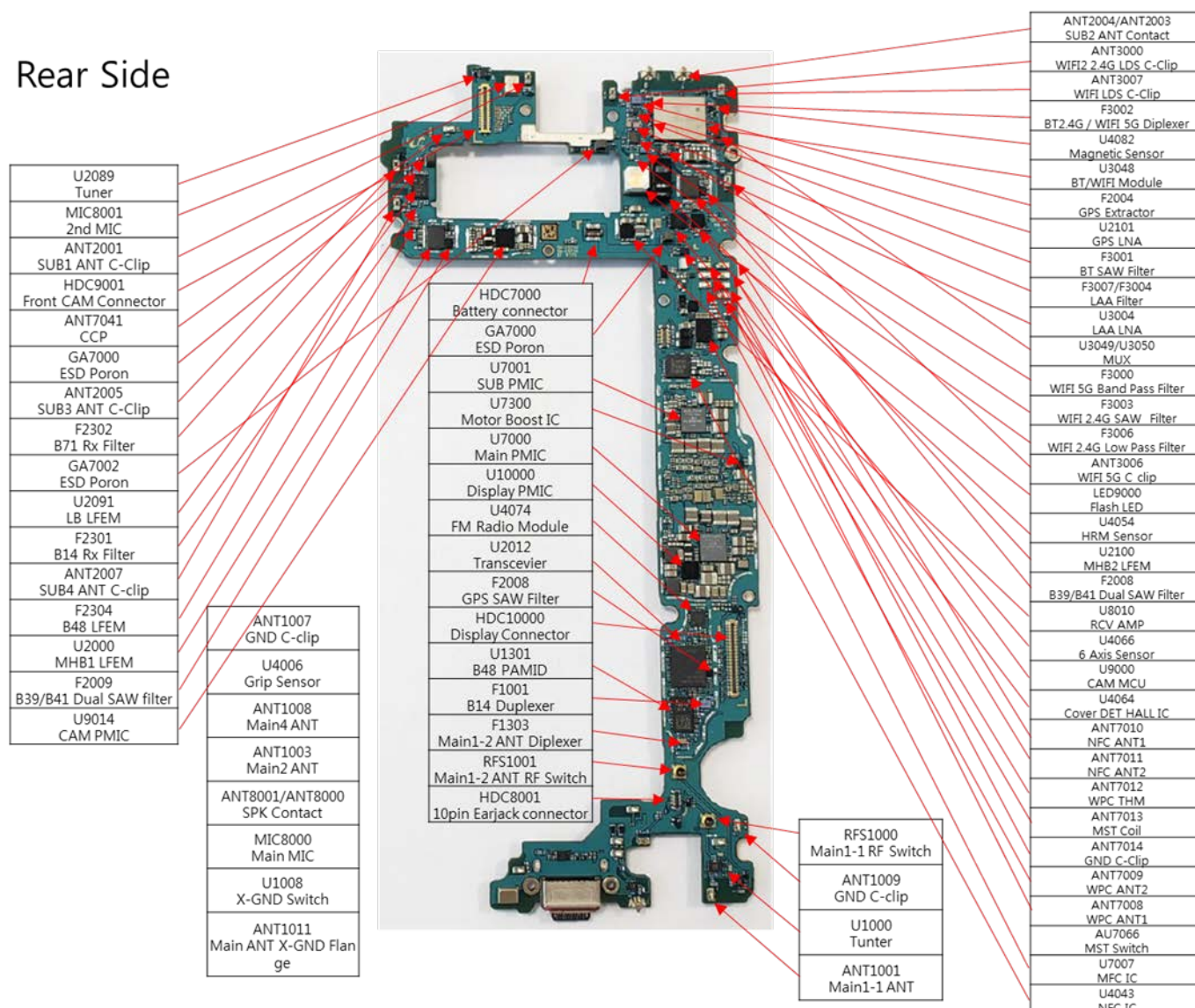


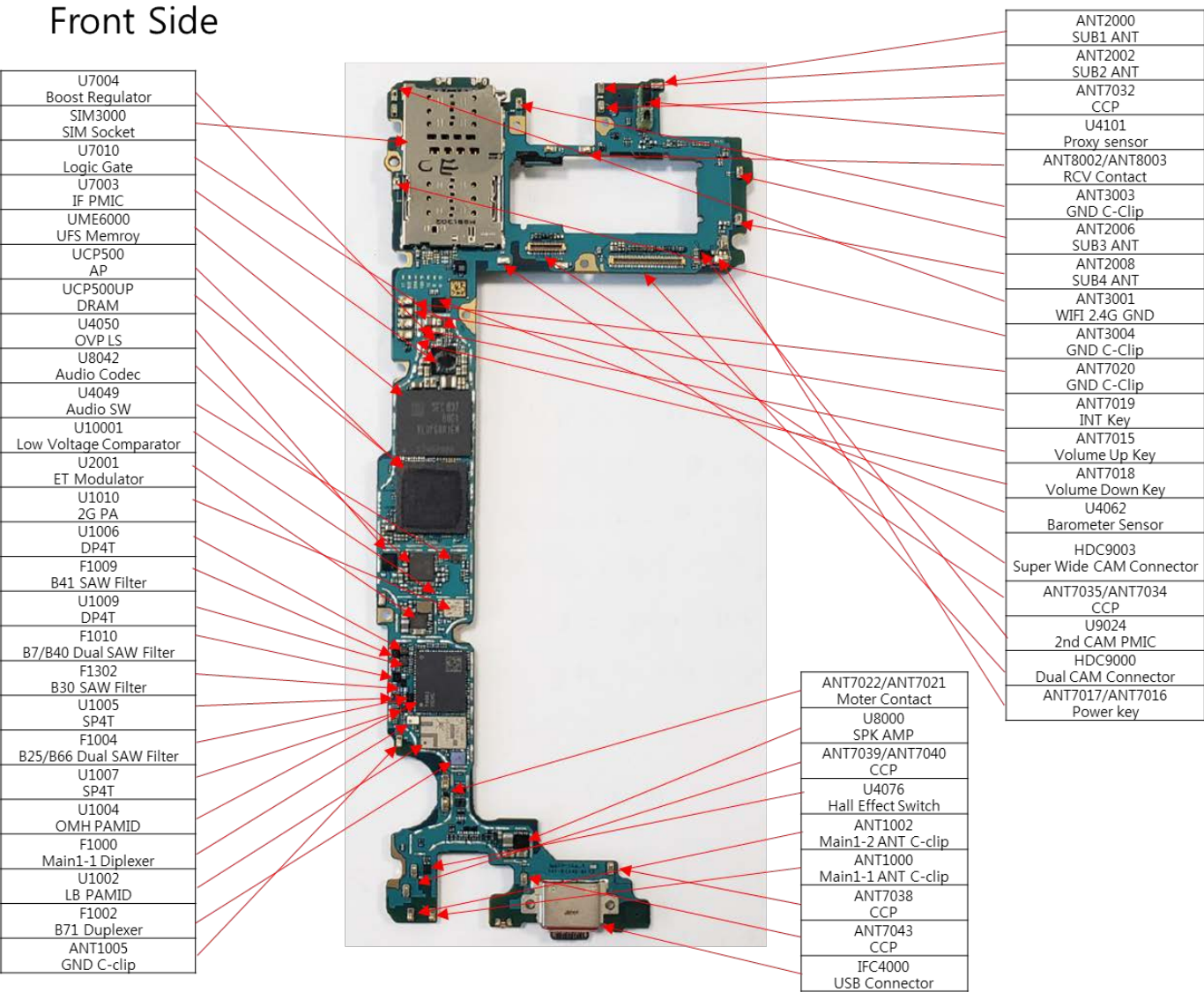
8. Level 3 Repair

8-1. Components Layout

Rear Side



8. Level 3 Repair





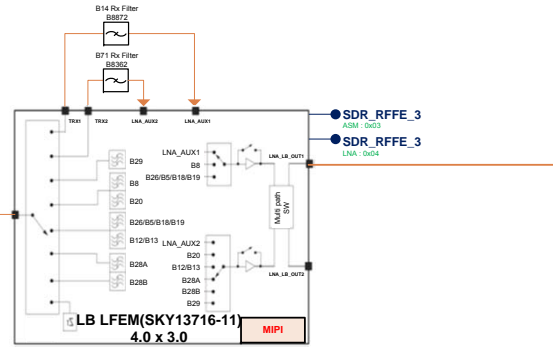


SM-G975U_RF Block Diagram

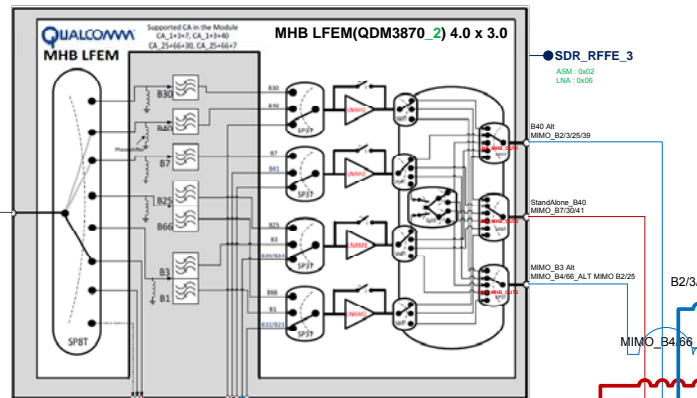
SM-G975U/U1/U2/UC/W/WC
Common

Confidential
2018.12.14

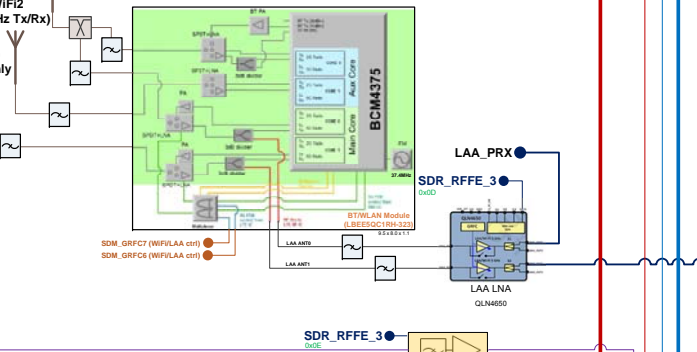
ANTENNA (LB)
CDMA/EVDO BC0/10 Rx Only
GSM/GPRS/EDGE 850 Rx Only
UMTS B5 Rx Only
LTE B5/12/13/14/26/29/71 Rx Only



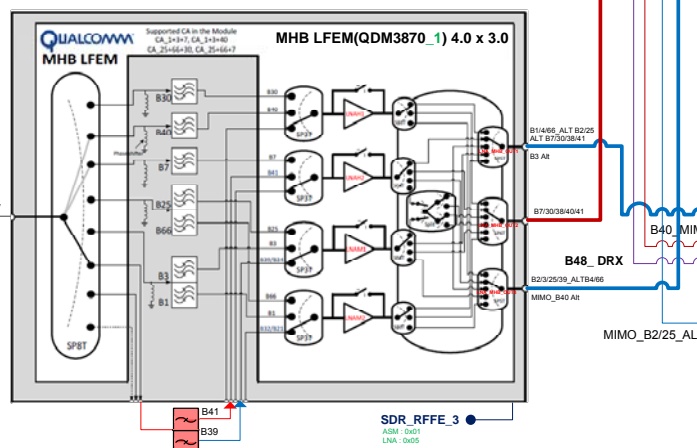
ANTENNA (mb/hb)
LTE : 2/4/7/25/30/41/66 Rx Only
(4x4 DL MIMO)



ANTENNA (UHB)
LTE B48 Rx Only



ANTENNA (MB/HB/GPS)
CDMA BC1 Rx Only
GSM/GPRS/EDGE 1900 Rx Only
UMTS B2/4 Rx Only
LTE : 2/4/7/25/30/38/41/66 Rx Only
GPS Rx Only



SDR8150

[Port -> DLP]
Group A: DLP1/2/3/6
Group B: DLP 0/3/4/5

[Port Freq Range]
Prx0,Drx5 : 617MHz ~ 1.6GHz
Prx/Drx_LAA : 5.1GHz ~ 5.95GHz
Others : 617MHz ~ 3.8GHz

SDM_RFFE_2
(CLK - 38.4 MHz)

LB LPAMid_LNA_OUT1

SDR_RFFE_0

SDR_RFFE_1

FBRX_IN0

FBRX_IN1

TX0_LB2

TX0_LB1

TX0_MB1

TX0_MB2

TX0_HB1

TX0_UHB

TX0_LB2

TX0_LB1

TX0_MB1

TX0_MB2

TX0_HB1

TX0_UHB

TX0_LB2

TX0_LB1

TX0_MB1

TX0_MB2

TX0_HB1

TX0_UHB

TX0_LB2

TX0_LB1

TX0_MB1

TX0_MB2

TX0_HB1

TX0_UHB

TX0_LB2

TX0_LB1

TX0_MB1

TX0_MB2

TX0_HB1

TX0_UHB

TX0_LB2

TX0_LB1

TX0_MB1

TX0_MB2

TX0_HB1

TX0_UHB

TX0_LB2

TX0_LB1

TX0_MB1

TX0_MB2

TX0_HB1

TX0_UHB

TX0_LB2

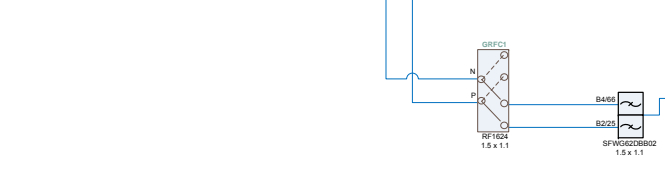
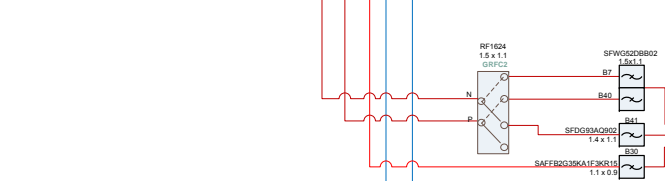
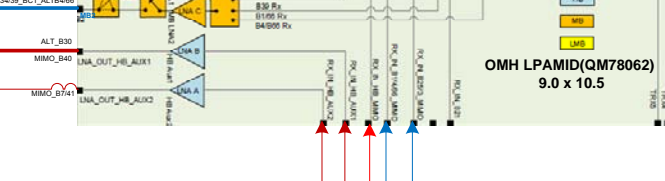
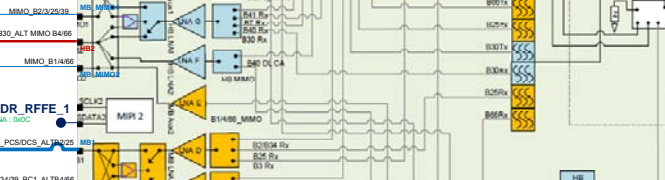
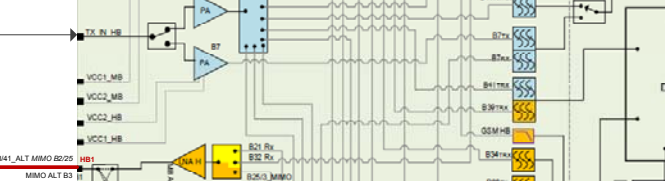
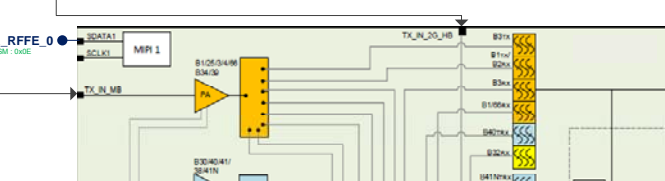
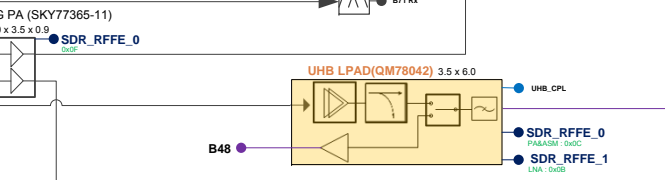
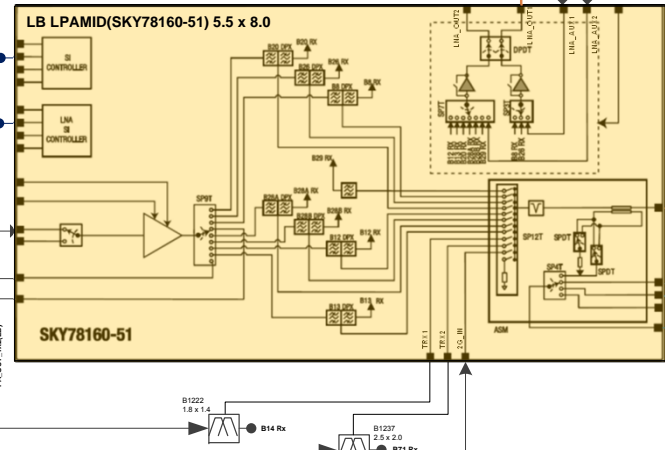
TX0_LB1

TX0_MB1

TX0_MB2

TX0_HB1

TX0_UHB



SDR_RFFE_0
ETDAC_CH0

ET Modulator
QET5100

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

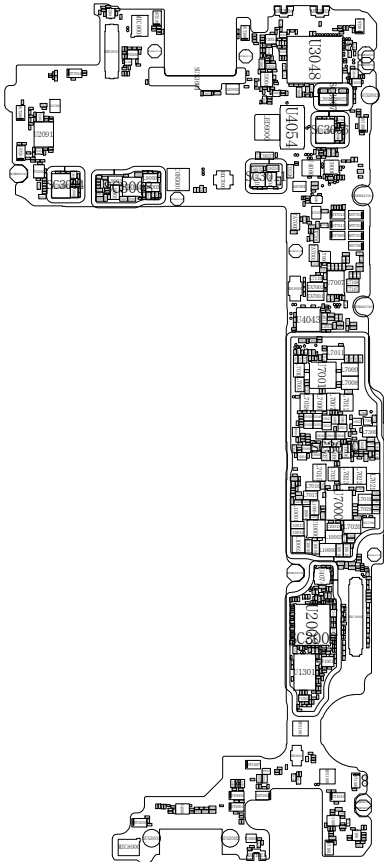
SDR_RFFE_1

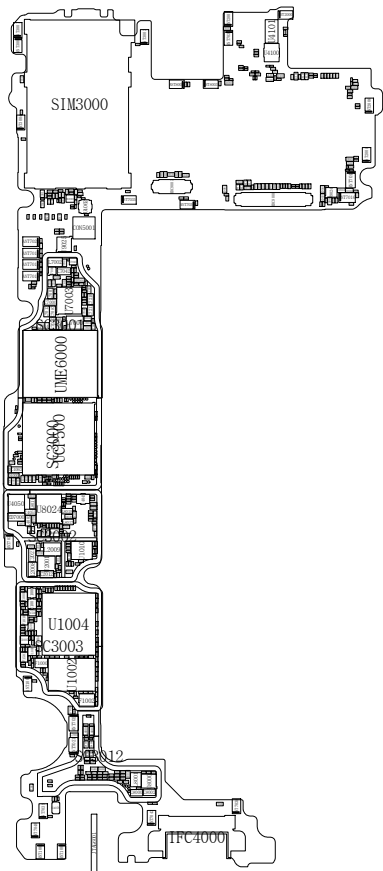
SDR_RFFE_0

SDR_RFFE_1

SDR_RFFE_0

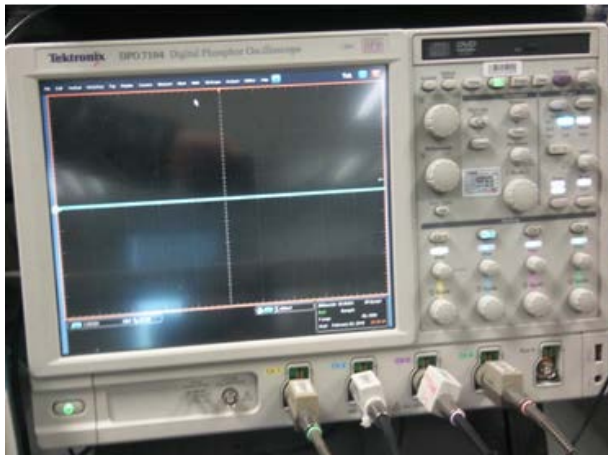
SDR_RFFE_1





8. Level 3 Repair

8-3. Flow chart of Troubleshooting.



