

# FUNCTION DIAGRAM

5

4

3

2

1

D

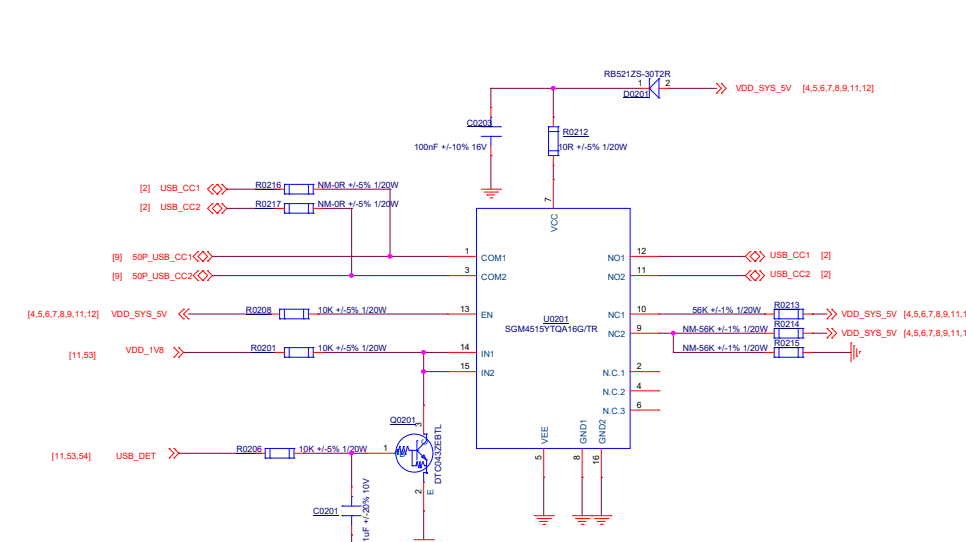
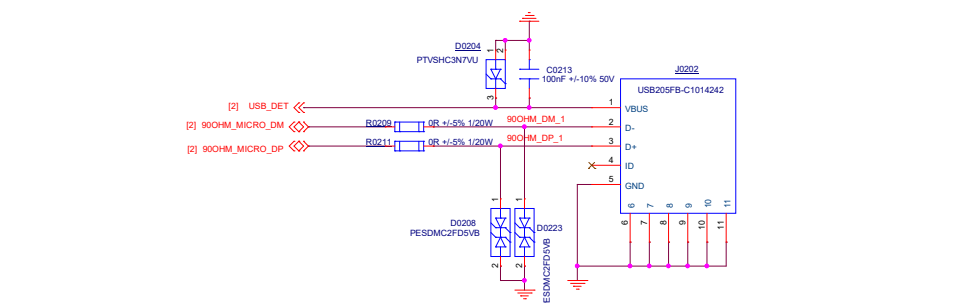
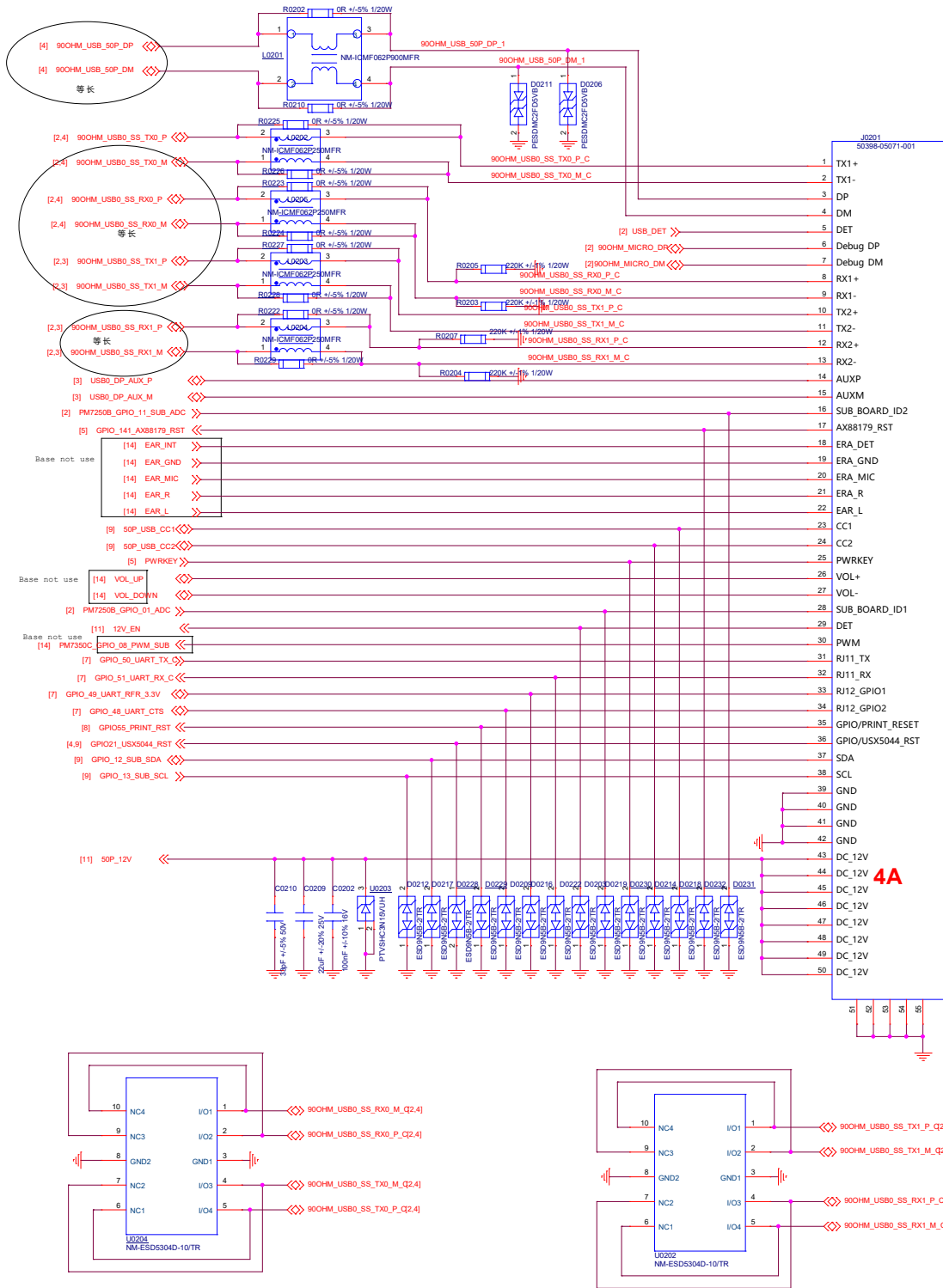
C

B

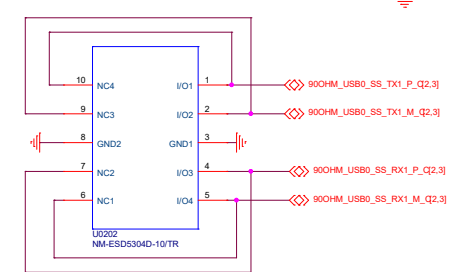
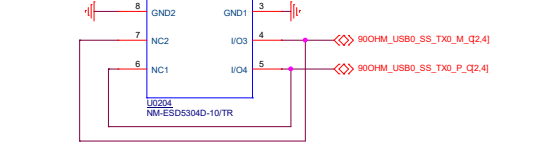
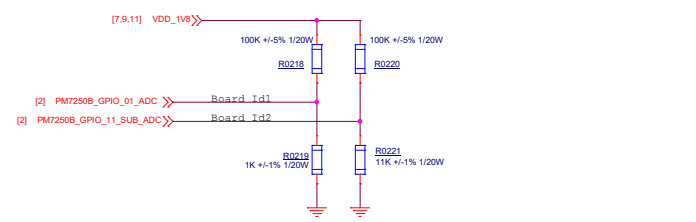
A

Organization			Quectel Wireless Solutions		
Project		QDC18-Base		Ver	V1.2
Drawn By	tmp	Checked By		Size	A2
Date:	Friday, May 23, 2023	Sheet	1	of	24

