

PROJECT	20211494 - (SPARROW REFERENCE SENSOR BOARD)
REVISION	7
SCHEMATIC	20211494_SPARROW-REFERENCE-SENSOR-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	BAT1	2468	2468				NN02-224 IGNION SMT		THT	BATHLD-2468-NOMECC
3	1	CS1	CS V2 4L 35um					BATTERY HOLDER 2468 KEYSTONE			
4	1	C1	22u6.3V/X5R	CC0603MRX5R5BB226				C.S. SPARROW REFERENCE-SENSOR-BOARD			
5	2	C2,C5	1uF16V-X5R	EMK105BJ105MVHF				V2 (82X35.62)mm 4L50(BLACK)/SR ENIG	TG150		
6	18	C3,C6,C7,C8,C9,C11,C13,C14,C19,C22,C29,C25,C28,C29,C32,C40,C49,C5	100n/16V	CC0402KRX7R7BB104				TG150 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	4p/50V-C0G	0402N4R0C500CT				CHIP CAP.CER. 100nF 16V 10% X7R 0402		SMD	CS-C-0402
10	1	C17	10p/50V-NP0	CC0402JRNPO9BN100				CHIP CAP.CER. 10uF 6.3V 20% X5R 0402	-55°. +85°	SMD	CS-C-0402
11	1	C18	3.6p/50V-C0G	500R07S3R6BV4T				CHIP CAP.CER. 4.7uF 50V ±0.25pF C0G 0402	-55°. +125°	SMD	CS-C-0402
12	1	C24	68p/50V-C0G	CC0402JRNPO9BN680				CHIP CAP.CER. 10pF 50V 5% 0402		SMD	CS-C-0402
13	7	C26,C30,C31,C37,C39,C41,C42	33p/50V-C0G	CC0402JRNPO9BN330				CHIP CAP.CER. 3.6pF 50V ±0.1pF C0G 0402	-55°. +125°	SMD	CS-C-0402
14	1	C27	470n/10V-X5R	CC0402KRX5R6B474				CHIP CAP.CER. 33pF 50V 5% C0G 0402		SMD	CS-C-0402
15	1	C33	47u/25V	CC0402KRX5R8B473				CHIP CAP.CER. 470nF 10V 10% X5R 0402		SMD	CS-C-0402
16	1	C34	47p/50V-C0G	CC0402JRNPO9BN470				CHIP CAP.CER. 47pF 50V 5% C0G 0402		SMD	CS-C-0402
17	3	C35,C36,C47	2.7p/50V-C0G	0402N2R7C500CT				CHIP CAP.CER. 2.7pF 50V ±0.25pF C0G 0402	-55°. +125°	SMD	CS-C-0402
18	1	C38	2.4p/50V-C0G	0402SU2R4BAT2A				CHIP CAP.CER. 2.4pF 50V ±0.1pF C0G 0402	-55°. +125°	SMD	CS-C-0402
19	1	C43	6.8p/50V-C0G	0402SA6R8DAT4A				CHIP CAP.CER. 6.8pF 50V ±0.5pF C0G 0402	-55°. +125°	SMD	CS-C-0402
20	1	C44	5.6p/50V-C0G	0402SA5R6JAT2A				CHIP CAP.CER. 5.6pF 50V 5% C0G 0402	-55°. +125°	SMD	CS-C-0402
21	1	C45	3.9p/50V-C0G	0402N3R9C500CT				CHIP CAP.CER. 3.9pF 50V ±0.25pF C0G 0402	-55°. +125°	SMD	CS-C-0402
22	1	C46	3.3p/50V-C0G	0402SA3R3JAT2A				CHIP CAP.CER. 3.3pF 50V 5% C0G 0402	-55°. +125°	SMD	CS-C-0402
23	1	C48	1.3p/50V-C0G	500R07S1R3BV4T				CHIP CAP.CER. 1.3pF 50V 5% C0G 0402	-55°. +125°	SMD	CS-C-0402
24	3	C50,C51,C52	1n/50V	CC0402C102K5RECAUTO				CHIP CAP.CER. 1nF 50V 10% X7R 0402		SMD	CS-C-0402
25	2	C54,C55	100n/16V	CC0402KRX7R7BB104				CHIP CAP.CER. 100nF 16V 10% X7R 0402		SMD	CS-C-0402
26	1	DSW1	DIP-SW-MCDHN-04F-T-V	MCDHN-04F-V				DIP SWITCH 4P/D NERO MCDHN-04F-V		SMD	DSS-4-0127-MCDHN
27	2	J1,J2	00718	00718				MULTICOMP SMT			
28	1	J5	21691	21691	FTSH-107-01-F-DV-K-P	BH3M56-14GBCNR-4-00		STRIP 12P F/D P=2.54 00718 UC0N	-40°. +105°	THT	J-12-0254-FDT-H0508_EDGE
29	1	LD4	GENERIC	LS Q976-NR-1				CONN. UNSHROUDED HEADER HDR 14 POS	-55°. +125°	SMD	J-7X2-0127-MDS-21691
30	1	LD5	GENERIC	VLMG1300-GS08				P=1.27 21691 UCON SMT			
31	1	LD6	LBQ39E	LBQ39E-N10O-35-1				RED LED DIODE 0603 SMT		SMD	LD-0603
32	1	L1	1285AS-H-2R2M=P2	1285AS-H-2R2M=P2				GREEN LED DIODE 0603 SMT		SMD	LD-0603
33	1	L2	BLM18AG102SN1	BLM18AG102SN1D				BLUE LED DIODE LBQ39E OSRAM 0603 SMT		SMD	LD-0603
34	1	L3	LQM21DN150M70L	LQM21DN150M70L				INDUCTOR 2.2uH 1.5A 20% 0806 1285AS-H-2R2M=P2 MURATA SMT	-40°. +85°	SMD	LS-0806
