

8

7

6

5

4

3

2

1

1. ALL RESISTANCE VALUES ARE IN OHMS, 0.1 WATT +/- 5%.

2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.

3. ALL CRYSTALS & OSCILLATOR VALUES ARE IN HERTZ.

REV

ZONE

ECN

DESCRIPTION OF CHANGE

CK APPD

DATE

ENG APPD

DATE

?

?

?

?

?

D

C

B

A

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19

TEST POINTS

Q16 INTERFACE BOARD

920-0120-03 (PCB

951-0246-03 (SCHEMATICS)

12/21/2002 REV 1 TEF

3/20/2003 REV 2 TEF

6/23/2003 REV 3 WF

7/17/2003 REV 4 WF

DIMENSIONS ARE IN MILLIMETERS

XX ± _____

X.XX ± _____

X.XXX ± _____

ANGLES ± _____

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

METRIC

DRAFTER

ENG APPD

QA APPD

RELEASE

DESIGN CK

MFG APPD

DESIGNER

SCALE

MATERIAL/FINISH
NOTED AS
APPLICABLE

SIZE
D

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TITLE

Q16 INTERFACE BOARD

DRAWING NUMBER 951-0246 REV. 2

SHT 1 OF 20

8

7

6

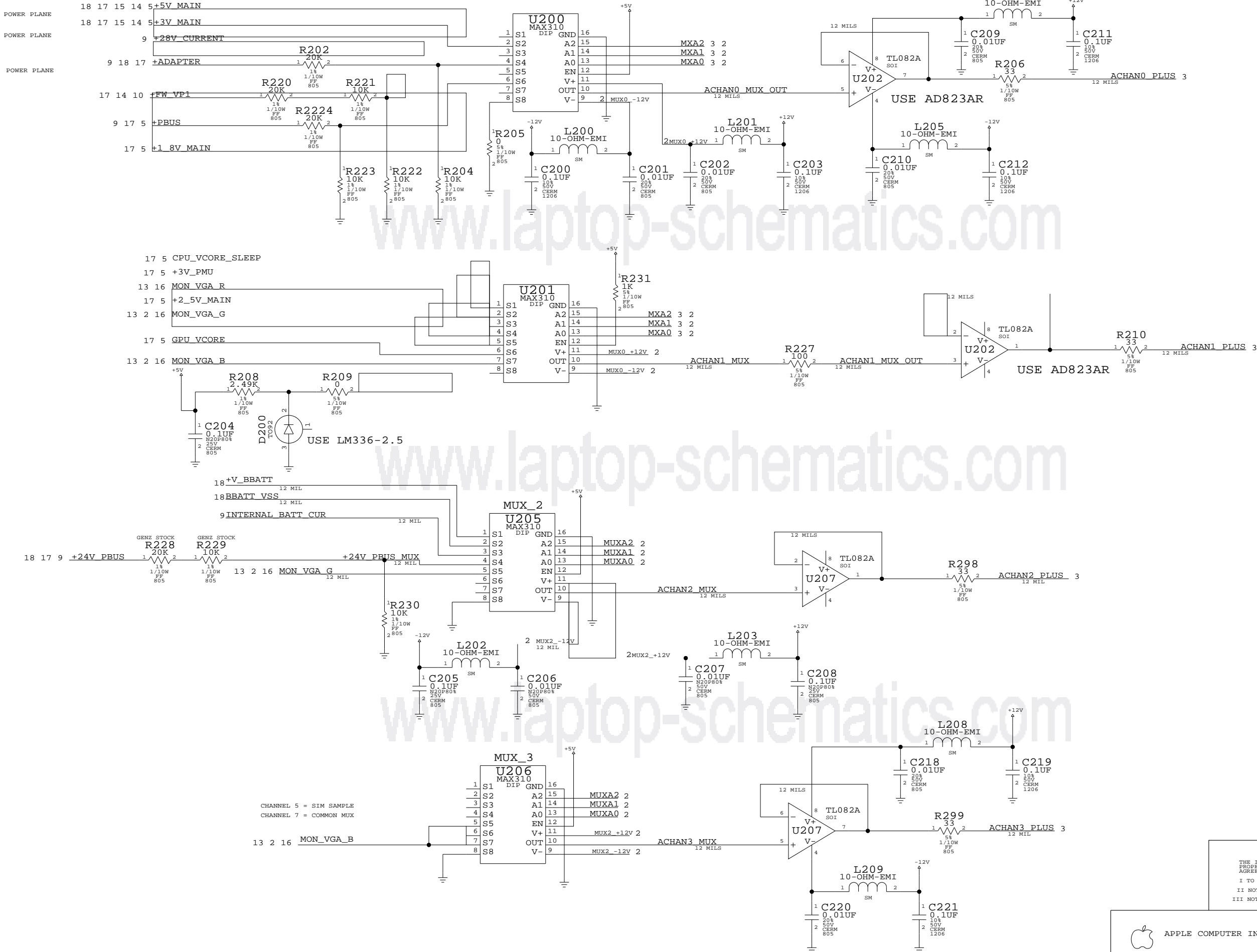
5

4

3

2

1



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	D	951-0246	2
SCALE	NONE		2 OF 20

INTERFACE BOARD POWER CONNECTOR

FIXTURE CONTROL PORT

GENZ FAN CONNECTORS

FIXTURE POWER ON LEDS

FIXTURE ID SWITCHES

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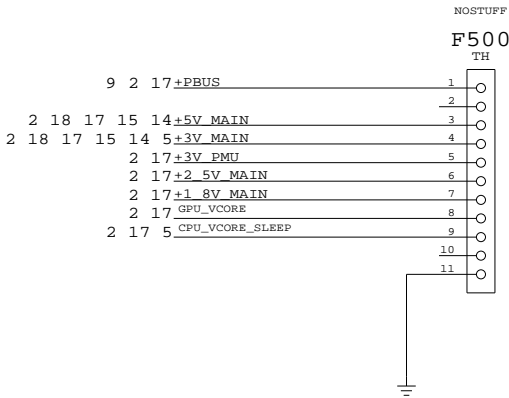
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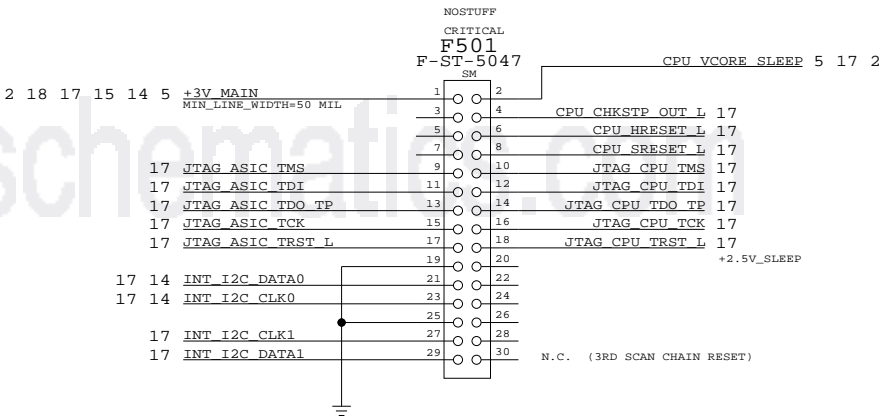
APPLE COMPUTER INC.

SIZE	DRAWING NUMBER	REV.
D	951-0246	2
SCALE	SHT	OF
NONE	5	20

POWER SUPPLY TEST PINS



JTAG AND I2C TEST CONNECTOR



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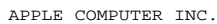
APPLE COMPUTER INC.

