

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 // RSS-102 Issue 4 March 2010, Notice 2013 DRS0911	2015-01-07

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 to Exposure Calculation

Highest operating frequency is 418 MHz. Power is determined from the measured field strength and with antenna gain included by default. SAR exemption method was applied.

Table 1.4.1 Exposure Source Duty Cycle Results From Test Report

Measured On Time (msec)	Measured Time Interval (msec)	Exposure Duty Cycle Factor Calculation	Result (dB)	Duty Cycle Factor Allowed (dB)
9.0513	91.4438	$= 10 * \log_{10} (9.0513 \text{ msec} / 91.4438 \text{ msec})$	-10.04	-10.04

Table 1.4.2 Power Calculation for Exposure

Measured Field Strength dBμV/m at 10 m (Peak Detection)	Calculated Peak EIRP dBm	Source Duty Cycle Factor dB	Calculated Average EIRP dBm	EIRP In Linear Terms mW
77.1	-7.67	-10.04	-17.71	0.017

1.5 SAR Exemption Calculation – 3.0 Criteria

Calculation (max power including tune up tolerance = 0.017 mW):

$$[(0.017\text{mW})/(20 \text{ mm})] \cdot [\sqrt{0.418(\text{GHz})}] \leq 2.96$$

$$0.0023 \leq 3.0$$

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

This device meets the SAR Evaluation Exemption criteria in RSS-102 Clause 2.5.1, based on the output power being less than 200mW for general public use (3 kHz – 1 GHz).
