FCC and Industry Canada Testing of the Siemens AG Access Point, Model: MSN65-W1-M12-E2 In accordance with FCC 47 CFR Part 15E, Industry Canada RSS-247 and Industry Canada RSS-GEN

Prepared for: Siemens AG
76181
Karlsruhe
Germany

FCC ID: LYHMSN65V1
IC: 267AA-MSN65V1

COMMERCIAL-IN-CONFIDENCE

Date: July 2017
Document Number: 75938097-02 | Issue: 02

RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Project Management	Steven White	28 July 2017	
Authorised Signatory	Simon Bennett	28 July 2017	

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD Product Service document control rules.

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 47 CFR Part 15E and Industry Canada RSS-247 and Industry Canada RSS-GEN. The sample tested was found to comply with the requirements defined in the applied rules.

RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Testing	Mohamed Toubella	28 July 2017	
Testing	Matthew Russell	28 July 2017	
Testing	Jack Tuckwell	28 July 2017	
Testing	Graeme Lawler	28 July 2017	

FCC Accreditation
90987 Octagon House, Fareham Test Laboratory

Industry Canada Accreditation
IC2932B-1 Octagon House, Fareham Test Laboratory

EXECUTIVE SUMMARY
A sample of this product was tested and found to be in compliance with FCC 47 CFR Part 15E: 2016, Industry Canada RSS-247 Issue 2 (2017-02) and Industry Canada RSS-GEN: Issue 4 (11-2014).

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ANNEX A Power Table Values Used for Testing A.2

1 Report Summary

1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Issue	Description of Change	Date of Issue
1	First Issue	20 July 2017
2	Includes calculated EIRP results in section 2.1.6 and some minor wording changes.	26 July 2017

Table 1

1.2 Introduction

Applicant	Siemens Karlsruhe	
Manufacturer	Siemens AG	
Model Number(s)	MSN65-W1-M12-E2	
Serial Number(s)	Not Serialised (75938097-TSR0001) Not Serialised (75938097-TSR0002)	
Hardware Version(s)	1	
Software Version(s)	6.1	
Number of Samples Tested	2	
Test Specification/Issue/Date	FCC 47 CFR Part 15E: 2016 Industry Canada RSS-247: Issue 2 (2017-02) Industry Canada RSS-GEN: Issue 4 (2014-11)	
Order Number Date	PO 4500299377 20-February-2017	PO 4500300955 05 April 2017
Date of Receipt of EUT	23-February-2017	
Start of Test	10-March-2017	
Finish of Test	14-June-2017	
Name of Engineer(s)	Mohamed Toubella, Matthew Russell, Jack Tuckwell and Graeme Lawler	
Related Document(s)	ANSI C63.10 (2013) KDB 662911 D01 v02r02	

1.3 Brief Summary of Results

A brief summary of the tests carried out in accordance with FCC 47 CFR Part 15E, Industry Canada RSS-247 and Industry Canada RSS-GEN is shown below.

Section	Specification Clause			Test Description	Result	Comments/Base Standard
	Part 15E	RSS-247	RSS-GEN			
Configuration and Mode: ANT795-6MT - 802.11a						
2.1	15.407 (a)	6.2	-	Maximum Conducted Output Power	Pass	ANSI C63.10
2.2	15.407 (a)	6.2	-	Maximum Conducted Power Spectral Density	Pass	ANSI C63.10
2.3	15.407 (a)	6.2	-	Emission Bandwidth	Pass	ANSI C63.10
2.4	15.407 (b)	6.2	-	Authorised Band Edges	Pass	ANSI C63.10
2.5	15.205	-	8.10	Restricted Band Edges	Pass	ANSI C63.10
2.6	15.407 (b) and 15.205	6.2	-	Spurious Radiated Emissions	Pass	ANSI C63.10
Configuration and Mode: ANT793-6DG - 802.11a						
2.1	15.407 (a)	6.2	-	Maximum Conducted Output Power	Pass	ANSI C63.10
2.2	15.407 (a)	6.2	-	Maximum Conducted Power Spectral Density	Pass	ANSI C63.10
2.4	15.407 (b)	6.2	-	Authorised Band Edges	Pass	ANSI C63.10
2.5	15.205	-	8.10	Restricted Band Edges	Pass	ANSI C63.10
2.6	15.407 (b) and 15.205	6.2	-	Spurious Radiated Emissions	Pass	ANSI C63.10

Section	Specification Clause			Test Description	Result	Comments/Base Standard
	Part 15E	RSS-247	RSS-GEN			
Configuration and Mode: ANT793-8DK + 10m Cable - 802.11a						
2.1	15.407 (a)	6.2	-	Maximum Conducted Output Power	Pass	ANSI C63.10
2.2	15.407 (a)	6.2	-	Maximum Conducted Power Spectral Density	Pass	ANSI C63.10
2.4	15.407 (b)	6.2	-	Authorised Band Edges	Pass	ANSI C63.10
2.5	15.205	-	8.10	Restricted Band Edges	Pass	ANSI C63.10
2.6	15.407 (b) and 15.205	6.2	-	Spurious Radiated Emissions	Pass	ANSI C63.10
Configuration and Mode: ANT795-6MT - 802.11n 20 MHz Bandwidth						
2.1	15.407 (a)	6.2	-	Maximum Conducted Output Power	Pass	ANSI C63.10 KDB 662911 D01
2.2	15.407 (a)	6.2	-	Maximum Conducted Power Spectral Density	Pass	ANSI C63.10 KDB 662911 D01
2.3	15.407 (a)	6.2	-	Emission Bandwidth	Pass	ANSI C63.10
2.4	15.407 (b)	6.2	-	Authorised Band Edges	Pass	ANSI C63.10
2.5	15.205	-	8.10	Restricted Band Edges	Pass	ANSI C63.10
2.6	15.407 (b) and 15.205	6.2	-	Spurious Radiated Emissions	Pass	ANSI C63.10

Section	Specification Clause			Test Description	Result	Comments/Base Standard
	Part 15E	RSS-247	RSS-GEN			
Configuration and Mode: ANT793-6DG - 802.11n 20 MHz Bandwidth						
2.1	15.407 (a)	6.2	-	Maximum Conducted Output Power	Pass	ANSI C63.10 KDB 662911 D01
2.2	15.407 (a)	6.2	-	Maximum Conducted Power Spectral Density	Pass	ANSI C63.10 KDB 662911 D01
2.4	15.407 (b)	6.2	-	Authorised Band Edges	Pass	ANSI C63.10
2.5	15.205	-	8.10	Restricted Band Edges	Pass	ANSI C63.10
2.6	15.407 (b) and 15.205	6.2	-	Spurious Radiated Emissions	Pass	ANSI C63.10
Configuration and Mode: ANT793-8DK + 10m Cable - 802.11n 20 MHz Bandwidth						
2.1	15.407 (a)	6.2	-	Maximum Conducted Output Power	Pass	ANSI C63.10 KDB 662911 D01
2.2	15.407 (a)	6.2	-	Maximum Conducted Power Spectral Density	Pass	ANSI C63.10 KDB 662911 D01
2.4	15.407 (b)	6.2	-	Authorised Band Edges	Pass	ANSI C63.10
2.5	15.205	-	8.10	Restricted Band Edges	Pass	ANSI C63.10
2.6	15.407 (b) and 15.205	6.2	-	Spurious Radiated Emissions	Pass	ANSI C63.10
Configuration and Mode: ANT795-6MT - 802.11n 40 MHz Bandwidth						
2.1	15.407 (a)	6.2	-	Maximum Conducted Output Power	Pass	ANSI C63.10 KDB 662911 D01
2.2	15.407 (a)	6.2	-	Maximum Conducted Power Spectral Density	Pass	ANSI C63.10 KDB 662911 D01
2.3	15.407 (a)	6.2	-	Emission Bandwidth	Pass	ANSI C63.10
2.4	15.407 (b)	6.2	-	Authorised Band Edges	Pass	ANSI C63.10
2.5	15.205	-	8.10	Restricted Band Edges	Pass	ANSI C63.10

Section	Specification Clause			Test Description	Result	Comments/Base Standard
	Part 15E	RSS-247	RSS-GEN			
Configuration and Mode: ANT793-6DG - 802.11n 40 MHz Bandwidth						
2.1	15.407 (a)	6.2	-	Maximum Conducted Output Power	Pass	ANSI C63.10 KDB 662911 D01
2.2	15.407 (a)	6.2	-	Maximum Conducted Power Spectral Density	Pass	ANSI C63.10 KDB 662911 D01
2.4	15.407 (b)	6.2	-	Authorised Band Edges	Pass	ANSI C63.10
2.5	15.205	-	8.10	Restricted Band Edges	Pass	ANSI C63.10
Configuration and Mode: ANT793-8DK + 10m Cable - 802.11n 40 MHz Bandwidth						
2.1	15.407 (a)	6.2	-	Maximum Conducted Output Power	Pass	ANSI C63.10 KDB 662911 D01
2.2	15.407 (a)	6.2	-	Maximum Conducted Power Spectral Density	Pass	ANSI C63.10 KDB 662911 D01
2.4	15.407 (b)	6.2	-	Authorised Band Edges	Pass	ANSI C63.10
2.5	15.205	-	8.10	Restricted Band Edges	Pass	ANSI C63.10

Table 2

1.4 Application Form

EQUIPMENT DESCRIPTION	
Model Name/Number	MSN65-W1-M12-E2
Part Number	
Hardware Version	1
Software Version	6.1
FCC ID (if applicable)	LYHMSN65V1
Industry Canada ID (if applicable)	267AA-MSN65V1
Technical Description (Please provide a brief description of the intended use of the equipment)	802.11 a/b/g/n Wi-Fi Access Point. EUT can be operated in either Master or Client mode depending on firmware configuration. EUT supports 20 MHz and 40 MHz bandwidths and 2x2 MIMO data rates (MCS0-7 and MCS 8-15).

INTENTIONAL RADIATORS									
Technology	Frequency Band (MHz)	Conducted Declared Output Power (dBm)	Antenna Gain (dBi)	Supported Bandwidth (s) (MHz)	Modulation Scheme(s)	ITU Emission Designator	Test Channels (MHz)		
							Bottom	Middle	Top
802.11a	5000	20	6	20	OFDM		5180	5500	5825
802.11b/g	2400	20	0	20	CCK/DSS S/OFDM		2412	2437	2462
802.11n	2400	20	0	20/40	OFDM		2412	2437	2462
802.11n	5000	20	6	20/40	OFDM		5180	5500	5825

UN-INTENTIONAL RADIATOR	
Highest frequency generated or used in the device or on which the device operates or tunes	**5835 MHz**

Power Source			
AC	Single Phase	Three Phase	Nominal Voltage
External DC	Nominal Voltage	Maximum Current	
	24	250mA@24V, 350mA@16.8V	
Battery	Nominal Voltage	Battery Operating End Point Voltage	
Can EUT transmit whilst being charged?	Yes ☐ No ☐		

EXTREME CONDITIONS					
Maximum temperature	75	°C	Minimum temperature	-30	°C

Ancillaries
Please list all ancillaries which will be used with the device.

ANTENNA CHARACTERISTICS						
☒	Antenna connector			State impedance	50	Ohm
☐	Temporary antenna connector			State impedance		Ohm
☐	Integral antenna	Type				
☒	External antenna	Type	Please see attached Antenna List			

I hereby declare that the information supplied is correct and complete.

Name: Malgorzata Janson

Position held: Project Manager Date: 29.05.2017

1.5 Product Information

1.5.1 Technical Description

802.11 a/b/g/n Wi-Fi Access Point. EUT can be operated in either Master or Client mode depending on firmware configuration. EUT supports 20 MHz and 40 MHz bandwidths and 2x2 MIMO data rates (MCS0-7 and MCS 8-15).

1.5.2 Antenna Configuration

From the list of antennas to be supplied with the EUT as shown in table 4, three antennas were chosen by the manufacturer to perform testing with as listed in table 3. The antennas chosen were decided by the manufacturer and were decided based on the antenna gain and applicable conducted output power setting.

Model Number	Effective Antenna Gain (dBi)	Conducted Power Setting (dBm)
ANT795-6MT	6	20*
ANT793-6DG	9	17*
ANT793-8DK + 10m Cable	14.2	14*

Table 3 - Antennas used for Testing

*In order to comply with the regulatory limits at band edge frequencies, the conducted power setting has been reduced below the values specified in the table above. For a full list of the conducted power setting for each test and channel refer to Annex A of the present document.

Below is a full list of all the antennas which may be supplied with the product.

No.	Manufacturer Number	Radiation Pattern	Model Number	Connector	Band	Gain @2.4 GHz [dBi]	Gain @5 GHz [dBi]	Cable Loss	Effective Gain
1	6GK5793-8DK00-0AA0	Directed	ANT793-8DK	N	5 GHz	--	23	8.8	14.2
2	6GK5793-8DJ00-0AA0	Directed	ANT793-8DJ	N	5 GHz	--	18	4.4	13.6
3	6GK5793-8DL00-0AA0	Directed	ANT793-8DL	N	5 GHz	--	14		
4	6GK5793-8DP00-0AA0	Directed	ANT793-8DP	N	5 GHz	--	13.5		
5	6GK5795-6DC00-0AA0	Sector	ANT795-6DC	N	2.4 GHz + 5 GHz	9	9		
6	6GK5793-6DG00-0AA0	Sector	ANT793-6DG	N	5 GHz	--	9		
7	6GK5795-6MN10-0AA6	Omni	ANT795-6MN	N	2.4 GHz + 5 GHz	6	8		
8	6GK5793-6DT00-0AA0	Sector	ANT793-6DT	QMA	5 GHz	--	8		
9	6GK5896-6MM00-0AA0	Omni	ANT896-6MM	QMA	2.4 GHz + 5 GHz	6	7		
10	6GK5795-6MP00-0AA0	Omni	ANT795-6MP	N	2.4 GHz + 5 GHz	5	7		

11	6GK5793-4MN00-0AA6	Omni	ANT793-4MN	N	5 GHz	--	6		
No.	Manufacturer Number	Radiation Pattern	Model Number	Connector	Band	Gain @2.4 GHz [dBi]	Gain @5 GHz [dBi]	Cable Loss	Effective Gain
12	6GK5795-6MT00-0AA0	Omni	ANT795-6MT	QMA	2.4 GHz + 5 GHz	4	6		
13	6GK5793-6MN00-0AA6	Omni	ANT793-6MN	N	5 GHz	--	5		
14	6GK5795-4MA00-0AA3	Omni	ANT795-4MA	R-SMA	2.4 GHz + 5 GHz	3	5		
15	6GK5795-4MC00-0AA3	Omni	ANT795-4MC	N	2.4 GHz + 5 GHz	3	5		
16	6GK5795-4MD00-0AA3	Omni	ANT795-4MD	N	2.4 GHz + 5 GHz	3	5		
17	6GK5795-4MB00-0AA0	Omni	ANT795-4MB	R-SMA	2.4 GHz + 5 GHz	2	3		
18	6GK5795-4MX00-0AA0	Omni	ANT795-4MX	N	2.4 GHz + 5 GHz	2	2.5		
19	6XV1875-2D	Omni	IWLAN Rcoax Cable	N	5 GHz	--	0		
20	6GK5792-6MN00-0AA6	Omni	ANT792-6MN	N	2.4 GHz	6	--		
21	6GK5792-4DN00-0AA6	Omni	ANT792-4DN	N	2.4 GHz	4	--		
22	6XV1875-2A	Omni	IWLAN Rcoax Cable	N	2.4 GHz	0	--		

Table 4 - List of Antennas supplied with EUT

1.6 Deviations from the Standard

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

1.7 EUT Modification Record

The table below details modifications made to the EUT during the test programme.
The modifications incorporated during each test are recorded on the appropriate test pages.

Modification State	Description of Modification still fitted to EUT	Modification Fitted By	Date Modification Fitted
Serial Number: Not Serialised (75938097-TSR0001)			
0	0	0	0
Serial Number: Not Serialised (75938097-TSR0002)			
0	0	0	0

Table 5

1.8 Test Location

TÜV SÜD Product Service conducted the following tests at our Fareham Test Laboratory.

