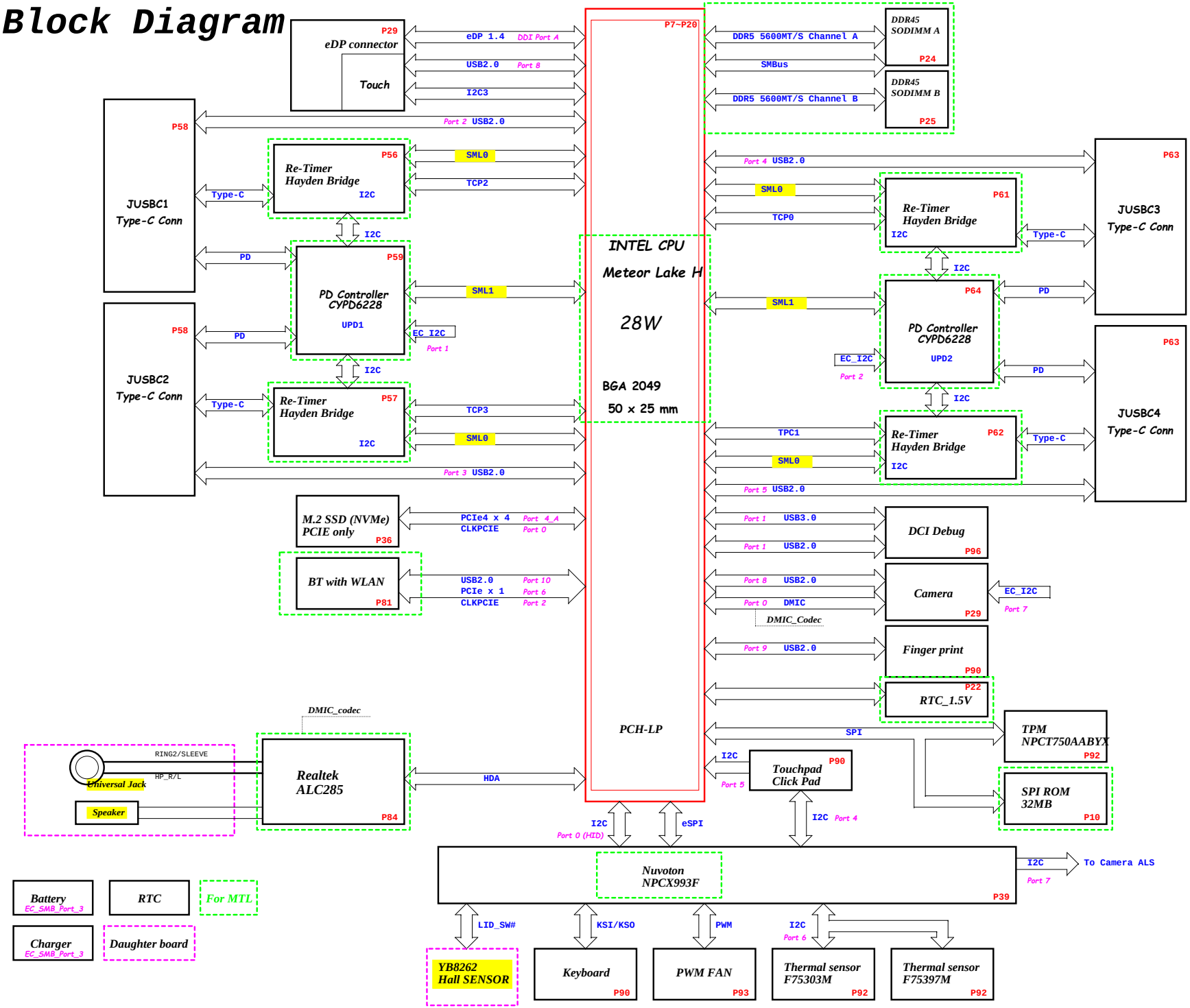
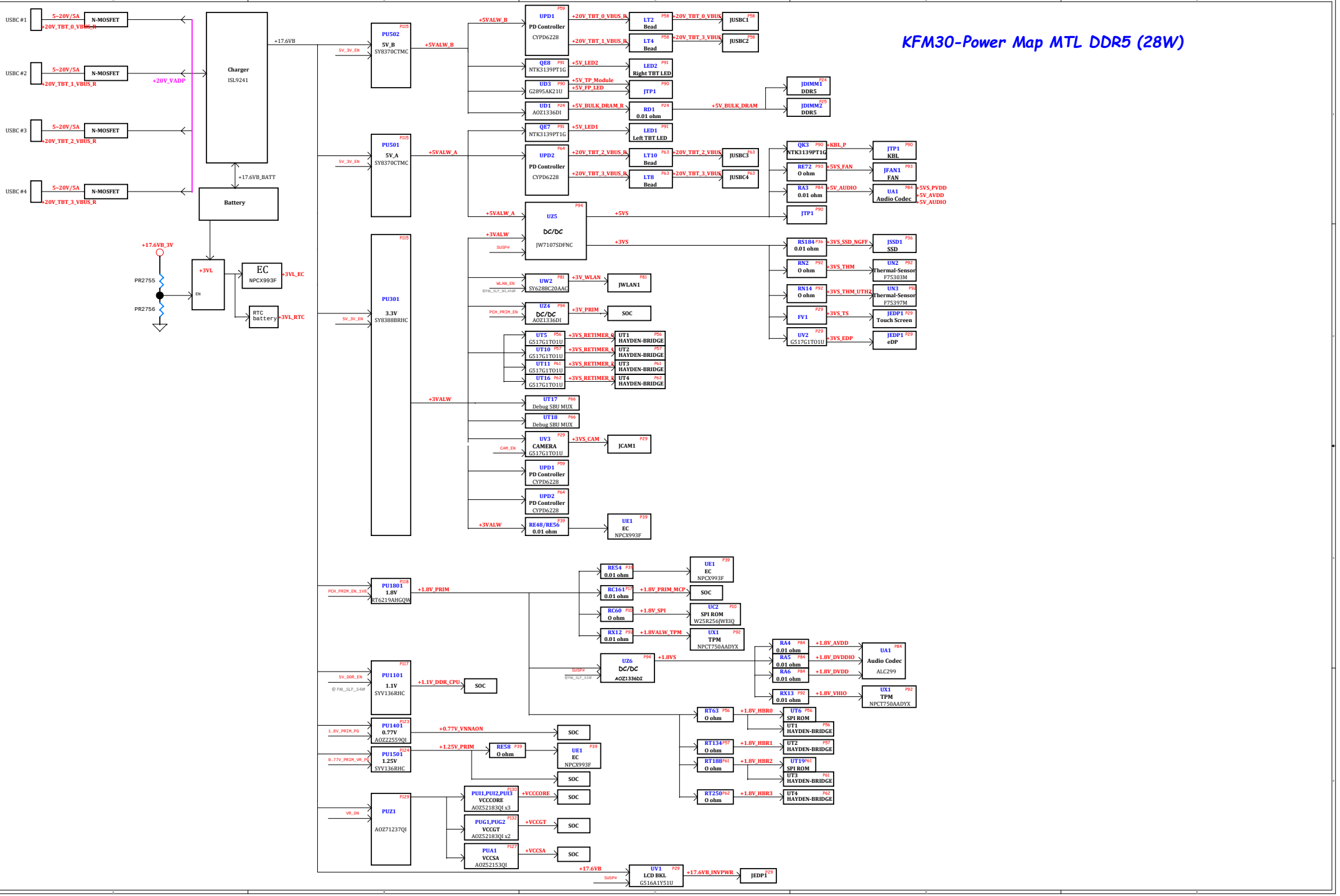
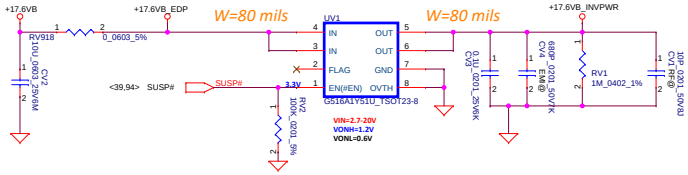
Block Diagram

