

	BOM #	# Sparrow	Parts sparrow	Type	Value	Shape	Manuf	Model	Alt	Mouser #	DK #
Resistors											
	1	4	R5, R6, R40, R41	Resistor	33Ω 1%	0603	Samsung	RC1608F330CS	Vishay CRCW060333R0FKEA, Rohm MCR03ERTF33R0	71-CRCW0603-33-E3	1276-4524-1-ND
	2	4	R17, R18, R19, R20	Resistor	49.9Ω 1%	0603	Samsung	RC1608F49R9CS	Vishay CRCW060349R9FKEA	71-CRCW0603-49.9-E3	1276-3505-1-ND
	3	2	R14, R15	Resistor	330Ω	0603	Samsung	RC1608J331CS	Yageo RC0603JR-07330RL, Yageo AF0603FR-07330RL, Vishay CRCW0603330RFKEA	71-CRCW0603-330-E3	311-330GRCT-ND
	4	1	R3	Resistor	806Ω	0603	Yageo	RC0603FR-07806RL	KOA RK73H1JTDD8060F	660-RK73H1JTDD8060F	311-806HRCT-ND
	5	4	R4, R43, R44, R45	Resistor	1K	0603	Samsung	RC1608J102CS	Vishay CRCW06031K00FKEA, KOA RK73H1JTDD1001F	660-RK73H1JTDD1001F	1276-5062-1-ND
	6	5	R21, R22, R23, R38, R39	Resistor	2.2K	0603	Samsung	RC1608J222CS	KOA RK73H1JTDD2201F, Vishay CRCW06032K20FKEA, Yageo RC0603JR-072K2L	660-RK73H1JTDD2201F	1276-5070-1-ND
	7	9	R30, R32, R42, R8, R9, R10, R11, R12, R13	Resistor	10K	0603	Samsung	RC1608J103CS	Yageo RC0603JR-0710KL, Voshay CRCW060310K0FKEA, KOA RK73H1JTDD1002F	660-RK73H1JTDD1002F	1276-5086-1-ND
	8	1	R7	Resistor	12K 1%	0603	Samsung	RC1608F123CS	Rohm MCR03ERTF1202, KOA RK73H1JTDD1212F, Vishay CRCW060312K1FKEA	660-RK73H1JTDD1212F	1276-4750-1-ND
	9	1	R16	Resistor	12.1K 1%	0603	Samsung	RC1608F1212CS	KOA RK73H1JTDD1212F, Vishay CRCW060312K1FKEA, Stackpole RMCF0603FT12K1	660-RK73H1JTDD1212F	1276-4751-1-ND
	10	1	R26	Resistor	40.2K	0603	Samsung	RC1608F4022CS	Yageo RC0603FR-0740K2L, KOA RK73H1JTDD4022F, Vishay CRCW060340K2FKEB	660-RK73H1JTDD4022F	1276-4800-1-ND
	11	11	R24, R25, R27, R28, R29, R31, R33, R34, R35, R36, R37	Resistor	100K	0603	Samsung	RC1608J104CS	Yageo RC0603JR-07100KL, Vishay CRCW0603100KFKEA, KOA RK73H1JTDD1003F	660-RK73H1JTDD1003F	1276-5110-1-ND
	12	3	R1, R46, R47	Resistor	768K	0603	Yageo	RC0603FR-07768KL	KOA RK73H1JTDD7683F, Rohm MCR03ERTF7683, Vishay CRCW0603768KFKEA	660-RK73H1JTDD7683F	311-768KHRCT-ND
	13	1	R2	Resistor	2.4M	0603	Samsung	RC1608J245CS	KOA RK73B1JTDD245J, Vishay CRCW06032M40JNEA, Yageo RC0603JR-072M4L	660-RK73B1JTDD245J	1276-5143-1-ND
Capacitors											
	14	1	C55	Capacitor	2.2p	0402	Samsung	CL05C2R2CB5NNNC	Johanson 500R07S2R2DV4T	609-500R07S2R2DV4T	1276-1271-1-ND
	15	2	C68, C69	Capacitor	9p	0402	Samsung	CL05C090DB5NNNC	Murata GRM1555C1H9R0CA01D	81-GRM1555C1H9R0CA1D	1276-1617-1-ND
	16			Capacitor	9p	0603	Samsung	CL10C090DB8NNNC	TDK C1608C0G1H090C080AA	810-C1608C0G1H090C	1276-2143-1-ND
