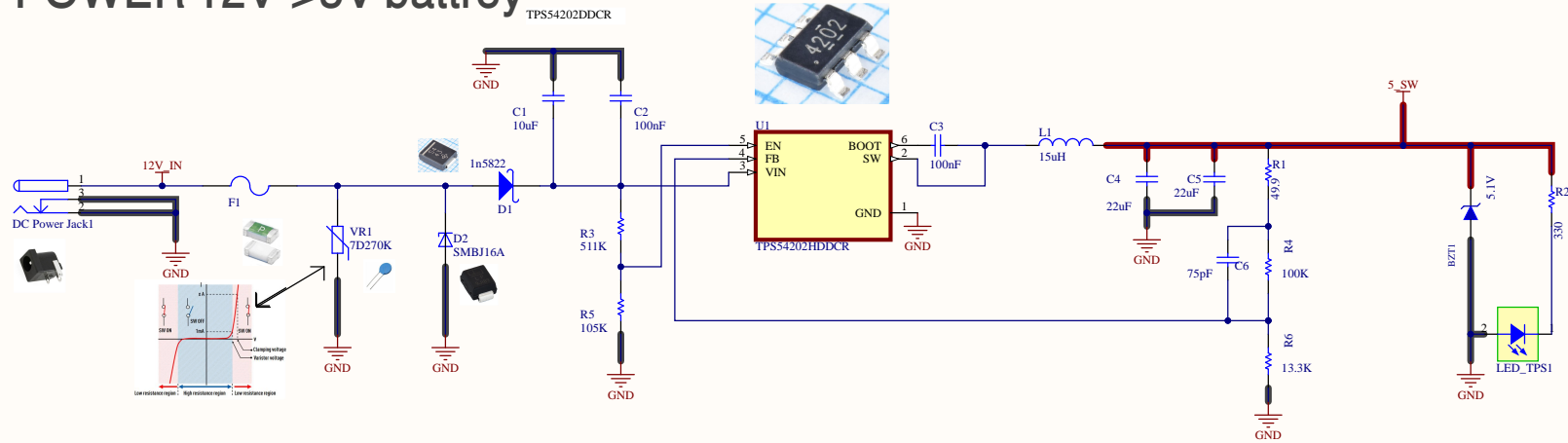


POWER

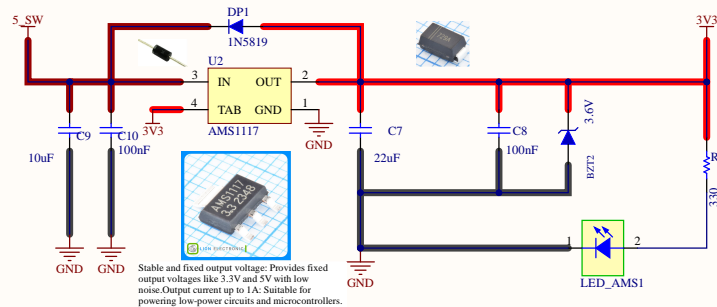
POWER 12V->5V battrey

TPS54202DDCR



POWER 5V->3V3

AMS1117

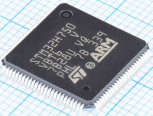


Stable and fixed output voltage: Provides fixed output voltages like 3.3V and 5V with low noise. Output current up to 1A. Suitable for powering low-power circuits and microcontrollers.

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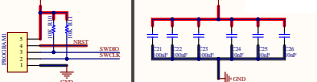
MCU STM32H750/BT6

