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# Report On

FCC Testing of the Sharp SHT22 Dual-band CDMA (BC0, BC6), Tri-band LTE (B1, B11, B18). Dual mode Tablet PC with Bluetooth, WLAN, SRD(NFC) and GPS

In accordance with FCC CFR 47 Part 15E

COMMERCIAL-IN-CONFIDENCE

FCC ID: APYHRO00200

Document 75924762 Report 12 Issue 1

February 2014



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COMMERCIAL-IN-CONFIDENCE

**REPORT ON**

FCC Testing of the Sharp SHT22 Dual-band CDMA (BC0, BC6), Tri-band LTE (B1, B11, B18). Dual mode Tablet PC with Bluetooth, WLAN, SRD(NFC) and GPS  
In accordance with FCC CFR 47 Part 15E

Document 75924762 Report 12 Issue 1

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Authorised Signatory

**DATED**

04 February 2014

**ENGINEERING STATEMENT**

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Part 15E. The sample tested was found to comply with the requirements defined in the applied rules.

Test Engineer(s);

G Lawler

M Russell





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## **SECTION 1**

### **REPORT SUMMARY**

FCC Testing of the  
Sharp SHT22 Dual-band CDMA (BC0, BC6), Tri-band LTE (B1, B11, B18). Dual mode Tablet  
PC with Bluetooth, WLAN, SRD(NFC) and GPS  
In accordance with FCC CFR 47 Part 15E



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## 1.1 INTRODUCTION

The information contained in this report is intended to show verification of the FCC Testing of the Sharp SHT22 Dual-band CDMA (BC0, BC6), Tri-band LTE (B1, B11, B18). Dual mode Tablet PC with Bluetooth, WLAN, SRD(NFC) and GPS to the requirements of FCC CFR 47 Part 15E.

Objective	To perform FCC Testing to determine the Equipment Under Test's (EUT's) compliance with the Test Specification, for the series of tests carried out.
Manufacturer	Sharp Corporation
Model Number(s)	SHT22
Serial Number(s)	IMEI 004401115013480 IMEI 004401115013365
Number of Samples Tested	2
Test Specification/Issue/Date	FCC CFR 47 Part 15E (2012)
Incoming Release Date	Application Form 20 December 2013
Disposal Reference Number Date	Held Pending Disposal Not Applicable Not Applicable
Order Number Date	9947 18 December 2013
Start of Test	10 January 2014
Finish of Test	22 January 2014
Name of Engineer(s)	G Lawler M Russell
Related Document(s)	FCC 06-96: 2006; FCC Public Notice DA 02-2138: 2002; UKAS M3003: Edition 2: 2007; ETSI TR 100 028: 2001



**1.2 BRIEF SUMMARY OF RESULTS**

A brief summary of the tests carried out in accordance with FCC CFR 47 Part 15E is shown below.

Section	Spec Clause	Test Description	Result	Comments/Base Standard
802.11(a)				
2.1	15.207	AC Line Conducted Emissions	Pass	
2.2	15.407 (a)(1)(2)(3)	Power Limits	Pass	
2.3	15.407 (b)(1)(2)(3)(4)(6)(7)	Undesirable Emission Limits	Pass	
2.4	2.1055 and 15.407 (g)	Frequency Stability	Pass	
2.5	15.407 (a)	26 dB Bandwidth	Pass	
2.6	15.407 (a)(5)	Peak Power Spectral Density	Pass	
2.7	15.407 (a)(6)	Ratio of the Peak Excursion of the Modulation Envelope	Pass	
802.11(n) - 5 GHz 20 MHz BW				
2.2	15.407 (a)(1)(2)(3)	Power Limits	Pass	
2.3	15.407 (b)(1)(2)(3)(4)(6)(7)	Undesirable Emission Limits	Pass	
2.4	2.1055 and 15.407 (g)	Frequency Stability	Pass	
2.5	15.407 (a)	26 dB Bandwidth	Pass	
2.6	15.407 (a)(5)	Peak Power Spectral Density	Pass	
2.7	15.407 (a)(6)	Ratio of the Peak Excursion of the Modulation Envelope	Pass	



Section	Spec Clause	Test Description	Result	Comments/Base Standard
802.11(n) - 5 GHz 40 MHz BW				
2.2	15.407 (a)(1)(2)(3)	Power Limits	Pass	
2.3	15.407 (b)(1)(2)(3)(4)(6)(7)	Undesirable Emission Limits	Pass	
2.4	2.1055 and 15.407 (g)	Frequency Stability	Pass	
2.5	15.407 (a)	26 dB Bandwidth	Pass	
2.6	15.407 (a)(5)	Peak Power Spectral Density	Pass	
2.7	15.407 (a)(6)	Ratio of the Peak Excursion of the Modulation Envelope	Pass	
802.11(ac) - 5 GHz 20 MHz BW				
2.2	15.407 (a)(1)(2)(3)	Power Limits	Pass	
2.3	15.407 (b)(1)(2)(3)(4)(6)(7)	Undesirable Emission Limits	Pass	
2.4	2.1055 and 15.407 (g)	Frequency Stability	Pass	
2.5	15.407 (a)	26 dB Bandwidth	Pass	
2.6	15.407 (a)(5)	Peak Power Spectral Density	Pass	
2.7	15.407 (a)(6)	Ratio of the Peak Excursion of the Modulation Envelope	Pass	
802.11(ac) - 5 GHz 40 MHz BW				
2.2	15.407 (a)(1)(2)(3)	Power Limits	Pass	
2.3	15.407 (b)(1)(2)(3)(4)(6)(7)	Undesirable Emission Limits	Pass	
2.4	2.1055 and 15.407 (g)	Frequency Stability	Pass	
2.5	15.407 (a)	26 dB Bandwidth	Pass	
2.6	15.407 (a)(5)	Peak Power Spectral Density	Pass	
2.7	15.407 (a)(6)	Ratio of the Peak Excursion of the Modulation Envelope	Pass	



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Section	Spec Clause	Test Description	Result	Comments/Base Standard
802.11(ac) - 5 GHz 80 MHz BW				
2.2	15.407 (a)(1)(2)(3)	Power Limits	Pass	
2.3	15.407 (b)(1)(2)(3)(4)(6)(7)	Undesirable Emission Limits	Pass	
2.4	2.1055 and 15.407 (g)	Frequency Stability	Pass	
2.5	15.407 (a)	26 dB Bandwidth	Pass	
2.6	15.407 (a)(5)	Peak Power Spectral Density	Pass	
2.7	15.407 (a)(6)	Ratio of the Peak Excursion of the Modulation Envelope	Pass	



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**1.3 APPLICATION FORM**

EQUIPMENT DESCRIPTION	
Model Name/Number	SHT22
Part Number	CA266
Hardware Version	Please refer to handset
Software Version	Please refer to handset
FCC ID	APYHRO00200
Technical Description (Please provide a brief description of the intended use of the equipment)	Quad-band LTE(B1/B11/B18), Dual-band CDMA(BC0/BC6) Cellular Phone with Bluetooth, WLAN, NFC and GPS

TYPE OF EQUIPMENT	
<input type="checkbox"/>	Master
<input type="checkbox"/>	Client with Radar Detection
<input checked="" type="checkbox"/>	Client without Radar Detection
<input type="checkbox"/>	Wi-Fi Direct Support

TRANSMITTER TECHNICAL CHARACTERISTICS	
FREQUENCY CHARACTERISTICS	
<input checked="" type="checkbox"/>	5.150 GHz to 5.250 GHz
<input checked="" type="checkbox"/>	5.250 GHz to 5.350 GHz
<input checked="" type="checkbox"/>	5.470 GHz to 5.725 GHz
<input type="checkbox"/>	5.725 GHz to 5.825 GHz
<input type="checkbox"/>	EUT operates in the frequency band 5600 – 5650 MHz?
<input type="checkbox"/>	Off Channel CAC Implemented
	Off Channel CAC within 5600 – 5650 MHz band                      hours, (1 – 24)
	Off Channel CAC outside 5600 – 5650 MHz band                    minutes, (6 – 240)
Note: DFS is not required in the ranges 5.15 – 5.25 GHz and 5.725 – 5.825 GHz	



TRANSMITTER RF POWER CHARACTERISTICS	
Maximum rated transmitter output power as stated by manufacturer (if applicable)	
Conducted Power	13.5 dBm
Maximum Antenna Gain	0 dBi
EIRP	13.5 dBm
Minimum rated transmitter output power as stated by manufacturer (if applicable)	
Conducted Power	dBm
Maximum Antenna Gain	dBi
EIRP	dBm
Is TPC supported?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, provide a description of operation.	
N/A - less than 500mW	

POWER SOURCE	
<input type="checkbox"/> AC mains supply	State voltage
AC supply frequency	(Hz) VAC
<input checked="" type="checkbox"/> DC supply	
Nominal voltage	4.0

SYSTEM ARCHITECTURE			
<input checked="" type="checkbox"/>	Frame Based		
<input type="checkbox"/>	IP Based		
<input type="checkbox"/>	Other	If other please state	
<input checked="" type="checkbox"/>	802.11(a)	Receiver Bandwidth:	20 MHz
<input checked="" type="checkbox"/>	802.11(n) – 20 MHz	Receiver Bandwidth:	20/ 40 MHz
<input checked="" type="checkbox"/>	802.11(n) – 40 MHz	Receiver Bandwidth:	20/ 40 MHz
<input checked="" type="checkbox"/>	802.11(ac) – 20 MHz	Receiver Bandwidth:	20/ 40/ 80 MHz
<input checked="" type="checkbox"/>	802.11(ac) – 40 MHz	Receiver Bandwidth:	20/ 40/ 80 MHz
<input checked="" type="checkbox"/>	802.11(ac) – 80 MHz	Receiver Bandwidth:	20/ 40/ 80 MHz

DECLARATION	
No parameter or information relating to the detected radar waveforms is available or accessible to the end user.	
<input checked="" type="checkbox"/> True	<input type="checkbox"/> False

MISCELLANEOUS	
Power-on cycle time*	N/A
* Time from switching on the UUT to the point at which Channel Availability Check (CAC) commences	



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UNIFORM SPREADING	
Describe how the meter provides, on aggregate, uniform channel loading of the spectrum across all channels.	
N/A	

ANTENNA OPTIONS	
<b>Antenna 1</b>	
Antenna Description:	Integral BT / WLAN strip line antenna
Antenna Model:	GCABBA485AFZZ
Antenna Maximum Gain:	0 dBi
Antenna Frequency Range:	Dual band: 2400MHz -2500MHz, 5100MHz- 5750MHz
<b>Antenna 2</b>	
Antenna Description:	
Antenna Model:	
Antenna Maximum Gain:	
Antenna Frequency Range:	
<b>Antenna 3</b>	
Antenna Description:	
Antenna Model:	
Antenna Maximum Gain:	
Antenna Frequency Range:	
<b>Antenna 4</b>	
Antenna Description:	
Antenna Model:	
Antenna Maximum Gain:	
Antenna Frequency Range:	
<b>Antenna 5</b>	
Antenna Description:	
Antenna Model:	
Antenna Maximum Gain:	
Antenna Frequency Range:	

I hereby declare that I am entitled to sign on behalf of the applicant and that the information supplied is correct and complete.

Signature:   
 Position held: Supervisor

Name: Hiroyuki Murakami  
 Date: 20<sup>th</sup> December, 2013



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## **1.4 PRODUCT INFORMATION**

### **1.4.1 Technical Description**

The Equipment Under Test (EUT) was a Sharp SHT22 Dual-band CDMA (BC0, BC6), Tri-band LTE (B1, B11, B18). Dual mode Tablet PC with Bluetooth, WLAN, SRD(NFC) and GPS. A full technical description can be found in the manufacturer's documentation.

## **1.5 TEST CONDITIONS**

For all tests the EUT was set up in accordance with the relevant test standard and to represent typical operating conditions. Tests were applied with the EUT situated in a shielded enclosure.

The EUT was powered from a 4.0 V DC supply.

FCC Measurement Facility Registration Number  
90987 Octagon House, Fareham Test Laboratory

## **1.6 DEVIATIONS FROM THE STANDARD**

No deviations from the applicable test standard were made during testing.

## **1.7 MODIFICATION RECORD**

Modification 0 - No modifications were made to the test sample during testing.



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## **SECTION 2**

### **TEST DETAILS**

FCC Testing of the  
Sharp SHT22 Dual-band CDMA (BC0, BC6), Tri-band LTE (B1, B11, B18). Dual mode Tablet  
PC with Bluetooth, WLAN, SRD(NFC) and GPS  
In accordance with FCC CFR 47 Part 15E



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## **2.1 AC LINE CONDUCTED EMISSIONS**

### **2.1.1 Specification Reference**

FCC CFR 47 Part 15E, Clause 15.207

### **2.1.2 Equipment Under Test and Modification State**

SHT22 S/N: IMEI 004401115013480 - Modification State 0

### **2.1.3 Date of Test**

21 January 2014

### **2.1.4 Test Equipment Used**

The major items of test equipment used for the above tests are identified in Section 3.1.

### **2.1.5 Test Procedure**

The EUT was set up on a test table 800mm above a horizontal ground plane. A vertical ground plane was also required and was placed 400mm from the EUT.

The EUT was powered through a Line Impedance Stabilisation Network (LISN) which was bonded to the ground plane. The EUT was located so that the distance between the EUT and the LISN was no less than 800mm. The cable between the mains input of the EUT and the LISN was 1m.

A preliminary profile of the Conducted Emissions was obtained over the frequency range 150kHz to 30MHz. Any points of interest were noted for formal measurements.

During formal measurements, the measuring receiver was tuned to the emission of interest where Quasi – Peak and Average measurements were performed in a 9kHz Video and Resolution Bandwidth.

### **2.1.6 Environmental Conditions**

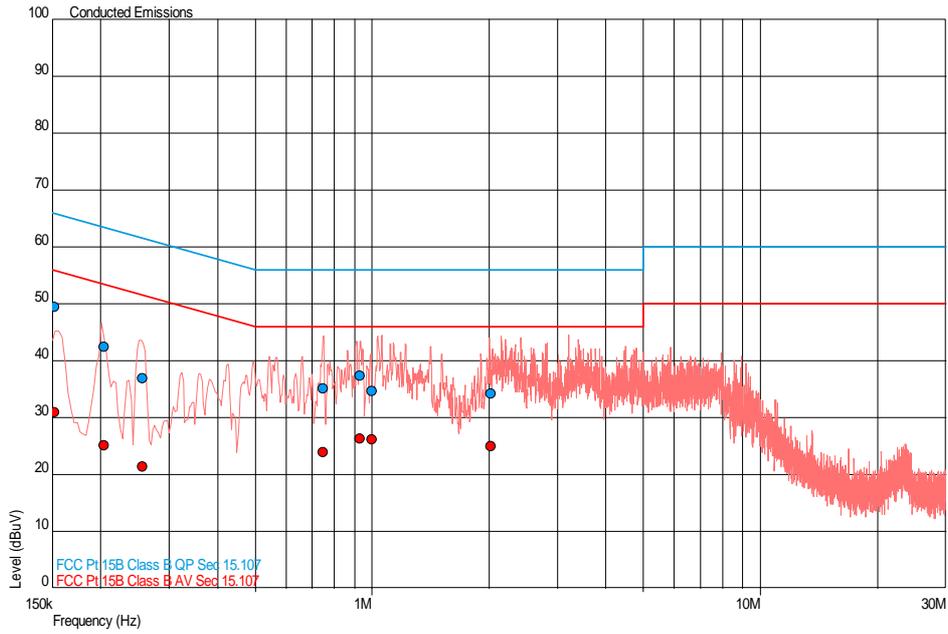
Ambient Temperature	22.9°C
Relative Humidity	26.0%



2.1.7 Test Results

802.11(a)

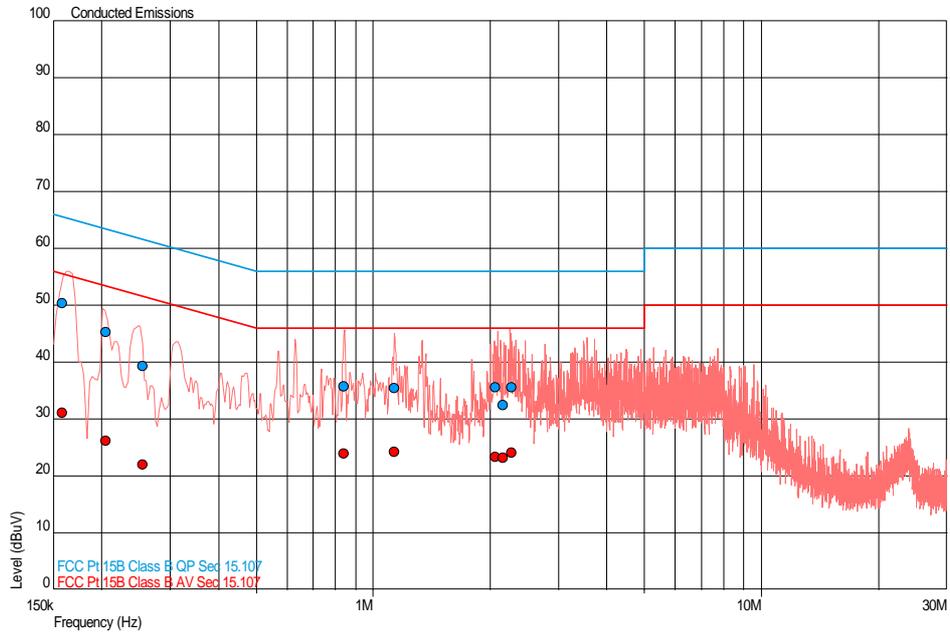
Live Line



Frequency (MHz)	QP Level (dBμV)	QP Limit (dBμV)	QP Margin (dBμV)	AV Level (dBμV)	AV Limit (dBμV)	AV Margin (dBμV)
0.152	49.5	65.9	-16.4	31.0	55.9	-24.8
0.204	42.4	63.5	-21.0	25.2	53.5	-28.3
0.256	37.0	61.6	-24.6	21.4	51.6	-30.2
0.747	35.1	56.0	-20.9	24.0	46.0	-22.0
0.928	37.3	56.0	-18.7	26.4	46.0	-19.6
0.998	34.7	56.0	-21.3	26.2	46.0	-19.8
2.020	34.2	56.0	-21.8	25.0	46.0	-21.0



Neutral Line



Frequency (MHz)	QP Level (dBµV)	QP Limit (dBµV)	QP Margin (dBµV)	AV Level (dBµV)	AV Limit (dBµV)	AV Margin (dBµV)
0.158	50.4	65.5	-15.1	31.1	55.5	-24.4
0.205	45.2	63.4	-18.2	26.1	53.4	-27.3
0.255	39.4	61.6	-22.2	22.0	51.6	-29.6
0.839	35.8	56.0	-20.2	24.0	46.0	-22.0
1.136	35.5	56.0	-20.5	24.2	46.0	-21.8
2.067	35.6	56.0	-20.4	23.3	46.0	-22.7
2.163	32.5	56.0	-23.5	23.1	46.0	-22.9
2.271	35.6	56.0	-20.4	24.1	46.0	-21.9



## 2.2 POWER LIMITS

### 2.2.1 Specification Reference

FCC CFR 47 Part 15E, Clause 15.407 (a)(1)(2)(3)

### 2.2.2 Equipment Under Test and Modification State

SHT22 S/N: IMEI 004401115013480 - Modification State 0

### 2.2.3 Date of Test

10 January 2014, 13 January 2014 & 14 January 2014

### 2.2.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

### 2.2.5 Test Procedure

For conducted power, the EUT was transmitted at maximum power via a cable and attenuator to a wideband power meter. The average power was then recorded.

For radiated power, the EUT was transmitted at maximum power level. The signal was observed on the Spectrum Analyser using a Double Ridge Guide antenna at 3 metres from the EUT. The signal was maximised by rotating the EUT 360° and a height search of the measuring antenna. A substitution was then performed using a substitution antenna and signal generator.

This level was maximised by adjusting the height of the measuring antenna once more. The level from the signal generator was then adjusted to achieve the same raw result as with the EUT. This level was then corrected to account for cable loss and antenna factor. A calculation was then performed to obtain the final figure.

A wideband power meter was then used to obtain a correction factor for the wideband signal and in terms of an rms-equivalent voltage.