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SCALE	SHT	OF
NONE	6	20

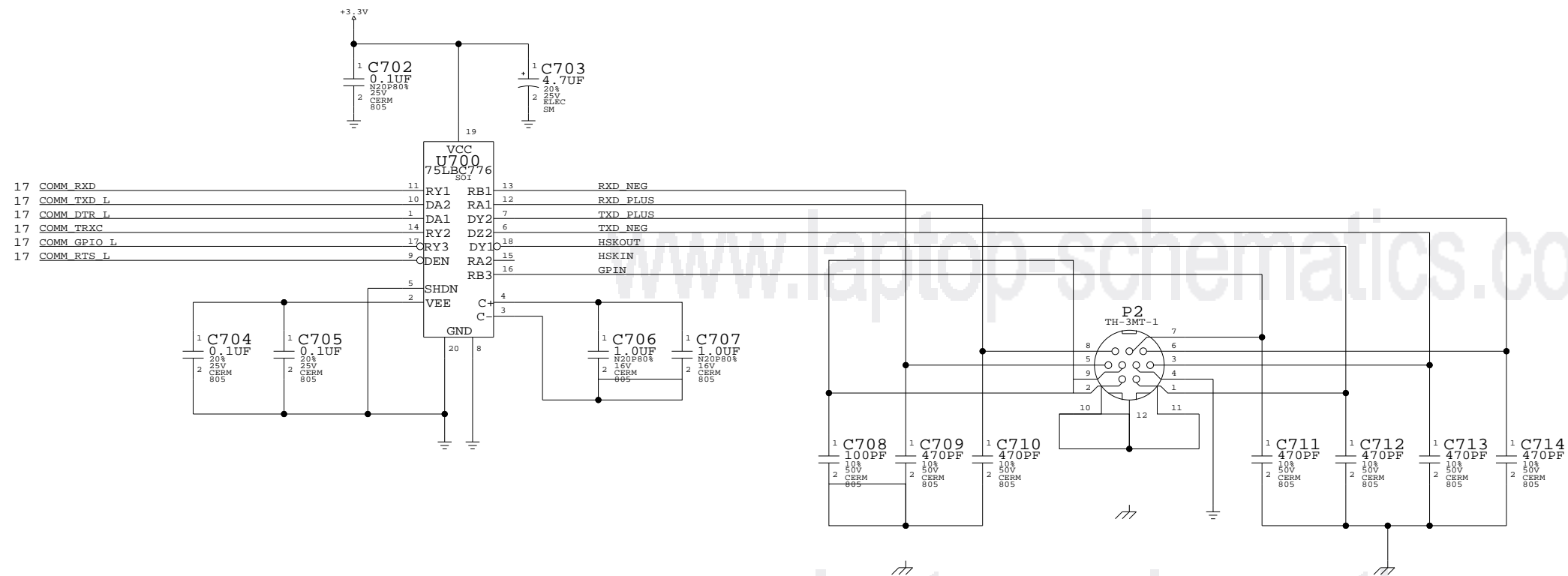
OM1 2 1 2 R601 100K 1 2 1/10W 505 NOSTUFF FJ402 1 2 1 8V VFB 17



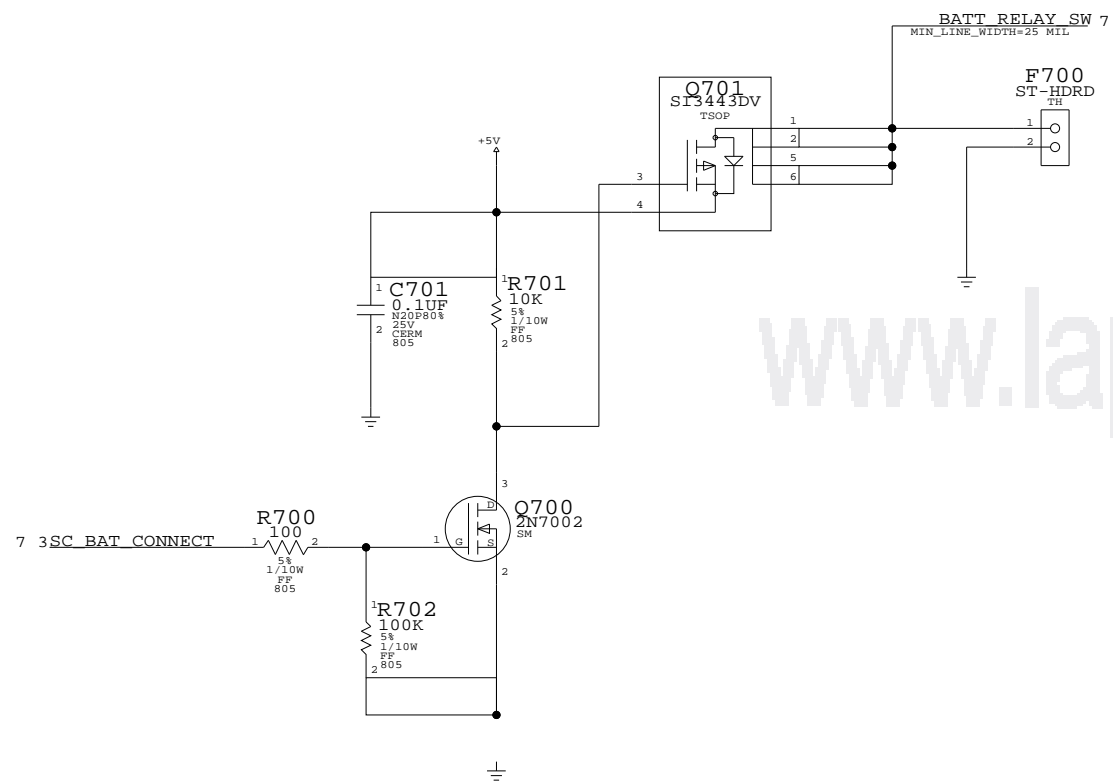
 APPLE COMPUTER INC.	SIZE	DRAWING NUMBER		REV.
	D	951-0246		2
	SCALE	SHT	OF	
	NONE	7	20	



