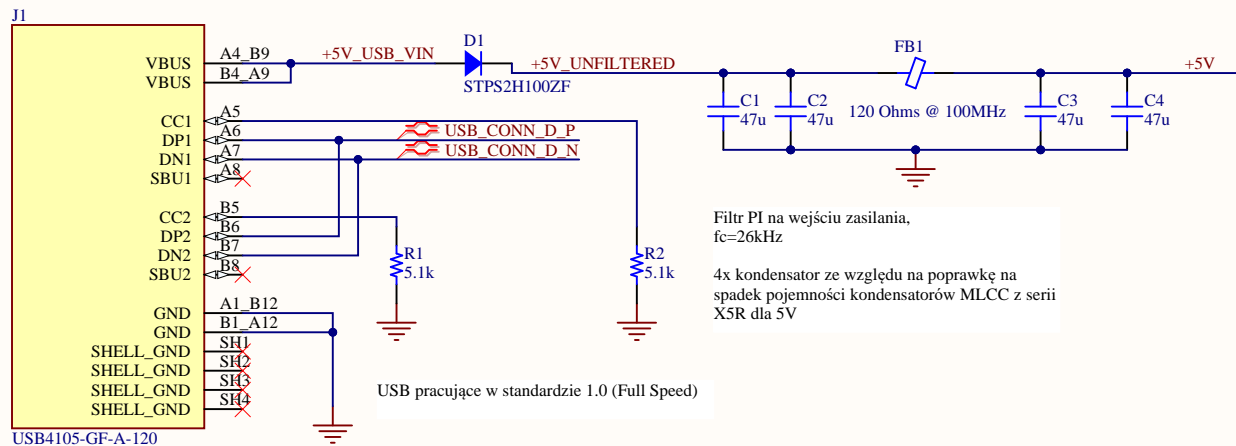
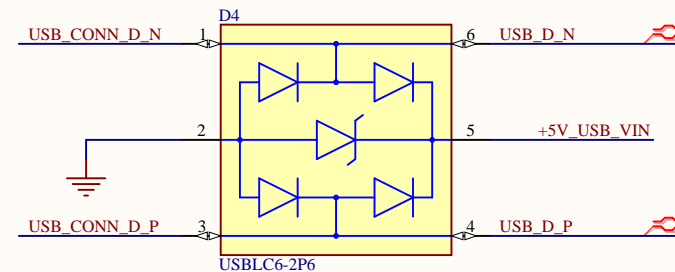