### 2.2.6 Environmental Conditions

Ambient Temperature	22.4 - 24.1°C
Relative Humidity	26.0 - 37.1%



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**2.2.7 Test Results**

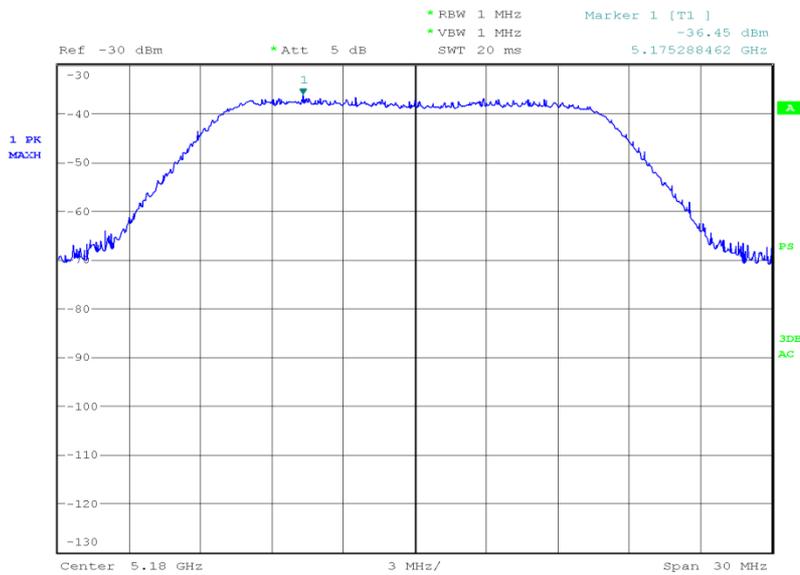
802.11(a)

Radiated

Frequency Band 1

5180 MHz

EIRP (dBm)	EIRP (mW)
15.30	33.88

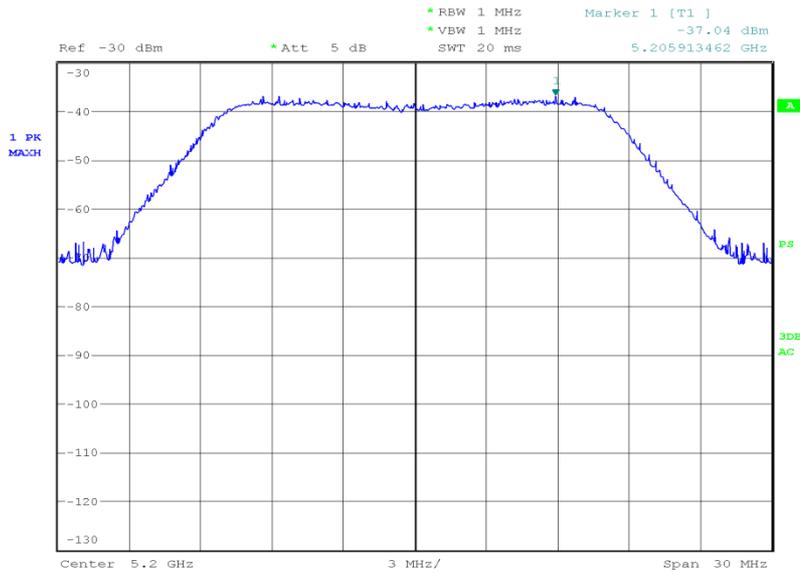


Date: 13.JAN.2014 17:19:52



5200 MHz

EIRP (dBm)	EIRP (mW)
15.44	34.99



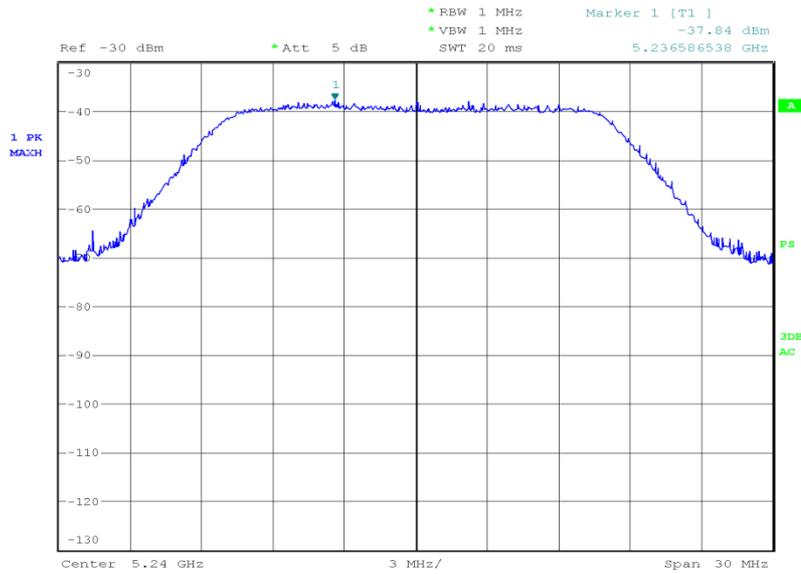
Date: 13.JAN.2014 17:25:42



Product Service

5240 MHz

EIRP (dBm)	EIRP (mW)
14.57	28.64



Date: 13.JAN.2014 17:31:08



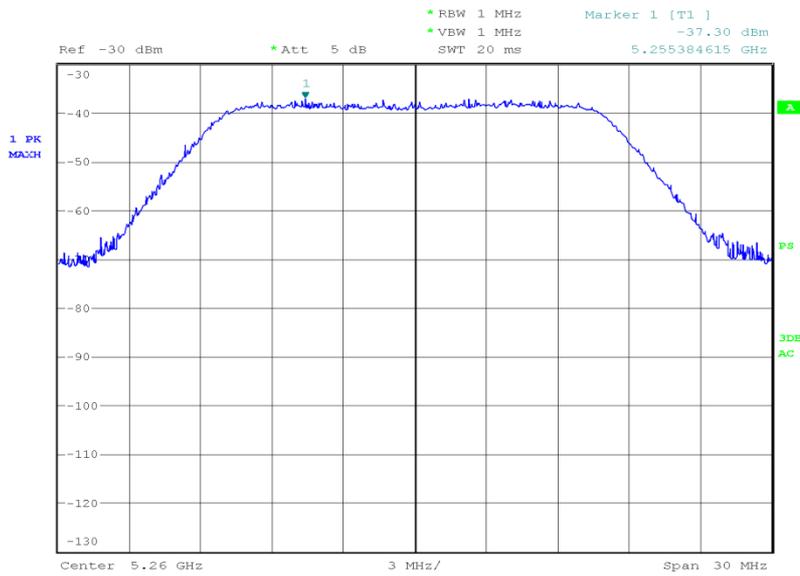
Product Service

Radiated

Frequency Band 2

5260 MHz

EIRP (dBm)	EIRP (mW)
14.93	31.12



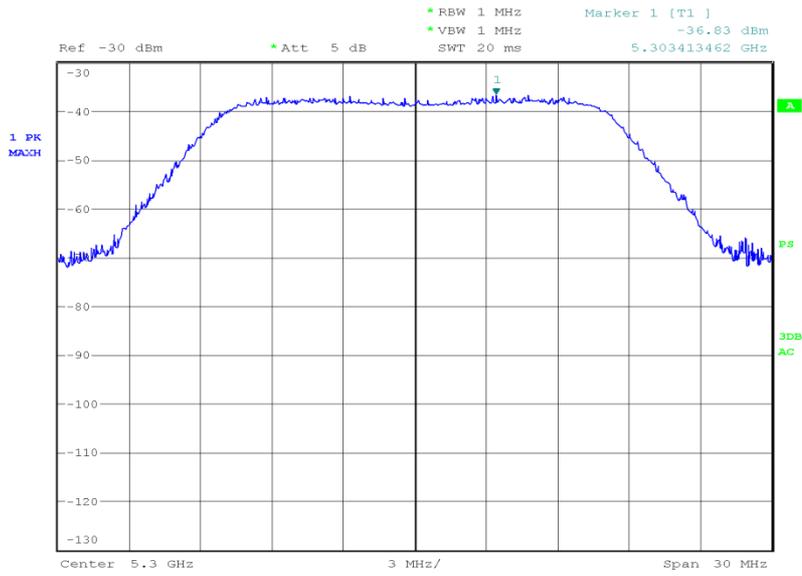
Date: 13.JAN.2014 17:36:09



Product Service

5300 MHz

EIRP (dBm)	EIRP (mW)
15.26	33.57



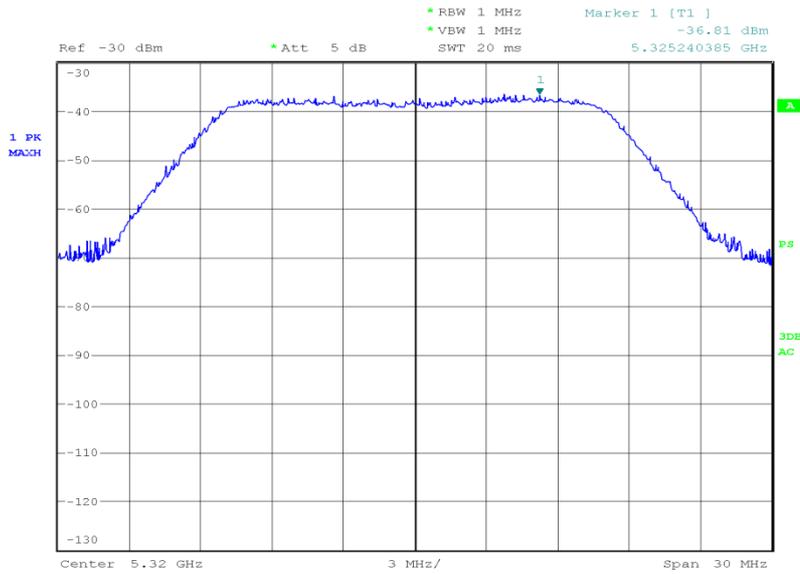
Date: 13.JAN.2014 17:41:02



Product Service

5320 MHz

EIRP (dBm)	EIRP (mW)
15.25	33.50



Date: 13.JAN.2014 17:45:06



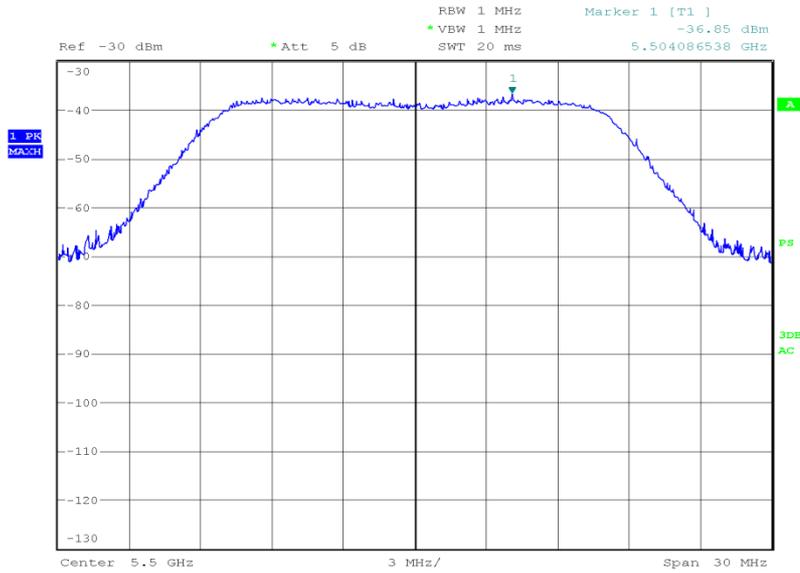
Product Service

Radiated

Frequency Band 3

5500 MHz

EIRP (dBm)	EIRP (mW)
15.81	38.11



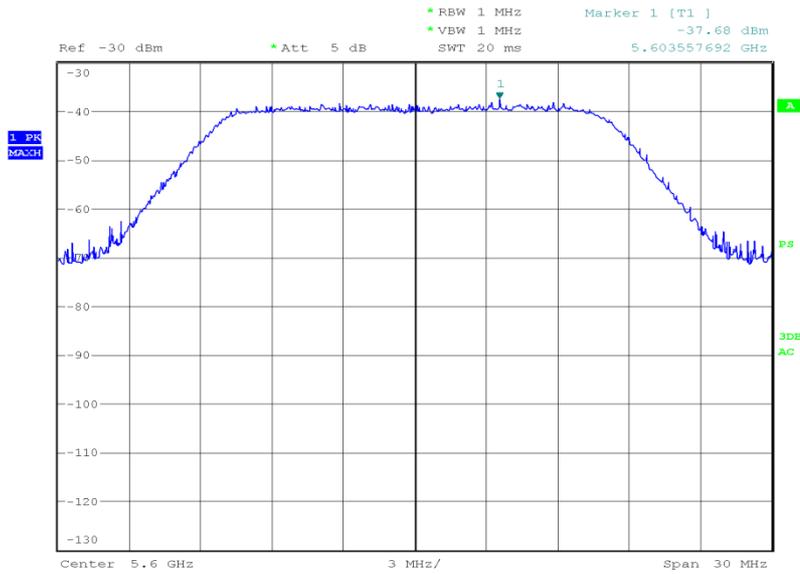
Date: 13.JAN.2014 17:53:51



Product Service

5600 MHz

EIRP (dBm)	EIRP (mW)
14.87	30.69

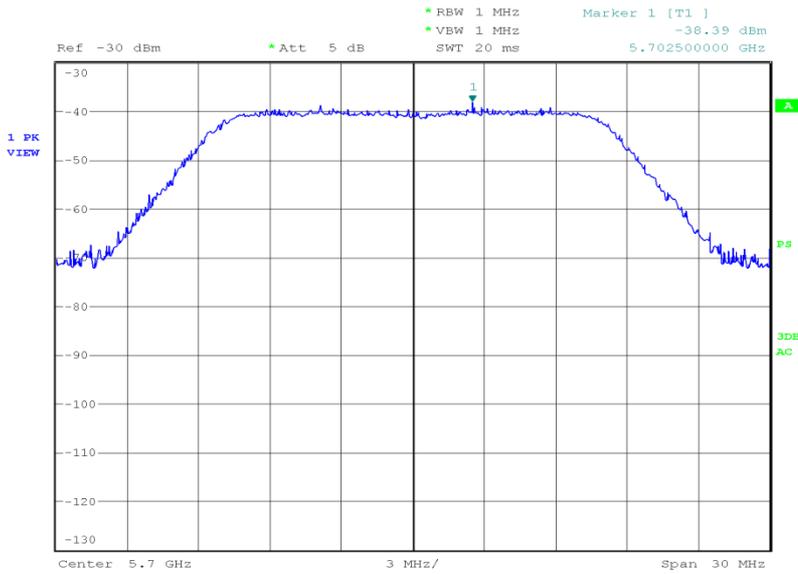


Date: 13.JAN.2014 18:02:14



5700 MHz

EIRP (dBm)	EIRP (mW)
14.11	25.76



Date: 13.JAN.2014 18:10:37

Limit for Radiated

Frequency Band (MHz)	FCC Limit
5150 to 5250	Lesser of 200 mW or 10 dBm + 10 log B
5250 to 5350	Lesser of 1 W or 17 dBm + 10 log B
5470 to 5725	Lesser of 1 W or 17 dBm + 10 log B
5725 to 5825	Lesser of 4 W or 23 dBm + 10 log B

Note: "B" = 26 dB Bandwidth.  
 It is acceptable to have an antenna with up to 6 dBi gain, without reducing the conducted output power.



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Conducted

Frequency Band 1

5180 MHz

EIRP (dBm)	EIRP (mW)
11.94	15.63

5200 MHz

EIRP (dBm)	EIRP (mW)
11.65	14.62

5240 MHz

EIRP (dBm)	EIRP (mW)
11.53	14.22

The test was performed on the worst case data rate for 802.11(a). The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 6 Mbps.

Conducted

Frequency Band 2

5260 MHz

EIRP (dBm)	EIRP (mW)
12.02	15.92

5300 MHz

EIRP (dBm)	EIRP (mW)
12.12	16.29

5320 MHz

EIRP (dBm)	EIRP (mW)
12.09	16.18

The test was performed on the worst case data rate for 802.11(a). The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 6 Mbps.



Product Service

Conducted

Frequency Band 3

5500 MHz

EIRP (dBm)	EIRP (mW)
12.78	18.97

5600 MHz

EIRP (dBm)	EIRP (mW)
12.99	19.91

5700 MHz

EIRP (dBm)	EIRP (mW)
12.66	18.45

The test was performed on the worst case data rate for 802.11(a). The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was 6 Mbps.

Limit for Conducted

Frequency Band (MHz)	FCC Limit
5150 to 5250	Lesser of 50 mW or 4 dBm + 10 log B
5250 to 5350	Lesser of 250 mW or 11 dBm + 10 log B
5470 to 5725	Lesser of 250 mW or 11 dBm + 10 log B
5725 to 5825	Lesser of 1 W or 17 dBm + 10 log B

Note: "B" = 26 dB Bandwidth.



