

PROJECT	20211494 - (SPARROW ESSENTIALS BOARD)
REVISION	2
SCHEMATIC	20211494_SPARROW-ESSENTIALS-BOARD_V2
DATA	25/10/2021

Blues Inc

Item	Quantity	Reference	Part	MPN	MPN2	MPN3	MPN4	Description	Temperature	Type	Package
1	1	ANT1	NN02-224	NN02-224				ANTENNA CHIP LTE/GNSS/BT D=12X3X2.4	-40°..+125°	SMD	ANT-NN02-224
2	1	BAT2	3034	3034				NN02-224 IGNION SMT		SMD	BATHLD-3034-2032
3	1	CS1	CS V2 4L 35um					BATTERY HOLDER 3034 KEYSTONE SMT			
4	1	C1	22u6.3V/X5R	CC0603MRX5R5BB226				G.S. SPARROW-CORE-BOARD V2	TG150		
5	2	C2,C5	1u16V-X5R	EMK105BJ105MVHF				(82X35.62)mm 4L/S02(BLACK)/SR ENIG TG150			
6	15	C3,C6,C7,C11,C13,C14,C19,C22,C23,C25,C26,C29,C32,C40,C53	100n16V	CC0402KRX7R7BB104				sp=1.6mm Cu=35um			
7	1	C4	10u6.3V-X5R	GRM155R60J106ME44D				CHIP CAP.CER. 22uF 6V3 20% X5R 0402	-55°..+85°	SMD	CS-C-0402
8	3	C10,C12,C20	4.7u6.3V-X5R	JMK105BBJ475MV-F				CHIP CAP.CER. 1uF 16V 10% X5R 0402		SMD	CS-C-0402
9	2	C15,C16	4p50V-C0G	0402N4ROC500CT				CHIP CAP.CER. 100nF 16V 10% X7R 0402		SMD	CS-C-0402
10	1	C17	10p50V-NP0	CC0402JRNPO9BN100				CHIP CAP.CER. 10uF 6.3V 20% X5R 0402	-55°..+125°	SMD	CS-C-0402
11	1	C18	3.6p50V-C0G	500R07S3R6BV4T				CHIP CAP.CER. 4.7uF 6.3V 20% X5R 0402	-55°..+125°	SMD	CS-C-0402
12	1	C24	68p50V-C0G	CC0402JRNPO9BN680				CHIP CAP.CER. 10pF 50V 5% 0402	-55°..+125°	SMD	CS-C-0402
13	7	C26,C30,C31,C37,C39,C41,C42	33p50V-C0G	CC0402JRNPO9BN330				CHIP CAP.CER. 3.6pF 50V 5% C0G 0402		SMD	CS-C-0402
14	1	C27	470n10V-X5R	CC0402KRX5R6BB474				CHIP CAP.CER. 47pF 25V 10% X7R 0402		SMD	CS-C-0402
15	1	C33	47p25V	CC0402KRX7R6BB473				CHIP CAP.CER. 47pF 50V 5% C0G 0402		SMD	CS-C-0402
16	1	C34	47p50V-C0G	CC0402JRNPO9BN470				CHIP CAP.CER. 2.7pF 50V +0.25pF C0G 0402	-55°..+125°	SMD	CS-C-0402
17	3	C35,C36,C47	2.7p50V-C0G	0402N2R7C500CT				CHIP CAP.CER. 2.4pF 50V 5% C0G 0402	-55°..+125°	SMD	CS-C-0402
18	1	C38	2.4p50V-C0G	04025U2R4BAT2A				CHIP CAP.CER. 6.8pF 50V +0.5pF C0G 0402	-55°..+125°	SMD	CS-C-0402
19	1	C43	6.8p50V-C0G	04025A6R8DAT4A				CHIP CAP.CER. 5.6pF 50V 5% C0G 0402	-55°..+125°	SMD	CS-C-0402
20	1	C44	5.6p50V-C0G	04025A5R6JAT2A				CHIP CAP.CER. 3.9pF 50V +0.25pF C0G 0402	-55°..+125°	SMD	CS-C-0402
21	1	C45	3.9p50V-C0G	0402N3R9C500CT				CHIP CAP.CER. 3.3pF 50V 5% C0G 0402	-55°..+125°	SMD	CS-C-0402
22	1	C46	3.3p50V-C0G	04025A3R3JAT2A				CHIP CAP.CER. 1pF 50V 10% X7R 0402		SMD	CS-C-0402
23	1	C48	1.3p50V-C0G	500R07S1R3BV4T				DIP SWITCH 4P/D NERO MCDHN-04F-V		SMD	DSS-4-0127-MCDHN
24	3	C50,C51,C52	1n50V	C0402C102K5RECAUTO				MULTICOMP SMT			
25	1	DSW1	DIP-SW-MCDHN-04F-T-V	MCDHN-04F-V				STRIP 12P F/D P=2.54 00718 UC0N	-40°..+105°	THT	J-12-0254-FDT-H0508_EDGE
26	2	J1,J2	00718	00718				CONN. PH 2P MD P=2 B2B-PH-SM4-TBTL(F)(SN) JST SMT	-25°..+85°	SMD	J-2-0200-MDS-B2B-PH-SM4
27	1	J3	B2B-PH-SM4-TB	B2B-PH-SM4-TBT(LF)(SN)				CONN. SH 4P MD P=1 BM04B-SRSS-TBTL(F)(SN) JST SMT	-25°..+85°	SMD	J-4-0100-MDS-SH
28	1	J4	BM04B-SRSS-TBT	BM04B-SRSS-TBT(LF)(SN)				CONN. UNSHROUDED HEADER HDR 14 POS P=1.27 21691 UC0N SMT	-55°..+125°	SMD	J-7X2-0127-MDS-21691
29	1	J6	21691	21691	FTSH-107-01-F-DV-K-P	BH3M56-14GBCNR-4-00		RED LED DIODE 0603 SMT		SMD	LD-0603
