



# TEST REPORT

**Test Report No. :** UL-RPT-RP10700048JD03C V2.0

**Manufacturer** : Cambium Networks Ltd  
**Model No.** : PTP 700  
**FCC ID** : QWP-45700  
**Test Standard(s)** : FCC Parts 15.207, 15.209(a), 15.403(i), 15.407(a)(1) & 15.407(b)(1)

1. This test report shall not be reproduced in full or partial, without the written approval of UL VS LTD.
2. The results in this report apply only to the sample(s) tested.
3. The sample tested is in compliance with the above standard(s).
4. The test results in this report are traceable to the national or international standards.
5. Version 2.0 supersedes all previous versions.

**Date of Issue:** 20 October 2015

**Checked by:**

Ian Watch  
Senior Engineer, Radio Laboratory

**Issued by :**

pp

John Newell  
Quality Manager,  
UL VS LTD



This laboratory is accredited by UKAS.  
The tests reported herein have been  
performed in accordance with its terms  
of accreditation.

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## UL VS LTD

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**Table of Contents**

<b>1. Customer Information.....</b>	<b>4</b>
<b>2. Summary of Testing.....</b>	<b>5</b>
2.1. General Information	5
2.2. Summary of Test Results	5
2.3. Methods and Procedures	6
2.4. Deviations from the Test Specification	6
<b>3. Equipment Under Test (EUT) .....</b>	<b>7</b>
3.1. Identification of Equipment Under Test (EUT)	7
3.2. Description of EUT	7
3.3. Modifications Incorporated in the EUT	7
3.4. Additional Information Related to Testing	8
3.5. Support Equipment	11
3.6. Antenna	12
<b>4. Operation and Monitoring of the EUT during Testing .....</b>	<b>13</b>
4.1. Operating Modes	13
4.2. Configuration and Peripherals	13
<b>5. Measurements, Examinations and Derived Results.....</b>	<b>18</b>
5.1. General Comments	18
5.2. Test Results	19
5.2.1. Transmitter AC Conducted Spurious Emissions	19
5.2.2. Transmitter 26 dB Emission Bandwidth	24
5.2.3. Transmitter Maximum Conducted Output Power (5.15-5.25 GHz Band)	34
5.2.4. Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band)	44
5.2.5. Transmitter Out of Band Radiated Emissions	143
5.2.6. Transmitter Band Edge Radiated Emissions	165
<b>6. Measurement Uncertainty .....</b>	<b>195</b>
<b>7. Report Revision History .....</b>	<b>196</b>
<b>Appendix 1. Conducted Test Setup Photograph .....</b>	<b>197</b>

**1. Customer Information**









<b>Company Name:</b>	Cambium Networks Ltd
<b>Address:</b>	Unit B2/3, Linhay Business Park Eastern Road Ashburton Devon TQ13 7UP United Kingdom

## 2. Summary of Testing

### 2.1. General Information

<b>Specification Reference:</b>	47CFR15.403 and 47CFR15.407
<b>Specification Title:</b>	Code of Federal Regulations Volume 47 (Telecommunications): Part 15 Subpart E (Unlicensed National Information Infrastructure Devices) – Sections 15.403 and 15.407
<b>Specification Reference:</b>	47CFR15.207 and 47CFR15.209
<b>Specification Title:</b>	Code of Federal Regulations Volume 47 (Telecommunications): Part 15 Subpart C (Intentional Radiators) - Sections 15.207 and 15.209
<b>Site Registration:</b>	FCC: 209735
<b>Location of Testing:</b>	UL VS LTD, Unit 3 Horizon, Wade Road, Kingsland Business Park, Basingstoke, Hampshire, RG24 8AH, United Kingdom
<b>Test Dates:</b>	08 August 2015 to 06 October 2015

### 2.2. Summary of Test Results

FCC Reference (47CFR)	Measurement	Result
Part 15.207	Transmitter AC Conducted Emissions	
Part 15.403(i)	Transmitter 26 dB Emission Bandwidth	
Part 15.407(a)(1)	Transmitter Maximum Conducted Output Power	
Part 15.407(a)(1)	Transmitter Peak Power Spectral Density	
Part 15.407(b)(1)/ 15.209(a)	Transmitter Out of Band Radiated Emissions	
Part 15.407(b)(1)/ 15.209(a)	Transmitter Band Edge Radiated Emissions	
Part 15.407(g)	Transmitter Frequency Stability (Temperature & Voltage Variation)	Note 1
<b>Key to Results</b>		
 = Complied  = Did not comply		

#### Note(s):

1. Frequency stability is better than 10 ppm, which ensures that the signal remains in the allocated bands under all operational conditions stated in the user manual.

### **2.3. Methods and Procedures**

<b>Reference:</b>	ANSI C63.10 (2013)
<b>Title:</b>	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
<b>Reference:</b>	FCC KDB 789033 D02 v01 June 6, 2014
<b>Title:</b>	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices – Part 15, Subpart E
<b>Reference:</b>	FCC KDB 662911 D01 Multiple Transmitter Output v02r01 October 31, 2013
<b>Title:</b>	Emissions Testing of Transmitters with Multiple Outputs in the Same Band
<b>Reference:</b>	FCC KDB 662911 D02 v01, October 25 2011
<b>Title:</b>	MIMO with Cross-Polarized Antennas
<b>Reference:</b>	FCC KDB 174176 D01 Line Conducted FAQ v01, 03/06/2015
<b>Title:</b>	AC power line conducted emissions, frequently asked questions

### **2.4. Deviations from the Test Specification**

For the measurements contained within this test report, there were no deviations from, additions to, or exclusions from the test specifications identified above.

### **3. Equipment Under Test (EUT)**

#### **3.1. Identification of Equipment Under Test (EUT)**

<b>Brand Name:</b>	Cambium Networks Ltd
<b>Model Name or Number:</b>	PTP 700
<b>Hardware Version:</b>	P4
<b>Software Version:</b>	B105-MACDSP-G7FED
<b>Serial Number:</b>	0004565800BC
<b>FCC ID:</b>	QWP-45700

<b>Brand Name:</b>	Cambium Networks Ltd
<b>Model Name or Number:</b>	PTP 700
<b>Hardware Version:</b>	P4
<b>Software Version:</b>	B105-MACDSP-G7FED
<b>Serial Number:</b>	0004565800E2
<b>FCC ID:</b>	QWP-45700

<b>Description:</b>	PoE Power supply
<b>Brand Name:</b>	Cambium Networks
<b>Model Name or Number:</b>	E100109B G
<b>Part Number:</b>	C000065L002B
<b>Serial Number:</b>	1451008904

<b>Description:</b>	PoE Power supply
<b>Brand Name:</b>	Cambium Networks
<b>Model Name or Number:</b>	E100109B G
<b>Part Number:</b>	C000065L002B
<b>Serial Number:</b>	1421005533

#### **3.2. Description of EUT**

The Equipment Under Test was a fixed radio transceiver operating in the 5150-5250 MHz frequency band. The EUT is available in two configurations:

1. Connectorised with two external antenna ports.
2. Connectorised with two external antenna ports and an integrated directional antenna (only external or internal antennas may be used at any one time, they may not be used simultaneously).

Power is provided by a PoE supply.

#### **3.3. Modifications Incorporated in the EUT**

No modifications were applied to the EUT during testing.

**3.4. Additional Information Related to Testing**

<b>Technology Tested:</b>		Unlicensed National Information Infrastructure (U-NII-1)				
<b>Type of Unit:</b>		Microwave fixed radio link transceiver				
<b>Modes/Modulation:</b>		AQU, BPSK, QPSK, 16QAM, 64QAM, 256QAM				
<b>Data rates:</b>		BPSK: 21.8 Mbit/s; QPSK: 60.5 Mbit/s; 16QAM: 242.2 Mbit/s; 64QAM: 381 Mbit/s & 256QAM: 452.2 Mbit/s				
<b>Power Supply Requirement(s):</b>		Nominal		PoE supply input 120 VAC 60 Hz. PoE output 48 VDC.		
<b>Maximum Conducted Output Power:</b>		21.8 dBm (when used in conjunction with omnidirectional antenna)				
<b>Frequency Range:</b>		5150 MHz to 5250 MHz / 4' Parabolic Antenna				
<b>Channels Tested:</b>	<b>Channel Bandwidth (MHz)</b>	<b>Bottom Channel Frequency (MHz)</b>	<b>Lowest Full Pwr. Channel (MHz)</b>	<b>Middle Channel Frequency (MHz)</b>	<b>Highest Full Pwr. Channel (MHz)</b>	<b>Top Channel Frequency (MHz)</b>
	5	5160.25	5162.5	5207	5247.5	5247.5
	10	5161.5	5159.5	5207	5245	5245
	15	5176.5	5196.75	5219	5242.5	5242.5
	20	5180.5	5183.5	5219	5240	5240
	30	5194	5205	5222	5235	5235
	40	5199.25	5214	5221	5230	5230
	45	5203	5216.5	5221	5227.5	5227.5



**Additional Information Related to Testing (continued)**

<b>Frequency Range:</b>		5150 MHz to 5250 MHz / Flat Plate Antenna				
<b>Channels Tested:</b>	<b>Channel Bandwidth (MHz)</b>	<b>Bottom Channel Frequency (MHz)</b>	<b>Lowest Full Pwr. Channel (MHz)</b>	<b>Middle Channel Frequency (MHz)</b>	<b>Highest Full Pwr. Channel (MHz)</b>	<b>Top Channel Frequency (MHz)</b>
	5	5159.25	5162	5207	5247.5	5247.5
	10	5161.5	5170	5207	5245	5245
	15	5174.75	5196.5	5219	5242.5	5242.5
	20	5180	5198.75	5219	5240	5240
	30	5191.75	5210	5222	5235	5235
	40	5197.25	5212	5221	5230	5230
	45	5201.5	5215.75	5221	5227.5	5227.5
<b>Frequency Range:</b>		5150 MHz to 5250 MHz / Sectorised Antenna				
<b>Channels Tested:</b>	<b>Channel Bandwidth (MHz)</b>	<b>Bottom Channel Frequency (MHz)</b>	<b>Lowest Full Pwr. Channel (MHz)</b>	<b>Middle Channel Frequency (MHz)</b>	<b>Highest Full Pwr. Channel (MHz)</b>	<b>Top Channel Frequency (MHz)</b>
	5	5158.75	5159.75	5205	5247.5	5247.5
	10	5167.25	5169.25	5205	5245	5245
	15	5171.5	5174.5	5209	5242.5	5242.5
	20	5175.5	5181.75	5209	5240	5240
	30	5188	5197	5217	5235	5235
	40	5200.5	5207.5	5217	5230	5230
	45	5205.25	5210.25	5217	5227.5	5227.5

**Additional Information Related to Testing (continued)**

Frequency Range:		5150 MHz to 5250 MHz / Omnidirectional Antenna				
Channels Tested:	Channel Bandwidth (MHz)	Bottom Channel Frequency (MHz)	Lowest Full Pwr. Channel (MHz)	Middle Channel Frequency (MHz)	Highest Full Pwr. Channel (MHz)	Top Channel Frequency (MHz)
	5	5156.25	5156.5	5204	5247.5	5247.5
	10	5162.25	5163.75	5204	5245	5245
	15	5169.25	5171	5206	5242.5	5242.5
	20	5172.5	5179.75	5209	5240	5240
	30	5183	5189	5212	5235	5235
	40	5193	5201.25	5215	5230	5230
	45	5196.25	5205.75	5215	5227.5	5227.5

**Note(s):**

The EUT is unable to operate at full power and remain compliant on some lower channels. Power has been reduced on some lower channels. 'Lowest Full Pwr. Channel' and 'Highest Full Pwr. Channel' in the table above show the lowest and highest channel frequencies that the EUT can operate at full power and remain compliant. All channel frequencies between the 'Lowest Full Pwr. Channel' and 'Highest Full Pwr. Channel' can operate at full power. Power settings used for testing are shown in Section 4.2 of this test report.

### **3.5. Support Equipment**

The following support equipment was used to exercise the EUT during testing:

<b>Description:</b>	Laptop PC
<b>Brand Name:</b>	Lenovo
<b>Model Name or Number:</b>	L440
<b>Serial Number:</b>	R9-019EA1 14/04

<b>Description:</b>	Ethernet Hub
<b>Brand Name:</b>	Netgear
<b>Model Name or Number:</b>	GS605
<b>Serial Number:</b>	2N21223M02078

### 3.6. Antenna

The table below lists the antennas that the manufacturer intends to use with this product when operating in the 5150-5250 MHz band:

Type	Stated Gain (dBi)	Manufacturer	Antenna Name	Used for Testing	Note
Dual polarised plate (Integrated)	23.0	MARS	MA-WS54-5OR	-	1, 3
Dual polarised plate (Integrated)	21.0	MTI	MT-465027CVH	-	1, 3
Dual polarised plate (External)	28.5	MARS	MA-WA56-DP28N	X	2
4 ft Parabolic Dual Polarised	34.5	Andrews	PX4F-52-N7A/A	X	2
90° Sectorised (External)	17.0	Laird	ANT, AP Sector	X	2
90° Sectorised (External)	17.0	Proprietary	Part No. A005189	-	1
Omnidirectional	13.0	KP	KPPA-5.7-DPOMA	X	2
Omnidirectional	10.0	MARS	MA-WO56-DP10	-	1

X = This antenna was used for testing purposes

#### **Note(s):**

1. This antenna has the same gain or less gain and is of the same type as the antenna that was tested. Therefore it was not tested.
2. Used in conjunction with two, 0.5 metre length RF cables (Radiall R284C0351033 N type male – N type male) having an individual insertion loss of 0.9 dB across the EUT operating band.
3. Integral antenna. No external RF cables.

## **4. Operation and Monitoring of the EUT during Testing**

### **4.1. Operating Modes**

The EUT was tested in the following operating mode(s):

- The unit operates in transceiver mode only as a TDD device in its normal mode of operation. There is no dedicated receive only mode.
- For test purposes only, the EUT was continuously transmitting at maximum power with 100% duty cycle in test mode on the required channels using the supported modulation types.

### **4.2. Configuration and Peripherals**

The EUT was tested in the following configuration(s):

- A laptop PC with Cambium Networks test applications 'Regulatory RF Control V2.6' and 'Regulatory RF Control V2.7' was used to configure the EUT via the PoE power supply and Ethernet cables.
- Test application 'Regulatory RF Control V2.6' was used for AC conducted emissions and transmitter out of band radiated emissions below 1 GHz. Test application 'Regulatory RF Control V2.7' was used for all other tests.
- The EUT was powered throughout testing via the PoE power supply.
- The EUT was operating at maximum allowable output power for the configuration being tested unless otherwise stated.
- The EUT with serial number 0004565800BC was used for AC conducted emissions and transmitter out of band radiated emissions below 1 GHz.
- The EUT with serial number 0004565800E2 was used for all other tests.
- No receiver or idle mode tests were performed as the EUT constantly transmits and receives. It does not have a dedicated receive or idle mode.

### **Power settings used during testing**

'LCF' in the tables below indicates the power setting on the lower channels. 'HCF' indicates the power setting on the higher channels. Where the tables are marked as 'Mid Ch' the maximum power setting was used for all channels from the Lowest Full Power Channel to the Highest Full Power Channel including the centre channel. Where LCF, Mid Ch and HCF have the same values, then maximum power was used across the band from the bottom channel to the top channel. Corresponding channel frequencies are shown in Section 3.4 of this report.

NOTE: Cambium Networks Ltd state that the PTP 700 uses Acquisition mode during installation by a professional installer and in the event that the RF link is dropped Acquisition mode is used to re-acquire the link. When in Acquisition mode the transmit power is restricted to be 4 dB lower than the maximum transmit power permitted in the band.

The table below show the EUT power settings that were used during testing for each channel bandwidth and modulation type when the EUT was tested with the 4' parabolic antenna.

### **Power Settings Used For Testing / 4' Parabolic Antenna / 5150-5250 MHz Band**

Ch. BW	AQU			BPSK			QPSK		
	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF
5	0	3	3	4	7	7	4	7	7
10	-4	2	2	0	6	6	0	6	6
15	4	10	10	8	14	14	8	14	14
20	6	9	9	10	13	13	10	13	13
30	4	10	10	8	14	14	8	14	14
40	1	10	10	5	14	14	5	14	14
45	1	10	10	5	14	14	5	14	14

Ch. BW	16QAM			64QAM			256QAM		
	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF
5	4	7	7	4	7	7	4	7	7
10	0	6	6	0	6	6	0	6	6
15	8	14	14	8	14	14	8	14	14
20	10	13	13	10	13	13	10	13	13
30	8	14	14	8	14	14	8	14	14
40	5	14	14	5	14	14	5	14	14
45	5	14	14	5	14	14	5	14	14

**Power settings used during testing (continued)**

The tables below show the EUT power settings that were used during testing for each channel bandwidth and mode/modulation type when the EUT was tested with the plate antenna.

**Power Settings Used For Testing / Plate Antenna / 5150-5250 MHz Band**

Ch. BW	AQU			BPSK			QPSK		
	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF
5	-1	2	2	3	6	6	3	6	6
10	-4	2	2	0	6	6	0	6	6
15	3	8	8	7	12	12	7	12	12
20	3	9	9	7	13	13	7	13	13
30	2	8	8	6	12	12	6	12	12
40	0	6	6	4	10	10	4	10	10
45	0	6	6	4	10	10	4	10	10

Ch. BW	16QAM			64QAM			256QAM		
	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF
5	3	6	6	3	6	6	3	6	6
10	0	6	6	0	6	6	0	6	6
15	7	12	12	7	12	12	7	12	12
20	7	13	13	7	13	13	7	13	13
30	6	12	12	6	12	12	6	12	12
40	4	10	10	4	10	10	4	10	10
45	4	10	10	4	10	10	4	10	10

**Power settings used during testing (continued)**

The tables below show the EUT power settings that were used during testing for each channel bandwidth and mode/modulation type when the EUT was tested with the sectorised antenna.

**Power Settings Used For Testing / Sectorised Antenna / 5150-5250 MHz Band**

Ch. BW	AQU			BPSK			QPSK		
	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF
5	5	7.75	7.75	9	11.75	11.75	9	11.75	11.75
10	7.5	10.5	10.5	11.5	14.5	14.5	11.5	14.5	14.5
15	7.5	10.5	10.5	11.5	14.5	14.5	11.5	14.5	14.5
20	4.5	10.5	10.5	8.5	14.5	14.5	8.5	14.5	14.5
30	4.5	10.5	10.5	8.5	14.5	14.5	8.5	14.5	14.5
40	4.5	10.5	10.5	8.5	14.5	14.5	8.5	14.5	14.5
45	4.5	10.5	10.5	8.5	14.5	14.5	8.5	14.5	14.5

Ch. BW	16QAM			64QAM			256QAM		
	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF
5	9	11.75	11.75	9	11.75	11.75	9	11.75	11.75
10	11.5	14.5	14.5	11.5	14.5	14.5	11.5	14.5	14.5
15	11.5	14.5	14.5	11.5	14.5	14.5	11.5	14.5	14.5
20	8.5	14.5	14.5	8.5	14.5	14.5	8.5	14.5	14.5
30	8.5	14.5	14.5	8.5	14.5	14.5	8.5	14.5	14.5
40	8.5	14.5	14.5	8.5	14.5	14.5	8.5	14.5	14.5
45	8.5	14.5	14.5	8.5	14.5	14.5	8.5	14.5	14.5



**Power settings used during testing (continued)**

The tables below show the EUT power settings that were used during testing for each channel bandwidth and mode/modulation type when the EUT was tested with the omnidirectional antenna.

**Power Settings Used For Testing / Omnidirectional Antenna / 5150-5250 MHz Band**

Ch. BW	AQU			BPSK			QPSK		
	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF
5	9	12	12	13	16	16	13	16	16
10	12	15	15	16	19	19	16	19	19
15	14	16.75	16.75	18	20.75	20.75	18	20.75	20.75
20	12	18	18	16	22	22	16	22	22
30	12	18	18	16	22	22	16	22	22
40	12	18	18	16	22	22	16	22	22
45	12	18	18	16	22	22	16	22	22

Ch. BW	16QAM			64QAM			256QAM		
	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF	LCF	Mid Ch	HCF
5	13	16	16	13	16	16	13	16	16
10	16	19	19	16	19	19	16	19	19
15	18	20.75	20.75	18	20.75	20.75	18	20.75	20.75
20	16	22	22	16	22	22	16	22	22
30	16	22	22	16	22	22	16	22	22
40	16	22	22	16	22	22	16	22	22
45	16	22	22	16	22	22	16	22	22

## **5. Measurements, Examinations and Derived Results**

### **5.1. General Comments**

Measurement uncertainties are evaluated in accordance with current best practice. Our reported expanded uncertainties are based on standard uncertainties, which are multiplied by an appropriate coverage factor to provide a statistical confidence level of approximately 95%. Please refer to *Section 6 Measurement Uncertainty* for details.

In accordance with UKAS requirements all the measurement equipment is on a calibration schedule. All equipment was within the calibration period on the date of testing.

## **5.2. Test Results**

### **5.2.1. Transmitter AC Conducted Spurious Emissions**

#### **Test Summary:**

<b>Test Engineer:</b>	Georgios Vrezas	<b>Test Date:</b>	15 August 2015
<b>Test Sample Serial Number:</b>	0004565800BC		

<b>FCC Reference:</b>	Part 15.207
<b>Test Method Used:</b>	ANSI C63.10 Section 6.2

#### **Environmental Conditions:**

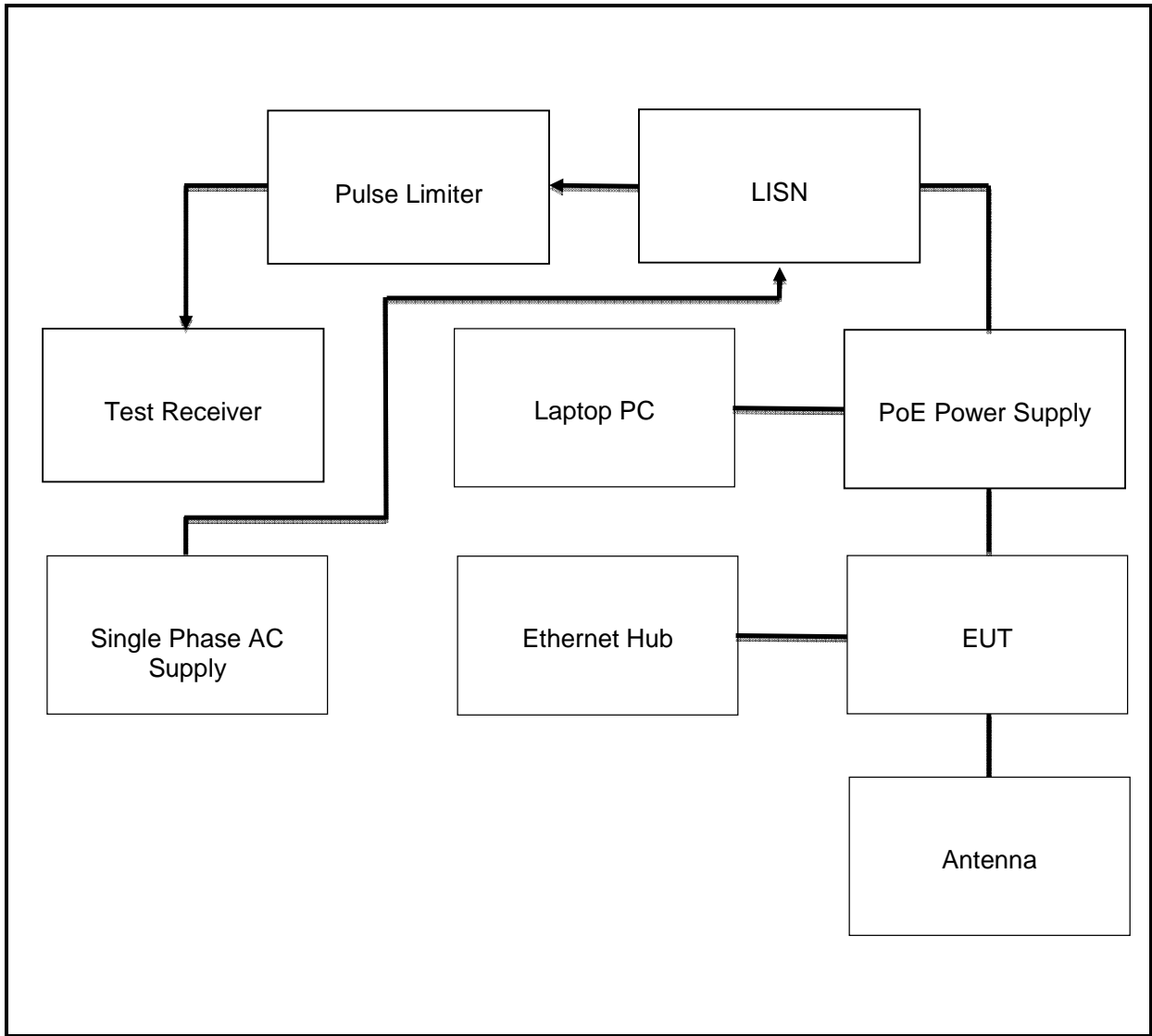
<b>Temperature (°C):</b>	24
<b>Relative Humidity (%):</b>	40

#### **Note(s):**

1. The manufacturer stated that two different PoE power supplies can be used with this product. AC conducted spurious emissions tests were performed on each power supply.
2. The input to the PoE power supply was connected to a 120 VAC 60 Hz single phase supply via a LISN during the testing. The output of the PoE power supply was connected to the input of the EUT via an Ethernet cable.
3. The EUT was transmitting at maximum power during the test on the middle channel of the 5.15-5.25 GHz band. A laptop PC was connected to the EUT via Ethernet.
4. The earth bonding point on the EUT was connected to the metal structure of the test chamber during testing.
5. All emissions >20 dB below the applicable limits were not recorded.

