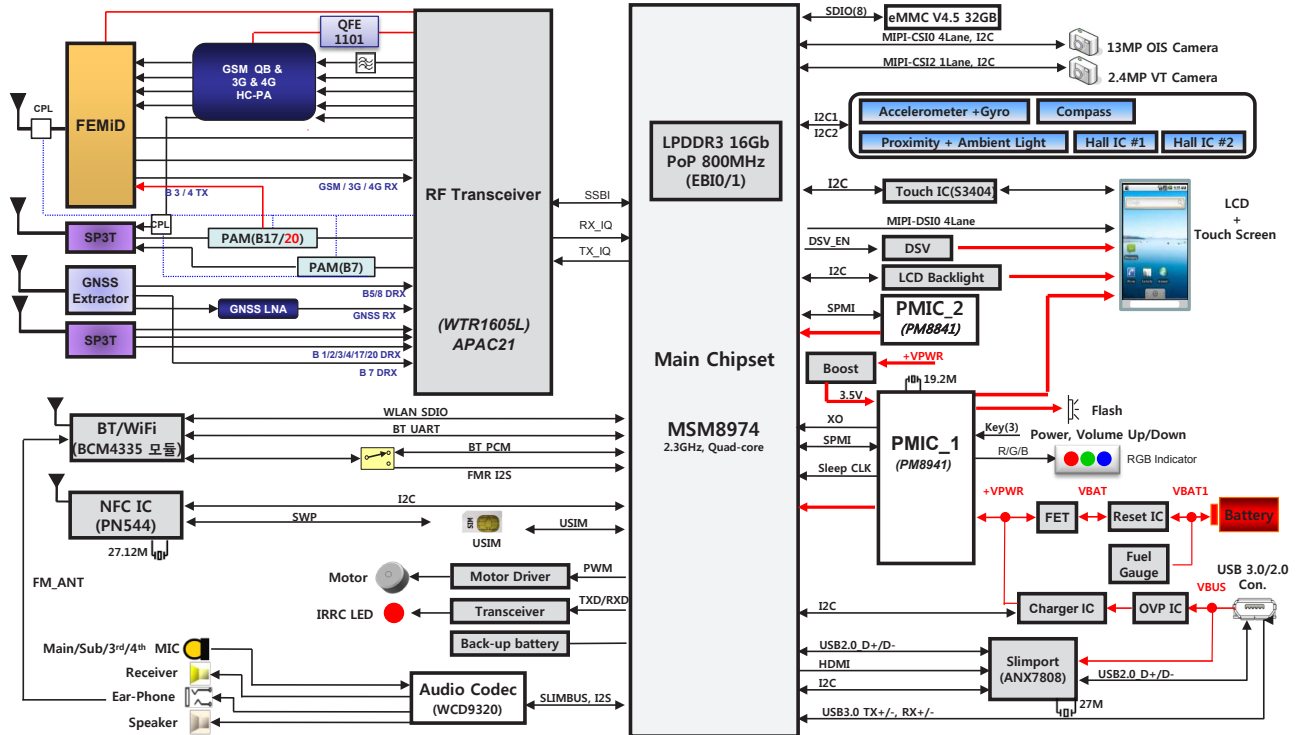
Local Mode | Ver 1.5.10 COMM MODE **USB** DLL VER **1,0,0,1** DLL PATH C:\W82B\WLG410G\WLG410G_20130610_LGFLASHV141.dll

4. DOWNLOAD

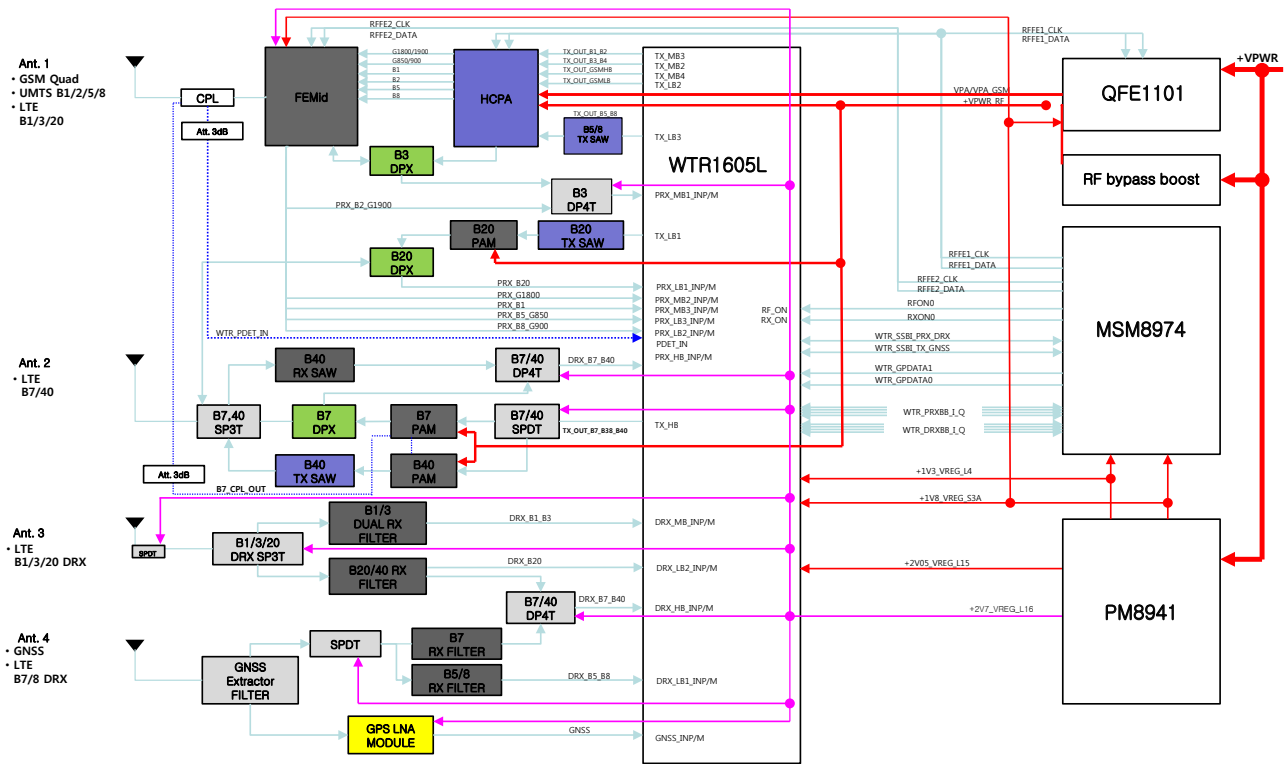


5. BLOCK DIAGRAM

[D802] Total Block Diagram

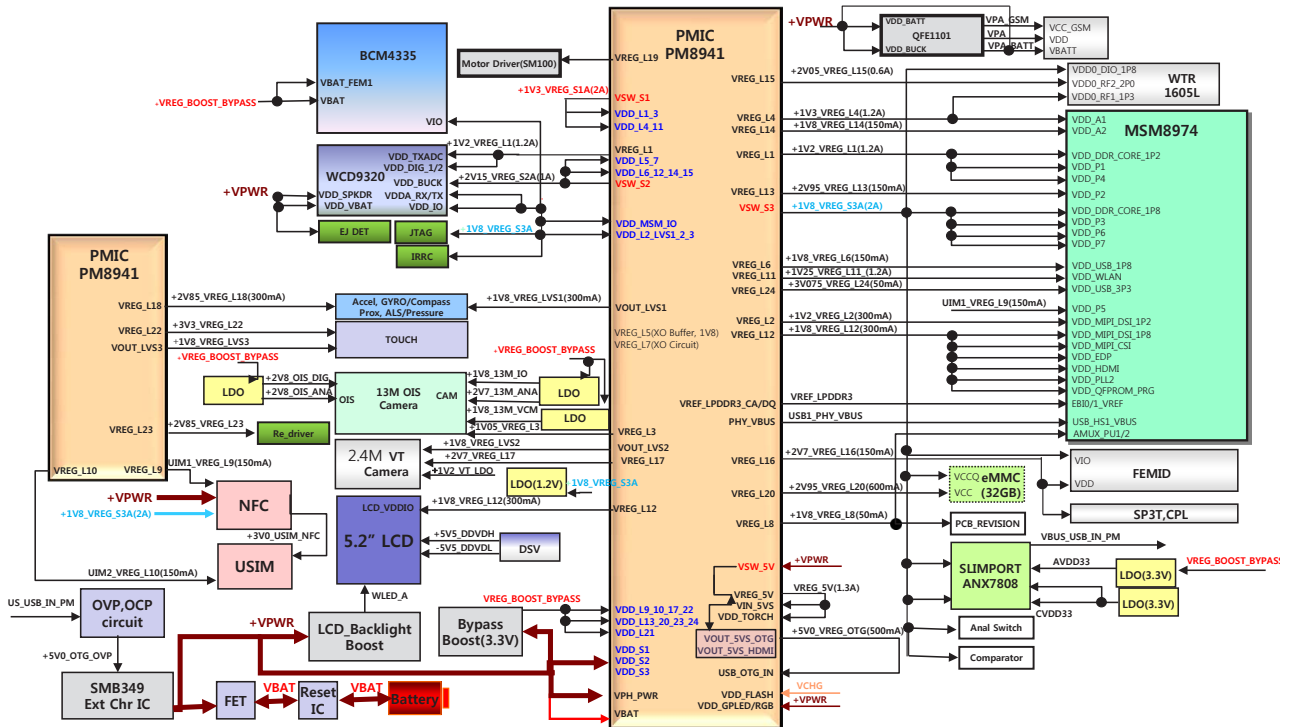


[D802] RF Block Diagram

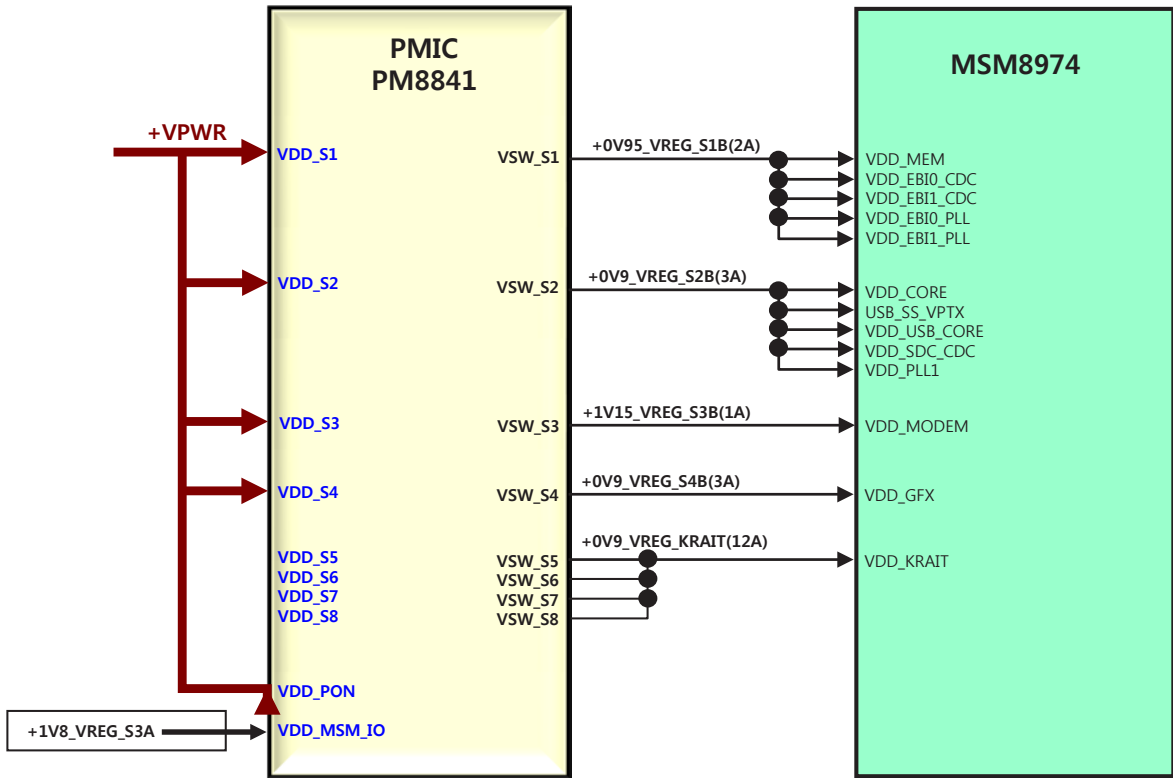


5. BLOCK DIAGRAM

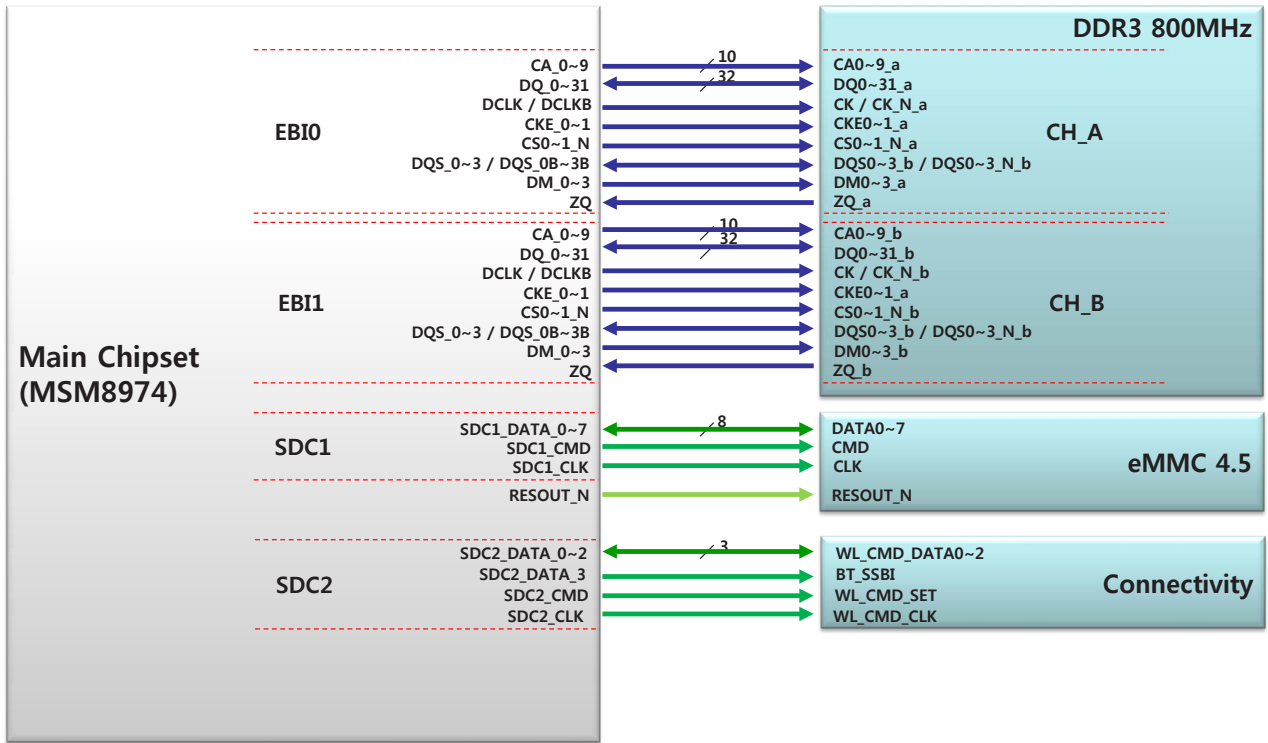
[D802] PM8941 Output Power Management



[D802] PM8841 SMPS Power

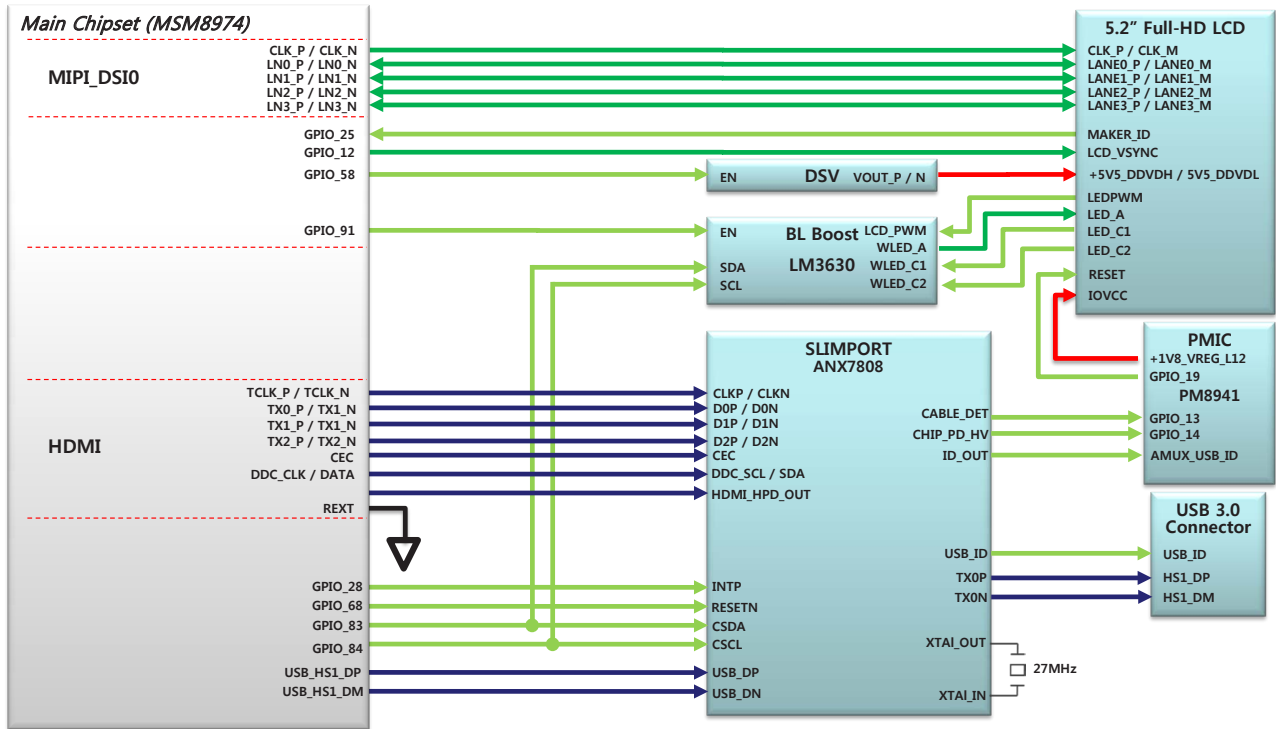


[D802] Memory I/F



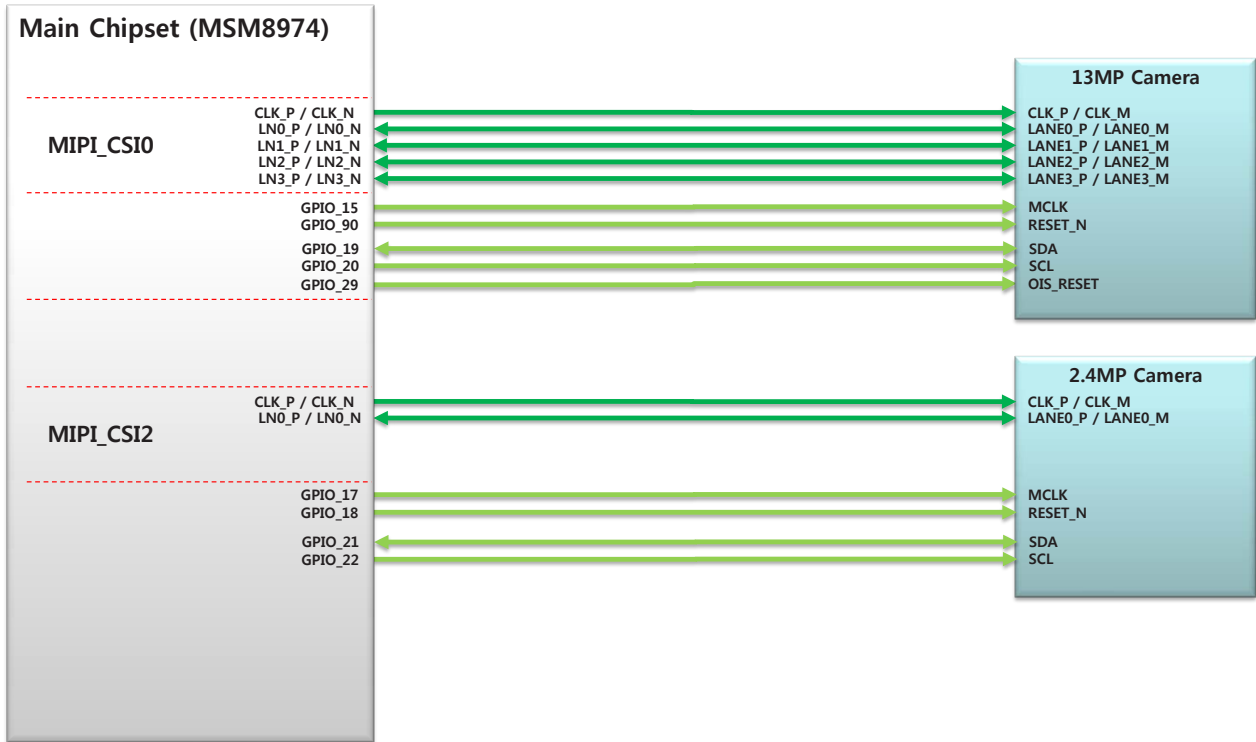
5. BLOCK DIAGRAM

[D802] Main & External Display I/F

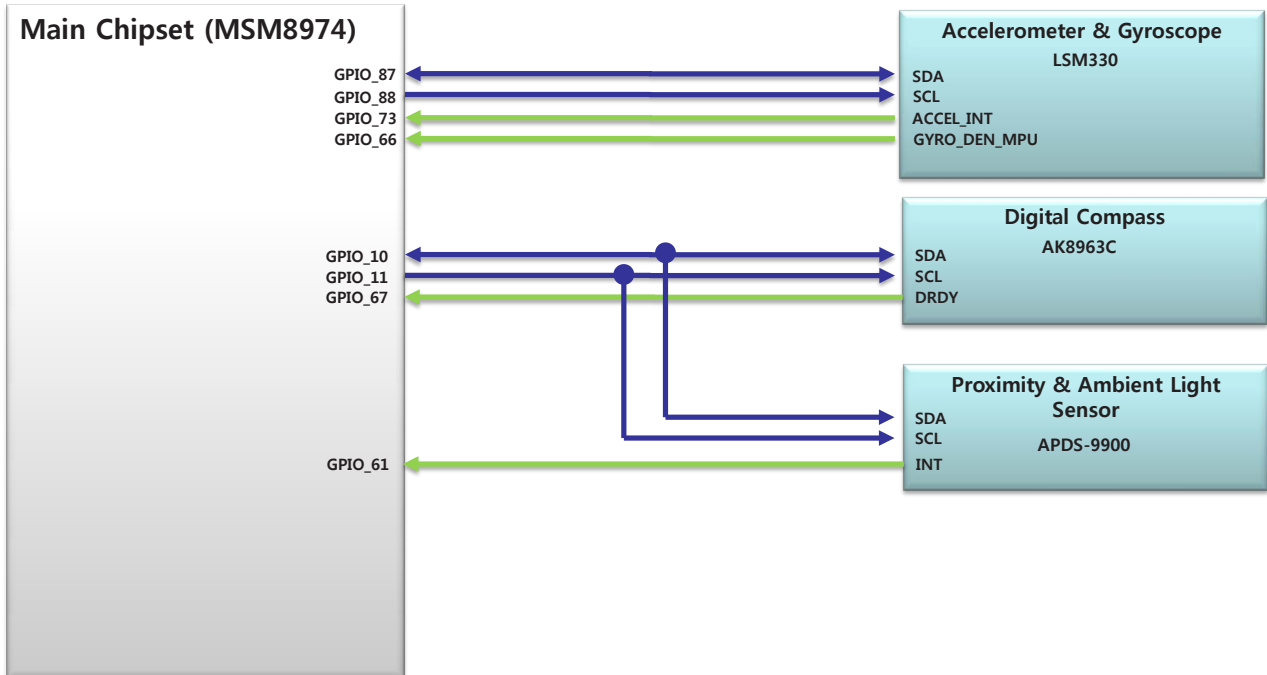


5. BLOCK DIAGRAM

[D802] Camera I/F

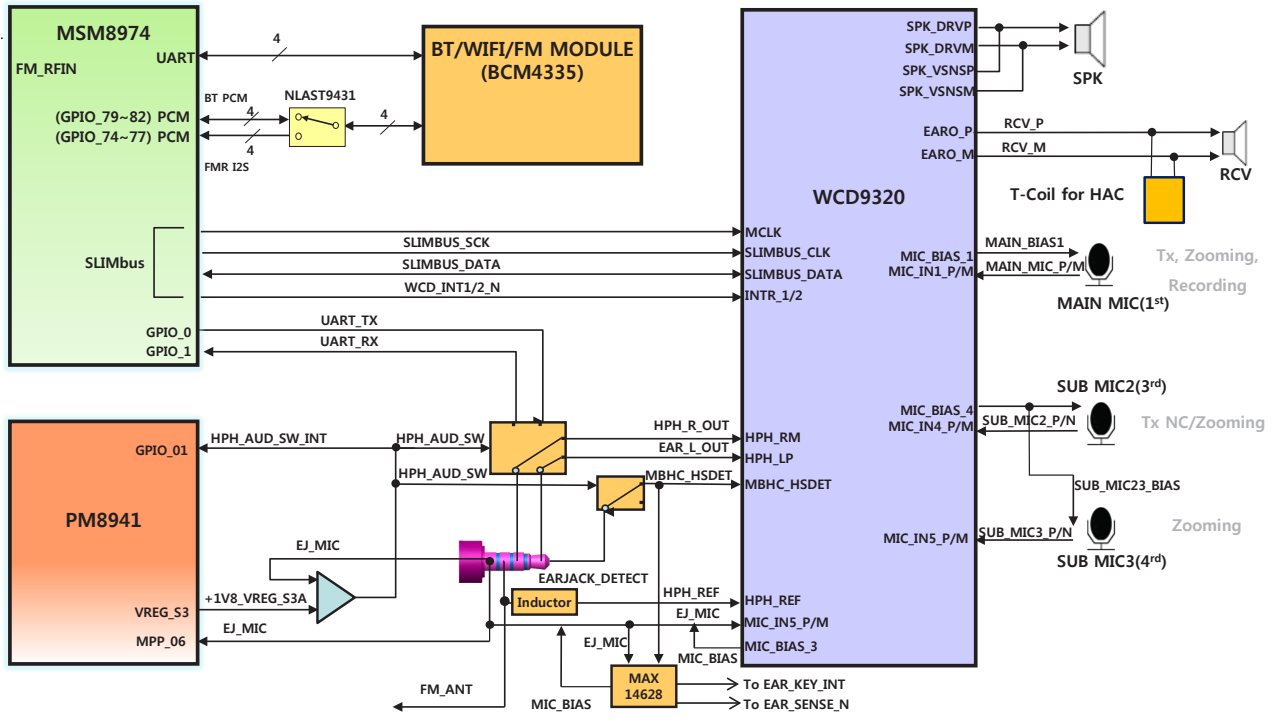


[D802] Sensor I/F



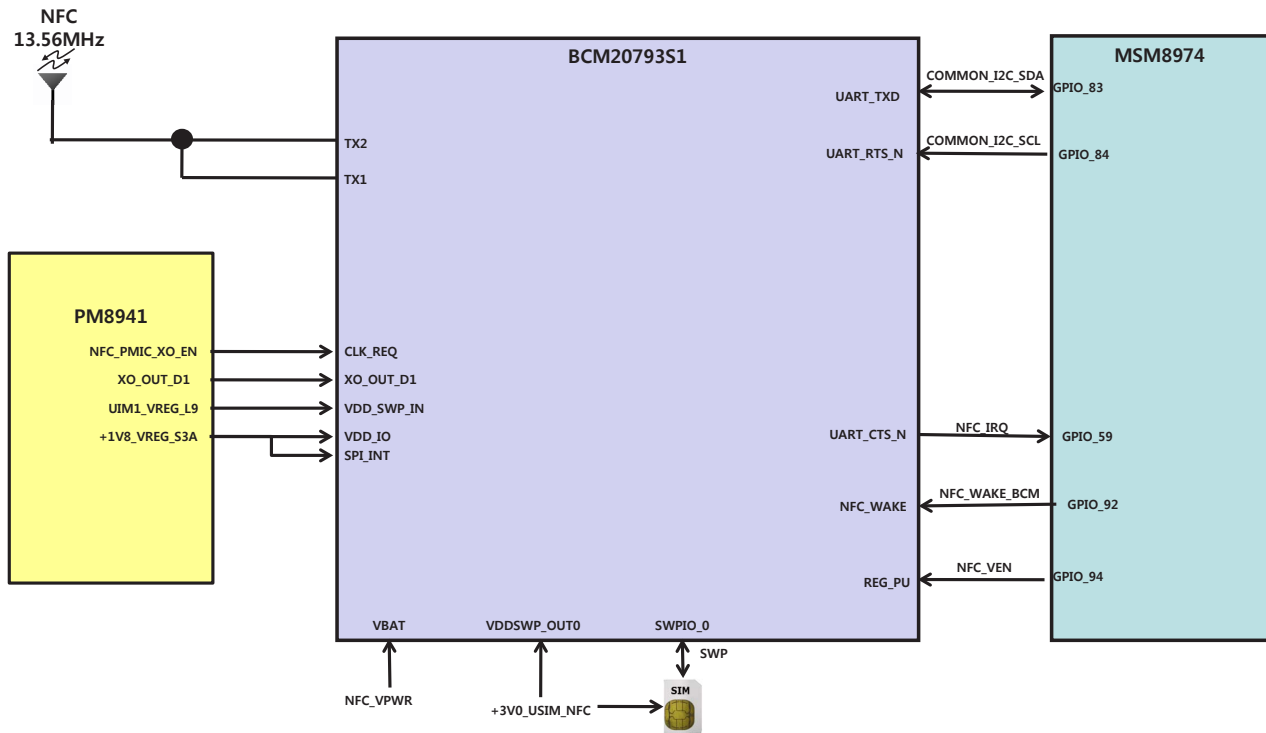
5. BLOCK DIAGRAM

[D802] Audio Codec I/F



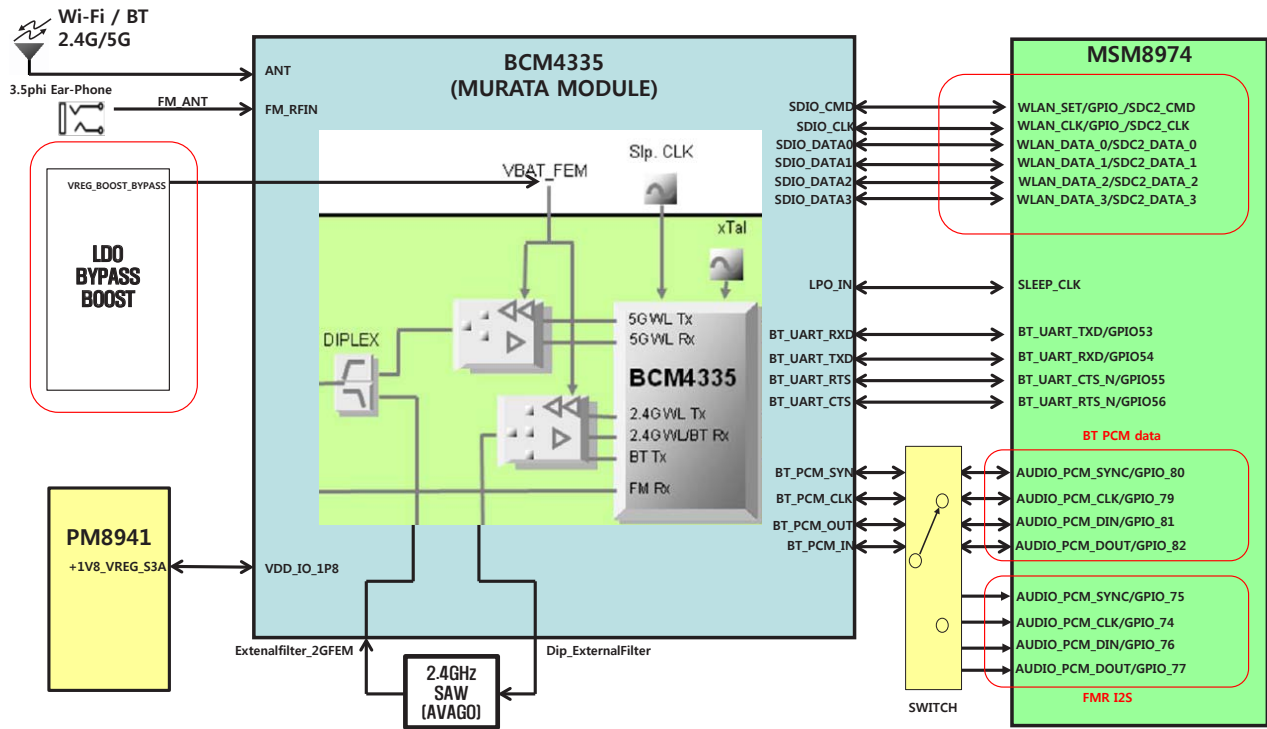
5. BLOCK DIAGRAM

[D802] NFC I/F



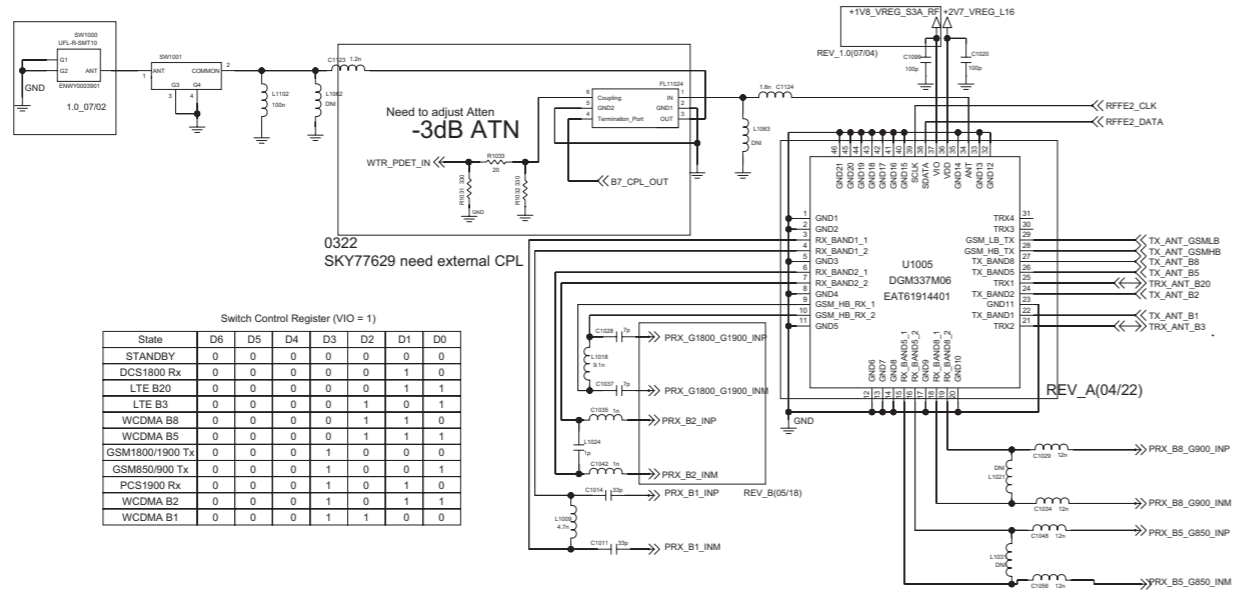
5. BLOCK DIAGRAM

[D802] BT / Wi-Fi

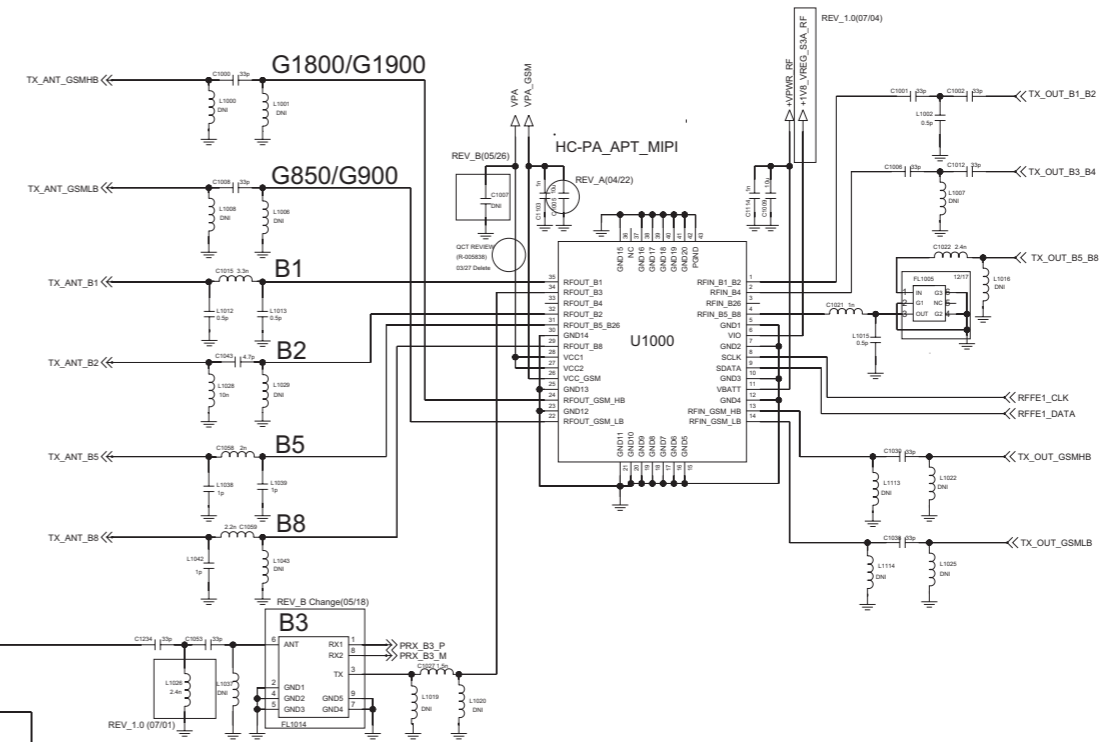


6. CIRCUIT DIAGRAM

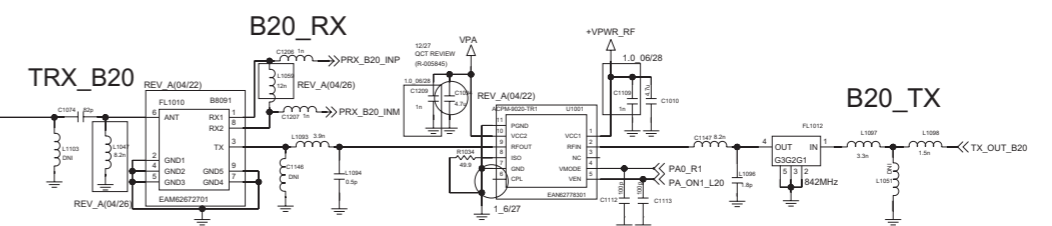
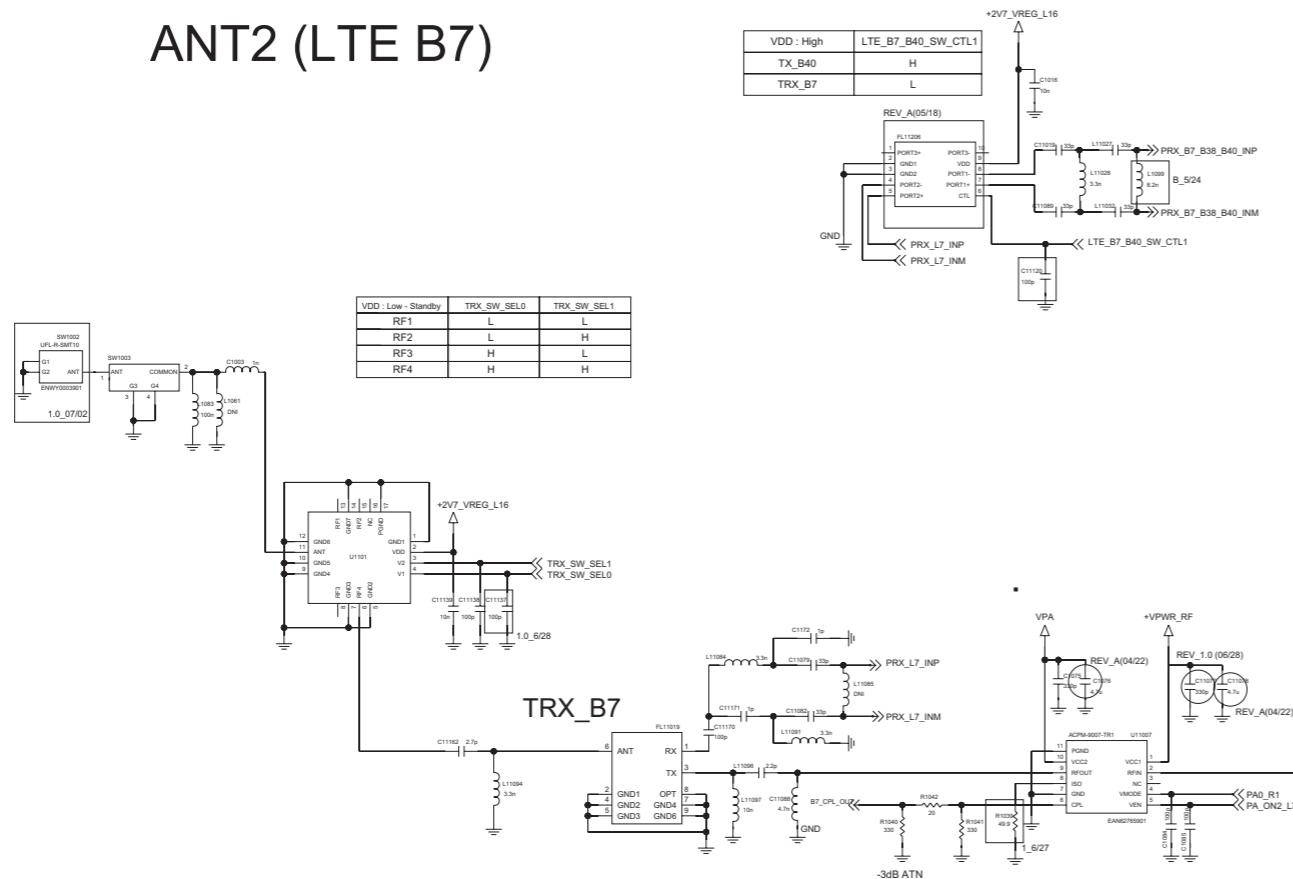
ANT1 (GSM Quad / WCDMA 1, 2, 5, 8 / LTE 1, 3, 8, 20)



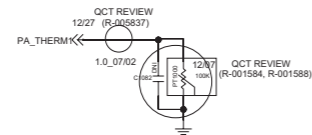
HCPA(Change from ACPM-7700 to SKY77629)



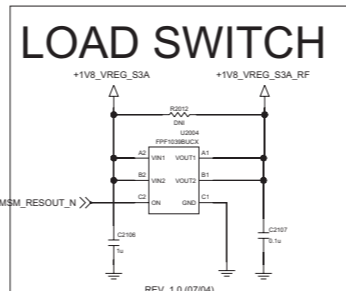
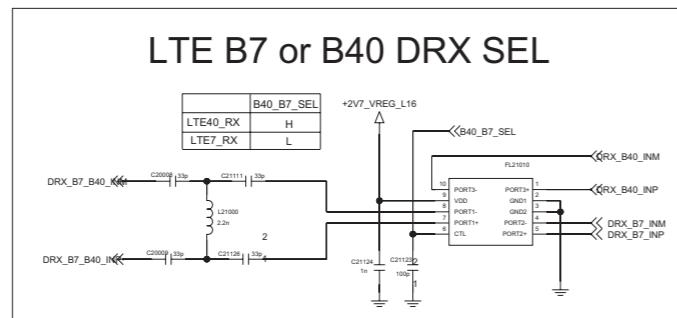
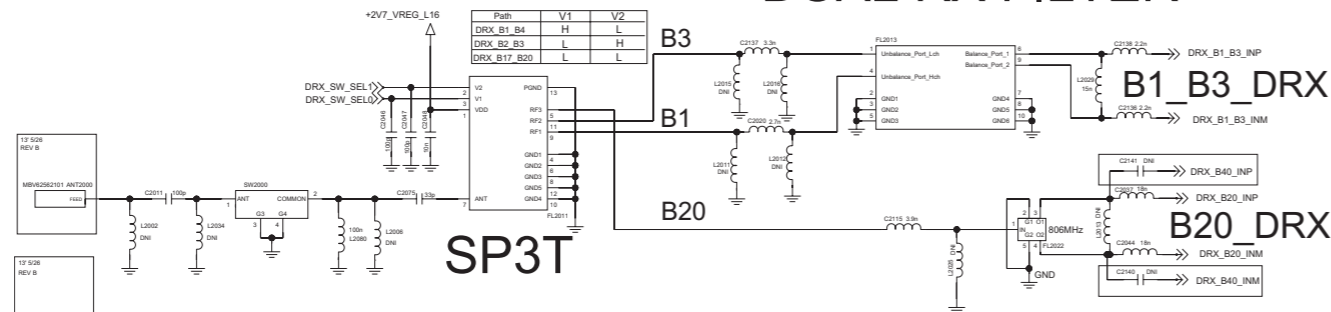
ANT2 (LTE B7)



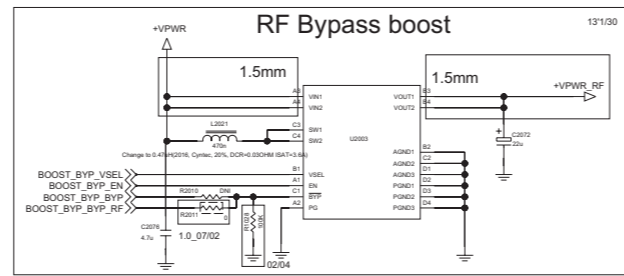
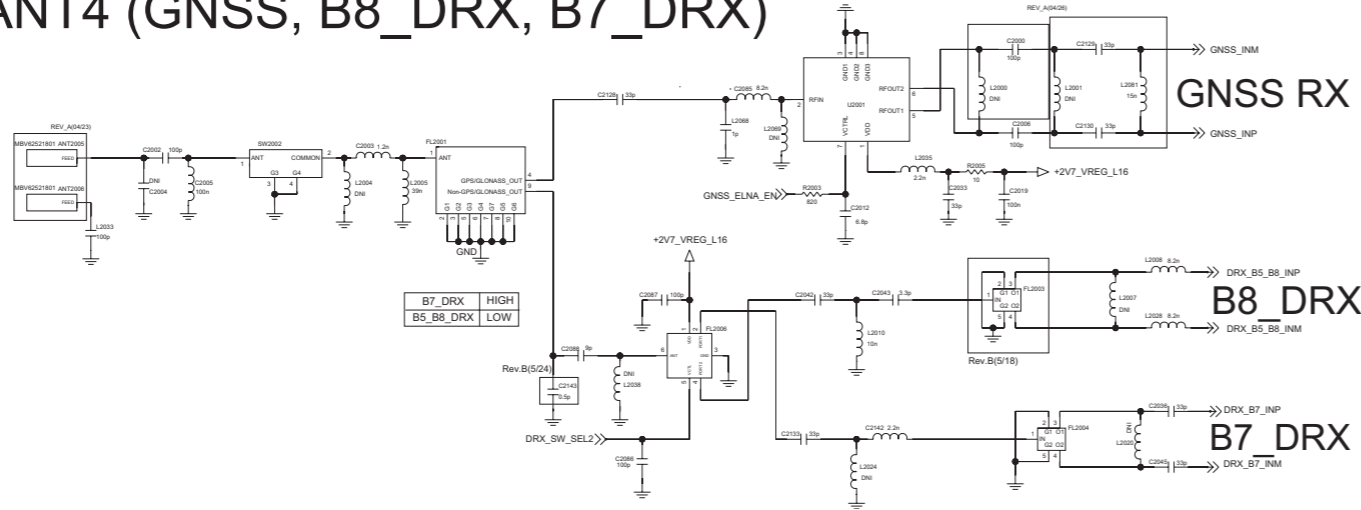
PA_THEMISTER



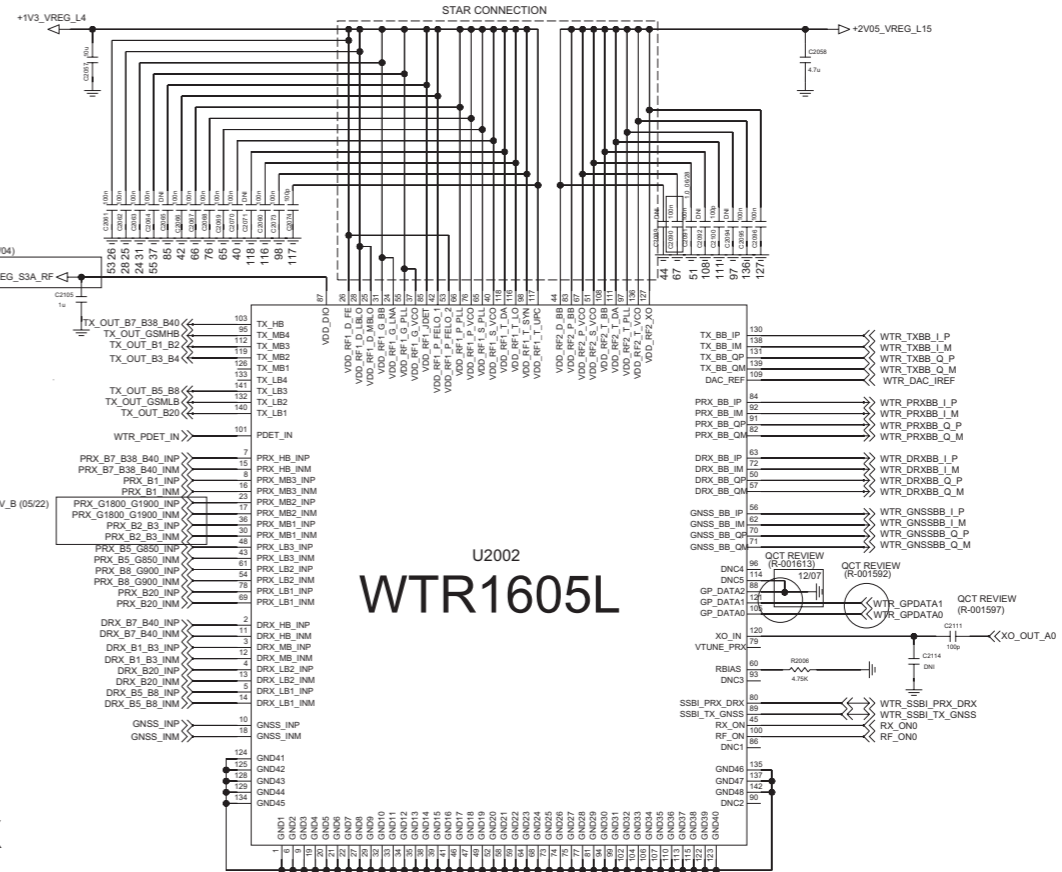
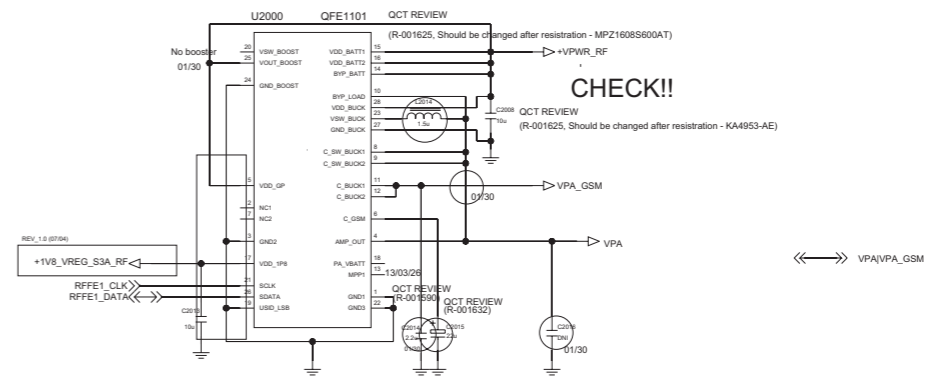
ANT3 (B1, B3, B20_DRX)



ANT4 (GNSS, B8_DRX, B7_DRX)

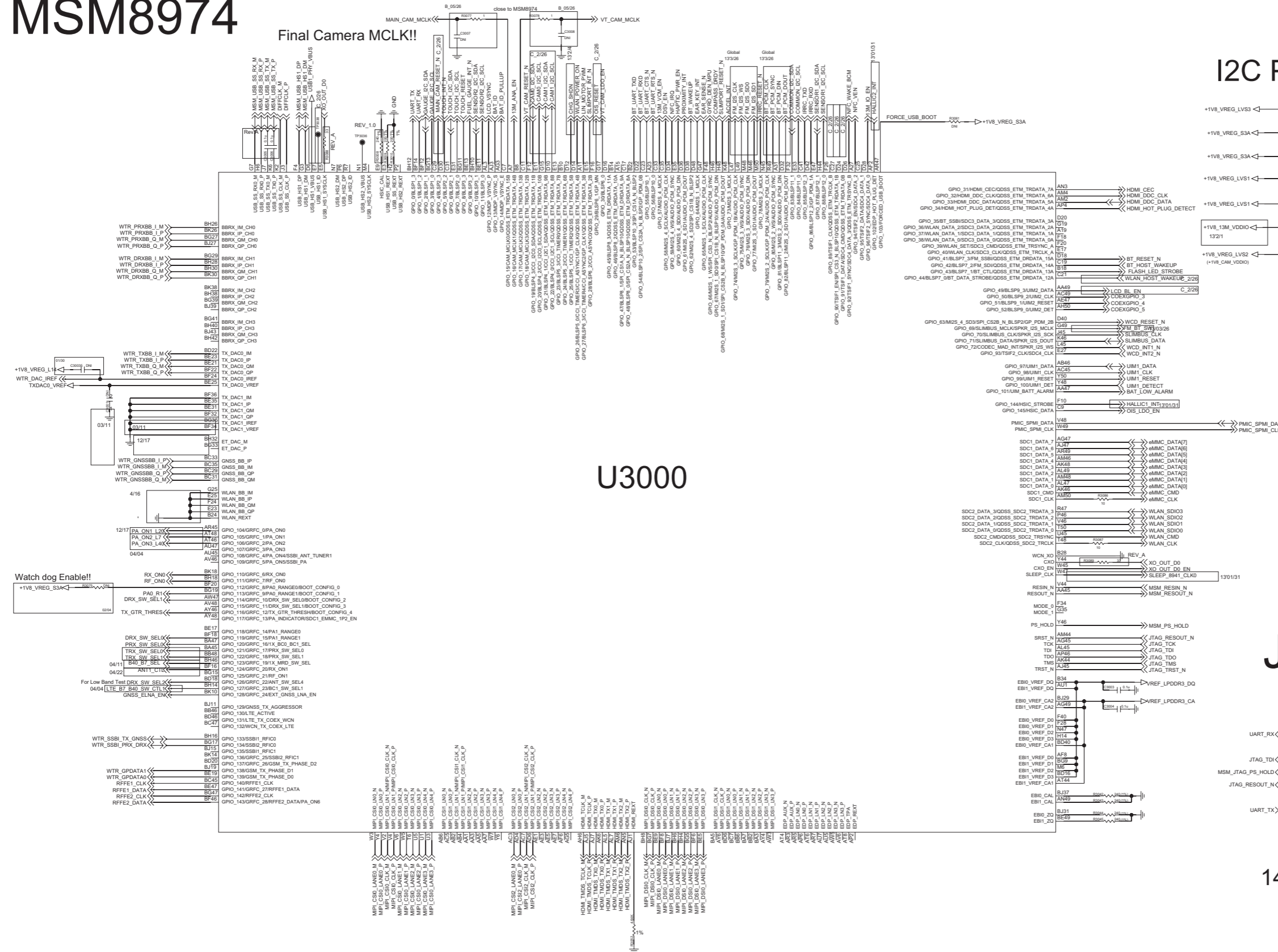


QFE1101



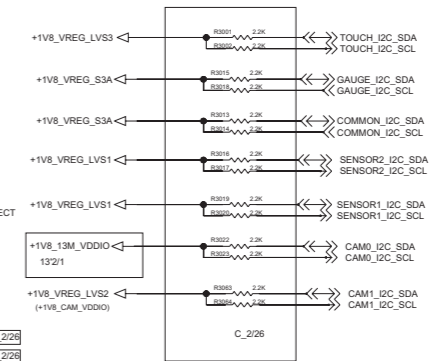
MSM8974

Final Camera MCLK!!