Product Service

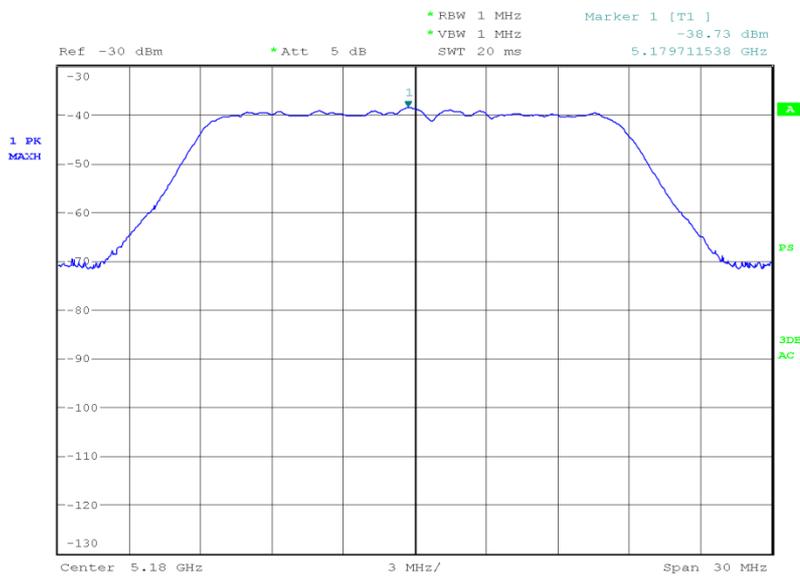
802.11(ac) - 5 GHz 20 MHz BW

Radiated

Frequency Band 1

5180 MHz

EIRP (dBm)	EIRP (mW)
14.43	27.73



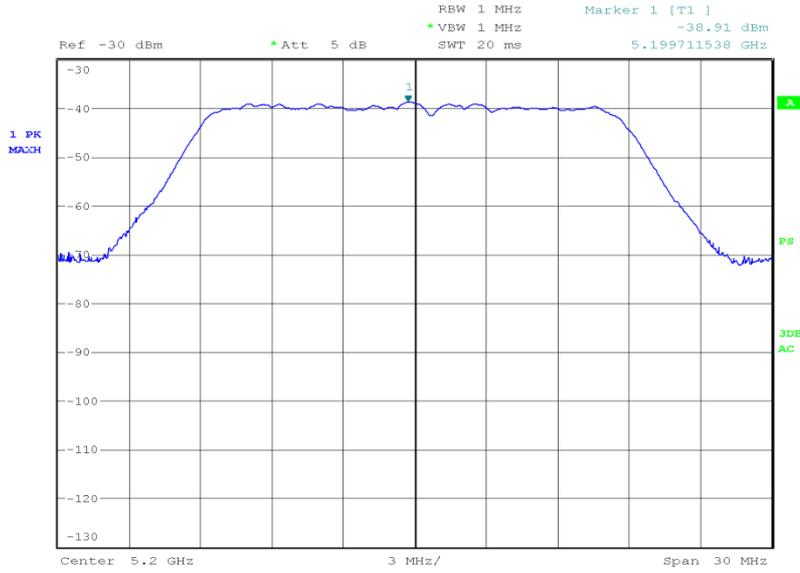
Date: 13.JAN.2014 20:33:11



Product Service

5200 MHz

EIRP (dBm)	EIRP (mW)
14.98	31.48

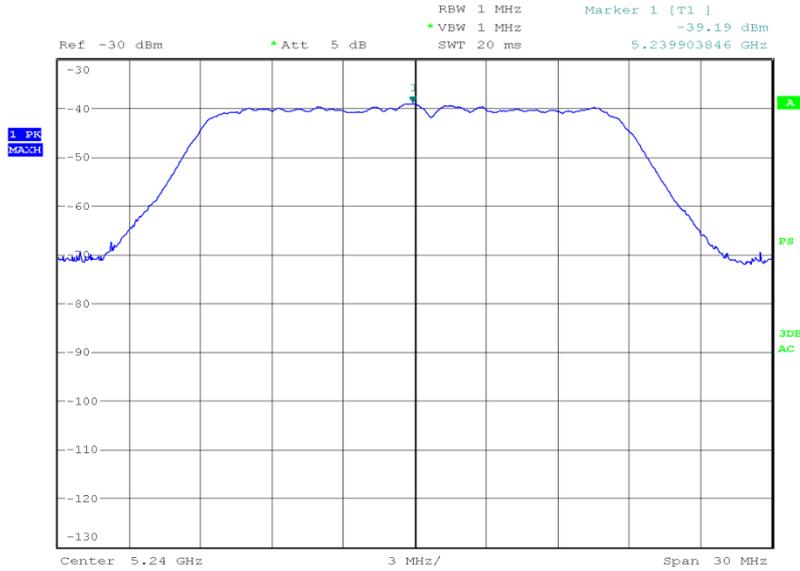


Date: 13.JAN.2014 20:38:59



5240 MHz

EIRP (dBm)	EIRP (mW)
14.60	28.84



Date: 13.JAN.2014 20:47:57



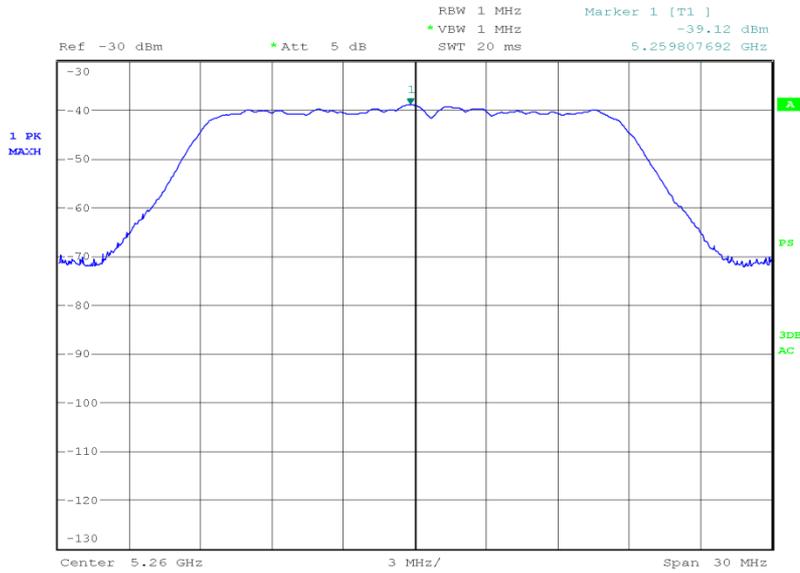
Product Service

Radiated

Frequency Band 2

5260 MHz

EIRP (dBm)	EIRP (mW)
14.52	28.31



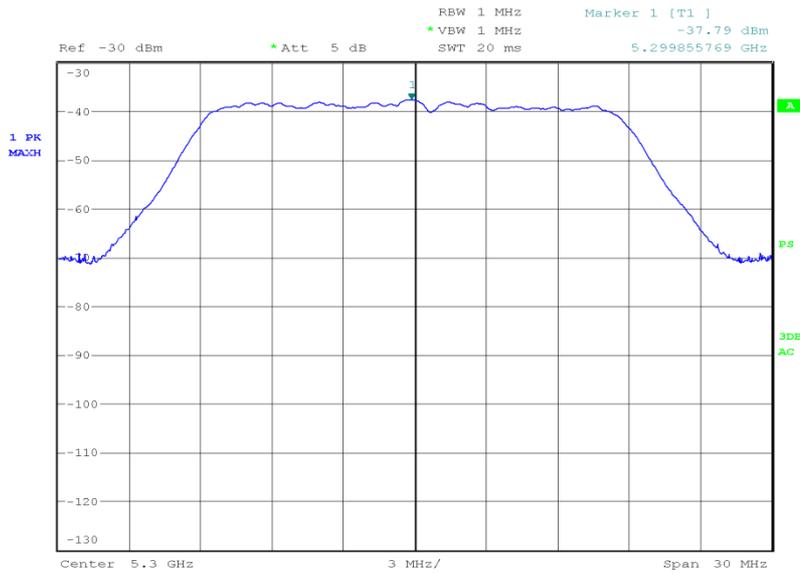
Date: 13.JAN.2014 20:53:10



Product Service

5300 MHz

EIRP (dBm)	EIRP (mW)
15.71	37.24



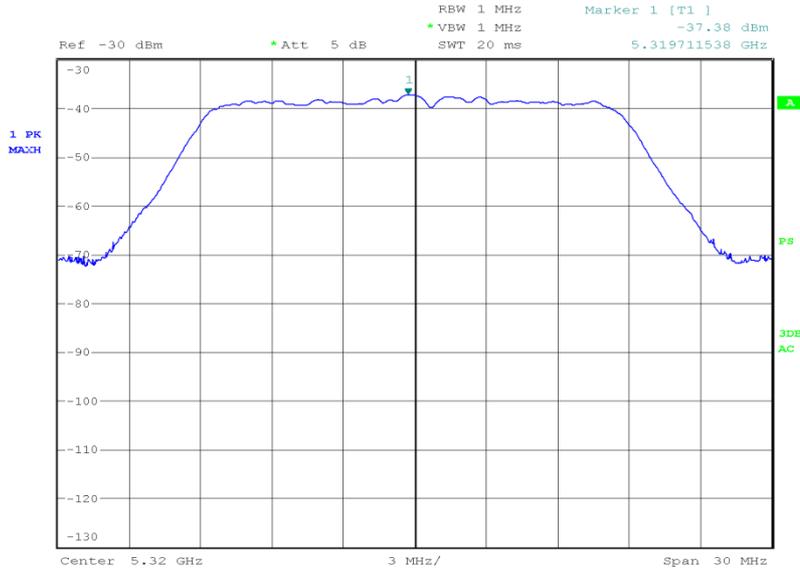
Date: 13.JAN.2014 21:06:23



Product Service

5320 MHz

EIRP (dBm)	EIRP (mW)
16.09	40.64



Date: 13.JAN.2014 21:10:24



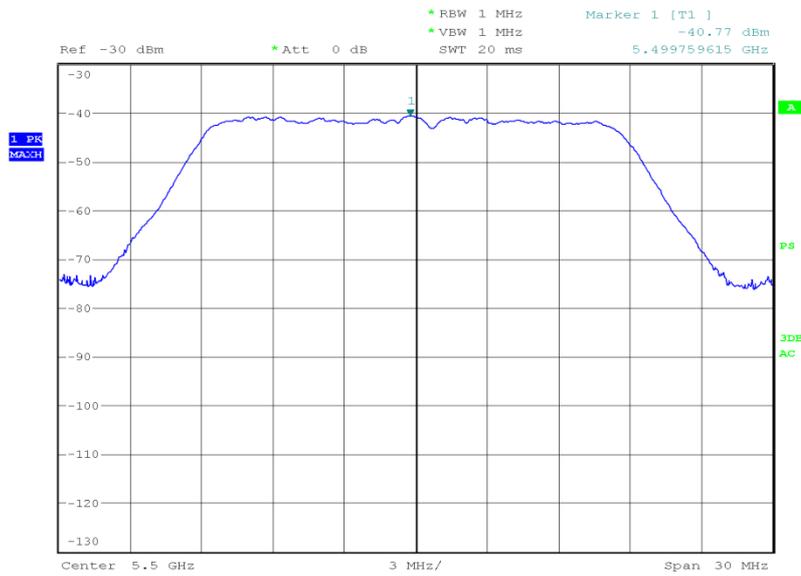
Product Service

Radiated

Frequency Band 3

5500 MHz

EIRP (dBm)	EIRP (mW)
13.30	21.38

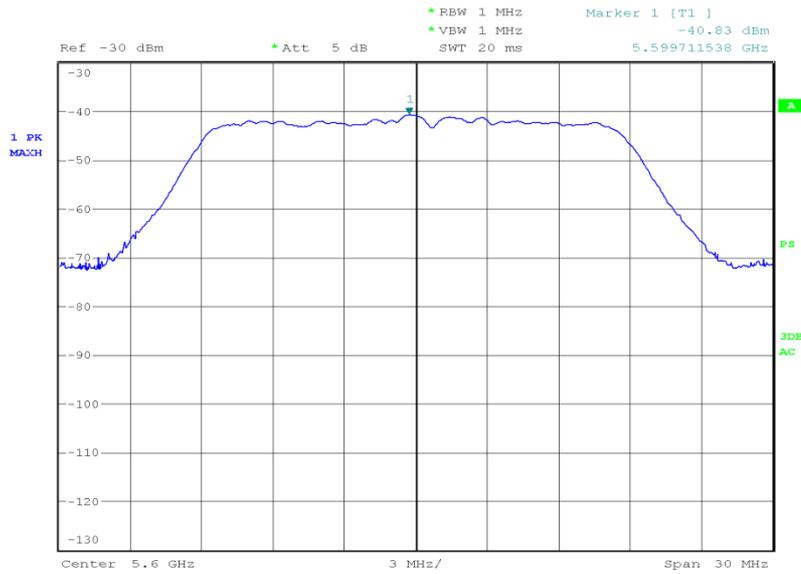


Date: 13.JAN.2014 21:20:13



5600 MHz

EIRP (dBm)	EIRP (mW)
13.13	20.56

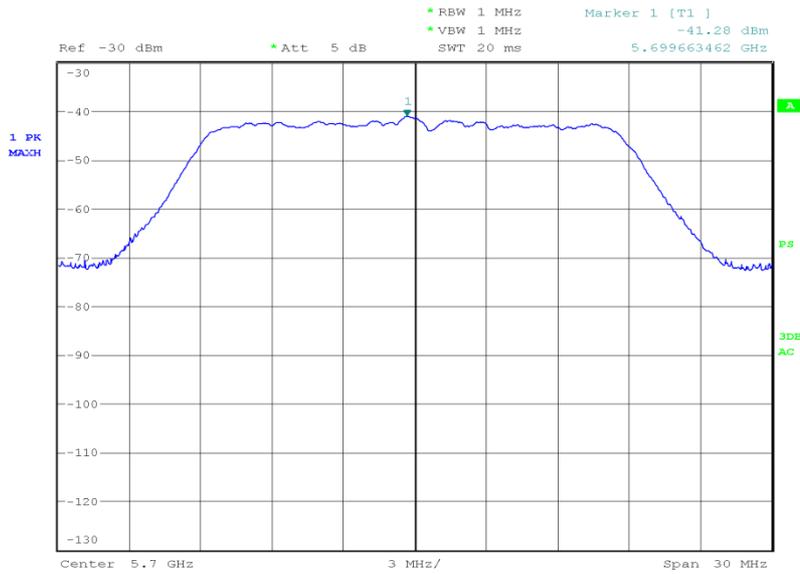


Date: 13.JAN.2014 21:26:10



5700 MHz

EIRP (dBm)	EIRP (mW)
12.63	18.32



Date: 13.JAN.2014 21:29:37

Limit for Radiated

Frequency Band (MHz)	FCC Limit
5150 to 5250	Lesser of 200 mW or 10 dBm + 10 log B
5250 to 5350	Lesser of 1 W or 17 dBm + 10 log B
5470 to 5725	Lesser of 1 W or 17 dBm + 10 log B
5725 to 5825	Lesser of 4 W or 23 dBm + 10 log B

Note: "B" = 26 dB Bandwidth.

It is acceptable to have an antenna with up to 6 dBi gain, without reducing the conducted output power.



Product Service

Conducted

Frequency Band 1

5180 MHz

EIRP (dBm)	EIRP (mW)
10.86	12.19

5200 MHz

EIRP (dBm)	EIRP (mW)
11.16	13.06

5240 MHz

EIRP (dBm)	EIRP (mW)
10.91	12.33

The test was performed on the worst case data rate for 802.11(ac) - 20 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MCS1.

Conducted

Frequency Band 2

5260 MHz

EIRP (dBm)	EIRP (mW)
11.02	12.65

5300 MHz

EIRP (dBm)	EIRP (mW)
11.45	13.96

5320 MHz

EIRP (dBm)	EIRP (mW)
11.31	13.52

The test was performed on the worst case data rate for 802.11(ac) - 20 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MCS1.



Product Service

Conducted

Frequency Band 3

5500 MHz

EIRP (dBm)	EIRP (mW)
11.76	15.00

5600 MHz

EIRP (dBm)	EIRP (mW)
12.14	16.37

5700 MHz

EIRP (dBm)	EIRP (mW)
11.86	15.35

The test was performed on the worst case data rate for 802.11(ac) - 20 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MCS1.

Limit for Conducted

Frequency Band (MHz)	FCC Limit
5150 to 5250	Lesser of 50 mW or 4 dBm + 10 log B
5250 to 5350	Lesser of 250 mW or 11 dBm + 10 log B
5470 to 5725	Lesser of 250 mW or 11 dBm + 10 log B
5725 to 5825	Lesser of 1 W or 17 dBm + 10 log B

Note: "B" = 26 dB Bandwidth.



Product Service

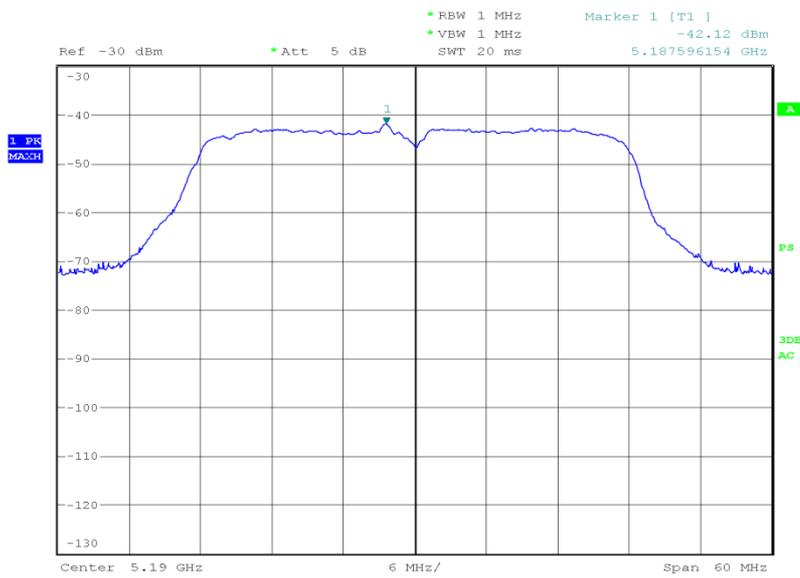
802.11(ac) - 5 GHz 40 MHz BW

Radiated

Frequency Band 1

5190 MHz

EIRP (dBm)	EIRP (mW)
15.48	35.32



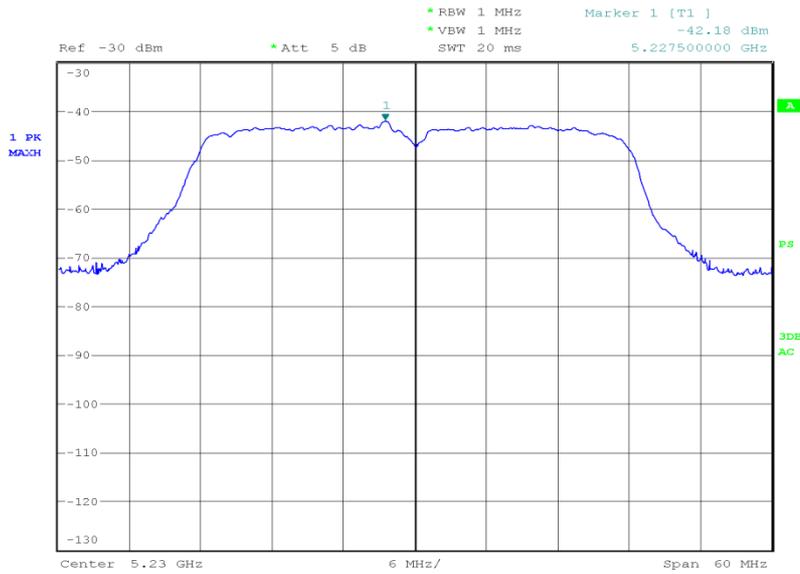
Date: 14.JAN.2014 21:02:20



Product Service

5230 MHz

EIRP (dBm)	EIRP (mW)
15.82	38.19



Date: 14.JAN.2014 21:09:30



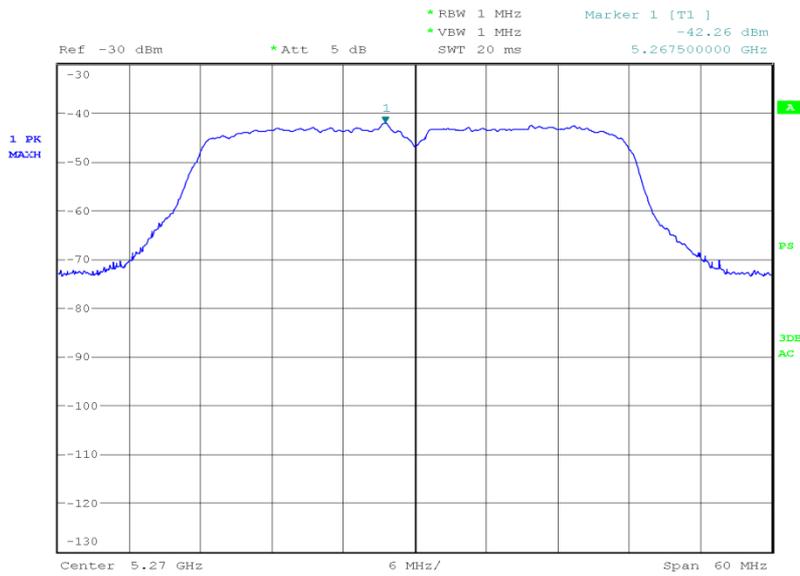
Product Service

Radiated

Frequency Band 2

5270 MHz

EIRP (dBm)	EIRP (mW)
16.08	40.55

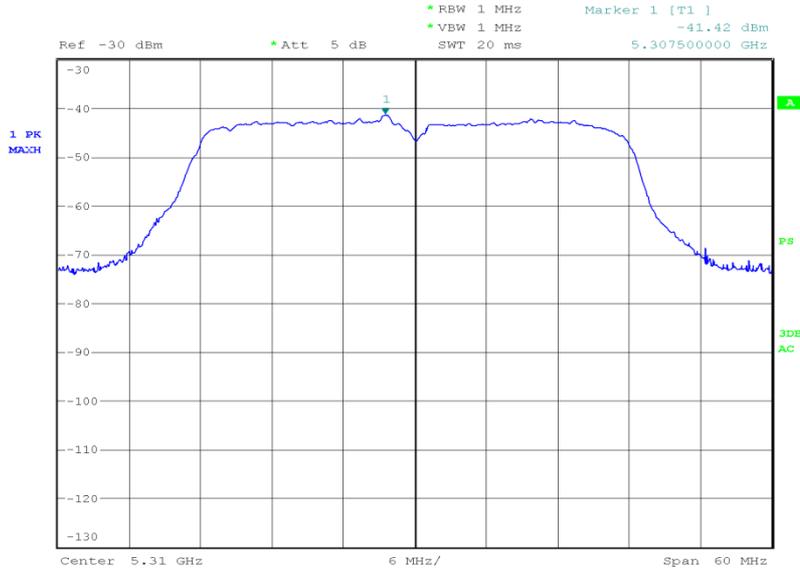


Date: 14.JAN.2014 21:13:34



5310 MHz

EIRP (dBm)	EIRP (mW)
16.67	46.45



Date: 14.JAN.2014 21:17:04



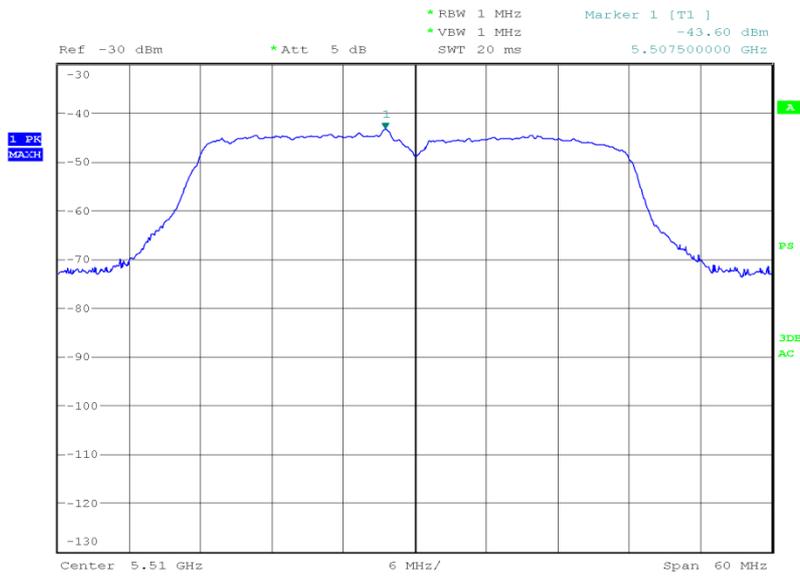
Product Service

Radiated

Frequency Band 3

5510 MHz

EIRP (dBm)	EIRP (mW)
15.39	34.59



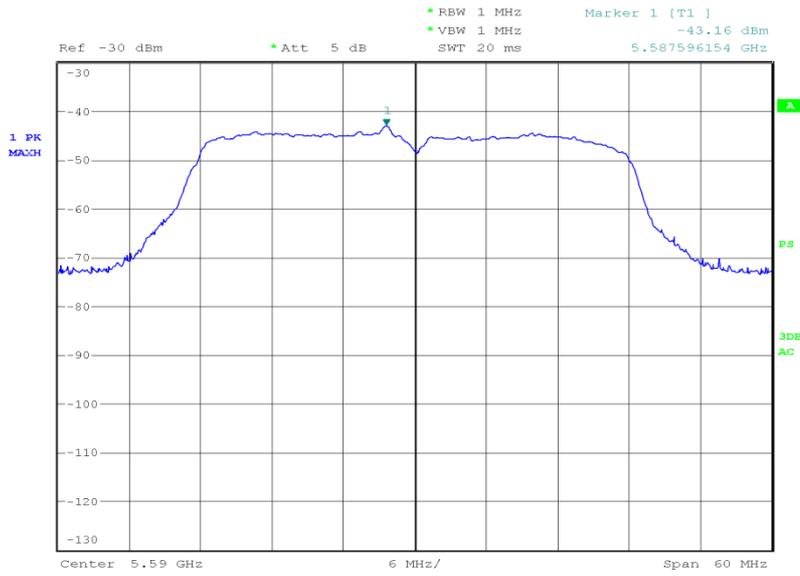
Date: 14.JAN.2014 21:28:04



Product Service

5590 MHz

EIRP (dBm)	EIRP (mW)
15.45	35.08



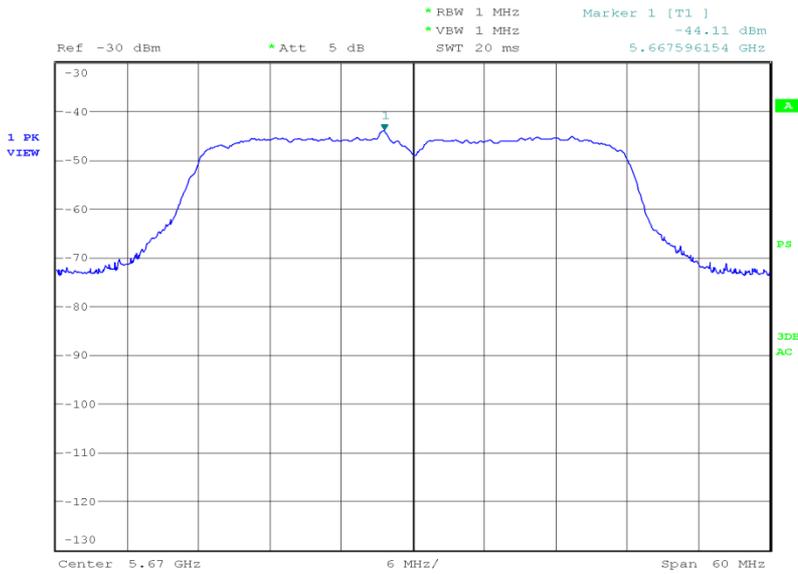
Date: 14.JAN.2014 21:37:17



Product Service

**5670 MHz**

EIRP (dBm)	EIRP (mW)
13.79	23.93



Date: 14.JAN.2014 21:43:28

**Limit for Radiated**

Frequency Band (MHz)	FCC Limit
5150 to 5250	Lesser of 200 mW or 10 dBm + 10 log B
5250 to 5350	Lesser of 1 W or 17 dBm + 10 log B
5470 to 5725	Lesser of 1 W or 17 dBm + 10 log B
5725 to 5825	Lesser of 4 W or 23 dBm + 10 log B

Note: "B" = 26 dB Bandwidth.  
 It is acceptable to have an antenna with up to 6 dBi gain, without reducing the conducted output power.



Product Service

ConductedFrequency Band 15190 MHz

EIRP (dBm)	EIRP (mW)
10.95	12.45

5230 MHz

EIRP (dBm)	EIRP (mW)
10.93	12.39

The test was performed on the worst case data rate for 802.11(ac) - 40 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MCS0.

ConductedFrequency Band 25270 MHz

EIRP (dBm)	EIRP (mW)
11.06	12.76

5310 MHz

EIRP (dBm)	EIRP (mW)
11.59	14.42

The test was performed on the worst case data rate for 802.11(ac) - 40 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MCS0.



Product Service

Conducted

Frequency Band 3

5510 MHz

EIRP (dBm)	EIRP (mW)
12.01	15.89

5590 MHz

EIRP (dBm)	EIRP (mW)
12.02	15.92

5670 MHz

EIRP (dBm)	EIRP (mW)
11.55	14.29

The test was performed on the worst case data rate for 802.11(ac) - 40 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MCS0.

Limit for Conducted

Frequency Band (MHz)	FCC Limit
5150 to 5250	Lesser of 50 mW or 4 dBm + 10 log B
5250 to 5350	Lesser of 250 mW or 11 dBm + 10 log B
5470 to 5725	Lesser of 250 mW or 11 dBm + 10 log B
5725 to 5825	Lesser of 1 W or 17 dBm + 10 log B

Note: "B" = 26 dB Bandwidth.



