

Document reference:

PCB reference:

SPIRIT1 RF PCB 315 MHz vers3 - STEVAL-IKR001V2D

Company:

STMicroelectronics

Item	Quantity	Reference	Part / Value	Note	Package	Manufacturer	Manufacturer's ordering code / Orderable Part Number	315 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	Murata	GRM1555C1H120JZ01	12pF
3	1	C2	C_TBD_0402_C0G	TX LPF second cap shunt	SM/C_0402	Murata	GRM1555C1H270JZ01	27pF
4	1	C3	C_TBD_0402_C0G	TX LPF third cap shunt	SM/C_0402	Murata	GRM1555C1H150DZ01	15pF
5	1	C4	C_TBD_0402_C0G	RXP Balun shunt cap	SM/C_0402	Murata	GRM1555C1H3R9JZ01	3.9pF
6	1	C14	C_TBD_0402_C0G	Additional notch filter cap	SM/C_0402	Murata	GRM1555C1H1R8DZ01	1.8pF
7	1	C15	C_TBD_0402_C0G	PA load capacitor	SM/C_0402	Murata	GRM1555C1H1R2DZ01	1.2pF
8	1	C5	C_TBD_0402_C0G	RXN Balun series	SM/C_0402	Murata	GRM1555C1H4R7JZ01	4.7pF
9	3	C6, C7, C8	C_TBD_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	2	C11, C20	C_1U_0603_X7R	VBAT & SMPS OUT filter cap	SM/C_0603	Murata	GRM188R60J105KA01D	1uF
13	1	C12	C_100n_0402_X7R	SMPS OUT filter cap	SM/C_0402	Murata	GRM155R71C104KA88D	100nF
14	1	C13	C_TBD_0402_X7R	SMPS OUT filter cap	SM/C_0402	Murata	GRM1555C1H331JA01D	330pF
15	1	C19	C_TBD_0402_C0G	VBAT filtering	SM/C_0402	Murata	GRM155R71C103KA01	10nF
16	1	C21	C_100p_0402_C0G	VBAT bypass capacitors	SM/C_0402	Murata	GRM1555C1H101JZ01D	100pF

17	1	C22	C_330p_0402_C0G	Decoupling cap on VREG (pin # 17)	SM/C_0402	Murata	GRM1555C1H331JA01D	330pF
18	1	J1	RF_IN/OUT	SMA Jack Assembly, End Launch	SMA-LAT	Emerson	142-0701-881	
19	2	J6, J7	HEADER 5X2	Male Strip 2X5, 100 mils, BOTTOM MOUNT	WALCON.100/VH/T M2OE/W.325/10/M OD			
20	1	L0	L_TBD_0402	TX PA choke	SM/L_0402	Murata	LQG15HSR22J02	220nH
21	2	L1, L2	L_TBD_0402	TX LPF first & second series ind	SM/L_0402	Murata	LQG15HN12NJ02	12nH
22	1	L3	L_TBD_0402	TX LPF third series ind	SM/L_0402	Murata	LQG15HN15NJ0	15nH
23	1	L4	L_TBD_0402	RXP Balun series ind	SM/L_0402	Murata	LQG15HN47NJ02	47nH
24	1	L5	L_TBD_0402	RXN Balun shunt ind	SM/L_0402	Murata	LQG15HN39NJ02	39nH
25	1	L6	L_TBD_0402	RX Balun compensation ind	SM/L_0402			NE
26	1	L8	L_TBD_0402	SMPS out inductor	SM/L_0402	Murata	LQG15HSR27J02	270nH
27	1	L9	L_TBD_0402	Additional notch filter ind	SM/L_0402	Murata	LQG15HN15NJ02	15nH
28	1	L7	L_10U_0805	SMPS out inductor	SM/L_0805	Murata	LQM21FN100M70L	10uH
29	1	R6	R_ORO_0402	USED TO IDENTIFY BAND: mount only 1 ORO resistor according to assembly options	SM/R_0402	Tyco Electronics		NE
30	1	R7	R_ORO_0402		SM/R_0402	Tyco Electronics	CRG0402ZR	ORO
31	1	R8	R_ORO_0402		SM/R_0402	Tyco Electronics		NE
32	1	R9	R_ORO_0402		SM/R_0402	Tyco Electronics		NE
33	1	R10	R_ORO_0402		SM/R_0402	Tyco Electronics		NE
34	1	R11	R_ORO_0402		SM/R_0402	Tyco Electronics		NE
35	1	R12	R_TBD_0402	Used to identify band by firmware	SM/R_0402	Tyco Electronics	CRG0402F100K	100k
36	1	R13	R_TBD_0402		SM/R_0402	Tyco Electronics	CRG0402F50K	50k

37	1	U1	SPIRIT1	RF IC	QFN20_REV3	STMicroelectronics		
38	1	U2	HEADER 1X2	Male Strip 1X2, 100 mils	WALCON.100/VH/T M2OE/W.325/10/M OD			
39	1	Y1	XTAL	XTAL	XTAL_32_25_REV2	NDK	NX3225GA 50MHz EXS00A- CG03244	50 MHz