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: ANT795-6MT - 802.11a		
Maximum Conducted Output Power	Mohamed Toubella	UKAS
Maximum Conducted Power Spectral Density	Mohamed Toubella	UKAS
Emission Bandwidth	Matthew Russell	UKAS
Authorised Band Edges	Jack Tuckwell	UKAS
Restricted Band Edges	Jack Tuckwell	UKAS
Spurious Radiated Emissions	Graeme Lawler and Jack Tuckwell	UKAS
Configuration and Mode: ANT793-6DG - 802.11a		
Maximum Conducted Output Power	Mohamed Toubella	UKAS
Maximum Conducted Power Spectral Density	Mohamed Toubella	UKAS
Authorised Band Edges	Jack Tuckwell	UKAS
Restricted Band Edges	Jack Tuckwell	UKAS
Spurious Radiated Emissions	Graeme Lawler and Jack Tuckwell	UKAS
Configuration and Mode: ANT793-8DK + 10m Cable - 802.11a		
Maximum Conducted Output Power	Matthew Russell and Mohamed Toubella	UKAS
Maximum Conducted Power Spectral Density	Matthew Russell and Mohamed Toubella	UKAS
Authorised Band Edges	Jack Tuckwell	UKAS
Restricted Band Edges	Jack Tuckwell	UKAS
Spurious Radiated Emissions	Graeme Lawler and Jack Tuckwell	UKAS
Configuration and Mode: ANT795-6MT - 802.11n 20 MHz Bandwidth		
Maximum Conducted Output Power	Mohamed Toubella	UKAS
Maximum Conducted Power Spectral Density	Mohamed Toubella	UKAS
Emission Bandwidth	Matthew Russell	UKAS
Authorised Band Edges	Jack Tuckwell	UKAS
Restricted Band Edges	Jack Tuckwell	UKAS
Spurious Radiated Emissions	Graeme Lawler and Jack Tuckwell	UKAS
Configuration and Mode: ANT793-6DG - 802.11n 20 MHz Bandwidth		
Maximum Conducted Output Power	Mohamed Toubella	UKAS
Maximum Conducted Power Spectral Density	Mohamed Toubella	UKAS
Authorised Band Edges	Jack Tuckwell	UKAS
Restricted Band Edges	Jack Tuckwell	UKAS

Test Name	Name of Engineer(s)	Accreditation
Spurious Radiated Emissions	Graeme Lawler and Jack Tuckwell	UKAS
Configuration and Mode: ANT793-8DK + 10m Cable - 802.11n 20 MHz Bandwidth		
Maximum Conducted Output Power	Mohamed Toubella	UKAS
Maximum Conducted Power Spectral Density	Mohamed Toubella	UKAS
Authorised Band Edges	Jack Tuckwell	UKAS
Restricted Band Edges	Jack Tuckwell	UKAS
Spurious Radiated Emissions	Graeme Lawler and Jack Tuckwell	UKAS
Configuration and Mode: ANT795-6MT - 802.11n 40 MHz Bandwidth		
Maximum Conducted Output Power	Mohamed Toubella	UKAS
Maximum Conducted Power Spectral Density	Mohamed Toubella	UKAS
Emission Bandwidth	Matthew Russell	UKAS
Authorised Band Edges	Jack Tuckwell	UKAS
Restricted Band Edges	Jack Tuckwell	UKAS
Configuration and Mode: ANT793-6DG - 802.11n 40 MHz Bandwidth		
Maximum Conducted Output Power	Mohamed Toubella	UKAS
Maximum Conducted Power Spectral Density	Mohamed Toubella	UKAS
Authorised Band Edges	Jack Tuckwell	UKAS
Restricted Band Edges	Jack Tuckwell	UKAS
Configuration and Mode: ANT793-8DK + 10m Cable - 802.11n 40 MHz Bandwidth		
Maximum Conducted Output Power	Mohamed Toubella	UKAS
Maximum Conducted Power Spectral Density	Mohamed Toubella	UKAS
Authorised Band Edges	Jack Tuckwell	UKAS
Restricted Band Edges	Jack Tuckwell	UKAS

Table 6

Address:

Octagon House
Concorde Way
Segensworth North
Fareham
Hampshire
PO15 5RL
United Kingdom

2 Test Details

2.1 Maximum Conducted Output Power

2.1.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (a)
Industry Canada RSS-247, Clause 6.2

2.1.2 Equipment Under Test and Modification State

MSN65-W1-M12-E2, S/N: Not Serialised (75938097-TSR0002) - Modification State 0

2.1.3 Date of Test

05-May-2017 to 10-May-2017

2.1.4 Test Method

The test was performed in accordance with ANSI C63.10, clause 12.3.2.5.

2.1.5 Environmental Conditions

Ambient Temperature	21.7 - 25.6 °C
Relative Humidity	26.0 - 34.8 %

2.1.6 Test Results

ANT795-6MT - 802.11a

Testing was performed on the Data Rate which resulted in the highest conducted output power. The Data Rate used during testing was 6 Mbps.

The antenna gain was declared by the manufacturer as 6 dBi.

The duty cycle of the EUT was measured as follows:
UNII-1: 87.73%
UNII-2a: 49.97 %
UNII-2c: 51.00 %
UNII-3: 90.77%

Port	Maximum Conducted Output Power (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	16.37	16.40	15.61
2	15.63	15.26	14.87
Total Power	-	-	-

Table 7 - UNII-1 Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	15.65	15.04	15.10
2	12.85	14.73	13.68
Total Power	-	-	-

Table 8 - UNII-2a Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	15.77	15.33	15.30
2	12.51	14.88	11.55
Total Power	-	-	-

Table 9 - UNII-2c Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	15.05	14.81	14.09
2	13.06	9.56	13.58
Total Power	-	-	-

Table 10 - UNII-3 Conducted Power Results

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	22.37	22.40	21.61
2	21.63	21.26	20.87
Total Power	-	-	-

Table 11 - UNII-1 EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	21.65	21.04	21.10
2	18.85	20.73	19.68
Total Power	-	-	-

Table 12 - UNII-2a EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	21.77	21.33	21.30
2	18.51	20.88	17.55
Total Power	-	-	-

Table 13 - UNII-2c EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	21.05	20.81	20.09
2	19.06	15.56	19.58
Total Power	-	-	-

Table 14 - UNII-3 EIRP

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted TX Power	30 dBm (1W) for master device 24 dBm (250 mW) for client device	24 dBm (250 mW) or 11 dBm + 10 Log B, whichever is lower (B = 26 dB emission BW)		30 dBm (1 W)
Max EIRP	4W (36 dBm) with 6 dBi antenna 200 W (53 dBm) for fixed P-t-P application with 23 dBi antenna Additional rule for outdoor operation: Max_EIRP < 125 mW (21 dBm) at any elevation angle > 30° from horizon.	1 W (30 dBm) with 6 dBi antenna		4 W (36 dBm) with 6 dBi antenna. No EIRP limit for fixed P-t-P application (i.e. no antenna gain limit)

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP); whichever is less	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP)); whichever is less	-	-
Other	200 mW or 10 + 10$\log_{10}$B dBm (EIRP); whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	1W 4W EIRP

ANT793-6DG - 802.11a

Testing was performed on the Data Rate which resulted in the highest conducted output power. The Data Rate used during testing was 6 Mbps.

The antenna gain was declared by the manufacturer as 9 dBi.

The duty cycle of the EUT was measured as follows:
UNII-1: 87.73%
UNII-2a: 49.97 %
UNII-2c: 51.00 %
UNII-3: 90.77%

Port	Maximum Conducted Output Power (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	14.73	14.57	13.81
2	11.20	10.41	10.67
Total Power	-	-	-

Table 15 - UNII-1 Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	14.21	13.48	13.61
2	13.11	13.28	13.81
Total Power	-	-	-

Table 16 - UNII-2a Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	14.37	13.93	14.00
2	12.64	13.06	11.71
Total Power	-	-	-

Table 17 - UNII-2c Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	14.37	13.97	13.29
2	9.18	9.77	12.71
Total Power	-	-	-

Table 18 - UNII-3 Conducted Power Results

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	23.73	23.57	22.81
2	20.20	19.41	19.67
Total Power	-	-	-

Table 19 - UNII-1 EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	23.21	22.48	22.61
2	22.11	22.28	22.81
Total Power	-	-	-

Table 20 - UNII-2a EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	23.37	22.93	23.00
2	21.64	22.06	20.71
Total Power	-	-	-

Table 21 - UNII-2c EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	23.37	22.97	22.29
2	18.18	18.77	21.71
Total Power	-	-	-

Table 22 - UNII-3 EIRP

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted TX Power	30 dBm (1W) for master device 24 dBm (250 mW) for client device	24 dBm (250 mW) or 11 dBm + 10 Log B, whichever is lower (B = 26 dB emission BW)		30 dBm (1 W)
Max EIRP	4W (36 dBm) with 6 dBi antenna 200 W (53 dBm) for fixed P-t-P application with 23 dBi antenna Additional rule for outdoor operation: Max_EIRP < 125 mW (21 dBm) at any elevation angle > 30° from horizon.	1 W (30 dBm) with 6 dBi antenna		4 W (36 dBm) with 6 dBi antenna. No EIRP limit for fixed P-t-P application (i.e. no antenna gain limit)

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP); whichever is less	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP)); whichever is less	-	-
Other	200 mW or 10 + 10$\log_{10}$B dBm (EIRP); whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	1W 4W EIRP

ANT793-8DK + 10m Cable - 802.11a

Testing was performed on the Data Rate which resulted in the highest conducted output power. The Data Rate used during testing was 6 Mbps.

The antenna gain was declared by the manufacturer as 14.2 dBi.

The duty cycle of the EUT was measured as follows:
UNII-1: 87.73%
UNII-2a: 49.97 %
UNII-2c: 51.00 %
UNII-3: 90.77%

Port	Maximum Conducted Output Power (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	12.08	11.71	11.18
2	10.56	10.57	10.67
Total Power	-	-	-

Table 23 - UNII-1 Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	11.46	10.50	10.43
2	10.65	10.50	10.40
Total Power	-	-	-

Table 24 - UNII-2a Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	11.88	11.47	11.41
2	11.17	10.31	10.54
Total Power	-	-	-

Table 25 - UNII-2c Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	11.97	11.65	10.46
2	10.98	9.66	10.95
Total Power	-	-	-

Table 26 - UNII-3 Conducted Power Results

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	26.28	25.91	25.38
2	24.76	24.77	24.87
Total Power	-	-	-

Table 27 - UNII-1 EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	25.66	24.70	24.63
2	24.85	14.70	14.60
Total Power	-	-	-

Table 28 - UNII-2a EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	26.08	25.67	25.61
2	25.37	25.51	25.74
Total Power	-	-	-

Table 29 - UNII-2c EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	26.17	25.85	25.66
2	25.18	23.86	25.15
Total Power	-	-	-

Table 30 - UNII-3 EIRP

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted TX Power	30 dBm (1W) for master device 24 dBm (250 mW) for client device	24 dBm (250 mW) or 11 dBm + 10 Log B, whichever is lower (B = 26 dB emission BW)		30 dBm (1 W)
Max EIRP	4W (36 dBm) with 6 dBi antenna 200 W (53 dBm) for fixed P-t-P application with 23 dBi antenna Additional rule for outdoor operation: Max_EIRP < 125 mW (21 dBm) at any elevation angle > 30° from horizon.	1 W (30 dBm) with 6 dBi antenna		4 W (36 dBm) with 6 dBi antenna. No EIRP limit for fixed P-t-P application (i.e. no antenna gain limit)

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP); whichever is less	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP)); whichever is less	-	-
Other	200 mW or 10 + 10$\log_{10}$B dBm (EIRP); whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	1W 4W EIRP

ANT795-6MT - 802.11n 20 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme which resulted in the highest conducted output power. The Modulation Coding Scheme used during testing was MCS0.

The antenna gain was declared by the manufacturer as 6 dBi.

The duty cycle of the EUT was measured as follows:
UNII-1: 87.42%
UNII-2a: 50.10 %
UNII-2c: 50.68 %
UNII-3: 90.39%

Port	Maximum Conducted Output Power (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	15.70	15.07	14.25
2	14.65	15.52	14.49
Total Power	18.22	17.82	17.39

Table 31 - UNII-1 Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	16.71	16.20	16.77
2	17.01	17.35	16.72
Total Power	19.87	19.82	19.76

Table 32 - UNII-2a Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	16.97	16.57	16.58
2	17.49	17.07	16.46
Total Power	20.25	19.84	19.53

Table 33 - UNII-2c Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	14.04	14.07	13.48
2	13.71	13.97	13.23
Total Power	16.89	17.03	16.37

Table 34 - UNII-3 Conducted Power Results

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	21.70	21.07	20.25
2	20.65	21.52	20.49
Total Power	24.22	23.82	23.39

Table 35 - UNII-1 EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	22.71	22.20	22.77
2	23.01	23.35	23.72
Total Power	25.87	25.82	25.76

Table 36 - UNII-2a EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	22.97	22.57	22.58
2	23.49	23.07	22.46
Total Power	26.25	25.84	25.53

Table 37 - UNII-2c EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	20.04	20.07	19.48
2	19.71	19.97	19.23
Total Power	23.89	24.03	23.37

Table 38 - UNII-3 EIRP

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted TX Power	30 dBm (1W) for master device 24 dBm (250 mW) for client device	24 dBm (250 mW) or 11 dBm + 10 Log B, whichever is lower (B = 26 dB emission BW)		30 dBm (1 W)
Max EIRP	4W (36 dBm) with 6 dBi antenna 200 W (53 dBm) for fixed P-t-P application with 23 dBi antenna Additional rule for outdoor operation: Max_EIRP < 125 mW (21 dBm) at any elevation angle > 30° from horizon.	1 W (30 dBm) with 6 dBi antenna		4 W (36 dBm) with 6 dBi antenna. No EIRP limit for fixed P-t-P application (i.e. no antenna gain limit)

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP); whichever is less	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP)); whichever is less	-	-
Other	200 mW or 10 + 10$\log_{10}$B dBm (EIRP); whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	1W 4W EIRP

ANT793-6DG - 802.11n 20 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme which resulted in the highest conducted output power. The Modulation Coding Scheme used during testing was MCS0.

The antenna gain was declared by the manufacturer as 9 dBi.

The duty cycle of the EUT was measured as follows:
UNII-1: 87.42%
UNII-2a: 50.10 %
UNII-2c: 50.68 %
UNII-3: 90.39%

Port	Maximum Conducted Output Power (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	14.67	14.14	13.71
2	12.89	12.73	12.53
Total Power	16.88	16.50	16.17

Table 39 - UNII-1 Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	16.18	15.72	16.00
2	15.30	15.85	15.95
Total Power	18.78	18.80	18.99

Table 40 - UNII-2a Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	16.44	16.12	16.08
2	15.85	15.57	15.19
Total Power	19.17	18.87	18.67

Table 41 - UNII-2c Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	16.16	13.58	12.88
2	12.71	13.02	12.47
Total Power	16.51	16.32	15.69

Table 42 - UNII-3 Conducted Power Results

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	23.67	23.14	22.71
2	21.89	21.73	21.53
Total Power	25.88	25.50	25.17

Table 43 - UNII-1 EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	25.18	25.72	25.00
2	24.30	24.85	24.95
Total Power	27.78	27.80	27.99

Table 44 - UNII-2a EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	25.44	25.12	25.08
2	24.85	24.57	24.19
Total Power	28.17	27.87	27.67

Table 45 - UNII-2c EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	25.16	22.58	21.88
2	21.71	22.02	21.47
Total Power	25.51	25.32	24.69

Table 46 - UNII-3 EIRP

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted TX Power	30 dBm (1W) for master device 24 dBm (250 mW) for client device	24 dBm (250 mW) or 11 dBm + 10 Log B, whichever is lower (B = 26 dB emission BW)		30 dBm (1 W)
Max EIRP	4W (36 dBm) with 6 dBi antenna 200 W (53 dBm) for fixed P-t-P application with 23 dBi antenna Additional rule for outdoor operation: Max_EIRP < 125 mW (21 dBm) at any elevation angle > 30° from horizon.	1 W (30 dBm) with 6 dBi antenna		4 W (36 dBm) with 6 dBi antenna. No EIRP limit for fixed P-t-P application (i.e. no antenna gain limit)

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP); whichever is less	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP)); whichever is less	-	-
Other	200 mW or 10 + 10$\log_{10}$B dBm (EIRP); whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	1W 4W EIRP

ANT793-8DK + 10m Cable - 802.11n 20 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme which resulted in the highest conducted output power. The Modulation Coding Scheme used during testing was MCS0.

The antenna gain was declared by the manufacturer as 14.2 dBi.

The duty cycle of the EUT was measured as follows:
UNII-1: 87.42%
UNII-2a: 50.10 %
UNII-2c: 50.68 %
UNII-3: 90.39%

Port	Maximum Conducted Output Power (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	12.22	11.33	9.63
2	9.68	9.19	9.45
Total Power	14.15	13.40	12.56

Table 47 - UNII-1 Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	12.29	11.60	11.82
2	11.75	12.28	12.71
Total Power	15.04	14.97	15.30

Table 48 - UNII-2a Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	13.61	12.64	12.84
2	12.66	13.09	14.49
Total Power	16.17	15.88	16.75

Table 49 - UNII-2c Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	10.77	10.49	10.49
2	10.45	10.62	10.71
Total Power	13.62	13.56	13.61

Table 50 - UNII-3 Conducted Power Results

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	26.42	25.53	23.83
2	23.88	23.29	23.65
Total Power	28.35	28.60	26.76

Table 51 - UNII-1 EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	26.49	25.80	26.02
2	25.95	26.48	26.91
Total Power	29.24	29.17	28.50

Table 52 - UNII-2a EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	27.81	26.84	27.04
2	26.86	27.29	28.69
Total Power	30.37	30.08	30.95

Table 53 - UNII-2c EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	24.97	24.69	24.69
2	24.65	24.82	24.91
Total Power	27.82	27.76	27.81

Table 54 - UNII-3 EIRP

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted TX Power	30 dBm (1W) for master device 24 dBm (250 mW) for client device	24 dBm (250 mW) or 11 dBm + 10 Log B, whichever is lower (B = 26 dB emission BW)		30 dBm (1 W)
Max EIRP	4W (36 dBm) with 6 dBi antenna 200 W (53 dBm) for fixed P-t-P application with 23 dBi antenna Additional rule for outdoor operation: Max_EIRP < 125 mW (21 dBm) at any elevation angle > 30° from horizon.	1 W (30 dBm) with 6 dBi antenna		4 W (36 dBm) with 6 dBi antenna. No EIRP limit for fixed P-t-P application (i.e. no antenna gain limit)

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP); whichever is less	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP)); whichever is less	-	-
Other	200 mW or 10 + 10$\log_{10}$B dBm (EIRP); whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	1W 4W EIRP

ANT795-6MT - 802.11n 40 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme which resulted in the highest conducted output power. The Modulation Coding Scheme used during testing was MCS8.