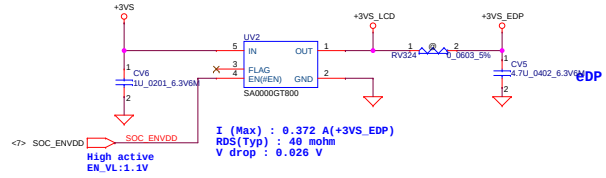



KFM30-Power Map MTL DDR5 (28W)
USBC #1
USBC #2
USBC #3
USBC #4
5~20V/5A
N-MOSFET
+20V_TBT_0_VBUS_R
+20V_TBT_1_VBUS_R
+20V_TBT_2_VBUS_R
+20V_TBT_3_VBUS_R
+20V_VADP
Charger
ISL9241
+17.6VB
+17.6VB_BATT
Battery
+17.6VB_3V
PR2755
PR2756
+3VL
EN
EC
NPCX993F
+3VL_EC
RTC battery
+3VL_RTC
PU502
5V_B
SY8370CTMC
5V_3V_EN
+5VALW_B
PU501
5V_A
SY8370CTMC
+5VALW_A
PU301
3.3V
SY8388BRHC
+3VALW
UPD1
PD Controller
CYPD6228
LT2
Bead
LT4
Bead
JUSBC1
JUSBC2
+20V_TBT_0_VBUS
+20V_TBT_3_VBUS
QE8
NTK3139PT1G
LED2
Right TBT LED
+5V_LED2
UD3
G2895AK21U
JTP1
+5V_TP_Module
+5V_FP_LED
UD1
AOZ1336DI
RD1
0.01 ohm
+5V_BULK_DRAM_R
+5V_BULK_DRAM
JDIMM1
DDR5
JDIMM2
DDR5
QE7
NTK3139PT1G
LED1
Left TBT LED
+5V_LED1
UPD2
PD Controller
CYPD6228
LT10
Bead
LT8
Bead
JUSBC3
JUSBC4
+20V_TBT_2_VBUS
+20V_TBT_3_VBUS
QK3
NTK3139PT1G
+KBL_P
JTP1
KBL
RE72
0 ohm
+5VS_FAN
JFAN1
FAN
RA3
0.01 ohm
+5V_AUDIO
UA1
Audio Codec
+5VS_PVDD
+5V_AVDD
+5V_AUDIO
JTP1
UZ5
DC/DC
JW7107SDFNC
+5VS
+3VS
SUSP#
RS184
0.01 ohm
+3VS_SSD_NGFF
JSSD1
SSD
RN2
0 ohm
+3VS_THM
UN2
Thermal-Sensor
F75303M
RN14
0 ohm
+3VS_THM_UTH2
UN3
Thermal-Sensor
F75397M
FV1
+3VS_TS
JEDP1
Touch Screen
UV2
G517G1TO1U
+3VS_EDP
JEDP1
eDP
UW2
SY6288C20AAC
WLAN_EN
+3V_WLAN
JWLAN1
UZ4
DC/DC
AOZ1336DI
PCH_PRIM_EN
+3V_PRIM
SOC
UT5
G517G1TO1U
UT10
G517G1TO1U
UT11
G517G1TO1U
UT16
G517G1TO1U
+3VS_RETIMER_0
+3VS_RETIMER_1
+3VS_RETIMER_2
+3VS_RETIMER_3
UT1
HAYDEN-BRIDGE
UT2
HAYDEN-BRIDGE
UT3
HAYDEN-BRIDGE
UT4
HAYDEN-BRIDGE
UT17
Debug SBU MUX
UT18
Debug SBU MUX
UV3
CAMERA
G517G1TO1U
CAM_EN
+3VS_CAM
JCAM1
UPD1
PD Controller
CYPD6228
UPD2
PD Controller
CYPD6228
RE48/RE56
0.01 ohm
UE1
EC
NPCX993F
PU1801
1.8V
RT6219AHGQW
PCH_PRIM_EN_1V8
+1.8V_PRIM
RE54
0.01 ohm
RC161
0.01 ohm
RC60
0 ohm
RX12
0.01 ohm
+1.8V_PRIM_MCP
+1.8V_SPI
+1.8VALW_TPM
UC2
SPI ROM
W25R256JWEIQ
UX1
TPM
NPCT750AADYX
UZ6
DC/DC
AOZ1336DI
+1.8VS
RA4
0.01 ohm
RA5
0.01 ohm
RA6
0.01 ohm
RX13
0.01 ohm
+1.8V_AVDD
+1.8V_DVDDIO
+1.8V_DVDD
+1.8V_VHIO
UA1
Audio Codec
ALC299
PU1101
1.1V
SYV136RHC
SV_DDR_EN
+1.1V_DDR_CPU
PU1401
0.77V
AOZ22559QI
1.8V_PRIM_PG
+0.77V_VNNAON
PU1501
1.25V
SYV136RHC
0.77V_PRIM_VR_PG
+1.25V_PRIM
RE58
0 ohm
RT63
0 ohm
RT134
0 ohm
RT188
0 ohm
RT250
0 ohm
+1.8V_HBR0
+1.8V_HBR1
+1.8V_HBR2
+1.8V_HBR3
UT6
SPI ROM
UT19
SPI ROM
PUZ1
AOZ71237QI
VR_ON
PUI1,PUI2,PUI3
VCCCORE
AOZ52183QI x3
PUG1,PUG2
VCCGT
AOZ52183QI x2
PUA1
VCCSA
AOZ52153QI
+VCCCORE
+VCCGT
+VCCSA
UV1
LCD BKL
G516A1Y51U
+17.6VB_INVPWR
JEDP1

