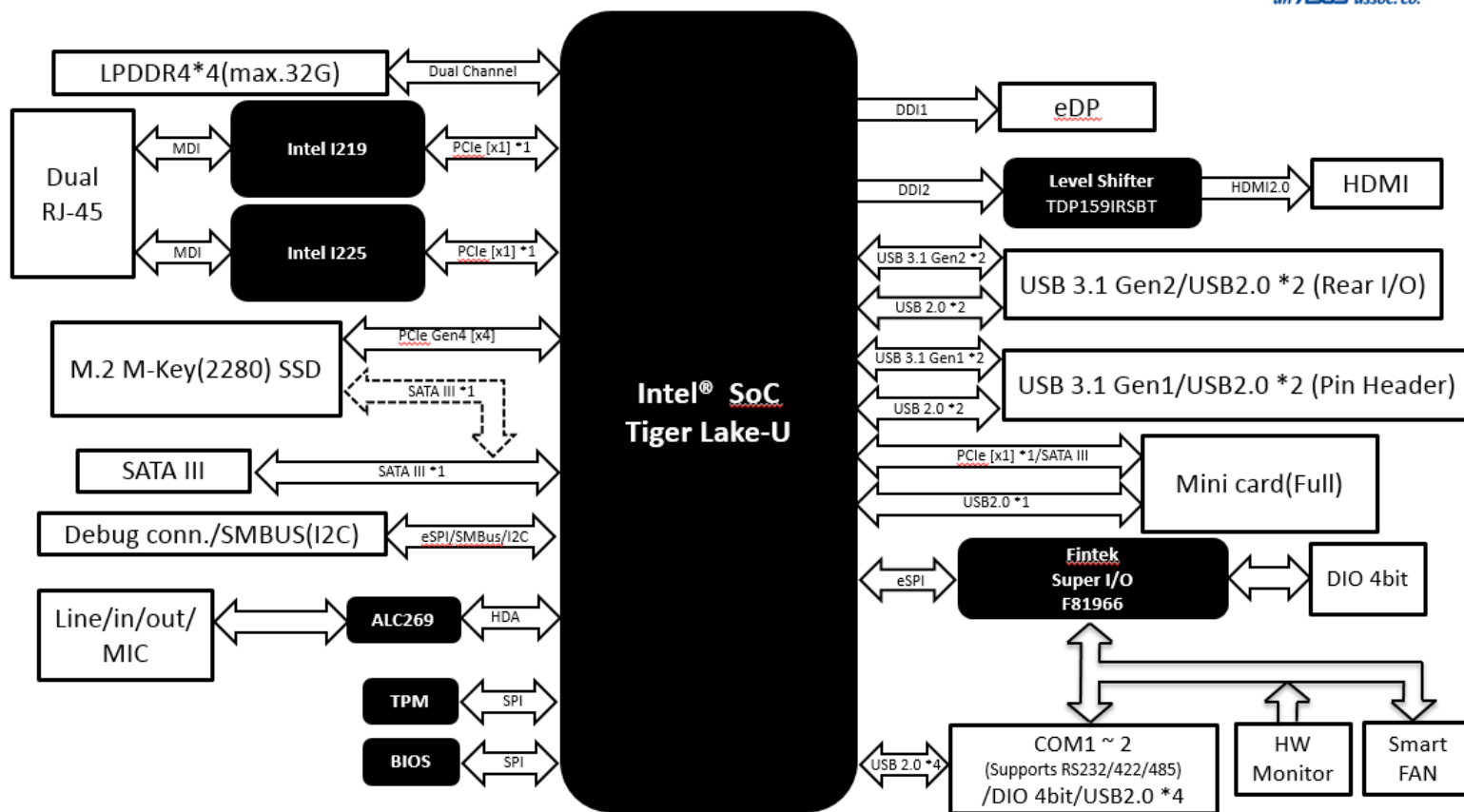


System block diagram

PICO-TGU4 Block Diagram(Internal)



