

Designator	Quantity	Assembly	Package	Comment	Description	Manufacturer	Manufacturer Part Number	HelpURL	ting	Teating	Te	Supplier	Supplier Part Number	Price @ 1 pcs	Price @ 10 pcs	Price @ 100 pcs	Price @ 1000 pcs	Last Update	Total cost for 1 PCB	Total cost for 10 PCB	Total cost for 100 PCB	Total cost for 1000 PCB
ANT1	1			2450AT18A0100001E	2.4GHz Chip RF Antenna 2.4GHz ~ 2.5GHz 0.5dBi Solder Surface Mount	Johanson Technology Inc.	2450AT18A0100001E	/johanson-	-40°C	+125°C		DigiKey	712-2450AT18A0100001ECT-ND	0.55000€	0.48500€	0.37170€	0.23502€	2024.03.06	0.55 €	4.85 €	37.17 €	235.02 €
BAT1	1			BU2032SM-BT-GTR	Battery Holder (Open) Coin, 20.0mm 1 Cell SMD (SMT) Tab	MPD (Memory Protection Devices)	BU2032SM-BT-GTR	d-memory	-40°C	+280°C		DigiKey	BU2032SM-BT-GCT-ND	1.57000€	1.32300€	1.09600€	0.94604€	2024.02.15	1.57 €	13.23 €	109.60 €	946.04 €
BTN1, BTN2	2			PTS810 SJK 250 SMTR LFS	Tactile Switch SPST-NO Top Actuated Surface Mount	C&K	PTS810 SJK 250 SMTR LFS	/detail/-	-40°C	+85°C		DigiKey	CKN10503CT-ND	0.31000€	0.29700€	0.24280€	0.18445€	2024.02.09	0.62 €	5.94 €	48.56 €	368.90 €
C1, C2, C3, C4, C5, C11, C19, C22, C24, C26, C28, C30, C31	13		0603	1u	1 µF ±10% 6.3V Ceramic Capacitor X5R 0603 (1608 Metric)	YAGEO	CC0603KRX5R5BB105	s/detail/-	-55°C	+85°C		DigiKey	311-1447-1-ND	0.09000€	0.06100€	0.02890€	0.01765€	2024.02.06	0.79 €	3.76 €	22.95 €	229.45 €
C12, C17, C18, C21	4		0603	0.1u	0.1 µF ±10% 10V Ceramic Capacitor X7R 0603 (1608 Metric)	YAGEO	CC0603KRX7R6BB104	s/detail/-	-55°C	+125°C		DigiKey	311-4055-1-ND	0.09000€	0.06100€	0.02870€	0.01753€	2024.02.07	0.36 €	2.44 €	11.48 €	70.12 €
C13, C14, C15, C16	4		0603	12p	12 pF ±5% 50V Ceramic Capacitor COG, NP0 0603 (1608 Metric)	YAGEO	CC0603JPNP09BN120	s/detail/-	-55°C	+125°C		DigiKey	13-CC0603JPNP09BN120CT-ND	0.09000€	0.04500€	0.01980€	0.01170€	2024.02.07	0.36 €	1.80 €	7.92 €	46.80 €
C32, C33, C34	3		0603	10u	10 µF ±20% 6.3V Ceramic Capacitor X5R 0603 (1608 Metric)	YAGEO	CC0603MRX5R5BB106	s/detail/-	-55°C	+85°C		DigiKey	311-1448-1-ND	0.20000€	0.13500€	0.07660€	0.04981€	2024.02.27	0.60 €	4.05 €	22.98 €	149.43 €
C35, C36	2		0603	1.0p	1 pF ±0.1pF 250V Ceramic Capacitor COG, NP0 0603 (1608 Metric)	Johanson Technology Inc.	QSCP251Q1R0B1GV001T	johanson-	-55°C	+125°C		DigiKey	712-QSCP251Q1R0B1GV001TCT-ND	0.20000€	0.13500€	0.07590€	0.04936€	2024.03.06	0.40 €	2.70 €	15.18 €	98.72 €
C37	1		0603	1.2p	1.2 pF ±0.1pF 250V Ceramic Capacitor COG, NP0 0603 (1608 Metric)	Johanson Technology Inc.	QSCP251Q1R2B1GV001T	johanson-	-55°C	+125°C		DigiKey	712-QSCP251Q1R2B1GV001TCT-ND	0.20000€	0.13400€	0.07590€	0.04936€	2024.03.06	0.20 €	1.34 €	7.59 €	49.36 €
