

**Motorcycle Radio MPE Evaluation Report**

(Two of two antennas)

**Declaration of Compliance**

FCC Rule Part: 47 CFR §90; §2.1091; §1.1310  
Device Classification: Licensed Non-Broadcast Station Transmitter (TNB)  
Device Type: UHF PTT Radio Transceiver with Motorcycle Mount and Antenna  
FCC ID: OWDTR-0020-E  
Model Name: M7100 (IP)  
Modulation: FM  
Tx Frequency Range: 378 - 430 MHz  
Max. RF Conducted Power: 25 W (factory configured for motorcycle applications; 1.05 multiplier)  
Power Supply: 12 VDC  
Antenna Type: Quarter wave vertical (P/N LE-OM420BKTNC)  
Antenna Gain: 5.5 dbi (3.55 numerical)  
Minimum Antenna Distance: 51.46 cm Limits for Occupational/Controlled Exposure.  
115.07 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 = 1.4/.28 (Controlled(f/300)/Uncontrolled(f/1500)) at Tx frequency 420 MHz (frequency when applicable).

Calculated controlled distance: 51.46 cm

Calculated uncontrolled distance: 115.07 cm



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