The antenna gain was declared by the manufacturer as 6 dBi.

The duty cycle of the EUT was measured as follows:
UNII-1: 68.20%
UNII-2a: 67.31%
UNII-2c: 67.76%
UNII-3: 69.18%

Port	Maximum Conducted Output Power (dBm)	
	5190 MHz	5230 MHz
1	15.93	14.47
2	14.34	14.24
Total Power	18.22	17.37

Table 55 - UNII-1 Conducted Power Results

Port	Maximum Conducted Output Power (dBm)	
	5270 MHz	5310 MHz
1	14.53	14.02
2	14.71	14.96
Total Power	17.63	17.52

Table 56 - UNII-2a Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5510 MHz	5590 MHz	5670 MHz
1	14.68	14.61	13.95
2	14.81	14.61	13.74
Total Power	17.76	17.62	16.86

Table 57 - UNII-2c Conducted Power Results

Port	Maximum Conducted Output Power (dBm)	
	5755 MHz	5795 MHz
1	14.07	13.89
2	13.59	13.71
Total Power	16.85	16.81

Table 58 - UNII-3 Conducted Power Results

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)	
	5190 MHz	5230 MHz
1	21.93	20.47
2	20.34	20.24
Total Power	24.22	23.37

Table 59 - UNII-1 EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)	
	5270 MHz	5310 MHz
1	20.53	20.02
2	20.71	20.96
Total Power	23.63	23.52

Table 60 - UNII-2a EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5510 MHz	5590 MHz	5670 MHz
1	20.68	20.61	19.95
2	20.81	20.61	19.74
Total Power	23.76	23.62	22.86

Table 61 - UNII-2c EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)	
	5755 MHz	5795 MHz
1	20.07	19.89
2	19.59	19.71
Total Power	22.85	22.81

Table 62 - UNII-3 EIRP

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted TX Power	30 dBm (1W) for master device 24 dBm (250 mW) for client device	24 dBm (250 mW) or 11 dBm + 10 Log B, whichever is lower (B = 26 dB emission BW)		30 dBm (1 W)
Max EIRP	4W (36 dBm) with 6 dBi antenna 200 W (53 dBm) for fixed P-t-P application with 23 dBi antenna Additional rule for outdoor operation: Max_EIRP < 125 mW (21 dBm) at any elevation angle > 30° from horizon.	1 W (30 dBm) with 6 dBi antenna		4 W (36 dBm) with 6 dBi antenna. No EIRP limit for fixed P-t-P application (i.e. no antenna gain limit)

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP); whichever is less	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP)); whichever is less	-	-
Other	200 mW or 10 + 10$\log_{10}$B dBm (EIRP); whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	1W 4W EIRP

ANT793-6DG - 802.11n 40 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme which resulted in the highest conducted output power. The Modulation Coding Scheme used during testing was MCS8.

The antenna gain was declared by the manufacturer as 9 dBi.

The duty cycle of the EUT was measured as follows:
UNII-1: 68.20%
UNII-2a: 67.31%
UNII-2c: 67.76%
UNII-3: 69.18%

Port	Maximum Conducted Output Power (dBm)	
	5190 MHz	5230 MHz
1	13.65	13.12
2	13.72	13.33
Total Power	16.70	16.24

Table 63 - UNII-1 Conducted Power Results

Port	Maximum Conducted Output Power (dBm)	
	5270 MHz	5310 MHz
1	10.31	10.01
2	13.78	14.34
Total Power	15.39	15.70

Table 64 - UNII-2a Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5510 MHz	5590 MHz	5670 MHz
1	10.45	10.03	10.24
2	14.13	14.16	13.25
Total Power	15.68	15.58	15.01

Table 65 - UNII-2c Conducted Power Results

Port	Maximum Conducted Output Power (dBm)	
	5755 MHz	5795 MHz
1	10.59	10.38
2	13.70	13.89
Total Power	15.43	15.49

Table 66 - UNII-3 Conducted Power Results

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)	
	5190 MHz	5230 MHz
1	22.65	22.12
2	22.72	22.33
Total Power	25.70	25.24

Table 67 - UNII-1 Conducted Power Results

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)	
	5270 MHz	5310 MHz
1	19.31	19.01
2	22.78	23.34
Total Power	24.39	24.70

Table 68 - UNII-2a Conducted Power Results

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5510 MHz	5590 MHz	5670 MHz
1	19.45	19.03	19.24
2	20.13	20.16	22.25
Total Power	24.68	24.58	24.01

Table 69 - UNII-2c Conducted Power Results

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)	
	5755 MHz	5795 MHz
1	19.59	19.38
2	22.70	22.89
Total Power	24.43	24.49

Table 70 - UNII-3 Conducted Power Results

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted TX Power	30 dBm (1W) for master device 24 dBm (250 mW) for client device	24 dBm (250 mW) or 11 dBm + 10 Log B, whichever is lower (B = 26 dB emission BW)		30 dBm (1 W)
Max EIRP	4W (36 dBm) with 6 dBi antenna 200 W (53 dBm) for fixed P-t-P application with 23 dBi antenna Additional rule for outdoor operation: Max_EIRP < 125 mW (21 dBm) at any elevation angle > 30° from horizon.	1 W (30 dBm) with 6 dBi antenna		4 W (36 dBm) with 6 dBi antenna. No EIRP limit for fixed P-t-P application (i.e. no antenna gain limit)

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP); whichever is less	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP)); whichever is less	-	-
Other	200 mW or 10 + 10$\log_{10}$B dBm (EIRP); whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	1W 4W EIRP

ANT793-8DK + 10m Cable - 802.11n 40 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme which resulted in the highest conducted output power. The Modulation Coding Scheme used during testing was MCS8.

The antenna gain was declared by the manufacturer as 14.2 dBi.

The duty cycle of the EUT was measured as follows:
UNII-1: 68.20%
UNII-2a: 67.31%
UNII-2c: 67.76%
UNII-3: 69.18%

Port	Maximum Conducted Output Power (dBm)	
	5190 MHz	5230 MHz
1	11.11	9.76
2	10.46	10.29
Total Power	13.81	13.05

Table 71 - UNII-1 Conducted Power Results

Port	Maximum Conducted Output Power (dBm)	
	5270 MHz	5310 MHz
1	10.01	9.99
2	10.58	10.94
Total Power	13.31	13.50

Table 72 - UNII-2a Conducted Power Results

Port	Maximum Conducted Output Power (dBm)		
	5510 MHz	5590 MHz	5670 MHz
1	10.40	9.97	10.18
2	11.43	11.52	10.84
Total Power	13.96	13.82	13.53

Table 73 - UNII-2c Conducted Power Results

Port	Maximum Conducted Output Power (dBm)	
	5755 MHz	5795 MHz
1	10.40	10.48
2	10.40	10.48
Total Power	13.41	13.49

Table 74 - UNII-3 Conducted Power Results

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)	
	5190 MHz	5230 MHz
1	25.31	23.96
2	24.66	24.49
Total Power	28.01	27.25

Table 75 - UNII-1 EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)	
	5270 MHz	5310 MHz
1	24.21	24.19
2	24.78	25.14
Total Power	27.51	27.70

Table 76 - UNII-2a EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)		
	5510 MHz	5590 MHz	5670 MHz
1	24.60	24.17	24.38
2	25.63	25.72	25.04
Total Power	28.16	28.02	27.73

Table 77 - UNII-2c EIRP

Port	Equivalent Isotropic Radiated Power - EIRP (dBm)	
	5755 MHz	5795 MHz
1	24.60	24.68
2	24.60	24.68
Total Power	27.61	27.69

Table 78 - UNII-3 EIRP

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted TX Power	30 dBm (1W) for master device 24 dBm (250 mW) for client device	24 dBm (250 mW) or 11 dBm + 10 Log B, whichever is lower (B = 26 dB emission BW)		30 dBm (1 W)
Max EIRP	4W (36 dBm) with 6 dBi antenna 200 W (53 dBm) for fixed P-t-P application with 23 dBi antenna Additional rule for outdoor operation: Max_EIRP < 125 mW (21 dBm) at any elevation angle > 30° from horizon.	1 W (30 dBm) with 6 dBi antenna		4 W (36 dBm) with 6 dBi antenna. No EIRP limit for fixed P-t-P application (i.e. no antenna gain limit)

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP); whichever is less	30 mW or 1.76 + 10 $\log_{10}$B, dBm (EIRP)); whichever is less	-	-
Other	200 mW or 10 + 10$\log_{10}$B dBm (EIRP); whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	250 mW or 11 + 10 $\log_{10}$B); whichever is less 1.0 W or 17 + 10$\log_{10}$B dBm EIRP; whichever is less	1W 4W EIRP

2.1.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Multimeter	White Gold	WG022	190	12	24-Nov-2017
Attenuator 10dB/10W)	Trilithic	HFP-50N	454	12	26-Aug-2017
20dB/2W Attenuator	Narda	4772-20	462	-	TU
Termination (50ohm, 50W)	Bird	8085	472	12	08-Sep-2017
Attenuator: 10dB/20W	Narda	766-10	480	12	14-Dec-2017
Power Supply Unit	Farnell	TSV-70	2043	-	O/P Mon
Hygrometer	Rotronic	I-1000	2891	12	23-Aug-2017
Hygrometer	Rotronic	I-1000	3220	12	23-Aug-2017
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	15-Sep-2017
Calibration Unit	Rohde & Schwarz	ZV-Z54	4368	12	08-Sep-2017
PXA Signal Analyser	Agilent Technologies	N9030A PXA	4409	12	09-Mar-2018
1 metre SMA Cable	Florida Labs	SMS-235SP-39.4-SMS	4513	-	O/P Mon
PXA Signal Analyser	Keysight Technologies	N9030A	4653	12	12-Jan-2018

Table 79

TU - Traceability Unscheduled
O/P Mon – Output Monitored using calibrated equipment

2.2 Maximum Conducted Power Spectral Density

2.2.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (a)
Industry Canada RSS-247, Clause 6.2

2.2.2 Equipment Under Test and Modification State

MSN65-W1-M12-E2, S/N: Not Serialised (75938097-TSR0002) - Modification State 0

2.2.3 Date of Test

04-May-2017 to 10-May-2017

2.2.4 Test Method

The test was performed in accordance with ANSI C63.10, clause 12.5 (Method SA-2A).

2.2.5 Environmental Conditions

Ambient Temperature	21.8 - 26.4 °C
Relative Humidity	26.5 - 34.8 %

2.2.6 Test Results

ANT795-6MT - 802.11a

Testing was performed on the Data Rate which resulted in the highest conducted output power. The Data Rate used during testing was 6 Mbps.

Port	Maximum Conducted Power Spectral Density (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	5.14	5.26	4.40
2	4.76	4.18	3.88
Total Power	-	-	-

Table 80 - UNII-1 Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	5.20	4.81	4.58
2	3.98	3.72	3.77
Total Power	-	-	-

Table 81 - UNII-2a Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	5.51	4.84	4.76
2	4.57	3.90	2.48
Total Power	-	-	-

Table 82 - UNII-2c Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	3.98	3.89	3.24
2	-1.07	-0.61	-0.48
Total Power	-	-	-

Table 83 - UNII-3 Conducted Power Spectral Density Results

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted Power Spectral Density	17 dBm/MHz for master device 11 dBm/MHz for mobile/portable client device	11 dBm/MHz		30 dBm/500 kHz

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	-	-	-	-
Other	≤10 dBm/MHz EIRP	≤11 dBm/MHz	≤11 dBm/MHz	≤30 dBm/500kHz

ANT793-6DG - 802.11a

Testing was performed on the Data Rate which resulted in the highest conducted output power. The Data Rate used during testing was 6 Mbps.

Port	Maximum Conducted Power Spectral Density (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	3.43	3.33	5.30
2	-0.07	-0.89	-0.90
Total Power	-	-	-

Table 84 - UNII-1 Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	3.49	3.03	3.21
2	1.51	2.17	2.64
Total Power	-	-	-

Table 85 - UNII-2a Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	4.00	3.44	3.44
2	1.12	1.45	0.12
Total Power	-	-	-

Table 86 - UNII-2c Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	3.27	3.17	2.35
2	-5.32	-4.55	-4.25
Total Power	-	-	-

Table 87 - UNII-3 Conducted Power Spectral Density Results

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted Power Spectral Density	17 dBm/MHz for master device 11 dBm/MHz for mobile/portable client device	11 dBm/MHz		30 dBm/500 kHz

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	-	-	-	-
Other	≤10 dBm/MHz EIRP	≤11 dBm/MHz	≤11 dBm/MHz	≤30 dBm/500kHz

ANT793-8DK + 10m Cable - 802.11a

Testing was performed on the Data Rate which resulted in the highest conducted output power. The Data Rate used during testing was 6 Mbps.

Port	Maximum Conducted Power Spectral Density (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	1.00	0.51	-0.30
2	-1.01	-0.87	-0.74
Total Power	-	-	-

Table 88 - UNII-1 Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	1.09	2.27	0.10
2	2.00	-0.68	-2.03
Total Power	-	-	-

Table 89 - UNII-2a Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	1.46	0.97	0.92
2	0.48	-2.03	-1.92
Total Power	-	--	-

Table 90 - UNII-2c Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	0.91	0.57	-0.06
2	-3.57	-5.00	-3.08
Total Power	-	-	-

Table 91 - UNII-3 Conducted Power Spectral Density Results

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted Power Spectral Density	17 dBm/MHz for master device 11 dBm/MHz for mobile/portable client device	11 dBm/MHz		30 dBm/500 kHz

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	-	-	-	-
Other	≤10 dBm/MHz EIRP	≤11 dBm/MHz	≤11 dBm/MHz	≤30 dBm/500kHz

ANT795-6MT - 802.11n 20 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme which resulted in the highest conducted output power. The Modulation Coding Scheme used during testing was MCS0.

Port	Maximum Conducted Power Spectral Density (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	4.22	3.69	2.81
2	3.00	2.89	2.81
Total Power	6.67	6.32	5.82

Table 92 - UNII-1 Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	5.37	4.77	5.46
2	5.55	5.40	5.20
Total Power	8.47	8.11	8.34

Table 93 - UNII-2a Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	5.76	5.44	5.13
2	6.05	8.85	4.96
Total Power	8.92	10.48	8.06

Table 94 - UNII-2c Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	2.88	2.81	2.44
2	-1.07	-0.36	-1.24
Total Power	5.44	5.73	5.12

Table 95 - UNII-3 Conducted Power Spectral Density Results

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted Power Spectral Density	17 dBm/MHz for master device 11 dBm/MHz for mobile/portable client device	11 dBm/MHz		30 dBm/500 kHz

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	-	-	-	-
Other	≤10 dBm/MHz EIRP	≤11 dBm/MHz	≤11 dBm/MHz	≤30 dBm/500kHz

ANT793-6DG - 802.11n 20 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme which resulted in the highest conducted output power. The Modulation Coding Scheme used during testing was MCS0.

Port	Maximum Conducted Power Spectral Density (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	4.34	2.85	2.40
2	1.18	1.01	0.43
Total Power	6.05	5.04	4.53

Table 96 - UNII-1 Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	4.83	4.26	5.23
2	3.45	4.09	4.56
Total Power	7.21	7.19	7.60

Table 97 - UNII-2a Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	5.23	4.86	4.79
2	4.00	4.11	3.06
Total Power	7.67	7.52	7.03

Table 98 - UNII-2c Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	2.84	2.52	2.09
2	1.28	0.96	1.24
Total Power	5.14	4.82	4.70

Table 99 - UNII-3 Conducted Power Spectral Density Results

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted Power Spectral Density	17 dBm/MHz for master device 11 dBm/MHz for mobile/portable client device	11 dBm/MHz		30 dBm/500 kHz

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	-	-	-	-
Other	≤10 dBm/MHz EIRP	≤11 dBm/MHz	≤11 dBm/MHz	≤30 dBm/500kHz

ANT793-8DK + 10m Cable - 802.11n 20 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme which resulted in the highest conducted output power. The Modulation Coding Scheme used during testing was MCS0.

