Contents

1 Repository Information

Name modular_device_base_3x2

Version 1.2

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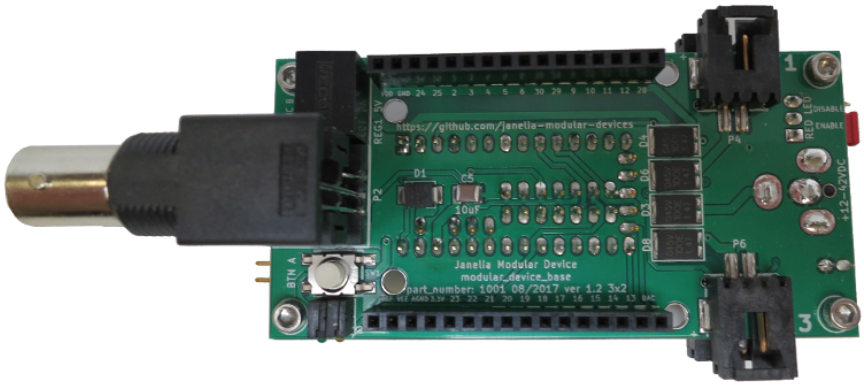
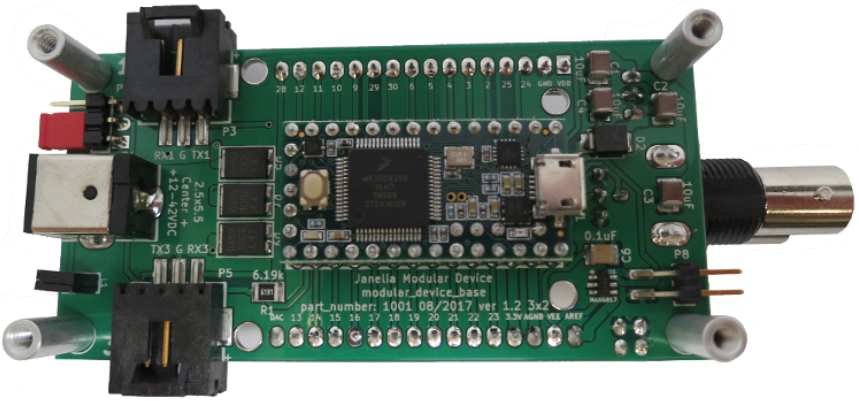
This board is the base of 3x2 format modular devices. It is a breakout board for the microprocessor, with connections for power, communication, and top boards.