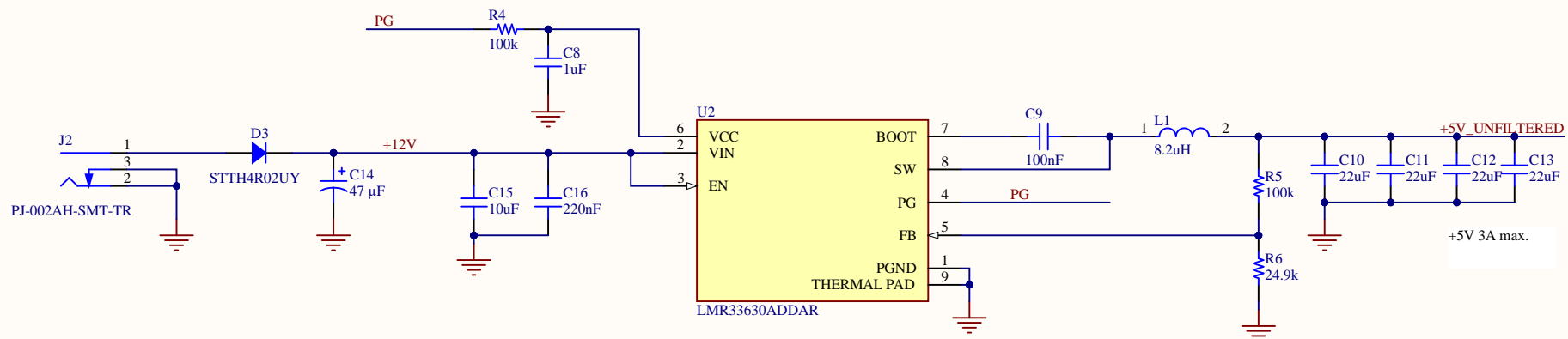
Konektor USB-C



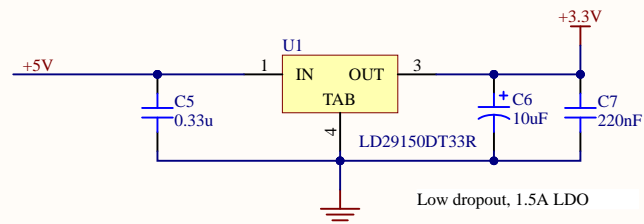
Zabezpieczenie ESD na linii USB



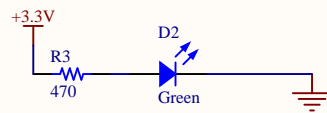
Przetwornica +12V -> +5V



Stabilizator liniowy +5V -> +3.3V



Dioda LED zasilania

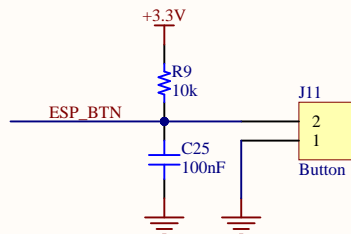


Title Układy zasilania i konektor USB		
Size A4	Number	Revision v1.0.0
Date:	4/14/2025	Sheet of
File:	D:\PIAR_Mainboard\ConnectionsAndPowerOnSdBy:	