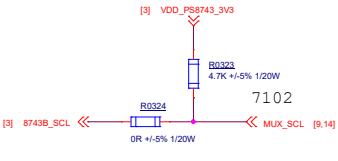
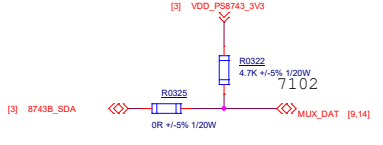
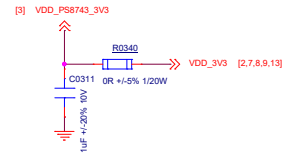
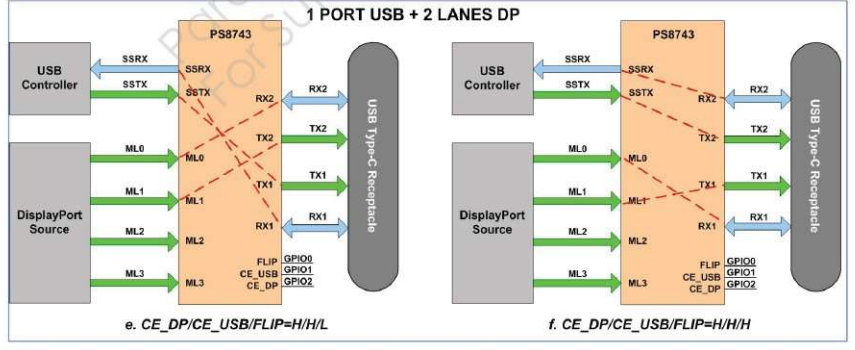
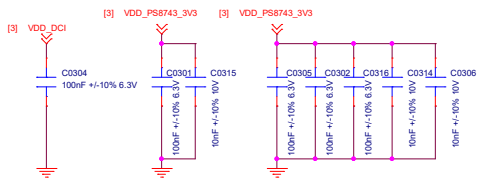
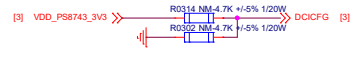
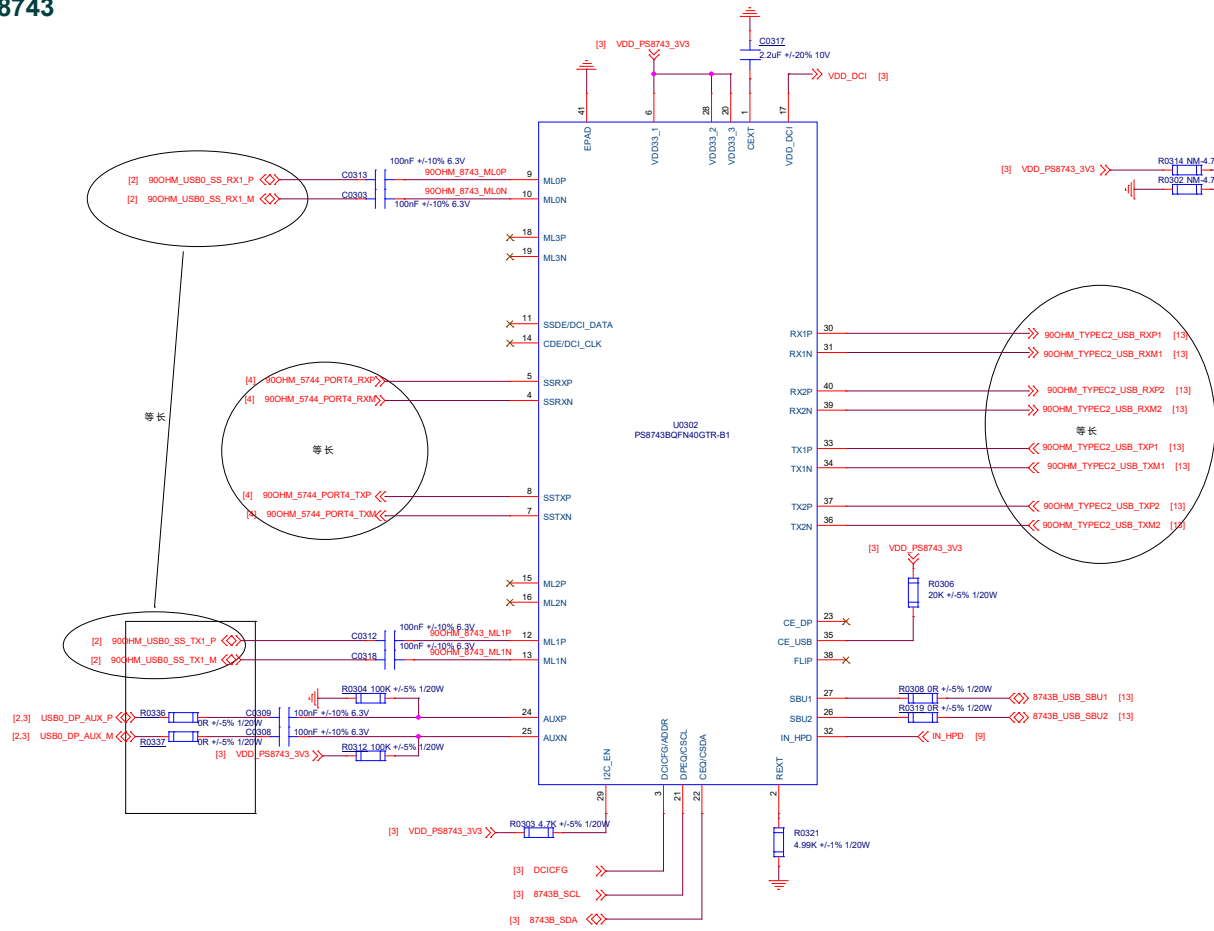
# 50P CONNECTOR



## Board ID



Organization	Quectel Wireless Solutions		
Project	QDC18-Base	Ver	V1.2
Drawn By	tmp	Checked By	Size
Date:	Friday, May 23, 2023	Sheet	2 of 24