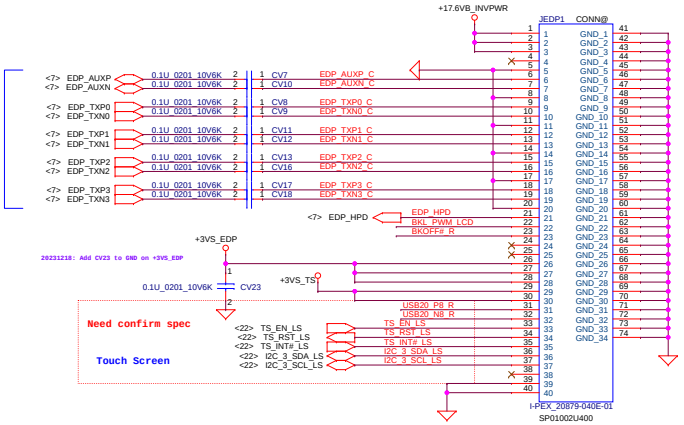
eDP

LCD backlight power control

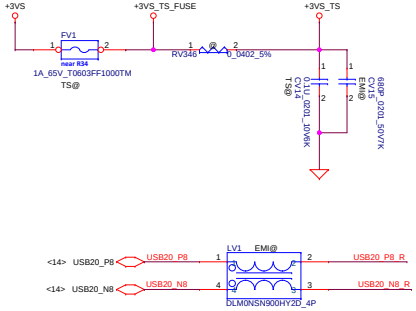


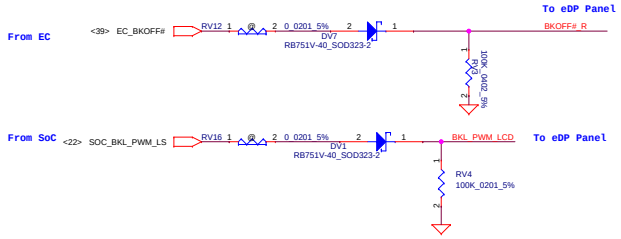


eDP Conn.