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1	Cover Sheet
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4	Power Sequence
5	SoC DDI
6	SoC DDR4
7	SoC SPI/eSPI/SMBus
8	SoC HDA/SD
9	SoC PCIe/SATA/USB
10	SoC PCIE_CLK/ RTC
11	SoC eMMC
12	SoC System
13	SoC Power
14	PCH Power
15	SoC GND
16	SoC Strap
17	LPDDR4x (1/4)
18	LPDDR4x (2/4)
19	LPDDR4x (3/4)
20	LPDDR4x (4/4)
21	DDI1 to HDMI1
22	DDI0 to eDP
23	miniCard/mSATA(Full)
24	SATA/ DIO/TPM
25	M.2(Key B)
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30	Audio ALC269
31	COM1/ COM2 / DIO / USB2.0
32	FAN/BIOS/ eSPI / HW Monitor
33	Power in/ MISC
34	PWR_+V5A/ +V3P3A
35	PWR_+V12S/ +V5S/ +V3P3S
36	PWR_IMVP9 Controller
37	PWR_+VCCIN
38	PWR_+VCCIN_AUX/+V1P8A
39	PWR_+VCCSTG/+VCCSFR_OC
40	APW8743C
41	PWR_+VDDQ/ +VDDQ_VPP/ +V1P8A
42	RSMEST# Control
43	Revision History

<Core Design>

SoC PCIE_CLK/ RTC

M.2(M)
LAN2 I225
mini card
LAN1 I219

[25] PCIE_5_CLK_DP
[25] PCIE_5_CLK_DN
[27] PCIE_2_CLK_DP
[27] PCIE_2_CLK_DN
[23] PCIE_1_CLK_DP
[23] PCIE_1_CLK_DN
[26] PCIE_0_CLK_DP
[26] PCIE_0_CLK_DN

JP5(1-31)
27S1000-02C55-01G no CIS

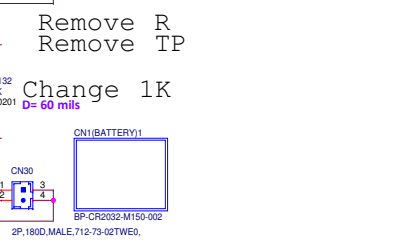
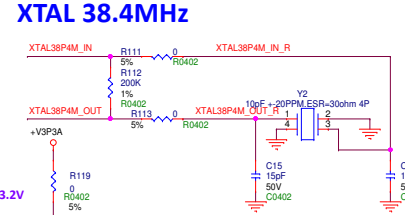
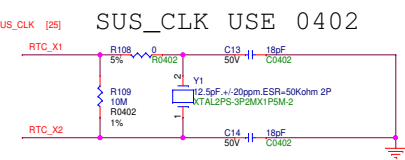
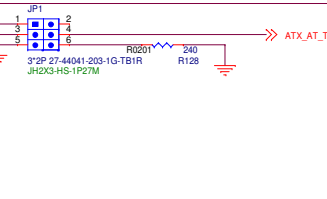
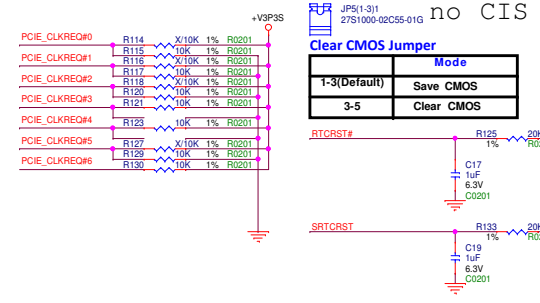
Clear CMOS Jumper

