H.B. Compliance Solutions

Maximum Permissible Exposure Statement

For the

Raveon Technologies Corporation

DART Data Modem M7UC

November 4, 2015

Prepared for:

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Prediction of MPE limit at a given distance

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

S = PG/4πR²

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 = 37.1 (dBm)
Maximum peak output power at antenna input terminal = 5128 (mW)
Antenna gain (typical) = 0 (dBi)
Maximum antenna gain = 1.0 (numeric)
Prediction distance = 38 (cm)
Prediction frequency = 450 (MHz)
MPE limit for uncontrolled exposure at prediction frequency = 0.300 (mW/cm^2)
Power density at prediction frequency = 0.282607 (mW/cm^2)

To solve for the minimum mounting distance required;

R = √ (PG/4πS)

R = √ (5128 x 1.0 / 4π x 0.282607) = 38 cm (Based on continuous transmission)

Maximum peak output power at antenna input terminal = <u>37.1 (dBm)</u>
Maximum peak output power at antenna input terminal = <u>5128 (mW)</u>
Antenna gain (typical) = <u>6 (dBi)</u>
Maximum antenna gain = <u>3.98 (numeric)</u>
Prediction distance = <u>100 (cm)</u>
Prediction frequency = <u>450 (MHz)</u>
MPE limit for uncontrolled exposure at prediction frequency = <u>0.300 (mW/cm^2)</u>
Power density at prediction frequency = <u>0.162417 (mW/cm^2)</u>

To solve for the minimum mounting distance required;

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

R = √ (5128 x 3.98 / 4π x 0.162417) = <u>100 cm</u> (Based on continuous transmission)

END OF TEST REPORT