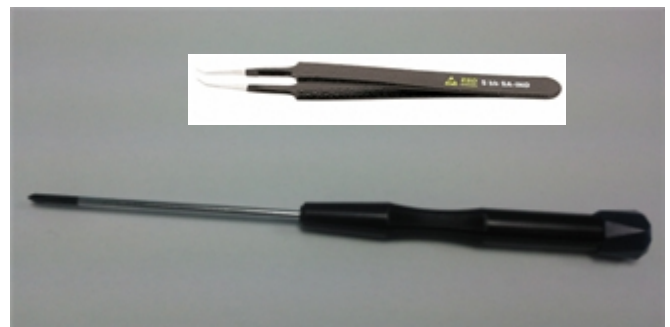
Oscilloscope



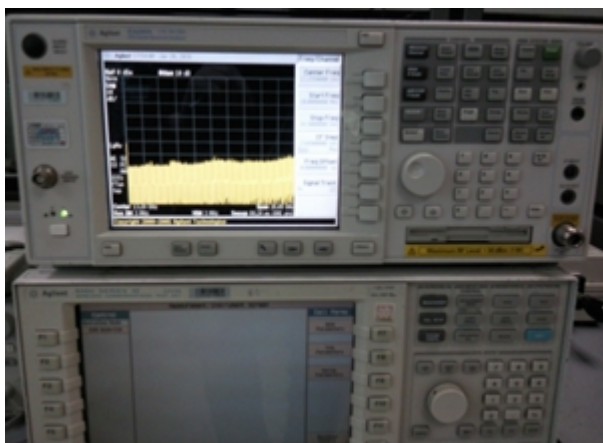
Digital Multimeter



Power Supply



+ driver, ESD Safe Tweezer



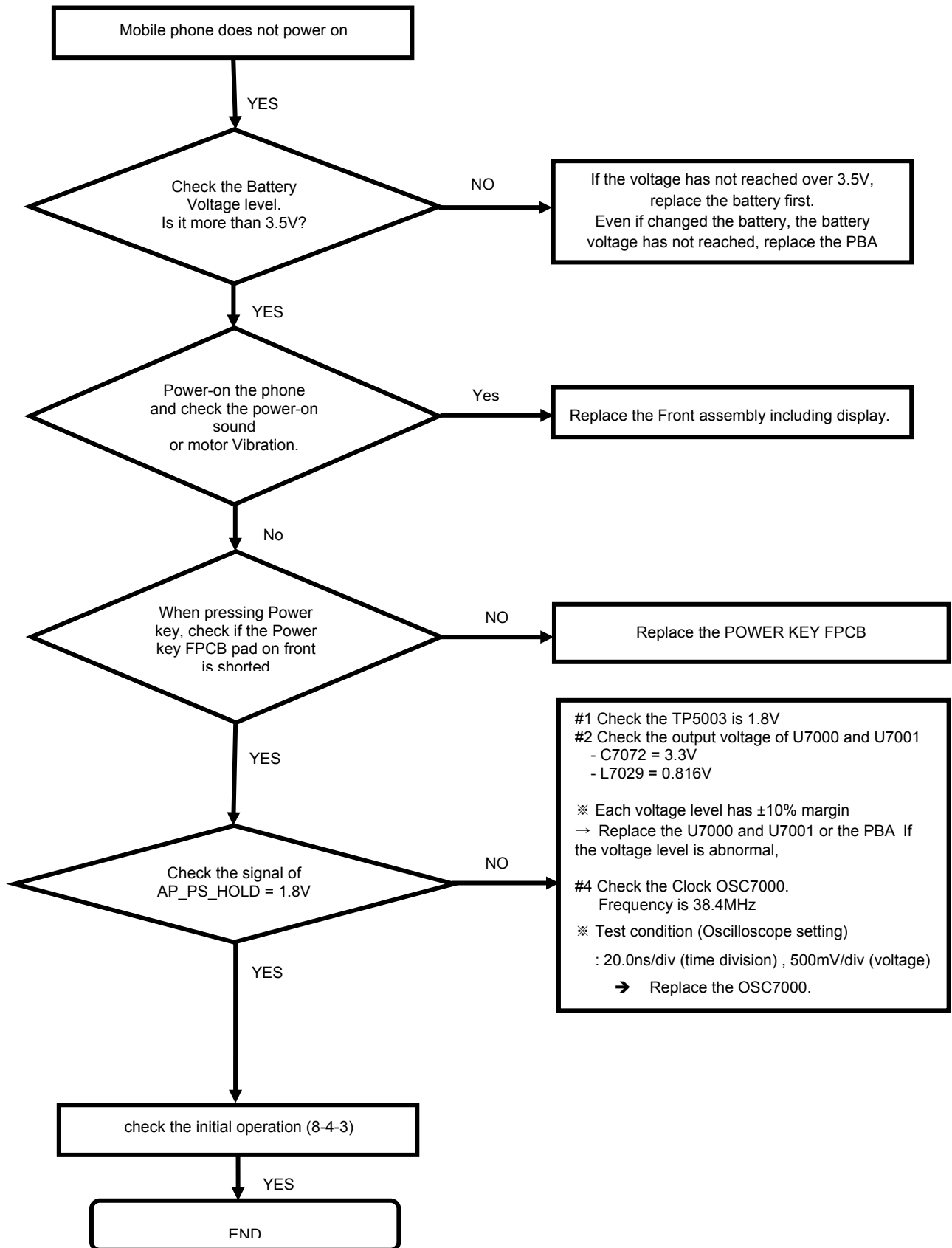
8960 & Spectrum Analyzer



Soldering iron

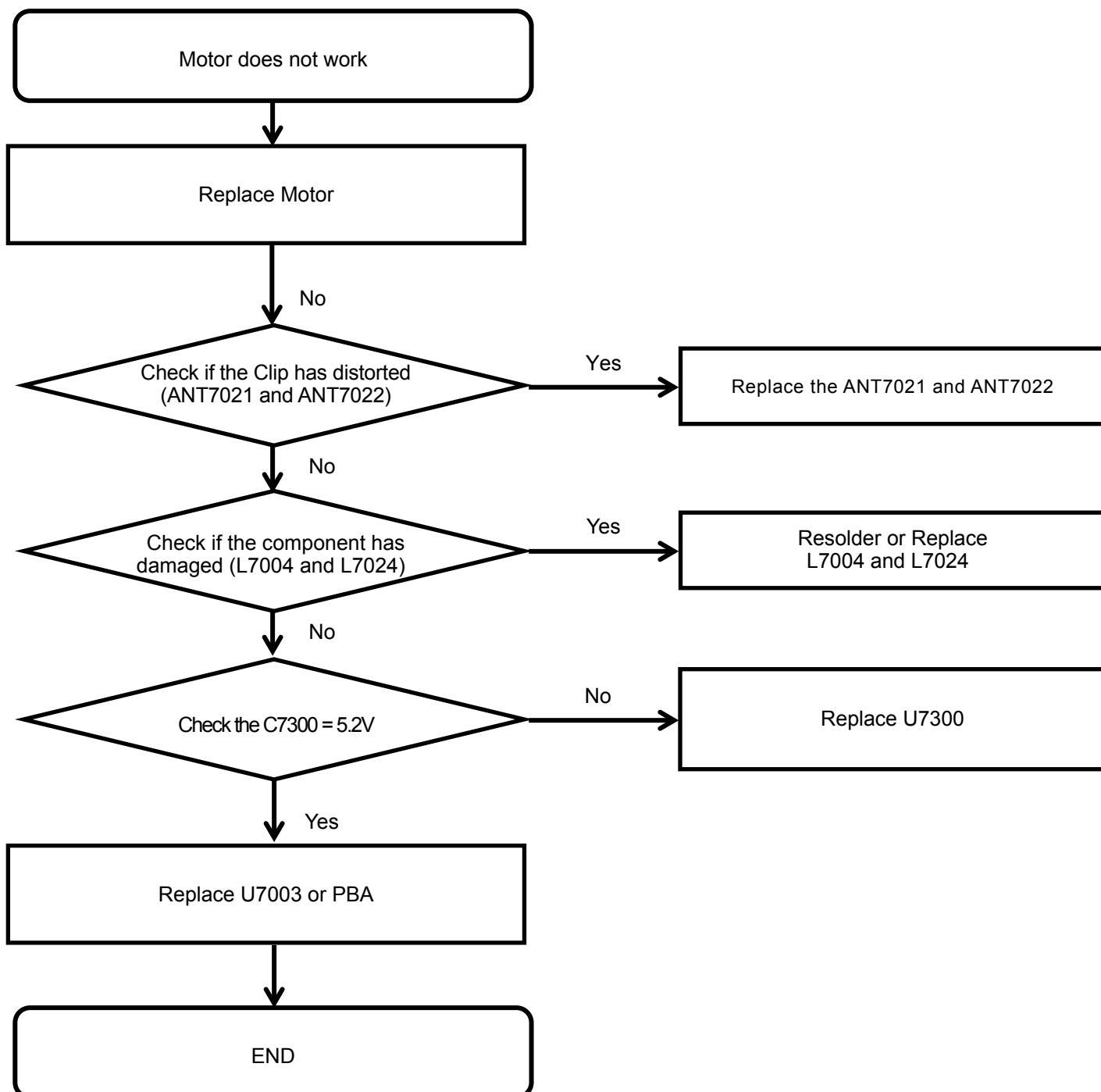
8. Level 3 Repair

8-4-1. Power on



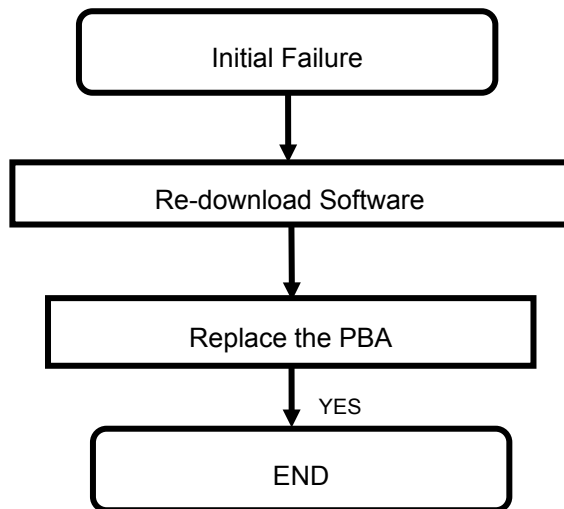
8. Level 3 Repair

8-4-2. Motor



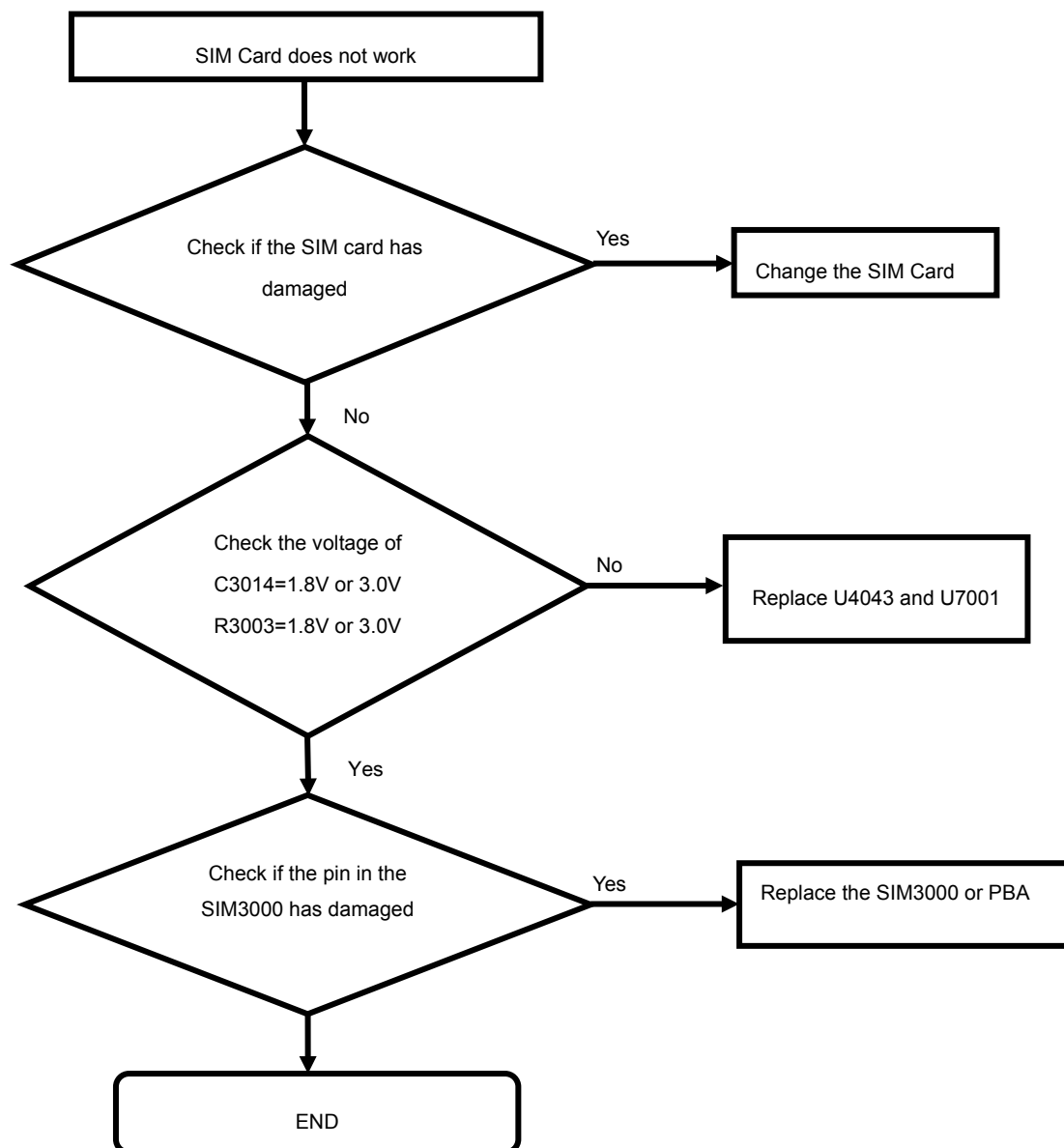
8. Level 3 Repair

8-4-3. initial



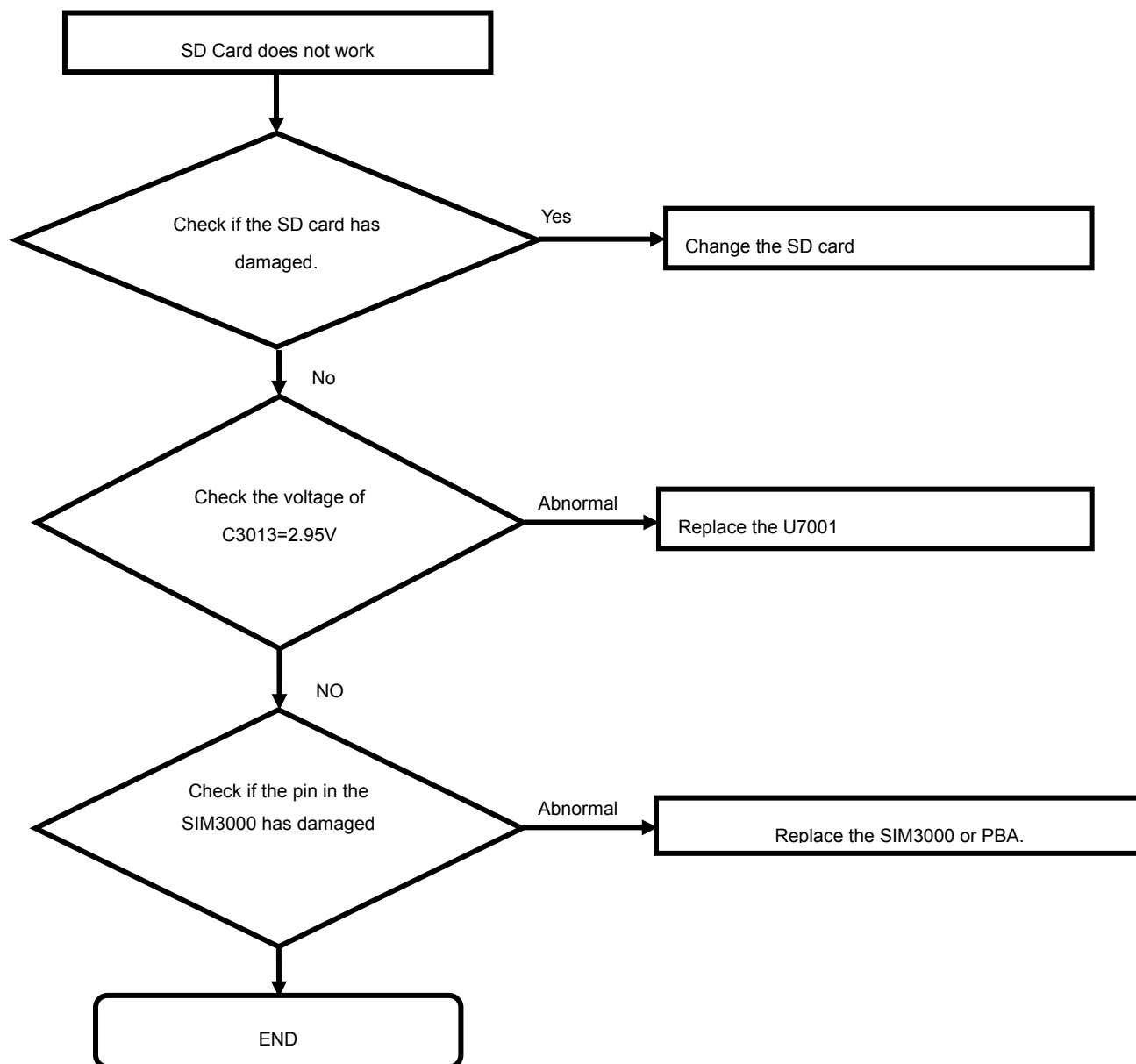
8. Level 3 Repair

8-4-4. SIM PART



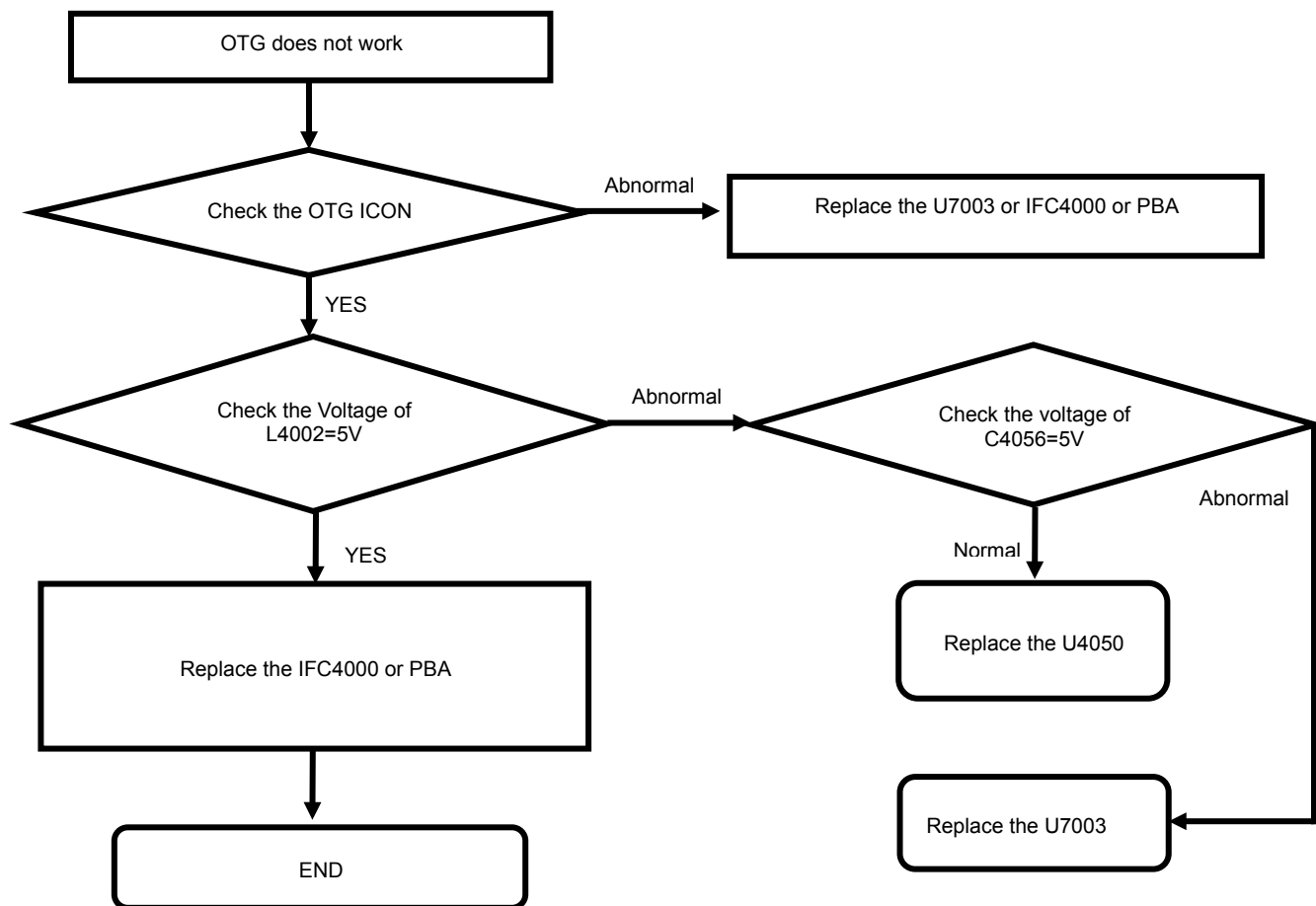
8. Level 3 Repair

8-4-5. SIM/SD PART



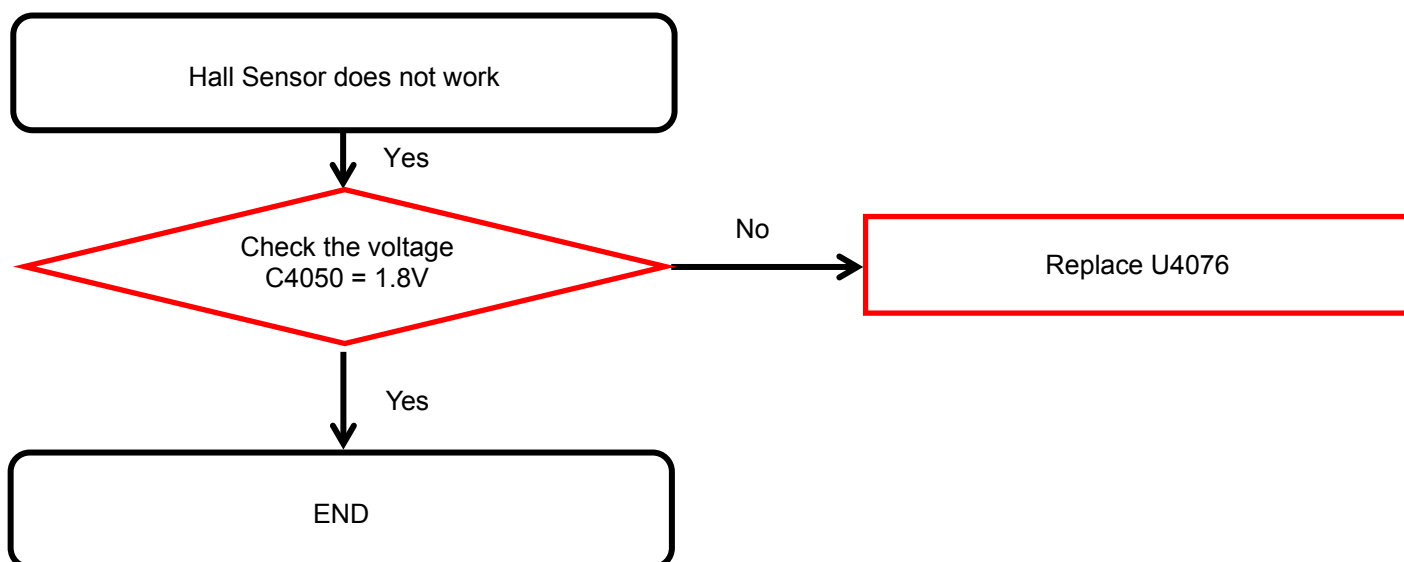
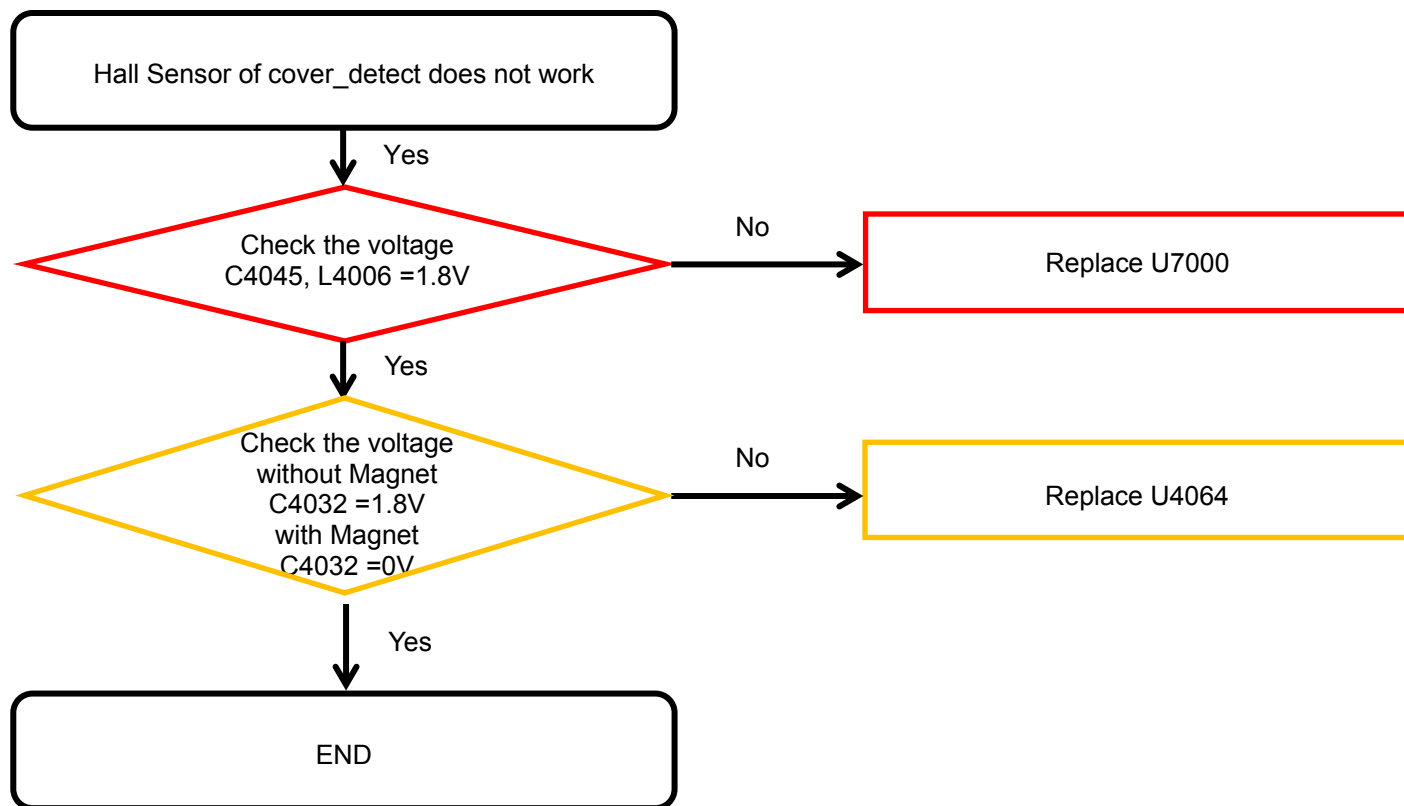
8. Level 3 Repair