	Mode
1-3(Default)	Save CMOS
3-5	Clear CMOS

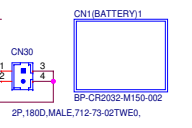
no CIS
JP5(4-6)
27S1000-02C55-01G

AT/ATX control

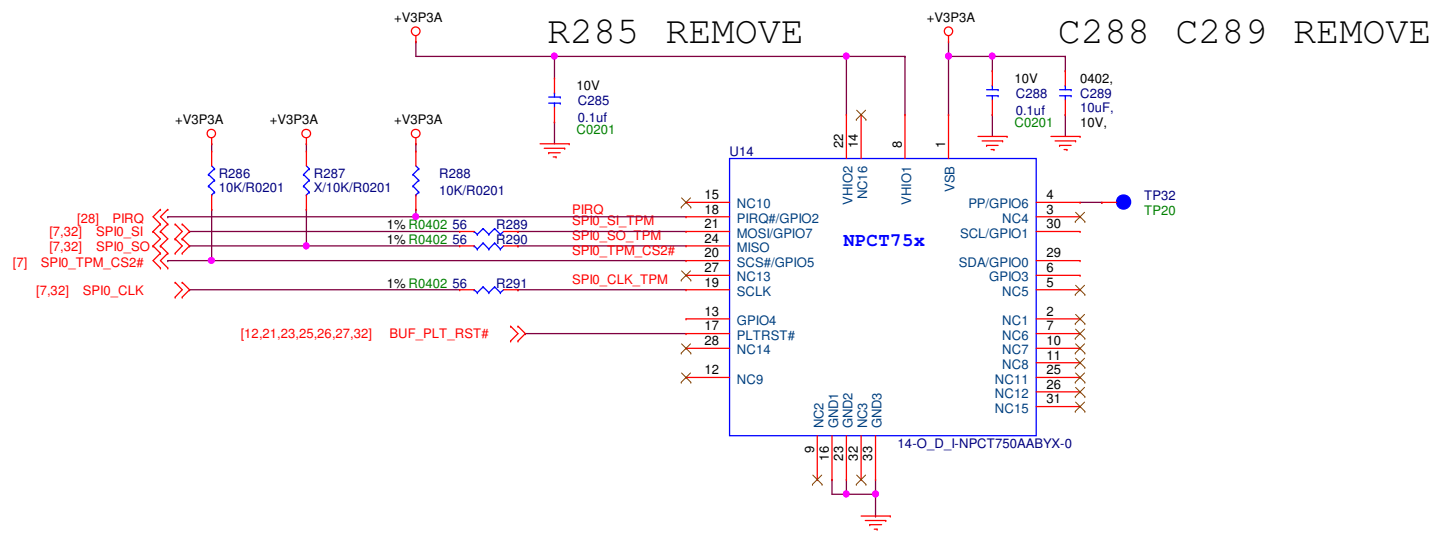
Auto Power Button Selection	
2-4	Disable - ATX
4-6	Enable - ATX