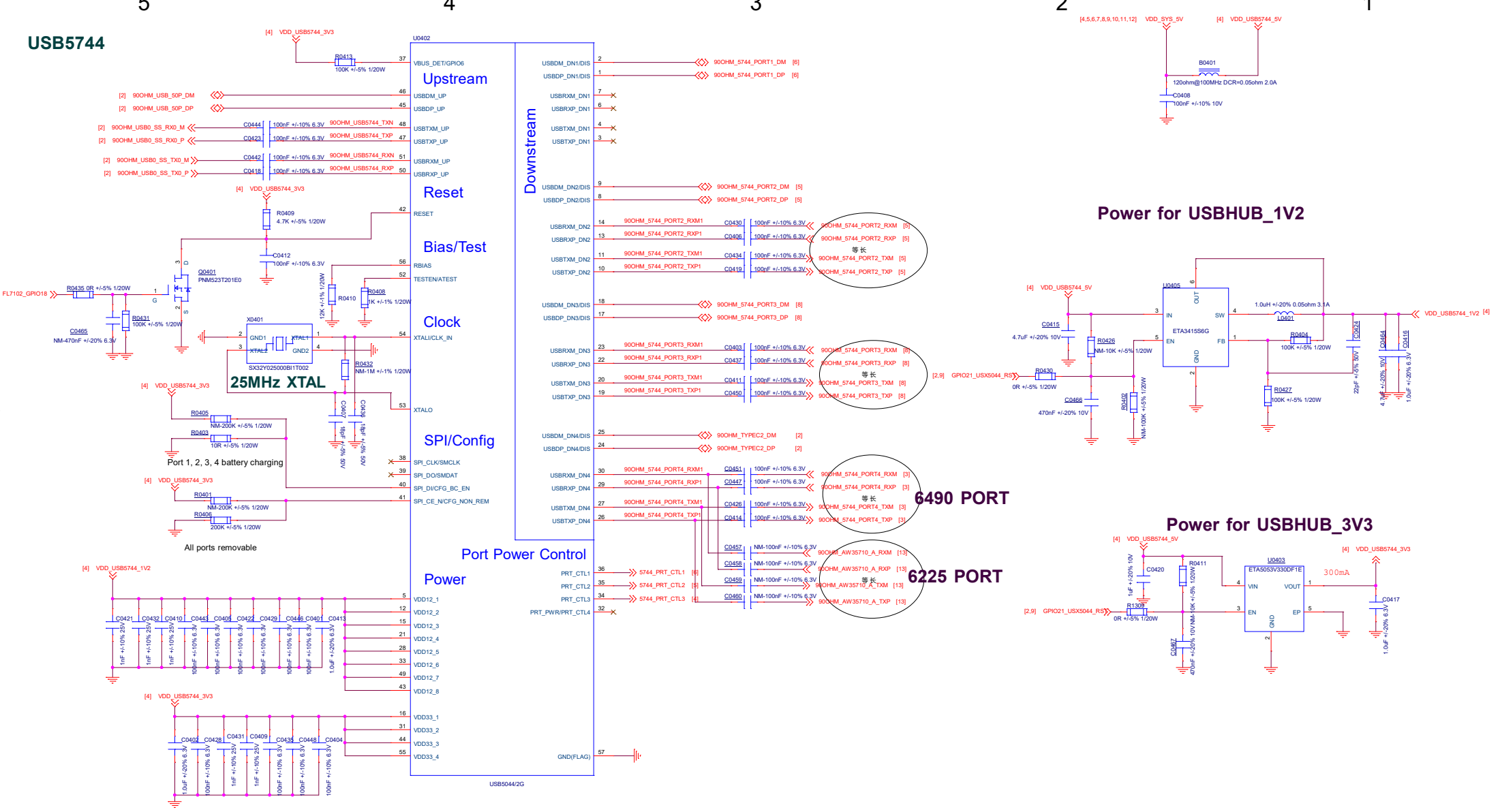
USB5744

D

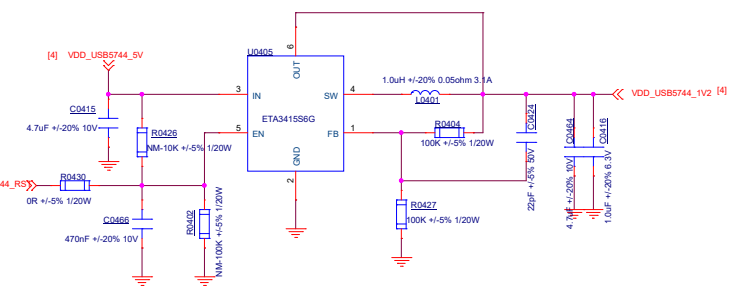
C

B

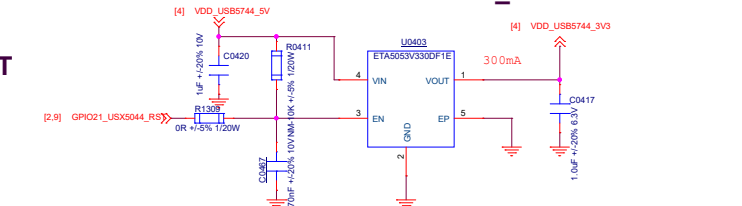
A



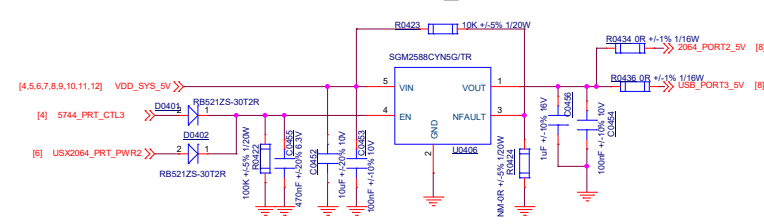
Power for USBHUB\_1V2



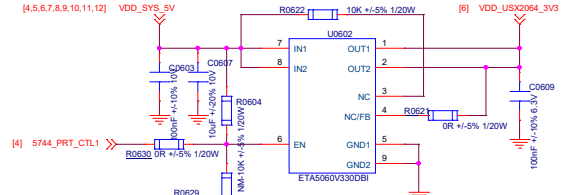
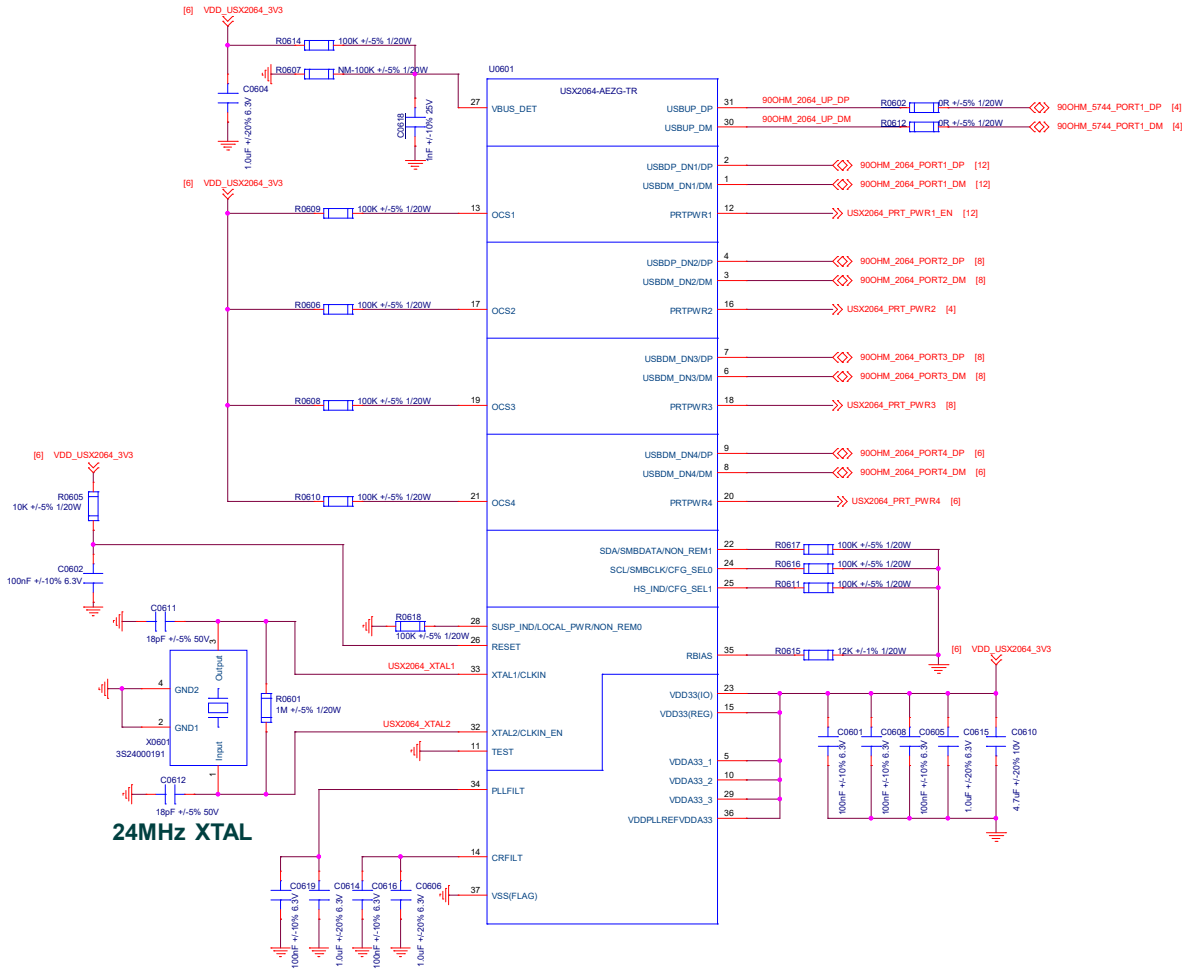
Power for USBHUB\_3V3



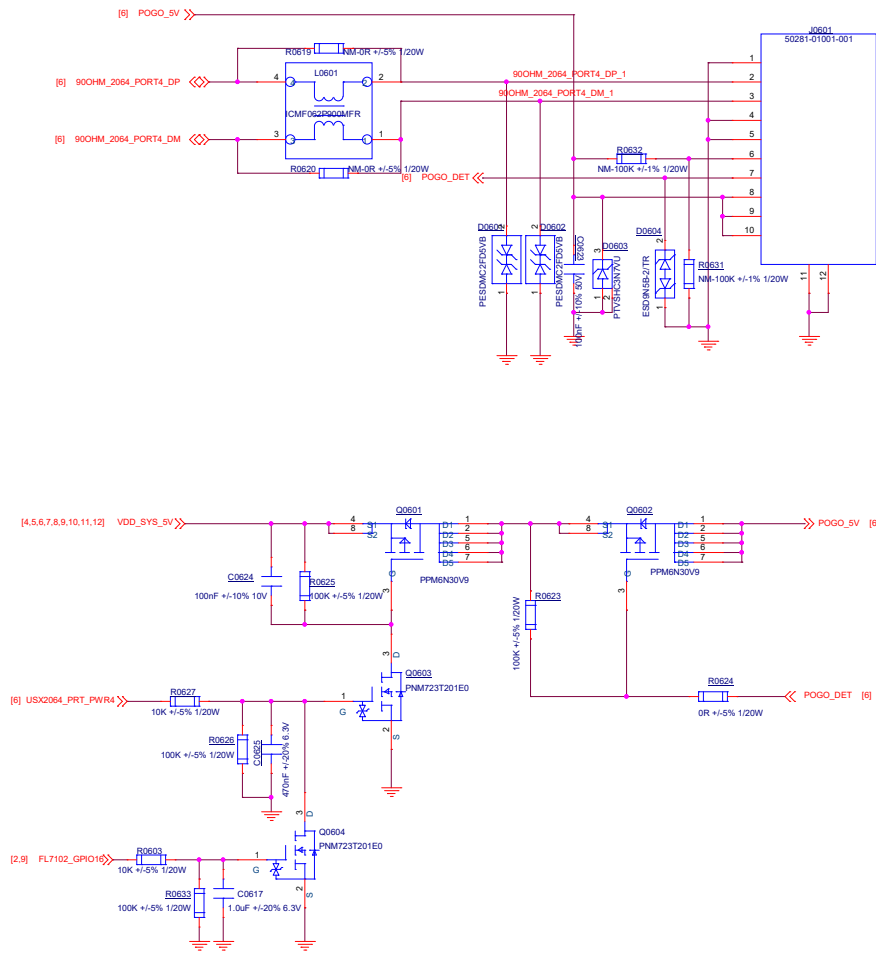
PORT3\_OCP



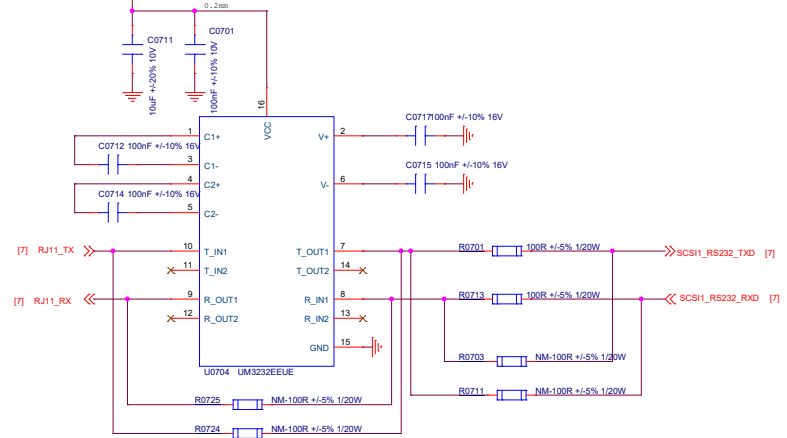
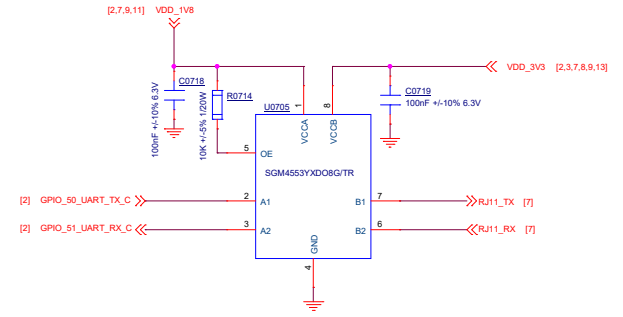
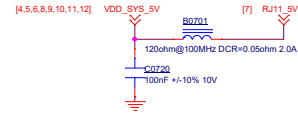
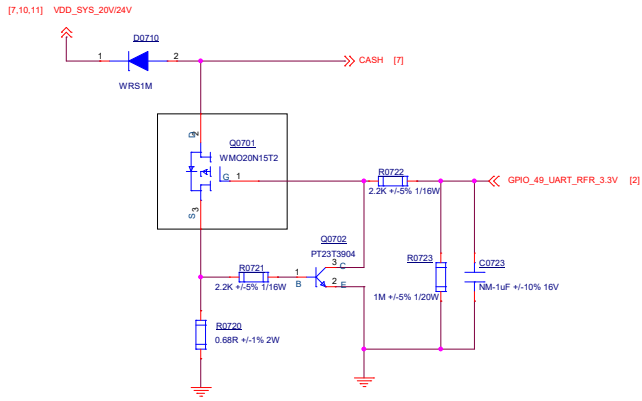