Product Service

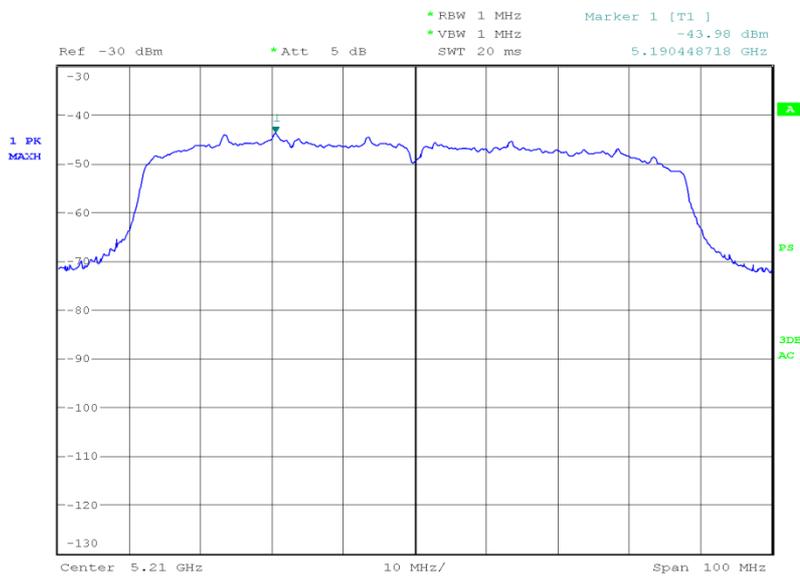
802.11(ac) - 5 GHz 80 MHz BW

Radiated

Frequency Band 1

5210 MHz

EIRP (dBm)	EIRP (mW)
15.85	38.46



Date: 13.JAN.2014 21:59:30



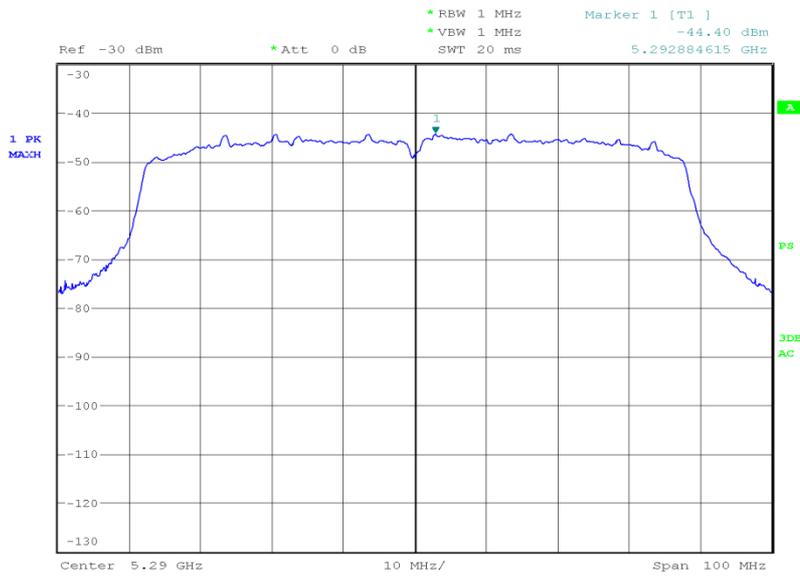
Product Service

Radiated

Frequency Band 2

5290 MHz

EIRP (dBm)	EIRP (mW)
15.29	33.81



Date: 13.JAN.2014 22:07:20



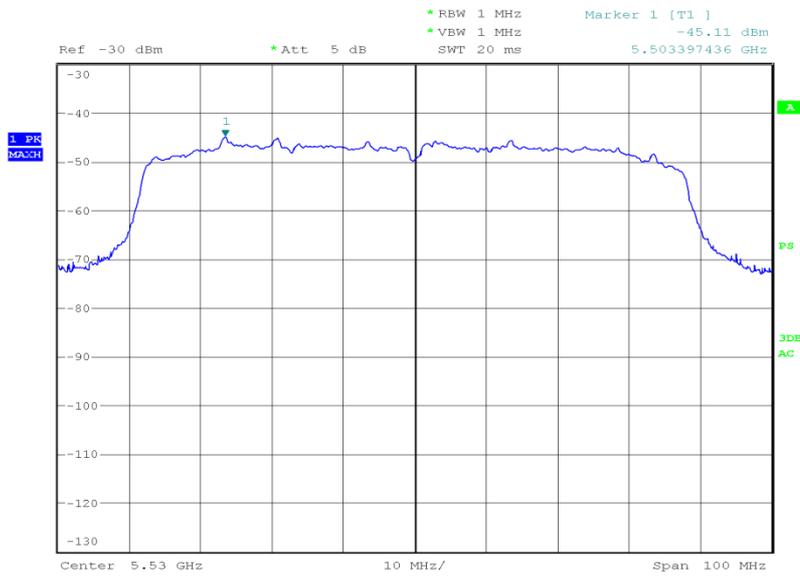
Product Service

Radiated

Frequency Band 3

5530 MHz

EIRP (dBm)	EIRP (mW)
14.66	29.24



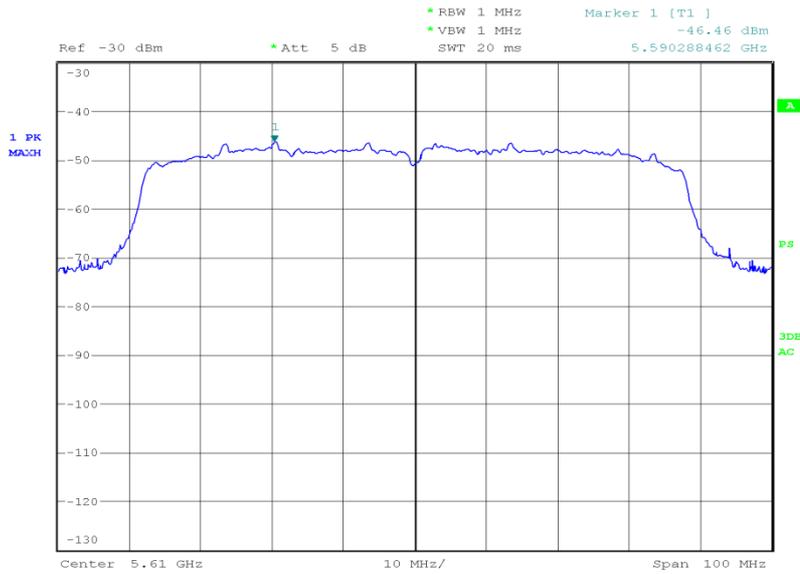
Date: 13.JAN.2014 22:14:11



Product Service

5610 MHz

EIRP (dBm)	EIRP (mW)
13.44	22.08



Date: 13.JAN.2014 22:22:01

Limit for Radiated

Frequency Band (MHz)	FCC Limit
5150 to 5250	Lesser of 200 mW or 10 dBm + 10 log B
5250 to 5350	Lesser of 1 W or 17 dBm + 10 log B
5470 to 5725	Lesser of 1 W or 17 dBm + 10 log B
5725 to 5825	Lesser of 4 W or 23 dBm + 10 log B

Note: "B" = 26 dB Bandwidth.

It is acceptable to have an antenna with up to 6 dBi gain, without reducing the conducted output power.



Product Service

Conducted

Frequency Band 1

5210 MHz

EIRP (dBm)	EIRP (mW)
10.99	12.56

The test was performed on the worst case data rate for 802.11(ac) - 80 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MCS0.

Conducted

Frequency Band 2

5290 MHz

EIRP (dBm)	EIRP (mW)
11.19	13.15

The test was performed on the worst case data rate for 802.11(ac) - 80 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MCS0.

Conducted

Frequency Band 3

5530 MHz

EIRP (dBm)	EIRP (mW)
11.91	15.52

5610 MHz

EIRP (dBm)	EIRP (mW)
12.13	16.33

The test was performed on the worst case data rate for 802.11(ac) - 80 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MCS0.



Product Service

Limit for Conducted

Frequency Band (MHz)	FCC Limit
5150 to 5250	Lesser of 50 mW or 4 dBm + 10 log B
5250 to 5350	Lesser of 250 mW or 11 dBm + 10 log B
5470 to 5725	Lesser of 250 mW or 11 dBm + 10 log B
5725 to 5825	Lesser of 1 W or 17 dBm + 10 log B

Note: "B" = 26 dB Bandwidth.



Product Service

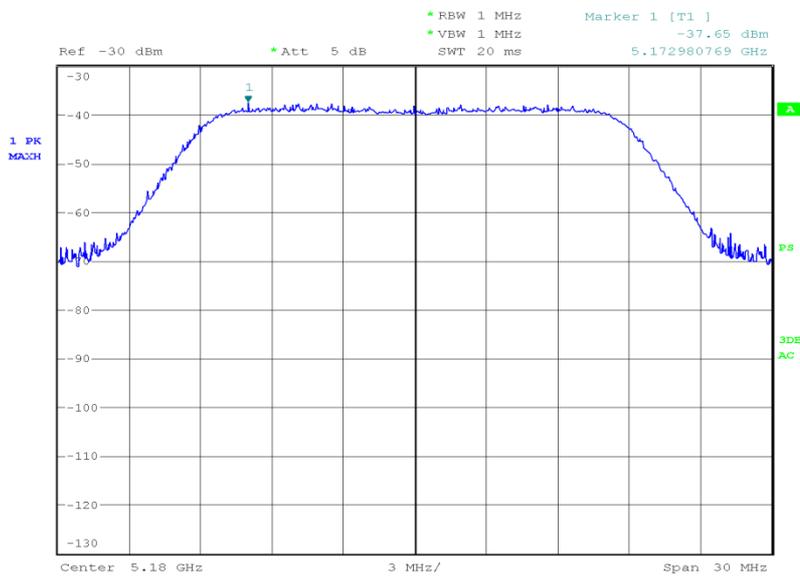
802.11(n) - 5 GHz 20 MHz BW

Radiated

Frequency Band 1

5180 MHz

EIRP (dBm)	EIRP (mW)
15.54	35.81

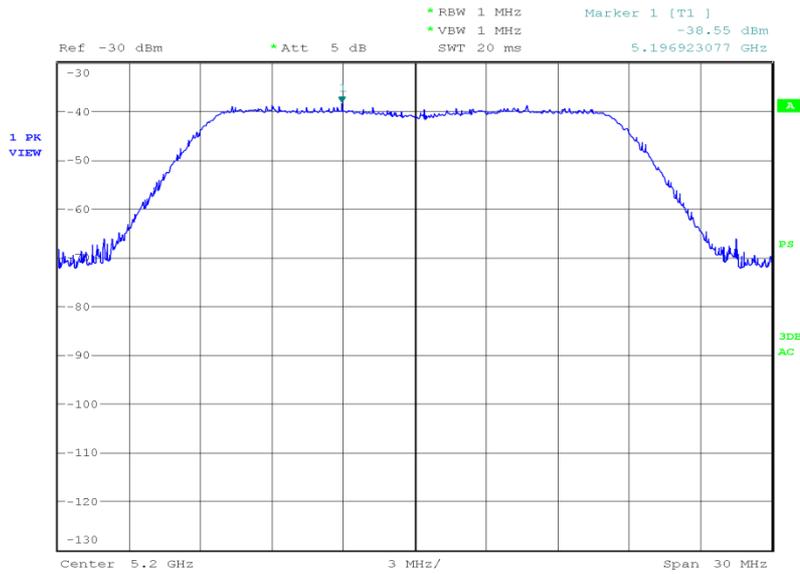


Date: 13.JAN.2014 18:52:00



5200 MHz

EIRP (dBm)	EIRP (mW)
15.37	34.43

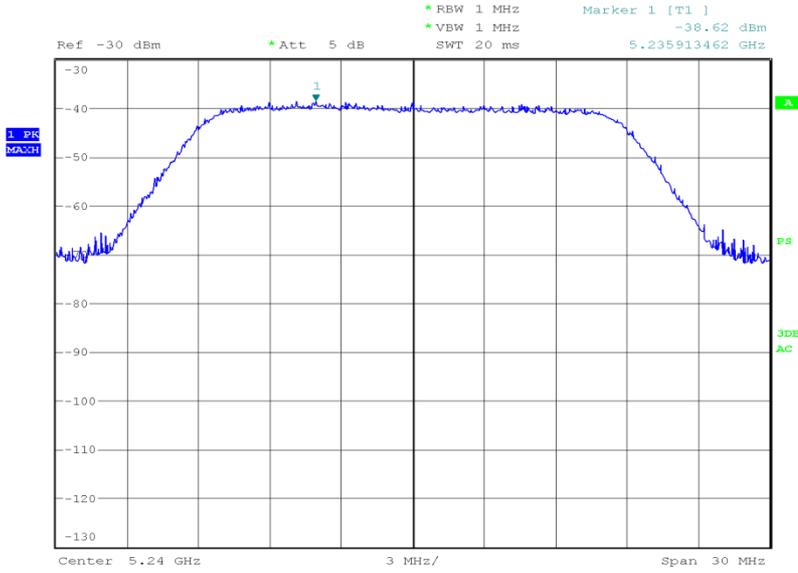


Date: 13.JAN.2014 18:58:46



5240 MHz

EIRP (dBm)	EIRP (mW)
15.20	33.11



Date: 13.JAN.2014 19:04:46



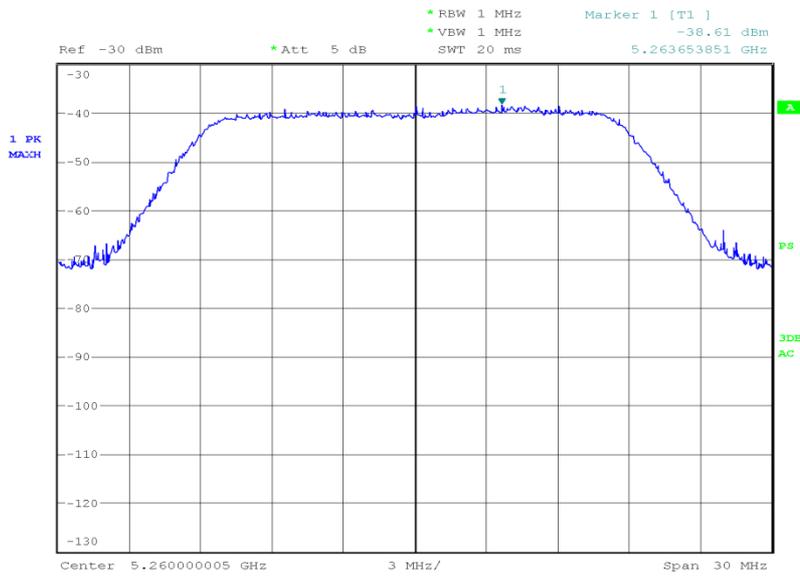
Product Service

Radiated

Frequency Band 2

5260 MHz

EIRP (dBm)	EIRP (mW)
15.06	32.06

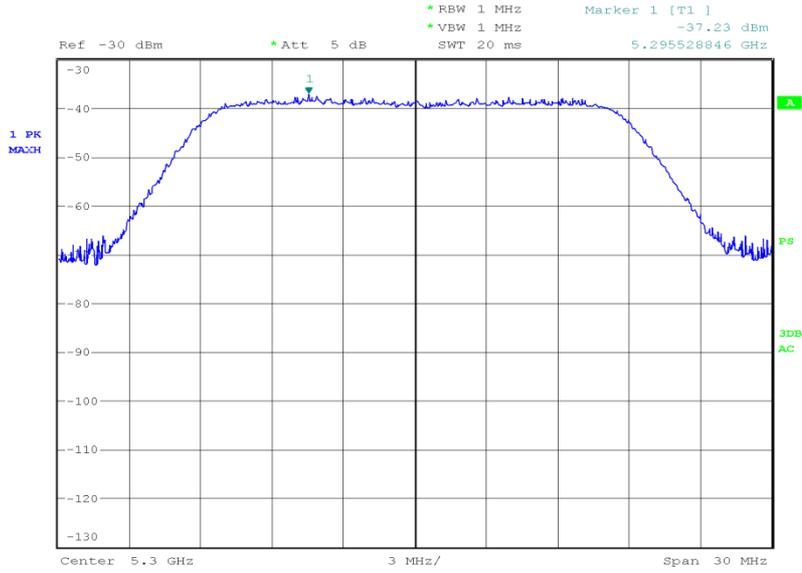


Date: 13.JAN.2014 19:09:38



5300 MHz

EIRP (dBm)	EIRP (mW)
16.30	46.64



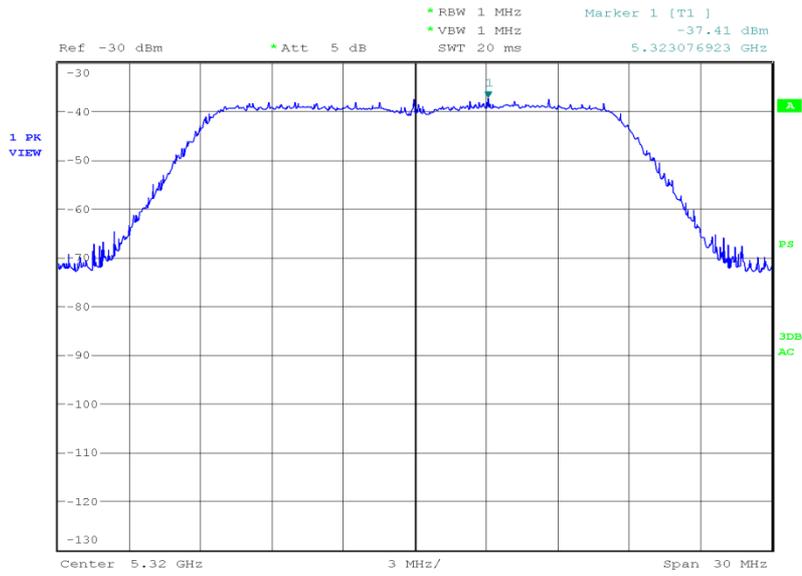
Date: 13.JAN.2014 19:14:33



Product Service

5320 MHz

EIRP (dBm)	EIRP (mW)
16.09	40.64



Date: 13.JAN.2014 19:19:01



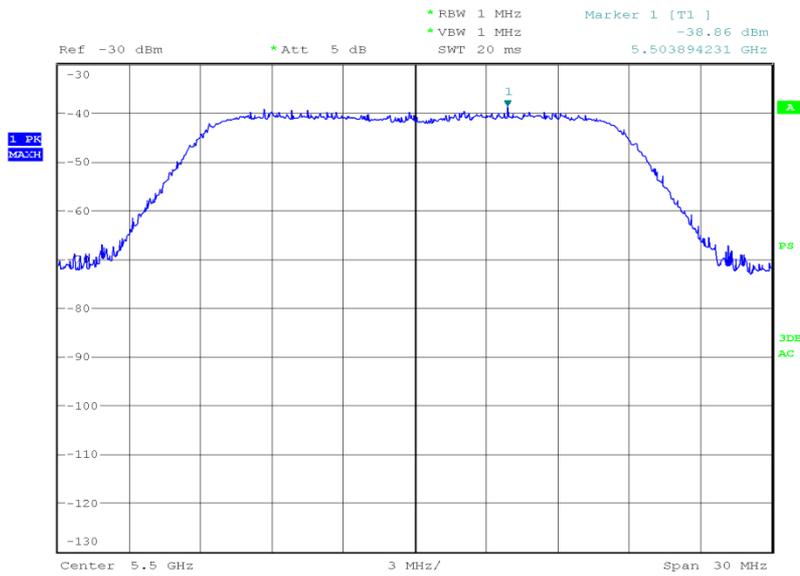
Product Service

Radiated

Frequency Band 3

5500 MHz

EIRP (dBm)	EIRP (mW)
15.24	33.40

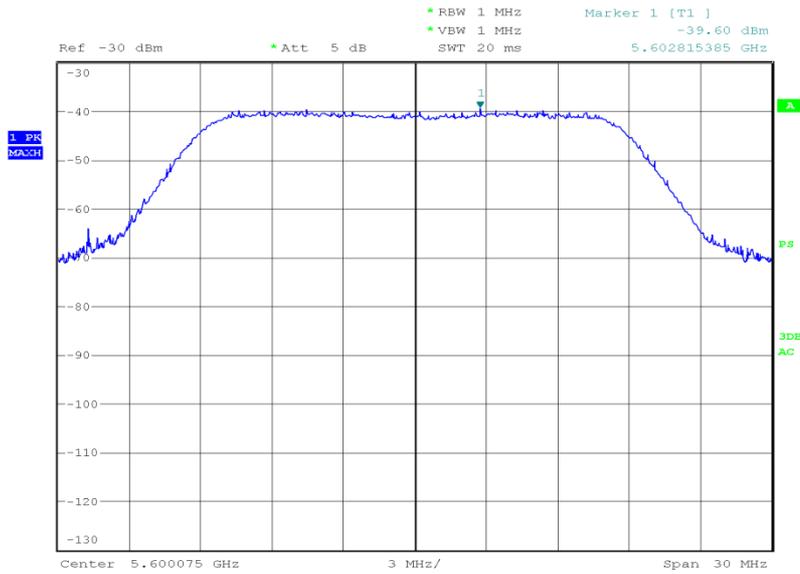


Date: 13.JAN.2014 19:49:14



5600 MHz

EIRP (dBm)	EIRP (mW)
14.39	27.48

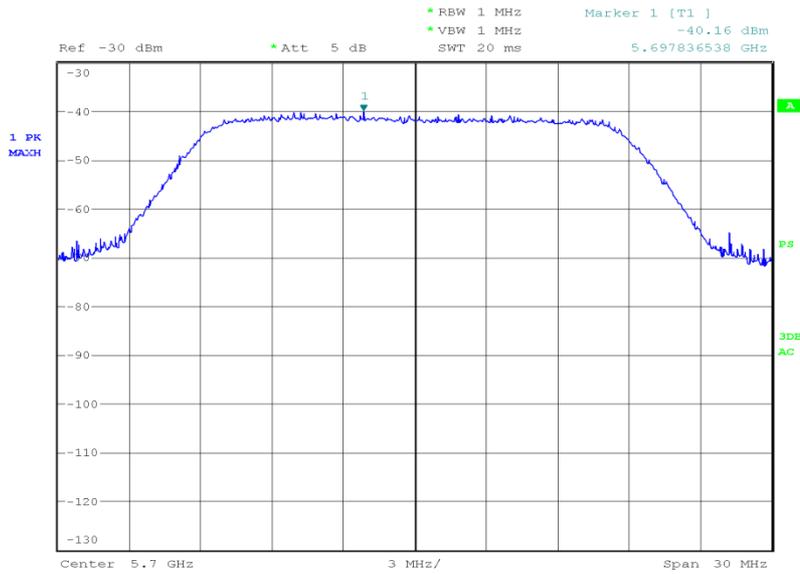


Date: 13.JAN.2014 19:48:20



5700 MHz

EIRP (dBm)	EIRP (mW)
13.78	23.86



Date: 13.JAN.2014 19:57:06

Limit for Radiated

Frequency Band (MHz)	FCC Limit
5150 to 5250	Lesser of 200 mW or 10 dBm + 10 log B
5250 to 5350	Lesser of 1 W or 17 dBm + 10 log B
5470 to 5725	Lesser of 1 W or 17 dBm + 10 log B
5725 to 5825	Lesser of 4 W or 23 dBm + 10 log B

Note: "B" = 26 dB Bandwidth.

It is acceptable to have an antenna with up to 6 dBi gain, without reducing the conducted output power.



Product Service

Conducted

Frequency Band 1

5180 MHz

EIRP (dBm)	EIRP (mW)
11.19	13.15

5200 MHz

EIRP (dBm)	EIRP (mW)
11.39	13.77

5240 MHz

EIRP (dBm)	EIRP (mW)
11.20	13.18

The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MSC0.

Conducted

Frequency Band 2

5260 MHz

EIRP (dBm)	EIRP (mW)
11.04	12.771

5300 MHz

EIRP (dBm)	EIRP (mW)
11.62	14.52

5320 MHz

EIRP (dBm)	EIRP (mW)
11.49	14.09

The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MCS0.



Product Service

Conducted

Frequency Band 3

5500 MHz

EIRP (dBm)	EIRP (mW)
11.74	14.93

5600 MHz

EIRP (dBm)	EIRP (mW)
12.20	16.60

5700 MHz

EIRP (dBm)	EIRP (mW)
11.68	14.72

The test was performed on the worst case data rate for 802.11(n) - 20 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MCS0.

