

Client:	Neato Robotics	Job Number:	J97654
Model:	Botvac Connected	T-Log Number:	T97691
Contact:	Matt Tenuta	Project Manager:	Christine Krebill
Standard:	FCC 15.247, RSS 247	Project Coordinator:	-
		Class:	N/A

Maximum Permissible Exposure

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: 8/26/2016

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/m²), 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:	Yes
If not, required separation distance (in cm):	-

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: -2.7 dBi

For 1.5-15 GHz single transmitters (General use)

Freq. MHz	EUT Power		Cable 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*						
2412	16.8	47.9	0	-2.7	16.8	25.70	0.005	1.000
2437	16.8	47.9	0	-2.7	16.8	25.70	0.005	1.000
2462	16.8	47.9	0	-2.7	16.8	25.70	0.005	1.000

Used peak RF power as a worst case MPE

Industry Canada MPE Calculation

Use: General

Antenna: -2.7 dBi

For 300-6000 MHz single transmitters (General use)

Freq. MHz	EUT Power		Cable 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*						
2412	16.8	47.9	0	0	16.8	47.86	0.010	0.537
2437	16.8	47.9	0	0	16.8	47.86	0.010	0.540
2462	16.8	47.9	0	0	16.8	47.86	0.010	0.544

RSS-102 Issue 5, 2.5.2 Exemption limit for routine evaluation - RF Exposure Evaluation

For 300-6000 MHz single transmitters (General use)

Freq. MHz	EUT Power		Cable Loss dB	Ant Gain dBi	Power at Ant. dBm	EIRP mW	Exemption Limit e.i.r.p. mW
	dBm	mW*					
2412	16.8	47.9	0	0	16.8	47.86	2684.0
2437	16.8	47.9	0	0	16.8	47.86	2703.0
2462	16.8	47.9	0	0	16.8	47.86	2721.9

Used peak RF power and 0 dBi antenna gain as a worst case MPE

Note: RF power levels are the maximum allowed power levels, including tune-up tolerance.