	17	1	C11	Capacitor	10p 5%	0603	Samsung	CL10C100JB8NCNC	Vishay VJ0603A100JXACW1BC	77-VJ0603A100JXACBC	1276-2154-1-ND
	18	2	C66, C67	Capacitor	12p	0402	Samsung	CL05C120JB5NNNC	Johanson 500R07S120KV4T	609-500R07S120KV4T	1276-1178-1-ND
	19	4	C2, C22, C23, C65	Capacitor	18p 5%	0603	Samsung	CL10C180JC8NNNC	Vishay VJ0603A180JXACW1BC	77-VJ0603A180JXACBC	1276-2210-1-ND
	20	1	C28	Capacitor	470p 5%	0603	Samsung	CL10C471JB8NCNC	Vishay VJ0603A471JXXCW1BC	77-VJ0603A471JXXCBC	1276-2302-1-ND
	21	1	C1	Capacitor	1n	0402	Samsung	CL05B102KB5NCNC	KOA X7R0402HTTP102K	660-X7R0402HTTP102K	1276-1492-1-ND
	22	1	C72	Capacitor	2.2n	0402	Samsung	CL05B222KB5NNNC	Vishay VJ0402Y222KXJCW1BC	77-VJ0402Y222KXJCBC	1276-1054-1-ND
	23	3	C24, C25, C26	Capacitor	10n		Samsung	CL10B103KB8NCNC	Vishay VJ0603Y103KXAAC	77-VJ0603Y103KXAAC	1276-1921-1-ND
	24	1	C61	Capacitor	47n	0402	Samsung	CL05B473KP5NNNC	Vishay VJ0402Y473KXQCW1BC	77-VJ0402Y473KXQCBC	1276-1573-1-ND
	25	3	C62, C63, C64	Capacitor	100n	0402	Samsung	CL05A104KP5NNNC	Vishay VJ0402G104MXQPW1BC	77-VJ0402G104MXQPBC	1276-1022-1-ND
	26	34	C3, C4, C5, C6, C7, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C43, C45, C47, C49, C54, C58, C70, C74, C75	Capacitor	100n	0603	Samsung	CL10B104KO8NNNC	Vishay VJ0603Y104JXJPW1BC	77-VJ0603Y104JXJPBC	1276-1005-1-ND
	27	9	C27, C52, C53, C56, C76, C77, C78, C79, C80	Capacitor	1u	0603	Samsung	CL10B105KP8NNNC	AVX 0603YD105KAT2A	581-0603YD105K	1276-1946-1-ND

	28	3	C8, C9, C10	Capacitor	4.7u	0603	Samsung	CL10B475KQ8NQNC	Murata GRM188R60J475ME19D	81-GRM188R60J475ME9D	1276-2087-1-ND
	29	5	C29, C42, C44, C46, C48	Capacitor	10u	0603	Samsung	CL10A106MQ8NNNC	AVX 06036D106MAT2A	581-06036D106MAT2A	1276-1119-1-ND
	30	2	C40, C41	Capacitor	22u 6.3V	0603	Samsung	CL10A226MQ8NRNC	Murata GRM188R60J226MEA0D, TDK C1608X5R0J226M080AC	810-C1608X5R0J226M	1276-1193-1-ND
	31	2	C57, C59	Capacitor	22u 10V	0805	Samsung	CL21A226MPQNNNE	TDK C2012X5R1A226M125AB	810-C2012X5R1A226M-3	1276-2910-1-ND
	32	2	C50, C51	Capacitor	47u 6.3V	0805	Samsung	CL21A476MQCLRNC	Taiyo Yuden JMK212BJ476MG-T	963-JMK212BJ476MG-T	1276-2420-1-ND
	33	1	C60	Capacitor	150u 10V	1210_POL	AVX	TLNT157M010R1500	AVX TLJB157M010R0500	581-TLNT157M010R	478-3349-1-ND
Inductors											
	34	1	L5	Inductor	2.2n	0402	Taiyo Yuden	HK10052N2S-T	Taiyo Yuden HK10052N2S-T, Panasonic ELJ-RF2N2ZFB, TDK MLG1005S2N2S	963-HK10052N2S-T	587-1503-1-ND
	35	1	L7	Inductor	2.2u 2.2Arms, 3A sat	40x40	Laird	TYS40302R2N-10	Bourns SRN4018-2R2M, Taiyo Yuden NRS4018T2R2MDGJ	963-NRS4018T2R2MDGJ	240-2697-1-ND