Port	Maximum Conducted Power Spectral Density (dBm)		
	5180 MHz	5200 MHz	5240 MHz
1	0.74	-0.06	-1.86
2	-1.88	-2.10	-2.55
Total Power	2.64	2.05	0.82

Table 100 - UNII-1 Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5260 MHz	5300 MHz	5320 MHz
1	0.87	0.11	0.78
2	0.06	0.77	0.78
Total Power	3.50	3.46	3.79

Table 101 - UNII-2a Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5500 MHz	5580 MHz	5700 MHz
1	0.73	1.42	1.49
2	1.52	1.19	0.69
Total Power	4.15	4.32	4.12

Table 102 - UNII-2c Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5745 MHz	5785 MHz	5825 MHz
1	-0.61	-0.32	-0.72
2	-0.96	-0.72	-1.09
Total Power	2.23	2.49	2.11

Table 103 - UNII-3 Conducted Power Spectral Density Results

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted Power Spectral Density	17 dBm/MHz for master device 11 dBm/MHz for mobile/portable client device	11 dBm/MHz		30 dBm/500 kHz

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	-	-	-	-
Other	≤10 dBm/MHz EIRP	≤11 dBm/MHz	≤11 dBm/MHz	≤30 dBm/500kHz

ANT795-6MT - 802.11n 40 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme which resulted in the highest conducted output power. The Modulation Coding Scheme used during testing was MCS8.

Port	Maximum Conducted Power Spectral Density (dBm)	
	5190 MHz	5230 MHz
1	-0.28	0.15
2	0.04	-0.37
Total Power	2.90	2.91

Table 104 - UNII-1 Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)	
	5270 MHz	5310 MHz
1	0.19	-0.21
2	-0.41	-0.19
Total Power	2.91	2.81

Table 105 - UNII-2a Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5510 MHz	5590 MHz	5670 MHz
1	0.24	0.20	-0.40
2	0.37	0.20	-0.65
Total Power	3.32	3.21	2.49

Table 106 - UNII-2c Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)	
	5755 MHz	5795 MHz
1	-0.26	-0.19
2	-1.24	-0.76
Total Power	2.29	2.54

Table 107 - UNII-3 Conducted Power Spectral Density Results

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted Power Spectral Density	17 dBm/MHz for master device 11 dBm/MHz for mobile/portable client device	11 dBm/MHz		30 dBm/500 kHz

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	-	-	-	-
Other	≤10 dBm/MHz EIRP	≤11 dBm/MHz	≤11 dBm/MHz	≤30 dBm/500kHz

ANT793-6DG - 802.11n 40 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme which resulted in the highest conducted output power. The Modulation Coding Scheme used during testing was MCS8.

Port	Maximum Conducted Power Spectral Density (dBm)	
	5190 MHz	5230 MHz
1	-0.39	-1.12
2	-1.11	-1.36
Total Power	2.28	1.77

Table 108 - UNII-1 Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)	
	5270 MHz	5310 MHz
1	-4.00	-4.33
2	-0.69	-0.20
Total Power	0.97	1.22

Table 109 - UNII-2a Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5510 MHz	5590 MHz	5670 MHz
1	-3.70	-4.36	-4.22
2	-1.99	-1.97	-2.68
Total Power	0.99	0.79	0.36

Table 110 - UNII-2c Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)	
	5755 MHz	5795 MHz
1	-3.68	-3.76
2	-0.74	-0.55
Total Power	1.04	1.15

Table 111 - UNII-3 Conducted Power Spectral Density Results

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted Power Spectral Density	17 dBm/MHz for master device 11 dBm/MHz for mobile/portable client device	11 dBm/MHz		30 dBm/500 kHz

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	-	-	-	-
Other	≤10 dBm/MHz EIRP	≤11 dBm/MHz	≤11 dBm/MHz	≤30 dBm/500kHz

ANT793-8DK + 10m Cable - 802.11n 40 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme which resulted in the highest conducted output power. The Modulation Coding Scheme used during testing was MCS8.

Port	Maximum Conducted Power Spectral Density (dBm)	
	5190 MHz	5230 MHz
1	-3.11	-4.73
2	-4.27	-4.30
Total Power	-0.64	-1.50

Table 112 - UNII-1 Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)	
	5270 MHz	5310 MHz
1	-4.31	-4.95
2	-3.85	-3.72
Total Power	-1.06	-1.28

Table 113 - UNII-2a Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)		
	5510 MHz	5590 MHz	5670 MHz
1	-3.85	-4.26	-4.19
2	-3.11	-2.75	-3.56
Total Power	-0.45	-0.43	-0.85

Table 114 - UNII-2c Conducted Power Spectral Density Results

Port	Maximum Conducted Power Spectral Density (dBm)	
	5755 MHz	5795 MHz
1	-4.00	-3.59
2	-3.94	-3.12
Total Power	-0.96	-0.34

Table 115 - UNII-3 Conducted Power Spectral Density Results

FCC 47 CFR Part 15E, Limit Clause 15.407(a)

Condition of Operation	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
Max Conducted Power Spectral Density	17 dBm/MHz for master device 11 dBm/MHz for mobile/portable client device	11 dBm/MHz		30 dBm/500 kHz

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

Device	Frequency Range (MHz)			
	5150-5250	5250-5350	5470-5725	5725-5850
OEM installed in vehicles	-	-	-	-
Other	≤10 dBm/MHz EIRP	≤11 dBm/MHz	≤11 dBm/MHz	≤30 dBm/500kHz

2.2.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Multimeter	White Gold	WG022	190	12	24-Nov-2017
Attenuator 10dB/10W)	Trilithic	HFP-50N	454	12	26-Aug-2017
20dB/2W Attenuator	Narda	4772-20	462	-	O/P Mon
Termination (50ohm, 50W)	Bird	8085	472	12	08-Sep-2017
Attenuator: 10dB/20W	Narda	766-10	480	12	14-Dec-2017
Power Supply Unit	Farnell	TSV-70	2043	-	O/P Mon
Hygrometer	Rotronic	I-1000	2891	12	23-Aug-2017
Hygrometer	Rotronic	I-1000	3220	12	23-Aug-2017
Network Analyser	Rohde & Schwarz	ZVA 40	3548	12	15-Sep-2017
Calibration Unit	Rohde & Schwarz	ZV-Z54	4368	12	08-Sep-2017
PXA Signal Analyser	Agilent Technologies	N9030A PXA	4409	12	09-Mar-2018
1 metre SMA Cable	Florida Labs	SMS-235SP-39.4-SMS	4513	-	O/P Mon
PXA Signal Analyser	Keysight Technologies	N9030A	4653	12	12-Jan-2018

Table 116

TU - Traceability Unscheduled
O/P Mon – Output Monitored using calibrated equipment

2.3 Emission Bandwidth

2.3.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (a)
Industry Canada RSS-247, Clause 6.2

2.3.2 Equipment Under Test and Modification State

MSN65-W1-M12-E2, S/N: Not Serialised (75938097-TSR0001) - Modification State 0

2.3.3 Date of Test

10-March-2017 to 12-May-2017

2.3.4 Test Method

The test was performed in accordance with ANSI C63.10, clause 12.4.1.

The 26 dB bandwidth was measured for operating channels in the U-NII 1, U-NII 2a and U-NII 2c bands. The 6 dB bandwidth was recorded for operating channels in the U-NII 3 band.

2.3.5 Environmental Conditions

Ambient Temperature	22.7 - 22.8 °C
Relative Humidity	43.7 - 50.8 %

2.3.6 Test Results

ANT795-6MT - 802.11a

The Data Rate used during testing was 6 Mbps.

