Compliance with 47 CFR 2.1091 and 1.1310

The EUT is an 802.11a/b/g – Bluetooth radio module operating under Parts 15.247 and 15.407 in the 2.4 and 5 GHz bands. The radios cannot transmit simultaneously. The EUT will only be used with a separation distance of 20 centimeters or greater between the antenna and the body of the user or nearby persons and can therefore be considered a mobile transmitter per 47 CFR 2.1091(b).

Since the transmit frequency is greater than 1.5 GHz, and the output power is less than 3 W ERP, the EUT is categorically excluded from routine environmental evaluation per 47 CFR 2.1091(c).

The MPE estimates are as follows:

Table 1 in 47 CFR 1.1310 defines the maximum permissible exposure (MPE) for the general population as 1 mW/cm^2. The exposure level at a 20 cm distance from the EUT's transmitting antenna is calculated using the general equation:

$S = (PG)/4\pi R^2$
Where: S = power density (mW/cm^2)
P = power input to the antenna (mW)
G = numeric power gain relative to an isotropic radiator
R = distance to the center of the radiation of the antenna (20 cm = limit for MPE estimates)
PG = EIRP

Solving for S, the maximum power density 20 cm from the transmitting antenna is summarized in the following table:

MPE Estimate

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Antenna Type	Antenna Manufacturer	Antenna Part No.	Transmit Frequency (MHz)	Max Peak Conducted Output Power (mW)	Antenna Gain (dBi)	Minimum Antenna Cable Loss (dB)	Power Density @ 20 cm (mW/cm^2)	General Population Exposure Limit from 1.1310 (mW/cm^2)
Dipole LP	Laird-Cushcraft	S2403BP	2400	60.5	5	0.4	0.035	1
Panel LP	Laird-Centurion	CAF95989	2400	60.5	5	0.4	0.035	1
Dipole LP	Laird	MAF 94367	2400	60.5	2.4	0.4	0.019	1
			5500	33.9	3.8	0.8	0.013	1
Dipole LP	Joymax	TWX-145XRTXX	2400	60.5	2.4	0.4	0.019	1
			5500	33.9	3.8	0.8	0.013	1

The power density does not exceed 0.035 mW/cm^2 at 20 cm; therefore, the exposure condition is compliant with FCC rules.