EXT Power Input

VPP
J1 BATT
GND1

BAU

1: Led Catode
2: Led Anode
3: NC
4: C

VCC
J3 BAU
GND GNDA GND

Power Source Selector

1: Led B Pwr   4: GND B
2: Leds Signal 5: GND O
3: Led A Pwr   6: GND A

VPP
VBUS
J4 Selecteur
GND GNDA GND2 GND1

Input power circuit

VBUS
VPP
D1 D
D2 D
VCCA
D3 D
F1 Fuse
C1 470uF
C2 2.2uF
VCC
GND

Power Source Selector override

JP1   JP3
JP2   JP4
GND2 GNDA GND1

Solder :
− JP1 & JP2 to enable USB C power input
− JP3 & JP4 to enable EXT power input

USB C Power Input

J2
USB_C_Receptacle_PowerOnly_6P
VBUS A9 VBUS
VCC
CC1   A5
CC2   B5
SHIELD
S1   A12 GND
GND2

U1
IP2721
VIN VBUSG
CC1 13
CC2 12
VBUS 16
GND   SEL 11
R1 5.1K
R2 5.1K
R3 0
C3 1uF
GND

R3 is 100 ohms on the original circuit
SEL is floating to get 15V from USB battery

Converters

U2
PTN78020W_EUK−7
VCC
VI VO
Inhibit VO_Sense
GN VO_Adj
+5V
C5 470uF
GND

U3
PTN78060W_EUW−7
VI VO
Inhibit VO_Sense
GN VO_Adj
R4 21K
GND

PS2
THL_20−2411WI
1 +VIN(VCC)   +VOUT 3
6 ON/OFF   TRIM   4
2 −VIN(GND)   −VOUT 5
GND

Only one will be solder
at the same time.

PS1
TDN_5−2412WI
VCC
1 +VIN(VCC)   +VOUT 7   +12V
4 ON/OFF   NC   5
2 −VIN(GND)   −VOUT 6
C4 100uF
GND

Power Outputs

VCC
C6 4.7uF
J5 VCC
GND

+5V
C10 4.7uF
J8 5V
GND

+12V
C7 4.7uF
C9 4.7uF
+5V
J7 OUT
GND

Power Ext

VCC
C8 4.7uF
J6 PWR Ext
GND

Optional connectors

VCC
J11 VCC
GND
+5V

J12 5V
GND

+12V
+5V
J9 OUT
GND

VCC
J10 PWR Ext
GND

You can solder these
connectors if you want
the vertical version

Status Leds

VCC
D4 RED
R5 1K
GND

Mouting Holes

H1 M3   H2 M3   H3 M3   H4 M3
GND