

Document reference:	PCB reference:
STEVAL-IKR001V8D - SPIRIT1 RF PCB 868 MHz SKYWORKS RANGE EXTENDER	
Company:	
STMicroelectronics	

Item	Quantity	Reference	Part / Value	Note	Package	Manufacturer	Manufacturer's ordering code / Orderable Part Number	868 MHz
1	1	C0	C_100n_0402_X7R	Decoupling cap on VREG (pin # 17)	SM/C_0402	Murata	GRM155R71C104KA88D	100nF
2	1	C1	C_TBD_0402_C0G	TX LPF first cap shunt	SM/C_0402			NE
3	1	C2	C_8.2p_0402_C0G	TX LPF second cap shunt	SM/C_0402	Murata	GRM1555C1H8R2DZ01	8.2pF
4	1	C3	C_5.6p_0402_C0G	TX LPF third cap shunt	SM/C_0402	Murata	GRM1555C1H5R6DZ01	5.6pF
5	1	C4	C_2.2p_0402_C0G	RXP Balun shunt cap	SM/C_0402	Murata	GRM1555C1H2R2CZ01	2.2pF
6	1	C14	C_1.2p_0402_C0G	Additional notch filter cap	SM/C_0402	Murata	GRM1555C1H1R2CZ01	1.2pF
7	1	C15	C_TBD_0402_C0G	PA load capacitor	SM/C_0402			NE
8	1	C5	C_1.8p_0402_C0G	RXN Balun series	SM/C_0402	Murata	GRM1555C1H1R8CZ01	1.8pF
9	3	C6, C7, C8	C_220p_0402_C0G	DC block for RX	SM/C_0402	Murata	GRM1555C1H221JA01	220pF
10	1	C9	C_12p_0402_C0G	XTAL load cap (Xout)	SM/C_0402	Murata	GRM1555C1H120JZ01	12pF
11	1	C10	C_10p_0402_C0G	XTAL load cap (Xin)	SM/C_0402	Murata	GRM1555C1H100JZ01	10pF
12	1	C11	C_470n_0603_X7R	VBAT & SMPS OUT filter cap	SM/C_0603	Murata	GRM188R60J474KA01D	470nF
13	1	C12	C_100n_0402_X7R	SMPS OUT filter cap	SM/C_0402	Murata	GRM155R71C104KA88D	100nF
14	2	C13, C22	C_330p_0402_X7R	SMPS OUT filter cap	SM/C_0402	Murata	GRM1555C1H331JA01D	330pF
15	1	C18	C_4.7u_0603_X5R	VCC PA filter	SM/C_0603	Murata	GRM188R60J475KE19	4.7uF
16	2	C19, C25	C_10n_0402_X7R	VCC PA filter	SM/C_0402	Murata	GRM155R71C103KA01	10nF
17	1	C20	C_1u_0603_X7R	VBAT & SMPS OUT filter cap	SM/C_0603	Murata	GRM188R60J105KA01D	1uF
18	2	C21, C26	C_100p_0402_C0G	VCC PA filter	SM/C_0402	Murata	GRM1555C1H101JZ01D	100pF
19	1	C23	C_1n_0402_X7R	VCC PA filter	SM/C_0402	Murata	GRM155R71H102KA01	1nF
20	1	C24	C_33p_0402_C0G	VCC PA filter	SM/C_0402	Murata	GRM1555C1H330JZ01	33pF
21	1	C27	C_12p_0402_C0G	PA filtering	SM/C_0402	Murata	GRM1555C1H120CZ01	12pF
22	1	C28	C_3p_0402_C0G	PA filtering	SM/C_0402	Murata	GRM1555C1H3R0CZ01	3pF
23	1	C29	C_6.8p_0402_C0G	PA filtering	SM/C_0402	Murata	GRM1555C1H6R8CZ01	6.8pF
24	1	C30	C_3.3p_0402_C0G	PA filtering	SM/C_0402	Murata	GRM1555C1H3R3CZ01	3.3pF
25	1	C31	C_22p_0402_C0G	VCC PA filter	SM/C_0402	Murata	GRM1555C1H220JZ01	22pF
26	1	C32	C_2.2p_0402_C0G	PA filter	SM/C_0402	Murata	GRM1555C1H2R2JZ01	2.2pF
27	1	C33	C_TBD_0402_C0G	PA filtering	SM/C_0402			NE
28	1	J1	RF_IN/OUT	SMA Jack Assembly, End Launch	SMA-LAT	Emerson	142-0701-801	
29	2	J6, J7	HEADER 5X2	Male Strip 2X5, 100 mils, BOTTOM MOUNT	WALCON.100/VH/T M2OE/W.325/10/M OD			
30	1	L0	L_100n_0402	TX PA choke	SM/L_0402	Murata	LQG15HSR10J02	100nH
31	1	L1	L_3n_0402	TX LPF first series ind	SM/L_0402	Murata	LQG15HN3N0S02	3nH
32	1	L2	0R0	TX LPF second series ind	SM/L_0402	Tyco Electronics	CRG0402ZR	0R0
33	1	L3	L_4.3n_0402	TX LPF third series ind	SM/L_0402	Murata	LQG15HN4N3S02	4.3nH
34	2	L4, L5	L_18n_0402	RXP-N Balun series ind	SM/L_0402	Murata	LQG15HN18NJ02	18nH
35	1	L6	L_22n_0402	RX Balun compensation ind	SM/L_0402	Murata	LQG15HN22NJ02	22nH
36	1	L7	L_10u_0805	SMPS out inductor	SM/L_0805	Murata	LQM21FN100M70L	10uH