Arshia Madadi

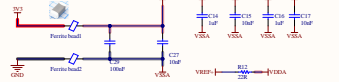


PROGRAM ByPass Cap

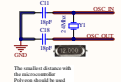
The observed distance to nodes



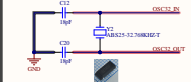
VDDA



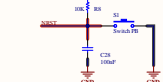
Oscillator




Crystal



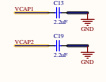
Rest



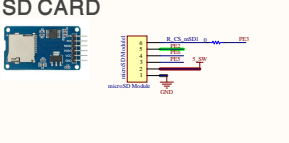
BOOT0




VCAP



SD CARD



LED

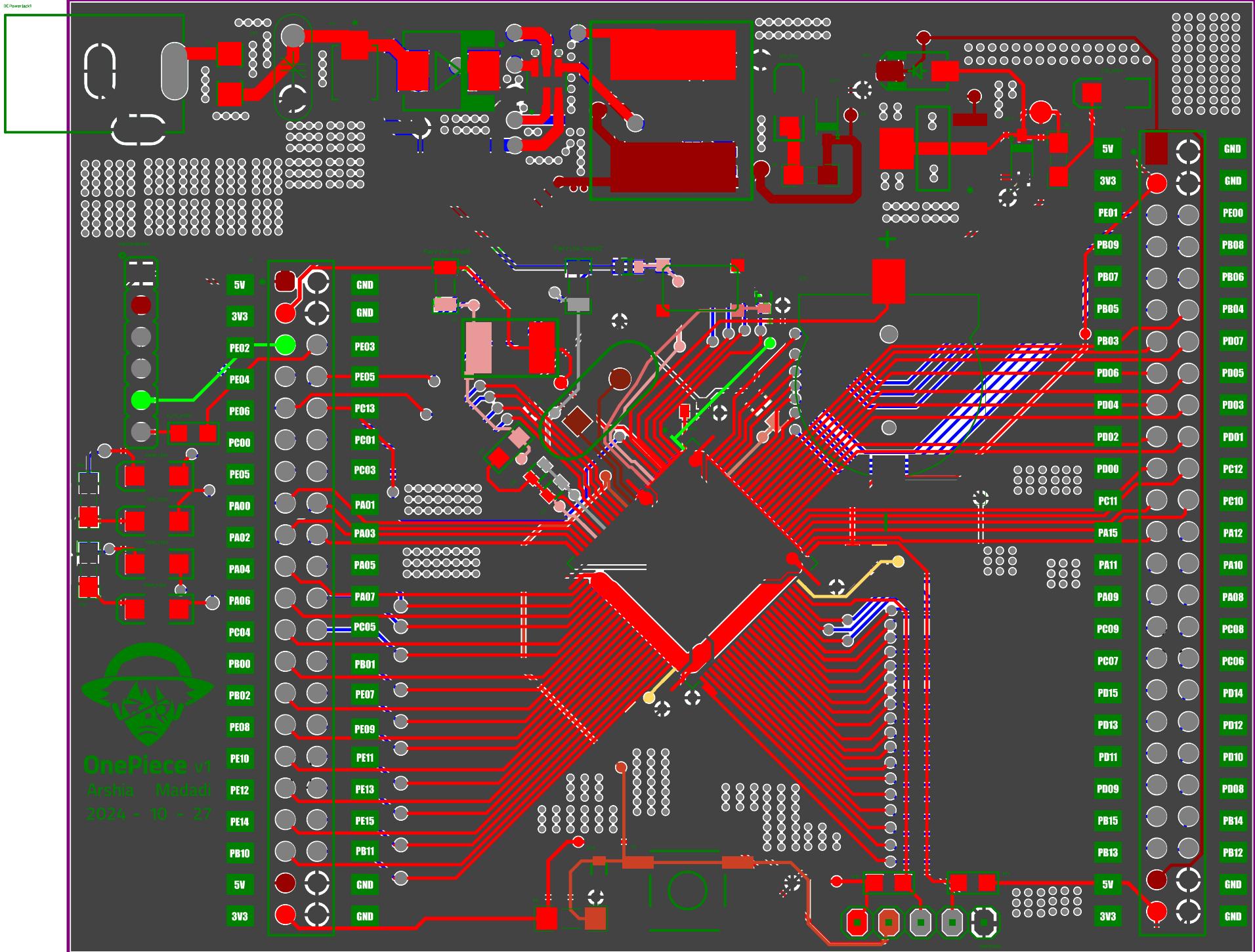


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9.51 (cm)

7.66 (cm)

