

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

FCC Part 15 Certification/ RSS 247
2ANDP-WCITK
23069-WCITK
17-0329
November 2, 2017
Centero LLC
WCI TK FDAP

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/cm² 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 dBi = 1.58, numeric
d = Distance = 20 cm = 0.2 m

$$\begin{aligned} S &= (PG / 4\pi d^2) = \text{EIRP} / 4A = 0.033(1.58) / 4 * \pi * 0.2^2 \\ &= 0.05214 / 0.5030 = 0.1037 \text{ W/m}^2 \\ &= (0.1037 \text{ W/m}^2) (1\text{m}^2/\text{W}) (0.1 \text{ mW/cm}^2) \\ &= 0.01037 \text{ mW/cm}^2 \end{aligned}$$

Which is << less than 1 mW/cm²

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 $(1.31 \times 10^{-2} f^{0.6834})$ Watts, f is the frequency in MHz.

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

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.