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## INTERTEK TESTING SERVICES

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For RF exposure evaluation of the parent unit, the output power for portable transmitters is defined as the higher of the conducted or radiated (EIRP) source-based time averaging output power. And the threshold is equal to  $(60/f_{\text{GHz}})$  mW, where  $f_{\text{GHz}}$  is mid-band frequency in GHz.

For the parent unit of the tested model of AC1100, the measured peak conducted power was 33 mW. The maximum source-based time averaging duty factor in single slot operation is 13.7%.

$$\begin{aligned} &\text{The conducted source-based time averaging output power} \\ &= (33 * 0.1370) \text{ mW} \\ &= 4.52 \text{ mW} \end{aligned}$$

The measured maximum field strength (FS) was 111.4 dB $\mu$ V/m. The distance (D) between the antenna and the equipment under test (EUT) was 3 meters. From these data, the radiated (EIRP) source-based time-averaging output power can be calculated by:

$$\begin{aligned} &\text{The radiated power} = (FS * D)^2 / 30 \text{ mW} \\ &= 41.41 \text{ mW} \end{aligned}$$

$$\begin{aligned} &\text{The radiated (EIRP) source-based time-averaging output power} \\ &= (41.41 * 0.1370) \text{ mW} \\ &= 5.67 \text{ mW} \end{aligned}$$

The low threshold in the 2400 – 2483.5MHz band is 24.57 mW.

From the above calculation, output power obtained in both method is less than the threshold, it is concluded that the parent unit can be exempted from SAR evaluation.