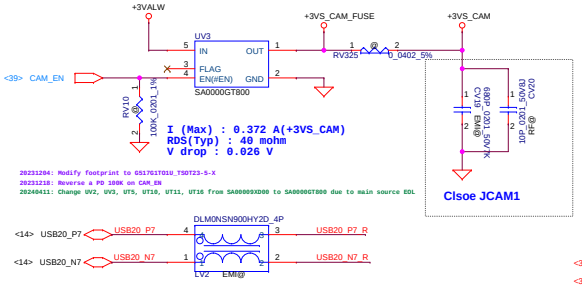


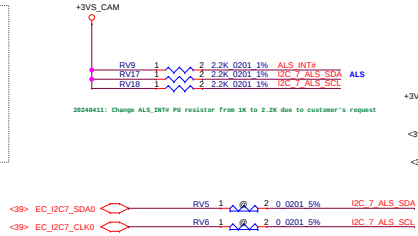
Touch Screen

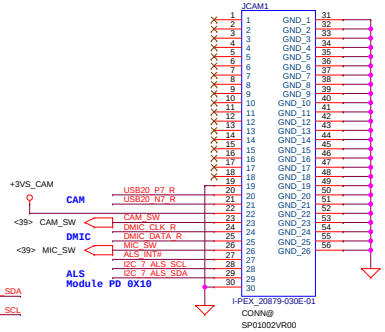


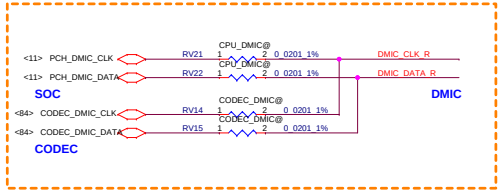


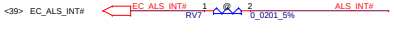
DMIC / CAM

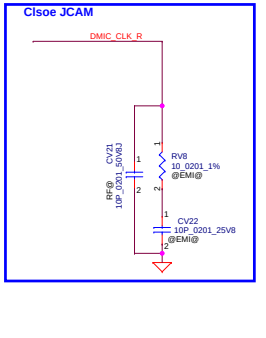


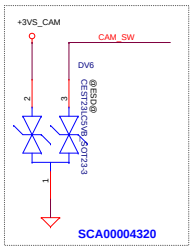


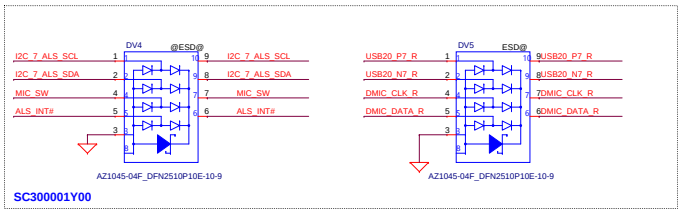


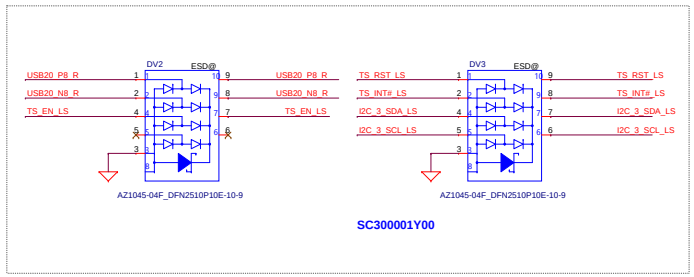






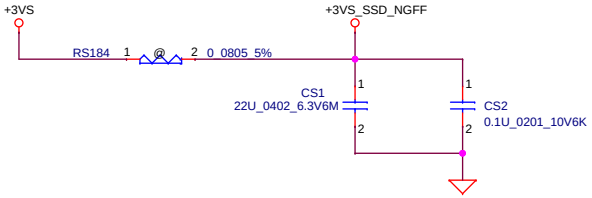


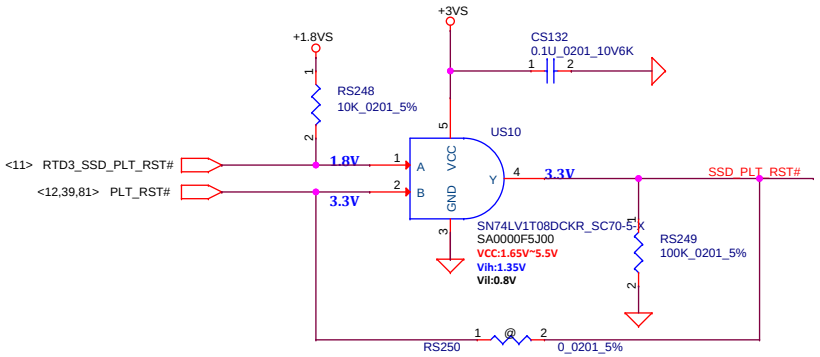




NGFF SSD (KEY M)

