



H.B. Compliance Solutions

Maximum Permissible Exposure Statement

For the

Raveon Technologies Corporation

DART Data Modem M80-EA1

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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

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG/4\pi R^2$$

Where,

S = power density (mW/cm²)

P = output power at the antenna terminal (mW)

G = gain of transmit antenna (numeric)

R = distance from transmitting antenna (cm)

Maximum peak output power at antenna input terminal = 36.94 (dBm)

Maximum peak output power at antenna input terminal = 4943.10 (mW)

Antenna gain (typical) = 0 (dBi)

Maximum antenna gain = 1.0 (numeric)

Prediction distance = 49 (cm)

Prediction frequency = 809.2 (MHz)

MPE limit for uncontrolled exposure at prediction frequency = 0.539 (mW/cm²)

Power density at prediction frequency = 0.163836 (mW/cm²)

To solve for the minimum mounting distance required;

$$R = \sqrt{PG/4\pi S}$$

$$R = \sqrt{4943.1 \times 1.0 / 4\pi \times 0.163836} = \underline{49 \text{ cm}} \text{ (Based on continuous transmission)}$$

Maximum peak output power at antenna input terminal = 36.94 (dBm)

Maximum peak output power at antenna input terminal = 4943.10 (mW)

Antenna gain (typical) = 6 (dBi)

Maximum antenna gain = 3.98 (numeric)

Prediction distance = 100 (cm)

Prediction frequency = 809.2 (MHz)

MPE limit for uncontrolled exposure at prediction frequency = 0.539 (mW/cm²)

Power density at prediction frequency = 0.156561 (mW/cm²)

To solve for the minimum mounting distance required;

$$R = \sqrt{PG/4\pi S}$$

$$R = \sqrt{4943.1 \times 3.98 / 4\pi \times 0.156561} = \underline{100 \text{ cm}} \text{ (Based on continuous transmission)}$$

END OF TEST REPORT