

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

FCC Part 15 Certification/ RSS 247
2ANDP-CW24-012
23069-CW24012
17-0343
November 4, 2017
Centero LLC
CW24-012

Maximum Public Exposure to RF (MPE) CFR 15.247 (i), CFR 1.1310 (e) & 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) = 14.36 dBm
Peak Power (Watts) = 0.027 W
Gain of Transmit Antenna = 2.0 dBi = 1.58, numeric
d = Distance = 20 cm = 0.2 m

$$\begin{aligned} S &= (PG / 4\pi d^2) = \text{EIRP} / 4A = 0.027(1.58) / 4 * \pi * 0.2^2 \\ &= 0.0427 / 0.5030 = 0.0848 \text{ W/m}^2 \\ &= (0.0848 \text{ W/m}^2) (1\text{m}^2/\text{W}) (0.1 \text{ mW/cm}^2) \\ &= 0.00848 \text{ mW/cm}^2 \end{aligned}$$

which is << less than 1 mW/cm²

RSS-102, 2.5.2 Compliance for 2.4 GHz WiFi:

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 $1.31 \times 10^{-2} f^{0.6834}$ in Watts (adjusted for tune-up tolerance where applicable), where f = frequency in MHz.

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

EUT max EIRP = 14.36 dBm + 2.0 dBi = 16.36 dBm = 0.043 Watts << 2.7 Watts