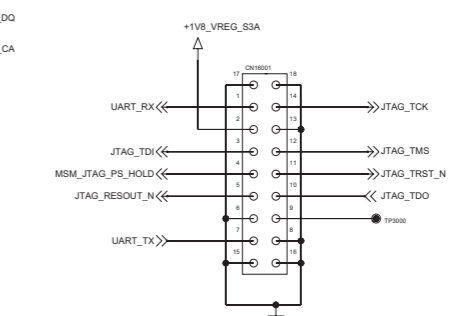


U3000

I2C Pull-Up



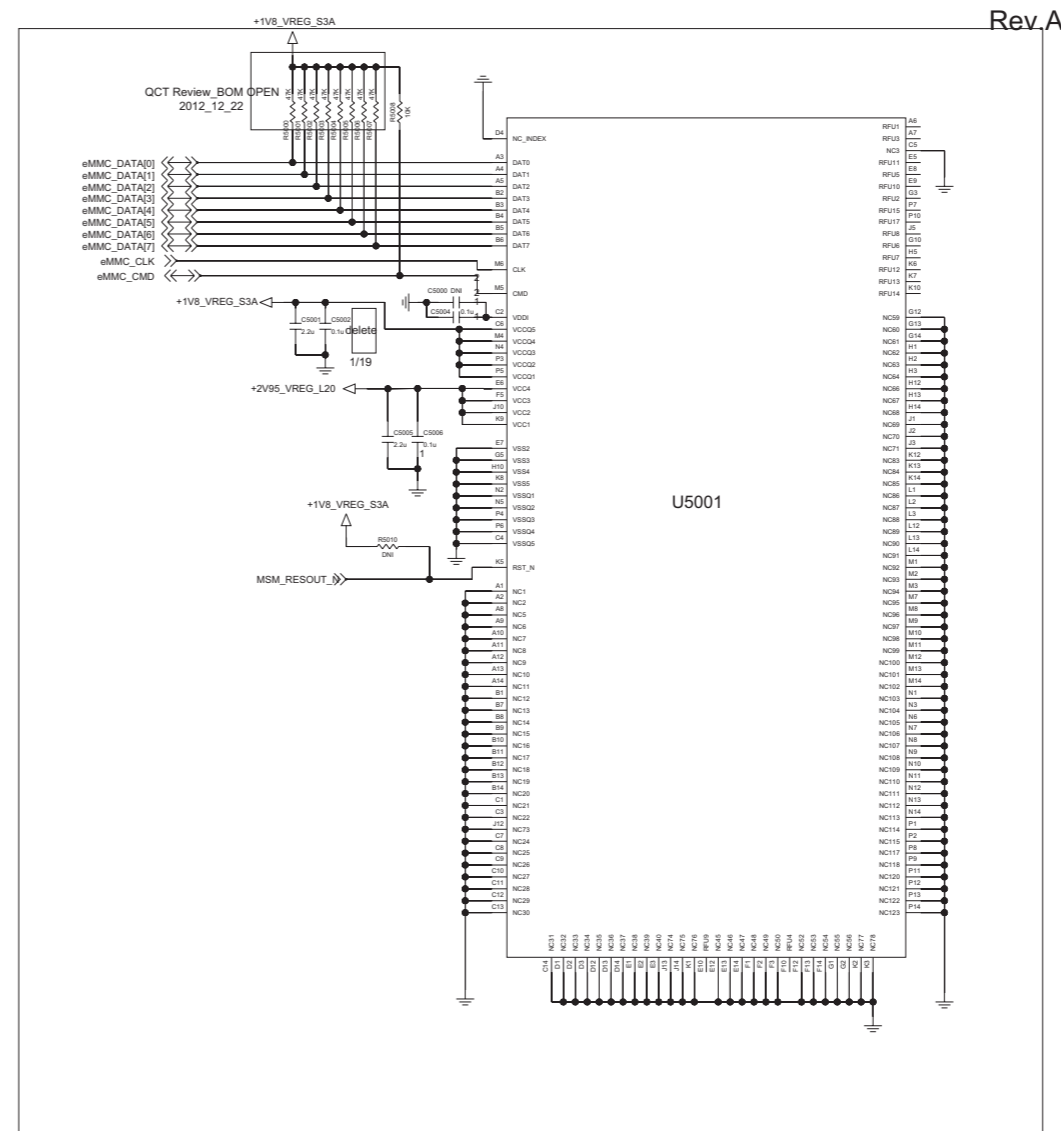
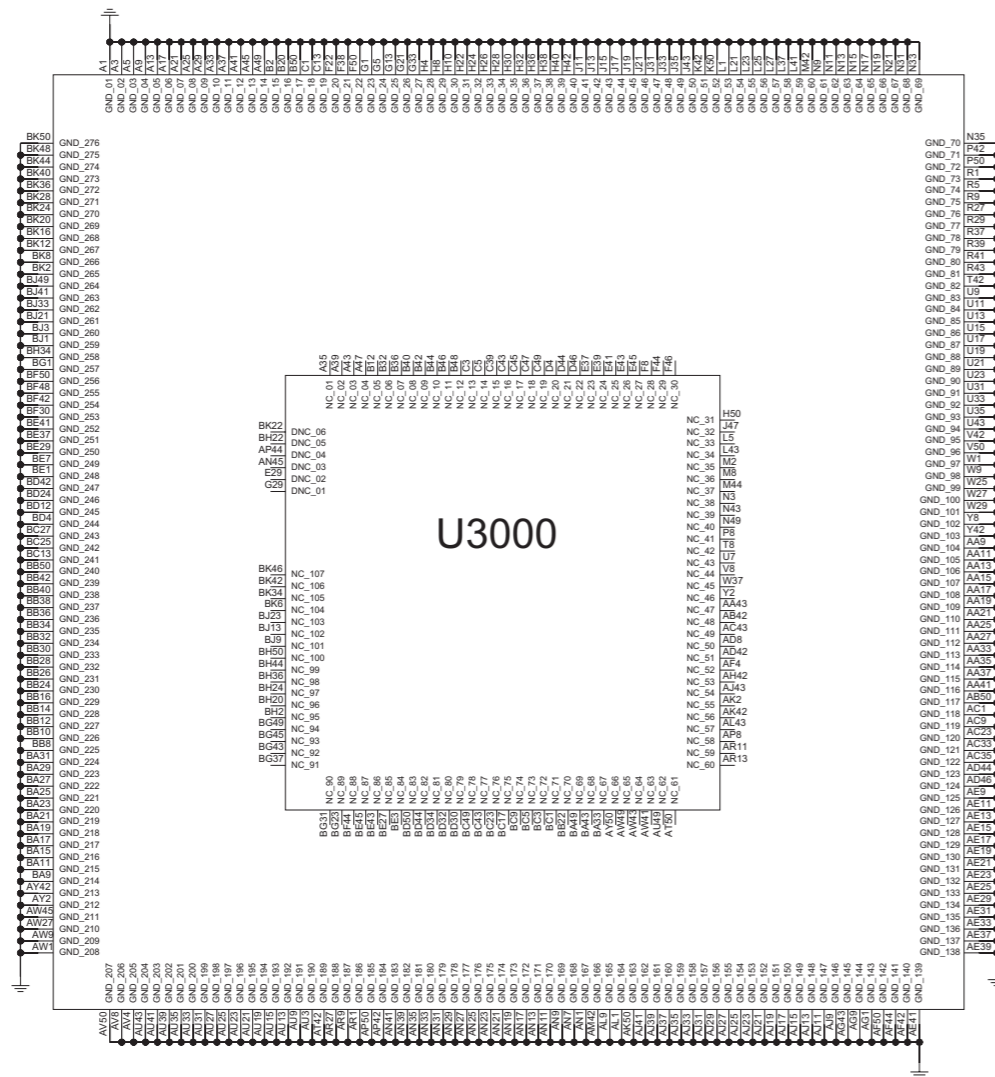
JTAG



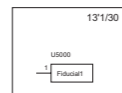
14Pin Change!!

MSM8974 GND & NC

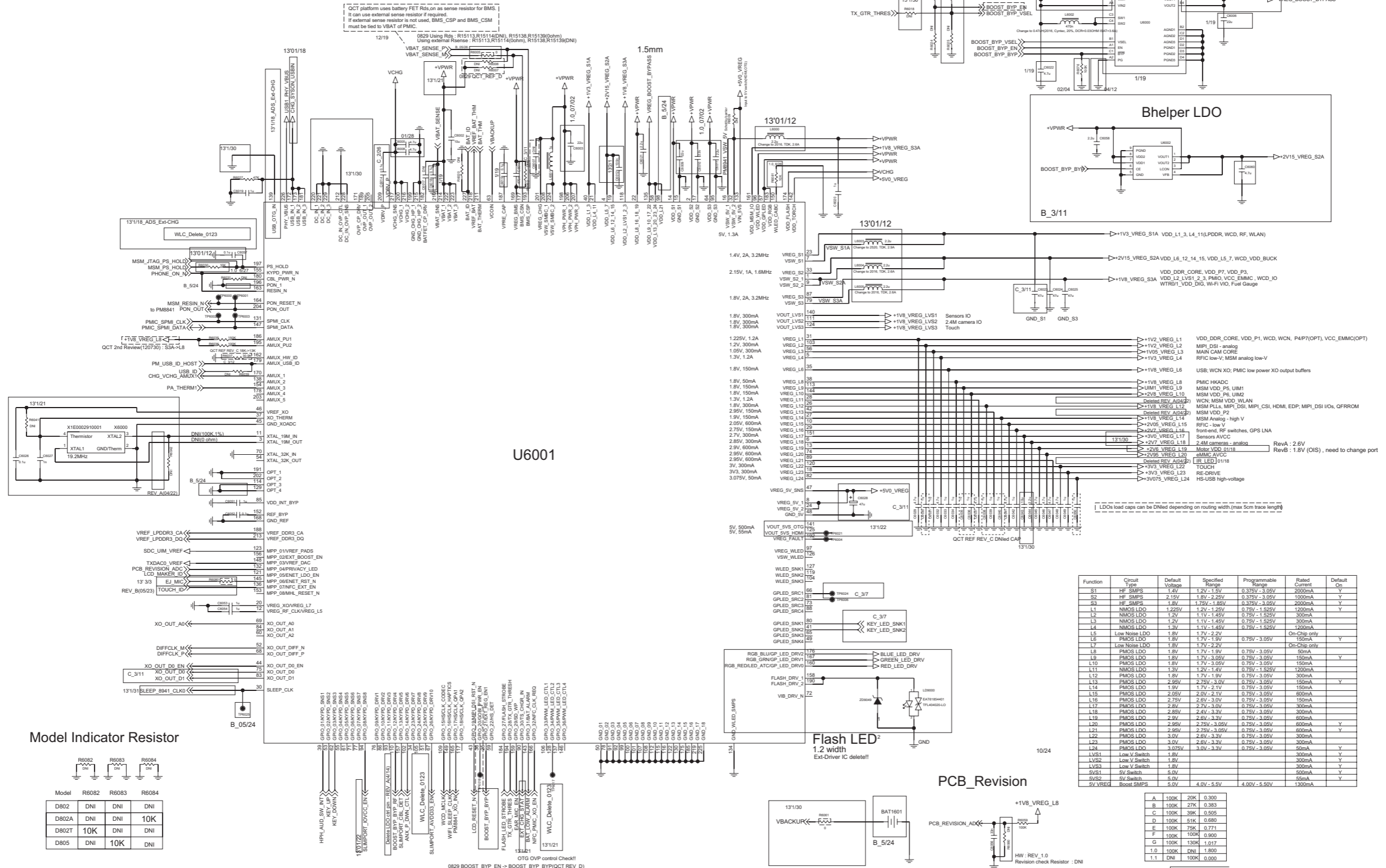
eMMC 32GB Toshiba 4.41alpha --> 4.5 change!



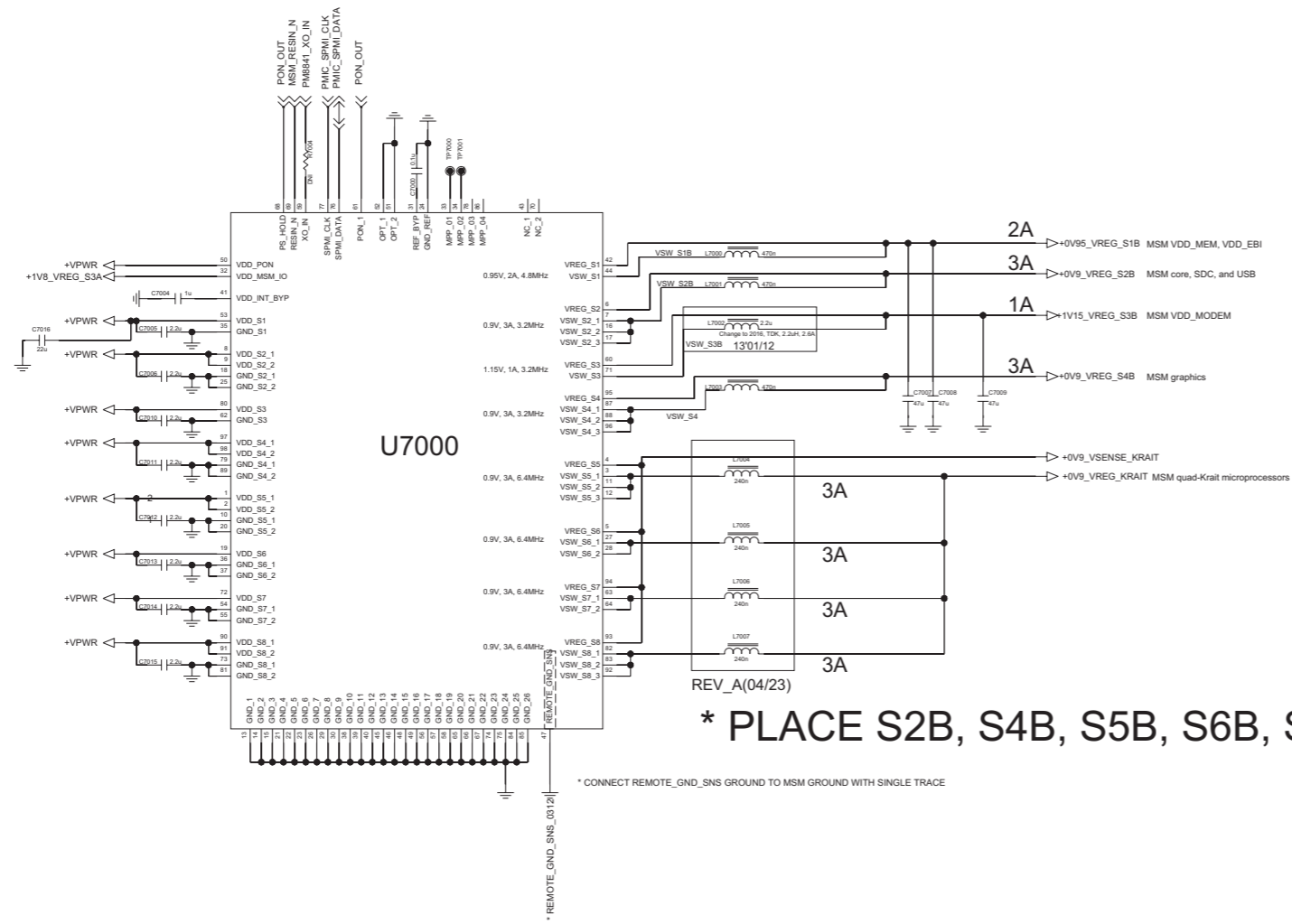
LPDDR3_POP 16Gbit 800MHz
2Channel, 8Gbx2, x32



PM8941



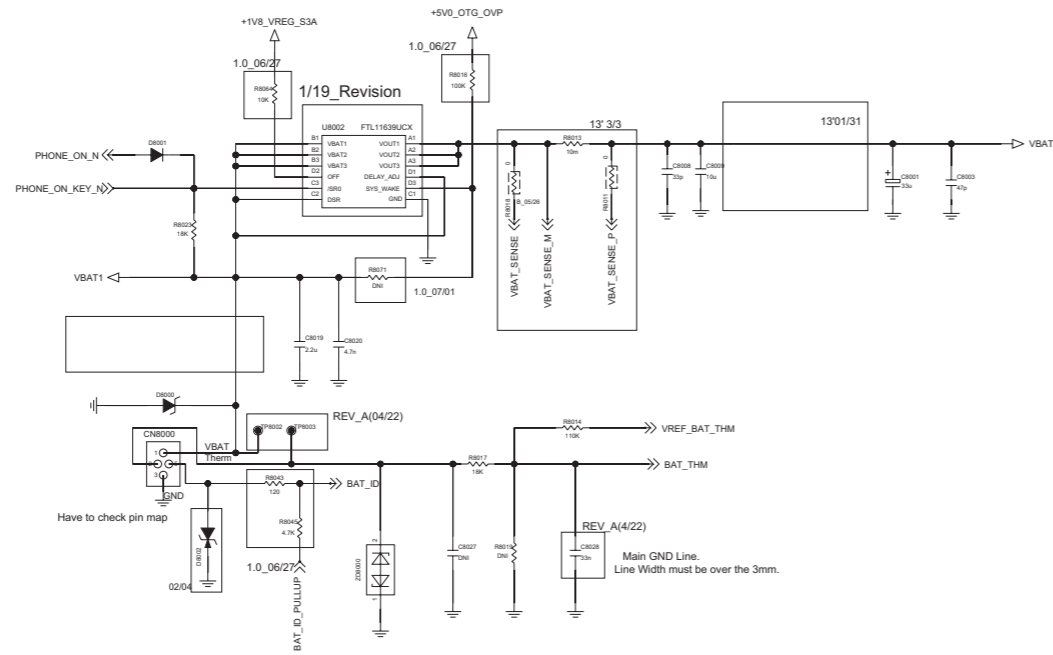
PM8841



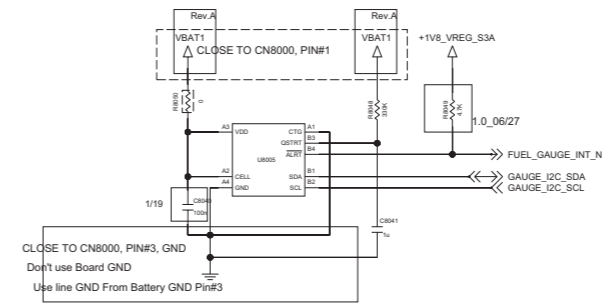
* PLACE S2B, S4B, S5B, S6B, S7B, S8B OUTPUT CAPACITORS CLOSE TO MSM

* CONNECT REMOTE_GND_SNS GROUND TO MSM GROUND WITH SINGLE TRACE

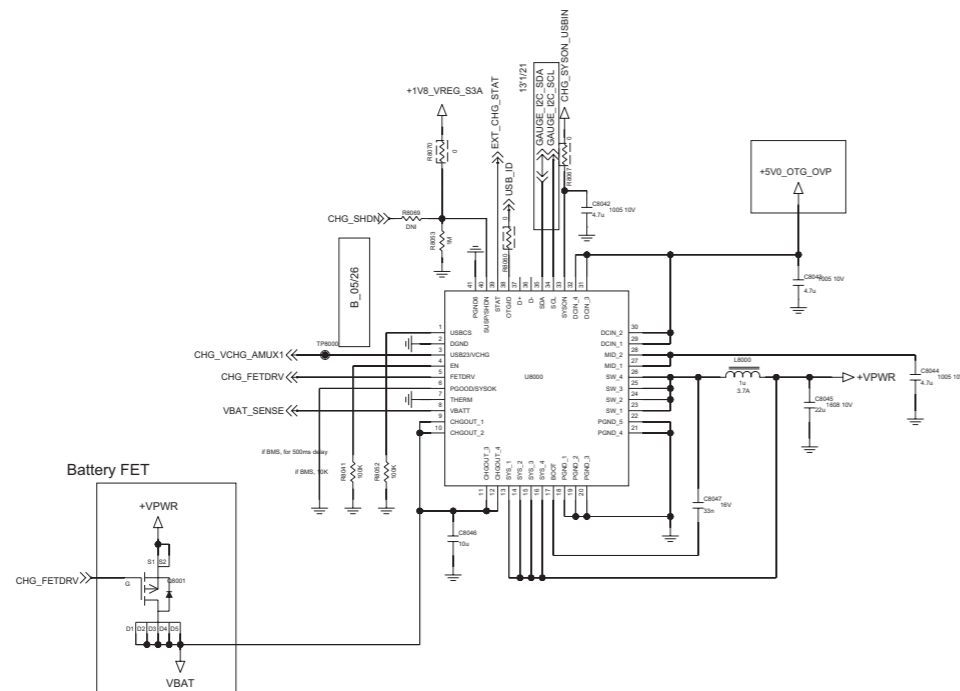
Battery Connector



Fuel Gauge

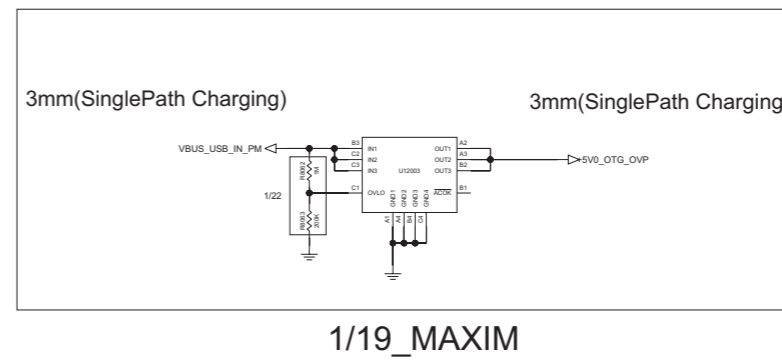


External Charger IC SMB349



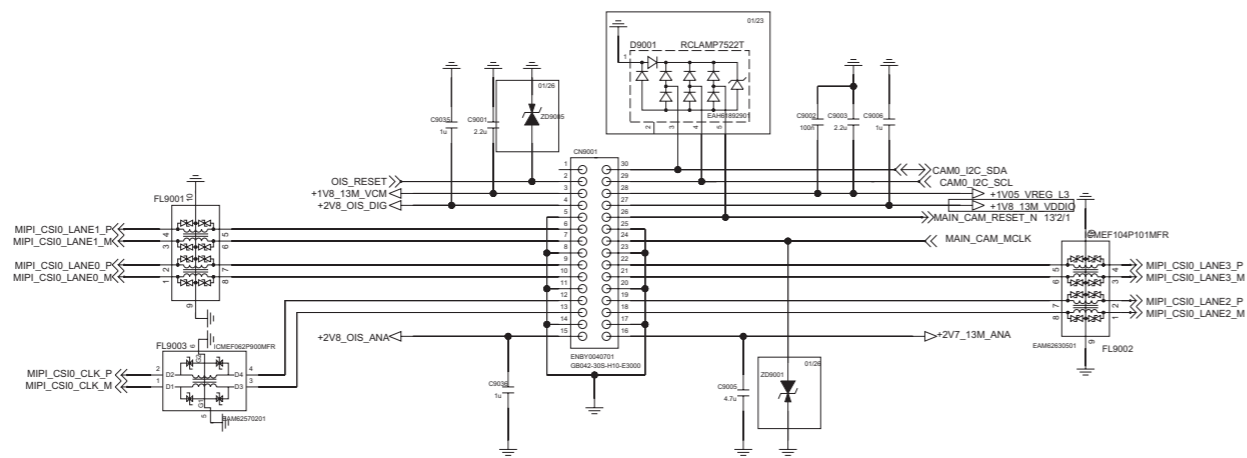
OVP for Ext_charger IC

OTG PROTECTION IC(Current, Voltage)

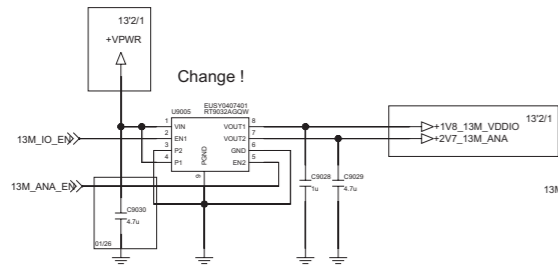


13M_MIPI_CAMERA

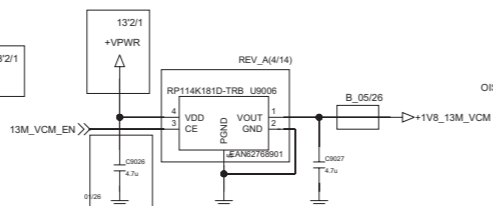
90 degree, LGIT Module



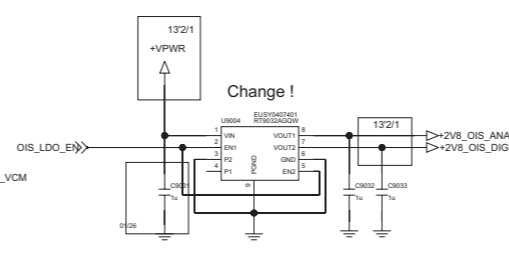
13M IO & ANA LDO



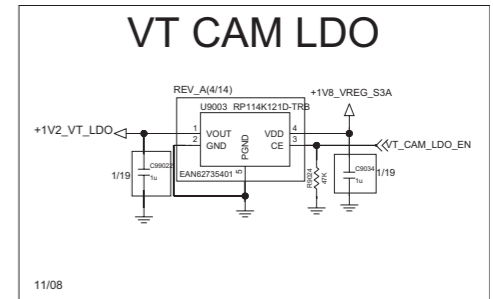
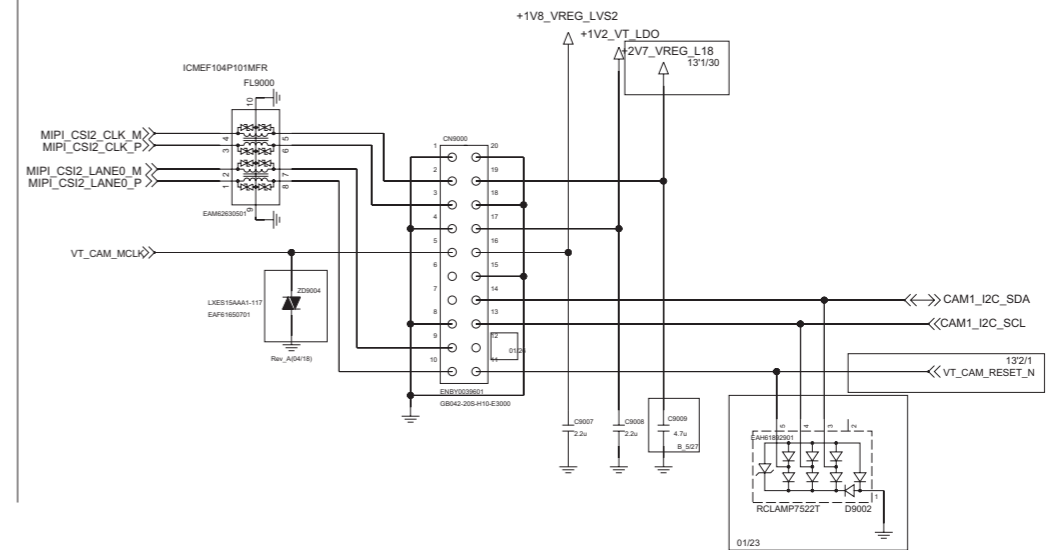
13M AF VCM LDO



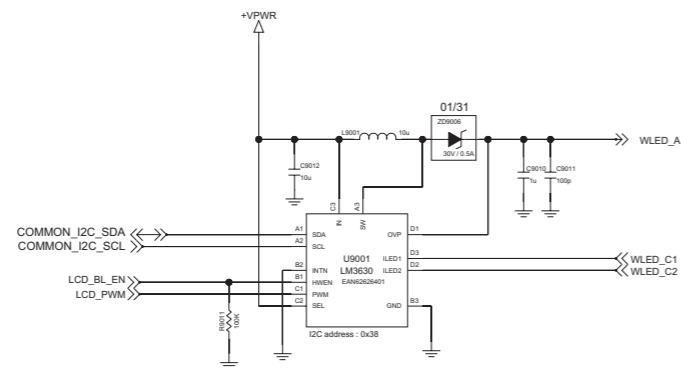
13M OIS LDO



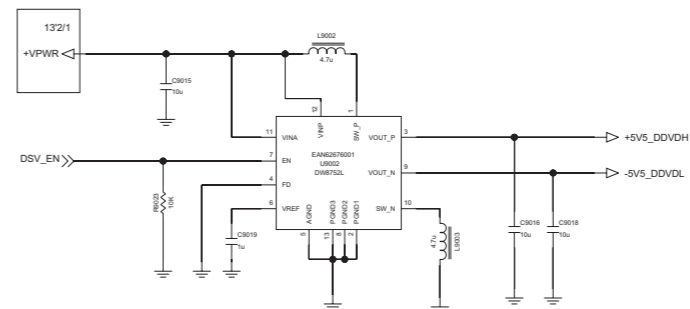
VT CAM 2.4MP



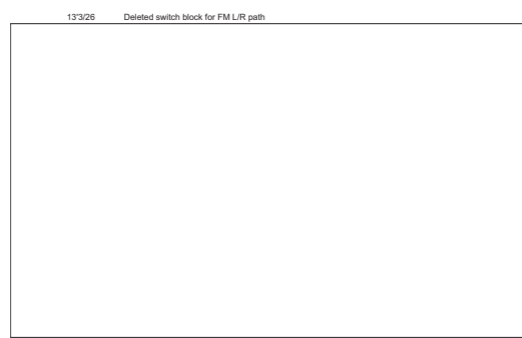
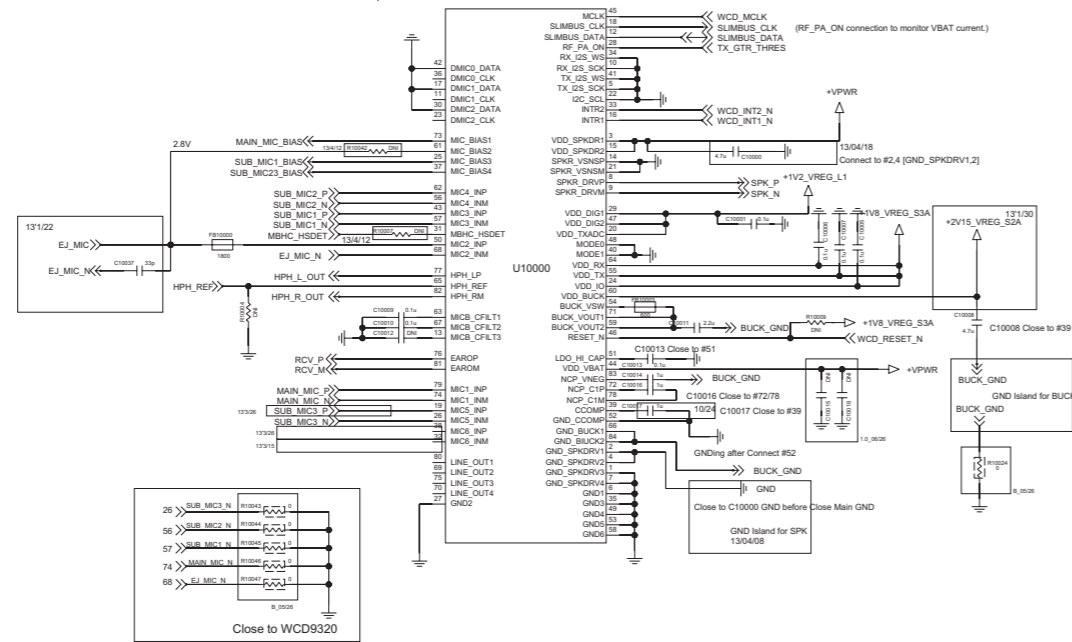
5.5" GK LCD Backlight LED Boost



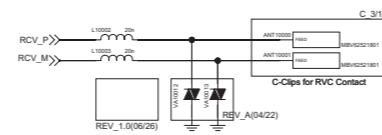
DSV



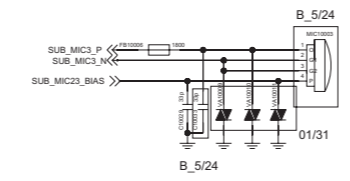
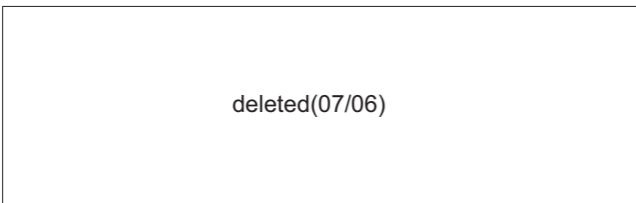
WCD9320(CODEC)



RECEIVER



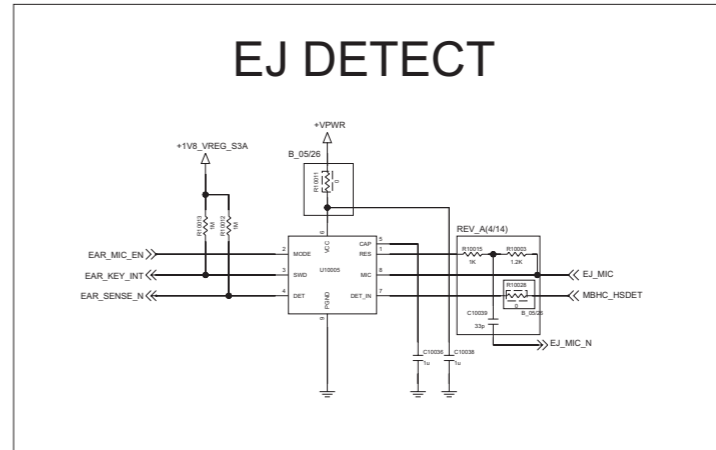
Sub_MIC1 Sub_MIC2 Sub_MIC3



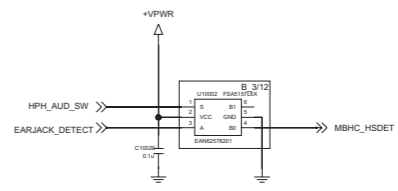
Mic type Changed!! (10/24)

Change to MAX14628 (1/18)

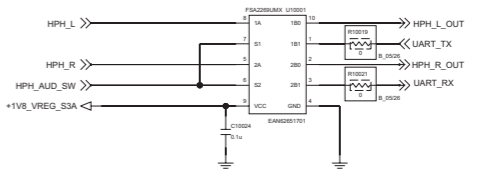
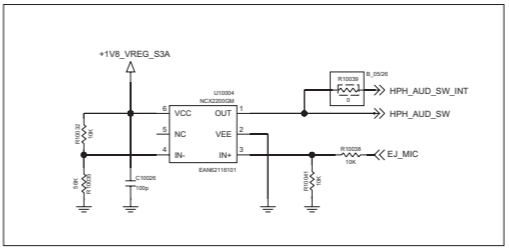
EJ DETECT



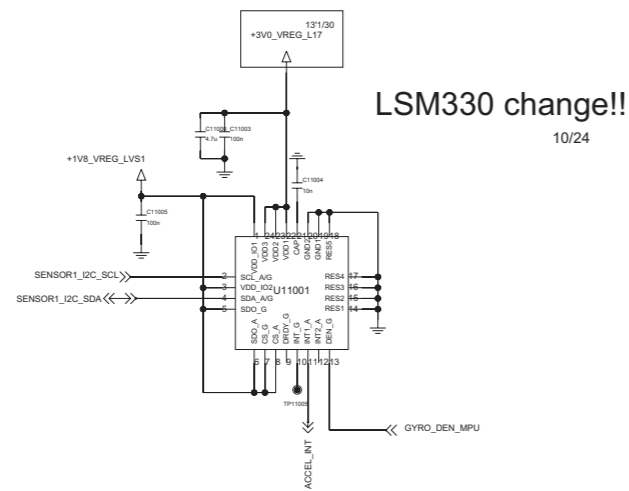
Debug port using 3.5pi EARJACK



Change (1/18)



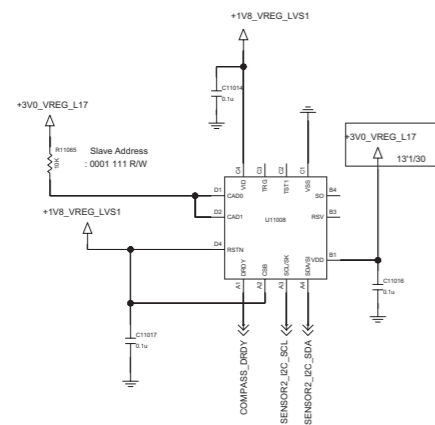
Accelerometer + Gyroscope SENSOR Module



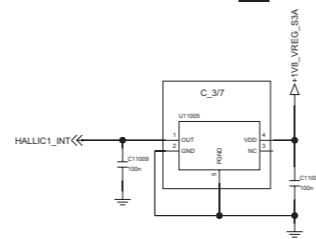
I2C	Devices
Sensor1	Accelerometer + Gyroscope
Sensor2	Compass, Pressure, Proximity+ALS, Humidity

Pressure Sensor Deleted
12/11

Compass Sensor



HALL IC_1st

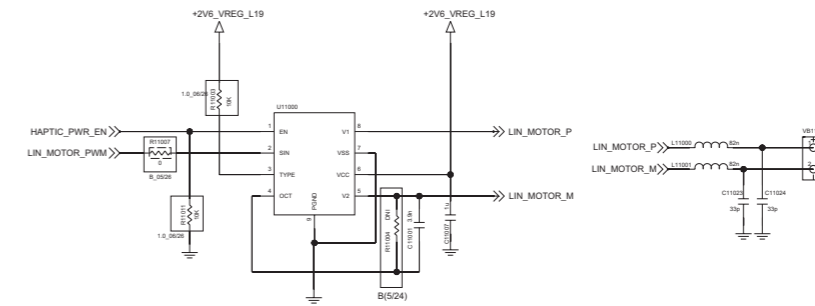


HALL IC_2nd

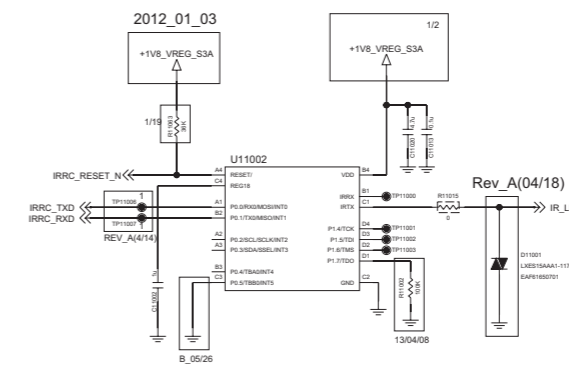
deleted(07/09)

Linear MOTOR - SM100 REV_A(04/22)

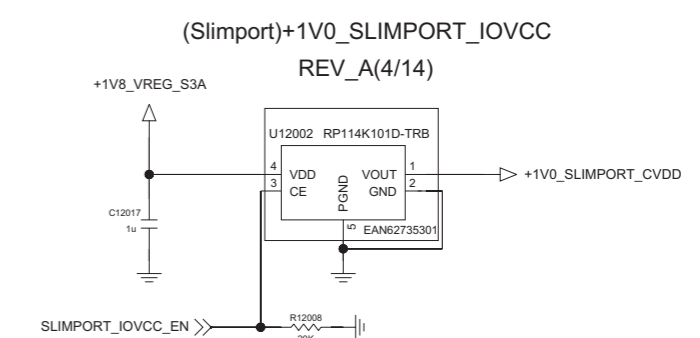
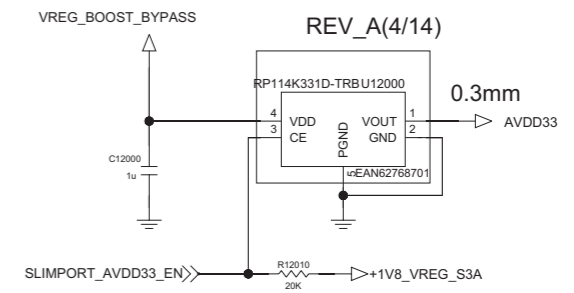
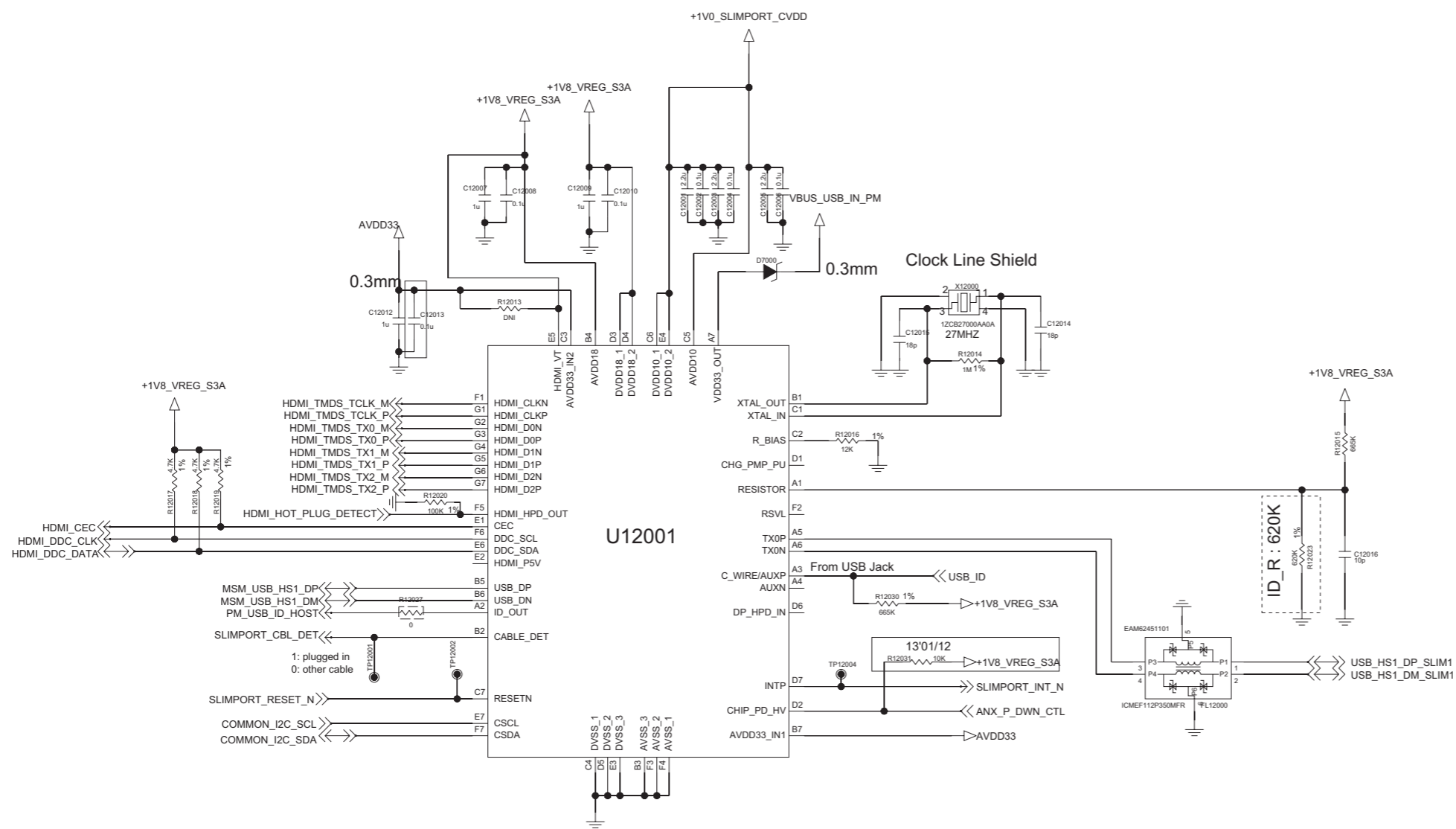
PM8941 L19 use! --> Voltage check!!



IRRC LED

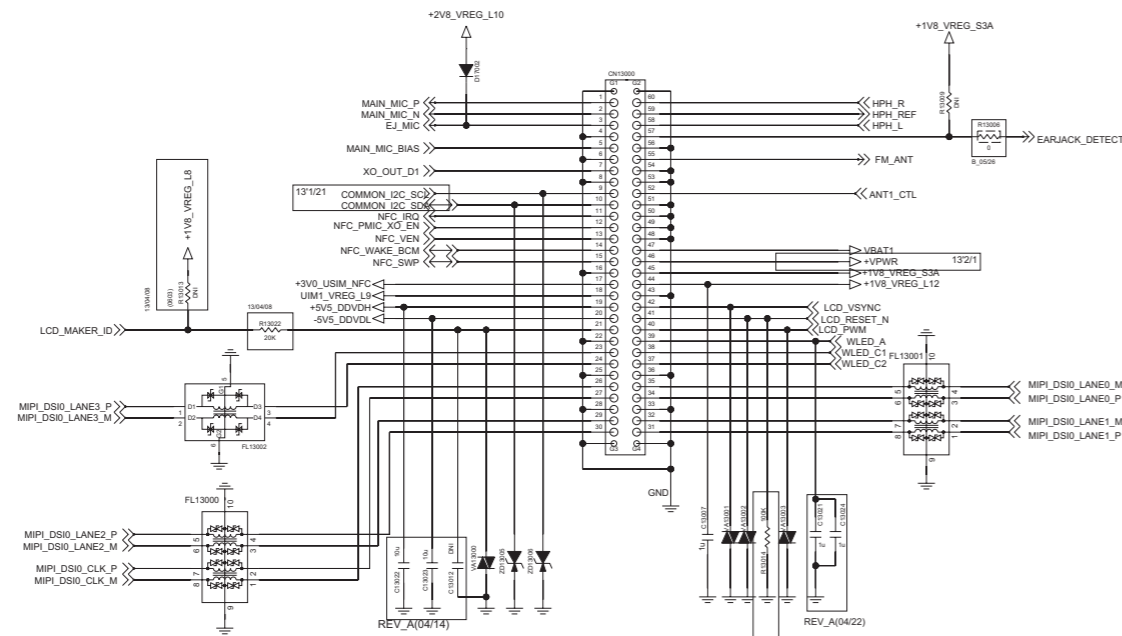


SLIMPORT

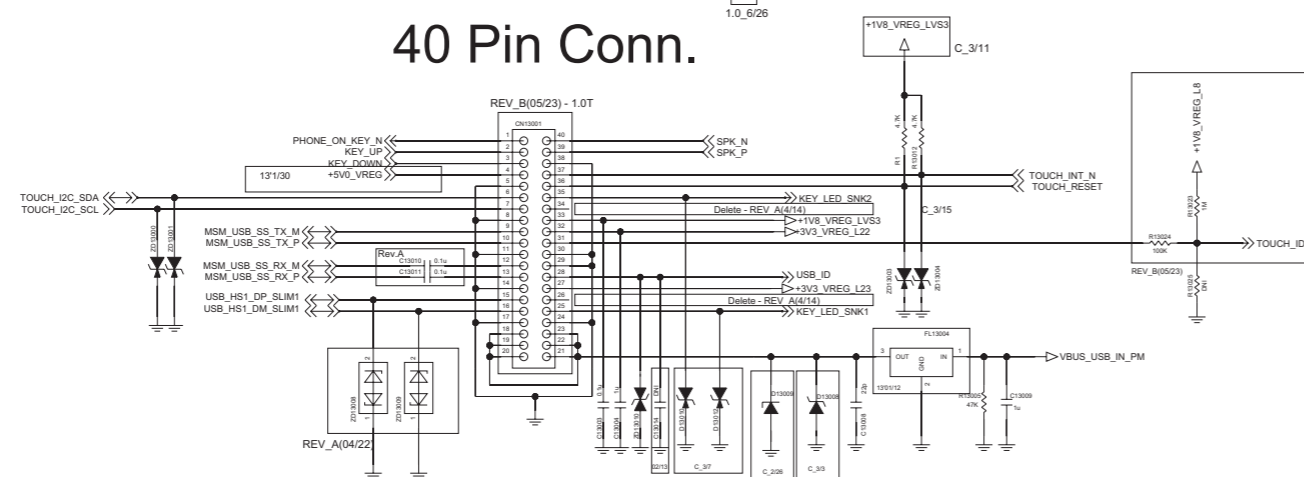


Main to SUB

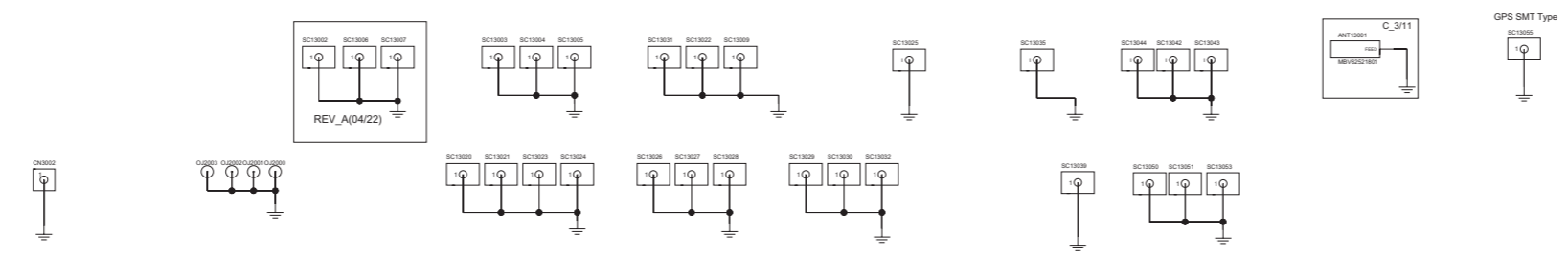
60 Pin Conn.



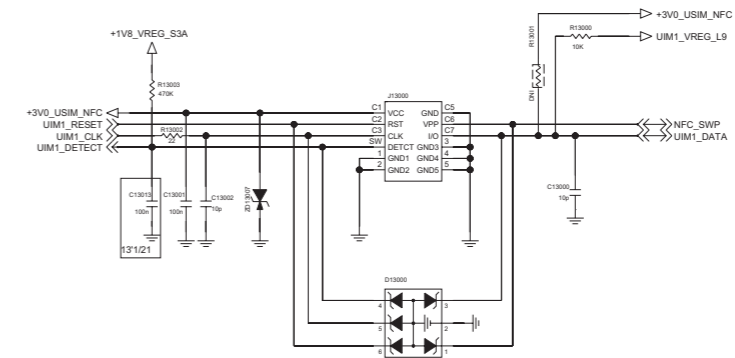
40 Pin Conn.