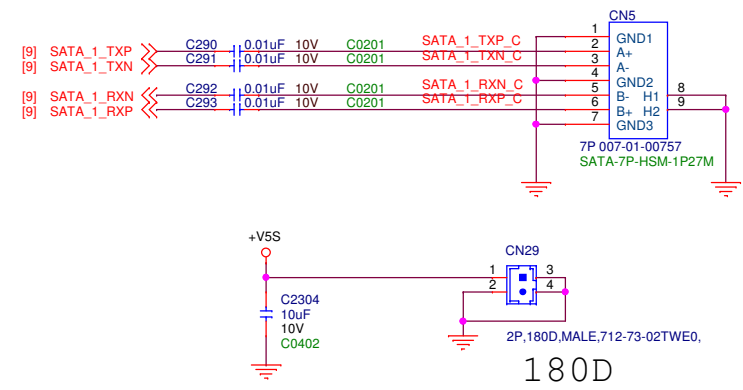
Remove R
Remove TP
Change 1K
D= 60 mils



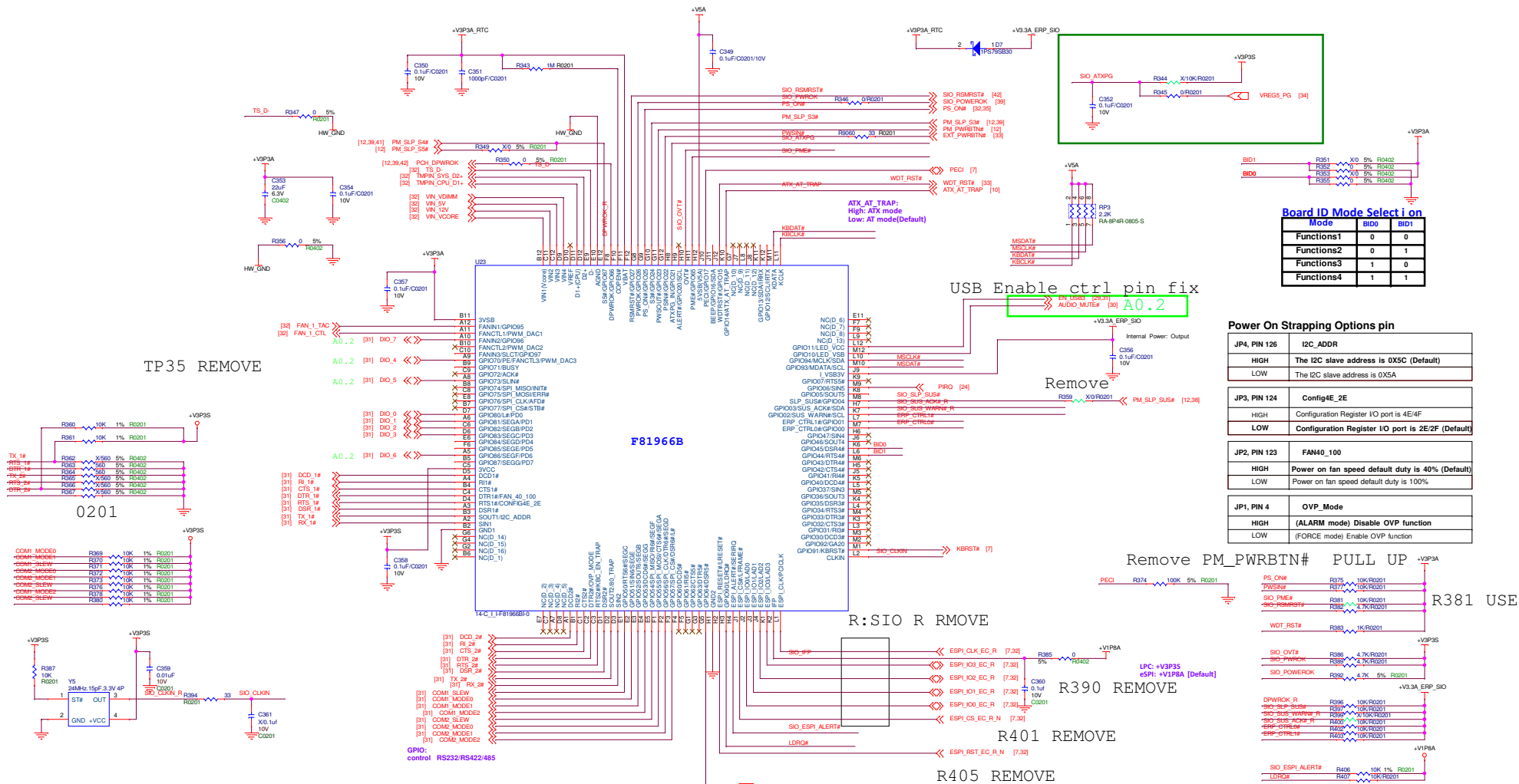
TPM



SATA



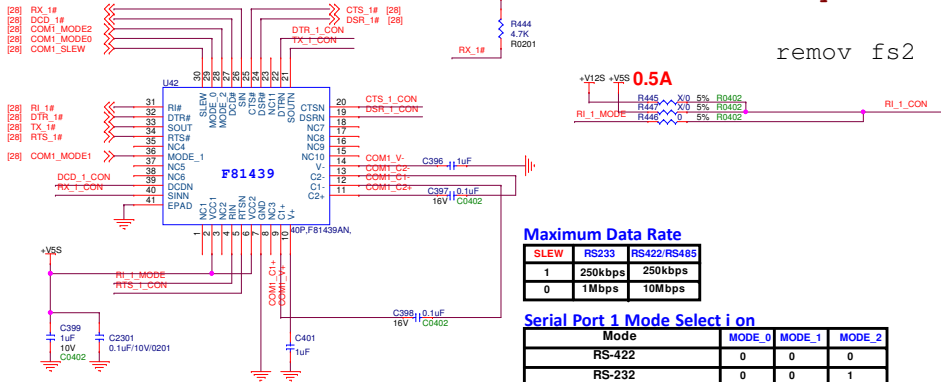
Super I/O F81966



Mode	BID0	BID1
Functions1	0	0
Functions2	0	1
Functions3	1	0
Functions4	1	1

Power On Strapping Options pin	
JP4, PIN 126	I2C_ADDR
HIGH	The I2C slave address is 0X5C (Default)
LOW	The I2C slave address is 0X5A
JP3, PIN 124	Config4E_2E
HIGH	Configuration Register IO port is 4E/4F
LOW	Configuration Register IO port is 2E/2F (Default)
JP2, PIN 123	FAN40_100
HIGH	Power on fan speed default duty is 40% (Default)
LOW	Power on fan speed default duty is 100%
JP1, PIN 4	OVP_Mode
HIGH	(ALARM mode) Disable OVP function
LOW	(FORCE mode) Enable OVP function

