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Client: Harris Corporation
Model: M7300 VHF 50W Mobile Radio
IDs: OWDTR-0055-E/3636B-0055
Standards: FCC Part 90/IC RSS-119
Report #: 2009197

Appendix A: FCC Part 1.1307, 1.1310, 2.1091, 2.1093: RF Exposure

Please refer to the MPE Reports that follows.



HARRIS CORPORATION

221 Jefferson Ridge Parkway
Lynchburg, VA 24501
www.harris.com

Vehicle Application - Mobile Radio MPE Evaluation Report
(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-0055-E
Model Name: M7300
Modulation: FM
Tx Frequency Range: 136 – 174 MHz
Max. RF Conducted Power: 60.0 W (nominal/rated or lab report value, times 1.2; § 90.205(s))
Power Supply: 12 VDC
Antenna Type: Half wave vertical (p/n AN102800V1 & V2; AN-025147-001, 003, 005)
Antenna Gain: 2.15 dbi
Minimum Antenna Distance: 63 cm Limits for Occupational/Controlled Exposure.
140 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: 62.582902 cm

Calculated uncontrolled distance: 139.93962 cm

Daryl Popowitch
Regulatory Manager,



HARRIS CORPORATION

221 Jefferson Ridge Parkway
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Motorcycle Application - Mobile Radio MPE Evaluation Report
(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 Motorcycle Mount
Antenna
FCC ID: OWDTR-0055-E
Model Name: M7300
Modulation: FM
Tx Frequency Range: 136 – 174 MHz
Max. RF Conducted Power: 24.0 W (nominal/rated or lab report value, times 1.2; § 90.205(s))
Power Supply: 12 VDC
Antenna Type: Half wave vertical (p/n SM-LE-OM150K.125/TNC)
Antenna Gain: 4.65 dbi
Minimum Antenna Distance: 53 cm Limits for Occupational/Controlled Exposure.
118 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: 52.781982 cm

Calculated uncontrolled distance: 118.0241 cm

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