26 dB Bandwidth (MHz)		
5180 MHz	5200 MHz	5240 MHz
35.16	32.83	28.75

Table 117 - U-NII 1 - 26 dB Bandwidth

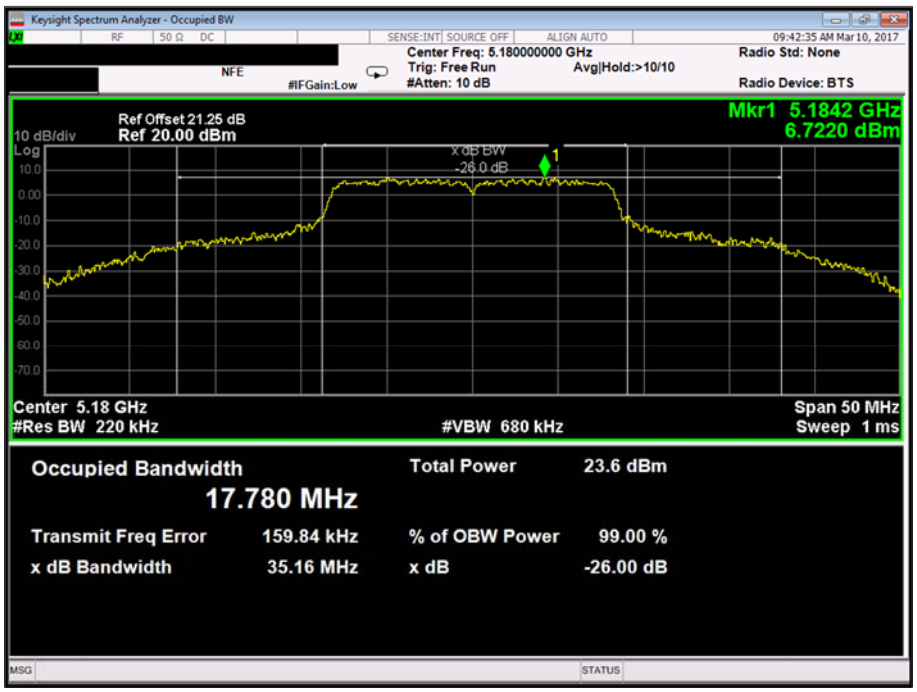

Figure 1 - U-NII 1 - 5180 MHz - 26 dB Bandwidth

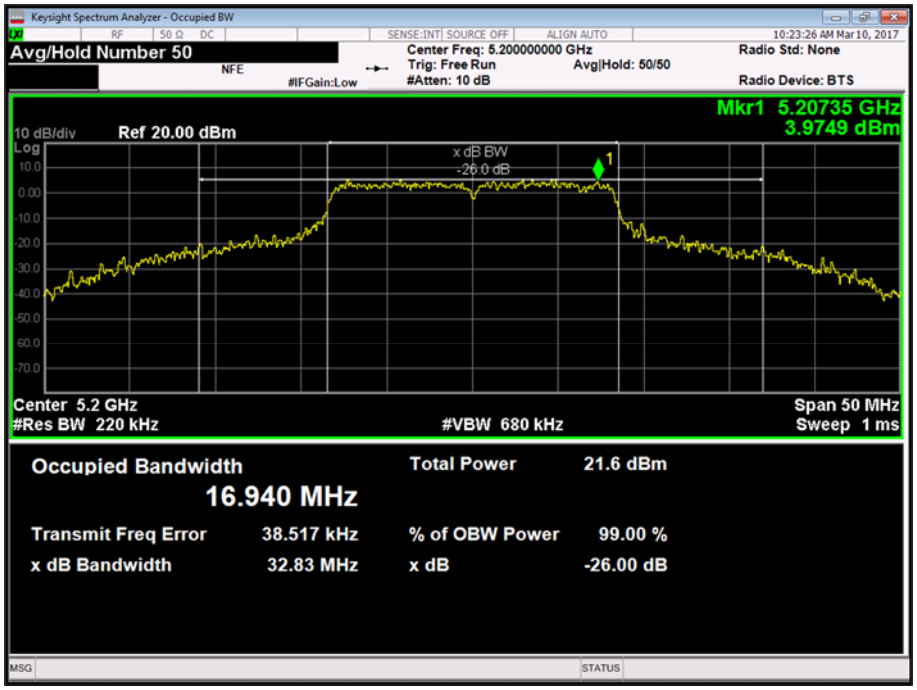

Figure 2 - U-NII 1 - 5200 MHz - 26 dB Bandwidth

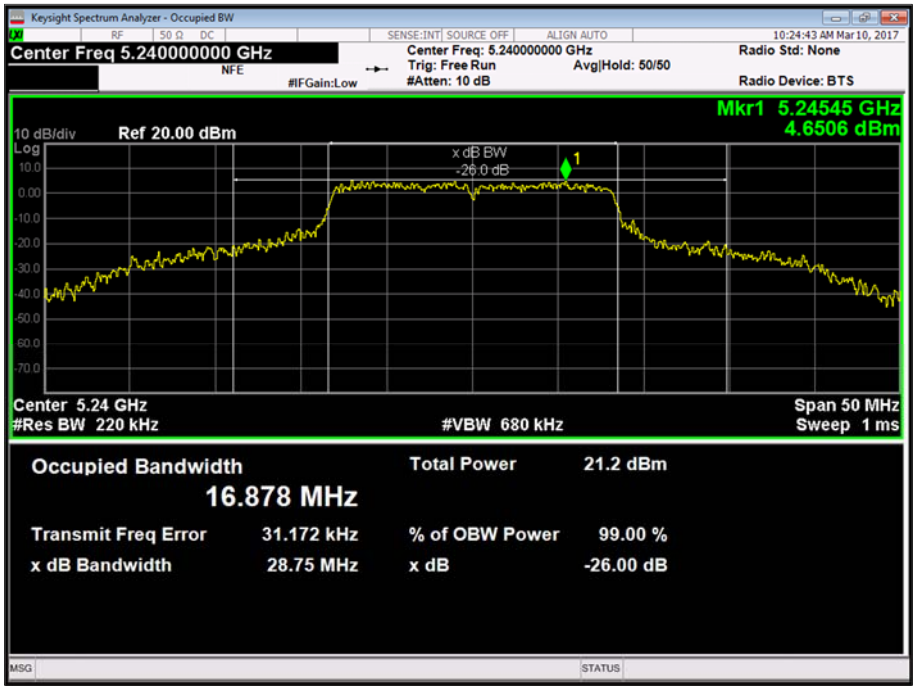

Figure 3 - U-NII 1 - 5240 MHz - 26 dB Bandwidth

26 dB Bandwidth (MHz)		
5260 MHz	5300 MHz	5320 MHz
28.05	24.37	27.97

Table 118 - U-NII 2a -26 dB Bandwidth

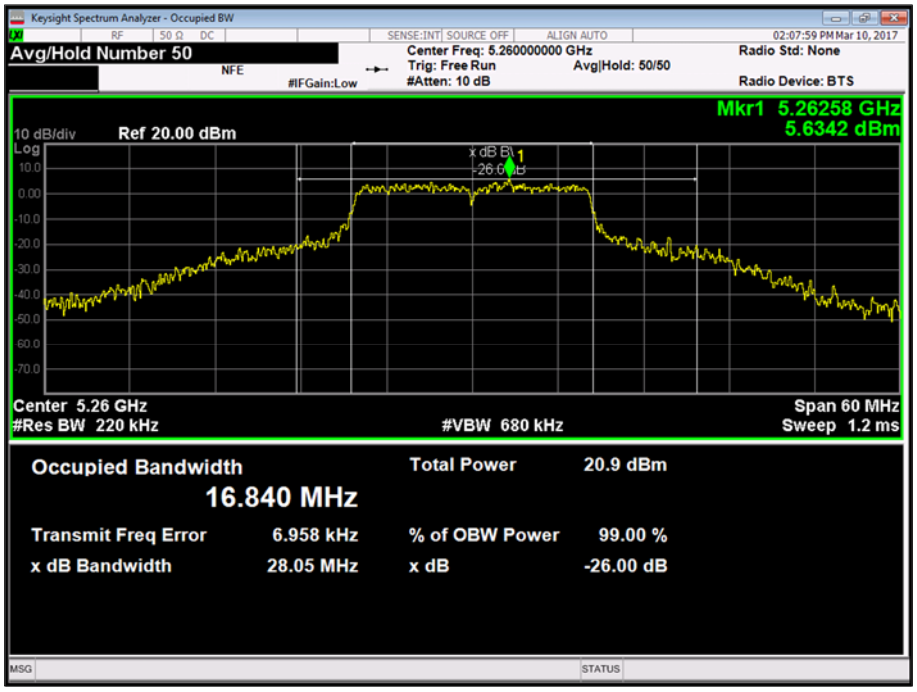

Figure 4 - U-NII 2a - 5260 MHz - 26 dB Bandwidth

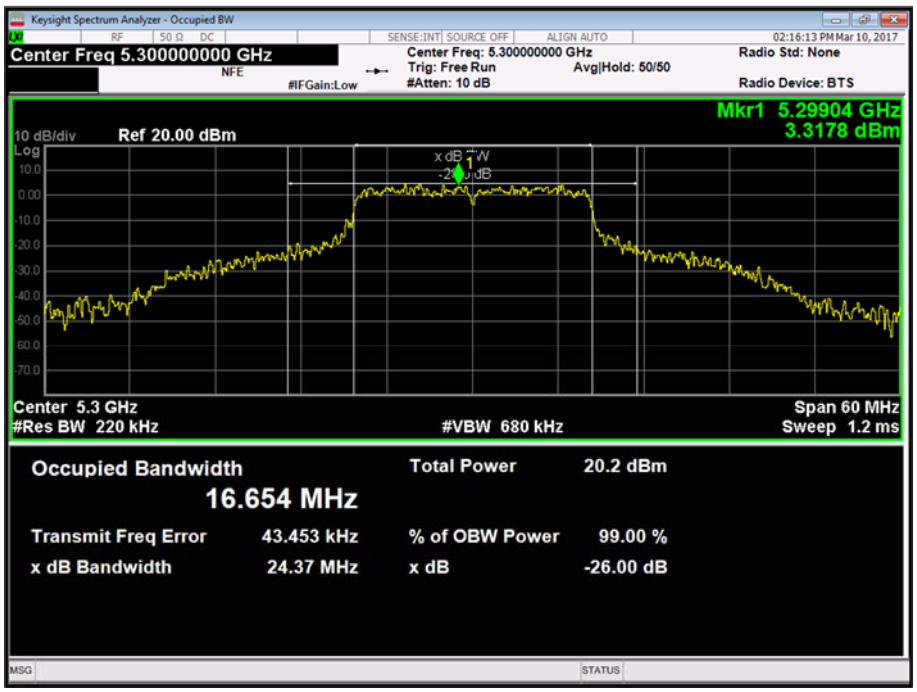

Figure 5 - U-NII 2a - 5300 MHz - 26 dB Bandwidth

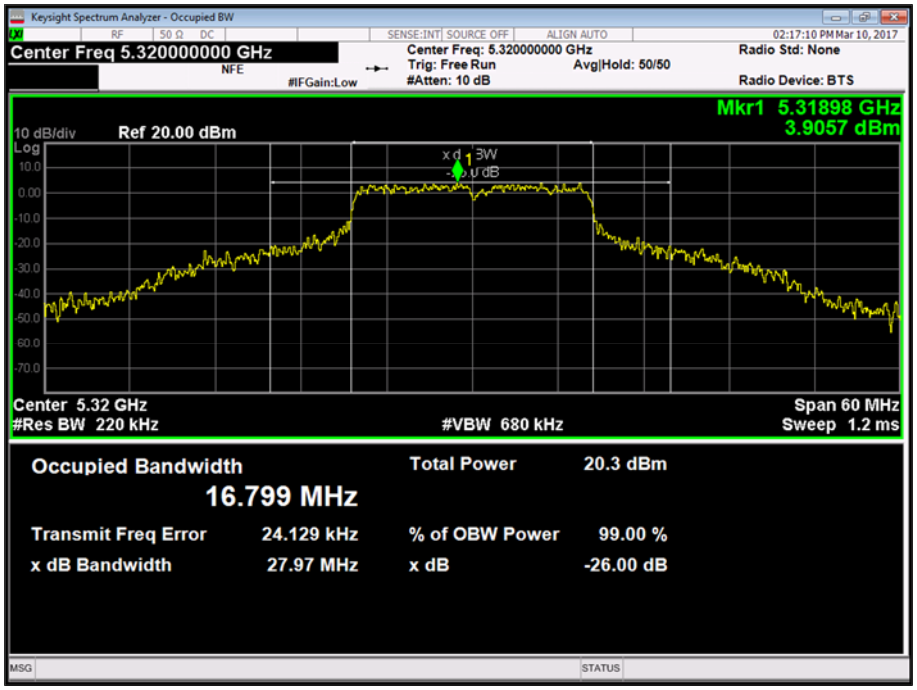

Figure 6 - U-NII 2a - 5320 MHz - 26 dB Bandwidth

26 dB Bandwidth (MHz)		
5500 MHz	5580 MHz	5700 MHz
31.03	29.52	30.00

Table 119 - U-NII 2c - 26 dB Bandwidth

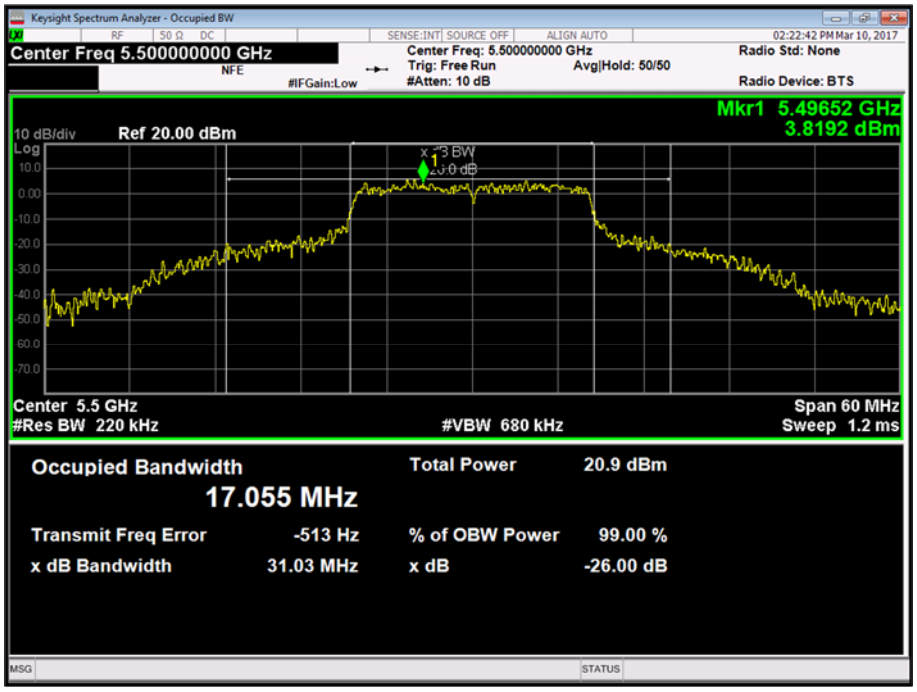

Figure 7 - U-NII 2c - 5500 MHz - 26 dB Bandwidth

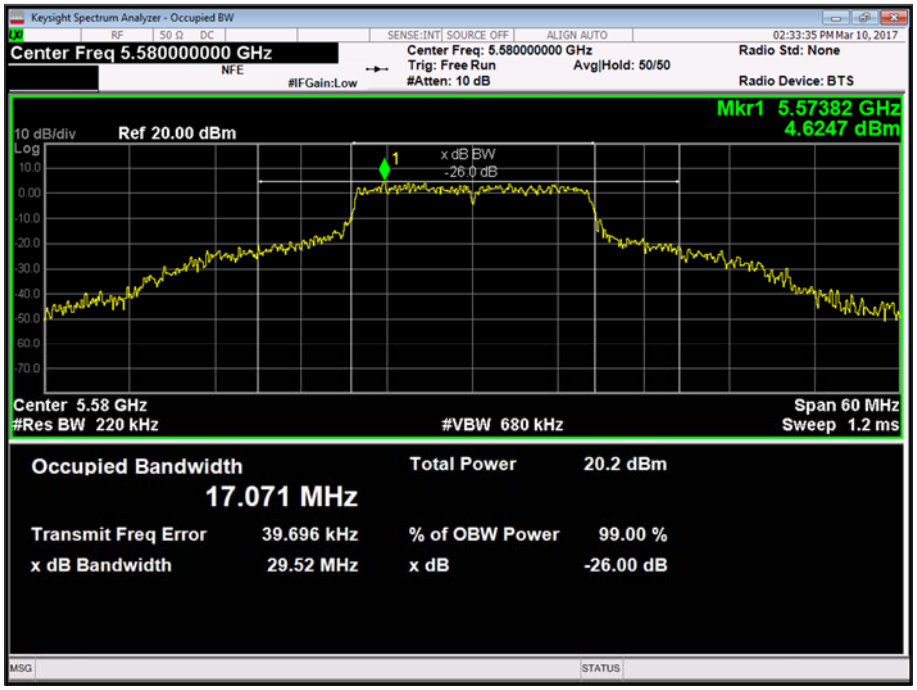

Figure 8 - U-NII 2c - 5580 MHz - 26 dB Bandwidth

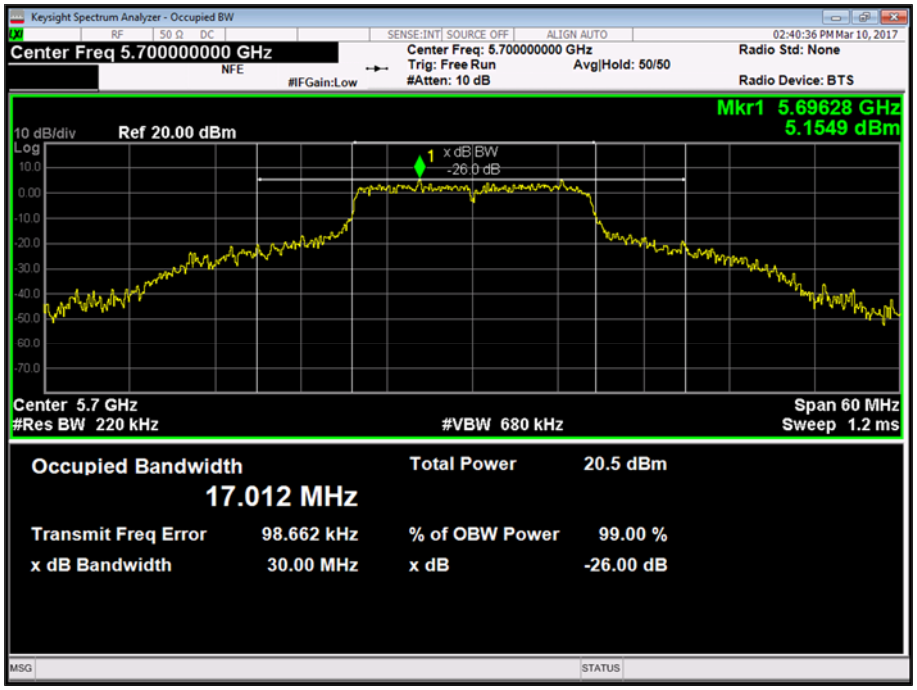

Figure 9 - U-NII 2c - 5700 MHz - 26 dB Bandwidth

6 dB Bandwidth (MHz)		
5745 MHz	5785 MHz	5825 MHz
16.27	16.34	16.33

Table 120 - U-NII 3 - 6 dB Bandwidth

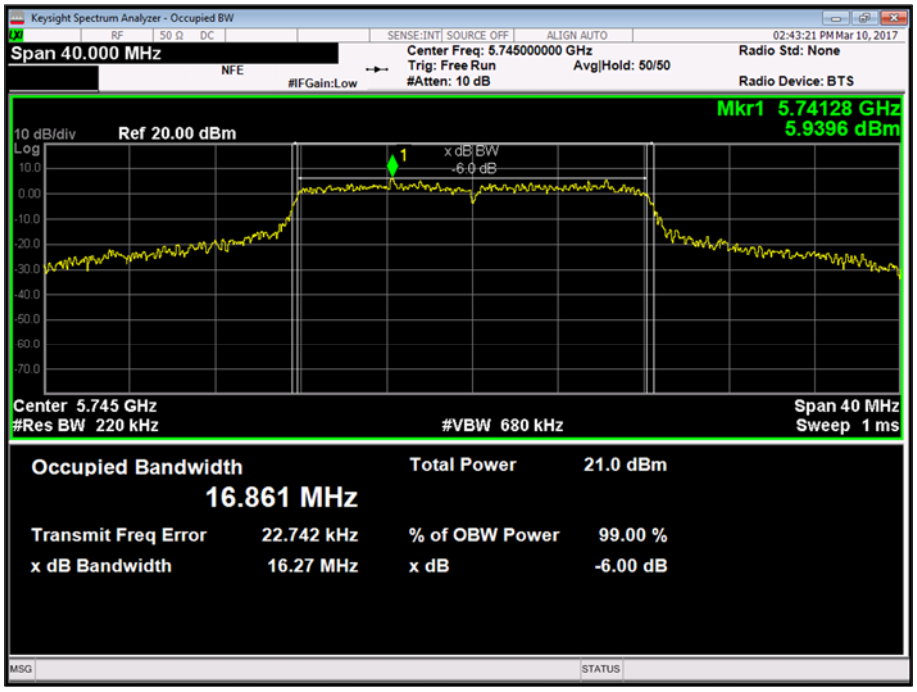

Figure 10 - U-NII 3 - 5745 MHz - 6 dB Bandwidth

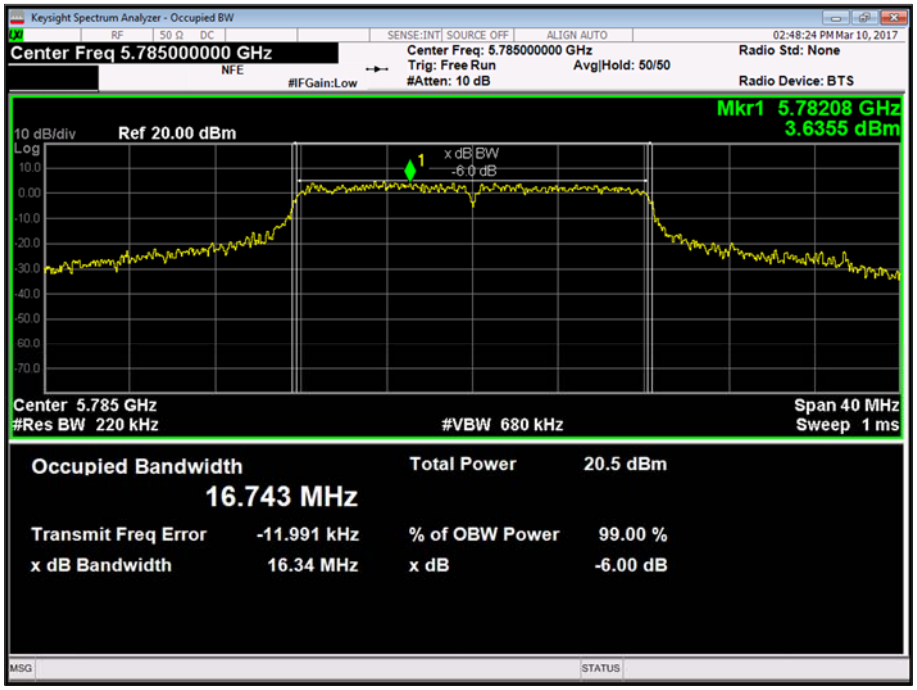

Figure 11 - U-NII 3 - 5785 MHz - 6 dB Bandwidth

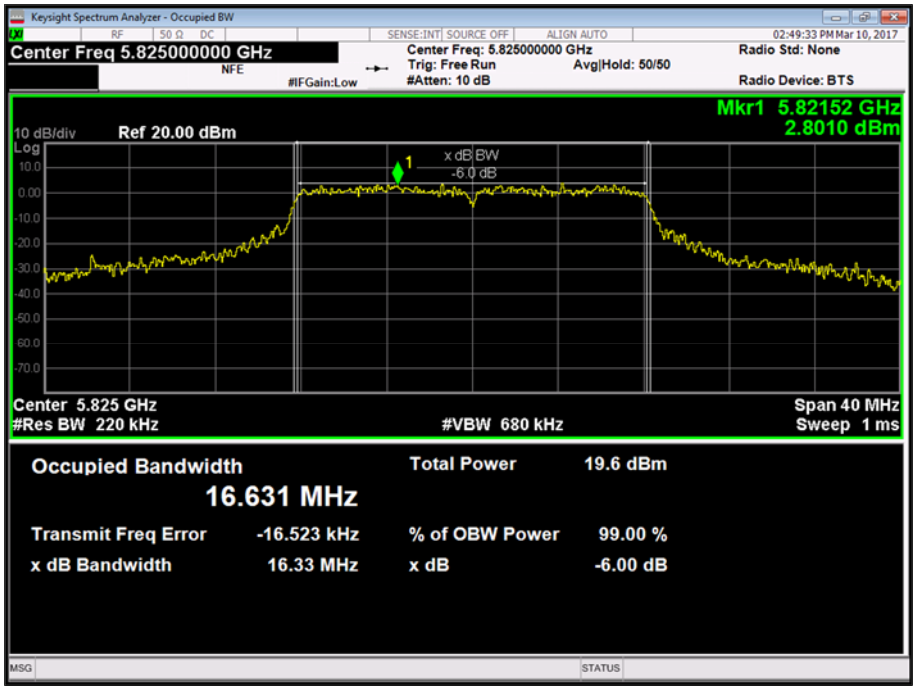

Figure 12 - U-NII 3 - 5825 MHz - 6 dB Bandwidth

FCC 47 CFR Part 15E, Limit Clause 15.407

5150 MHz to 5250 MHz: None specified.

5250 MHz to 5350 MHz: None specified.

5470 MHz to 5725 MHz: None specified.

5725 MHz to 5850 MHz: > 500 kHz.

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

5150 MHz to 5250 MHz: None specified.

5250 MHz to 5350 MHz: None specified.

5470 MHz to 5725 MHz: None specified.

5725 MHz to 5850 MHz: The minimum 6 dB bandwidth shall be at least 500 kHz.

ANT795-6MT - 802.11n 20 MHz Bandwidth

The Modulation Coding Scheme used during testing was MCS0.

