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

The measured power is considered for the intended use of the device and resulting RF exposure to the user.

1.2 Criteria

Section Reference	Date	
KDB 447498 D01 Mobile Portable RF Exposure v05r01	21 Dec 2015	

1.3 Procedure

Using measurement of peak power and considering the intended application, determine the permissible exposure level, applicability of exclusion, or whether additional exposure tests (SAR) are indicated. When applicable justify conclusion for selected exposure level and separation distance.

1.4 Power Calculation

For this device power is determined by field strength measurement with antenna gain included by default. The device occupies the trailer power receptacle location on a vehicle; therefore the 20 cm (200 mm) spacing was selected. The SAR exemption method was applied.

Table 1.4.1 Exposure Source Averaging Results from Test Report						
Measured On Time (msec)	Measured Time Interval (msec)	Exposure Duty Cycle Factor Calculation	Result (dB)	Duty Cycle Factor Allowed (dB)		
8.28	81.125	= 10 * Log ₁₀ (8.28 msec / 81.125 msec)	-9.91	-9.91		

Table 1.4.2 Field Strength with Exposure Averaging Factor Applied							
Maximum Corrected Level (Measured Peak Level) dBμV/m @ 10 m	Duty Cycle Factor dB	Calculated Average Level dBµV/m @ 10 m	Average Power Calculated as EIRP mW				
81.4	-9.91	71.49	0.05				

1.5 SAR Exemption Calculation – 3.0 Criteria

Calculation (max power including tune up tolerance = 0.05 mW):

$$[(0.05 \text{mW})/(200 \text{ mm})] \cdot [\sqrt{0.315}(\text{GHz})] = 0.0044$$

 $0.00443 \le 3.0$

Therefore, the device meets the applicable FCC SAR exemption requirements.

Signed:

Eric Lifsey