COM1-RS232/RS422/RS485



Change to F81439 for RS232/422/485
F81437 for RS232 only

remov fs2

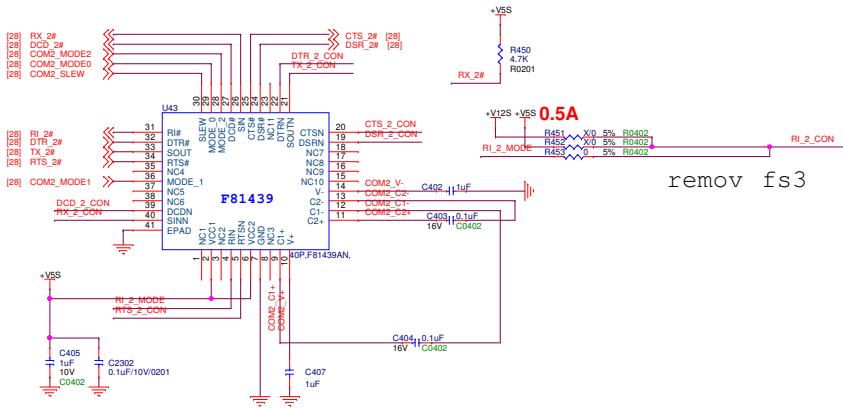
Maximum Data Rate

SLEW	RS233	RS422/RS485
1	250kbps	250kbps
0	1Mbps	10Mbps

Serial Port 1 Mode Select i on

Mode	MODE_0	MODE_1	MODE_2
RS-422	0	0	0
RS-232	0	0	1
RS-485 (Driver Half Duplex)	0	1	0
RS-485 (Receiver Half Duplex)	0	1	1
Shutdown MODE	1	X	X

COM2-RS232/RS422/RS485



remov fs3

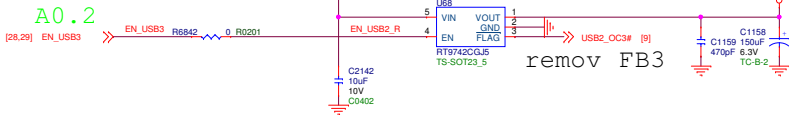
Maximum Data Rate

SLEW	RS233	RS422/RS485
1	250kbps	250kbps
0	1Mbps	10Mbps

Serial Port 1 Mode Select i on

Mode	MODE_0	MODE_1	MODE_2
RS-422	0	0	0
RS-232	0	0	1
RS-485 (Driver Half Duplex)	0	1	0
RS-485 (Receiver Half Duplex)	0	1	1
Shutdown MODE	1	X	X

