USB-C to DisplayPort Active Cable Reference Design
REV A

VCONN
BUCK/BOOST
3.3V

RX2P/N
TX2P/N
TX1P/N
RX1P/N
SBU1/2

ML0P/N
ML1P/N
ML2P/N
ML3P/N
AUXP/N

USB-C PLUG

VBUS

SCL
TUSB544

SDA

HPD

TUSB422

MSP430

HPD IN OUT

DP RECEPTACLE
MSP430 VUSB can supply up to 60mA at 3.3V. This power is for both MSP430 operation and TUSB422.
Notes:
1) TPS63051YFF switching frequency is 2.5MHz.
2) If TPS63051YFF not available, then TUSB63050YFF can be used. But VOUT is defined by voltage divider on FB.

\[ R_1 = R_2 \times \left( \frac{VOUT}{VFB} - 1 \right) \]

VOUT = 3.3V
VFB = 0.8V
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