**Transmitter AC Conducted Spurious Emissions (continued)**

**Test setup for AC conducted spurious emissions measurements:**



**Transmitter AC Conducted Spurious Emissions (continued)****Results: Live / Quasi Peak**

Frequency (MHz)	Line	Level (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)	Result
0.173	Live	45.7	64.8	19.1	Complied

**Results: Live / Average**

Frequency (MHz)	Line	Level (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)	Result
0.173	Live	37.0	54.8	17.8	Complied
0.303	Live	36.0	50.2	14.2	Complied
1.338	Live	32.2	46.0	13.8	Complied
4.016	Live	31.8	46.0	14.2	Complied
14.424	Live	33.6	50.0	16.4	Complied
22.578	Live	32.4	50.0	17.6	Complied

**Transmitter AC Conducted Spurious Emissions (continued)****Results: Neutral / Quasi Peak**

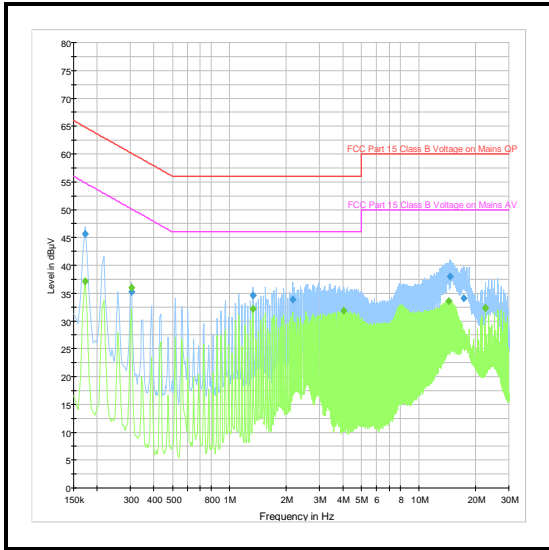
Frequency (MHz)	Line	Level (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)	Result
0.173	Neutral	46.3	64.8	18.5	Complied

**Results: Neutral / Average**

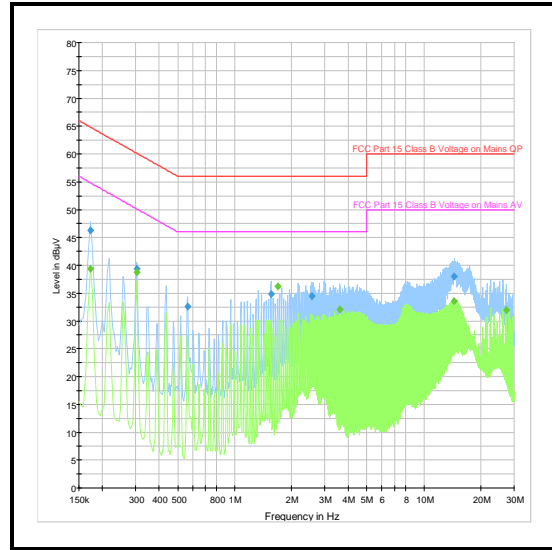
Frequency (MHz)	Line	Level (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)	Result
0.173	Neutral	39.4	54.8	15.4	Complied
0.303	Neutral	38.8	50.2	11.4	Complied
1.689	Neutral	36.2	46.0	9.8	Complied
3.593	Neutral	32.0	46.0	14.0	Complied
14.411	Neutral	33.6	50.0	16.4	Complied
27.335	Neutral	32.0	50.0	18.0	Complied

**Transmitter AC Conducted Spurious Emissions (continued)**

**Results: Cambium Networks Power Supply**



**Live**



**Neutral**

**Test Equipment Used:**

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
A004	LISN	Rohde & Schwarz	ESH3-Z5	890604/027	27 Nov 2015	12
A1830	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100668	02 Mar 2016	12
M1263	Test Receiver	Rohde & Schwarz	ESIB7	100265	14 Oct 2015	12
M1625	Thermohygrometer	JM Handelspunkt	30.5015.06	N/A	07 Jan 2016	12

**5.2.2. Transmitter 26 dB Emission Bandwidth****Test Summary:**

<b>Test Engineer:</b>	Georgios Vrezas	<b>Test Dates</b>	07 September 2015
<b>Test Sample Serial Number:</b>	0004565800E2		

<b>FCC Reference:</b>	Part 15.403(i)
<b>Test Method Used:</b>	FCC KDB 789033 Section II.C

**Environmental Conditions:**

<b>Temperatures (°C):</b>	25
<b>Relative Humidity (%):</b>	39

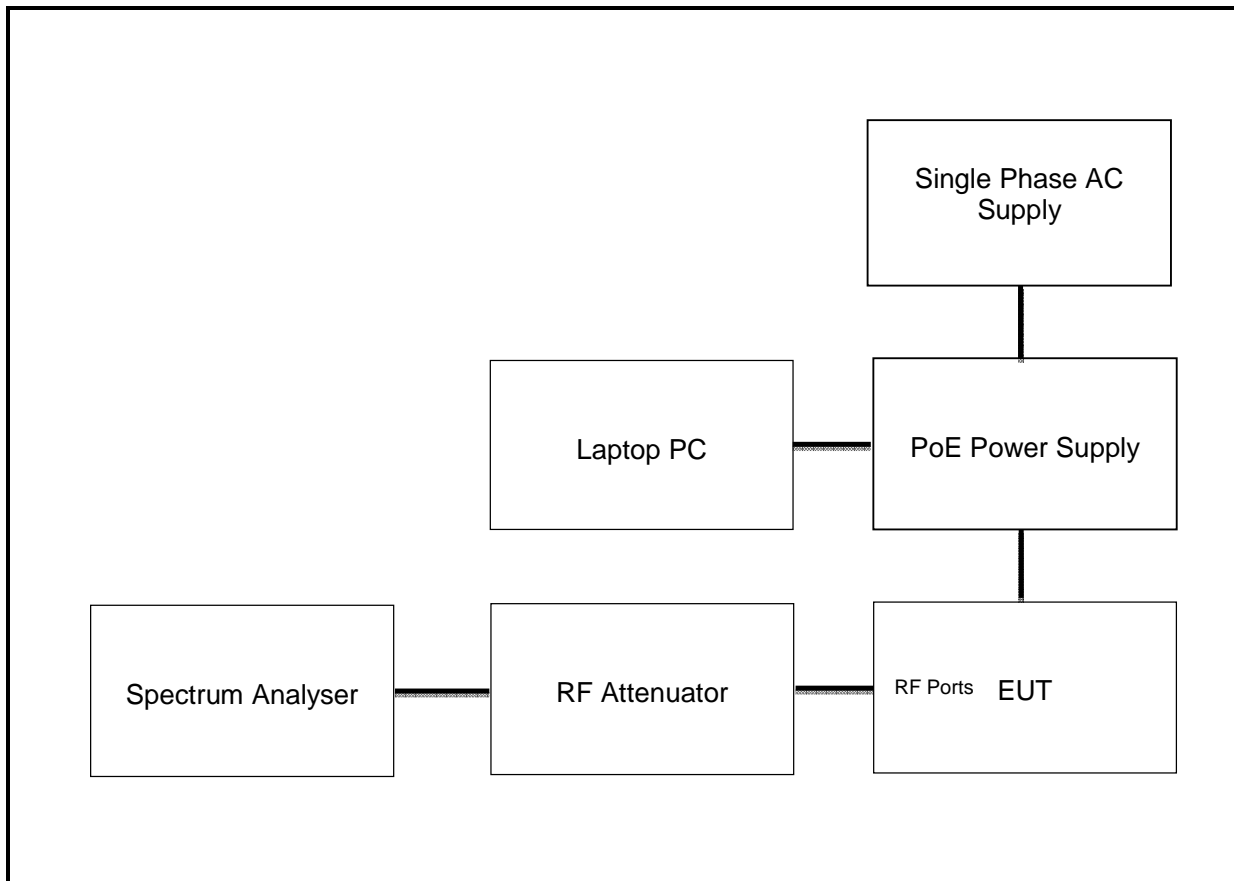
**Note(s):**

1. All configurations supported by the EUT were investigated on one channel in accordance with KDB 789033 Section II.C emission bandwidth test procedure. Spot checks were performed with the EUT transmitting at maximum power using all channel bandwidths and modulation types. For each channel bandwidth, the measured occupied bandwidth was found to be identical in all modes. Final measurements were performed with the EUT transmitting BPSK modulation only.
2. Plots for all configurations are archived on the UL VS LTD IT server and available for inspection upon request.
3. The spectrum analyser was connected to the RF port on the EUT using suitable attenuation and RF cable.
4. Final measurements were performed in each supported operating band using the above configurations on the bottom, middle and top channels. Both RF ports show identical characteristics. The spectrum analyser was connected to the H Port for all final measurements.
5. An RF level offset of 21 dB was used on the spectrum analyser to compensate for the attenuator and cable loss.



**Transmitter 26 dB Emission Bandwidth (continued)**

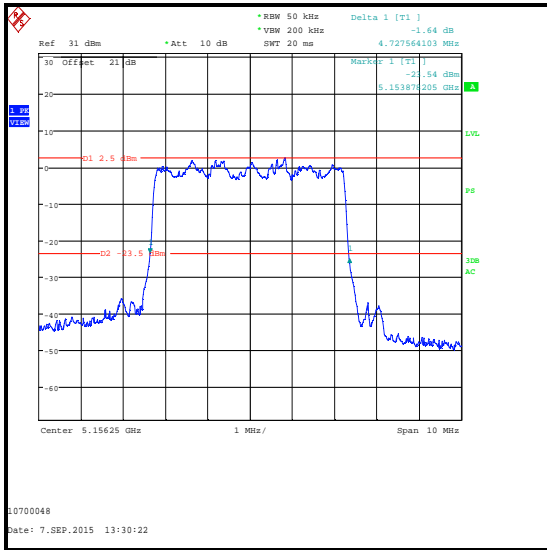
**Test setup for bandwidth measurements:**



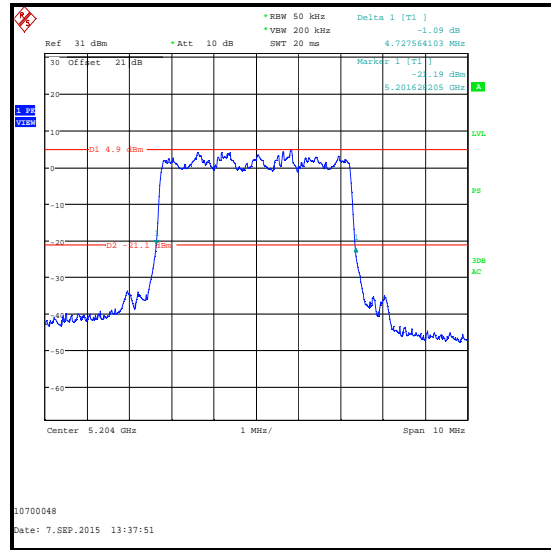
**Transmitter 26 dB Emission Bandwidth (continued)**

**Results: 5.15-5.25 GHz Band / 5 MHz Channel / BPSK / H Port**

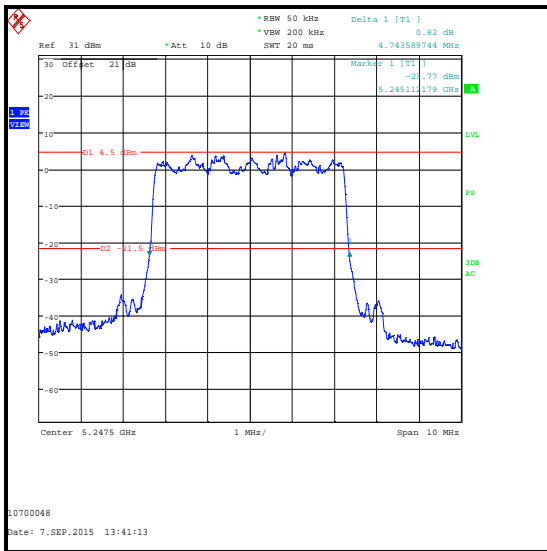
Channel	Frequency	Modulation	Resolution Bandwidth (kHz)	Video Bandwidth (kHz)	26 dB Bandwidth (MHz)
Bottom	5156.25	BPSK	50	200	4.728
Middle	5204	BPSK	50	200	4.728
Top	5247.5	BPSK	50	200	4.744



**Bottom Channel**



**Middle Channel**

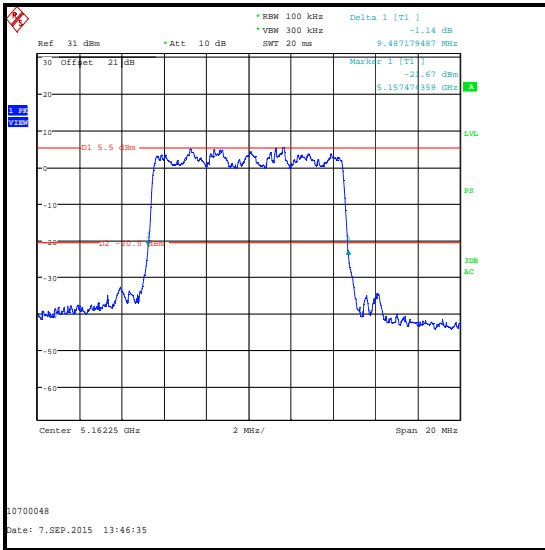


**Top Channel**

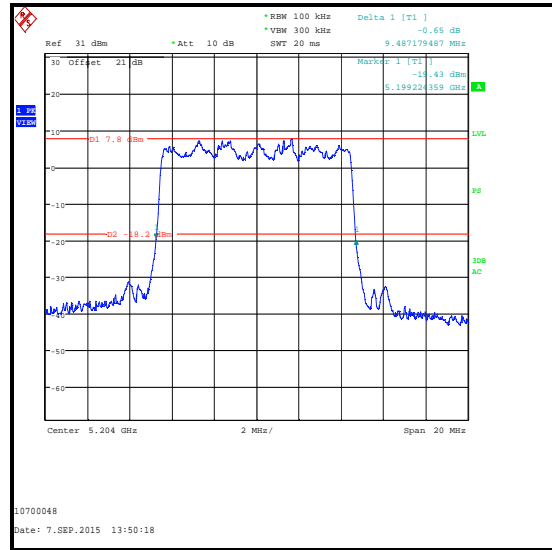
**Transmitter 26 dB Emission Bandwidth (continued)**

**Results: 5.15-5.25 GHz Band / 10 MHz Channel / BPSK / H Port**

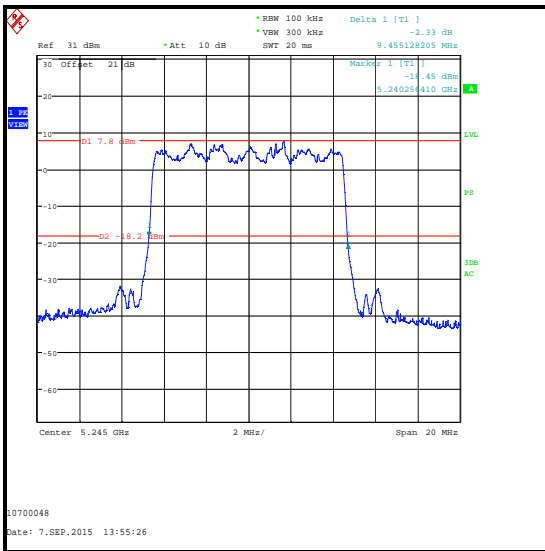
Channel	Frequency	Modulation	Resolution Bandwidth (kHz)	Video Bandwidth (kHz)	26 dB Bandwidth (MHz)
Bottom	5162.25	BPSK	100	300	9.487
Middle	5204	BPSK	100	300	9.487
Top	5245	BPSK	100	300	9.455



**Bottom Channel**



**Middle Channel**

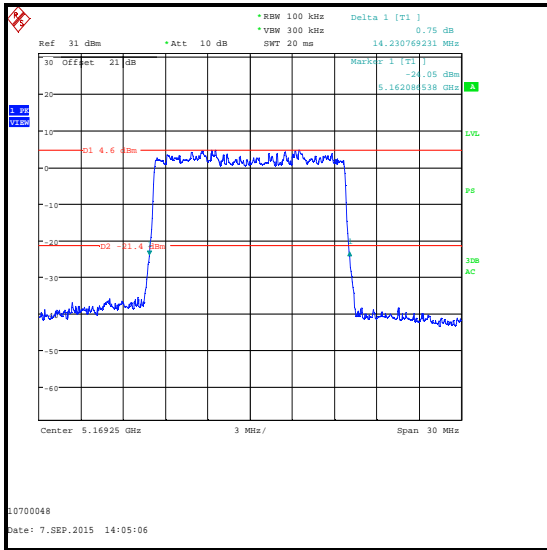


**Top Channel**

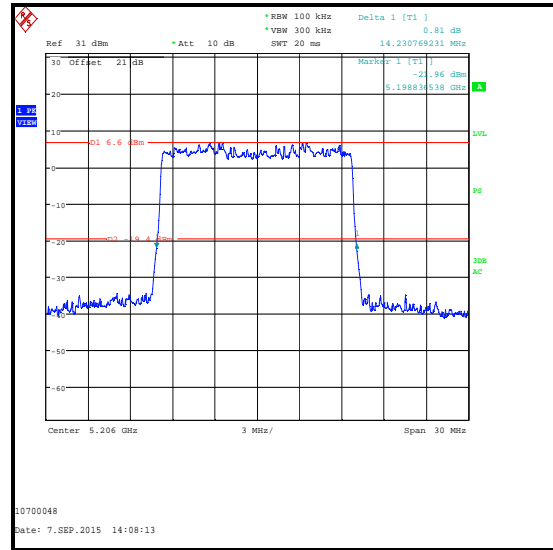
**Transmitter 26 dB Emission Bandwidth (continued)**

**Results: 5.15-5.25 GHz Band / 15 MHz Channel / BPSK / H Port**

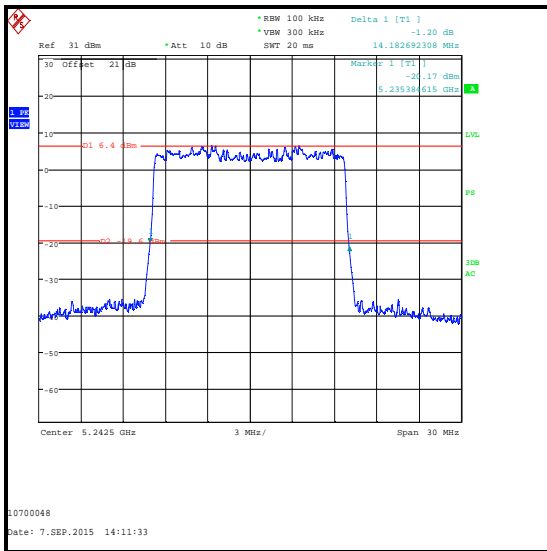
Channel	Frequency	Modulation	Resolution Bandwidth (kHz)	Video Bandwidth (kHz)	26 dB Bandwidth (MHz)
Bottom	5169.25	BPSK	100	300	14.231
Middle	5206	BPSK	100	300	14.231
Top	5242.5	BPSK	100	300	14.183



**Bottom Channel**



**Middle Channel**

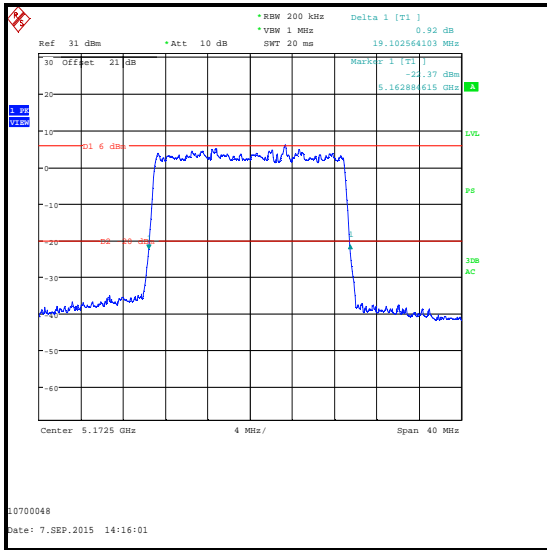


**Top Channel**

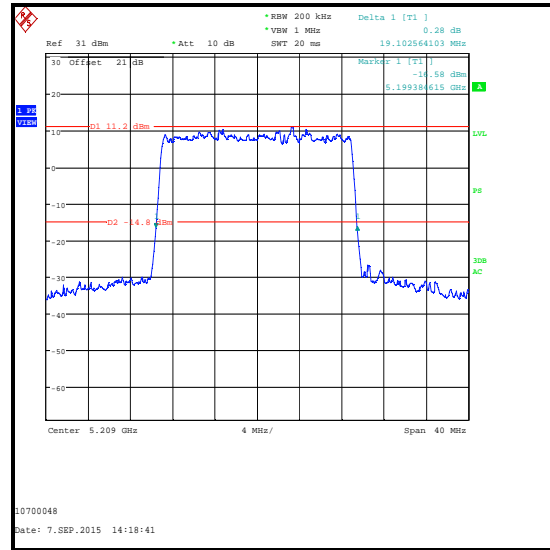
**Transmitter 26 dB Emission Bandwidth (continued)**

**Results: 5.15-5.25 GHz Band / 20 MHz Channel / BPSK / H Port**

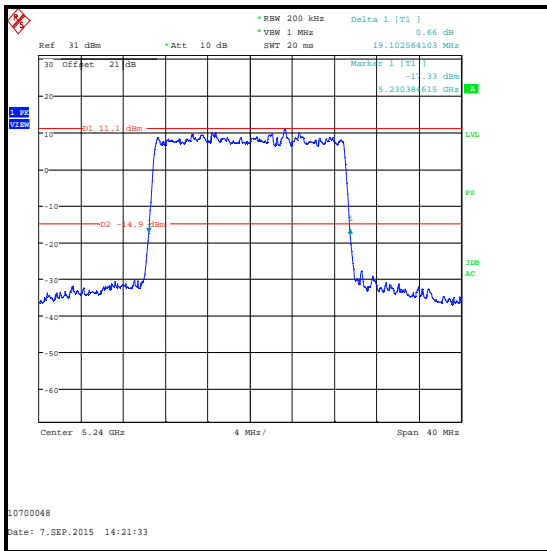
Channel	Frequency	Modulation	Resolution Bandwidth (kHz)	Video Bandwidth (kHz)	26 dB Bandwidth (MHz)
Bottom	5172.5	BPSK	200	1000	19.103
Middle	5209	BPSK	200	1000	19.103
Top	5240	BPSK	200	1000	19.103



**Bottom Channel**



**Middle Channel**

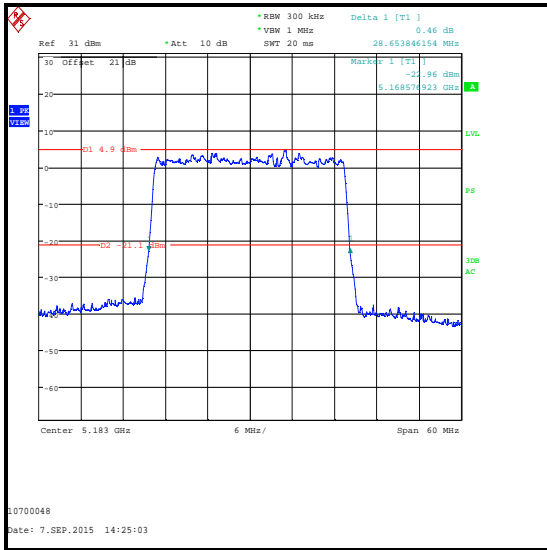


**Top Channel**

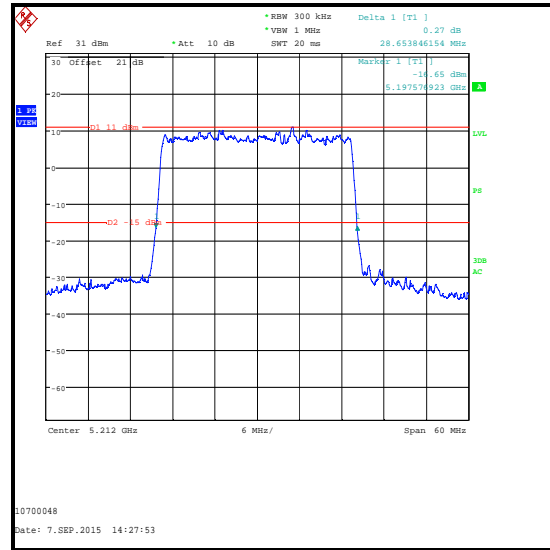
**Transmitter 26 dB Emission Bandwidth (continued)**

