

## SAR / Health Hazard

### Requirement:

According to CFR 15 §1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines.

### SAR Testing Exclusion for Included Modular Radio(s)

Per FCC 447498 General RF Exposure Guidance v05, Section 4.3.1, the 10-g (hand-held) SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances 50 mm are determined by the following formula

$$SAR = \frac{P_c}{d} \sqrt{f_{GHz}}$$

where d = minimum test distance in millimeters and Pc is the source-based time-averaged maximum conducted output power in milliwatts (or EIRP in milliwatts for a device without a removable antenna).

The SAR threshold at a minimum test distance of 8 mm (e.g. distance from either module to the exterior surface of the EUT, as shown below) is thus computed to be:

#### SAR Threshold for Mutually Exclusive Modular Radio Use

Radio Module	EIRP (dBm)	EIRP (mW)	dmin (mm)	Computed SAR Threshold Value	10-g SAR Threshold (Avg)
Bluetooth	3.5*	2.24	8	0.44	7.5
WLAN	14.39**	27.48	8	5.41	7.5

\* As reported in Report No.: EF/2005/C0012, FCC ID: QOQWT12

\*\* As reported in Report No.: 31051809.001, FCC ID: YOPGS1011MIP

Thus the EUT meets the test exclusion thresholds for 10-g SAR evaluation and complies with the regulations as a hand-held device.