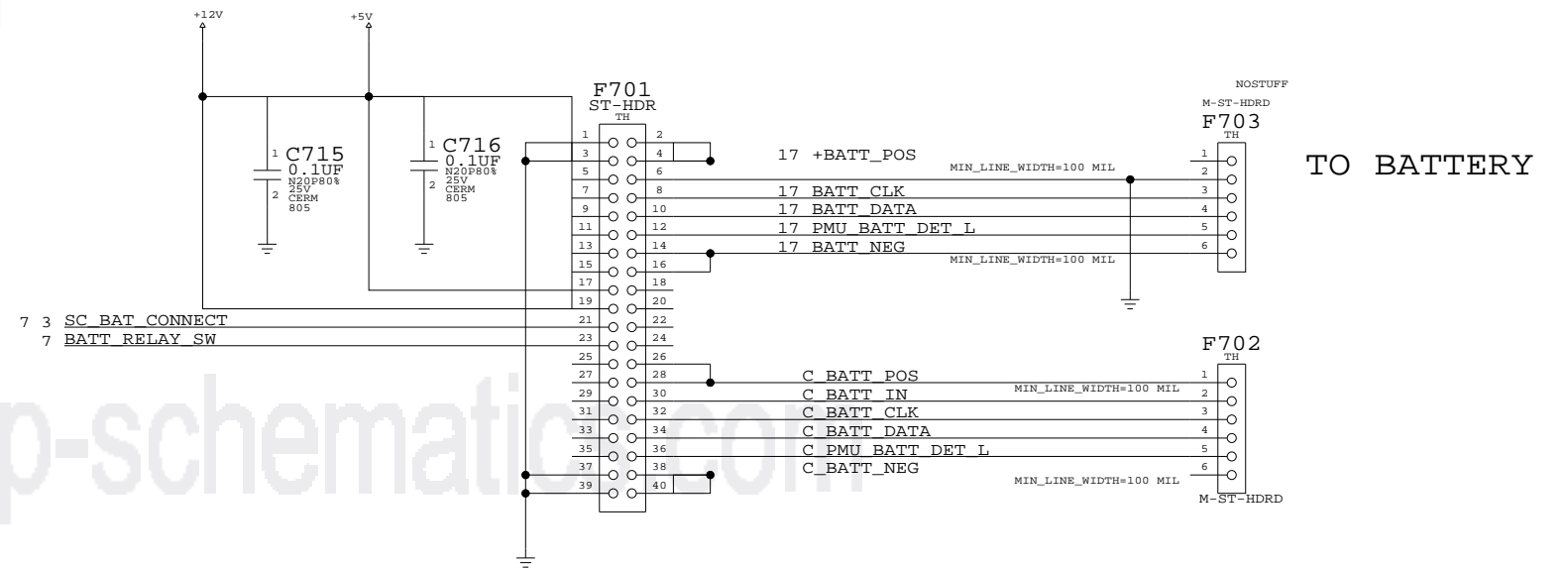
SERIAL PORT INTERFACE



BATTERY CONNECT/DISCONNECT



NEW BATTERY RELAY BOARD CONNECTORS



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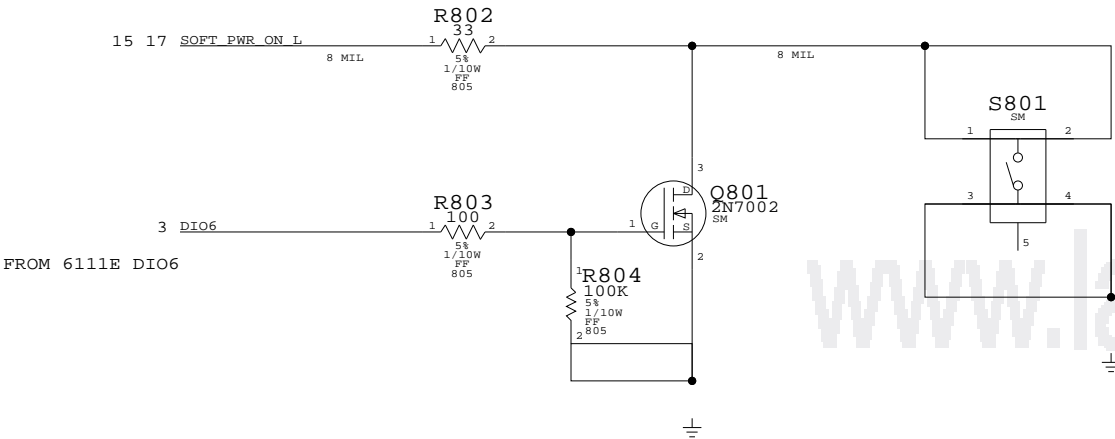
III NOT TO REVEAL OR PUBLISH IN WHOLE OR PART



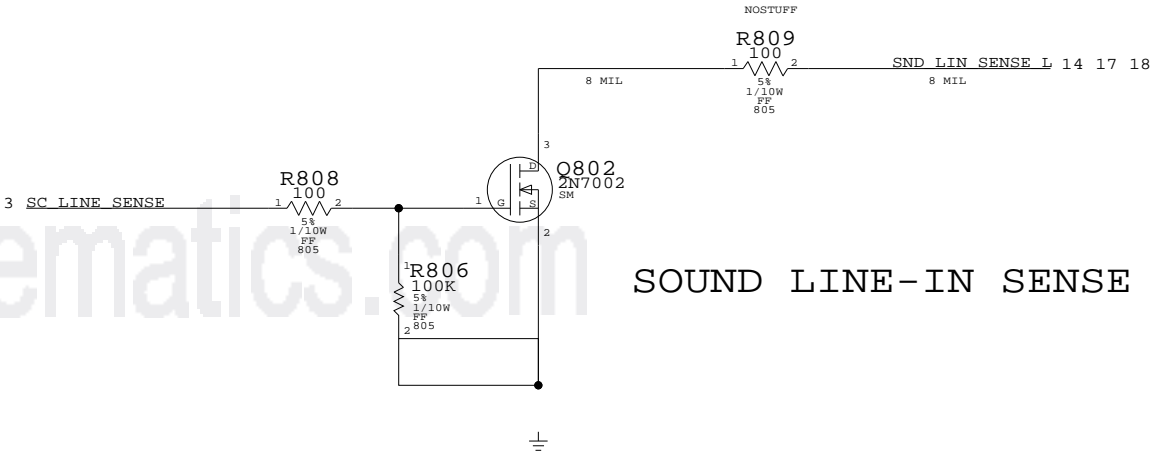
APPLE COMPUTER INC.