35	4	L4,R36,R37,R38	0R	CRCW0402000020TDBC				FERRITE BEAD 1K 0.4A ±5% 0603			
36	1	L5	MLG1005S11NJ1000	MLG1005S11NJ1000				BLM18AG102SN1D MURATA SMT		SMD	LS-0603
37	2	L6,L12	L-07C3N3SV6T	L-07C3N3SV6T				INDUCTOR 15uH 0.25A 20% 0805	-55°. +125°	SMD	LS-0805
38	1	L7	PE-0402CL3N6STT	PE-0402CL3N6STT				LQM21DN150M70L COILCRAFT SMT			
39	2	L8,L11	LQW15AN47NJ00D	LQW15AN47NJ00D				CHIP RES. 0R 0402 1/16W 1%		SMD	RS-0402
40	1	L9	LQG15HS3N0S02D	LQG15HS3N0S02D				INDUCTOR 11nH 0.4A ±5% 0402	-55°. +125°	SMD	LS-0402
41	1	L10	LQG15WZ8N7J02D	LQG15WZ8N7J02D				MLG1005S11NJ1000 TDK SMT	-55°. +125°	SMD	LS-0402
42	1	L13	L-07C6N8JV6T	L-07C6N8JV6T				INDUCTOR 3.3nH 0.3A ±0.3nH 0402 L-07C3N3SV6T JOHANSON TECHNOLOGY SMT	-40°. +100°	SMD	LS-0402
43	1	L14	LQW18AN12NG80	LQW18AN12NG80				INDUCTOR 3.6nH 0.3A ±0.3nH 0402 PE-0402CL3N6STT PULSE SMT	-55°. +125°	SMD	LS-0402
44	1	L15	LQW15AN4N5G80D	LQW15AN4N5G80D				INDUCTOR 47nH 0.21A 5% A FILO 0402 SMT	-55°. +125°	SMD	LS-0402
45	3	PB4,PB5,PB6	PB-SKRPADE010	SKRPADE010				INDUCTOR 3nH 0.8A 1% 0402	-55°. +125°	SMD	LS-0402
46	5	R1,R2,R3,R4,R18	49.9R	CRCW040249R9FKED				LQG16HS3N0S02D MURATA SMT	-55°. +125°	SMD	LS-0402
47	2	R5,R6	10M/5%	SG73S1ETT1P106J				INDUCTOR 8.7nH 0.55A ±5% 0402	-55°. +125°	SMD	LS-0402
48	2	R9,R13	10K	RC0402FR-0710KL				LQG15WZ8N7J02D MURATA SMT	-55°. +125°	SMD	LS-0402
49	3	R10,R11,R12	49.9R	CRCW040249R9FKED				INDUCTOR 6.8nH 0.25A 5% 0402 L-07C6N8JV6T JOHANSON TECHNOLOGY SMT	-40°. +100°	SMD	LS-0402
50	2	R14,R17	200R	RC0402FR-0722RL				INDUCTOR 12nH 1.5A ±2% 0603	-55°. +125°	SMD	FRACTUS-0404
51	7	R15,R16,R20,R21,R22,R24,R26	10K	RC0402FR-0710KL				LQW16AN12NG80 MURATA SMT	-55°. +125°	SMD	FRACTUS-0404
52	1	R19	22R	RC0402FR-07200RL				INDUCTOR 4.5nH 1.45A ±2% 0402	-55°. +125°	SMD	FRACTUS-0404
53	2	R23,R25	1K	RC0402FR-071KL				LQW15AN4N5G80D MURATA SMT	-55°. +125°	SMD	FRACTUS-0404
54	3	R31,R32,R34	100R	RC0402FR-07100RL				PUSH BUTTON 16V 0.5A 4.2X3.2 SPST	-20°. +70°	SMD	PB-SKRPA
55	1	R33	0R	CRCW0402000020TDBC				SKRPADE010 ALPS SMT	-55°. +155°	SMD	RS-0402
56	1	R35	2.2M	RC0402FR-072M2L				CHIP RES. 49R9 0402 1/16W 1% 100PPM/°C	-55°. +155°	SMD	RS-0402
57	2	TVS1,TVS2	ESD5Z5.0T1G	ESD5Z5.0T1G				CHIP RES. 10M 0402 1/8W 5%	-55°. +125°	SMD	RS-0402
58	1	U1	RP605Z333B-E2-F	RP605Z333B-E2-F				CHIP RES. 10K 0402 1/16W 1%	-55°. +125°	SMD	RS-0402
59	1	U2	BME280	BME280				CHIP RES. 49R9 0402 1/16W 1% 100PPM/°C	-55°. +155°	SMD	RS-0402
60	1	U3	STM32WL55CCU7	STM32WL55CCU7	STM32WL55CCU6	STM32WL55CCU7	STM32WL55CCU6	CHIP RES. 200R 0402 1/16W 1% 100PPM/°C	-55°. +155°	SMD	RS-0402
61	1	U4	TS3A5223RSVR	TS3A5223RSVR	NLAS2750MUTAG			CHIP RES. 200R 0402 1/16W 1% 100PPM/°C	-55°. +155°	SMD	RS-0402
62	1	U5	PYD 1598/7655	PYD 1598/7655				CHIP RES. 10K 0402 1/16W 1%	-55°. +125°	SMD	RS-0402
63	1	U6	BGS13S4N9E6327XTSA1	BGS13S4N9E6327XTSA1				CHIP RES. 2.2R 0402 1/16W 1%	-55°. +125°	SMD	RS-0402
64	1	U7	FXMAR2104UMX	FXMAR2104UMX				CHIP RES. 10R 0402 1/16W 1%	-55°. +125°	SMD	RS-0402
65	1	Y1	ABS06-107-32.768KHZ-T	ABS06-107-32.768KHZ-T				CHIP RES. 0R 0402 1/16W 1%	-55°. +125°	SMD	FRACTUS-0404
66	1	Y2	TYETBCSANF-32.000000	TYETBCSANF-32.000000				CHIP RES. 2M2 0402 1/16W 1% 100PPM/°C	-55°. +150°	SMD	SOD523

