



HARRIS CORPORATION

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Vehicle Application - Mobile Radio MPE Evaluation
(One antenna)
Declaration of Compliance

FCC Rule Part: 47 CFR §90; §2.1091; §1.1310
Device Classification: Licensed Non-Broadcast Station Transmitter (TNB)
Device Type: Mobile VHF PTT Radio Transceiver with Vehicle Rooftop
Antenna
FCC ID: OWDTR-0056-E
Model Name: M7300
Modulation: FM
Tx Frequency Range: 136 – 174 MHz
Max. RF Conducted Power: 110.0 W (nominal/rated or lab report value, times 1.2; § 90.205(s))
Power Supply: 12 VDC
Antenna Type: Quarter wave vertical (p/n AN-225002-003)
Antenna Gain: 5.15 dbi
Minimum Antenna Distance: 131 cm Limits for Occupational/Controlled Exposure.
293 cm Limits for General Population/Uncontrolled Exposure.

Calculation

$$S = \frac{PG}{4\pi R^2} \quad \text{therefore: } R = \sqrt{\frac{PG}{4\pi S}}$$

Where: S – power density (mW/cm²; as defined in 47 CFR § 1.1310), P – power input to antenna at 50% duty cycle (in mW), G – power gain of the antenna relative to isotropic (numeric value, not db), R – distance to center of antenna (result in cm).

S = 1/.2 (Controlled/Uncontrolled) at Tx frequency 136 MHz.

Calculated controlled distance: 131.11942 cm

Calculated uncontrolled distance: 293.19195 cm

Daryl Popowitch
Regulatory Manager,