PCIE Gen4



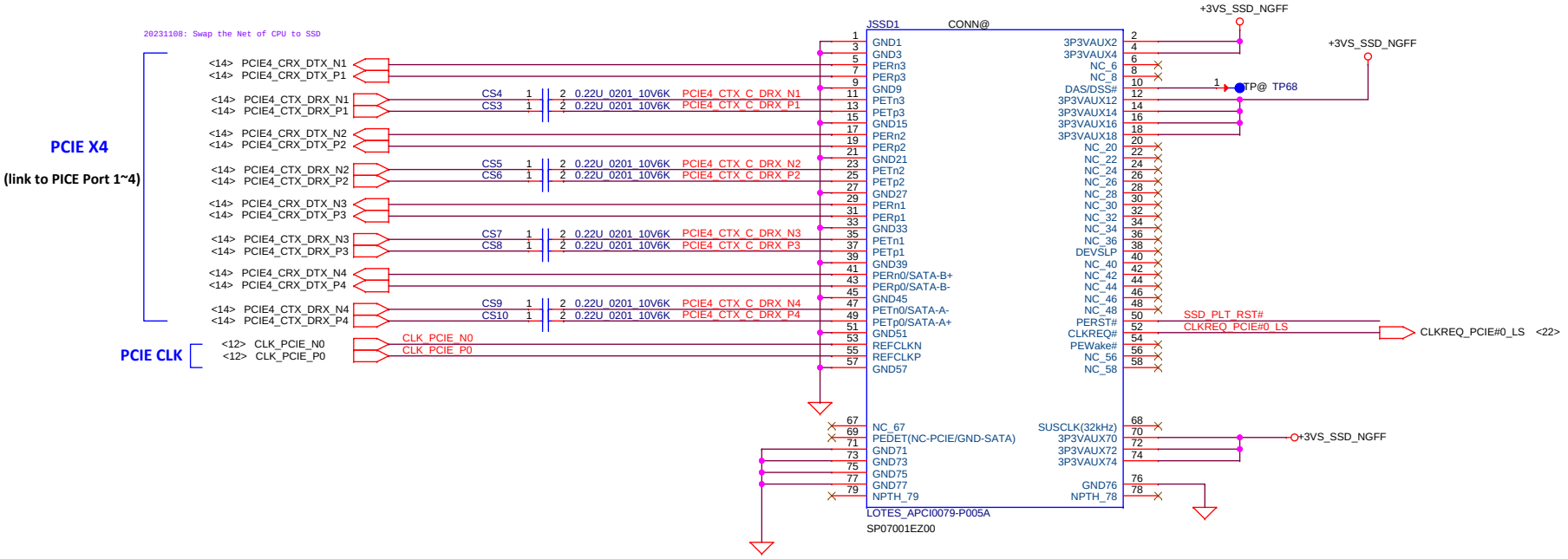


KEY M

20231108: Swap the Net of CPU to SSD

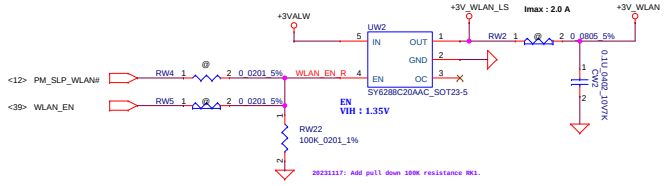
PCIE X4

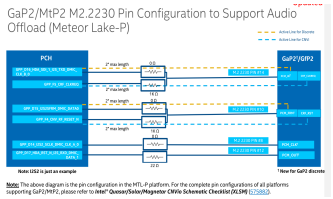
(link to PICE Port 1~4)

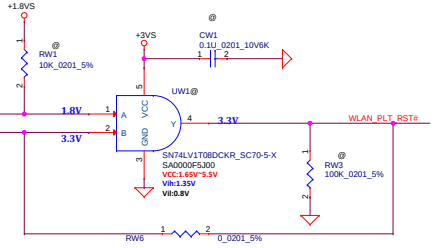


Main Func = NGFF WLAN / BT (Key E)

[PCIE+USB/CNVi]

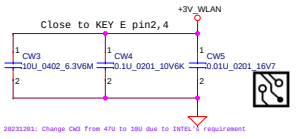






KEY E

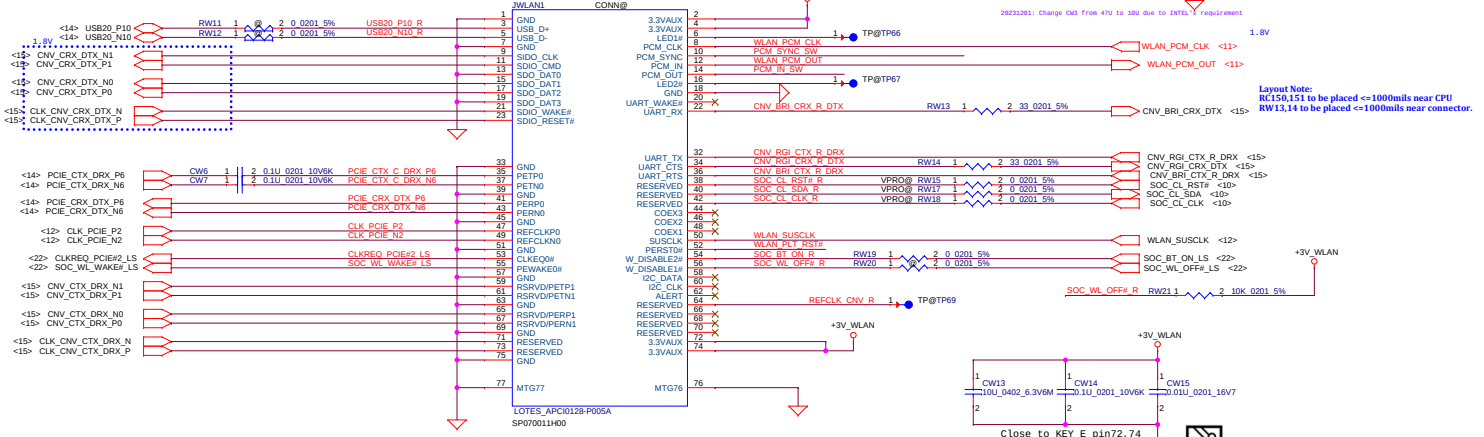
20231107: Modify RW8 & RW10 to stuffed part

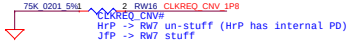


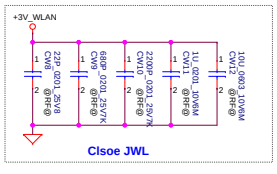
USB2 P10
(For Bluetooth)