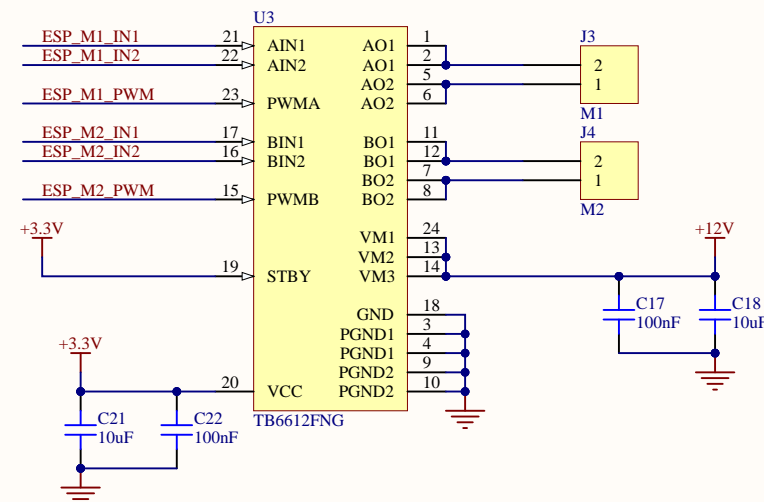
Diody LED



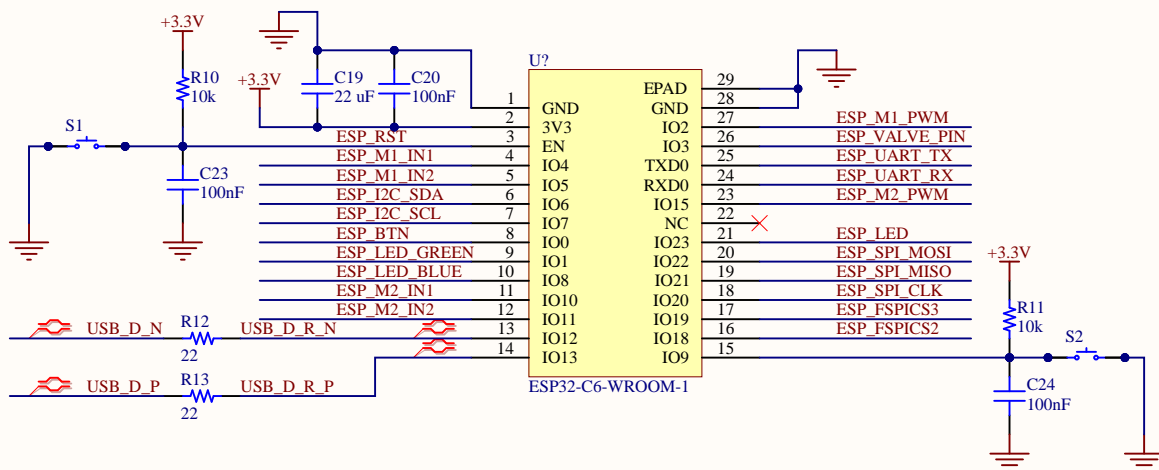
Zewnętrzny przycisk



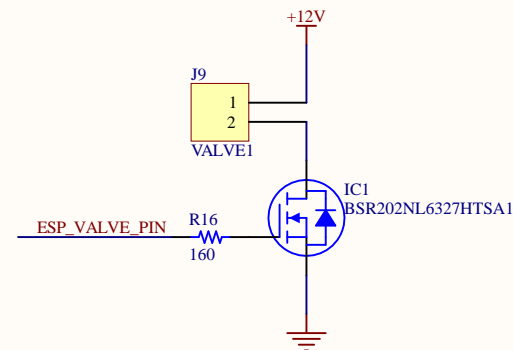
Mostek H



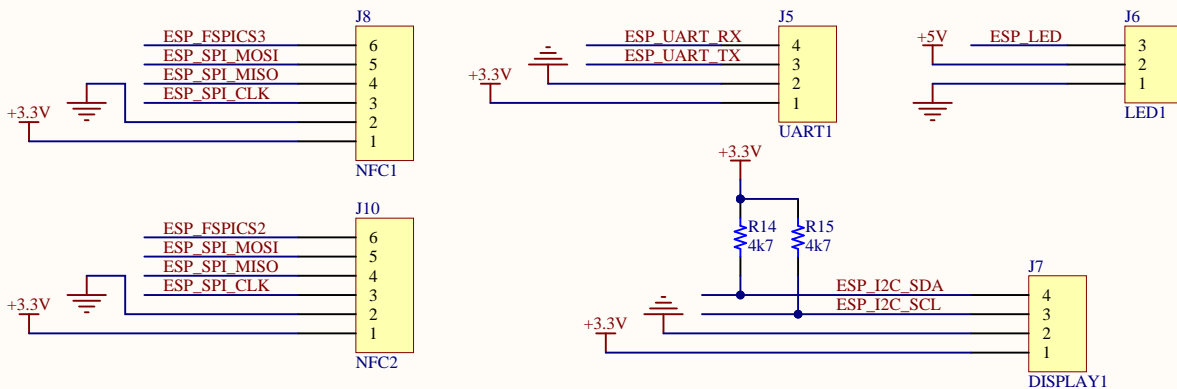
MCU - ESP32-C6



Interfejs elektrozaworu



Interfejsy zewnętrzne



Title		
Mikrokontroler, interfejsy zewnętrzne		
Size	Number	Revision
A4		v1.0.0
Date:	4/14/2025	Sheet of
File:	D:\PIAR_Mainboard\Motherboard.SchDoc	
Drawn By:		