8-4-6. OTG



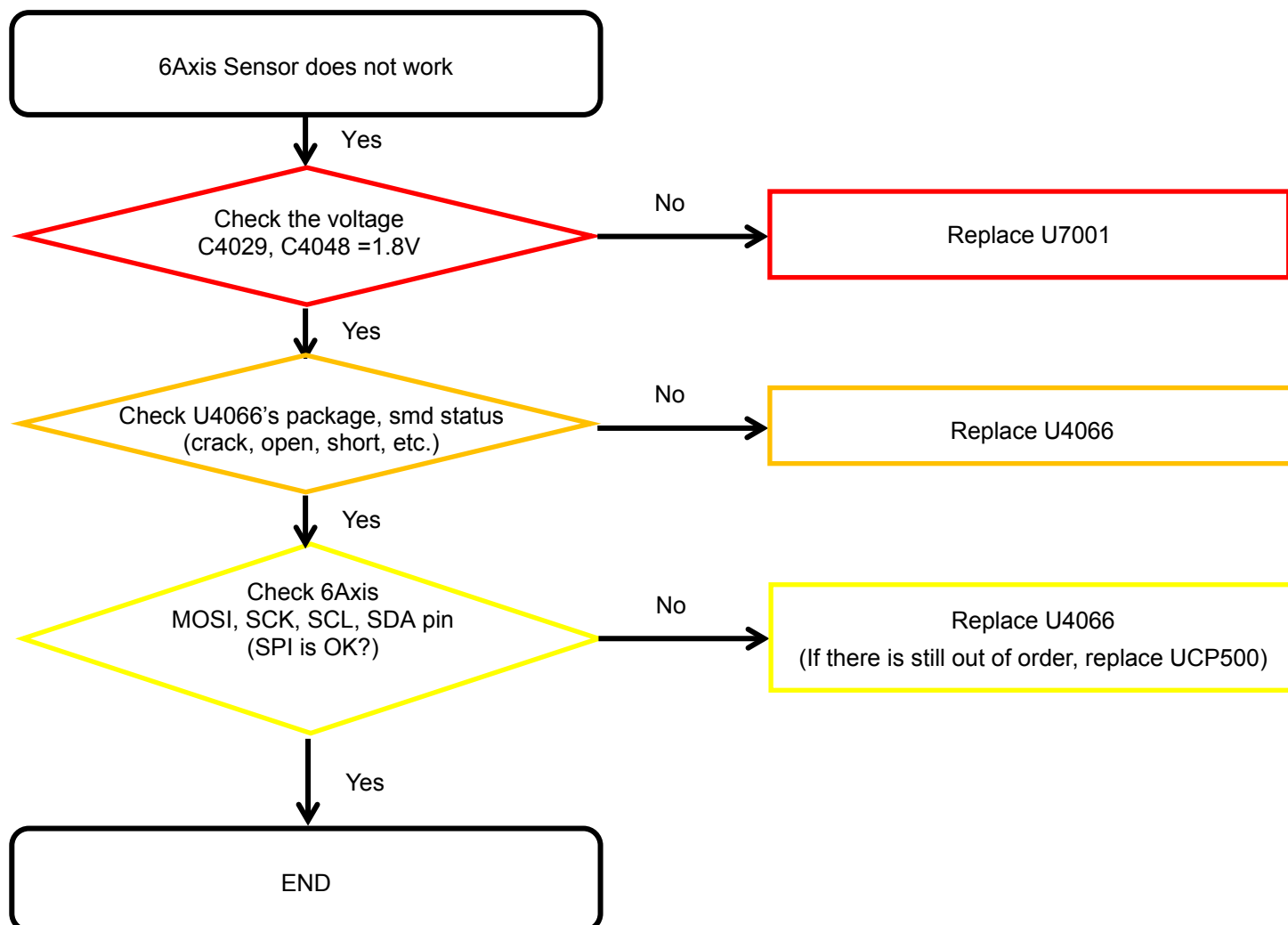
8. Level 3 Repair

8-4-7. Hall IC



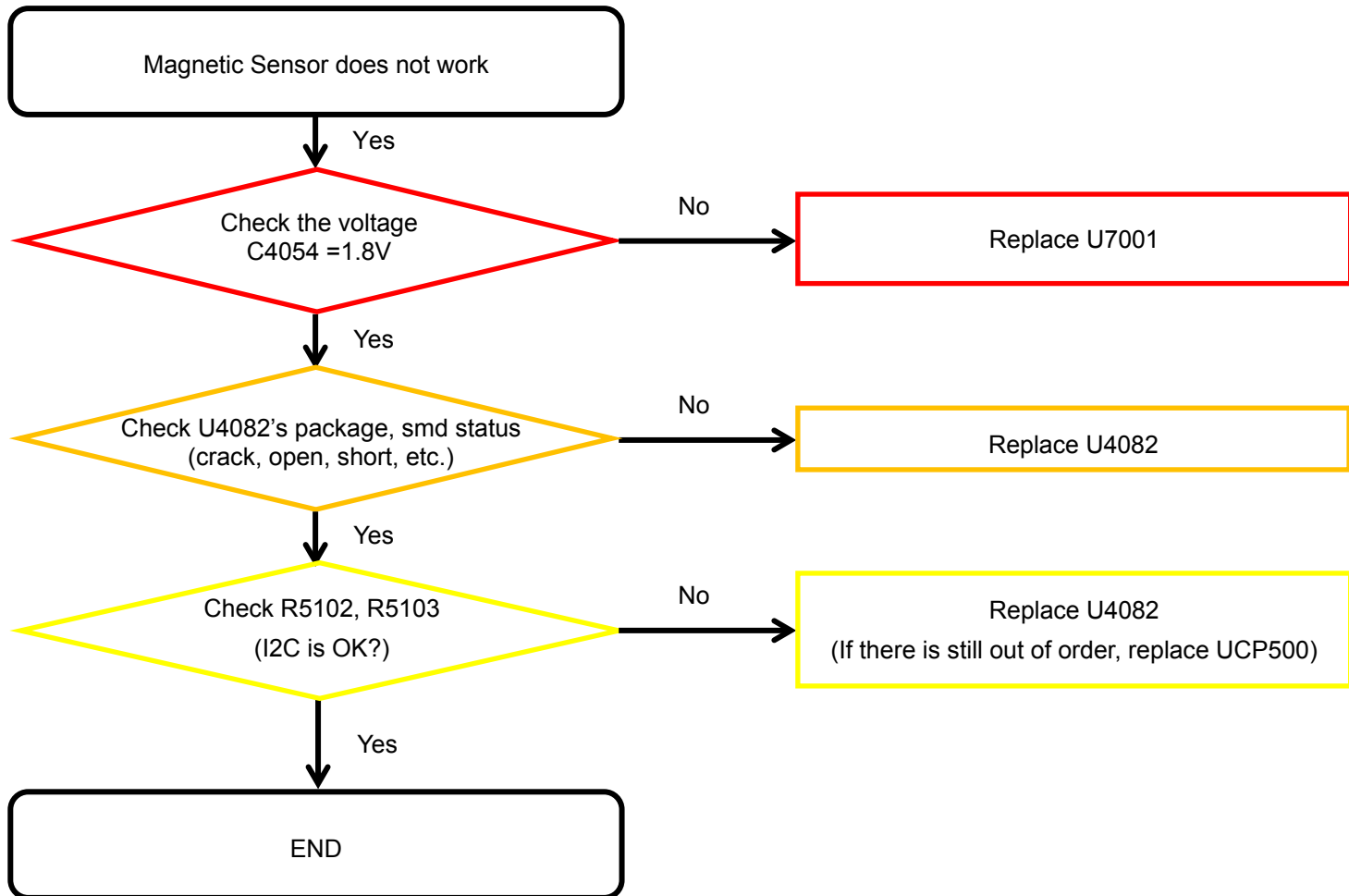
8. Level 3 Repair

8-4-8. 6Axis sensor



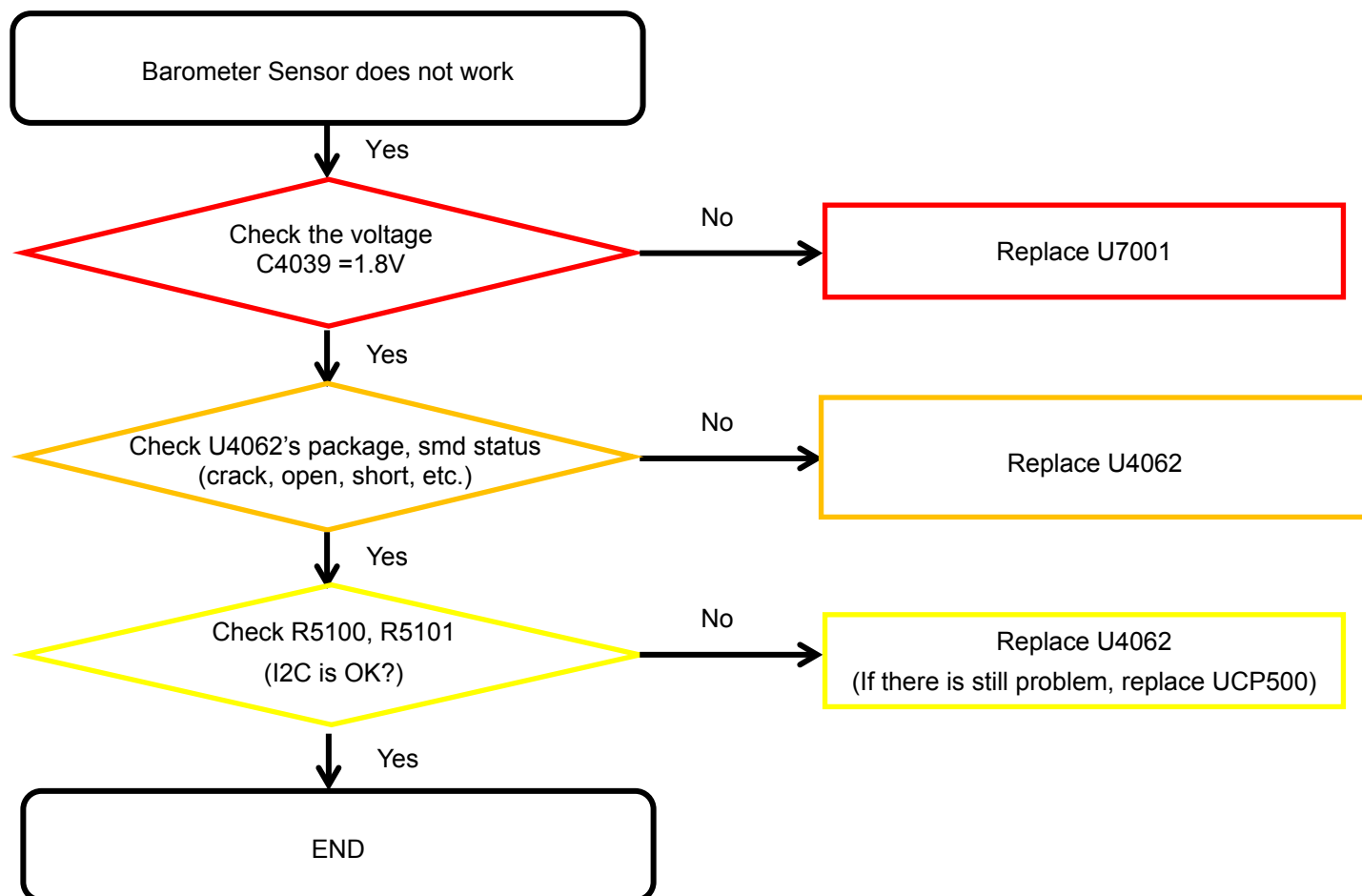
8. Level 3 Repair

8-4-9. Magnetic sensor



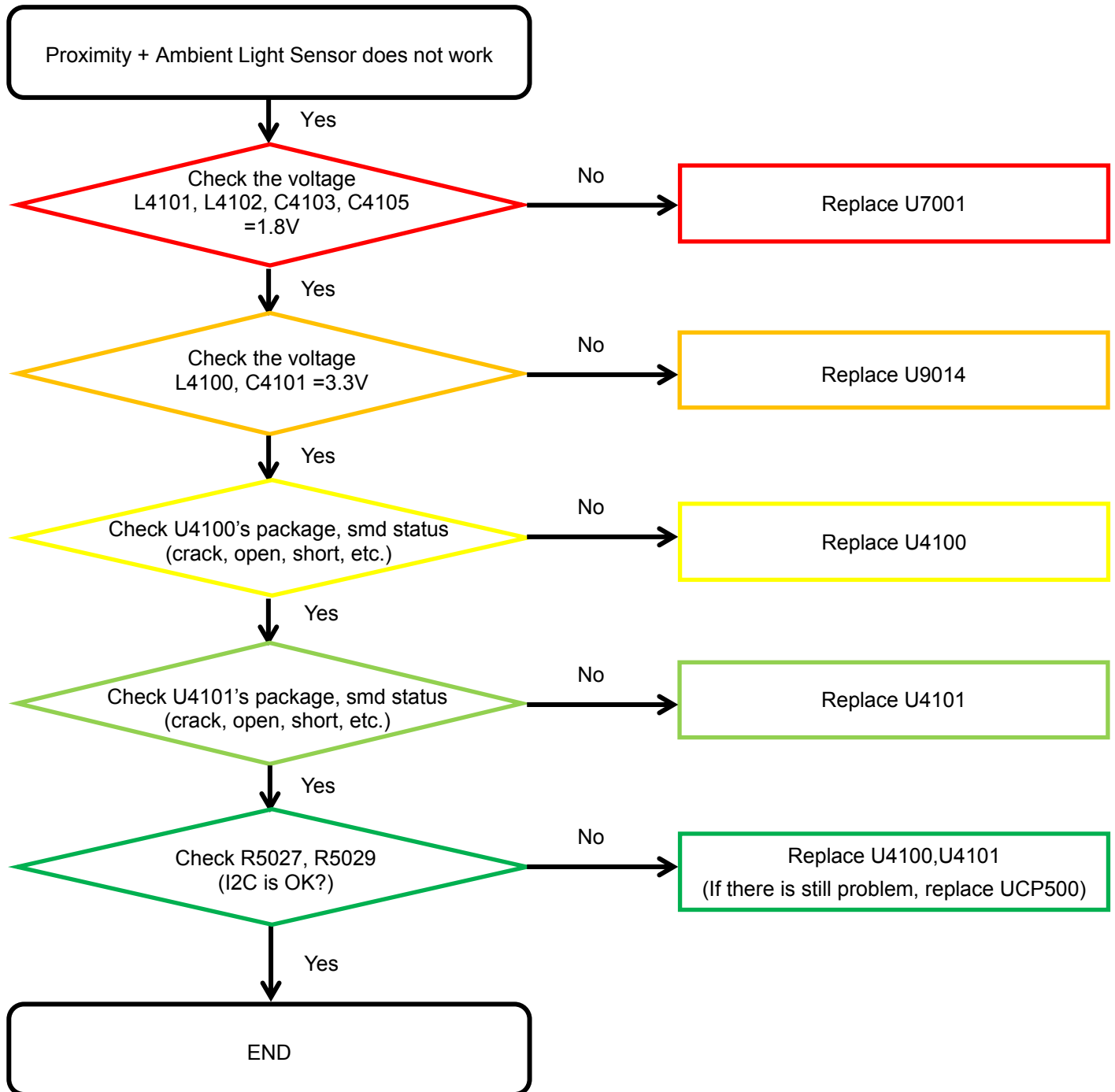
8. Level 3 Repair

8-4-10. Barometer sensor



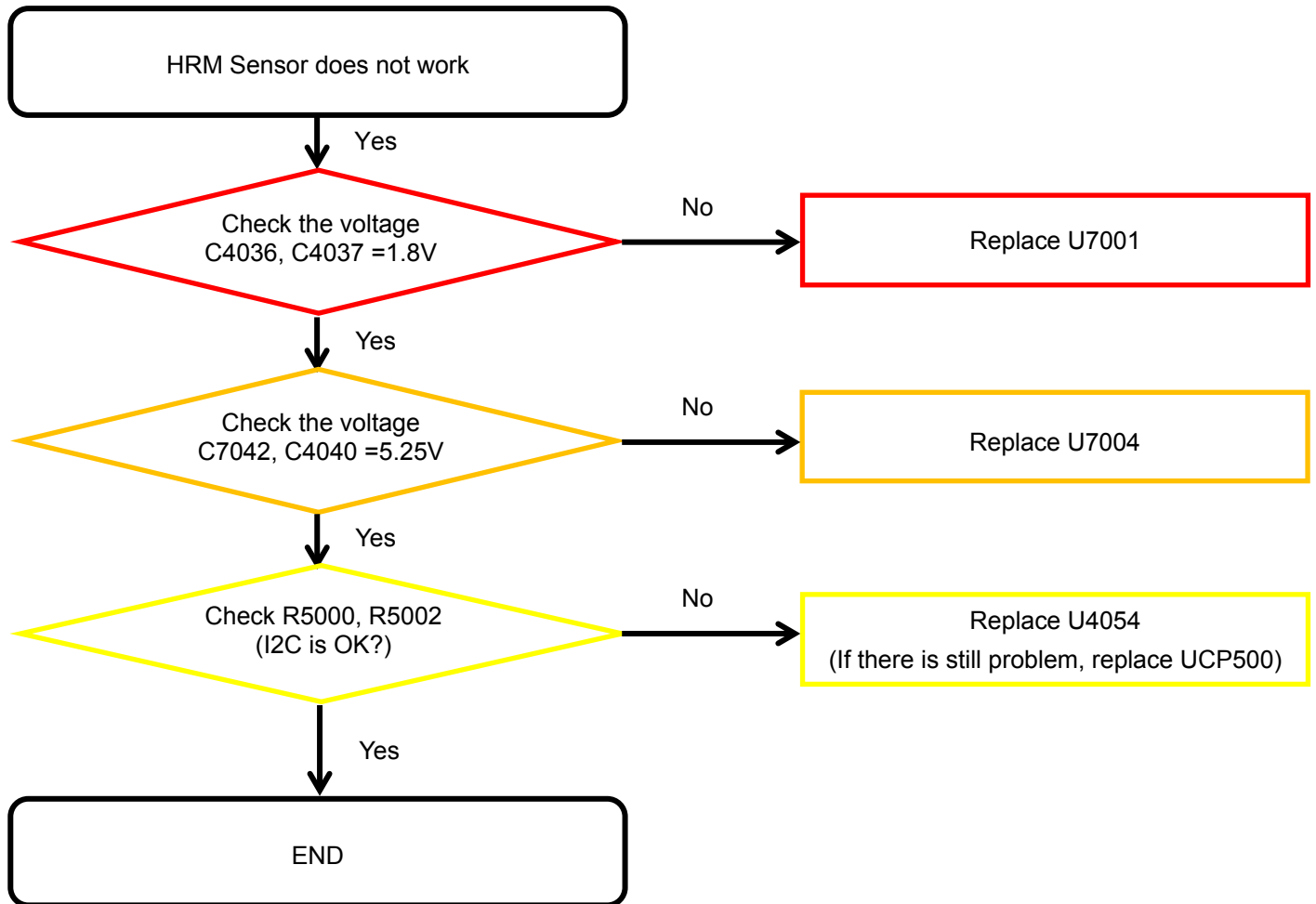
8. Level 3 Repair

8-4-11. Proximity/Ambient Light sensor



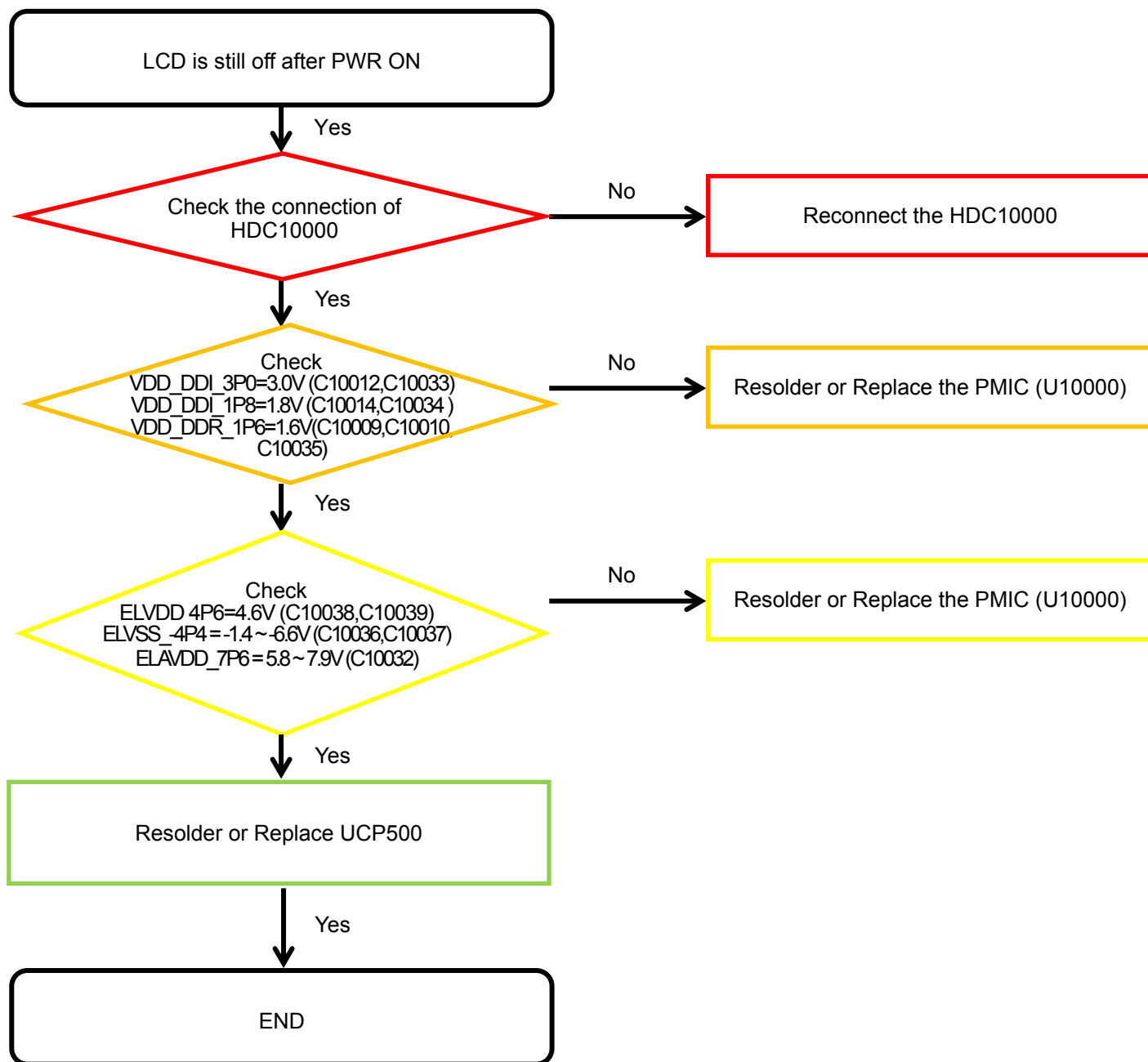
8. Level 3 Repair

8-4-12. HRM sensor



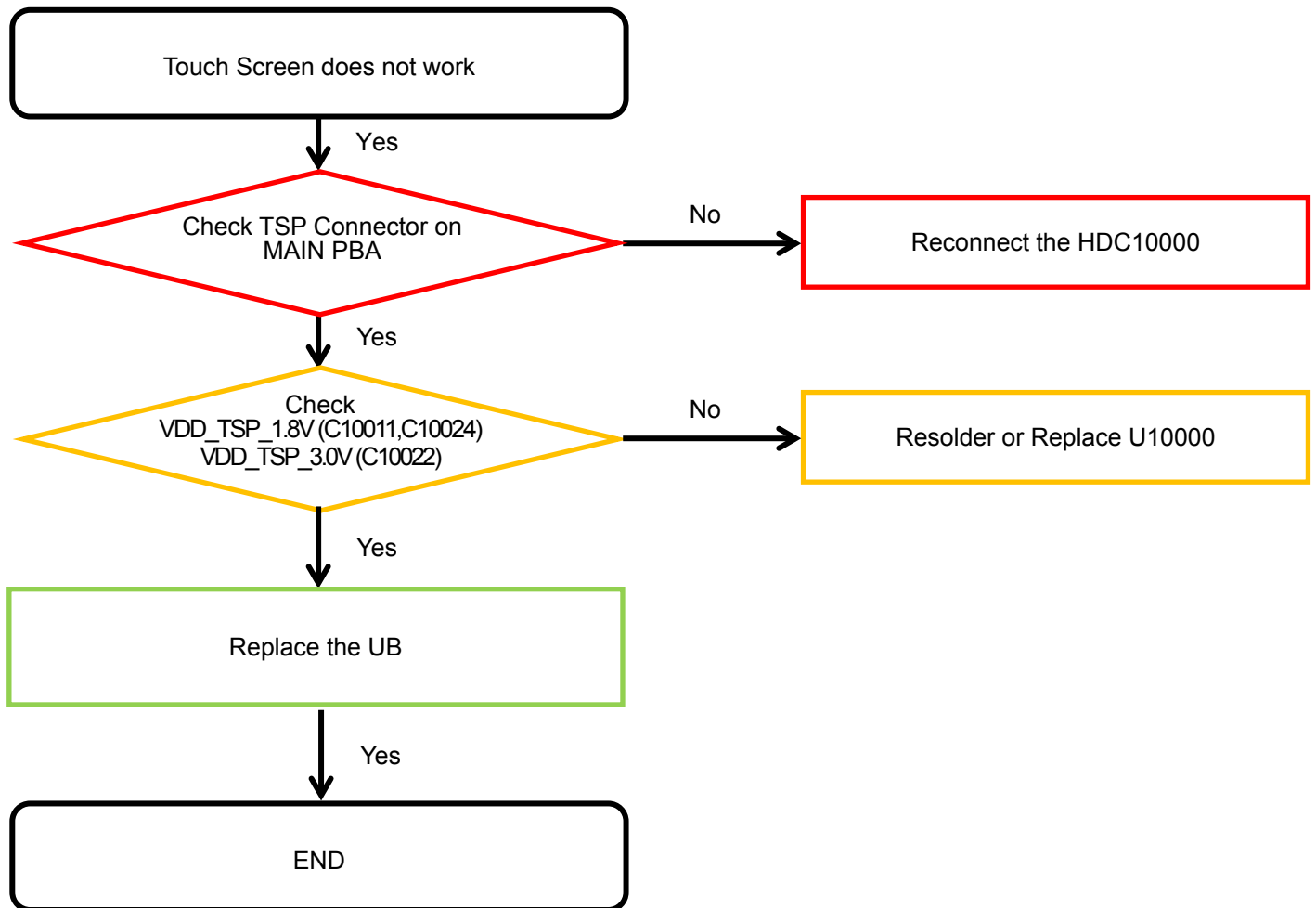
8. Level 3 Repair

8-4-13. Display