SIZE D	DRAWING NUMBER 951-0246	REV. 2
SCALE NONE	SHT 8	OF 20

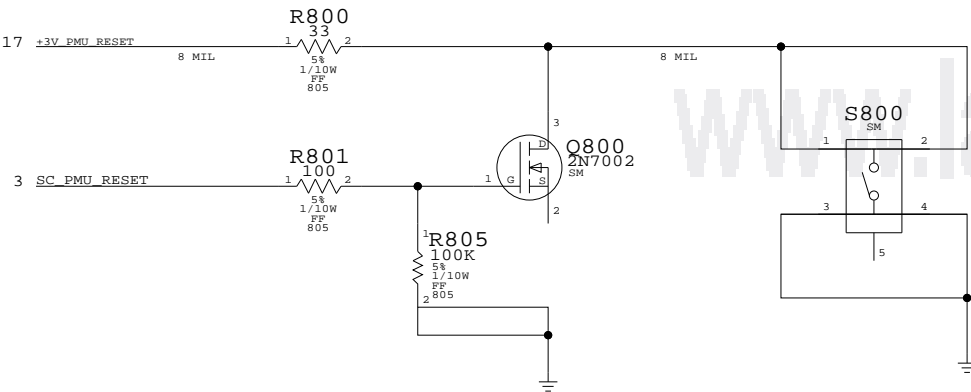
UUT POR



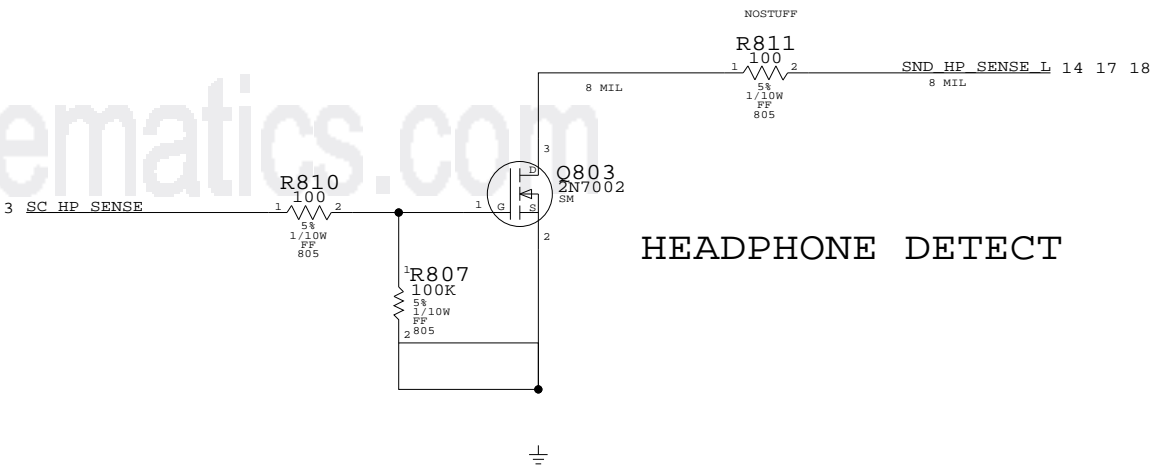
SOUND LINE-IN SENSE



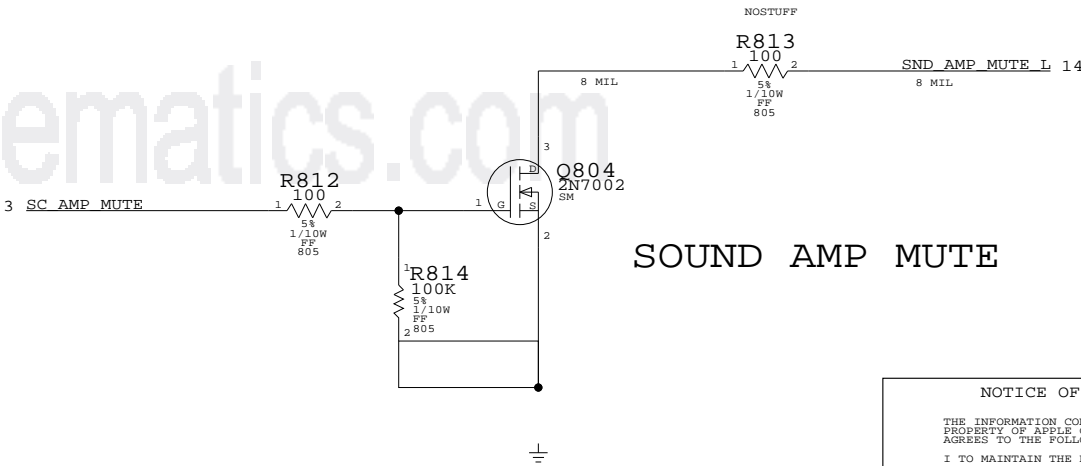
UUT PMU RESET



HEADPHONE DETECT



SOUND AMP MUTE



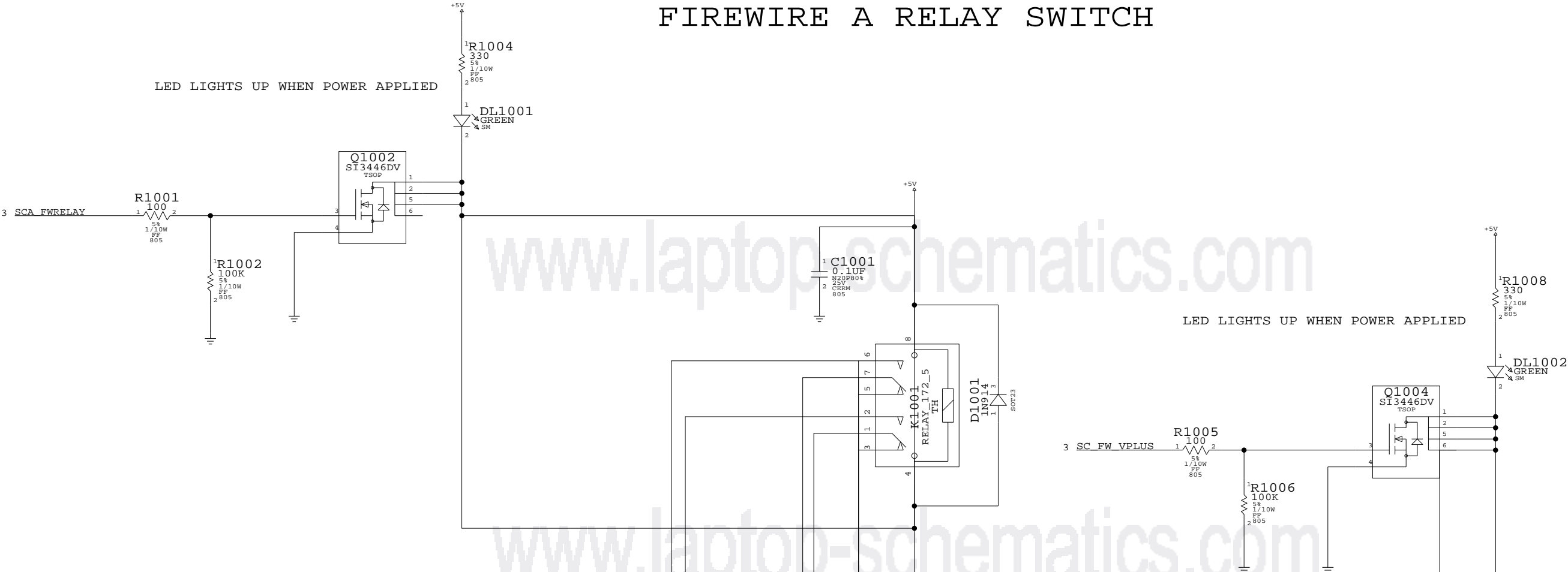
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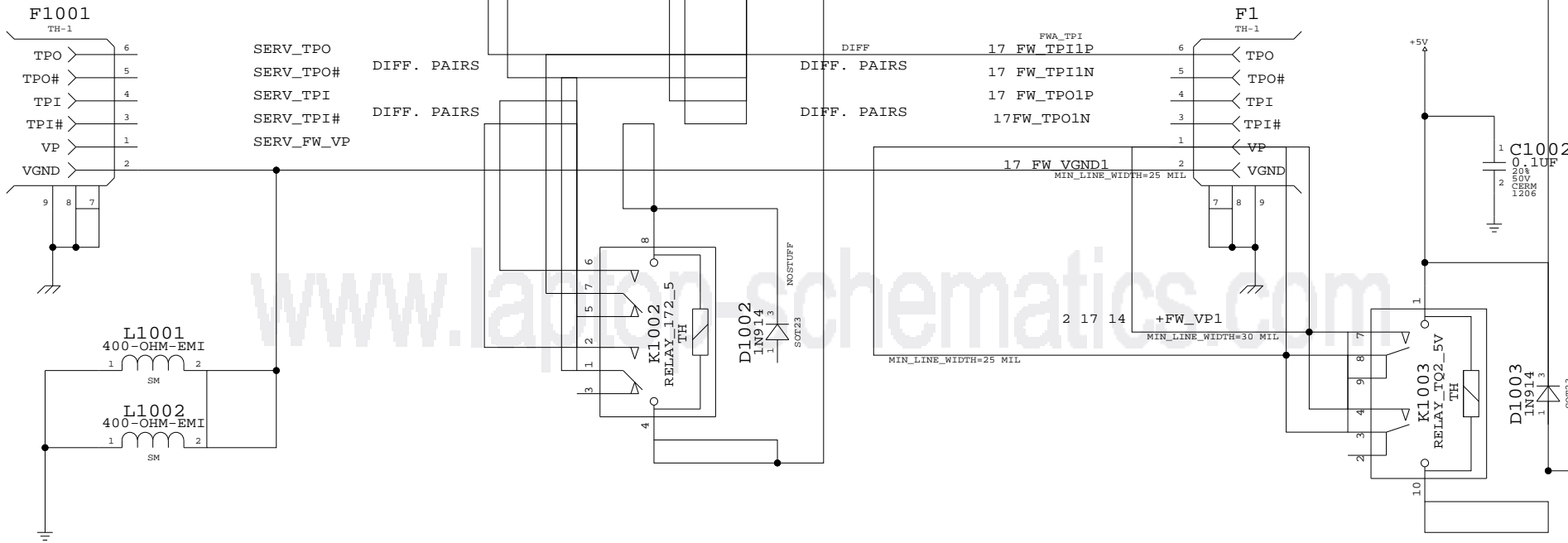
SIZE	DRAWING NUMBER	REV.
D	951-0246	2
SCALE	SHT 9 OF 20	
NONE		