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## MECHANICAL

1	1	ASS1	TWF5-3.9W	TWF5-3.9W				PLASTIC ENCLOSURE 45.6x27.5x90 TWF5-3.9W TAKACHI		THT	
2	4	ASS3,ASS3,ASS4,ASS5	KN08 M2.3x6-INOX					SCREW SELF TAPPING 2.3X6 INOX DIN 7985		THT	
3	4	ASS6,ASS7,ASS8,ASS9	KN08 M2.6x12-INOX					SCREW 2.6X12 INOX DIN 7985		THT	
4	1	ASS10	MH3080-1	MH3080-1				PR LENS MH3080-1 MUHWA		THT	

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## NOT MOUNTED

1	1	BAT2	NU	3034				BATTERY HOLDER 3034 KEYSTONE SMT		SMD	BATHLD-3034-2032
2	4	FID1,FID2,FID3,FID4	TPS					FIDUCIAL		SMD	FIDUCIAL
3	1	J3	NU	B2B-PH-SM4-TBT(LF)(SN)				CONN. PH 2P M/D P=2 B2B-PH-SM4-TBT(LF)(SN) JST SMT	-25°. +85°	SMD	J-2-0200-MDS-B2B-PH-SM4
4	1	J4	NU	BM04B-SRSS-TBT(LF)(SN)				CONN. SH 4P M/D P=1 BM04B-SRSS-TBT(LF)(SN) JST SMT	-25°. +85°	SMD	J-4-0100-MDS-SH
5	1	J6	NU	21691				CONN. UNSHROUDED HEADER HDR 14 POS P=1.27 21691 UCON SMT	-55°. +125°	SMD	J-7X2-0127-MDS-21691
6	1	LD1	NU	LS Q976-NR-1				RED LED DIODE 0603 SMT		SMD	LD-0603
7	1	LD2	NU	VLMG1300-GS08				GREEN LED DIODE 0603 SMT		SMD	LD-0603
8	1	LD3	NU	LBQ39E-N10O-35-1				BLUE LED DIODE LBQ39E OSRAM 0603 SMT		SMD	LD-0603
9	1	OBJ1	NU	S02-30200250				R/S SHIELD 30X20MM S02-30200250 HARWIN		SMD	J-S02-30200250
10	4	OBJ2,OBJ3,OBJ4,OBJ5	NU	S1001-46R				SOP-PACK 10T SHIELD 5100T100K HARWIN	-25°. +150°	SMT	J-S1001-46R
11	3	PB1,PB2,PB3	NU	SKRPADE010				PUSH BUTTON 16V 0.5A 4.2X3.2 SPST	-20°. +70°	SMD	PB-SKRPA
12	2	R7,R8	NU	RC0402FR-074K7L				SKRPADE010 ALPS SMT		SMD	RS-0402
13	4	R27,R28,R29,R30	NU	CRCW0402000020TDBC				CHIP RES. 4K7 0402 1/16W 1%		SMD	RS-0402