

PROJECT	20211494 - (SPARROW CORE BOARD)
REVISION	7
SCHEMATIC	20211494_SPARROW-CORE-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 NN02-224 IGNION SMT	40° ~+125°	SMD	ANT-NN02-224
2	1	CS1	CS V2 4L 35um					C.S. SPARROW-REFERENCE-SENSOR-BOARD V2 (80X35-62mm 4L50(BLACK)/SR ENG TG150 gpr1.6mm Cu=35um	TG150		
3	1	C1	22u6.3V-X5R	CC0603MRXSR5B226				CHIP CAP.CER. 22uF 6V3 20% X5R 0402	-55° ~+85°	SMD	CS-C-0402
4	2	C2,C5	1uF16V-X5R	EMK106B.J105MVHF				CHIP CAP.CER. 1uF 16V 10% X5R 0402		SMD	CS-C-0402
5	14	C3,C6,C7,C11,C13,C14,C19,C22,C25,C28,C29,C32,C40,C53	100n/16V	CC0402KRX7R78B104				CHIP CAP.CER. 100nF 16V 10% X7R 0402		SMD	CS-C-0402
6	1	C4	10u6.3V-X5R	GRM155R60J100ME44D				CHIP CAP.CER. 10uF 6.3V 20% X5R 0402	-55° ~+85°	SMD	CS-C-0402
7	3	C10,C12,C20	4.7u6.3V-X5R	JMK105BB.J475MV-F				CHIP CAP.CER. 4.7uF 6.3V 20% X5R 0402		SMD	CS-C-0402
8	2	C15,C16	4p50V-C0G	0402N4ROC500CT				CHIP CAP.CER. 4pF 50V ±0.25pF C0G 0402	-55° ~+125°	SMD	CS-C-0402
9	1	C17	10p50V-NP0	CC0402JRNPO9BN100				CHIP CAP.CER. 10pF 50V 5% 0402		SMD	CS-C-0402
10	1	C18	3.6p50V-C0G	500R07S3R68V4T				CHIP CAP.CER. 3.6pF 50V ±0.1pF C0G 0402 SMT	-55° ~+125°	SMD	CS-C-0402
11	1	C24	68p50V-C0G	CC0402JRNPO9BN680				CHIP CAP.CER. 68pF 50V 5% C0G 0402		SMD	CS-C-0402
12	7	C26,C30,C31,C37,C39,C41,C42	33p50V-C0G	CC0402JRNPO9BN330				CHIP CAP.CER. 33pF 50V 5% C0G 0402		SMD	CS-C-0402
13	1	C27	470n/10V-X5R	CC0402KRXSR68B474				CHIP CAP.CER. 470nF 10V 10% X5R 0402		SMD	CS-C-0402
14	1	C33	1n/25V	CC0402KRX7R78B0473				CHIP CAP.CER. 47nF 25V 10% X7R 0402		SMD	CS-C-0402
15	1	C34	47p50V-C0G	CC0402JRNPO9BN470				CHIP CAP.CER. 47pF 50V 5% C0G 0402		SMD	CS-C-0402
16	3	C35,C36,C47	2.7p50V-C0G	0402N2R7C500CT				CHIP CAP.CER. 2.7pF 50V ±0.25pF C0G 0402	-55° ~+125°	SMD	CS-C-0402
17	1	C38	2.4p50V-C0G	0402S1J2R4B47A2A				CHIP CAP.CER. 2.4pF 50V ±0.1pF C0G 0402 SMT	-55° ~+125°	SMD	CS-C-0402
18	1	C43	8.8p50V-C0G	0402S46R80A74A				CHIP CAP.CER. 8.8pF 50V ±0.5pF C0G 0402	-55° ~+125°	SMD	CS-C-0402
19	1	C44	5.6p50V-C0G	0402S45R6JAT2A				CHIP CAP.CER. 5.6pF 50V 5% C0G 0402	-55° ~+125°	SMD	CS-C-0402
20	1	C45	3.9p50V-C0G	0402N3R9C500CT				CHIP CAP.CER. 3.9pF 50V ±0.25pF C0G 0402	-55° ~+125°	SMD	CS-C-0402