FIREWIRE A RELAY SWITCH



THIS SIDE TO FW SERVER

THIS SIDE TO UUT



FIREWIRE V+ RELAY

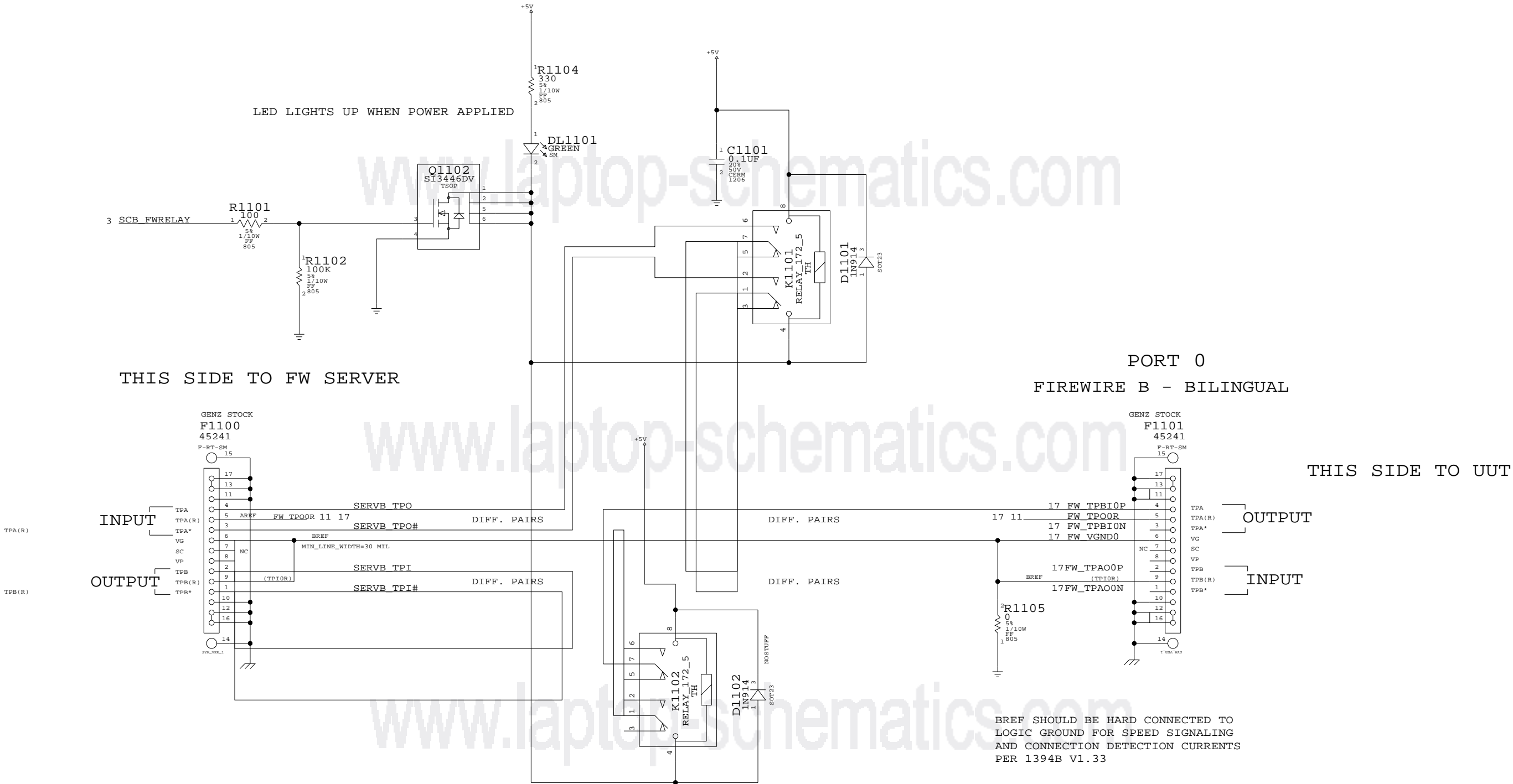
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D	951-0246	2
SCALE	SHT	OF
NONE	11	20

FIREWIRE B RELAY SWITCH



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D	951-0246	2
SCALE	SHT	OF
NONE	12	20

ETHERNET SWITCHING

SERVER ETHERNET

ETHERNET TO UUT

CONTROLLER ETHERNET

REFER TO PAGE 15 FOR DIFF. PAIR SIGNAL LAYOUT

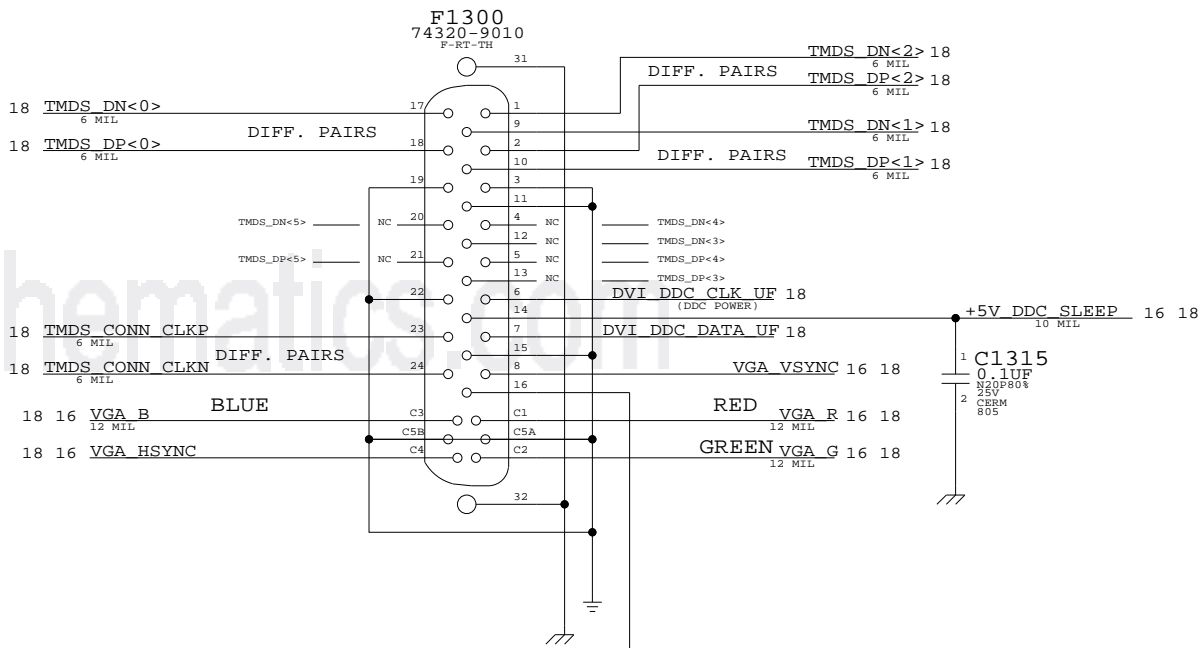
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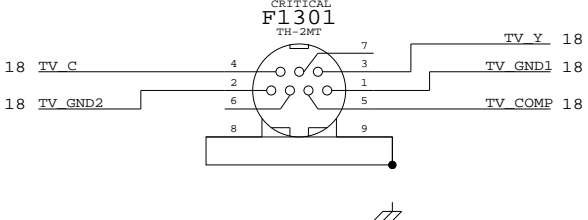
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SCALE	SHT	OF
NONE	13	20

DVI UUT CONNECTOR



UUT_SVGA



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	D	951-0246	2
	SCALE	SHT	OF
	NONE	14	20

FIREWIRE LOAD CIRCUIT

AUDIO/LEFT I/O BOARD (LIO)

RIGHT USB BOARD

LMU/RIGHT SENSOR CONNECTOR

LEFT LIGHT SENSOR CONNECTOR

LIO USB PORT

EXTERNAL BLUETOOTH USB PORT

BLUETOOTH MODUAL CONNECTOR

FAN 1 CONNECTOR CPU

FAN 2 CONNECTOR GPU

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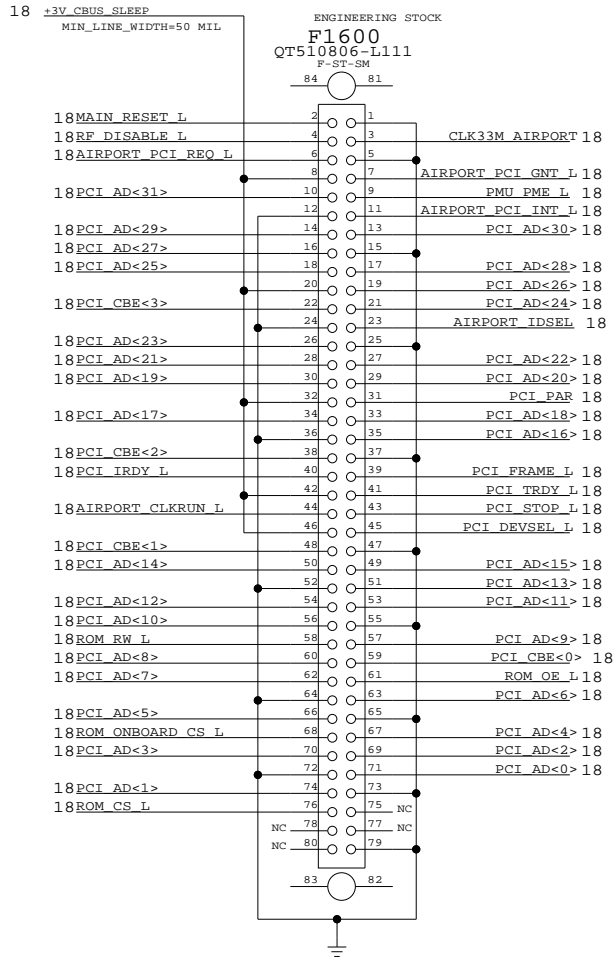
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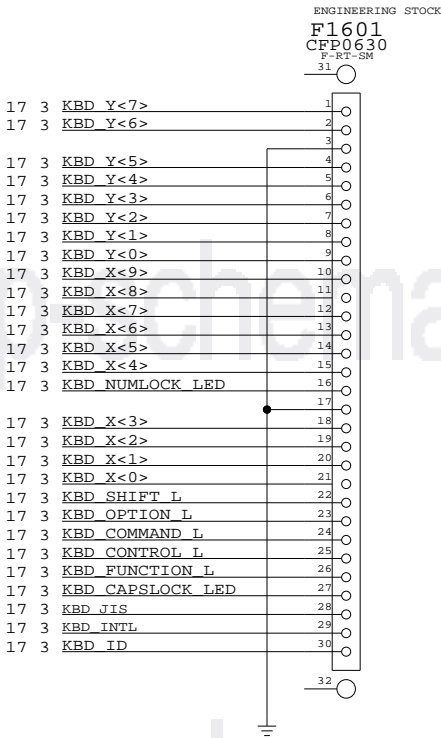
APPLE COMPUTER INC.