**Results: 5.15-5.25 GHz Band / 30 MHz Channel / BPSK / H Port**

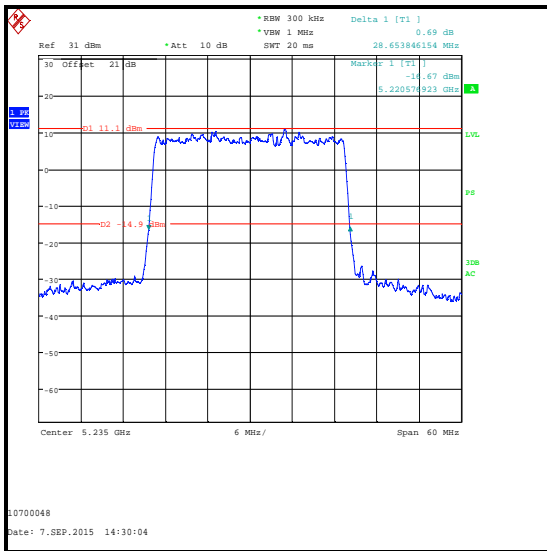
Channel	Frequency	Modulation	Resolution Bandwidth (kHz)	Video Bandwidth (kHz)	26 dB Bandwidth (MHz)
Bottom	5183	BPSK	300	1000	28.654
Middle	5212	BPSK	300	1000	28.654
Top	5235	BPSK	300	1000	28.654



**Bottom Channel**



**Middle Channel**



**Top Channel**

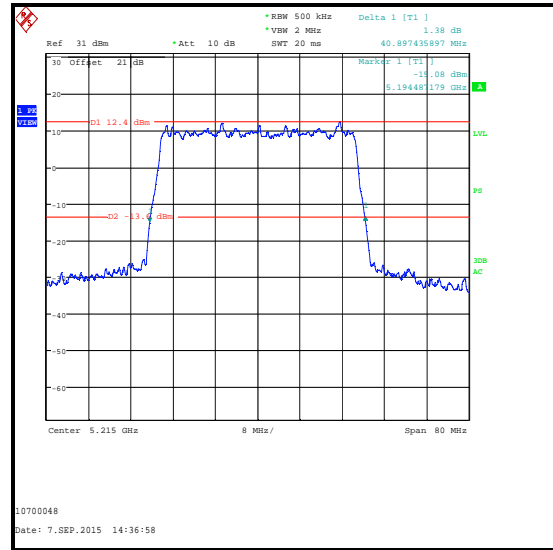
**Transmitter 26 dB Emission Bandwidth (continued)**

**Results: 5.15-5.25 GHz Band / 40 MHz Channel / BPSK / H Port**

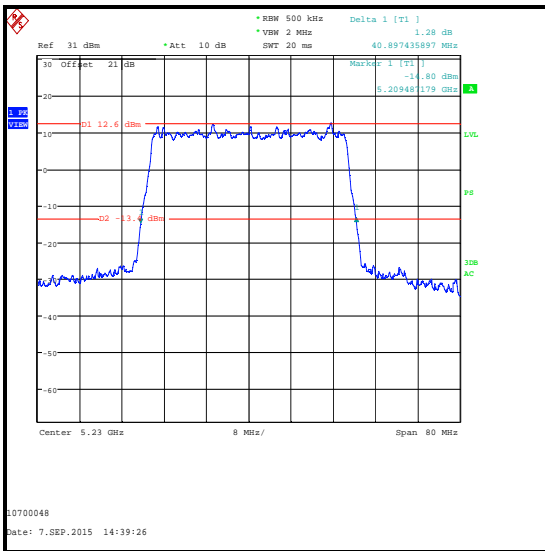
Channel	Frequency	Modulation	Resolution Bandwidth (kHz)	Video Bandwidth (kHz)	26 dB Bandwidth (MHz)
Bottom	5193	BPSK	500	2000	40.897
Middle	5215	BPSK	500	2000	40.897
Top	5230	BPSK	500	2000	40.897



**Bottom Channel**



**Middle Channel**

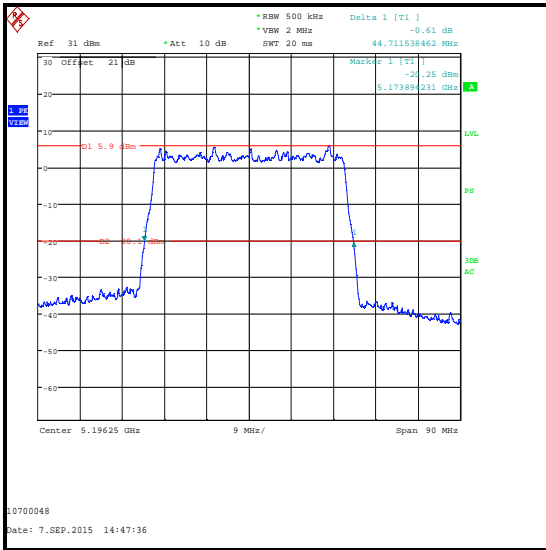


**Top Channel**

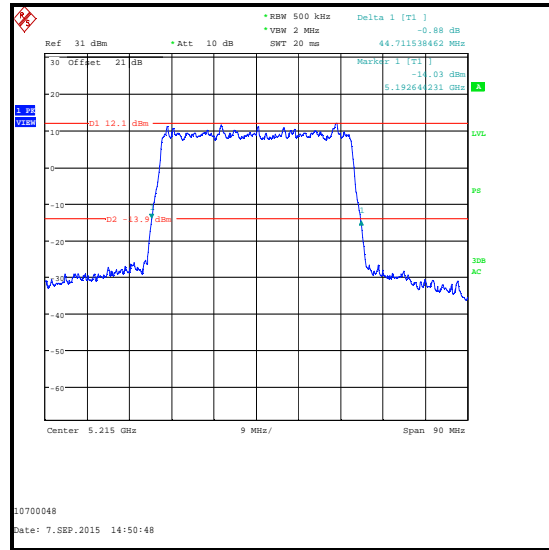
**Transmitter 26 dB Emission Bandwidth (continued)**

**Results: 5.15-5.25 GHz Band / 45 MHz Channel / BPSK / H Port**

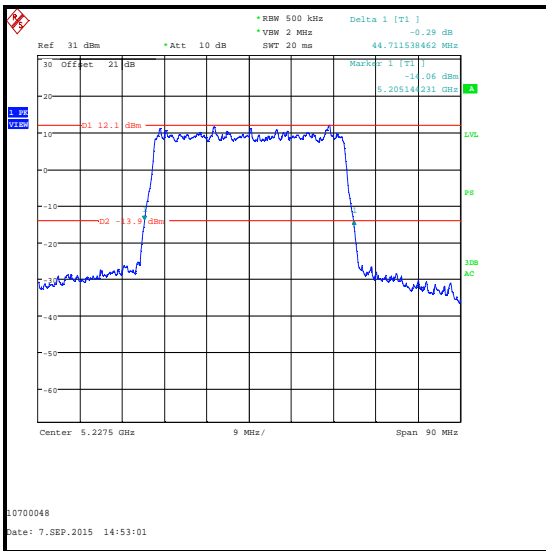
Channel	Frequency	Modulation	Resolution Bandwidth (kHz)	Video Bandwidth (kHz)	26 dB Bandwidth (MHz)
Bottom	5196.25	BPSK	500	2000	44.712
Middle	5215	BPSK	500	2000	44.712
Top	5227.5	BPSK	500	2000	44.712



**Bottom Channel**



**Middle Channel**



**Top Channel**



**Transmitter 26 dB Emission Bandwidth (continued)****Test Equipment Used:**

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
A2527	Attenuator	AtlanTecRF	AN18W5-20	832828#2	Calibrated Before Use	N/A
M1886	Test Receiver	Rohde & Schwarz	ESU26	100554	21 May 2016	12
G0608	Signal Generator	Rohde & Schwarz	SMIQ 06B	838341/033	01 Apr 2016	12
M1785	Thermohygrometer	JM Handelspunkt	30.5015.13	None stated	23 Apr 2016	12

**5.2.3. Transmitter Maximum Conducted Output Power (5.15-5.25 GHz Band)****Test Summary:**

<b>Test Engineer:</b>	Georgios Vrezas	<b>Test Dates:</b>	07 September 2015 & 23 September 2015
<b>Test Sample Serial Number:</b>	0004565800E2		

<b>FCC Reference:</b>	Part 15.407(a)(1)
<b>Test Method Used:</b>	FCC KDB 789033 Section II.E.3.a) Method PM and Notes below

**Environmental Conditions:**

<b>Temperature (°C):</b>	24 to 25
<b>Relative Humidity (%):</b>	39 to 53

**Note(s):**

- Tests were performed with the EUT transmitting at its maximum power control level for the 4' parabolic antenna, the sectorised antenna and the omnidirectional antenna. The EUT was transmitting with >99% duty cycle. Various other antennas can be used and the manufacturer stated that they will reduce the maximum configurable output power by the amount in dB that the directional gain of the antenna exceeds 6 dBi for point-to-multipoint antennas and 23 dBi for point-to-point antennas. The three different types of antenna tested have different conducted output power limits.
- The maximum conducted output power limit for the parabolic antenna (point-to-point) was recalculated as:
 
$$34.5 \text{ dBi (antenna gain)} - 0.9 \text{ dB (cable loss)} = 33.6 \text{ dBi}$$

$$\text{Gain above 23 dBi} = 10.6 \text{ dB}$$

$$30 \text{ dBm (limit)} - 10.6 \text{ dB} = 19.4 \text{ dBm}$$

$$\text{The 30 dBm limit was reduced by 10.6 dB to 19.4 dBm}$$
- The maximum conducted output power limit for the sectorised antenna (point-to-multipoint) was recalculated as:
 
$$17 \text{ dBi (antenna gain)} - 0.9 \text{ dB (cable loss)} = 16.1 \text{ dBi}$$

$$\text{Gain above 6 dBi} = 10.1 \text{ dB}$$

$$30 \text{ dBm (limit)} - 10.1 \text{ dB} = 19.9 \text{ dBm}$$

$$\text{The 30 dBm limit was reduced by 10.1 dB to 19.9 dBm}$$
- The maximum conducted output power limit for the omnidirectional antenna (point-to-multipoint) was recalculated as:
 
$$13 \text{ dBi (antenna gain)} - 0.9 \text{ dB (cable loss)} = 12.1 \text{ dBi}$$

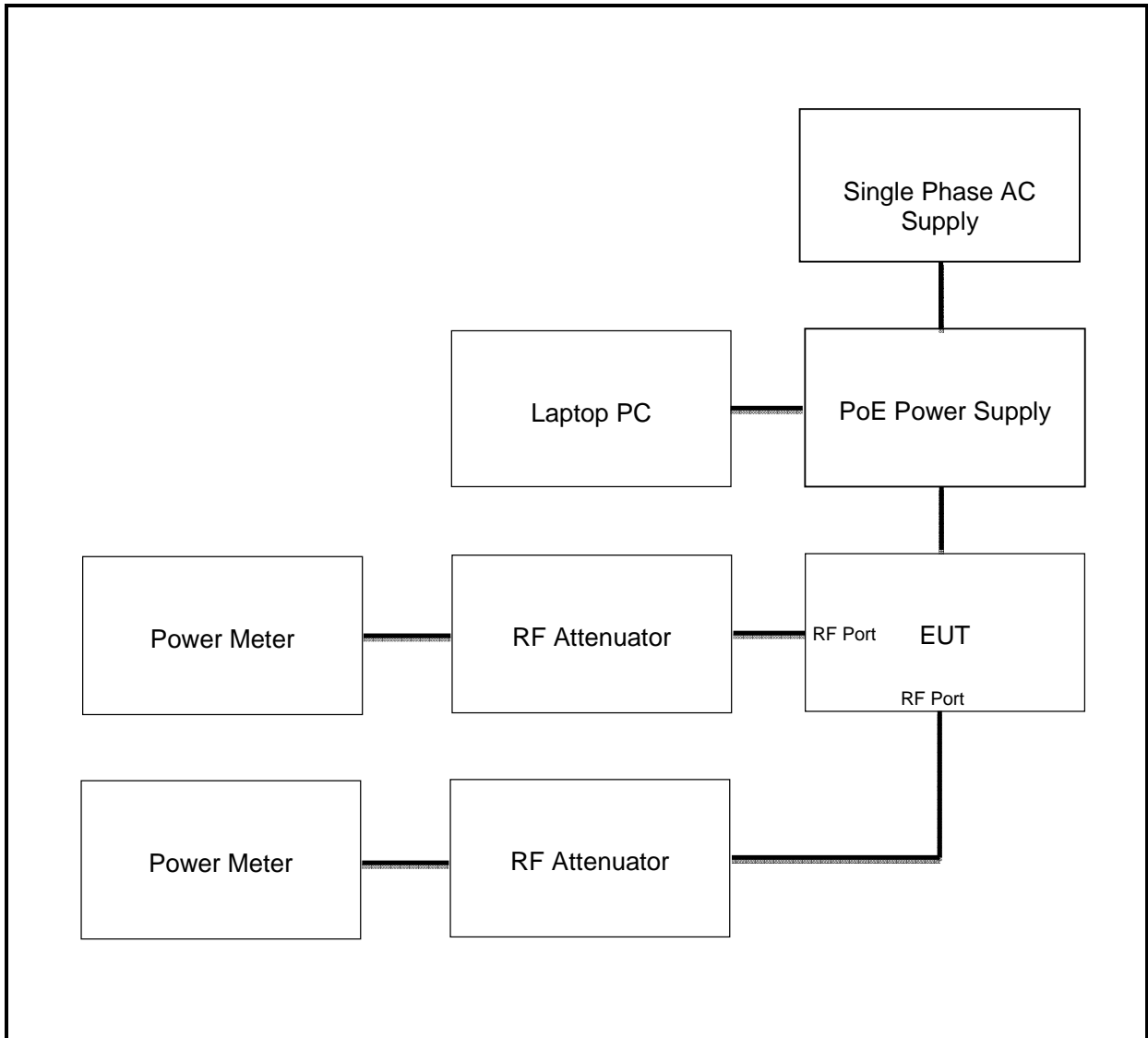
$$\text{Gain above 6 dBi} = 6.1 \text{ dB}$$

$$30 \text{ dBm (limit)} - 6.1 \text{ dB} = 23.9 \text{ dBm}$$

$$\text{The 30 dBm limit was reduced by 6.1 dB to 23.9 dBm}$$
- All supported modes and channel widths were initially investigated on one channel. The mode that produced the highest conducted power was BPSK. Final measurements were performed on the bottom, middle and top channels in all supported channel bandwidths.
- A power meter and associated power sensor were connected to each RF port on the EUT using suitable attenuation. The attenuators were calibrated before use and an RF level offset was entered on the power meters to compensate for the attenuation. The measurement results for both ports were linearly combined and compared to the applicable limit to obtain the margin

**Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)**

**Test setup for conducted power measurements:**



**Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)****Results: 5 MHz Channel / BPSK / Parabolic Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	0.8	1.5	4.2	19.4	15.2	Complied
Middle	3.0	4.2	6.7	19.4	12.7	Complied
Top	2.4	4.6	6.6	19.4	12.8	Complied

**Results: 5 MHz Channel / BPSK / Sectorised Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	5.9	6.5	9.2	19.9	10.7	Complied
Middle	7.9	8.9	11.4	19.9	8.5	Complied
Top	7.4	9.2	11.4	19.9	8.5	Complied

**Results: 5 MHz Channel / BPSK / Omnidirectional Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	10.1	10.4	13.3	23.9	10.6	Complied
Middle	12.3	13.2	15.8	23.9	8.1	Complied
Top	11.8	13.4	15.7	23.9	8.2	Complied

**Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)****Results: 10 MHz Channel / BPSK / Parabolic Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	-3.2	-2.6	0.1	19.4	19.3	Complied
Middle	1.9	3.2	5.6	19.4	13.8	Complied
Top	1.4	3.6	5.6	19.4	13.8	Complied

**Results: 10 MHz Channel / BPSK / Sectorised Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	8.5	8.9	11.7	19.9	8.2	Complied
Middle	10.7	11.6	14.2	19.9	5.7	Complied
Top	10.3	12.0	14.2	19.9	5.7	Complied

**Results: 10 MHz Channel / BPSK / Omnidirectional Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	13.1	13.5	16.3	23.9	7.6	Complied
Middle	15.4	16.1	18.8	23.9	5.1	Complied
Top	14.9	16.3	18.7	23.9	5.2	Complied

**Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)****Results: 15 MHz Channel / BPSK / Parabolic Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	4.6	5.4	8.0	19.4	11.4	Complied
Middle	10.1	11.0	13.6	19.4	5.8	Complied
Top	9.6	11.5	13.7	19.4	5.7	Complied

**Results: 15 MHz Channel / BPSK / Sectorised Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	8.5	8.9	11.7	19.9	8.2	Complied
Middle	10.7	11.6	14.2	19.9	5.7	Complied
Top	10.2	11.9	14.1	19.9	5.8	Complied

**Results: 15 MHz Channel / BPSK / Omnidirectional Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	15.1	15.3	18.2	23.9	5.7	Complied
Middle	17.0	17.8	20.4	23.9	3.5	Complied
Top	16.7	18.0	20.4	23.9	3.5	Complied

**Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)****Results: 20 MHz Channel / BPSK / Parabolic Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	6.0	7.3	9.7	19.4	9.7	Complied
Middle	9.1	10.1	12.6	19.4	6.8	Complied
Top	8.7	10.4	12.6	19.4	6.8	Complied

**Results: 20 MHz Channel / BPSK / Sectorised Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	5.4	6.0	8.7	19.9	11.2	Complied
Middle	10.6	11.6	14.1	19.9	5.8	Complied
Top	10.3	12.0	14.2	19.9	5.7	Complied

**Results: 20 MHz Channel / BPSK / Omnidirectional Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	13.1	13.4	16.3	23.9	7.6	Complied
Middle	18.5	19.1	21.8	23.9	2.1	Complied
Top	18.0	19.3	21.7	23.9	2.2	Complied

**Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)****Results: 30 MHz Channel / BPSK / Parabolic Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	3.8	5.2	7.6	19.4	11.8	Complied
Middle	10.0	11.1	13.6	19.4	5.8	Complied
Top	9.9	11.0	13.5	19.4	5.9	Complied

**Results: 30 MHz Channel / BPSK / Sectorised Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	4.4	5.6	8.1	19.9	11.8	Complied
Middle	10.6	11.6	14.1	19.9	5.8	Complied
Top	10.7	11.6	14.2	19.9	5.7	Complied

**Results: 30 MHz Channel / BPSK / Omnidirectional Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	12.2	13.1	15.7	23.9	8.2	Complied
Middle	18.4	18.9	21.7	23.9	2.2	Complied
Top	18.4	19.0	21.7	23.9	2.2	Complied



**Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)****Results: 40 MHz Channel / BPSK / Parabolic Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	0.8	2.3	4.6	19.4	14.8	Complied
Middle	10.0	11.1	13.6	19.4	5.8	Complied
Top	9.9	11.1	13.6	19.4	5.8	Complied

**Results: 40 MHz Channel / BPSK / Sectorised Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	4.4	5.6	8.1	19.9	11.8	Complied
Middle	10.7	11.6	14.2	19.9	5.7	Complied
Top	10.6	11.5	14.1	19.9	5.8	Complied

**Results: 40 MHz Channel / BPSK / Omnidirectional Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	12.3	13.1	15.7	23.9	8.2	Complied
Middle	18.4	19.1	21.8	23.9	2.1	Complied
Top	18.4	19.0	21.7	23.9	2.2	Complied

**Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)****Results: 45 MHz Channel / BPSK / Parabolic Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	0.8	2.3	4.6	19.4	14.8	Complied
Middle	10.0	11.1	13.6	19.4	5.8	Complied
Top	10.0	11.1	13.6	19.4	5.8	Complied

**Results: 45 MHz Channel / BPSK / Sectorised Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	4.4	5.6	8.1	19.9	11.8	Complied
Middle	10.6	11.6	14.1	19.9	5.8	Complied
Top	10.7	11.5	14.1	19.9	5.8	Complied

**Results: 45 MHz Channel / BPSK / Omnidirectional Antenna**

Channel	Conducted Power H Port (dBm)	Conducted Power V Port (dBm)	Combined Conducted Power (dBm)	Conducted Power Limit (dBm)	Margin (dB)	Result
Bottom	12.3	13.1	15.7	23.9	8.2	Complied
Middle	18.3	18.9	21.6	23.9	2.3	Complied
Top	18.3	19.0	21.7	23.9	2.2	Complied

**Transmitter Maximum Output Power (5.15-5.25 GHz Band) (continued)****Test Equipment Used:**

Asset No.	Instrument	Manufacturer	Type No.	Serial No.	Date Calibration Due	Cal. Interval (Months)
M1435	Power Meter	Hewlett Packard	437B	3125U14631	24 Apr 2016	12
M1009	Power Meter	Hewlett Packard	437B	3125U13706	27 Jan 2016	12
M1147	Power Sensor	Hewlett Packard	8485A	2238A00928	03 Oct 2015	12
M1175	Power Sensor	Hewlett Packard	8485A	2942A10299	11 Feb 2016	12
A2142	Attenuator	AtlanTecRF	AN18-20	081120-23	Calibrated Before Use	N/A
A2527	Attenuator	AtlanTecRF	AN18W5-20	832828#2	Calibrated Before Use	N/A
A2139	Attenuator	AtlanTecRF	AN18-10	090918-04#1	Calibrated Before Use	N/A
A2140	Attenuator	AtlanTecRF	AN18-10	090918-14	Calibrated Before Use	N/A
G0608	Signal Generator	Rohde & Schwarz	SMIQ 06B	838341/033	01 Apr 2016	12
M1785	Thermohygrometer	JM Handelspunkt	30.5015.13	None stated	23 Apr 2016	12

**5.2.4. Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band)****Test Summary:**

<b>Test Engineers:</b>	Georgios Vrezas & Philip Harrison	<b>Test Dates:</b>	07 September 2015 to 06 October 2015
<b>Test Sample Serial Number:</b>	0004565800E2		

<b>FCC Reference:</b>	Part 15.407(a)(1)
<b>Test Method Used:</b>	FCC KDB 789033 II.F referencing KDB 789033 II.E.2.b Method SA-1 and Notes below

**Environmental Conditions:**

<b>Temperature (°C):</b>	23 to 25
<b>Relative Humidity (%):</b>	39 to 53

**Note(s):**

- Tests were performed with the EUT transmitting at its maximum power control level for the 4' parabolic antenna, the sectorised antenna and the omnidirectional antenna. The EUT was transmitting with >99% duty cycle. Various other antennas can be used and the manufacturer will reduce the maximum configurable output power by the amount in dB that the directional gain of the antenna exceeds 6 dBi for point-to-multipoint antennas and 23 dBi for point-to-point antennas. The three different types of antenna tested have different PSD limits.
- The maximum power spectral density limit for the parabolic antenna (highest gain, point-to-point) was recalculated as:
 
$$34.5 \text{ dBi (antenna gain)} - 0.9 \text{ dB (cable loss)} = 33.6 \text{ dBi}$$

$$\text{Gain above 23 dBi} = 10.6 \text{ dB}$$

$$17 \text{ dBm/MHz (limit)} - 10.6 \text{ dB} = 6.4 \text{ dBm/MHz}$$

The 17 dBm/MHz PSD limit was reduced by 10.6 dB to 6.4 dBm/MHz
- The maximum power spectral density limit for the sectorised antenna (point-to-multipoint) was recalculated as:
 
$$17 \text{ dBi (antenna gain)} - 0.9 \text{ dB (cable loss)} = 16.1 \text{ dBi}$$

$$\text{Gain above 6 dBi} = 10.1 \text{ dB}$$

$$17 \text{ dBm/MHz (limit)} - 10.1 \text{ dB} = 6.9 \text{ dBm/MHz}$$

The 17 dBm/MHz PSD limit was reduced by 10.1 dB to 6.9 dBm/MHz
- The maximum power spectral density limit for the omnidirectional antenna (point-to-multipoint) was recalculated as:
 
$$13 \text{ dBi (antenna gain)} - 0.9 \text{ dB (cable loss)} = 12.1 \text{ dBi}$$

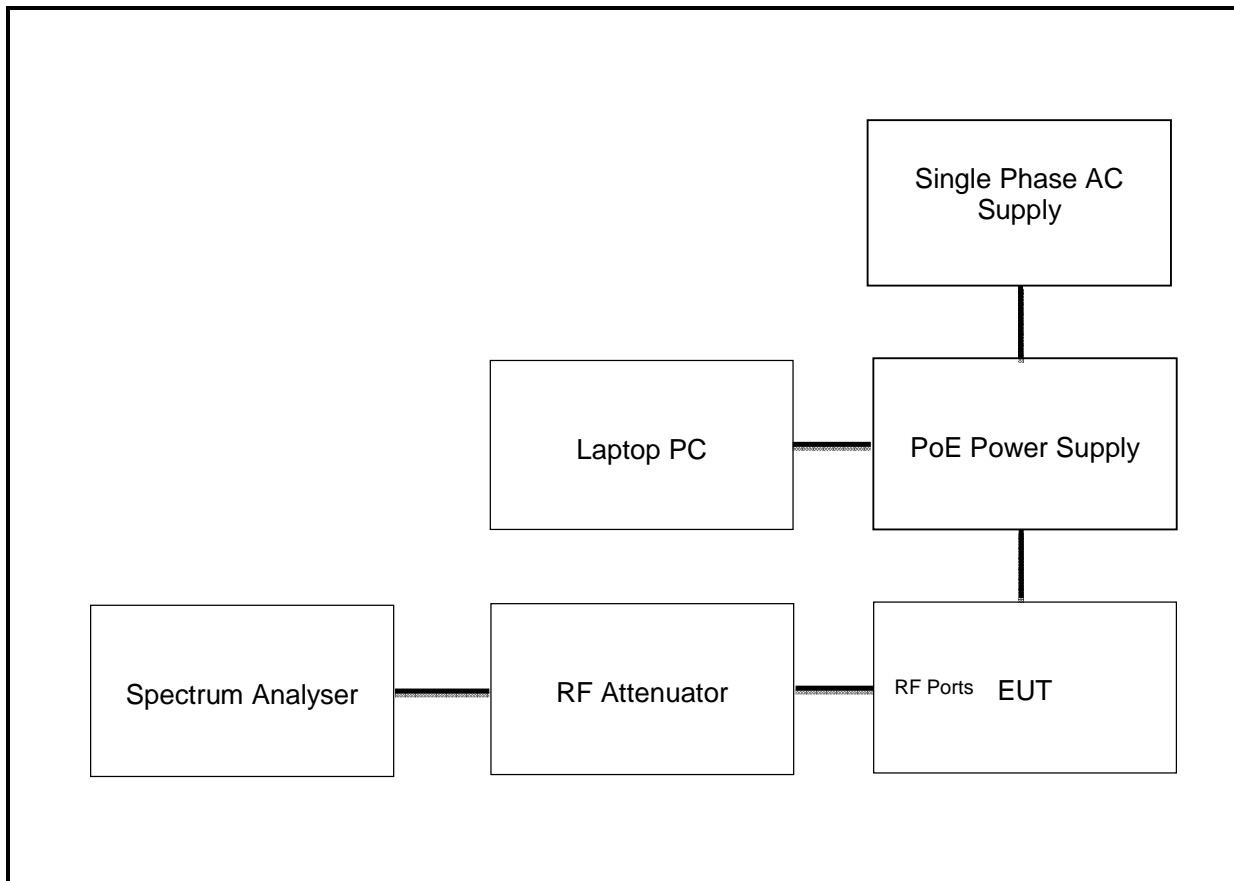
$$\text{Gain above 6 dBi} = 6.1 \text{ dB}$$

$$17 \text{ dBm/MHz (limit)} - 6.1 \text{ dB} = 10.9 \text{ dBm/MHz}$$

The 17 dBm/MHz PSD limit was reduced by 6.1 dB to 10.9 dBm/MHz
- All supported modes and channel widths were initially investigated on one channel. Final measurements were performed using the worst case modulation type for each modulation family on the bottom, middle and top channels in all supported channel bandwidths. Power Spectral Density was also checked in AQU mode using power settings stated in Section 4.2 of this test report and additional results are included in this section where the measured level in AQU mode exceeds the level measured in a modulated mode. Maximum power spectral density was measured on both RF ports. The results were linearly combined and compared to the limit to obtain the margin.
- The spectrum analyser was connected to each RF port on the EUT using suitable attenuation and RF cable. An RF level offset was entered on the spectrum analyser to compensate for the loss of the attenuator and RF cable.