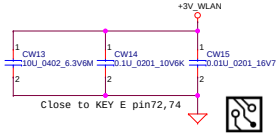
CNVi Rx

CNVi Tx





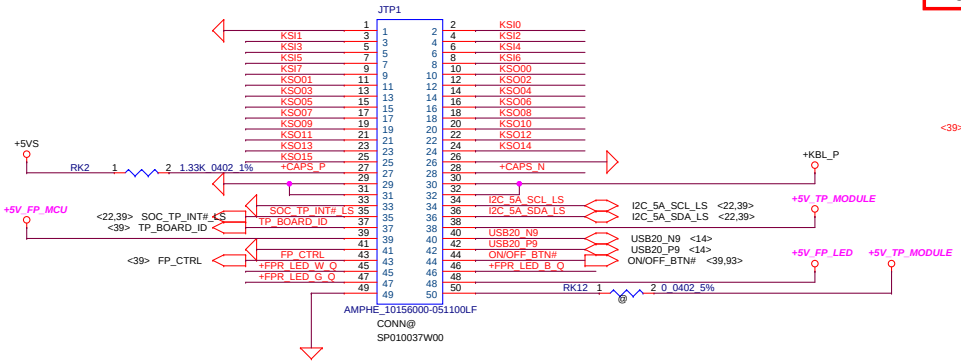


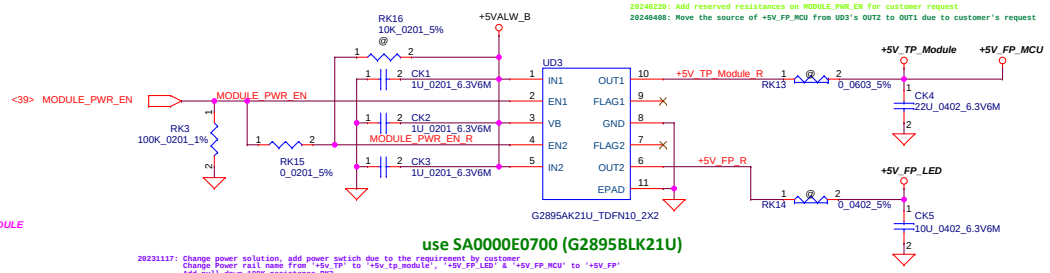


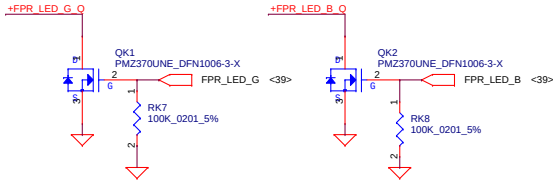
Keyboard

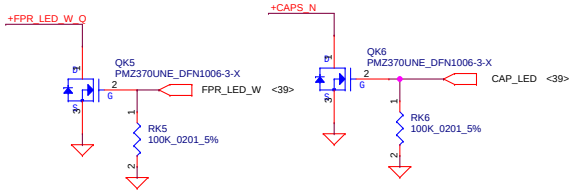
<39> KSI[0..7]
<39> KSO[0..9]
<39> KSO[10..15]