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SCALE	SHT	OF
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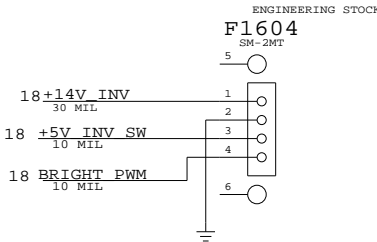
WIRELESS INTERFACE



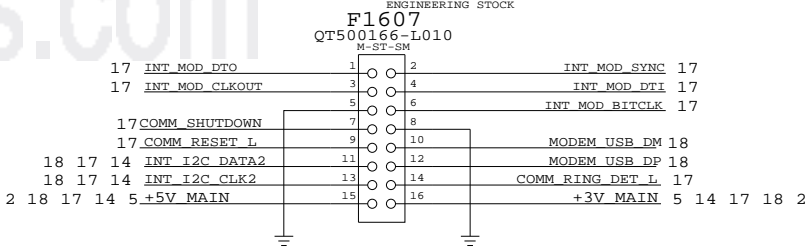
KEYBOARD INTERFACE



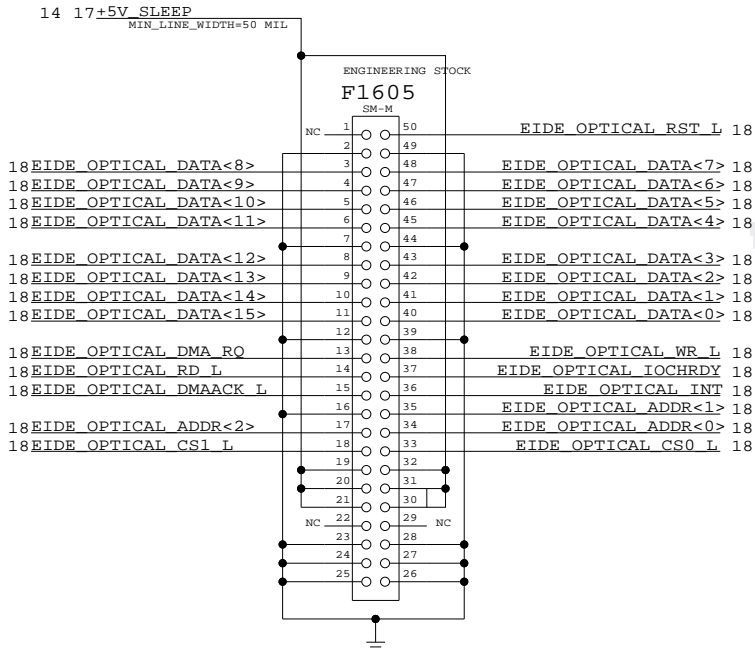
INVERTER INTERFACE



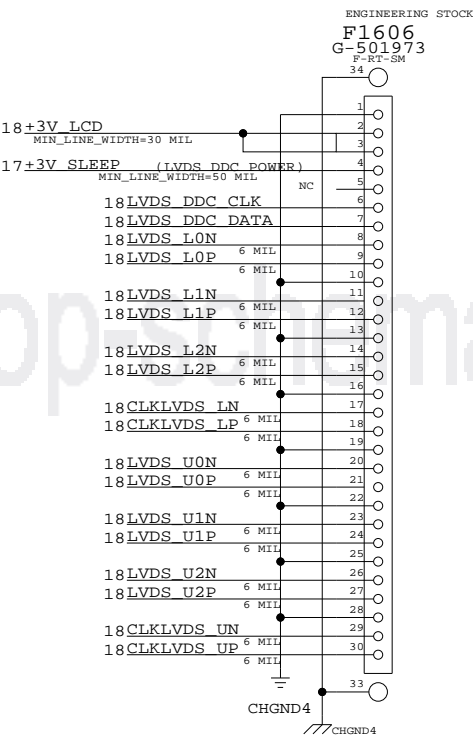
MODEM BOARD INTERFACE



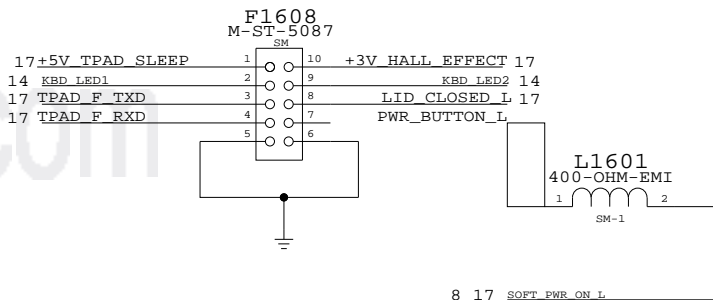
OPTICAL DRIVE INTERFACE (EIDE)



LVDS INTERFACE



TRACKPAD/PWR BTN CONN



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D	951-0246	2
SCALE	SHT	OF
NONE	17	20

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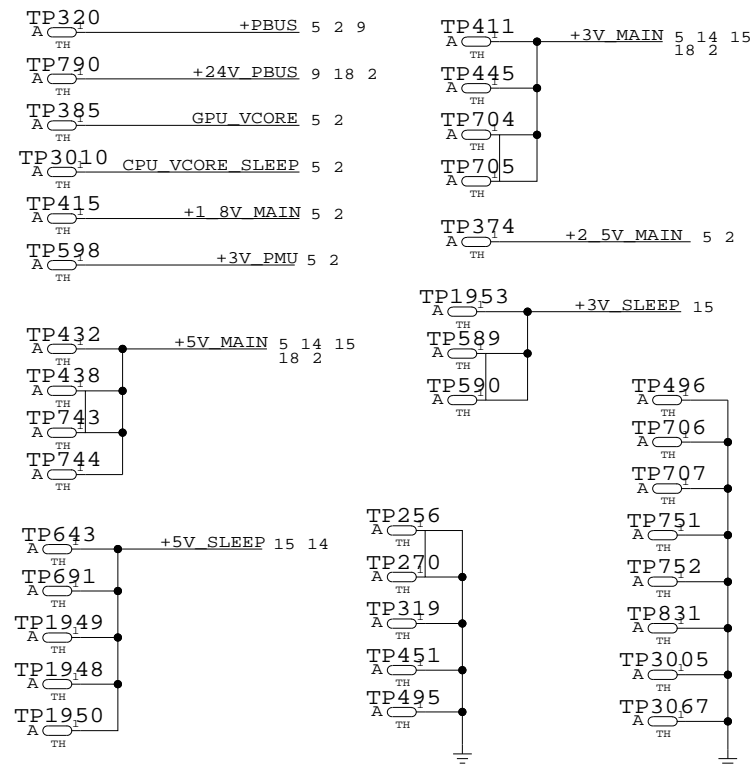
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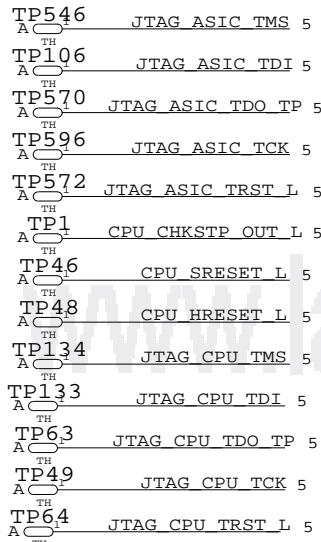
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POWER & GND