**Transmitter Maximum Power Spectral Density (continued)**

**Test setup for power spectral density measurements:**

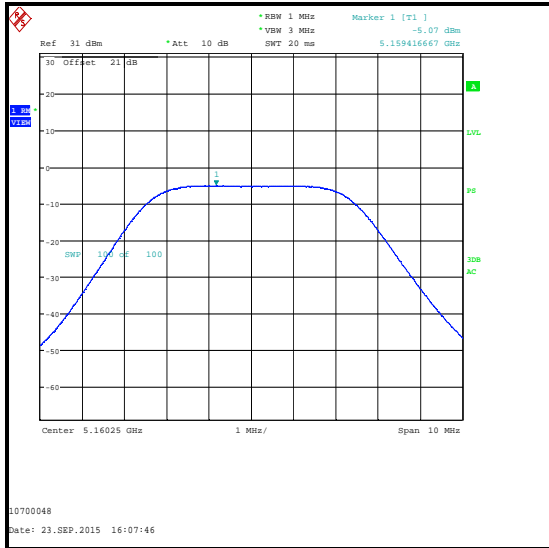


**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

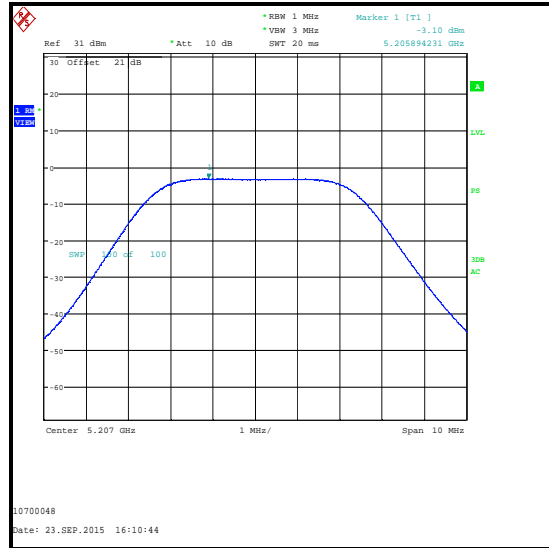
**Results: Parabolic Antenna / 5 MHz Channel / BPSK**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-5.1	-4.2	-1.6	6.4	8.0	Complied
Middle	-3.1	-1.5	0.8	6.4	5.6	Complied
Top	-3.6	-0.9	1.0	6.4	5.4	Complied

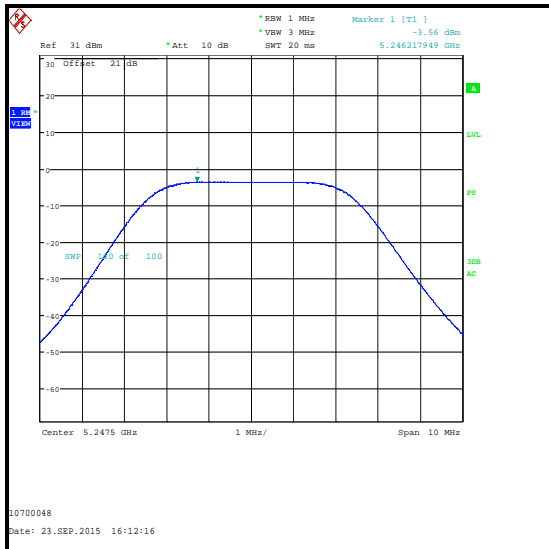
**H Port**



**Bottom Channel**



**Middle Channel**

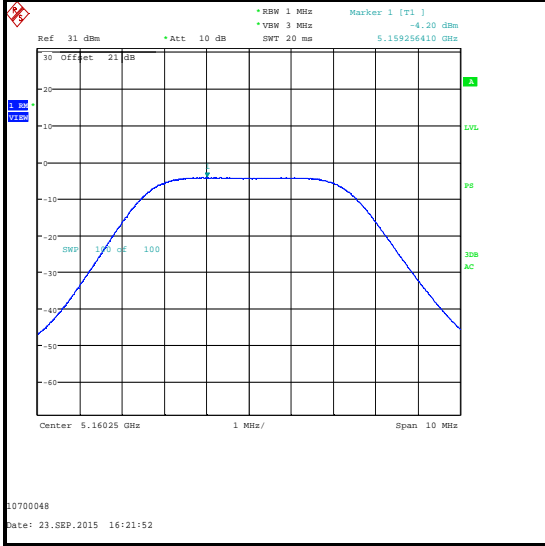


**Top Channel**

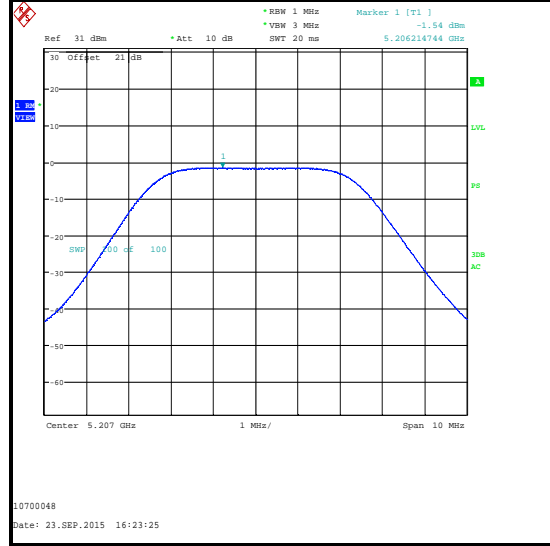
**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 5 MHz Channel / BPSK**

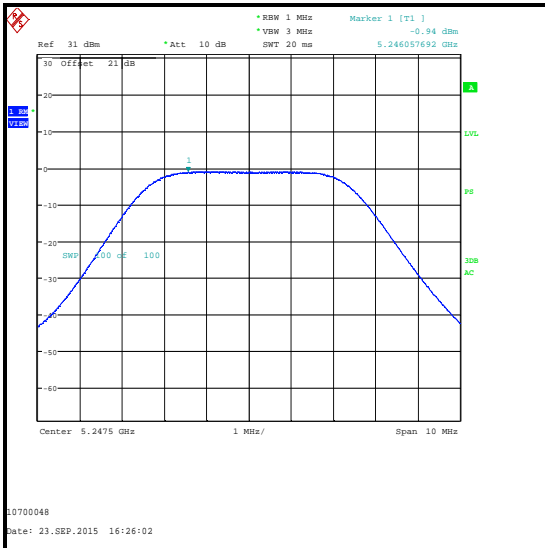
**V Port**



**Bottom Channel**



**Middle Channel**



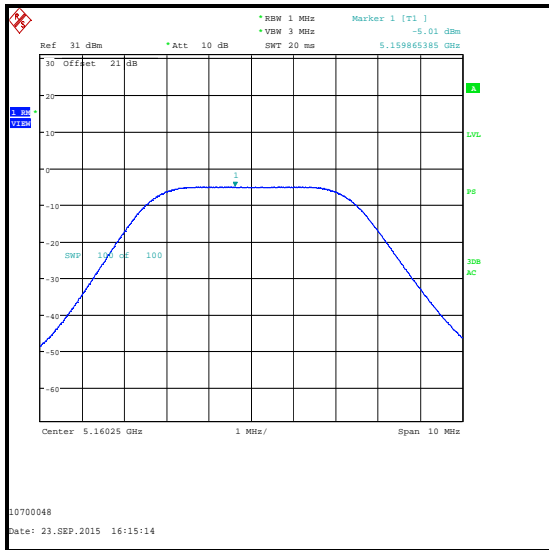
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

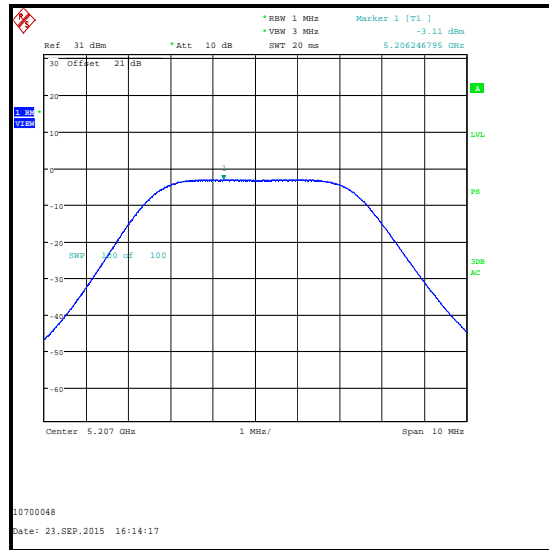
**Results: Parabolic Antenna / 5 MHz Channel / 256QAM**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-5.0	-4.2	-1.6	6.4	8.0	Complied
Middle	-3.1	-1.5	0.8	6.4	5.6	Complied
Top	-3.5	-1.0	0.9	6.4	5.5	Complied

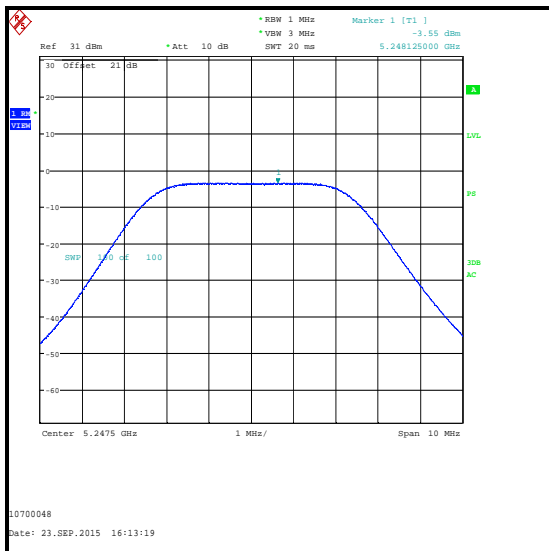
**H Port**



**Bottom Channel**



**Middle Channel**



**Top Channel**



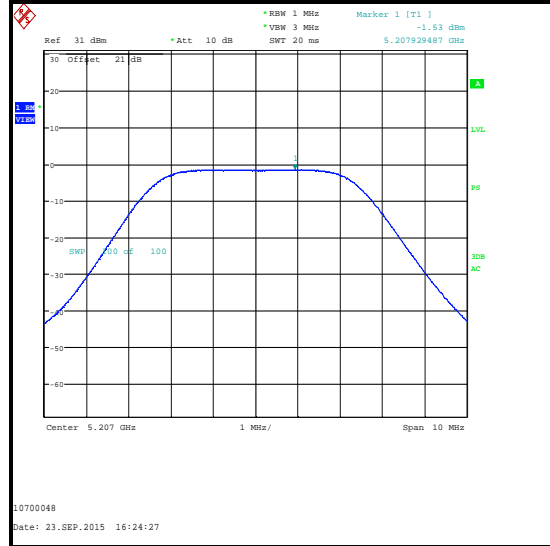
**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 5 MHz Channel / 256QAM**

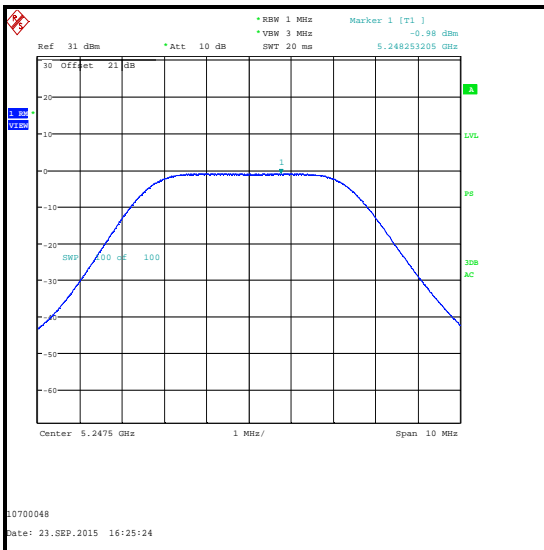
**V Port**



**Bottom Channel**



**Middle Channel**



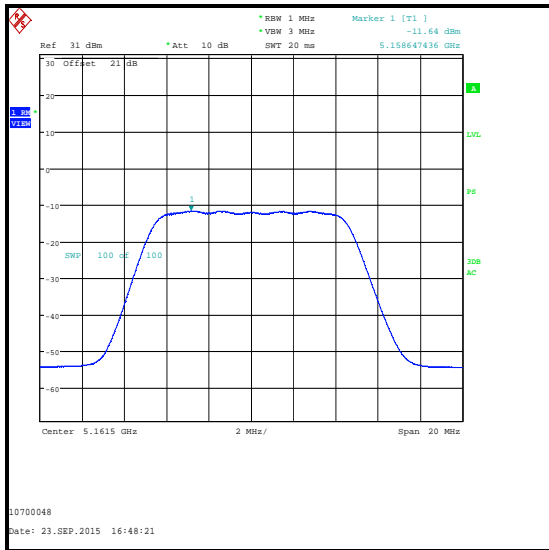
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

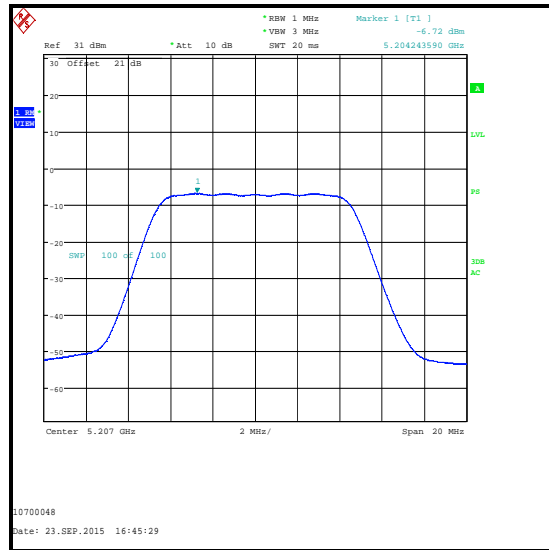
**Results: Parabolic Antenna / 10 MHz Channel / BPSK**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-11.6	-10.8	-8.2	6.4	14.6	Complied
Middle	-6.7	-5.1	-2.8	6.4	9.2	Complied
Top	-7.2	-4.6	-2.7	6.4	9.1	Complied

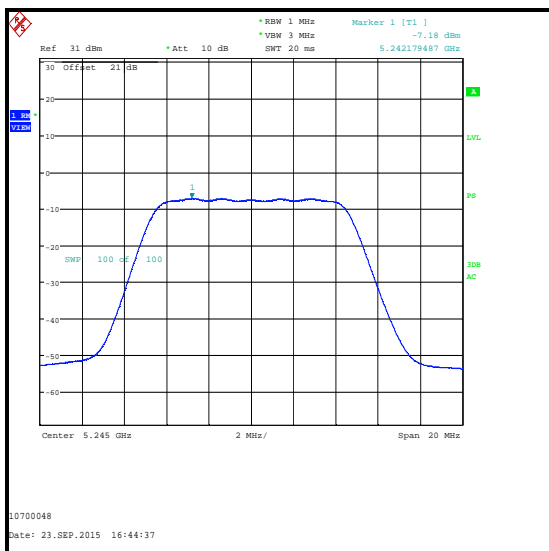
**H Port**



**Bottom Channel**



**Middle Channel**

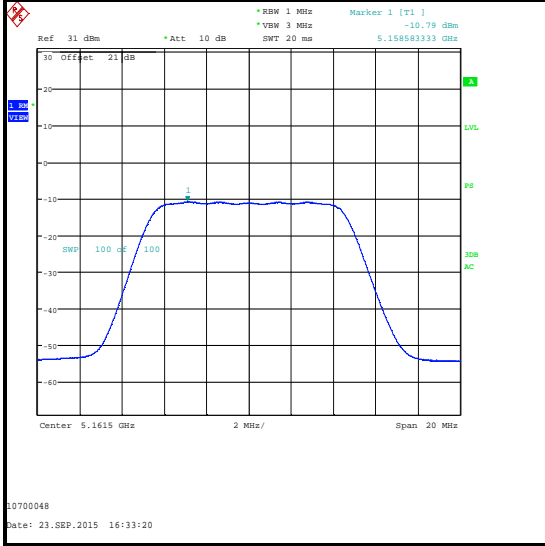


**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 10 MHz Channel / BPSK**

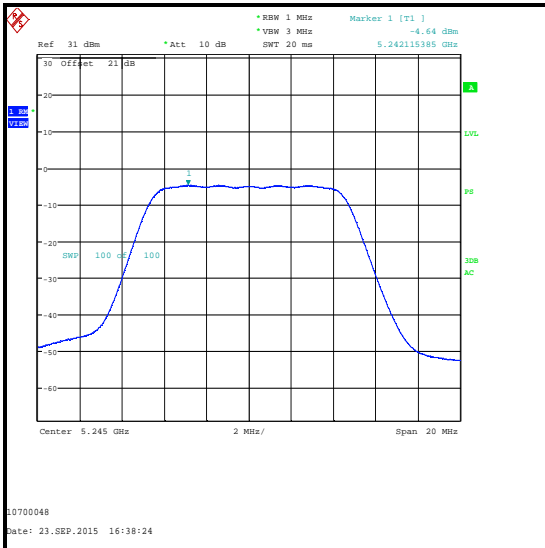
**V Port**



**Bottom Channel**



**Middle Channel**



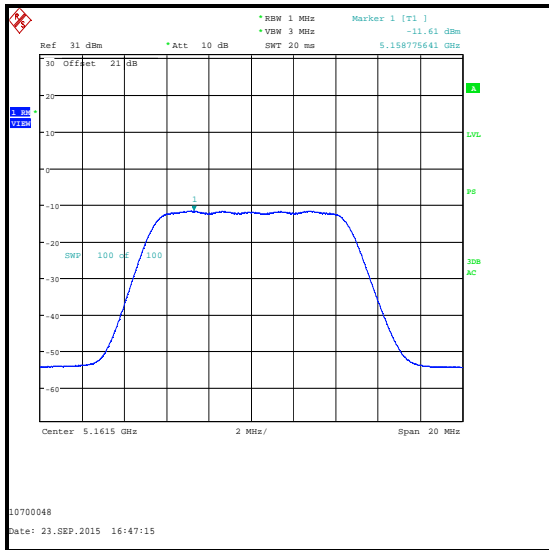
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

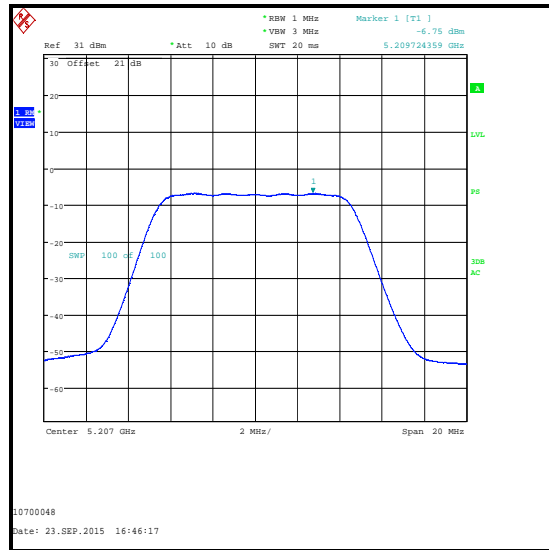
**Results: Parabolic Antenna / 10 MHz Channel / 256QAM**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-11.6	-10.8	-8.2	6.4	14.6	Complied
Middle	-6.7	-5.2	-2.9	6.4	9.3	Complied
Top	-7.2	-4.6	-2.7	6.4	9.1	Complied

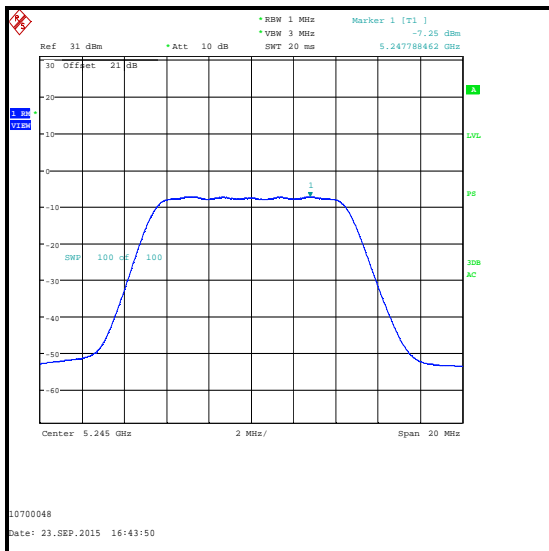
**H Port**



**Bottom Channel**



**Middle Channel**

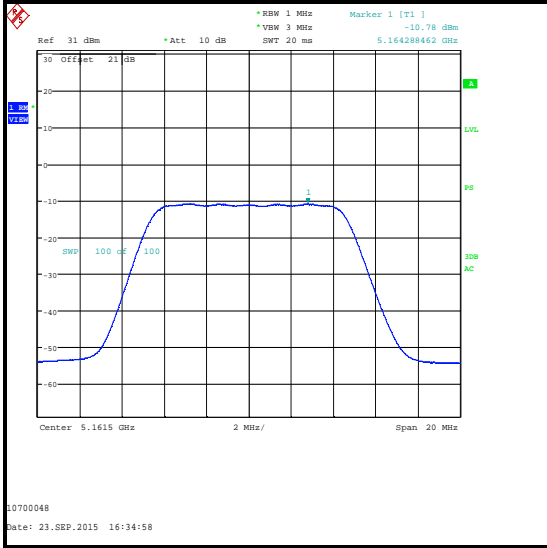


**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 10 MHz Channel / 256QAM**

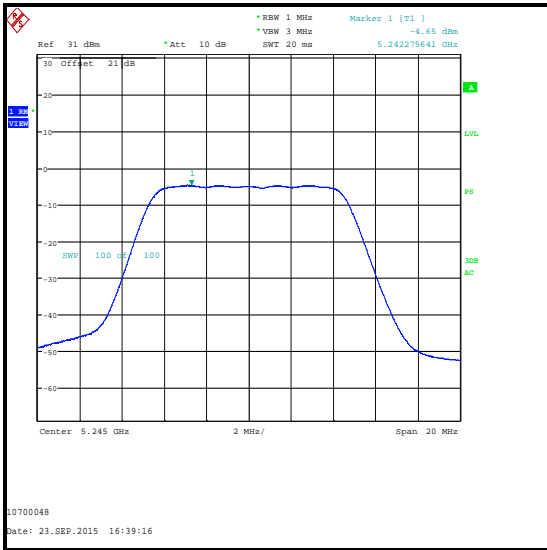
**V Port**



**Bottom Channel**



**Middle Channel**



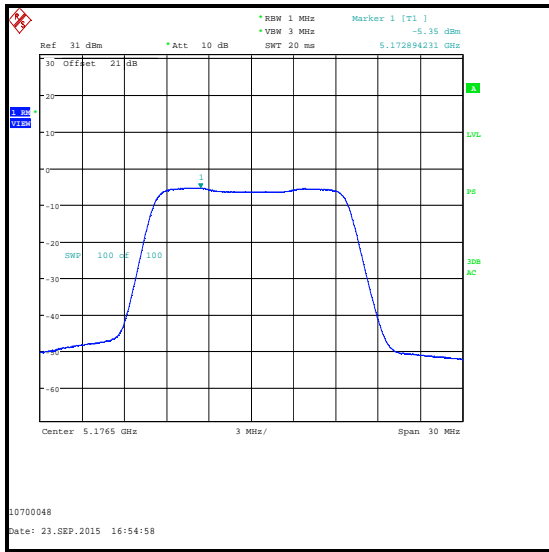
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 15 MHz Channel / BPSK**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-5.3	-4.5	-1.9	6.4	8.3	Complied
Middle	0.0	1.2	3.7	6.4	2.7	Complied
Top	-0.4	1.5	3.7	6.4	2.7	Complied