POGO

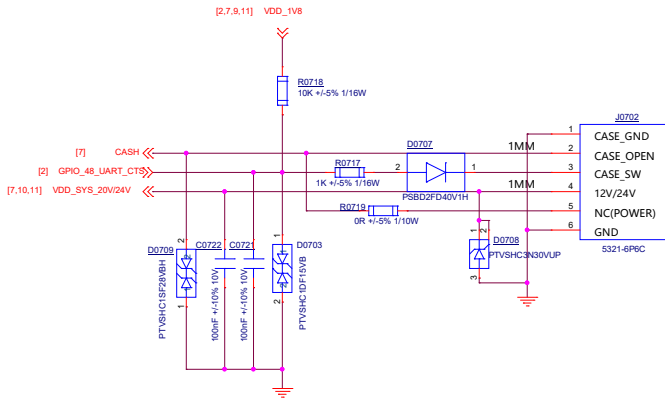


Organization	Quetel Wireless Solutions		
Project	QDC18-Base	Ver	V1.2
Drawn By	tmp	Checked By	
Date:	Tuesday, July 11, 2023	Sheet	6 of 24



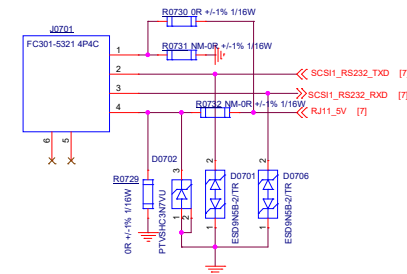
D

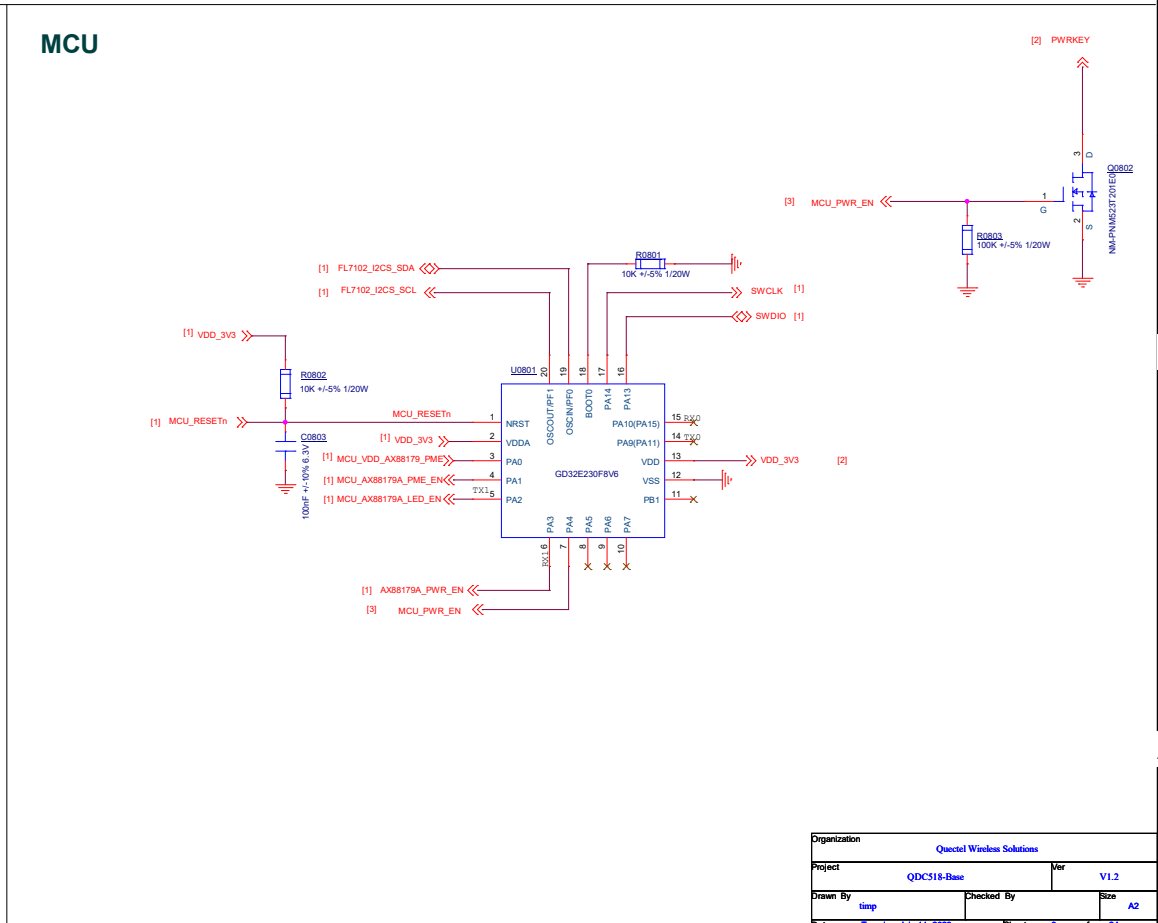
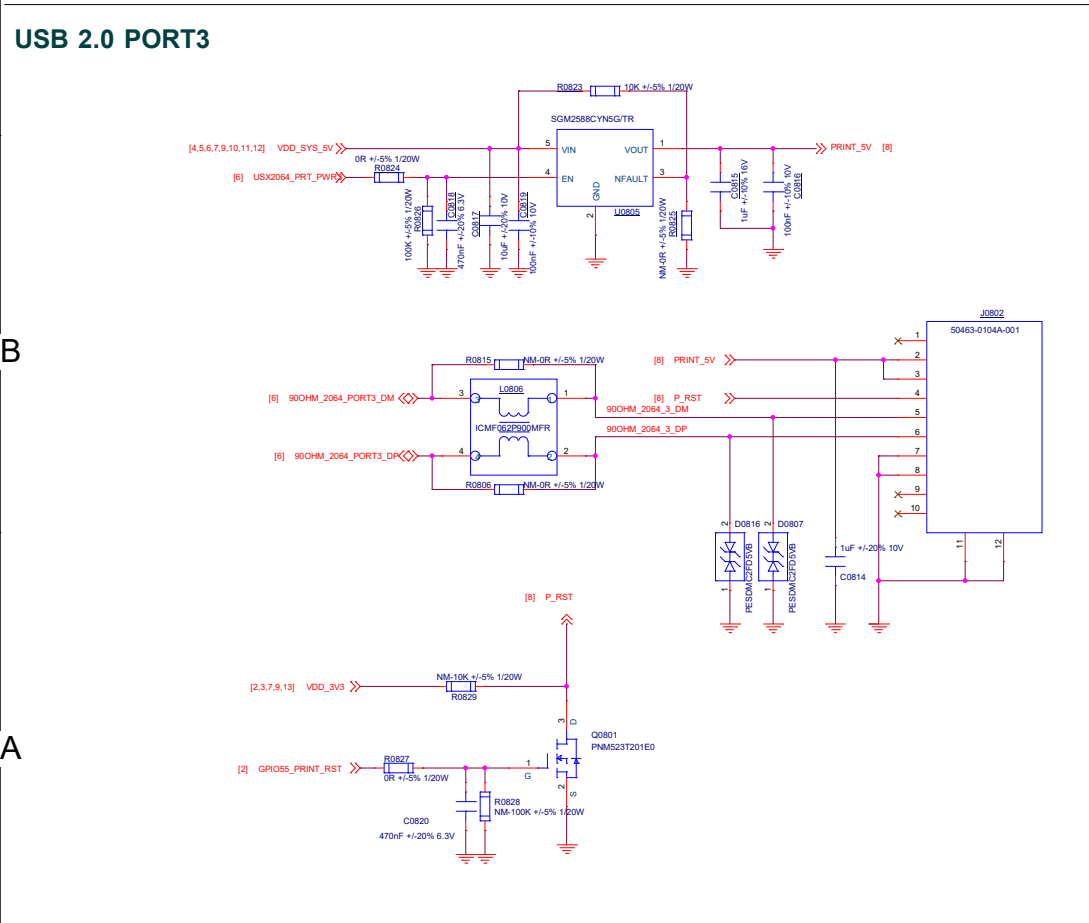
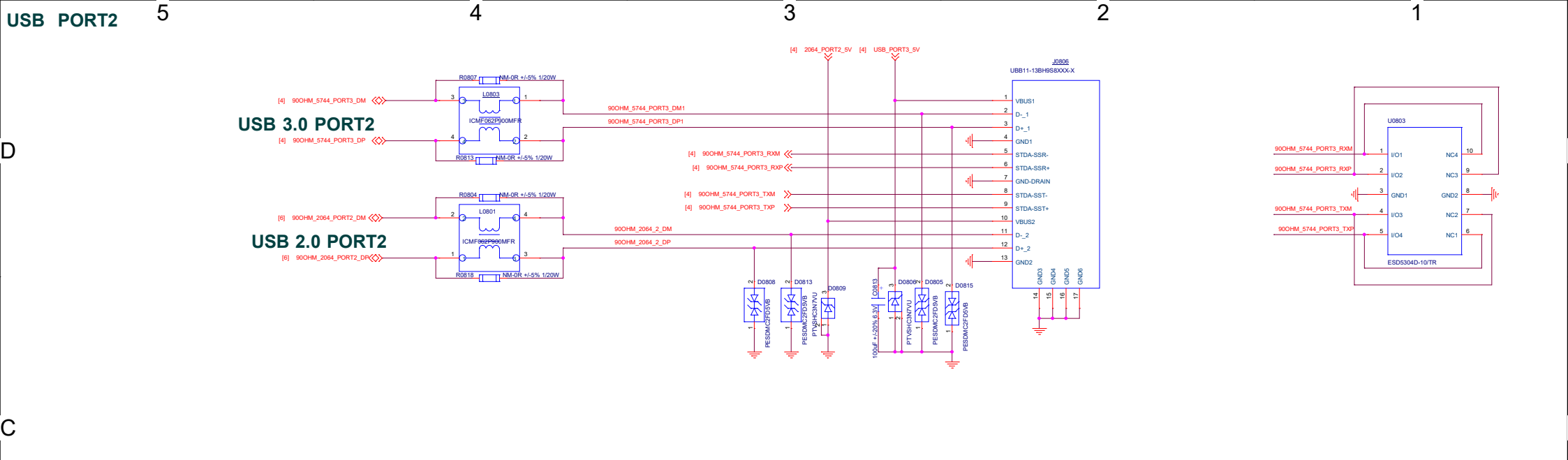
C