26 dB Bandwidth (MHz)		
5180 MHz	5200 MHz	5240 MHz
26.57	27.56	29.61

Table 121 - U-NII 1 - 26 dB Bandwidth

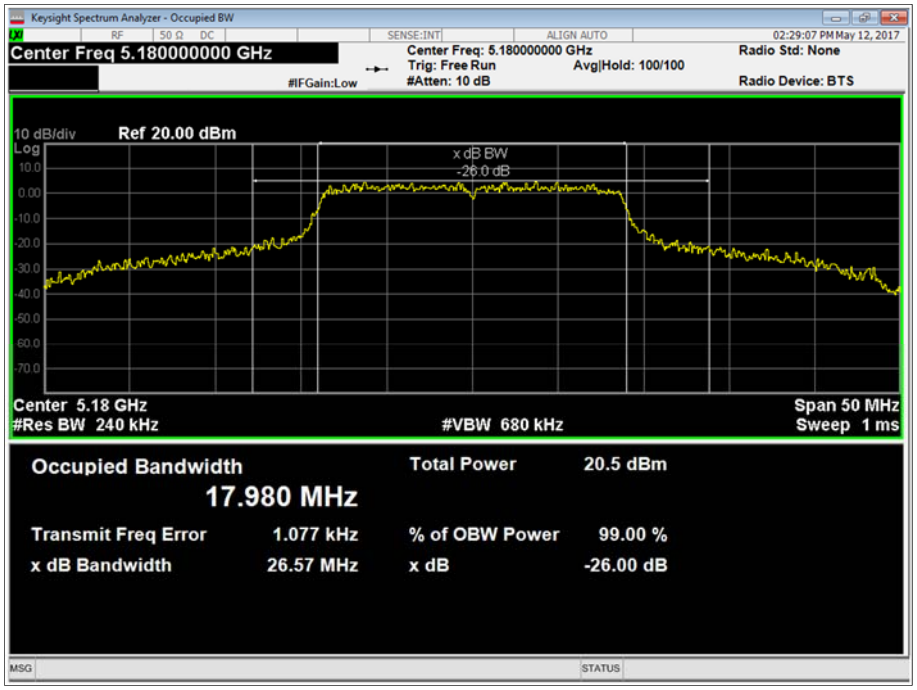

Figure 13 - U-NII 1 - 5180 MHz - 26 dB Bandwidth

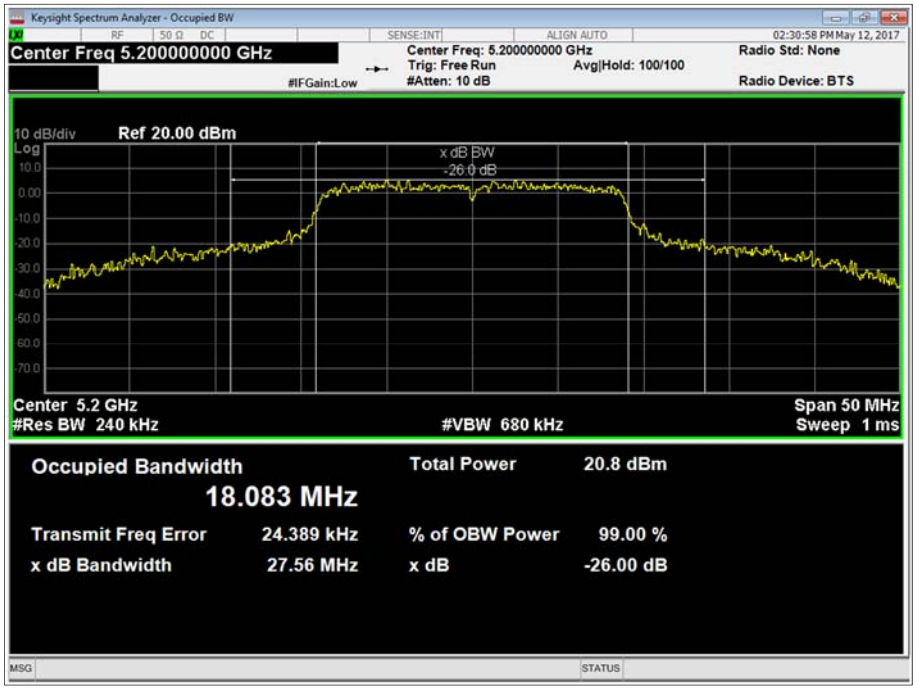

Figure 14 - U-NII 1 - 5200 MHz - 26 dB Bandwidth

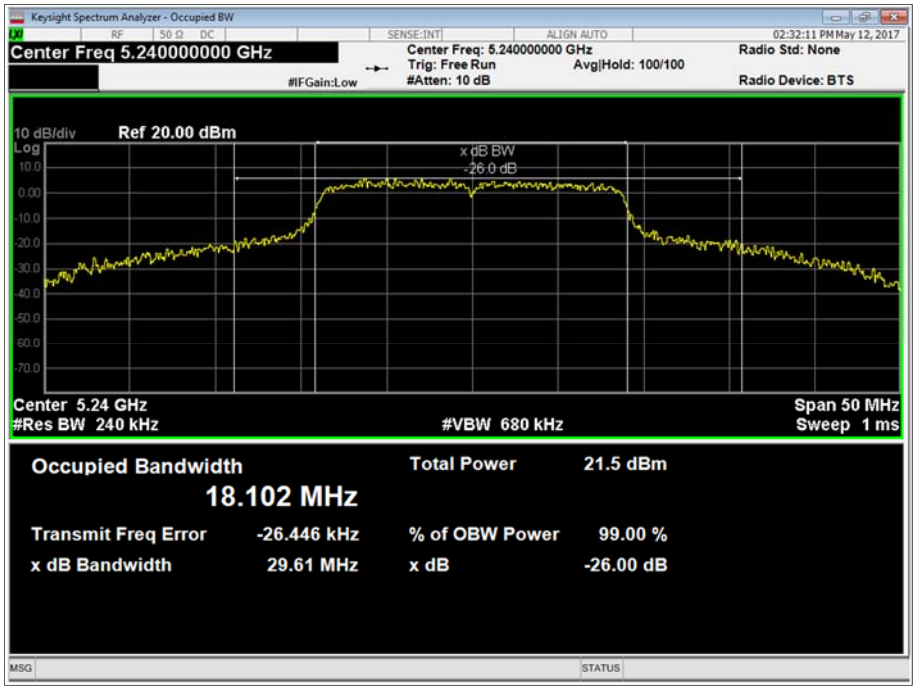

Figure 15 - U-NII 1 - 5240 MHz - 26 dB Bandwidth

26 dB Bandwidth (MHz)		
5260 MHz	5300 MHz	5320 MHz
34.74	32.29	31.62

Table 122 - U-NII 2a - 26 dB Bandwidth

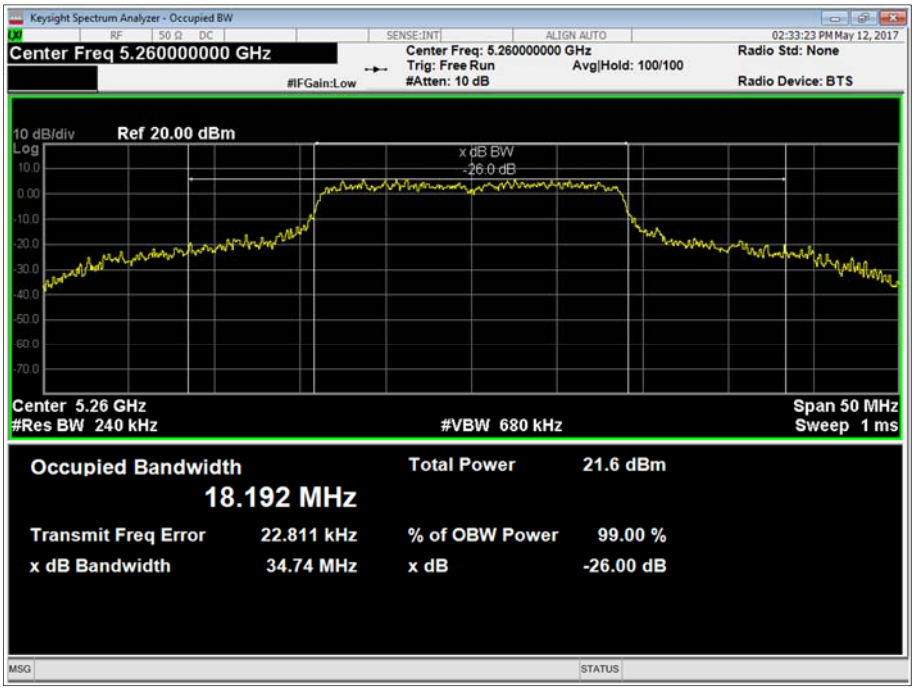

Figure 16 - U-NII 2a - 5260 MHz - 26 dB Bandwidth

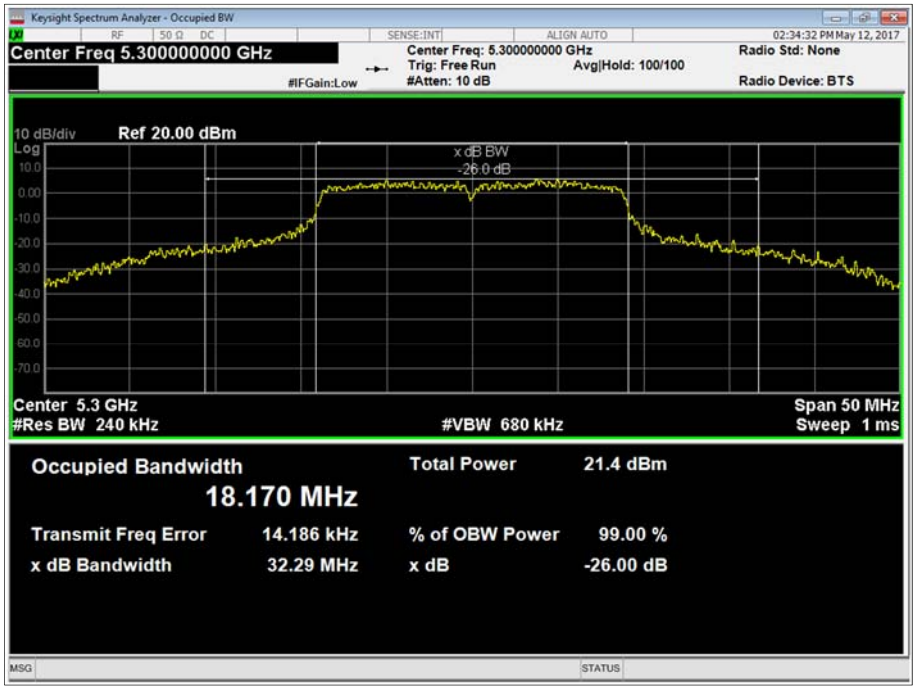

Figure 17 - U-NII 2a - 5300 MHz - 26 dB Bandwidth

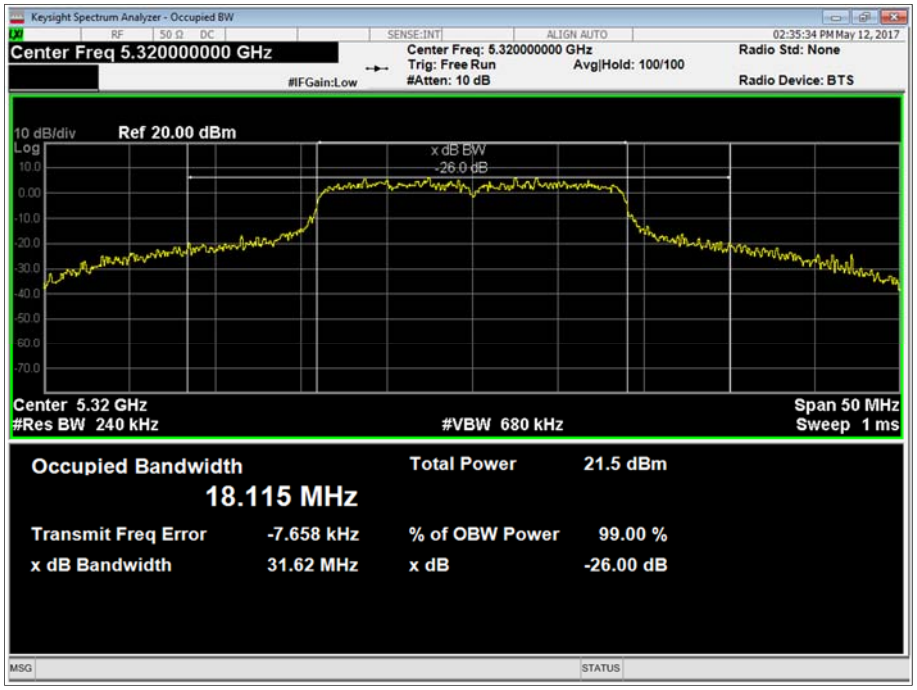

Figure 18 - U-NII 2a - 5320 MHz - 26 dB Bandwidth

26 dB Bandwidth (MHz)		
5500 MHz	5580 MHz	5700 MHz
32.85	33.02	30.11

Table 123 - U-NII 2c - 26 dB Bandwidth

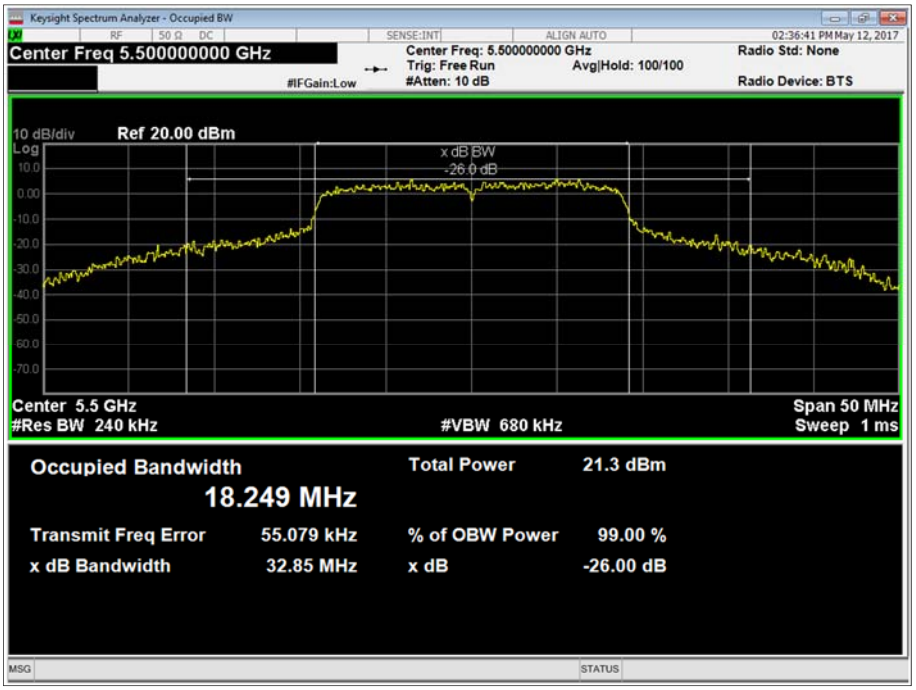

Figure 19 - U-NII 2c - 5500 MHz - 26 dB Bandwidth

Figure 20 - U-NII 2c - 5580 MHz - 26 dB Bandwidth

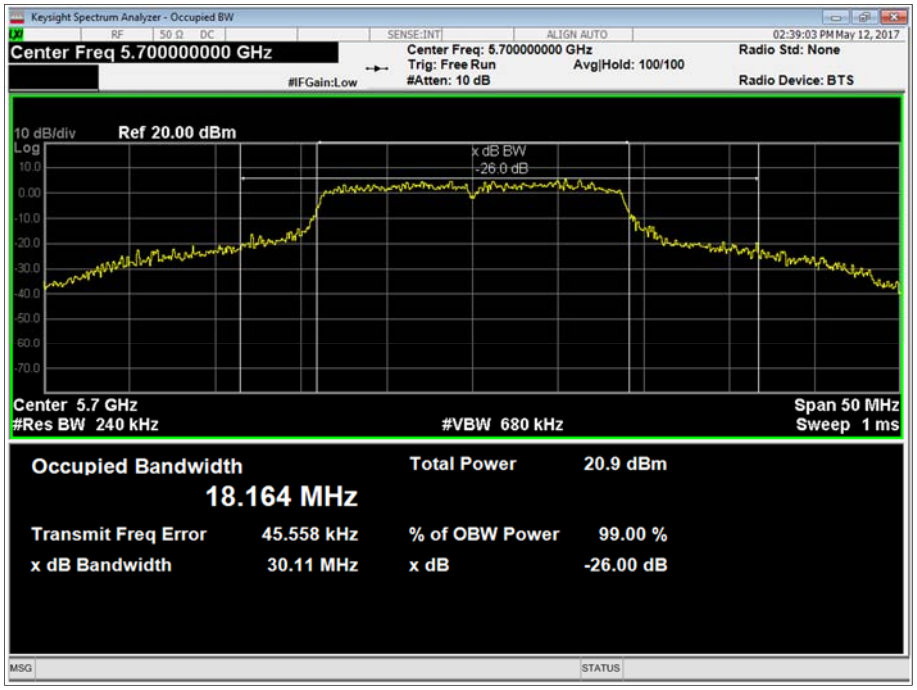

Figure 21 - U-NII 2c - 5700 MHz - 26 dB Bandwidth

6 dB Bandwidth (MHz)		
5745 MHz	5785 MHz	5825 MHz
17.51	17.43	17.56

Table 124 - U-NII 3 - 6 dB Bandwidth

Figure 22 - U-NII 3 - 5745 MHz - 6 dB Bandwidth

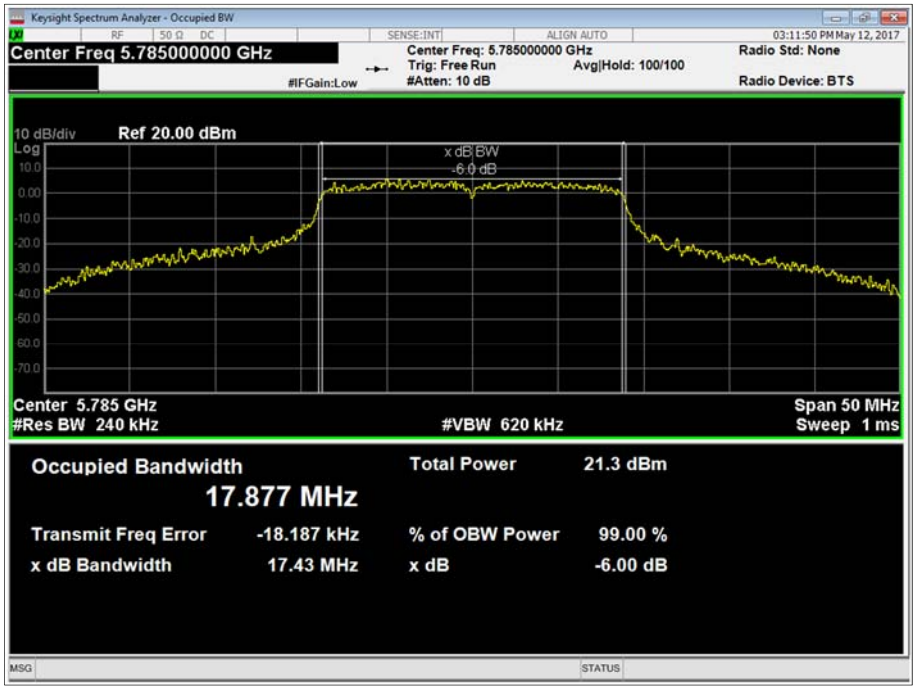

Figure 23 - U-NII 3 - 5785 MHz - 6 dB Bandwidth

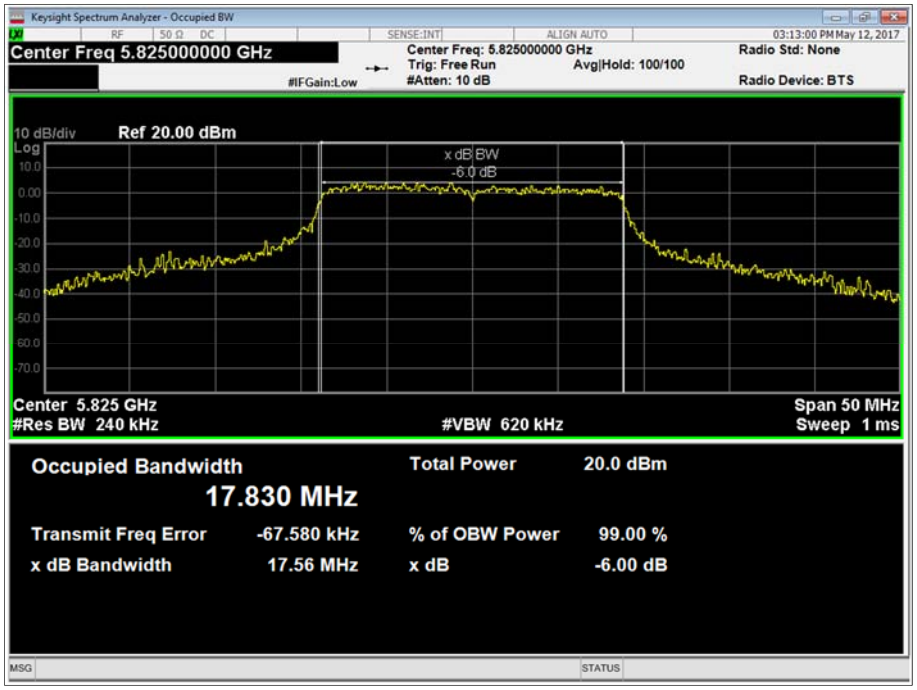

Figure 24 - U-NII 3 - 5825 MHz - 6 dB Bandwidth

FCC 47 CFR Part 15E, Limit Clause 15.407

5150 MHz to 5250 MHz: None specified.

5250 MHz to 5350 MHz: None specified.

5470 MHz to 5725 MHz: None specified.

5725 MHz to 5850 MHz: > 500 kHz.

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

5150 MHz to 5250 MHz: None specified.

5250 MHz to 5350 MHz: None specified.

5470 MHz to 5725 MHz: None specified.

5725 MHz to 5850 MHz: The minimum 6 dB bandwidth shall be at least 500 kHz.

ANT795-6MT - 802.11n 40 MHz Bandwidth

The Modulation Coding Scheme used during testing was MCS8.