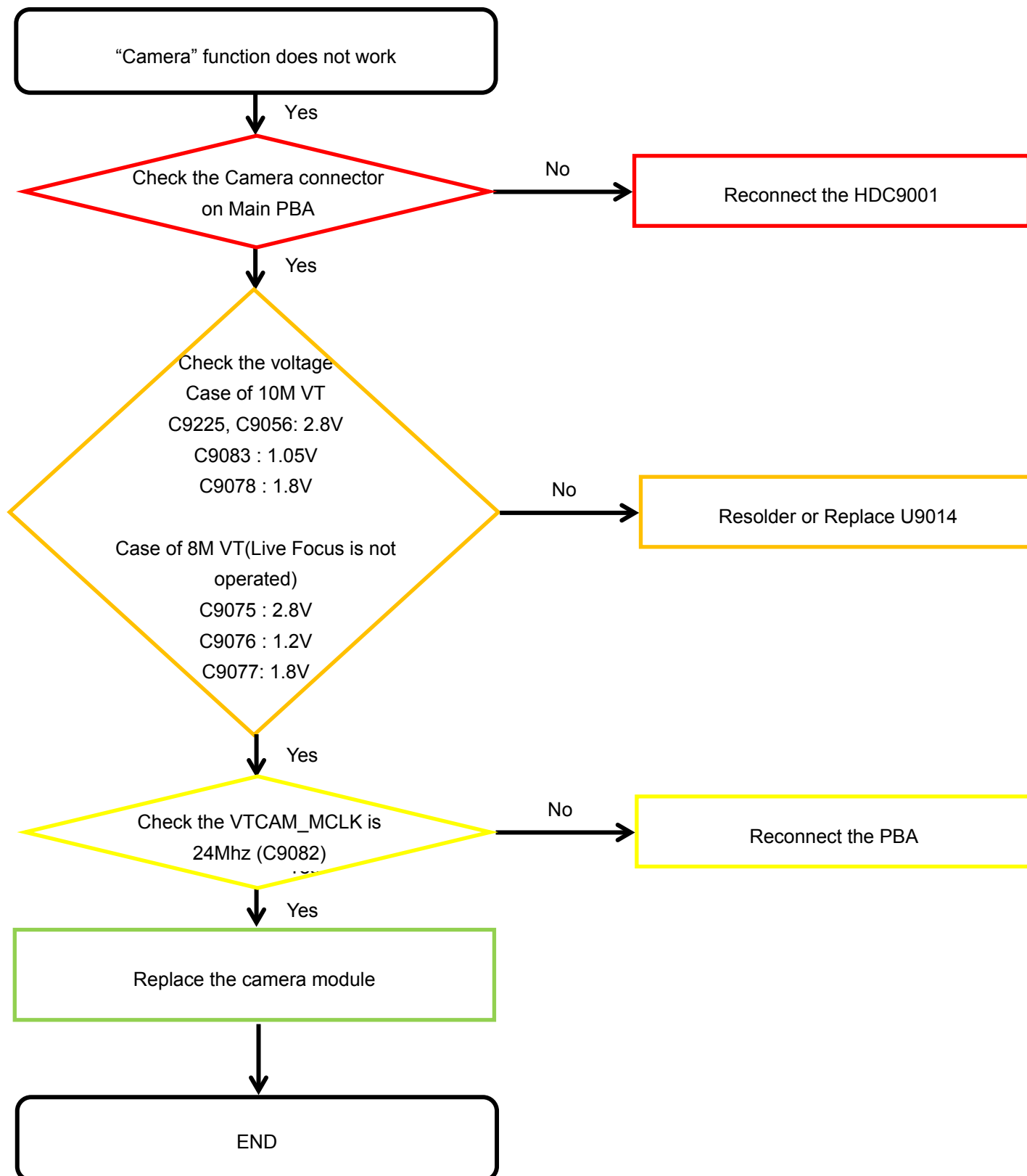
8. Level 3 Repair

8-4-14. TSP



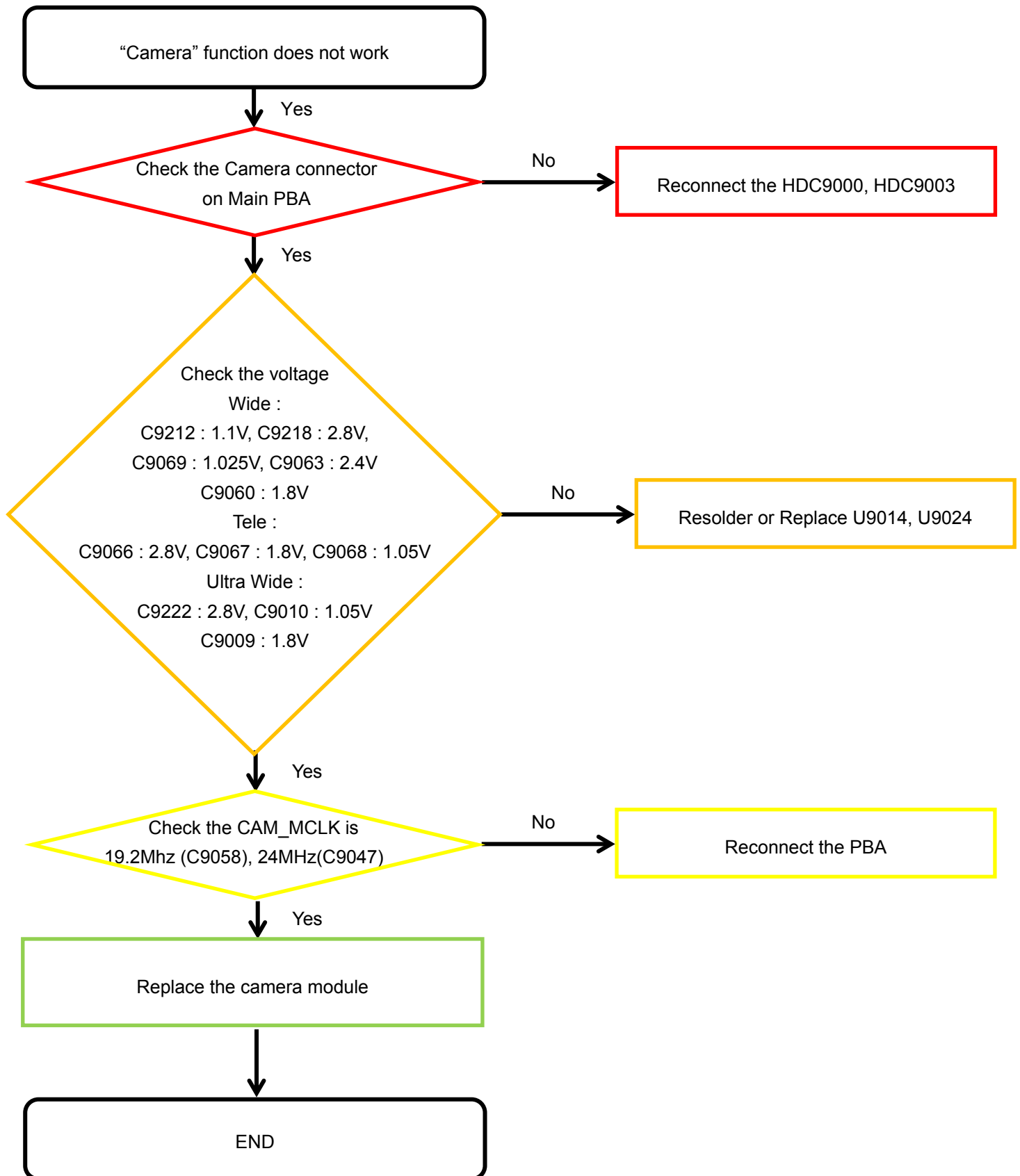
8. Level 3 Repair

8-4-15. VT CAMERA



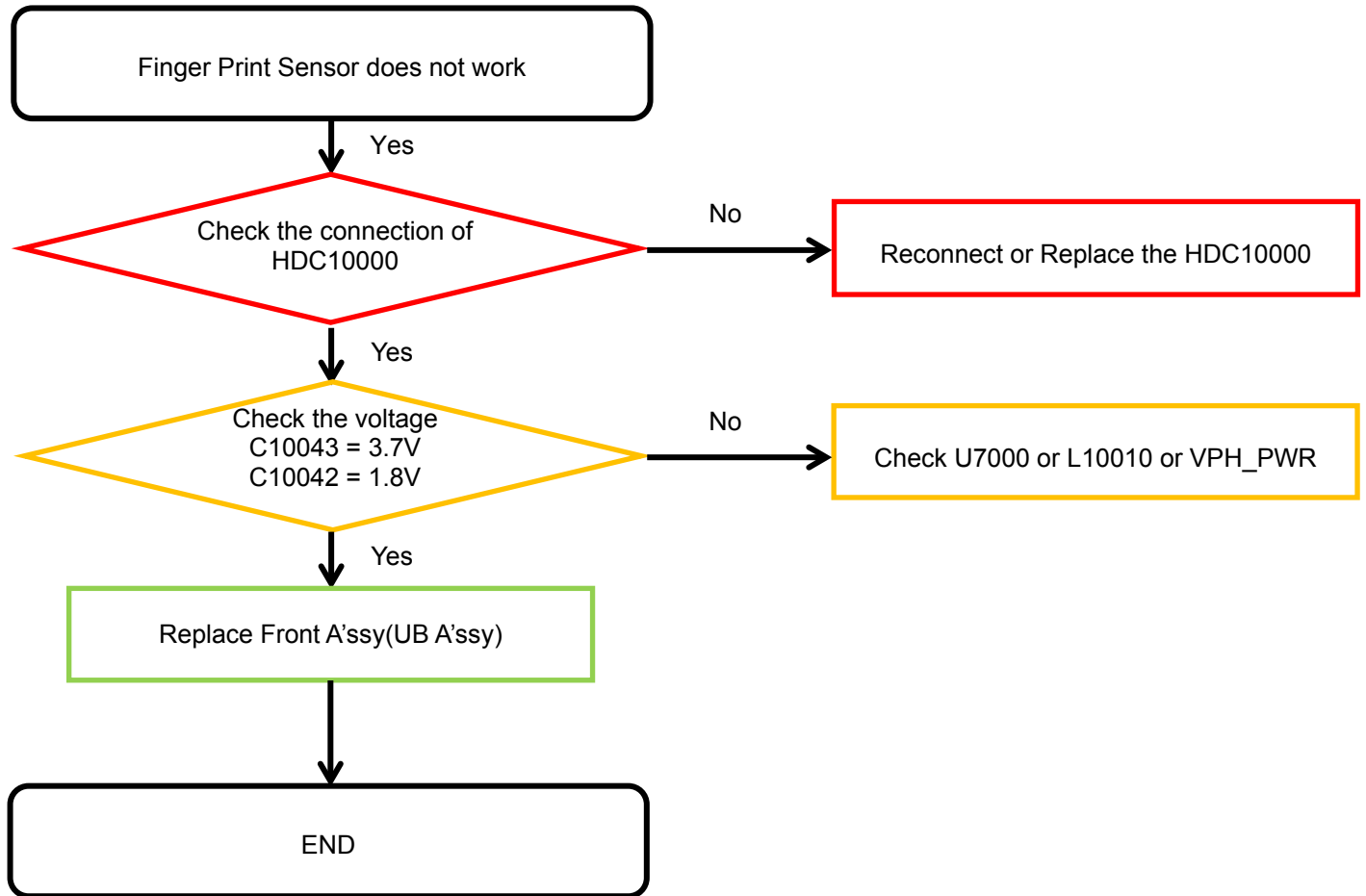
8. Level 3 Repair

8-4-16. Rear CAMERA



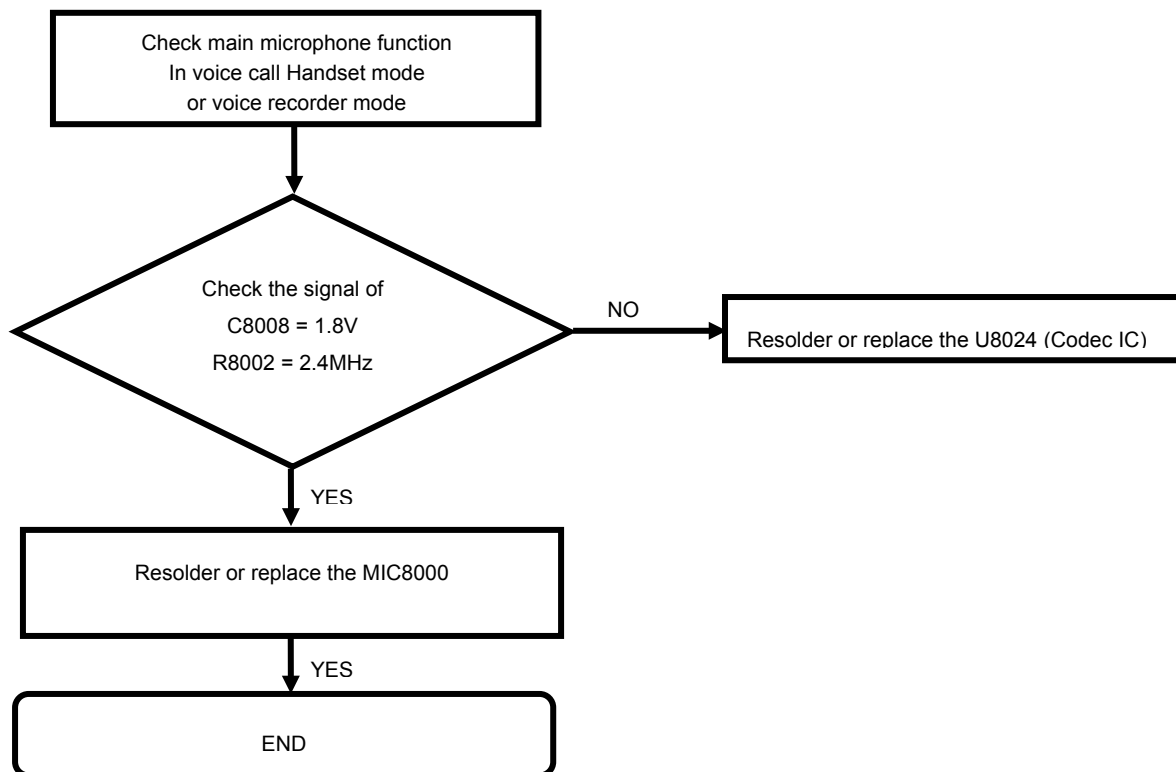
8. Level 3 Repair

8-4-17. Finger Print



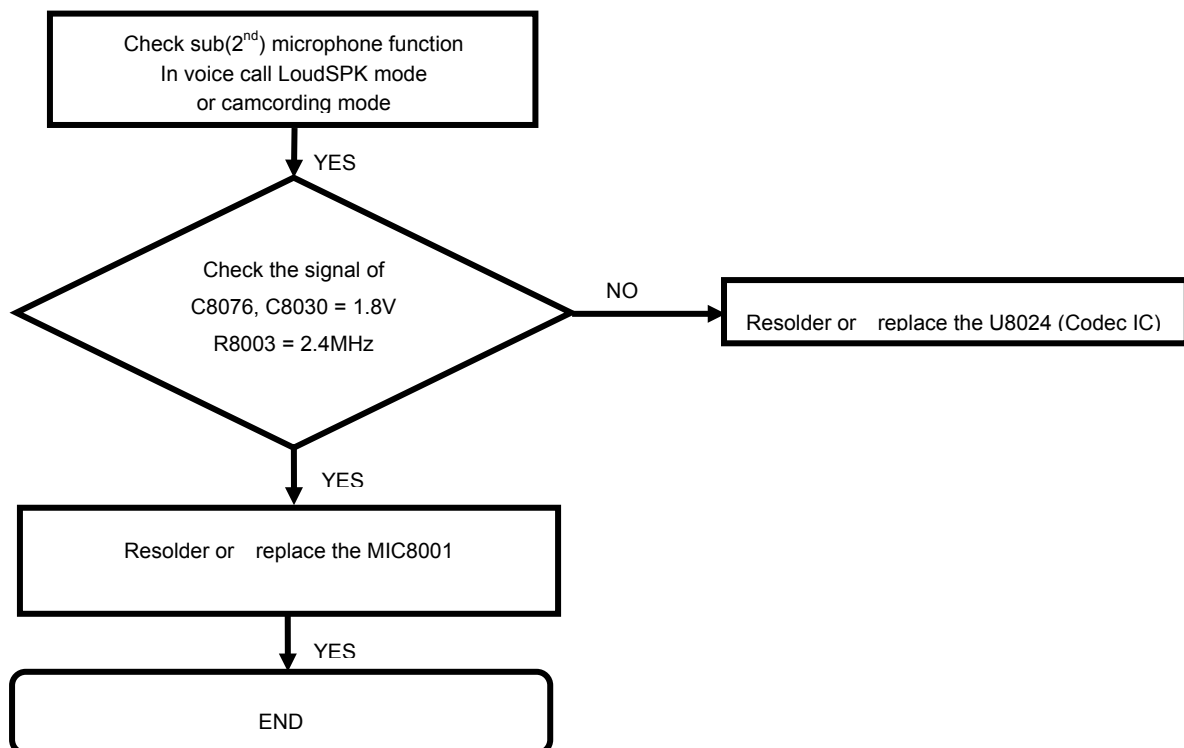
8. Level 3 Repair

8-4-18-1. Main MIC



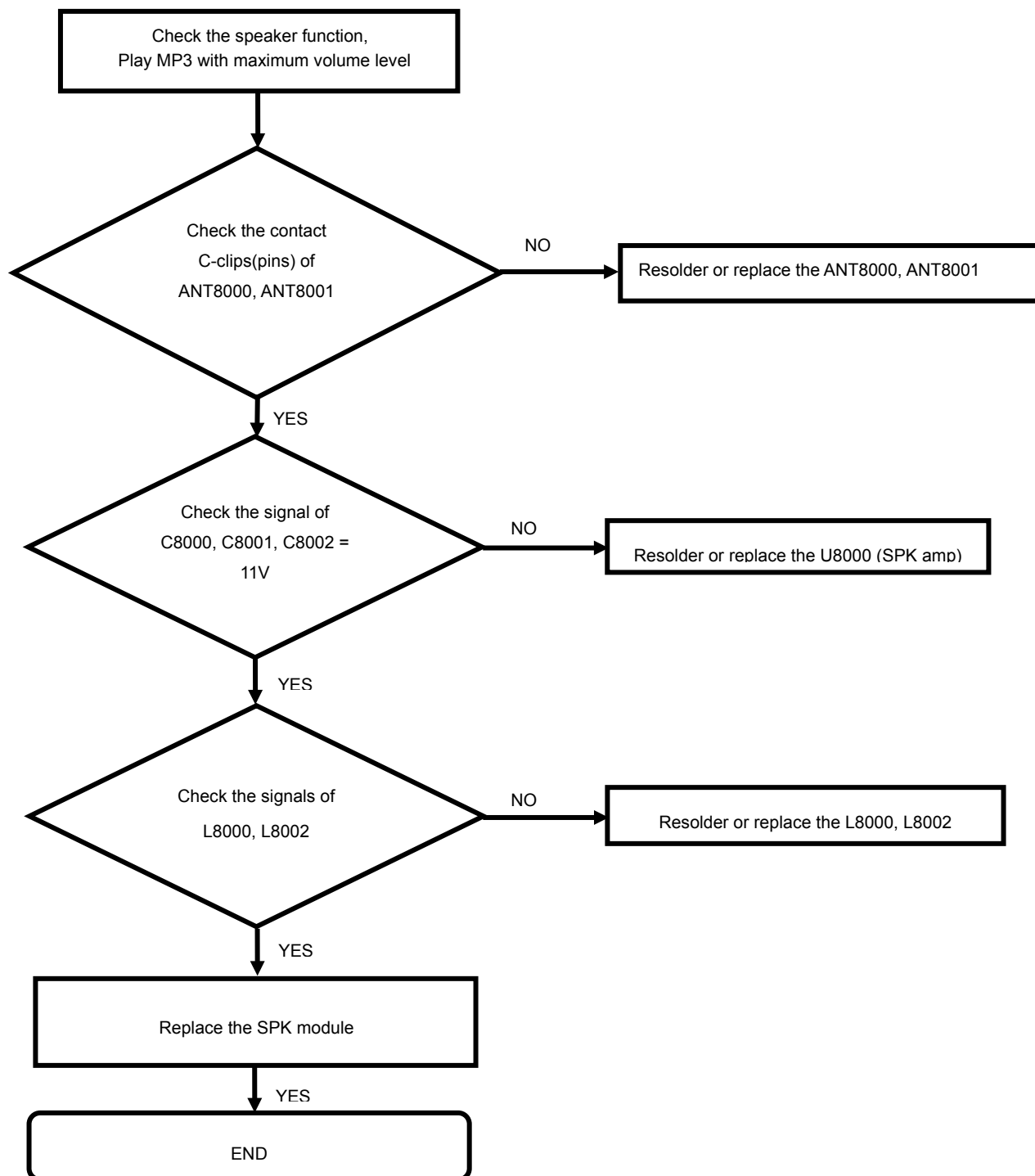
8. Level 3 Repair

8-4-18-2. Sub(2nd) MIC



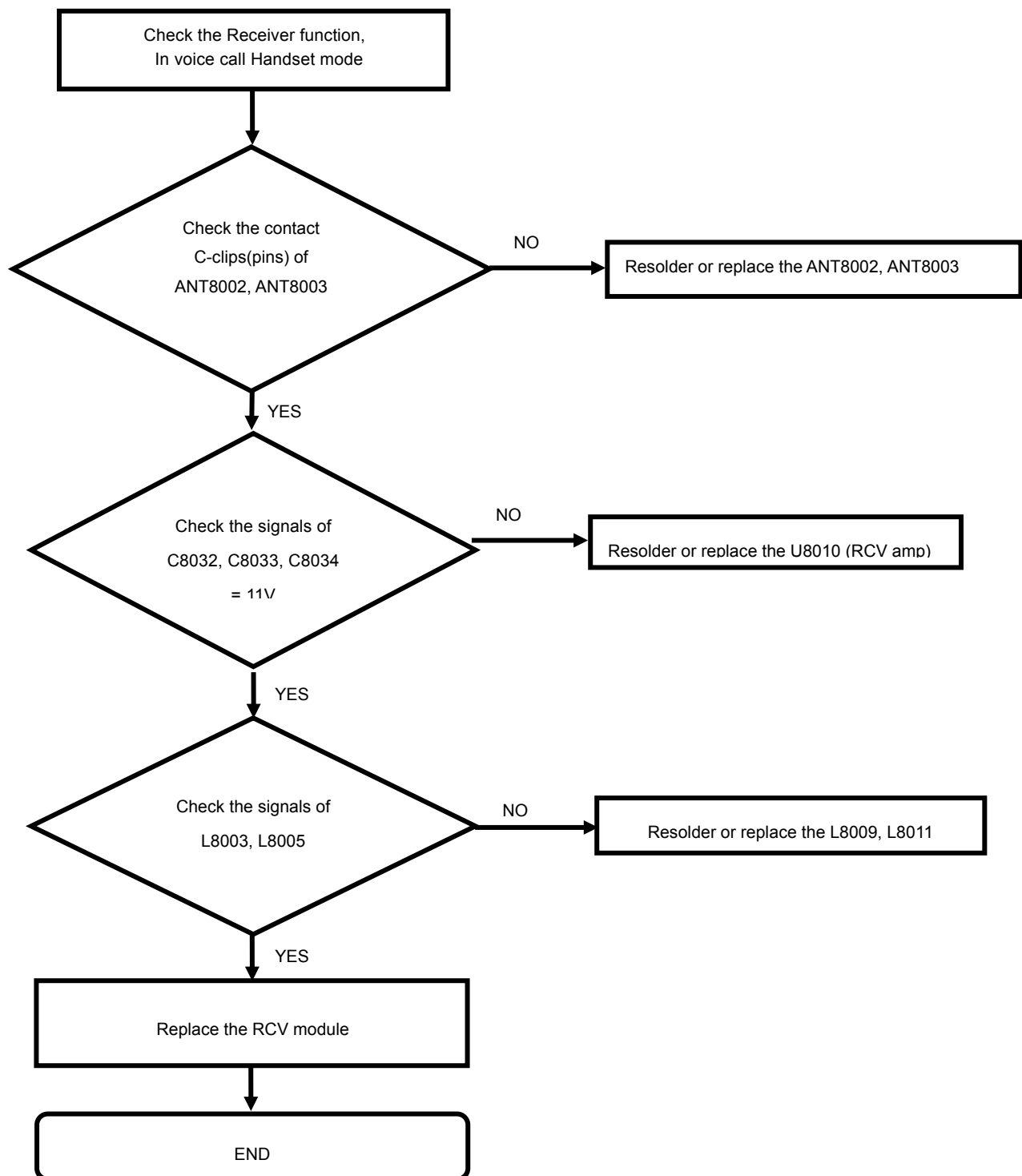
8. Level 3 Repair

8-4-19. Speaker part



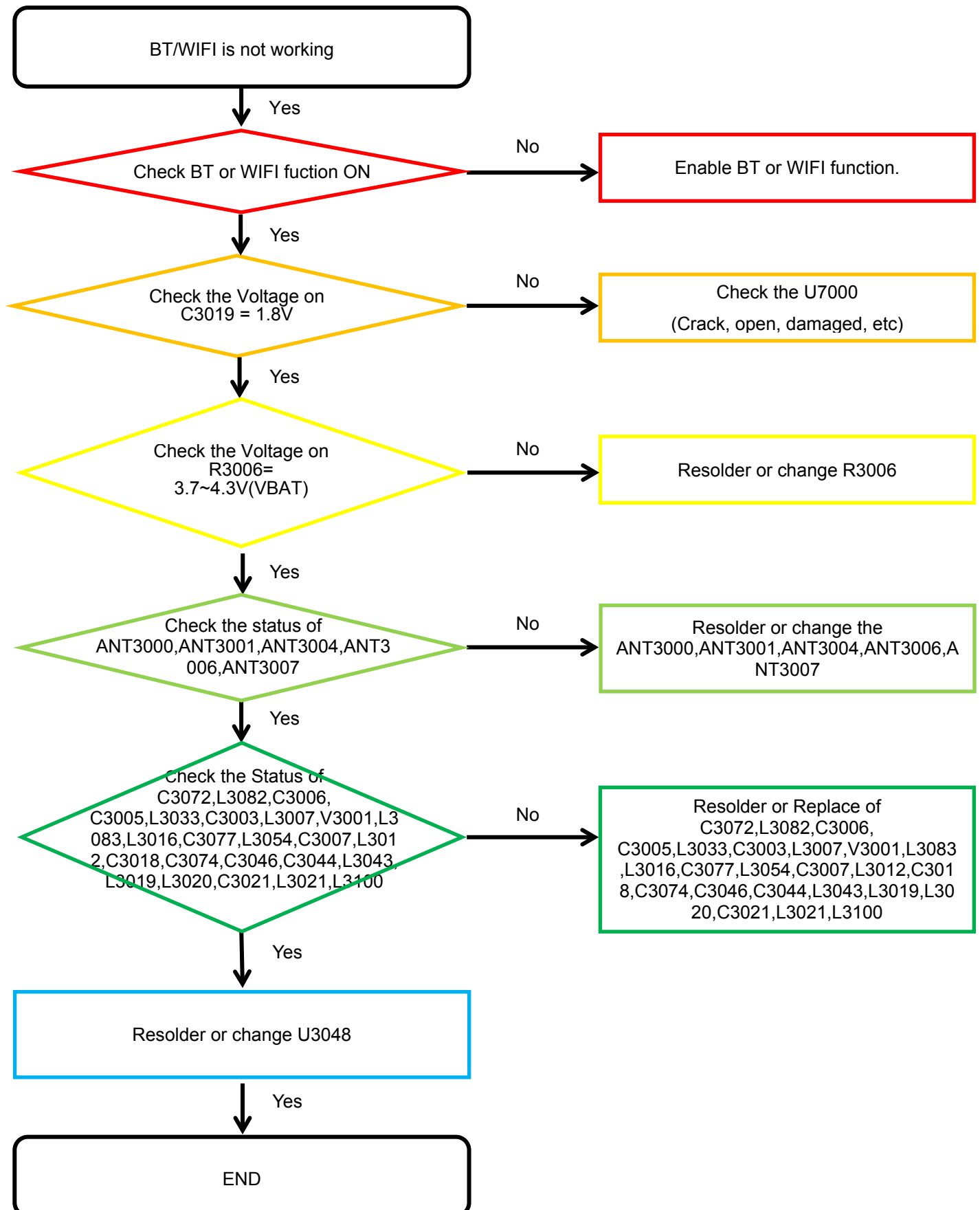
8. Level 3 Repair

8-4-20. Receiver part



