US Tech Test Report: FCC ID: IC: Test Report Number: Issue Date: Customer: Model:

## Maximum Public Exposure to RF (MPE) CFR 15.247 (i), CFR 1.1310 (e) and RSS-102 (2.5.2)

The maximum exposure level to the public from the RF power of the EUT shall not exceed a power density, **S**, of 1 mW/cm<sup>2</sup> at a distance, d, of 20 cm from the EUT.

Therefore, for:

Peak Power (dBm) = 15.20 dBm Peak Power (Watts) = 0.033 W Gain of Transmit Antenna = 2.0 dB<sub>i</sub> = 1.58, numeric d = Distance = 20 cm = 0.2 m

> **S** = (PG/  $4\pi d^2$ ) = EIRP/4A = 0.033(1.58)/4\* $\pi$ \*0.2\*0.2 =0.05214/0.5030 = 0.1037 W/m<sup>2</sup> = (0.1037 W/m<sup>2</sup>) (1m<sup>2</sup>/W) (0.1 mW/cm<sup>2</sup>) = 0.01037 mW/cm<sup>2</sup>

Which is << less than 1 mW/cm<sup>2</sup>

RSS-102, 2.5.2 Compliance:

At or above 300 MHz and below 6 GHz and the source-based time averaged maximum e.i.r.p. of the device is equal to or less than  $(1.31 \times 10^{-2} \text{ f}^{0.6834})$  Watts, f is the frequency in MHz.

 $1.31 * 10^{-2} * 2440^{0.6834} = 2.7 W$ 

EUT max EIRP = 15.2 dBm + (2.0 dBi) = 17.2 dBm EIRP = 0.052 Watts Which is << than 2.7 W

The product supports receiver diversity in order to increase the reliability of wireless communications and therefore has two radios. Only Radio 1 transmits; the second radio, Radio 2, will receive only.