



EMC Test Data

Client:	Pace Americas, Inc.	Job Number:	JD100297
Model:	Wi-Fi Module 5 GHz	T-Log Number:	T100356
Contact:	Mark Rieger	Project Manager:	Irene Radamacher
Standard:	FCC Part 15.407	Project Coordinator:	-
		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: 2/29/2016

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):	-
If co-located with PGR2G4360M then separation (in cm) is:	23.6

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.

Note: The highest ERP for operation under 15.407 does not exceed 3W therefore the device is categorically excluded from routine evaluation.



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FCC MPE Calculation

Use: General
Antenna: 7.9 dBi Effective Gain

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
5180	22.1	162.2	0	7.9	22.1	1000.00	0.199	1.000
5200	19.3	85.1	0	7.9	19.3	524.81	0.104	1.000
5240	21.0	125.9	0	7.9	21.0	776.25	0.154	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
5180	0.199	1.000	8.9cm
5200	0.104	1.000	6.5cm
5240	0.154	1.000	7.9cm

Antenna: 8.4 dBi Effective Gain

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
5745	23.6	229.1	0	8.4	23.6	1584.89	0.315	1.000
5785	26.8	478.6	0	8.4	26.8	3311.31	0.659	1.000
5825	23.8	239.9	0	8.4	23.8	1659.59	0.330	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
5745	0.315	1.000	11.2cm
5785	0.659	1.000	16.2cm
5825	0.330	1.000	11.5cm



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When co-located in a host product with FCC ID: PGR2G4360M (General use)

Band	Mode	Output Power		Antenna gain (Max)	EIRP		Channels Available	Channels Used	Total EIRP	
		Peak	Average		dBm	W			W	dBm
2400 - 2483.5	OFDM	-	27.6	8.1	35.7	3.715	11	1	3.715	35.70
5725 - 5850	OFDM	-	26.8	8.4	35.2	3.311	5	1	3.311	35.20
Totals:								2	7.027	38.47

S for combined EIRP @		
20 cm	MPE Limit	Distance where
mW/cm ²	mW/cm ²	S ≤ MPE Limit
1.398	1.000	23.6cm