26 dB Bandwidth (MHz)	
5190 MHz	5230 MHz
67.27	69.14

Table 125 - U-NII 1 - 26 dB Bandwidth

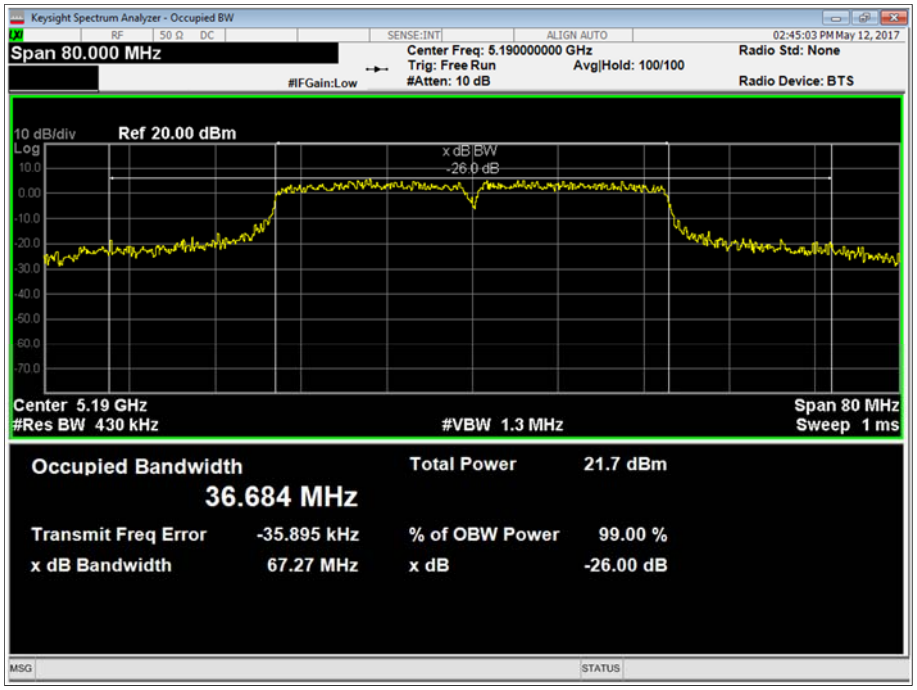

Figure 25 - U-NII 1 - 5190 MHz - 26 dB Bandwidth

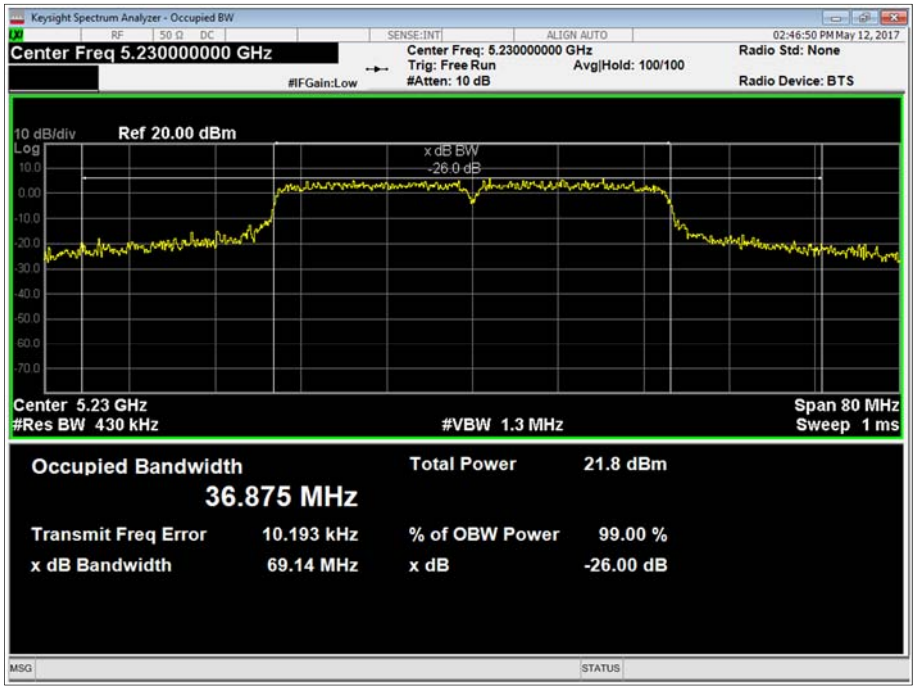

Figure 26 - U-NII 1 - 5230 MHz - 26 dB Bandwidth

26 dB Bandwidth (MHz)	
5270 MHz	5310 MHz
69.48	70.07

Table 126 - U-NII 2a - 26 dB Bandwidth

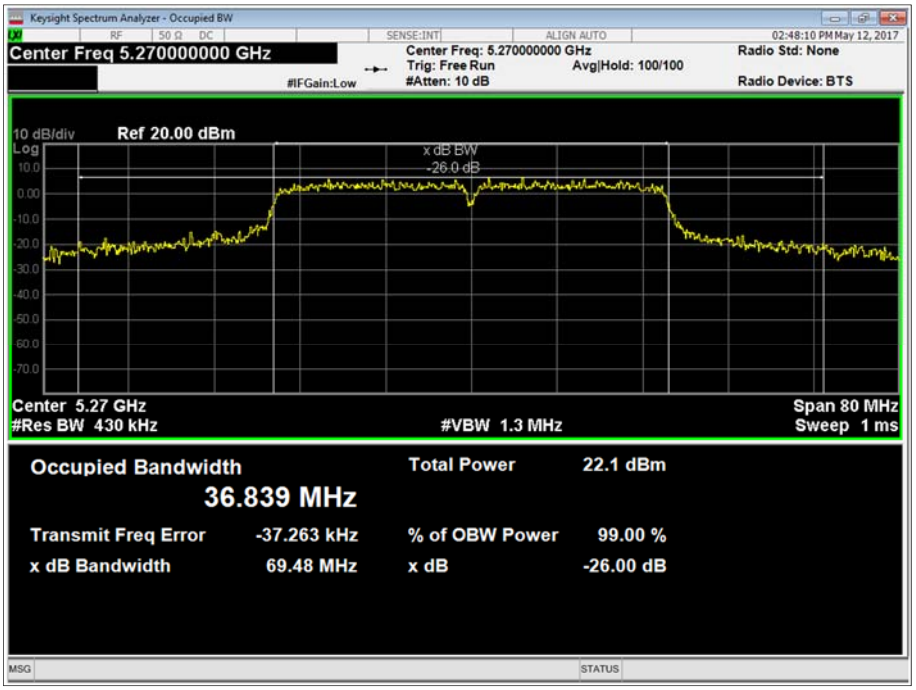

Figure 27 - U-NII 2a - 5270 MHz - 26 dB Bandwidth

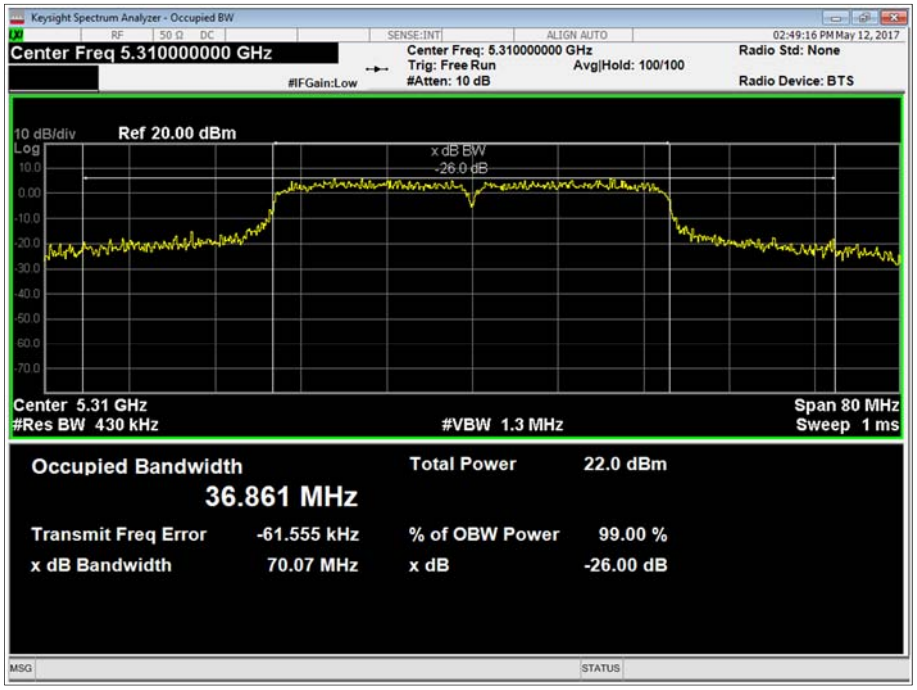

Figure 28 - U-NII 2a - 5310 MHz - 26 dB Bandwidth

26 dB Bandwidth (MHz)		
5510 MHz	5590 MHz	5670 MHz
72.50	73.98	70.14

Table 127 - U-NII 2c - 26 dB Bandwidth

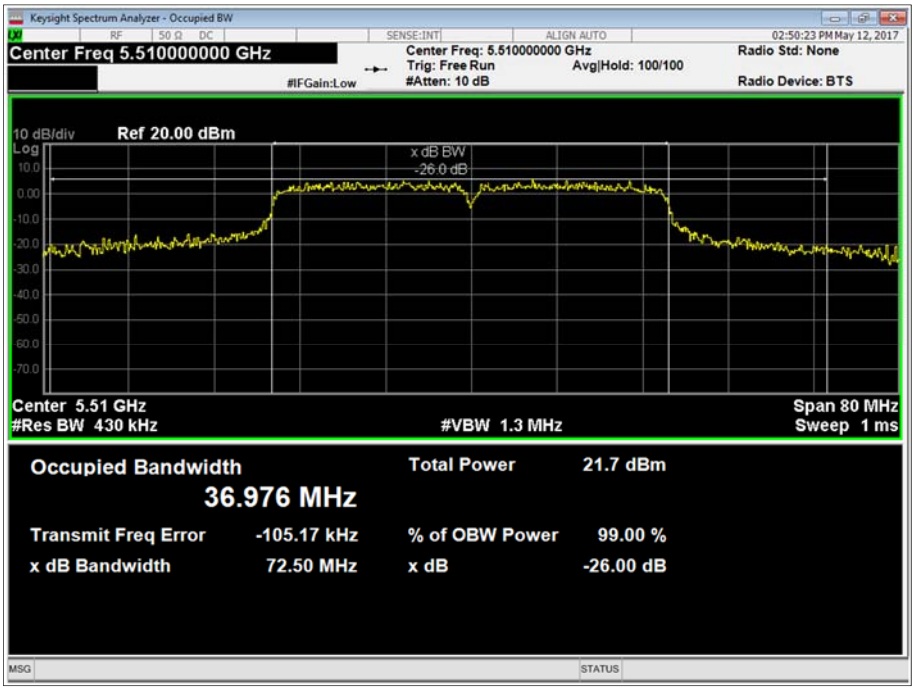

Figure 29 - U-NII 2c - 5510 MHz - 26 dB Bandwidth

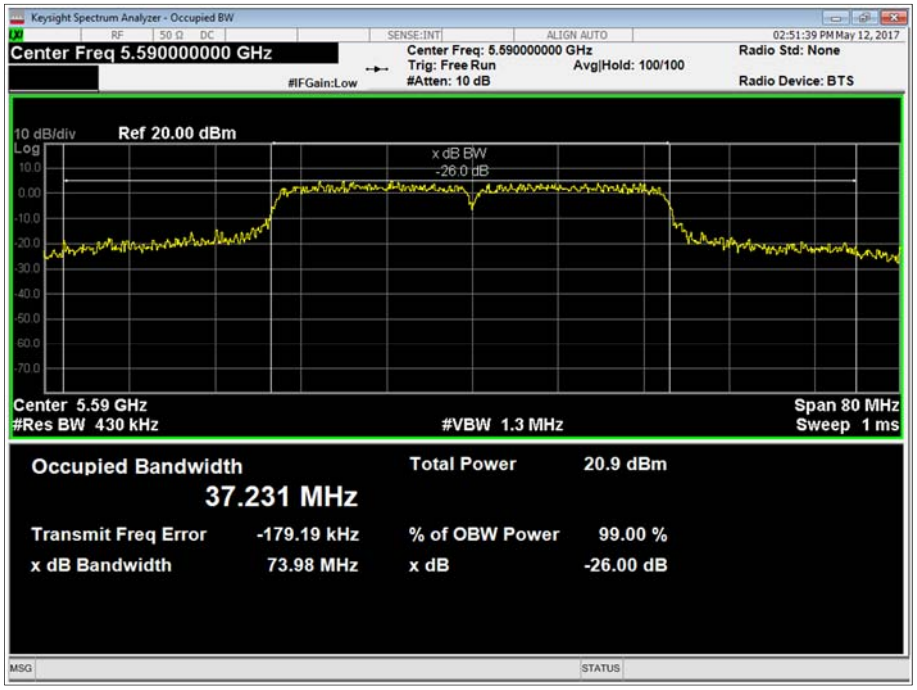

Figure 30 - U-NII 2c - 5590 MHz - 26 dB Bandwidth

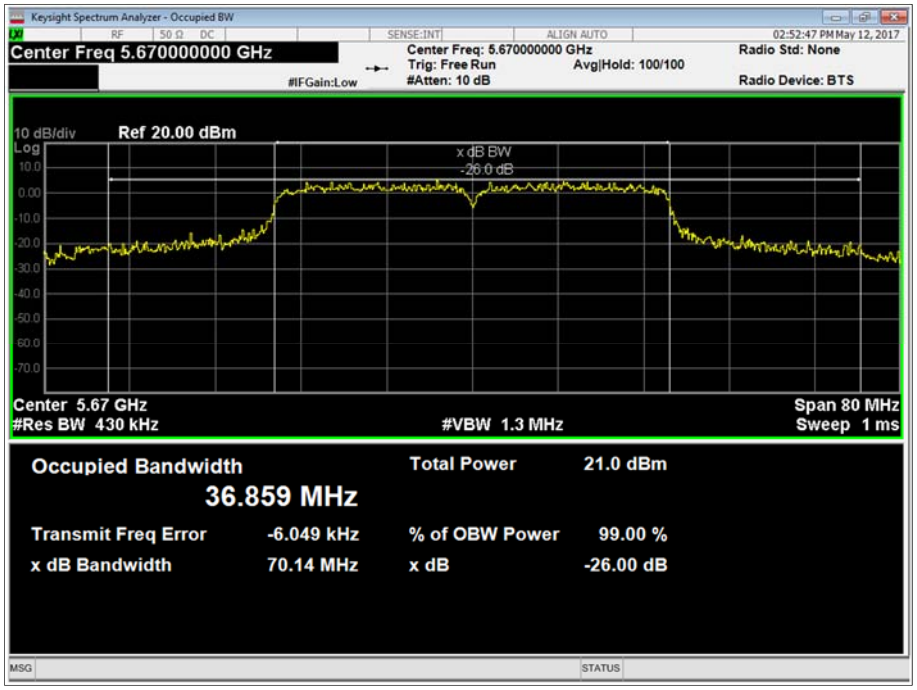

Figure 31 - U-NII 2c - 5670 MHz - 26 dB Bandwidth

6 dB Bandwidth (MHz)	
5755 MHz	5795 MHz
35.73	35.91

Table 128 - U-NII 3 - 6 dB Bandwidth

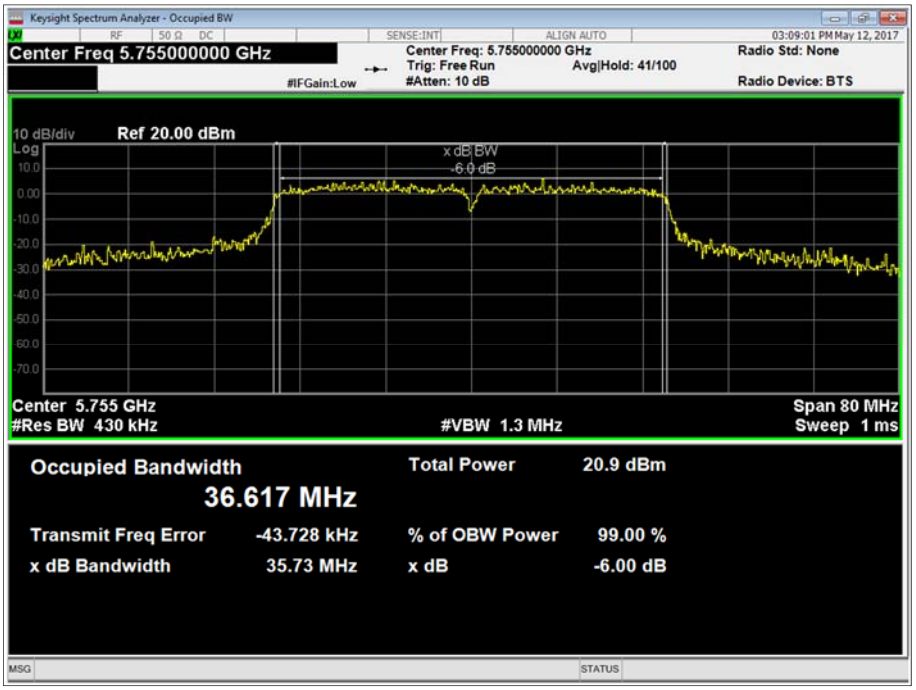

Figure 32 - U-NII 3 - 5755 MHz - 6 dB Bandwidth

Figure 33 - U-NII 3 - 5795 MHz - 6 dB Bandwidth

FCC 47 CFR Part 15E, Limit Clause 15.407

5150 MHz to 5250 MHz: None specified.

5250 MHz to 5350 MHz: None specified.

5470 MHz to 5725 MHz: None specified.

5725 MHz to 5850 MHz: > 500 kHz.

Industry Canada RSS-247, Limit Clause 6.2.1.1, 6.2.2.1, 6.2.3.1 and 6.2.4.1

5150 MHz to 5250 MHz: None specified.

5250 MHz to 5350 MHz: None specified.

5470 MHz to 5725 MHz: None specified.

5725 MHz to 5850 MHz: The minimum 6 dB bandwidth shall be at least 500 kHz.

2.3.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Multimeter	White Gold	WG022	190	12	24-Nov-2017
20dB/2W Attenuator	Narda	4772-20	462	-	O/P Mon
Attenuator: 10dB/20W	Narda	766-10	480	12	14-Dec-2017
Power Supply Unit	Farnell	TSV-70	2043	-	O/P Mon
Hygrometer	Rotronic	I-1000	2891	12	23-Aug-2017
Hygrometer	Rotronic	I-1000	3220	12	23-Aug-2017
PXA Signal Analyser	Agilent Technologies	N9030A PXA	4409	12	09-Mar-2018
PXA Signal Analyser	Keysight Technologies	N9030A	4653	12	12-Jan-2018

Table 129

O/P Mon – Output Monitored using calibrated equipment

