

**Motorcycle 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: VHF PTT Radio Transceiver with Motorcycle Mount and Antenna  
FCC ID: OWDTR-0035-E  
Model Name: M7100  
Modulation: FM  
Tx Frequency Range: 136 - 174 MHz  
Max. RF Conducted Power: 25 W (factory configured for motorcycle applications; 1.05 multiplier)  
Power Supply: 12 VDC  
Antenna Type: Half wave vertical (P/N SM-LE-OM150K.125/TNC)  
Antenna Gain: 4.5 dbi (2.82 numeric)  
Minimum Antenna Distance: 54.27 cm Limits for Occupational/Controlled Exposure.  
121.35 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/cm<sup>2</sup>; 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).

$S = 1.0/2$  (Controlled(f/300)/Uncontrolled(f/1500)) at Tx frequency MHz (frequency when applicable).

Calculated controlled distance: 54.27 cm

Calculated uncontrolled distance: 121.35 cm



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