B

A



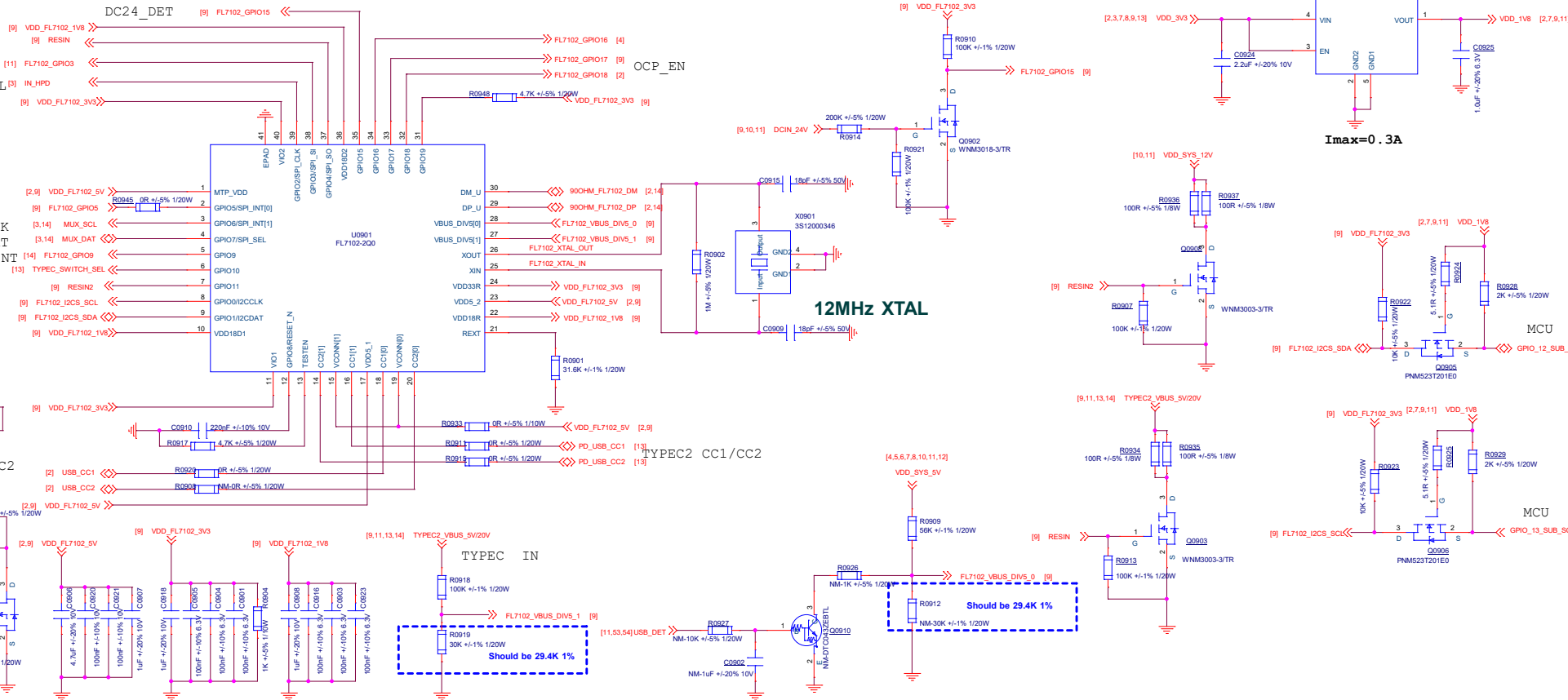


Organization	Quectel Wireless Solutions		
Project	QDC518-Base	Ver	V1.2
Drawn By	tmp	Checked By	
Date:	Tuesday, July 11, 2023	Sheet	8 of 24



# PD\_FL7102

MOSI\_EN  
8743PIN CONTROL



D

C

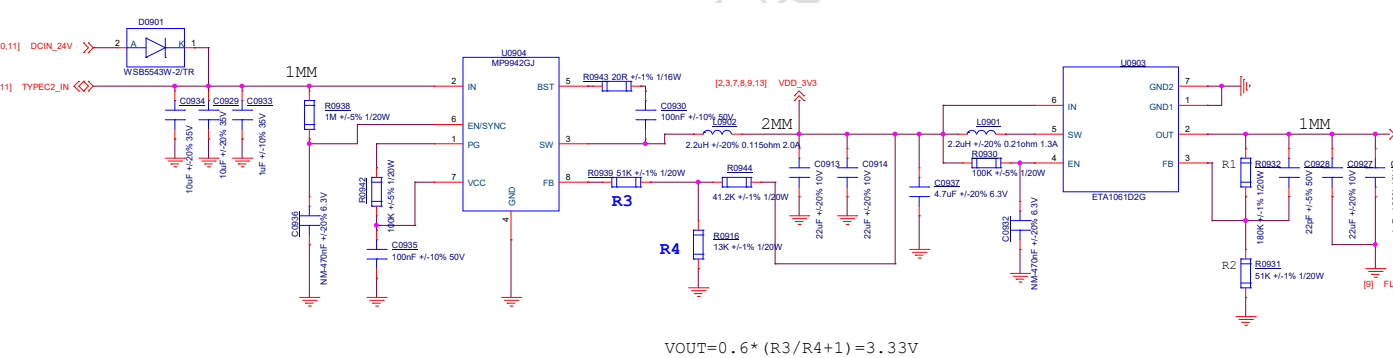
B

A

## 5V POWER

**Table 6.1 – Operating Conditions**

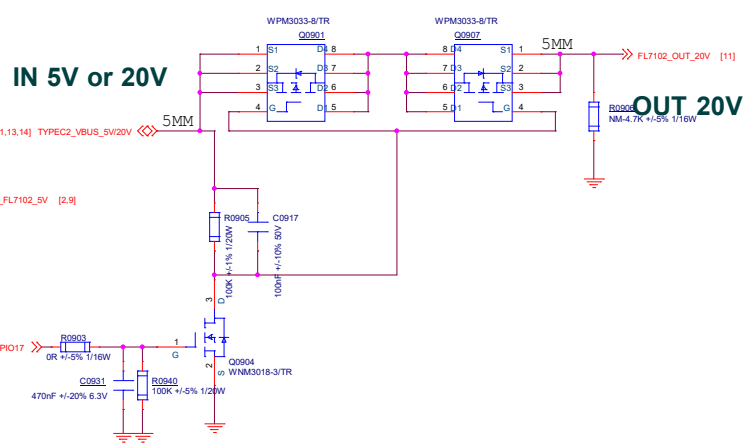
Parameter	Description	Min.	Typ.	Max.	Unit
MTP_VDD	Voltage for MTP power and programming	4.5	5.0	5.5	V
VDD18D	Digital core power supply	1.71	1.8	1.89	V
VIO	Digital IO power supply	3.14	3.3	3.47	V
VDD5	5V power supply	4.75	5.0	5.25	V
T <sub>a</sub>	Operating ambient temperature	0		70	°C
T <sub>c</sub>	Operating case temperature (T <sub>c</sub> = T <sub>a</sub> + θP)	0		105	°C

