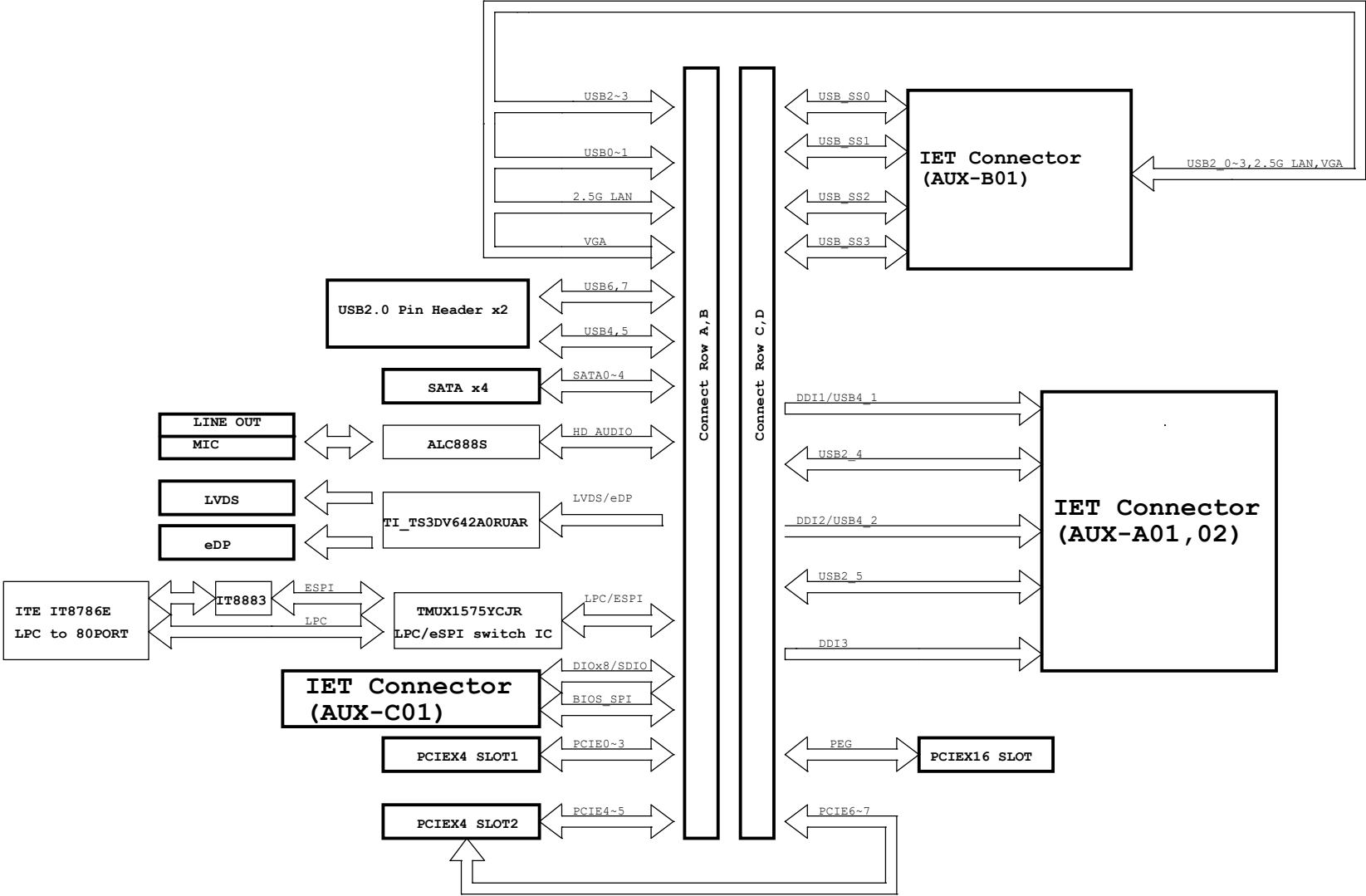
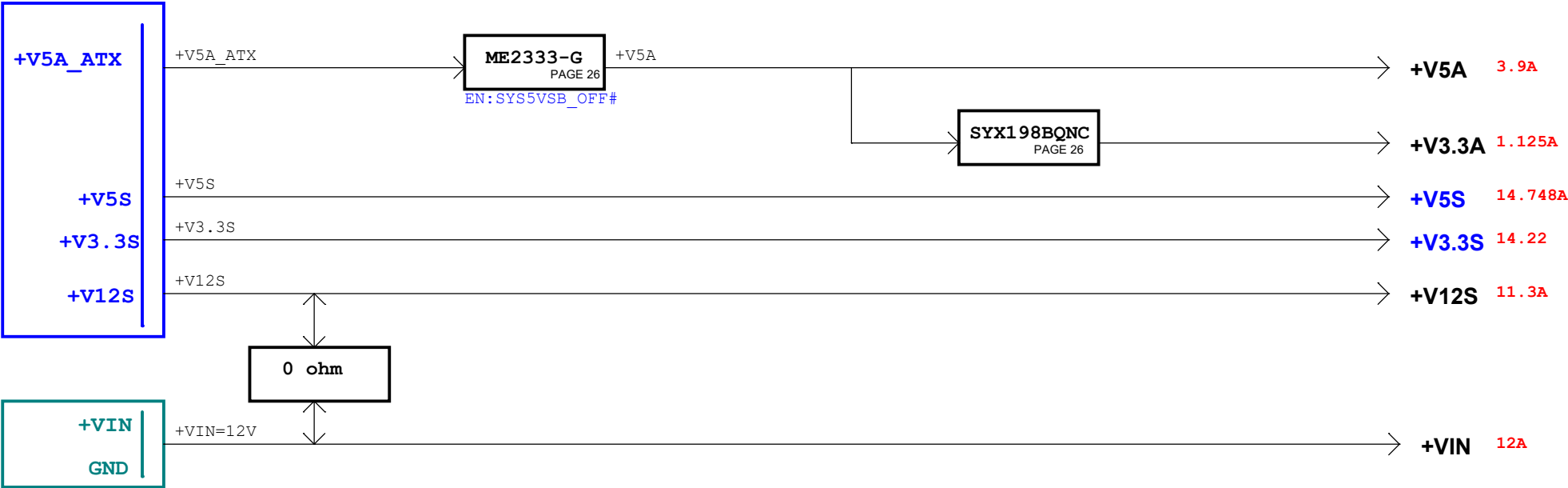


Page	Function
01	BLOCK DIAGRAM
02	Power Delivery Map
03	Clock Distribution
04	Power Sequence
05	Board information
06	COM EXPRESS CONNECTOR
07	IET TypeC&DDI
08	IET USB,LAN,VGA
09	LVDS & EDP
10	PCIEX16 TX Redriver
11	PCIEX16 RX Redriver
12	PCIEX16,CLOCK BUFFER
13	PCIEX4 Redriver
14	PCIEX4
15	USB2.0,SATA
16	RTC、FAN
17	AUDIO_2CH(ALC888S)
18	ESPI to LPC(IT8883FN)
19	IET & 80 port(LPC)
20	CONTROL,SETTING,TEST
21	POWER IN & CONTROL
22	MODIFY HISTORY