21	1	C46	3.3p50V-C0G	0402S43R3JAT2A				CHIP CAP.CER. 3.3pF 50V 5% C0G 0402	-55° ~+125°	SMD	CS-C-0402
22	1	C48	1.3p50V-C0G	500R07S1R38V4T				CHIP CAP.CER. 1.3pF 50V ±0.1pF C0G 0402 SMT	-55° ~+125°	SMD	CS-C-0402
23	3	C50,C51,C52	1n/50V	C0402C102K9RECAUTO				CHIP CAP.CER. 1nF 50V 10% X7R 0402		SMD	CS-C-0402
24	1	D5W1	DIP-SW-MCDHN-04F-T-V	MCDHN-04F-V				DIP SWITCH 4P/D NERO MCDHN-04F-V MULTICOMP SMT		SMD	DSS-4-0127-MCDHN
25	1	LD1	GENERIC	LS 0276-NR-1				RED LED DIODE 0603 SMT		SMD	LD-0603
26	1	LD2	GENERIC	VLMG1300-G508				GREEN LED DIODE 0603 SMT		SMD	LD-0603
27	1	LD3	LBQ39E-N100-35-1	LBQ39E-N100-35-1				BLUE LED DIODE LBQ39E OSRAM 0603 SMT		SMD	LD-0603
28	1	L1	128SAS-H-2R2M=P2	128SAS-H-2R2M=P2				INDUCTOR 2.2uH 1.5A 20% 0806 128SAS-H-2R2M=P2 MURATA SMT	40° ~+85°	SMD	LS-0806
29	1	L2	BLM18AG102SN1	BLM18AG102SN1D				FERRITE BEAD 1K 0.4A 25% 0603 BLM18AG102SN1D MURATA SMT		SMD	LS-0603
30	1	L3	LQM21DN150M70L	LQM21DN150M70L				INDUCTOR 15uH 0.25A 0.25A 5% 0805 LQM21DN150M70L COILCRAFT SMT	-55° ~+125°	SMD	LS-0805
31	2	L4,R36	0R	CRCW0402000020TDBC				CHIP RES. 0R 0402 1/16W 1%		SMD	RS-0402
32	1	L5	MLG100S511NJ1000	MLG100S511NJ1000				INDUCTOR 11nH 0.4A ±5% 0402 MLG100S511NJ1000 TDK SMT	-55° ~+125°	SMD	LS-0402
33	2	L6,L12	L-07C3N3SV6T	L-07C3N3SV6T				INDUCTOR 3.3nH 0.3A ±0.3nH 0402 L-07C3N3SV6T JOHANSON TECHNOLOGY SMT	40° ~+100°	SMD	LS-0402
34	1	L7	PE-0402CL3N6STT	PE-0402CL3N6STT				INDUCTOR 3.6nH 0.3A ±0.3nH 0402 PE-0402CL3N6STT PULSE SMT	-55° ~+125°	SMD	LS-0402
35	2	L8,L11	LQW15AN47NJO0D	LQW15AN47NJO0D				INDUCTOR 47nH 0.21A 5% A FLO 0402 SMT	-55° ~+125°	SMD	LS-0402
36	1	L9	LOG19HS3N0S02D	LOG19HS3N0S02D				INDUCTOR 3uH 0.8A 1% 0402 LOG19HS3N0S02D MURATA SMT	-55° ~+125°	SMD	LS-0402
37	1	L10	LOG19WZ8N7J02D	LOG19WZ8N7J02D				INDUCTOR 8.7nH 0.55A ±5% 0402 LOG19WZ8N7J02D MURATA SMT	-55° ~+125°	SMD	LS-0402
38	1	L13	L-07C6N8JV6T	L-07C6N8JV6T				INDUCTOR 6.8nH 0.25A 5% 0402 L-07C6N8JV6T JOHANSON TECHNOLOGY SMT	40° ~+100°	SMD	LS-0402
39	1	L14	LQW18AN12NG80	LQW18AN12NG80				INDUCTOR 12nH 1.5A ±2% 0603 LQW18AN12NG80 MURATA SMT	-55° ~+125°	SMD	FRACTUS-0404
40	1	L15	LQW15AN4N5G80D	LQW15AN4N5G80D				INDUCTOR 4.5nH 1.45A ±2% 0402 LQW15AN4N5G80D MURATA SMT	-55° ~+125°	SMD	FRACTUS-0404