Limit for Conducted

Frequency Band (MHz)	FCC Limit
5150 to 5250	Lesser of 50 mW or 4 dBm + 10 log B
5250 to 5350	Lesser of 250 mW or 11 dBm + 10 log B
5470 to 5725	Lesser of 250 mW or 11 dBm + 10 log B
5725 to 5825	Lesser of 1 W or 17 dBm + 10 log B

Note: "B" = 26 dB Bandwidth.



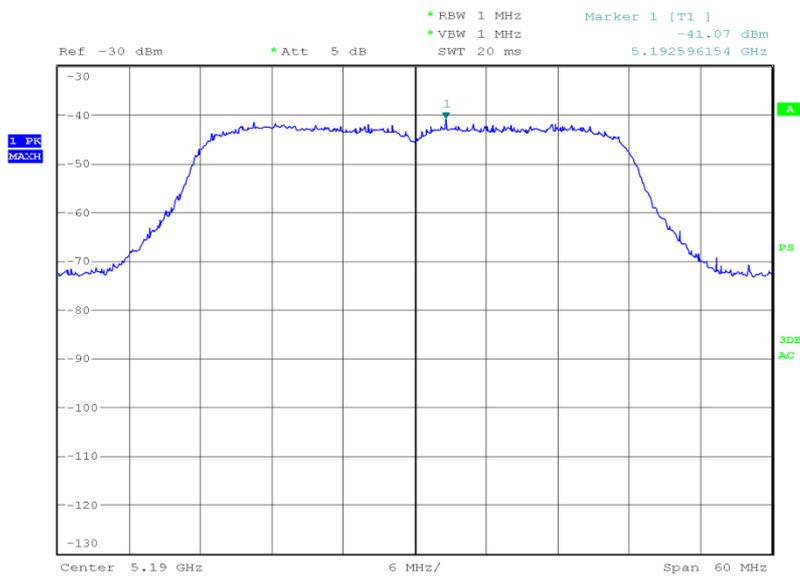
802.11(n) - 5 GHz 40 MHz BW

Radiated

Frequency Band 1

5190 MHz

EIRP (dBm)	EIRP (mW)
16.13	41.02

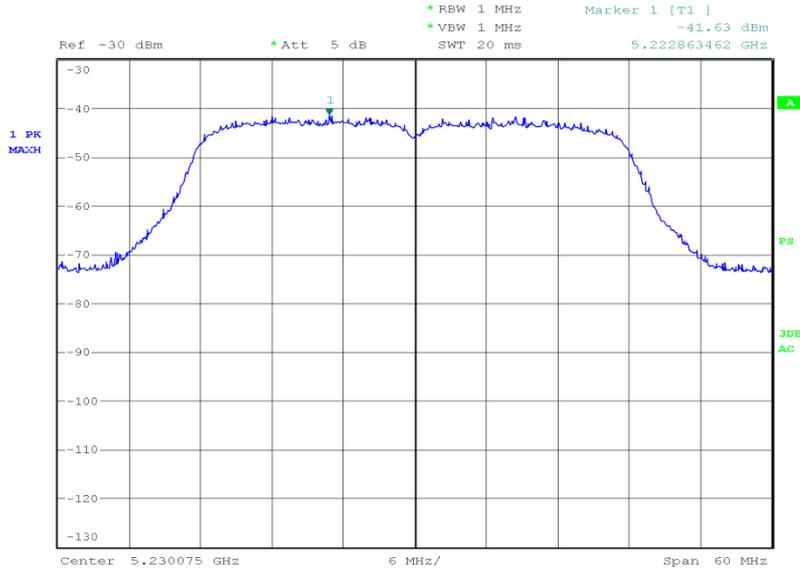


Date: 14.JAN.2014 18:46:25



5230 MHz

EIRP (dBm)	EIRP (mW)
15.97	39.54



Date: 14.JAN.2014 18:57:36



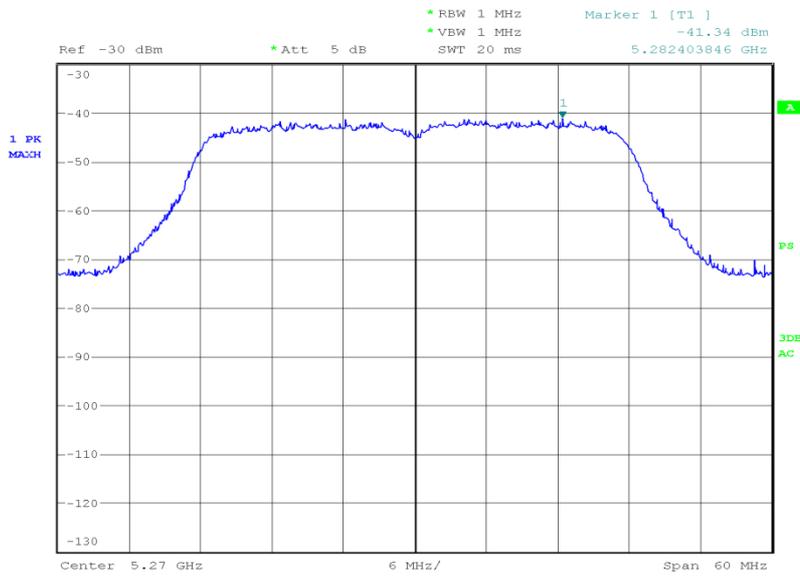
Product Service

Radiated

Frequency Band 2

5270 MHz

EIRP (dBm)	EIRP (mW)
16.60	45.71



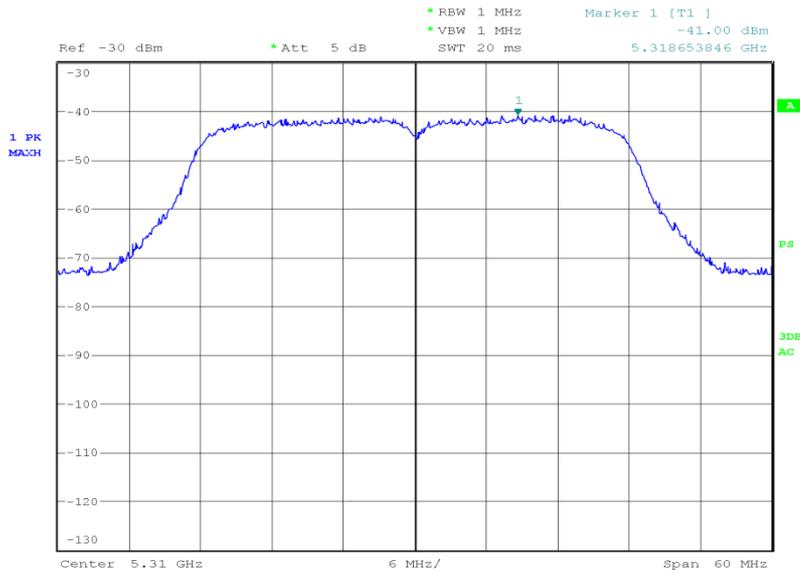
Date: 14.JAN.2014 19:01:43



Product Service

5310 MHz

EIRP (dBm)	EIRP (mW)
16.69	46.67



Date: 14.JAN.2014 19:05:32

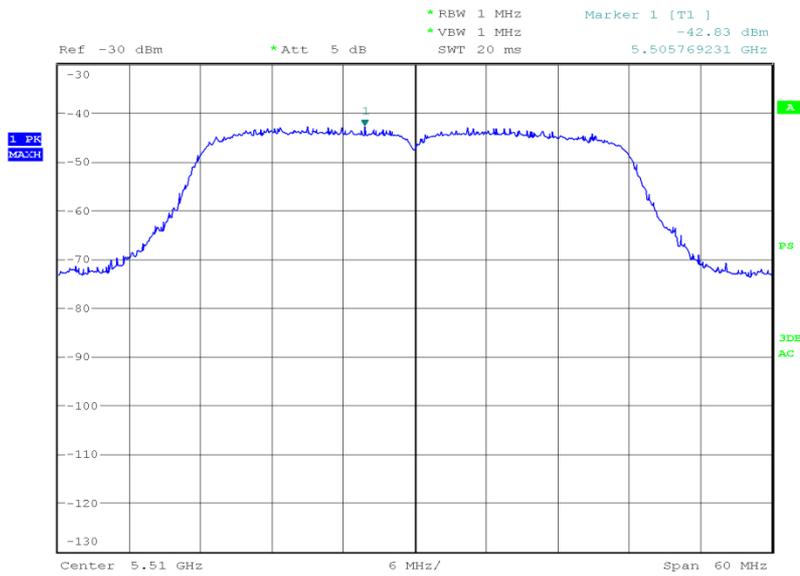


Radiated

Frequency Band 3

5510 MHz

EIRP (dBm)	EIRP (mW)
15.81	38.11

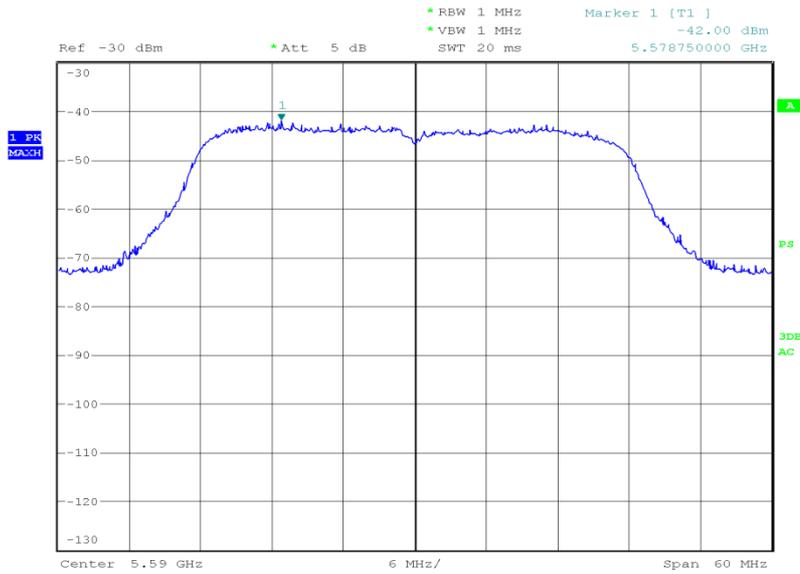


Date: 14.JAN.2014 19:15:31



5590 MHz

EIRP (dBm)	EIRP (mW)
16.21	41.78

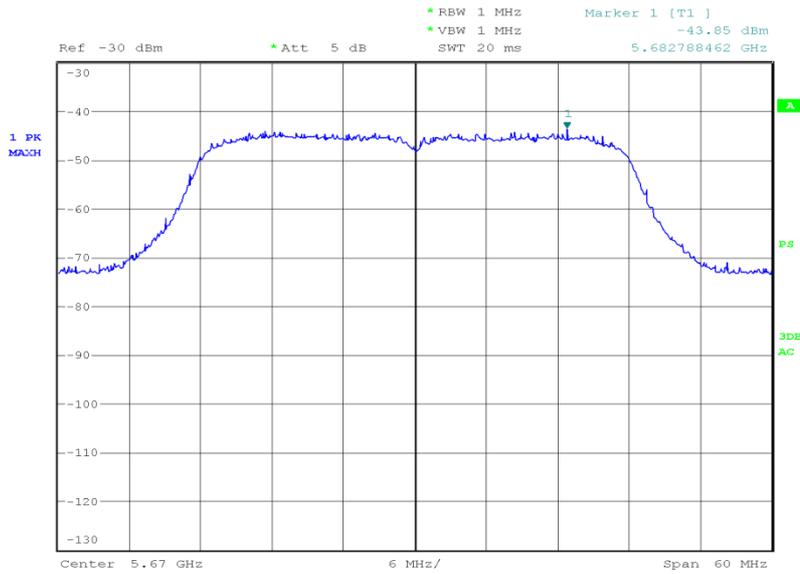


Date: 14.JAN.2014 19:23:12



5670MHz

EIRP (dBm)	EIRP (mW)
13.65	23.17



Date: 14.JAN.2014 19:29:35

Limit for Radiated

Frequency Band (MHz)	FCC Limit
5150 to 5250	Lesser of 200 mW or 10 dBm + 10 log B
5250 to 5350	Lesser of 1 W or 17 dBm + 10 log B
5470 to 5725	Lesser of 1 W or 17 dBm + 10 log B
5725 to 5825	Lesser of 4 W or 23 dBm + 10 log B

Note: "B" = 26 dB Bandwidth.

It is acceptable to have an antenna with up to 6 dBi gain, without reducing the conducted output power.



Product Service

Conducted

Frequency Band 1

5190 MHz

EIRP (dBm)	EIRP (mW)
11.04	12.71

5230 MHz

EIRP (dBm)	EIRP (mW)
10.84	12.13

The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MCS0.

Conducted

Frequency Band 2

5270 MHz

EIRP (dBm)	EIRP (mW)
11.04	12.71

5310 MHz

EIRP (dBm)	EIRP (mW)
11.60	14.45

The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MCS0.



Product Service

Conducted

Frequency Band 3

5510 MHz

EIRP (dBm)	EIRP (mW)
12.00	15.85

5590 MHz

EIRP (dBm)	EIRP (mW)
12.08	16.14

5670MHz

EIRP (dBm)	EIRP (mW)
11.62	14.52

The test was performed on the worst case data rate for 802.11(n) - 40 MHz BW. The worst case was deemed as the data rate which produced the highest level of conducted average power. This data rate was MCS0.

Limit for Conducted

Frequency Band (MHz)	FCC Limit
5150 to 5250	Lesser of 50 mW or 4 dBm + 10 log B
5250 to 5350	Lesser of 250 mW or 11 dBm + 10 log B
5470 to 5725	Lesser of 250 mW or 11 dBm + 10 log B
5725 to 5825	Lesser of 1 W or 17 dBm + 10 log B

Note: "B" = 26 dB Bandwidth.



Product Service

## **2.3 UNDESIRABLE EMISSION LIMITS**

### **2.3.1 Specification Reference**

FCC CFR 47 Part 15E, Clause 15.407 (b)(1)(2)(3)(4)(6)(7)

### **2.3.2 Equipment Under Test and Modification State**

SHT22 S/N: IMEI 004401115013480 - Modification State 0

### **2.3.3 Date of Test**

13 January 2014, 14 January 2014, 15 January 2014, 18 January 2014, 19 January 2014, 20 January 2014 & 21 January 2014

### **2.3.4 Test Equipment Used**

The major items of test equipment used for the above tests are identified in Section 3.1.

### **2.3.5 Test Procedure**

For conducted emissions, the EUT was set to operate at maximum power on the worst case data rate. The test was performed on the bottom, middle and top channels. The test was performed from 9 kHz to 40 GHz.

The measurement path loss in each relevant frequency band was measured and entered as a reference level offset.

For radiated emissions, the test method described above was also used. However, the measurement was performed from 30 MHz to 40 GHz and the path loss is incorporated as a transducer factor and entered into the spectrum analyser. In each frequency span the level was maximised by rotating the EUT 360° and a height search of the measuring antenna.

The band edge measurements were performed in accordance with ANSI C63.10, Clause 6.9.3. The results were analysed to ensure compliance with restricted bands. The EUT was set to the lowest and highest operating frequencies.

### **2.3.6 Environmental Conditions**

Ambient Temperature	21.4 - 22.9°C
Relative Humidity	26.0 - 35.0%



Product Service

### 2.3.7 Test Results

802.11(a)

