

Client:	Broadcom	Job Number:	J81286
Model:	BCM943224HMS	T-Log Number:	T81298
		Account Manager:	Eriksen / Washington
Contact:	Pin Wen		
Standard:	FCC 15E, RSS 210, LP0002	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: 12/2/2010

Test Engineer: Mark Hill

### 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
Maximum Power Density ( $mW/cm^2$ )	0.187

### 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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Note: Output power values taken from original filing.  
 Note: Only the 5.4-5.7GHz band re-evaluated due to higher antenna gain.

**Run #1: MPE for 5470-5725 MHz - 802.11a Legacy**

Use: General  
 Antenna: 5.7 dBi

Freq. MHz	EUT Power		Cable Loss dB	Ant 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*						
5500	15.6	36.0	0	5.7	15.6	133.66	0.027	1.000
5600	16.4	43.5	0	5.7	16.4	161.44	0.032	1.000
5700	16.5	44.4	0	5.7	16.5	164.82	0.033	1.000

**Run #2: MPE for 5470-5725 MHz - 802.11n 20MHz CDD**

Use: General  
 Antenna: Effective Gain 8.7 dBi

Freq. MHz	EUT Power		Cable Loss dB	Ant 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*						
5500	18.6	72.5	0	8.7	18.6	537.14	0.107	1.000
5600	19.7	93.6	0	8.7	19.7	693.66	0.138	1.000
5700	19.7	93.3	0	8.7	19.7	691.32	0.138	1.000

**Run #3: MPE for 5470-5725 MHz - 802.11n 40MHz CDD**

Use: General  
 Antenna: Effective Gain 8.7 dBi

Freq. MHz	EUT Power		Cable Loss dB	Ant 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*						
5510	16.3	42.3	0	8.7	16.3	313.37	0.062	1.000
5590	21.0	126.7	0	8.7	21.0	938.89	0.187	1.000
5670	21.0	125.4	0	8.7	21.0	929.73	0.185	1.000