

§ 15.247(i)

RF Exposure

Test Requirements:

§15.247(i): U-NII devices are subject to the radio frequency radiation exposure requirements specified in §1.1307(b), §2.1091 and §2.1093 of this chapter, as appropriate. All equipment shall be considered to operate in a “general population/uncontrolled” environment.

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.

Channel	Mode	Radiated Power(dBm)
Channel 02	BR	-5.346
Channel 40	BR	-5.475
Channel 80	BR	-18.52

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

The highest power for 2.4 GHz is .292 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 = -5 dBm + 1dBm = -4 dBm = .398 mW

$$(0.398 \text{ mW} / 5\text{mm}) * \sqrt{2.4} = 0.123$$

Therefore BT channels are exempt from SAR testing.