

RF Exposure / MPE Calculation

Order No. : 10968259S
Applicant : Japan Radio Co., Ltd.
Type of Equipment : Solid State Transmitter-Receiver
Model No. : NTG-420
FCC ID : CKENTG420

Japan Radio Co., Ltd. declares that Model: NTG-420 complies with FCC radiation exposure requirement specified in the FCC Rule 2.1091.

RF Exposure Calculations:

The following information provides the minimum separation distance for the highest gain antenna provided with the "NTG-420" as calculated from (B) Limits for General Population / Uncontrolled Exposure of TABLE 1- LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE) of §1.1310 Radiofrequency radiation exposure limits.

This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 1mW/cm² uncontrolled exposure limit. The Friis formula used was:

$$S = \frac{P \times G}{4 \times \pi \times r^2}$$

Where

$P =$ 4515 mW (Maximum average output power)

Time average was used for the above value in consideration of time-averaging

Burst power average was used for the above value in consideration of worst condition.

$G =$ 5011.872 Numerical Antenna gain; equal to 37 dBi (include antenna cable (loss 1 dB)(*1))

$r =$ 1355 cm (Separation distance (This distance is based on customer's documents (*1))

(*1): This is based on "05 (Short-term Confidential) User Manual_Installation_FCC.pdf"

Power Density Result $S = 0.98077 \text{ mW/cm}^2$

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