	36	1	L1	Inductor	10u 1A	40x40	Taiyo Yuden	NRS4018T100MDGJ		963-NRS4018T100MDGJ	587-2886-1-ND
Diodes											
	37	5	D1, D2, D3, D4, D5	Diode	2A 30V Schottky	SOD123/ SOD123FL	ON Semi	MBR230LSFT1	Comchip CDBMT240-HF	863-MBR230LSFT1G	MBR230LSFT1GOSCT-ND
LEDs											
	38	4	LED1, LED2, LED3, LED4	LED	any color, 100mcd min	0603_POL	Vishay	VLMY1300-GS08 (yellow)	Osram LS Q976-NR-1	78-VLMY1300-GS08	475-2512-1-ND
ICs											
	39	1	IC1	IC	LAN8720A	QFN24-0.5	SMSC/Microchip	LAN8720A/ LAN8720AI		886-LAN8720A-CP	LAN8720A-CP-CT-ND
	40	1	IC2	IC	TLV320AIC3100	QFN32-0.5	TI	TLV320AIC3100IRHBR/T		595-V320AIC3100IRHBT	296-25494-1-ND
	41	1	IC3	IC	TPS2500	SON10-0.5	TI	TPS2500DRCT		595-TPS2500DRCT	296-32462-1-ND
	42	5	IC4, IC5, IC6, IC7, IC8	IC	AAT4280A	SC70JW-8	Skyworks	AAT4280A		873-AAT4280AIJS-2-T1	863-1480-1-ND
	43	1	IC9	IC	FXMA108	DFN20	Fairchild	FXMA108		512-FXMA108BQX	FXMA108BQXFSCT-ND
	44	1	MCU	IC	NXP1837	QFP144-0.5	NXP	LPC1837JBD144E		771-LPC1837JBD144E	LPC1837JBD144E-ND
	45	1	MCU1	IC	NRF51822	QFN48-0.4	Nordic Semi	NRF51822QFAA		949-NRF51822-QFAA-R7	
	46			IC	PN532	QFN40	NXP	PN5321A3HN/C106;55		771-PN5321A3HNC106	568-8600-ND
	47	1	PWR1	IC	LTC4080	DFN10	Linear	LTC4080	LTC4081		LTC4081EDD#PBF-ND
Modules											
	48	1	WIFI	Module	CC3000		TI	CC3000MOD		595-CC3000MOD	296-35512-1-ND
Clocks											
	49	2	X1, X3	Crystal	32.768KHz 12.5pF	1206	Abracon	ABS07	TXC 9HT10-32.768KAZF-T, Citizen CM315D32768DZFT	717-9HT10-32.768KAZF	300-8814-1-ND
	50	1	X2	Crystal	12MHz 10pF 40ppm	3.2 x 2.5	AVX	CX3225GB12000P0HPQC C	ABM8G-12.000MHZ-4Y-T3	581-CX3225GB12PHPQCC	535-10901-1-ND
	51	1	X5	Crystal	16MHz 8pF 40ppm	2.5 x 2.0	AVX	CX2520DB16000D0GEJC C		581-CX2520DB16DGEJCC	1253-1122-1-ND
	52			Crystal	27.12MHz 10pF 20ppm	5 x 3.2	TXC	7B-27.120MEEQ-T			887-1309-1-ND
	53	1	X4	Oscillator	50MHz	2.5 x 2.0	SiLabs	501AAA50M0000DAG	SiTime SiT8103AI-13-33E-50.00000X	788-8103I-333E50X	336-2981-ND
RF											
	54	2	ANT1, ANT2	Antenna	2.4GHz	1206	Abracon	AMCA31-2R450G-S1F		815-CA312R450GS1FT	535-12386-1-ND
	55	1	BAL1	Balun	for NRF51822	WLCSP5	ST	BALF-NRF01D3	BAL-NRF01D3 (worse)	511-BAL-NRF01D3	497-13637-1-ND
Mechanical											
	56	2	IPGM, RESET	Button	CK-KMR2		CK	KMR2xx		611-KMR211G-LFS	CKN10272CT-ND
	57	1	5VDC_IN	Connector	Barrel 5.5/2.1 2A		CUI	PJ 102AH			CP-102AH-ND
	58	1	BATT	Connector	2mm LiPo/Li-Ion		JST	PH-H			455-1749-1-ND
	59	1	ETH	Connector	RJ45-Mag-LEDs		WIZnet	RB1-125BAG1A		950-RB1-125BAG1A	1278-1011-ND
	60	1	HEADPHONE	Connector	3.5mm stereo		CUI	SJ 3523	Switchcraft 35RASMT2BHNRX	502-35RASMT2BHNRX	CP-3523SJCT-ND

[illegible]