**H Port**



**Bottom Channel**



**Middle Channel**



**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 15 MHz Channel / BPSK**

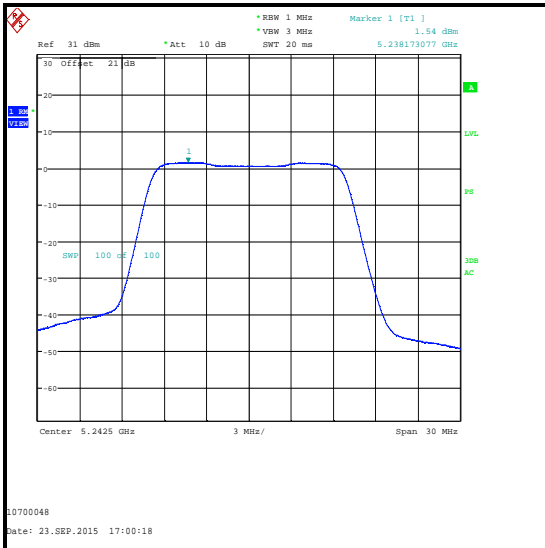
**V Port**



**Bottom Channel**



**Middle Channel**



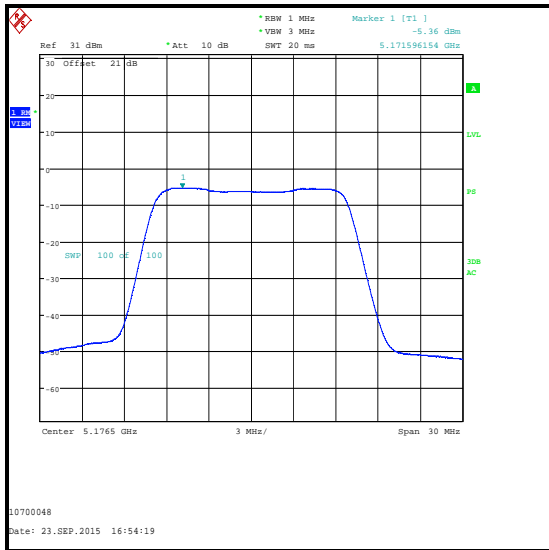
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

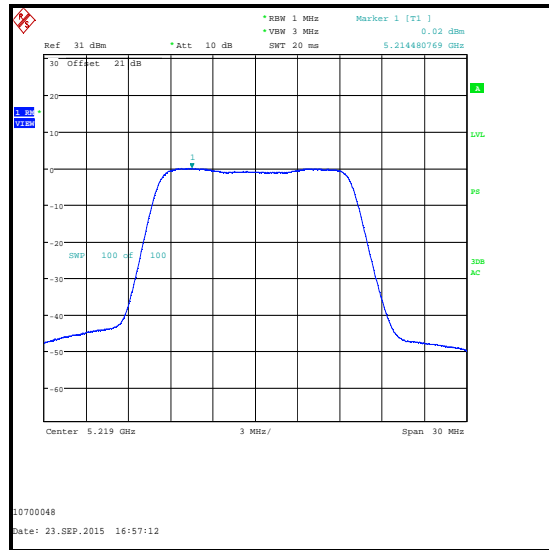
**Results: Parabolic Antenna / 15 MHz Channel / 256QAM**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-5.4	-4.4	-1.9	6.4	8.3	Complied
Middle	0.0	1.2	3.7	6.4	2.7	Complied
Top	-0.4	1.6	3.7	6.4	2.7	Complied

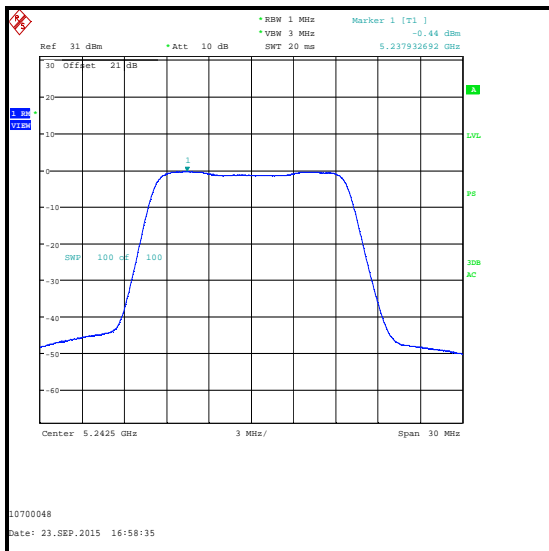
**H Port**



**Bottom Channel**



**Middle Channel**



**Top Channel**



**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 15 MHz Channel / 256QAM**

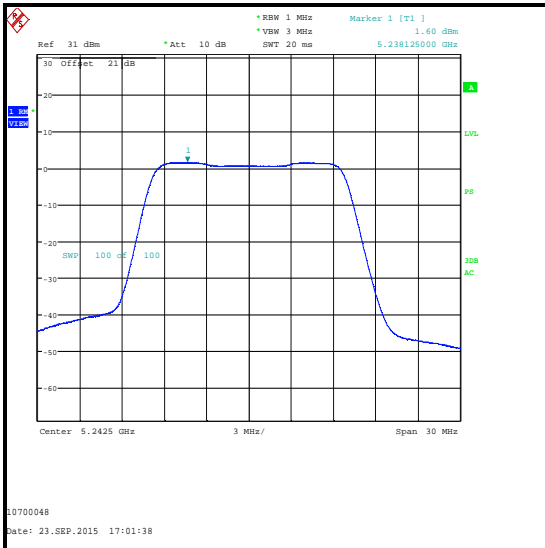
**V Port**



**Bottom Channel**



**Middle Channel**



**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

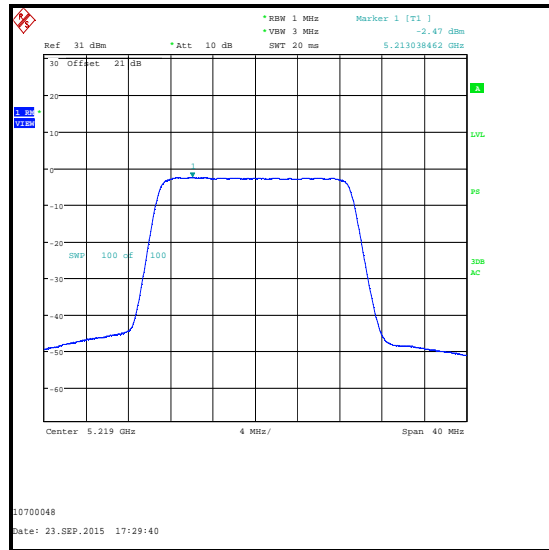
**Results: Parabolic Antenna / 20 MHz Channel / BPSK**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-5.5	-4.2	-1.8	6.4	8.2	Complied
Middle	-2.5	-1.3	1.2	6.4	5.2	Complied
Top	-2.8	-0.8	1.3	6.4	5.1	Complied

**H Port**



**Bottom Channel**



**Middle Channel**



**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 20 MHz Channel / BPSK**

**V Port**



**Bottom Channel**



**Middle Channel**



**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

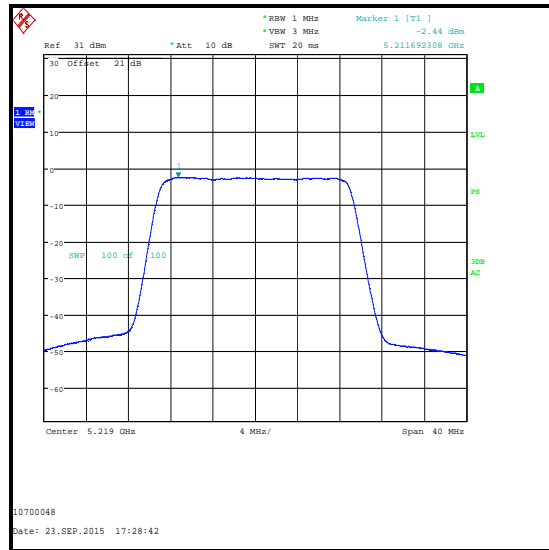
**Results: Parabolic Antenna / 20 MHz Channel / 256QAM**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-5.5	-4.1	-1.7	6.4	8.1	Complied
Middle	-2.4	-1.2	1.3	6.4	5.1	Complied
Top	-2.8	-0.8	1.3	6.4	5.1	Complied

**H Port**



**Bottom Channel**



**Middle Channel**

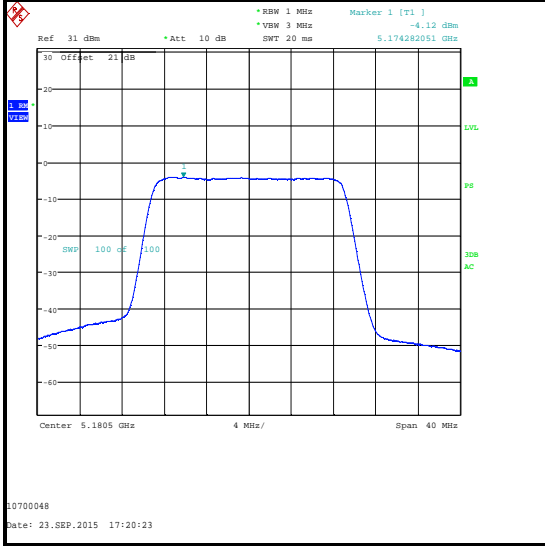


**Top Channel**

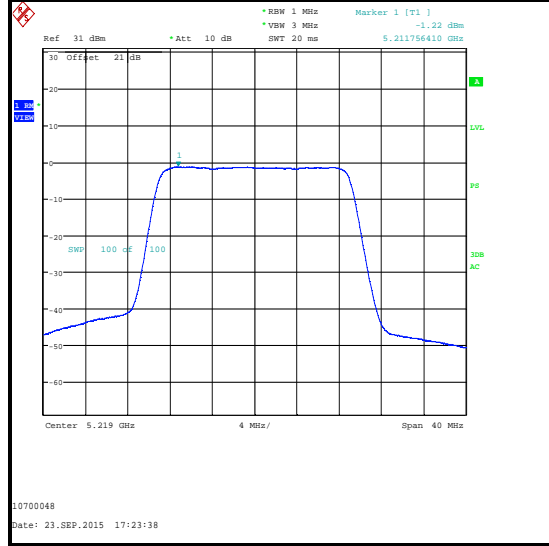
**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 20 MHz Channel / 256QAM**

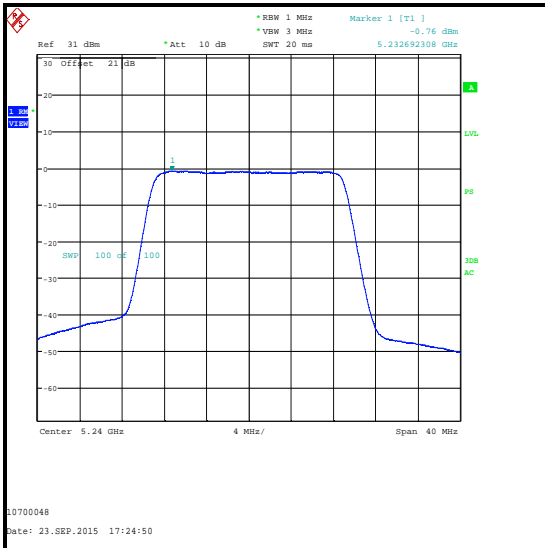
**V Port**



**Bottom Channel**



**Middle Channel**



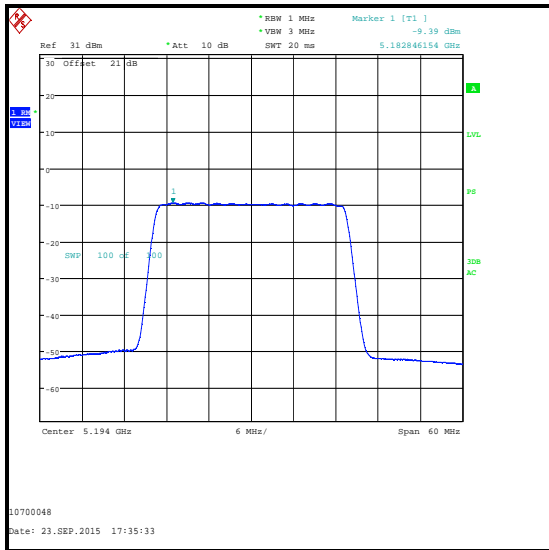
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

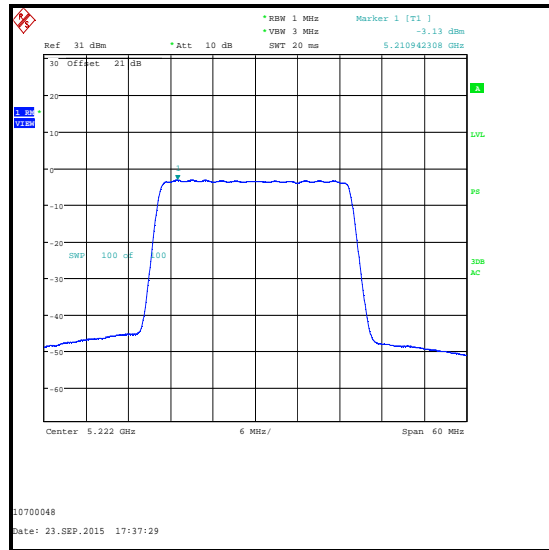
**Results: Parabolic Antenna / 30 MHz Channel / BPSK**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-9.4	-7.9	-5.6	6.4	12.0	Complied
Middle	-3.1	-2.0	0.5	6.4	5.9	Complied
Top	-3.1	-2.0	0.5	6.4	5.9	Complied

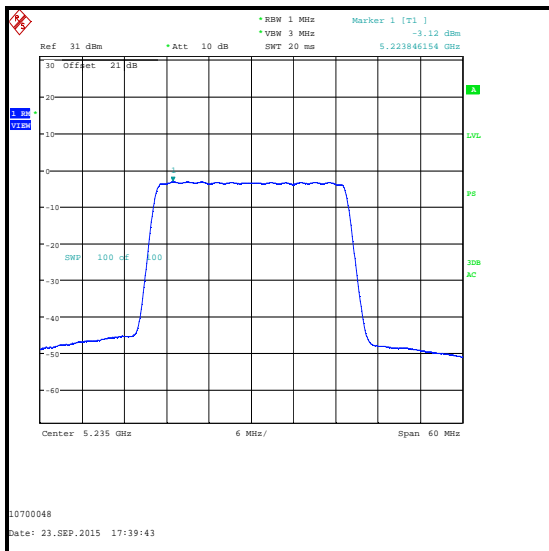
**H Port**



**Bottom Channel**



**Middle Channel**

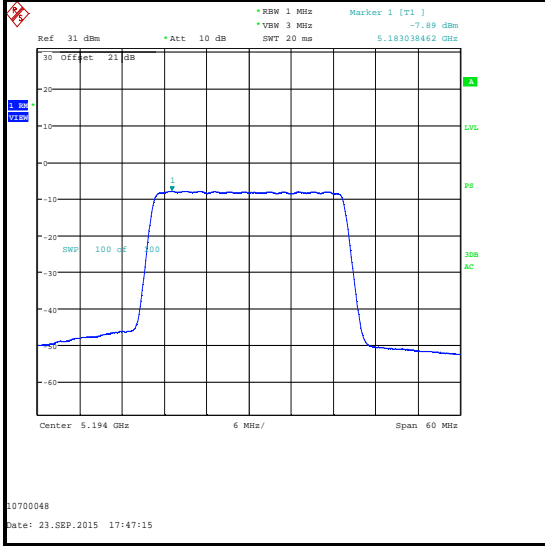


**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 30 MHz Channel / BPSK**

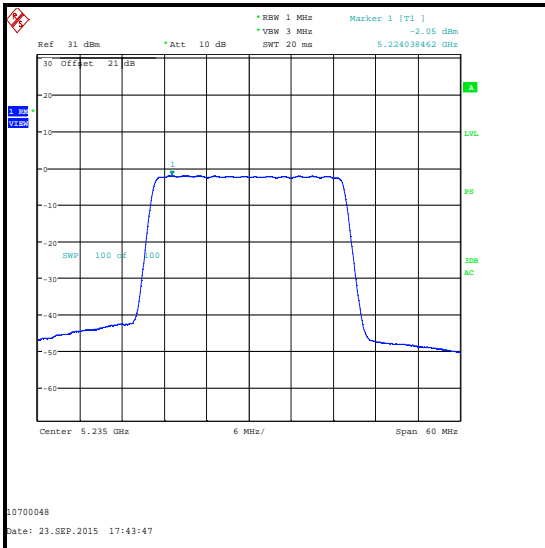
**V Port**



**Bottom Channel**



**Middle Channel**



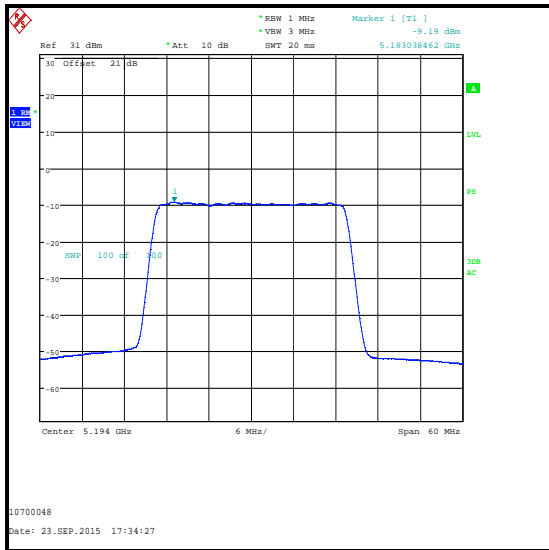
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

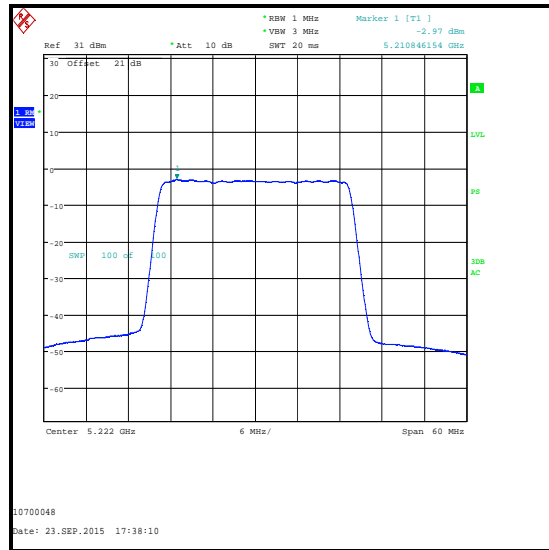
**Results: Parabolic Antenna / 30 MHz Channel / 256QAM**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-9.2	-7.7	-5.4	6.4	11.8	Complied
Middle	-3.0	-1.8	0.7	6.4	5.7	Complied
Top	-2.9	-1.8	0.7	6.4	5.7	Complied

**H Port**



**Bottom Channel**



**Middle Channel**



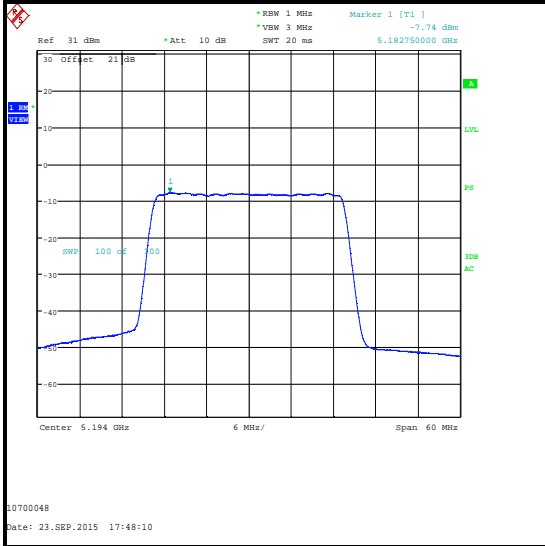
**Top Channel**



**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 30 MHz Channel / 256QAM**

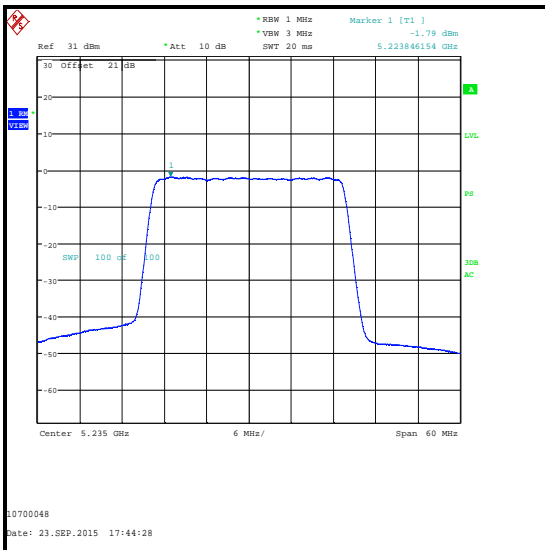
**V Port**



**Bottom Channel**



**Middle Channel**



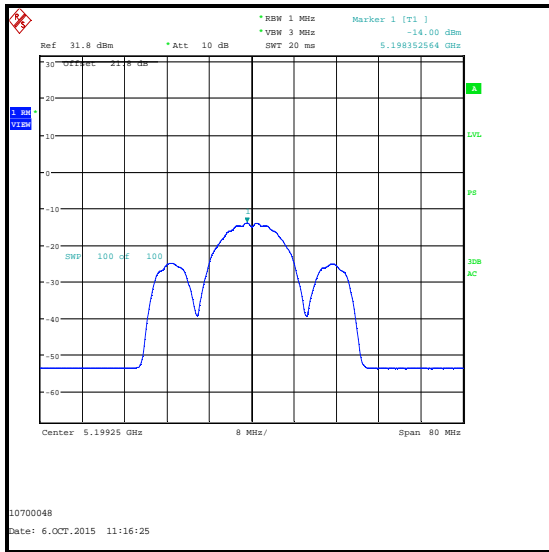
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

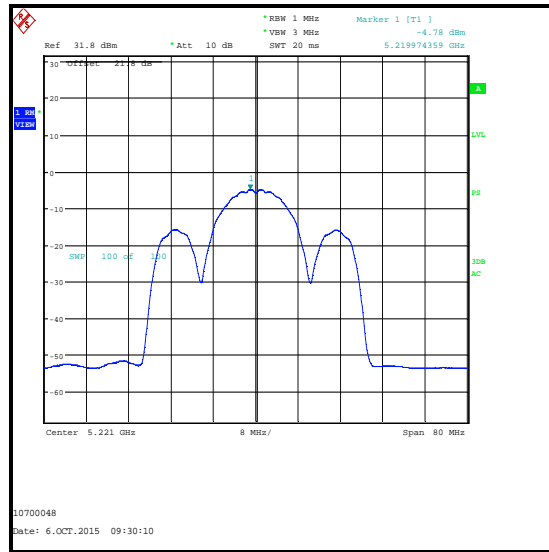
**Results: Parabolic Antenna / 40 MHz Channel / AQU**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-14.0	-12.1	-9.9	6.4	16.3	Complied
Middle	-4.8	-3.2	-0.9	6.4	7.3	Complied
Top	-4.8	-3.2	-0.9	6.4	7.3	Complied

