



EMC Test Data

Client:	Topcon Positioning Systems	Job Number:	PR079758
Product:	R2L UHF	T-Log Number:	TL079758-Radio
Contact:	Ferdinand Riodique	Project Manager:	Suzan Hill
Standard:	FCC Part 90, RSS-119 Issue 12	Project Coordinator:	Deniz Demirci
		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: 8/27/2018

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):	30.9

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.



EMC Test Data

Client:	Topcon Positioning Systems	Job Number:	PR079758
Product:	R2L UHF	T-Log Number:	TL079758-Radio
Contact:	Ferdinand Riodique	Project Manager:	Suzan Hill
Standard:	FCC Part 90, RSS-119 Issue 12	Project Coordinator:	Deniz Demirci
		Class:	N/A

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 dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm ²	MPE Limit at 20 cm mW/cm ²
406.1125	dBm	mW*						
406.1125	30.3	1071.5	0	2.5	30.3	1905.46	0.379	0.271
469.9875	30.3	1071.5	0	2.5	30.3	1905.46	0.379	0.313

For the cases where S > the MPE Limit

Freq. MHz	Power Density (S) at 20 cm mW/cm ²	MPE Limit at 20 cm mW/cm ²	Distance where S <= MPE Limit cm
406.1125	0.379	0.271	23.7
469.9875	0.379	0.313	22.0

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 dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm ²	MPE Limit at 20 cm mW/cm ²
406.1125	dBm	mW*						
406.1125	30.3	1071.5	0	2.5	30.3	1905.46	0.379	0.159
469.9875	30.3	1071.5	0	2.5	30.3	1905.46	0.379	0.175

For the cases where S > the MPE Limit

Freq. MHz	Power Density (S) at 20 cm mW/cm ²	MPE Limit at 20 cm mW/cm ²	Distance where S <= MPE Limit cm
406.1125	0.379	0.159	30.9
469.9875	0.379	0.175	29.4