41	1	PB2	PB-SKRPADE010	SKRPADE010				PUSH BUTTON 16V 0.5A 4.2X3.2 SPST SKRPADE010 ALPS SMT	20° ~+70°	SMD	PB-SKRPA
42	9	R1,R2,R3,R4,R18	49.9R	CRCW040249R9FKED				CHIP RES. 4999 0402 1/16W 1% 100PPM/°C	-55° ~+155°	SMD	RS-0402
43	2	R5,R6	10M/5%	SG73S1ETTP106J				CHIP RES. 10M 0402 18W 5%	-55° ~+125°	SMD	RS-0402
44	2	R14,R17	200R	RC0402FR-0722RL				CHIP RES. 200R 0402 1/16W 1% 100PPM/°C		SMD	RS-0402
45	7	R15,R16,R20,R21,R22,R24,R26	10k	RC0402FR-0710KL				CHIP RES. 10K 0402 1/16W 1%	-55° ~+125°	SMD	RS-0402
46	1	R19	22R	RC0402FR-07200RL				CHIP RES. 22R 0402 1/16W 1%		SMD	RS-0402
47	2	R23,R25	1k	RC0402FR-071KL				CHIP RES. 1K 0402 1/16W 1%	-55° ~+125°	SMD	RS-0402
48	3	R31,R32,R34	100R	RC0402FR-07100RL				CHIP RES. 100R 0402 1/16W 1%		SMD	RS-0402
49	1	R33	0R	CRCW0402000020TDBC				CHIP RES. 0R 0402 1/16W 1%		SMD	FRACTUS-0404
50	1	TVS1	ESD5Z5-0T1G	ESD5Z5-0T1G				DIODE TVS TRANSIL UNIDIR. 158W 18.6V ESD5Z5-0T1G SOD-523 SMT	-55° ~+150°	SMD	SOD523
51	1	U1	RP6052333B-E2-F	RP6052333B-E2-F				I.C. RP6052333B-E2-F RICHOF WLCSP20 SMT	40° ~+85°	SMD	XF8GA20
52	1	U3	STM32WL55CCU7	STM32WL55CCU7	STM32WL55CCU6	STM32WL55CCU7	STM32WL55CCU6	I.C. STM32WL55CCU7 ST UFQFPN48	40° ~+105°	SMD	UFQFPN48-EXP-0700X0700
53	1	U4	TS3A5223RSWR	TS3A5223RSWR	NLAS2750MUTAG			I.C. TS3A5223RSWR UOFPN 10 TI SMT	40° ~+85°	SMD	UFQFPN10-0180X0140
54	1	U6	BGS13S4N6E6327XTSA1	BGS13S4N6E6327XTSA1				I.C. BGS13S4N6E6327XTSA1 XFLGA9 INFINEON SMT	40° ~+85°	SMD	XFLGA9
55	1	Y1	ABS06-107-32-768KHZ-T	ABS06-107-32-768KHZ-T				CRYSTAL 32.768KHz 4pf 20ppm D=2x1.2 ABS06-107-32-768KHZ-T ABRACON SMT	40° ~+85°	SMD	Y-ABS06
56	1	Y2	TYETBCSANF-32.000000	TYETBCSANF-32.000000				OSCILLATOR 32MHz 2.5V 3.3V 1ppm D=2.5x2 TYETBCSANF-32.000000 TATTEI SMT	20° ~+75°	SMD	Y-TYETBCSANF

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NOT MOUNTED

1	1	ASS1	NU	TWF5-3-9W				PUSH-ON ENCLOSURE 4.0X4.7X3.0 TWF5-3-9W		THT	
2	4	ASS2,ASS3,ASS4,ASS5	NU					SCREW SELF TAPPING 2.3X6 INOX DIN 7985		THT	
3	4	ASS6,ASS7,ASS8,ASS9	NU					SCREW 2.6X12 INOX DIN 7985		THT	
4	1	ASS10	NU	MH3080-1				PIR LENS MH3080-1 MUHWA		THT	