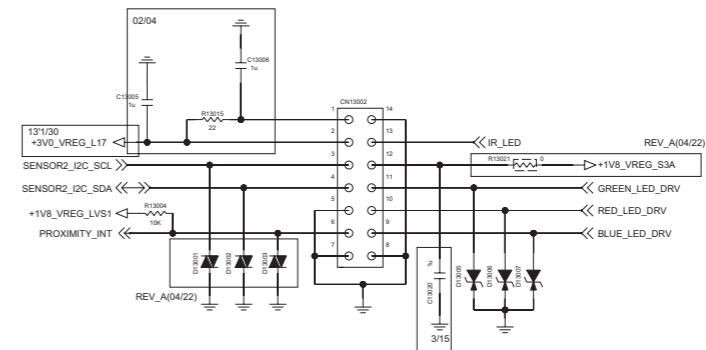
SMT Boss / Screw / Shield can frame



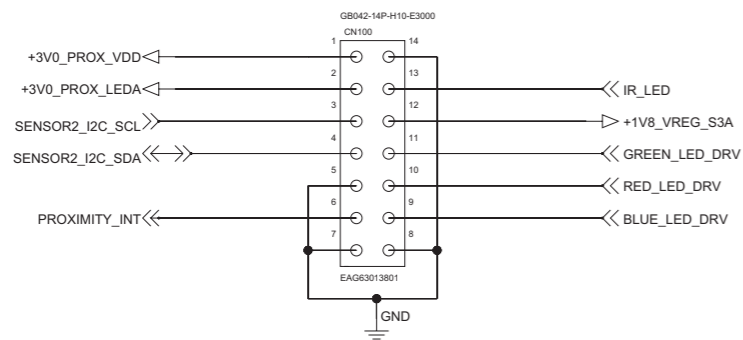
Micro_SIM Socket



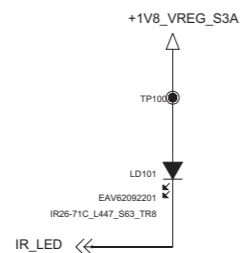
Proximity / IRRC CON



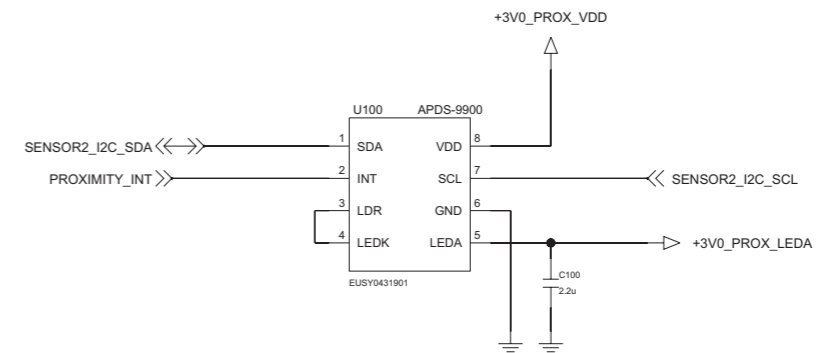
Proximity / IRRC CON



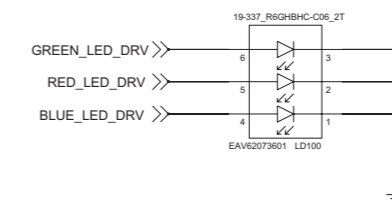
IR LED



Proximity/Ambient sensor

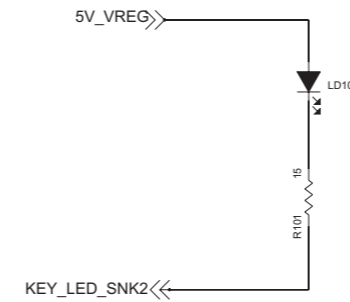
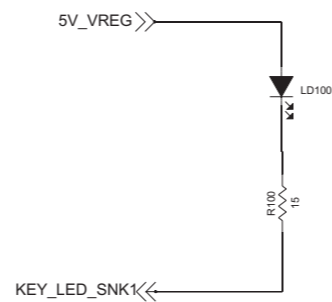
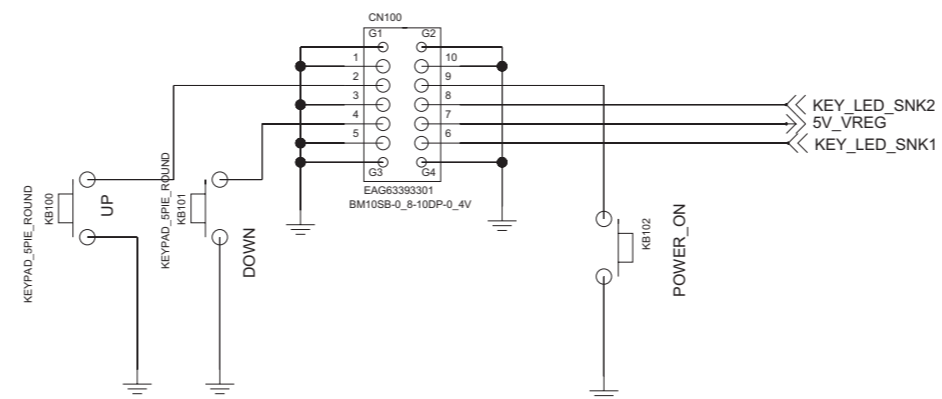


RGB Indicator

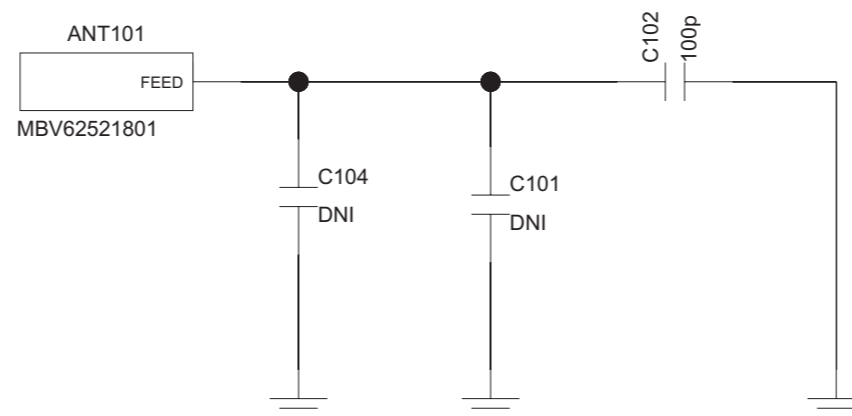
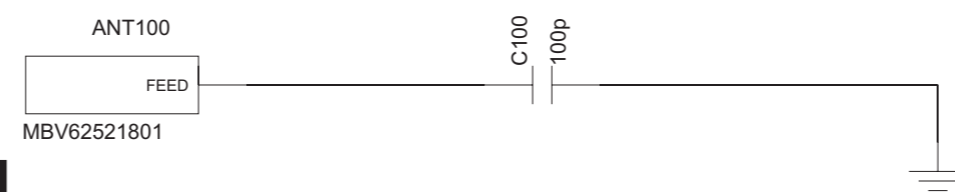


Power / Volume Key CNT

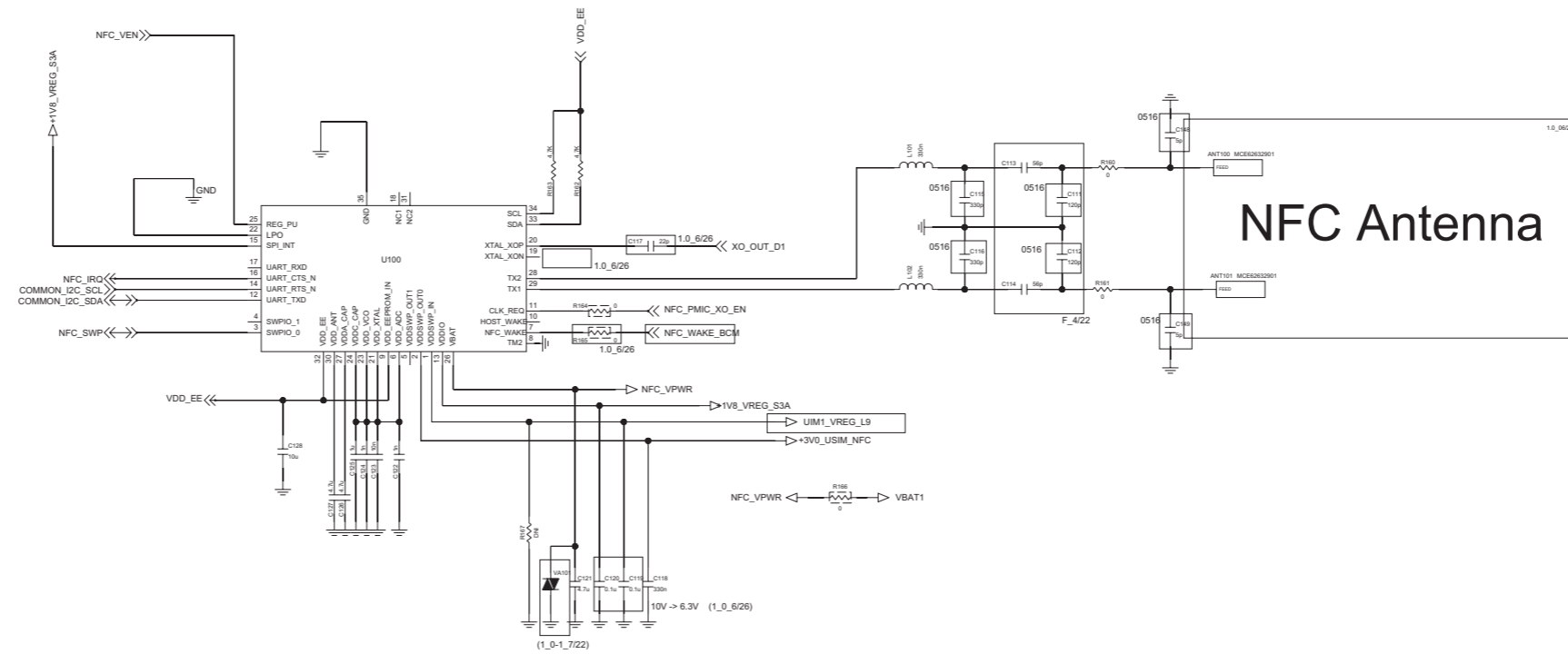
(DOME Key changed : Oval => Round)



ANT1

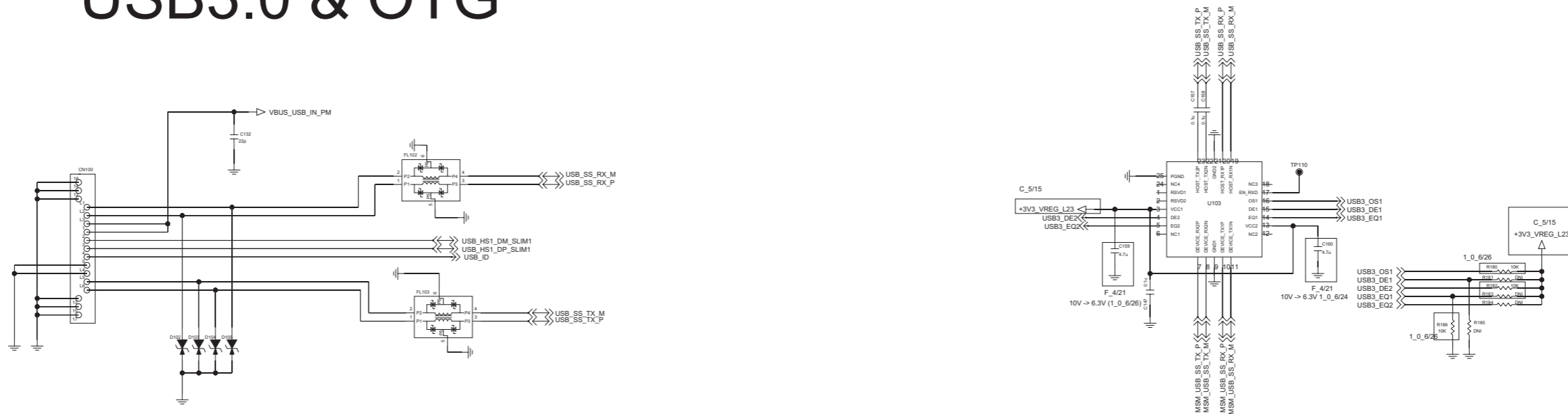


NFC_BCM20793

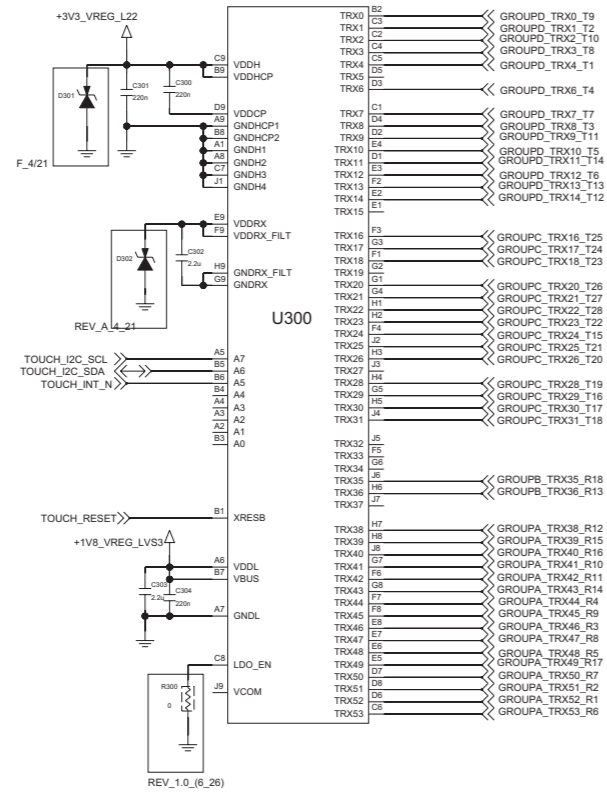


USB ReDriver

USB3.0 & OTG

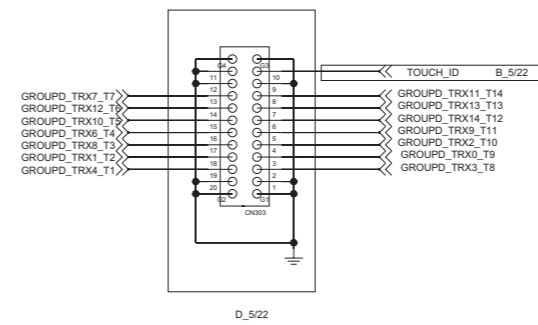


Touch IC S3404

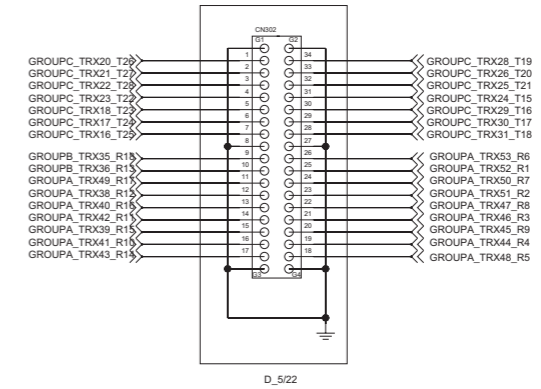


G1F 5.2" Touch Connector

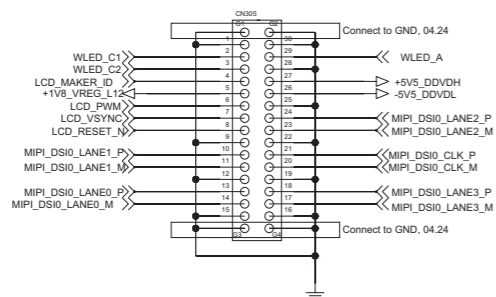
UPPER



LOWER

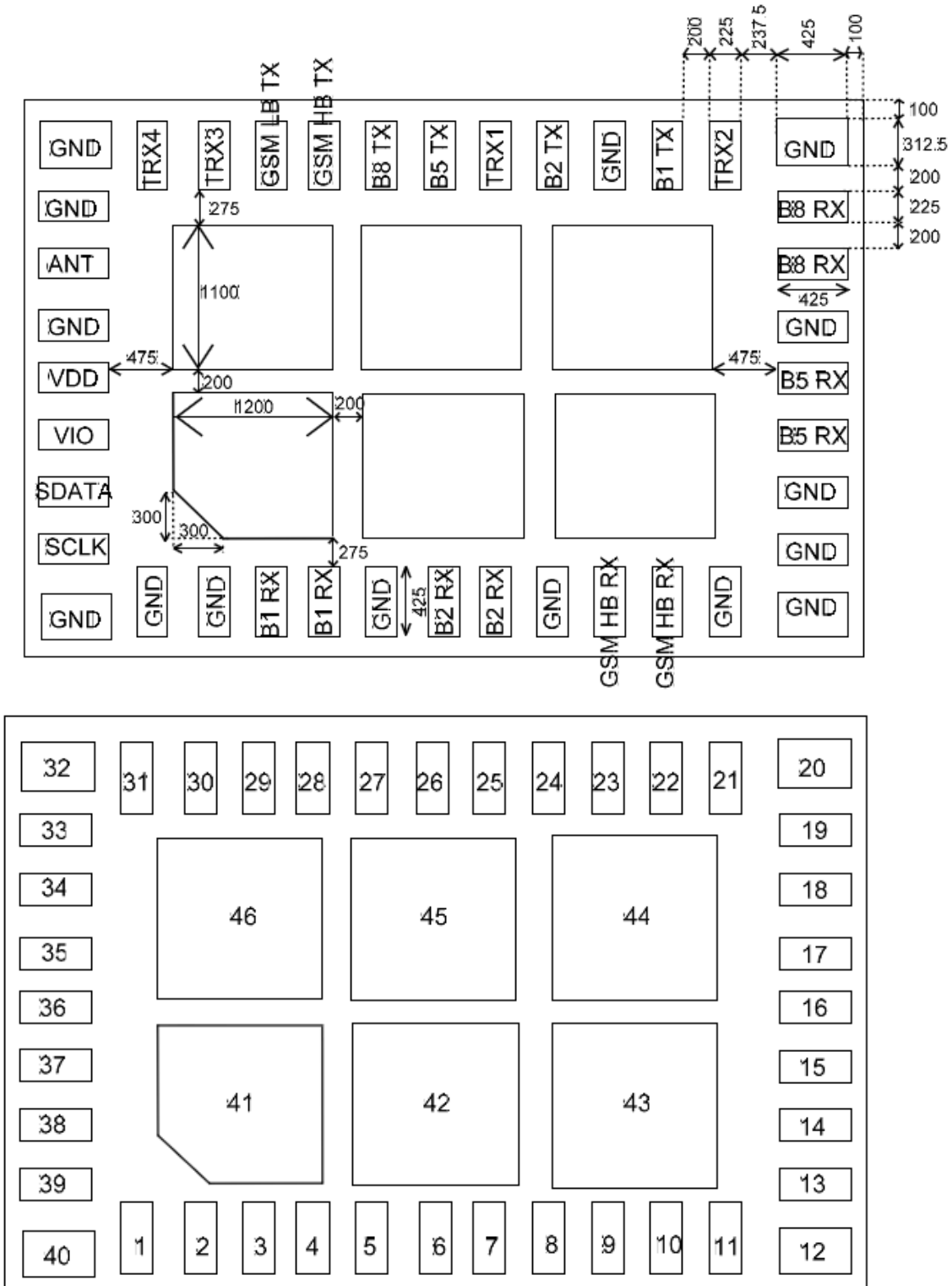


G2 5.2" LCD Connector



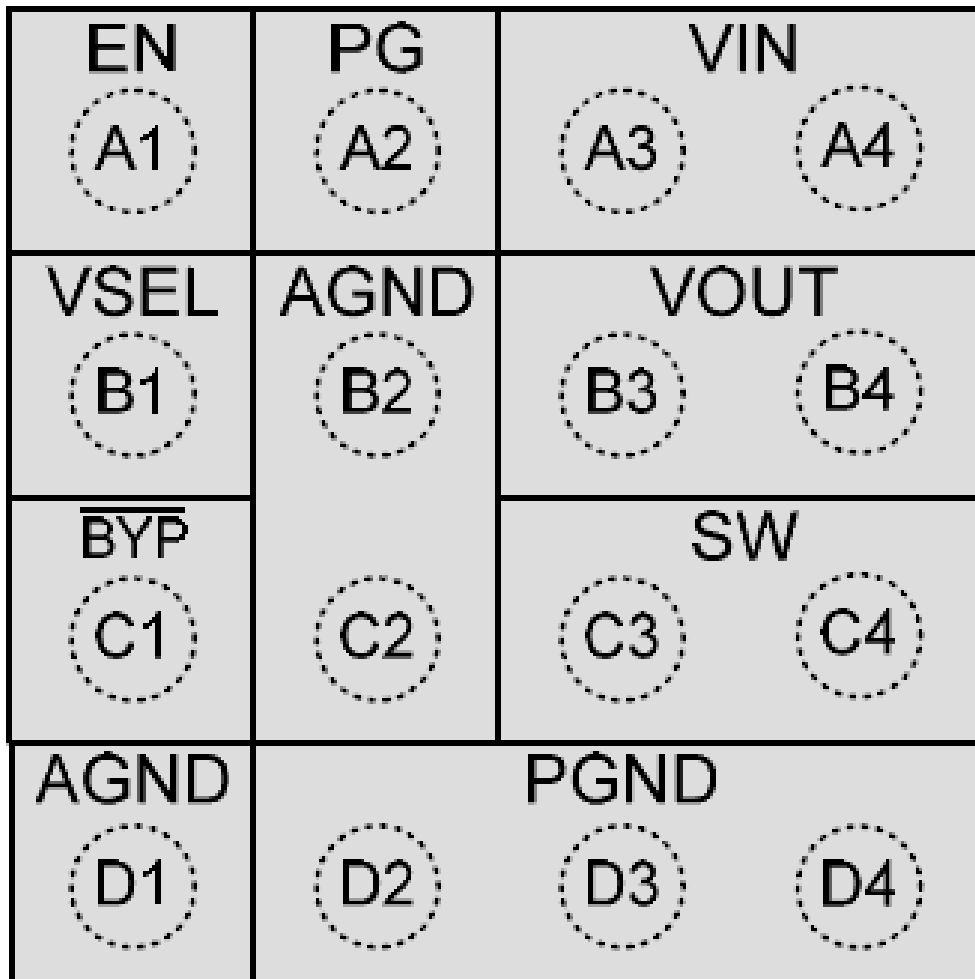
7. BGA PIN MAP

U1005 - FEM (BOTTOM View)



ALL USED

U2003,U6000-FAN48632 (Top View)



ALL USED

U2000-QFE1101 (Top View)

1 GND		3 GND	4 AMP_OUT	5 VDD_GP	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">APT buck & GSM switches</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Boost</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Bypass switch</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Support</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Power</div> <div style="border: 1px solid black; padding: 5px;">Ground</div>
6 C_GSM		8 C_SW_BUCK	9 C_SW_BUCK	10 BYP_LOAD	
11 C_BUCK	12 C_BUCK		13 MPP1	14 BYP_BATT	
15 VDD_BATT	16 VDD_BATT	17 VDD_1P8		19 USID_LSB	
20 VSW_BOOST	21 SCLK	22 GND		23 VSW_BUCK	
24 GND_BOOST	25 VOUT_BOOST	26 SDATA	27 GND_BUCK	28 VDD_BUCK	

Figure 2-2 QFE1101 pin assignments (top view)

Not Used

U2002 –WTR1605L(Top View)

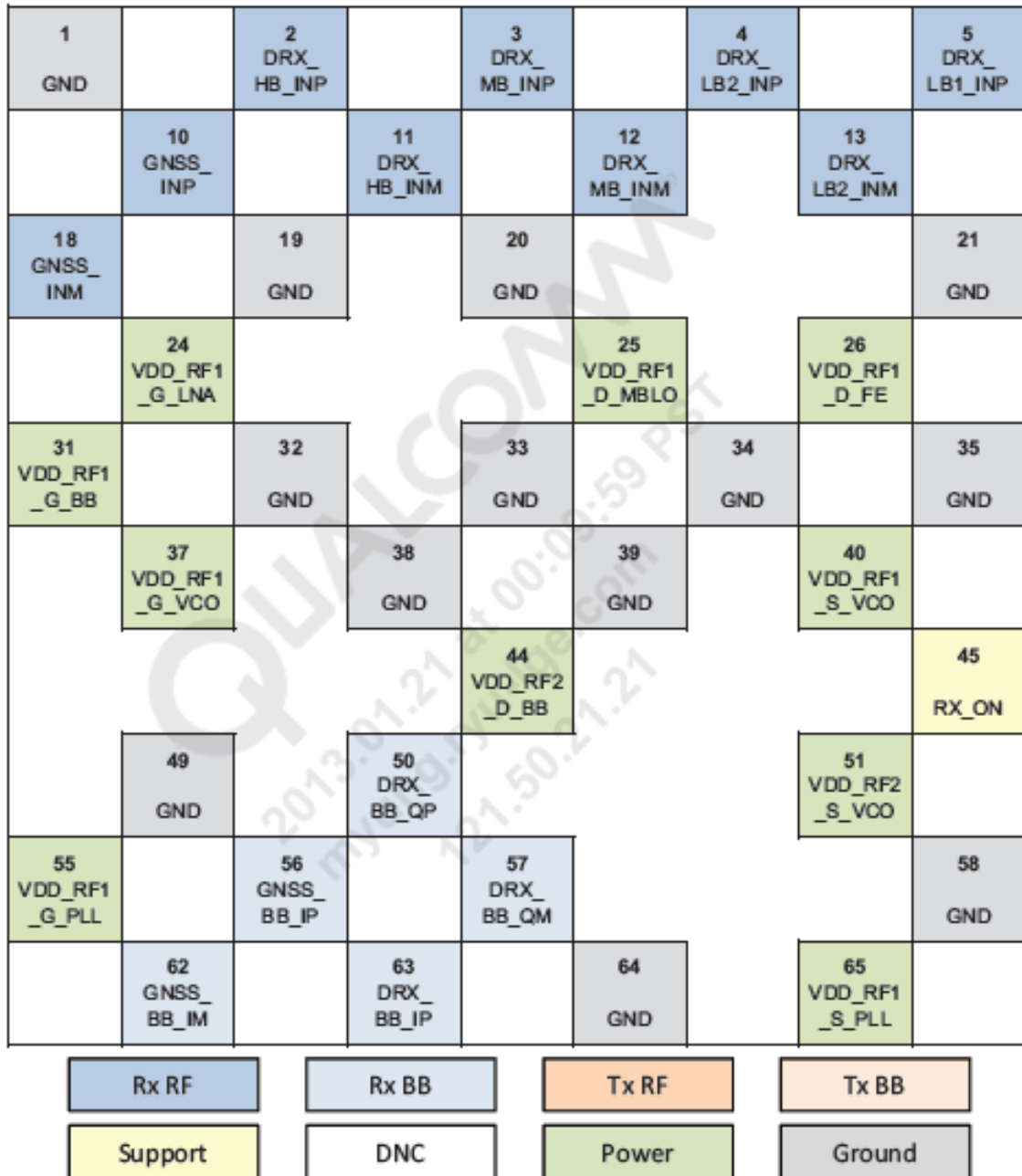


Figure 2-2 WTR1605 pin assignments – upper left quadrant

ALL USED

U2002 –WTR1605L (Top View)

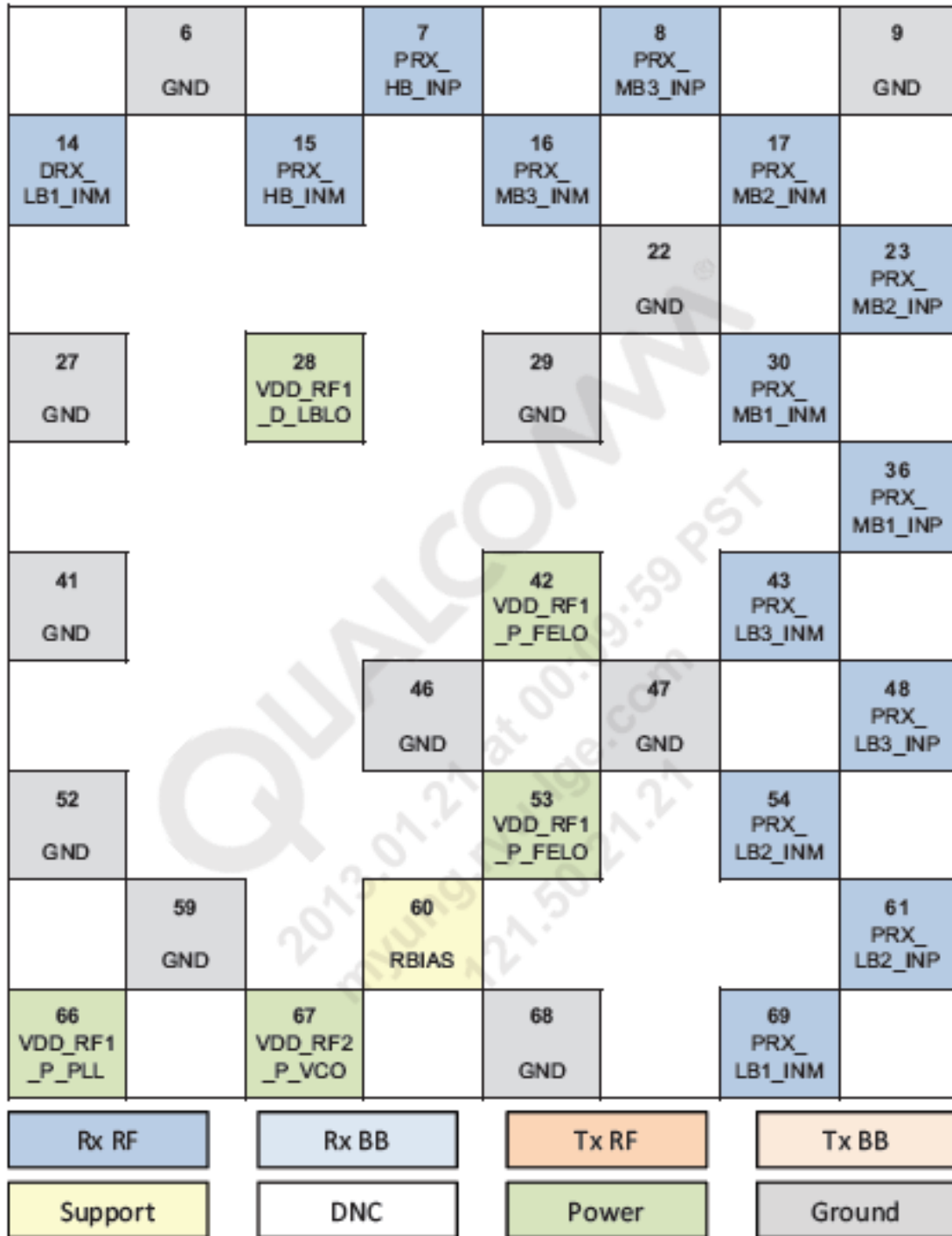


Figure 2-3 WTR1605 pin assignments – upper right quadrant

ALL USED

U2002 –WTR1605L (Top View)

70 GNSS_ BB_QP		71 GNSS_ BB_QM		72 DRX_ BB_IM		73 GND		74 GND
			80 SSBI _PRX_DRX		81 GND		82 FRX_ BB_QM	
87 VDD_DIO		88 GP_ DATA2		89 SSBI _TX_GNSS				91 FRX_ BB_QP
			97 VDD_RF2 _T_FLL		98 VDD_RF1 _T_SYN		99 GND	
104 GND		105 GP_ DATA0		106 GND		107 GND		108 VDD_RF2 _T_BB
	113 GND		114 DNC				115 GND	
120 XO_IN		121 GP_ DATA1				122 GND		123 GND
	127 VDD_RF2 _XO		128 GND				129 GND	
134 GND		135 GND		136 VDD_RF2 T_VCO		137 GND		138 TX_ BB_IM

Rx RF	Rx BB	Tx RF	Tx BB
Support	DNC	Power	Ground

Figure 2-4 WTR1605 pin assignments – lower left quadrant

■ Not Used

U2002-WTR1605L (Top View)

	75 GND		76 VDD_RF1 P_VCO		77 GND		78 PRX_ LB1_INP
83 VDD_RF2 _P_BB		84 PRX_ BB_IP		85 VDD_RF1 _JDET			
	92 PRX_ BB_IM				94 GND		95 TX_MB4
100 RF_ON		101 PDET_IN		102 GND		103 TX_HB	
	109 DAC_REF		110 GND		111 VDD_RF2 _T_DA		112 TX_MB3
116 VDD_RF1 _T_LO		117 VDD_RF1 _T_UPC		118 VDD_RF1 _T_DA		119 TX_MB2	
			124 GND		125 GND		
130 TX_ BB_IP		131 TX_ BB_QP		132 TX_LB2			
	139 TX_ BB_QM		140 TX_LB1		141 TX_LB3		142 GND

Rx RF	Rx BB	Tx RF	Tx BB
Support	DNC	Power	Ground

Figure 2-5 WTR1605 pin assignments – lower right quadrant

Not Used

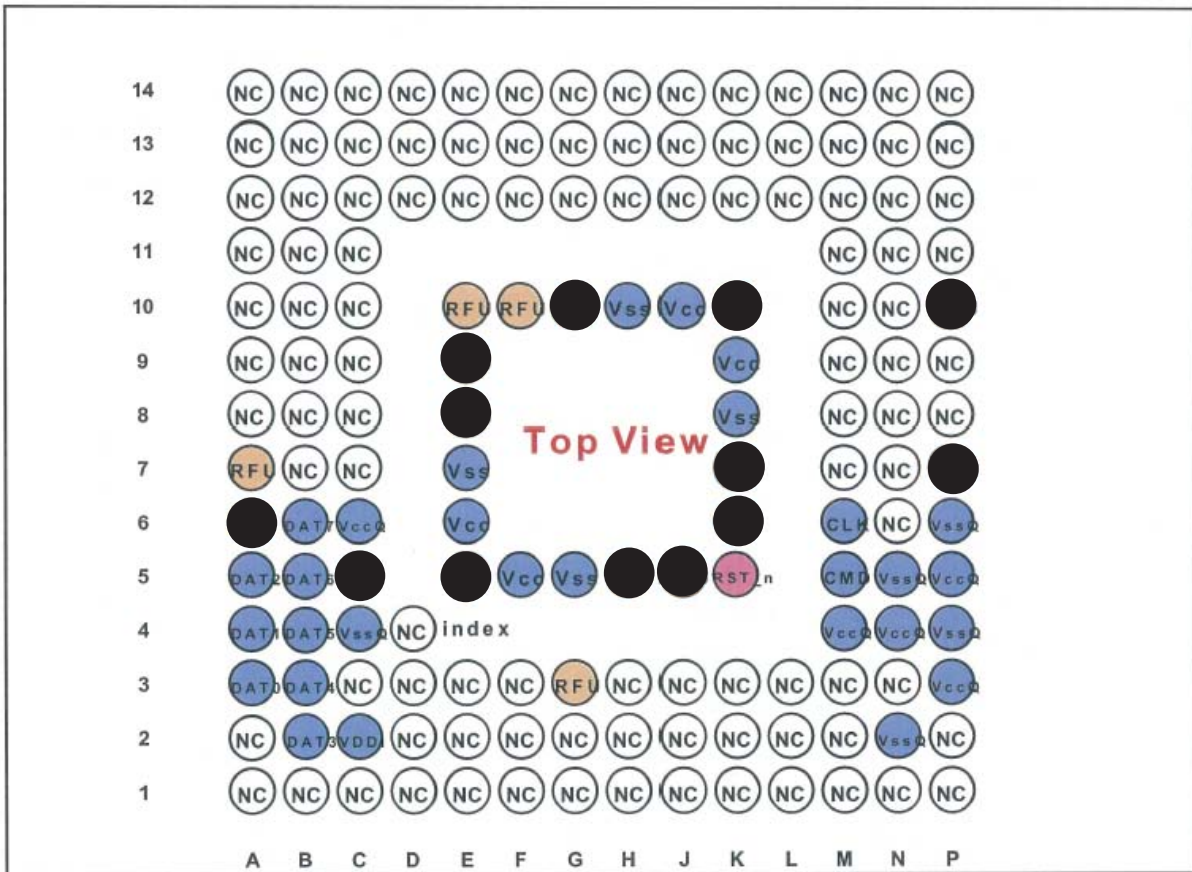
7. BGA PIN MAP

U5000- POP LPDDR3(Top View)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		
A	NC	GND	VEL DRL OSRE 1P2	EB0 DQ_30	EB0 DQ_29	GND	EB0 DQ_26	EB0 DQ_25	GND	EB0 DQ_22	EB0 DQ_21	EB0 DQ_18	EB0 DQ_17	GND	EB0 DQ_14	EB0 DQ_13	EB0 DQ_10	EB0 DQ_9	EB0 DQ_6	EB0 DM_1	EB0 VREF DQ	GND	VCC P1	GND	EB0 DQS_0	EB0 DQ_7	EB0 DQ_6	EB0 DQ_4	GND	NC	
B	GND	NC	EB0 DQ_31	VCC P1	EB0 DQ_28	EB0 DQ_27	VCC P1	EB0 DQ_24	VCC P1	EB0 DQS_3	EB0 DM_3	EB0 DQ_14	VCC P1	EB0 DQ_12	VEL DRL OSRE 1P2	VCC P1	EB0 DQ_9	EB0 DQS_1	EB0 DQS_18	GND	VEL DRL OSRE 1P2	NC	NC	EB0 DM_0	EB0 DQS_06	VCC P1	EB0 DQ_5	EB0 DQ_3	GND	VEL DRL OSRE 1P2	
C	VEL DRL OSRE 1P2	EB0 DQ_16																												VEL DRL OSRE 1P2	
D	EB0 DQ_17	VCC P1																												EB0 DQ_2	
E	EB0 DQ_18	EB0 DQ_19																												GND	EB0 DQ_0
F	GND	EB0 DQ_20																												EB0 DM_2	VCC P1
G	EB0 DQ_21	VCC P1																												EB0 DQ_3	EB0 DQ_3B
H	EB0 DQ_22	EB0 DQ_23																												GND	EB0 DQ_23
J	GND	VCC P1																												VCC P1	EB0 DQ_23
K	EB0 DQS_2B	EB0 DQS_2																												EB0 DQ_20	EB0 DQ_21
L	EB0 DM_2	EB0 DQ_0																												EB0 DQ_9	GND
M	EB0 DQ_1	GND																												VCC P1	EB0 DQ_16
N	EB0 DQ_2	EB0 DQ_3																												EB0 DQ_8	EB0 DQ_17
P	VCC P1	VEL DRL OSRE 1P2																												VEL DRL OSRE 1P2	VEL DRL OSRE 1P2
R	EB0 DQ_4	GND																												GND	EB0 CA_5
T	EB0 DQ_5	EB0 DQ_5																												VCC P1	EB0 CA_1
U	EB0 DQS_0	EB0 DQ_7																												EB0 VREF CA2	EB0 CA_2
V	EB0 DQS_0B	EB0 DM_0																												GND	EB0 CA_3
W	VCC P1	NC																												EB0 CA_4	EB0 CS1N
Y	GND	EB0 VREF DQ																												EB0 CS0_N	EB0 CKE_1
AA	GND	VEL DRL OSRE 1P2																												GND	EB0 CKE_0
AB	VEL DRL OSRE 1P2	GND																												EB0 DQS_1	EB0 DQS_1B
AC	VCC P1	EB0 DM_1																												VCC P1	EB0 CA_5
AD	EB0 DQS_1B	EB0 DQS_3																												EB0 CA_7	EB0 CA_6
AE	EB0 DQ_8	GND																												EB0 CA_8	VCC P1
AF	EB0 DQ_9	VCC P1																												GND	EB0 CA_9
AG	EB0 DQ_10	EB0 DQ_11																												NC	EB0 DQ_20
AH	GND	VEL DRL OSRE 1P2	EB0 DQ_13	GND	EB0 DQ_15	EB0 DM_3	EB0 DQS_3	VCC P1	EB0 DQ_26	EB0 DQ_27	VCC P1	EB0 DQ_30	GND	VEL DRL OSRE 1P2	EB0 VREF CA2	EB0 CA_9	GND	EB0 CA_7	EB0 CA_6	EB0 DQS_1B	VCC P1	EB0 CKE_0	EB0 CS0_N	EB0 CA_3	EB0 CA_2	EB0 CA_1	VEL DRL OSRE 1P2	GND	VEL DRL OSRE 1P2		
AJ	NC	GND	EB0 DQ_12	VCC P1	EB0 DQ_14	VCC P1	GND	EB0 DQS_1B	EB0 DQ_24	EB0 DQ_25	GND	EB0 DQ_28	EB0 DQ_29	EB0 DQ_31	VEL DRL OSRE 1P2	NC	EB0 DQ_20	EB0 CA_8	VCC P1	EB0 CA_5	EB0 DQS_1	GND	EB0 CKE_1	EB0 CS1_N	EB0 CA_4	VCC P1	EB0 CA_0	GND	NC		

ALL USED

U5001-eMMC32GB(Top View)



● Not Used

7. BGA PIN MAP

U6001-PM8941(Top View)

1 VSW_S2	9 VSW_S2	2 VDD_S2	10 VREG_L15	3 XTAL_19M_OUT	11 XTAL_19M_IN	4 VDD_LS7	12 VREG_RF_CLK	5 VREG_L14	13 VREG_L19	8 VREG_L18	14 VDD_S1	7 VSW_S1	15 GND_S1	8 VREG_SV	18 VSW_SV
17 GND_S2	25 GPIO_21	18 VREG_L23	28 VREG_L12	19 VDD_LS12_LS14_LS15	27 VREG_L14	20 VREG_XO	28 VREG_L11	21 VDD_LA11	29 VREG_L15	22 VDD_LS16_LS18_LS19	30 SLEEP_CLK	23 VREG_S1	31 VREG_L1	24 VREG_SV	32 VSW_SV
33 VREG_S2	41 GPIO_LED_SINK	42 VREG_L13	43 GPIO_L19	35 VREG_L6	36 VREG_L14	38 GPIO_20	44 XO_OUT_DO_BN	37 XO_THERM	46 GND_XOACC	38 VREG_L8	48 VREF_XO	39 GPIO_D1	47 VREG_SV_SNS	40 VDD_L1_3	48 GND_SV
	67 VDD_GPIO_LED	68 VDD_L13_L20_L23_L24	67 GPIO_25			62 XO_OUT_DIFF_N	80 XO_OUT_A2	63 GPIO_02			82 GPIO_03		68 VREG_L3	68 VREG_L3	84 VDD_S3
	88 GPIO_LED_SRC1	88 GPIO_LED_SRC2	74 VREG_L20	82 VREG_L24	80 GPIO_30	88 XO_OUT_DIFF_P	88 XO_OUT_A0	84 XO_OUT_A1	82 GPIO_09	78 GPIO_09	86 VDD_INT_BYP	88 GPIO_10	78 GND	87 VREG_S3	79 VSW_S3
80 GPIO_LED_SNK1			89 VREG_L21	88 VDD_L21				81 GND	100 GND	101 GND	102 GND	102 GND	103 VREG_L2		
88 VDD_WLED								107 GND	108 GND	108 GND	109 GND	109 GND	110 GND	103 VREG_L2	111 VOUT_LV52
112 GND			113 VREG_L9		121 MPP_05	114 GND	122 GND	116 GND	116 GND	118 GND	118 GND	123 MPP_01	132 MPP_04	133 VIN_SVS	141 VOUT_SVS_HDM
			120 VREG_L22		129 GND	129 GND	130 GND	130 GND	131 GND	131 GND	131 GND	132 MPP_04	132 MPP_04	133 VIN_SVS	141 VOUT_SVS_HDM
					138 MPP_07	138 MPP_07	137 GPIO_35	148 GND	148 GND	147 GND	147 GND	148 MPP_03	148 MPP_03	148 MPP_03	148 MPP_03
					162 REF_BYP	162 REF_BYP	161 VDD_MSMD	168 VREG_BMS	168 VREG_BMS	164 AMLX_3	163 AMLX_3	165 KYPD_PWR_N	164 PON_RESET_N	172 USB_N	173 USB_N
					188 GND_REF	188 GND_REF	177 BMS_CSN	185 GND	185 GND	170 AMLX_1	179 AMLX_USB_D	180 AMLX_USB_D	180 AMLX_USB_D	181 USB_N	181 USB_N
					184 GPIO_27	184 GPIO_27	183 BMS_CSP	201 VREG_SMB	201 VREG_SMB	194 GND_28	196 AMLX_FL2	187 VPRE_CAP	198 RON_1	204 PON_OUT	206 OVP_OUT
					200 GND	200 GND	208 VDRV_P	217 VCHG_SNS	217 VCHG_SNS	202 OPT_2	211 BAT_THERM	219 GND	212 DC_IN_OVP_CTL	220 DC_IN	221 DC_IN
					218 VCHG	218 VCHG	226 GND	228 PHY_VBUS	228 PHY_VBUS	227 BAT_ID	227 BAT_ID	228 DC_IN_OVP_SNS	228 DC_IN_OVP_SNS	228 DC_IN_OVP_SNS	228 DC_IN_OVP_SNS
					224 VSW_SMB	224 VSW_SMB									
INPUT PWR MGT	OUTPUT PWR MGT	GEN HK	USER IF	IC IF	MPPs and GPIOs	No Connection	Power	Ground							

Not Used

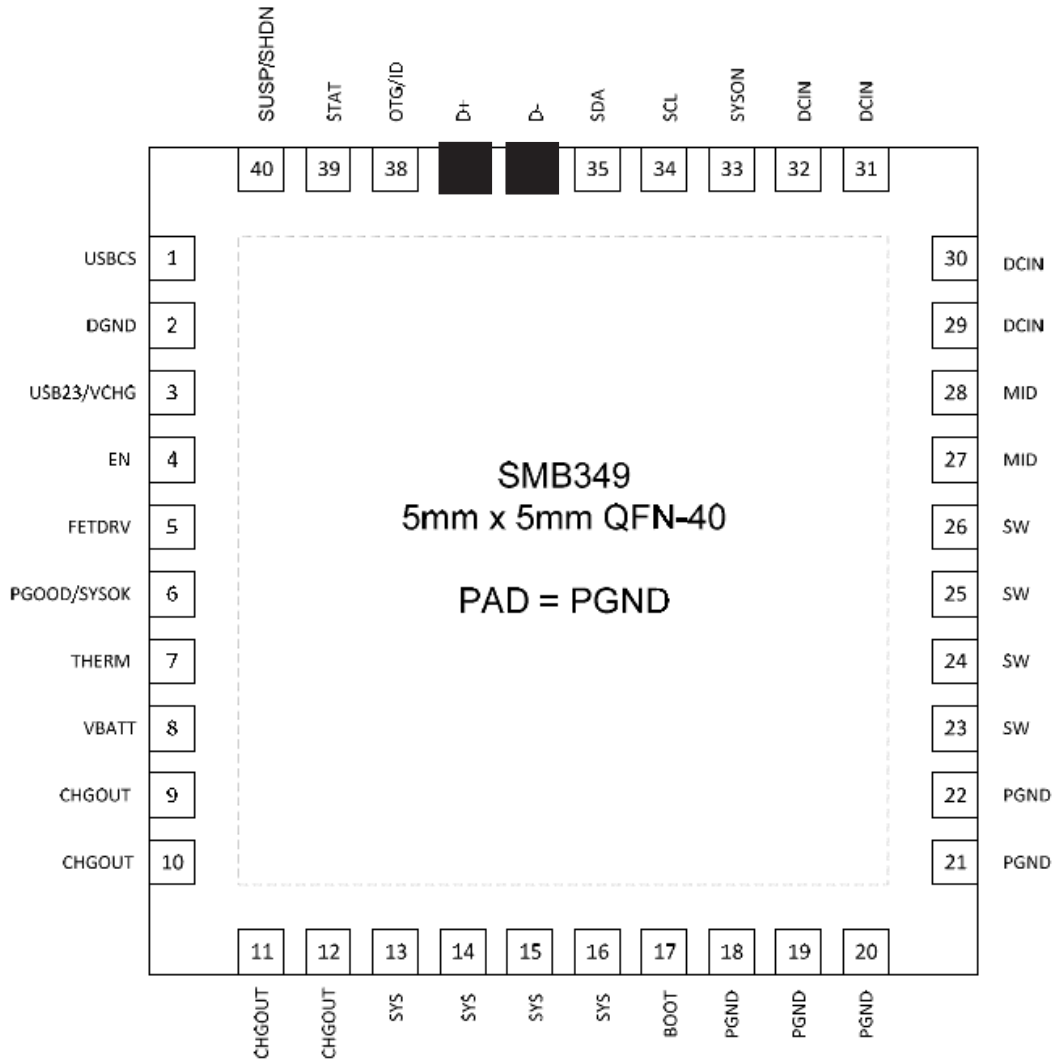
7. BGA PIN MAP

U7000-PM8841(Top View)

1 VDD _S5	2 VDD _S5	3 VSW _S5	4 VREG _S5	5 VREG _S6	6 VREG _S2	7 VSW _S2	8 VDD _S2	9 VDD _S2
10 GND _S5	11 VSW _S5	12 VSW _S5	13 GND	14 GND	15 GND	16 VSW _S2	17 VSW _S2	18 GND _S2
19 VDD _S6	20 GND _S5	21 GND	22 GND	23 GND	24 GND _REF		25 GND _S2	26 GND
27 VSW _S6	28 VSW _S6	29 GND	30 GND	31 REF _BYP	32 VDD _MSM_IO	33 MPP _01	34 MPP _02	35 GND S1
36 GND _S6	37 GND _S6	38 GND	39 GND	40 GND	41 VDD _INT_BYP	42 VREG _S1		44 VSW _S1
45 GND	46 GND	47 REMOTE _GND_SNS	48 GND	49 GND	50 VDD _PON	51 OPT_2	52 OPT_1	53 VDD _S1
54 GND _S7	55 GND _S7	56 GND	57 GND	58 GND	59 XO_IN	60 VREG _S3	61 PON_1	62 GND _S3
63 VSW _S7	64 VSW _S7	65 GND	66 GND	67 GND	68 PS _HOLD	69 RESIN _N		71 VSW _S3
72 VDD _S7	73 GND _S8	74 GND	75 GND	76 SPMI _DATA	77 SPMI _CLK		79 GND _S4	80 VDD _S3
81 GND _S8	82 VSW _S8	83 VSW _S8	84 GND	85 GND		87 VSW _S4	88 VSW _S4	89 GND _S4
90 VDD _S8	91 VDD _S8	92 VSW _S8	93 VREG _S8	94 VREG _S7	95 VREG _S4	96 VSW _S4	97 VDD _S4	98 VDD _S4
OUTPUT PWR MGT	IC I/F	MPPs and GPIOs	No Connection	Power	Ground			

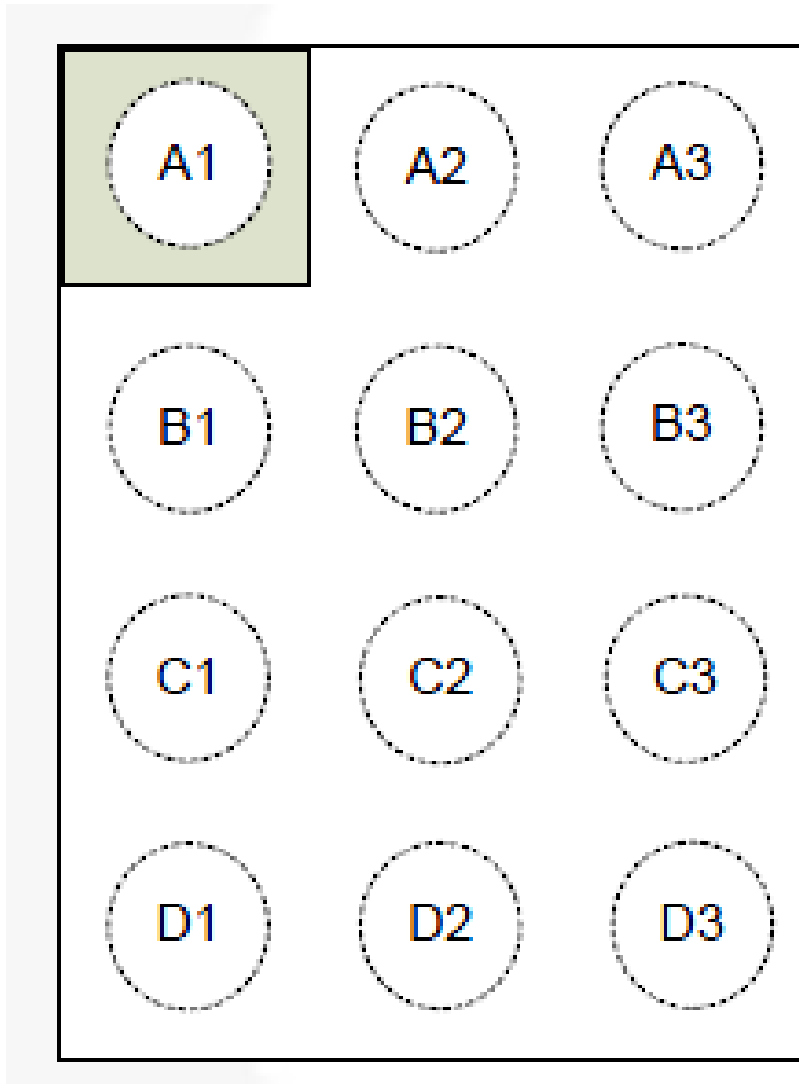
■ Not Used

U8000-SMB349(Top View)



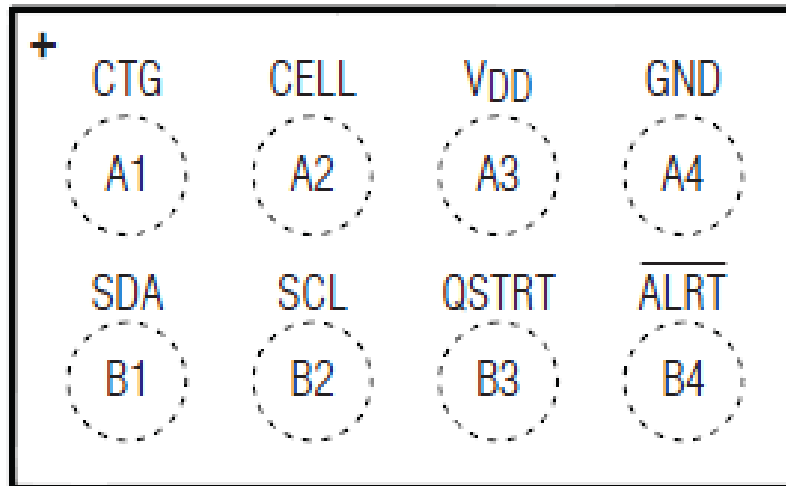
■ Not Used

U8002- Reset IC(FTL11639)(Top View)



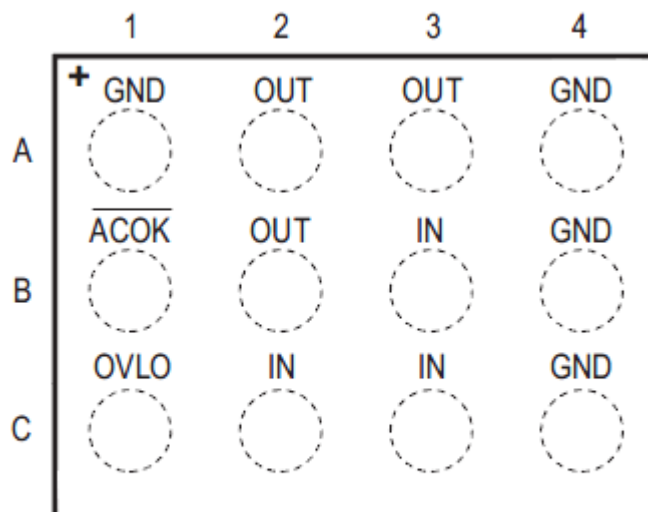
ALL USED

U8005- Fuel Gage(MAX17048)(Top View)



WLP

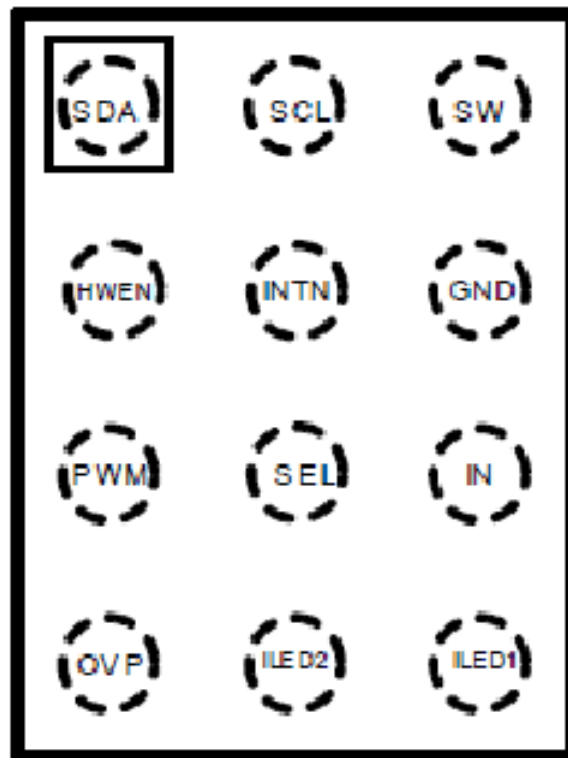
U12003-OVP(Top View)



WLP
(1.3mm x 1.86mm)

ALL USED

U9001 – Backlight LED boost (Top View)



ALL USED

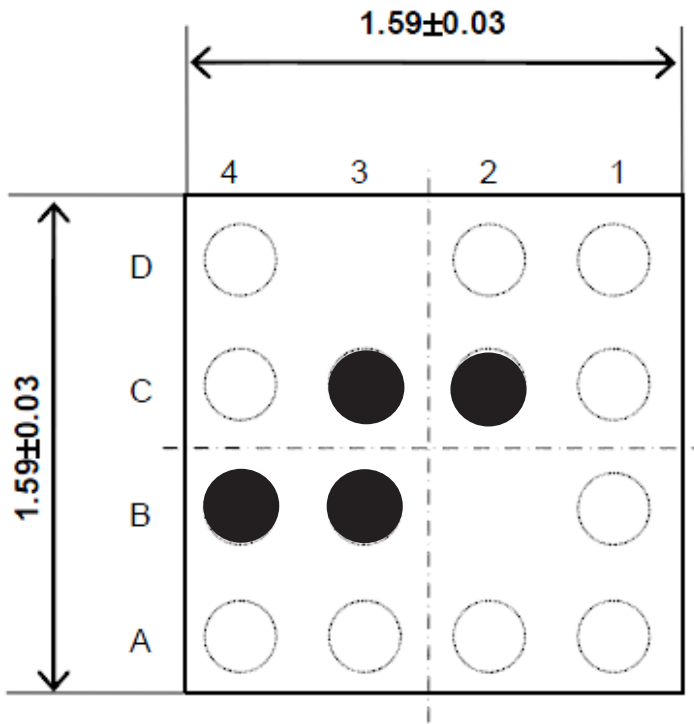
7. BGA PIN MAP

U10000 –WCD9320 (Top View)

1 GND _SPKDRV	2 GND _SPKDRV	3 VDD _SPKDR1	4 GND _SPKDRV	5 TX_ I2S_SCK	6 GND				
	7 GND _SPKDRV		8 SPKR_ DRVP	9 SPKR_ DRVM	10 RX_ I2S_SCK			12 SLIMBUS _DATA	
13 MICB_ CFILT3		14 SPKR_ VSNSP	15 VDD _SPKDR2	16 INTR1	17 DMIC1 _DATA			18 SLIMBUS _CLK	
	19 MIC5_ INP		20 VDD_ TXADC	21 SPKR_ VSNSM	22 I2C_SCL				24 VDD _IO
25 MIC_ BIAS3		26 MIC5_ INM	27 GND	28 RF_PA _ON	29 VDD _DIG1			30 DMIC2 _DATA	
	31 MBHC_ HSDDET		32 MIC6_ INM	33 INTR2	34 RX_ I2S_WS		35 GND		
37 MIC_ BIAS4		38 MIC6_ INP	39 CCOMP	40 MODE1	41 TX_ I2S_WS			42 DMIC0 _DATA	
	43 MIC3_ INP		44 VDD _VBAT	45 MCLK	46 RESET_N		47 VDD _DIG2		48 MODE0
49 GND		50 MIC2_ INP	51 LDO_ HL_CAP	52 GND _CCOMP		53 GND		54 BUCK _VSW	
	55 VDD _TX		56 MIC4_ INM	57 MIC3_ INM		58 GND	59 BUCK _VOUT2		60 VDD _BUCK
61 MIC_ BIAS2		62 MIC4_ INP	63 MICB_ CFILT1		64 VDD _RX		65 HPH_REF		66 GND _BUCK
	67 MICB_ CFILT2		68 MIC2_ INM					71 BUCK _VOUT1	72 NCP_ C1P
73 MIC_ BIAS1		74 MIC1_ INM			76 EAROP		77 HPH_LP		78 NCP_ C1M
	79 MIC1_ INP				81 EAROM		82 HPH_RM		83 NCP_ VNEG
									84 GND _BUCK

■ Not Used

U11008 – Compass Sensor (Top View)

