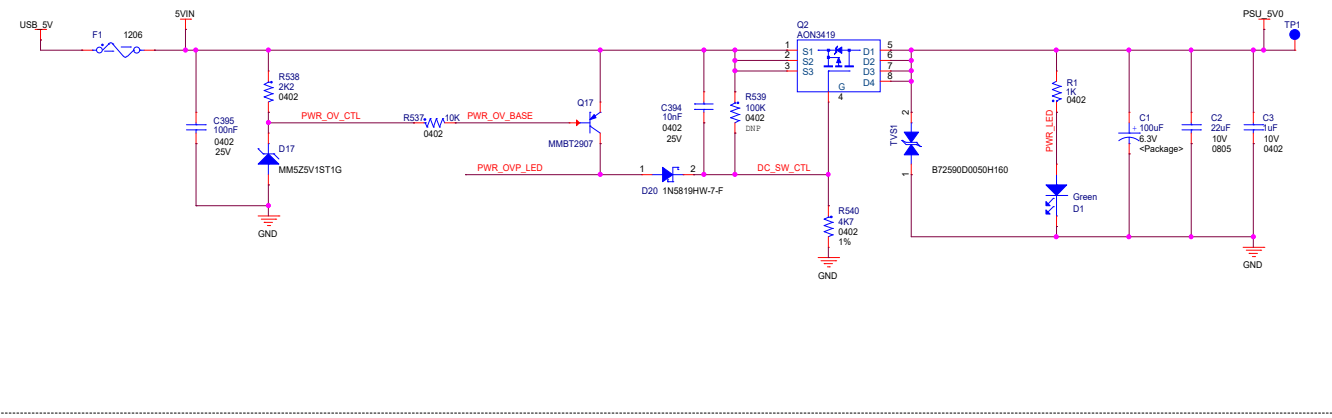
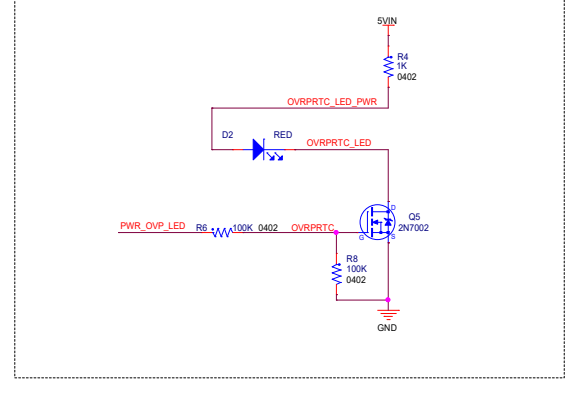


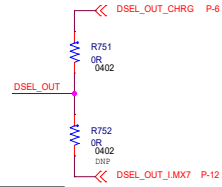
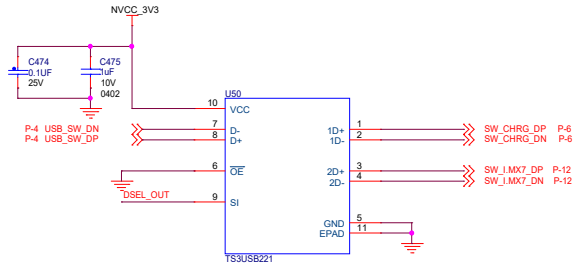
### OVER VOLTAGE PROTECTION



