

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 and 5725 – 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: The WLAN antennas are located on the top edge of LCD screen (2 antennas left and right) and projected distance of greater than 20cm from user.

Transmitter # 2: The Bluetooth antenna is located at the middle of top edge of LCD screen and projected distance of greater than 20cm from user.

The separation distance between the WLAN and BT antennas is less than 20cm. Therefore, they are co-located transmitters.

SAR is not required as the WLAN and BT transmitters are mobile devices.

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)

The result was extracted from EMC report: M060223_Cert_AR5BXB6_DTS (WLAN)

Prediction frequency = **5745 MHz**

Maximum peak output power = 17.4 dBm = 55.0 mW

Antenna (Monopole) gain (max) = 1.79 dBi = 1.51 numeric

The power density calculated = 0.017 mW/cm²

Prediction frequency = **2462 MHz**

Maximum peak output power = 18.0 dBm = 63.1 mW

Antenna (Inverted F) gain (max) = 2.47 dBi = 1.77 numeric

The power density calculated = 0.022 mW/cm²

The result was extracted from EMC report: M060108_Cert_EYTF3CSFT (BT)

Prediction frequency = **2480 MHz**

Maximum peak output power = 3.3 dBm = 2.1 mW

Antenna (Monopole) gain (max) = 3.27 dBi = 2.12 numeric

The power density calculated = 0.001 mW/cm²

Therefore, the power density (WLAN + BT) = 0.023 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.