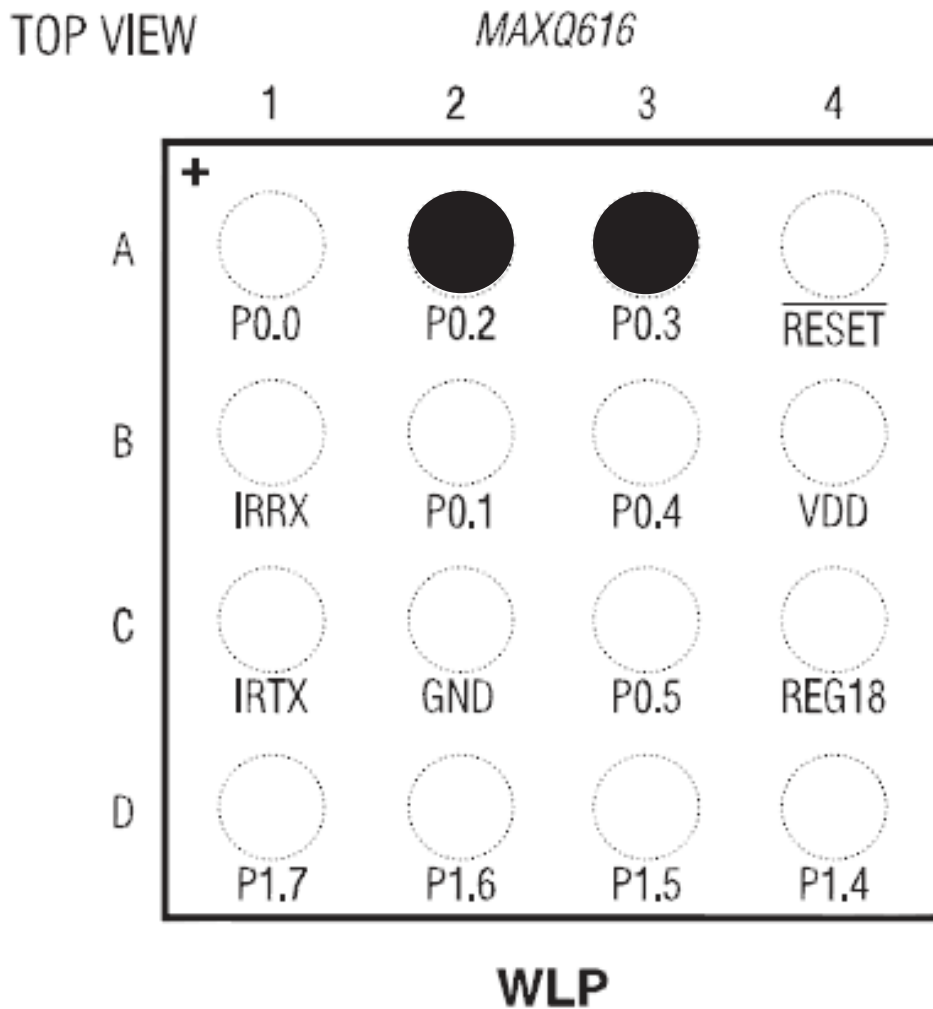


	4	3	2	1
D	RSTN		CAD1	CAD0
C	VID	TRG	TST1	VSS
B	SO	RSV		VDD
A	SDA/SI	SCL/SK	CSB	DRDY

<Top view>

● Not Used

U11002 –MAXQ616(IR LED driver)




 Not Used

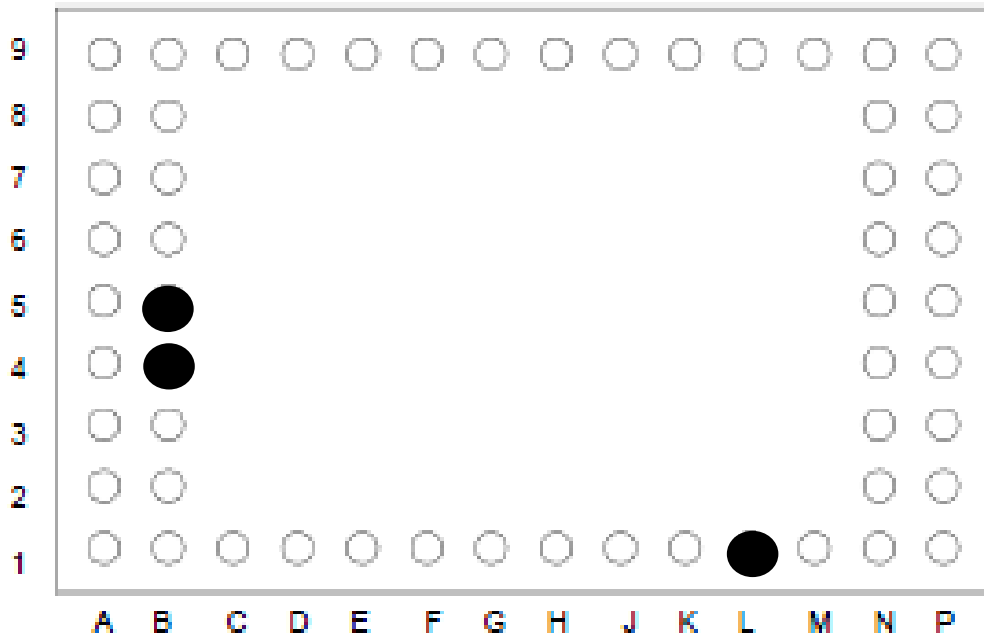
7. BGA PIN MAP

U12001 – SLIMPORT (TOP view)

	1	2	3	4	5	6	7	
A	RESISTOR	ID_OUT	C-WIRE/ AUXP	AUXN	TX0P	TX0N	VDD33_OUT	A
B	XTAL_OUT	CABLE_DET	AVSS	AVDD18	USB_DP	USB_DN	AVDD33_IN	B
C	XTAL_IN	R_BIAS	AVDD33_IN	DVSS	AVDD10	DVDD10	RESETN	C
D		CHIP_PD_HV	DVDD18	DVDD18	DVSS		INTP	D
E	CEC		DVSS	DVDD10	HDMI_VT	DDC_SDA	CSCL	E
F	HDMI_CLKN		AVSS	AVSS	HDMI_HPD_ OUT	DDC_SCL	CSDA	F
G	HDMI_CLKP	HDMI_D0N	HDMI_D0P	HDMI_D1N	HDMI_D1P	HDMI_D2N	HDMI_D2P	G
	1	2	3	4	5	6	7	

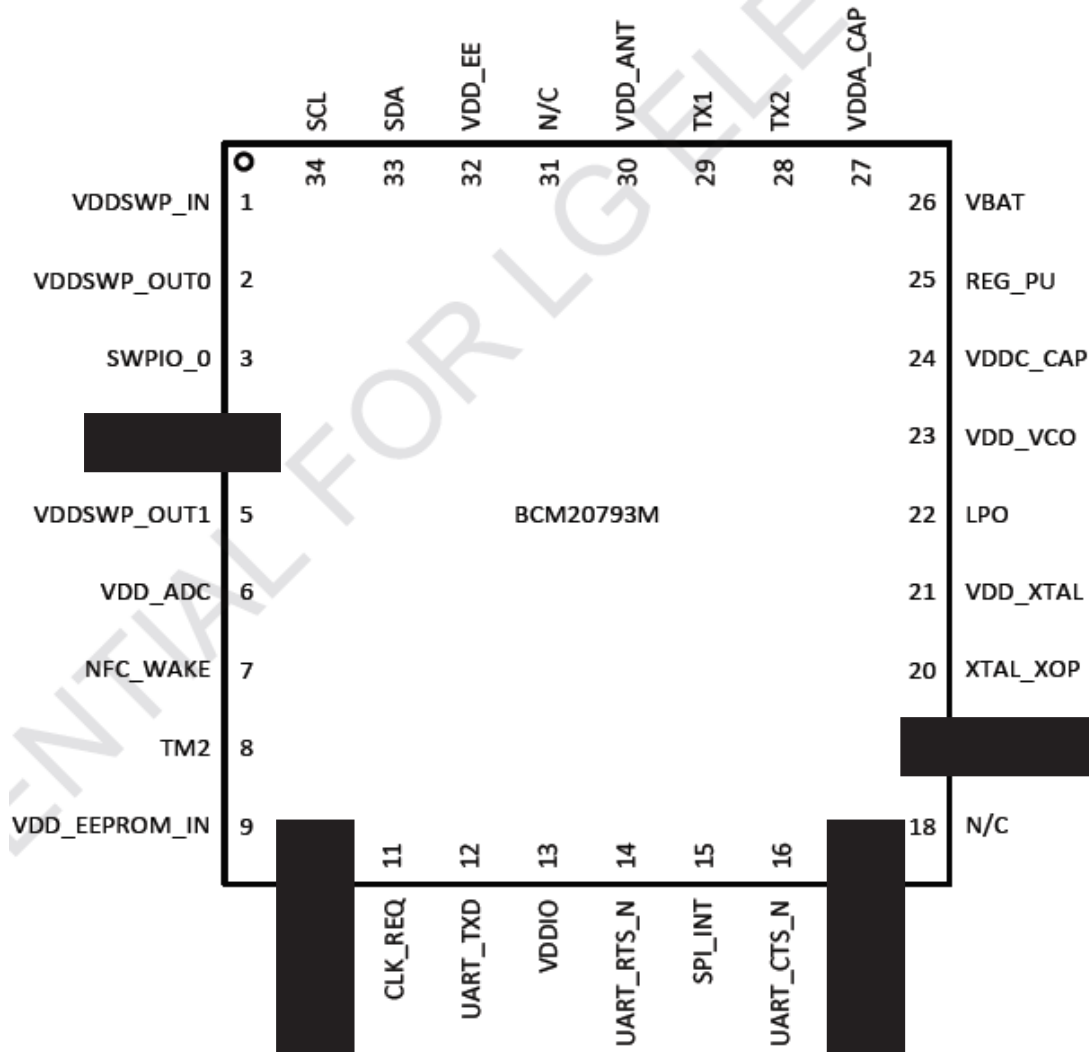
 Not Used

U15012- BT/WIFI (TOP view)



● Not Used

U100(TOUCH FPCB) –NFC (TOP view)



■ Not Used

U300(TOUCH FPCB) – TOUCH IC (TOP view)

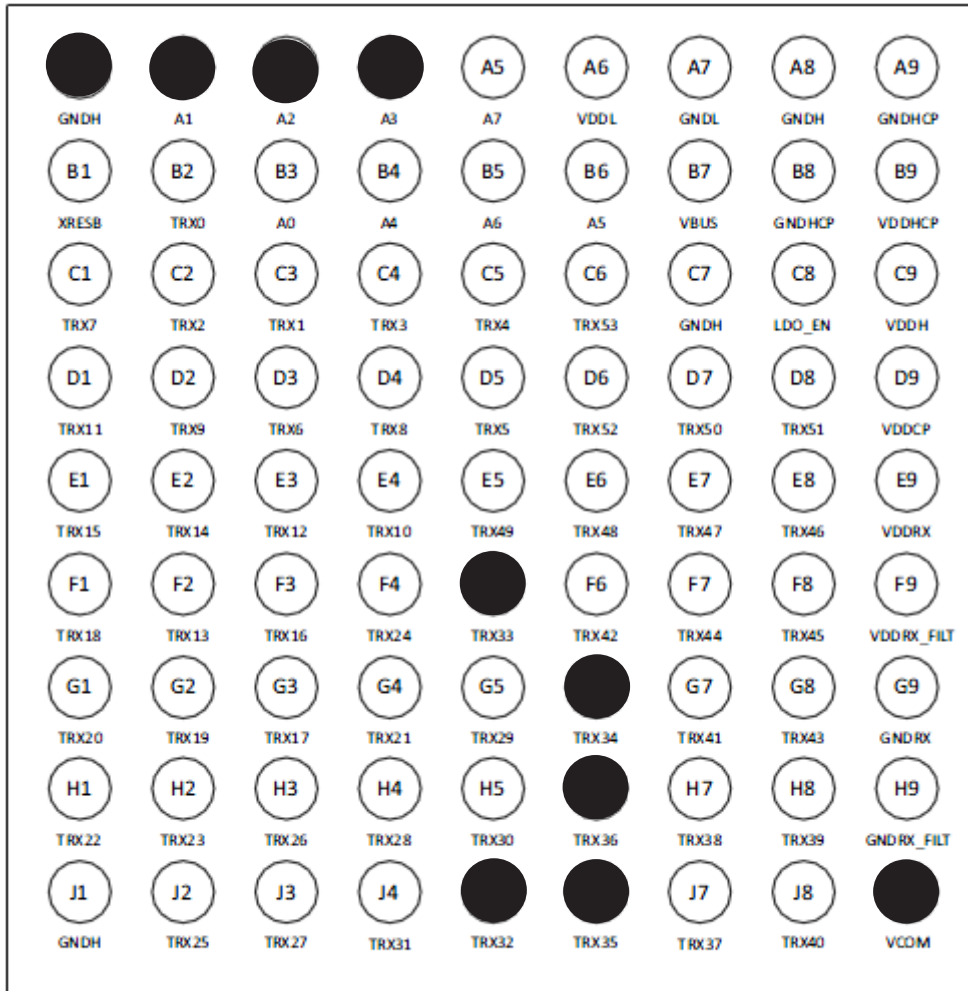
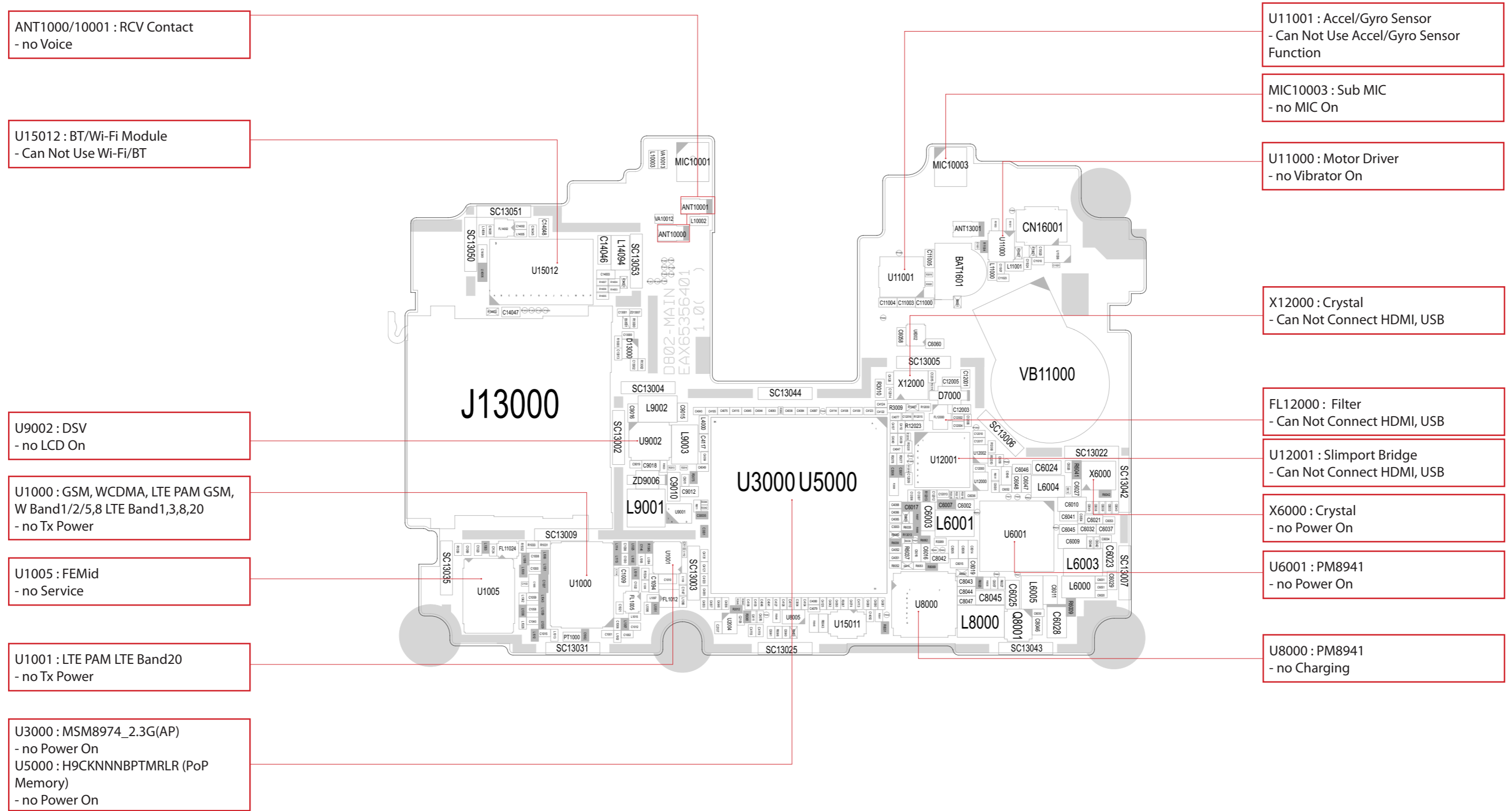


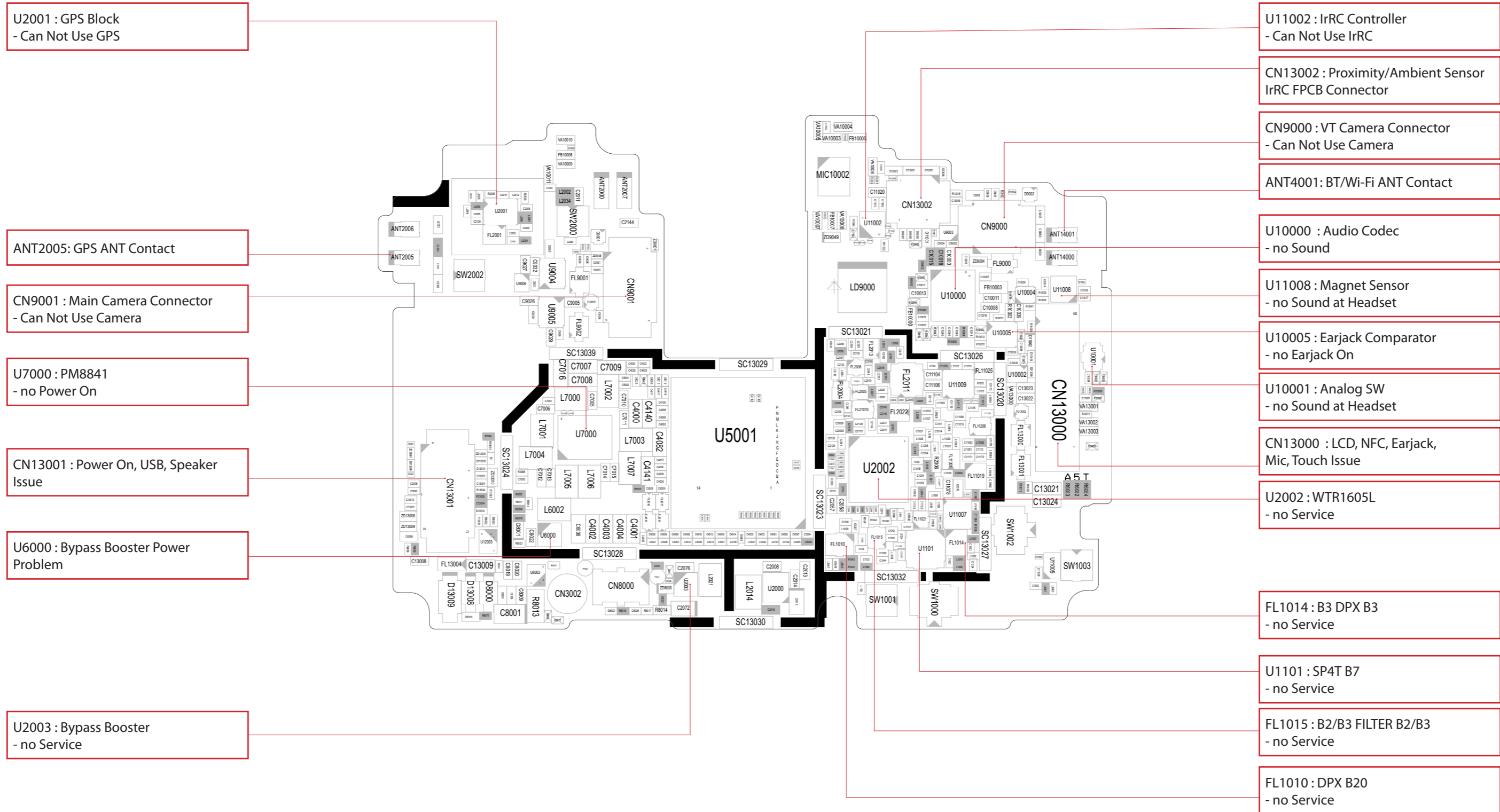
Figure 2. 81 BGA pin assignments (top view)

 Not Used

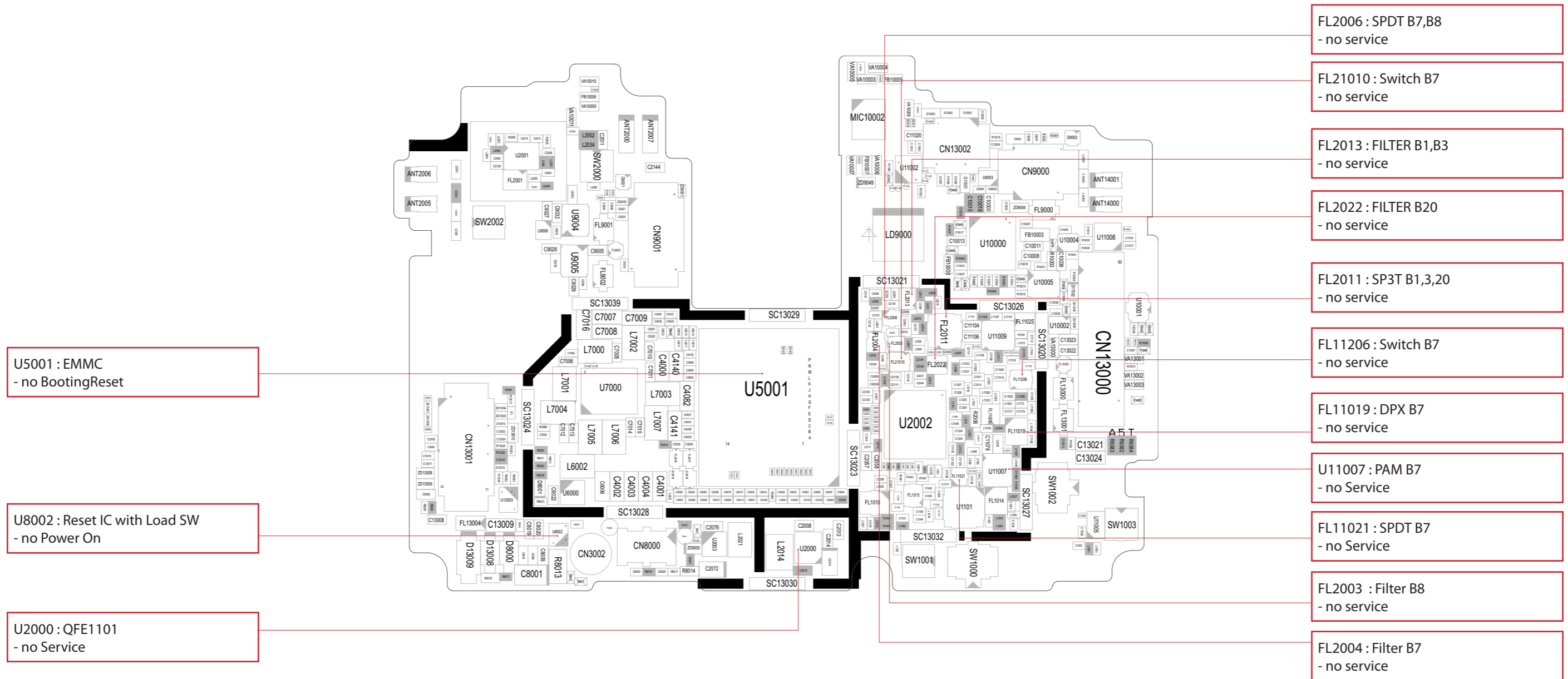
8. PCB LAYOUT



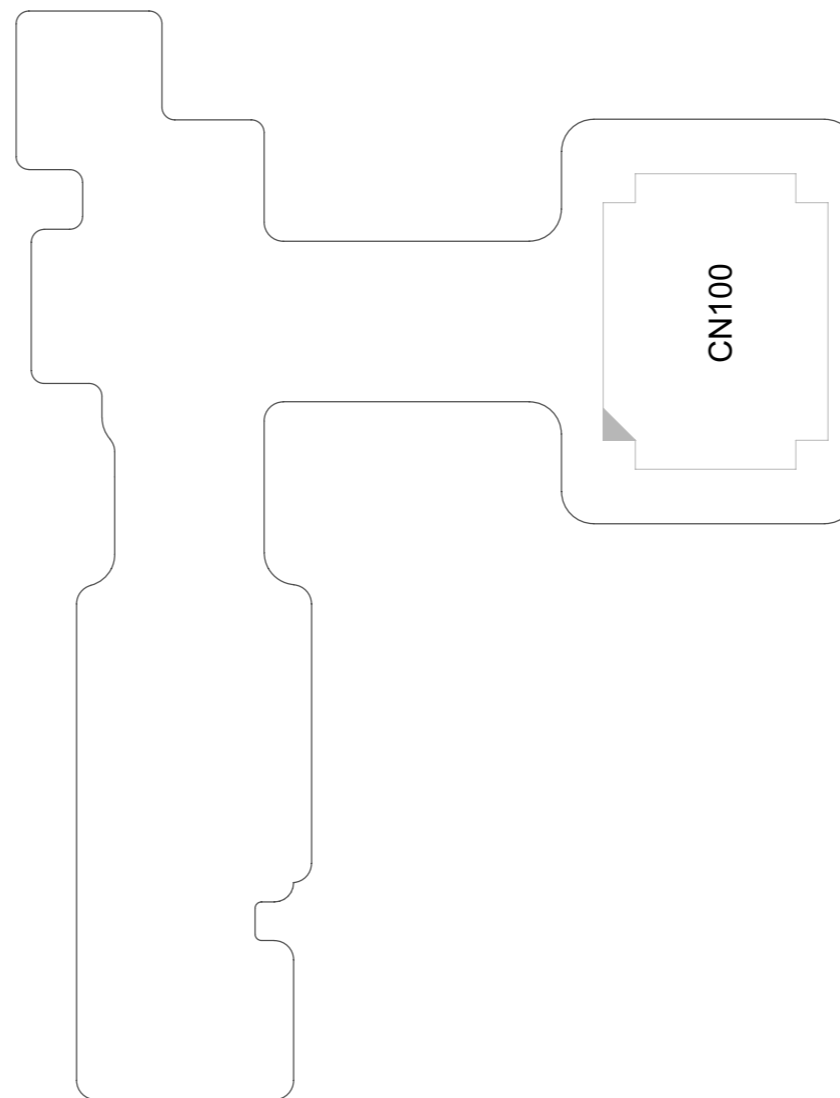
LG-D802-MAIN_EAX65356401_1.0_TOP



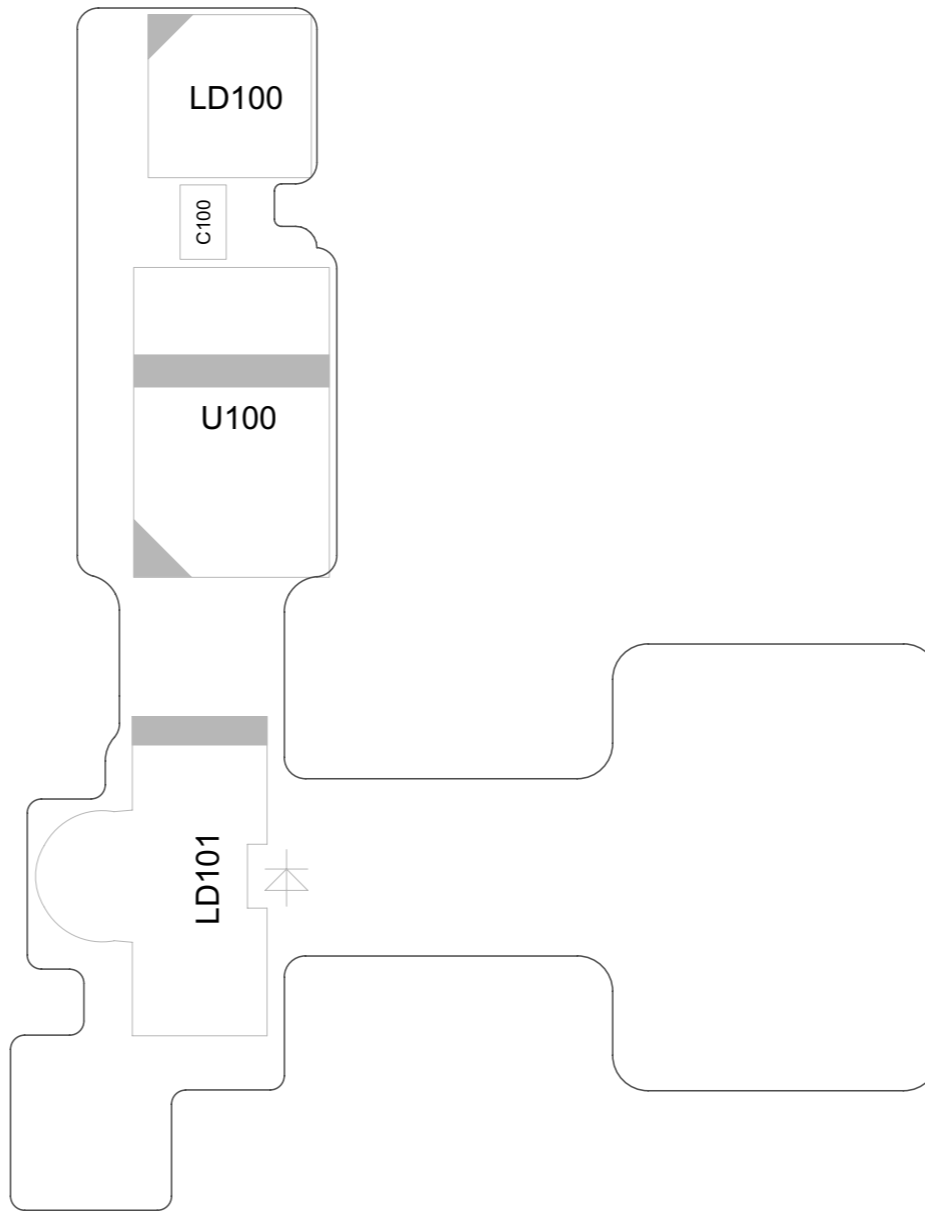
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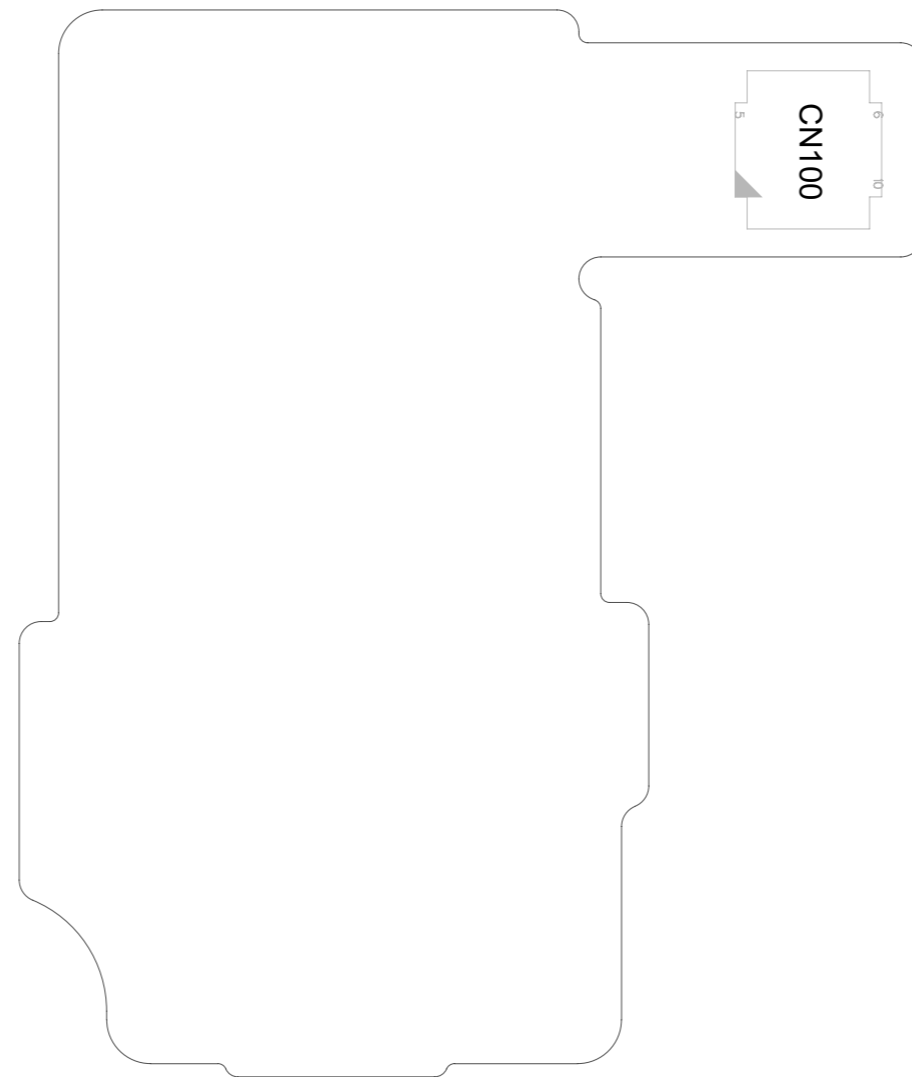
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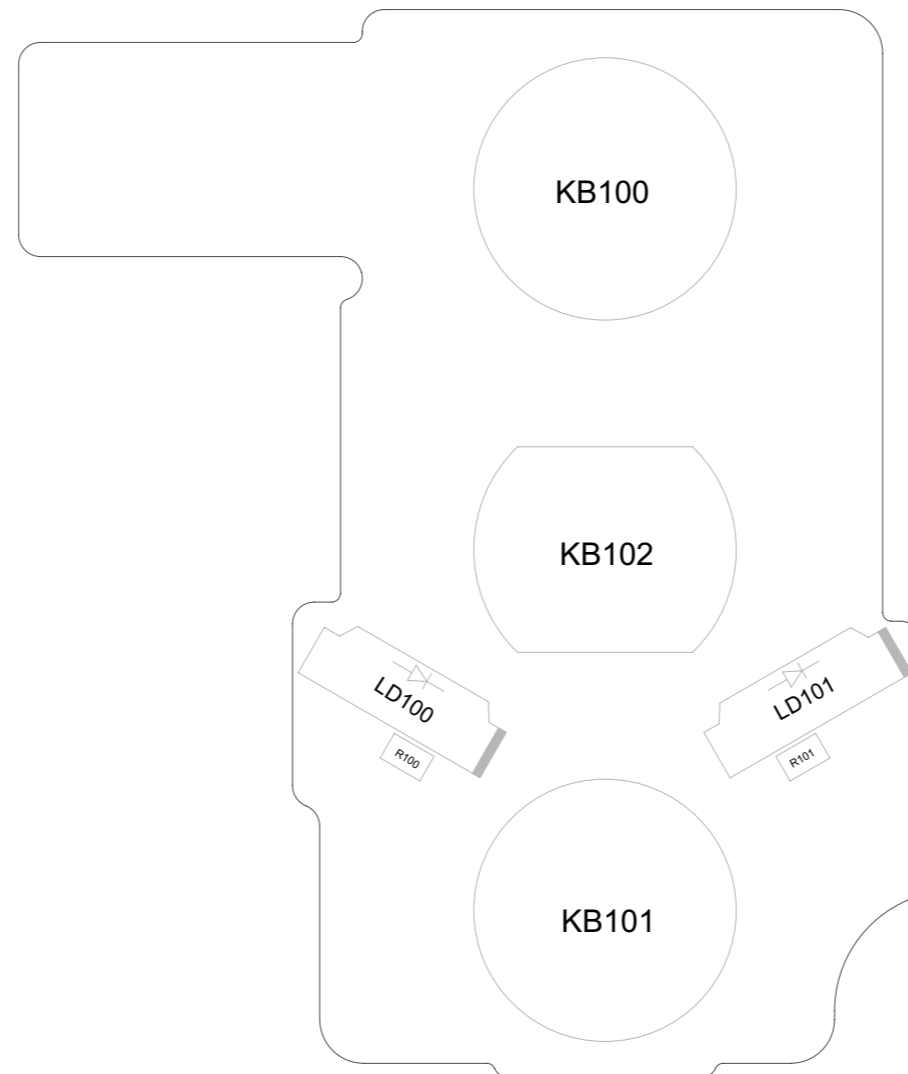
LG-D802-_F_SENSOR_EAX6528950_1.0_TOP



LG-D802-_F_SENSOR_EAX6528950_1.0_BOT



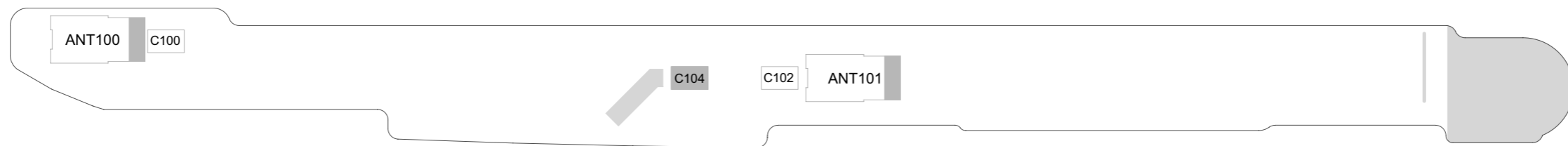
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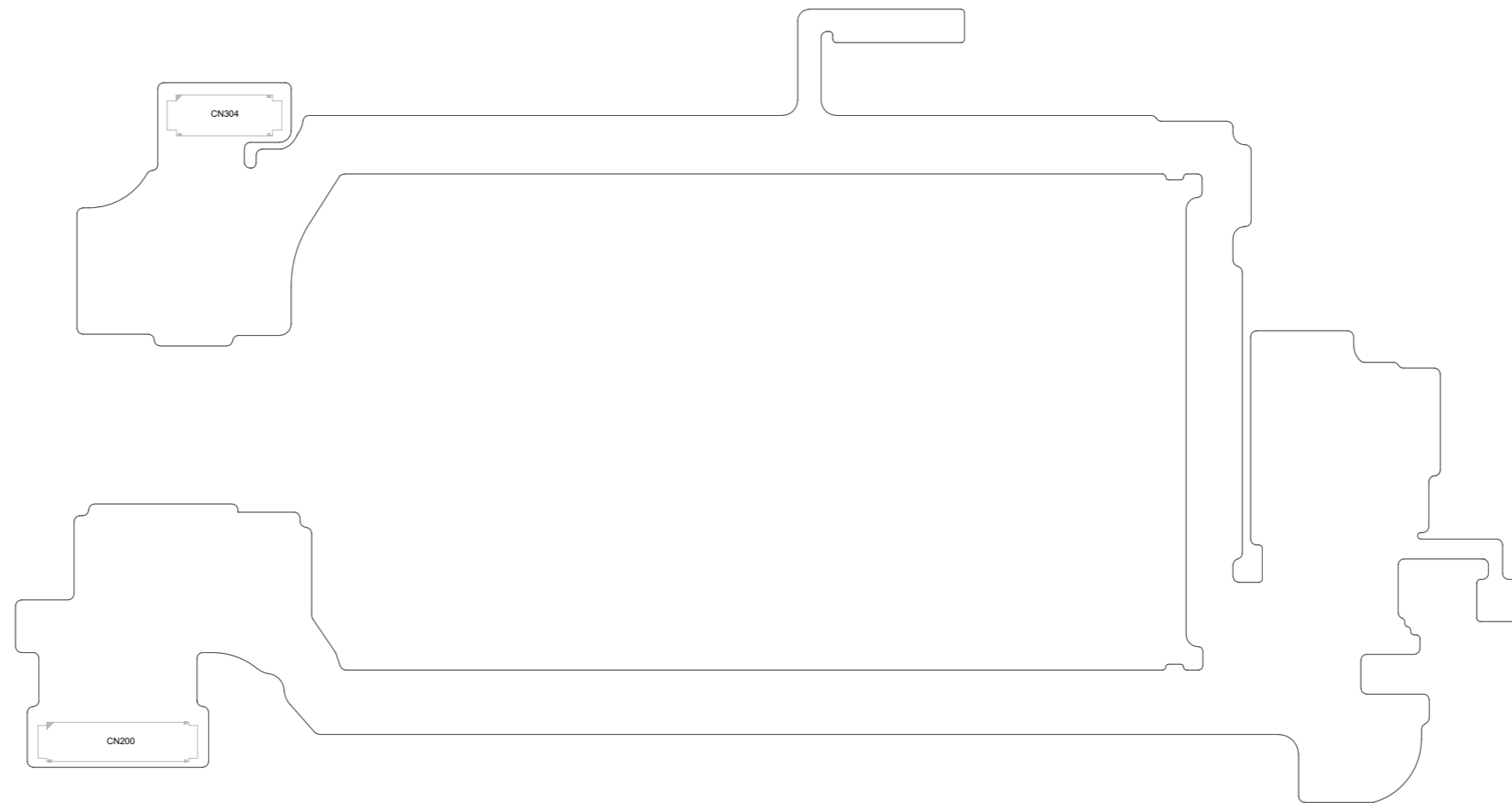
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LG-D802_ANT_EAX65326001_1.0_TOP



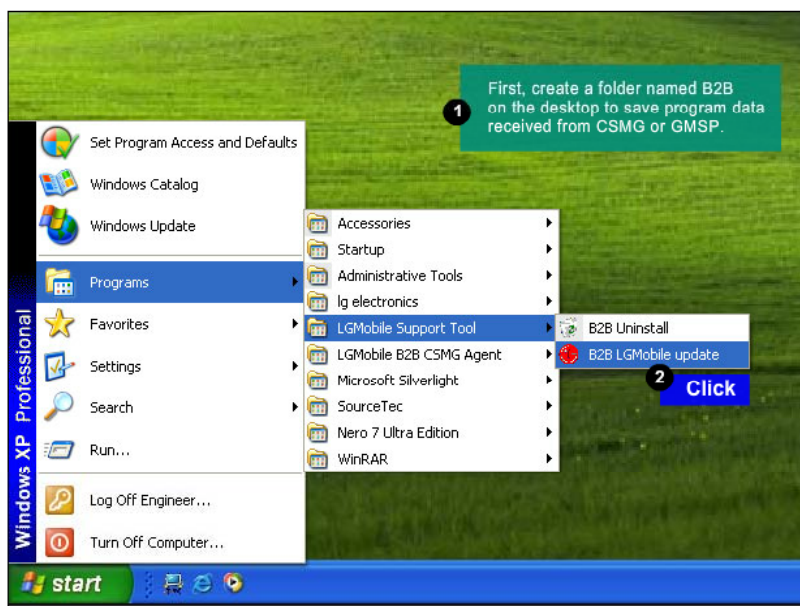
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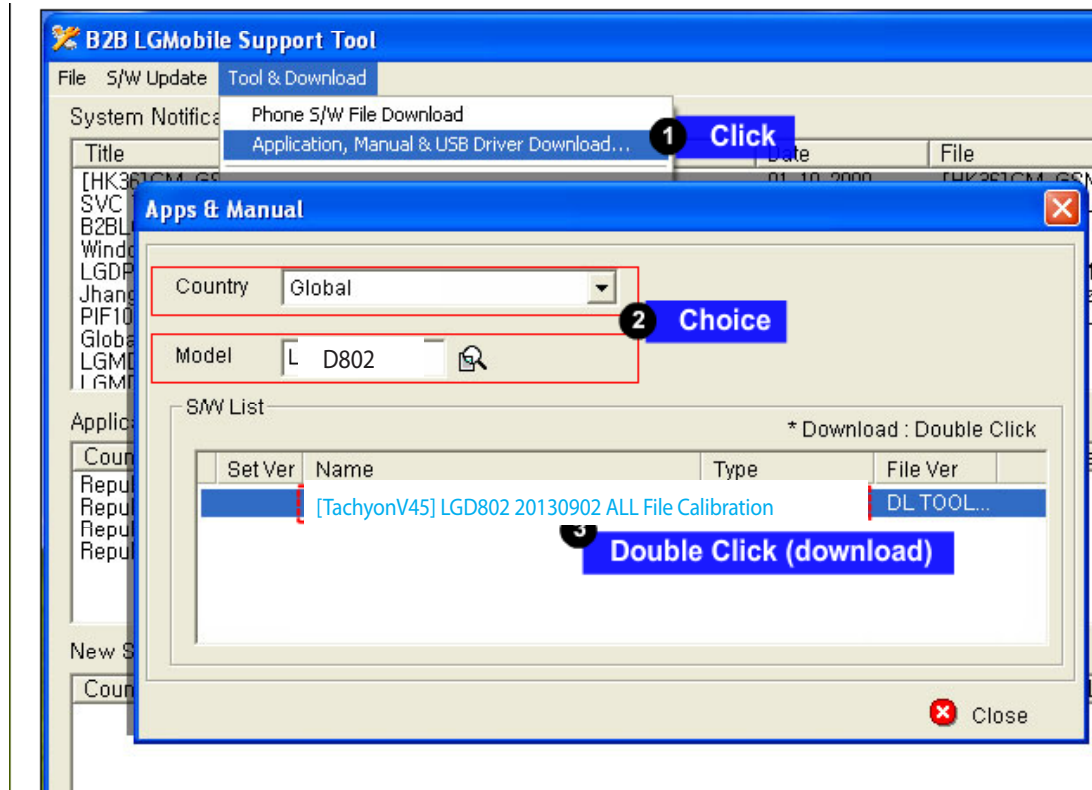
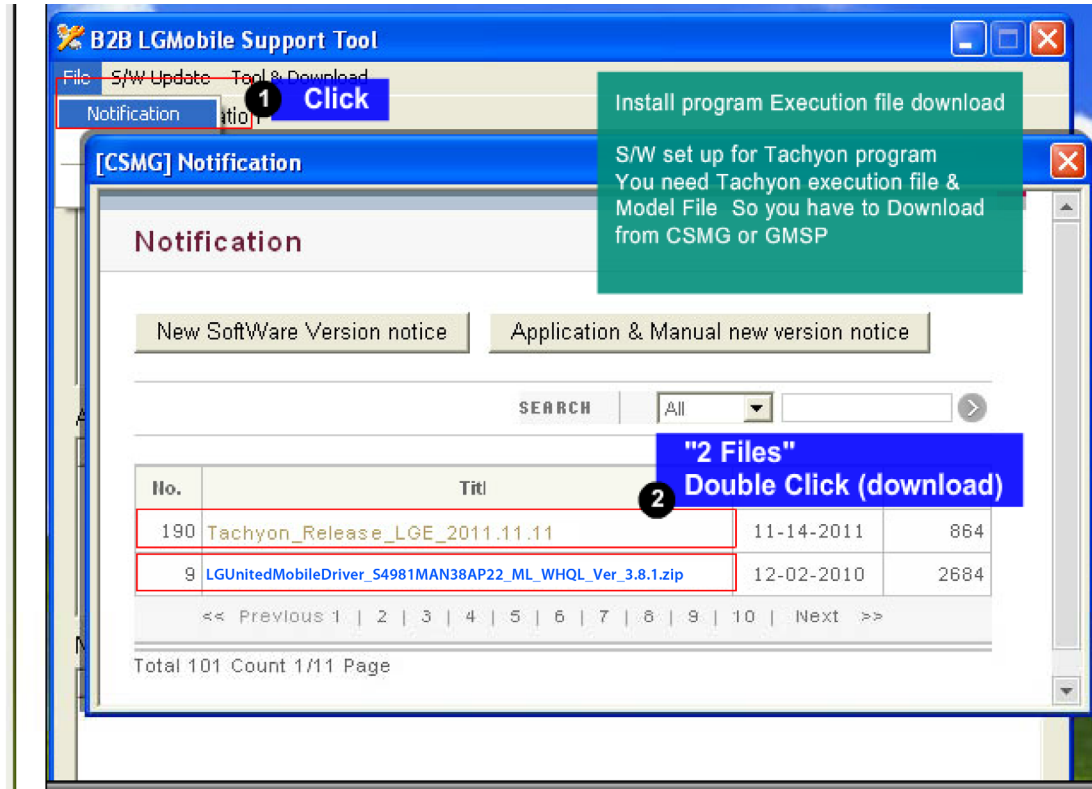


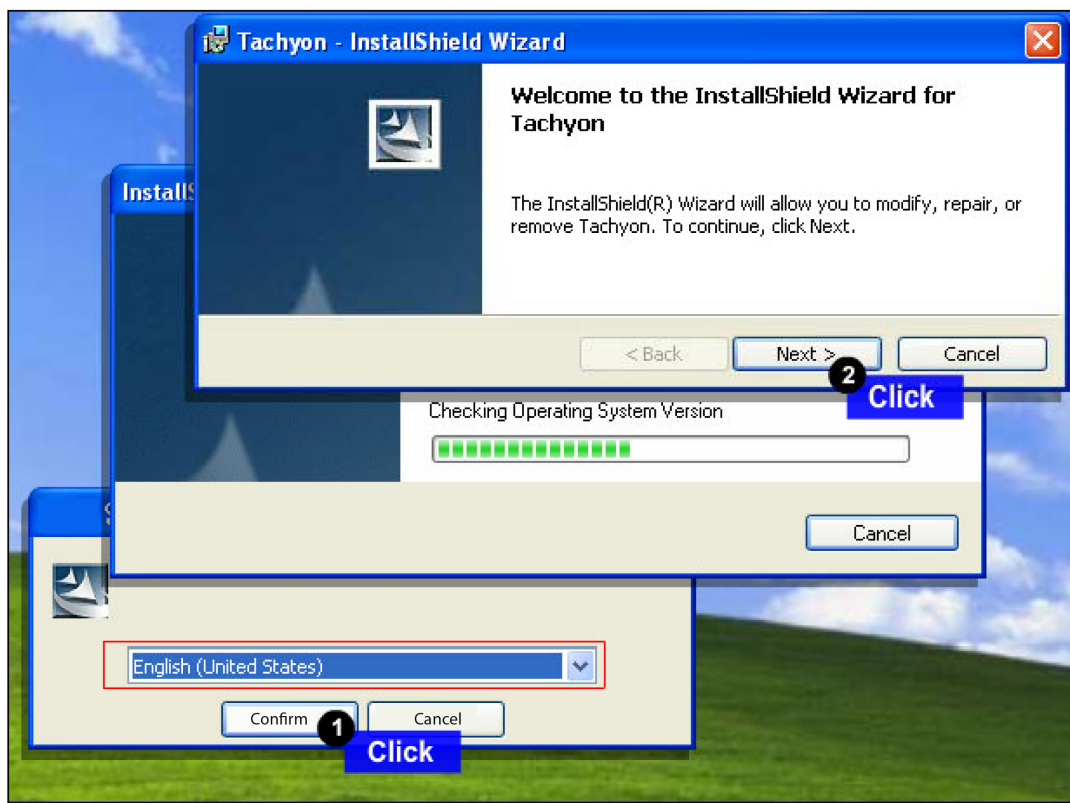
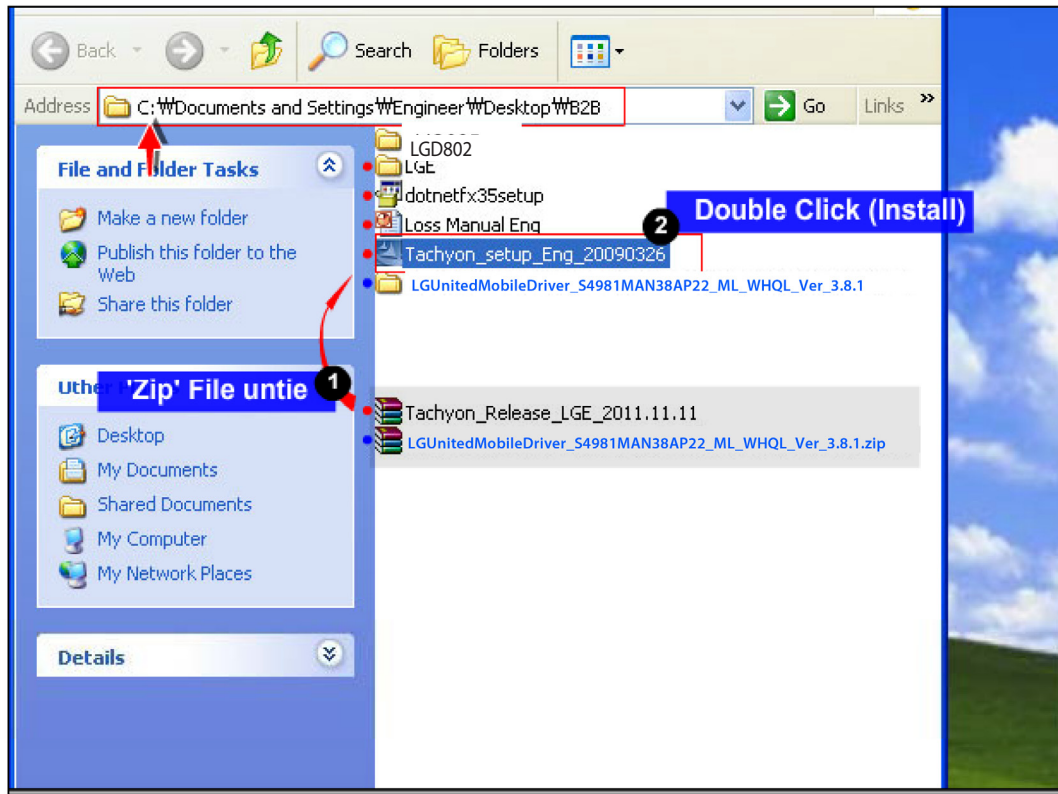
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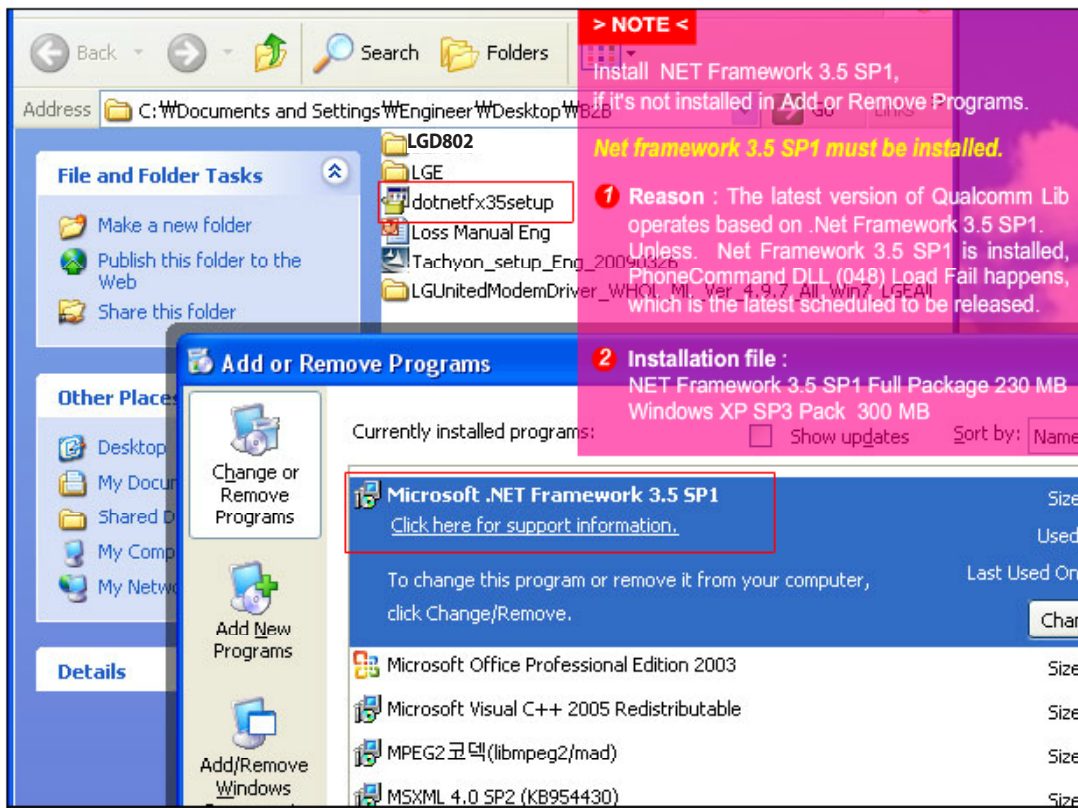
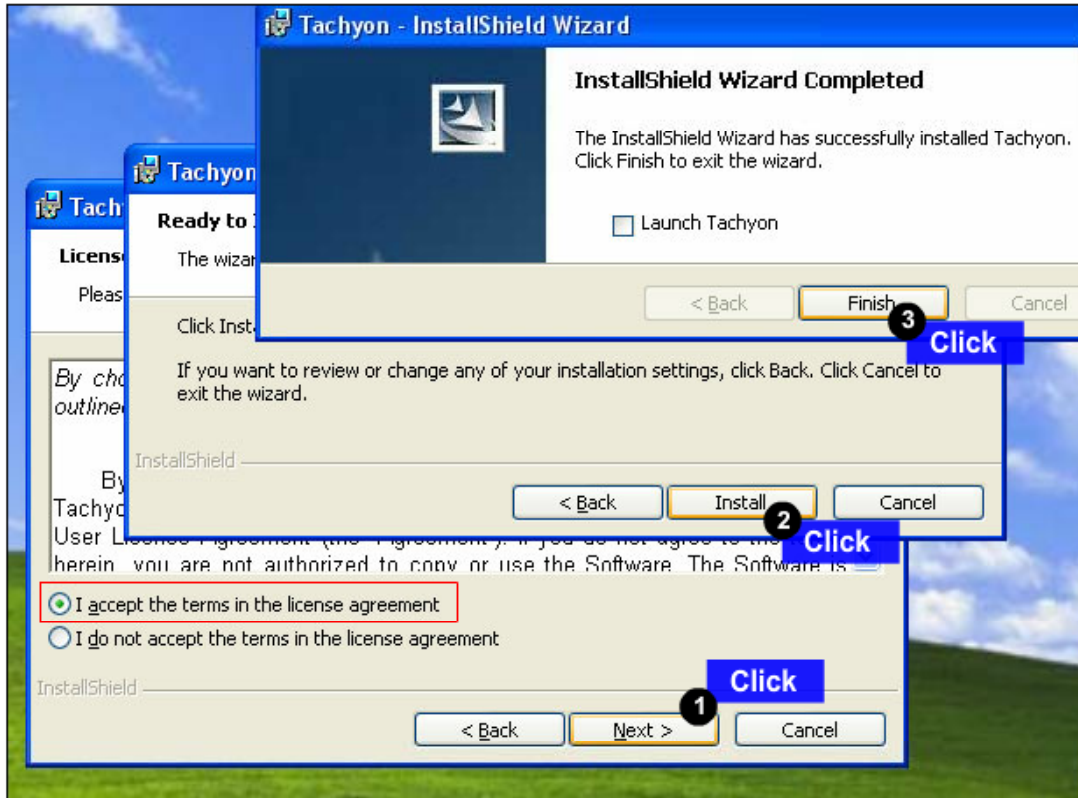
9. CALIBRATION

