

Item #	*Ref Des	*Qty	*Manufacturer	*Mfg Part #	LCSC Part number	Description / Value	*Package	Type	Your Instructions / Notes	Price/Unit [USD]	
1	U1, U4, U5, U6, U9, U11, U12, U13	8	Texas Instruments	OPA27GP	C1346270	POIP-8 Precision OpAmps ROHS	PDP-8	Through-hole		5.7575	46.06
2	U8, U10	2	Analog Devices	LT1037ACN#PBF	C661998	POIP-8 Low Noise Amplifiers (LNA) - RF ROHS	PDP-8	Through-hole		4.8625	9.765
3	U8, U15	2	Analog Devices	LT3092EST#TRPBF	C580042	SOT-223 Battery Management ICs ROHS	SOT-223	SMD		17.7466	35.4932
4	U2	1	Texas Instruments	LM2940T-12.0/NOPB	C2872373	TO-220-3 Linear Voltage Regulators (LDO) ROHS	TO-220-3	Through-hole		1.2075	1.2075
5	U16	1	RENESAS	ICL7660AIBA2A-T	C7881	SOIC-8 150mV DC-DC Converters ROHS	SOIC-8 150mil	SMD		0.8655	0.8655
6	U17	1	ROHM Semiconductor	BD03FA1FP3-ZTL	C525661	SOT89-3K Linear Voltage Regulators (LDO) ROHS	SOT89-3K	SMD		0.49	0.49
7	U19	1	ROHM Semiconductor	BD05FA1FP3-ZTL	not available in LCSC database	SOT89-3K Linear Voltage Regulators (LDO) ROHS	SMD		DigiKey link: <a href="https://www.digikey.it/products/detail/rohm-semiconductor/BD05FA1FP3-ZTL/78954407a?n=4qTCBcDaIEBCaGAYgQChaoAGYBaALw8cAHEAXDF8g">https://www.digikey.it/products/detail/rohm-semiconductor/BD05FA1FP3-ZTL/78954407a?n=4qTCBcDaIEBCaGAYgQChaoAGYBaALw8cAHEAXDF8g</a>	0.44	0.44
8	U7, U14	2	Analog Devices	AD7367BRUJ-5	C650859	TSSOP-24 Analog To Digital Converters (ADCs) ROHS	TSSOP-24	SMD		9.7237	19.4474
9	U18	1	Qimex Ltd.	HC-08	not available in LCSC database	Bluetooth Module - HQ 15.1 BLUETOOTH SERIAL -HC 08	27 mm * 13 mm * 2mm (LxWxH)	SMD	Mouser link: <a href="https://www.mouser.it/ProductDetail/QimexLtd/BLUETOOTH-SERIAL-HC-08?qs=IMCYG%252Bw4%252BzshQkQvDkAYw%3D%3D">https://www.mouser.it/ProductDetail/QimexLtd/BLUETOOTH-SERIAL-HC-08?qs=IMCYG%252Bw4%252BzshQkQvDkAYw%3D%3D</a>	Unavailable	0
10	U20	1	FAIRCHILD SEMICONDUCTOR	LM393N	C3658599	PDP-8 Comparators ROHS	PDP-8	Through-hole		0.3415	0.3415
11	MCU	2	HCITL	PM254-1-20-Z-8.5	C2897383	2.54mm 3A-40°C→105°C Straight 1x20P 8.5mm Top 20 1 Square Holes Straight P=2.54mm Female Headers ROHS	Straight P=2.54mm	Through-hole	Place the two header rows accordingly to the footprint of "MCU" in the layout	0.2768	0.5536
12	SD_CARD_READER	1	BOOMELE(Boom Precision Elec)	C37208	C37208	2.54mm Straight 1x6P 6 1 Straight P=2.54mm Female Headers ROHS	Straight P=2.54mm	Through-hole	Place the header row accordingly to the footprint of "SD_CARD_READER" in the layout	0.0275	0.0275
13	R44, R45, R43, R42	4	YAGEO	PA1208F7W0R001L	C914636	500mW ±100ppm/°C ±1% 1mΩ 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.1231	0.1231
14	R29, R11	2	Viking Tech	ARG06DTC2700	C2628905	250mW Thin Film Resistor 20V ±25ppm/°C ±0.1% -55°C→+155°C 270Ω 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.1231	0.2462
15	R30, R12	2	UNI-ROYAL(Uniroyal Elec)	TQ0625B1203TSJ	C2980117	250mW ±0.1% 120kΩ 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.0527	0.1044
16	R21, R25, R3, R7, R36, R35, R40, R41, R30, R38	10	Viking Tech	AR06BTCV1002	C319646	250mW Thin Film Resistor 150V ±25ppm/°C ±0.1% -55°C→+155°C 10kΩ 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.0678	0.678