37	1	L8	OR0	SMPS out inductor	SM/L_0402	Tyco Electronics	CRG0402ZR	OR0
38	1	L9	L_2.7n_0402	Additional notch filter ind	SM/L_0402	Murata	LQG15HN2N7S02	2.7nH
39	1	L10	L_10n_0402	VBAT filtering	SM/L_0402	Murata	LQG15HN10NJ02	10nH
40	3	L12, L17, L18	L_6.8n_0603	VCC PA filter, PA filtering	SM/L_0603	Murata	LQG18HN6N8S00D	6.8nH
41	1	L13	L_3.3n_0402	VCC PA filter	SM/L_0402	Murata	LQG15HN3N3S02	3.3nH
42	1	L14	L_7.5n_0402	PA output matching	SM/L_0402	Coilcraft	0402CS-7N5	7.5nH
43	1	L15	L_4.7n_0402	PA output matching	SM/L_0402	Murata	LQG15HN4N7S02	4.7nH
44	1	L16	L_8.2n_0402	PA output matching	SM/L_0402	Murata	LQG15HN8N2J02D	8.2nH
45	1	R1	ne	By pass resistor	SM/R_0402			ne
46	3	R2, R3, R4	1k	By pass resistor	SM/R_0402	Tyco Electronics		1k
47	2	R5, R6	50	By pass resistor	SM/R_0402	Tyco Electronics		50
48	3	R12, R13, R14	R_100k_0402	Pullup/down resistors	SM/R_0402	Tyco Electronics		100k
49	1	U1	SPIRIT1_2	RF IC	QFN20_REV3	STMicroelectronics		
50	1	Y1	XTAL	XTAL	XTAL_32_25_REV2	NDK	NX3225GA	50 MHz
51	1	U3	EEPROM	Memory	SO8N	STMicroelectronics	M95640-RMN6P	
52	1	U9	Power Amplifier			Skyworks	SE2435L	
53	2	U8, U10	SAW filter			TAI-SAW Technology CO., LTD.	TA0801A	
54	1	U7	TMM	4 pins connector	TMM	Samtec	TMM-102-01-G-D-SM	