USB TypeC Power Delivery

Q1
AO3400A

U1
IP2721

1 VBUSG
2 VIN
3 NC
4 NC
5 GND
6 TST1
7 TST2
8 TST3

VBUS 16
NC 15
NC 14
CC1 13
CC2 12
SEL 11
NC 10
NC 9

VIN

C1
1u
35V

C2
10u
35V

R1
5k1

R2
5k1

V20V

VIN

R3
100k

SEL

CC1
CC2
SEL

GND GND

GND GND GND

Leave R3 unsoldered
to get 15V from USB.

USB TypeC PD Connector

USB1
USB-TYPE-C-6PIN

VIN
CC2
CC1
VIN

6 GND
5 VBUS
4 CC2
3 CC1
2 VBUS
1 GND

GND

Output Screw Terminal

X1
KF301-2P

VOUT

GND

Buck Converter

VOUT

V20V

R7
100k

U2
MP2307DN-LF-Z

L1
10uH

C7
10n

1 BS
2 IN
3 SW
4 GND

SS 8
EN 7
COMP 6
FB 5
EXP 9

VOUT

R8
2k

R6
120k

C8
22u
35V

C3
22u
35V

R5
10k

D1
SS34

C6
10u
35V

C5
3n9

R4
6k8

C4
100n

LED1
PWR

GND GND GND GND GND GND   GND GND GND   GND

$$VOUT = 0.925 * \frac{R5 + R6}{R5}$$

TITLE:
USB Type-C Buck Converter Module

REV: 1.0

Company: wagiminator

Sheet: 1/1

Date: 2020-06-20   Drawn By: Stefan Wagner

EasyEDA