Comment	Description	Designator	Footprint	LibRef	Quantity
47 µF	CAP CER 47UF 6.3V XSR0805	C1, C2, C3, C4	CAP0805_2012	CL21A476MQNNNNE	4
0.33µF	CAP CER 0.33UF 50V X7R0805	C5	CAP0805_2012	0805C334JAT2A	1
10uF	CAP ALUM POLY 10UF 20% 10V SMD	C6	CAP ALSMD POLY 4.3MM/H5.5MM	10SMP10M	1
0.22 µF	CAP CER 0805 220NF 100V X7R5%	C7, C16	CAP0805_2012	C0805C224J1REC7800	2
1µF	CAP CER 1UF 50V X7R0805	C8	CAP0805_2012	0805C105K4Z2A	1
0.1 µF	CAP CER 0.1UF 50V X7R0805	C9, C17, C20, C22, C23, C24, C25	CAP0805_2012	C0805MR07R9BB104	7
22 µF	CAP CER 22UF 16V XSR0805	C10, C11, C12, C13, C19	CAP0805_2012	CL21A228K00NNNNE CL21A228K00NNNG	5
47 µF	CAP ALUM 47UF 20% 6.3V SMD	C14	CAP ALSMD 4.3MM H5.4MM	BM/A6R3ADA470MD55G	1
10 µF	CAP CER 10UF 16V XES0805	C15, C18, C21	CAP0805_2012	C20126S1C10K125A/C	3
STPS2H1002F	DIODE SCHOTTKY 100V/2A SOD123F	D1	SOD123F	STPS2H1002F	1
Green	LED GREEN CLEAR CHIP SMD	D2, D5	LED0805_2012 GREEN	APHOM201203QK-F01	2
STTH4R02UY	DIODE GEN PURP 200V 4A SMD	D3	DO214AA SMD	STTH4R02UY	1
USBL05-2P6	TVS DIODE 5.25V 17V SOT666	D4	FP-SOT-666-MFG	OMP-12225-000058-1	1
Blue	LED BLUE CLEAR 2012 SMD	D6	LED0805_2012 BLUE	SMJMN2BCT186C	1
120 Ohms @ 100MHz	EMI BEAD FILTER	FB1	FER0805_2012	BBUP00201209121Y00	1
BSR202NL6327-HTSA1	MOSFET N-CH 20V 3.8A S059	IC1	INFINEON SOT-23-3	BSR202NL6327-HTSA1	1
USB4105-GF-A-120	USB Csocket; SMT; PIN: 16; top board mount; 5A	J1	USB4105-GF-A-120	USB4105-GF-A-120	1
PJ-0024H-SMT-TR	CONN PWR JACK 2X5.9MM SOLDER	J2	CUI PJ-0024H-SMT-TR	PJ-0024H-SMT-TR	1
M1	CONN HEADER VERT 2POS 2.54MM	J3	MOLEX KK 0022272021	0022272021	1
M2	CONN HEADER VERT 2POS 2.54MM	J4	MOLEX KK 0022272021	0022272021	1
UART1	CONN HEADER VERT 4POS 2.54MM	J5	MOLEX KK 0022272041	0022272041	1
LED1	CONN HEADER VERT 3POS 2.54MM	J6	MOLEX KK 0022272031	0022272031	1
DISPLAY1	CONN HEADER VERT 4POS 2.54MM	J7	MOLEX KK 0022272041	0022272041	1
NFC1	CONN HEADER VERT 6POS 2.54MM	J8	MOLEX KK 0022272061	0022272061	1
VALVE1	CONN HEADER VERT 2POS 2.54MM	J9	MOLEX KK 0022272021	0022272021	1
NFC2	CONN HEADER VERT 6POS 2.54MM	J10	MOLEX KK 0022272061	0022272061	1
Button	CONN HEADER VERT 2POS 2.54MM	J11	MOLEX KK 0022272021	0022272021	1
8.2uH	Commercial Inductors, High Saturation Series 8.2uH 4A 68mΩ 20%	L1	FP-IHL-P-2525CZ- FP_2_413x3-MFG	OMP-02424-0000573-1	1
M3 Mounting Hole		MH1, MH2, MH3	M3_MOUNTING_HOLE	M3 Mounting Hole	3
5.1k	RES SMD 5.1K OHM 0.5% 1/8W 0805	R1, R2	RES0805_2012	ERA-6AED512V	2
470	RES 470 OHM 1% 1/3W 0805	R3, R7	RES0805_2012	CRGP0805F470R	2
100k	RES SMD 100K OHM 0.1% 1/10W 0805	R4, R5	RES0805_2012	OPF0805B100KE	2
24.9k	RES SMD 24.9K OHM 0.5% 1/4W 0805	R6	RES0805_2012	RNCF0805DTE24K9	1
47	RES 47 OHM 1% 1/3W 0805	R8	RES0805_2012	CRGP0805F47R	1
10k	RES 10K OHM 0.1% 1/10W 0805	R9, R10, R11	RES0805_2012	RNCS0805BKE10KD	3
22	RES SMD 22 OHM 0.1% 1/10W 0805	R12, R13	RES0805_2012	OPF0805E22RE1	2
4k7	RES SMD 4.7K OHM 5% 1/2W 0805	R14, R15	RES0805_2012	RC308054K70UN6A	2
160	RES SMD 160 OHM 0.1% 1/8W 0805	R16	YAGEO RES0805_2012	RT0805BRD07160RL	1
FSM6J5MASTR	SWITCH TACTILE SPST-NO 0.05A 24V	S1, S2	TEFSM6J5MA	FSM6J5MASTR	2
LD29150D733R	1.5A Very-Low Drop Voltage Regulator, 3.3V, 3-Pin DPAK	U1	TO-252_L	OMP-02444-00130-1	1
LMF33630ADDAIR	IC REG BUCK ADJUSTABLE 3A 8SOPWR	U2	FP-DDA0008JHPC_B	OMP-04918-000184-1	1
TB6612FNG	Driver IC for Dual DC Motor, 15V, -20 to 85 degC, 24-Pin SSOP, RoHS, Tape and Reel	U3	TOSH-SSOP-24_M	OMP-1773-00001-1	1
ESP32-C6-WROOM-1		U4	ESP32-C6-WROOM1	ESP32-C6-WROOM-1	1