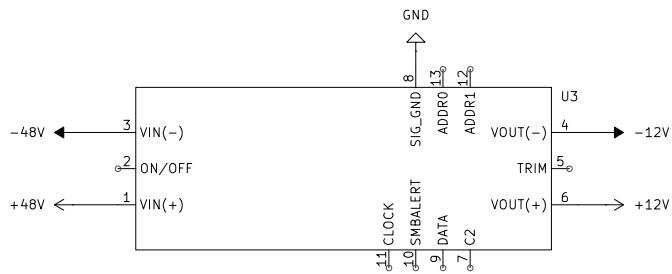E48SC12030NRFH
DC-DC Converter
48V to 12V

GND

GND —▷| 3 | VIN(-)

2 | ON/OFF

+48V —▷| 1 | VIN(+)

U2

8 | SIG_GND
13 | ADDR0
12 | ADDR1

VOUT(-) | 4

TRIM | 5

VOUT(+) | 6

11 | CLOCK
10 | SMBALERT
9 | DATA
7 | C2

GND

-48V ◁— 3 | VIN(-)

2 | ON/OFF

+48V —▷| 1 | VIN(+)

U3

8 | SIG_GND
13 | ADDR0
12 | ADDR1

VOUT(-) | 4 —▷ -12V

TRIM | 5

VOUT(+) | 6 —▷ +12V

11 | CLOCK
10 | SMBALERT
9 | DATA
7 | C2
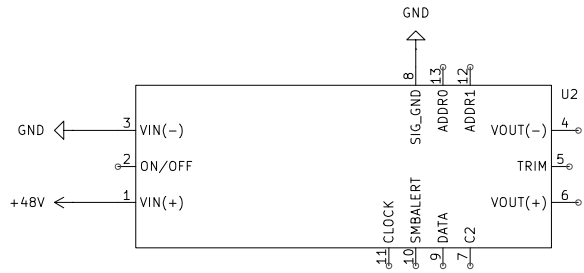
Reverse Voltage Protection

+48V

R1
R_US

D1
BZV55B3V6

48V_GND ◁—

G

S   D

Q1
NMOS

GND_RAW ▷—
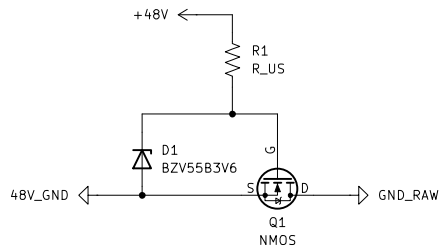
AZ1117 Linear Regulation
5V to 3.3V

U1
AZ1117-3.3

+5V ◁— 3 | VI   VO | 2 —▷ +3.3V

1 | GND

GND

7 | NRST
5 | PF0
6 | PF1
44 | PF11

2 | PC13
3 | PC14
4 | PC15

18 | PB0
19 | PB1
20 | PB2
39 | PB3
40 | PB4
41 | PB5
42 | PB6
43 | PB7
45 | PB8
46 | PB9
21 | PB10
22 | PB11
25 | PB12
26 | PB13
27 | PB14
28 | PB15

VBAT | 1
VDD | 24
VDD | 48
VDDA | 9
VDDIO2 | 36

PA0 | 10
PA1 | 11
PA2 | 12
PA3 | 13
PA4 | 14
PA5 | 15
PA6 | 16
PA7 | 17
PA8 | 29
PA9 | 30
PA10 | 31
PA11 | 32
PA12 | 33
PA13 | 34
PA14 | 37
PA15 | 38

VSS | 23
VSSA | 8

U4
STM32F091CCTx
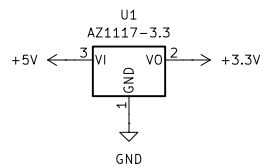
External Oscillator for STM32F0
8MHz
ECS-2520MV-080-CN-TR

+3.3V

X1
ECS-2520MV-xxx-xx

4 | VDD

1 | Tri-State   OUT | 3

GND | 2

GND
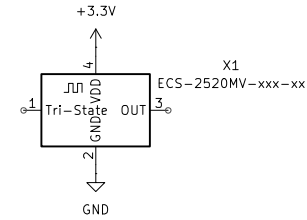
Backplane Connector (to be changed)

J2
ET60S-D04-3-08-D04-X-R1-S

P01_1 | P01   P08 | P08_1
P02_1 | P02   P07 | P07_1
P03_1 | P03   P06 | P06_1
P04_1 | P04   P05 | P05_1

01 | 01   17 | 17
02 | 02   18 | 18
03 | 03   19 | 19
04 | 04   20 | 20
05 | 05   21 | 21
06 | 06   22 | 22
07 | 07   23 | 23
08 | 08   24 | 24

09 | 09
10 | 10
11 | 11
12 | 12
13 | 13
14 | 14
15 | 15
16 | 16
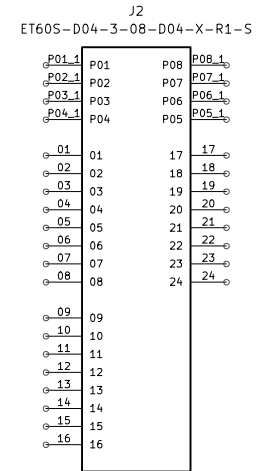
12Vto5V_BuckConverter

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