### OVER VOLTAGE INTICATOR



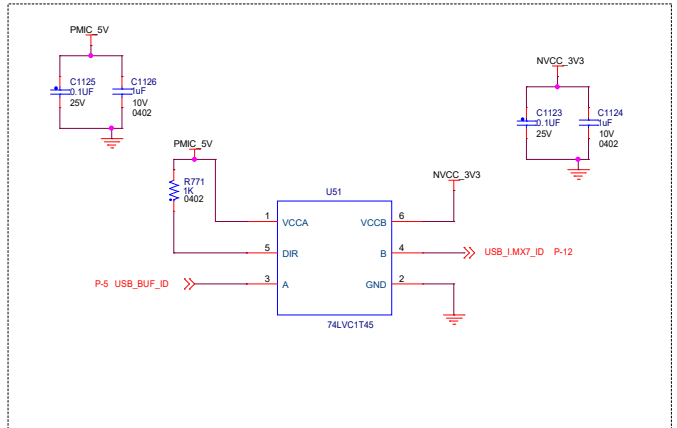
## USB 2.0 MUX -DEMUX SWITCH



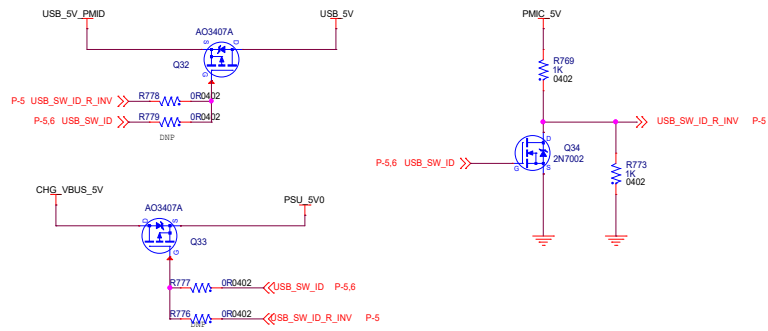
OE_BAR	S	
H	X	DISCONNECT
L	L	D#1D
L	H	D#2D

\*Cad Note  
Place R751 and R752 as tripad.

\*Design Note  
Tripad : Selection of D1 and D2 can be controlled both by charging IC and processor

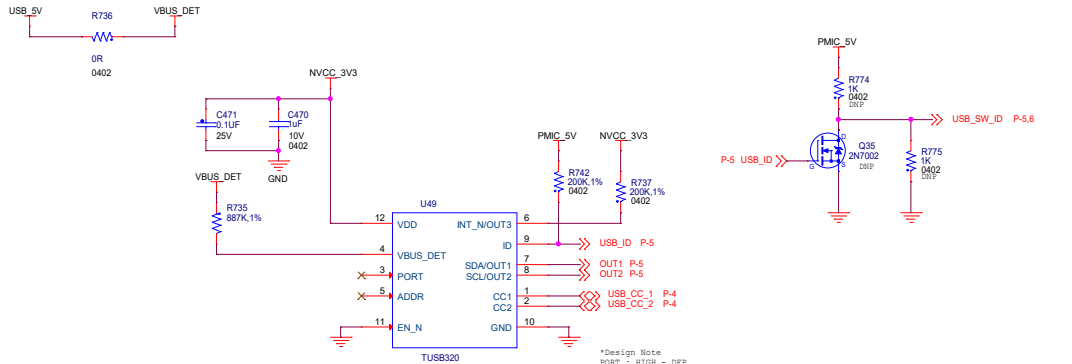


## USB HOST AND OTG POWER



\*Design Note  
USB\_SW\_ID\_R = low, USB\_SW\_ID\_R\_INV = high; Function as charger.  
USB\_SW\_ID\_R = high, USB\_SW\_ID\_R\_INV = low; Function as OTG