BLOCK DIAGRAM



Power Delivery Map



COMexpress	
+VIN	12A
+VCC_5VSB	2A

CPU FAN	
+V12S	1A

System FAN	
+V12S	1A

SDIO	
+V5S	1A

DIO	
+V5S	1A

DP3	
+V3.3S	0.5A

HDMI Level shift	
+V5S	0.008A

HDMI Redriver	
+V3.3S	1.4A

DDI3 HDMI/DP SWITCH	
+V3.3S	0.05A

LVDS/eDP SWITCH	
+V3.3S	0.05A

LPC/eSPI SWITCH	
+V3.3S	0.08A

VGA	
+V3.3S	0.25A

HDMI3	
+V3.3S	0.1A
+V5S	0.05A

LVDS/eDP	
+V12S	3A
+V5S	2A
+V3.3S	2A

PCIE x16	
+V12S	2.1A
+V3.3S	3A
+V3.3A	0.375A

PCIE x4_1	
+V12S	2.1A
+V3.3S	3A
+V3.3A	0.375A

PCIE x4_2	
+V12S	2.1A
+V3.3S	3A
+V3.3A	0.375A

BUZZER	
+V5S	0.044A

USB 2.0x2	
+V5A	1A

USB 2.0	
+V5S	1A

PCIe Buffer	
+V3.3S	0.068A

ALC892	
+V5S	0.046A
+V3.3S	0.012A

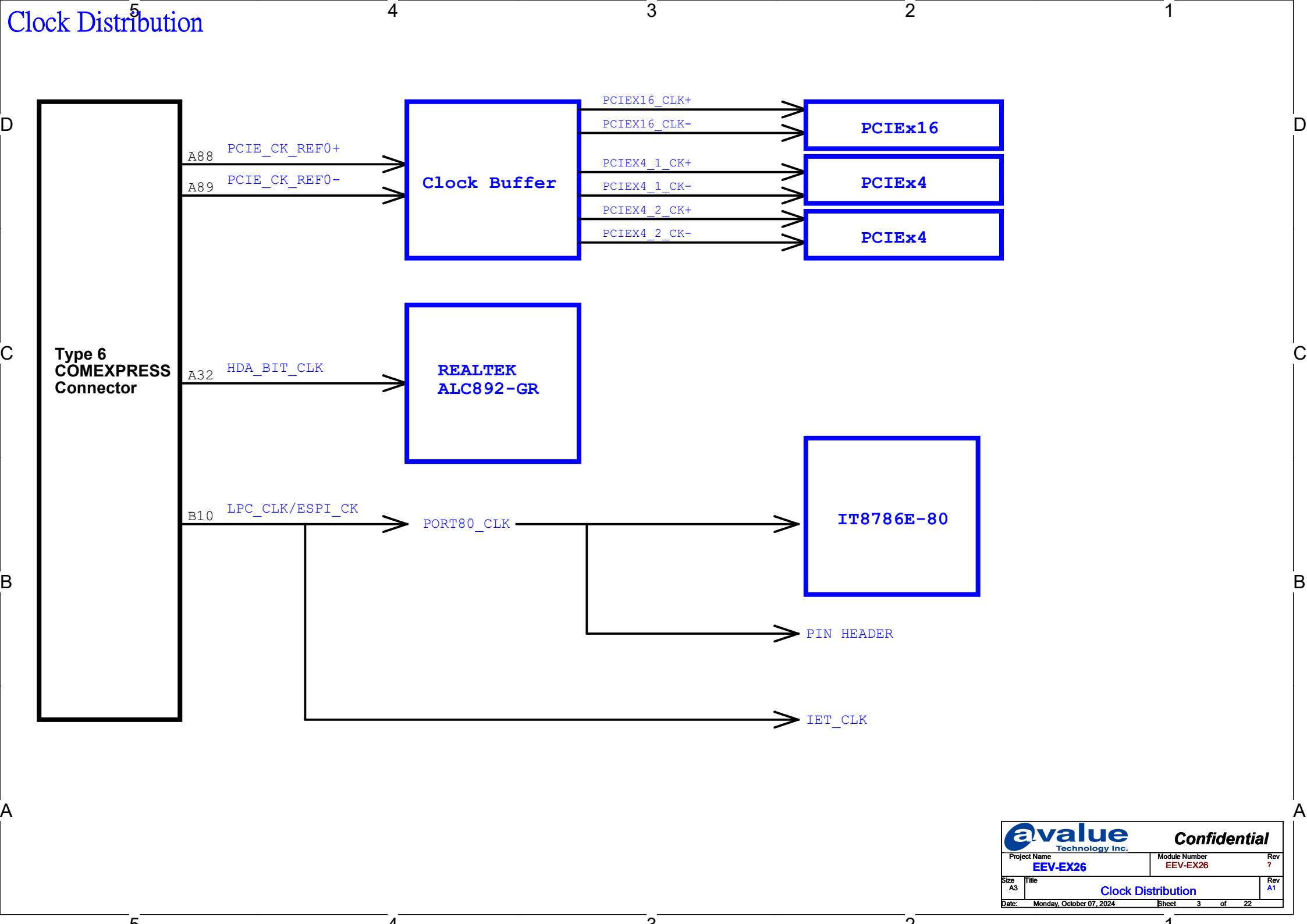
IET	
+V12S	2A
+V5S	3A

USB_PD	
+V5S	3.5A
+V3.3S	0.05A

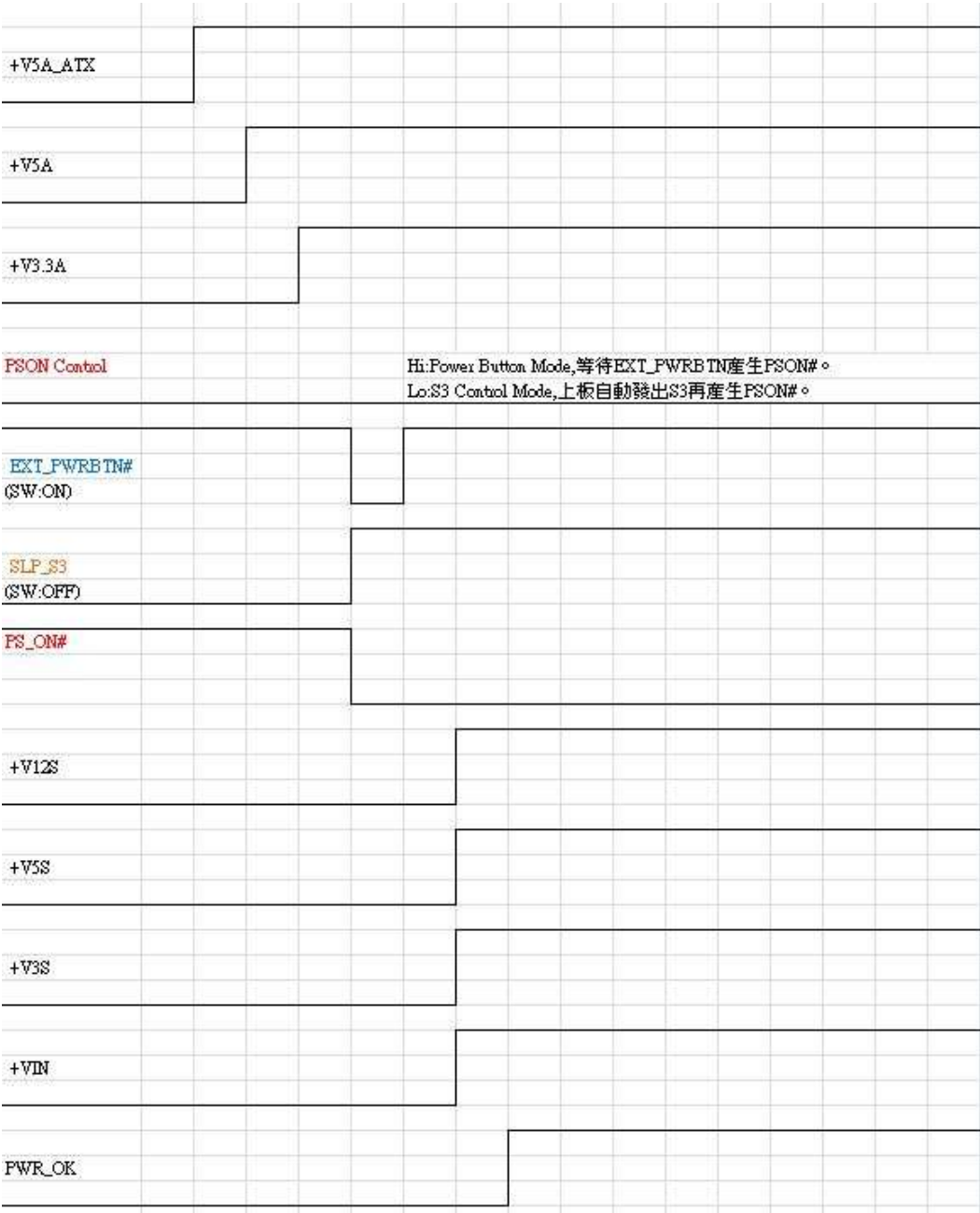
USB_Retimer	
+V1.8S	0.14A
+V3.3S	0.66A

USB 3.2 x4	
+V5S	3.6A

USB Redriver	
+V3.3A	0.688A



Power Sequence



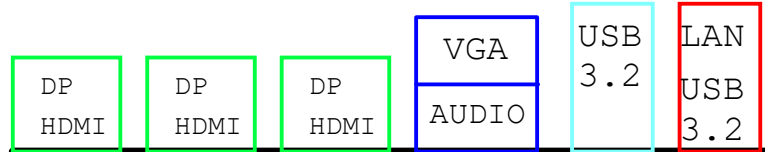
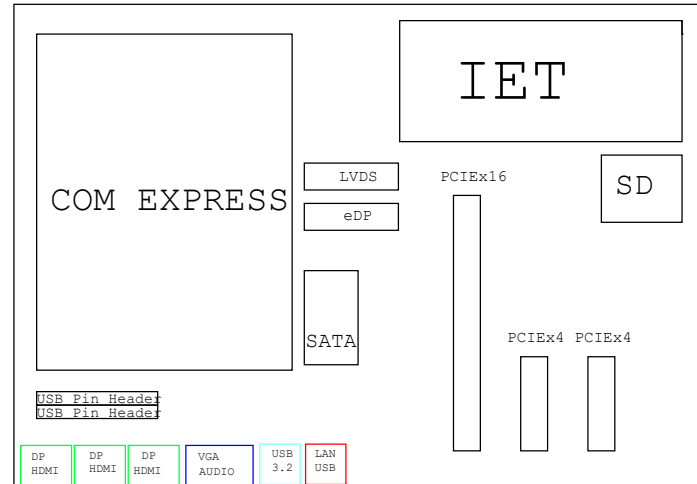
D

C

B

A

Reference document	
SPEC.	Com ExpressR Module Base Specification PICMG COM.0 R3.0
Sch check list	COM Express Carrier Board Schematic Check List 20190620



COM EXPRESS CONNECTOR

PIN(D57) PIN(C57) PIN(C54)

TYPE2#	TYPE1#	TYPE0#	
X	X	X	Pin-out Type 1
NC	NC	NC	Pin-out Type 2
NC	NC	GND	Pin-out Type 3 (no IDE)
NC	GND	NC	Pin-out Type 4 (no PCI)
NC	GND	GND	Pin-out Type 5 (no IDE, no PCI)
GND	NC	NC	Pin-out Type 6 (no IDE, no PCI)

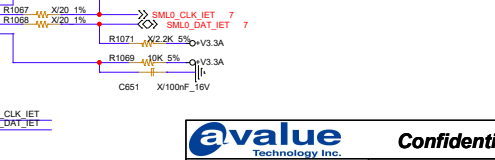
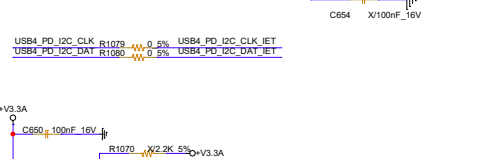
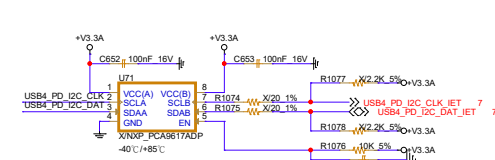
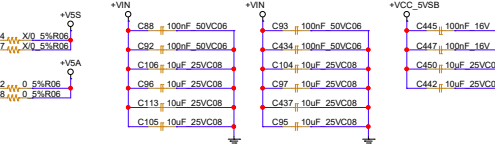
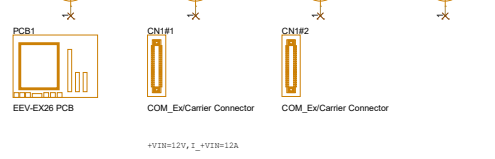
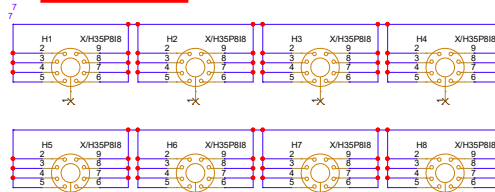
Module板對 TYPE2# 接GND~~ 以示為TYPE 6 PIN DEFINE
Carrier板用此PIN來控制12V的輸出