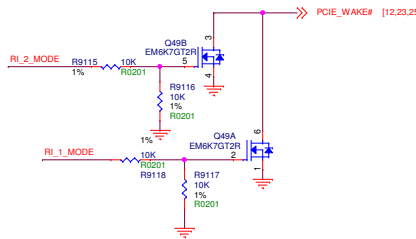
USB2.0 *2(Pin Header)



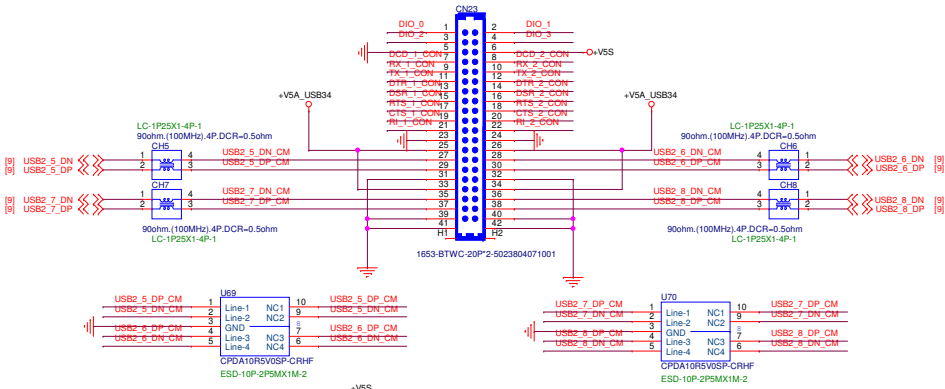
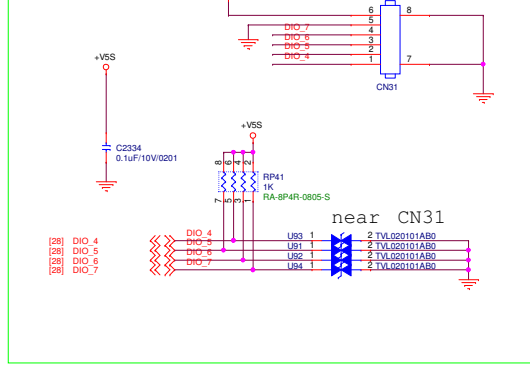
CN2 Port pin mapping

CN2	RS422	RS485	DB-9 Con.
5	DCD1	TX1-	DATA1-
7	RX1	TX1+	DATA1+
9	TX1	TX1+	DATA1+
11	DTR1	TX1-	DATA1-
3	GND		
13	DSR1		
15	RTS1		
17	CTS1		
19	RI1		
6	DCD2	TX2-	DATA2-
8	RX2	TX2+	DATA2+
10	TX2	TX2+	DATA2+
12	DTR2	TX2-	DATA2-
3	GND		
14	DSR2		
16	RTS2		
18	CTS2		
20	RI2		

