

# Bluetooth RF Specification

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Item	Parameter	Specification		Note
		Value	Unit	
1	Frequency range			
	USA, Europe	2400 ~ 2483.5 M	Hz	
2	Channel Spacing	1 M	Hz	
3	RF Channel	2402 + k , K = 0,...,78	MHz	
4	Output power			
	Class 1	20 ~ 0	dBm	
5	Power Control			
	Class 1	+20 ~+4	dBm	Power control is required . Step 2 ~ 8 dB
6	Trasmitter Sperious Emission In-Band			
	+ / - 500 KHz	-20	dBc	@100 KHz Bandwidth
	M-N   = 2	-20	dBm	
	M-N   > = 3	-40	dBm	
7	Trasmitter Sperious Emission Out-B	Operation / Idel mode		
	30 MHz- 1 GHz	-36 / -57	dBm	@100 KHz Bandwidth
	1 GHz - 12.75 GHz	-30 / - 47	dBm	
	1.8 - 1.9 GHz	- 47 / -47	dBm	
	5.15 - 5.3 GHz	-47 / -47	dBm	
8	Tx. Frequency Tolerance Fc accuracy	+ / - 75 K	Hz	
9	Tx. Frequency Tolerance Fc Drifft			
	one-slot packet	± 25 K	Hz	
	three-slot packet	± 40 K	Hz	
	five-slot pack	± 40 K	Hz	

11	Receiver Sensitivity	-70	dBm	@ BER = 0.1 %
12	Receiver Max. Input power	> -20	dBm	@ BER = 0.1 %
13	Interference			
	Co-Channel	11	dB	Pwant = -60dBm @ BER = 0.1 %
	Adjacent 1 MHz	0	dB	Pwant = -60dBm @ BER = 0.1 %
	Adjacent 2 MHz	-30	dB	Pwant = -60dBm @ BER = 0.1 %
	Adjacent >= 3 MHz	-40	dB	Pwant = -67dBm @ BER = 0.1 %
	Image	-9	dB	Pwant = -67dBm @ BER = 0.1 %
	Adjacent 1 MHz to In-Band Image	-20		Pwant = -67dBm @ BER = 0.1 %
14	Out-of-Band Blocking			
	30 - 2000 MHz	-10	dBm	Wanted signal = - 67dBm @ BER = 0.1 %
	2000 - 2399 MHz	-27	dBm	
	2498 - 3000 MHz	-27	dBm	
	3000 MHz - 12.75 GHz	-10	dBm	
15	Internodulation			
	Pwant = -64 dBm @ BER = 0.1 %			f1= -39dBm CW , f2 = -39dBm BT signal
16	Receiver Spurious Emission			
	30MHz ~ 1 GHz	-57	dBm	@ 100 KHz Bandwidth
	1GHz ~ 12.75GHz	-47	dBm	

18	Modulation Characteristics			
	Modulation	GFSK		
	BT	0.5		
	Modulation Index	0.28 ~ 0.35		
	Frequency deviation	> 115 K	Hz	sequence 10101010
	140K ~ 175K	Hz	sequence 00001111	

19	Symbol Rate	1M	bit / Sec	
20	Hop rate	1600	hop / sec	
21	Time Slot	625u	sec	
22	Burst Width			
	DH1	366u	sec	
	DH3	1622u	sec	
	DH5	2871 u	sec	