COM EXPRESS CONNECTOR

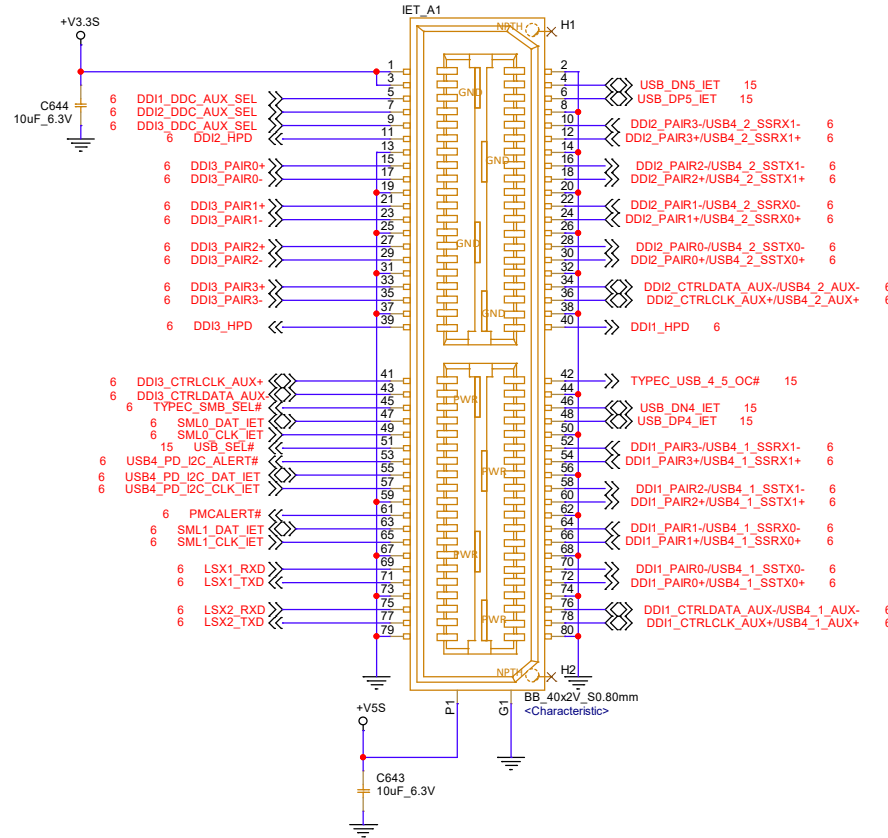
PIN(A97)

TYPE10#	
NC	Pin-out R2.0
PD	Pin-out Type 10 pull down to ground with 4.7K resistor
12V	Pin-out R1.0

EX26



EEV-EX26-A-XX



- 01.HDMI+Type C+Type C
- 02.DP/HDMI+DP/HDMI+DP/HDMI
- 03.HDMI+HDMI+HDMI
- 04.DP+DP+DP

MH1(MIR)



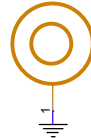
E193A3601X0R



M3*8/M3*2.5mm Cu

E193A231161R

HC9
X/MH6_3.2mm

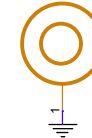


MH2(MIR)



E193A3601X0R

HC10
X/MH6_3.2mm

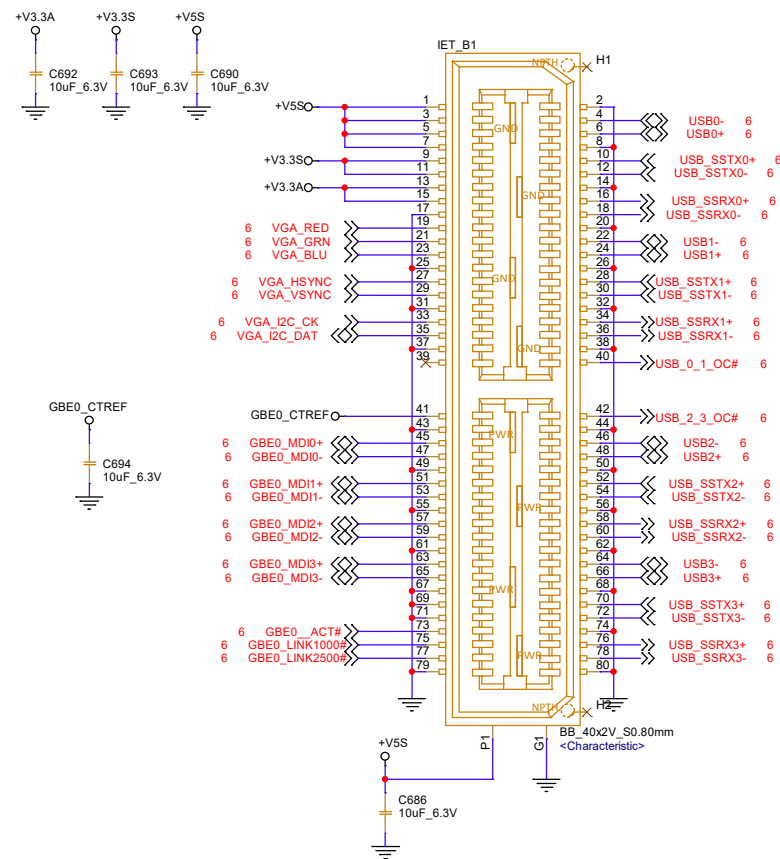


M3*8/M3*2.5mm Cu

E193A231161R

A01

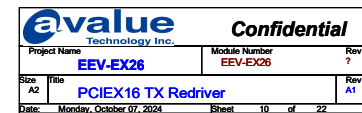
EEV-EX26-B-XX



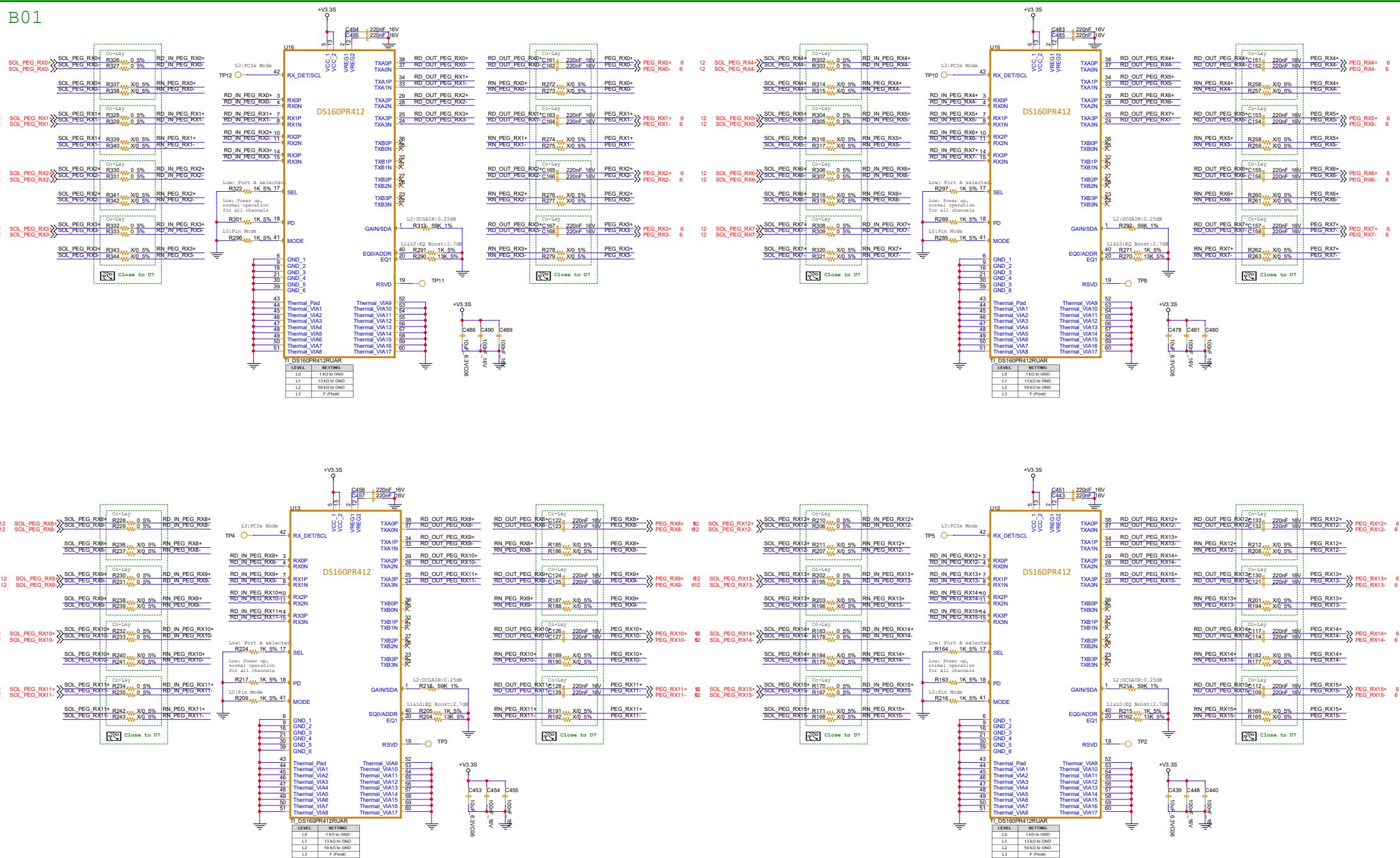
- 01.VGA+1G LAN+4 USB3.2
- 02.VGA+2.5G LAN+4 USB3.2

