

Bill of Materials

Bill of Materials for Project [Acquisition-System.PrjPcb]

File name:	Acquisition-System.PrjPcb
Project:	Acquisition-System
Variant:	V1.0
Creation Date:	22.01.2024
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Designator	Component Description	Component Value	Footprint	JLC-Parts	Farnell	Mouser	Digkey	Quantity	Unit Price	Total Price
BAT1	Battery Holder (CR2032)	1060TR	SMD Battery-Holder (1060TR)	C964756	2533470	534-1060TR	36-1060CT-ND	1	Sfr. 0.25	Sfr. 0.25
C1A, C1B, C1C, C1D, C2A, C2B, C2C, C2D, C3A, C3B, C3C, C3D, C4A, C4B, C4C, C4D, C5A, C5B, C5C, C5D, C6A, C6B, C6C, C6D, C7A, C7B, C7C, C7D, C8A, C8B, C8C, C8D, C9A, C9B, C9C, C9D, C10A, C10B, C10C, C10D, C13, C15, C16, C19, C21, C23, C30, C31, C38, C39, C44	Multilayer Ceramic Capacitors MLCC	100nF 50V	SMD Keramikkondensator 0603	C14663	2210822	810-CGA2B3X7R1H104K	445-6899-1-ND	51	Sfr. 0.01	Sfr. 0.51
C11, C12, C14, C20, C22, C26, C27, C28, C29	Multilayer Ceramic Capacitors	4.7uF 16V	SMD Keramikkondensator 0603	C19666	3013397	187-CL10A475K08NNNC	1276-1784-1-ND	9	Sfr. 0.01	Sfr. 0.09
C17, C35, C37	Multilayer Ceramic Capacitors MLCC	10uF 50V	SMD Keramikkondensator 1206	C13585	2113070	963-LMK107BBJ106MALT	587-3258-1-ND	3	Sfr. 0.01	Sfr. 0.03
C18, C25	Multilayer Ceramic Capacitors	2.2uF 16V	SMD Keramikkondensator 0603	C23630	3013392	187-CL10A225K08NNNC	1276-1040-1-ND	2	Sfr. 0.01	Sfr. 0.02
C24	Multilayer Ceramic Capacitors	1nF 50V	SMD Keramikkondensator 0603	C1588	2435473	810-CGA3E2X7R1H102K	445-5659-1-ND	1	Sfr. 0.01	Sfr. 0.01
C32, C33	Multilayer Ceramic Capacitors	470pF 50V	SMD Keramikkondensator 0603	C107092	1414640	399-C0603C471J5G	399-C0603C471J5GAC7867CT-ND	2	Sfr. 0.01	Sfr. 0.02
C34, C36	Tantalum Capacitor	100uF 6.3V	SMD Tantalkondensator 1210 +	C16133	1135048	581-TAJB107K006R	478-1677-1-ND	2	Sfr. 0.08	Sfr. 0.16
C40	Multilayer Ceramic Capacitors	10nF 50V	SMD Keramikkondensator 0603	C57112	2346966	77-VJ0603V103ZXAPBC	445-5662-1-ND	1	Sfr. 0.01	Sfr. 0.01
C41, C42, C43	Multilayer Ceramic Capacitors	1uF 50V	SMD Keramikkondensator 0603	C15849	3013383	187-CL10A105KB8NNNC	1276-1860-1-ND	3	Sfr. 0.01	Sfr. 0.03
C45, C46	Multilayer Ceramic Capacitors	10pF 50V	SMD Keramikkondensator 0603	C1634	1414601	80-C0603C100J5G	399-C0603C100J5GAC7867CT-ND	2	Sfr. 0.01	Sfr. 0.02
K1	MOSFET N-Channel	2N7002	SMD MOSFET SOT-23	C8545	1713823	512-2N7002	2N7002NCT-ND	1	Sfr. 0.02	Sfr. 0.02
L1, L2, L3, L4, L5	Ferrite Bead	G22012D6011TF (5 Ohm @ 100MHz, 700mA)	SMD Ferrite Bead 0603	C307759	3650622	810-MMZ1608D060CTA00	445-MMZ1608D060CTA00CT-ND	5	Sfr. 0.01	Sfr. 0.05
M1, M2, M3, M4	Solderable Standoff Nut	M3 3mm	SMD Solder-Nut (M3 3mm)	C2915308		153-SMT-SO-M3-3ET		4	Sfr. 0.05	Sfr. 0.20
P1A, P1B, P1C, P1D, P2A, P2B, P2C, P2D, P3A, P3B, P3C, P3D, P4A, P4B, P4C, P4D, P5A, P5B, P5C, P5D, P6A, P6B, P6C, P6D, P7A, P7B, P7C, P7D, P8A, P8B, P8C, P8D, P9A, P9B, P9C, P9D, P10A, P10B, P10C, P10D, P11A, P11B, P11C, P11D, P12A, P12B, P12C, P12D, P13A, P13B, P13C, P13D, P14A, P14B, P14C, P14D, P15A, P15B, P15C, P15D, P16A, P16B, P16C, P16D, P18, P19	Smart RGB-LED	XL-0807RGBC-WS2812B	SMD LED WS2812B-0807	C3646929				66	Sfr. 0.07	Sfr. 4.62
P17	General Purpose LED	Green (5mA, 2.4V)	SMD LED 0603	C72043	1465991	645-598-8070-107F	350-2035-1-ND	1	Sfr. 0.34	Sfr. 0.34