30	1	LD1	GENERIC	LS Q976-NR-1				GREEN LED DIODE 0603 SMT		SMD	LD-0603
31	1	LD2	GENERIC	VLMG1300-GS08				BLUE LED DIODE LBQ39E OSRAM 0603 SMT		SMD	LD-0603
32	1	LD3	LBQ39E	LBQ39E-N10Q-35-1				INDUCTOR 3.3mH 0.3A +0.3mH 0402 L-07C3N3SV6T JOHANSON TECHNOLOGY SMT	-40°..+85°	SMD	LS-0806
33	1	L1	1285AS-H-2R2M=P2	1285AS-H-2R2M=P2				INDUCTOR 3.6mH 0.3A +0.3mH 0402 PE-0402CL3N6STT PULSE SMT	-55°..+125°	SMD	LS-0402
34	1	L2	BLM18AG102SN1	BLM18AG102SN1D				INDUCTOR 47mH 0.21A 5% A FILO 0402 SMT	-55°..+125°	SMD	LS-0402
35	1	L3	LQM21DN150M70L	LQM21DN150M70L				INDUCTOR 3mH 0.3A 1% 0402	-55°..+125°	SMD	LS-0805
36	4	L4,R36,R37,R38	0R	CRCW0402000020TDBC				INDUCTOR 8.7mH 0.55A +5% 0402 LOG16WZ8N7J02D MURATA SMT	-55°..+125°	SMD	RS-0402
37	1	L5	MLG1005S11NJUT000	MLG1005S11NJUT000				INDUCTOR 5.6mH 0.25A 5% 0402 L-07C6N8JV6T JOHANSON TECHNOLOGY SMT	-40°..+100°	SMD	LS-0402
38	2	L6,L12	L-07C3N3SV6T	L-07C3N3SV6T				INDUCTOR 12mH 1.5A ±2% 0603 LQW18AN12NG80 MURATA SMT	-55°..+125°	SMD	FRACTUS-0404
39	1	L7	PE-0402CL3N6STT	PE-0402CL3N6STT				INDUCTOR 1.5mH 1.45A ±2% 0402 LQW15AN4N5G80D MURATA SMT	-55°..+125°	SMD	FRACTUS-0404
40	2	L8,L11	LQW15AN47NJ00D	LQW15AN47NJ00D				PUSH BUTTON 16V 0.5A 4.2X3.2 SPST SKRPADE010 ALPS SMT	-20°..+70°	SMD	PB-SKRPA
41	1	L9	LOG15HS3N0S02D	LOG15HS3N0S02D				CHIP RES. 499R 0402 1/16W 1% 100PPM/°C	-55°..+155°	SMD	RS-0402
42	1	L10	LOG15WZ8N7J02D	LOG15WZ8N7J02D				CHIP RES. 10K 0402 1/16W 1%	-55°..+125°	SMD	RS-0402
43	1	L13	L-07C6N8JV6T	L-07C6N8JV6T				CHIP RES. 10K 0402 1/16W 1%	-55°..+125°	SMD	RS-0402
44	1	L14	LQW18AN12NG80	LQW18AN12NG80				CHIP RES. 100R 0402 1/16W 1%	-55°..+125°	SMD	RS-0402
45	1	L15	LQW15AN4N5G80D	LQW15AN4N5G80D				CHIP RES. 0R 0402 1/16W 1%		SMD	FRACTUS-0404
46	3	PB1,PB2,PB3	PB-SKRPADE010	SKRPADE010				DIODE TVS TRANS. UNIDIR. 158W 18.6V ESDZ525.0T1G SOD323 SMT	-55°..+150°	SMD	SOD523
47	5	R1,R2,R3,R4,R18	49.9R	CRCW040249R9FKED				I.C. RP605Z333B-E2-F RICOH WLSP20 SMT	-40°..+85°	SMD	XFBGA20
48	2	R5,R6	10M/5%	SG735S1E1TF106J				I.C. STM32WL55CCU7 ST UFOFPN48	-40°..+105°	SMD	UFOFPN48-EXP-0700X0700
49	2	R9,R13	10k	RC0402FR-0710KL	STM32WL55CCU6	STM32WL55CCU7	STM32WL55CCU6	I.C. TS3A5223RSWR UQFN-10 TI SMT	-40°..+85°	SMD	UFOFN10-0180X0140
50	3	R10,R11,R12	49.9R	CRCW040249R9FKED	NLAS2750MUTAG			I.C. BGS13S4N9E6327XTSA1 XFLGA9 INFINEON SMT	-40°..+85°	SMD	XFLGA9
51	2	R14,R17	200R	RC0402FR-0722RL				CRYSTAL 32.768KHz 4pF 20ppm D=2x1.2 ABS06-107-32.768KHZ-T ABRACON SMT	-40°..+85°	SMD	Y-ABS06
52	7	R15,R16,R20,R21,R22,R24,R26	10k	RC0402FR-0710KL				OSCILLATOR 32MHz 2.8V-3.3V 1ppm D=2.5x2 TYETBCSANF-32.000000 TAITIEN SMT	-20°..+75°	SMD	Y-TYETBCSANF
53	1	R19	22R	RC0402FR-07200RL							
54	2	R23,R25	1k	RC0402FR-071KL							
55	3	R31,R32,R34	100R	RC0402FR-07100RL							
56	1	R33	0R	CRCW0402000020TDBC							
57	2	TVS1,TVS2	ESD525.0T1G	ESD525.0T1G							
58	1	U1	RP605Z333B-E2-F	RP605Z333B-E2-F							
59	1	U3	STM32WL55CCU7	STM32WL55CCU7							
60	1	U4	TS3A5223RSWR	TS3A5223RSWR							
61	1	U6	BGS13S4N9E6327XTSA1	BGS13S4N9E6327XTSA1							
62	1	Y1	ABS06-107-32.768KHZ-T	ABS06-107-32.768KHZ-T							
63	1	Y2	TYETBCSANF-32.000000	TYETBCSANF-32.000000							