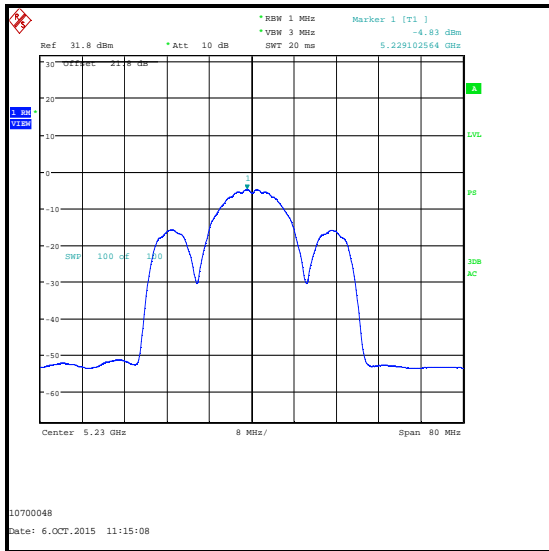
**H Port**



**Bottom Channel**



**Middle Channel**

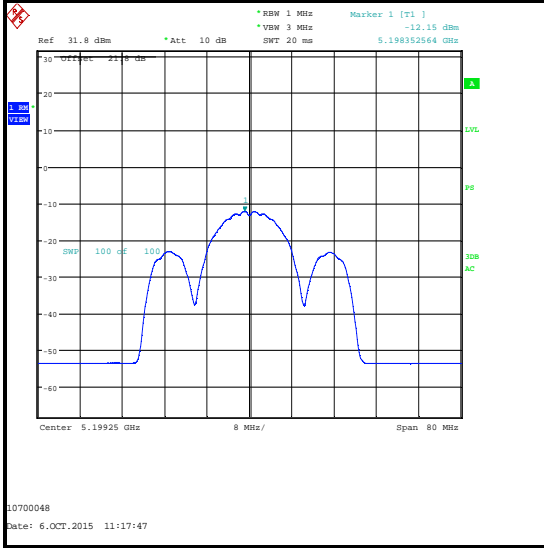


**Top Channel**

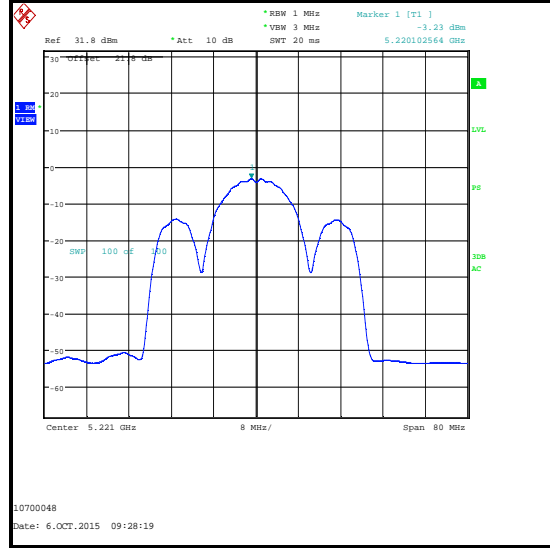
**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 40 MHz Channel / AQU**

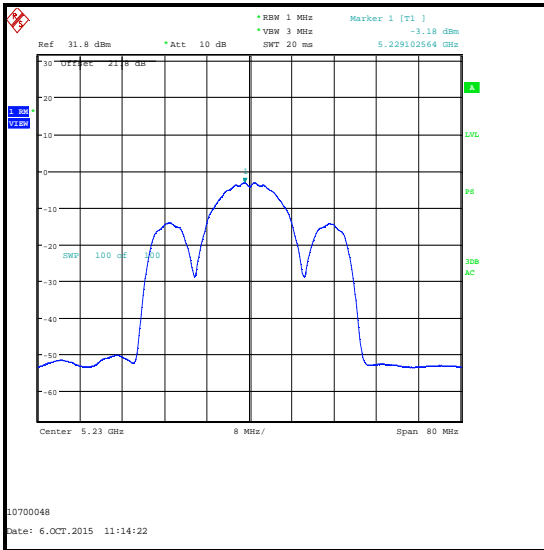
**V Port**



**Bottom Channel**



**Middle Channel**



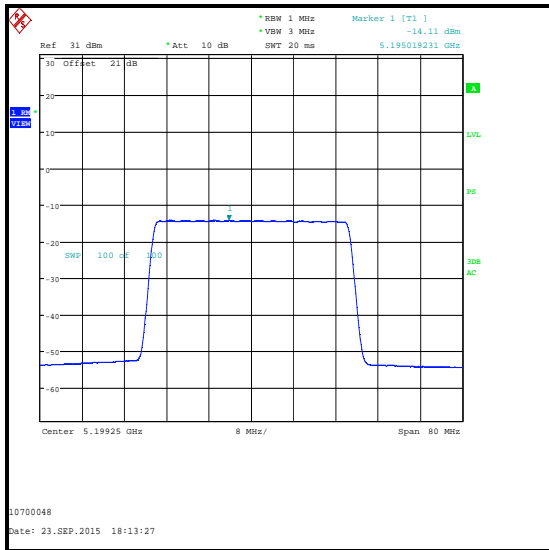
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 40 MHz Channel / BPSK**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-14.1	-12.3	-10.1	6.4	16.5	Complied
Middle	-5.0	-3.5	-1.2	6.4	7.6	Complied
Top	-4.8	-3.4	-1.0	6.4	7.4	Complied

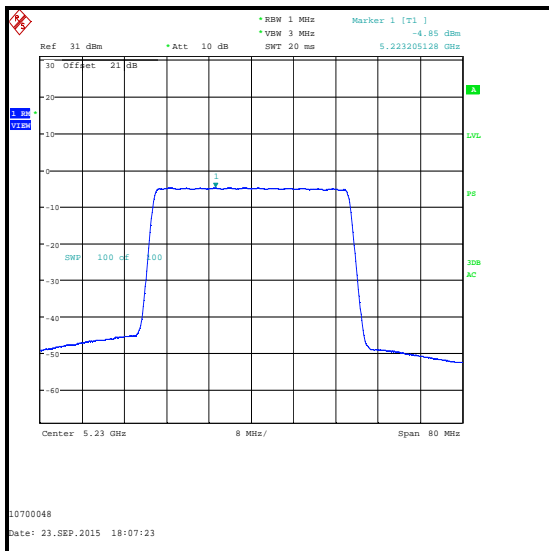
**H Port**



**Bottom Channel**



**Middle Channel**

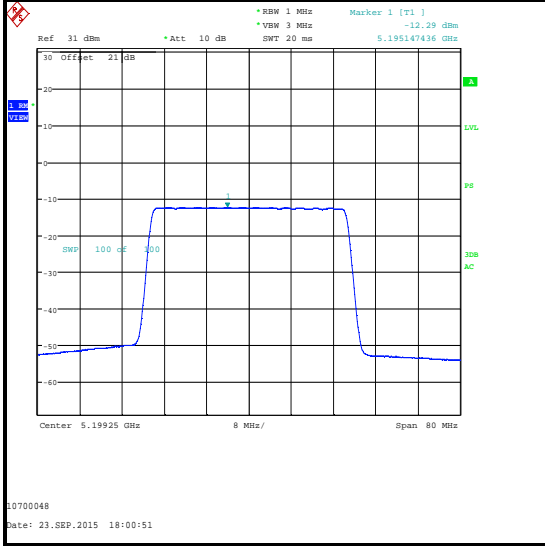


**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 40 MHz Channel / BPSK**

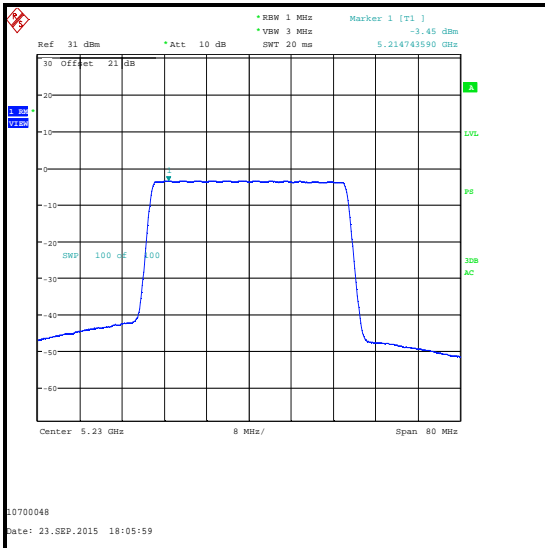
**V Port**



**Bottom Channel**



**Middle Channel**



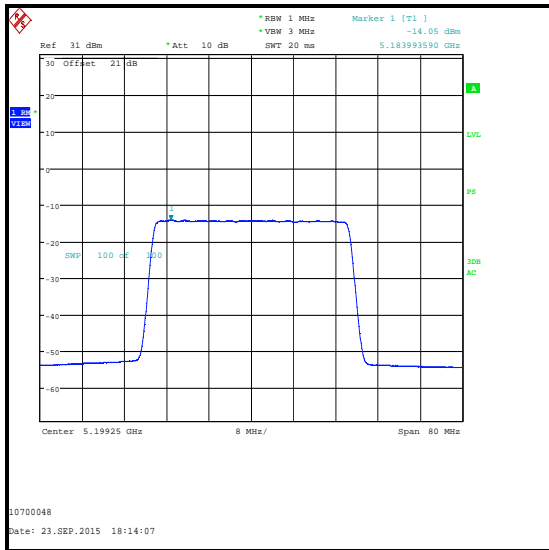
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 40 MHz Channel / 256QAM**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-14.0	-12.2	-10.0	6.4	16.4	Complied
Middle	-4.8	-3.4	-1.0	6.4	7.4	Complied
Top	-4.8	-3.4	-1.0	6.4	7.4	Complied

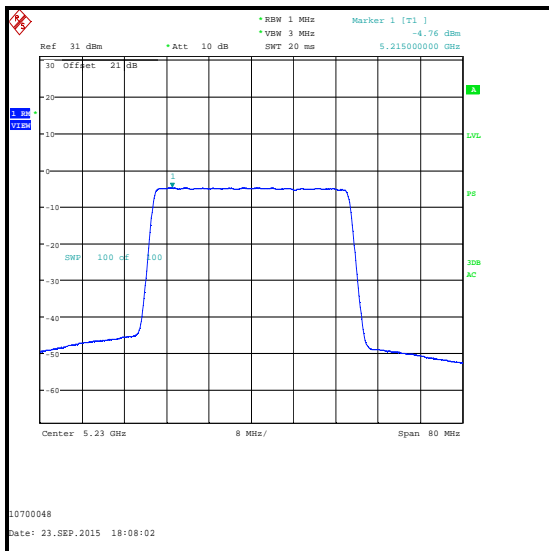
**H Port**



**Bottom Channel**



**Middle Channel**

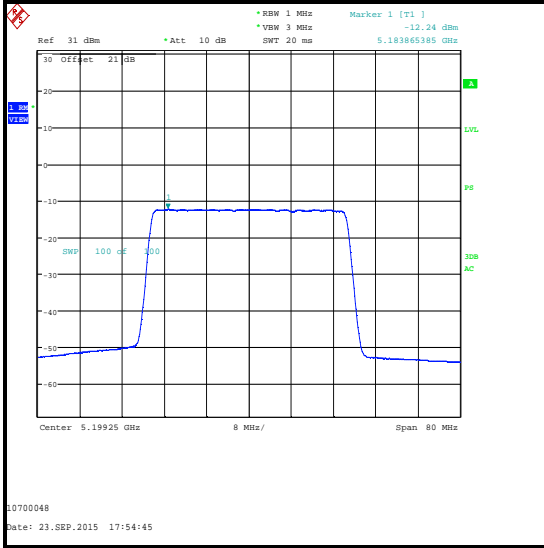


**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 40 MHz Channel / 256QAM**

**V Port**



**Bottom Channel**



**Middle Channel**



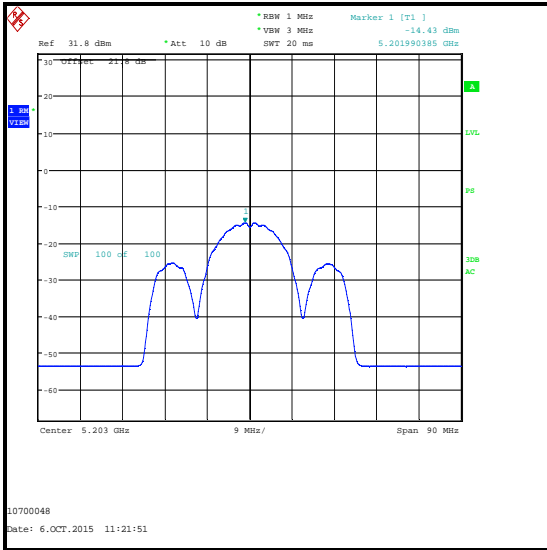
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

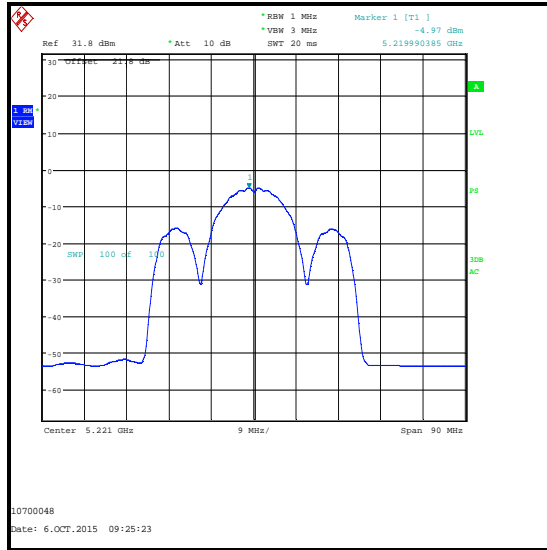
**Results: Parabolic Antenna / 45 MHz Channel / AQU**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-14.4	-12.5	-10.3	6.4	16.7	Complied
Middle	-5.0	-3.6	-1.2	6.4	7.6	Complied
Top	-5.3	-3.6	-1.4	6.4	7.8	Complied

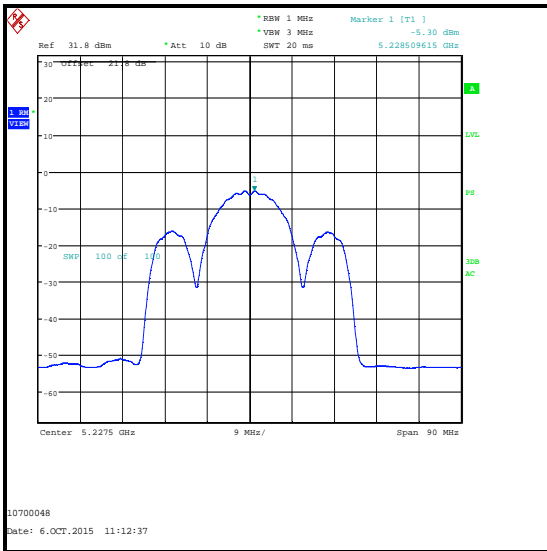
**H Port**



**Bottom Channel**



**Middle Channel**



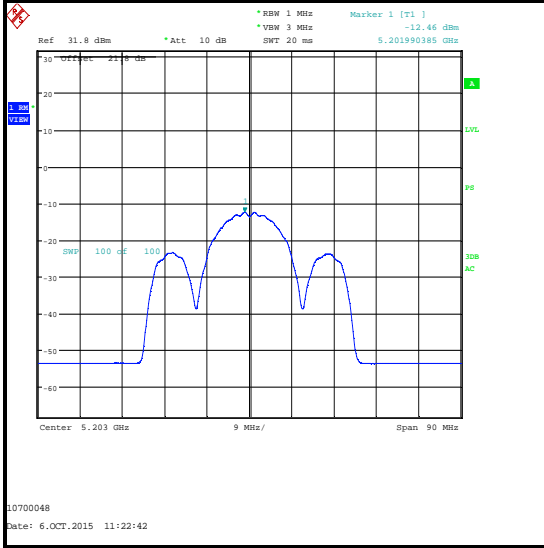
**Top Channel**



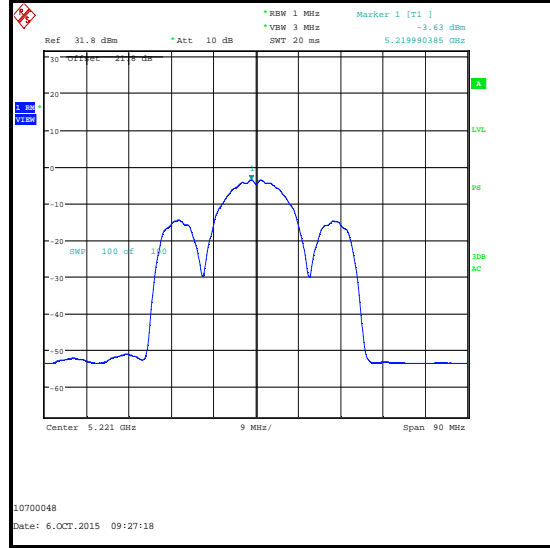
**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 45 MHz Channel / AQU**

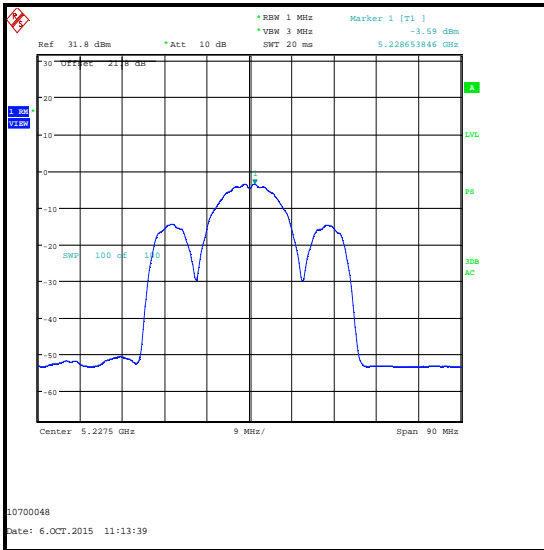
**V Port**



**Bottom Channel**



**Middle Channel**



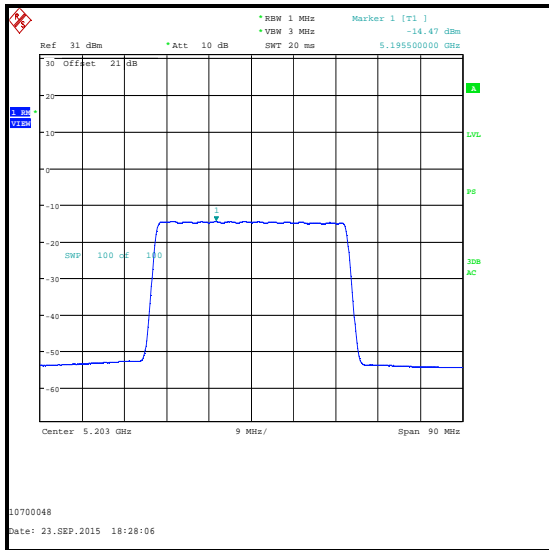
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 45 MHz Channel / BPSK**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-14.5	-12.7	-10.5	6.4	16.9	Complied
Middle	-5.3	-3.9	-1.5	6.4	7.9	Complied
Top	-5.3	-3.8	-1.5	6.4	7.9	Complied

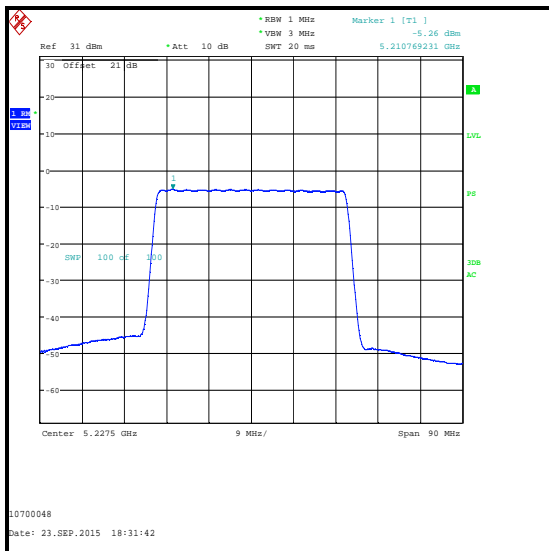
**H Port**



**Bottom Channel**



**Middle Channel**

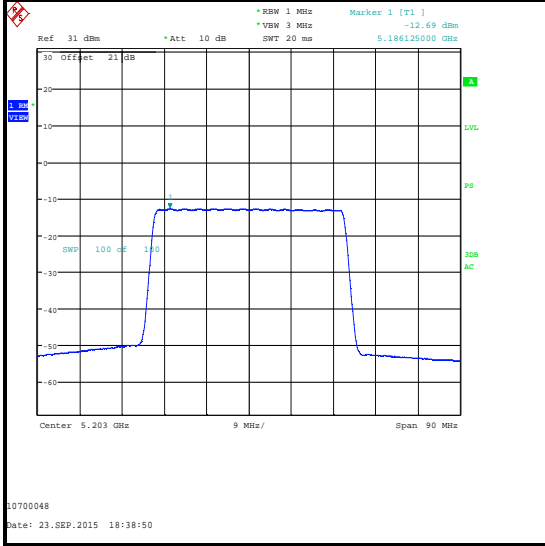


**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 45 MHz Channel / BPSK**

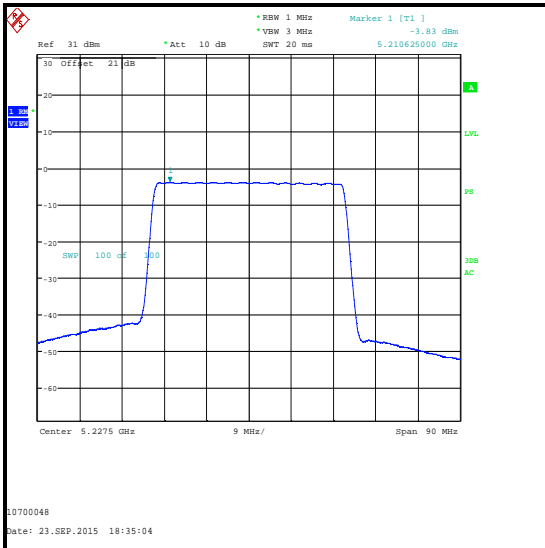
**V Port**



**Bottom Channel**



**Middle Channel**



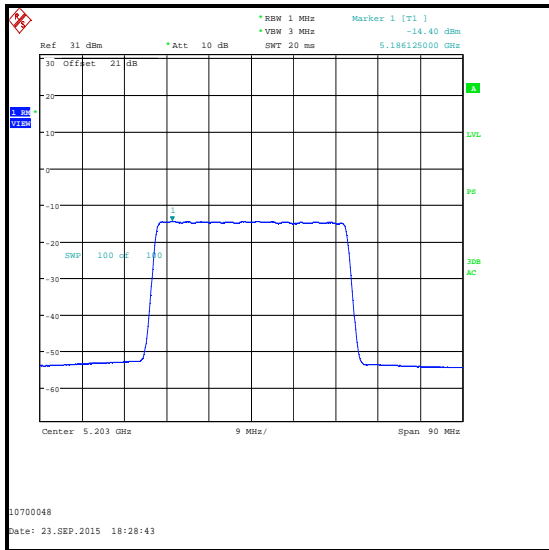
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

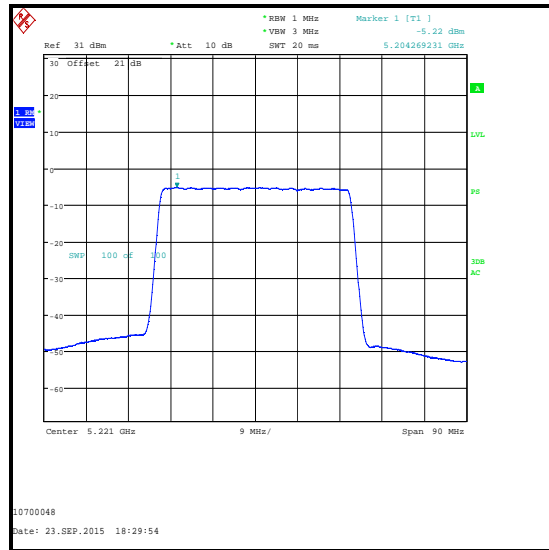
**Results: Parabolic Antenna / 45 MHz Channel / 256QAM**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-14.4	-12.6	-10.4	6.4	16.8	Complied
Middle	-5.2	-3.8	-1.4	6.4	7.8	Complied
Top	-5.2	-3.8	-1.4	6.4	7.8	Complied