17	R20, R32	2	KOA Speer Elec	RS73F28TTD5604D	C4207500	333.333mW Thick Film Resistor ±0.5% ±25ppm/°C -55°C→+155°C 5.6MΩ 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.1149	0.2298
18	R50, R46	2	Vishay Intertech	TNPW120639KBEEN	C3941905	250mW Thin Film Resistor ±25ppm/°C ±0.1% 200kΩ -55°C→+155°C 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.6941	1.3682
19	R19, R15	2	Resistor_Today	PTRF1206B75K0P9	C351455	250mW Thin Film Resistor 200V ±25ppm/°C ±0.1% -55°C→+125°C 75kΩ 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.2264	0.4528
20	R51, R47	2	UNI-ROYAL(Uniroyal Elec)	TQ0625B2403TSJ	C2980468	250mW ±0.1% 240kΩ 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.0527	0.1054
21	R17, R14	2	Resistor_Today	PTRF1206B75K0P9	C351453	250mW Thin Film Resistor 200V ±25ppm/°C ±0.1% -55°C→+125°C 75kΩ 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.2232	0.4464
22	R52, R48	2	Viking Tech	AR06BTCV1502	C319850	125mW Thin Film Resistor 150V ±25ppm/°C ±0.1% -55°C→+155°C 15kΩ 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.0609	0.1218
23	R18, R14	2	PANASONIC	EBA-8APB303V	C3955872	250mW Thin Film Resistor ±0.1% ±15ppm/°C -55°C→+125°C 30kΩ 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.4114	0.823
24	R53, R49	2	YAGEO	RT1206BR0071K1	C706465	250mW Thin Film Resistor 200V ±25ppm/°C ±0.1% -55°C→+155°C 1kΩ 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.0501	0.1002
25	R28, R10	2	Viking Tech	AR06BTCV1202	C319696	125mW Thin Film Resistor 150V ±25ppm/°C ±0.1% -55°C→+155°C 12kΩ 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.0591	0.1162
26	R27, R9	2	Resistor_Today	PTRF1206B75K0P9	C351451	250mW Thin Film Resistor 200V ±25ppm/°C ±0.1% -55°C→+125°C 7.5kΩ 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.2143	0.4286
27	R54	1	KOA Speer Elec	RN73R28TTD8200R05	C4111797	250mW Thin Film Resistor ±0.1% ±5ppm/°C -55°C→+155°C 820Ω 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.5769	0.576
28	R55	1	Resistor_Today	PTRF1206B1K50P9	C351482	250mW Thin Film Resistor 200V ±25ppm/°C ±0.1% -55°C→+125°C 1.5kΩ 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.2293	0.2293
29	R26, R8	2	PANASONIC	EBA-8ARB432V	C4050013	250mW Thin Film Resistor ±0.1% ±10ppm/°C -55°C→+125°C 4.3kΩ 1206 Chip Resistor - Surface Mount ROHS	1206	SMD		0.0896	0.0896
30	R16, R31, R22, R23, R24, R33, R1, R13, R4, R5, R6, R34	12	BOCHEN(Chengdu Guosheng Tech)	3362P-1-103	C118956	THERMISTOR 10K OHM 0.5W PC PIN TGP	Plugin	Through-hole		0.1116	1.3392
31	C44, C45, C2, C8, C9, C53, C11, C10, C15, C13, C24, C25, C31, C30, C56, C27, C26, C32, C29, C54, C55	21	Samsung Electro-Mechanics	CL 10A226MO7J2NC	C2762594	16V 22uF ±20% 0603 Multilayer Ceramic Capacitors MLCC - SMD/SMT ROHS	0603	SMD		0.0724	1.5204
32	C47, C46, C5, C48	4	YAGEO	CC1206KK7878B105	C527272	16V 1uF X7R ±5% 1206 Multilayer Ceramic Capacitors MLCC - SMD/SMT ROHS	1206	SMD		0.0619	0.2476
33	C7, C4	2	Knowles	1206J0250101FFR	C2423653	25V 100pF ±1% 1206 Multilayer Ceramic Capacitors MLCC - SMD/SMT ROHS	1206	SMD		0.848	1.696
34	C6, C3	2	Vishay Intertech	VJ1206A470FXCAR	C2311527	200V 47pF C0G ±1% 1206 Multilayer Ceramic Capacitors MLCC - SMD/SMT ROHS	1206	SMD		0.2326	0.4652
35	C1	1	YAGEO	CC0603FRNP09BNH71	C519564	50V 470pF NP0 ±1% 0603 Multilayer Ceramic Capacitors MLCC - SMD/SMT ROHS	0603	SMD		0.0129	0.0129