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NOT MOUNTED

1	1	ASS1	NU	TWF5-3-9W				PLASTIC ENCLOSURE 45,6x27,5x90 TWF5-3-9W		THT	
2	4	ASS2,ASS3,ASS4,ASS5	NU					TA4ACH1		THT	
3	4	ASS6,ASS7,ASS8,ASS9	NU					SCREW 2.3X6 INOX DIN 7985		THT	
3	1	ASS10	NU	MH9080-1				PIR LENS MH9080-1 MUHWA		THT	
4	1	BAT1	NU	2468				BATTERY HOLDER 2468 KEYSTONE		THT	BATHLD-2468-NOMECC
5	3	C8,C9,C49	NU	CC0402KRX7R7BB104				CHIP CAP.CER. 100nF 16V 10% X7R 0402		SMD	CS-C-0402
6	2	C54,C55	NU	CC0402KRX7R7BB104				CHIP CAP.CER. 100nF 16V 10% X7R 0402		SMD	CS-C-0402
7	4	FID1,FID2,FID3,FID4	TPS					FIDUCIAL		SMD	FIDUCIAL
8	1	J5	NU	FTSH-105-01-F-DV-K-P-TR				CONN. UNSHROUDED HEADER HDR 10 POS P=1.27 FTSH-105-01-F-DV-K-P-TR SAMTEC	-55°..+125°	SMD	J-5X2-0127-MDS-FTSH105
9	1	LD4	NU	LS Q976-NR-1				RED LED DIODE 0603 SMT		SMD	LD-0603
10	1	LD5	NU	VLMG1300-GS08				GREEN LED DIODE 0603 SMT		SMD	LD-0603
11	1	LD6	NU	LBQ39E-N10Q-35-1				BLUE LED DIODE LBQ39E OSRAM 0603 SMT		SMD	LD-0603
12	1	OBJ1	NU	S02-30200250				RF SHIELD 30X20MM S02-30200250 HARWIN		SMD	J-S02-3020020250
13	4	OBJ2,OBJ3,OBJ4,OBJ5	NU	S1001-46R				30PPORT RPT SHIELD S1001-46R HARWIN	-25°..+150°	SMT	J-S1001-46R
14	3	PB4,PB5,PB6	NU	SKRPADE010				PUSH BUTTON 16V 0.5A 4.2X3.2 SPST SKRPADE010 ALPS SMT	-20°..+70°	SMD	PB-SKRPA
15	2	R7,R8	NU	RC0402FR-074K7L				CHIP RES. 4K7 0402 1/16W 1%		SMD	RS-0402
16	4	R27,R28,R29,R30	NU	CRCW0402000020TDBC				CHIP RES. 0402		SMD	RS-0402
17	1	R35	NU	RC0402FR-072M2L				CHIP RES. 2M2 0402 1/16W 1% 100PPM/°C		SMD	RS-0402
18	1	U2	NU	BME280				I.C. BME280 BOSCH LGA8 SMT	-40°..+85°	SMD	IC-BME280
19	1	U5	NU	PYD 1598/7655				I.C. PYD 1598/7655 EXCELITAS TO-5	-40°..+70°	THT	TO5-4
20	1	U7	NU	FXMAR2104UMX				I.C. FXMAR2104UMX ONSEMI UMLP-12 SMT	-40°..85°	SMD	UFOFN12-0180X0180