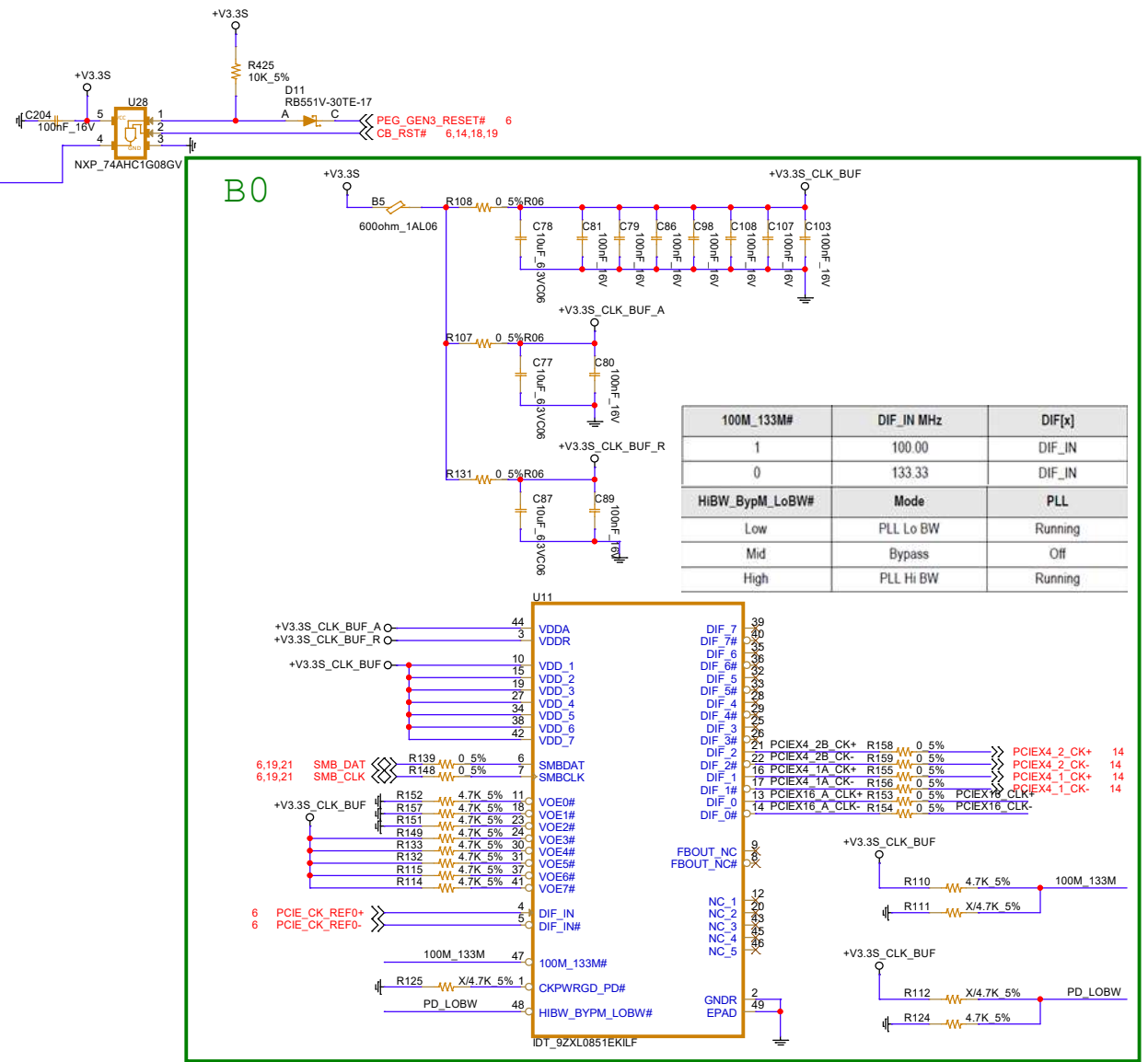
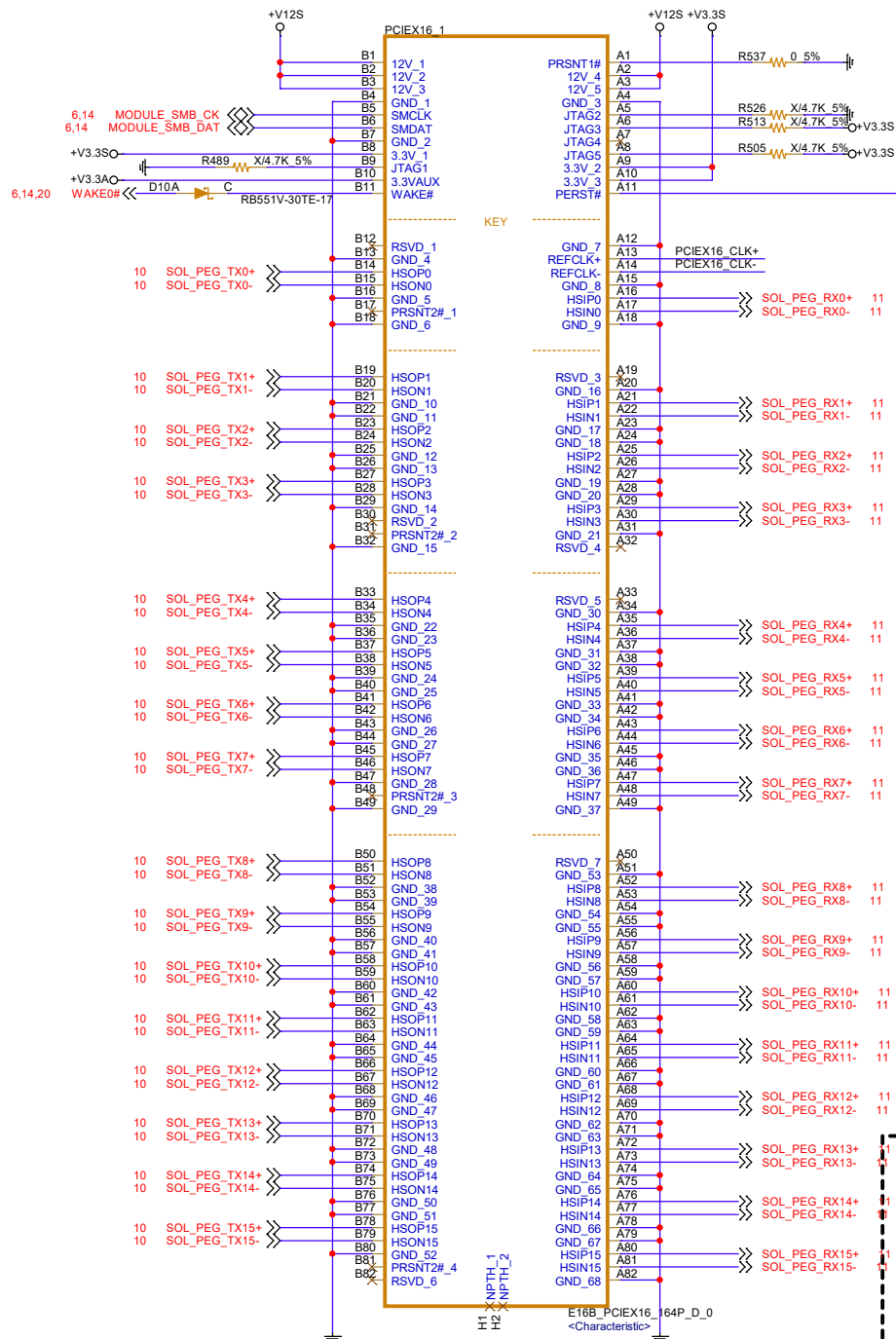


EX26



B01





100M_133M#	DIF_IN MHz	DIF[x]
1	100.00	DIF_IN
0	133.33	DIF_IN
HiBW_ByPM_LoBW#	Mode	PLL
Low	PLL Lo BW	Running
Mid	Bypass	Off
High	PLL Hi BW	Running

Power Rail	10 W Slot	25 W Slot	75 W Slot
+3.3V	± 9% (max) 3.0 A (max) 1000 µF (max)	± 9% (max) 3.0 A (max) 1000 µF (max)	± 9% (max) 3.0 A (max) 1000 µF (max)
+12V	± 8% 0.5 A (max) 300 µF (max)	± 8% 2.1 A (max) 1000 µF (max)	± 8% 5.5 A (max) 2000 µF (max)
+3.3Vaux	± 9% (max) 375 mA (max) 20 mA (max) 150 µF (max)	± 9% (max) 375 mA (max) 20 mA (max) 150 µF (max)	± 9% (max) 375 mA (max) 20 mA (max) 150 µF (max)

Please choose suitable cap. for individual design needed. and Capacitors next to the connector.

