



EMC Test Data

Client: Tivo, Inc.	Job Number: JD101876
Model: Mantis	T-Log Number: T102023
	Project Manager: Irene Radmacher
Contact: Jim Inokuchi	Project Coordinator: -
Standard: FCC Part 15	Class: B

Maximum Permissible Exposure / SAR Exclusion

Test Specific Details

Objective: Evaluate the RF Exposure requirements per FCC 1.1310, 2.1091 and RSS-102.

Date of Evaluation: 7/22/2016

Test Engineer: David Bare

General Test Configuration

Calculation uses the free space transmission formula:

$$S = (PG)/(4 \pi d^2)$$

Where: S is power density (W/m^2), P is output power (W), G is antenna gain relative to isotropic, d is separation distance from the transmitting antenna (m).

Summary of Results

Device complies with Power Density requirements at 20cm separation:	Yes
If not, required separation distance (in cm):	-

Deviations From The Standard

No deviations were made from the requirements of the standard.



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FCC MPE Calculation
 Use: General
 Antenna: Integral (2x2)

Freq. MHz	EUT Power		Cable Loss Loss dB	Eff Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm ²	MPE Limit at 20 cm mW/cm ²
	dBm	mW*						
2437	22.3	171.4	0	7.8	22.3	1032.8	0.205	1.000
5200	21.0	124.8	0	8.4	21.0	863.6	0.172	1.000
5300	19.6	91.5	0	7.8	19.6	551.6	0.110	1.000
5580	20.6	115.4	0	8.7	20.6	855.5	0.170	1.000
5785	21.1	129.7	0	8.8	21.1	984.0	0.196	1.000

For the cases where S > the MPE Limit

Freq. MHz	S @ 20 cm mW/cm ²	MPE Limit mW/cm ²	Distance where S <= MPE Limit
2437	0.205	1.000	9.1cm
5200	0.172	1.000	8.3cm
5300	0.110	1.000	6.6cm
5580	0.170	1.000	8.3cm
5785	0.196	1.000	8.8cm