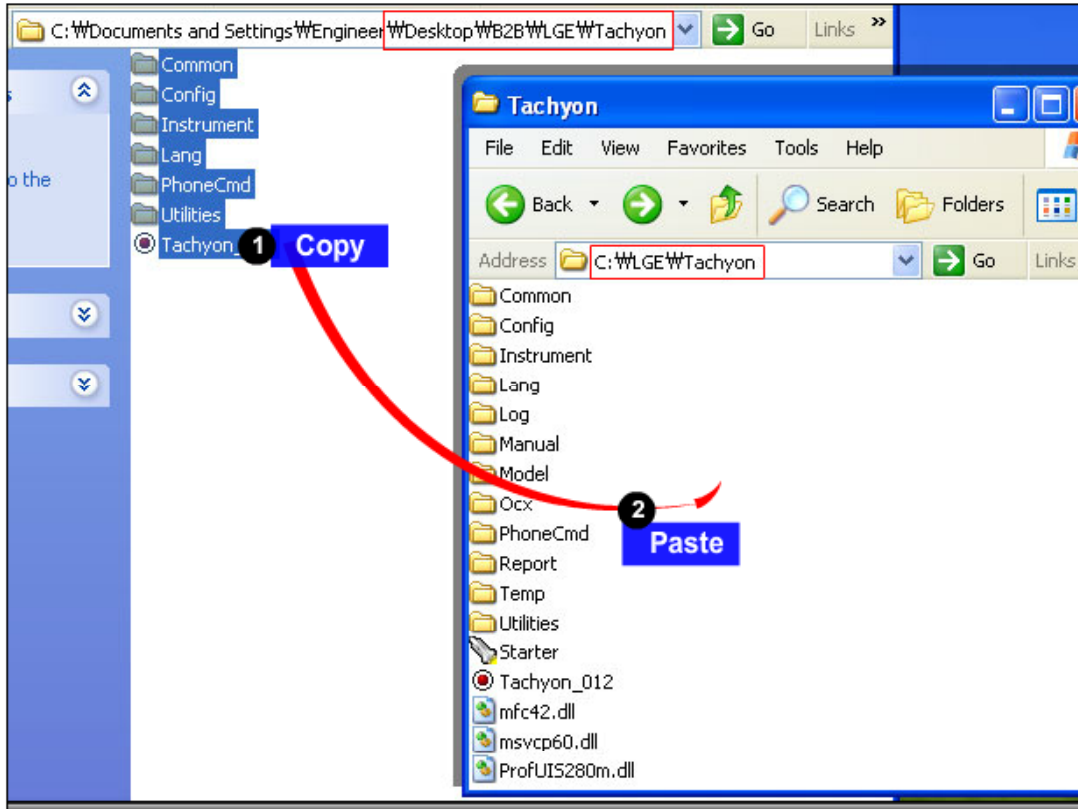
CAL INFORMATION		
S/W VERSION		
[TachyonV45] LGD802 20130902 ALL File Calibration		
Please Check the Version to "B2B"		
H/W		
	Name	Part No.
PIF	PIF200(All Type)	BJAY0024021
USB Cable	USB Cable	RAD32247898
Power Cable	DC Power Cable	RAD32247878
I/O Cable	5P E-SATA_DC_Plug	RAD32167861
RF Cable_Main	MS-156C	BJAY0024004
Power Supply_PIF	Power Supply 5.3V	
Power Supply_Phone	Power Supply 5.0V	
RF Test Equipment	CMW500, RF800A	
NOTICE	1. Use the Battery (Refer to Attached ppt) 1) Phone states: Power off 2) If do not use the battery, TX fails. 2. Port Setting (Refer to Attached ppt) 1) Uart Port1 : Use the "LGE CDMA USB Serial Port"	
CMW500 RF Cable connection	Reference to Attached ppt -> How to connect between phone RF switch and RF 800A: It has to be connected as below ->How to connect between CMW500 and RF800A ; It has to connected as below - CMW500 [RF1COM] to RF-800A [left COM], - CMW500 [RF2COM] to RF-800A [Right COM]	



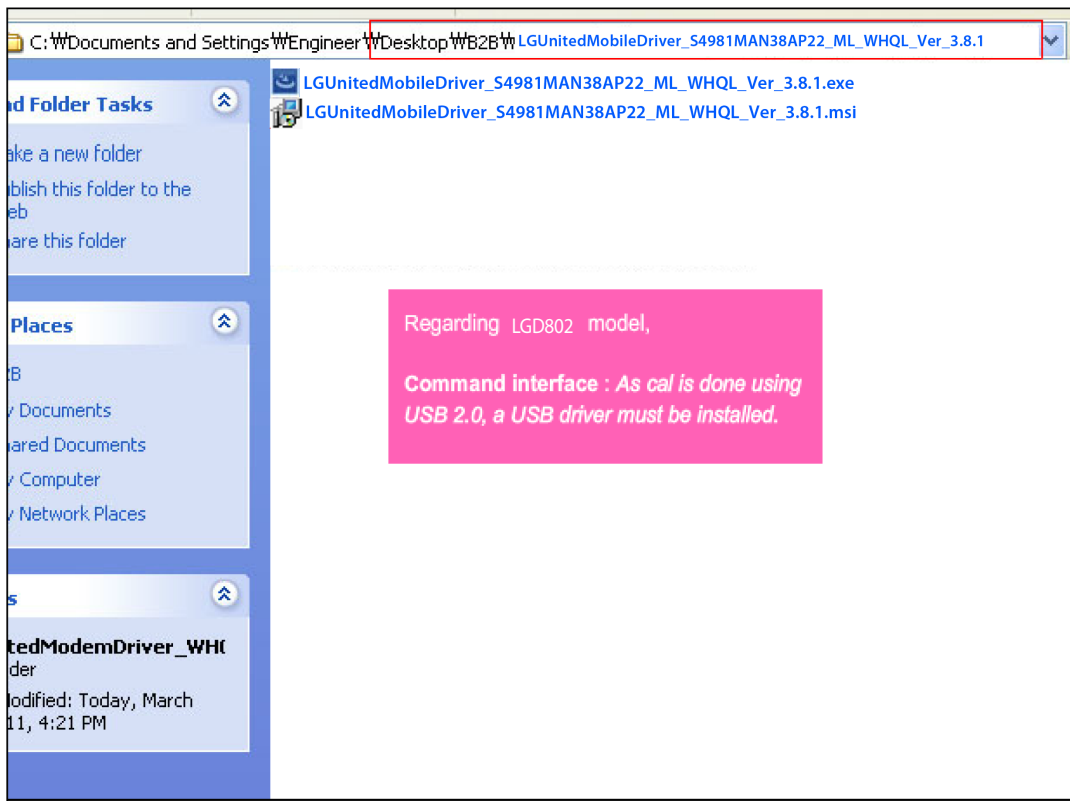
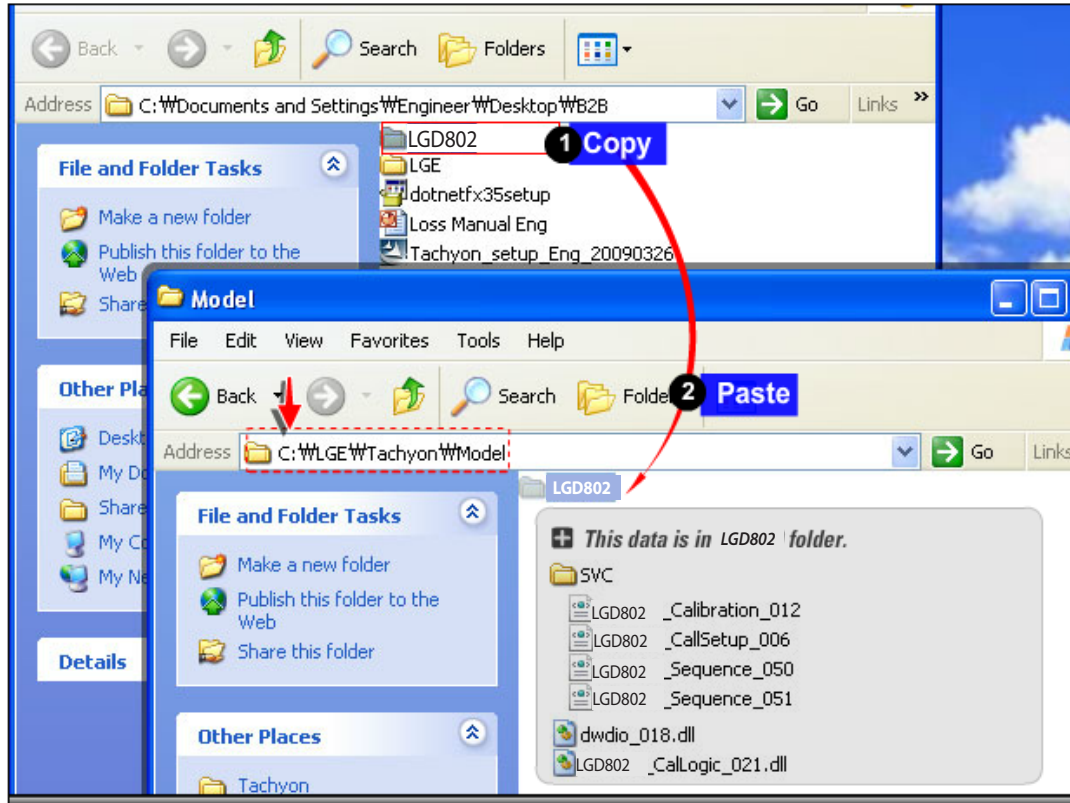




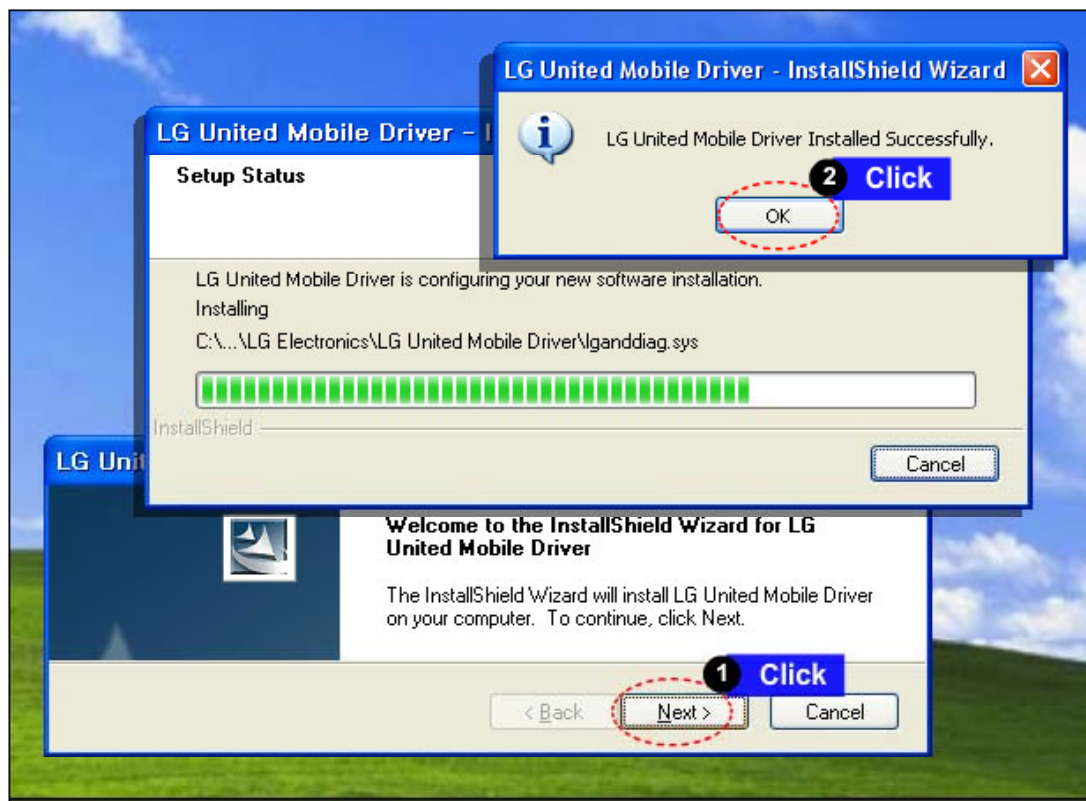
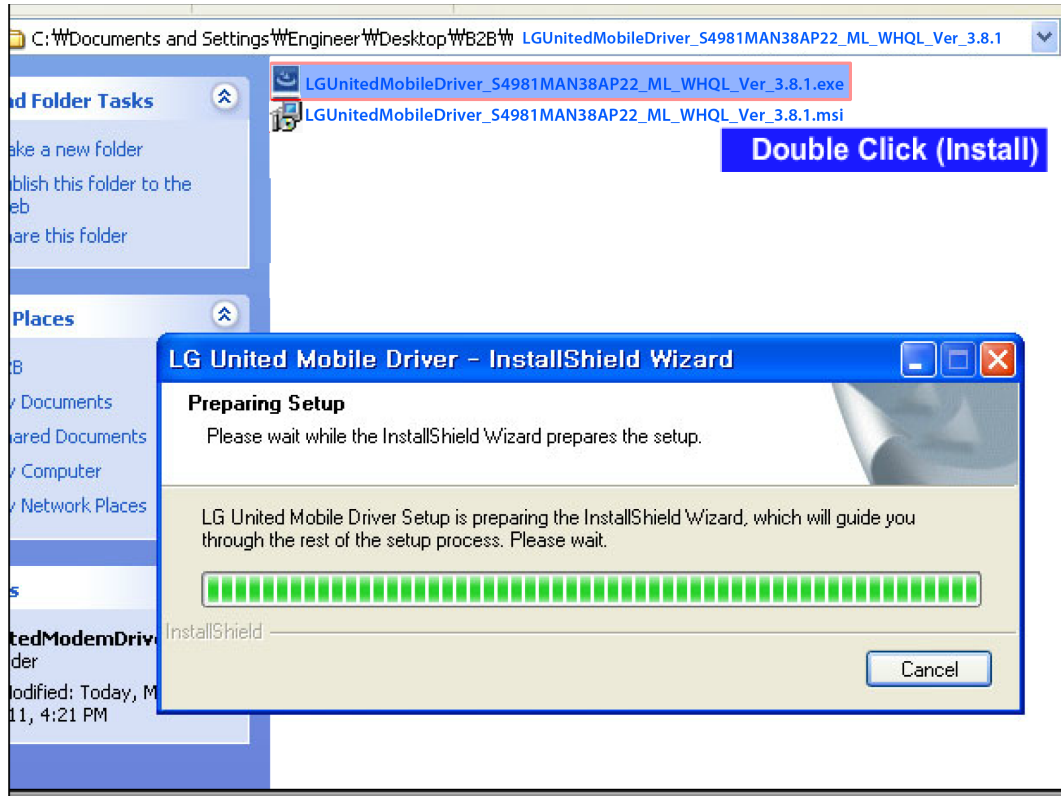




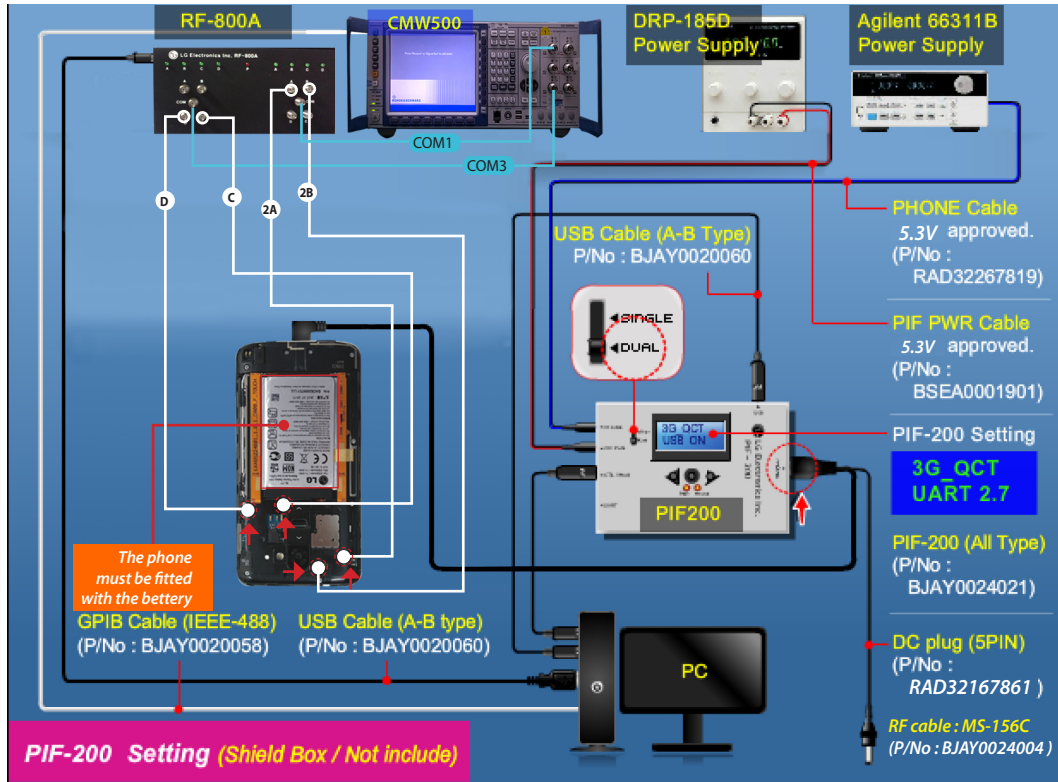
9. CALIBRATION



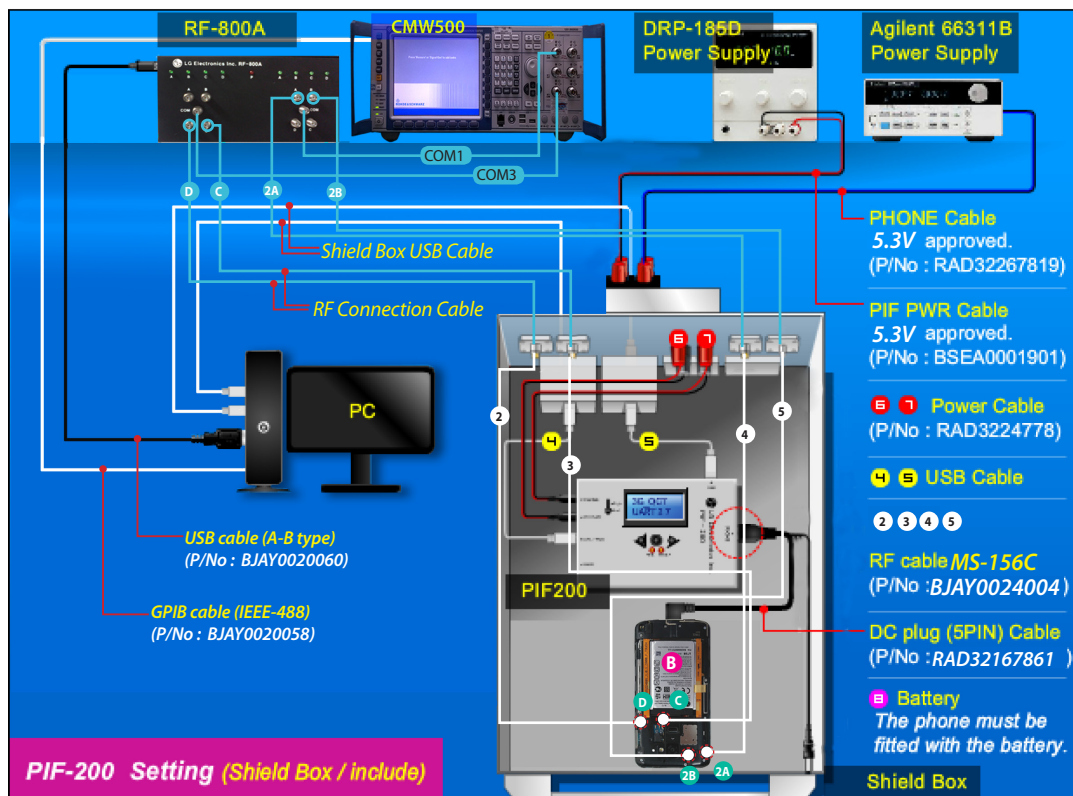
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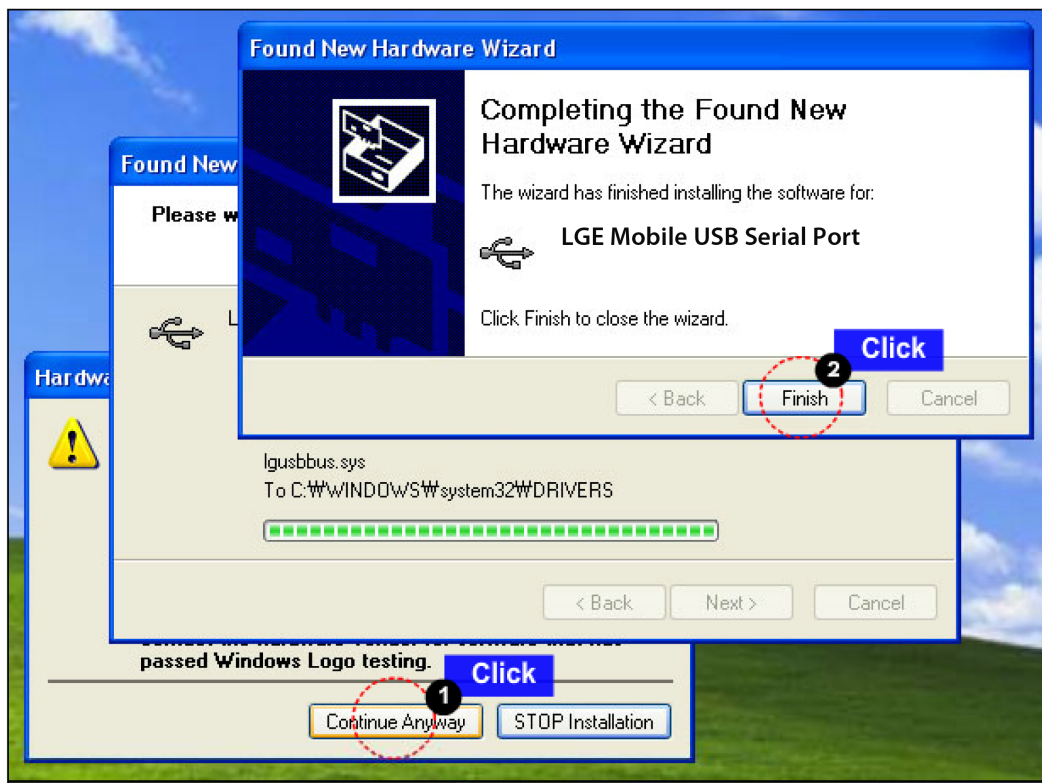
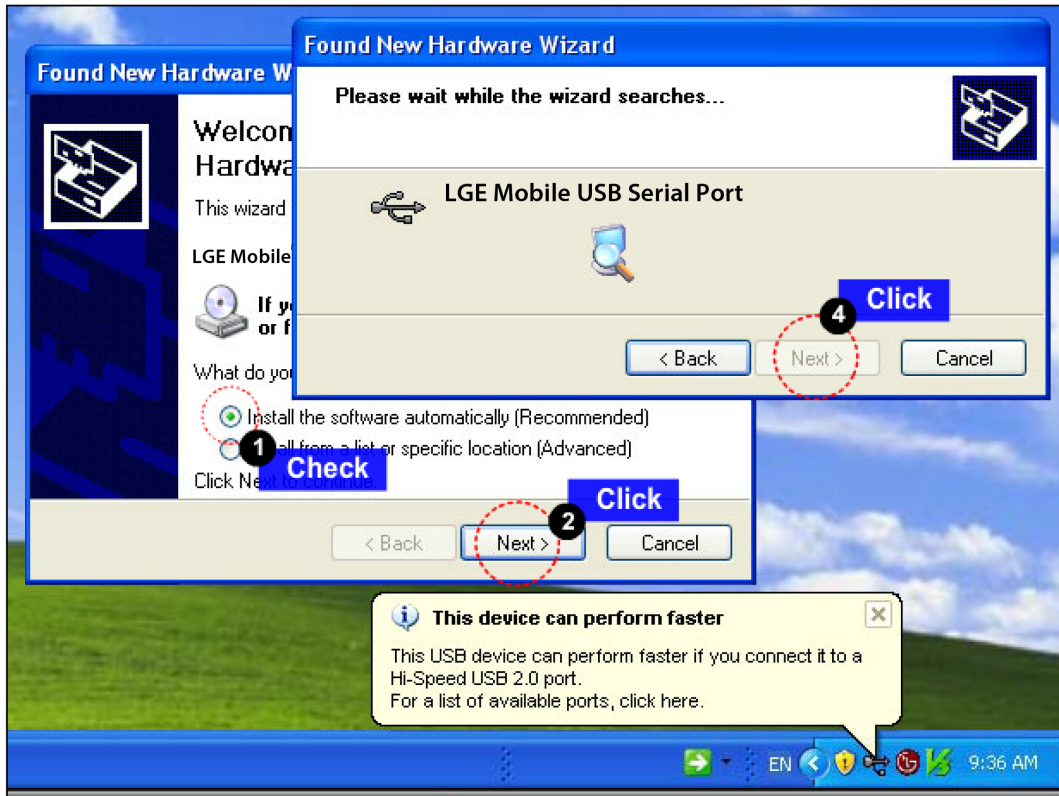


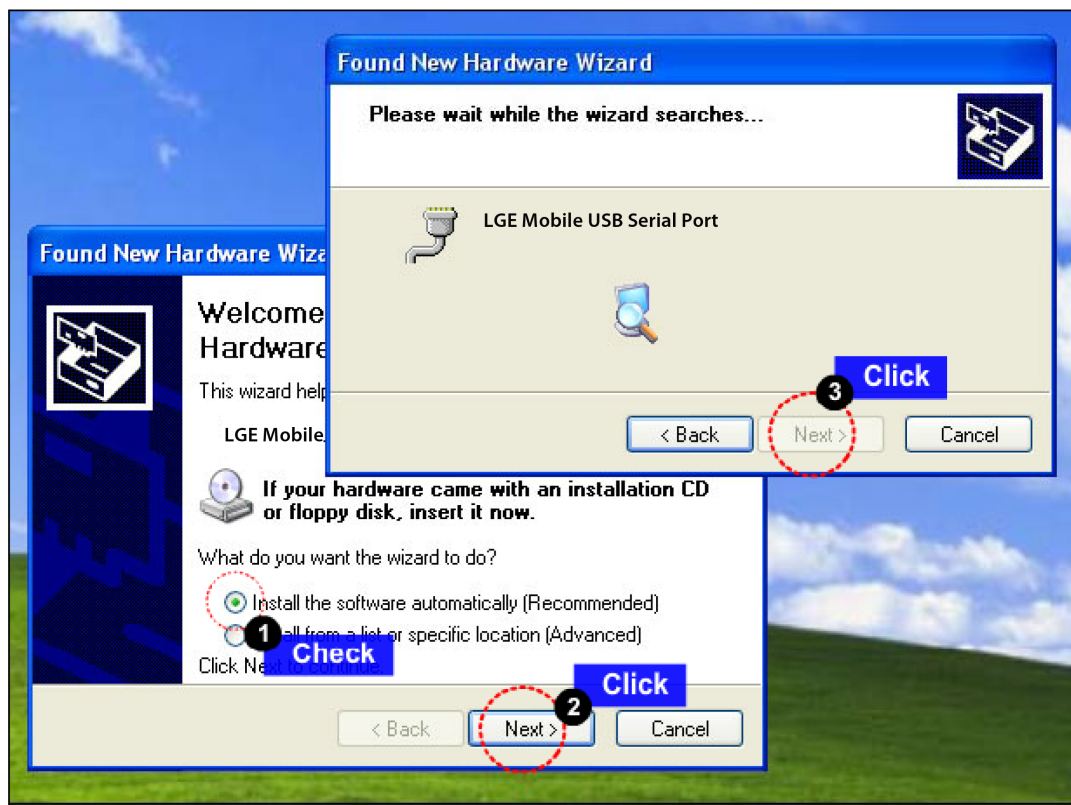
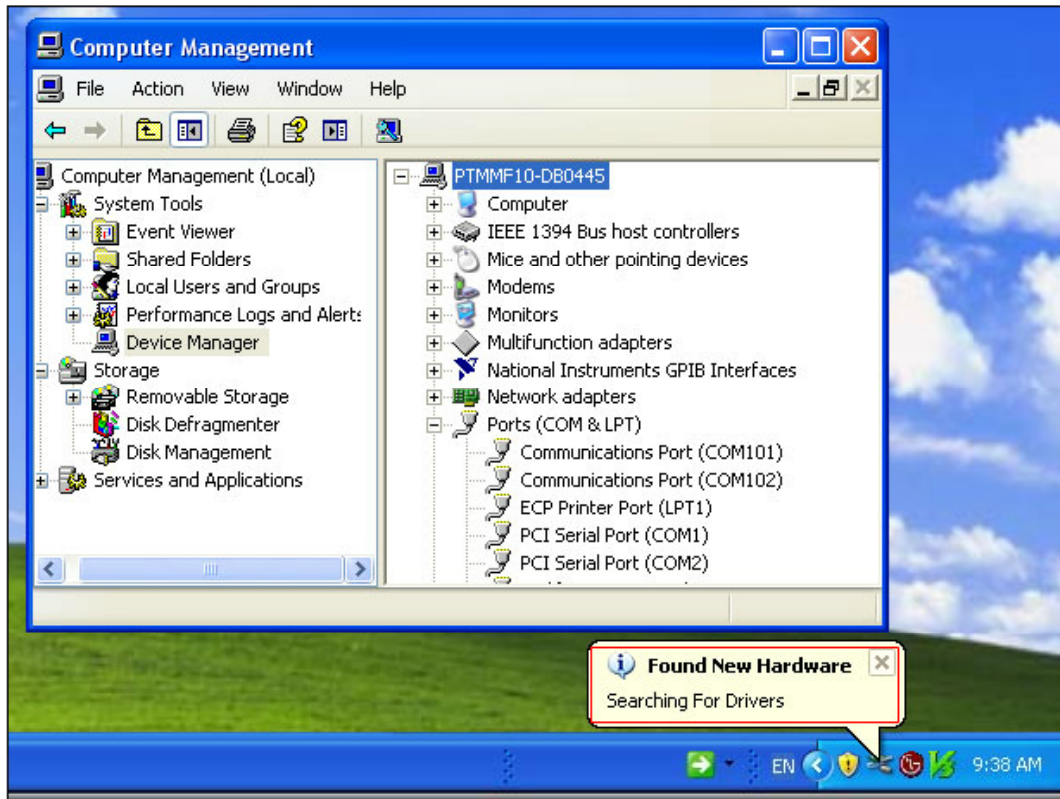
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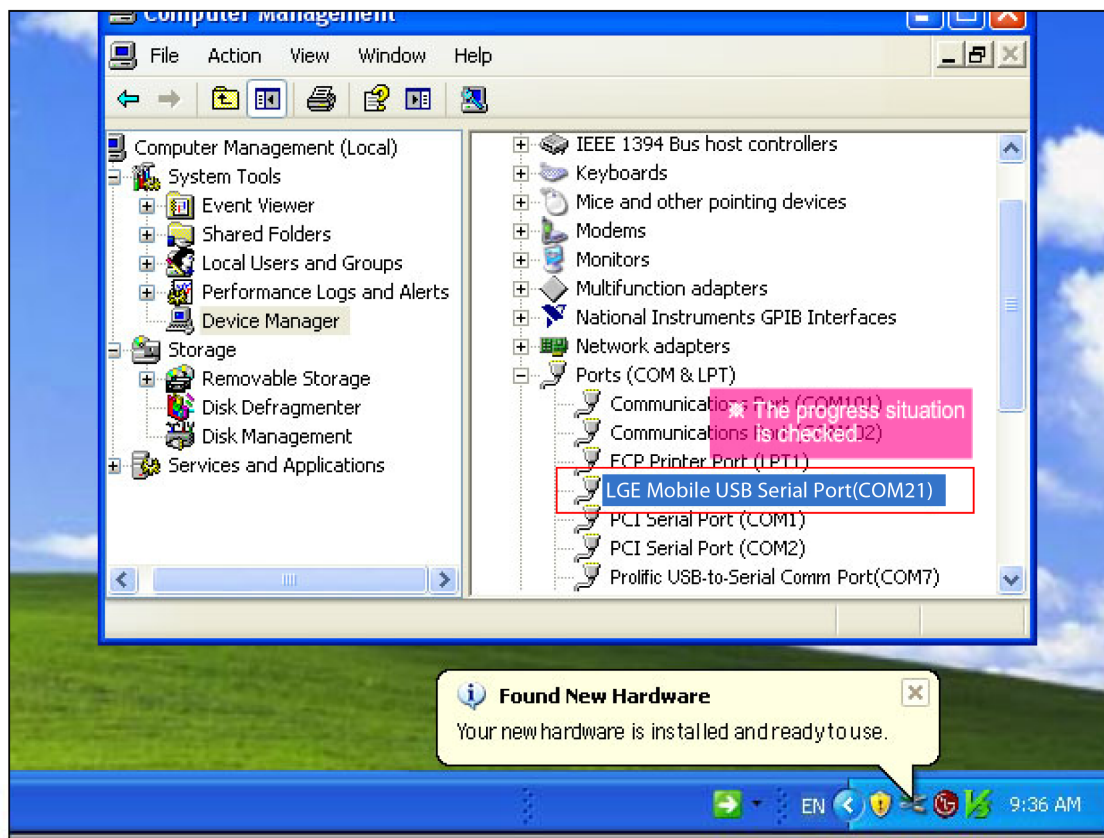
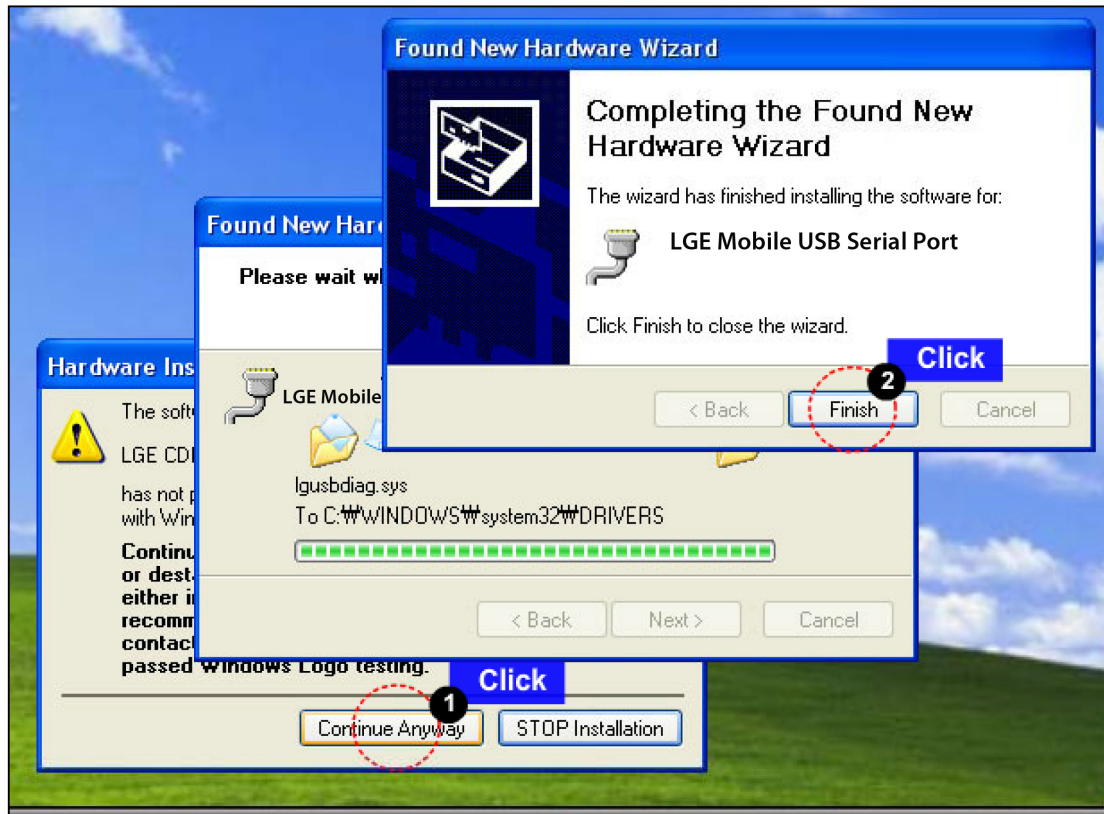


→ This is for example.
You can check "C:\WLG\WTachyon\WModel\WD802\WSetting Guide" ←

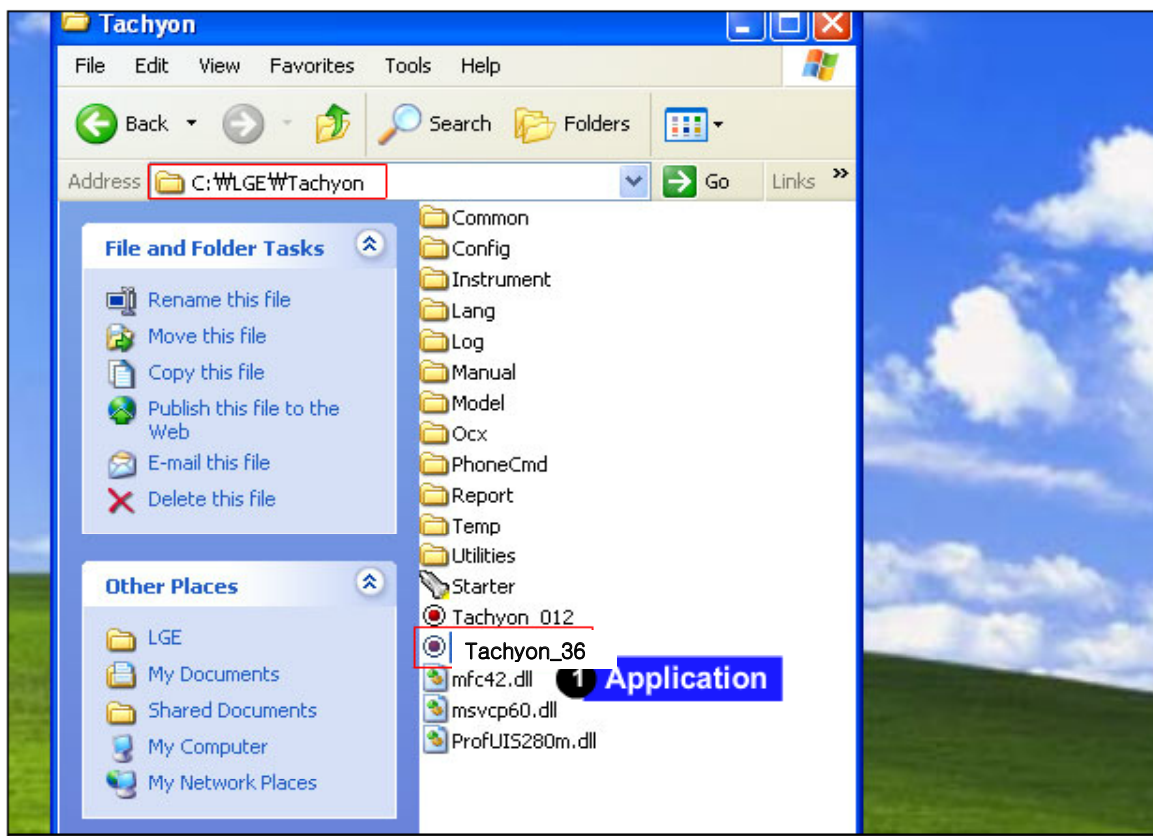
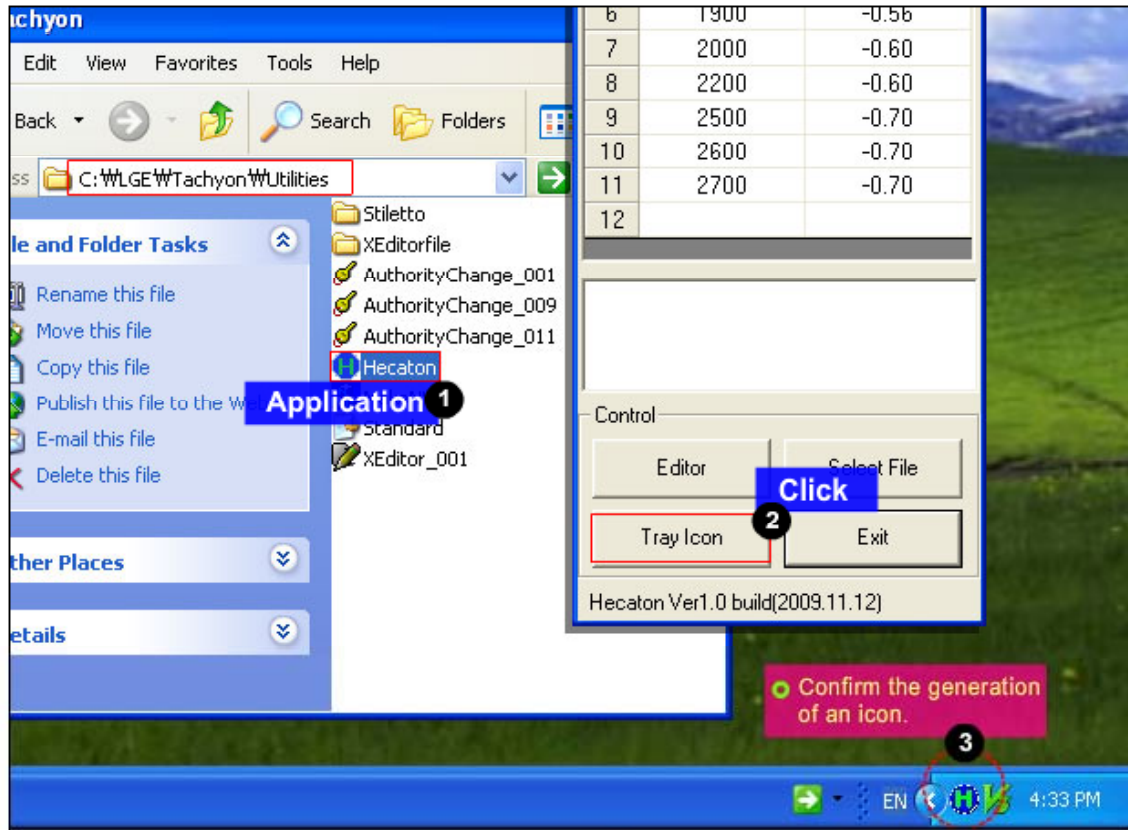




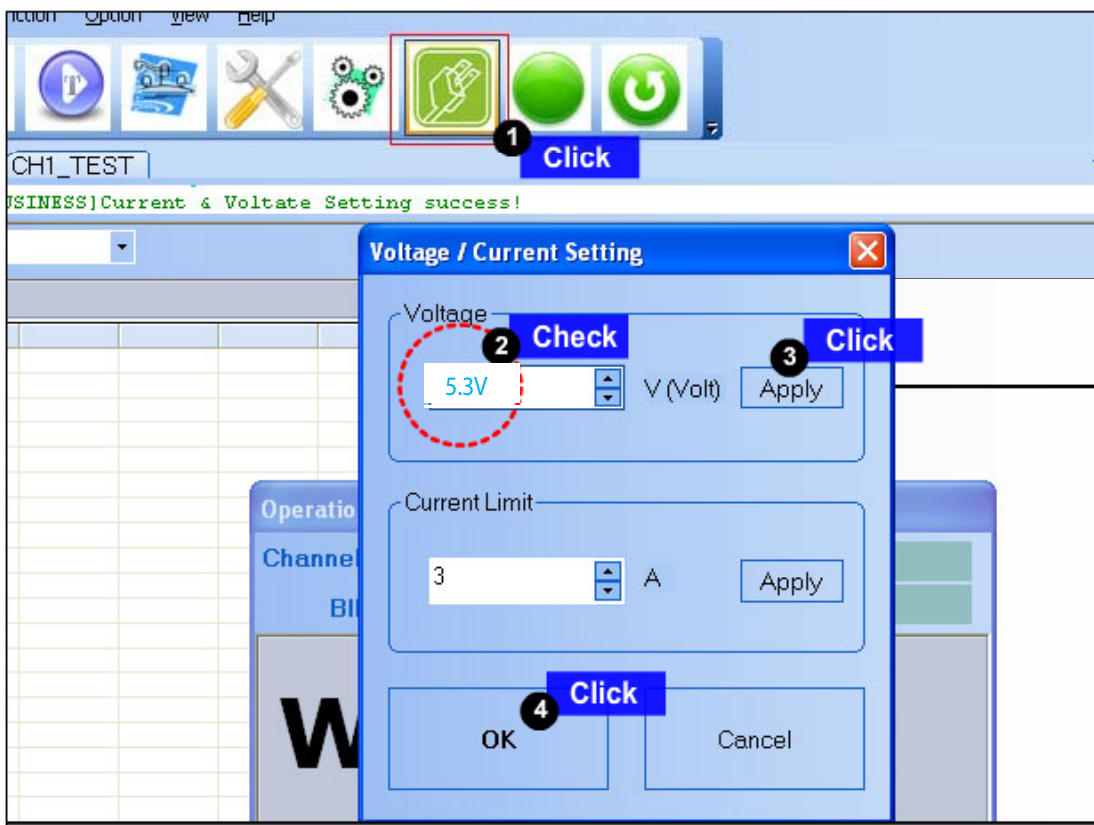
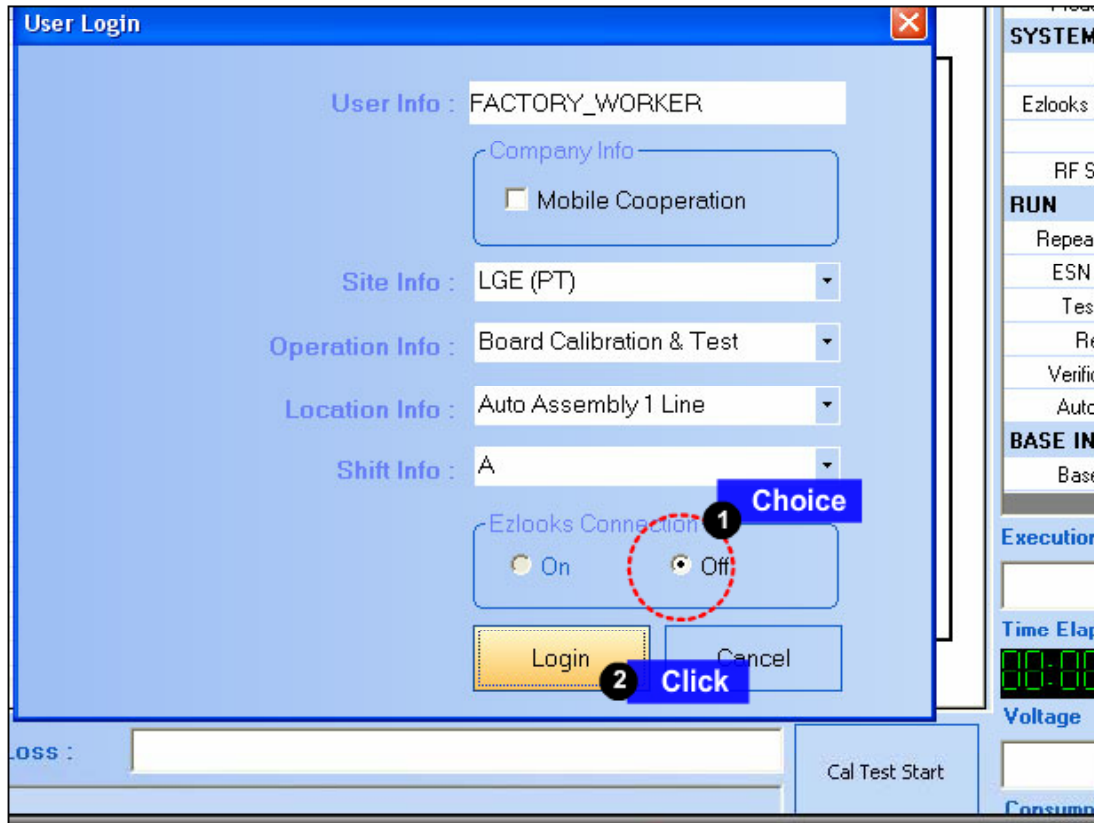


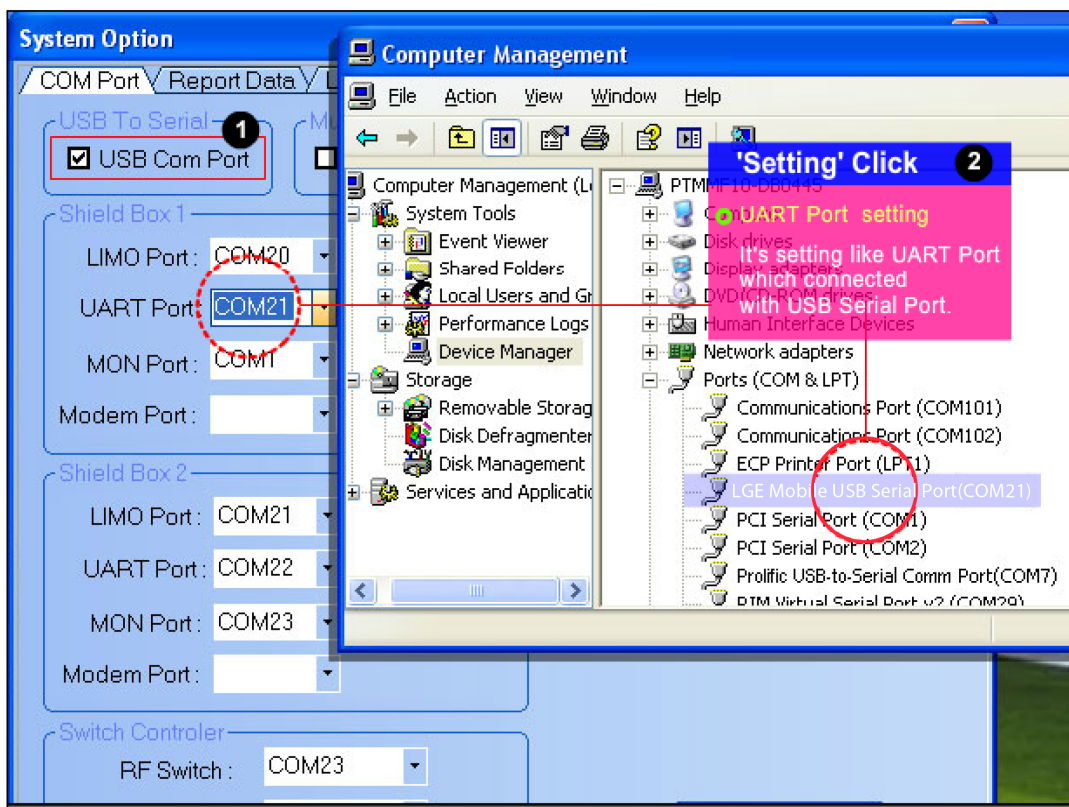
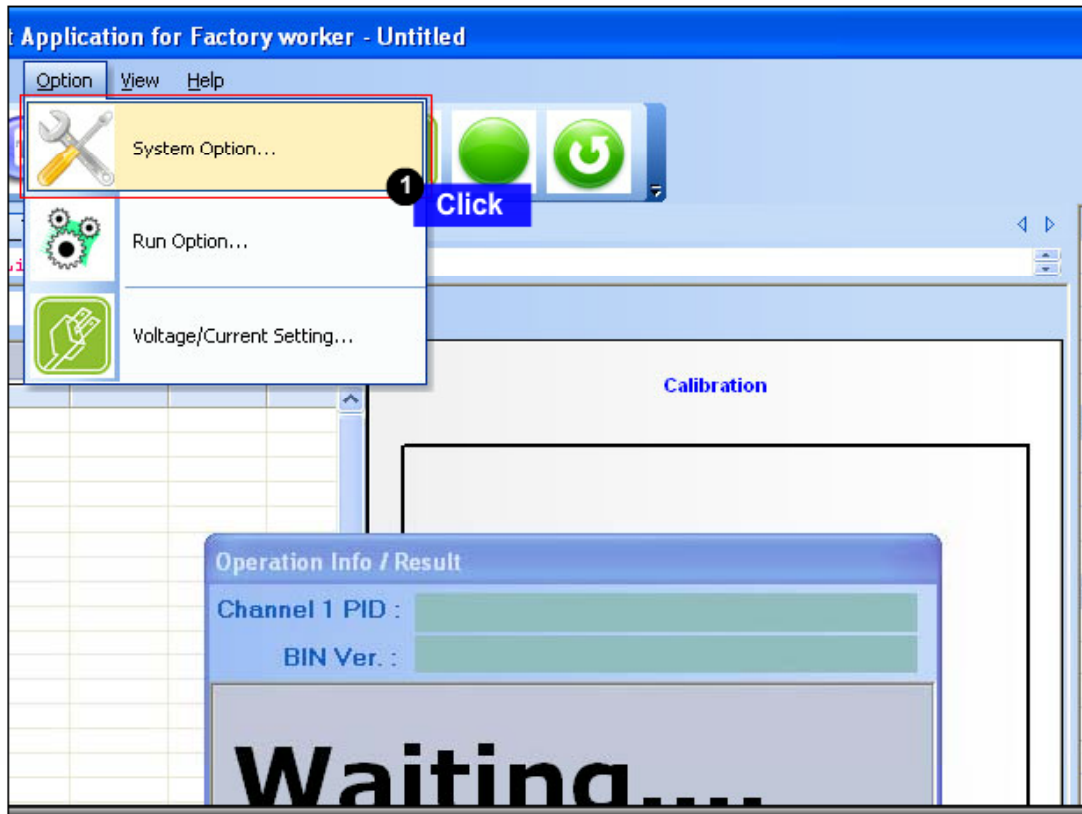