C38, C39	2	DNP	0603																0.00 €	0.00 €	0.00 €	0.00 €
D1	1		QFN48 6x6mm 0.4mm pitch	nRF52840-QFAA-F	SoC 32bit ARM Cortex-M4F 1M Flash 256K RAM Single Core 64MHz 1.7V to 5.5V 2.4GHz Bluetooth 5.0 Surface Mount 48-Pin QFN	Nordic Semiconductor ASA	nRF52840-QFAA-F	em.com/p-	-40°C	+85°C		DigiKey	4823-NRF52840-QFAA-F-RCT-ND	5.98000€	5.48300€	4.48650€	3.36485€	2024.02.05	5.98 €	54.83 €	448.65 €	3 364.85 €
D2	1		8-WSON (6x5) 1.27mm pitch	MX25R6435FZNILO 64MiB	FLASH - NOR Memory IC 64Mbit SPI - Quad I/O 80 MHz 8-WSON (6x5)	Macronix	MX25R6435FZNILO	s/detail/-	-40°C	+85°C		DigiKey	1092-1201-ND	1.72000€	1.56700€	1.35513€	1.33081€	2024.02.08	1.72 €	15.67 €	135.51 €	1 330.81 €
D3	1		8-LGA (2.5x2.5)	BME280	Humidity, Pressure, Temperature 0 ~ 100% RH I2C, SPI ±3% 1 s Surface Mount	Bosch Sensortec	BME280	ts/detail	-40°C	+85°C		DigiKey	828-1063-1-ND	5.87000€	4.40400€	3.62050€	2.83773€	2024.02.13	5.87 €	44.04 €	362.05 €	2 837.73 €
D4	1		SOT23-5	MAX40200AUK+T	OR Controller Source Selector Switch P-Channel 11 SOT-23-5	Analog Devices Inc./Maxim Integrated	MAX40200AUK+T	pg-device	-40°C	+125°C		DigiKey	MAX40200AUK+TCT-ND	0.93000€	0.76500€	0.59560€	0.41122€	2024.02.27	0.93 €	7.65 €	59.56 €	411.22 €
D5	1		10-WDFN (2.5x2.5)	RT6150B-33GQW	Buck-Boost Switching Regulator IC Positive Fixed 3.3V 1 Output 800mA 10-WDFN Exposed Pad	Richtek USA Inc.	RT6150B-33GQW	50B-33GQ	-40°C	+85°C		DigiKey	RT6150B-33GQWCT-ND	1.80000€	1.61400€	1.29720€	1.06576€	2024.02.27	1.80 €	16.14 €	129.72 €	1 065.76 €
L1	1		0603	10uH	10 µH Shielded Multilayer Inductor 250 mA 1.05Ohm 0603 (1608 Metric)	TDK Corporation	MLZ1608M100WTD25	tail/tdk-	-55°C	+125°C		DigiKey	445-175588-1-ND	0.16000€	0.13600€	0.09630€	0.06609€	2024.02.08	0.16 €	1.36 €	9.63 €	66.09 €
L2	1		2520	2.2uH	2.2 µH Shielded Drum Core, Wirewound Inductor 1.87 A 96mOhm Max Nonstandard	TDK Corporation	VLS252012CX-2R2M-1	tail/tdk-	-40°C	+105°C		DigiKey	445-172983-1-ND	0.35000€	0.29900€	0.22220€	0.15979€	2024.02.27	0.35 €	2.99 €	22.22 €	159.79 €
L3	1		0603	4.7nH	4.7 nH Unshielded Multilayer Inductor 300 mA 300mOhm Max 0603 (1608 Metric)	Johanson Technology Inc.	LRC0603CS4N7GV001T	johanson-	-55°C	+100°C		DigiKey	712-LRC0603CS4N7GV001TCT-ND	0.09000€	0.04300€	0.03060€	0.02098€	2024.03.07	0.09 €	0.43 €	3.06 €	20.98 €
L4	1		0603	2.2nH	2.2 nH Unshielded Multilayer Inductor 300 mA 150mOhm Max 0603 (1608 Metric)	Johanson Technology Inc.	LRC0603CS2N2GV001T	johanson-	-55°C	+100°C		DigiKey	712-LRC0603CS2N2GV001TCT-ND	0.09000€	0.04300€	0.03060€	0.02098€	2024.03.07	0.09 €	0.43 €	3.06 €	20.98 €