Confidential

Project Name **EEV-EX26**

Module Number **EEV-EX26**

Size **A3**

Title **PCIE16,CLOCK BUFFER**

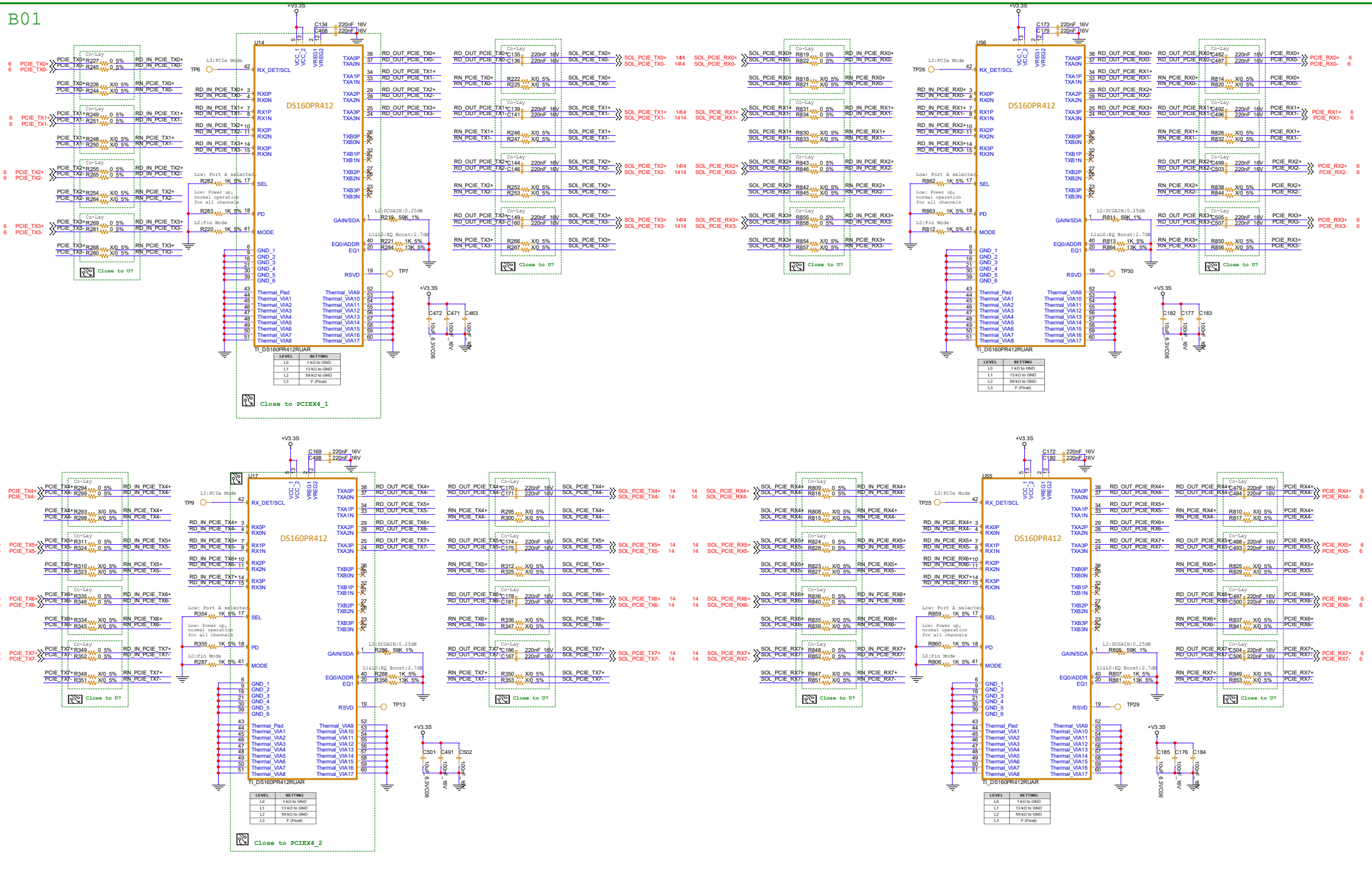
Date: **Monday, October 07, 2024**

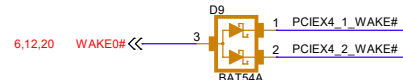
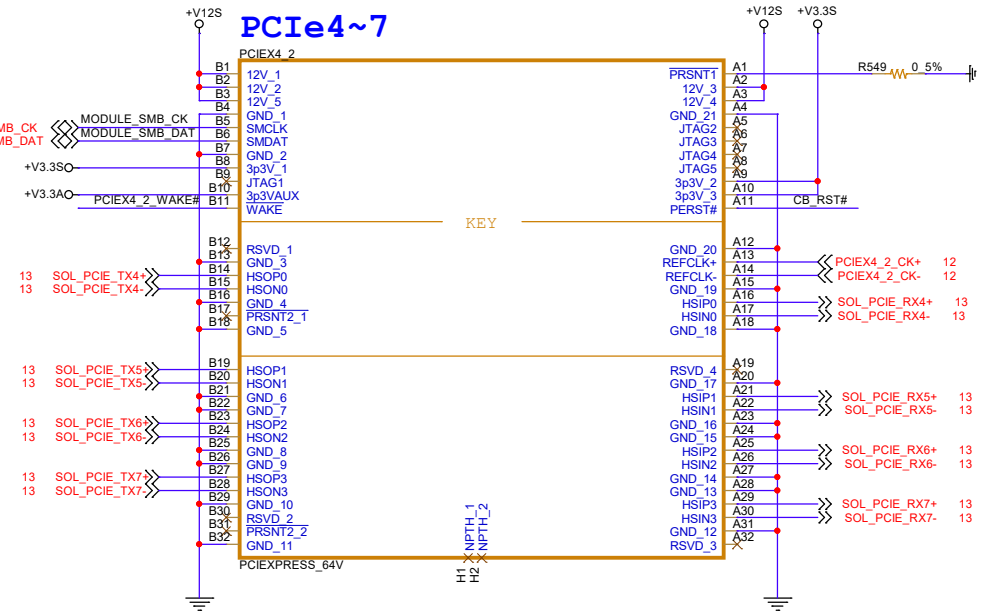
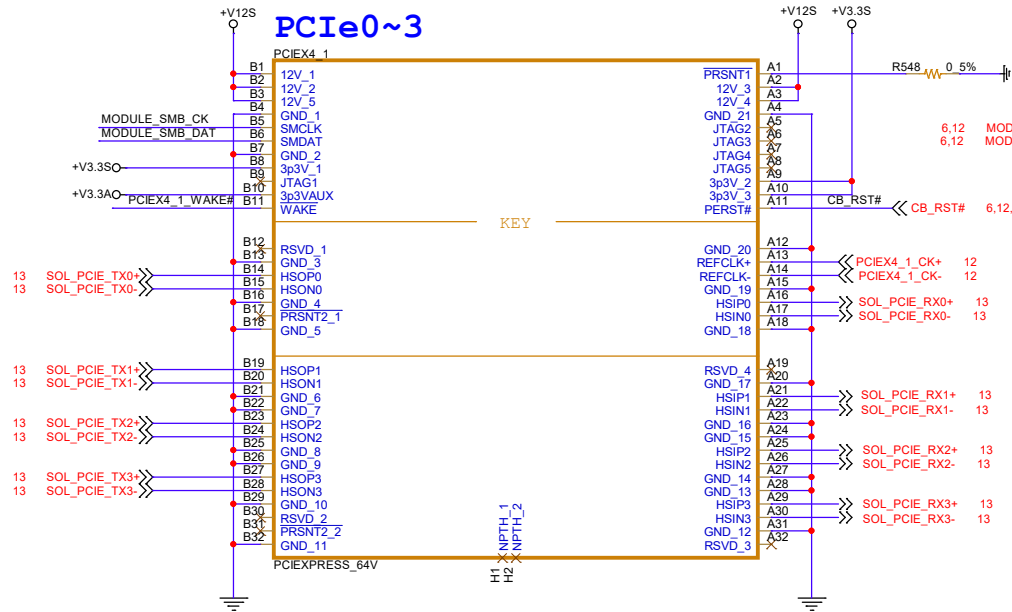
Rev **?**

Rev **A1**

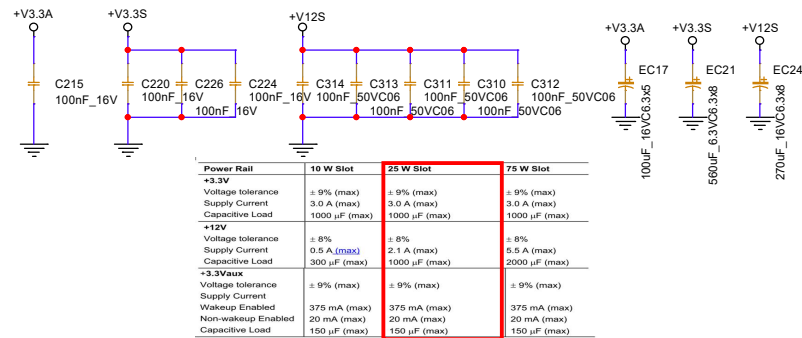
Sheet **12** of **22**

B01

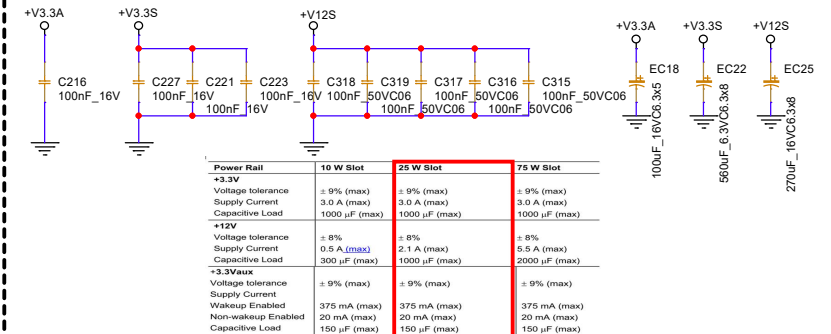




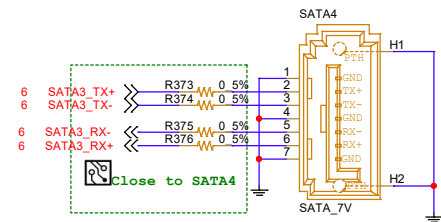
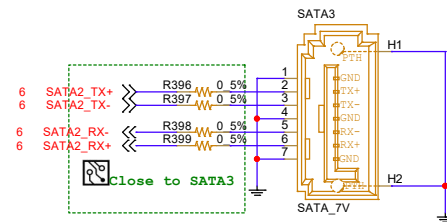
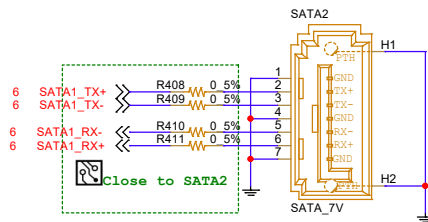
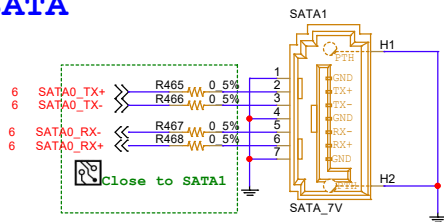
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and Capacitors next to the connector.



