



FCC ID: XCO-CEXUT1
IC: 7756A-CEXUT1

Statement of compliance to Maximum Permissible Exposure (MPE)

Equipment : CEX wireless range extender
Type/Model : Sonab CEX unit 1
Applicant : Hansong(Nanjing) Technology Ltd.
8th Kangping Road, Jiangning Economy and Technology
Development Zone, Nanjing, China, 211100

Here assuming a worst-case prediction of power density (100% reflection), then

$$S = 4P_{\text{EIRP}} / (4\pi R^2) = P_{\text{EIRP}} / (\pi R^2).$$

Where S = power density in mW/cm²

P_{EIRP} = EIRP in mW

R = distance (cm)

As we can see from the test report SH11110050-001:

The maximum P_{EIRP} of 2.4GHz transmitter = 15.95dBm + 1.0dBi = 16.95dBm = 49.56mW

The maximum P_{EIRP} of 5.8GHz transmitter = 13.30dBm + 1.0dBi = 14.30dBm = 26.92mW

For the two transmitters work simultaneously, the worst total P_{EIRP} = 49.56 + 26.92 = 76.48mW

Here R is chosen to be 20cm,

$$S = P_{\text{EIRP}} / (\pi R^2) = 76.48 / (3.14 * 20 * 20) = 0.06\text{mW/cm}^2$$

This level is below the 1 mW/cm² MPE for General Population / Uncontrolled Exposure as stated in OET BULLETIN 65 Edition 97-01.

Conclusion: this EUT fulfills 47CFR Part 15.247(i) (2007) with the definition outlined in the User's Manual. (See appendix I)

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Appendix I

Definition below must be outlined in the User Manual:

To satisfy FCC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.
To ensure compliance, operations at closer than this distance is not recommended.