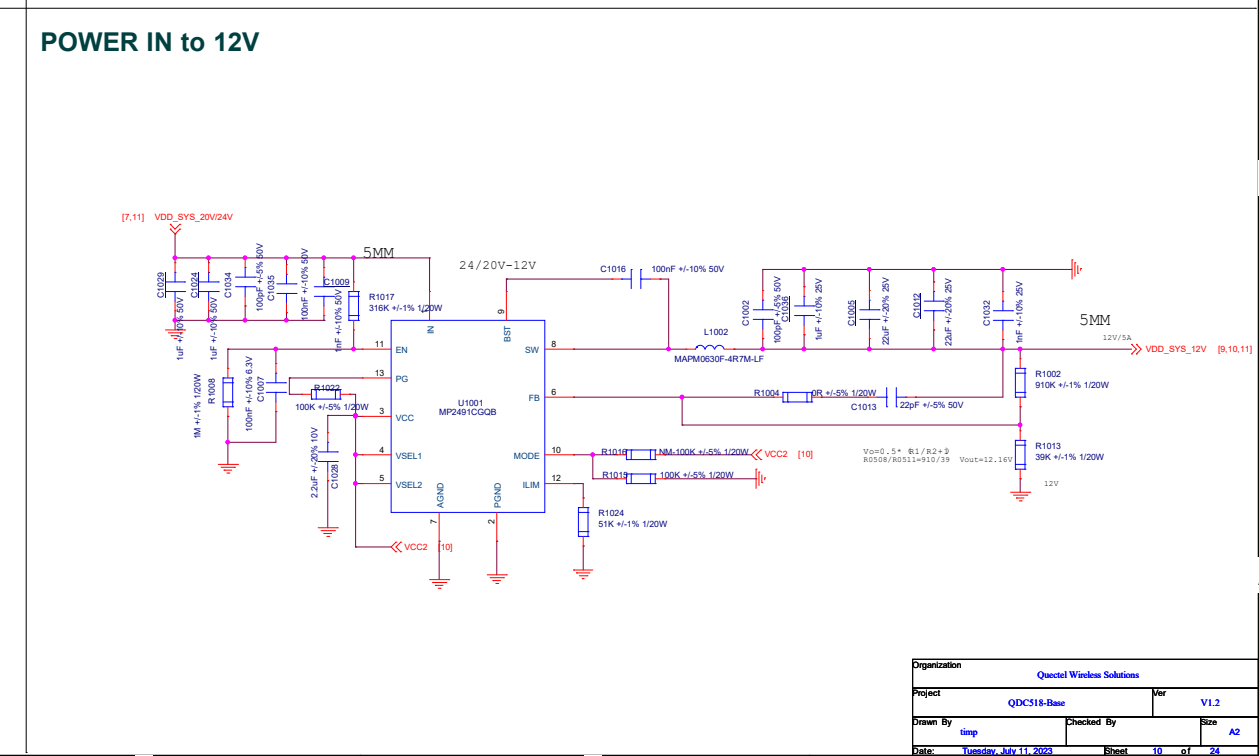
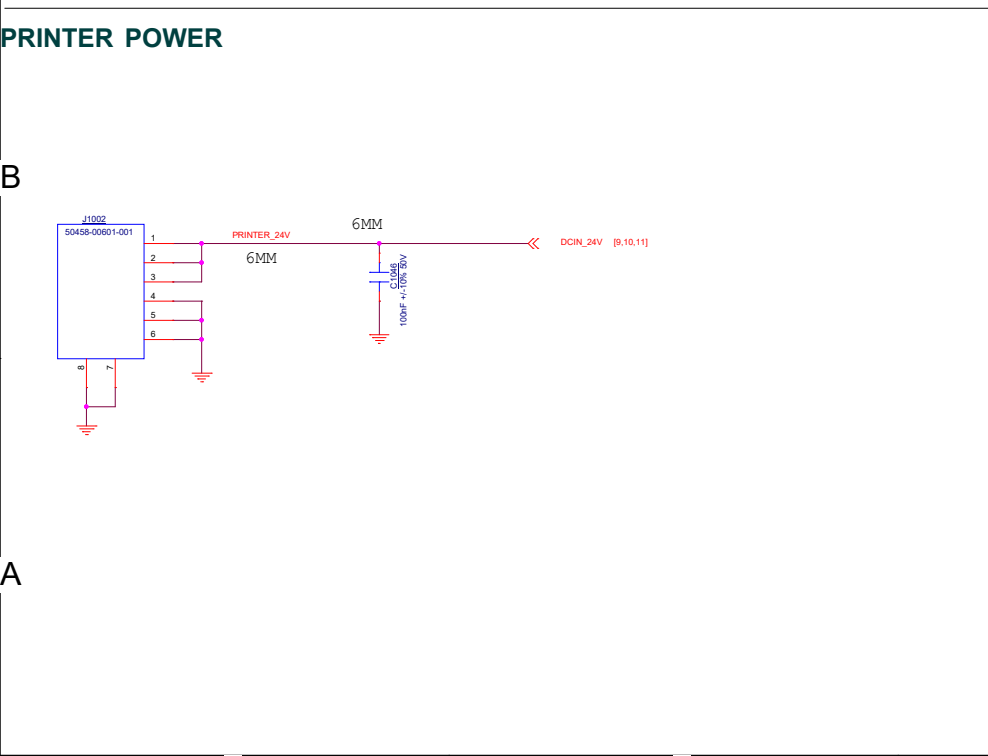
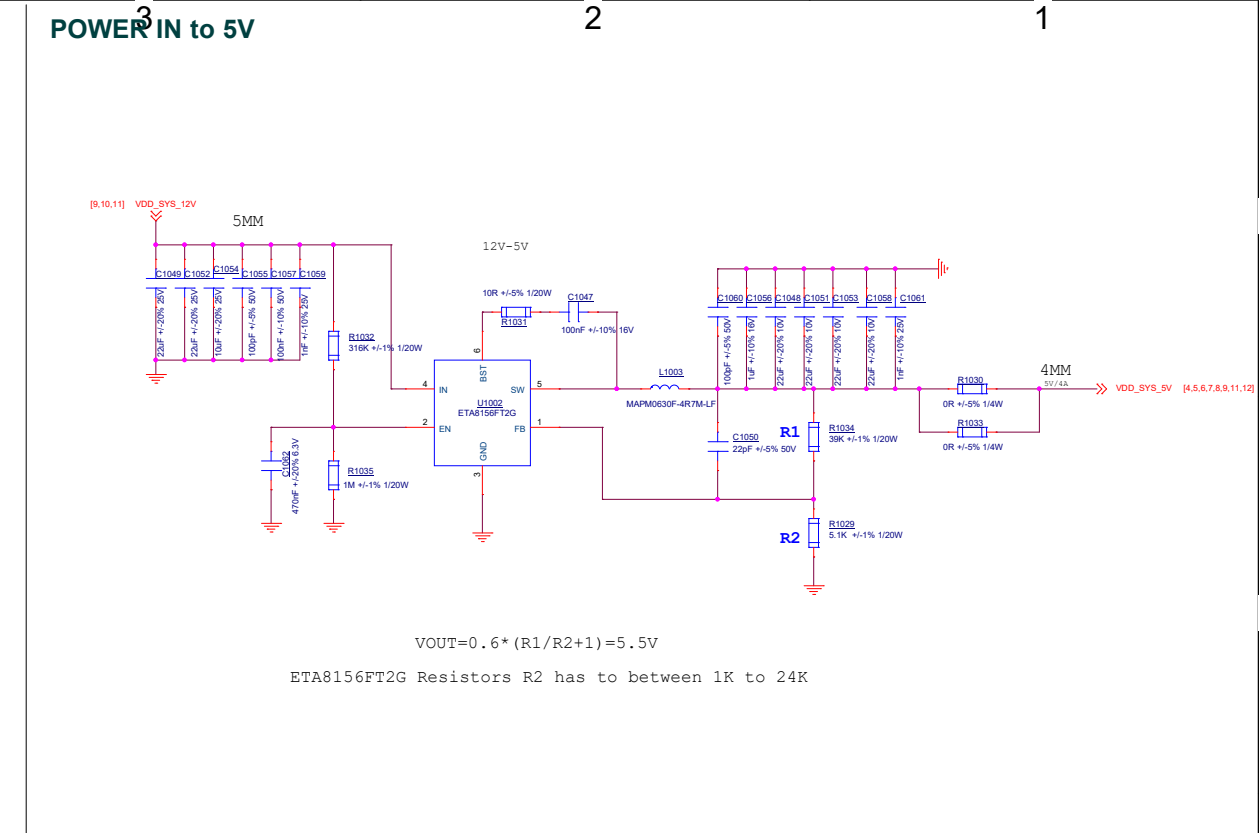
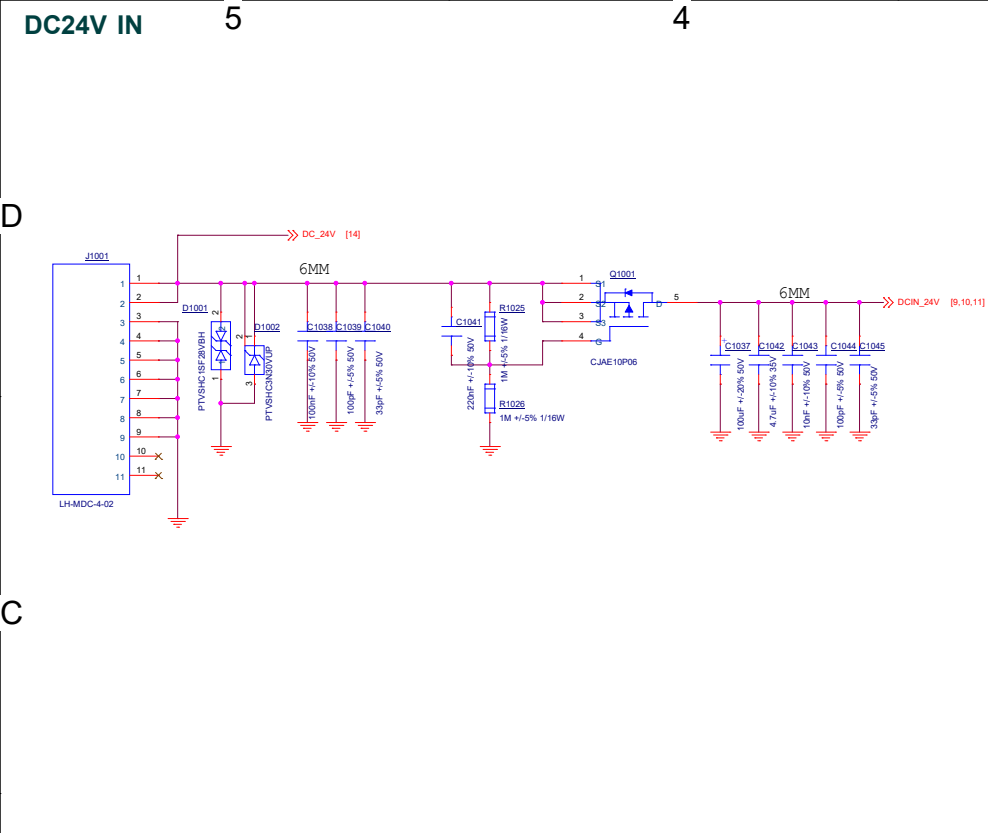


$$V_{OUT} = 0.6 * (R3/R4 + 1) = 3.33V$$

## PD\_IN

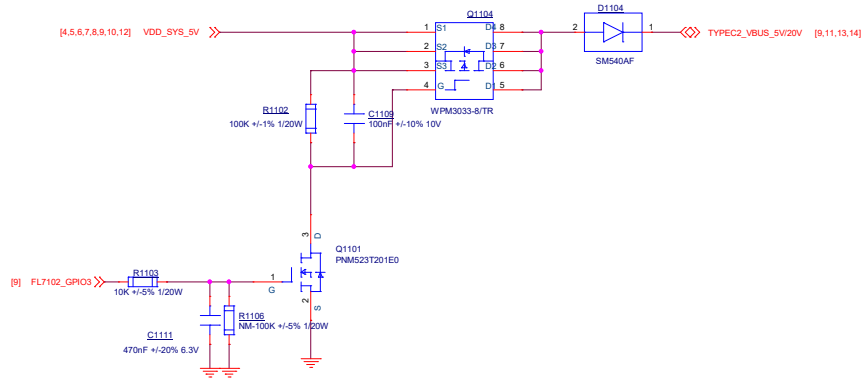
If INPUT is 5V, MOS is Close



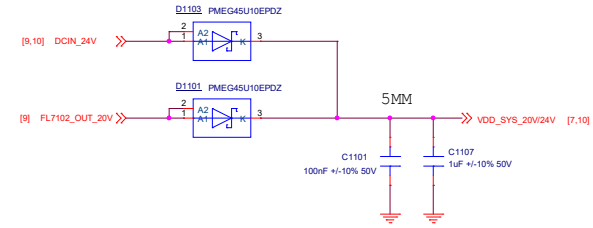


Organization	Quetel Wireless Solutions		
Project	QDC18-Base	Ver	V1.2
Drawn By	tmp	Checked By	
Date:	Tuesday, July 11, 2023	Sheet	10 of 24

