

Bom AIM_C8A.xlsx

Quantity	Designator	Description	Value	Footprint	Manufacture	Part #	Distributor	Temperature	Tolerance	Voltage	Notes
1	AX200	RF Printed Antena	2.45GHz	ANT-BLE	Abracon	AMCA31-2R450G-S1F-T	Digi Key 535-12386-1-ND	-40°C ~ 85°C	±4%	NA	2.45GHz / -1dBi / 500mW
2	BATT1, BATT2	Battery AAA		BAT AAA S	Ronda						
3	C100, C103, C104	Capacitor	10uF	0805NT	Samsung Elec	CL21A106KPFNNNE	Digi Key 1276-1052-1-ND	-55°C ~ 85°C	±10%	10v	X5R
2	C101, C106	Capacitor	0.22uF	0402NT	Samsung Elec	CL05A224KP5NNNC	Digi Key 1276-1049-1-ND	-55°C ~ 85°C	±10%	10v	X5R
21	C102, C202, C210, C211, C214, C215, C216, C219, C220, C221, C222, C226, C229, C230, C300, C301, C302, C307, C400, C402, C404	Capacitor	0.1uF	0402NT	Samsung Elec	CL05B104KO5NNNC	Digi Key 1276-1001-1-ND	-55°C ~ 125°C	±10%	16v	X7R
3	C105, C109, C110	Capacitor	47uF	0805NT	Samsung Elec	CL21A476MQCLRNC	Digi Key 1276-2420-1-ND	-55°C ~ 85°C	±20%	6.3v	X5R
1	C107	Capacitor	0.01uF	0402NT	Samsung Elec	CL05B103KO5NNNC	Digi Key 1276-1051-1-ND	-55°C ~ 125°C	±10%	16v	X7R
4	C108, C112, C113, C208	Capacitor	2.2uF	0402NT	Samsung Elec	CL05A225MQ5NNNC	Digi Key 1276-1469-1-ND	-55°C ~ 85°C	±20%	6.3v	X5R
5	C111, C201, C205, C206, C401	Capacitor	1nF	0402NT	Samsung Elec	CL05B102KB5NCNC	Digi Key 1276-1492-1-ND	-55°C ~ 125°C	±10%	50V	X7R
4	C200, C207, C209, C213	Capacitor	12pF	0402NT	Samsung Elec	CL05C120JB5NNNC	Digi Key 1276-1178-1-ND	-55°C ~ 125°C	±5%	50v	NP0
1	C203	Capacitor	0.1uF	0603NT	Samsung Elec	CL10B104KO8NNNC	Digi Key 1276-1005-1-ND	-55°C ~ 125°C	±10%	16v	X7R
2	C204, C212	Capacitor	10uF	0603NT	Samsung Elec	CL10A106MQ8NNNC	Digi Key 1276-1119-1-ND	-55°C ~ 85°C	±20%	6.3v	X5R
2	C217, C218	Capacitor	18pF	0402NT	Samsung Elec	CL05C180JB5NNNC	Digi Key 1276-1140-1-ND	-55°C ~ 125°C	±5%	50v	NP0
1	C223	Capacitor	2.2pF	0402NT	Samsung Elec	CL05C2R2BB5NNNC	Digi Key 1276-1674-1-ND	-55°C ~ 125°C	±0.1pF	50v	NP0
1	C224	Capacitor	1pF	0402NT	Samsung Elec	CL05C010BB5NNNC	Digi Key 1276-1237-1-ND	-55°C ~ 125°C	±0.1pF	50v	NP0
1	C225	Capacitor	1.5pF	0402NT	Samsung Elec	CL05C1R5BB5NNNC	Digi Key 1276-1656-1-ND	-55°C ~ 125°C	±0.1pF	50v	NP0
1	C227	Capacitor	DNP	0402NT	Samsung Elec	CL05B222KB5NNNC	Digi Key 1276-1054-1-ND	-55°C ~ 125°C	±10%	50v	X7R
1	C228	Capacitor	2.2nF	0402NT	Samsung Elec	CL05B222KB5NNNC	Digi Key 1276-1054-1-ND	-55°C ~ 125°C	±10%	50v	X7R
3	C306, C405, C406	Capacitor	120pF	0402NT	Murata	GRM1555C1H121JA01D	Digi Key 490-1292-1-ND	-55°C ~ 125°C	±5%	50v	NP0
6	D1, D2, D3, D4, D5, D6	Diode LED RGB	LED RGB	PLCC-4C	Avago Tech	ASMB-MTB1-0A3A2	Digi Key ASMB-MTB1-0A3A2-ND	-20°C ~ 85°C	N/A	G 3.1v / R 2.1v / B 3.1v	115°° / G 1600mcd, / R 540mcd / B 350
1	D100	Diode Schottky Dual	DB3S308	SC-89	Panasonic	DB3S308F0L	Digi Key DB3S308F0LCT-ND	-55°C ~ 85°C	N/A	30v	0.1A / 420mV @ 100mA
1	D101	Diode Schottky Triple	SD103AT	SOT-363	Diodes Inc	SD103ATW-7-F	Digi Key SD103ATW-FDICT-ND	-55°C ~ 150°C	N/A	40v	175mA / 500mV @ 100mA