36	C14, C16, C21, C18, C19, C20, C40, C37, C38, C39	10	KEMET	T491B106M016AT	C118754	10uF 16V -55°C→+125°C 20% 100kHz ±20% CASE-B 3528 Tantalum Capacitors ROHS	CASE-B 3528	SMD		0.1259	1.259
37	C51, C50, C42, C43, C49, C36, C35, C23, C33, C34	10	KEMET	T491A104K050AT	C2798032	100uF 50V 200 -55°C→+125°C ±10% CASE-A 3216 Tantalum Capacitors ROHS	CASE-A 3216	SMD		0.2323	2.323
38	C17, C22, C41, C52	4	KEMET	T491A684K025AT	C805502	680uF 25V -55°C→+125°C 100kHz ±10% CASE-A 3216 Tantalum Capacitors ROHS	CASE-A 3216	SMD		0.1477	0.5908
39	D11, D10, D4, D3	4	ROHM Semiconductor	CD2FHT2BA12B	not available in LCSC database	Zener Diodes 11.7V-12.24V 100mW SOD-923 5mA	SOD-923-3	SMD	Mouser link: <a href="https://www.mouser.it/ProductDetail/ROHM-Semiconductor/CD2FHT2BA12B?qs=4v%252BZTmkVHFr%252B%252BwPRAS%3D%3D">https://www.mouser.it/ProductDetail/ROHM-Semiconductor/CD2FHT2BA12B?qs=4v%252BZTmkVHFr%252B%252BwPRAS%3D%3D</a>	0.36	1.52
40	D2, D1	2	ROHM Semiconductor	CD2FHT2RA27B	not available in LCSC database	Zener Diodes 26, 19-27.53V 100mW SOD-923 2mA	SOD-923-2	SMD	Mouser link: <a href="https://www.mouser.it/ProductDetail/ROHM-Semiconductor/CD2FHT2RA27B?qs=4v%252BZTmkVHFr%252B%252BwPRAS%3D%3D">https://www.mouser.it/ProductDetail/ROHM-Semiconductor/CD2FHT2RA27B?qs=4v%252BZTmkVHFr%252B%252BwPRAS%3D%3D</a>	0.36	0.76
41	D6, D4	2	onsemi	SZVZ95V0T5Q	not available in LCSC database	Zener Diodes SOD-923 RUT 50V LPS PBF	SOD-923-2	SMD	Mouser link: <a href="https://www.mouser.it/ProductDetail/onsemi/SZVZ95V0T5Q?qs=4v%252BZTmkVHFr%252B%252BwPRAS%3D%3D">https://www.mouser.it/ProductDetail/onsemi/SZVZ95V0T5Q?qs=4v%252BZTmkVHFr%252B%252BwPRAS%3D%3D</a>	0.53	1.06
42	D12	1	onsemi	1N914	C125665	75V -55°C→+175°C(TJ) 500mW 1V@10mA 4mA 5uA@75V 75mA DO-35 Switching Diode ROHS	DO-35	Through-hole		0.0116	0.0116
43	D9, D7	2	Yongyu Photoelectric	SZY11206R	C434438	20mA 645nm Colorless transparency -40°C→+85°C 615nm-630nm Red 120° 40mW 1206 Light Emitting Diodes (LED) ROHS	LED-1206	SMD		0.0113	0.0226
44	D8	1	Yongyu Photoelectric	SZY11206B	C434440	5mA 645nm Colorless transparency -40°C→+85°C 600nm-475nm blue 120° 100mW 1206 Light Emitting Diodes (LED) ROHS	LED-1206	SMD		0.0154	0.0154
45	GAIN_VGA1_600, GAIN_VGA1_100, GAIN_VGA1_10, GAIN_VGA1_5, GAIN_VGA1_1, GAIN_VGA2_600, GAIN_VGA2_100, GAIN_VGA2_10, GAIN_VGA2_5, GAIN_VGA2_1, J15, J16, J2, J3, J20, J19, J6, J7, J17, J18, J21, J22, TRIGGER SIGNAL	23	ZHOURI	2.54-1*2	C5116481	Straight P=2.54mm Pin Headers ROHS	Straight P=2.54mm	Through-hole		0	0.4715
46	+15V_POWER_SUPPLY, +20V_POWER_SUPPLY	2	JST Sales America	B2B-XHA(LF)(SN)	C158012	1x2P XH 1.25mm 2 Rows Straight P=2.5mm Wire To Board / Wire To Wire Connector ROHS	Straight P=2.5mm	Through-hole		0.0346	0.0692
47	CONN_1_1, CONN_1_2, CONN_2_1, CONN_2_2	4	doshconn	DOBIN-801-0031	C521205	BNC Board Edge Bend 3GHz -55°C→+135°C 750 Plugin RF Connectors / Coaxial Connectors ROHS	Plugin	Through-hole		1.1710	4.684
48	START_STOP_MENU_UP_DOWN	5	HOOYA	PB-22E66-S-E	C2939295	6mm*6mm Push Switches ROHS	6mm*6mm	Through-hole		0.1910	0.955
49	SERIAL_CONNECTOR	1	XFCN	PZ254V-11-04P	C2691448	250V 3A Straight Square Pins 2.5mm 6mm -40°C→+105°C 1.4 3mm 2.54mm Black 1x4P Straight P=2.54mm Pin Headers ROHS	Straight P=2.54mm	Through-hole		0.0185	0.0185