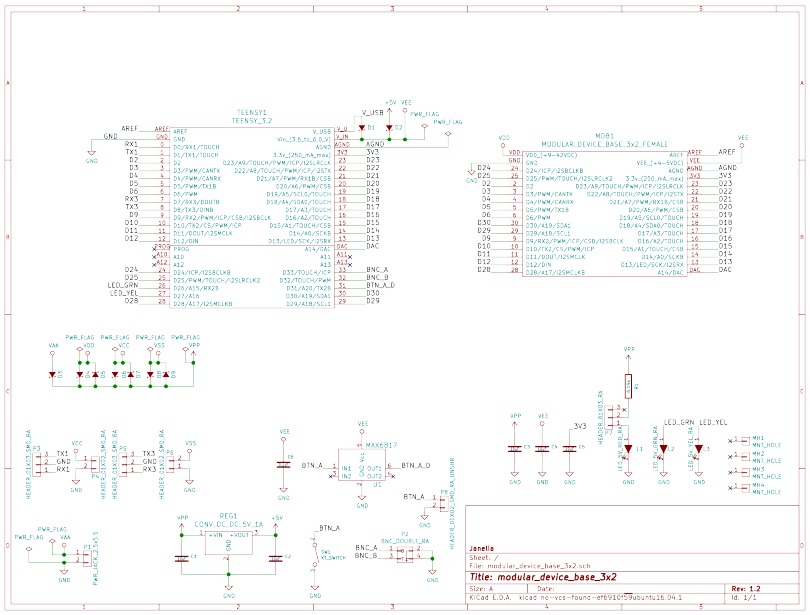
2 Images





3 Schematic

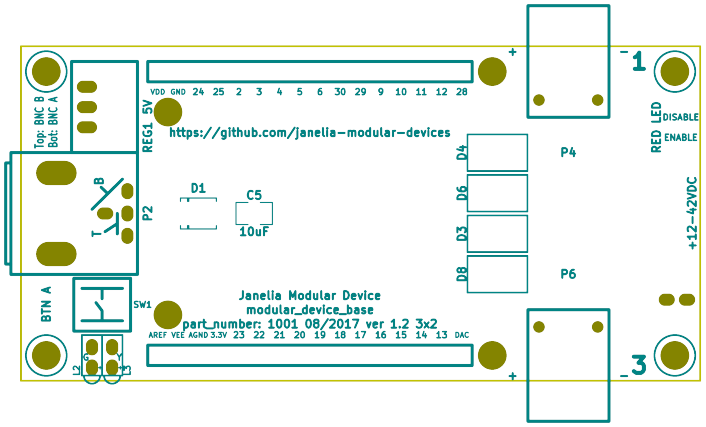
./schematic/modular_device_base_3x2.pdf



4 Gerbers

Save gerbers zip file and send to your favorite PCB manufacturer for fabrication.

./gerbers/modular_device_base_3x2_v1.2.zip


Janelia Modular Device
modular_device_base
part_number: 1001 08/2017 ver 1.2 3x2
https://github.com/janelia-modular-devices
Top: BNC B
Bot: BNC A
BTN A
RED LED
DISABLE
ENABLE
+12-42VDC
REG1 5V
P1
P2
P3
P4
P5
P6
P7
P8
D1
D2
D3
D4
D5
D6
D7
D8
C1
C2
C3
C4
C5
10uF
0.1uF
6.19K
TXI G RXI
RXI G TXI
+12-42VDC
TEENSY_3.2

5 Bill of Materials

5.1 PCB Parts

./bom/bom_pcb.csv

Item	Reference(s)	Value	Quantity	Desc
1	C1 C2 C3 C4 C5	10uF	5	CAP
2	C6	0.1uF	1	CAP
3	D1 D2	diode_schottky_15V_1A	2	DIOI
4	D3 D4 D5 D6 D7 D8 D9	diode_schottky_45V_10A	7	DIOI
5	L1	LED_5V_RED_RA	1	LED
6	L2	LED_5V_GRN_RA	1	LED
7	L3	LED_5V_YEL_RA	1	LED
8	MDB1	MODULAR_DEVICE_BASE_3x2_FEMALE	2	16 P
9	MH1 MH2 MH3 MH4	MNT_HOLE	4	Roun
10	P1	PWR_JACK_2.5x5.5	1	CON
11	P2	BNC_DOUBLE_RA	1	CON
12	P3 P5	HEADER_01X03_SMD_RA	2	CON
13	P4 P6	HEADER_01X02_SMD_RA	2	CON
14	P7	HEADER_01X03_RA	1	CON
15	P8	HEADER_01X02_SMD_RA_UNSHR	1	CON
16	R1	6.19k	1	RES
17	REG1	CONV_DC_DC_5V_1A	1	CON
18	SW1	KT_SWITCH	1	SWI
19	TEENSY1	TEENSY_3.2	1	DEV
20	U1	MAX6817	1	IC D

5.2 Additional Parts

./bom/bom_pcb_add.csv

Item	Function	Quantity	Description
1	MODULAR_DEVICE_BASE	1	USB 2.0 Cable A Male to Micro B Male 2.00m S
2	POWER	1	AC/DC DESKTOP ADAPTER 24V 90W
3	POWER	1	30 WATT DESKTOP POWER SUPPLY 24V
4	POWER	1	CORD 3COND NEMA PLUG 320-C5
5	CONNECTORS	1	14 Positions Header Unshrouded Breakaway Con
6	CONNECTORS	2	24 Positions Header Unshrouded Breakaway Con
7	CONNECTORS	1	CONN JUMPER SHORTING GOLD FLASH
8	CABLE	1	CABLE USB-A TO MICRO USB-B 2M

5.3 Vendor Parts Lists

./bom/digikey_order.csv
    ./bom/digikey_order_pcb.csv
    ./bom/digikey_order_pcb_add.csv