L5	1		0603	3.9nH	3.9 nH Unshielded Multilayer Inductor 300 mA 250mOhm Max 0603 (1608 Metric)	Johanson Technology Inc.	LRC0603CS3N9GV001T	johanson-	-55°C	+100°C		DigiKey	712-LRC0603CS3N9GV001TCT-ND	0.09000€	0.04300€	0.03060€	0.02098€	2024.03.07	0.09 €	0.43 €	3.06 €	20.98 €
L6	1		0603	2.7nH	2.7 nH Unshielded Multilayer Inductor 300 mA 200mOhm Max 0603 (1608 Metric)	Johanson Technology Inc.	LRC0603CS2N7GV001T	johanson-	-55°C	+100°C		DigiKey	712-LRC0603CS2N7GV001TCT-ND	0.09000€	0.04300€	0.03060€	0.02098€	2024.03.07	0.09 €	0.43 €	3.06 €	20.98 €
LD1	1		0606	EAST1616RGBA8	Red, Green, Blue (RGB) 624nm Red, 525nm Green, 468nm Blue LED Indication - Discrete 2.05V Red, 3.2V Green, 3.2V Blue 0606 (1616 Metric)	Everlight Electronics Co Ltd	EAST1616RGBA8	everlight	-40°C	+85°C		DigiKey	1080-EAST1616RGBA8CT-ND	0.48000€	0.29500€	0.16980€	0.13293€	2024.02.14	0.48 €	2.95 €	16.98 €	132.93 €
R4, R5, R9, R10	4		0603	4k7	4.7 kOhms ±5% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Moisture Resistant Thick Film	YAGEO	RC0603JR-074K7L	cts/detail	-55°C	+155°C		DigiKey	311-4.7KGRCT-ND	0.09000€	0.01400€	0.00690€	0.00399€	2024.02.09	0.36 €	0.56 €	2.76 €	15.96 €
R11	1		0603	68R	68 Ohms ±1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Moisture Resistant Thick Film	YAGEO	RC0603FR-0768RL	cts/detail	-55°C	+155°C		DigiKey	311-68.0HRCT-ND	0.09000€	0.01700€	0.00850€	0.00486€	2024.02.14	0.09 €	0.17 €	0.85 €	4.86 €
R12, R13	2		0603	5R1	5.1 Ohms ±5% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Moisture Resistant Thick Film	YAGEO	RC0603JR-075R1L	cts/detail	-55°C	+155°C		DigiKey	311-5.1GRCT-ND	0.09000€	0.02400€	0.01250€	0.00743€	2024.02.14	0.18 €	0.48 €	2.50 €	14.86 €
R14, R15, R16	3		0603	10k	10 kOhms ±1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Moisture Resistant Thick Film	YAGEO	RC0603FR-0710KL	cts/detail	-55°C	+155°C		DigiKey	311-10.0KHRCT-ND	0.09000€	0.01700€	0.00850€	0.00486€	2024.02.14	0.27 €	0.51 €	2.55 €	14.58 €
VT1, VT2, VT3	3		SOT-23-3	MMBT3904.-7-F	Bipolar (BJT) Transistor NPN 40 V 200 mA 300MHz 300 mW Surface Mount SOT-23-3	Diodes Incorporated	MMBT3904.-7-F	etail/diod	-55°C	+150°C		DigiKey	MMBT3904-FDICT-ND	0.11000€	0.07900€	0.04270€	0.02326€	2024.02.14	0.33 €	2.37 €	12.81 €	69.78 €
Z01	1		2-smd	32.768KHz	32.768 kHz ±20ppm Crystal 9pF 90 kOhms 2-SMD, No Lead	Jauch Quartz	032768-JTX210-9-20-T1-80K	ch-quart	-40°C	+85°C		DigiKey	1908-1304.-1-ND	0.60000€	0.53100€	0.43850€	0.34618€	2024.02.08	0.60 €	5.31 €	43.85 €	346.18 €
Z02	1		4-smd	32.0000MHz	32 MHz ±20ppm Crystal 8pF 100 Ohms 4-SMD, No Lead	Murata Electronics	XRCGB32M000F2P01R0	l/murata	-30°C	+85°C		DigiKey	490-18340.-1-ND	0.20000€	0.16700€	0.13390€	0.11791€	2024.02.07	0.20 €	1.67 €	13.39 €	117.91 €
Total:																			25.13 €	198.53 €	1 558.70 €	12 231.07 €