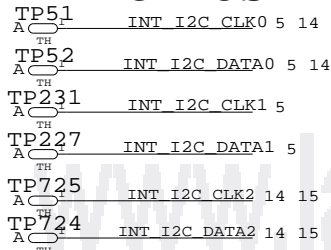


TEST SIGNALS

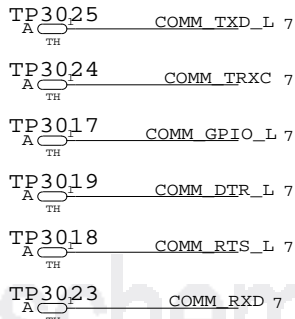
SCAN (JTAG)



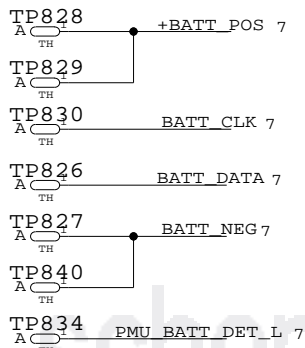
I2C BUS



SERIAL PORT-UUT COMM

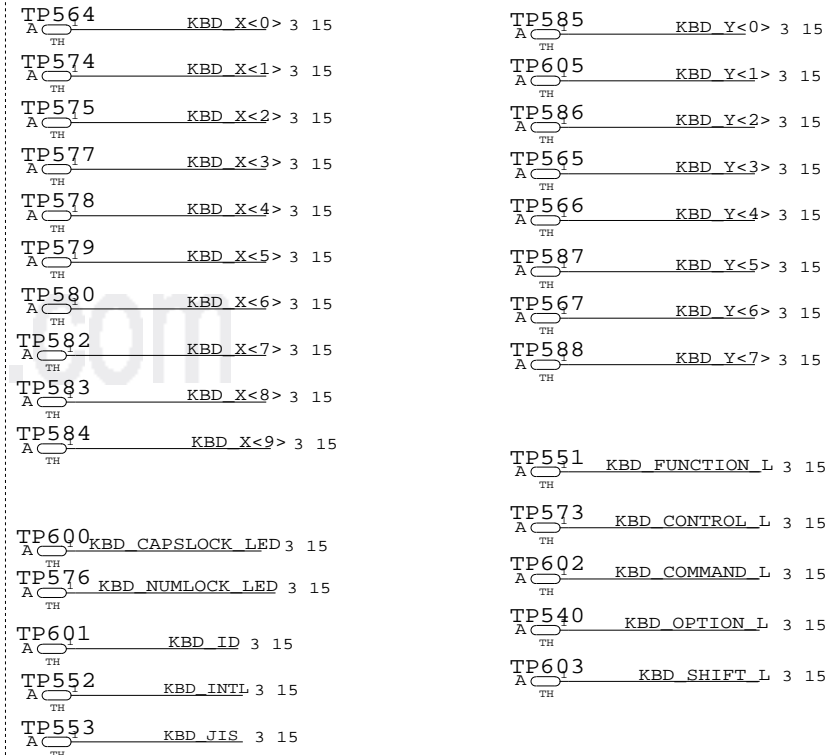


BATTERY CONNECTIONS

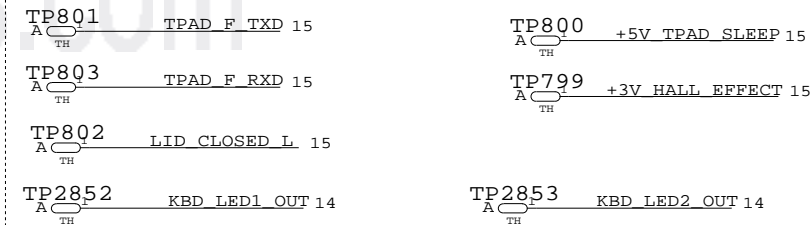


KEYBOARD CONNECTOR

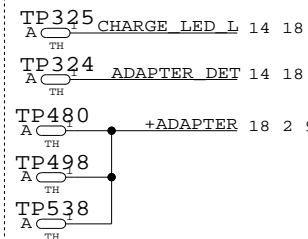
KEYBOARD SIGNALS



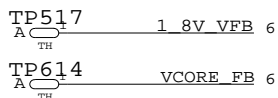
TRACKPAD SIGNALS



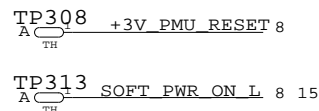
POWER INPUT SIGNALS



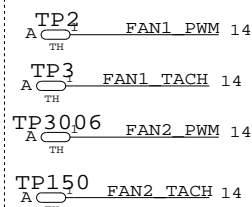
VOLTAGE MARGINING



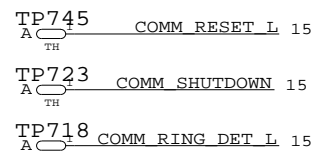
POWER-UP CONTROL SIGNALS



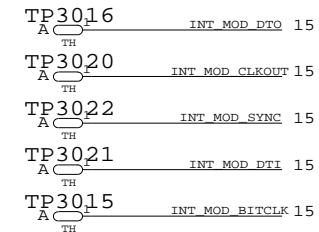
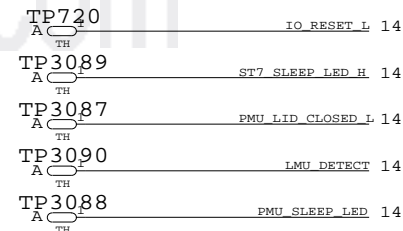
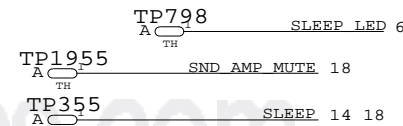
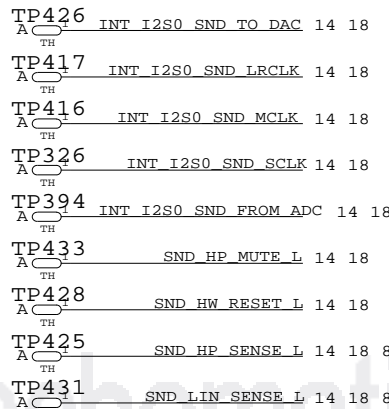
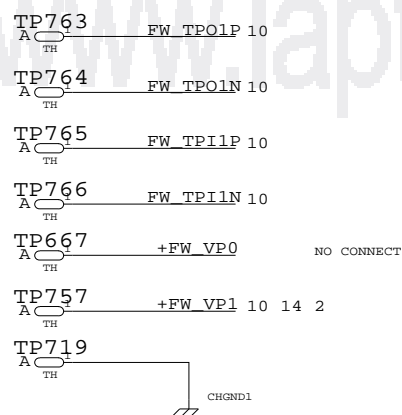
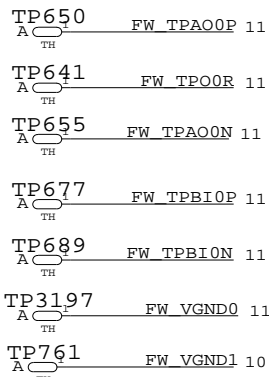
FAN TP'S



MODEM



FIREWIRE TP'S



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D	951-0246	2
SCALE	SHT	OF
NONE	19	20

DVD TP'S

TP700
A TH EIDE OPTICAL DATA<0> 15

TP701
A TH EIDE OPTICAL DATA<1> 15

TP671
A TH EIDE OPTICAL DATA<2> 15

TP702
A TH EIDE OPTICAL DATA<3> 15

TP672
A TH EIDE OPTICAL DATA<4> 15

TP703
A TH EIDE OPTICAL DATA<5> 15

TP673
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TP674
A TH EIDE OPTICAL DATA<7> 15

TP739
A TH EIDE OPTICAL DATA<8> 15

TP740
A TH EIDE OPTICAL DATA<9> 15

TP715
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TP736
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TP716
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TP737
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TP717
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TP738
A TH EIDE OPTICAL DATA<15> 15