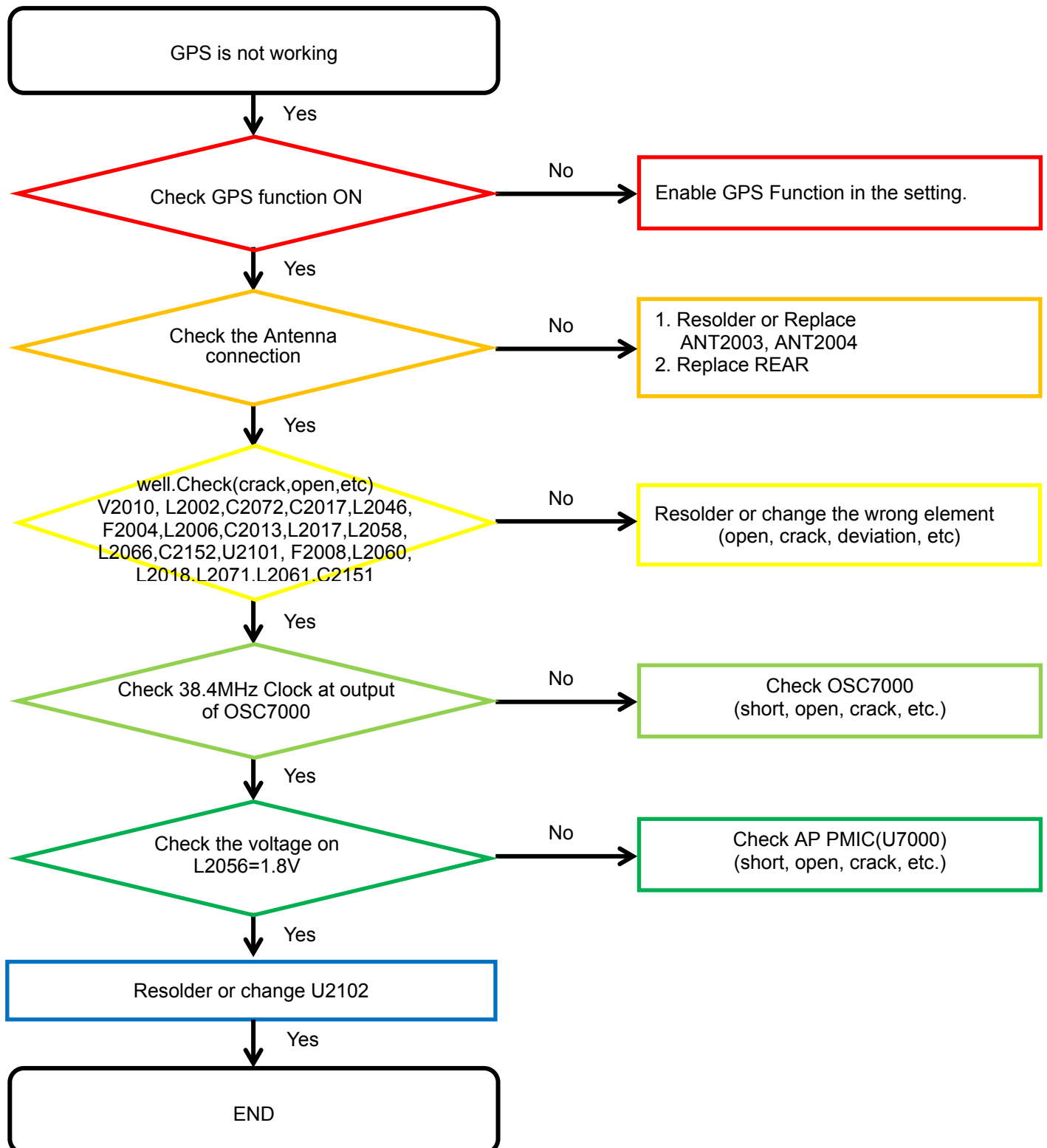
8. Level 3 Repair

8-4-21. BT/WIFI



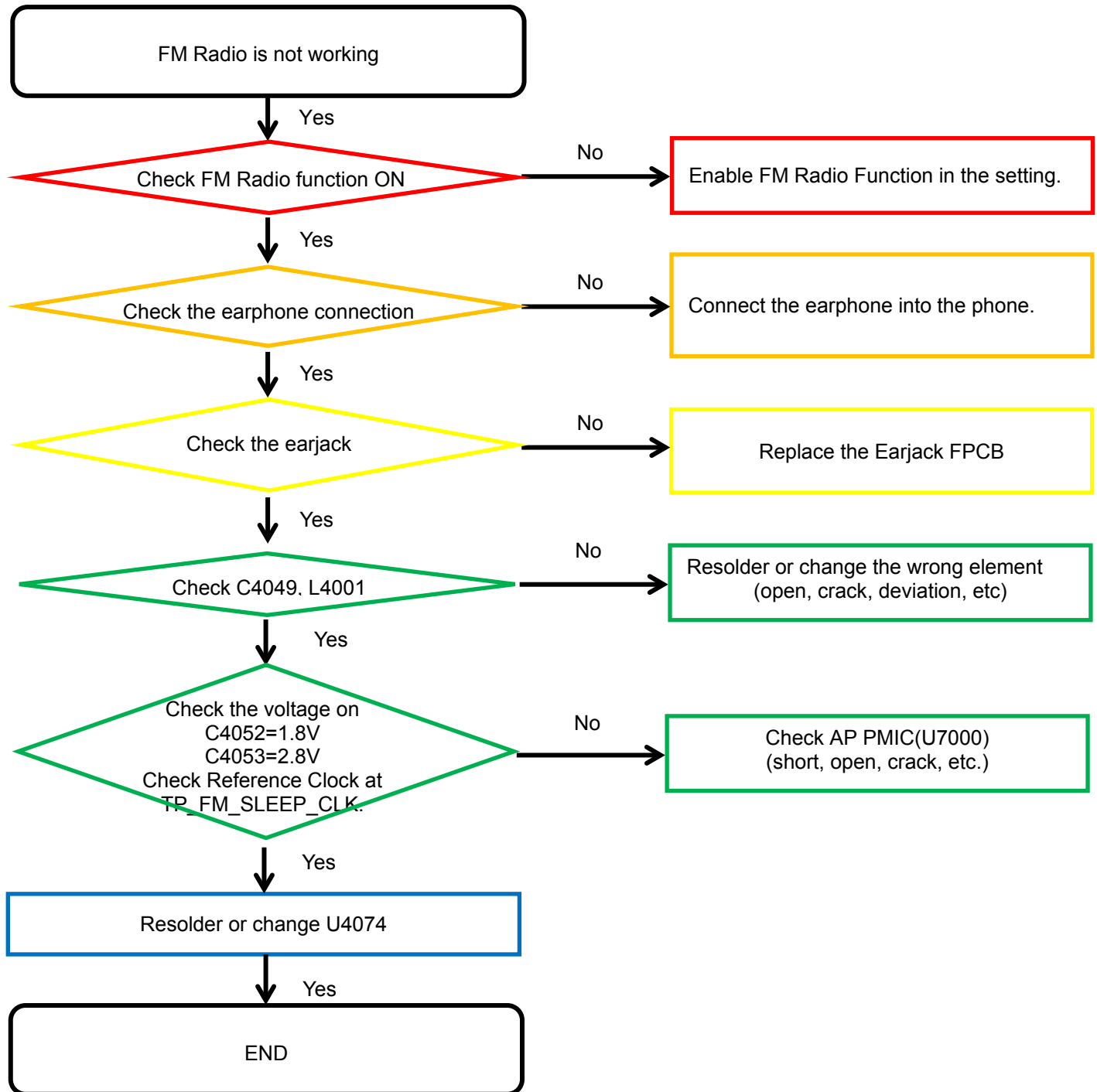
8. Level 3 Repair

8-4-22. GPS



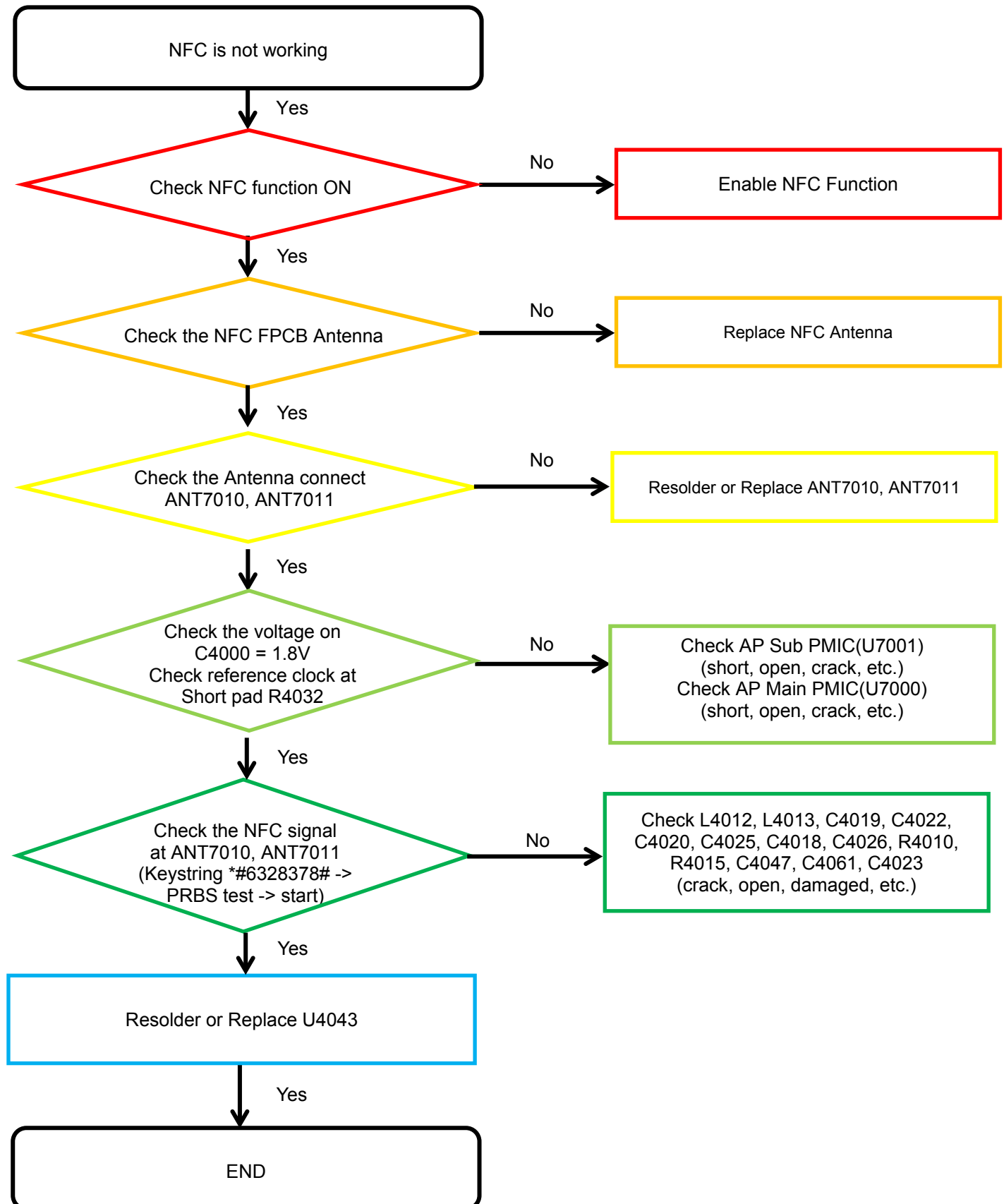
8. Level 3 Repair

8-4-23. FM Radio



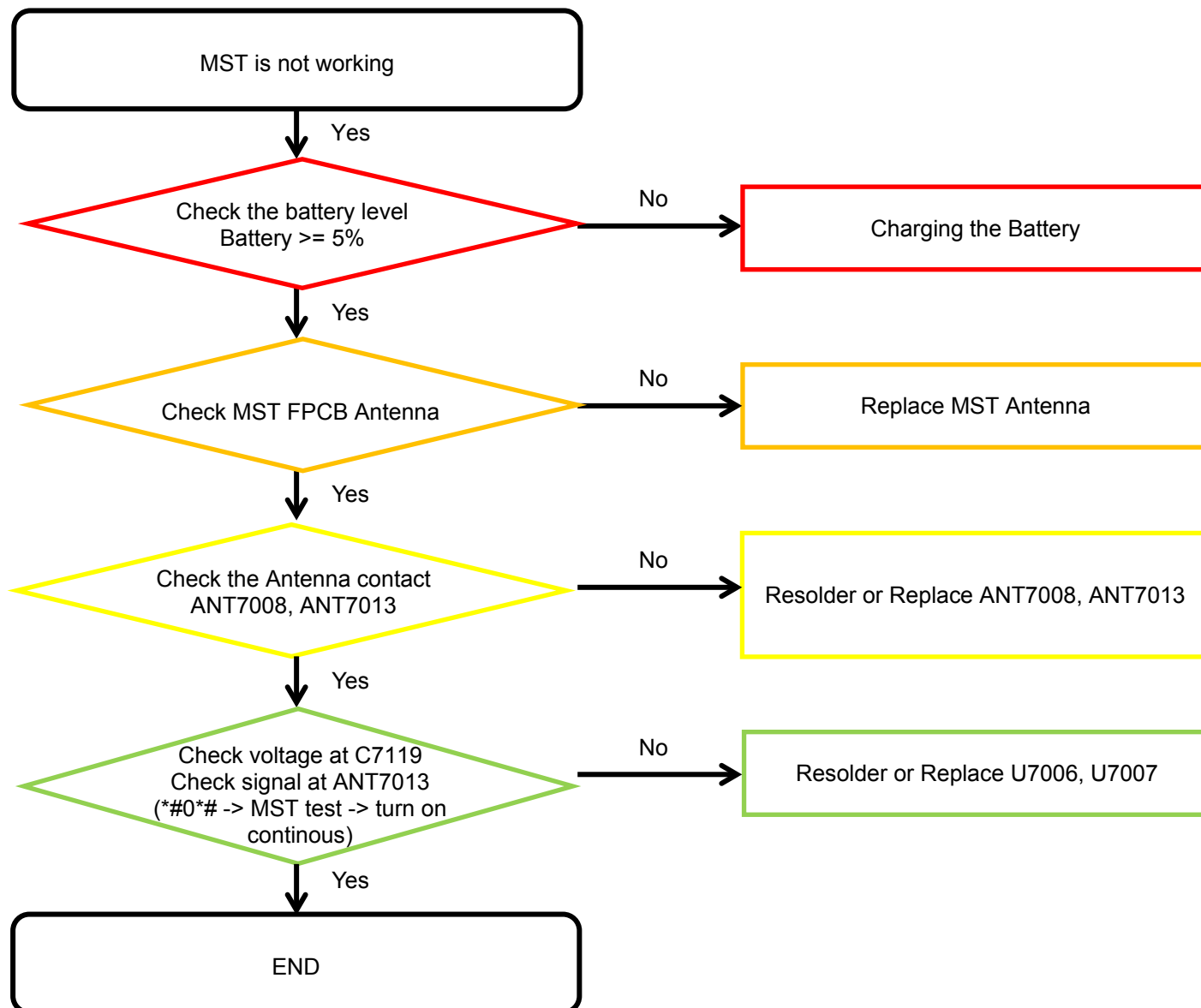
8. Level 3 Repair

8-4-24. NFC



8. Level 3 Repair

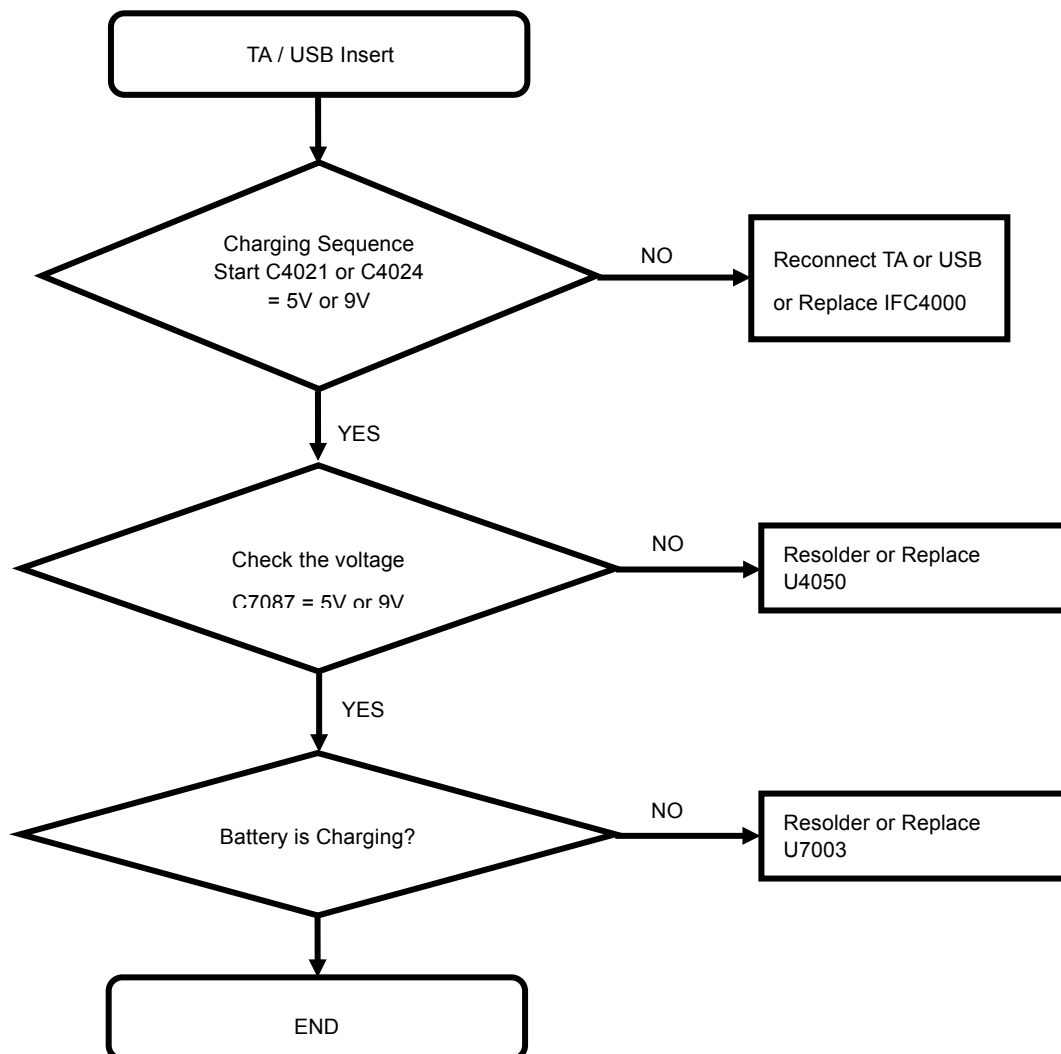
8-4-25. MST



8. Level 3 Repair

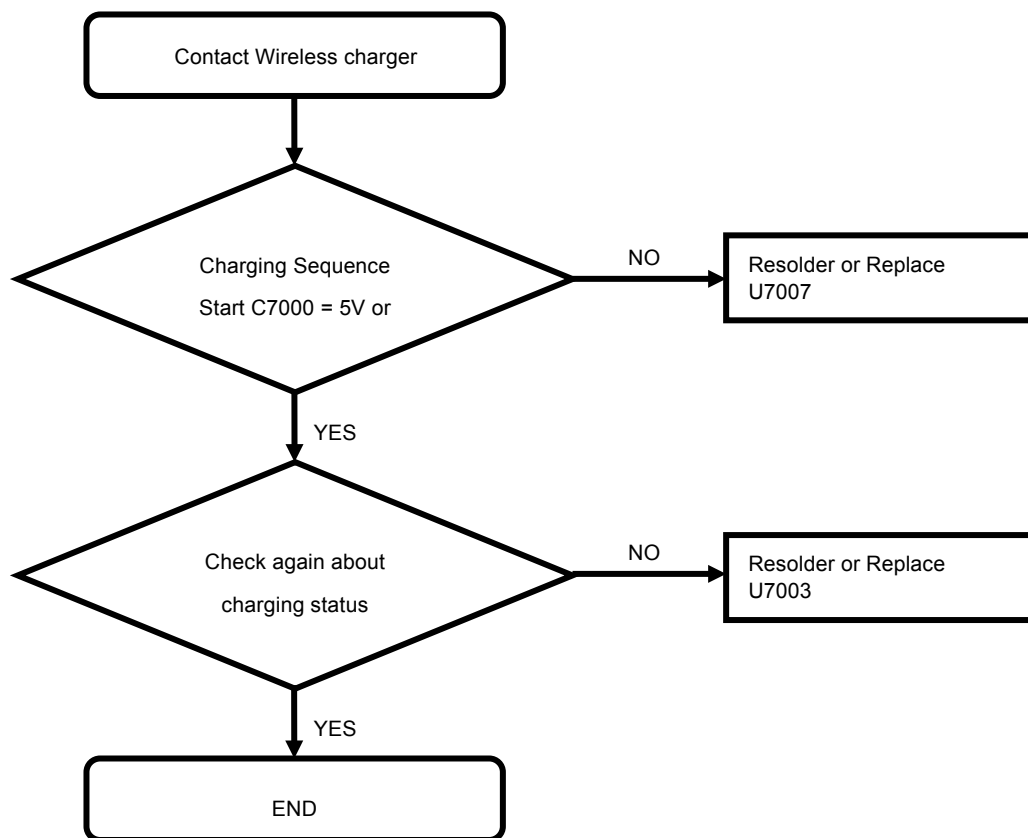
8-4-26-1. Charging Part

Wire Charging (Normal/Fast)



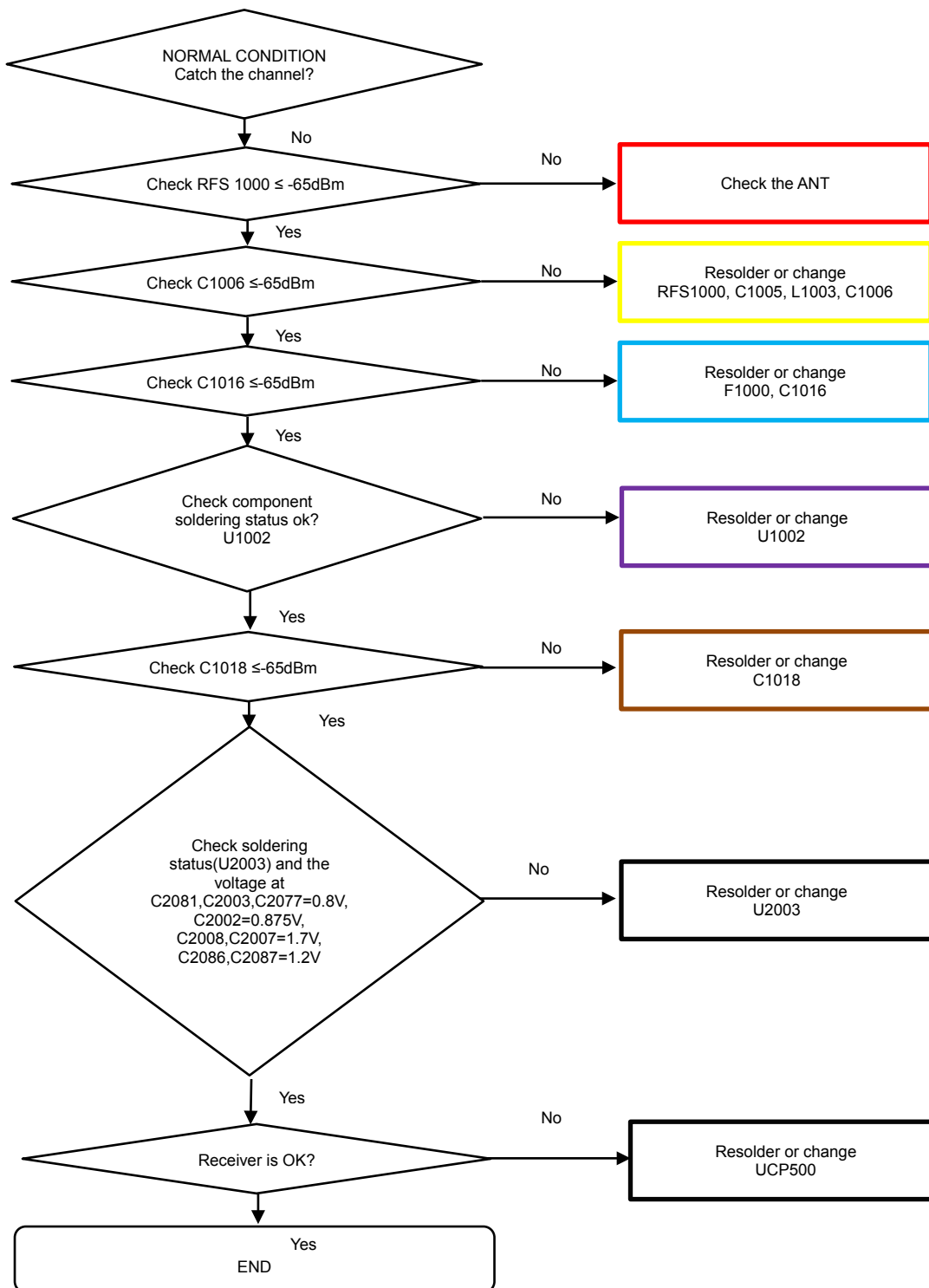
8. Level 3 Repair

8-4-26-2. Charging Part Wireless Charging (Normal/Fast)