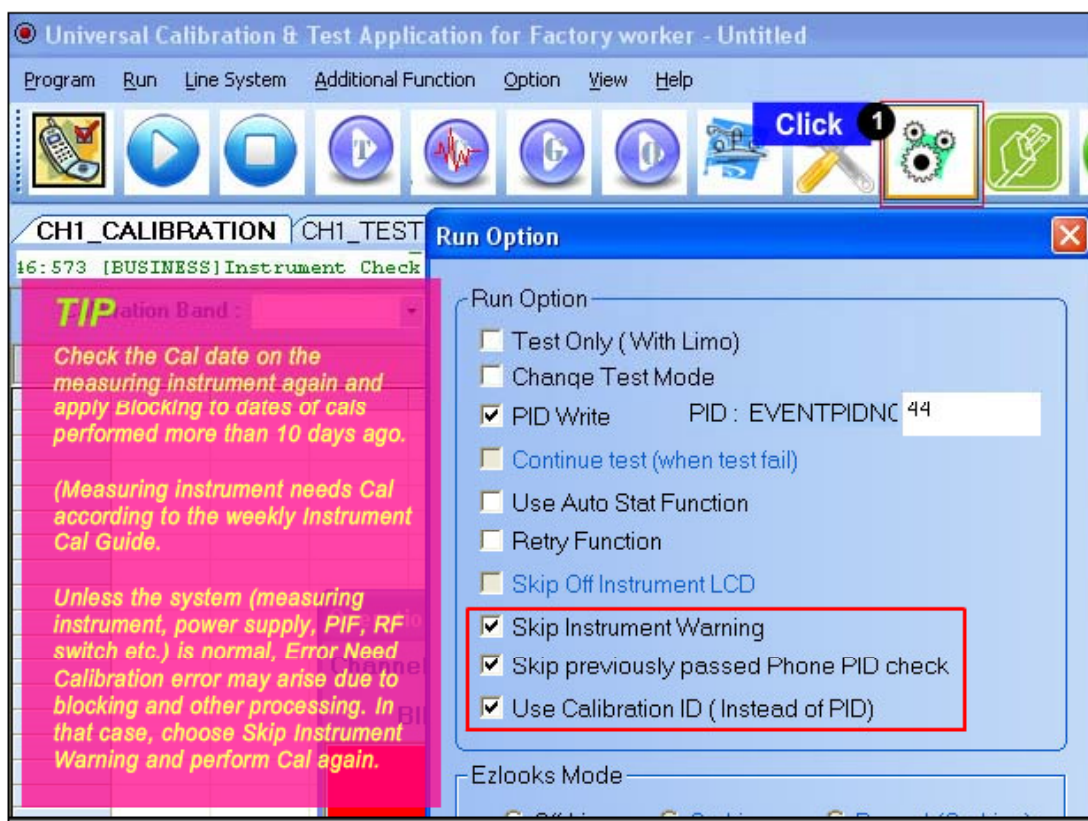
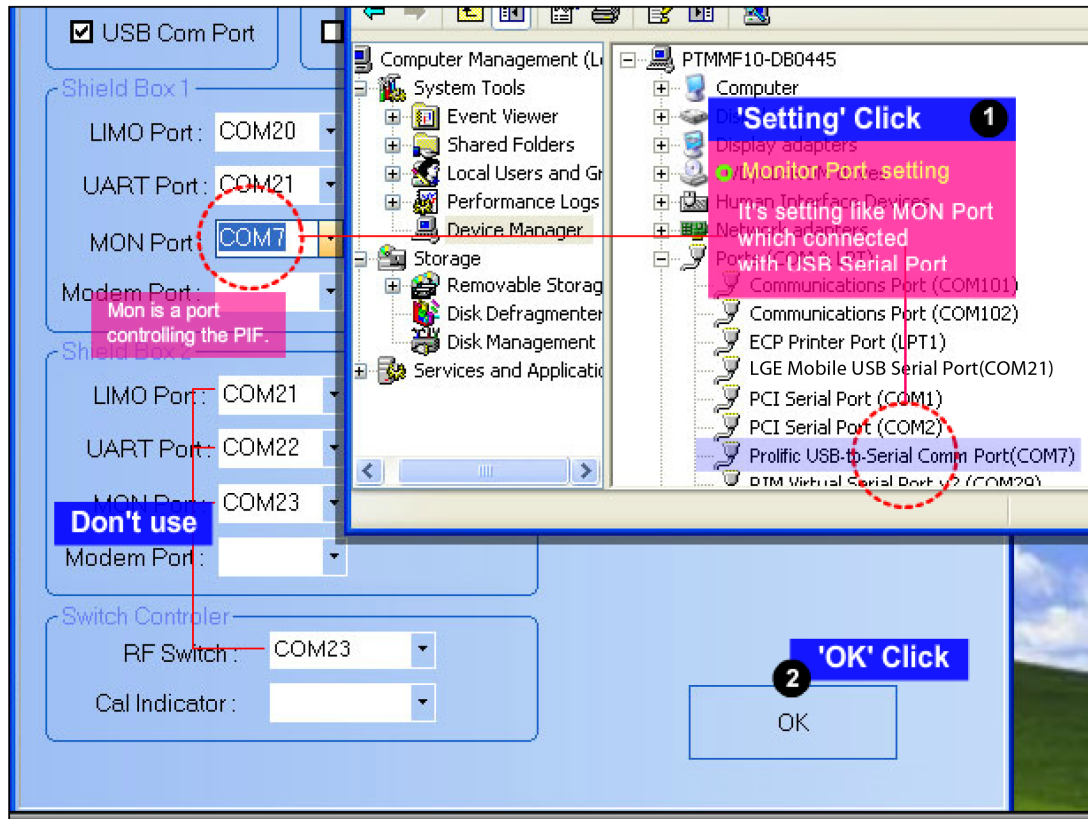
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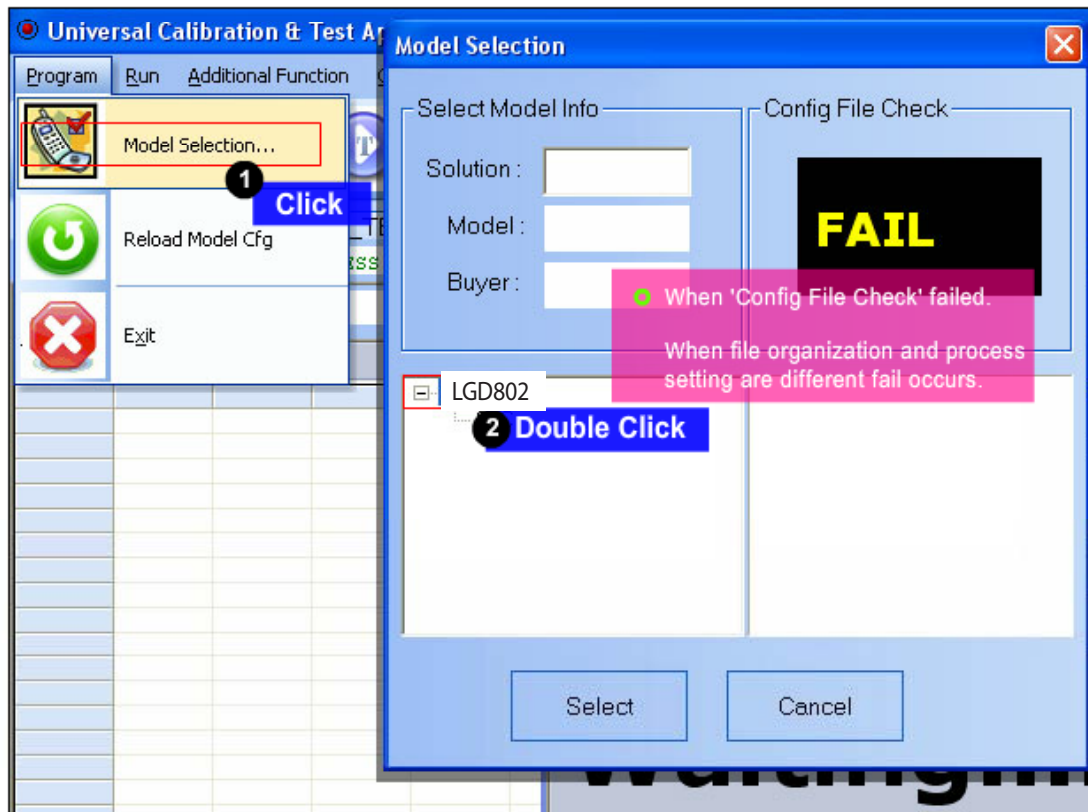
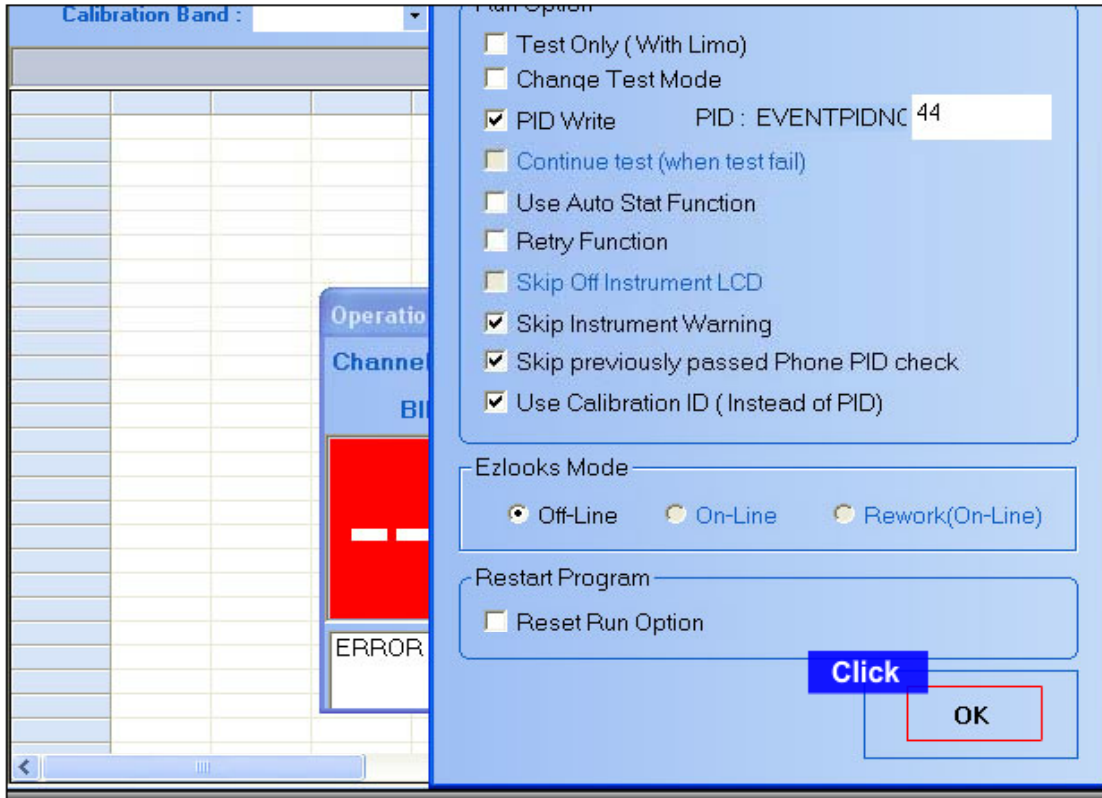
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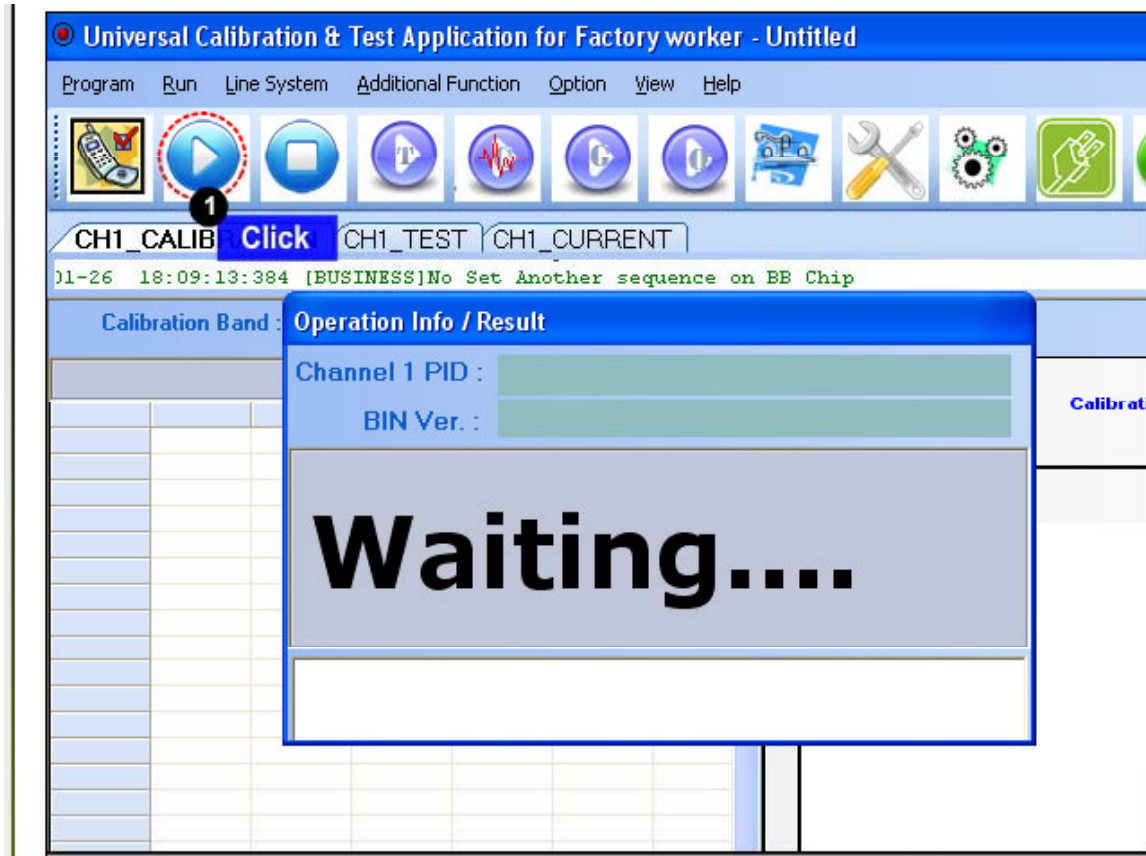
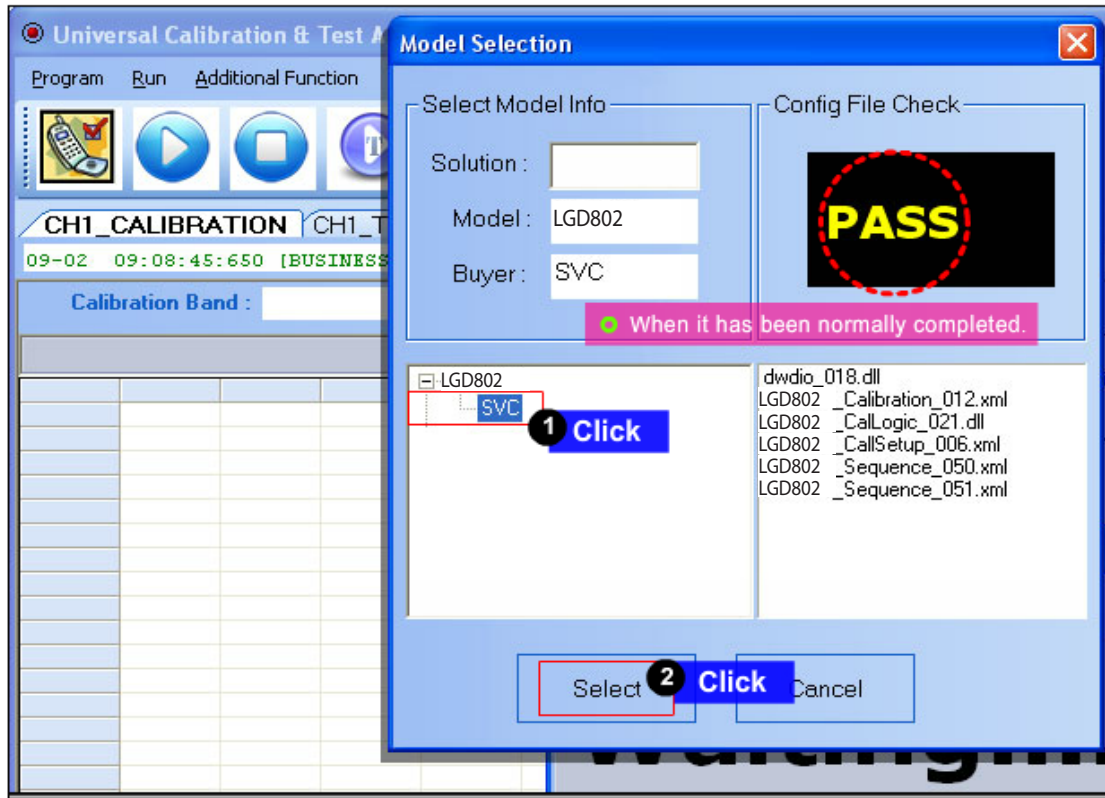


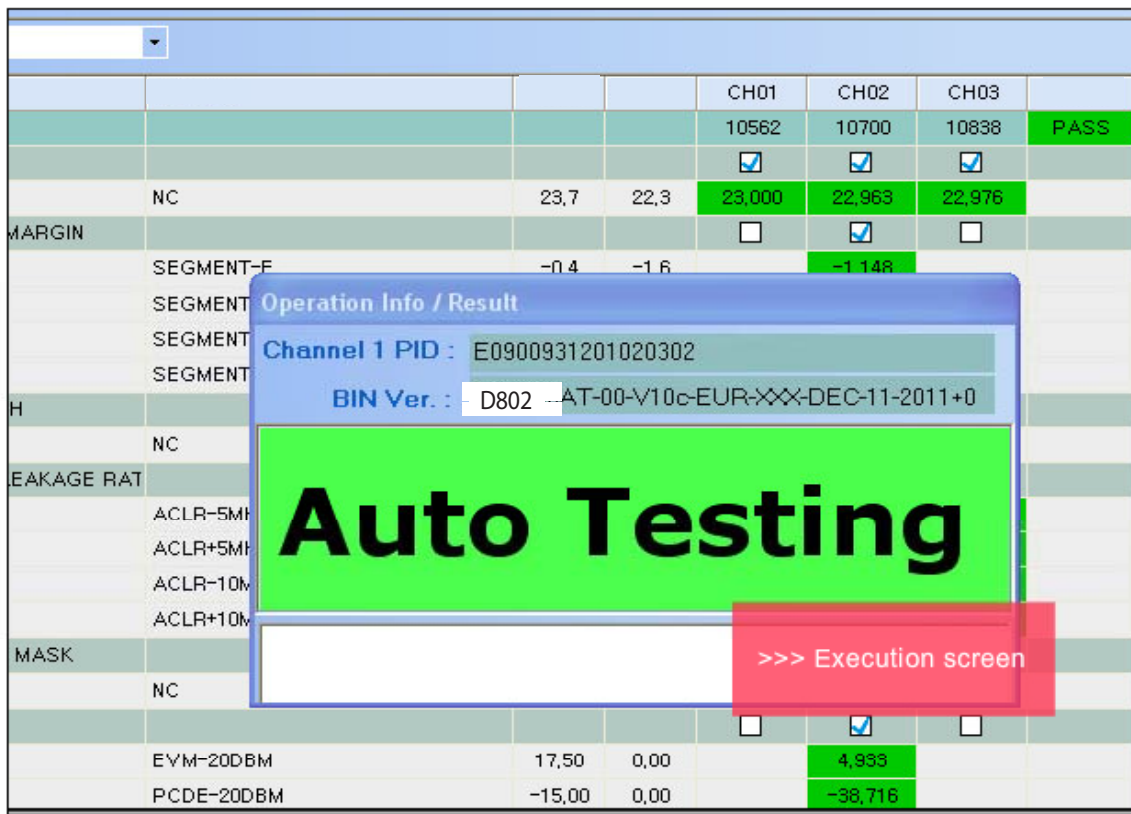
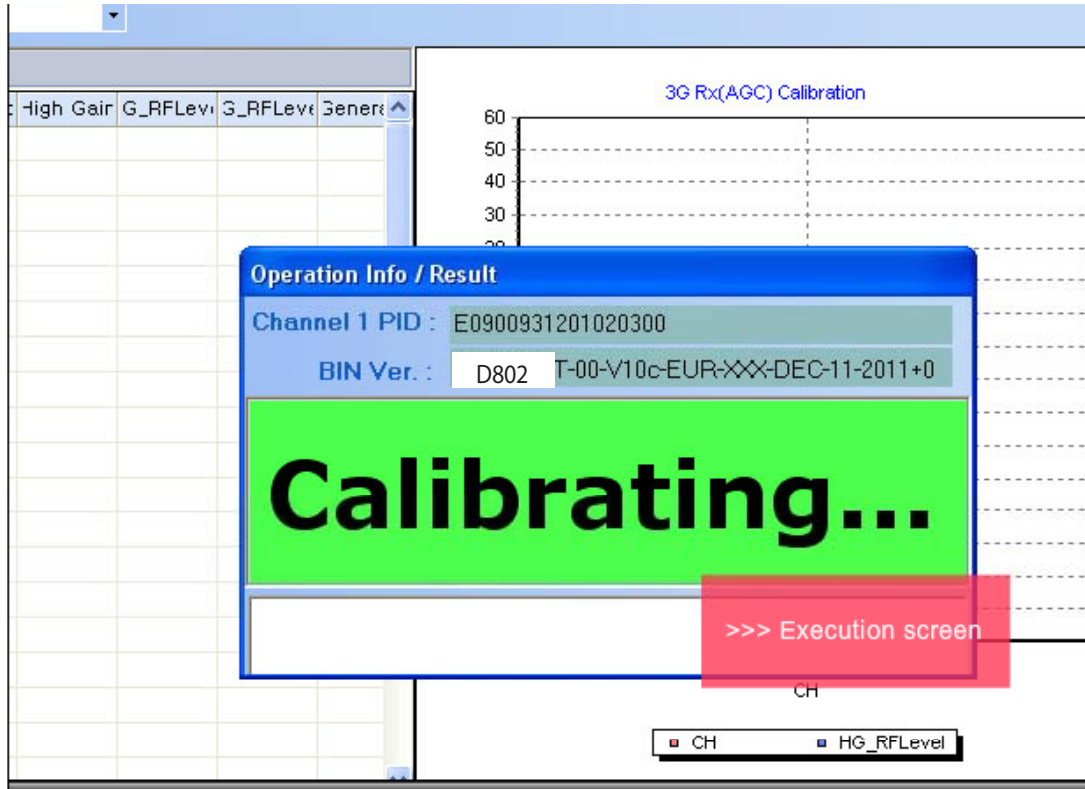


9. CALIBRATION



9. CALIBRATION

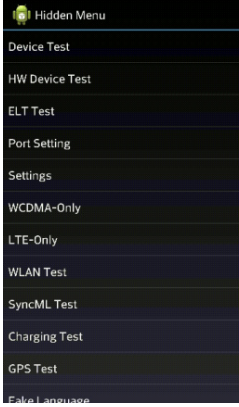
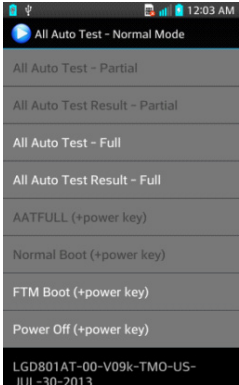



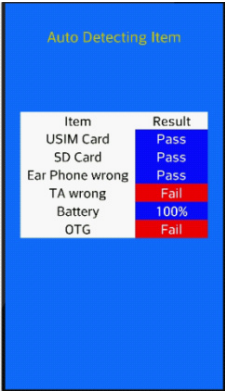
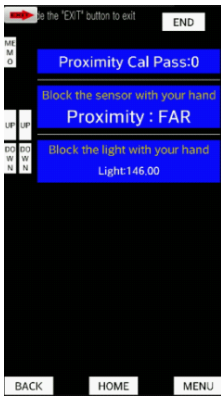
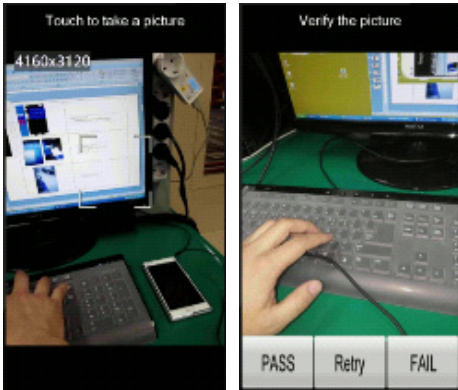


9. CALIBRATION

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			10562	10700	10838	PASS
			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
NC	23,7	22,3	23,065	22,983	23,013	
MARGIN			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
SEGMENT	<div style="border: 1px solid blue; padding: 5px;"> <p>Operation Info / Result</p> <p>Channel 1 PID : F09000931201020299</p> <p>BIN Ver. : D802 AT-00-V10c-EUR-XXX-DEC-11-2011+0</p> <div style="background-color: blue; color: white; text-align: center; padding: 10px; font-size: 2em; font-weight: bold;"> --- PASS --- </div> </div>					
NC						
LEAKAGE RAT						
ACLR-5M						
ACLR+5M						
ACLR-10M						
ACLR+10M						
IN MASK						
NC	0,5	-0,5				
						'PASS' The End
EVM-20DBM	17,50	0,00		4,720		
PCDE-20DBM	-15,00	0,00		-38,441		
System Loss :			MySystem(MS).gms · RF900 6C.grf			

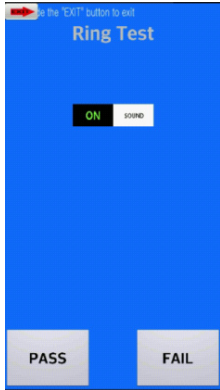

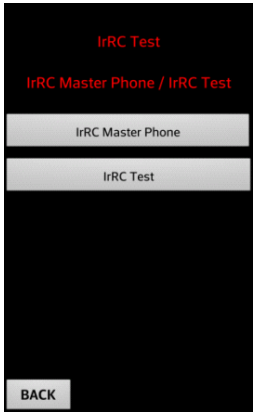
10. HIDDEN MENU

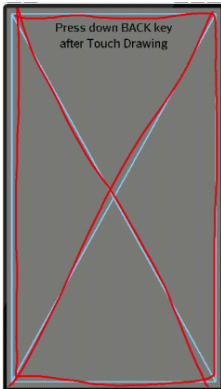
	<p>Hidden Menu Start Start shortcut keys:3845#*802#</p> <p>Hidden Menu List Start the desired menu: Menu, click</p>
	<p>Device Test</p> <p>List:</p> <ul style="list-style-type: none"> All Auto Test – Partial : AATSET needed All Auto Test Result – Partial : AATSET needed All Auto all Test: Device functionality testing at the factory to use Normal Boot(+power key) FTM Boot(+power Key)
	<p>Device Test List</p> <p>All Auto Test - Full:</p> <ul style="list-style-type: none"> -> All Auto Test - Full menu click -> Continuous information on the menu, giving you ability test

 <table border="1"> <thead> <tr> <th>Item</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>USIM Card</td> <td>Pass</td> </tr> <tr> <td>SD Card</td> <td>Pass</td> </tr> <tr> <td>Ear Phone wrong</td> <td>Pass</td> </tr> <tr> <td>TA wrong</td> <td>Fail</td> </tr> <tr> <td>Battery</td> <td>100%</td> </tr> <tr> <td>OTG</td> <td>Fail</td> </tr> </tbody> </table>	Item	Result	USIM Card	Pass	SD Card	Pass	Ear Phone wrong	Pass	TA wrong	Fail	Battery	100%	OTG	Fail	<p>USIM, SD Card, Ear Pone wrong, TA, Battery , OTG Test</p>
Item	Result														
USIM Card	Pass														
SD Card	Pass														
Ear Phone wrong	Pass														
TA wrong	Fail														
Battery	100%														
OTG	Fail														
	<p>Key Press Test - Check Key Press, Proximity sensor</p>														
	<p>Camera(Main)Test - Main Camera Test Preview and Result</p>														

10. HIDDEN MENU

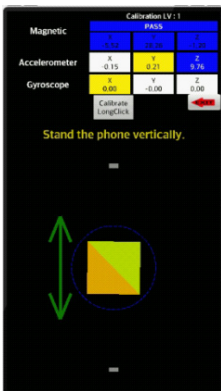
	Camcorder Test
	Camera(VT) Test
	LED/Display Check Test Check Front-Bottom 3 LED (Left/Right menu & Home Button) - Touch 'Pass' -> Check Change the White color

 <p>A screenshot of a mobile application screen titled "Ring Test". The background is blue. At the top, there is a small red arrow icon and the text "Click the 'EXIT' button to exit". Below this, the title "Ring Test" is displayed. In the center, there is a toggle switch labeled "ON" and "RING". At the bottom, there are two buttons: "PASS" on the left and "FAIL" on the right.</p>	<p>Ring test</p>
 <p>A screenshot of a mobile application screen titled "Vibrator Test". The background is red. At the top, there is a small red arrow icon and the text "Click the 'EXIT' button to exit". Below this, the title "Vibrator Test" is displayed. In the center, there is a toggle switch labeled "ON" and "VIBRATION". At the bottom, there are two buttons: "PASS" on the left and "FAIL" on the right.</p>	<p>Vibrator test</p>
 <p>A screenshot of a mobile application screen titled "IrRC Test". The background is black. At the top, the text "IrRC Test" is displayed in red. Below it, "IrRC Master Phone / IrRC Test" is displayed in red. There are two horizontal bars: the top one is grey and labeled "IrRC Master Phone", and the bottom one is grey and labeled "IrRC Test". At the bottom left, there is a button labeled "BACK".</p>	<p>IrRC Master Phone IrRC Test</p>



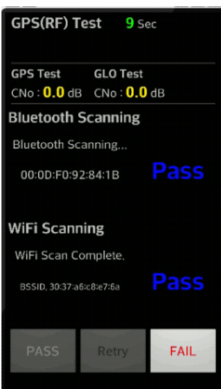
Touch window test

- Write with finger

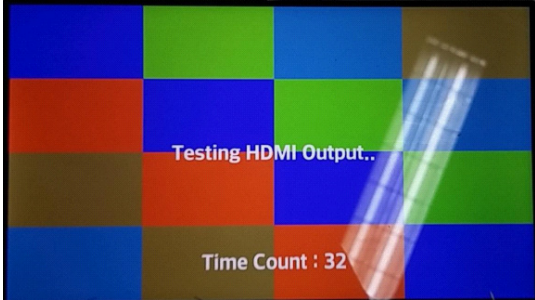
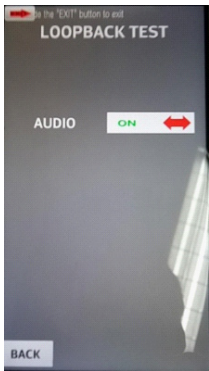


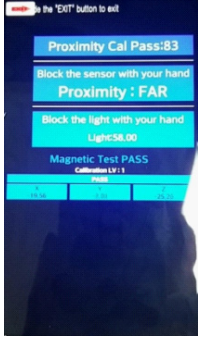
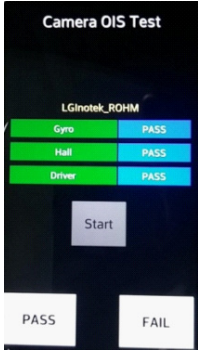
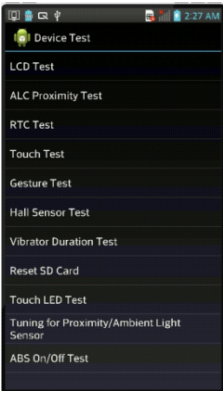
Motion Sensor Test

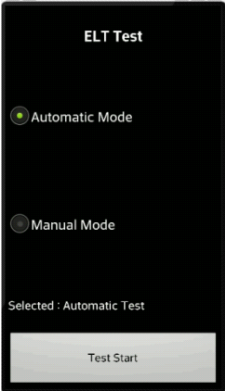
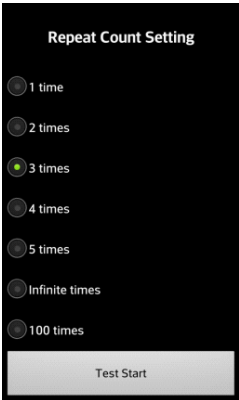
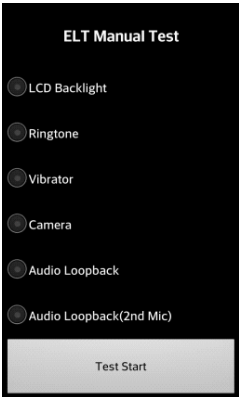
- Check Magnetic, Accelerometer, Gyroscope Sensor

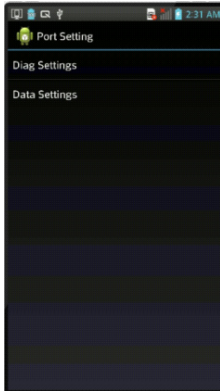


GPS BT WIFI Test

	<p>HDMI Test : Using HDMI output</p>
	<p>NFC Test</p>
	<p>Loopback Test : Audio</p>

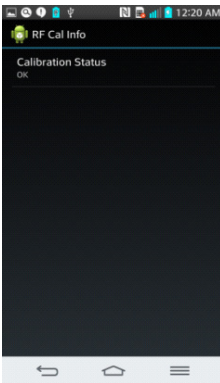
	<p>Sensor Test</p>
	<p>Camera OIS Test</p>
	<p>HW Device Test</p> <ul style="list-style-type: none"> - LCD Test - Manual Test, Automatic Test, Mura, LCD Inversion Test - ALC Proximity Test - RTC Test - Touch Test - Touch LED Test - Gesture Test - Hall Sensor Test - Reset SD Card - Touch LED Test - Tuning for Proximity/Ambient Light Sensor - Vibrator Duration Test - ABS On/Off Test

 <p>The screenshot shows a black screen titled "ELT Test". There are two radio button options: "Automatic Mode" (which is selected with a green dot) and "Manual Mode". Below the options, it says "Selected : Automatic Test". At the bottom, there is a grey button labeled "Test Start".</p>	<p>ELT Test Automatic Mode -> Test Automatically Manual Mode : Test selectivity</p>
 <p>The screenshot shows a black screen titled "Repeat Count Setting". There are seven radio button options: "1 time", "2 times", "3 times" (selected with a green dot), "4 times", "5 times", "Infinite times", and "100 times". At the bottom, there is a grey button labeled "Test Start".</p>	<p>ELT Test Automatic Mode : LCD Automatic on/off test -> time setting</p>
 <p>The screenshot shows a black screen titled "ELT Manual Test". There are six radio button options: "LCD Backlight" (selected with a green dot), "Ringtone", "Vibrator", "Camera", "Audio Loopback", and "Audio Loopback(2nd Mic)". At the bottom, there is a grey button labeled "Test Start".</p>	<p>ELT Manual Test LCD Backlight Ringtone Vibrator Camera Audio Loopback Audio Loopback(2nd Mic) -> test on the device is working (The ability to use plant)</p>



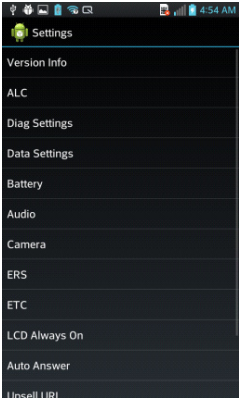
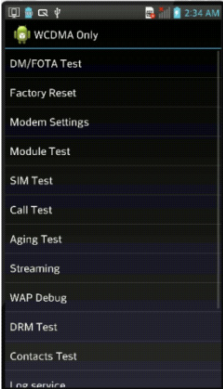
Port Setting

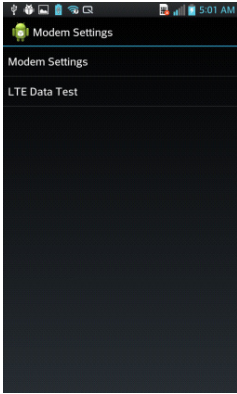
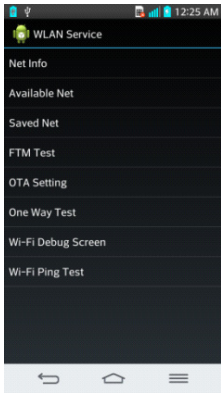
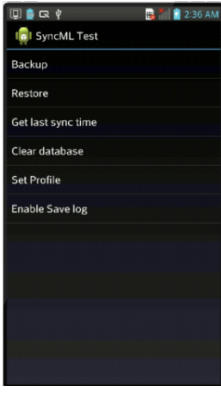
- Diag Settings
 - USB Set for Diag
 - UART Set for Diag
 - NULL port
- Data Settings
 - USB Set for Data
 - BT Set for Data
 - UART Set for Data
 - NULL port

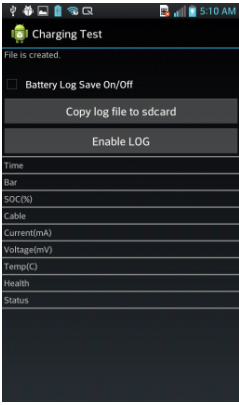
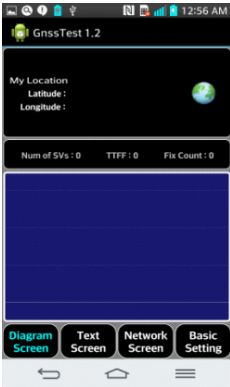
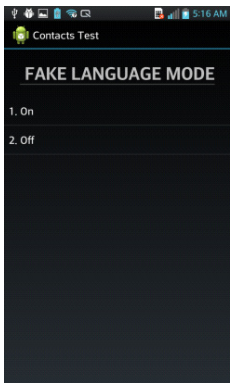


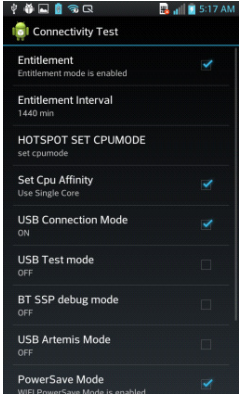
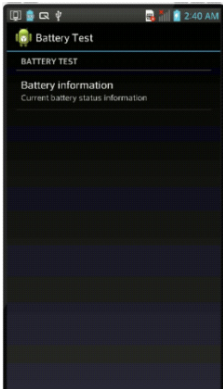
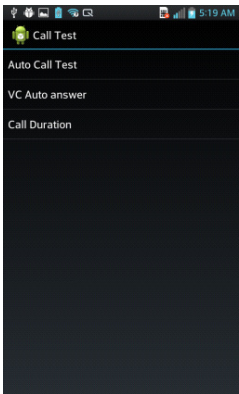
RF Cal Info

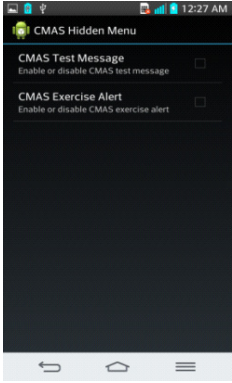
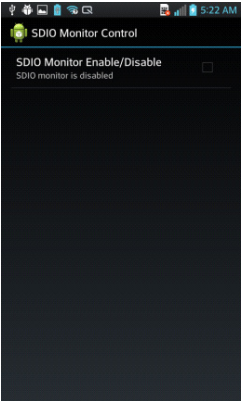
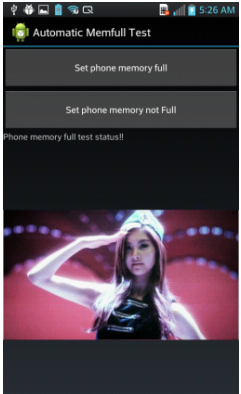
- Check Calibraton Status

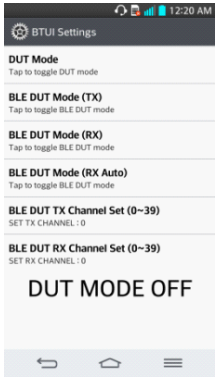
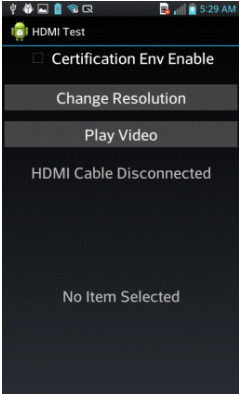
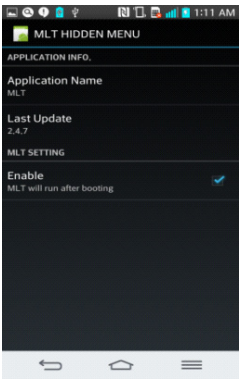
	<p>Settings</p> <p>Version Info</p> <ul style="list-style-type: none"> - ALC - Diag Settings - Data Settings - Battery - Audio - Camera - ERS - ETC - LCD Always On - Auto Answer - Upsell URL - ATS Start Property on - Update Touch Firmware <p>APN Delete</p> <p>FastDormancy</p>
	<p>WCDMA Only</p> <p>DM/FOTA Test</p> <ul style="list-style-type: none"> - Factory Reset <p>Format SD Card, Factory reset</p> <ul style="list-style-type: none"> - Modem Settings - Module Test - SIM Test - Call Test - Aging Test <p>SMS_AgingTest</p> <ul style="list-style-type: none"> - Steaming - WAP Debug - DRM Test - Contacts Test - Log service - Fake Language - Mms Test - Flex test

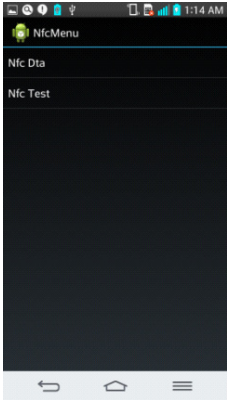
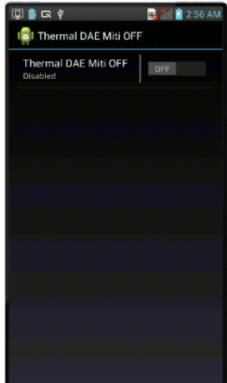
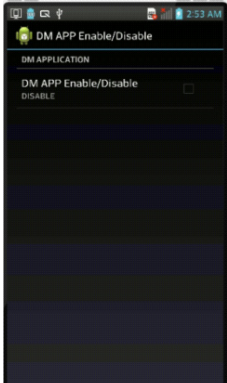
 <p>The screenshot shows the 'Modem Settings' application interface. The title bar reads 'Modem Settings'. Below the title bar, there are two menu items: 'Modem Settings' and 'LTE Data Test'. The background is dark with white text.</p>	<p>LTE Only</p> <ul style="list-style-type: none"> • Modem Settings <ul style="list-style-type: none"> - RAT Selection - LTE Band Selection - VoLTE Radio NV On/off - Null integrity On/Off • LTE Data Test <ul style="list-style-type: none"> - Port Forwarding Test On/Off - Auto Tethering Test On/Off - Tethering Mode - Rmnet AutoConnect Mode
 <p>The screenshot shows the 'WLAN Service' application interface. The title bar reads 'WLAN Service'. Below the title bar, there are several menu items: 'Net Info', 'Available Net', 'Saved Net', 'FTM Test', 'OTA Setting', 'One Way Test', 'Wi-Fi Debug Screen', and 'Wi-Fi Ping Test'. The background is dark with white text.</p>	<p>WLAN Test</p> <ul style="list-style-type: none"> - WLAN performance on SW
 <p>The screenshot shows the 'SyncML Test' application interface. The title bar reads 'SyncML Test'. Below the title bar, there are several menu items: 'Backup', 'Restore', 'Get last sync time', 'Clear database', 'Set Profile', and 'Enable Save log'. The background is dark with white text.</p>	<p>SyncML Test</p> <ul style="list-style-type: none"> - Backup - Restore - Get last sync time - Clear database - Set Profile - Enable Save log

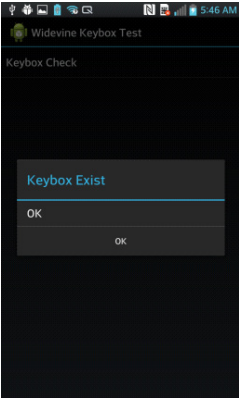
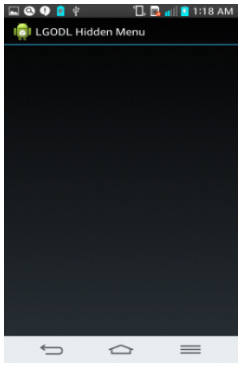
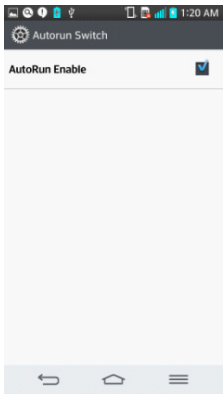
 <p>The screenshot shows the 'Charging Test' app interface. At the top, it says 'Charging Test' and 'File is created.'. Below that is a checkbox for 'Battery Log Save On/Off'. There are three buttons: 'Copy log file to sdcard', 'Enable LOG', and 'Time'. A list of battery-related metrics follows: Bar, SOCB%, Cable, Current(mA), Voltage(mV), Temp(C), Health, and Status.</p>	<p>Charging Test - You can Battery Log Save On/Off</p>
 <p>The screenshot shows the 'GnssTest 1.2' app interface. It displays 'My Location' with fields for 'Latitude:' and 'Longitude:'. Below that, it shows 'Num of SVs : 0', 'TTFF : 0', and 'Fix Count : 0'. At the bottom, there are four buttons: 'Diagram Screen', 'Text Screen', 'Network Screen', and 'Basic Setting'.</p>	<p>GNSS Test - GPS Test</p>
 <p>The screenshot shows the 'Contacts Test' app interface. It displays 'FAKE LANGUAGE MODE' at the top. Below that, there are two options: '1. On' and '2. Off'.</p>	<p>Fake Language</p>

 <p>The screenshot shows the 'Connectivity Test' menu with the following items: Entitlement (Entitlement mode is enabled), Entitlement Interval (1440 min), HOTSPOT SET CPUMODE (set cpumode), Set Cpu Affinity (Use Single Core), USB Connection Mode (ON), USB Test mode (OFF), BT SSP debug mode (OFF), USB Artemis Mode (OFF), and PowerSave Mode (PowerSave Mode is enabled).</p>	<p>Connectivity Test</p>
 <p>The screenshot shows the 'Battery Test' menu with the following item: Battery information (Current battery status information).</p>	<p>Battery Test</p>
 <p>The screenshot shows the 'Call Test' menu with the following items: Auto Call Test, VC Auto answer, and Call Duration.</p>	<p>Call Test</p> <ul style="list-style-type: none">-Auto Call Test-VC Auto Answer-Call Duration

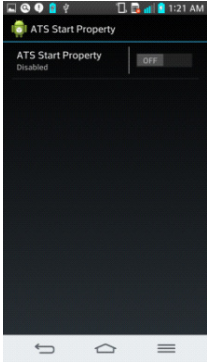
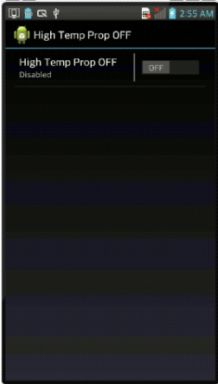
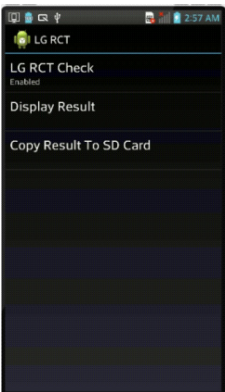
 A screenshot of an Android phone's hidden menu. The title is "CMAS Hidden Menu". It contains two items: "CMAS Test Message" with the subtext "Enable or disable CMAS test message" and a checkbox, and "CMAS Exercise Alert" with the subtext "Enable or disable CMAS exercise alert" and a checkbox. The time at the top is 12:27 AM.	<p>SDIO Monitor Control</p> <p>- SDIO Monitor Enable/Disable</p>
 A screenshot of an Android phone's hidden menu. The title is "SDIO Monitor Control". It contains one item: "SDIO Monitor Enable/Disable" with the subtext "SDIO monitor is disabled" and a checkbox. The time at the top is 5:22 AM.	<p>Prx Drx On Off</p> <p>- Prx Drx On Off->LTE + WCDMA</p>
 A screenshot of an Android phone's hidden menu. The title is "Automatic Memfull Test". It contains three items: "Set phone memory full", "Set phone memory not Full", and "Phone memory full test status!". Below the text is a photo of a woman with long blonde hair. The time at the top is 5:26 AM.	<p>SMS Test</p> <p>- SMS Test -> GCF Memory full SMMA Test</p>

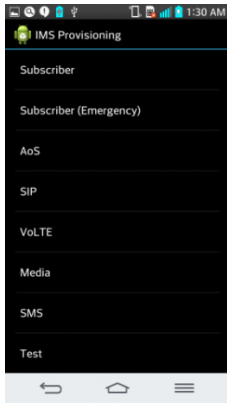
	<p>BT Test</p> <p>- DUT Mode.....On/Off Test</p>
	<p>HDMI Test</p> <ul style="list-style-type: none"> • Change Resolution • Play Video
	<p>MLT Test</p> <ul style="list-style-type: none"> - Application Name - Last Update - Enable

	<p>NFC Test - NFC test menu</p>
	<p>Thermal Daemon Mitigation OFF</p>
	<p>DM APP Enable/Disable</p>

 <p>The screenshot shows a mobile application titled "Widevine Keybox Test". Below the title, it says "Keybox Check". A dialog box is displayed with the text "Keybox Exist" and two "OK" buttons.</p>	<p>WVDRM Keybox</p>
 <p>The screenshot shows a mobile application titled "LGODL Hidden Menu". The screen is mostly black with some faint text at the top.</p>	<p>LGODL On/OFF</p>
 <p>The screenshot shows a mobile application titled "Autorun Switch". It features a toggle switch labeled "AutoRun Enable" which is currently turned on.</p>	<p>Autorun Test</p>

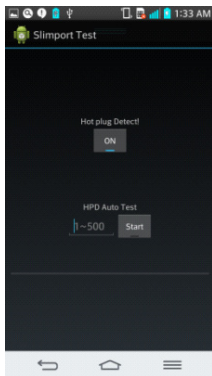
10. HIDDEN MENU

	<p>ATS Start Property On/OFF</p>
	<p>High Temperature Property OFF</p>
	<p>LG RCT</p>

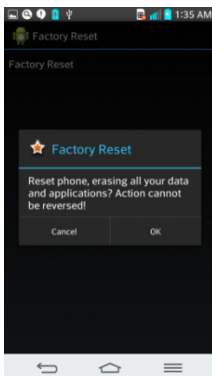


IMS

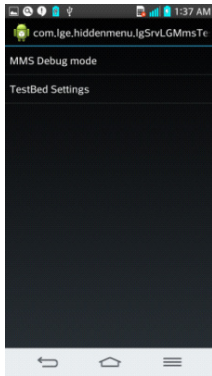
- Subscriber
- Subscriber (Emergency)
- AoS
- SIP
- VoLTE
- Media
- SMS
- Test



Slimport Test

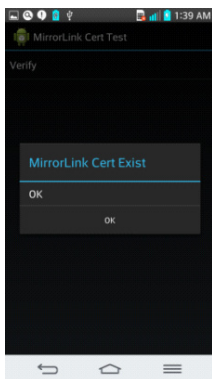


Factory Reset

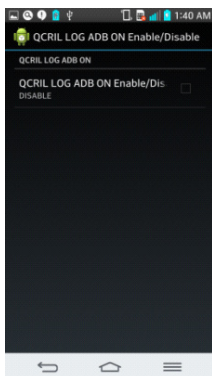


MMS – LG

- MMS Debug mode
- MMS Debug mode ON
- MMS Debug mode OFF
- TestBed Setting => not used

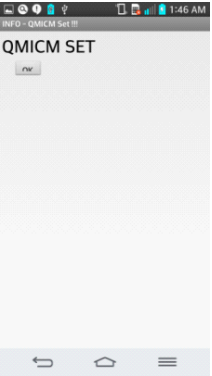
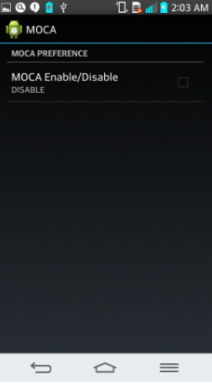
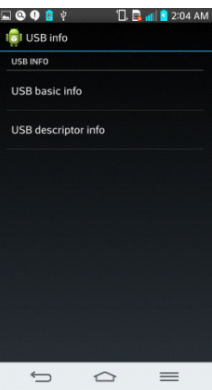


MirrorLink Test



QRIL LOG ADB ON

10. HIDDEN MENU

	<p>QMICMSet</p>
	<p>MOCA</p>
	<p>USB info</p>

11. DISASSEMBLE GUIDE

1. Disassemble Battery Cover	
<p>1</p>  <p>Push Sim opener hole of Cover battery with Sim opener.</p>	<p>2</p> 
<p>* Unhook direction</p>  <p>Start Point</p>	<ol style="list-style-type: none"> 1. Remove the sim tray using sim opener. 2. Unhook in the side of Cover battery using a wide spatula.

2. Disassemble Rear Cover

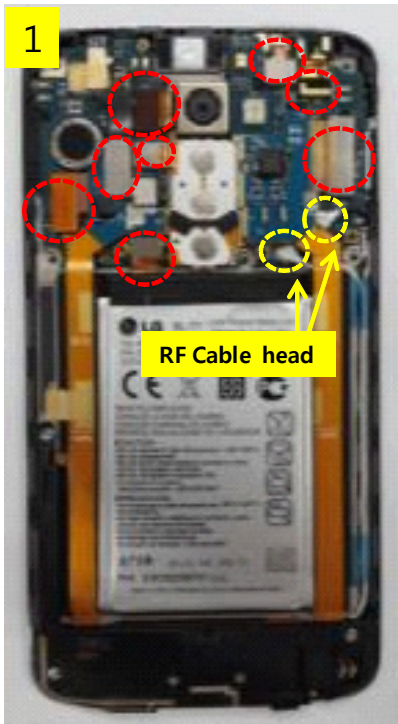


1) Disassemble the Rear, SPK module Screws.
(Screw Point : 12Point)



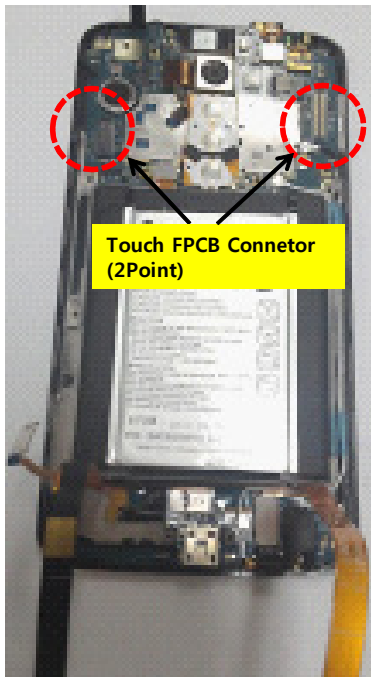
2) Unhook Rear cover along below direction.

3. Disassemble main PCB



Disassemble main PCB
Disconnect FPCB Connectors & RF cable heads and pull in main PCB.

4. Disassemble Touch FPCB

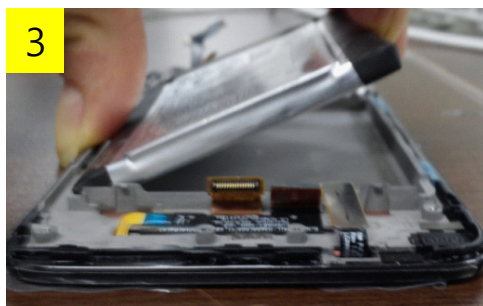


- 1) Disconnect Touch FPCB Connectors and disassemble Touch FPCB.
- 2) After remove SPK module, disconnect RF cable heads & connectors and lift up Touch FPCB completely.

5. Disassemble Battery Cell



*Using a wide Spatula,
Lift up the right side of Battery cell firstly.



*Disassemble the Battery cell.

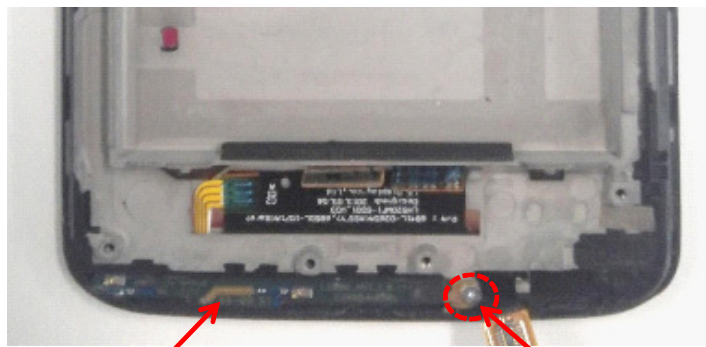
1) After remove Touch FPCB, lift up the right side of the battery cell using a spatula and disassemble a battery cell.

6. Disassemble the other components



Disassemble the other components.

Disassemble the components from the disassembled Set. (Receiver, Main Camera, FT Camera, Motor, IR sensor & Bracket, sosa antenna and Rubber.