Main Func = TP/FP

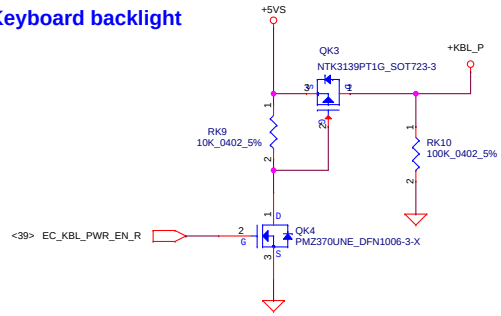


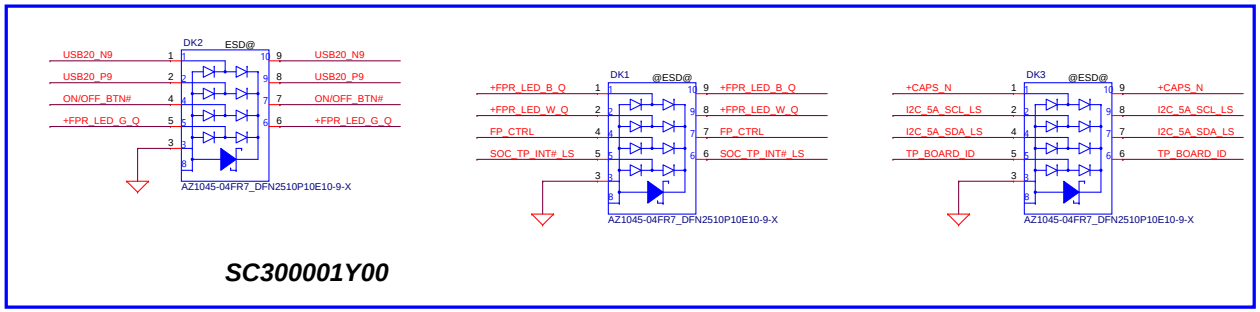






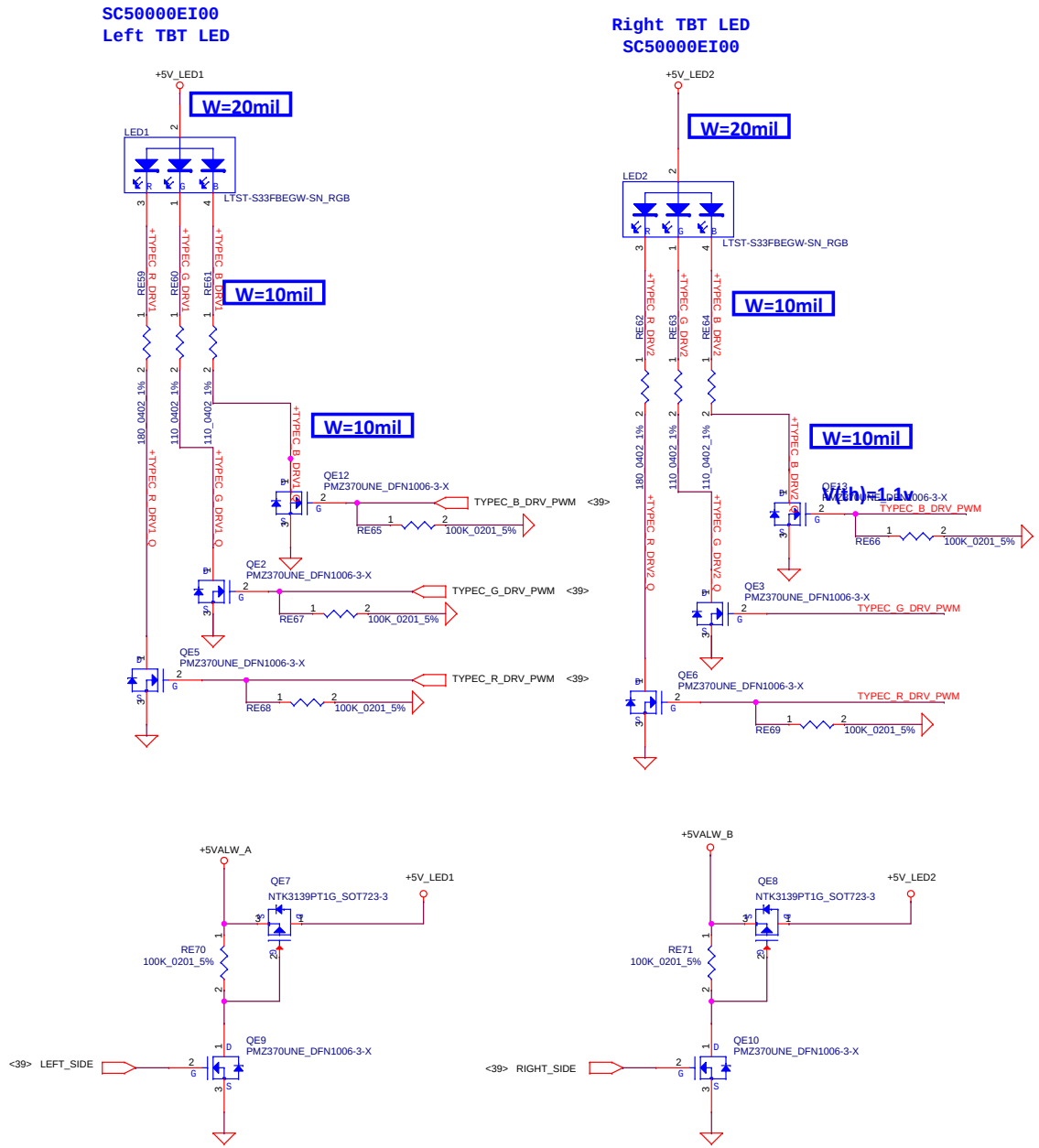
Keyboard backlight





SC300001Y00

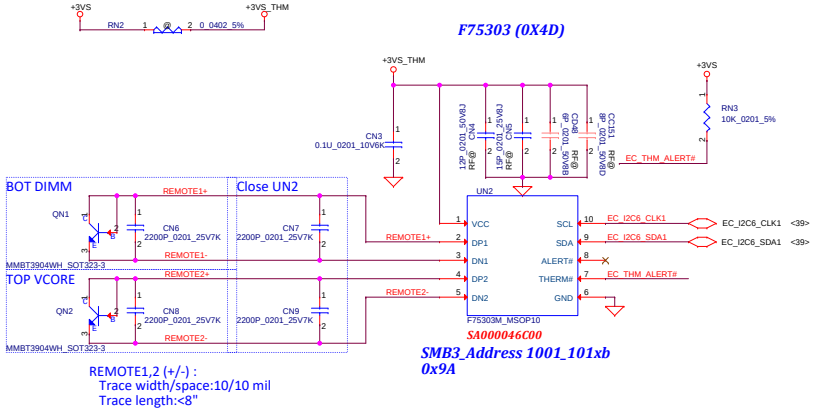
Main Func = LED



Main Func = Sensor_TPM_LED

THERMAL SENSOR

F75303 (0X4D)

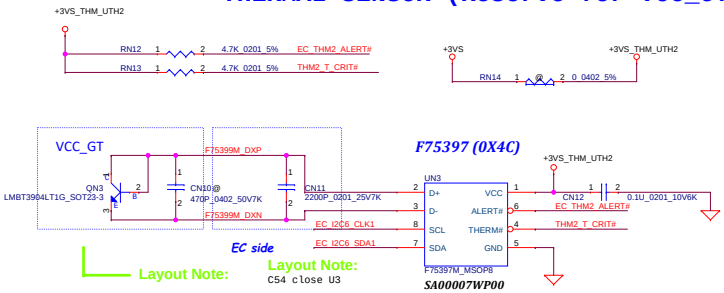


SA000046C00

SMB3_Address 1001_101xb
0x9A

REMOTE1,2 (+/-) :
Trace width/space:10/10 mil
Trace length:<8"