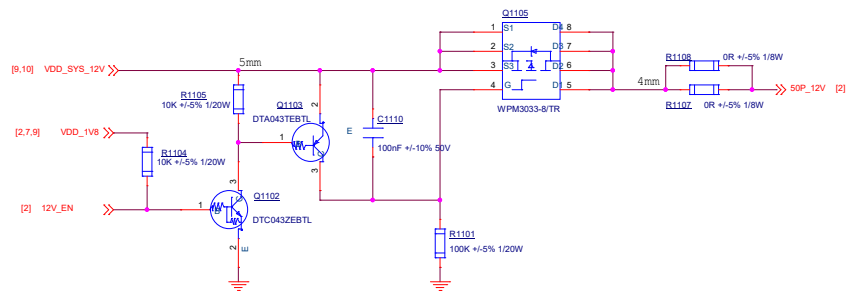
### 5V/4A OUT



### DC20V & PD\_IN SWITCH to SYS20V



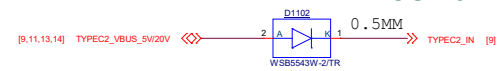
### 12V to 50P/12V



### TYPEC2 PD\_IN to MP

### TYPEC2 IN

### OUT 5V/20V

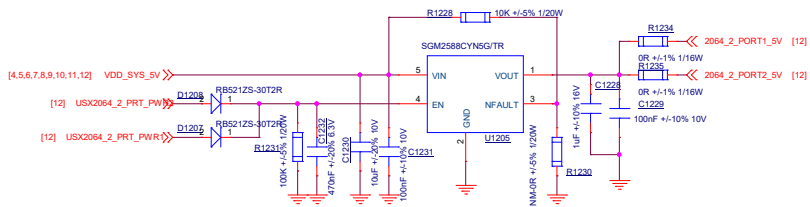
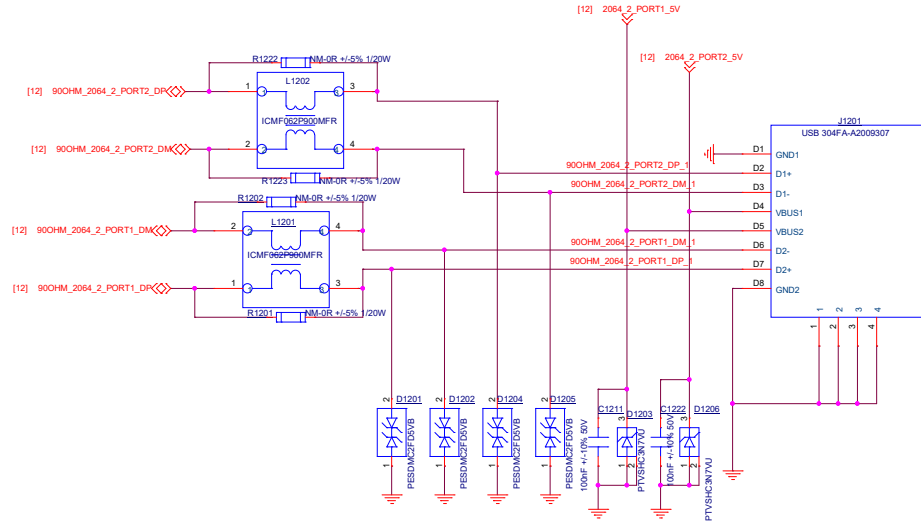
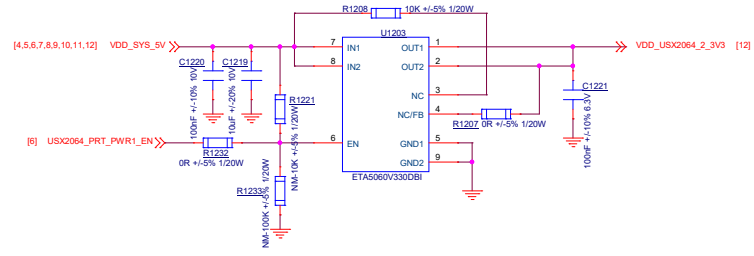
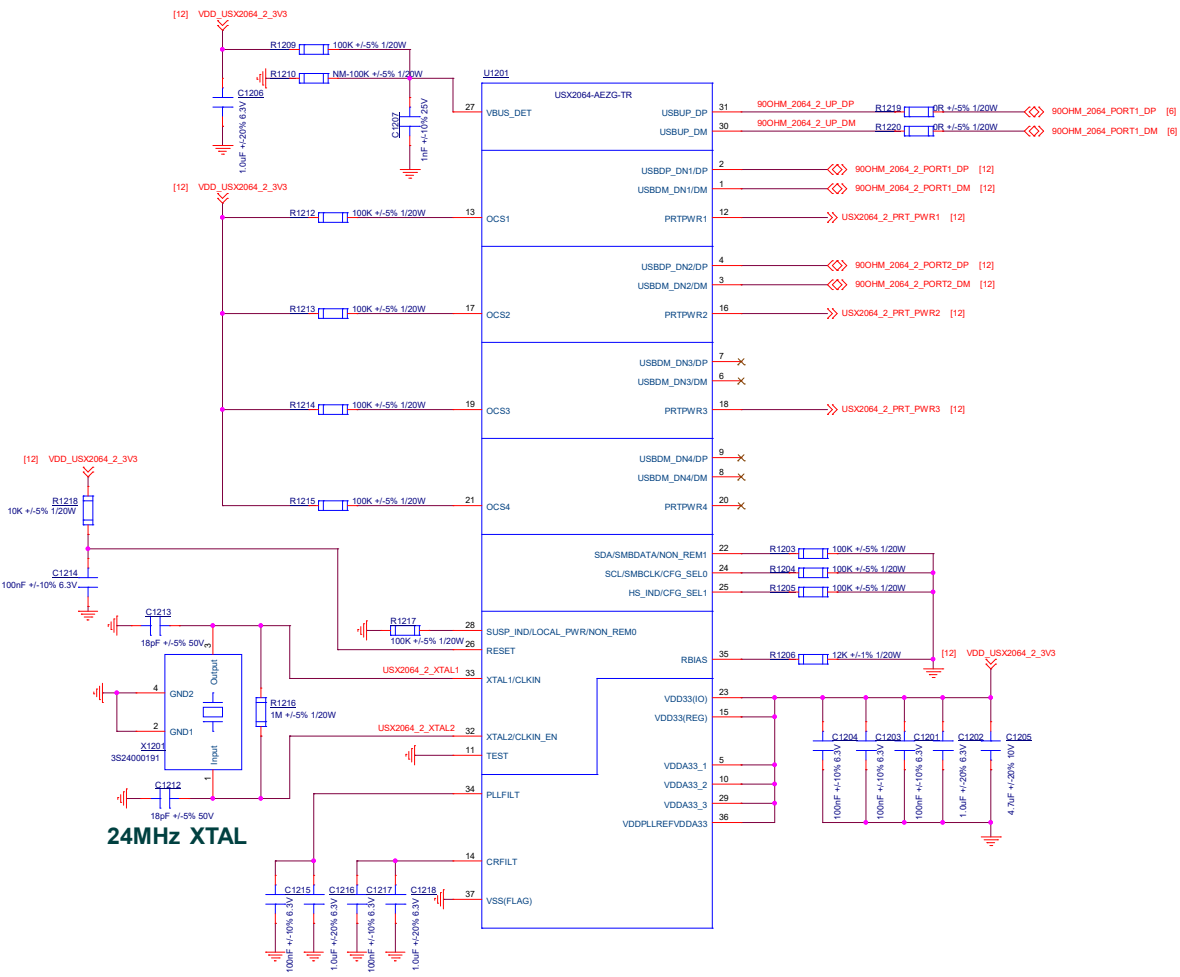