Q1	Crystal	32.768kHz	SMD Crystal 3.2x1.5x0.9	C32346		732-532.7680KA-A5	SER4103CT-ND	1	Sfr. 0.18	Sfr. 0.18
R1, R2	Thick Film Chip Resistor	47k (75V, 100mW, 1%)	SMD Keramikkondensator 0603	C25819	2303213	667-ERJ-3EKF4702V	P47.0KHCT-ND	2	Sfr. 0.01	Sfr. 0.02
R3A, R3B, R3C, R3D, R4A, R4B, R4C, R4D	Thick Film Chip Resistor	10 (75V, 100mW, 1%)	SMD Widerstand 0603	C22859	2302958	667-ERJ-3EKF10R0V	P10.0HCT-ND	8	Sfr. 0.01	Sfr. 0.08
R5A, R5B, R5C, R5D, R13	Isolated Resistor Array	10k (4x, 50V, 62.5mW, 5%)	SMD Widerstand Array 4-Fach 0603	C29718	2060167	667-EXB-V8V103J3	Y4103CT-ND	5	Sfr. 0.01	Sfr. 0.05
R6, R7, R8	Thick Film Chip Resistor	22 (75V, 100mW, 1%)	SMD Widerstand 0603	C23345	2302996	667-ERJ-3EKF22R0V	P22.0HCT-ND	3	Sfr. 0.01	Sfr. 0.03
R9, R10, R11, R12, R17, R18, R20, R21	Thick Film Chip Resistor	10k (75V, 100mW, 1%)	SMD Widerstand 0603	C25804	2303192	667-ERJ-3EKF1002V	P10.0KHCT-ND	8	Sfr. 0.01	Sfr. 0.08
R14, R15	Thick Film Chip Resistor	5.1k (75V, 100mW, 1%)	SMD Widerstand 0603	C32186	2059378	667-ERJ-3EKF5101V	P5.10KHCT-ND	2	Sfr. 0.01	Sfr. 0.02
R16	Potentiometer	RK10J11R0A0H (Dual 10k)	SMD Potentiometer (RK10J11R0A0H)	C470796		688-RK10J11R0A0H		1	Sfr. 0.06	Sfr. 0.06
R19	Thick Film Chip Resistor	270 (75V, 100mW, 1%)	SMD Widerstand 0603	C22666	2303096	667-ERJ-3EKF2700V	P270HCT-ND	1	Sfr. 0.60	Sfr. 0.60
S1, S2	Tactile Switch	EVOQ2U02W	SMD Button 6.5x6.0x2.5	C395227	2860932	667-EVO-Q2U02W	P12954SCT-ND	2	Sfr. 0.19	Sfr. 0.39
TP6	Ground-Clip	Ø 2.54mm (Black)	THT Messpunkt Ø2.54mm Schwarz	C238122	2301278	534-5001	36-5001-ND	1	Sfr. 0.36	Sfr. 0.36
U1A, U1B, U1C, U1D	8-Channel PDM to I ² S/TDM Converter	ADAU7118ACPZRL	SMD IC QFN-16	C654437	4033291	584-ADAU7118ACPZRL	505-ADAU7118ACPZRLCT-ND	4	Sfr. 6.20	Sfr. 24.80
U2	Linear Voltage Regulator	MCP1700T-1802E (1.8V, 200mA)	SMD IC SOT-23-3	C150796	1296591	579-MCP1700T1802E/TT	MCP1700T1802ETTCT-ND	1	Sfr. 0.37	Sfr. 0.37
U3	Low-Power Audio Codec with Headphones Driver	WM8904CGEFL	SMD IC QFN-32 (0.4mm)	C323845		238-WM8904CGEFLRV	598-2437-1-ND	1	Sfr. 1.37	Sfr. 1.37
U4	RT1062 LMX ARM® Cortex®-M7 MPU	Teensy 4.1	THT Teensy 4.1			474-DEV-16771	1568-DEV-16771-ND	1	Sfr. 28.70	Sfr. 28.70
U5	Real-Time Clock (RTC) and Calendar	PCF8523T/1,118	SMD IC SOIC-8	C2651516	2400452	771-PCF8523T/1118	568-5306-1-ND	1	Sfr. 1.35	Sfr. 1.35
X1A, X1B, X1C, X1D, X2A, X2B, X2C, X2D, X3A, X3B, X3C, X3D, X4A, X4B, X4C, X4D, X5A, X5B, X5C, X5D, X6A, X6B, X6C, X6D, X7A, X7B, X7C, X7D, X8A, X8B, X8C, X8D	Wire To Board Connector (1x4P 1.0mm)	1.0-4PWB	SMD Connector (SM04B-SRSS-TB)	C2905006	1830839		455-SM04B-SRSS-TBCT-ND	32	Sfr. 0.03	Sfr. 0.96
X9A, X9B, X9C, X9D	Pin Header	8-Pin (2.54mm)	THT Pin-Header 1x8 (NP)					4		Sfr. 0.00
X10	3.5mm Headphone Jack 4-Pin	PJ-328B0-SMT	SMD 3.5mm Jack (PJ-328B0-SMT)	C437035		490-SJ-43514-SMT-TR	CP-43514SJCT-ND	1	Sfr. 0.23	Sfr. 0.23
X11	USB Connector Type-C	USB4105-GF-A	SMD USB-C Socket (A40-00119)	C167321	3583366		2073-USB4105-GF-ACT-ND	1	Sfr. 0.34	Sfr. 0.34
X12	RJ45 Connector with Magnetics and LEDs	J1B1211CCD	THT RJ45 Socket (J1B1211CCD)	C910371		950-J1B1211CCD	1278-1052-ND	1	Sfr. 1.85	Sfr. 1.85
X13	FPC-Connector (14-Pin, Front Flip, Bottom Contact)	FFC2B35-14-T	SMD Display 1.54" (STP0154F-240240)	C262663	3933420	640-FFC2B35-14-T	2073-FFC2B35-14-TDKR-ND	1	Sfr. 0.09	Sfr. 0.09