4.0 V DC Supply

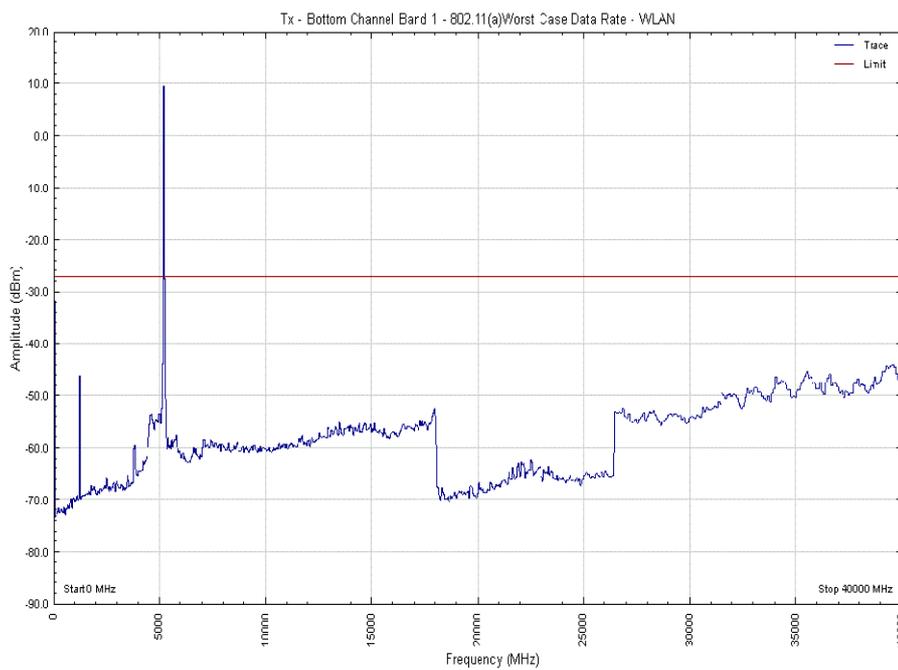
Spurious Conducted Emissions

6 Mbps

Frequency Band 1

5180 MHz

9 kHz to 40 GHz

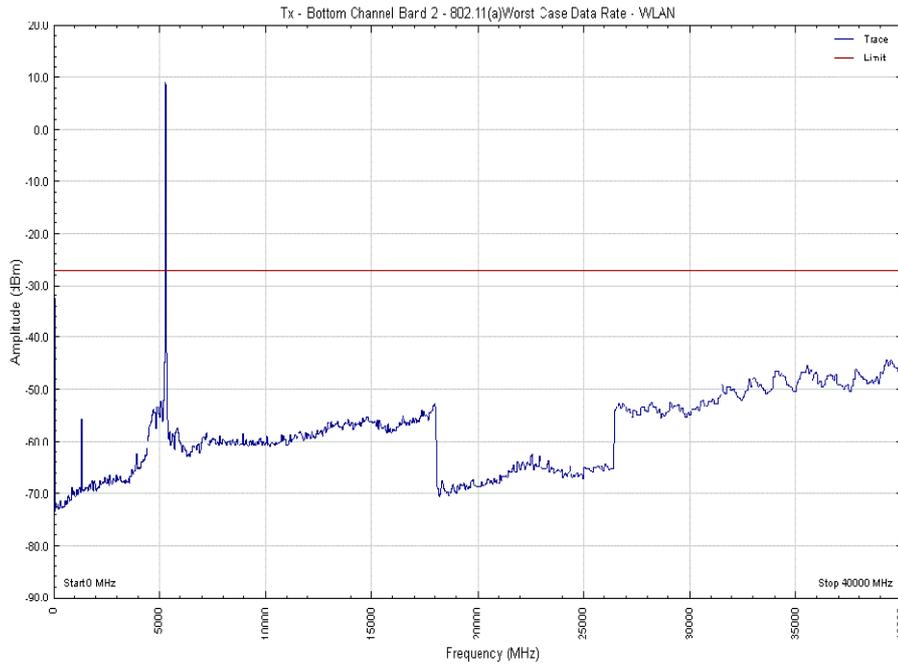




Frequency Band 2

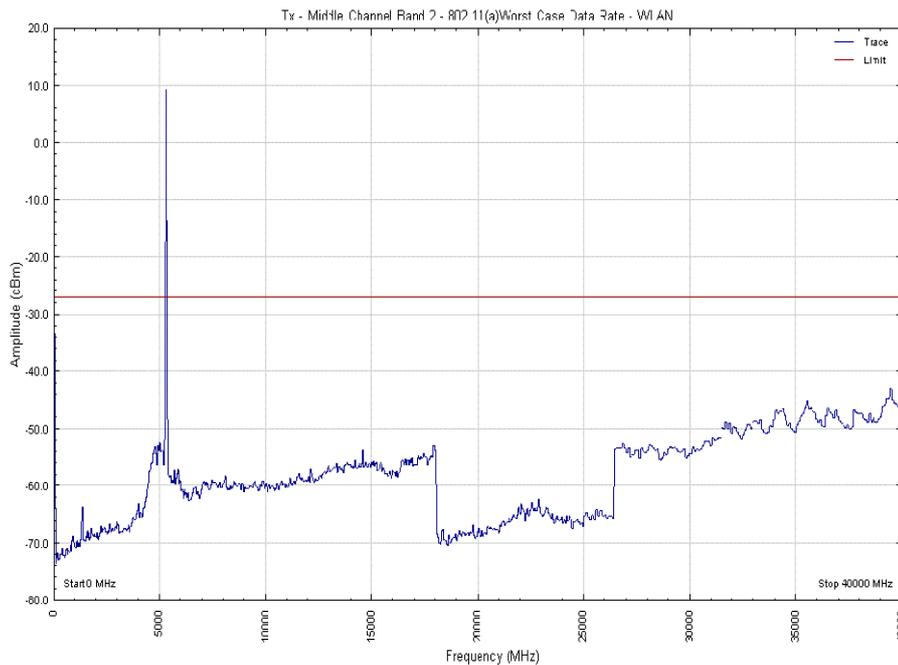
5260 MHz

9 kHz to 40 GHz



5300 MHz

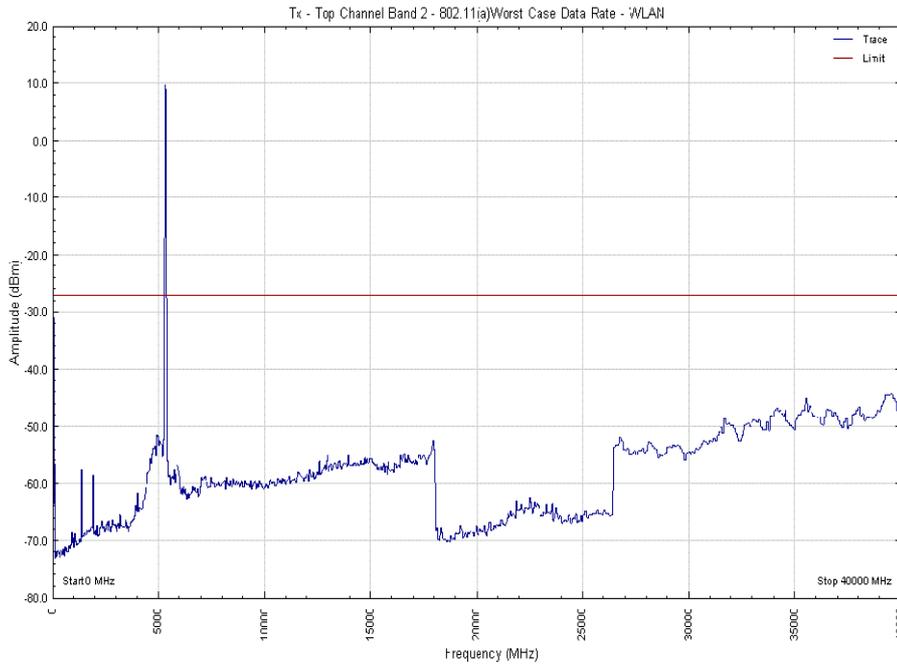
9 kHz to 40 GHz





5320 MHz

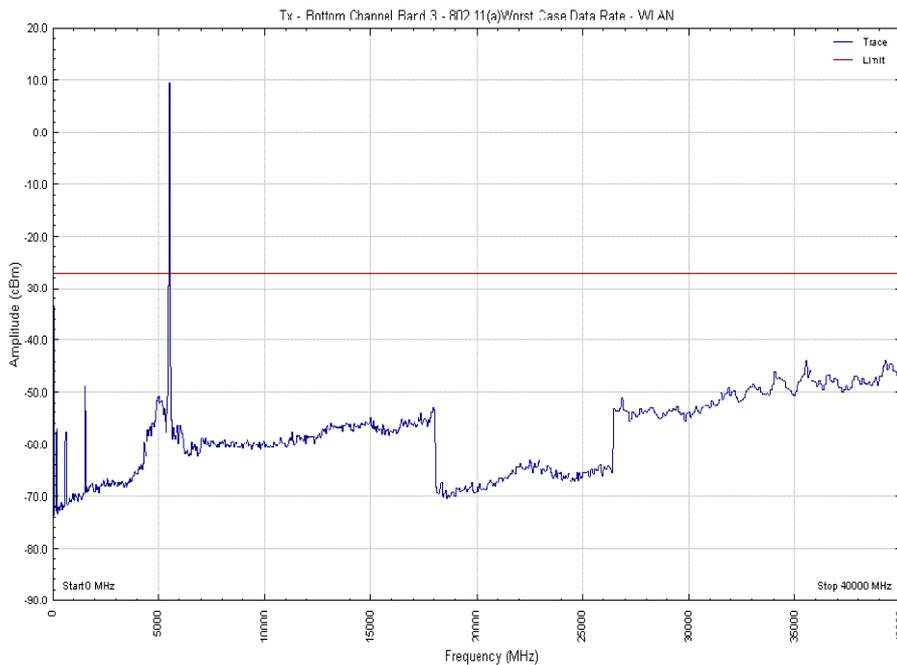
9 kHz to 40 GHz



Frequency Band 3

5500 MHz

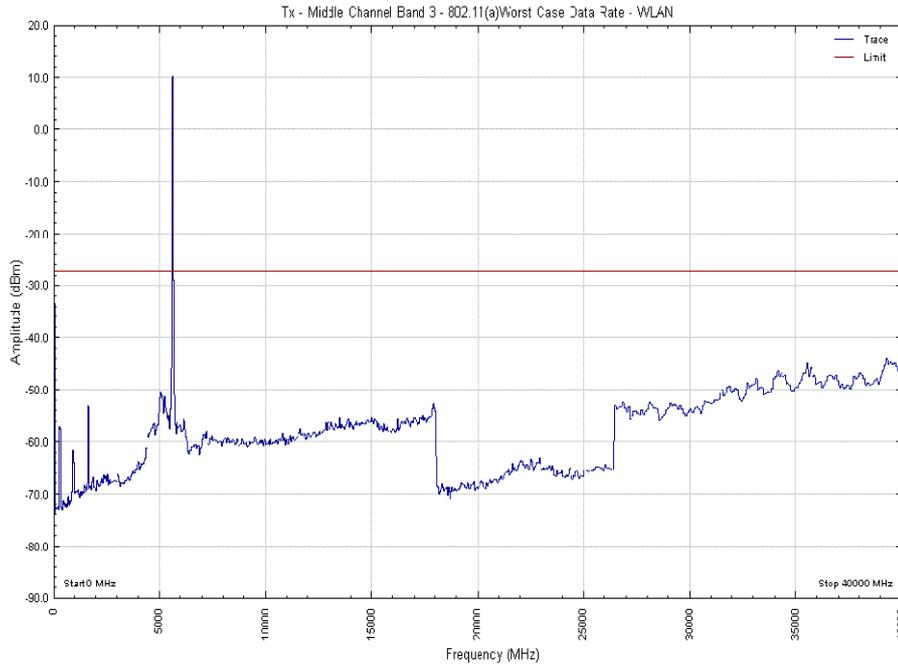
9 kHz to 40 GHz





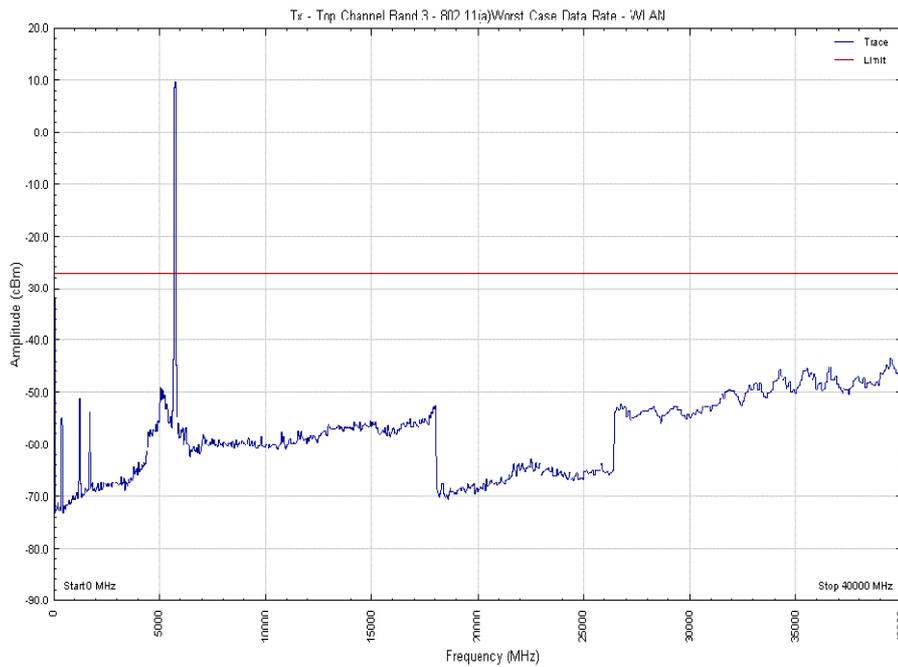
5600 MHz

9 kHz to 40 GHz



5700 MHz

9 kHz to 40 GHz





Product Service

Limit Clause

Band of Operation (MHz)	Limit
5150 to 5250	-27 dBm/MHz
5250 to 5350	-27 dBm/MHz
5470 to 5725	-27 dBm/MHz
5725 to 5825	(5715 to 5725 MHz) -17 dBm/MHz (5825 to 5835 MHz) -17 dBm/MHz (<5715 and > 5835 MHz) -27 dBm/MHz



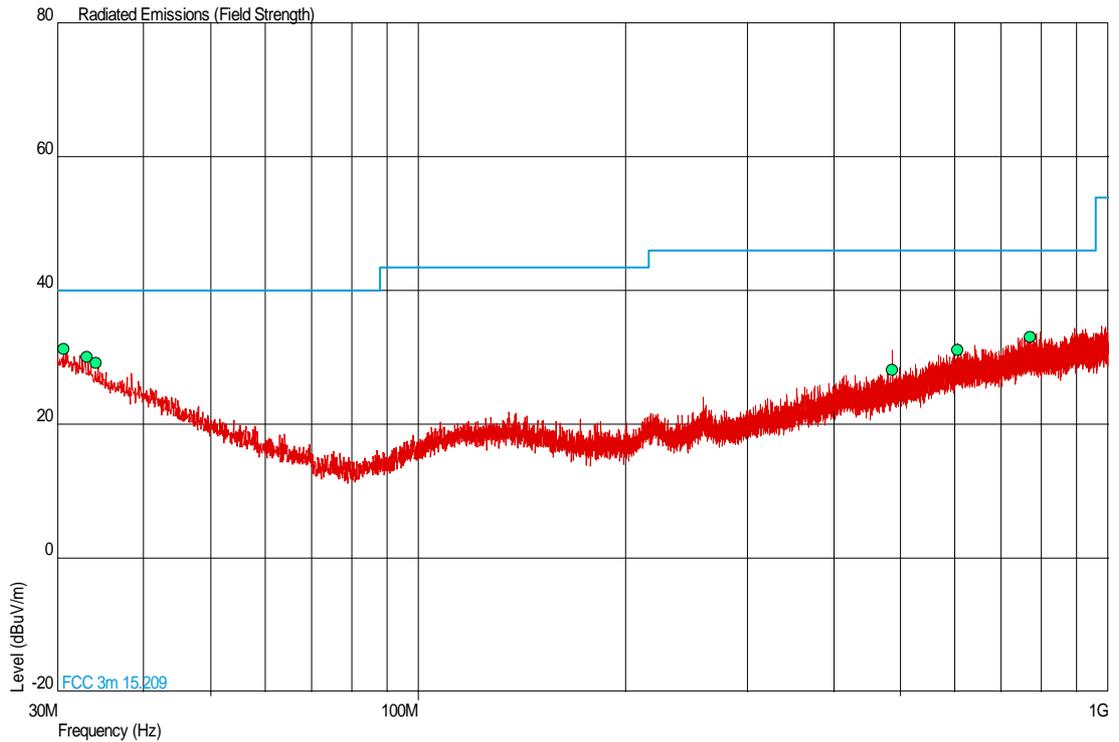
Product Service

Spurious Radiated Emissions

Frequency Band 1

5180 MHz

30 MHz to 1 GHz



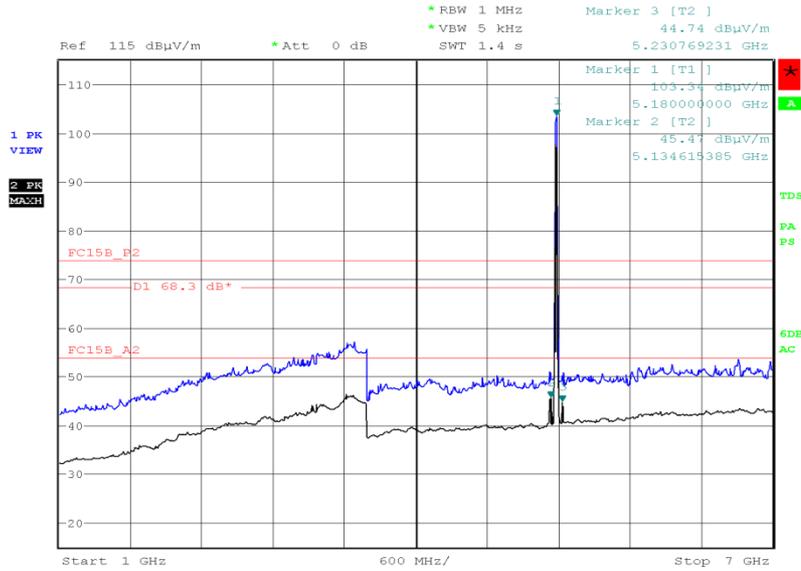
Frequency (MHz)	QP Level (dBuV/m)	QP Level (uV/m)	QP Limit (dBuV/m)	QP Limit (uV/m)	QP Margin (dBuV/m)	QP Margin (uV/m)	Angle (Deg)	Height (m)	Polarity
30.679	31.3	36.7	40.0	100	-8.7	63.3	0	1.00	Vertical
33.104	30.0	31.6	40.0	100	-10.0	68.4	0	1.00	Vertical
34.123	29.2	28.8	40.0	100	-10.8	71.2	0	1.00	Vertical
486.539	28.1	25.4	46.0	200	-17.9	174.6	0	1.00	Vertical
605.501	31.1	35.9	46.0	200	-14.9	164.1	0	1.00	Vertical
772.099	33.1	45.2	46.0	200	-12.9	154.8	0	1.00	Vertical



1 GHz to 40 GHz

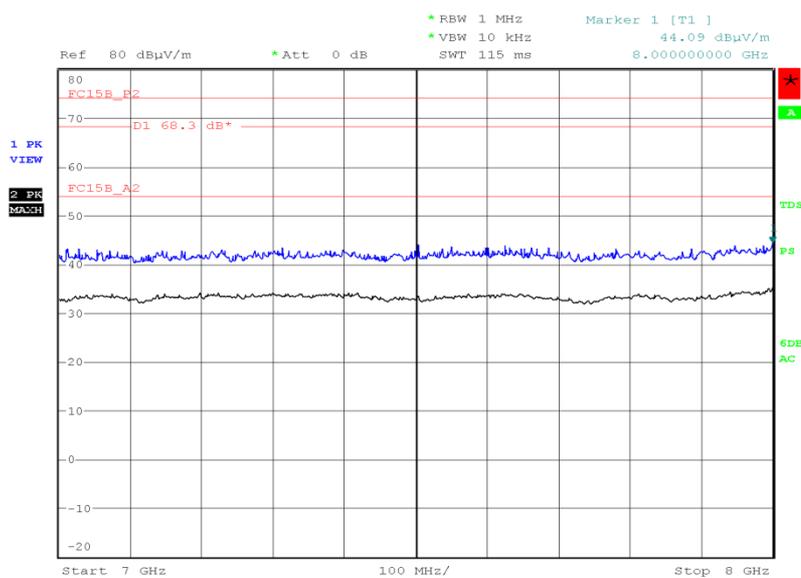
Frequency (GHz)	Antenna Polarisation	Antenna Height (cm)	EUT Arc (degrees)	Final Peak (dBµV/m)	Final Average (dBµV/m)
5.1279	Horizontal	100	160	55.98	44.53

1 GHz to 7 GHz



Date: 15.JAN.2014 13:28:25

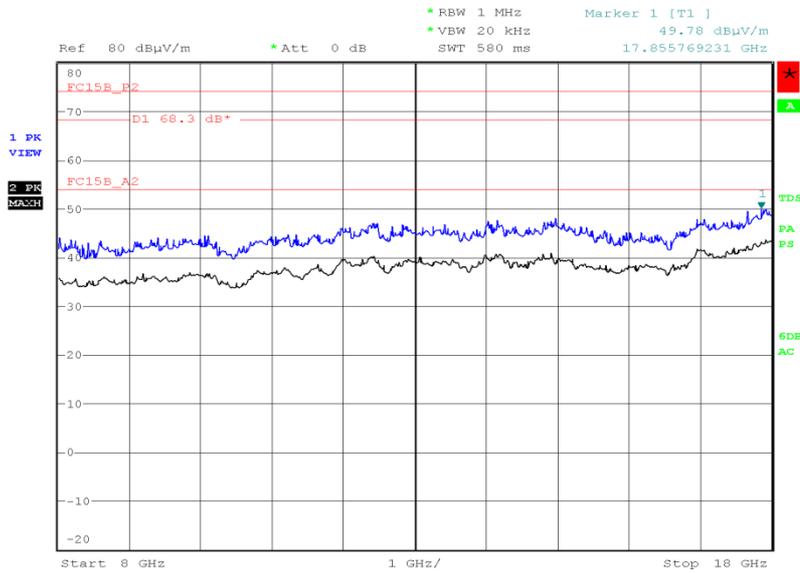
7 GHz to 8 GHz



Date: 18.JAN.2014 11:22:21

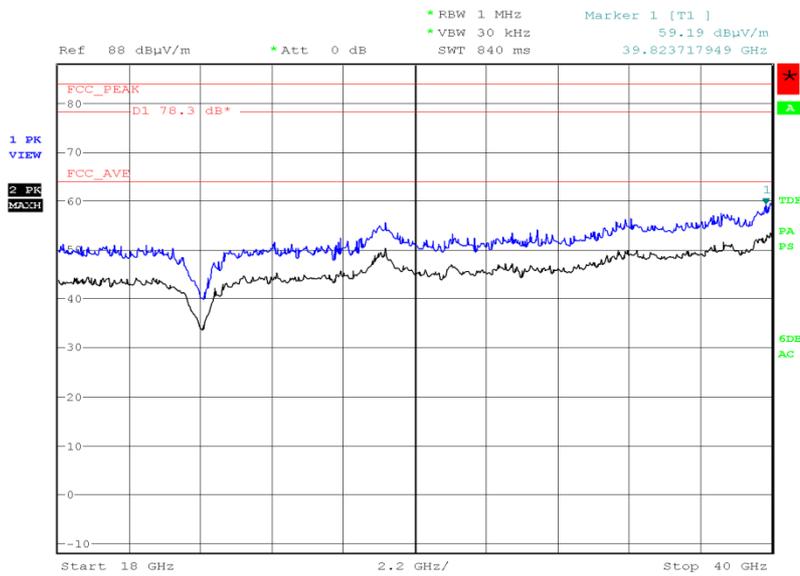


8 GHz to 18 GHz



Date: 18.JAN.2014 12:46:40

18 GHz to 40 GHz

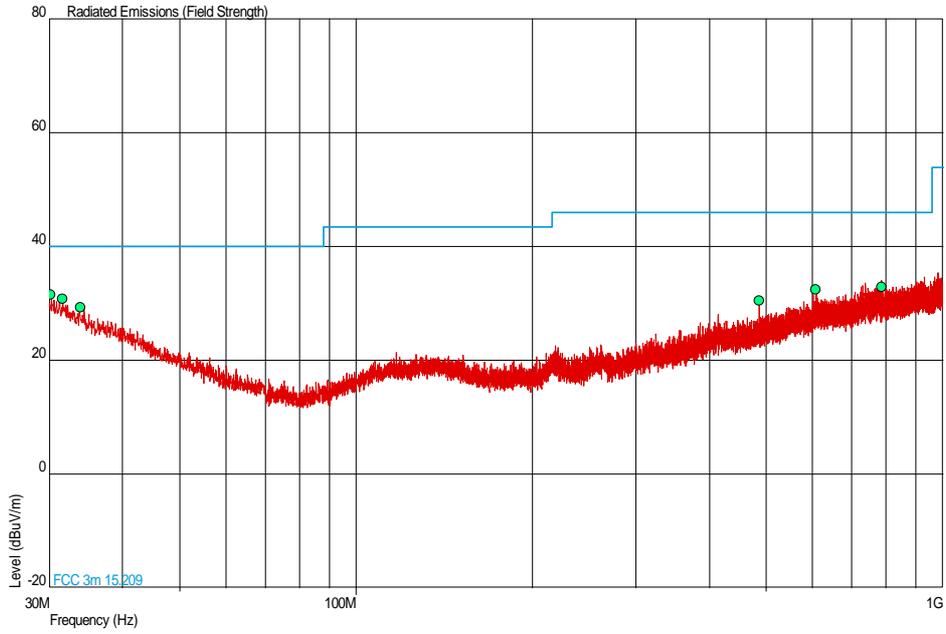


Date: 20.JAN.2014 17:57:21



5200 MHz

30 MHz to 1 GHz



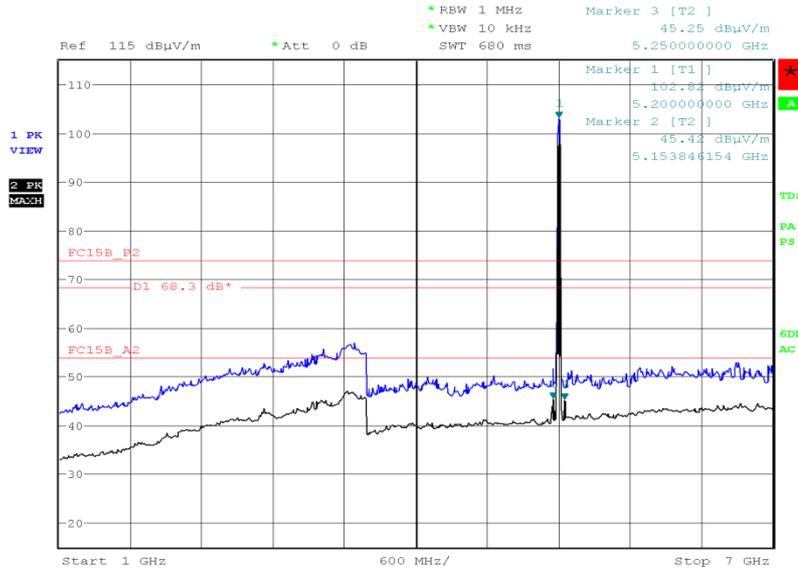
Frequency (MHz)	QP Level (dB $\mu$ V/m)	QP Level ( $\mu$ V/m)	QP Limit (dB $\mu$ V/m)	QP Limit ( $\mu$ V/m)	QP Margin (dB $\mu$ V/m)	QP Margin ( $\mu$ V/m)	Angle (Deg)	Height (m)	Polarity
30.194	31.6	38.0	40.0	100	-8.4	62.0	0	1.00	Vertical
31.601	30.9	35.1	40.0	100	-9.1	64.9	0	1.00	Vertical
33.880	29.3	29.2	40.0	100	-10.7	70.8	0	1.00	Vertical
486.240	30.6	33.9	46.0	200	-15.4	166.1	0	1.00	Vertical
607.732	32.4	41.7	46.0	200	-13.6	158.3	0	1.00	Vertical
787.085	32.9	44.2	46.0	200	-13.1	155.8	0	1.00	Vertical



1GHz to 40GHz

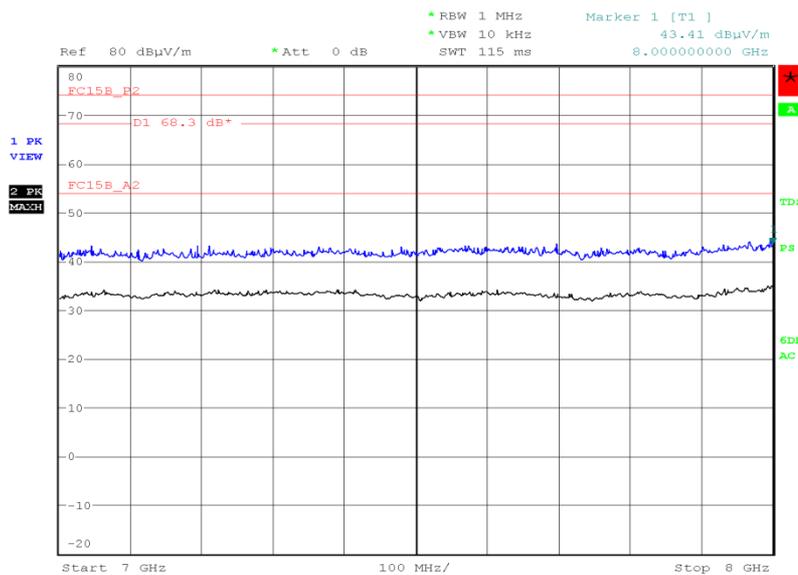
Frequency (GHz)	Antenna Polarisation	Antenna Height (cm)	EUT Arc (degrees)	Final Peak (dBµV/m)	Final Average (dBµV/m)
5.1478	Horizontal	194	158	56.16	45.57