5	1	BAT1	NU	2468				BATTERY HOLDER 2468 KEYSTONE		THT	BATHLD-2468-NOMECC
6	1	BAT2	NU	3034				BATTERY HOLDER 3034 KEYSTONE SMT		SMD	BATHLD-3034-2032
7	4	C8,C9,C23,C49	NU	CC0402KRX7R78B104				CHIP CAP.CER. 100nF 16V 10% X7R 0402		SMD	CS-C-0402
8	2	C54,C55	NU	CC0402KRX7R78B104				CHIP CAP.CER. 100nF 16V 10% X7R 0402		SMD	CS-C-0402
9	2	FID1,FID2	TPS					FIDUCIAL		SMD	FIDUCIAL
10	2	J1,J2	NU	00718				STRIP 12P F/D P=2.54 00718 UCON	40° ~+105°	THT	J-12-0254-FDT-H0508_EDGE
11	1	J3	NU	B2B-PH-SM4-TBT(LF)(SN)				CONN. UNSHROUDED HEADER HDR 10 POS P=1.27 FTSH-105-01-F-DV-K-P-TR SAMTEC SMT	-25° ~+85°	SMD	J-2-0200-MDS-B2B-PH-SM4
12	1	J4	NU	BM04B-SRSS-TBT(LF)(SN)				CONN. UNSHROUDED HEADER HDR 10 POS P=1.27 FTSH-105-01-F-DV-K-P-TR SAMTEC SMT	-25° ~+85°	SMD	J-4-0100-MDS-SH
13	2	J5,J6	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 SMT	-55° ~+125°	SMD	J-5X2-0127-MDS-FTSH105
14	1	LD4	NU	LS 0276-NR-1				RED LED DIODE 0603 SMT		SMD	LD-0603
15	1	LD5	NU	VLMG1300-G508				GREEN LED DIODE 0603 SMT		SMD	LD-0603
16	1	LD6	NU	LBQ39E-N100-35-1				BLUE LED DIODE LBQ39E OSRAM 0603 SMT		SMD	LD-0603
17	1	OBJ1	NU	S02-30200250				RF SHIELD 30X20MM S02-30200250 HARWIN SMD		SMT	J-S02-30200250
18	4	OBJ2,OBJ3,OBJ4,OBJ5	NU	S1001-46R				SUPPORT RFI SHIELD S1001-46R HARWIN SMD	-25° ~+150°	SMT	J-S1001-46R
19	5	PB1,PB3,PB4,PB5,PB6	NU	SKRPADE010				PUSH BUTTON 16V 0.5A 4.2X3.2 SPST SKRPADE010 ALPS SMT	20° ~+70°	SMD	PB-SKRPA
20	2	R7,R8	NU	RC0402FR-074KL				CHIP RES. 4K7 0402 1/16W 1%		SMD	RS-0402
21	2	R9,R13	NU	RC0402FR-0710KL				CHIP RES. 10K 0402 1/16W 1%	-55° ~+125°	SMD	RS-0402
22	3	R10,R11,R12	NU	CRCW040249R9FKED				CHIP RES. 4999 0402 1/16W 1% 100PPM/°C	-55° ~+155°	SMD	RS-0402
23	4	R27,R28,R29,R30	NU	CRCW0402000020TDBC				CHIP RES. 0402		SMD	RS-0402
24	1	R35	NU	RC0402FR-072M2L				CHIP RES. 2M2 0402 1/16W 1% 100PPM/°C		SMD	RS-0402
25	1	TVS2	NU	ESD5Z5-0T1G				DIODE TVS TRANSIL UNIDIR. 158W 18.6V ESD5Z5-0T1G SOD-523 SMT	-55° ~+150°	SMD	SOD523
26	1	U2	NU	BME280				I.C. BME280 BOSCH LG48 SMT	40° ~+85°	SMD	IC-BME280
27	1	U5	NU	PYD 1598/7655				I.C. PYD 1598/7655 EXCELITAS TO-5	40° ~+70°	THT	T05-4
28	1	U7	NU	FXMAR2104UMX				I.C. FXMAR2104UMX ONSEMI UMLP-12 SMT	40° ~+85°	SMD	UFQFPN12-0180X0180