DC Power Jack



Comment	Description	Designator	Footprint	LibRef	Quantity
BC501SM	BATTERY HOLDER COIN 12MM SMD	BT1	BAT_BC501SM	BC501SM	1
5.1V	DIODE ZENER GENERAL	BZT1	SOD123	ZENER GENERAL DIODE	1
3.6V	DIODE ZENER GENERAL	BZT2	SOD123	ZENER GENERAL DIODE	1
10uF	CAP SMD_0603	C1, C9	MY_CAP_SMD_0603	CAP SMD_0603	2
100nF	CAP SMD_0603	C2, C3, C8, C10, C21, C22, C23, C28, C29	MY_CAP_SMD_0603	CAP SMD_0603	9
22uF	CAP SMD_0603	C4, C5, C7	MY_CAP_SMD_0603	CAP SMD_0603	3
75pF	CAP SMD_0603	C6	MY_CAP_SMD_0603	CAP SMD_0603	1
18pF	CAP SMD_0603	C11, C12, C18, C20	MY_CAP_SMD_0603	CAP SMD_0603	4
2.2uF	CAP SMD_0603	C13, C19	MY_CAP_SMD_0603	CAP SMD_0603	2
1uF	CAP SMD_0603	C14, C16	MY_CAP_SMD_0603	CAP SMD_0603	2
10nF	CAP SMD_0603	C15, C17, C24, C25, C26, C27	MY_CAP_SMD_0603	CAP SMD_0603	6
1N5822	Schottky Rectifiers	D1	DO-214AB(SMC)	1N5822 SMD	1
SMBJ16A	600W, 18.8V, 5%, Unidirectional, TVS	D2	DIOM4336X265N	SMBJ16A	1
DC Power Jack	DC Power Jack. Center Pin 2.5mm. Diameter: 5.7mm	DC Power Jack1	DC Power Jack 1	DC Power Jack	1
1N5819	Schottkey Rectifiers	DP1	430X270D	1N5819	1
F=3.0 A	SMD Fuses 1206	F1	1206 FUSE	Fuse SMD1206	1
Ferrite Bead SMD	Ferrite Bead SMD	Ferrite bead1, Ferrite bead2	FB1206	Ferrite Bead SMD Package	2
61306421821	WR-PHD Socket Header, THT, Vertical, pitch 2.54mm, 2 Row, 64P	J1, J2	61306421821	61306421821	2
15uH	INDUCTOR_SMD_3A	L1	INDUCTOR_SMD_3A	INDUCTOR_SMD_3A	1
10uH	Inductor	L2	10UH	Inductor_B	1
SMD 1206 LED	SMD 1206 LED	LED_AMS1, LED_TPS1, PWM_LED1, PWM_LED2, PWM_LED3, PWM_LED4	LED 1206	LED SMD 1206	6
microSD Module	Header, 6-Pin	microSD Module1	HDR1X6-1	Header 6	1
Header 5	Header, 5-Pin	PROGRAM1	My_1X05	Header 5	1
49.9	RES 0805	R1	RESC3413X04N	RES 0805 0.125W	1
330	RES 0805	R2, R7, R13, R14, R15, R16	RESC3413X04N	RES 0805 0.125W	6
511K	RES 0805	R3	RESC3413X04N	RES 0805 0.125W	1
100K	RES 0805	R4	RESC3413X04N	RES 0805 0.125W	1
105K	RES 0805	R5	RESC3413X04N	RES 0805 0.125W	1
13.3K	RES 0805	R6	RESC3413X04N	RES 0805 0.125W	1
10K	RES 1206	R8	RESC4817X04N	RES 1206 0.25W	1
10K	Resistor	R9, R10, R11	0805	Res	3
22R	Resistor	R12	0805	Res	1
0	Resistor	R_CS_mSD1, R_PWM1, R_PWM2, R_PWM3, R_PWM4	0805	Res	5
Switch PB	Push Button Switch	S1	SW-PB	Switch PB	1
TPS54202HDDCR	4.5V to 28V Input, 2A Output, Synchronous Step-Down Voltage Converter 6-SOT-23- THIN -40 to 125	U1	SOT95P280X110-6N	TPS54202HDDCR	1
AMS1117	x.x Volt, 800mA Low- Dropout Linear Regulator, 4-pin SOT- 223	U2	SOT223_M	AMS1117-x.x	1
STM32H750VBT6	ARM® Cortex®-M7 STM32H7 Microcontroller IC 32- Bit Single-Core 480MHz 128KB (128K x 8) FLASH 100-LQFP (14x14)	U3	QFP50P1600X1600X16 0-100N	STM32H750VBT6	1
7D270K	VARISTORS	VR1	07D XXX	VARISTOR (VDR)	1
24Mhz	Crystal Oscillator	Y1	Crystal	XTAL	1
ABS25-32.768KHZ-T	Crystal	Y2	MY_CRYSTAL_SMD 6 X 3.3	CRYSTAL_SMD-6X3.3	1