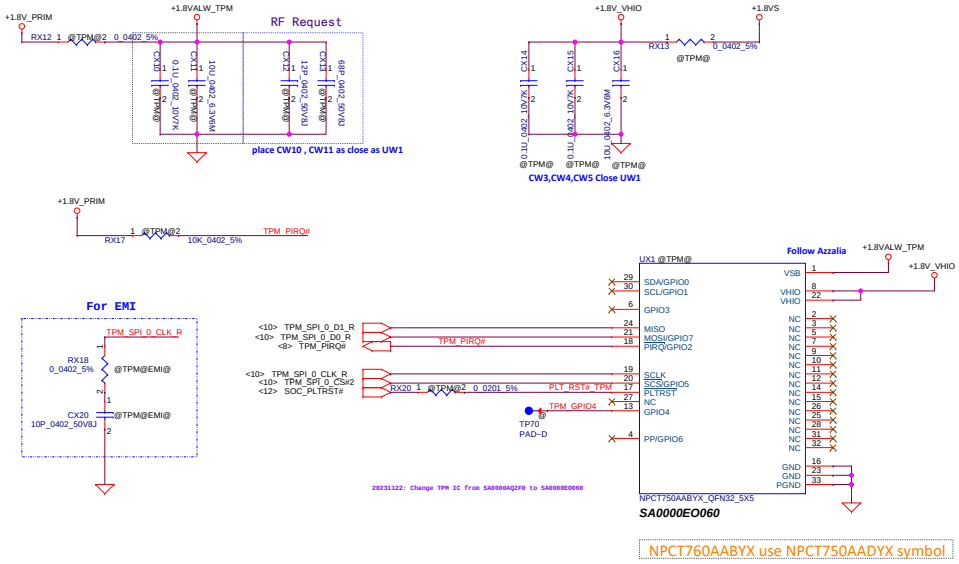
THERMAL SENSOR (Reserve for VCC_GT)



SA00007WP00

DXN and DXP routing width and spacing is 10 mil / 10 mil.

TPM will change to NPCT750AADYX SA0000AQ2F0



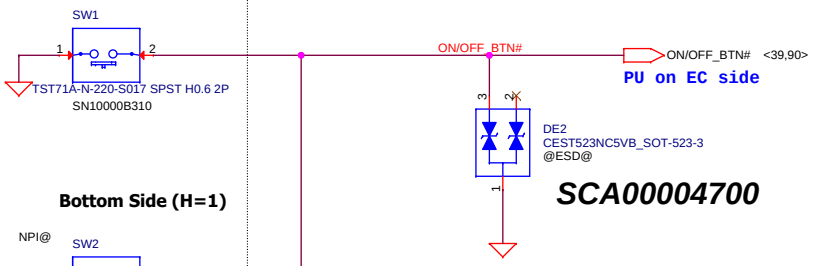
SA0000EO060

NPCT760AABYX use NPCT750AADYX symbol

Power Button

ON / OFF switch

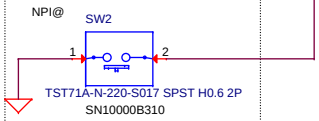
TOP Side



PU on EC side

SCA00004700

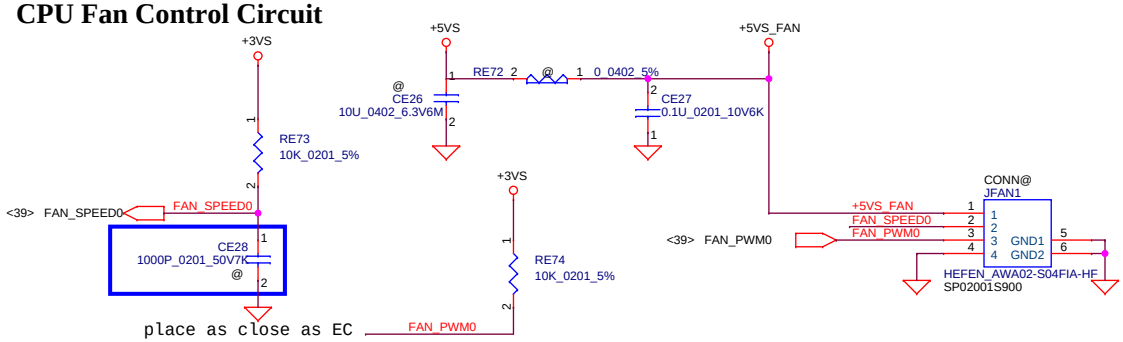
Bottom Side (H=1)



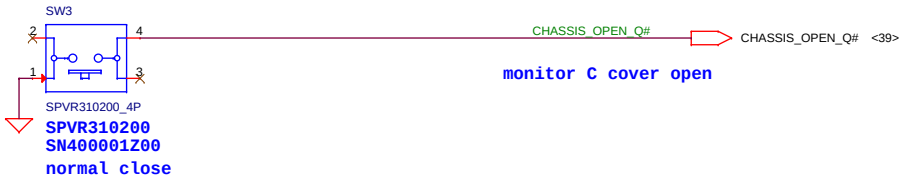
QAD on/off test purpose

Test Only

CPU Fan Control Circuit



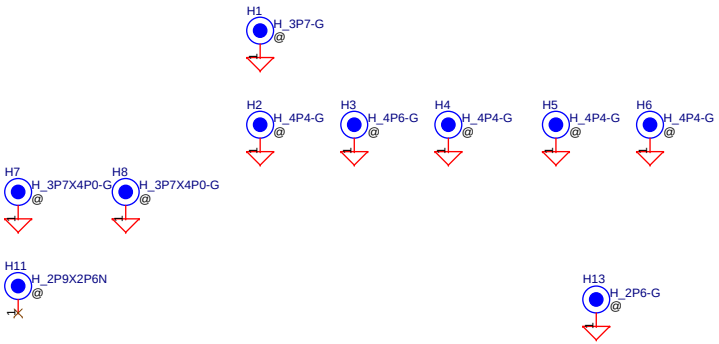
place as close as EC



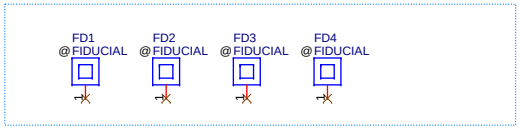
SPVR310200
SN400001Z00
normal close

monitor C cover open

SCREW



Fiducial Mark



Stand Off (Fan)

Stand Off (SSD)