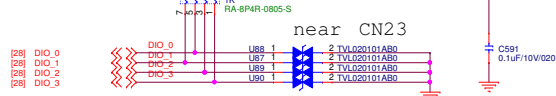
Wake on Modem



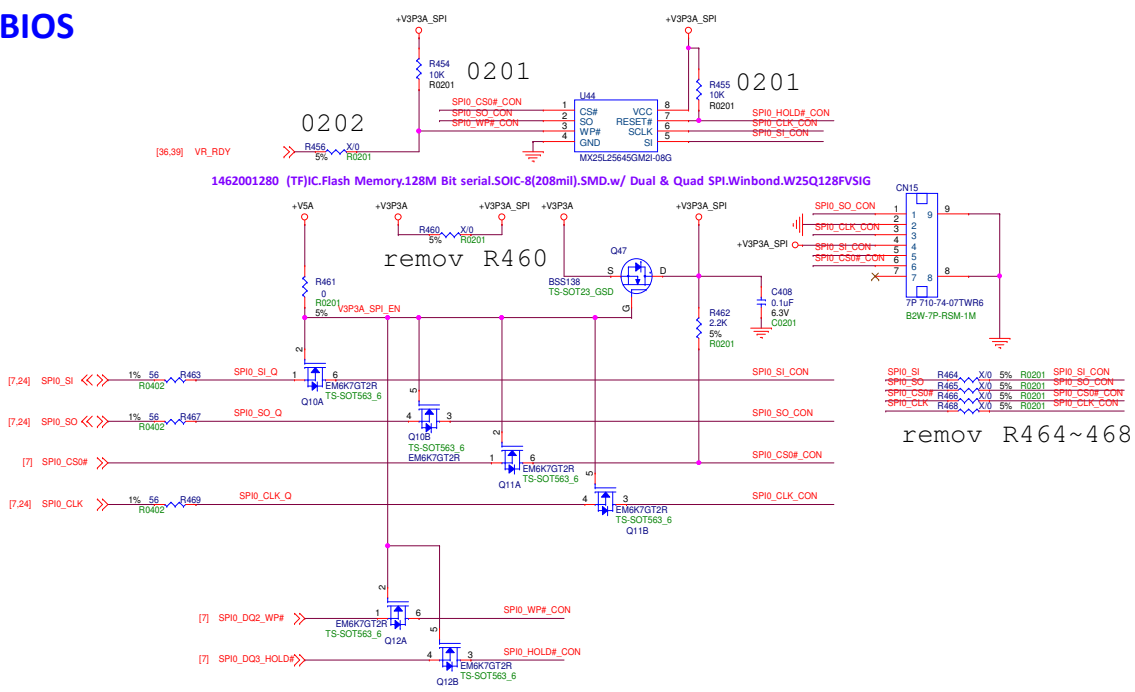
A0.2 DIO2



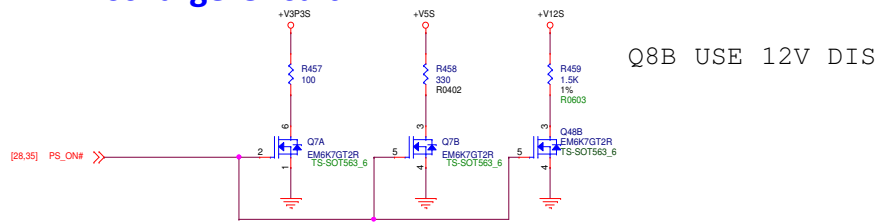
DIO



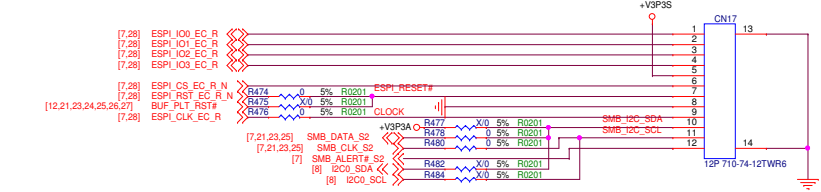
BIOS



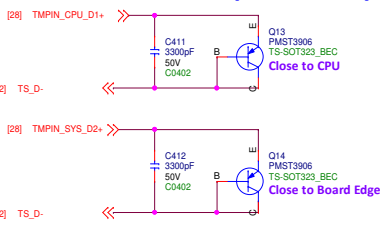
Discharge Circuit



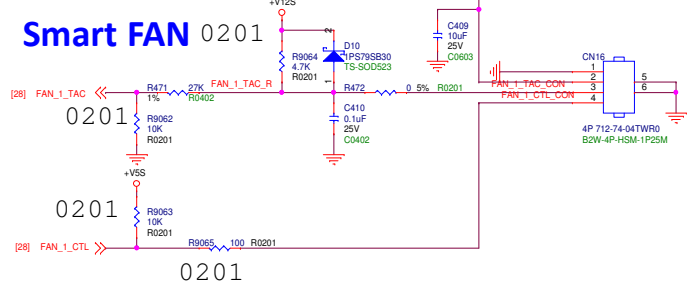
eSPI Connector



Temperature Monitor(CPU, SYS)



Smart FAN 0201



Voltage Monitor(Vcore, Vmem)