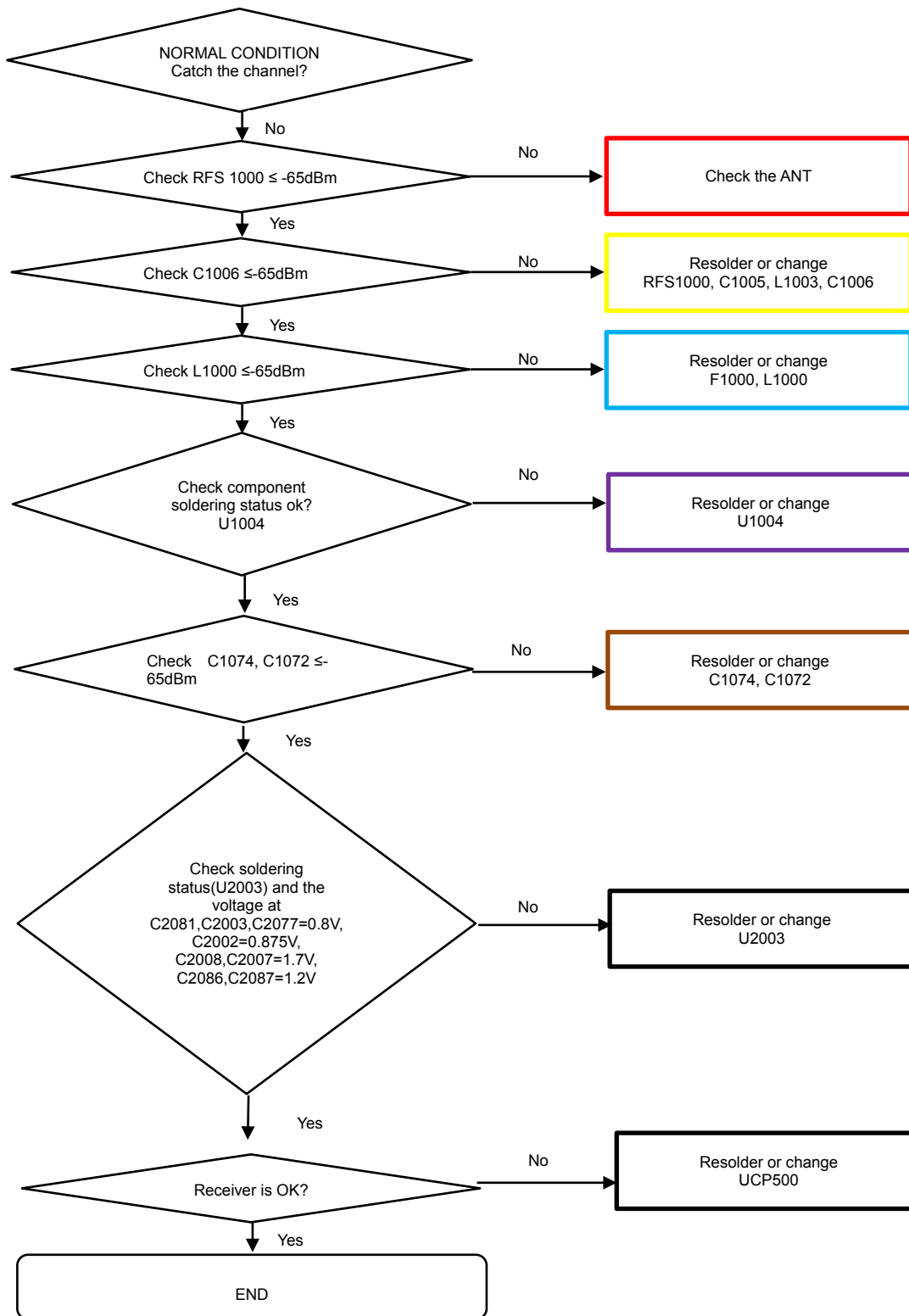
8. Level 3 Repair

8-4-27. GSM 850/900, CDMA BC0/10, WCDMA B5/8, LTE B5/8/12/13/14/17/18/19/20/26/28/29/71 RX



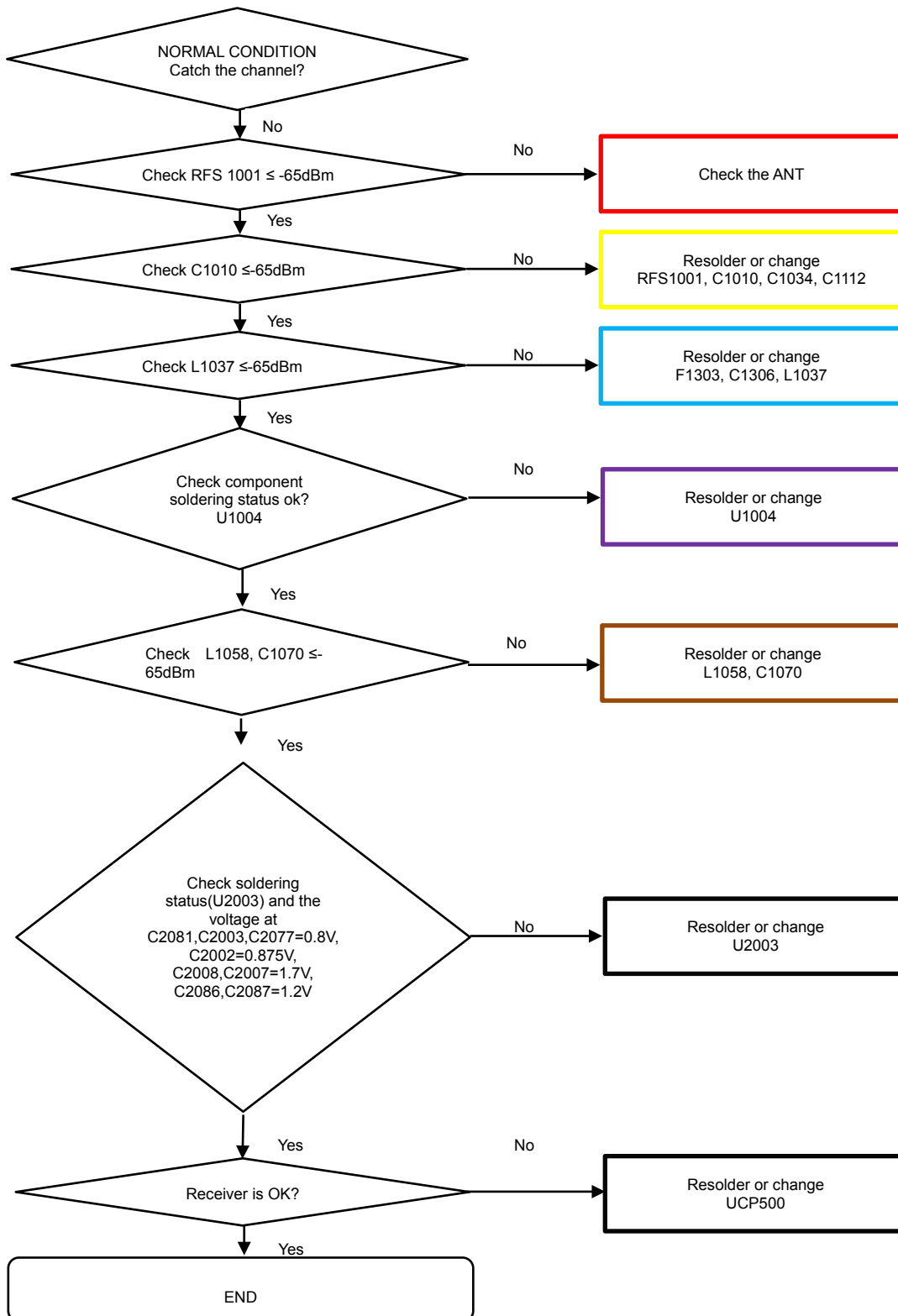
8. Level 3 Repair

8-4-28. CDMA BC1, GSM 1800/1900, WCDMA B1/2/4, TDSCDMA B34/39, LTE B1/2/3/4/25/39/66 RX



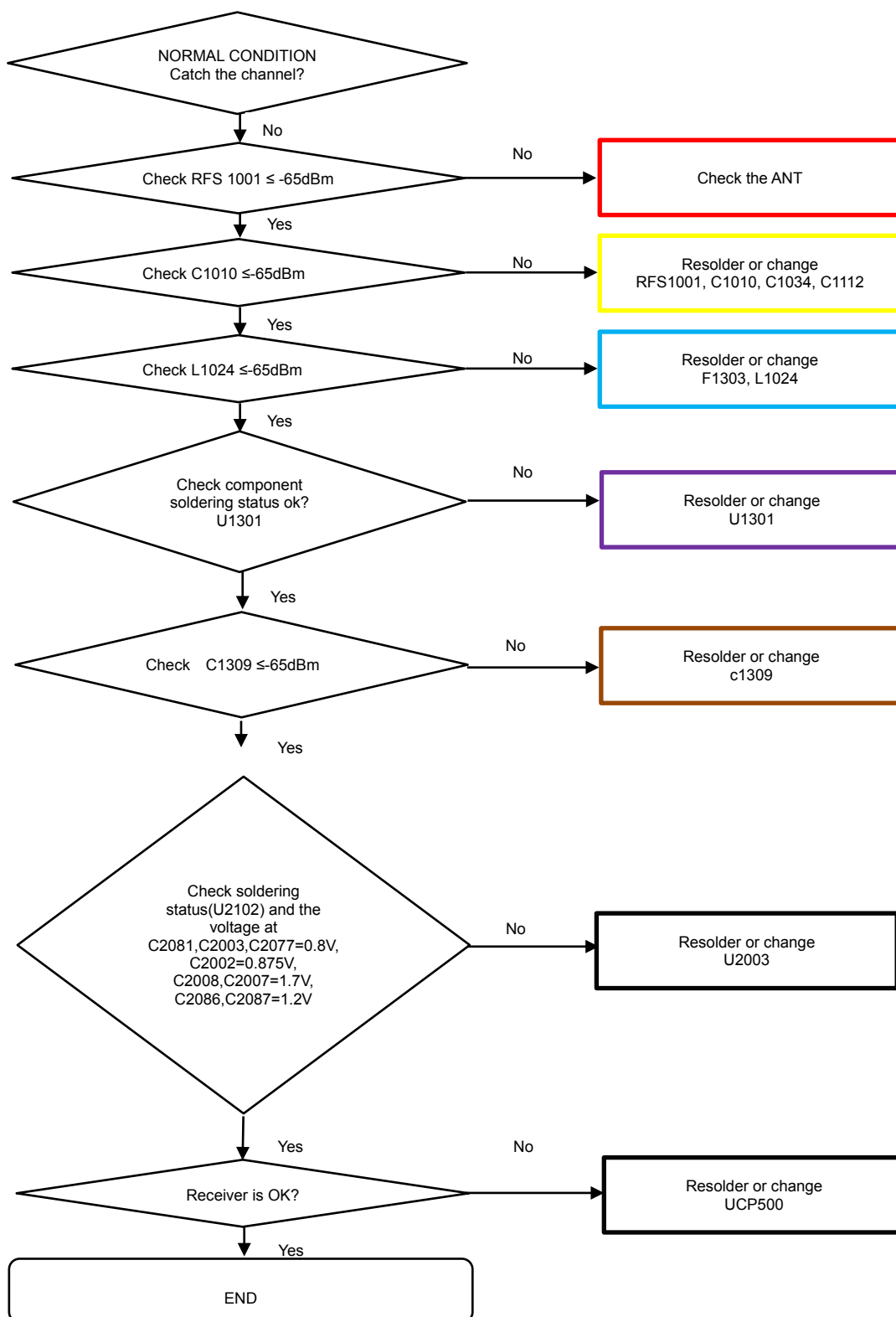
8. Level 3 Repair

8-4-29. LTE B7/38/41 RX



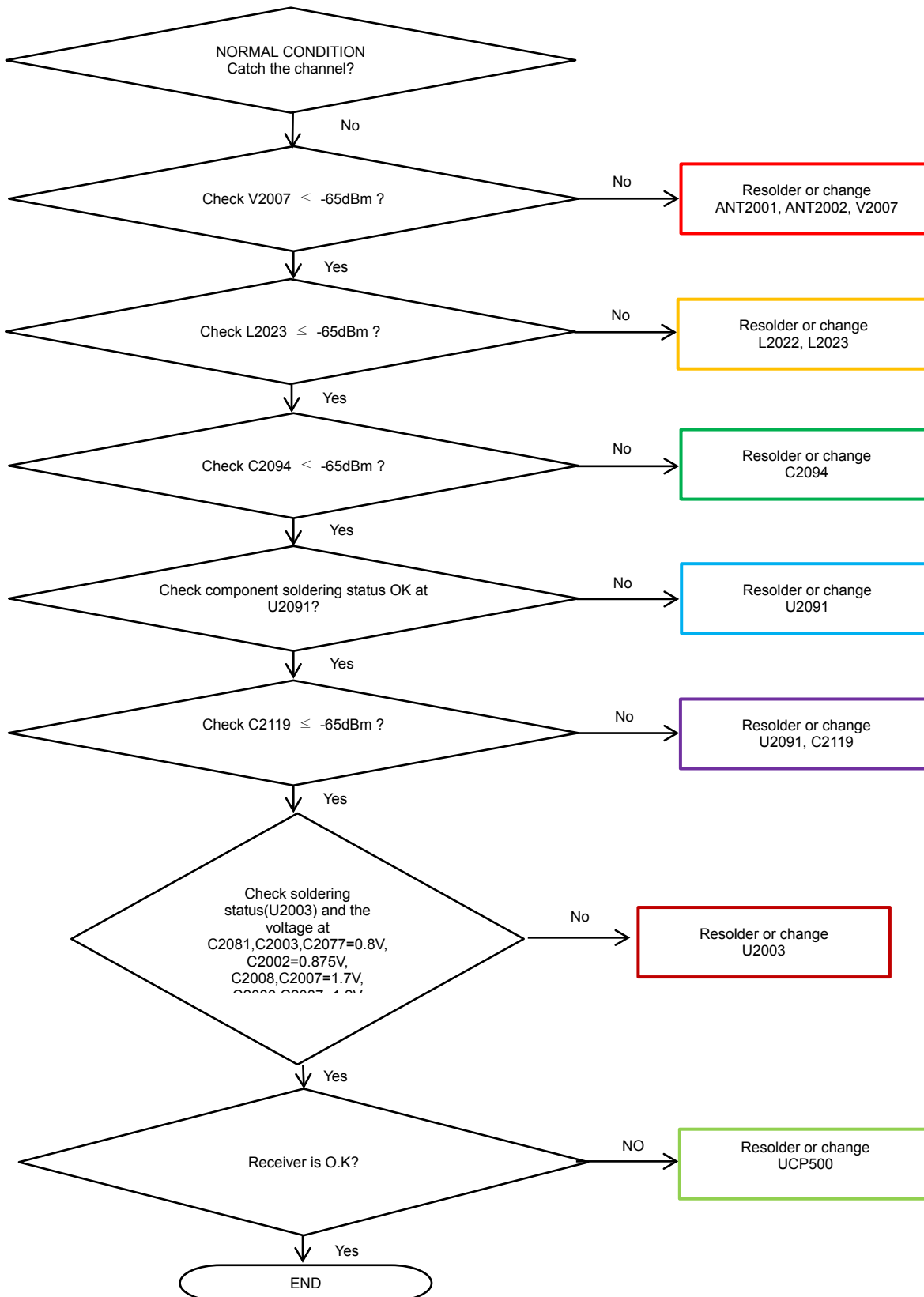
8. Level 3 Repair

8-4-30. LTE B48 RX



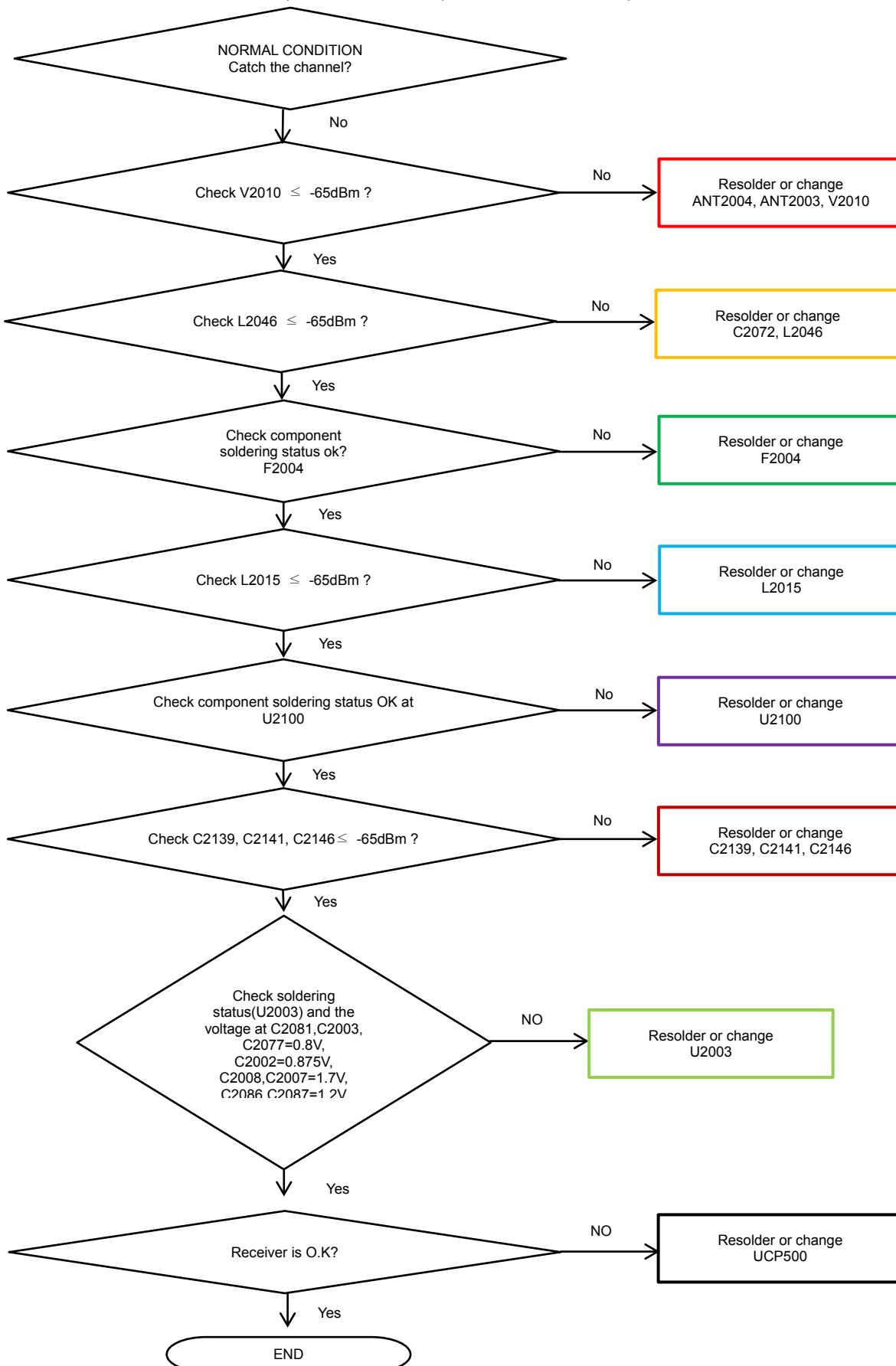
8. Level 3 Repair