1	IC100	IC Battery Charger	AAT3693	TDFN-10	Skyworks	AAT3693IDH-AA-T1	Digi Key 863-1512-1-ND	-40°C ~ 85°C	NA	4 V ~ 7.5 V	Li-Ion, Li-Pol
1	IC101	IC Linear Regulator	XC6504A	SOT-23-5	Torex Semi	XC6504A301MR-G	Digi Key 893-1199-1-ND	-40°C ~ 85°C	±1%	1v~6v	3.0v Out / 150mA / QI=1uA
1	IC102	IC SW Regulator	AP3418K	SOT-23-5	Diodes Inc	AP3418KTR-G1	Digi Key AP3418KTR-G1DICT-ND	-40°C ~ 85°C	±2%	2.5 V ~ 5.5 V	1.5A / 1.4MHz
1	IC103	IC Voltage Detector	BU4930	SSOP5	Rohm Semi	BU4930G-TR	Digi Key BU4930GCT-ND	-40°C ~ 125°C	±1%	6v	3.0v Det / 70mA / 1uA
1	IC200	IC Microprocessor / DSP / 16 bits	DSPIC33EP512GM306	TQFP-64	Microchip	DSPIC33EP512GM306-I/PT	Digi Key DSPIC33EP512GM306-I/PT-ND	-40°C ~ 85°C	N/A	3 V ~ 3.6 V	I²C / SPI / UART / 70 MIPS / 32K
1	IC201	Bluetooth v4.0, Low Energy	NRF51822	QFN48	Nordic Semi	NRF51822-QFAA-T	Digi Key 1490-1024-ND	-25°C ~ 75°C		1.8 V ~ 3.6 V	256K Flash / 16K RAM / 16mA
1	IC300	IC Operational Amp	AD8602	MSOP-8	Analog Devices	AD8602ARMZ	Digi Key AD8602ARMZ-ND	-40°C ~ 125°C	N/A	2.7 V ~ 5.5 V	50mA / RRO / 5 V/µs / 100uV
1	IC302	IC Logic Potenciometer	10k	MSOP-8	Microchip	MCP4151-103E/MS	Digi Key MCP4151-103E/MS-ND	-40°C ~ 125°C	±20%	1.8 V ~ 5.5 V	SPI / 2570bit / 150 ppm/°C
1	IC400	IC Operational Amp	AD8604	SSOP-16	Analog Devices	AD8604ARQZ	Digi Key AD8604ARQZ-ND	-40°C ~ 125°C	N/A	2.7 V ~ 5.5 V	50mA / RRIO / 5 V/µs / 100uV
1	J200	Conn 40 pins Molex	Conn 40	CONN XF2W40	Omron	XF2W-4015-1A	Digi Key OR1194CT-ND	-30°C ~ 85°C	N/A	50v	ZIF / P=0.02 / 40pins
16	JC1, JC2, JC3, JC4, JC5, JC6, JC7, JC8, JC9, JC10, JC11, JC12, JC13, JC14, JC15, JC16	Conn Spring	1 Pin	CONN SPRG-B	TE Connectivity	2199248-5	Digi Key A120584CT-ND	-25°C ~ 85°C	NA	100v	Sprig Finger
3	L100, L105, L203	Inductance Bead	Z=1500ohm	0603NT	TDK	MMZ1608Y152BTA00	Digi Key 445-1553-1-ND	-40°C ~ 85°C	N/A	N/A	300mA / 0.6ohm / 1500 Ohm @ 100MHz
1	L102	Inductance Power	2.2uH	IND-NR4018	Taiyo Yuden	NR4018T2R2M	Digi Key 587-1669-1-ND	-25°C ~ 125°C	±20%	NA	1.4A / 72 mOhm
1	L200	Inductance Bead	Z=430ohm	0402NT	Taiyo Yuden	BK1005HS431-T	Digi Key 587-1845-1-ND	-40°C ~ 85°C	N/A	N/A	350mA / 0.45ohm / 430 Ohm @ 100MHz
1	L201	Inductance	3.3nH	0402NT	Murata	LQW15AN3N3C80D	Digi Key 490-7642-1-ND	-55°C ~ 125°C	±0.2nH	NA	Q=30 @ 250MHz
1	L202	Inductance	4.7nH	0402NT	Murata	LQW15AN4N7C00D	Digi Key 490-1139-1-ND	-40°C ~ 125°C	±0.2nH	NA	Q=25 @ 250MHz
1	L204	Inductance	10nH	0402NT	Murata	LQW15AN10NJ00D	Digi Key 490-1146-1-ND	-55°C ~ 125°C	±5%	NA	Q=25 @ 250MHz
1	LCD1	Display LCD 2.4"	LCD 2.4inch		Newhaven Display	NHD-2.4-240320CF-CTXI#-F	Digi Key NHD-2.4-240320CF-CTXI#-F-ND	-20°C ~ 70°C	N/A	2.9 V ~ 3.4 V	240 x 320
1	PCB1	Board 6 Layers			Advance PCB				15%	500v	
2	Q102, Q200	Transistor Mosfet P	DMP2160U	SOT-323	Diodes Inc.	DMP2160UW-7	Digi Key DMP2160UWDICT-ND	-40°C ~ 125°C	NA	20v	1.5 A / 0.1ohm / 900mV / 350mW
