

Client: Xetawave LLC	Job Number: JD103500
Model: Xeta1	T-Log Number: T103571
Contact: Sandee Malang	Project Manager: Christine Krebill
Standard: FCC Part 90, RSS-119	Project Coordinator: -
	Class: N/A

Maximum Permissible Exposure

Test Specific Details

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

Date of Test: 1/6/2017

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
Required separation distance for US (in cm):	160.3
Required separation distance for Canada (in cm):	199.5

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: 11 dBi

For 30 - 300 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
	dBm	mW*						
150	37.1	5128.6	0	11	37.1	64565.42	12.845	0.200
162	37.1	5128.6	0	11	37.1	64565.42	12.845	0.200
173	37.1	5128.6	0	11	37.1	64565.42	12.845	0.200

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
150	12.845	0.200	160.3
162	12.845	0.200	160.3
173	12.845	0.200	160.3

Innovation, Science and Economic Development Canada MPE Calculation

Use: General

Antenna: 11 dBi

For 48 - 300 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
	dBm	mW*						
150	37.1	5128.6	0	11	37.1	64565.42	12.845	0.1291
162	37.1	5128.6	0	11	37.1	64565.42	12.845	0.1291
173	37.1	5128.6	0	11	37.1	64565.42	12.845	0.1291

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
150	12.845	0.129	199.5
162	12.845	0.129	199.5
173	12.845	0.129	199.5