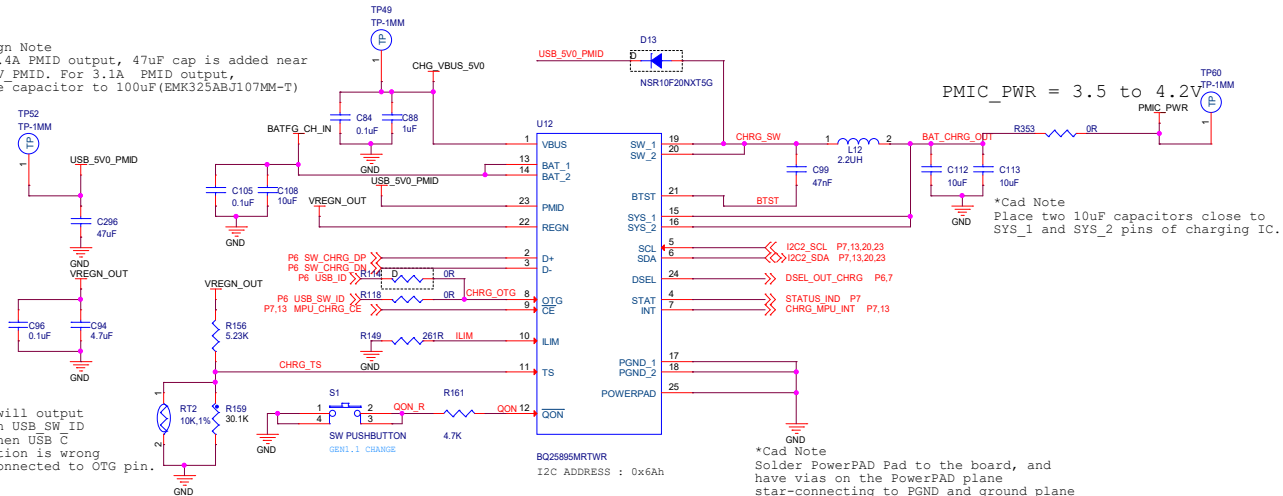


## BATTERY CHARGING CIRCUIT

\*Design Note  
For 2.4A PMID output, 47uF cap is added near USB\_5V\_PMD. For 3.1A PMID output, change capacitor to 100uF (EMK325ABJ107MM-T)



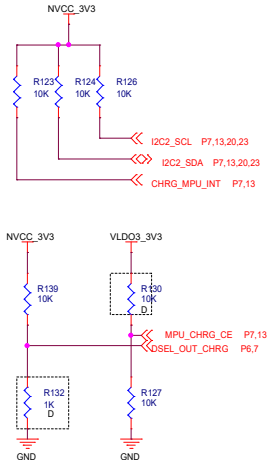
\*Design Note  
When USB C connector acts as host, PMID will output power when OTG pin is high. As per design USB SW ID is connected to OTG pin and it is high when USB C connector is acts as hot. If this assumption is wrong inverse of USB\_SW\_ID, ie USB\_ID can be connected to OTG pin.

\*Design Note  
->Boost mode is detected when OTG pin is high and no input source is detected at VBUS. OTG pin is controlled by ID pin of CC config IC.  
->CE pin = low, battery charging is enabled  
->ILIM sets the maximum current limit input  
IINMAX = KILIM/RILIM = 355/261 = 1.36A

\*Cad Note  
Solder PowerPAD Pad to the board, and have vias on the PowerPAD plane star-connecting to PGND and ground plane for high-current power converter.

\*Design Note  
R112 is designed for 19.8mA current

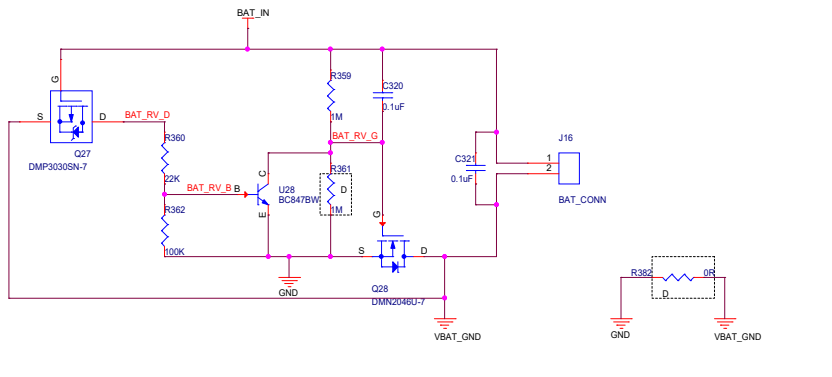
\*Design Note  
LED ON : Charge in progress  
LED OFF : Charge complete or charge disabled  
LED BLINKING : Fault condition occurs.



\*Cad Note  
Place R139 and R132 as tripad  
Place R130 and R127 as tripad

\*Design Note  
DSEL\_OUT\_CHRG signal connected to the selection pin of MUX - DEMUX IC. For default high and low option of the S pin of MUX-DEMUX IC, R139 and R132 is added as tripad.  
CE pin of charging IC is controlled by processor. For default high and low option of the CE pin, R127 and R130 is added as tripad.

### Battery Reverse protection



### Battery Fuel Gauge