8-4-31. CDMA BC0/10, GSM 850/900, WCDMA B5/8, LTE B5/8/12/13/14/18/19/20/26/28/29/71 DRX



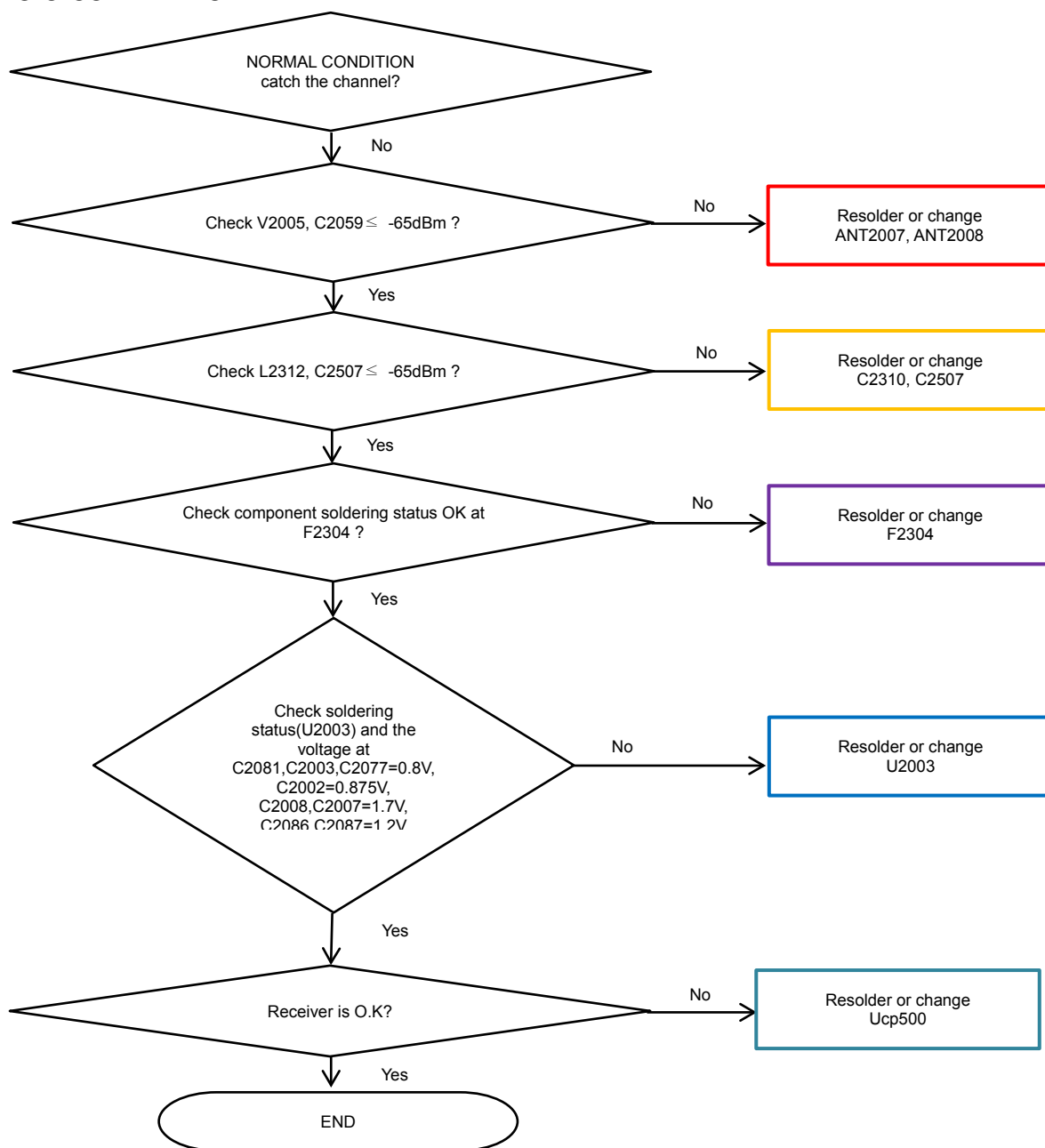
8. Level 3 Repair

8-4-32. GSM1800/1900, CDMA BC1, WCDMA 1/2/4, LTE B1/2/3/4/7/25/30/38/40/66 DRX



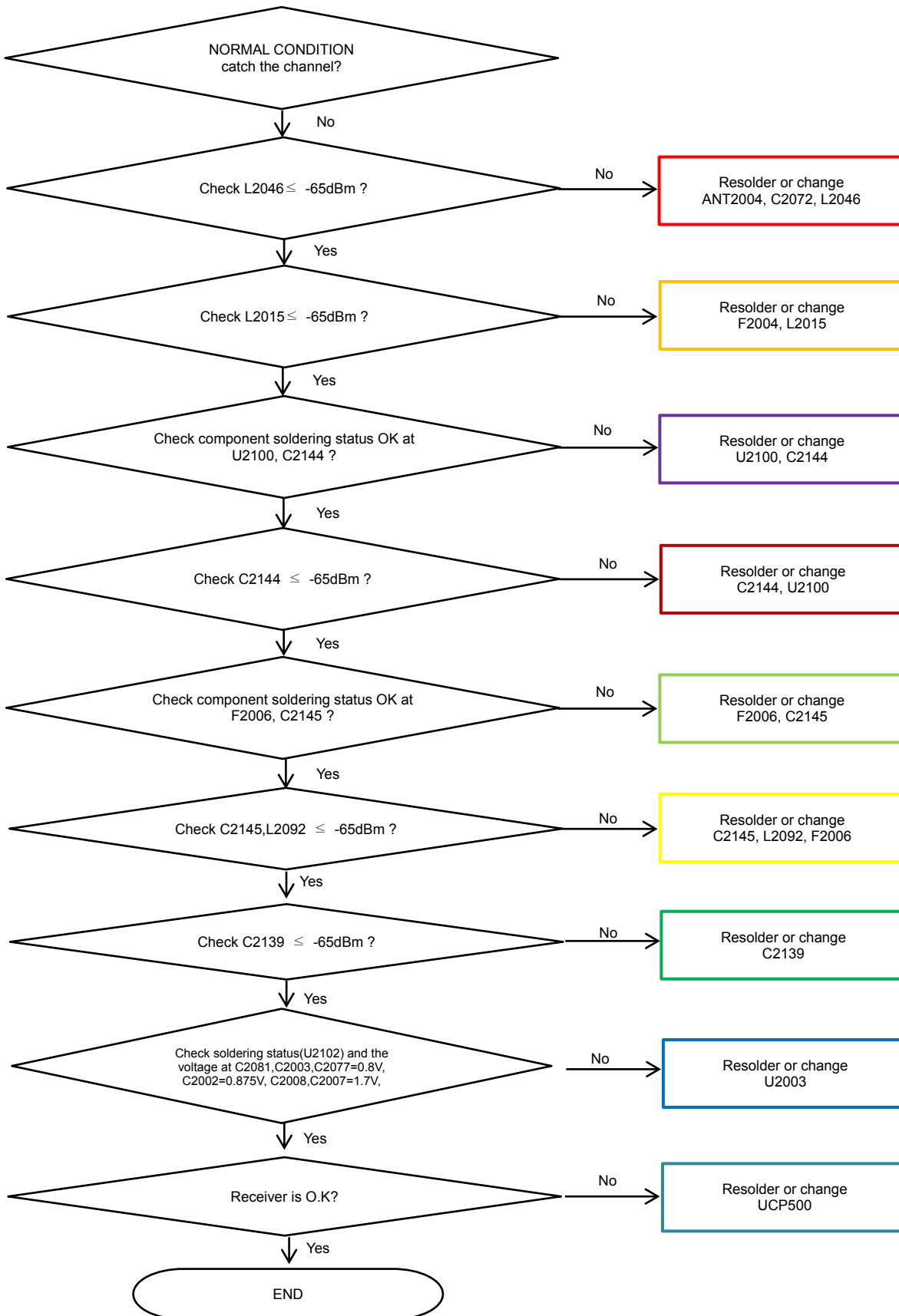
8. Level 3 Repair

8-3-33. LTE 48 DRX



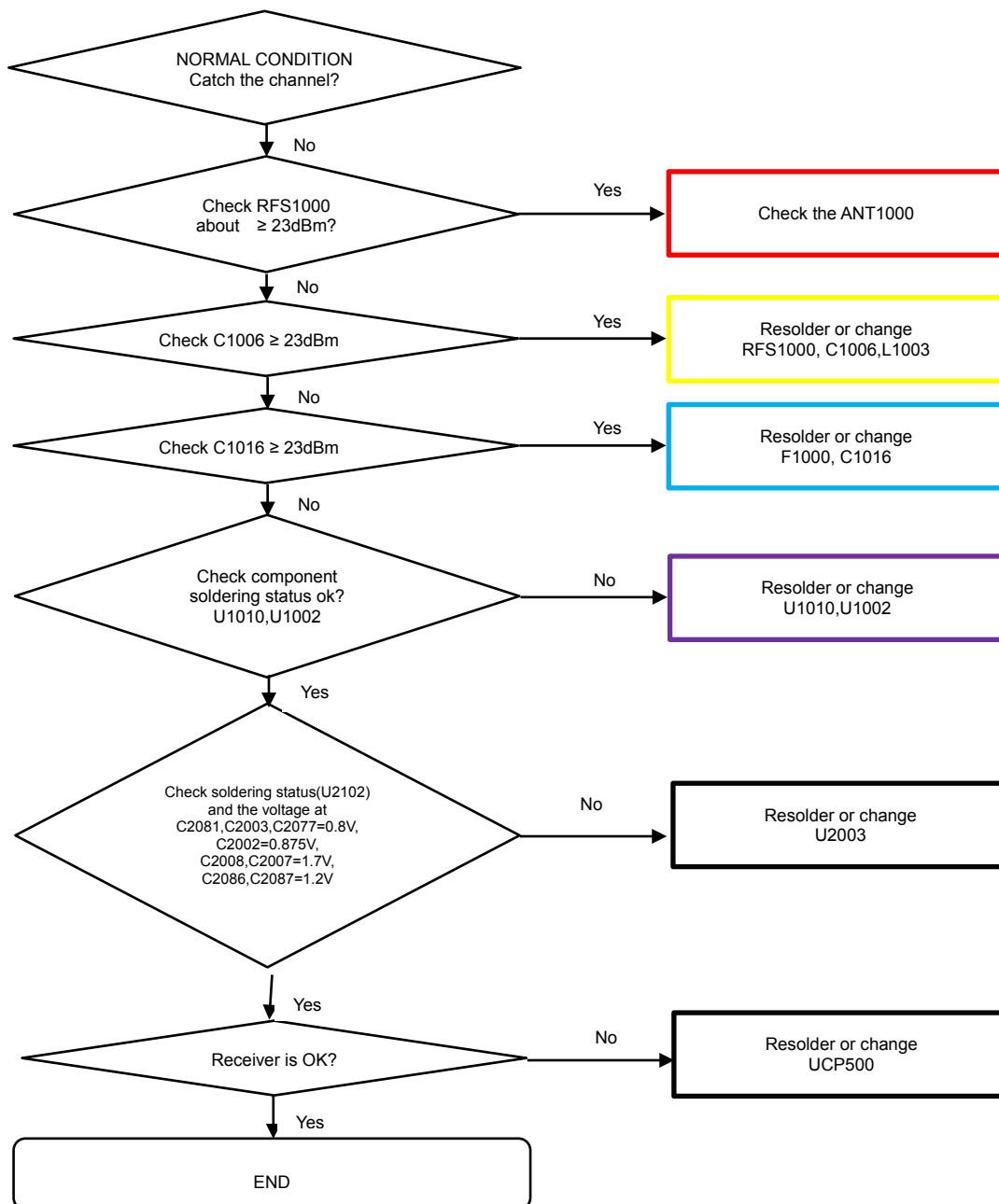
8. Level 3 Repair

8-3-34. LTE 39/41 DRX



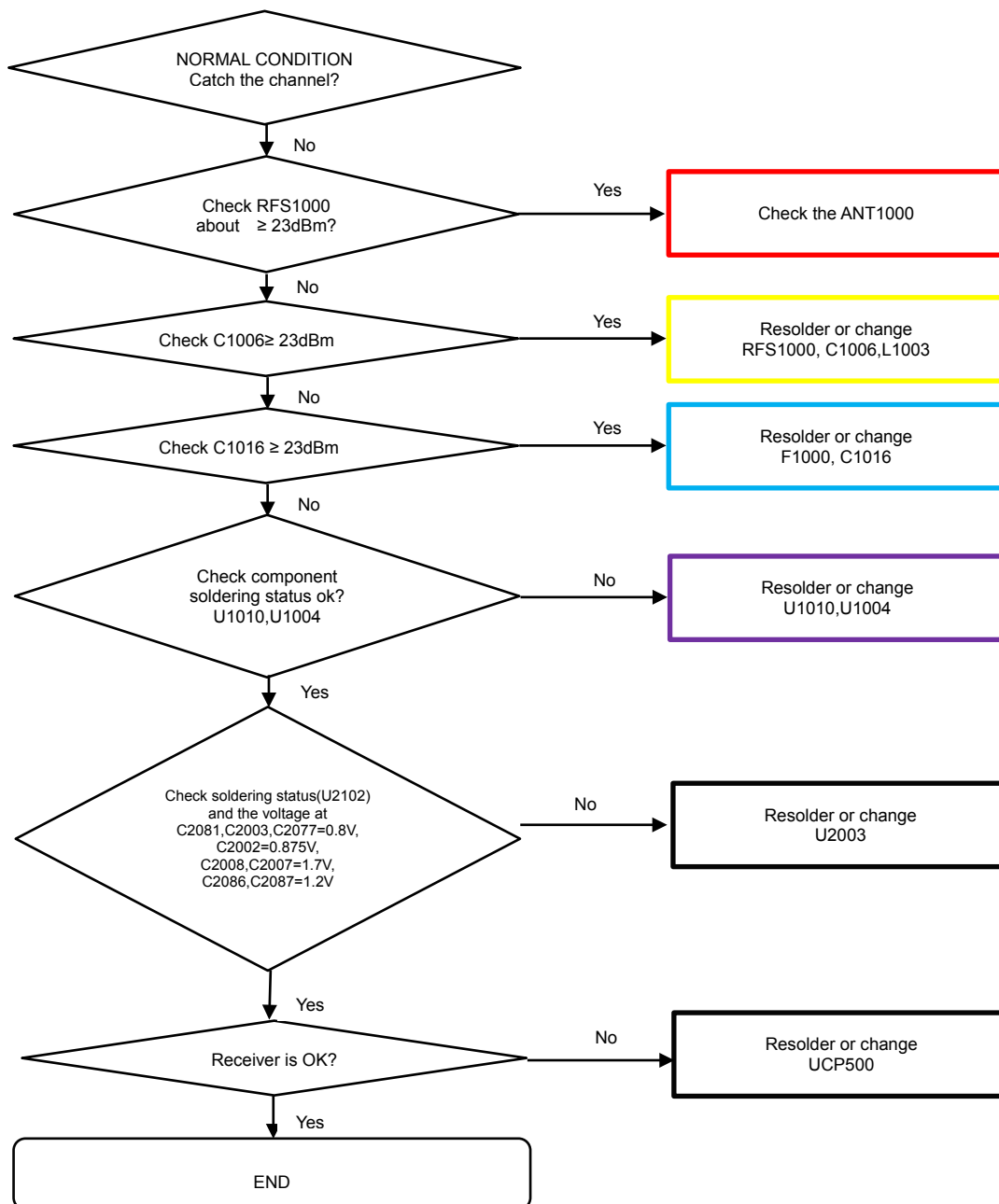
8. Level 3 Repair

8-4-35. GSM 850/900 TX



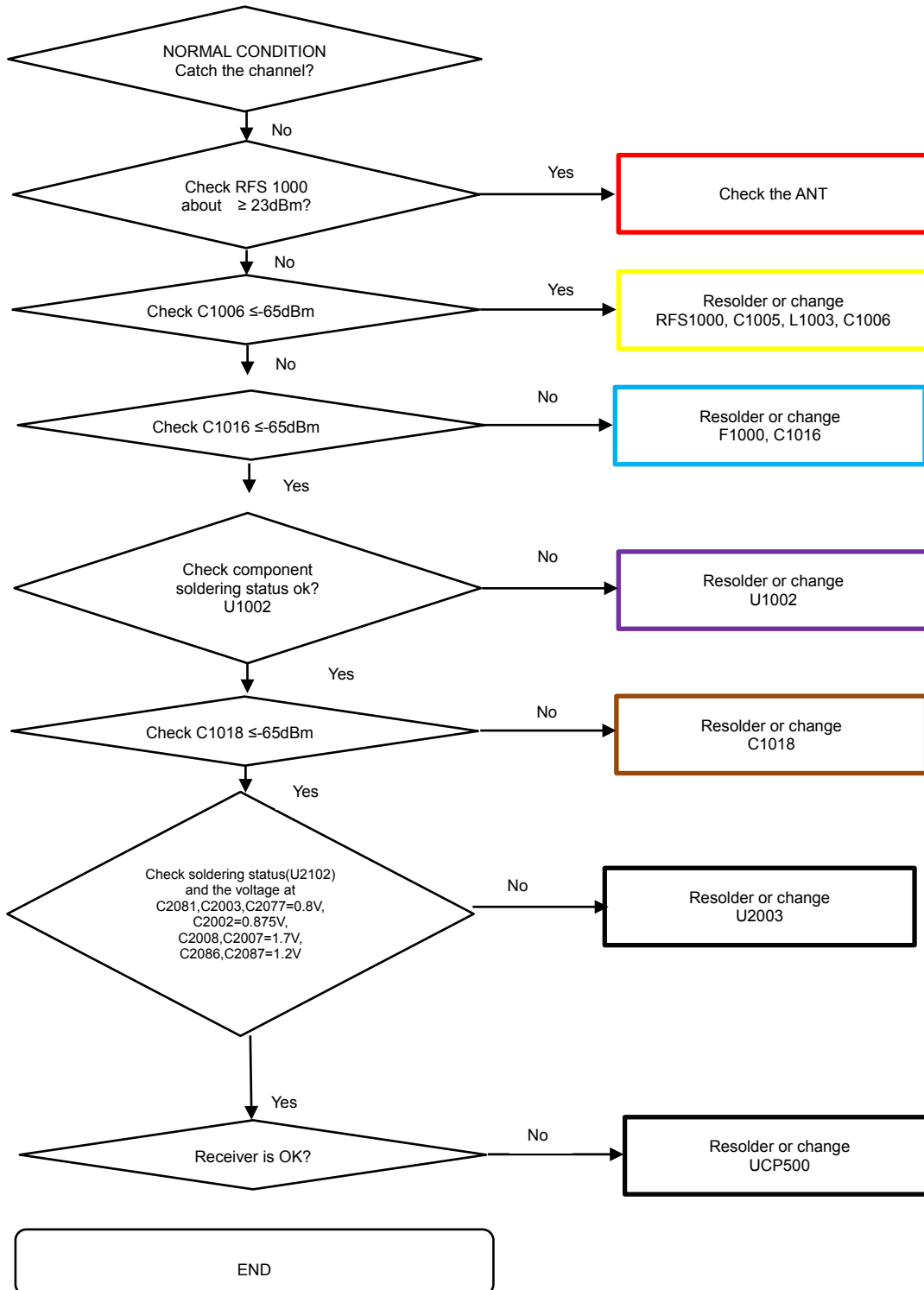
8. Level 3 Repair

8-4-36. GSM 1800/1900 TX



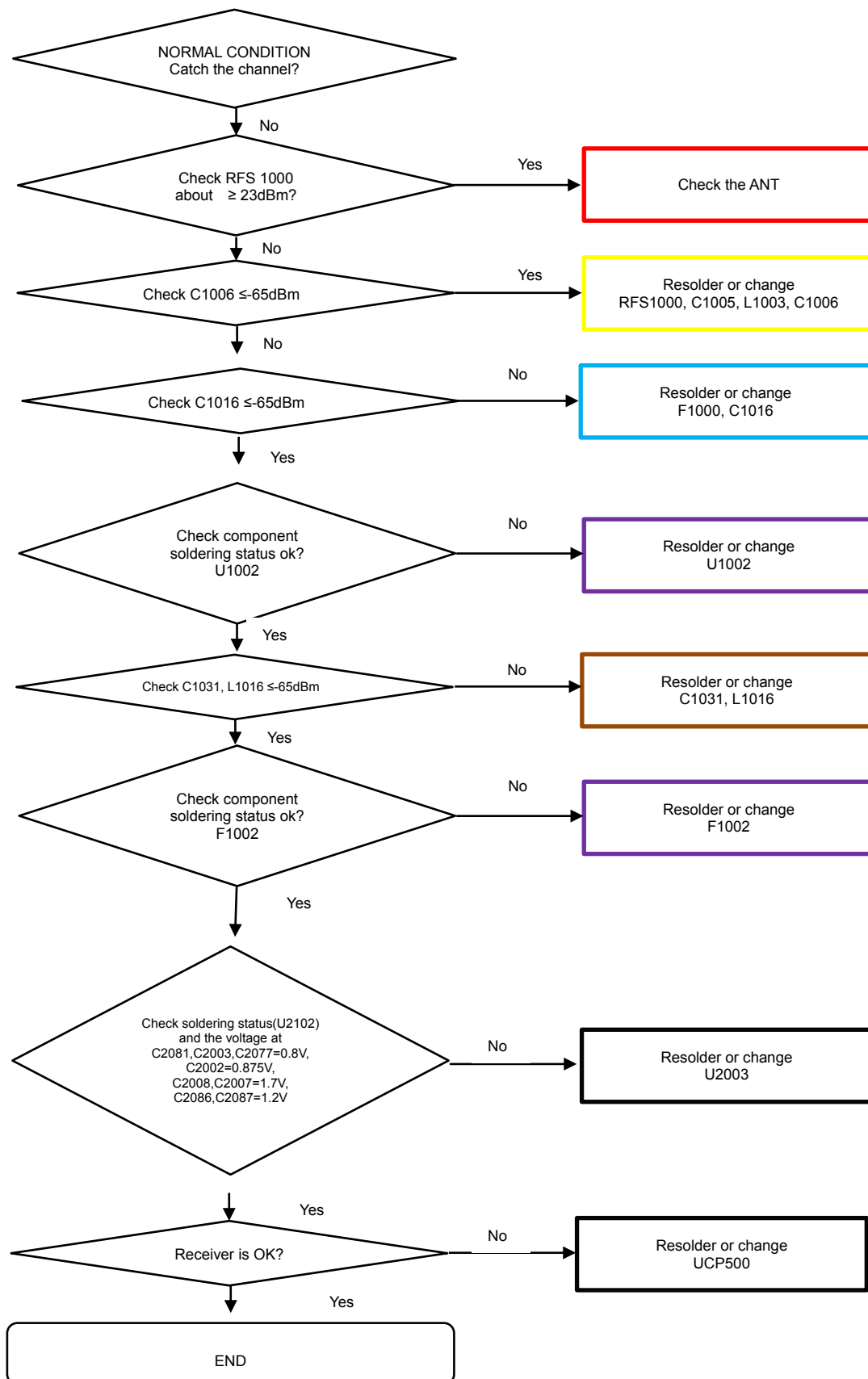