1 GHz to 7 GHz



Date: 15.JAN.2014 14:04:32

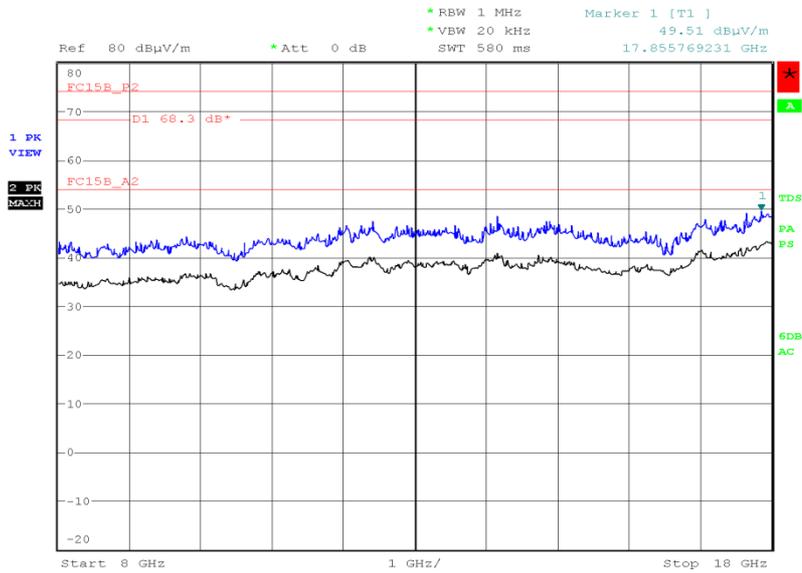
7 GHz to 8 GHz



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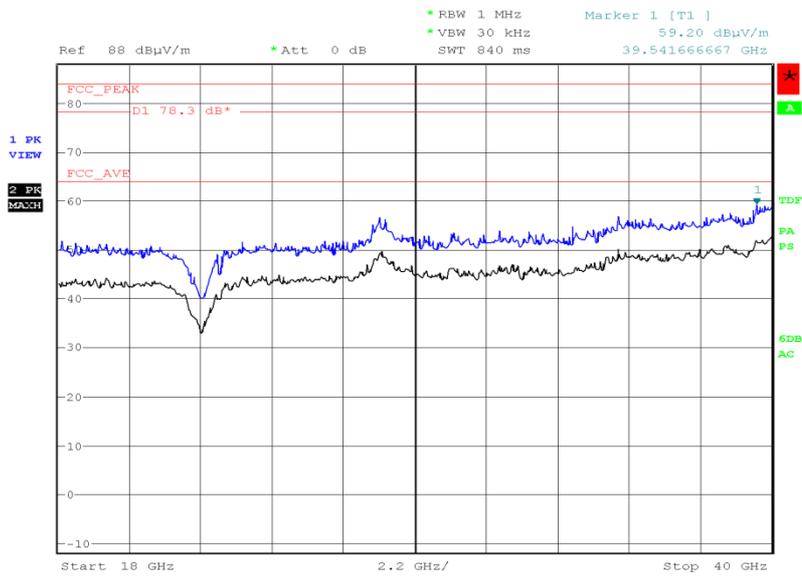


8 GHz to 18 GHz



Date: 18.JAN.2014 12:55:56

18 GHz to 40 GHz

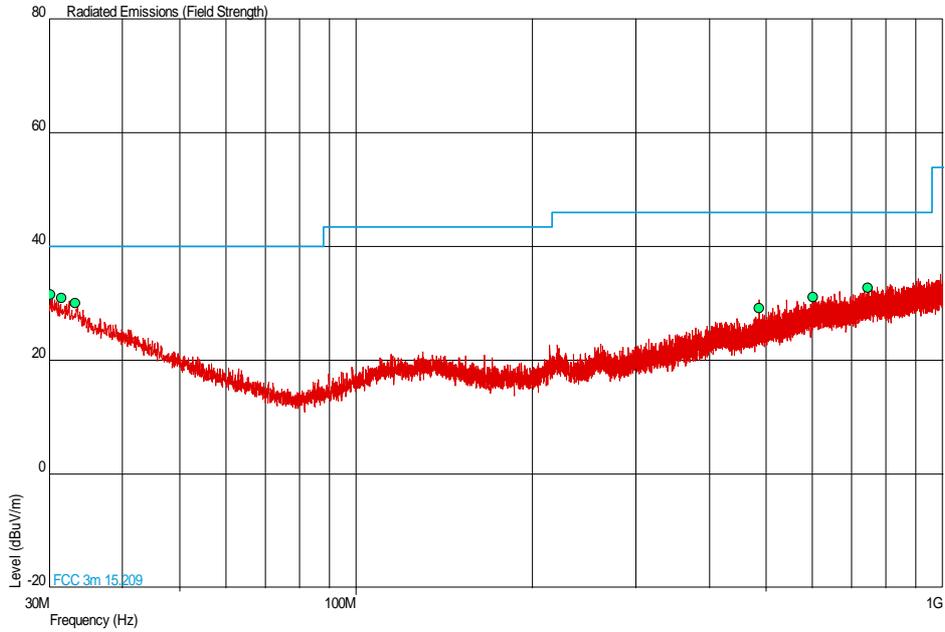


Date: 20.JAN.2014 18:19:38



5240 MHz

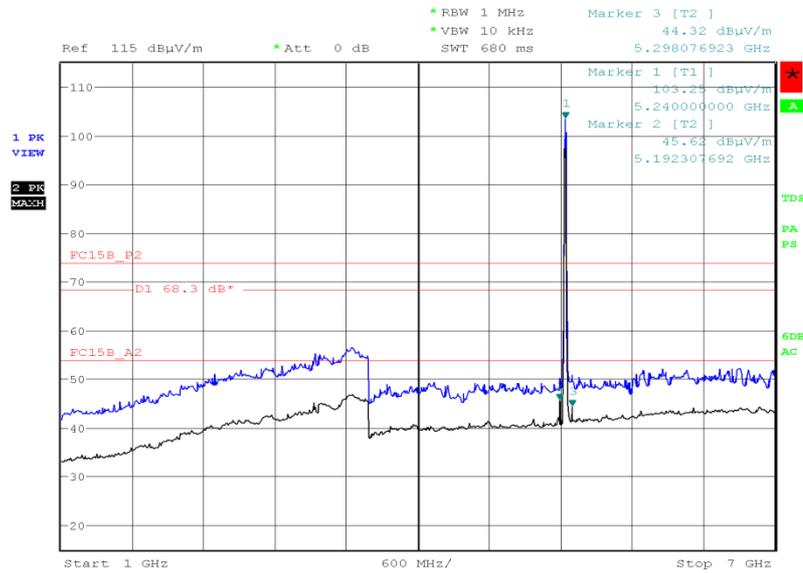
30 MHz to 1 GHz



Frequency (MHz)	QP Level (dB $\mu$ V/m)	QP Level ( $\mu$ V/m)	QP Limit (dB $\mu$ V/m)	QP Limit ( $\mu$ V/m)	QP Margin (dB $\mu$ V/m)	QP Margin ( $\mu$ V/m)	Angle (Deg)	Height (m)	Polarity
30.146	31.5	37.6	40.0	100	-8.5	62.4	0	1.00	Vertical
31.455	30.9	35.1	40.0	100	-9.1	64.9	0	1.00	Vertical
33.201	30.1	32.0	40.0	100	-9.9	68.0	0	1.00	Vertical
486.143	29.2	28.8	46.0	200	-16.8	171.2	0	1.00	Vertical
600.991	31.1	35.9	46.0	200	-14.9	164.1	0	1.00	Vertical
744.114	32.7	43.2	46.0	200	-13.3	156.8	0	1.00	Vertical

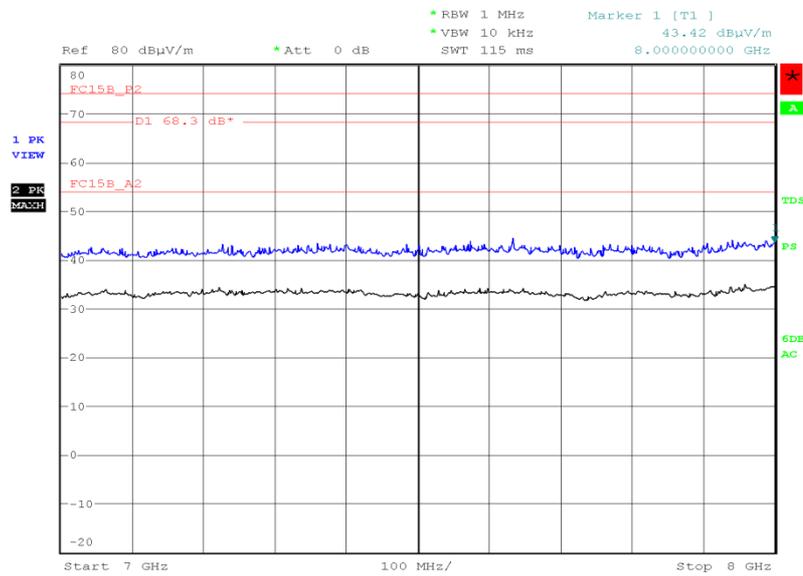


1 GHz to 7 GHz



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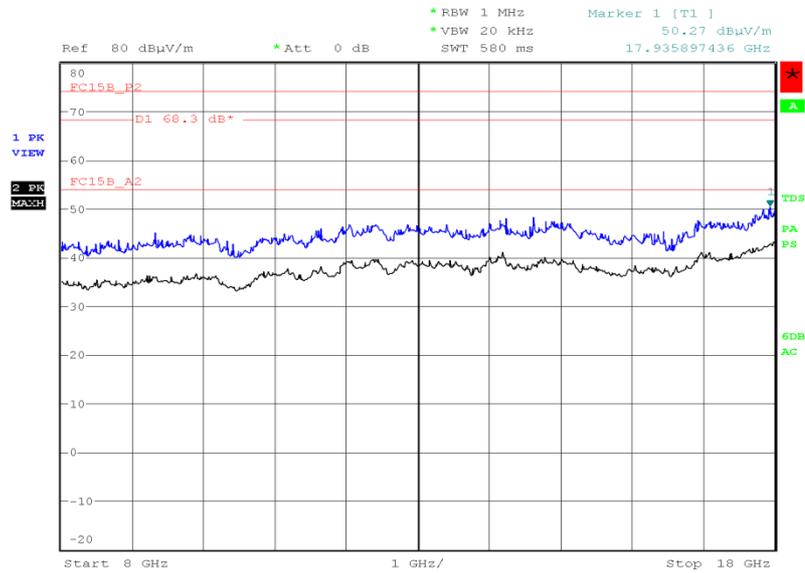
7 GHz to 8 GHz



Date: 18.JAN.2014 11:29:36

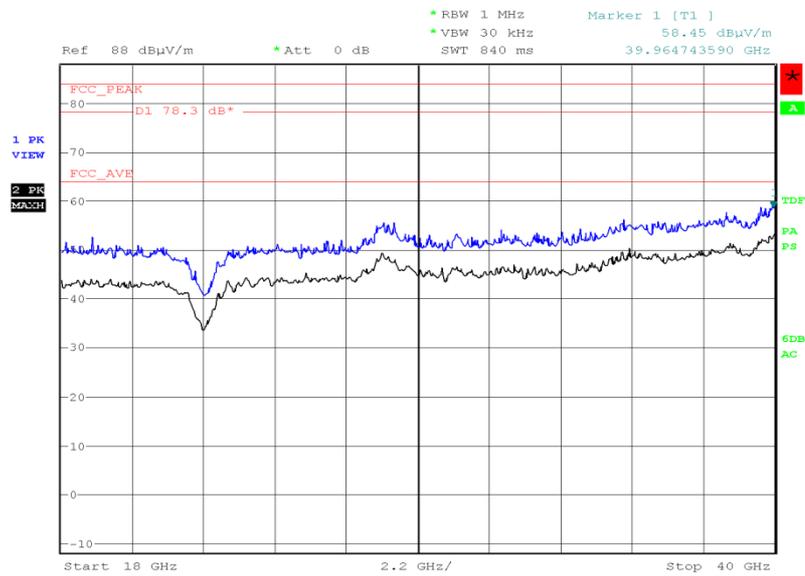


8 GHz to 18 GHz



Date: 18.JAN.2014 13:04:37

18 GHz to 40 GHz



Date: 20.JAN.2014 18:46:17

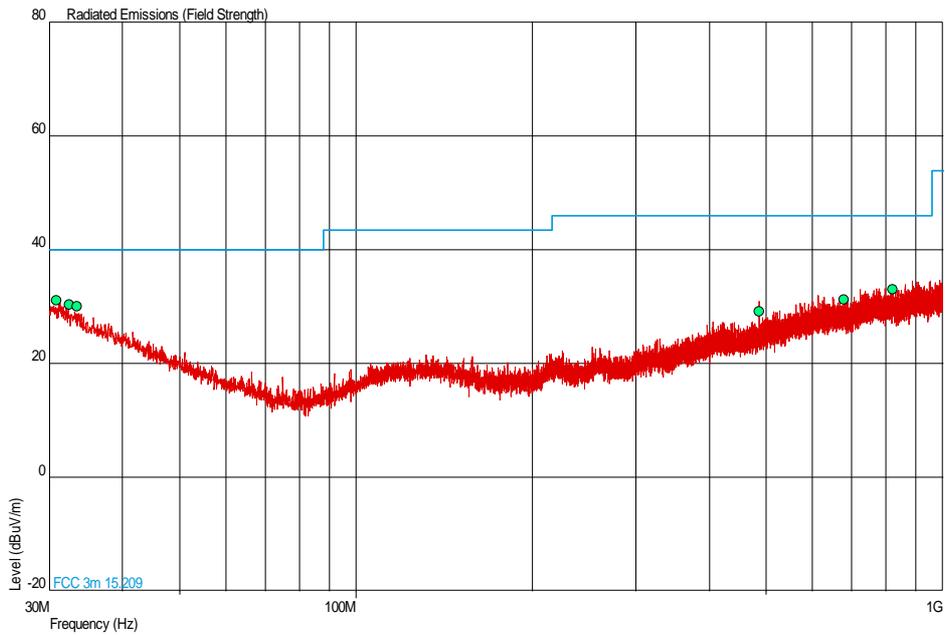


Product Service

Frequency Band 2

5260 MHz

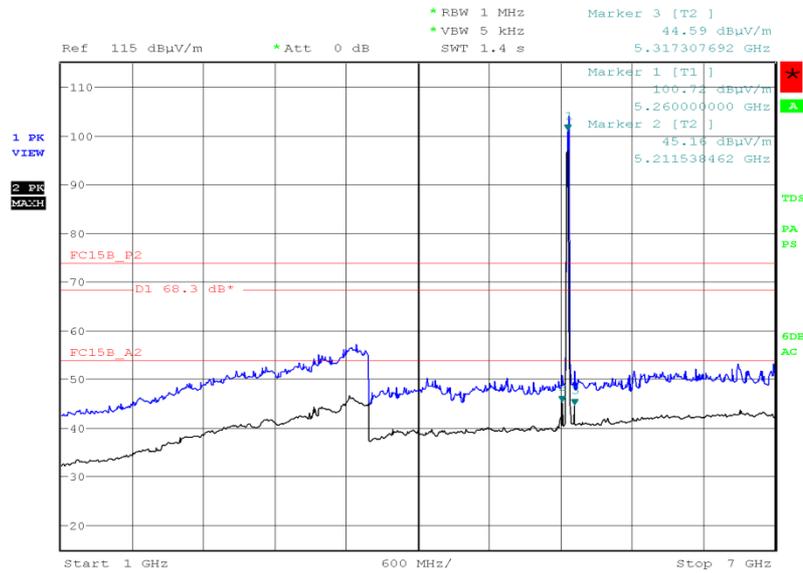
30 MHz to 1 GHz



Frequency (MHz)	QP Level (dBuV/m)	QP Level (uV/m)	QP Limit (dBuV/m)	QP Limit (uV/m)	QP Margin (dBuV/m)	QP Margin (uV/m)	Angle (Deg)	Height (m)	Polarity
30.873	31.2	36.3	40.0	100	-8.8	63.7	0	1.00	Vertical
32.425	30.3	32.7	40.0	100	-9.7	67.3	0	1.00	Vertical
33.444	30.1	32.0	40.0	100	-9.9	68.0	0	1.00	Vertical
486.143	29.2	28.8	46.0	200	-16.8	171.2	0	1.00	Vertical
677.669	31.3	36.7	46.0	200	-14.7	163.3	0	1.00	Vertical
821.229	33.1	45.2	46.0	200	-12.9	154.8	0	1.00	Vertical

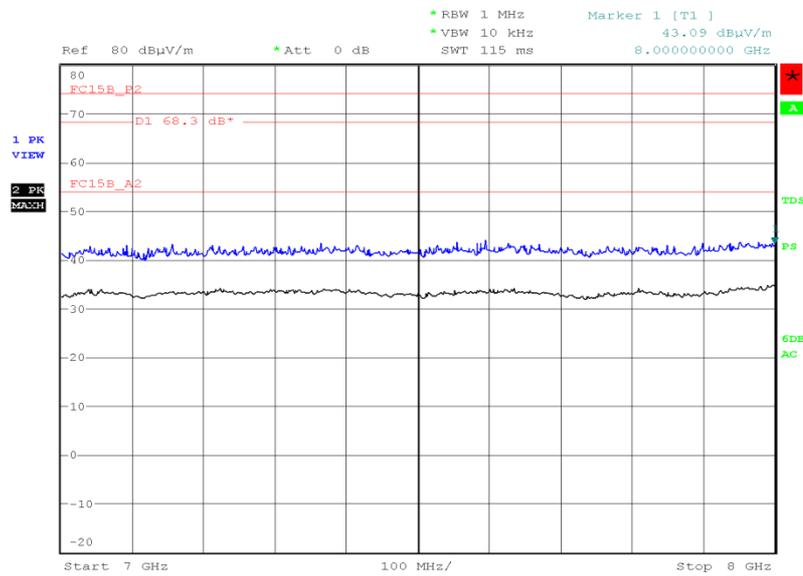


1 GHz to 7 GHz



Date: 15.JAN.2014 14:47:56

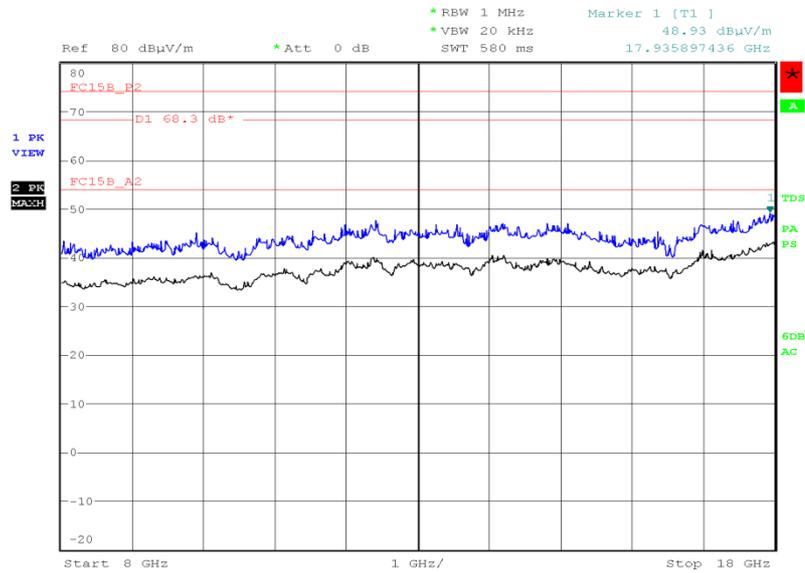
7 GHz to 8 GHz



Date: 18.JAN.2014 11:33:01

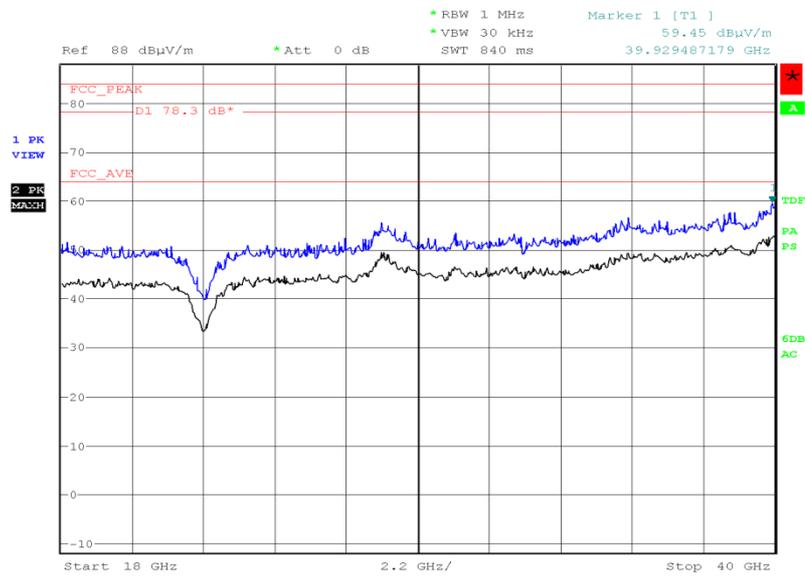


8 GHz to 18 GHz



Date: 18.JAN.2014 13:11:56

18 GHz to 40 GHz

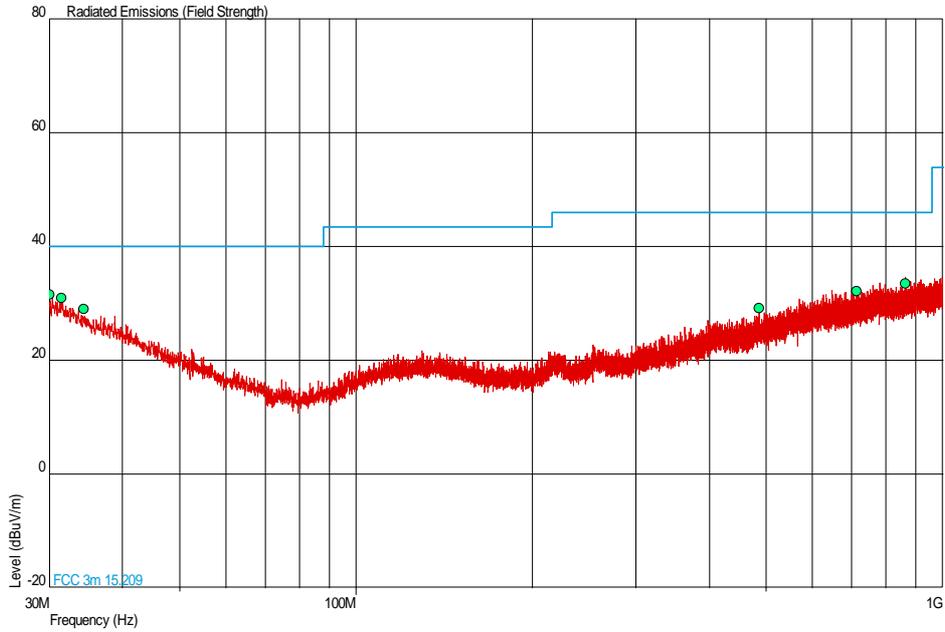


Date: 20.JAN.2014 19:04:05



5300 MHz

30 MHz to 1 GHz



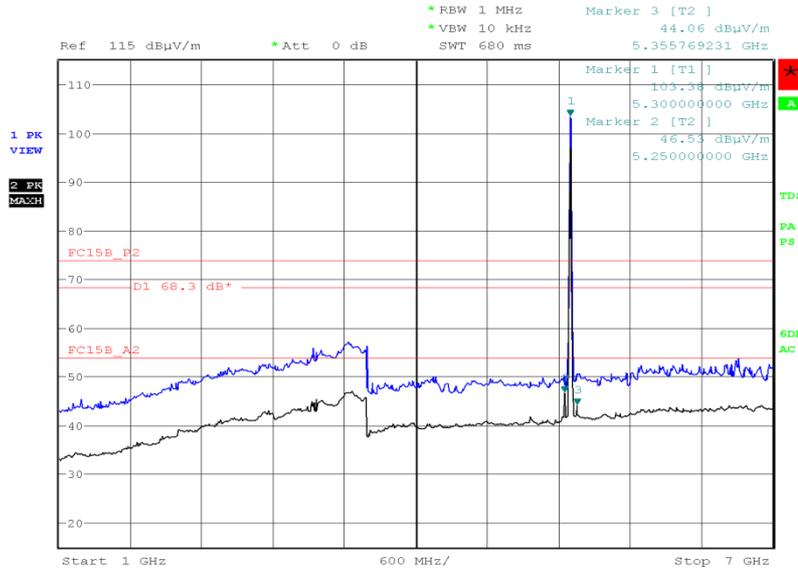
Frequency (MHz)	QP Level (dBµV/m)	QP Level (µV/m)	QP Limit (dBµV/m)	QP Limit (µV/m)	QP Margin (dBµV/m)	QP Margin (µV/m)	Angle (Deg)	Height (m)	Polarity
30.049	31.5	37.6	40.0	100	-8.5	62.4	0	1.00	Vertical
31.455	30.9	35.1	40.0	100	-9.1	64.9	0	1.00	Vertical
34.365	29.0	28.2	40.0	100	-11.0	71.8	0	1.00	Vertical
486.143	29.2	28.8	46.0	200	-16.8	171.2	0	1.00	Vertical
714.287	32.2	40.7	46.0	200	-13.8	159.3	0	1.00	Vertical
865.413	33.5	47.3	46.0	200	-12.5	152.7	0	1.00	Vertical