Sosa Antenna

Sosa screw (1Point)

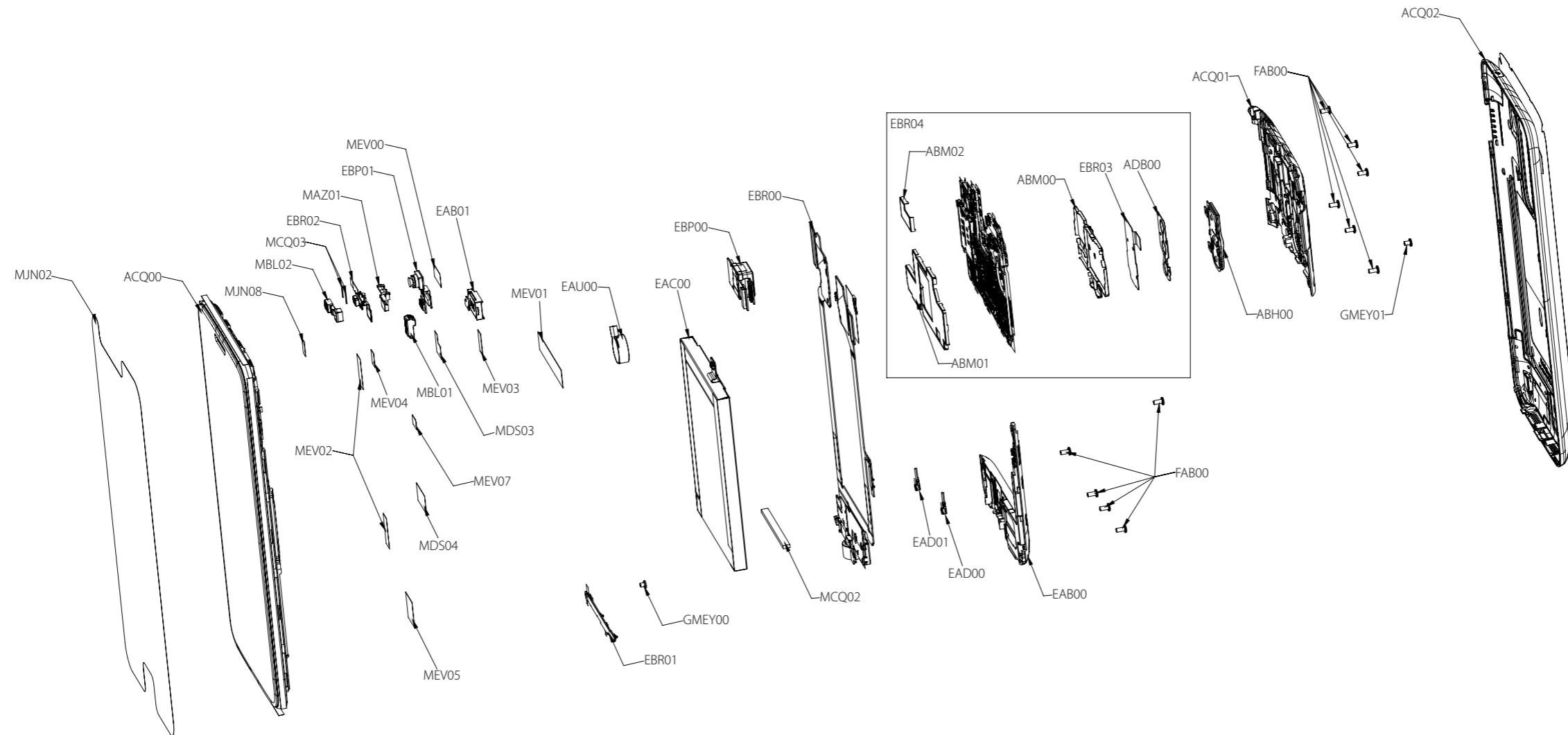
*Disassemble sosa screw (1 Point) and remove sosa antenna.

7. Complete disassembling LG-D802



12. EXPLODED VIEW & REPLACEMENT PART LIST

12.1 EXPLODED VIEW(SBOM)



Location	Description	Location	Description	Location	Description
EAC00	Rechargeable Battery,Lithium Polymer	MBL01	Cap	EBR00	PCB Assembly,Flexible
MEV03	Insulator	MBL02	Cap	ACQ02	Cover Assembly,Battery
EBR02	PCB Assembly,Flexible	MCQ02	Damper	ACQ01	Cover Assembly,Rear
EBR01	PCB Assembly,Sub	MCQ03	Damper	ABH00	Button Assembly
EBP01	Camera Module	MDS03	Gasket	FAB00	Screw,Machine
EAU00	Motor,DC	MDS04	Gasket	GMEY01	Screw,Machine
EAD00	Cable,Assembly	MEV02	Insulator	EBR04	PCB Assembly,Main
EAD01	Cable,Assembly	MEV01	Insulator	ABM02	Can Assembly,Shield
EBP00	Camera Module	MEV00	Insulator	EBR03	PCB Assembly,Flexible
EAB00	Speaker Module	MEV05	Insulator	ADB00	Dome Assembly,Metal
EAB01	Receiver	MEV04	Insulator	ABM00	Can Assembly,Shield
FAB00	Screw,Machine	MEV07	Insulator	ABM01	Can Assembly,Shield
GMEY00	Screw,Machine	MJN02	Tape,Protect	ACQ00	SVC Front Cover Assy
MAZ01	Bracket	MJN08	Tape		

12. EXPLODED VIEW & REPLACEMENT PART LIST

12.2 Replacement Parts <Mechanic component>

Note: This Chapter is used for reference, Part order is ordered by SBOM standard on GCSC

Level	LocationNo.	Description	PartNumber	Spec	Remark
1	AGQ000000	Phone Assembly	AGQ87359807	LGD802.AHKGBK BK:BLACK BLACK -	
2	ACQ100400	Cover Assembly,EMS	ACQ86867807	LGD802.AHKGBK BK:BLACK BLACK -	
3	ACQ003400	Cover Assembly,Bar	ACQ86749305	LGD802.AHKGBK BK:BLACK BLACK -	
4	MEV03	Insulator	MEV64577501	COMPLEX LGD800.AATTBK BK:Black Insulator, Connector	
6	MJN000000	Tape	MJN68535401	COMPLEX LGD800.AATTBK BK:Black -	
7	ANT100 ANT101	Clip	MBV62521801	COMPLEX LGF320L.ALGTBK ZZ:Without Color -	
6	MCQ000000	Damper	MCQ67294401	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_PAD_SOSA ANTENNA	
6	MJN000000	Tape	MJN68517501	COMPLEX LGD800.AATTBK ZZ:Without Color - TAPE,SOSA ANTENNA	
4	MJN061101	Tape,Protect	MJN68636701	COMPLEX LGD800P.AATTBK BK:Black Tape RF head	
4	MEV000007	Insulator	MEV64579601	COMPLEX LGD800.AATTBK ZZ:Without Color Insulator Touch FPCB Right	
4	AJX043300	Window Assembly,LCD	AJX73704901	LGD802.ADEUBK BK:Black D802 A1 G1F Hybrid Module (BLACK)	
4	ACQ032700	Cover Assembly,Front	ACQ86671705	LGD802.AHKGBK BK:BLACK BLACK -	
5	MCQ000004	Damper	MCQ67489601	COMPLEX LGD802.AVD2BK ZZ:Without Color -	
5	MCQ000003	Damper	MCQ67489701	COMPLEX LGD802.AVD2BK ZZ:Without Color -	
5	ACQ033200	Cover Assembly Front(Sub)	ACQ86604001	LGD802.AVD2BK BJ:Blue Jean -	
6	MCK032700	Cover,Front	MCK67748401	MOLD LUPOY LGD802.AVD2BK BK:Black -	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	MDQ000000	Frame	MDQ63519401	CASTING MG LGD802.AVD2BK BL:Blue -	
6	MET099500	INSERT,NUT	MICE0016908	MECH_COMMON ZY,ZZ,PRESS, STS, , , , ,	
5	MBK070300	Can,Shield	MBK63554101	PRESS SUS 301 0.1T LGD800.AATTBK ZZ:Without Color -D800_Can Shield Finger	
5	MCQ000001	Damper	MCQ67297801	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_DAMPER_RECEIVER	
5	MCR000000	Decor	MCR65130301	COMPLEX LGF320L.ALGTBK DG:Dark Gray (Receiver)	
5	MDJ000000	Filter	MDJ63786001	COMPLEX LGD802.AVD2BK BK:Black -	
5	MDS000000	Gasket	MDS64243601	COMPLEX LGD800.AATTBK BK:Black -	
5	MGJ000000	Plate	MGJ63683301	PRESS SPCC 0.2 LGF320L.ALGTBK ZZ:Without Color (SPCC)	
5	MHK000000	Sheet	MHK64033101	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_SHEET_DIFFUSER	
5	MHK000001	Sheet	MHK64075101	COMPLEX LGD802.AVD2BK BK:Black -	
5	MJN020800	Tape,Decor	MJN68481201	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_TAPE_DECO_RECEIVER	
5	MJN000000	Tape	MJN68481301	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_TAPE_MOTOR	
5	MJN000004	Tape	MJN68481401	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_TAPE_CAMERA_MAIN	
5	MJN000003	Tape	MJN68481501	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_TAPE_LCD_FPCB1	
5	MJN000002	Tape	MJN68481601	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_TAPE_SPCC	
5	MJN000006	Tape	MJN68555301	COMPLEX LGD800.AATTBK BK:Black Tape Receiver FPCB	
5	MJN000001	Tape	MJN68555401	COMPLEX LGD800.AATTBK BK:Black -	
5	MJN061101	Tape,Protect	MJN68555501	COMPLEX LGD800.AATTBK BK:Black Tape Protection NCVM BTM	
5	MJN061100	Tape,Protect	MJN68555601	COMPLEX LGD800.AATTBK BK:Black Tape Protection NCVM R	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
5	MJN000005	Tape	MJN68556001	COMPLEX LGD800.AATTBK BK:Black Tape Sensor Bracket	
5	MEZ000900	Label,After Service	MLAB0006701	COMPLEX GS505 TMO ZZ:Without Color COMPLEX, (empty), , , ,	
5	MCQ000002	Damper	MCQ67470101	COMPLEX LGD802.AVD2BK ZZ:Without Color -	
5	MJN000007	Tape	MJN68535201	COMPLEX LGD800.AATTBK BK:Black Tape Battery	
5	MCQ043301	Damper	MCQ67426201	COMPLEX LGD800.AATTBK BK:Black Pad LCD BOT	
4	FAB00	Screw,Machine	FAB32038801	PH + 1.4M 3.2M SWCH18A SILVER N -	
4	GMEY00	Screw,Machine	GMEY0019201	GMEY0019201 FH + 1.4mM 1.8mM SWCH FZW N N KUMGANG SCREW CO., LTD	
4	MAZ01	Bracket	MAZ63848901	MOLD PC LGD800.AATTBK BK:BLACK BLACK -	
4	MBL01	Cap	MBL65540301	MOLD SILICON RUBBER LGF320L.ALGTBK DG:Dark Gray -	
4	MBL02	Cap	MBL65540401	MOLD SILICON RUBBER LGF320L.ALGTBK BK:BLACK BLACK (Sensor)	
4	MCQ02	Damper	MCQ67359401	COMPLEX LGD800.AATTBK BK:Black Pad, Battery	
4	MCQ03	Damper	MCQ67510701	COMPLEX LGD800.AATTBK BK:Black Pad, Camera VT Front	
4	MDS03	Gasket	MDS64219201	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_Gasket_Touch FPCB	
4	MDS04	Gasket	MDS64410601	COMPLEX LGD800.AATTBK BK:Black Gasket, Touch FPCB Front	
4	MEV02	Insulator	MEV64417901	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_INSULATOR_CABLE	
4	MEV01	Insulator	MEV64418001	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_INSULAOTR_TOUCH_CONN	
4	MEV00	Insulator	MEV64465501	COMPLEX LGD800.AATTBK BK:Black Insulator, VT	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
4	MEV05	Insulator	MEV64551101	COMPLEX LGD800.AATTBK BK:Black Insulator, LCD FPCB BTM	
4	MEV04	Insulator	MEV64593701	COMPLEX LGD800.AATTBK BK:Black Insulator, touch	
4	MEV07	Insulator	MEV64613301	COMPLEX LGD800.AATTBK BK:Black Insulator, Battery Conn	
4	MJN009400	Tape,Camera	MJN68477001	COMPLEX LGD800.AATTBK ZZ:Without Color - D800 TAPE CAMERA VT	
4	MJN02	Tape,Protect	MJN68481801	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_TAPE_PROTECTION_WINODW	
4	MJN089301	Tape,Window	MJN68525201	COMPLEX LGD802.AVD2BK BK:Black -	
4	MJN08	Tape	MJN68536801	COMPLEX LGD800.AATTBK ZZ:Without Color - D800 TAPE,MIC	
4	MJN089300	Tape,Window	MJN68606901	COMPLEX LGD802.AVD2BK BK:Black -	
4	MJN000002	Tape	MJN68671201	COMPLEX LGD800.AATTBK BK:Black Tape Cap Sensor	
4	MJN107400	Tape,USP Film	MJN68694801	COMPLEX LGD802.AVD2BK BK:Black -	
4	MEZ000000	Label	MLAZ0038301	COMPLEX LG-VX6000 ZZ:Without Color PID Label 4 Array PRINTING,	
6	MDS000000	Gasket	MDS64216801	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_Gasket, FPCB (Top, Right)	
6	MJN000001	Tape	MJN68477601	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_TAPE_TOUCH_FPCB_BOTTOM	
6	MAZ000000	Bracket	MAZ63831101	MOLD PC LGD800.AATTBK ZZ:Without Color - 5M_D800 Bracket mic	
6	MEV000001	Insulator	MEV64578201	COMPLEX LGD800.AATTBK BK:Black Insulator touch FPCB mic	
6	MBL000000	Cap	MBL65541301	COMPLEX LGD800.AATTBK ZZ:Without Color - CAP_BOTTOM_MIC	
6	MCQ000000	Damper	MCQ67354801	COMPLEX LGD800.AATTBK ZZ:Without Color - D800 PAD MIC BOTTOM	
6	MDS000001	Gasket	MDS64217001	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_Gasket_Touch_FPCB_IO	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	MDS000002	Gasket	MDS64243501	COMPLEX LGD800.AATTBK BK:Black -	
6	MDS000003	Gasket	MDS64411401	COMPLEX LGD800.AATTBK BK:Black D800 Gasket Touch IC	
6	MEV000000	Insulator	MEV64613601	COMPLEX LGD800.AATTBK BK:BLACK BLACK D800_insulator_nfc_ic	
6	MJN000000	Tape	MJN68477501	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_TAPE_TOUCH_FPCB_CLIP	
6	MJN000002	Tape	MJN68477701	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_TAPE_TOUCH_FPCB_SPK	
6	MJN000003	Tape	MJN68477801	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_TAPE_TOUCH_FPCB_LCD	
7	ANT100 ANT101	Clip	MBV62521801	COMPLEX LGF320L.ALGTBK ZZ:Without Color -	
7	ANT205 ANT206	Clip	MBV62562101	PRESS CU 0.1 LGD800.AATTBK ZZ:Without Color -	
7	ANT100 ANT101	Clip	MBV62641601	PRESS CU 0.1 LGD800.AATTBK BK:Black D800 1.7T c-clip	
3	ACQ02	Cover Assembly,Battery	ACQ86750907	LGD802.AHKGBK BK:BLACK BLACK -	
4	MJN000000	Tape	MJN68556201	COMPLEX LGD800.AATTBK BK:Black -	
4	MJN000001	Tape	MJN68482401	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_TAPE_BRACKET_ANTENNA	
4	MJN061101	Tape,Protect	MJN68482301	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_Tape_Protection_IO	
4	MHK000000	Sheet	MHK64093201	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_GRAPHITE_SHEET_NFC	
4	MHK000001	Sheet	MHK64074001	COMPLEX LGF320L.ALGTBK ZZ:Without Color -	
4	MDJ000000	Filter	MDJ63647101	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_FILTER TOP1	
4	MCK004100	Cover,Battery	MCK67755807	MOLD LUPOY LGD802.AHKGBK BK:Black -	
4	MAZ000000	Bracket	MAZ63837801	MOLD PC LGD800.AATTBK SV:Silver -	
4	MJN061102	Tape,Protect	MJN68671801	COMPLEX LGD802.AVD2BK BK:Black -	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
4	MJN107400	Tape,USP Film	MJN68699701	COMPLEX LGD802.AVD2BK WT:WHITE TITAN -	
4	MKC041800	Window,IRDA	MKC64580501	MOLD PC LGD800.AATTBK ZZ:Without Color - D800 IR_WINODW	
3	ACQ01	Cover Assembly,Rear	ACQ86814005	LGD802.AHKGBK BK:BLACK BLACK -	
4	ACQ105800	Cover Assembly Rear(SVC)	ACQ86862101	LGD801BK.ATMOBK BK:Black -	
5	MEV000000	Insulator	MEV64613501	COMPLEX LGD800.AATTBK BK:Black Insulator Bracket FPCB	
5	MBL000000	Cap	MBL65599401	COMPLEX LGD800.AATTBK ZZ:Without Color - D800 CAP_BACK_MIC	
5	MEZ000900	Label,After Service	MLAB0001102	COMPLEX C2000 CGRSV WA:White C2000 USASV DIA 4.0 PRINTING,	
5	MKC009400	Window,Camera	MKC64619001	MOLD GLASS LGF320L.ALGTBK BK:BLACK BLACK -	
5	MJN000000	Tape	MJN68556101	COMPLEX LGD800.AATTBK BK:Black -	
5	MJN061100	Tape,Protect	MJN68482101	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_Tape Protection_Window Camera	
5	MJN009400	Tape,Camera	MJN68481901	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_TAPE_WINODW_CAMERA	
5	MFB029600	Lens,Flash	MFB63113301	COMPLEX LGF320L.ALGTBK ZZ:Without Color -	
5	MCQ000001	Damper	MCQ67391701	COMPLEX LGD800.AATTBK BK:Black -	
5	ABH00	Button Assembly	ABH74701101	LGD800.AATTBK ZZ:Without Color -	
6	MBG000000	Button	MBG64805301	PRESS AL 1MM LGF320L.ALGTBK BK:BLACK BLACK -	
6	MBG000001	Button	MBG64864801	PRESS STS 0.3mm LGF320L.ALGTBK SU:SILVER BLUE -	
6	MEX046800	Keypad,Main	MEX62228401	COMPLEX LGD800.AATTBK ZZ:Without Color - D800 KEY RUBBER	
6	MJN061100	Tape,Protect	MJN68482201	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_Tape Protection_IF Key	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
5	ACQ063400	Cover Assembly Rear(Sub)	ACQ86482201	LGD800.AATTBK BK:BLACK BLACK -	
6	MAZ000001	Bracket	MAZ63867801	PRESS STS304 0.15 LGD800.AATTBK ZZ:Without Color -	
6	MAZ000000	Bracket	MAZ63889501	PRESS STS 304 0.15 LGF320L.ALGTBK ZZ:Without Color -	
6	MCK063300	Cover,Rear	MCK67654901	MOLD PC LGD800.AATTBK BK:BLACK BLACK -	
5	MCQ000002	Damper	MCQ67298001	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_DAMPER_TOUCH_RECEIVER	
5	MCQ009400	Damper,Camera	MCQ67298101	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_CAMERA_MAIN	
5	MCQ000000	Damper	MCQ67525001	COMPLEX LGD800.AATTBK BK:Black -	
5	MCQ049800	Damper,Motor	MCQ67372301	COMPLEX LGD800.AATTBK BK:Black -	
5	MCQ074200	Damper,Speaker	MCQ67372401	COMPLEX LGD800.AATTBK BK:Black -	
3	FAB00	Screw,Machine	FAB32038801	PH + 1.4M 3.2M SWCH18A SILVER N -	
3	GMEY01	Screw,Machine	GMEY0010402	GMEY0010402 BH + 1.4mM 2mM MSWR FZB N - SERVEONE CO., LTD.	
3	MEZ002100	Label,Approval	MEZ64846601	COMPLEX LGP895.AFRABK BK:BLACK BLACK P895 Label, Approval BK	
5	ABM02	Can Assembly,Shield	ABM74017701	LGD800.AATTBK BK:Black -	
6	MDS000000	Gasket	MDS64243001	COMPLEX LGD800.AATTBK BK:Black -	
6	MBK070300	Can,Shield	MBK63514801	PRESS STS 0.15 LGD800.AATTBK BK:Black -	
7	MJN000000	Tape	MJN68559401	COMPLEX LGD800.AATTBK ZZ:Without Color - D800_TAPE_KEY_FPCB	
7	MEV000000	Insulator	MEV64613901	COMPLEX LGD800.AATTBK BK:BLACK BLACK -	
7	ADB00	Dome Assembly,Metal	ADB74078301	LGD800.AATTBK ZZ:Without Color -	
7	ABM00	Can Assembly,Shield	ABM74057401	LGD802.AVD2BK ZZ:Without Color -	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
8	MBK070302	Can,Shield	MBK63516501	PRESS SUS304 0.15T LGD801BK.ATMOZY ZZ:Without Color -D801_can_shield(BTM_WALL1)	
8	MEV000001	Insulator	MEV64591901	COMPLEX LGD800.AATTBK ZZ:Without Color D800_Insulator, Shield (Btm_2)	
8	MEV000000	Insulator	MEV64476801	COMPLEX LGD800.AATTBK ZZ:Without Color - D800 insulator, shield can bottom	
8	MBK070300	Can,Shield	MBK63555001	PRESS SUS 301 0.15 LGD802.AVD2BK SV:SILVER SILVER -	
8	MAZ000000	Bracket	MAZ63867901	PRESS STS304 0.3T LGD800.AATTBK ZZ:Without Color -	
8	MBK070301	Can,Shield	MBK63516001	PRESS SUS 301 0.15 LGD802.AVD2BK SI:SILVER VIOLET -	
5	ABM01	Can Assembly,Shield	ABM74036601	LGD800.AATTBK ZZ:Without Color -D800 Assy, Shield can	
6	MEV000000	Insulator	MEV64458801	COMPLEX LGD800.AATTBK ZZ:Without Color - D800 insulator_shield can top	
6	MDS000000	Gasket	MDS64220901	COMPLEX LGD800.AATTBK BK:Black -	
6	MBK070300	Can,Shield	MBK63553101	PRESS STS 304BA 0.15 LGD800.AATTBK BK:Black CAN SHIELD TOP	
6	MEV000001	Insulator	MEV64591801	COMPLEX LGD800.AATTBK ZZ:Without Color D800_Insulator,Shield(Top2)	
6	MBK070301	Can,Shield	MBK63516301	PRESS SUS 304 0.15T LGD800.AATTBK ZZ:Without Color -D800_can_shield(TOP_WALL)	
5	MEZ000000	Label	MEZ65049701	COMPLEX LGLS720.ASPRTS ZZ:Without Color PID label	
6	SC13020 SC13021 SC13023 SC13024 SC13026 SC13027 SC13028 SC13029 SC13030 SC13032 SC13039	Clip	MBV62321701	PRESS STS 301 0.15 LGLU6200.ALGTBK BK:Black -	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	ANT100 ANT101	Clip	MBV62521801	COMPLEX LGF320L.ALGTBK ZZ:Without Color -	
6	SC13055	Can,Shield	MBK63514401	PRESS SUS 304 0.15T LGD801BK.ATMOZY SV:Silver -	
6	ANT205 ANT206	Clip	MBV62562101	PRESS CU 0.1 LGD800.AATTBK ZZ:Without Color -	
6	CN3002	Insert	MET62757301	CUTTING C3604B LGD800.AATTBK BK:Black -	
6	SC13020 SC13021 SC13023 SC13024 SC13026 SC13027 SC13028 SC13029 SC13030 SC13032 SC13039	Clip	MBV62321701	PRESS STS 301 0.15 LGLU6200.ALGTBK BK:Black -	
6	ANT100 ANT101	Clip	MBV62521801	COMPLEX LGF320L.ALGTBK ZZ:Without Color -	
1	AGF000000	Package Assembly	AGF77046205	LGD802.AHKGWH ZZ:Without Color G2 G2_GBR/LG AL STD_Body_Cap/600ea	
2	MCQ007000	Damper,Box	MCQ67467501	COMPLEX LGD802.ADEUBK ZZ:Without Color G2 Global_Hcase_LGD802_STD_Tray	
2	AGJ000000	Pallet Assembly	AGJ73598302	LGD802.AGBRBK ZZ:Without Color TA L_Body_1200*800_AL_MPCY0012403_AL STD	
3	MAY010800	Box,Carton	MAY66172402	COMPLEX LGD802.AGBRBK ZZ:Without Color TA L_Body_1200*800_AL_MPCY0012403_STD	
3	MBL007000	Cap,Box	MBL65697902	COMPLEX LGD802.AGBRBK ZZ:Without Color G2_Cap_TA L_Body_1200*800_AL_MPCY0012403_AL STD	
3	MGA000000	Pallet	MPCY0012403	COMPLEX KG800 FRABK DB:DARK BLUE -	
2	MAY084000	Box,Unit	MAY66191303	COMPLEX LGD802.ADEUBK ZZ:Without Color G2_GBR_Hcase_Large_UK / HKG / GCC / CZE etc_Upper	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
2	MAY047100	Box,Master	MAY66172002	COMPLEX LGD802.AGBRBK ZZ:Without Color G2 Global_GBR_Hcase_Large_Master Box	
2	MAY084001	Box,Unit	MAY66191304	COMPLEX LGD802.AGBRBK ZZ:Without Color G2_GBR_Hcase_Large_UK / HKG / GCC / CZE etc_Lower	
2	MEZ000000	Label	MLAZ0050901	COMPLEX KU990.AGBRBK ZZ:Without Color Battery Warning Label (Lithium ion Battery Label)	
2	MEZ047200	Label,Master Box	MLAJ0004402	PRINTING CG300 CGR DG ZZ:Without Color LABEL MASTER BOX(for CGR TDR 2VER. mbox_label) GSM standard_master box label	
2	MEZ084101	Label,Unit Box	MEZ64686915	COMPLEX LGP880.AHKGBK ZZ:Without Color UBox Bar_LGP880_HKG For Only	
2	MEZ084100	Label,Unit Box	MEZ65237601	COMPLEX LGD802.ADEUBK ZZ:Without Color G2_STD_USP Label_Open_Small ENG_STD	
1	AAD000000	Addition Assembly	AAD86519507	LGD802.AHKGBK BK:BLACK BLACK -	
3	MBL000000	Cap	MBL65561001	MOLD PC LGD800.AATTBK BK:BLACK BLACK -	
3	MEA000000	Guide	MEA63251301	CASTING MG LGD800.AATTBK BK:BLACK BLACK -	
3	MAF086500	Bag,Vinyl	MAF63267701	COMPLEX L06D.ANTTBK BK:BLACK BLACK -	
3	MBV000000	Clip	MBV62562401	PRESS SUS304 0.58T LGD800.AATTBK ZZ:Without Color A1 SIM OPENER	
3	MJN000000	Tape	MJN68355601	COMPLEX L06D.DNTTBK BK:BLACK BLACK -	
3	MJN000001	Tape	MJN68372301	COMPLEX LGE960.AUSGBK ZZ:Without Color -	
—	ACQ00	SVC Front Cover Assy	ACQ86917701	—	

12. EXPLODED VIEW & REPLACEMENT PART LIST

12.2 Replacement Parts <Main component>

Note: This Chapter is used for reference, Part order is ordered by SBOM standard on GCSC

