

Date: **October 22, 2018**

Document reference:	PCB reference: Dual radio module	
STMicroelectronics		
Contact person:	E-mail:	Phone:

Item	Quantity	Reference	Part	Note	Package	Manufacturer	Manufacturer's ordering code / Orderable Part Number	
1	7	C1, C17, C19, C21, C23, C25, C51	1uF	VBAT & SMPS OUT filter cap	SM/C_0201	Murata	GRM033C80J105ME05	1uF
2	6	C2, C18, C20, C22, C24, C26	100nF	VBAT & SMPS OUT filter cap	SM/C_0201	Murata	GRM033R61A104KE84	100nF
3	1	C3	10nF	Filtering cap	SM/C_0201	Murata	GRM033R71A103KA01	10nF
4	1	C30	10nF	Filtering cap	SM/C_0402	Murata	GRM155R71C103KA01	10nF
5	2	C4, C5	22pF	LSXTAL load cap	SM/C_0201	Murata	GRM033C1H220GA01	22pF
6	1	C6	51pF	Balun/filtering cap	SM/C_0402	Murata	GRM1555C1H510JZ01	51pF
7	1	C7	0p9F	Balun/filtering cap	SM/C_0402	Johanson	500R07S0R9BV4S	0.9pF
8	1	C8	1p8F	Balun/filtering cap	SM/C_0402	Murata	GRM1555C1H1R8CZ01	1.8pF
9	1	C9	12pF	Balun/filtering cap	SM/C_0402	Murata	GRM1555C1H120JZ01	12pF
10	1	C10	0p4F	Balun/filtering cap	SM/C_0402	Johanson	500R07S0R4AV4S	0.4pF
11	1	C11	1p1F	Balun/filtering cap	SM/C_0402	Murata	GRM1555C1H1R1CZ01	1.1pF
12	1	C12	1p5F	Balun/filtering cap	SM/C_0402	Murata	GRM1555C1H1R5CZ01	1.5pF
13	2	C13, C14	15pF	HSXTAL load cap	SM/C_0201	Murata	GRM0335C1E150JD01	15pF
14	10	C15, C40, C42, C44, C46, C48, C50, C60, C63, C67	220nF	VBAT/LDO filter cap	SM/C_0201	Murata	GRM033R61A224ME90	220nF
15	12	C16, C41, C43, C45, C47, C49, C53, C56, C61, C64, C66, C68	100 pF	VBAT/LDO filter cap	SM/C_0201	Murata	GRM033R11E101KA01	100pF
16	1	C27	1nF	VBAT filter cap	SM/C_0402	Murata	GRM155R71H102KA01	1nF
17	1	C28	4u7F	VBAT filter cap	SM/C_0402	Murata	GRM155R61A475MEAA	4.7uF
18	1	C29	33pF	VBAT filter cap	SM/C_0402	Murata	GRM1555C1E100JA01D	33pF
19	1	C31	120pF	VBAT filter cap	SM/C_0402	Murata	GRM1555C1H121GA01	120pF
20	1	C32	10pF	FEM filter cap	SM/C_0402	Murata	GRM1555C1E100JA01D	10pF
21	4	C33, C35, C36, C38	NP	FEM filter cap	SM/C_0402			Not populated
22	1	C34	2p4F	FEM filter cap	SM/C_0402	Murata	GRM1555C1H2R4CA01	2.4pF
23	1	C39	4u7F	VBAT filter cap	SM/C_0201	Murata	GRM035R60J475ME15	4.7uF
24	2	C52, C57	1p5F	RX balun cap	SM/C_0201	Murata	GRM0334C1H1R5BA01	1.5pF
25	1	C54	1p2F	RX balun/TX filter cap	SM/C_0201	Murata	GRM0334C1H1R2BA01	1.2pF
26	1	C65	1p6F	RX balun/TX filter cap	SM/C_0201	Murata	GRM0334C1H1R6BA01	1.6pF
27	2	C58, C59	12pF	XTAL cap	SM/C_0201	Murata	GRM0332C1H120GA01	12pF
28	1	C62	470pF	VREF cap	SM/C_0201	Murata	GRM0335C1E471GA01	470pF
29	1	C69	NP	TX filter cap	SM/C_0201			Not populated
30	1	C70	3p9F	TX filter cap	SM/C_0201	Murata	GRM0333C1H3R9WA01	3.9pF
31	1	C71	5p6F	TX filter cap	SM/C_0201	Murata	GRM0332C1H5R6BA01	5.6pF
32	1	C72	2p7F	TX filter cap	SM/C_0201	Murata	GRM0333C1H2R7BA01	2.7pF