D

C

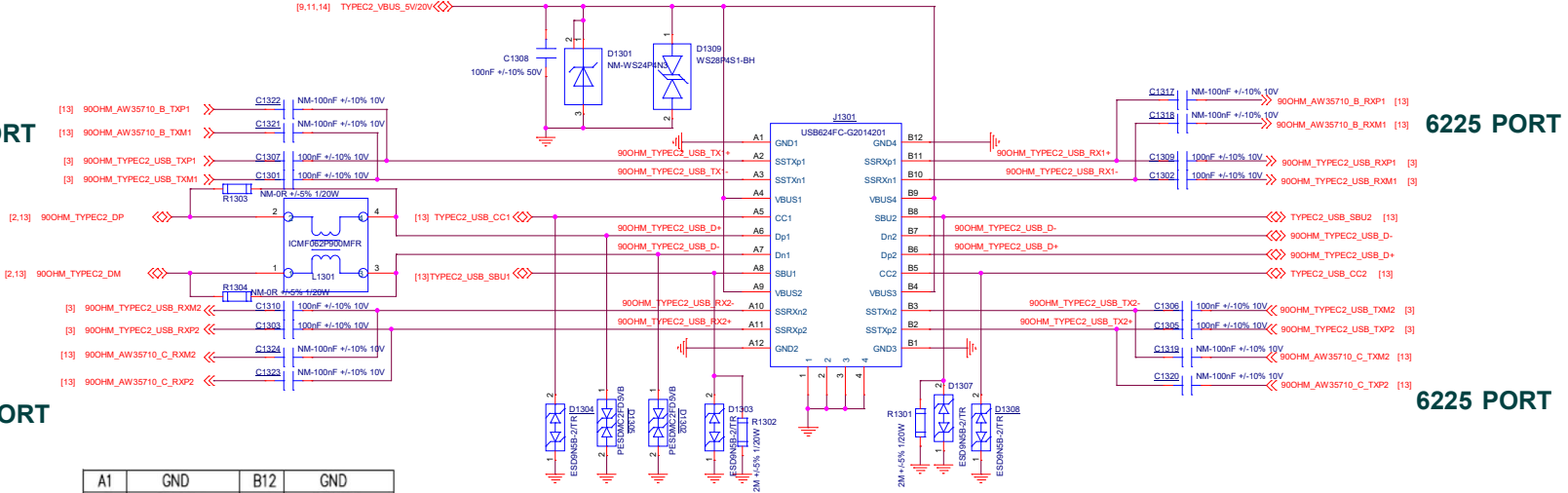
B

A

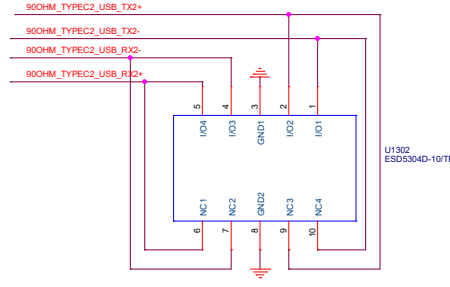
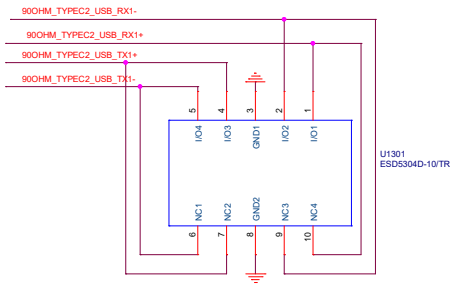


Organization	Quectel Wireless Solutions		
Project	QDCS18-Base	Ver	V1.2
Drawn By	Temp	Checked By	Size
Date:	Friday, May 23, 2023	Sheet	12 of 24

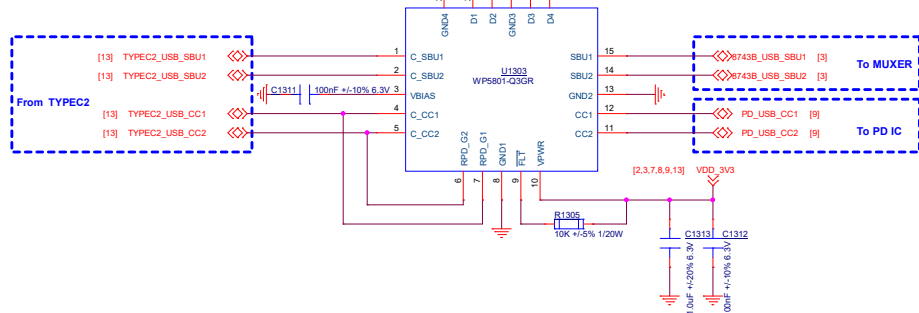
6225 PORT



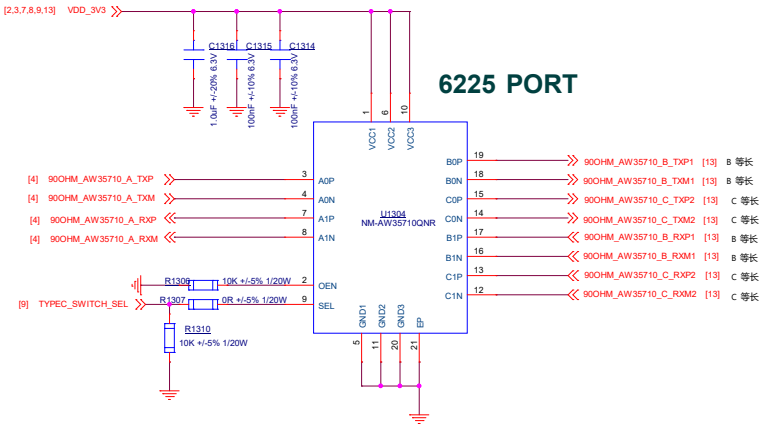
A1	GND	B12	GND
A2	SSTXP1	B11	SSRXP1
A3	SSTXN1	B10	SSRXN1
A4	VBUS	B9	VBUS
A5	CC1	B8	SBU2
A6	DP1	B7	DN2
A7	DN1	B6	DP2
A8	SBU1	B5	CC2
A9	VBUS	B4	VBUS
A10	SSRXN2	B3	SSTXN2
A11	SSRXP2	B2	SSTXP2
A12	GND	B1	GND
PIN	SIGNAL NAME	PIN	SIGNAL NAME



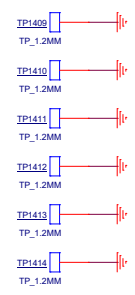
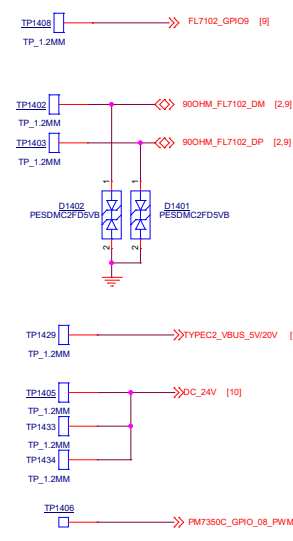
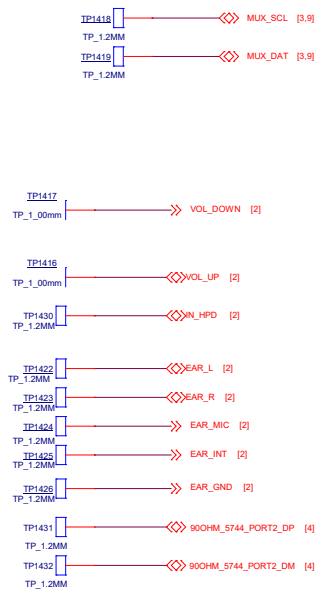
[2,13] 900HM\_TYPEC2\_DM  
[2,13] 900HM\_TYPEC2\_DP



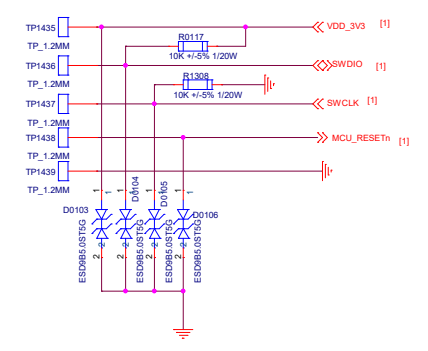
6225 PORT



D



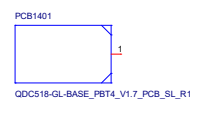
### MCU



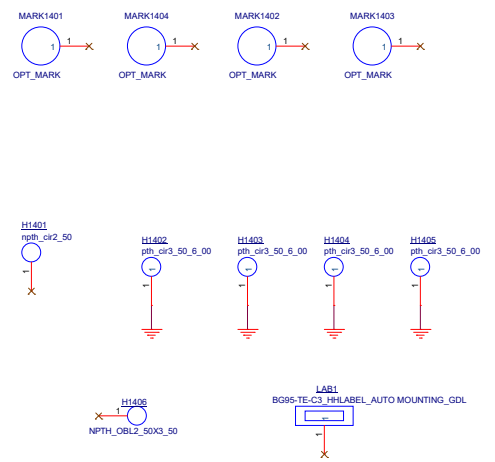
C

B

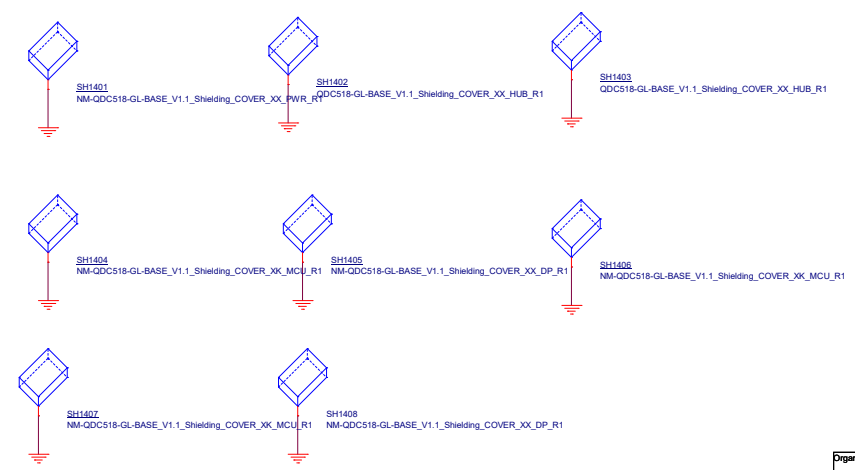
### PCB



### MARK



### COVER



A