**H Port**



**Bottom Channel**



**Middle Channel**

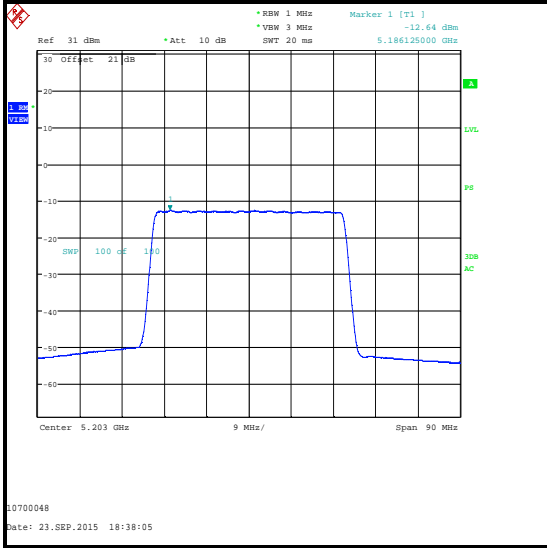


**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Parabolic Antenna / 45 MHz Channel / 256QAM**

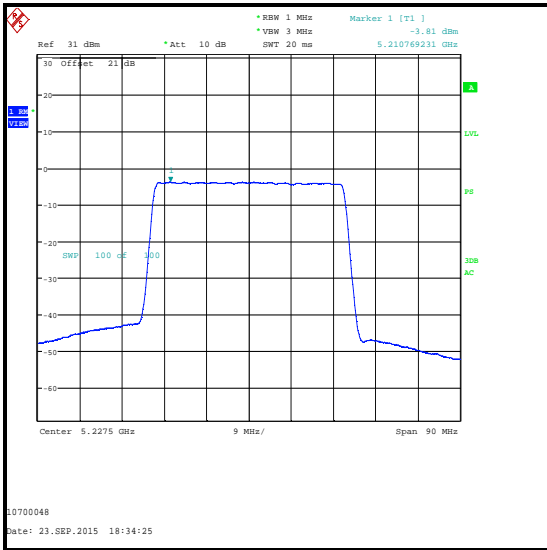
**V Port**



**Bottom Channel**



**Middle Channel**



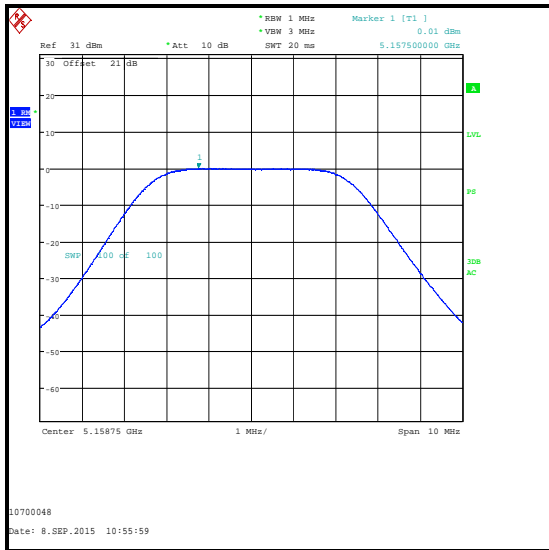
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

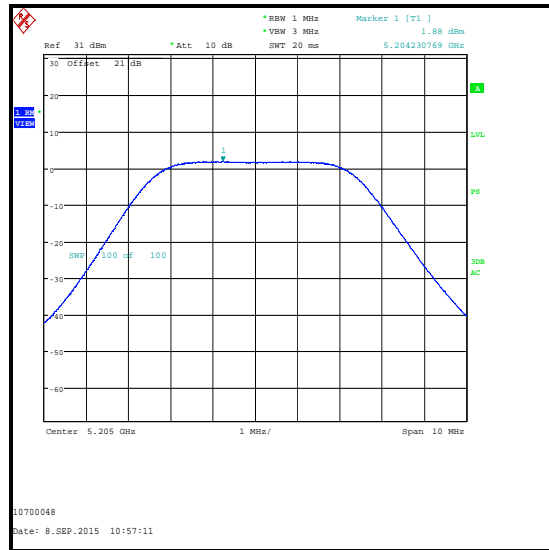
**Results: Sectorised Antenna / 5 MHz Channel / BPSK**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	0.0	0.8	3.4	6.9	3.5	Complied
Middle	1.9	3.2	5.6	6.9	1.3	Complied
Top	1.6	3.7	5.8	6.9	1.1	Complied

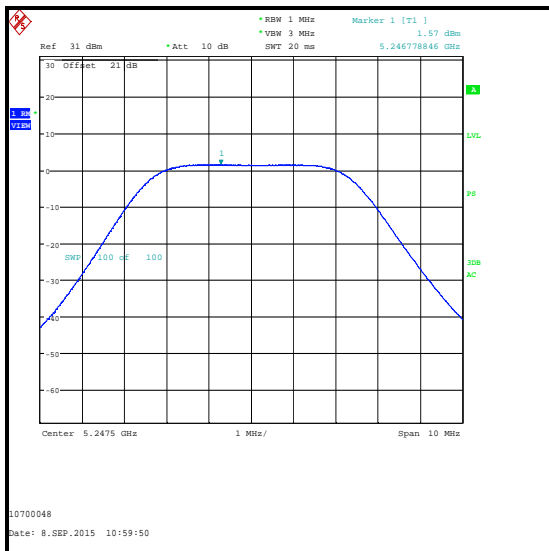
**H Port**



**Bottom Channel**



**Middle Channel**

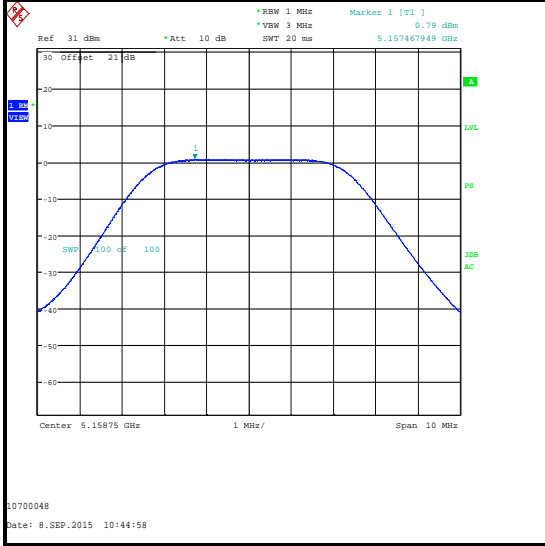


**Top Channel**

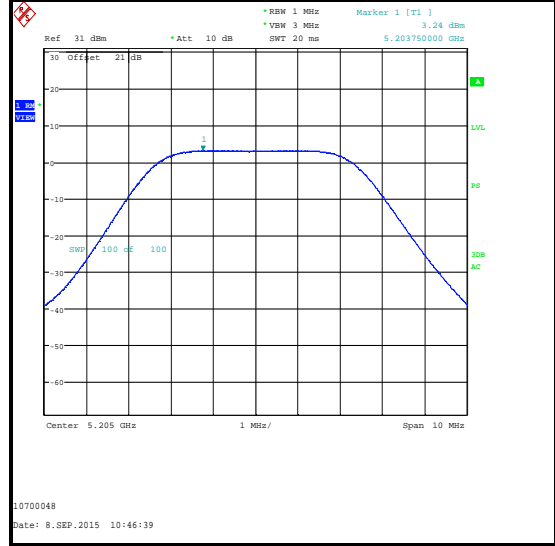
**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Sectorised Antenna / 5 MHz Channel / BPSK**

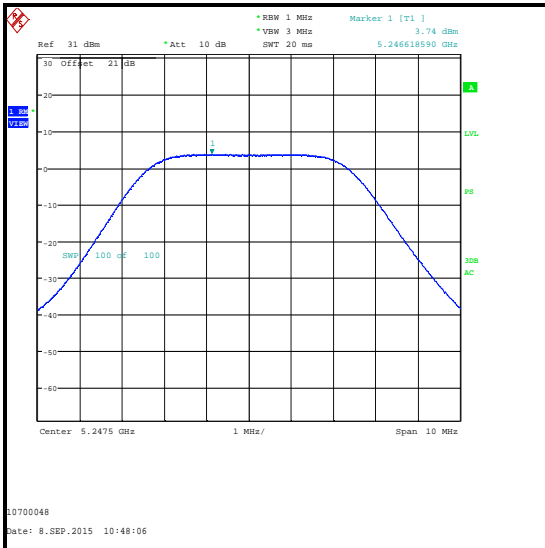
**V Port**



**Bottom Channel**



**Middle Channel**



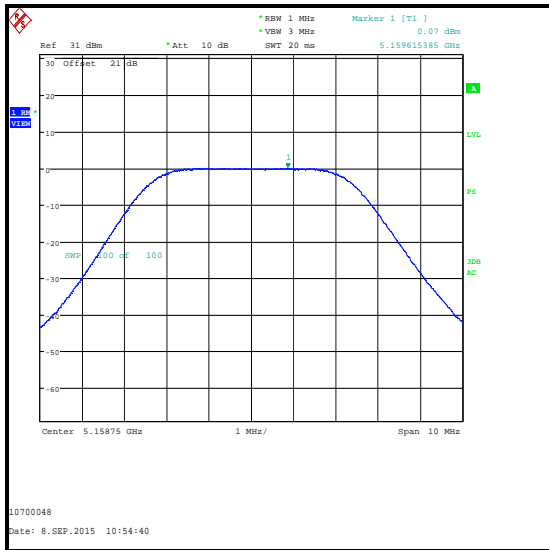
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

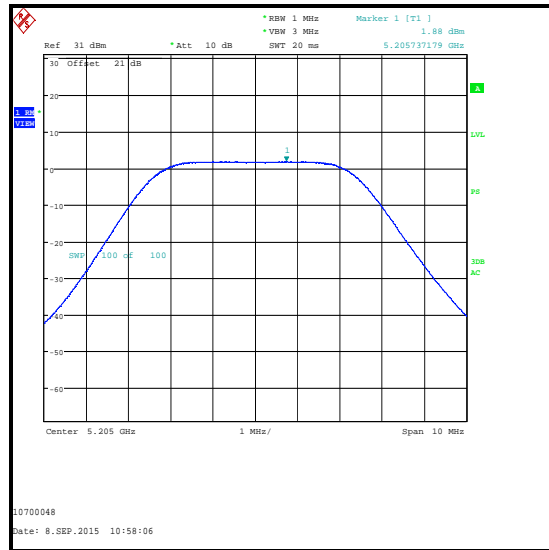
**Results: Sectorised Antenna / 5 MHz Channel / 256QAM**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	0.1	0.9	3.5	6.9	3.4	Complied
Middle	1.9	3.3	5.7	6.9	1.2	Complied
Top	1.6	3.7	5.8	6.9	1.1	Complied

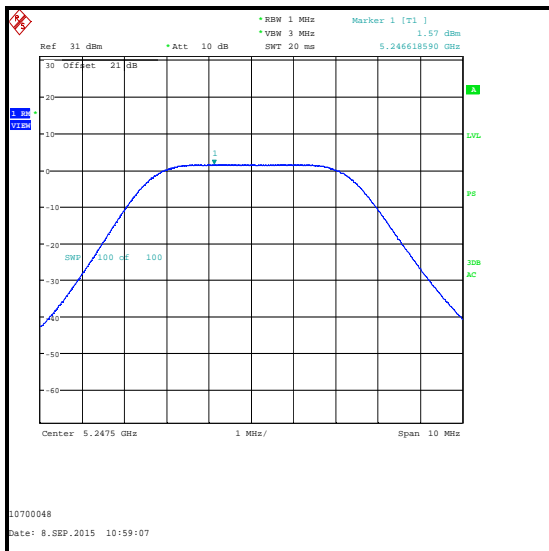
**H Port**



**Bottom Channel**



**Middle Channel**



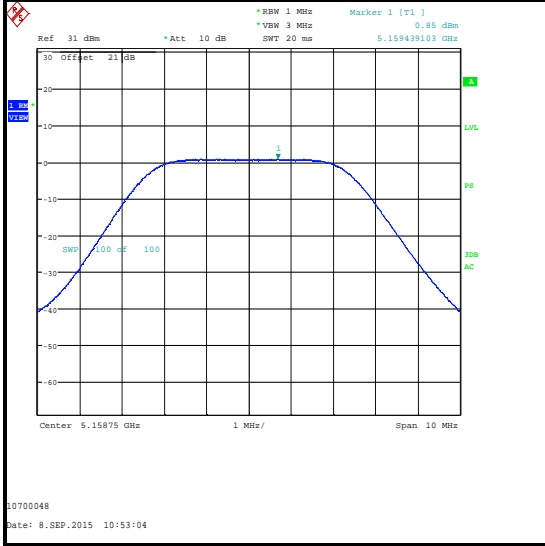
**Top Channel**



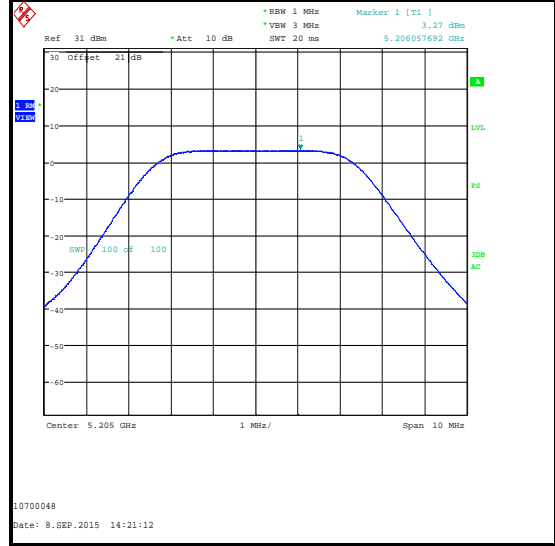
**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Sectorised Antenna / 5 MHz Channel / 256QAM**

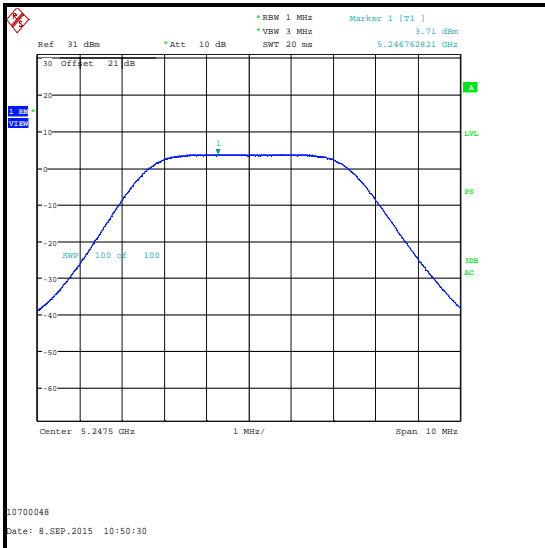
**V Port**



**Bottom Channel**



**Middle Channel**



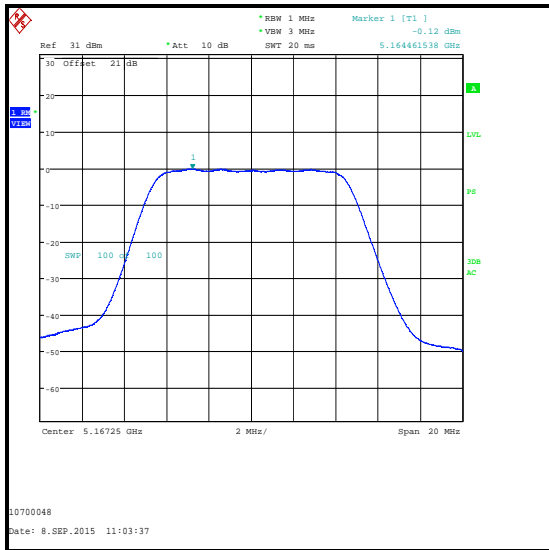
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

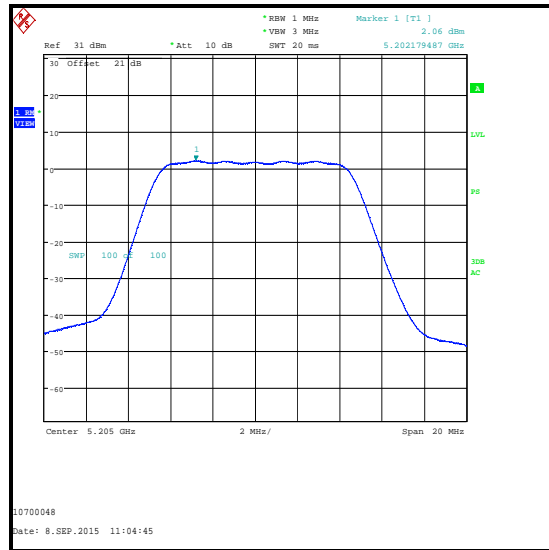
**Results: Sectorised Antenna / 10 MHz Channel / BPSK**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-0.1	0.6	3.3	6.9	3.6	Complied
Middle	2.1	3.2	5.7	6.9	1.2	Complied
Top	1.7	3.7	5.8	6.9	1.1	Complied

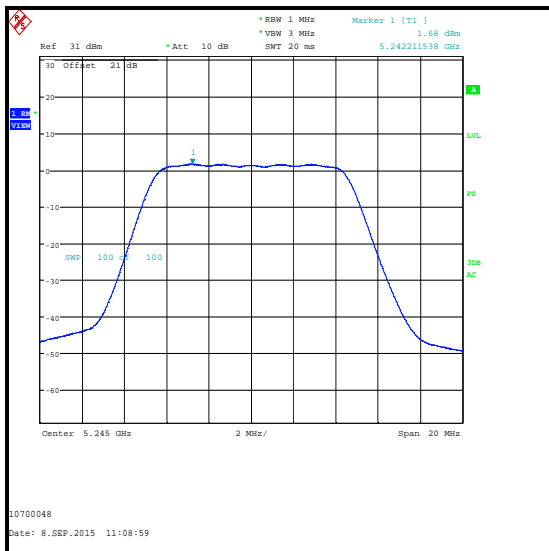
**H Port**



**Bottom Channel**



**Middle Channel**

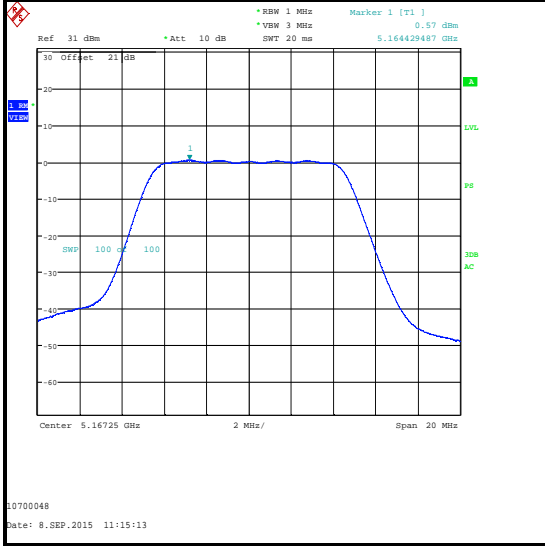


**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Sectorised Antenna / 10 MHz Channel / BPSK**

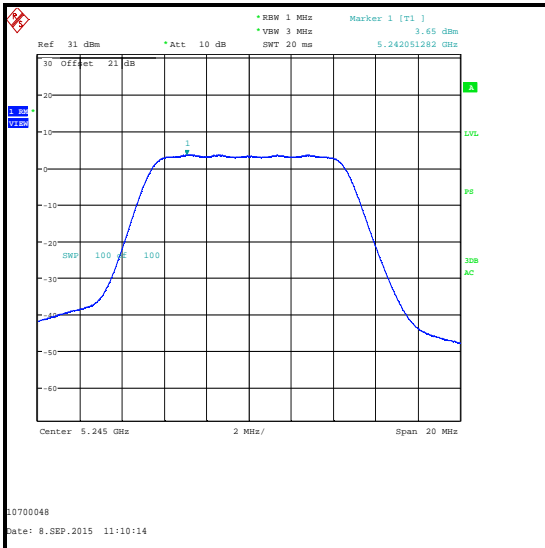
**V Port**



**Bottom Channel**



**Middle Channel**



**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

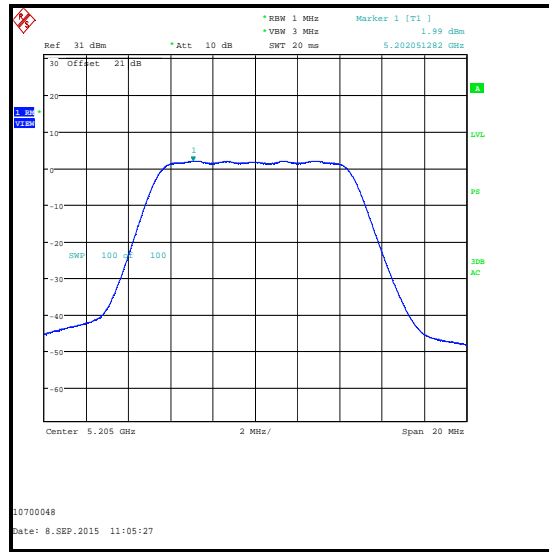
**Results: Sectorised Antenna / 10 MHz Channel / 256QAM**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-0.1	0.6	3.3	6.9	3.6	Complied
Middle	2.0	3.2	5.7	6.9	1.2	Complied
Top	1.7	3.7	5.8	6.9	1.1	Complied

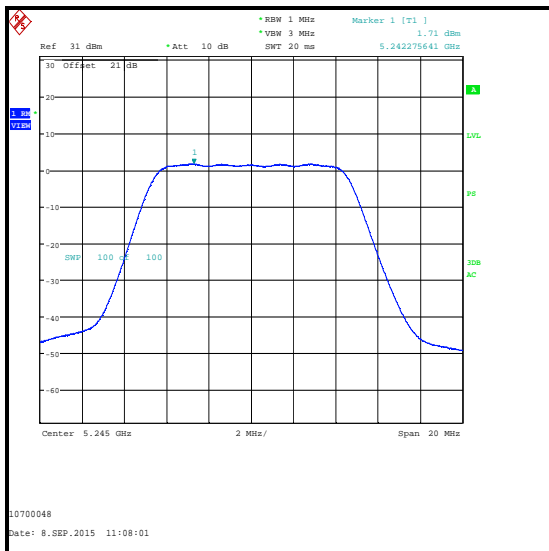
**H Port**



**Bottom Channel**



**Middle Channel**

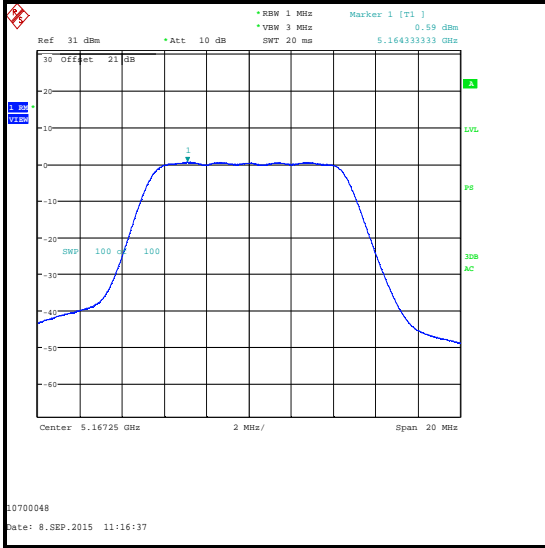


**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Sectorised Antenna / 10 MHz Channel / 256QAM**

**V Port**



**Bottom Channel**



**Middle Channel**



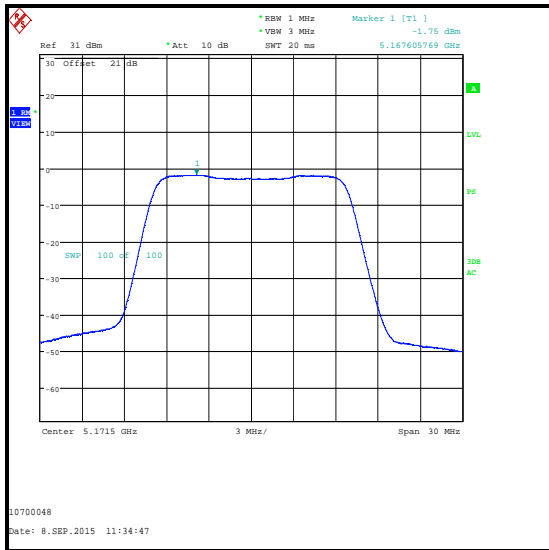
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Sectorised Antenna / 15 MHz Channel / BPSK**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-1.7	-1.1	1.6	6.9	5.3	Complied
Middle	0.4	1.6	4.1	6.9	2.8	Complied
Top	0.2	2.1	4.3	6.9	2.6	Complied