33	1	C73	0p3F	Balun/filtering cap	SM/C_0402	Murata	GRM1555C1HR30CZ01	0.3pF
34	4	R1, R2, R4, R5	100 kohm	Pull resistor	SM/R_0201	Tyco Electronics		100 kohm
35	1	R3	10 ohm	LDO resistor	SM/R_0201	Tyco Electronics		10 ohm
36	2	L1, L15	10uH	SMPS inductor	SM/L-0603	Kemet	L0603B100KPWFT	10uH
37	1	L2	2nH	LSXTAL inductor	SM/L_0201	Murata	LQP03TN2N0B04	2nH
38	1	L3	2n4H	Balun/filtering inductor	SM/L_0402	Murata	LQG15HS2N4S02	2.4nH
39	1	L4	2n7H	Balun/filtering inductor	SM/L_0402	Murata	LQG15AN2N7C00	2.7nH
40	1	L5	1nH	Balun/filtering inductor	SM/L_0402	Murata	LQG15HS1N0S02	1nH
41	2	L6, L14	0 ohm	HSXTAL inductor	SM/L_0201	Tyco Electronics		0 ohm
42	1	L7	120 ohm	VBAT filter inductor	SM/L_0402	Taiyo Yuden	BK1005HM121	120 ohm
43	1	L8	6n8H	VBAT filter inductor	SM/L_0402	Murata	LQW15AN6N8J00D	6.8nH
44	1	L9	2n7H	FEM filter inductor	SM/L_0402	Murata	LQG15WZ2N7S02D	2.7nH
45	1	L10	0n8H	VBAT filter inductor	SM/L_0201	Murata	LQP03TN0N8B02D	0.8nH
46	1	L11	7n5H	FEM filter inductor	SM/L_0402	Murata	LQG15HN7N5J02	7.5nH
47	2	L12, L13	4n7H	FEM filter inductor	SM/L_0402	Murata	LQG15HN4N7S02	4.7nH
48	2	L16, L18	18nH	RX balun inductor	SM/L_0201	Murata	LQP03TN18NH04	18nH
49	1	L17	27nH	RX balun inductor	SM/L_0201	Murata	LQP03TN27NH04	27nH
50	2	L19, L21	4n7H	XTAL/TX filter inductor	SM/L_0201	Murata	LQP03TN4N7H04	4.7nH
51	1	L20	15nH	TX choke inductor	SM/L_0201	Murata	LQP03TN15NH04	15nH
52	1	L22	6n8H	TX filter inductor	SM/L_0201	Murata	LQP03TN6N8H04	6.8nH
53	1	L23	5n6H	TX filter inductor	SM/L_0201	Murata	LQP03TN5N6H04	5.6nH
54	1	L24	1n6H	Balun/filtering inductor	SM/L_0402	Murata	LQP15MN1N6B02	1.6nH
55	1	D1	Switch	RX switch	SM/C_0201	Murata	GRM033R11E101KA01	100pF
56	1	D2	Switch	RX switch	SM/C_0201	Murata	GRM033R11E101KA01	100pF
57	1	D3	Switch	PA control switch	SM/R_0201	Tyco Electronics		0 ohm
58	1	D4	Switch	PA control switch	SM/R_0201	Tyco Electronics		0 ohm
59	1	D5	Switch	PA control switch	SM/R_0201	Tyco Electronics		0 ohm
60	1	Q1	XTAL_LS	XTAL-LS	NX3215SA	NDK	NX3215SA-32.768kHz-EXS00A-MU00003	32.768 kHz
61	1	Q2	XTAL_HS	XTAL-HS	NX2016SA	NDK	NX2016SA -32.000MHz-EXS00A-CS06654	32 MHz
62	1	U1	BlueNRG-248	BlueNRG	QFN48	STM		
63	1	U2	SKY66420	FEM	MCM 16 pin	Skyworks		
64	1	U3	S2-LP	RF_IC	QFN24	STM		
65	1	Y1	XTAL	XTAL	NX1612SA	NDK	NX1612SA 50MHz EXS00A-CS08403	50 MHz

Soldered the 100 pF between 1 and 2
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Soldered the 0 ohm between 1 and 3
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