## USB TYPE-C CONFIGURATION CHANNEL



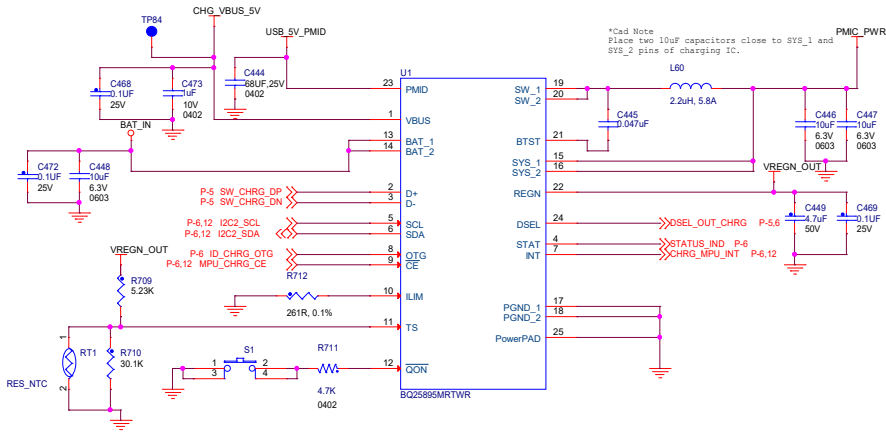
\*Design Note  
PORT : HIGH - DFF  
NC - DRP  
L - DFF  
ADDR : H = 12C IS ENABLED(0x61)  
NC = GPIO MUXE  
L = 12C IS ENABLED(0x61)

\*Design Note  
When CC pin detect device attachment, ID pin will be asserted as low. This low signal is connected to both processors ID pin, switch and charging IC.  
INT3/OUT3 : used as OUT3  
H - No audio accessory detection  
L = Audio accessory connection detected  
SDA/OUT1 & SCL/OUT2 : GPIO mode

OUT1	OUT2	
H	H	DEFAULT CURRENT IN UNATTACHED STATE
H	L	DEFAULT CURRENT IN ATTACHED STATE
L	H	MEDIUM CURRENT(1.5A) IN ATTACHED STATE
L	L	HIGH CURRENT(3.0A) IN ATTACHED STATE

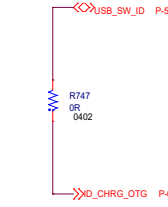
\*Cad note  
Place R738 and R739 as tripad.  
Place R740 and R741 as tripad.

# BATTERY CHARGING CIRCUIT

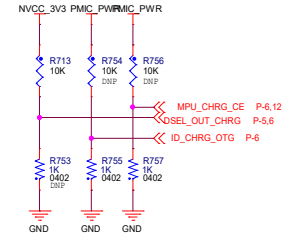
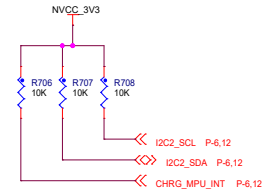


\*Cad Note  
When OTG pin is high and no input at VBUS, PMID pin out will be activated. OTG pin is controlled by ID pin of CC channel.  
CE pin = low, battery charging is enabled

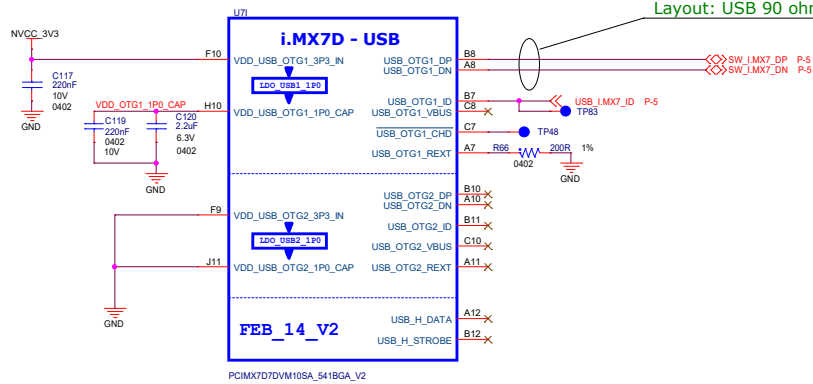
\*Design Note  
ILIM sets the maximum current limit input  
 $I_{INMAX} = R_{ILIM}/R_{ILIM} = 355/261 = 1.36A$



\*Design Note  
LED ON : Charge in progress  
LED OFF : Charge complete or charge disabled  
LED BLINKING : Fault condition occurs.



\*Cad Note  
Place R713 and R753 as tripped  
Place R754 and R755 as tripped  
Place R756 and R757 as tripped



Layout: USB 90 ohm differential pairs

PCIMX7D7DVM10SA\_541BGA\_V2