**H Port**



**Bottom Channel**



**Middle Channel**



**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Sectorised Antenna / 15 MHz Channel / BPSK**

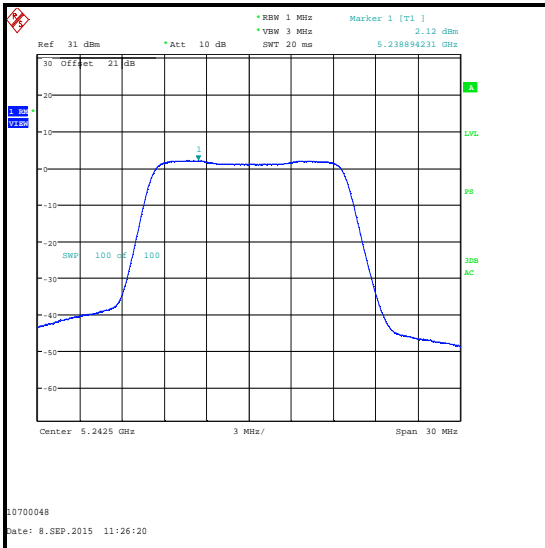
**V Port**



**Bottom Channel**



**Middle Channel**



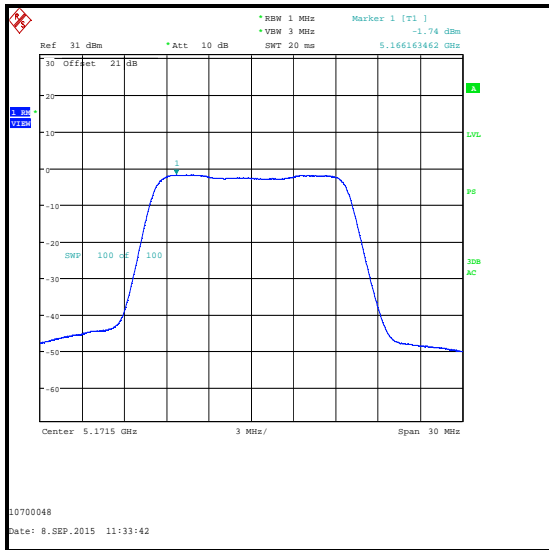
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

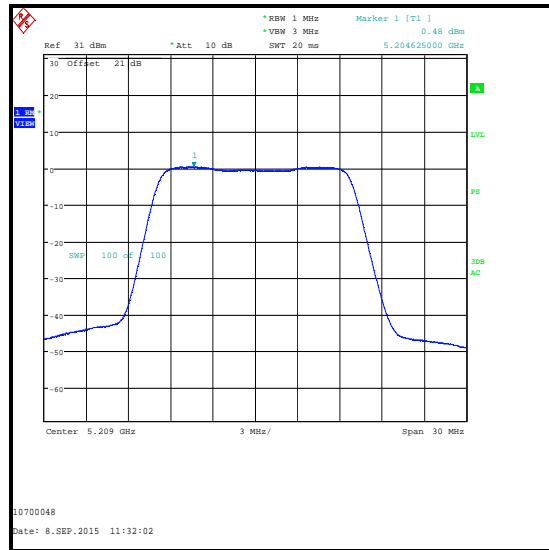
**Results: Sectorised Antenna / 15 MHz Channel / 256QAM**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-1.7	-1.1	1.6	6.9	5.3	Complied
Middle	0.5	1.6	4.1	6.9	2.8	Complied
Top	0.1	2.1	4.2	6.9	2.7	Complied

**H Port**



**Bottom Channel**



**Middle Channel**



**Top Channel**



**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Sectorised Antenna / 15 MHz Channel / 256QAM**

**V Port**



**Bottom Channel**



**Middle Channel**



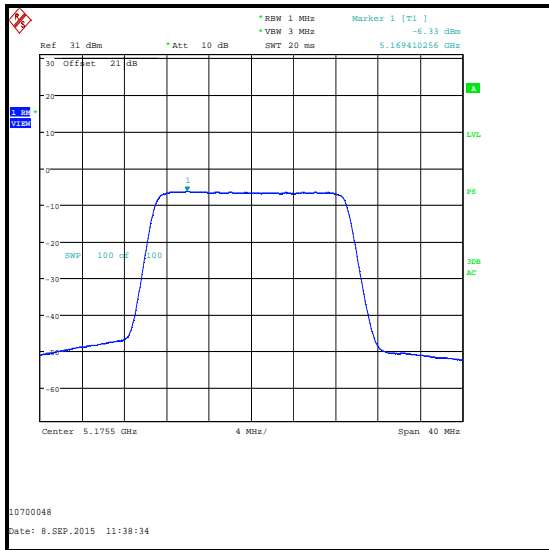
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

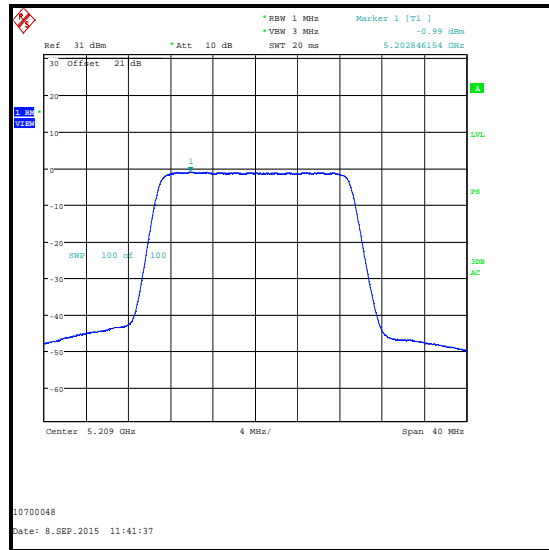
**Results: Sectorised Antenna / 20 MHz Channel / BPSK**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-6.3	-5.4	-2.8	6.9	9.7	Complied
Middle	-1.0	0.1	2.6	6.9	4.3	Complied
Top	-1.4	0.6	2.7	6.9	4.2	Complied

**H Port**



**Bottom Channel**



**Middle Channel**



**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Sectorised Antenna / 20 MHz Channel / BPSK**

**V Port**



**Bottom Channel**



**Middle Channel**



**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

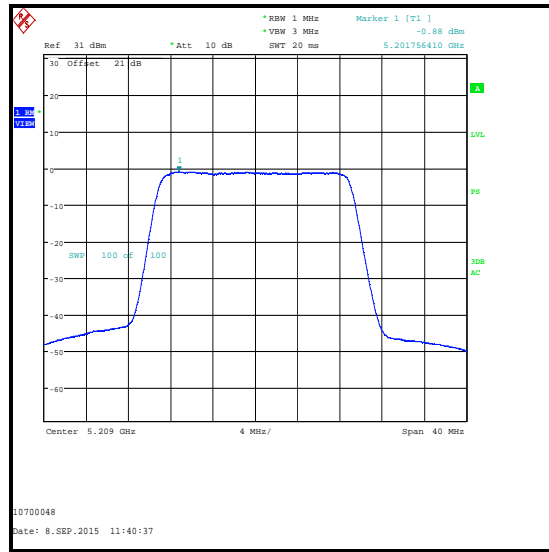
**Results: Sectorised Antenna / 20 MHz Channel / 256QAM**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-6.2	-5.3	-2.7	6.9	9.6	Complied
Middle	-0.9	0.2	2.7	6.9	4.2	Complied
Top	-1.3	0.6	2.8	6.9	4.1	Complied

**H Port**



**Bottom Channel**



**Middle Channel**

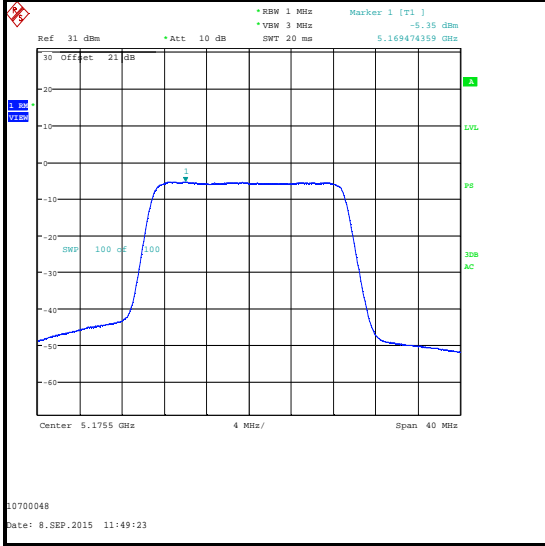


**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Sectorised Antenna / 20 MHz Channel / 256QAM**

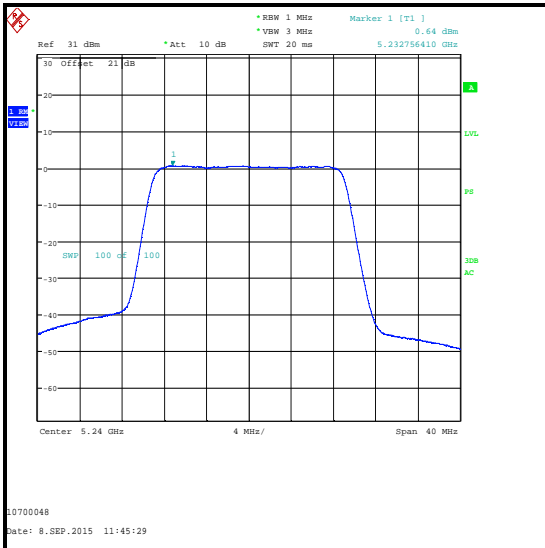
**V Port**



**Bottom Channel**



**Middle Channel**



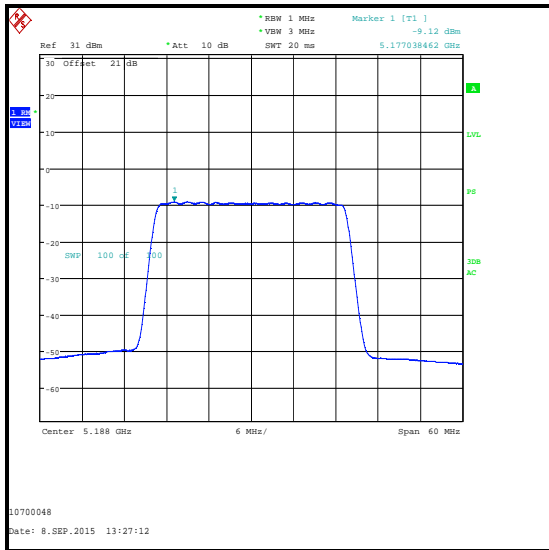
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

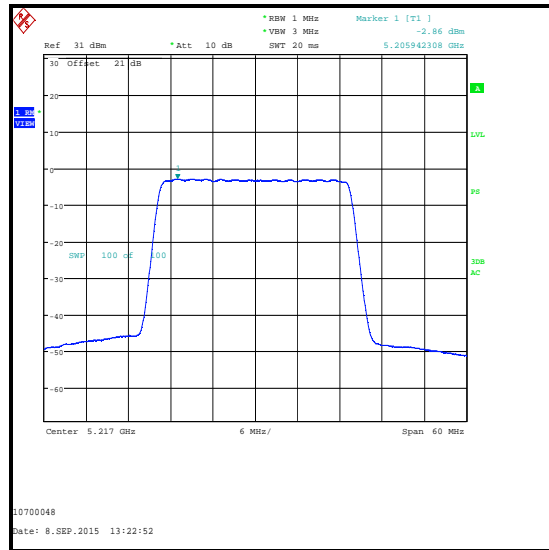
**Results: Sectorised Antenna / 30 MHz Channel / BPSK**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-9.1	-7.4	-5.2	6.9	12.1	Complied
Middle	-2.9	-1.6	0.8	6.9	6.1	Complied
Top	-2.8	-1.5	0.9	6.9	6.0	Complied

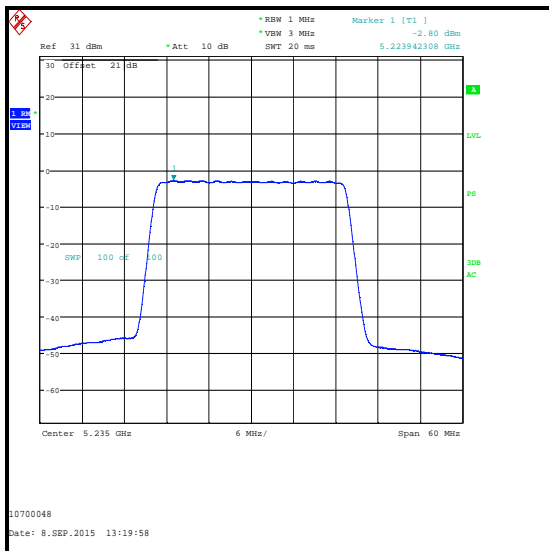
**H Port**



**Bottom Channel**



**Middle Channel**

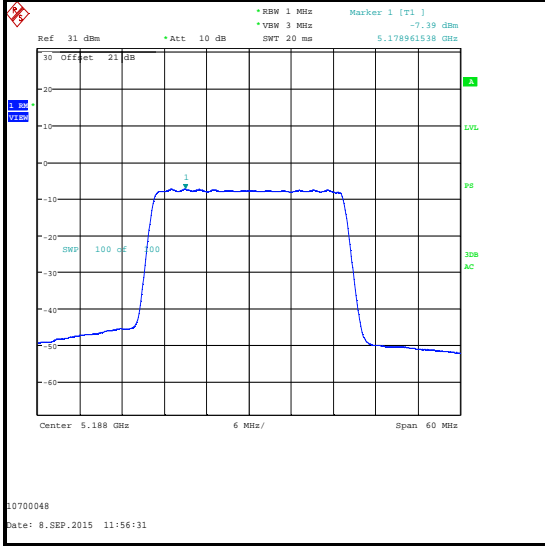


**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Sectorised Antenna / 30 MHz Channel / BPSK**

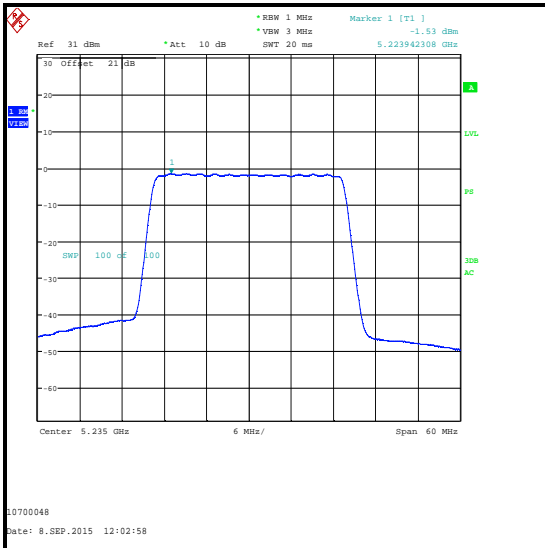
**V Port**



**Bottom Channel**



**Middle Channel**



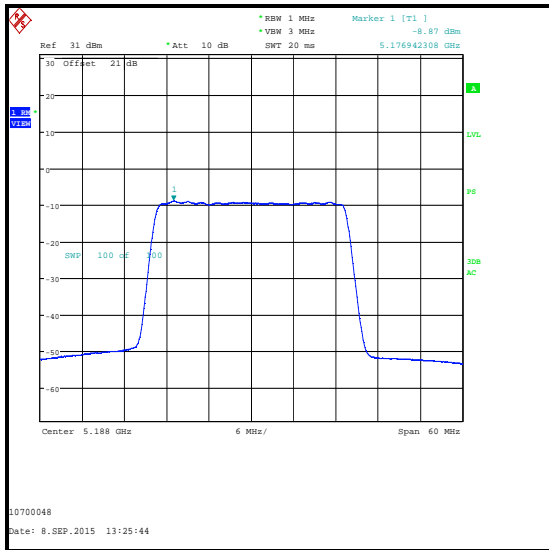
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

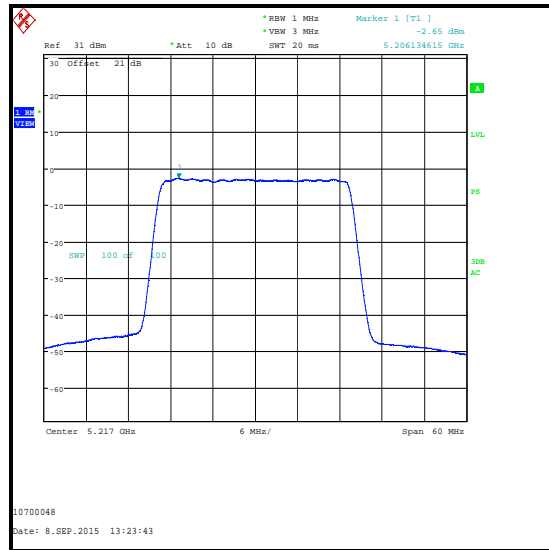
**Results: Sectorised Antenna / 30 MHz Channel / 256QAM**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-8.9	-7.3	-5.0	6.9	11.9	Complied
Middle	-2.6	-1.4	1.1	6.9	5.8	Complied
Top	-2.6	-1.4	1.1	6.9	5.8	Complied

**H Port**



**Bottom Channel**



**Middle Channel**



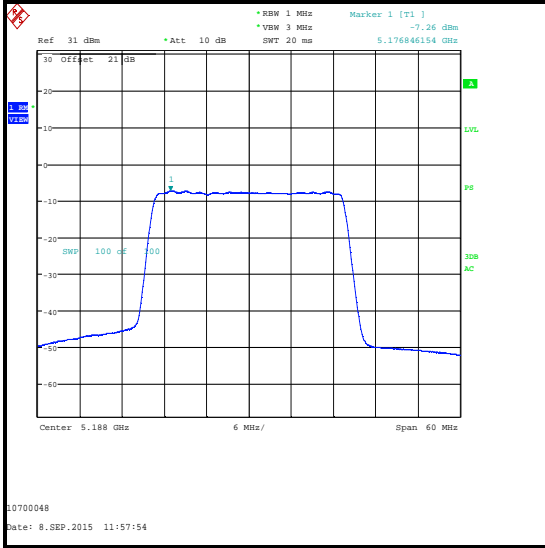
**Top Channel**



**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Sectorised Antenna / 30 MHz Channel / 256QAM**

**V Port**



**Bottom Channel**



**Middle Channel**



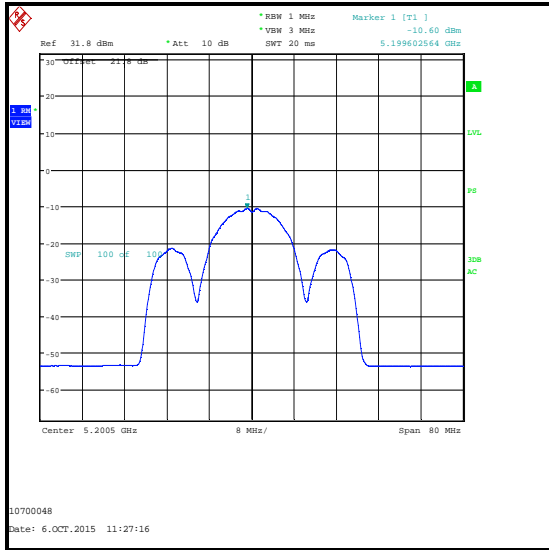
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

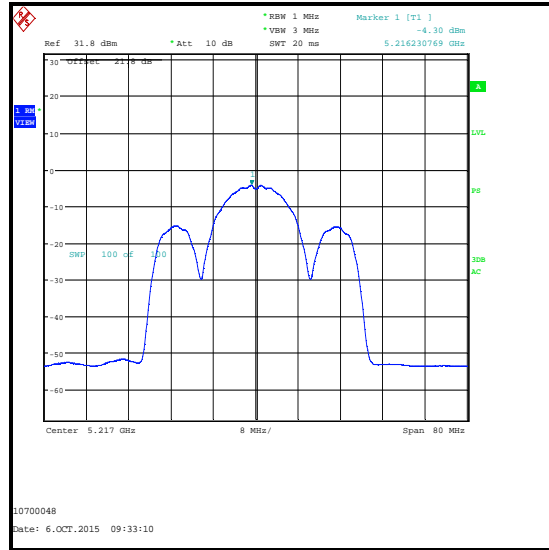
**Results: Sectorised Antenna / 40 MHz Channel / AQU**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-10.6	-8.7	-6.5	6.9	13.4	Complied
Middle	-4.3	-2.8	-0.5	6.9	7.4	Complied
Top	-4.4	-2.7	-0.5	6.9	7.4	Complied

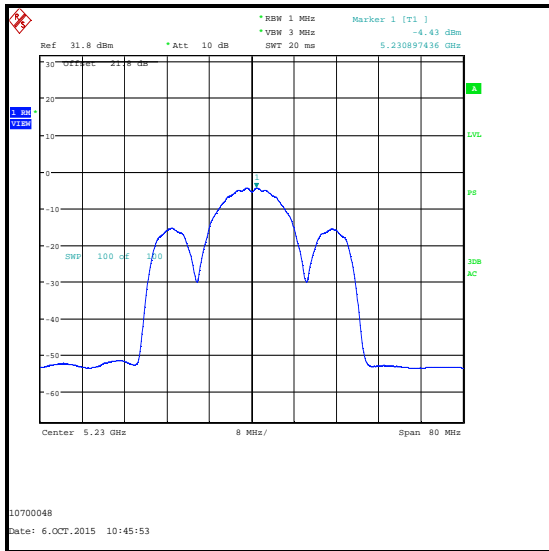
**H Port**



**Bottom Channel**



**Middle Channel**

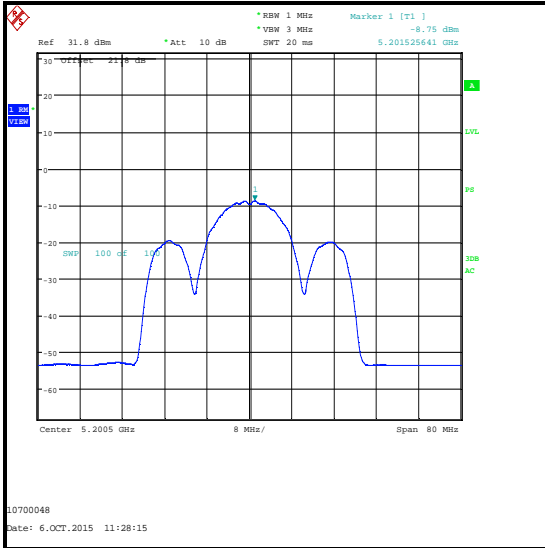


**Top Channel**

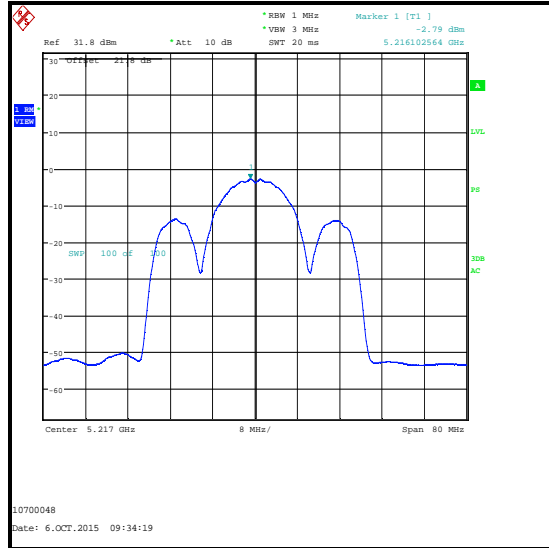
**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Sectorised Antenna / 40 MHz Channel / AQU**

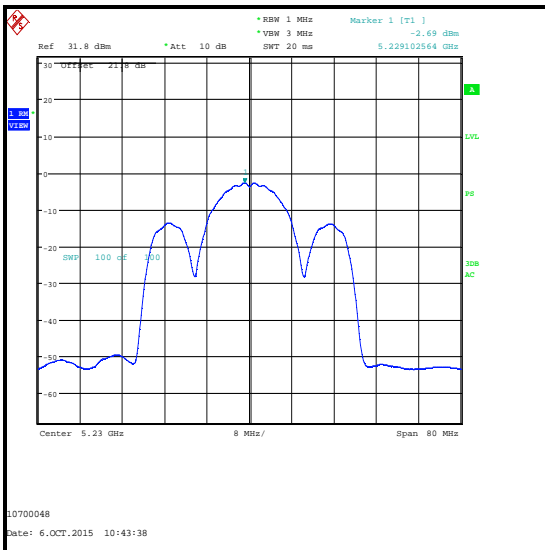
**V Port**



**Bottom Channel**



**Middle Channel**



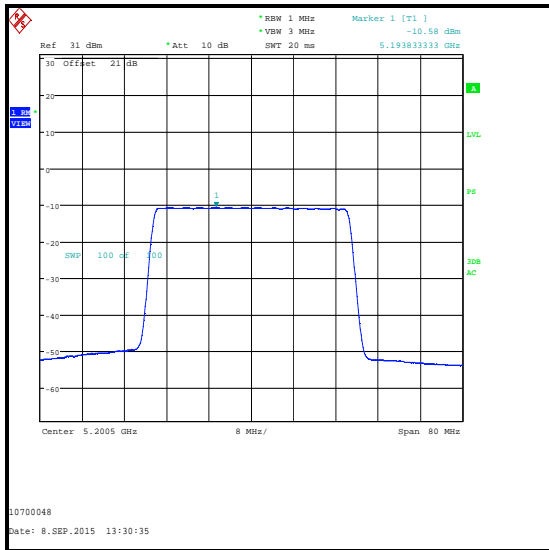
**Top Channel**

**Transmitter Maximum Power Spectral Density (5.15-5.25 GHz Band) (continued)**

**Results: Sectorised Antenna / 40 MHz Channel / BPSK**

Channel	PSD H Port (dBm/MHz)	PSD V Port (dBm/MHz)	PSD Power (dBm/MHz)	PSD Power Limit (dBm/MHz)	Margin (dB)	Result
Bottom	-10.6	-8.9	-6.7	6.9	13.6	Complied
Middle	-4.3	-3.0	-0.6	6.9	7.5	Complied
Top	-4.4	-3.0	-0.6	6.9	7.5	Complied

**H Port**



**Bottom Channel**



**Middle Channel**



**Top Channel**