

Attachment 1

RF EXPOSURE INFORMATION

RADIO FREQUENCY EXPOSURE (HAZARD) INFORMATION

Testing was performed in accordance with the requirements of FCC Part 15.247(i)

Spread spectrum transmitters operating in the 2400 - 2483.5 MHz, 5150 – 5350 MHz and 5470 – 5850 MHz bands are required to be operated in a manner that ensures that the public is not exposed to RF energy levels in accordance with CFR 47, Section 1.1307(b)(1).

Transmitter # 1 (WLAN): The antennas location: Left top edge of LCD screen and left side of LCD hinge and projected distance of greater than 20cm from user.

Transmitter # 2 (Bluetooth): The antenna location: Right side corner of LCD hinge and projected distance of greater than 20cm from user.

SAR is not required as the transmitters are mobile devices.

The separation distance between the WLAN and BT antennas is less than 20cm. Therefore, they are co-located transmitters. Testing was performed with both WLAN and BT transmitters transmitting continuously.

The MPE calculation shown below is for the WLAN and BT power densities.

In accordance with Section 1.1310, the Maximum Permissible Exposure (MPE) limit for the General Population/Uncontrolled Exposure of 1.0 has been applied, i.e 1mW/cm².

Friis transmission formula: $P_d = (P \cdot G) / (4 \cdot \pi \cdot r^2)$

where: P_d = power density (mW/cm²)
 P = power input to the antenna (mW)
 G = antenna gain (numeric)
 r = distance to the center of radiation of the antenna (cm)

Prediction frequency = **5800 MHz**

Maximum peak output power = 17.1 dBm = 51.3 mW

Antenna (Inverted F) gain (max) = 2.18 dBi = 1.65 numeric

The power density calculated = 0.02 mW/cm²

Prediction frequency = **2462 MHz**

Maximum peak output power = 17.9 dBm = 61.7 mW

Antenna (Inverted F) gain (max) = -2.5 dBi = 0.56 numeric

The power density calculated = 0.01 mW/cm²

Prediction frequency = **5320 MHz**

Maximum peak output power = 17.0 dBm = 50.0 mW

Antenna (Inverted F) gain (max) = -0.06 dBi = 0.99 numeric

The power density calculated = 0.01 mW/cm²

Prediction frequency = **5500 MHz**

Maximum peak output power = 16.9 dBm = 49.0 mW

Antenna (Inverted F) gain (max) = 0.1 dBi = 1.03 numeric

The power density calculated = 0.01 mW/cm²

Prediction frequency = **2480 MHz**

Maximum peak output power = 3.9 dBm = 2.5 mW

Antenna (Inverted F) gain (max) = -3.0 dBi = 0.5 numeric

The power density calculated = 0.003 mW/cm²

MPE limit for uncontrolled exposure at prediction frequency = 1 mW/cm²

Results: Calculations show that the Radio devices with described antennas complied with Maximum Permissible Exposure (MPE) limit for the General Population/Uncontrolled Exposure.