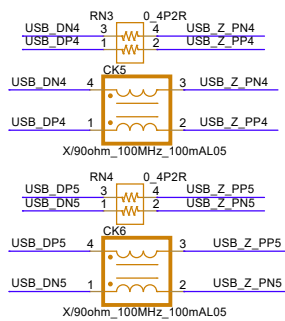
Please choose suitable cap. for individual design needed.
and Capacitors next to the connector.



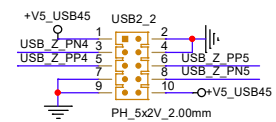
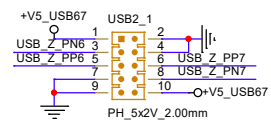
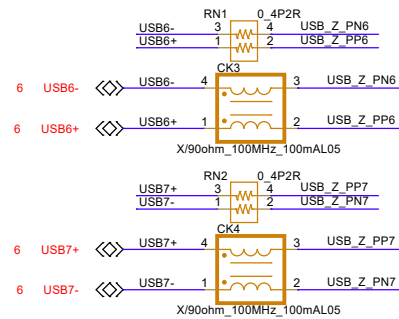
SATA



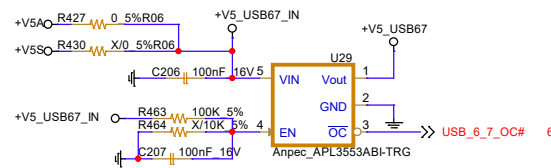
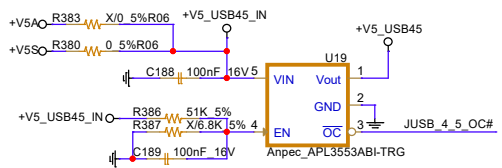
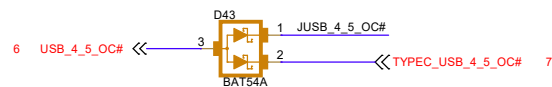
Colay



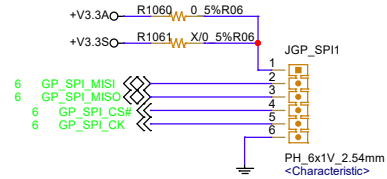
Colay



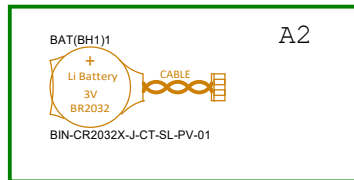
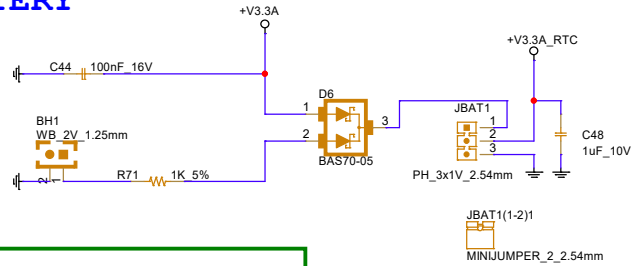
USB_SEL#	Function
0	To IET
1	On Board



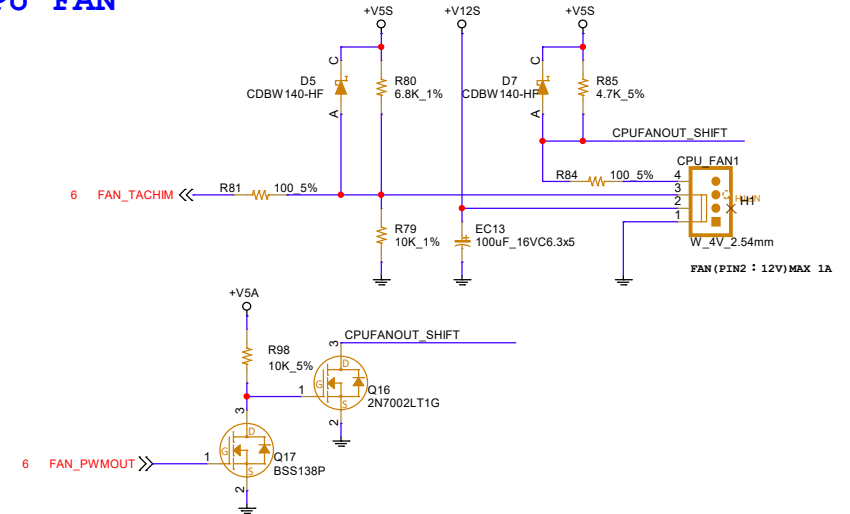
EX26



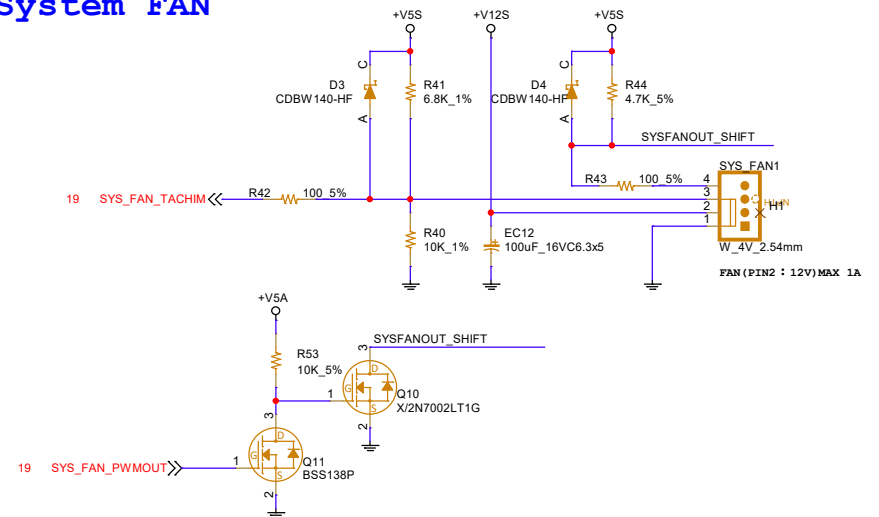
RTC BATTERY



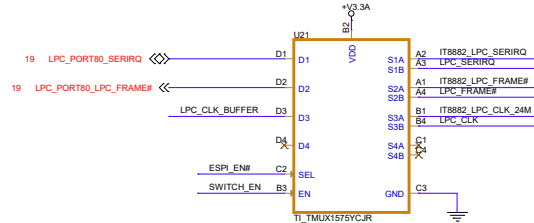
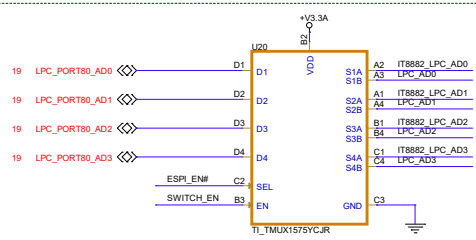
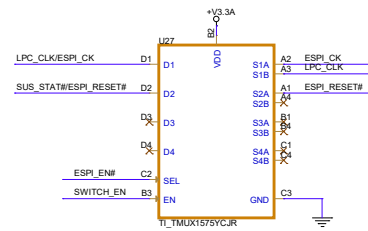
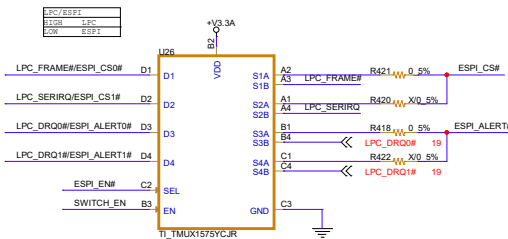
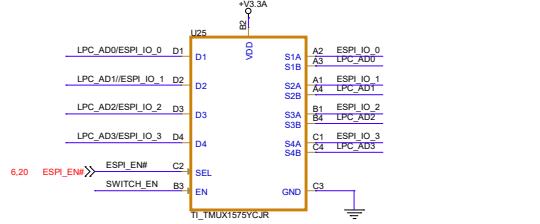
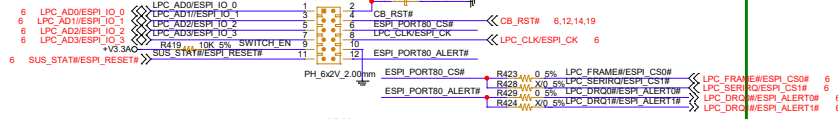
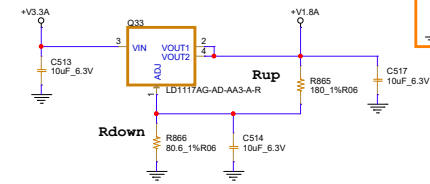
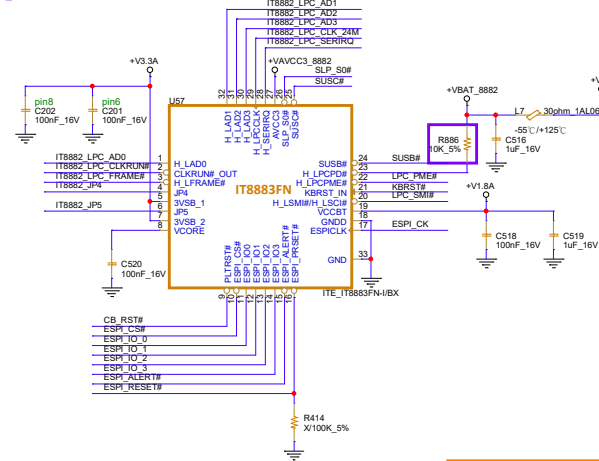
CPU FAN



