



H.B. Compliance Solutions

RF Exposure

For the

Raveon Technologies Corporation

Pro Max Transmitter II – RV-PMTII

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Prepared for:

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A handwritten signature in black ink, appearing to read 'Hoosamuddin Bandukwala'.

Hoosamuddin Bandukwala



Cert # ATL-0062-E

Standalone SAR Test Exclusion Consideration

According to KDB447498 D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})]$

$[f(\text{GHz})] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

Maximum peak output power at antenna input terminal = 29.19 (dBm)

Maximum peak output power at antenna input terminal = 827.94 (mW)

Antenna gain (typical) = 3(dBi)

Prediction frequency = 154.6(MHz) or 0.154 (GHz)

Duty Cycle Correction Factor = Devices (Worst Case) Transmit 8 times in 1 hour for 1 second Transmit time.

Therefore $8/3600 = 0.2\%$.

Corrected Average Power = 1.656mW

Note: Device is only used for data transmission

To solve for the EIRP ;

$$\left[\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \right] \cdot \left[\sqrt{f \text{ (GHz)}} \right]$$

General RF Exposure = $(1.656 / 5 \text{ mm}) \times \sqrt{0.15 \text{ GHz}} = 0.12$ ①

SAR 10g extremity requirement:

S= 7.5 ② ;

① < ②.

Therefore SAR report is not required.

END OF TEST REPORT