TP713
A TH EIDE OPTICAL DMA RQ 15

TP735
A TH EIDE OPTICAL RD L 15

TP721
A TH EIDE OPTICAL DMAACK L 15

TP714
A TH EIDE OPTICAL ADDR<0> 15

TP699
A TH EIDE OPTICAL ADDR<1> 15

TP742
A TH EIDE OPTICAL ADDR<2> 15

TP670
A TH EIDE OPTICAL CS0 L 15

TP741
A TH EIDE OPTICAL CS1 L 15

TP693
A TH EIDE OPTICAL RST L 15

TP669
A TH EIDE OPTICAL WR L 15

TP722
A TH EIDE OPTICAL IOCHRDY 15

TP692
A TH EIDE OPTICAL INT 15

CARDSLOT(WIRELESS) TP'S

TP843
A TH PCI AD<0> 15

TP841
A TH PCI AD<1> 15

TP844
A TH PCI AD<2> 15

TP835
A TH PCI AD<3> 15

TP837
A TH PCI AD<4> 15

TP836
A TH PCI AD<5> 15

TP838
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TP832
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TP823
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TP822
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TP815
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TP814
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TP818
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TP808
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TP819
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TP795
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TP796
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TP787
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TP791
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TP788
A TH PCI AD<21> 15

TP789
A TH PCI AD<22> 15

TP780
A TH PCI AD<23> 15

TP773
A TH RF DISABLE L 15

TP842
A TH ROM ONBOARD CS L 15

TP847
A TH ROM CS L 15

TP833
A TH ROM OE L 15

TP820
A TH ROM RW L 15

TP783
A TH PCI AD<24> 15

TP779
A TH PCI AD<25> 15

TP784
A TH PCI AD<26> 15

TP785
A TH PCI AD<27> 15

TP775
A TH PCI AD<28> 15

TP774
A TH PCI AD<29> 15

TP776
A TH PCI AD<30> 15

TP777
A TH PCI AD<31> 15

TP810
A TH PCI_FRAME L 15

TP812
A TH PCI TRDY L 15

TP811
A TH PCI IRDY L 15

TP816
A TH PCI DEVSEL L 15

TP817
A TH PCI_STOP L 15

TP792
A TH PCI_PAR 15

TP824
A TH PCI_CBE<0> 15

TP809
A TH PCI_CBE<1> 15

TP794
A TH PCI_CBE<2> 15

TP782
A TH PCI_CBE<3> 15

TP778
A TH PMU_PME L 15

TP771
A TH AIRPORT_PCI_REQ L 15

TP768
A TH AIRPORT_PCI_GNT L 15

TP772
A TH AIRPORT_PCI_INT L 15

TP646
A TH MAIN_RESET L 15

TP806
A TH AIRPORT_CLKRUN L 15

TP781
A TH AIRPORT_IDSEL 15

TP769
A TH CLK33M_AIRPORT 15

TP2882
A TH +3V_CBUS_SLEEP 15

TP2883
A TH

USB TP'S

USB 2.0 CONNECTIONS

TP356
A TH NEC_USB_DAM 14 18

TP395
A TH NEC_USB_DAP 14 18

TP732
A TH NEC_USB_DBM 14

TP733
A TH NEC_USB_DBP 14

TP353
A TH NEC_LUSB_OCI_UF 14 18

TP354
A TH NEC_LUSB_PPON 14 18

TP746
A TH NEC_RUSB_OCI_UF 14

TP747
A TH NEC_RUSB_PPON 14

TP730
A TH MODEM_USB_DM 15

TP731
A TH MODEM_USB_DP 15

TP392
A TH BT_USB_DM 14 18

TP393
A TH BT_USB_DP 14 18

LIO BOARD TP'S

TP4029
A TH INT_I2S0_SND_TO_DAC 14 17

TP4166
A TH INT_I2S0_SND_LRCLK 14 17

TP4102
A TH INT_I2S0_SND_MCLK 14 17

TP4106
A TH INT_I2S0_SND_SCLK 14 17

TP4026
A TH INT_I2S0_SND_FROM_ADC 14 17

TP4066
A TH SND_HP_MUTE L 14 17

TP4100
A TH SND_HW_RESET L 14 17

TP4034
A TH SND_HP_SENSE L 14 17

TP4030
A TH SND_LIN_SENSE L 14 17

TP4016
A TH NEC_USB_DAM 14 18

TP4022
A TH NEC_USB_DAP 14 18

TP4107
A TH BT_USB_DM 14 18

TP4181
A TH BT_USB_DP 14 18

TP4077
A TH SLEEP 14 17

TP4153
A TH +ADAPTER_UF 9

TP4J1-1
A TH

TP4J1-3
A TH DC_PLUG_TIP 9

TP4J1-4
A TH ADAPTER_RING 9

TP4J1-2
A TH ADAPTER_GND 9

TP4154
A TH

TP4105
A TH INT_I2C_CLK2 14 15 17

TP4033
A TH INT_I2C_DATA2 14 15 17

TP4012
A TH ADAPTER_DET 14 17

TP4011
A TH CHARGE_LED L 14 17

TP4161
A TH NEC_LUSB_OCI_UF 14 18

TP4023
A TH NEC_LUSB_PPON 14 18

TP4090
A TH +5V_MAIN 5 14 15 17 2

TP4185
A TH

TP4051
A TH +3V_MAIN 5 14 15 17 2

TP4021
A TH

TP4155
A TH

TP4159
A TH

TP4160
A TH

TP4164
A TH

TP4165
A TH

TP4059
A TH SND_AMP_MUTE 17

TP4156
A TH +ADAPTER 17 2 9

TP4014
A TH

NEED TO HAND PLACE

DVI (VGA, DIGITAL) & S-VIDEO

TP251
A TH TV_C 13

TP310
A TH TV_Y 13

TP280
A TH TV_COMP 13

TP289
A TH TV_GND1 13

TP262
A TH TV_GND2 13

TP58
A TH VGA_R 13 16

TP57
A TH VGA_G 13 16

TP56
A TH VGA_B 13 16

TP124
A TH VGA_VSYNC 13 16

TP131
A TH VGA_HSYNC 13 16

TP132
A TH +5V_DDC_SLEEP 13 16

TP3111
A TH TMDS_DN<0> 13

TP3113
A TH TMDS_DP<0> 13

TP3112
A TH TMDS_DN<1> 13

TP3115
A TH TMDS_DP<1> 13

TP3114
A TH TMDS_DN<2> 13

TP3116
A TH TMDS_DP<2> 13

TP3103
A TH TMDS_CONN_CLKN 13

TP3104
A TH TMDS_CONN_CLKP 13

TP127
A TH DVI_DDC_CLK_UF 13

TP91
A TH DVI_DDC_DATA_UF 13

TP92
A TH DVI_HPD_UF 13

NEED CHASSIS GND

LVDS TP'S

TP594
A TH LVDS_L0N 15

TP595
A TH LVDS_L0P 15

TP591
A TH LVDS_L1N 15

TP592
A TH LVDS_L1P 15

TP548
A TH LVDS_L2N 15

TP549
A TH LVDS_L2P 15

TP429
A TH CHASSIS_GND

TP481
A TH LVDS_U0N 15

TP482
A TH LVDS_U0P 15

TP475
A TH LVDS_U1N 15

TP476
A TH LVDS_U1P 15

TP466
A TH LVDS_U2N 15

TP467
A TH LVDS_U2P 15

TP610
A TH +3V_LCD 15

TP618
A TH

TP606
A TH LVDS_DDC_CLK 15

TP607
A TH LVDS_DDC_DATA 15

TP533
A TH CLKLVDS_LN 15

TP534
A TH CLKLVDS_LP 15

TP452
A TH CLKLVDS_UN 15

TP453
A TH CLKLVDS_UP 15

LIBBA TP'S

TP5040
A TH INTERNAL_BATT_PBUS 9

TP5041
A TH

TP5039
A TH +24V_PBUS 9 17 2

TP5022
A TH BBATT_VSS 2

TP5035
A TH +V_BBATT 2

TP5042
A TH

TP5043
A TH

BACKLIGHT TP'S

TP258
A TH BRIGHT_PWM 15

TP226
A TH +5V_INV_SW 15

TP220
A TH +14V_INV 15

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