3	Q107, Q108, Q110	Transistor Mosfet N	DMG1012	SOT-523	Diodes Inc	DMG1012T-7	Digi Key DMG1012T-7DICT-ND	-40°C ~ 125°C	N/A	20v	630mA / 400 mOhm / 280mW
1	Q112	Transistor Mosfet P	AON7407	DFN8A	Alpha & Omega Semi	AON7407	Digi Key 785-1306-1-ND	-40°C ~ 125°C	N/A	20v	40A / 0.01ohm / 3.1W
1	Q113	Transistor Mosfet Dual N	BSD840N	SOT-363	Infineon	BSD840N H6327	Digi Key BSD840N H6327CT-ND	-55°C ~ 150°C	N/A	20v	0.4 Ohm / 0.88 A / 0.5 W / 0.3~1.1v
1	Q201	Transistor Mosfet P	DNP	SC-89	Fairchild Semi	FDY102PZ	Digi Key FDY102PZCT-ND	-40°C ~ 125°C	N/A	20v	830mA / 0.6ohm / 446mW
7	Q300, Q301, Q304, Q400, Q403, Q404, Q405	Transistor Mosfet Dual P	DMP56D	SOT-563	Diodes Inc	DMP56D0UV-7	Digi Key DMP56D0UV-7DICT-ND	-55°C ~ 150°C	N/A	50v	6 Ohm / 0.1A/ 0.4W
3	Q303, Q401, Q402	Transistor PNP/PNP	BC857 x2	SOT-363	On Semi	BC857BDW1T1G	Digi Key BC857BDW1T1GOSCT-ND	-40°C ~ 125°C	NA	45v	100mA / 380mW
1	Q307	Transistor NPN/PNP	BC857/847	SOT-363	Infineon	BC 847PN H6327	Digi Key BC 847PN H6327CT-ND	-40°C ~ 125°C	NA	45v	100mA / HFE 250
12	R100, R101, R104, R105, R108, R201, R202, R208, R214, R216, R220, R226	Resistance	10K	0402NT	Panasonic	ERJ-2GEJ103X	Digi Key P10KJCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
1	R102	Resistance	10k	0402NT	Panasonic	ERJ-2RKF1002X	Digi Key P10.0KLCT-ND	-40°C~+85°C	±1%	30v	0.1W / ±100ppm/°C
1	R103	Resistance	3.16k	0402NT	Panasonic	ERJ-2RKF3161X	Digi Key P3.16KLCT-ND	-40°C~+85°C	±1%	30v	0.1W / ±100ppm/°C
2	R106, R231	Resistance	100k	0402NT	Panasonic	ERJ-2RKF1003X	Digi Key P100KLCT-ND	-55°C ~ 155°C	±1%	30v	0.1W / ±100ppm/°C
8	R107, R206, R209, R210, R213, R215, R221, R222	Resistance	1k	0402NT	Panasonic	ERJ-2GEJ102X	Digi Key P1.0KJCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
6	R109, R110, R111, R112, R113, R114	Resistance	56ohm	0402NT	Panasonic	ERJ-2GEJ560X	Digi Key P56JCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
2	R115, R228	Resistance	0hom	0402NT	Samsung	RC1005J000CS	Digi Key 1276-3480-1-ND	-55°C ~ 155°C	NA	30v	0.63W / ±200ppm/°C
12	R122, R123, R124, R125, R126, R127, R128, R129, R130, R131, R132, R133	Resistance	39ohm	0402NT	Panasonic	ERJ-2GEJ390X	Digi Key P39JCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C

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Quantity	Designator	Description	Value	Footprint	Manufacture	Part #	Distributor	Temperature	Tolerance	Voltage	Notes
3	R136, R140, R143	Resistance	100ohm	0402NT	Panasonic	ERJ-2GEJ101X	Digi Key P100JCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
1	R147	Resistance	300k	0402NT	Panasonic	ERJ-2GEJ304X	Digi Key P300KJCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
1	R149	Resistance	453k	0402NT	Panasonic	ERJ-2RKF4533X	Digi Key P453KLCT-ND	-55°C ~ 155°C	±1%	30v	0.1W / ±100ppm/°C
4	R150, R157, R219, R225	Resistance	100k	0402NT	Panasonic	ERJ-2GEJ104X	Digi Key P100KJCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
