

§ 15.247(i) RF Exposure

RF Exposure Requirements: §1.1307(b)(1) and §1.1307(b)(2): Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines.

RF Radiation Exposure Limit: §1.1310: As specified in this section, the Maximum Permissible Exposure (MPE) Limit shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in Sec. 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of Sec. 2.1093 of this chapter.

SAR Exemption Equation			
Channel	Mode	Conducted Power(dBm)	Target Power(dBm)
Channel 0	DH1	-5.376	8
Channel 39	DH1	-5.613	7.7
Channel 78	DH1	-6.646	7.3
Channel 0	DH3	-5.475	8
Channel 39	DH3	-5.431	7.7
Channel 78	DH3	-6.943	7.3
Channel 0	DH5	-5.293	8
Channel 39	DH5	-5.451	7.7
Channel 78	DH5	-6.697	7.3

Note 1: Antenna gain has not been added to the above values.

The highest power for 2.4 GHz is 0.296 mW. Below is the SAR exclusion equation from KDB 447498:

$$\frac{\text{Max Power of Channel (mW)}}{\text{Test Separation Dist (mm)}} * \sqrt{\text{Frequency(GHz)}} \leq 3.0$$

For BT Basic (1 mbps) : Target = 8 dBm + 1dBm = 9 dBm = 7.94 mW
 $(7.94 \text{ mW} / 9.1\text{mm}) * \sqrt{2.4} = 0.563$

Therefore BT channels are exempt from SAR testing.