



# EMC Test Data

Client: Topcon Positioning Systems	Job Number: J96648
Model: R2Lite UHF	T-Log Number: T97391
	Project Manager: Deepa Shetty
Contact: Ferdinand Riodique	Project Coordinator: -
Standard: FCC Part 90, RSS-119 Issue 12, EN 300 113-2, AS/NZS 4768.1	Class: N/A

## Maximum Permissible Exposure / SAR Exclusion

### Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 11/5/2015

Test Engineer: Deniz Demirci

### 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 20 cm separation:	No
If not, required separation distance (in cm):	31.6

### Modifications Made During Testing

No modifications were made to the EUT during testing

### Deviations From The Standard

No deviations were made from the requirements of the standard.



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### FCC MPE Calculation

Use: General

Antenna: 2.5 dBi

### USE THIS FOR 300-1500 MHz single transmitters (General use)

Freq. MHz	EUT Power		Cable Loss Loss dB	Ant Gain Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm <sup>2</sup>	MPE Limit at 20 cm mW/cm <sup>2</sup>
	dBm	mW*						
406.1125	30.5	1122.0	0	2.5	30.5	1995.26	0.397	0.271
469.9875	30.5	1122.0	0	2.5	30.5	1995.26	0.397	0.313

For the cases where S > the MPE Limit

Freq. MHz	Power Density (S) at 20 cm mW/cm <sup>2</sup>	MPE Limit at 20 cm mW/cm <sup>2</sup>	Distance where S <= MPE Limit cm
406.1125	0.397	0.271	24.2
469.9875	0.397	0.313	22.5

### Industry Canada MPE Calculation

Use: General

Antenna: 2.5 dBi

### USE THIS FOR 300-6000 MHz single transmitters (General use)

Freq. MHz	EUT Power		Cable Loss Loss dB	Ant Gain Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm <sup>2</sup>	MPE Limit at 20 cm mW/cm <sup>2</sup>
	dBm	mW*						
406.1125	30.5	1122.0	0	2.5	30.5	1995.26	0.397	0.159
469.9875	30.5	1122.0	0	2.5	30.5	1995.26	0.397	0.175

For the cases where S > the MPE Limit

Freq. MHz	Power Density (S) at 20 cm mW/cm <sup>2</sup>	MPE Limit at 20 cm mW/cm <sup>2</sup>	Distance where S <= MPE Limit cm
406.1125	0.397	0.159	31.6
469.9875	0.397	0.175	30.1