System FAN

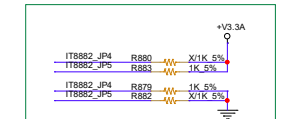


eSPI PORT 80

EX26
Change to IT8883

$$V_{out} = 1.25V * (1 + R_{down}/R_{up})$$

$$1.25 \times (1 + (80.6/180)) = 1.809V$$

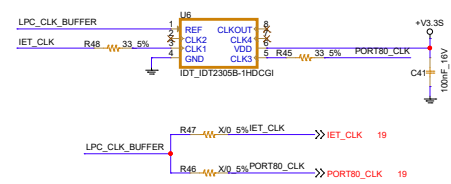
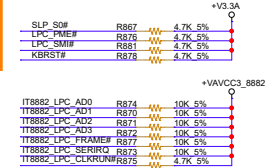
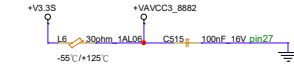


Enter key Selection

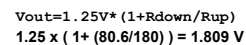
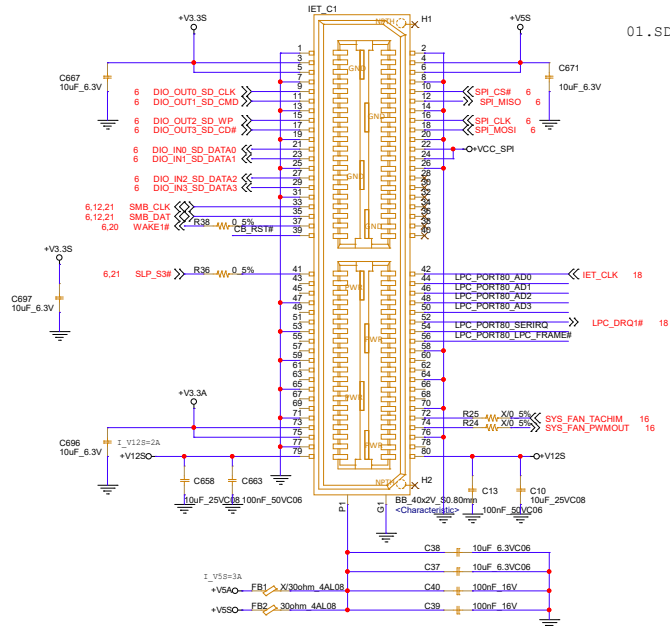
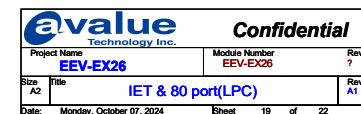
JP4 (Pin-4)	Enter key
0	4E/4F (87 01 55 AA)
1	2E/2F (87 01 55 55)

Chip Selection

JP5 (Pin-6)	CHIP_SEL(reserve)
0	
1	

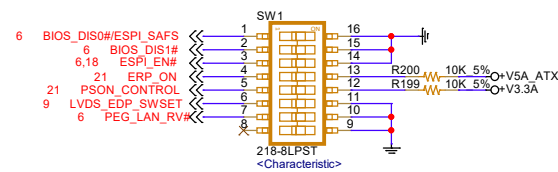


EEV-EX26-C-XX

[illegible]

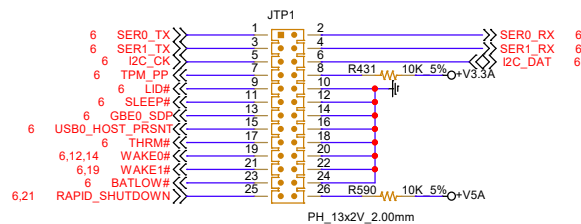
SW1 Setting

	Function	OFF	ON
1	BIOS ROM select	Default	
2	BIOS ROM select	Default	
3	LPC/eSPI select	LPC	eSPI
4	ERP setting	ERP OFF	ERP ON
5	PSON control	S3	Power button
6	LVDS/eDP select (optional)	eDP	LVDS
7	PCIeX16 reverse select	Normal	Reverse



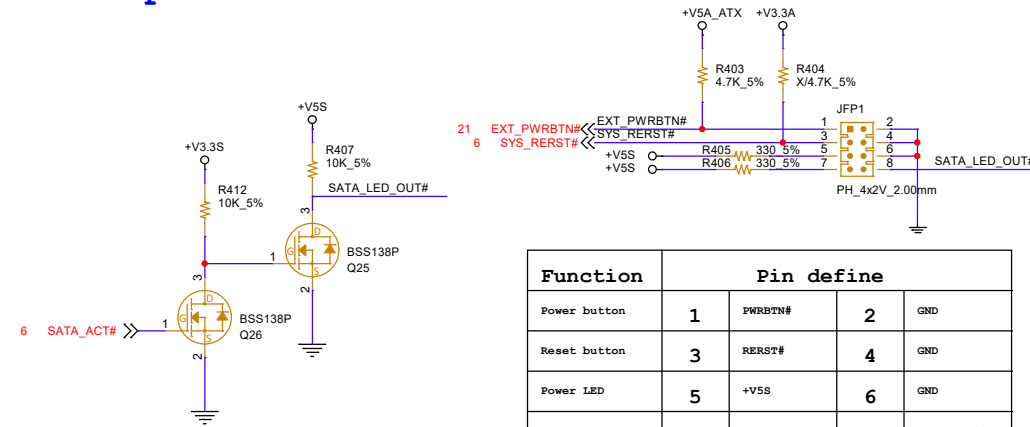
ESPI_EN#	BIOS_DIS0#	Boot Bus	BBS	Chipset ESPI_CS0# Destination	Carrier ESPI_CS0# Pin	Chipset SPI_CS# Destination	Chipset SPI_CS0# Destination	Carrier SPI_CS# Pin	SPI Descriptor	Ref to Images Above	Notes
1	0	0	0	-	-	Carrier	Module	SPI1	Module	A	MAFS on Module LPC bus enabled
1	0	1	0	-	-	Module	Carrier	SPI0	Carrier	B	MAFS on Carrier LPC bus enabled
1	1	0	0	-	-	-	-	High	-	-	Not used - was FWH
1	1	1	0	-	-	Module	Module	High	Module	A	MAFS on Module LPC bus enabled
0	0	0	0	-	-	Carrier	Module	SPI1	Module	C	MAFS on Module ESPI bus enabled
0	0	1	0	-	-	Module	Carrier	SPI0	Carrier	D	MAFS on Carrier ESPI bus enabled
0	1	0	0	eSPI	1	Module	-	SPI0	Module	E	SAFS and BMC on Module ESPI bus enabled
0	1	1	0	eSPI	1	Carrier	Chipset ESPI_CS0#	-	-	-	SAFS and BMC on Carrier ESPI bus enabled

Test position



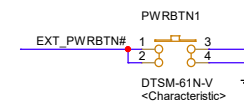
Function	Pin define
Serial port0	1 SER0_TX 2 SER0_RX
Serial port1	3 SER1_TX 4 SER1_RX
I2C	5 I2C_CK 6 I2C_DAT
TPM_PP	7 TPM_PP 8 +V3.3A
LID switch	9 LID# 10 GND
Sleep button	11 SLEEP# 12 GND
IEEE 1588 SDP	13 GBE0_SDP 14 GND
USB0_HOST_PRNT	15 USB0_HOST_PRNT 16 GND
Over-temp	17 THRM# 18 GND
PCI Express wake up	19 WAKE0# 20 GND
General wake up	21 WAKE1# 22 GND
Battery low	23 BATLOW# 24 GND
Rapid Shutdown	25 RAPID_SHUTDOWN 26 +V5A

Front panel



Function	Pin define
Power button	1 PWRBTN# 2 GND
Reset button	3 RERST# 4 GND
Power LED	5 +V5S 6 GND
SATA LED	7 +V5S 8 SATA_LED#

