1.0 Maximum Permissible Exposure Evaluation (Supplements the test report.)

The results of power measurement and intended use/proximity are compared against the requirements for safety of RF exposure.

1.2 Criteria

Section Reference	Date
2.1091, FCC OET Bulletin 65	2014-02-21

1.3 Procedure

Using measurement of peak power and intended application, determine the permissible exposure level or whether additional exposure tests (SAR) are indicated. Justify conclusion for selected exposure area and separation distance.

1.4 Power to Exposure Calculation

This device is plugged into the under-dash area of a vehicle to the diagnostic port (OBD) where it solely obtains operating power. A separation distance of 20 cm was selected. Exposure limit is then determined for the transmitter frequency of 2400 MHz.

Power is determined from the measured field strength at 1 meter then EIRP is determined.

Source duty cycle factor for exposure calculation yields: 10 * Log_{10} (3.4 msec / 60.15 msec) = -12.48 dB

POWER CALCULATION

Measured Field Strength dBµV/m*	At Distance	Source Duty Cycle Factor dB	Calculated Average Field Strength dBµV/m	Calculated EIRP mW
122.89	1 m	-12.48	110.41	33

*This is the peak measurement.

The field density limits are determined as:

1.0 mW/cm^2 Ref. FCC Bulletin OET-65 Table 1(B)

Field density is determined at 20 cm:

$S = EIRP / (4 \pi 20^2)$ Ref. FCC Bulletin OET-65 Equation (4)

$S = 33 mW / 5026.55 cm^2$

$S = 0.0066 mW/cm^2$

The field density level is below the respective exposure limit and it therefore meets the criteria for exclusion from SAR testing.

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