8. Level 3 Repair

8-4-37. CDMA BC0/10, WCDMA B5/8, LTE B5/8/12/13/17/18/19/ 20/26/28/29 TX



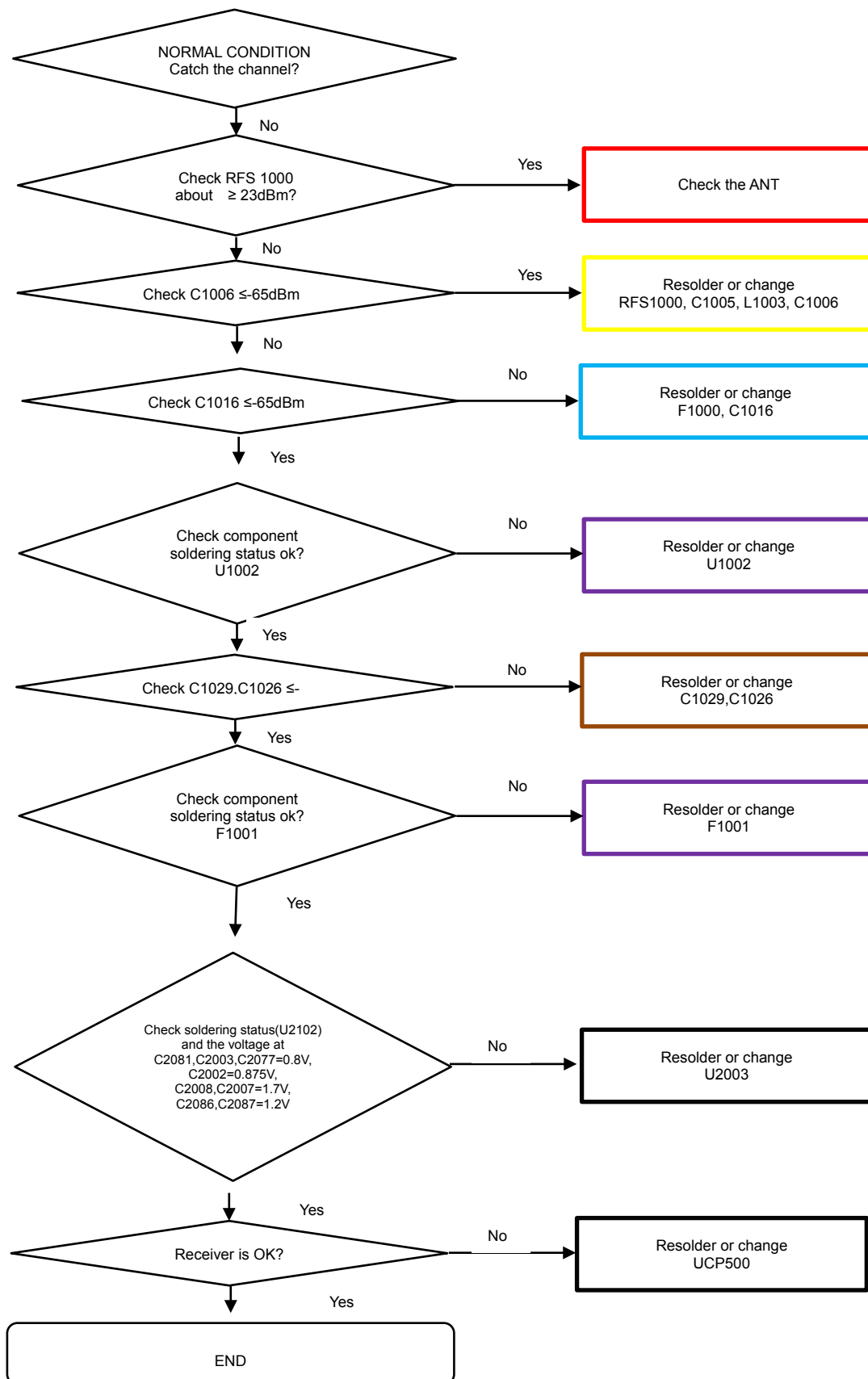
8. Level 3 Repair

8-4-38. LTE B14 TX



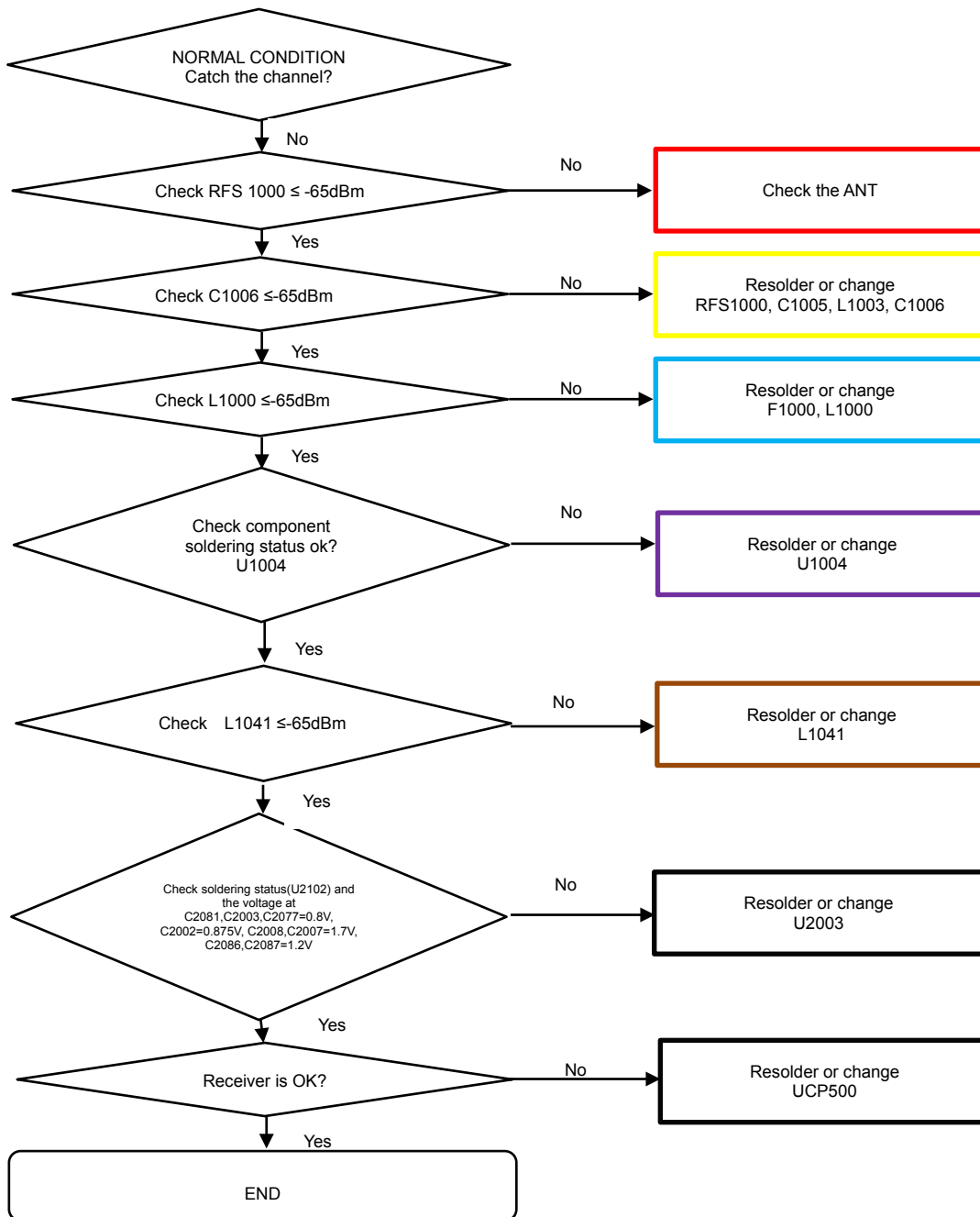
8. Level 3 Repair

8-4-39. LTE B71 TX



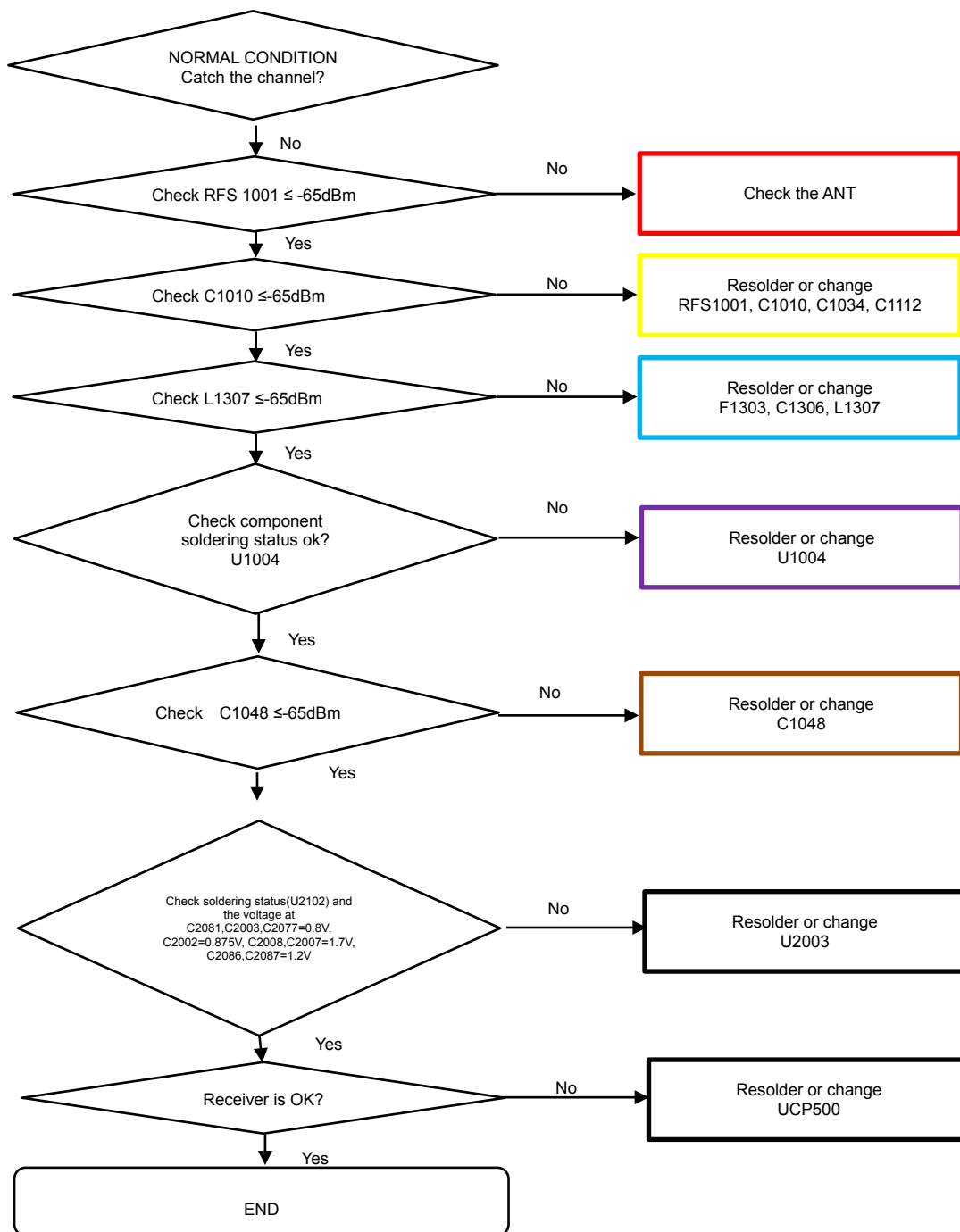
8. Level 3 Repair

8-4-40. CDMA BC1, GSM 1800/1900, WCDMA B1/2/4, TDSCDMA B34/39, LTE B1/2/3/4/25/66 TX



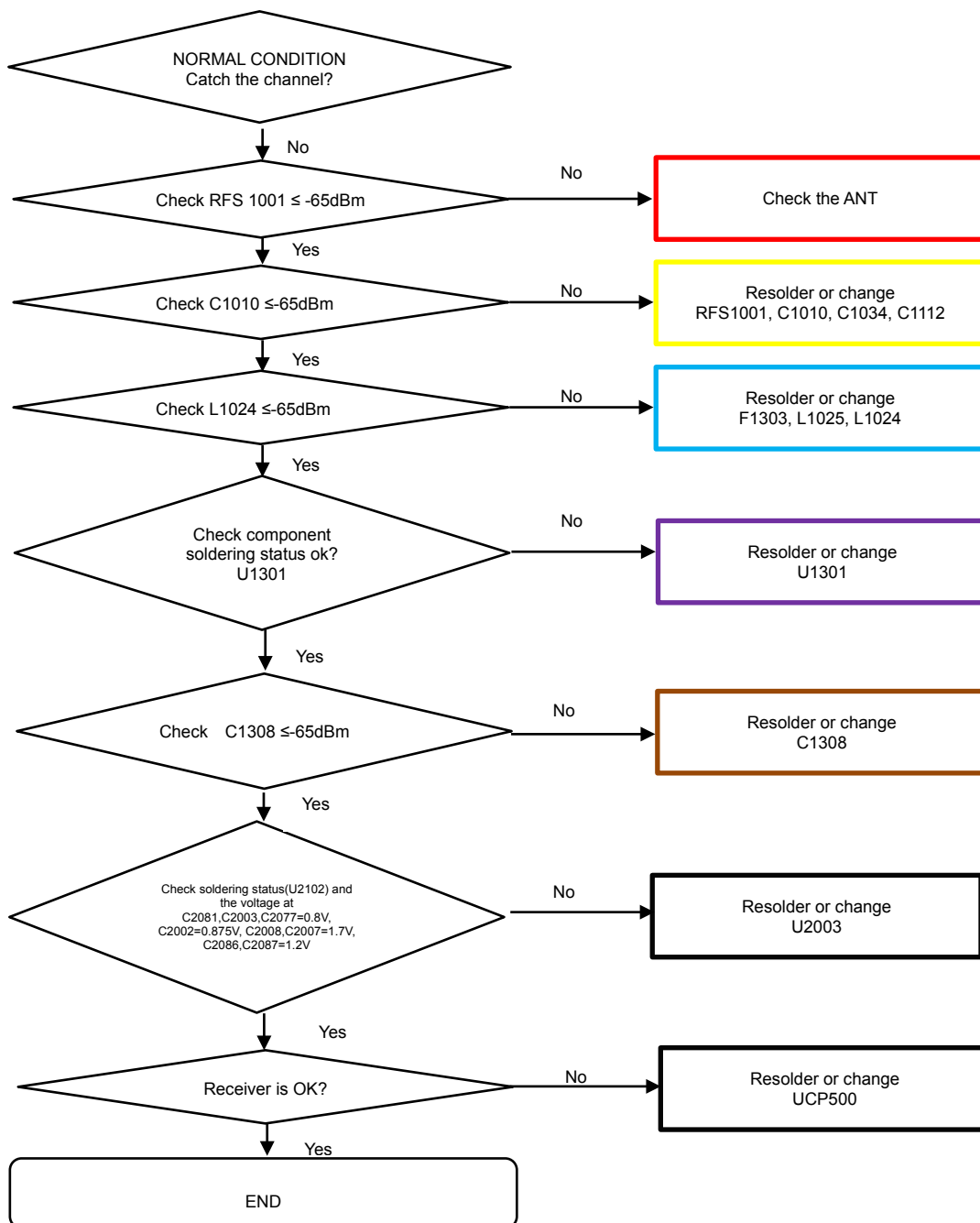
8. Level 3 Repair

8-4-41. LTE B7/38/41 TX



8. Level 3 Repair

8-4-42. LTE B48 TX



8. Level 3 Repair

8-4-43. Dex Station