1GHz to 40GHz

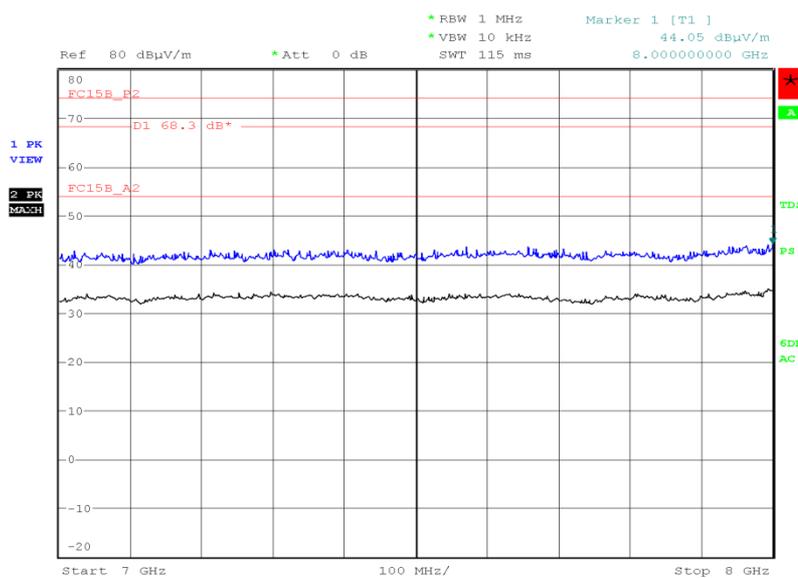
Frequency (GHz)	Antenna Polarisation	Antenna Height (cm)	EUT Arc (degrees)	Final Peak (dBµV/m)	Final Average (dBµV/m)
5.3528	Horizontal	163	168	56.64	45.72

1 GHz to 7 GHz



Date: 15.JAN.2014 15:16:30

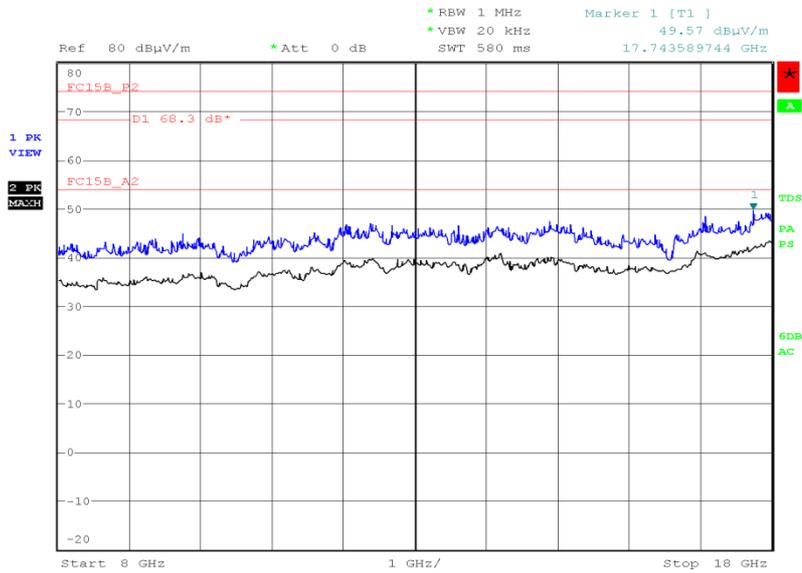
7 GHz to 8 GHz



Date: 18.JAN.2014 11:36:18

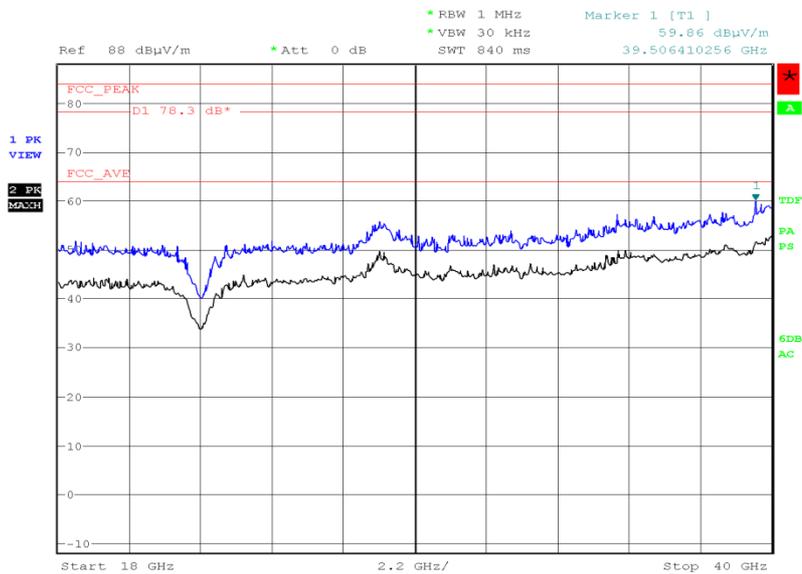


8 GHz to 18 GHz



Date: 18.JAN.2014 13:27:28

18 GHz to 40 GHz

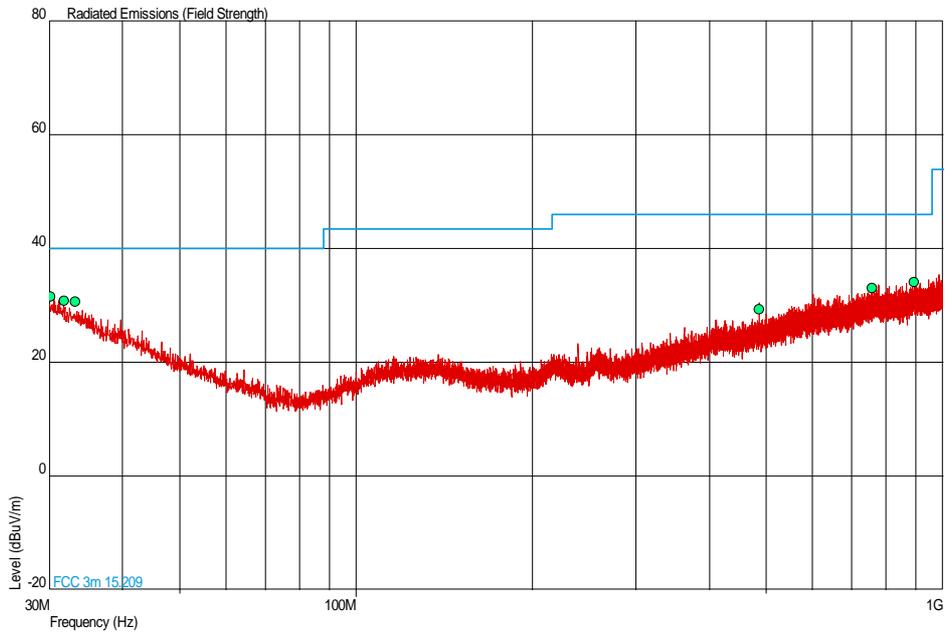


Date: 20.JAN.2014 19:17:07



5320 MHz

30 MHz to 1 GHz



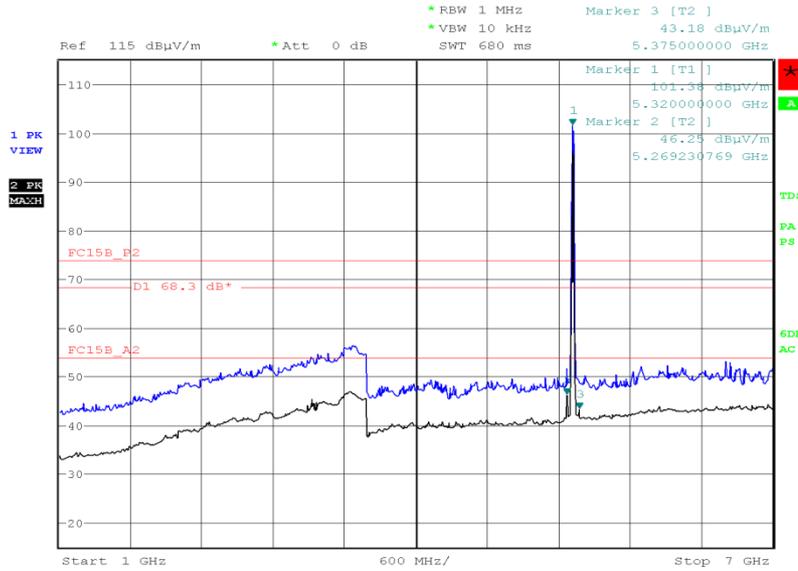
Frequency (MHz)	QP Level (dBuV/m)	QP Level (uV/m)	QP Limit (dBuV/m)	QP Limit (uV/m)	QP Margin (dBuV/m)	QP Margin (uV/m)	Angle (Deg)	Height (m)	Polarity
30.146	31.6	38.0	40.0	100	-8.4	62.0	0	1.00	Vertical
31.795	30.8	34.7	40.0	100	-9.2	65.3	0	1.00	Vertical
33.250	30.6	33.9	40.0	100	-9.4	66.1	0	1.00	Vertical
486.143	29.3	29.2	46.0	200	-16.7	170.8	0	1.00	Vertical
756.967	33.0	44.7	46.0	200	-13.0	155.3	0	1.00	Vertical
893.203	34.1	50.7	46.0	200	-11.9	149.3	0	1.00	Vertical



1GHz to 40GHz

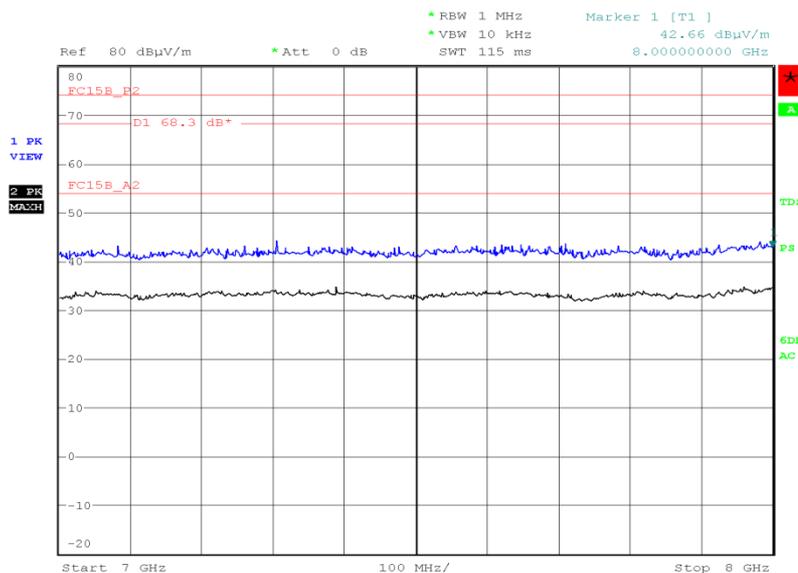
Frequency (GHz)	Antenna Polarisation	Antenna Height (cm)	EUT Arc (degrees)	Final Peak (dBµV/m)	Final Average (dBµV/m)
5.3722	Horizontal	164	167	56.01	45.06

1 GHz to 7 GHz



Date: 15.JAN.2014 15:28:02

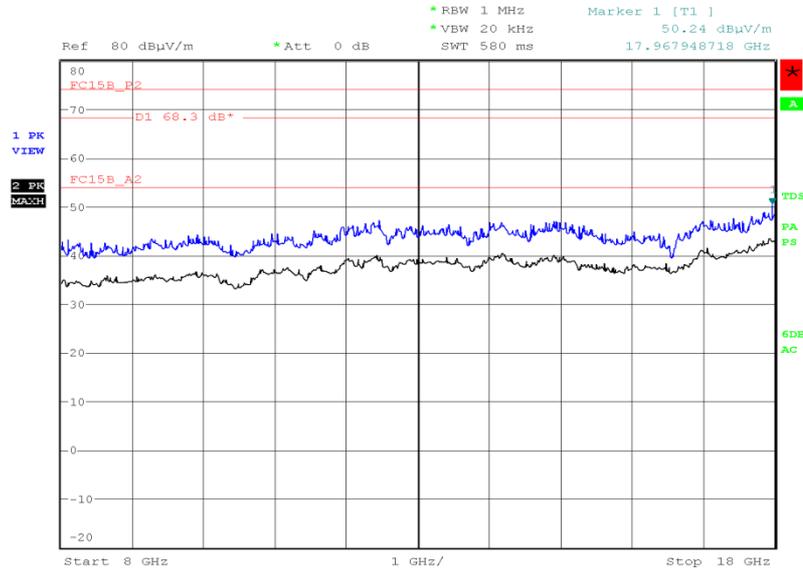
7 GHz to 8 GHz



Date: 18.JAN.2014 11:39:55

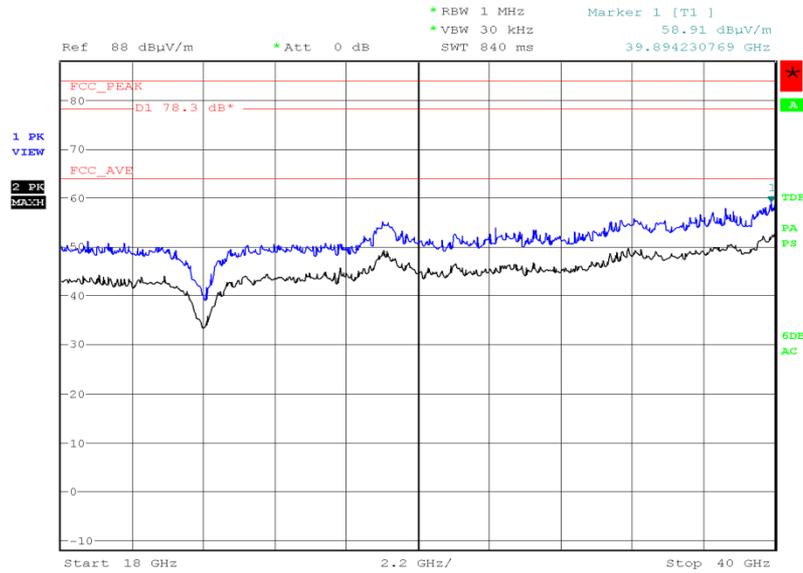


8 GHz to 18 GHz



Date: 18.JAN.2014 13:46:07

18 GHz to 40 GHz



Date: 20.JAN.2014 19:33:05

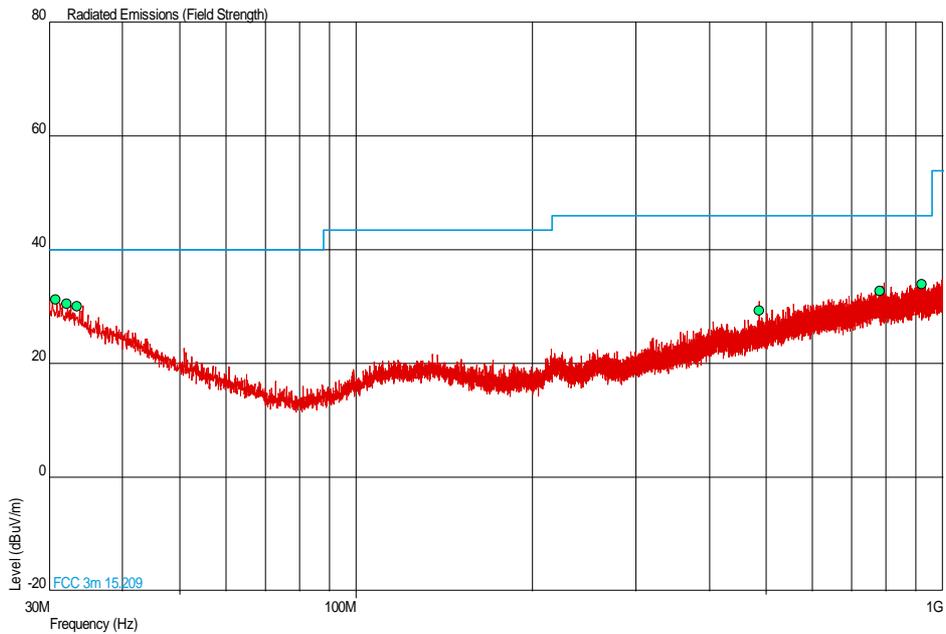


Product Service

Frequency Band 3

5500 MHz

30 MHz to 1 GHz



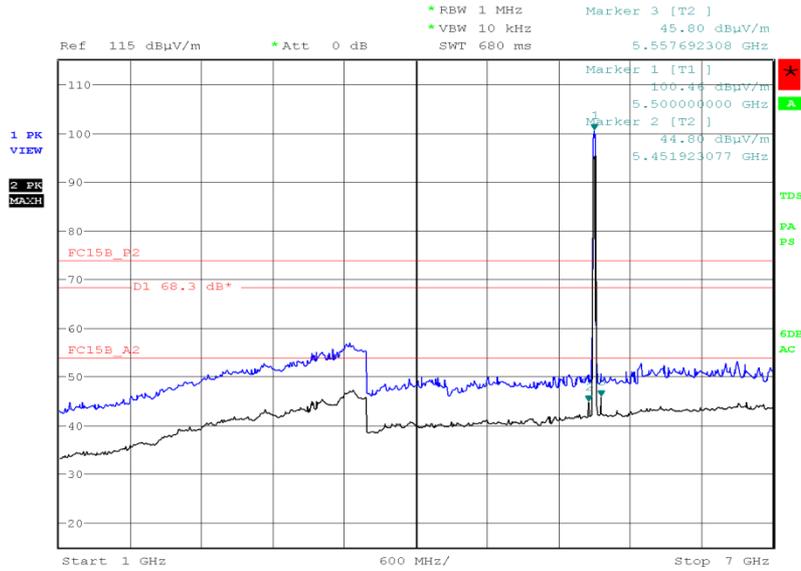
Frequency (MHz)	QP Level (dBµV/m)	QP Level (µV/m)	QP Limit (dBµV/m)	QP Limit (µV/m)	QP Margin (dBµV/m)	QP Margin (µV/m)	Angle (Deg)	Height (m)	Polarity
30.776	31.3	36.7	40.0	100	-8.7	63.3	0	1.00	Vertical
32.183	30.5	33.5	40.0	100	-9.5	66.5	0	1.00	Vertical
33.444	30.0	31.6	40.0	100	-10.0	68.4	0	1.00	Vertical
486.143	29.3	29.2	46.0	200	-16.7	170.8	0	1.00	Vertical
782.381	32.8	43.7	46.0	200	-13.2	156.3	0	1.00	Vertical
920.800	33.9	49.5	46.0	200	-12.1	150.5	0	1.00	Vertical



1GHz to 40GHz

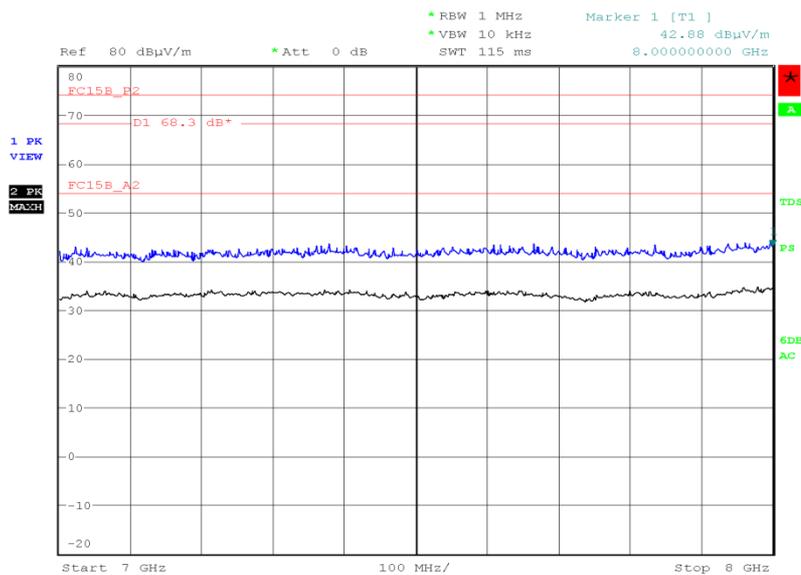
Frequency (GHz)	Antenna Polarisation	Antenna Height (cm)	EUT Arc (degrees)	Final Peak (dBµV/m)	Final Average (dBµV/m)
5.4477	Horizontal	142	173	56.70	45.80

1 GHz to 7 GHz



Date: 15.JAN.2014 15:56:30

7 GHz to 8 GHz



Date: 18.JAN.2014 11:43:11