Level	LocationNo.	Description	PartNumber	Spec	Remark
4	EBR02	PCB Assembly Flexible	EBR77053701	LGD800.AATTBK 1.0 Flexible	
5	EBR070100	PCB Assembly Flexible,Insert	EBR77934201	LGD800.AATTBK 1.0 Flexible	
5	EBR070400	PCB Assembly Flexible,SMT	EBR77053801	LGD800.AATTBK 1.0 Flexible	
6	EBR070200	PCB Assembly Flexible,SMT Bottom	EBR77035101	LGD800.AATTBK 1.0 Flexible	
7	LD101	LED,Chip	EAV62193601	IR26-61C/L261/TR8(LM) CLEAR 1.2~1.5V(I _f =20mA) 65mA 2.0~5.0 940nm(Typ.) 100mW 3012 R/TP 2P - EVERLIGHT ELECTRONICS CO., LTD.	
7	U100	IC,Ambient Light Sensor	EUSY0431901	APDS-9900 - - - - - AVAGO TECHNOLOGIES INTERNATIONAL SALES PTE. LIMITED	
7	LD100	LED,Array	EAV62073601	19-337/R6GHBHC-C06/2T RED/GREEN/BLUE - - - - - 1615 R/TP 6P - EVERLIGHT ELECTRONICS CO., LTD.	
7	C100	Capacitor Ceramic,Chip	EAE62726601	CL03A225MQ3CRNC 2.2uF -20TO20% 6.3V X5R - 55TO+85C 0603 R/TP 0.3T - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	EBR070300	PCB Assembly Flexible,SMT Top	EBR77054101	LGD800.AATTBK 1.0 Flexible	
7	EAX010700	PCB,Flexible	EAX65289501	LGD800.AATTBK E POLYI Stack via 3 0.25 Flexible	
7	CN100	Connector,BtoB	EAG63013801	GB042-14P-H10-E3000 14P 0.40MM STRAIGHT PLUG SMD R/TP 1M - LS Mtron Ltd.	
4	EBR01	PCB Assembly Sub	EBR77035001	LGD800.AATTBK 1.0 Sub	
5	EBR072800	PCB Assembly Sub,SMT	EBR77053401	LGD800.AATTBK 1.0 Sub	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	EBR072600	PCB Assembly Sub,SMT Bottom	EBR77053501	LGD800.AATTBK 1.0 Sub	
7	C100 C102	Capacitor Ceramic,Chip	ECCH0009103	C0603C0G1H101JT00NN 100pF 5% 50V C0G - 55TO+125C 0603 R/TP -- TDK CORPORATION	
6	EBR072700	PCB Assembly Sub,SMT Top	EBR77053601	LGD800.AATTBK 1.0 Sub	
7	EAX010300	PCB,RF	EAX65326001	LGD800.AATTBK G FR-4 Multi 2 0.4 RF	
5	EBR072500	PCB Assembly Sub,Insert	EBR77951101	LGD800.AATTBK 1.0 Sub	
4	EBP01	Camera Module	EBP61841901	C2FA-Y468A C2FA-Y468A 2.4M Sony 1/6.9" FHD, MIPI, 4.85x6.5x3.5t, FPCB 5mm, 180deg. LG INNOTEK CO., LTD	
4	EAU00	Motor,DC	EAU62143101	MVMU-A360FS 2V 90mA 0A 10.5KRPM 0RPM 45mSEC 0GF.CM 0OHM LG Innotek Yantai Co., Ltd	
4	EAD00	Cable,Assembly	EAD62628301	UFL-2LPVHF-04N1TC-A111.5ALG UFL-LP-066 UFL-LP-066 0.06M 1 WHITE N N HIROSE KOREA CO.,LTD	
4	EAD01	Cable,Assembly	EAD62606501	UFL-2LPVHF-04N2TC-A97.5ALG UFL-LP-066 UFL-LP-066 0.06M 1 BLACK N N HIROSE KOREA CO.,LTD	
4	EBP00	Camera Module	EBP61801701	CDUA-Y472A CDUA-Y472A 13M OIS, SONY IMX135, FPC 90deg,10x15.5x5.7t LG INNOTEK CO., LTD	
4	EAB00	Speaker Module	EAB63088301	EM1511DE11 Nd-Fe-B 700mW 80OHM 85DB 1KHZ 59.18*33.0*4.2, 1810 3t SPK+ANT enclosure SPRING EM-TECH	
4	EAB01	Receiver	EAB62970301	EMR1207SYK2 30mW 32OHM 107DB 300HZTO7KHZ FPCB - EM-TECH	
5	EAJ020200	LCD Module	EAJ62454301	LH520WF1-SD09-QG1 FHD 5.15INCH 1920X1080 480CD COLOR 70% 16/9 1000 60Hz Inverter N LED 2D - LG Display Co. Ltd.	
5	EBD030100	Touch Window Assembly	EBD61646201	TSMC-G509A CAPACITIVE TOUCH G1F : Glass Window(0.7t)/Touch Sensor(0.15t) Synaptics S3404 (Package Size 6.0x6.0x0.6) 5.2 inch Board To Board_0.8T, BM10SB-20DP, 34DP, HIROSE Black LG INNOTEK.,LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
4	EBR00	PCB Assembly, Flexible	EBR77492001	LGD802.AVD2BK 1.0 Flexible	
5	EBR070100	PCB Assembly Flexible, Insert	EBR78038401	LGD802.AVD2BK 1.2 Flexible	
6	RAA050100	Resin, PC	BRAH0001301	UF2040 or 3075BHF . . NONE	
5	EBR070400	PCB Assembly Flexible, SMT	EBR77492101	LGD802.AVD2BK 1.0 Flexible	
6	EBR070200	PCB Assembly Flexible SMT Bottom	EBR77492201	LGD802.AVD2BK 1.5 Flexible	
7	C148 C149	Capacitor (High Frequency) Ceramic, Chip	EAE63022801	RMUMK105CG050CV-F_H 5pF 0.25PF 50V COG - 55TO+125C 1005 R/TP 0.5+-0.05 L:1.0+-0.05, W:0.5+-0.05, T:0.5+-0.05 KOREA TAIYO YUDEN.CO., LTD.	
7	SW202 SW203	Connector, RF	ENWY0003901	U.FL-R-SMT(10) 1.90MM STRAIGHT SOCKET SMD T/REEL CU 50OHM 300mDB HIROSE KOREA CO.,LTD	
7	C115 C116	Capacitor Ceramic, Chip	ECCH0000137	C1005X7R1H331KT000F 0.33nF 10% 50V X7R - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
7	C126 C127 C159 C160	Capacitor Ceramic, Chip	ECCH0017601	CL05A475MQ5NRNC 4.7uF 20% 6.3V X5R - 55TO+85C 1005 R/TP 0.5MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	
7	C128	Capacitor Ceramic, Chip	EAE62502901	CL05A106MP5NUNC 10uF 20% 10V X5R - 55TO+85C 1005 R/TP 0.55T max. SAMSUNG ELECTRO-MECHANICS CO., LTD.	
7	U100	IC, NFC	EAN62786901	BCM20793MKML4G 4.0x4.5x0.85, QFN QFN R/TP 34P BROADCOM ASIA DISTRIBUTION PTE LTD	
7	D203 D204 D301 D302 ZD201 ZD202 ZD203 ZD205	Diode, TVS	EAH61693001	uClamp0541Z 5V 6V min 12V 2A 30W SLP0603P2X3 R/TP 2P 1 SEMTECH INTERNATIONAL AG	
7	C209 C215 C216	Capacitor Ceramic, Chip	ECZH0025916	GRM0335C1E330J 33pF 5% 25V NP0 - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
7	CN306	Jack,Phone	EAG63070601	KJA-PH-4-0176 5P 2P ANGLE R/TP 3.5M BLACK 5P - KSD CO., LTD	
7	C122	Capacitor Ceramic,Chip	ECZH0025920	GRM033R71C102K 1nF 10% 16V X7R - 55TO+125C 0603 R/TP - - MURATA MANUFACTURING CO.,LTD.	
7	C125	Capacitor Ceramic,Chip	ECCH0017301	CL03A105MQ3CSNH 0.000001F 20% 6.3V X5R - 45TO+85C 0603 R/TP - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
7	CN303	Connector,BtoB	EAG63260801	BM10NB(0.8)-20DS-0.4V 20P 0.4MM STRAIGHT SOCKET SMD R/TP 800mM - HIROSE KOREA CO.,LTD	
7	C212 D102 D103 D104 D105	Diode,TVS	EAH61995401	RClamp0521Z.TNT 5V 6V min. 25V 4A 100W SLP0603P2X3 R/TP 2P 1 SEMTECH INTERNATIONAL AG	
7	R160 R161	Resistor,Chip	ERHZ0000401	MCR01MZSJ000 0OHM 5% 1/16W 1005 R/TP - ROHM.	
7	C118	Capacitor Ceramic,Chip	EAE62944801	GRM155R60J334K 330nF -10TO+10% 6.3V X5R - 55TO+85C 1005 R/TP 0.5T L:1.0+-0.05 W:0.5+-0.05 T:0.5+-0.05 MURATA MANUFACTURING CO.,LTD.	
7	C117	Capacitor Ceramic,Chip	ECCH0009216	GRM0335C1E220J 22pF 5% 25V X7R - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
7	C300 C301 C304	Capacitor Ceramic,Chip	ECCH0032801	GRM033R60J224M 0.00000022F 20% 6.3V X5R - 55TO+85C 0603 R/TP 0.3MM MURATA MANUFACTURING CO.,LTD.	
7	CN100	Connector,I/O	EAG63412901	GU07K-11P-E2000 11P 0.60MM STRAIGHT RECEPTACLE DIP R/TP USB 3.0/USB 2.0/HDMI/F_Charging LS Mtron Ltd.	
7	R164 R165 R166 R212 R213 R300	PCB ASSY MAIN PAD SHORT	SAFP0000401	LG-LU3000 LGTBK,MAIN,A,	
7	U300	IC,Capacitive Touch Sensor	EAN62769101	S3404 us001034, S3404, 81 BGA , R/TP, 81 Pin, Synaptics 5 X 5 X 0.6 BGA R/TP 81P - SYNAPTICS CO.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
7	C302 C303	Capacitor Ceramic,Chip	EAE62962301	GRM155R61A225KE95 2.2uF -10TO+10% 10V X5R -55TO+85C 1005 R/TP 0.5 L:1.0+-0.05 W:0.5+-0.05 T:0.5+-0.05 MURATA MANUFACTURING CO.,LTD.	
7	C132	Capacitor Ceramic,Chip	ECCH0000115	MCH155A220JK 22pF 5% 50V NP0 -55TO+125C 1005 R/TP - ROHM Semiconductor KOREA CORPORATION	
7	R180 R182 R186	Resistor,Chip	ERHY0009505	MCR006YZPJ103 10KOHM 5% 1/20W 0603 R/TP - ROHM.	
7	C113 C114	Capacitor Ceramic,Chip	ECZH0000841	C1005C0G1H560JT000F 56pF 5% 50V NP0 - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
7	R215 R216	Resistor,Chip	ERHY0024601	RC0603J151CS 150OHM 5% 1/20W 0603 R/TP - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
7	L101 L102	Inductor Wire Wound,Chip	EAP62266701	0603HL-331XJRC 330NH 5% - 330mA - - 0.97OHM 420HZ 13 SHIELD 1.8X1.19X0.94 mm - R/TP COILCRAFT SINGAPORE PTE LTD.	
7	C119 C120 C147 C157 C158	Capacitor Ceramic,Chip	ECCH0009101	C0603X5R0J104KT00NN 0.1uF 10% 6.3V X5R - 55TO+85C 0603 R/TP - TDK CORPORATION	
7	FB200 FB201	Filter,Bead	SFBH0008103	BLM15BD102SN1D 1000 ohm 1.0X0.5X0.5 25% 0.9 ohm 0.2A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	
7	FB202 FB203 FB204	Filter,Bead	SFBH0008102	BLM15HD182SN1D 1800 ohm 1.0X0.5X0.5 25% 2.2 ohm 0.2A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	
7	R217	Resistor,Chip	ERHY0009503	MCR006YZPJ101 100OHM 5% 1/20W 0603 R/TP - ROHM.	
7	U103	IC,I/O Support Chip	EAN62683501	SN65LVPE502A 3~3.6V QFN R/TP 24P TEXAS INSTRUMENTS KOREA LTD, HONGKONG BRANCH.	
7	C200	Capacitor Ceramic,Chip	ECZH0000816	C1005C0G1H120JT000F 12pF 5% 50V NP0 - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
7	L200 L201 L202	Inductor Multilayer,Chip	ELCH0001444	0402AF-101XJEW 100NH 5% - 900mA 0.16OHM 1.4GHZ 8 NON SHIELD NONE 1.12X0.66X0.66MM R/TP COILCRAFT SINGAPORE PTE LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
7	FL102 FL103	Filter,LCR	EAM62451101	ICMEF112P350MFR COMMON MODE NOISE FILTER 0HZ 0F 0H SMD R/TP Common mode Impedance at 100MHz : 35ohm+-30%, DC Resistance Max :3.0ohm INNOCHIPS TECHNOLOGY	
7	C124 C217 C218	Capacitor Ceramic,Chip	EAE62282201	GRM033R71E102KA01D 0.000000001F 10% 25V X7R -55TO+125C 0603 R/TP 0.3+/-0.03 MM - MURATA MANUFACTURING CO.,LTD.	
7	VA200 VA201 VA202 VA203 VA204	Varistor	SEVY0008901	ICVS0318150FR 18V 0% 15pF 0.6*0.3*0.33 NONE SMD R/TP INNOCHIPS TECHNOLOGY	
7	C100 C102	Capacitor Ceramic,Chip	ECCH0009103	C0603C0G1H101JT00NN 100pF 5% 50V C0G - 55TO+125C 0603 R/TP - - TDK CORPORATION	
7	C121	Capacitor Ceramic,Chip	EAE62506501	CL05A475MP5NRNC 4.7uF 20% 10V X5R - 55TO+85C 1005 R/TP - - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
7	C111 C112	Capacitor Ceramic,Chip	ECCH0000129	MCH155A121JK 120pF 5% 50V NP0 -55TO+125C 1005 R/TP - ROHM Semiconductor KOREA CORPORATION	
7	CN307	Connector,BtoB	EAG63393201	BM10NB(0.8)-10DS-0.4V 10P 0.40MM STRAIGHT FEMALE SMD R/TP 800mM - HIROSE KOREA CO.,LTD	
7	VA205	Varistor	EAF61650701	LXES15AAA1-117 15V 25% 0.1pF 1.0X0.5X0.33 mm IEC61000-4-2 (ESD) level #4 SMD R/TP MURATA MANUFACTURING CO.,LTD.	
7	C123 C210 C211 C213	Capacitor Ceramic,Chip	ECCH0009106	C0603X7R1C103KT 10nF 10% 10V X7R - 55TO+125C 0603 R/TP - TDK CORPORATION	
7	ZD206 ZD207 ZD208 ZD210	Diode,TVS	EDTY0012101	PESD5V0F1BL 5.5V 6V min 11V 2.5A - SOD-882 R/TP 2P 1 STC CORP.	
7	CN305	Connector,BtoB	EAG63274101	BM10NB(0.8)-30DS 30P 0.4MM STRAIGHT SOCKET SMD R/TP 800mM - HIROSE KOREA CO.,LTD	
7	MIC200	Microphone Condenser	EAB62950801	SPW4430HR5H -42DB 450OHM OMNI 1.5 TO 3.6V 3.10 * 2.5 * 1.1T SMD KNOWLES ACOUSTICS	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
7	VA101	Varistor	SEVY0010501	IECS0505C040FR 10V 0% 4E-12F 1.0x0.5x0.3 IEC61000-4-1 (ESD) level #4 SMD R/TP INNOCHIPS TECHNOLOGY	
7	R162 R163	Resistor,Chip	ERHY0009526	MCR006YZPJ472 4.7KOHM 5% 1/20W 0603 R/TP - ROHM.	
7	CN302	Connector,BtoB	EAG63374401	BM10NB(0.8)-34DS-0.4V 34P 0.40MM STRAIGHT FEMALE SMD R/TP 800mM - HIROSE KOREA CO.,LTD	
6	EBR070300	PCB Assembly Flexible,SMT Top	EBR77492301	LGD802.AVD2BK 1.0 Flexible	
7	EAX010700	PCB,Flexible	EAX65355101	LGD802.AVD2BK 1.0 POLYI Stack via 6 0.38 Flexible	
7	CN304	Connector,BtoB	ENBY0035901	GB042-40P-H10-E3000 40P 0.4MM STRAIGHT PLUG SMD R/TP 1M - LS Mtron Ltd.	
7	CN200	Connector,BtoB	EAG63410901	BM10SB(0.8)-60DP-0.4V 60P 0.4MM STRAIGHT MALE SMD R/TP 800mM - HIROSE KOREA CO.,LTD	
4	EAA030101	PIFA Antenna,RF	EAA63184601	KI-B081051 MULTI -5DB 5 FPCB Type - LTE Tape KOMATECH CO.,LTD	
4	EAA030102	PIFA Antenna Multiple	EAA63184501	KI-B231050 TRIPLE -5DB 5 FPCB Type - LTE Printed KOMATECH CO.,LTD	
4	EAA030103	PIFA Antenna,RF	EAA63027101	1NFCLG015 SINGLE -5DB 5 FPCB Type - NFC Tape IMTECH	
4	EAA030100	PIFA Antenna GPS	EAA63184701	KI-B071052 TRIPLE -5DB 5 FPCB Type - GPS Tape KOMATECH CO.,LTD	
5	EAA030100	PIFA Antenna WiFi	EAA63026801	KI-B24981 DUAL -5DB 5 FPCB Type - BT Tape KOMATECH CO.,LTD	
3	EBR04	PCB Assembly Main	EBR78092507	LGD802.AHKGBK 1.0 Main	
4	EBR071500	PCB Assembly Main,Insert	EBR78038301	LGD802.AVD2BK 1.1 Main	
5	EBR03	PCB Assembly Flexible	EBR78004302	LGD802.AVD2BK 1.0 Flexible	
6	EBR070100	PCB Assembly Flexible,Insert	EBR78021401	LGD802.AVD2BK 1.0 Flexible	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	EBR070400	PCB Assembly Flexible,SMT	EBR77403001	LGD800.AATTBK 1.0 Flexible	
7	EBR070200	PCB Assembly Flexible SMT Bottom	EBR77403101	LGD800.AATTBK 1.0 Flexible	
8	LD100 LD101	LED,Chip	EDLH0013701	WHITE 2.9~3.2 20mA X(0.264~0.311) Y(0.248~0.315) 110mW 3.8*1.0*0.4t 3810 R/TP 2P -	
8	R100 R101	Resistor,Chip	ERHY0009509	MCR006YZPJ150 15OHM 5% 1/20W 0603 R/TP - ROHM.	
7	EBR070300	PCB Assembly Flexible,SMT Top	EBR77403201	LGD800.AATTBK 1.0 Flexible	
8	EAX010700	PCB,Flexible	EAX65241001	LGD800.AATTBK F POLYI Stack via 2 0.15 Flexible	
8	CN100	Connector,BtoB	EAG63393301	BM10SB(0.8)-10DP-0.4V 10P 0.40MM STRAIGHT MALE SMD R/TP 800mM - HIROSE KOREA CO.,LTD	
5	RAA050100	Resin,PC	BRAH0001301	UF2040 or 3075BHF . . NONE	
4	EBR071800	PCB Assembly Main,SMT	EBR78074307	LGD802.AHKGBK 1.0 Main	
5	SAD010000	Software,Mobile	SAD34012801	Android JellyBean Base D80210B - CHINA QCT -	
5	EBR071700	PCB Assembly Main,SMT Top	EBR77491901	LGD802.AVD2BK 1.3 Main	
6	L1096	Capacitor (High Frequency) Ceramic,Chip	EAE62946001	GRM0335C1E1R8C_H 1.8pF 0.25PF 25V COG - 55TO+125C 0603 R/TP 0.3+-0.03 L:0.6+-0.03 W:0.3+-0.03 T:0.3+-0.03 MURATA MANUFACTURING CO.,LTD.	
6	R1044	Resistor,Chip	ERHY0009501	MCR006YZPJ000 0OHM 5% 1/20W 0603 R/TP - ROHM.	
6	L14004 L14005	Inductor Multilayer,Chip	EAP61767701	LQP03TN3N0B02D 3NH 0.1NH - 450mA - - 0.25OHM 6GHZ 14 SHIELD NONE 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	L11097 L2010	Inductor Multilayer,Chip	EAP62246201	LG HK 0603 10NJ-T 10NH 5% - 220mA - - 0.51OHM 2.9GHZ 5 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	R3077 R3078	Resistor,Chip	EBC62035901	RC0201FR-071RL 10HM 1% 1/20W 0603 R/TP - YAGEO CORPORATION	
6	C1043	Capacitor Ceramic,Chip	ECCH0009212	GRM0335C1E4R7C 4.7pF 0.25PF 25V C0G - 55TO+125C 0603 R/TP -- MURATA MANUFACTURING CO.,LTD.	
6	L11000 L11001	Inductor Multilayer,Chip	ELCH0001425	LL1005-FHL82NJ 82NH 5% - 150mA 1.9OHM 1.15GHZ 10 SHIELD NONE 1.0X0.5X0.5MM R/TP TOKO, INC.	
6	R1042	Resistor,Chip	ERHY0018001	RC0201JR-0720RL 20OHM 5% 1/20W 0603 R/TP - YAGEO CORPORATION	
6	C11171 C1172 L1024 L2068	Capacitor (High Frequency) Ceramic,Chip	EAE62945801	GRM0335C1E1R0C_H 1pF 0.25PF 25V C0G - 55TO+125C 0603 R/TP 0.3+-0.03 L:0.6+-0.03 W:0.3+-0.03 T:0.3+-0.03 MURATA MANUFACTURING CO.,LTD.	
6	MIC200	Microphone Condenser	EAB62950801	SPW4430HR5H -42DB 450OHM OMNI 1.5 TO 3.6V 3.10 * 2.5 * 1.1T SMD KNOWLES ACOUSTICS	
6	C10020 C11009 C2019 C2090	Capacitor Ceramic,Chip	EAE62286801	CL03A104KP3NNNC 0.0000001F 10% 10V X5R - 55TO+85C 0603 R/TP 0.3 - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C11008 C2060 C2061 C2062 C2063 C2064 C2066 C2067 C2068 C2069 C2070 C2073 C2091 C2095 C2096 C4142 C4143 C4144 C4145 C4147 C4148 C9002	Capacitor Ceramic,Chip	EAE62461701	RM JMK042 BJ104MC-FW 100nF 20% 6.3V X5R - 55TO+85C 0402 R/TP 0.22T max. TAIYO YUDEN CO.,LTD	
6	J13000	Socket DIMM/SIMM	EAG63452601	347-0000-1576 6P STRAIGHT STANDARD SMD T/REEL - HON HAI PRECISION INDUSTRY CO.,LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	U3000	IC Digital Baseband Processor,4G	EAN62781401	MSM8974-1_V2.2 Quad Krait 2.3GHz Pass4,CAT4,CA,1080 120fps,31M Camera NSP R/TP 990P, 15x15 Bare Die PoP NSP R/TP 990P QUALCOMM INCORPORATED.	
6	EAX010000	PCB,Main	EAX65356401	LGD802.AVD2BK 1.0 FR-4 Any Layer 10 8 Main	
6	C2143 L2012	Capacitor Ceramic,Chip	ECCH0009208	GRM0335C1ER50C 0.5pF 0.25PF 25V X7R - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	C209 C215 C216	Capacitor Ceramic,Chip	ECZH0025916	GRM0335C1E330J 33pF 5% 25V NP0 - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	C2085 L1047 L1099 L2008 L2028	Inductor Multilayer,Chip	EAP62108301	LQP03TG8N2J02D 8.2NH 5% - 200mA - - 1.4OHM 4.8GHZ 12 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	C2137 L11028 L11084 L11091 L11094	Inductor Multilayer,Chip	EAP62246001	LG HK 0603 3N3S-T 3.3NH 0.3NH - 320mA - - 0.23OHM 6.7GHZ 5 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	C100 C102	Capacitor Ceramic,Chip	ECCH0009103	C0603C0G1H101JT00NN 100pF 5% 50V C0G - 55TO+125C 0603 R/TP - - TDK CORPORATION	
6	BAT1601	Capacitor Assembly	EAE63087501	XH311HU_IV07E Coin 0.03F 3.8*3.8 Max 1.5t SEIKO INSTRUMENTS INC.	
6	C125	Capacitor Ceramic,Chip	ECCH0017301	CL03A105MQ3CSNH 0.000001F 20% 6.3V X5R - 45TO+85C 0603 R/TP - SAMSUNG ELECTRO- MECHANICS CO., LTD.	
6	C119 C120 C147 C157 C158	Capacitor Ceramic,Chip	ECCH0009101	C0603X5R0J104KT00NN 0.1uF 10% 6.3V X5R - 55TO+85C 0603 R/TP - TDK CORPORATION	
6	FL14002	Filter,Ceramic	EAM62690501	ACPF-7124 BPF 2.44GHZ 1.4x1.1x0.8t SMD R/TP 5P AVAGO TECHNOLOGIES INTERNATIONAL SALES PTE. LIMITED	
6	C1103 C1114	Capacitor Ceramic,Chip	EAE62422001	RM LMK042 B7102KC-FW 1nF 10% 10V X7R - 55TO+125C 0402 R/TP 0.22T max. TAIYO YUDEN CO.,LTD	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C6006 C7016	Capacitor Ceramic,Chip	EAE62522101	CL10A226MP8NUNE 22uF 20% 10V X5R - 55TO+85C 1608 R/TP 1.05T max. - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C2020 L1026	Inductor Multilayer,Chip	EAP61767801	LQP03TN2N4B02D 2.4NH 0.1NH - 500mA - - 0.2OHM 6GHZ 14 SHIELD NONE 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	C1058	Inductor Multilayer,Chip	EAP61866901	LQP03TN2N0C02D 2NH 0.2NH - 600mA - - 0.15OHM 6GHZ 14 SHIELD 0 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	C1035 C1042 C1163 C1206 C1207	Inductor Multilayer,Chip	EAP62225901	LQP03TG1N0C02D 1NH 0.2NH - 600mA - - 0.15OHM 6GHZ 12 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	C1124	Inductor Multilayer,Chip	EAP62227201	LG HK 0603 1N8S-T 1.8NH 0.3NH - 380mA - - 0.16OHM 10GHZ 4 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	C2115	Inductor Multilayer,Chip	EAP62227401	LG HK 0603 3N9S-T 3.9NH 0.3NH - 300mA - - 0.27OHM 6GHZ 5 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	R3042 R3043 R3044 R3045	Resistor,Chip	EBC61976101	MCR004YZPF2400 240OHM 1% 1/32W 0402 R/TP - ROHM CO.,LTD.	
6	R12017 R12018 R12019	Resistor,Chip	EBC61997301	MCR004YZPF4701 4.7KOHM 1% 1/32W 0402 R/TP - ROHM CO.,LTD.	
6	R3001 R3002 R3015 R3016 R3017 R3018 R3022 R3023 R3063 R3064	Resistor,Chip	EBC62437401	RK73B1FTQTBL222J 2.2KOHM 5% 1/32W 0402 R/TP - KOA CORPORATION.	
6	R164 R165 R166 R212 R213 R300	PCB ASSY MAIN PAD SHORT	SAFP0000401	LG-LU3000 LGTBK,MAIN,A,	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C2136 C2138 C2142 L2035 L21000	Inductor Multilayer,Chip	EAP62227301	LG HK 0603 2N2S-T 2.2NH 0.3NH - 360mA - - 0.19OHM 8.8GHZ 4 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	C121	Capacitor Ceramic,Chip	EAE62506501	CL05A475MP5NRNC 4.7uF 20% 10V X5R - 55TO+85C 1005 R/TP - - SAMSUNG ELECTRO- MECHANICS CO., LTD.	
6	C10014 C10016 C10036 C10038 C13004 C13005 C13006 C13007 C7004 C9028 C9031 C9034 C9035 C9036 C99022	Capacitor Ceramic,Chip	EAE62762301	CL03A105MP3NSNC 1uF 20% 10V X5R - 55TO+85C 0603 R/TP 0.33 MM - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C11004	Capacitor Ceramic,Chip	ECCH0000155	MCH153CN103KK 10nF 10% 16V X7R - 55TO+125C 1005 R/TP - ROHM Semiconductor KOREA CORPORATION	
6	C12001 C12003 C12005	Capacitor Ceramic,Chip	ECCH0000198	CL05A225MQ5NSNC 2.2uF 20% 6.3V X5R - 55TO+85C 1005 R/TP . SAMSUNG ELECTRO- MECHANICS CO., LTD.	
6	C11003 C11005 C14003	Capacitor Ceramic,Chip	ECCH0002001	C1005JB0J104KT000F 0.1uF 10% 6.3V X5R - 30TO+85C 1005 R/TP - - TDK CORPORATION	
6	C8019	Capacitor Ceramic,Chip	ECCH0007804	CL05A225MP5NSNC 2.2uF 20% 10V X5R - 55TO+85C 1005 R/TP 0.5MM - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C11077	Capacitor Ceramic,Chip	ECCH0009109	C0603X7R1H331KT00NN 330pF 10% 50V X7R - 55TO+125C 0603 R/TP - - TDK CORPORATION	
6	C11129	Capacitor Ceramic,Chip	ECCH0009502	GRM0335C1E1R5CD01D+A02 1.5pF 0.25PF 25V NP0 -55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	C126 C127 C159 C160	Capacitor Ceramic,Chip	ECCH0017601	CL05A475MQ5NRNC 4.7uF 20% 6.3V X5R - 55TO+85C 1005 R/TP 0.5MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C6019	Capacitor Ceramic,Chip	ECZH0001215	C1005X5R1A105KT000F 1uF 10% 10V X5R - 55TO+85C 1005 R/TP - TDK KOREA COOPERATION	
6	C122	Capacitor Ceramic,Chip	ECZH0025920	GRM033R71C102K 1nF 10% 16V X7R - 55TO+125C 0603 R/TP - - MURATA MANUFACTURING CO.,LTD.	
6	R180 R182 R186	Resistor,Chip	ERHY0009505	MCR006YZPJ103 10KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	R11002 R13014 R6076	Resistor,Chip	ERHY0009506	MCR006YZPJ104 100KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	R1040 R1041	Resistor,Chip	ERHY0009521	MCR006YZPJ331 330OHM 5% 1/20W 0603 R/TP - ROHM.	
6	R162 R163	Resistor,Chip	ERHY0009526	MCR006YZPJ472 4.7KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	R13005	Resistor,Chip	ERHY0009527	MCR006YZPJ473 47KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	R1034 R1039	Resistor,Chip	ERHY0042409	RC0201FR-0749R9L 49.9OHM 1% 1/20W 0603 R/TP - YAGEO CORPORATION	
6	R3008	Resistor,Chip	ERHZ0000250	MCR01MZP5F2400 240OHM 1% 1/16W 1005 R/TP - ROHM.	
6	R8045	Resistor,Chip	ERHZ0000286	MCR01MZP5F4701 4.7KOHM 1% 1/16W 1005 R/TP - ROHM.	
6	R8043	Resistor,Chip	ERHZ0000411	MCR01MZP5J121 120OHM 5% 1/16W 1005 R/TP - ROHM.	
6	L6003	Inductor Wire Wound,Chip	EAP62366101	TFM252010GHM-2R2M 2.2UH 20% - 2.5A 3.1 2.5 0.097OHM - - SHIELD 2.5X2.0X1.0 MM - R/TP TDK KOREA COOPERATION	
6	C10013	Capacitor Ceramic,Chip	EAE62685201	C1005X5R1E104K 0.1uF 10% 25V X5R - 55TO+85C 1005 R/TP 0.55T max. TDK KOREA COOPERATION	
6	D13000	Diode,TVS	EAH61794301	ESD5205P6T6G 5V 5.5V min. 10V 2UA 0W SOT- 963 R/TP 6P 5 ON SEMICONDUCTOR	
6	U12002	IC,LDO Voltage Regulator	EAN62735301	RP114K101D-TRB 1.4v to 5.25v 1.0 0W DFN R/TP 4P - RICOH COMPANY, LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C128	Capacitor Ceramic,Chip	EAE62502901	CL05A106MP5NUNC 10uF 20% 10V X5R - 55TO+85C 1005 R/TP 0.55T max. SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C6014	Capacitor Ceramic,Chip	ECCH0000182	GRM155R61A104K 0.1uF 10% 10V X5R - 55TO+85C 1005 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	C100	Capacitor Ceramic,Chip	EAE62726601	CL03A225MQ3CRNC 2.2uF -20TO20% 6.3V X5R - 55TO+85C 0603 R/TP 0.3T - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	X12000	Crystal	EAW61543401	1ZCB27000AA0A 27MHZ 10PPM 12F ; SMD R/TP DAISHINKU CORPORATION.	
6	U9002	IC,DC,DC Converter	EAN62676001	DW8752L V2.9 to V4.5 +5.5V , -5.4V(70mV) 0W UDFN R/TP 12P - DONGWOON ANATECH CO.,LTD.	
6	R6037	Resistor,Chip	EBC62616701	RC0402FR-0730K9L 30.9KOHM 1% 1/16W 1005 R/TP - YAGEO CORPORATION	
6	R8048	Resistor,Chip	ERHY0017901	RC0201JR-07330KL 330KOHM 5% 1/20W 0603 R/TP - YAGEO CORPORATION	
6	FL1005	Filter,Ceramic	EAM62691501	LFL18829MTCRD627 LPF 829MHZ 698 to 960 MHz SMD R/TP 6P MURATA MANUFACTURING CO.,LTD.	
6	L4000	Inductor Multilayer,Chip	ELCH0010401	LK1005 2R2K-T 2.2UH 10% - 20mA - - 1.7OHM 40MHZ 20 SHIELD NONE 1.0X0.5X0.5MM R/TP TAIYO YUDEN CO.,LTD	
6	C12016 C13000 C13002 C14001 C14002	Capacitor Ceramic,Chip	ECCH0009514	MCH032A(AN)100DK 10pF 0.5PF 25V X7R - 55TO+125C 0603 R/TP - ROHM.	
6	R3052	Resistor,Chip	EBC61976201	MCR004YZPF4641 4.64KOHM 1% 1/32W 0402 R/TP - ROHM CO.,LTD.	
6	C14049	Capacitor (High Frequency) Ceramic,Chip	EAE62963601	GRM1555C1H100J_H 10pF 5% 50V C0G - 55TO+125C 1005 R/TP 0.5+/-0.05 L:1.0+/-0.05 W:0.5+/-0.05 T:0.5+/-0.05 MURATA MANUFACTURING CO.,LTD.	
6	D7000 ZD9006	Diode,Switching	EDSY0019602	PMEG3005AEA 430mV 30V 500mA 3.5A 0SEC 0W SOD323 R/TP 2P 1 NXP Semiconductors	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C4000 C4082 C4140 C4141 C7007 C7008 C7009	Capacitor Ceramic,Chip	EAE62927201	ADK107BBJ476MA 47uF -20T020% 4V X5R - 55TO+85C 1608 R/TP 0.8T +0.2 L:1.6+0.2 W:0.8+0.2 T:0.8+0.2 KOREA TAIYO YUDEN.CO., LTD.	
6	U11000	IC, Motor Driver	EUSY0200803	SM100 2.4 3.6 0.05 1W MICRO LEAD FRAME R/TP 8P 1 - SYNCOAM CO.,LTD.	
6	VA10009 VA10010 VA10011	Varistor	SEVY0005402	ICVS0505500FR 5.6V 0% 50F 1.0*0.5*0.55 - SMD R/TP INNOCHIPS TECHNOLOGY	
6	X6000	Crystal	EAW61883401	X1E0002910001 19.2MHZ 10PPM 7F - SMD R/TP EPSON TOYOCOM CORP	
6	R13015	Resistor,Chip	EBC61856101	RC0201JR-0722RL 22OHM 5% 1/20W 0603 R/TP - YAGEO CORPORATION	
6	L10002 L10003	Inductor,Wire Wound,Chip	EAP61947601	0402AF-200XJEW 20NH 5% - 1.6A - - 0.05OHM 2.6GHZ - SHIELD 1.12X0.66X0.66MM NONE R/TP COILCRAFT INC.	
6	R3088	Resistor,Chip	EBC62581901	RC0201FR-0733RL 33OHM 1% 1/20W 0603 R/TP - YAGEO CORPORATION	
6	R13003	Resistor,Chip	ERHY0009307	MCR006YZPF4703 470KOHM 1% 1/20W 0603 R/TP - ROHM.	
6	ZD13000 ZD13001 ZD13003 ZD13004 ZD13005 ZD13006 ZD9001 ZD9005	Diode,TVS	EAH62033201	UCLAMP3311Z 3.3V 3.65V min. 7.5V 4A 30W SLP0603P2X3A R/TP 2P 1 SEMTECH INTERNATIONAL AG	
6	U12001	IC,Signal Bridge	EAN62533101	ANX7808BH-BA-R HDMI to DP tx, 4.5X4.5 VFBGA R/TP 49P ANALOGIX SEMICONDUCTOR	
6	Q8001	FET	EQFP0011101	SiA431DJ P-CHANNEL MOSFET -20V +8 -9.6A 0.031OHM 3.5W SC70 R/TP 6P VISHAY INTERTECHNOLOGY ASIA PTE LTD	
6	L9002 L9003	Inductor Wire Wound,Chip	EAP62107801	1269AS-H-4R7M=P2 4.7UH 20% - 1A 1.3 1.0 0.3OHM - - SHIELD 2.5X2.0X1.0 MM - R/TP TOKO, INC.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	R3009 R3010	Resistor,Chip	ERHZ0000235	MCR01MZF5F2000 200OHM 1% 1/16W 1005 R/TP - ROHM.	
6	L14094	Inductor Multilayer,Chip	EAP62307701	LQM21PN2R2NGCD 2.2UH 30% - 510mA 0.510 1 0.230OHM 40MHZ - SHIELD - 2.0X1.25X1.0 MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	C6015	Capacitor Ceramic,Chip	ECZH0003103	GRM36X7R104K10PT 100nF 10% 10V X7R - 55TO+125C 1005 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	C8001	Capacitor TA,Conformal	EAE62748401	F981A476MSAFZH 47uF 20% 10V 9.4UA - 55TO+125C 5OHM 2.2X1.25X0.9MM NONE SMD R/TP 0.9T max. UNITEL ELECTRONICS CO. LTD.	
6	C11001	Capacitor Ceramic,Chip	EAE62481901	GRM022R61A392KE19 3.9nF 10% 10V X5R - 55TO+85C 0402 R/TP 0.22T max. MURATA MANUFACTURING CO.,LTD.	
6	U11001	IC,Gyro Sensor	EAN62574301	K330TR Accelerometer embedded Gyro Sensor 3.0x3.5 LGA R/TP 24P One Chip Solution ST MICROELECTRONICS ASIA PACIFIC PTE LTD.	
6	R6035	Resistor,Chip	ERHY0009537	MCR006YZPF1503 150KOHM 1% 1/20W 0603 R/TP - ROHM.	
6	R10032 R10038 R10041	Resistor,Chip	ERHY0009303	MCR006YZPF1002 10KOHM 1% 1/20W 0603 R/TP - ROHM.	
6	C1027	Inductor Multilayer,Chip	EAP62107901	LQP03TG1N5C02D 1.5NH 0.2NH - 600mA - - 0.150OHM 6GHZ 13 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	U12000	IC,LDO Voltage Regulator	EAN62768701	RP114K331D-TRB 1.4 to 5.25 3.3 0W DFN R/TP 4P - RICOH COMPANY, LTD.	
6	U8000	IC,Charger	EAN62688801	SMB349NT-2041L 4.35 to OVLO adj 0W QFN R/TP 40P - QUALCOMM INCORPORATED.	
6	R13022	Resistor,Chip	ERHY0009554	MCR006YZPF2002 20KOHM 1% 1/20W 0603 R/TP - ROHM.	
6	L7002	Inductor Wire Wound,Chip	EAP62366601	TFM201610GHM-2R2M 2.2UH 20% - 1.9A 2.4 1.9 0.152OHM - - SHIELD 2.0X1.6X1.0MM - R/TP TDK KOREA COOPERATION	
6	U6002	IC,LDO Voltage Regulator	EAN62732201	RP115L211B-E2 under 5.25V 2.1 0W DFN R/TP 8P (1.6x1.2x0.4) stand by current : 3uA RICOH COMPANY, LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	FL1012	Filter,Saw	SFSY0042801	SAFEA847MAL0F00 847MHz 1.4*1.1*0.5 SMD R/TP 5P MURATA MANUFACTURING CO.,LTD.	
6	C13009 C13021 C13024	Capacitor Ceramic,Chip	EAE62505701	CL10A105KB8NNNC 1uF 10% 50V X5R - 55TO+85C 1608 R/TP 0.9T max. - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	L8000	Inductor Wire Wound,Chip	EAP62307001	1277AS-H-1R0M 1UH 20% - 3.7A 3.7 3.7 0.045OHM - - SHIELD 3.2X2.5MM - R/TP TOKO, INC.	
6	U1000	IC,Power Amplifier	EAN62792001	SKY77629-21 3.0 to 4.5V 0 0 0W 0W 0 0 SMD R/TP 42P 7*5size, MMPA for MSM8974, MIPI, APT SKYWORKS SOLUTIONS INC.	
6	R12023	Resistor,Chip	ERHZ0000350	MCR01MZP5F6203 620KOHM 1% 1/16W 1005 R/TP - ROHM Semiconductor KOREA CORPORATION	
6	C6016	Capacitor Ceramic,Chip	ECZH0001210	C1005Y5V1A474ZT000F 470nF -20TO+80% 10V Y5V -30TO+85C 1005 R/TP - TDK KOREA COOPERATION	
6	C1084 C1085 C11122 C2046 C2047 C2086 C2087 C21123	Capacitor Ceramic,Chip	EAE62422201	RM EMK042 CG101JC-FW 100pF 5% 16V C0G - 55TO+125C 0402 R/TP 0.22T max. TAIYO YUDEN CO.,LTD	
6	U1005	Module,Rx Module	EAT61914401	D5078 0DBM 0DB 0% 0A 0A 0DB 0DBM 0DBM 46P 6.0x4.0x1.0MM GSM4, Dup 1/2/5/8, Free 4ports EPCOS PTE LTD.	
6	R12020 R6036	Resistor,Chip	EBC61996201	MCR004YZPF1003 100KOHM 1% 1/32W 0402 R/TP - ROHM CO.,LTD.	
6	C12014 C12015	Capacitor Ceramic,Chip	ECCH0009504	MCH032A180JK 18pF 5% 25V NP0 -55TO+125C 0603 R/TP - ROHM.	
6	C6027	Capacitor Ceramic,Chip	ECCH0000143	MCH155CN102KK 1nF 10% 50V X7R -55TO+125C 1005 R/TP - ROHM Semiconductor KOREA CORPORATION	
6	C14046	Capacitor Ceramic,Chip	ECCH0005604	GRM188R60J106M 10000000 pF,6.3V,M,X5R,TC,1608,R/TP,0.8 mm MURATA MANUFACTURING CO.,LTD.	
6	L6001	Inductor,Wire Wound,Chip	EAP62107701	1269AS-H-1R0M=P2 1UH 20% - 2.7A 2.7(max) 3.4(typ) 2.5(max) 3.0(typ) 0.06OHM - - SHIELD 2.5X2.0X1.0 MM - R/TP TOKO, INC.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	U15011	IC,Analog Switch	EUSY0342401	NLAST9431MT 2.0~5.5 16SEC 5SEC 0W TDFN R/TP 16P 4 ON SEMICONDUCTOR	
6	U9001	IC,DC,DC Converter	EAN62626401	LM3630 V2.3 to V5.5 up to V40 0W WLP R/TP 12P 2P10S for LED Backlight , 20mA per 1 string TEXAS INSTRUMENTS KOREA LTD, HONGKONG BRANCH.	
6	FL102 FL103	Filter,LCR	EAM62451101	ICMEF112P350MFR COMMON MODE NOISE FILTER 0HZ 0F 0H SMD R/TP Common mode Impedance at 100MHZ : 35ohm+-30%, DC Resistance Max :3.0ohm INNOCHIPS TECHNOLOGY	
6	C8047	Capacitor Ceramic,Chip	ECCH0002003	C1005JB1C333KT000F 33nF -10TO+10% 16V X7R -55TO+125C 1005 R/TP - TDK CORPORATION	
6	R12015 R12030	Resistor,Chip	EBC62296301	RC0201FR-07665KL 665KOHM 1% 1/20W 0603 R/TP 0.26T max. YAGEO CORPORATION	
6	FL11024	Coupler RF Directional	ECA30240001	LDJ18829M24AD011 1.6x0.8x0.7t SMD COUPLER 1694MHz 1992MHz (698~2690MHz) SMD R/TP 22.4 to 25.7 0.16 26 - MURATA MANUFACTURING CO.,LTD.	
6	R13001	Wire Pad,Open	SAFO0000401	AX3100 ATL SV_SHIPBACK,MAIN,A,0OHM DNI	
6	U5000	IC,Mobile SDRAM	EAN62640801	H9CKNNNBPTMRLR-NTM 16GBIT LPDDR3 1.14VTO1.3V 800MHz (1600Mbps) 550ns FBGA TR 216P 16Gb LPDDR3 PoP 216ball 800MHz (38nm 4Gb LPDDR3 x 4, MSM8974) HYNIX SEMICONDUCTOR	
6	R10012 R10013 R8062	Resistor,Chip	ERHY0009507	MCR006YZPJ105 1MOHM 5% 1/20W 0603 R/TP - ROHM.	
6	PT1000	Thermistor,NTC	EBG61306601	NTCG104EF104FT 100KOHM 1% 35V 35A 4.25MK SMD R/TP - TDK CORPORATION	
6	U1001	IC,Power Amplifier	EAN62778301	ACPM-9020-TR1 3.2V to 4.5V 0 0 0W 0W 0 1 SMD R/TP 10P LTE Band20, 2.5*2.0size, GPIO, with CPL AVAGO TECHNOLOGIES INTERNATIONAL SALES PTE. LIMITED	
6	U6001	IC,PMIC	EAN62667101	PM8941 to 5.5V adj 0W CSP R/TP 229P - QUALCOMM INCORPORATED.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	L9001	Inductor Wire Wound,Chip	EAP61747901	VLS3010ET-100M 10UH 20% - 560mA 0.56 0.8 0.468OHM - - SHIELD 3.0X3.0X1.0 MM NONE R/TP TDK KOREA COOPERATION	
6	R3086	Resistor,Chip	EBC62036001	RC0201FR-0710RL 10OHM 1% 1/20W 0603 R/TP - YAGEO CORPORATION	
6	U15012	Module,WLAN	EAT61933101	LBHE5DPYJC-620 3.2VTO4.4V LGA 56P 5.4x8.7x1.35MM MURATA MANUFACTURING CO.,LTD.	
6	R12014	Resistor,Chip	EBC61996401	MCR004YZPF1004 1MOHM 1% 1/32W 0402 R/TP - ROHM CO.,LTD.	
6	U8005	IC,Fuel Gauge	EAN62421601	MAX17048X+T10 2.5 to 4.5V adj 0W CSP R/TP 8P - MAXIM INTEGRATED PRODUCTS INC.	
6	R12016	Resistor,Chip	EBC61996501	MCR004YZPF1202 12KOHM 1% 1/32W 0402 R/TP - ROHM CO.,LTD.	
5	EBR071600	PCB Assembly Main,SMT Bottom	EBR77491801	LGD802.AVD2BK 1.3 Main	
6	C1035 C1042 C1163 C1206 C1207	Inductor Multilayer,Chip	EAP62225901	LQP03TG1N0C02D 1NH 0.2NH - 600mA - - 0.15OHM 6GHZ 12 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	C2043	Capacitor (High Frequency) Ceramic,Chip	EAE62946401	GRM0335C1E3R3C_H 3.3pF 0.25PF 25V C0G - 55TO+125C 0603 R/TP 0.3+-0.03 L:0.6+-0.03 W:0.3+-0.03 T:0.3+-0.03 MURATA MANUFACTURING CO.,LTD.	
6	U1101	Filter,Separator Switch	EAM62190001	RF1147DS 0.6 22 31 3030size, 2bit control, 1.3 to 2.9V RF MICRO DEVICES INC	
6	FL1015	Filter,Separator Switch	EAM62493001	XM0831SZ 0.2~0.65 17~24 23 - MURATA MANUFACTURING CO.,LTD.	
6	FL1014	Filter,Duplexer	EAM62673701	SAYFH1G74CA0B0A 1842.5MHz 1805to1880MHz 1747.5MHz 1710to1785MHz 2.9typ/3.8max 2.2typ/2.5max 2.0x1.6x0.6t DUAL SMD R/TP 9P MURATA MANUFACTURING CO.,LTD.	
6	FL2003	Filter,Saw	EAM62790501	B9862 942.5MHz 1.1x0.9x0.4t SMD R/TP 5P EPCOS PTE LTD.	
6	L1083 L1102 L2080	Inductor Multilayer,Chip	EAP61866601	LG HK0603 R10J-T 100NH 5% - 60mA - - 3.74OHM 900MHZ 4 SHIELD 0 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	L2005	Inductor Multilayer,Chip	EAP62228101	LG HK 0603 39NJ-T 39NH 5% - 100mA - - 1.72OHM 1.5GHZ 4 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	C126 C127 C159 C160	Capacitor Ceramic,Chip	ECCH0017601	CL05A475MQ5NRNC 4.7uF 20% 6.3V X5R - 55TO+85C 1005 R/TP 0.5MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C10039 C8008	Capacitor Ceramic,Chip	ECZH0000830	C1005C0G1H330JT000F 33pF 5% 50V NP0 - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
6	CN13001	Connector,BtoB	ENBY0036001	GB042-40S-H10-E3000 40P 0.4MM STRAIGHT SOCKET SMD R/TP 1M ENGINEERING PLASTIC UL94V-0 AU OVER NI LS Mtron Ltd.	
6	R13023	Resistor,Chip	ERHY0009553	MCR006YZPF1004 1MOHM 1% 1/20W 0603 R/TP - ROHM Semiconductor KOREA CORPORATION	
6	C10033	Capacitor Ceramic,Chip	EAE62983901	C0402C0G1C330J 33pF -5 to +5% 16V C0G - 55TO+125C 0402 R/TP Max 0.22 L:0.4+-0.02 W:0.2+-0.02 T:0.2+-0.02 TDK KOREA COOPERATION	
6	U2000	IC,DC,DC Converter	EAN62867101	QFE1101 V2.2 V2.5 to V4.35 V0.4 to V4.2 0W WLCSP R/TP 28P WLNSP(2.37x1.97x0.55) QUALCOMM INCORPORATED.	
6	L1089	Inductor Multilayer,Chip	EAP62226401	LQP03TG6N8J02D 6.8NH 5% - 200mA - - 1.15OHM 5.4GHZ 12 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	VA10009 VA10010 VA10011	Varistor	SEVY0005402	ICVS0505500FR 5.6V 0% 50F 1.0*0.5*0.55 - SMD R/TP INNOCHIPS TECHNOLOGY	
6	FB202 FB203 FB204	Filter,Bead	SFBH0008102	BLM15HD182SN1D 1800 ohm 1.0X0.5X0.5 25% 2.2 ohm 0.2A SMD R/TP 2P 0 MURATA MANUFACTURING CO.,LTD.	
6	FL11206 FL21010	Filter,Separator Switch	EAM62792601	XMSSJE3G0PA-003 0.28 33 20 - MURATA MANUFACTURING CO.,LTD.	
6	C2085 L1047 L1099 L2008 L2028	Inductor Multilayer,Chip	EAP62108301	LQP03TG8N2J02D 8.2NH 5% - 200mA - - 1.4OHM 4.8GHZ 12 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C2137 L11028 L11084 L11091 L11094	Inductor Multilayer,Chip	EAP62246001	LG HK 0603 3N3S-T 3.3NH 0.3NH - 320mA - - 0.23OHM 6.7GHZ 5 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	C100 C102	Capacitor Ceramic,Chip	ECCH0009103	C0603C0G1H101JT00NN 100pF 5% 50V C0G - 55TO+125C 0603 R/TP - - TDK CORPORATION	
6	C123 C210 C211 C213	Capacitor Ceramic,Chip	ECCH0009106	C0603X7R1C103KT 10nF 10% 10V X7R - 55TO+125C 0603 R/TP - TDK CORPORATION	
6	C209 C215 C216	Capacitor Ceramic,Chip	ECZH0025916	GRM0335C1E330J 33pF 5% 25V NP0 - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	C122	Capacitor Ceramic,Chip	ECZH0025920	GRM033R71C102K 1nF 10% 16V X7R - 55TO+125C 0603 R/TP - - MURATA MANUFACTURING CO.,LTD.	
6	SW1001 SW1003 SW2000 SW2002	Connector,RF	ENWY0008701	MS-156C NONE STRAIGHT SOCKET SMD T/REEL AU 50OHM 400mDB HIROSE KOREA CO.,LTD	
6	C100	Capacitor Ceramic,Chip	EAE62726601	CL03A225MQ3CRNC 2.2uF -20TO20% 6.3V X5R - 55TO+85C 0603 R/TP 0.3T - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	L1014	Inductor Multilayer,Chip	EAP62226801	LQP03TN56NJ02D 56NH 5% - 100mA - - 3.9OHM 1.2GHZ 9 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	C10020 C11009 C2019 C2090	Capacitor Ceramic,Chip	EAE62286801	CL03A104KP3NUNC 0.0000001F 10% 10V X5R - 55TO+85C 0603 R/TP 0.3 - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C128	Capacitor Ceramic,Chip	EAE62502901	CL05A106MP5NUNC 10uF 20% 10V X5R - 55TO+85C 1005 R/TP 0.55T max. SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C8001	Capacitor TA,Conformal	EAE62748401	F981A476MSAFZH 47uF 20% 10V 9.4UA - 55TO+125C 50HM 2.2X1.25X0.9MM NONE SMD R/TP 0.9T max. UNITEL ELECTRONICS CO. LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C10014 C10016 C10036 C10038 C13004 C13005 C13006 C13007 C7004 C9028 C9031 C9034 C9035 C9036 C99022	Capacitor Ceramic,Chip	EAE62762301	CL03A105MP3NSNC 1uF 20% 10V X5R - 55TO+85C 0603 R/TP 0.33 MM - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C2020 L1026	Inductor Multilayer,Chip	EAP61767801	LQP03TN2N4B02D 2.4NH 0.1NH - 500mA - - 0.20OHM 6GHZ 14 SHIELD NONE 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	C1029 C1034 C1048 C1056 L1059 L1100	Inductor Multilayer,Chip	EAP62227801	LG HK 0603 12NJ-T 12NH 5% - 190mA - - 0.68OHM 2.7GHZ 5 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	L2029 L2081	Inductor Multilayer,Chip	EAP62246301	LG HK 0603 15NJ-T 15NH 5% - 180mA - - 0.71OHM 5HZ 2.3G SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	C119 C120 C147 C157 C158	Capacitor Ceramic,Chip	ECCH0009101	C0603X5R0J104KT00NN 0.1uF 10% 6.3V X5R - 55TO+85C 0603 R/TP - TDK CORPORATION	
6	C8028	Capacitor Ceramic,Chip	ECCH0009203	GRM033R60J333KE01D+A01 33nF 10% 6.3V X5R -55TO+85C 0603 R/TP - - MURATA MANUFACTURING CO.,LTD.	
6	C2143 L2012	Capacitor Ceramic,Chip	ECCH0009208	GRM0335C1ER50C 0.5pF 0.25PF 25V X7R - 55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	C125	Capacitor Ceramic,Chip	ECCH0017301	CL03A105MQ3CSNH 0.000001F 20% 6.3V X5R - 45TO+85C 0603 R/TP - SAMSUNG ELECTRO- MECHANICS CO., LTD.	
6	R10032 R10038 R10041	Resistor,Chip	ERHY0009303	MCR006YZPF1002 10KOHM 1% 1/20W 0603 R/TP - ROHM.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	R1044	Resistor,Chip	ERHY0009501	MCR006YZPJ000 0OHM 5% 1/20W 0603 R/TP - ROHM.	
6	R180 R182 R186	Resistor,Chip	ERHY0009505	MCR006YZPJ103 10KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	C11008 C2060 C2061 C2062 C2063 C2064 C2066 C2067 C2068 C2069 C2070 C2073 C2091 C2095 C2096 C4142 C4143 C4144 C4145 C4147 C4148 C9002	Capacitor Ceramic,Chip	EAE62461701	RM JMK042 BJ104MC-FW 100nF 20% 6.3V X5R - 55TO+85C 0402 R/TP 0.22T max. TAIYO YUDEN CO.,LTD	
6	C1084 C1085 C11122 C2046 C2047 C2086 C2087 C21123	Capacitor Ceramic,Chip	EAE62422201	RM EMK042 CG101JC-FW 100pF 5% 16V C0G - 55TO+125C 0402 R/TP 0.22T max. TAIYO YUDEN CO.,LTD	
6	C2048	Capacitor Ceramic,Chip	EAE62442101	GRM022R61A103KE19L 10nF 10% 10V X5R - 55TO+85C 0402 R/TP 0.22T max. MURATA MANUFACTURING CO.,LTD.	
6	C121	Capacitor Ceramic,Chip	EAE62506501	CL05A475MP5NRNC 4.7uF 20% 10V X5R - 55TO+85C 1005 R/TP - - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C10013	Capacitor Ceramic,Chip	EAE62685201	C1005X5R1E104K 0.1uF 10% 25V X5R - 55TO+85C 1005 R/TP 0.55T max. TDK KOREA COOPERATION	
6	C11171 C1172 L1024 L2068	Capacitor (High Frequency) Ceramic,Chip	EAE62945801	GRM0335C1E1R0C_H 1pF 0.25PF 25V C0G - 55TO+125C 0603 R/TP 0.3+-0.03 L:0.6+-0.03 W:0.3+-0.03 T:0.3+-0.03 MURATA MANUFACTURING CO.,LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C1075	Capacitor Ceramic,Chip	EAE63002501	C0402X7R1A331K_ 330pF -10TO+10% 10V X7R - 55TO+125C 0402 R/TP Max 0.22 L:0.4+-0.02 W:0.2+-0.02 T:0.2+-0.02 TDK KOREA COOPERATION	
6	C2088	Capacitor (High Frequency) Ceramic,Chip	EAE63007901	GRM0335C1E9R0D_H 9pF 0.5PF 25V COG - 55TO+125C 0603 R/TP Max 0.33T L:0.6+-0.03 W:0.3+-0.03 T:0.3+-0.03 MURATA MANUFACTURING CO.,LTD.	
6	FL2011	Filter Separator,Switch	EAM62511901	RF1136 0.3 22 31 - RF MICRO DEVICES INC	
6	FL11021 FL2006	Filter Separator,Switch	EAM62730001	XMSS1R6G0PA-001TMP 0.2~0.5dB 17~35dB 20dBm - MURATA MANUFACTURING CO.,LTD.	
6	L1088	Inductor Multilayer,Chip	EAP61747501	LQP03TN3N6B02D 3.6NH 0.1NH - 400mA -- 0.3OHM 6GHZ 14 SHIELD NONE 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	L1018	Inductor Multilayer,Chip	EAP61866401	LG HK0603 9N1J-T 9.1NH 5% - 220mA -- 0.48OHM 3.2GHZ 5 SHIELD 0 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	C2037 C2044	Inductor Multilayer,Chip	EAP61987001	HK0603 18NH-T 18NH 3% - 140mA -- 1.05OHM 2.3GHZ 21 SHIELD 0 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	C1027	Inductor Multilayer,Chip	EAP62107901	LQP03TG1N5C02D 1.5NH 0.2NH - 600mA -- 0.15OHM 6GHZ 13 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	C11135	Inductor Multilayer,Chip	EAP62186301	LQP03TG1N8C02D 1.8NH 0.2NH - 500mA -- 0.2OHM 6GHZ 13 SHIELD - 0.6X0.3X0.3MM R/TP MURATA MANUFACTURING CO.,LTD.	
6	C1123 C2003	Inductor Multilayer,Chip	EAP62227001	LG HK 0603 1N2S-T 1.2NH 0.3NH - 450mA -- 0.12OHM 10GHZ 4 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	C2136 C2138 C2142 L2035 L21000	Inductor Multilayer,Chip	EAP62227301	LG HK 0603 2N2S-T 2.2NH 0.3NH - 360mA -- 0.19OHM 8.8GHZ 4 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	C2115	Inductor Multilayer,Chip	EAP62227401	LG HK 0603 3N9S-T 3.9NH 0.3NH - 300mA -- 0.27OHM 6GHZ 5 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C11088 L1009	Inductor Multilayer,Chip	EAP62246101	LG HK 0603 4N7S-T 4.7NH 0.3NH - 280mA - - 0.3OHM 5.3GHZ 5 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	L11097 L2010	Inductor Multilayer,Chip	EAP62246201	LG HK 0603 10NJ-T 10NH 5% - 220mA - - 0.51OHM 2.9GHZ 5 SHIELD - 0.6X0.3X0.3MM R/TP TAIYO YUDEN CO.,LTD	
6	R5008	Resistor,Chip	EBC61995801	MCR004YZPJ103 10KOHM 5% 1/32W 0402 R/TP - ROHM CO.,LTD.	
6	R1028	Resistor,Chip	EBC62337901	RK73H1FTQTBL1003F 100KOHM 1% 1/32W 0402 R/TP 0402 100000 ohm 1% KOA CORPORATION.	
6	R3001 R3002 R3015 R3016 R3017 R3018 R3022 R3023 R3063 R3064	Resistor,Chip	EBC62437401	RK73B1FTQTBL222J 2.2KOHM 5% 1/32W 0402 R/TP - KOA CORPORATION.	
6	C20008 C20009	Capacitor Ceramic,Chip	ECCH0009104	C0603C0G1H330JT00NN 33pF 5% 50V C0G - 55TO+125C 0603 R/TP - TDK CORPORATION	
6	C1074	Capacitor Ceramic,Chip	ECCH0009105	C0603C0G1H820JT00NN 82pF 5% 50V NP0 - 55TO+125C 0603 R/TP - - TDK CORPORATION	
6	C11077	Capacitor Ceramic,Chip	ECCH0009109	C0603X7R1H331KT00NN 330pF 10% 50V X7R - 55TO+125C 0603 R/TP - - TDK CORPORATION	
6	C11129	Capacitor Ceramic,Chip	ECCH0009502	GRM0335C1E1R5CD01D+A02 1.5pF 0.25PF 25V NP0 -55TO+125C 0603 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	L11096	Capacitor Ceramic,Chip	ECZH0025902	GRM0335C1E2R2C 2.2pF 0.25PF 25V C0G - 55TO+125C 0603 R/TP - - MURATA MANUFACTURING CO.,LTD.	
6	C11162	Capacitor Ceramic,Chip	ECCH0032901	GRM0335C1H2R7C 2.7pF 0.25PF 50V C0G - 55TO+125C 0603 R/TP 0.3MM MURATA MANUFACTURING CO.,LTD.	
6	C1028 C1037	Capacitor Ceramic,Chip	ECCH0042003	GRM0335C1E7R0BD01D 7pF 0.5PF 25V C0G - 55TO+125C 0603 R/TP 0.3+-0.03 MURATA MANUFACTURING CO.,LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C2002 C2011 C2144 L2033	Capacitor Ceramic,Chip	ECZH0000813	C1005C0G1H101JT 100pF 5% 50V C0G - 55TO+125C 1005 R/TP - TDK KOREA COOPERATION	
6	C14000	Inductor Multilayer,Chip	ELCH0001033	HK1005 1N5S-T 1.5NH 0.3NH - 300mA 0.1OHM 6GHZ 8 SHIELD NONE 1.0X0.5X0.5MM R/TP TAIYO YUDEN CO.,LTD	
6	C2005 L14000	Inductor Multilayer,Chip	ELCH0004727	1005GC2TR10JLF 100NH 5% - 100mA 2.3OHM 600MHZ 8 SHIELD NONE 1.0X0.5X0.5MM R/TP PILKOR ELECTRONICS LTD.	
6	SW202 SW203	Connector,RF	ENWY0003901	U.FL-R-SMT(10) 1.90MM STRAIGHT SOCKET SMD T/REEL CU 50OHM 300mDB HIROSE KOREA CO.,LTD	
6	R11002 R13014 R6076	Resistor,Chip	ERHY0009506	MCR006YZPJ104 100KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	R1040 R1041	Resistor,Chip	ERHY0009521	MCR006YZPJ331 330OHM 5% 1/20W 0603 R/TP - ROHM.	
6	R13024 R6059	Resistor,Chip	ERHY0009536	MCR006YZPF1003 100KOHM 1% 1/20W 0603 R/TP - ROHM.	
6	R1042	Resistor,Chip	ERHY0018001	RC0201JR-0720RL 20OHM 5% 1/20W 0603 R/TP - YAGEO CORPORATION	
6	R8016	Resistor,Chip	ERHZ0000406	MCR01MZP5J104 100KOHM 5% 1/16W 1005 R/TP - ROHM.	
6	R164 R165 R166 R212 R213 R300	PCB ASSY MAIN PAD SHORT	SAFP0000401	LG-LU3000 LGTBK,MAIN,A,	
6	ZD8000	Diode,TVS	EDTY0012102	PESD5V0V1BL 5V 5.8V min. 12.5V 4.8A 45W SOD-882 R/TP 2P 1 STC CORP.	
6	FL4016 FL4017 FL4018 FL4019	Filter,EMI/Power	EAM62590101	NFM15PC435R0G3D EMI 0HZ 4.3uF 0H SMD R/TP L:1.0+-0.2 , W:0.5+-0.2 , T:0.4+-0.1 MURATA MANUFACTURING CO.,LTD.	
6	C302 C303	Capacitor Ceramic,Chip	EAE62962301	GRM155R61A225KE95 2.2uF -10TO+10% 10V X5R -55TO+85C 1005 R/TP 0.5 L:1.0+-0.05 W:0.5+-0.05 T:0.5+-0.05 MURATA MANUFACTURING CO.,LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	ZD13000 ZD13001 ZD13003 ZD13004 ZD13005 ZD13006 ZD9001 ZD9005	Diode,TVS	EAH62033201	UCLAMP3311Z 3.3V 3.65V min. 7.5V 4A 30W SLP0603P2X3A R/TP 2P 1 SEMTECH INTERNATIONAL AG	
6	L2021 L6002 L7000 L7001 L7003	Inductor Wire Wound,Chip	EAP62327801	PIFE20161B-R47MS-39 470NH 20% - 3.5A 3.5 3.5 0.036OHM - - SHIELD 2.0X1.6X1.2 MM - R/TP CYNTEC CO., LTD.	
6	FL1010	Filter,Duplexer	EAM62672701	B8091 806MHz 791 to 821MHz 847MHz 832 to 862MHz 3.5dB 2.8dB 2.0x1.6x0.45t DUAL SMD R/TP 9P EPCOS PTE LTD.	
6	U2003 U6000	IC,DC,DC Converter	EAN62728801	FAN48632BUC33X V2.35 to V5.5 3.3V_VSEL0 or 3.49V_VSEL1 0W WLCSP R/TP 16P - FAIRCHILD SEMICONDUCTOR HONG KONG LTD.	
6	C6056	Capacitor Ceramic,Chip	ECCH0000161	MCH153CN333KK 33nF 10% 16V X7R - 55TO+125C 1005 R/TP - - ROHM Semiconductor KOREA CORPORATION	
6	FL13000 FL13001 FL9000 FL9001 FL9002	Filter,EMI/Power	EAM62630501	ICMEF104P101MFR COMMON MODE NOISE FILTER - 0.0000000000017F 0H SMD R/TP - INNOCHIPS TECHNOLOGY	
6	U8002	IC,Reset	EAN62688701	FTL11639UCX 1.2~5.5V 0~5.5V 410mW WLCSP R/TP 12P Reset Timer(11.5s) with Integrated Load Switch FAIRCHILD SEMICONDUCTOR HONG KONG LTD.	
6	R8014	Resistor,Chip	ERHZ0000331	RC1005F114CS 110KOHM 1% 1/16W 1005 R/TP - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	U10004	IC,Comparator	EAN62116101	NCX2200GM 1.6~5.5V 9uA COMPARATOR SOT R/TP 6P SOT886, Push Pull Output STC CORP.	
6	D8001	Diode,Switching	EDSY0018101	RB521CS-30GJT2R 350mV 30V 100mA 0A 0SEC 200mW VMN2 R/TP 2P 1 ROHM.	
6	D13009	Diode,TVS	EAH62055601	PTVS12VS1UR 12V 13.3V min. 23.5V 140.7A 3.2KW SOD123W R/TP 2P 1 NXP Semiconductors	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C8003	Capacitor Ceramic,Chip	ECCH0000122	MCH155A470JK 47pF 5% 50V NP0 -55TO+125C 1005 R/TP - ROHM Semiconductor KOREA CORPORATION	
6	C9032 C9033	Capacitor Ceramic,Chip	ECCH0004904	GRM155R60J105K 1uF 10% 6.3V X5R -55TO+85C 1005 R/TP - MURATA MANUFACTURING CO.,LTD.	
6	D17002	Diode,Schottky	EAH61992801	PMEG4002EL 600mV 40V 200mA 0SEC 20pF 0W SOD-882 R/TP 2P 1 NXP Semiconductors	
6	CN9000	Connector,BtoB	ENBY0039601	GB042-20S-H10-E3000 20P 0.4MM STRAIGHT SOCKET SMD R/TP 1M - LS Mtron Ltd.	
6	R10003	Resistor,Chip	ERHZ0000211	MCR01MZP5F1201 1.2KOHM 1% 1/16W 1005 R/TP - ROHM.	
6	C6006 C7016	Capacitor Ceramic,Chip	EAE62522101	CL10A226MP8NUNE 22uF 20% 10V X5R - 55TO+85C 1608 R/TP 1.05T max. - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	R3086	Resistor,Chip	EBC62036001	RC0201FR-0710RL 10OHM 1% 1/20W 0603 R/TP - YAGEO CORPORATION	
6	ZD9049	Diode,TVS	EDTY0009101	ESD9X5.0ST5G 5V 6.2 12.3V 8.7A 107W SOD528 R/TP 2P 1 ON SEMICONDUCTOR	
6	ZD13010	Diode,TVS	EDTY0012501	UCLAMP3311T.TCT 3.3V 3.5V min. 6.5V 5A - SLP1006P2T R/TP 2P 1 SEMTECH CORPORATION	
6	R5000 R5001 R5002 R5003 R5004 R5005 R5006 R5007 R9024	Resistor,Chip	EBC62239501	RK73H1FTQTBL4702F 47KOHM 1% 1/32W 0402 R/TP 0402 47000 ohm 1% 1/32W KOA CORPORATION.	
6	L7004 L7005 L7006 L7007	Inductor Wire Wound,Chip	EAP62346701	PIFE20161T-R24MS-39 240NH 20% - 4A 4.23 4 0.023OHM - - SHIELD 2.0X1.6X1.0MM - R/TP CYNTEC CO., LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	C4000 C4082 C4140 C4141 C7007 C7008 C7009	Capacitor Ceramic,Chip	EAE62927201	ADK107BBJ476MA 47uF -20TO20% 4V X5R - 55TO+85C 1608 R/TP 0.8T +0.2 L:1.6+0.2 W:0.8+0.2 T:0.8+0.2 KOREA TAIYO YUDEN.CO., LTD.	
6	R10015	Resistor,Chip	ERHY0009302	MCR006YZPF1001 1KOHM 1% 1/20W 0603 R/TP - ROHM.	
6	VA101	Varistor	SEVY0010501	IECS0505C040FR 10V 0% 4E-12F 1.0x0.5x0.3 IEC61000-4-1 (ESD) level #4 SMD R/TP INNOCHIPS TECHNOLOGY	
6	D203 D204 D301 D302 ZD201 ZD202 ZD203 ZD205	Diode,TVS	EAH61693001	uClamp0541Z 5V 6V min 12V 2A 30W SLP0603P2X3 R/TP 2P 1 SEMTECH INTERNATIONAL AG	
6	D9001 D9002	Diode,TVS	EAH61892901	RCLAMP7522T 5V 6.5V min / 9V typ / 11V max 15V 4A 500mW SLP1007N5T R/TP 5P 3 SEMTECH INTERNATIONAL AG	
6	U10000	IC,Audio Codec	EAN62648101	WCD9320 999 999W NSP R/TP 84P MSM8974 Referenced QCT CODEC QUALCOMM INCORPORATED.	
6	R2003	Resistor,Chip	EBC62236101	RC0603J821C 820OHM 5% 1/20W 0603 R/TP - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	R10012 R10013 R8062	Resistor,Chip	ERHY0009507	MCR006YZPJ105 1MOHM 5% 1/20W 0603 R/TP - ROHM.	
6	U11007	IC Power Amplifier	EAN62765901	ACPM-9007-TR1 3.2V to 4.5V 0 0 0W 0W 0 1 SMD R/TP 10P LTE Band7, 2.5x2.0, GPIO, APT AVAGO TECHNOLOGIES INTERNATIONAL SALES PTE. LIMITED	
6	VA205	Varistor	EAF61650701	LXES15AAA1-117 15V 25% 0.1pF 1.0X0.5X0.33 mm IEC61000-4-2 (ESD) level #4 SMD R/TP MURATA MANUFACTURING CO.,LTD.	
6	U7000	IC,PMIC	EAN62667201	PM8841 to 5.5V adj 0W CSP R/TP 98P - QUALCOMM INCORPORATED.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	U9006	IC,LDO Voltage Regulator	EAN62768901	RP114K181D-TRB 1.4 to 5.25 1.8 0W DFN R/TP 4P - RICOH COMPANY, LTD.	
6	R11063	Resistor,Chip	EBC62235801	RC0603F363CS 36KOHM 1% 1/20W 0603 R/TP - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	CN9001	Connector,BtoB	ENBY0040701	GB042-30S-H10-E3000 30P 0.4MM STRAIGHT FEMALE SMD R/TP 1M - LS Mtron Ltd.	
6	CN13000	Connector,BtoB	EAG63371301	BM10NB(0.8)-60DS-0.4V 60P 0.4MM STRAIGHT FEMALE SMD R/TP 800mM - HIROSE KOREA CO.,LTD	
6	C13009 C13021 C13024	Capacitor Ceramic,Chip	EAE62505701	CL10A105KB8NNNC 1uF 10% 50V X5R - 55TO+85C 1608 R/TP 0.9T max. - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	R13015	Resistor,Chip	EBC61856101	RC0201JR-0722RL 22OHM 5% 1/20W 0603 R/TP - YAGEO CORPORATION	
6	C2015 C2072	Capacitor TA,Conformal	EAE62748301	F981A226MMA 22uF 20% 10V 11UA -55TO+125C 8OHM 1.6X0.85X0.8MM NONE SMD R/TP 0.9T max. UNITEL ELECTRONICS CO. LTD.	
6	FL13004	Filter,EMI/Power	EAM62790301	NFM18PC225B1A3D_ EMI - 0.0000022F 0H SMD R/TP size : 1.6x0.8x0.6 (3 terminal cap) MURATA MANUFACTURING CO.,LTD.	
6	C4001 C4002 C4003 C4004	Capacitor Ceramic,Chip	ECCH0017501	CL10A226MQ8NRNE 22uF 20% 6.3V X5R - 55TO+85C 1608 R/TP 0.8MM SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	R8063	Resistor,Chip	EBC62296101	RK73H1HTQTC2003D 200KOHM 0.5% 1/20W 0603 R/TP 0.26T max. KOA CORPORATION.	
6	U2001	IC,RF Amplifier	EAN62581401	SFMG2B0D001 1.5~3.1V 0 0 0W 0W 0 0 MCM R/TP 8P Gain : 17.2dB NF : 0.85dB WISOL.CO.,LTD	
6	R2006	Resistor,Chip	EBC62236701	RC0402FR-074K75L 4.75KOHM 1% 1/16W 1005 R/TP 0.4T max. YAGEO CORPORATION	
6	R162 R163	Resistor,Chip	ERHY0009526	MCR006YZPJ472 4.7KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	R11065 R13004	Resistor,Chip	EBC62338101	RK73B1FTQTBL103J 10KOHM 5% 1/32W 0402 R/TP 0402 10000 ohm 5% 1/32W KOA CORPORATION.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	U11005	IC Hall Effect Switch	EAN62682901	BU52061NVX Hall IC 1.2X1.6 SSON R/TP 4P - ROHM Semiconductor KOREA CORPORATION	
6	FL11019	Filter,Duplexer	EAM62571601	ACMD-6107 2655 MHz 2620 to 2690 MHz 2535 MHz 2500 to 2570 MHz 2.1 dB typ. / 2.5 dB max. 2.1 dB typ. / 2.5 dB max. 2.0x1.6x0.83t DUAL SMD R/TP 9P AVAGO TECHNOLOGIES INTERNATIONAL SALES PTE. LIMITED	
6	FB10003	Filter,Bead	EAM62633801	MPZ1608S601AT000 600 1.6X0.8X0.8 25% 0.15 1 SMD R/TP 2P - TDK KOREA COOPERATION	
6	L7002	Inductor Wire Wound,Chip	EAP62366601	TFM201610GHM-2R2M 2.2UH 20% - 1.9A 2.4 1.9 0.152OHM - - SHIELD 2.0X1.6X1.0MM - R/TP TDK KOREA COOPERATION	
6	U11008	IC,Geomagnetic Sensor	EAN62333101	AK8963C 3 Axis Geomagnetic Sensor 1.6X1.6X0.5t CSP R/TP 14P - ASAHI KASEI CORPORATION	
6	U9004 U9005	IC,LDO Voltage Regulator	EUSY0407401	RT9032 WDFN8L,8,R/TP,Programmable Dual LDO,IC,LDO Voltage RegulatorIC,LDO Voltage Regulator RICHTEK TECHNOLOGY CORP.	
6	CN8000	Connector Terminal Block	EAG63412101	BM22-4S- V 4P 1.78MM STRAIGHT SMD T/REEL - HIROSE KOREA CO.,LTD	
6	C2057	Capacitor Ceramic,Chip	ECCH0007805	CL05A106MQ5NUNC 10uF 20% 6.3V X5R - 55TO+85C 1005 R/TP 0.5+-0.05 SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	ZD206 ZD207 ZD208 ZD210	Diode,TVS	EDTY0012101	PESD5V0F1BL 5.5V 6V min 11V 2.5A - SOD-882 R/TP 2P 1 STC CORP.	
6	R3088	Resistor,Chip	EBC62581901	RC0201FR-0733RL 33OHM 1% 1/20W 0603 R/TP - YAGEO CORPORATION	
6	C132	Capacitor Ceramic,Chip	ECCH0000115	MCH155A220JK 22pF 5% 50V NP0 -55TO+125C 1005 R/TP - ROHM Semiconductor KOREA CORPORATION	
6	U5001	IC,MCP,eMMC	EAN62706801	THGBMAG8A4JBA4R FLASH 2.7VTO3.6V,1.7VTO1.95V 11.5x13.0x1.0 TR 153P MLC NAND FBGA 32GB eMMC v4.5 (19nm 64Gb MLC x 4) TOSHIBA ELECTRONICS KOREA CORPORATION	
6	U10002	IC,Analog Switch	EAN62578201	FSA5157L6X 1.65 to 5.5V 60NSEC 20NSEC 180mW MICROPAC R/TP 6P - FAIRCHILD SEMICONDUCTOR HONG KONG LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	R2005	Resistor,Chip	ERHY0009502	MCR006YZPJ100 100HM 5% 1/20W 0603 R/TP - ROHM.	
6	U2002	IC RF Transceiver 4G	EAN62689701	WTR-1605L-0-142WLNSP-SR/TR-01-1 LTE Transceiver CSP R/TP 142P QUALCOMM INCORPORATED.	
6	R8017 R8023	Resistor,Chip	ERHY0009538	MCR006YZPF1802 18KOHM 1% 1/20W 0603 R/TP - ROHM.	
6	U11002	IC Microprocessors	EAN62661801	MAXQ616V ~3.6V 3.1mA 12MHZ WLP R/TP 16P - MAXIM INTEGRATED PRODUCTS INC.	
6	U12003	IC,Over Voltage Protection	EAN62768301	MAX14654EWC+T 2.3 to 28V adj 0W CSP R/TP 12P - MAXIM INTEGRATED PRODUCTS INC.	
6	C8019	Capacitor Ceramic,Chip	ECCH0007804	CL05A225MP5NSNC 2.2uF 20% 10V X5R - 55TO+85C 1005 R/TP 0.5MM - SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	C2012	Capacitor Ceramic,Chip	ECCH0042007	GRM0335C1E6R8BD01D 6.8 pF,25V,B,COG,TC,0603,R/TP,0.0000000000068,0.1PF,25V,C0G,-55TO+125C,0603,R/TP,0.3 mm MURATA MANUFACTURING CO.,LTD.	
6	R10035	Resistor,Chip	ERHY0009561	MCR006YZPF5602 56KOHM 1% 1/20W 0603 R/TP - ROHM.	
6	FL2022	Filter,Saw	SFSY0042601	SAFEA806MCM0F00 806MHz 1.4*1.1*0.5 SMD R/TP 5P MURATA MANUFACTURING CO.,LTD.	
6	D8000	Diode,TVS	EAH61872501	PESD5V0S1UA 5V 6.2V min. 9.8V 47A 360mW SOD323 R/TP 2P 1 NXP Semiconductors	
6	R8013	Resistor,Chip	ERHY0035601	PMR10EZPFU10L0 0.01OHM 1% 1/2W 2012 R/TP - ROHM.	
6	R13005	Resistor,Chip	ERHY0009527	MCR006YZPJ473 47KOHM 5% 1/20W 0603 R/TP - ROHM.	
6	FL2001	Filter,Separator	EAM62491401	B9839 1.4/2.0 35 , , EPCOS PTE LTD.	
6	FL2013	Filter,Saw,Dual	EAM62770001	SAWFD1G84EH1F0A B1(2140)&B3(1842.5) 1.5x1.1x0.5t SMD R/TP 10P MURATA MANUFACTURING CO.,LTD.	
6	R13022	Resistor,Chip	ERHY0009554	MCR006YZPF2002 20KOHM 1% 1/20W 0603 R/TP - ROHM.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

Level	LocationNo.	Description	PartNumber	Spec	Remark
6	U9003	IC,LDO Voltage Regulator	EAN62735401	RP114K121D-TRB 1.4v to 5.25v 1.2 0W DFN R/TP 4P - RICOH COMPANY, LTD.	
6	L2014	Inductor Wire Wound,Chip	EAP62307401	VLS252010ET-1R5N 1.5UH 30% - 1.45A 1.45 1.5 0.128OHM -- SHIELD 2.5X2.0X1.0 MM - R/TP TDK KOREA COOPERATION	
6	C8020	Capacitor Ceramic,Chip	ECCH0000151	CL05B472KB5NNNC 4.7nF 10% 25V X7R - 55TO+125C 1005 R/TP -- SAMSUNG ELECTRO-MECHANICS CO., LTD.	
6	U10005	IC,Comparator	EAN62656801	MAX14628 3.1~5.5V 1.9~800uA COMPARATOR TDFN R/TP 8P 3button support headset detection IC MAXIM INTEGRATED PRODUCTS INC.	
6	FL13002 FL9003	Filter,EMI/Power	EAM62570201	ICMEF062P900MFR COMMON MODE NOISE FILTER - 0.0000000000017F 0H SMD R/TP - INNOCHIPS TECHNOLOGY	
6	D13008	Diode,TVS	EAH61872601	PESD12VS1UA 12V 13.3V min. 19V 22.5A 360mW SOD323 R/TP 2P 1 NXP Semiconductors	
6	CN13002	Connector,BtoB	EAG63013701	GB042-14S-H10-E3000 14P 0.40MM STRAIGHT SOCKET SMD R/TP 1M - LS Mtron Ltd.	
6	FL2004	Filter,Saw	EAM62290501	B9478 1842.5 1.4*1.1*0.4 SMD R/TP 5P EPCOS PTE LTD.	
6	LD9000	Module,Assembly	EAT61854401	TFL404020-LO LO Type Flash module TRAIS CO., LTD.	
6	U10001	IC,Analog Switch	EAN62651701	FSA2269UMX 1.65~4.5V 70NSEC 40NSEC 999W MLP R/TP 10P Negative Swing FAIRCHILD SEMICONDUCTOR HONG KONG LTD.	
2	EAD010000	Cable,Assembly	EAD62588801	DLC-LGE51DCMUA USB USB 1.2M 5 BLACK UL N CRESYN(H.K.)CO.,LTD.	

12. EXPLODED VIEW & REPLACEMENT PART LIST

12.3 Accessory

Note: This Chapter is used for reference, Part order is ordered by SBOM standard on GCSC

Level	LocationNo.	Description	PartNumber	Spec	Remark
4	EAC00	Rechargeable Battery, Lithium Polymer	EAC62058701	BL-T7-LGC PRISMATICS 3.8V 2.9AH 580mAH 5.37 x 54.9 x 68.0 5.37 x 54.9 x 68.0 BLACK Embedded - LG Chem, LTD.	
2	AFN053800	Manual Assembly Operation	AFN76113703	LGD802.AHKGBK ZZ:Without Color -	
3	MBM062600	Card, Quick Reference	MBM64077704	PRINTING LGD802.AHKGBK ZZ:Without Color -	
3	MBM087200	Card, Warranty	MCDF0001118	COMPLEX KG270 HKGBK ZZ:Without Color -	
2	ABN000000	Cap Assembly	ABN73938501	LGD800.AATTBK ZZ:Without Color - D800 SIM TRAY ASSY	
2	AAA000000	Accessory Assembly	AAA75185401	LGD800.AATTBK ZZ:Without Color D800_Assy_Sim_Opner	
2	EAY060000	Adapters	EAY62991502	MCS-04UR 90~264Vac 5V 1.8A 50 / 60Hz CB, CE NONE DC PIN PLUG - SUNLIN ELECTRONICS CO., LTD	
2	EAB010200	Earphone, Stereo	EAB62950101	HC-MYD-LG184 20mW 24OHM 97DB 20HZ TO 20KHZ 1.15M BLACK 4 POLE PLUG - I- SOUND CO, LTD	
2	MFL053800	Manual, Operation	MFL68043804	PRINTING LGD802.AHKGBK ZZ:Without Color Hong Kong Special Administrative 'Region of China CHINESE (TRADITIONALIZED)+ CHINESE (SIMPLIFIED)+ ENGLISH -	