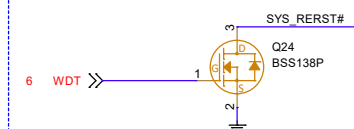
Power button



Reset button

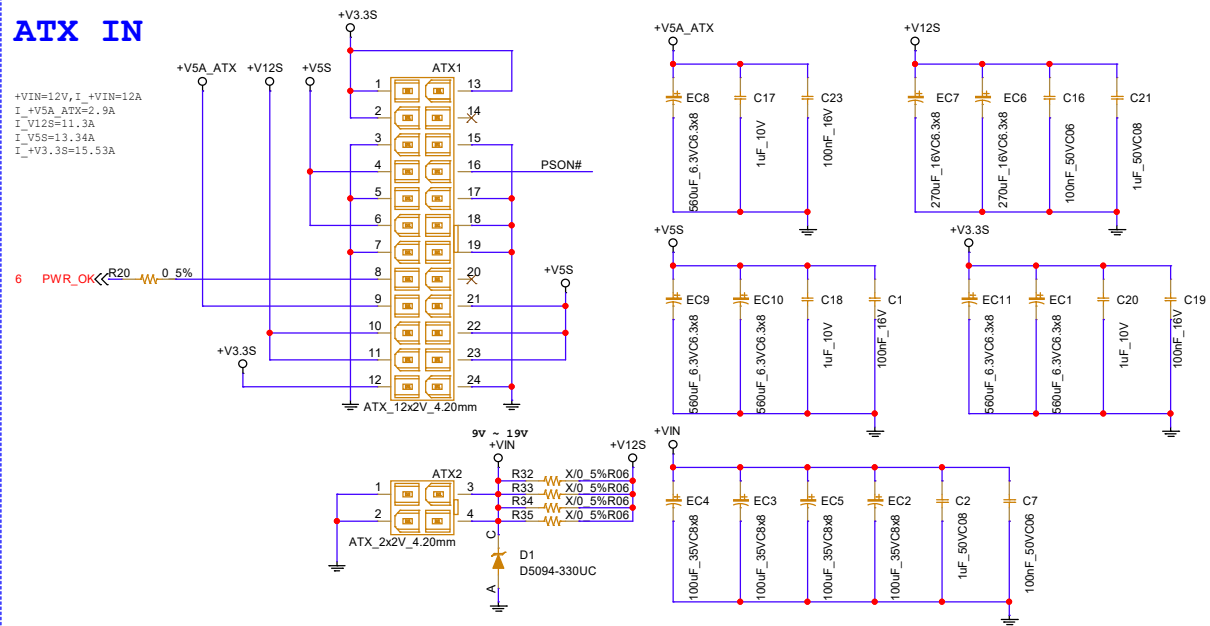


WDT

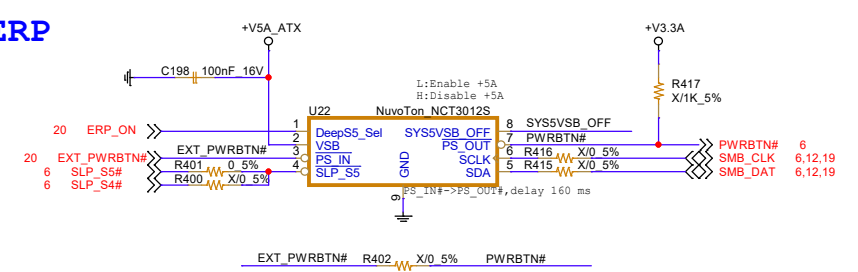


ATX IN

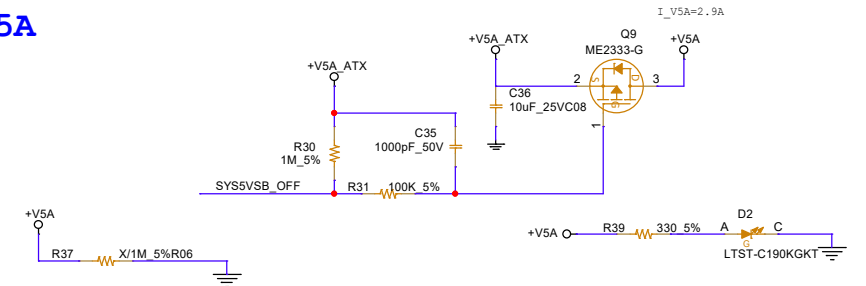
+VIN=12V, I_{VIN}=12A
I_{+V5A_ATX}=2.9A
I_{V12S}=11.3A
I_{V5S}=13.3A
I_{+V3.3S}=15.53A



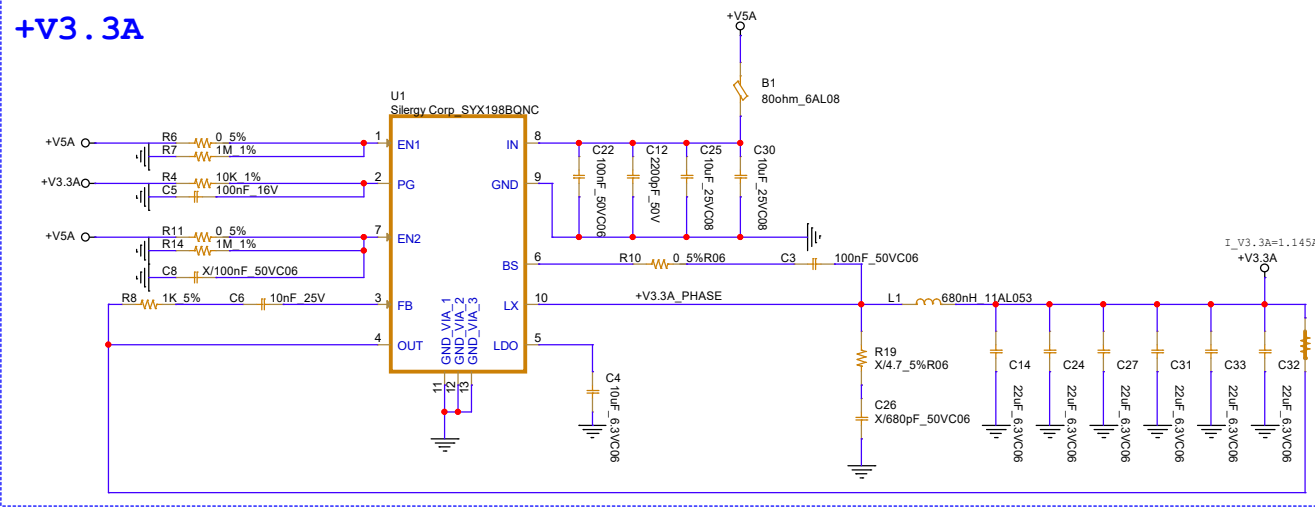
ERP



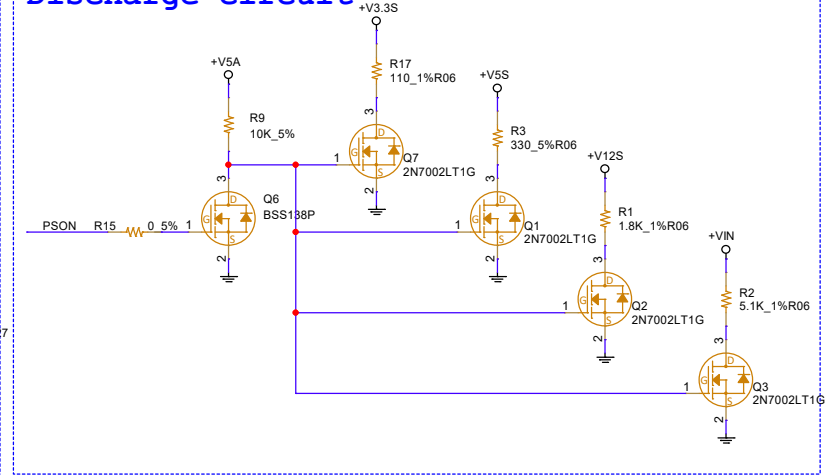
+5A



+V3.3A

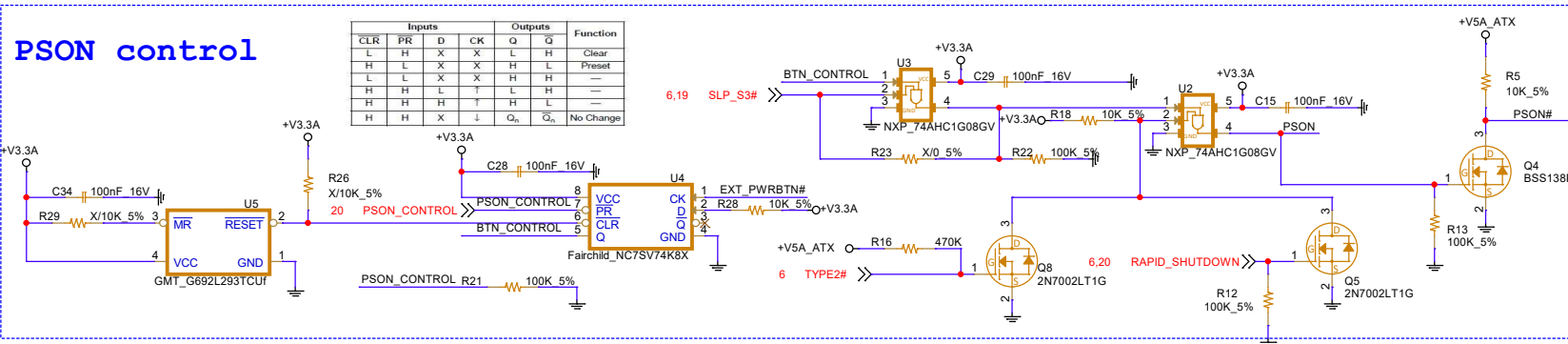


Discharge circuit



PSON control

Inputs				Outputs				Function
CLR	PR	D	CK	Q	Q	Q	Q	
L	H	X	X	L	H	L	H	Clear
H	L	X	X	H	L	L	H	Preset
L	L	X	X	H	H	L	H	---
H	H	L	L	L	L	L	L	---
H	H	H	H	L	L	L	L	---
H	H	X	X	Q _n	Q _n	Q _n	Q _n	No Change



Confidential

Project Name	EEV-EX26		Module Number	EEV-EX26	Rev	?
Size	A3	Title	POWER IN & CONTROL		Rev	A1
Date:	Monday, October 07, 2024		Sheet	21	of	22

Modify History

EEV-EX26 Rev:A0

EE:Tony

Item	Description	Track or reason	Page	Date
1.	First Release			2023/05/04

EEV-EX26 Rev:A01

EE:Tony

Item	Description	Track or reason	Page	Date
1.	First Release			2023/12/27
2.	COMEXPRESS 底板IO模組化			2023/12/27

EEV-EX26 Rev:A02

EE:Tony

Item	Description	Track or reason	Page	Date
1.	修改IET Connector Symbol			2024/05/31

EEV-EX26 Rev:A1

EE:Tony

Item	Description	Track or reason	Page	Date
1.	First Release			2024/09/20