1	R200	Resistance	470K	0402NT	Panasonic	ERJ-2GEJ474X	Digi Key P470KJCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
4	R203, R204, R205, R207	Resistance	8.2ohm	0402NT	Panasonic	ERJ-2GEJ8R2X	Digi Key P8.2JCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
1	R211	Resistance	3k	0402NT	Panasonic	ERJ-2GEJ302X	Digi Key P3.0KJCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
1	R212	Resistance	220ohm	0402NT	Panasonic	ERJ-2GEJ221X	Digi Key P220JCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
14	R217, R218, R223, R224, R308, R314, R318, R400, R401, R403, R419, R422, R423, R428	Resistance	22k	0402NT	Panasonic	ERJ-2GEJ223X	Digi Key P22KJCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
1	R227	Resistance	1M	0402NT	Samsung Elec	RC1005J105CS	Digi Key 1276-4448-1-ND	-40°C~+85°C	±5%	30v	0.063W / ±200ppm/°C
16	R300, R301, R316, R319, R321, R325, R328, R330, R406, R413, R414, R417, R420, R425, R429, R430	Resistance	220k	0402NT	Panasonic	ERJ-2GEJ224X	Digi Key P220KJCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
1	R304	Resistance	2.32k	0402NT	Panasonic	ERJ-2RKF2321X	Digi Key P2.32KLCT-ND	-40°C~+85°C	±1%	30v	0.1W / ±100ppm/°C
1	R306	Resistance	47ohm	0402NT	Panasonic	ERJ-2GEJ470X	Digi Key P47JCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
1	R307	Resistance	3.3k	0402NT	Panasonic	ERJ-2GEJ332X	Digi Key P3.3KJCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
2	R311, R418	Resistance	150ohm	0402NT	Panasonic	ERJ-2GEJ151X	Digi Key P150JCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
2	R317, R329	Resistance	470ohm	0402NT	Panasonic	ERJ-2GEJ471X	Digi Key P470JCT-ND	-40°C~+85°C	±5%	30v	0.1W / ±200ppm/°C
2	R402, R412	Resistance	200ohm	0402NT	Panasonic	ERJ-2RKF2000X	Digi Key P200LCT-ND	-40°C~+85°C	±1%	30v	0.1W / ±100ppm/°C
4	R405, R415, R426, R427	Resistance	8.87k	0402NT	Panasonic	ERJ-2RKF8871X	Digi Key P8.87KLCT-ND	-40°C~+85°C	±1%	30v	0.1W / ±100ppm/°C
2	R408, R416	Resistance	5.11M	0402NT	Vishay Dale	CRCW04025M11FKED	Digi Key 541-5.11MLCT-ND	-40°C~+85°C	±1%	30v	0.063W / ±100ppm/°C
2	R409, R411	Resistance	300ohm	0402NT	Panasonic	ERJ-2RKF3000X	Digi Key P300LCT-ND	-40°C~+85°C	±1%	30v	0.1W / ±100ppm/°C
1	R410	Resistance	100ohm	0402NT	Panasonic	ERJ-2RKF1000X	Digi Key P100LCT-ND	-40°C~+85°C	±1%	30v	0.1W / ±100ppm/°C
1	R424	Resistance	31.6ohm	0402NT	Panasonic	ERJ-2RKF31R6X	Digi Key P31.6LCT-ND	-40°C~+85°C	±1%	30v	0.1W / ±100ppm/°C
3	SW100, SW200, SW201	Switch SMT 2 pole	Switch	SW TACT-S3A	E Switch	TL3340AF160QG	Digi Key EG4627CT-ND	-35°C ~ 85°C	N/A	12v	160gf / Side Act / Gull Wing
1	X200	Xtal	32.768KHz	XTAL-S2.X1	Seiko	SC20S-12.5PF20PPM	Digi Key 728-1075-1-ND	-40°C ~ 85°C	±20ppm	NA	12.5pF / 90k
2	XT200, XT201	Xtal Epson 16MHz	16MHz	XTAL-A2X3	Epson	TSX-3225 16.0000MF09Z-AC3	Digi Key SER3628CT-ND	-20°C ~ 75°C	±10ppm	N/A	60oh+L63:L84m / 9pF / ±9ppm