2.4 Authorised Band Edges

2.4.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (b)
Industry Canada RSS-247, Clause 6.2

2.4.2 Equipment Under Test and Modification State

MSN65-W1-M12-E2, S/N: Not Serialised (75938097-TSR0001) - Modification State 0.

2.4.3 Date of Test

15-March-2017, 31-March-2017 and 14-June-2017

2.4.4 Test Method

The test was performed in accordance with ANSI C63.10, clause 6.6.

In the following plots the indicated limit line equated to -27dBm/MHz.

Initially measurements were made with a 1 MHz/3MHz RBW/VBW to obtain a peak result, however where the peak result did not pass the average limit, the measurement was then repeated using a 1 kHz VBW to obtain an averaged result. In these cases only the average plot is shown.

In the U-NII 3 operating band, less stringent limits were introduced at the band edges. The plots below show the limit lines as per the old rules but these are more stringent and therefore it can be confirmed that the EUT met the appropriate requirements.

2.4.5 Environmental Conditions

Ambient Temperature	18.3 - 40.0 °C
Relative Humidity	18.9 - 40.0 %

2.4.6 Test Results

ANT795-6MT - 802.11a

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5180	5150	51.85
Widest Emission Bandwidth	12 Mbps	5180	5150	49.53

Table 130 - UNII 1 - Authorised Band Edge Results

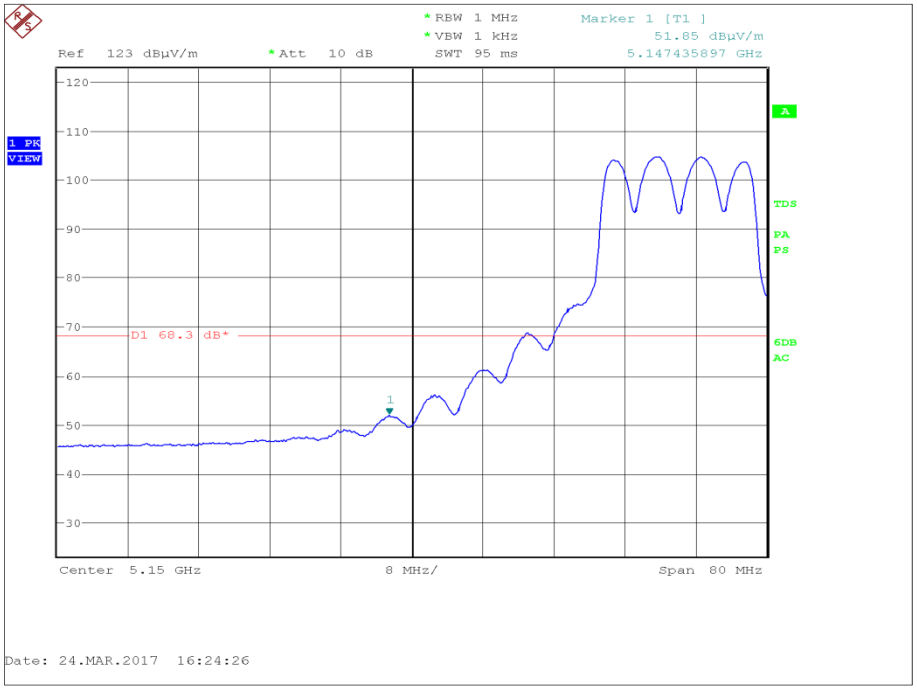

Figure 34 - U-NII 1 - Authorised Band Edge at 5150 MHz - Highest Conducted Power

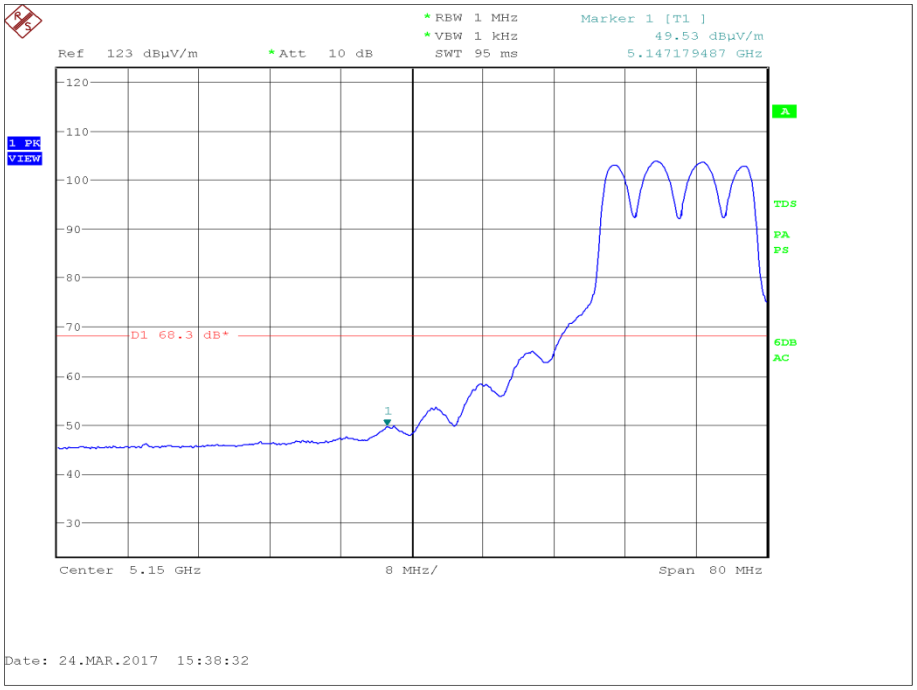

Figure 35 - U-NII 1 - Authorised Band Edge at 5150 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5320	5350	52.50
Widest Emission Bandwidth	12 Mbps	5320	5350	53.11

Table 131 - U-NII 2a - Authorised Band Edge Results

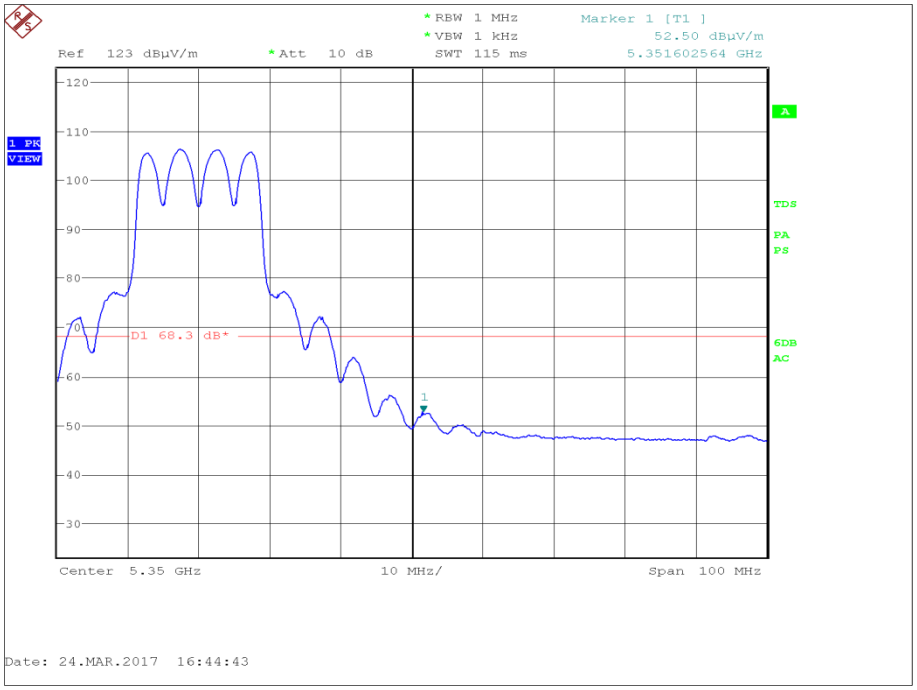

Figure 36 - U-NII 2a - Authorised Band Edge at 5350 MHz - Highest Conducted Power

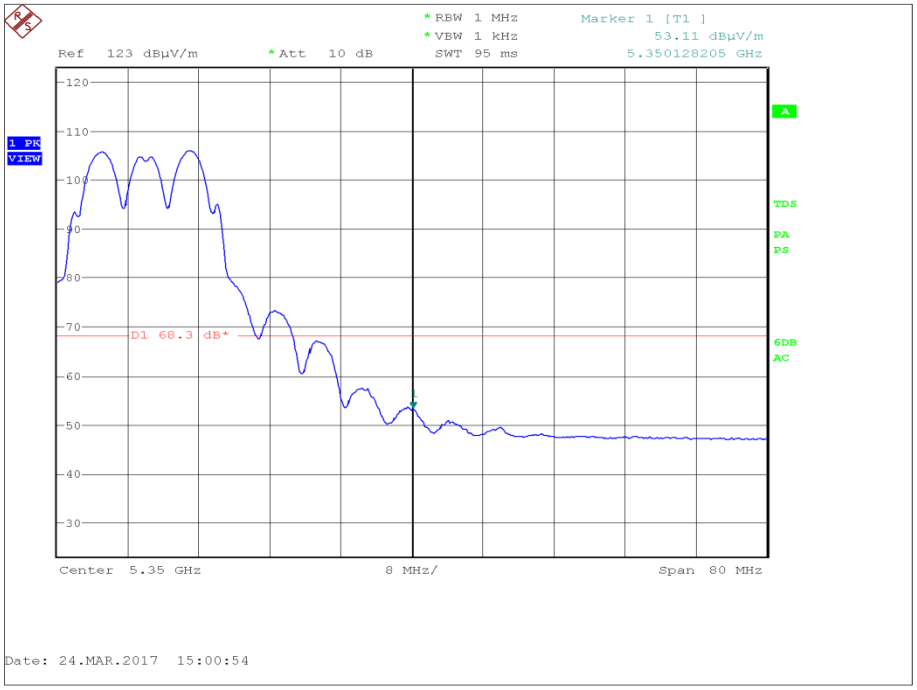

Figure 37 - U-NII 2a - Authorised Band Edge at 5350 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5500	5470	52.83
Widest Emission Bandwidth	12 Mbps	5500	5470	54.58
Highest Conducted Power	6 Mbps	5700	5725	53.43
Widest Emission Bandwidth	12 Mbps	5700	5725	55.48

Table 132 - U-NII 2c - Authorised Band Edge Results

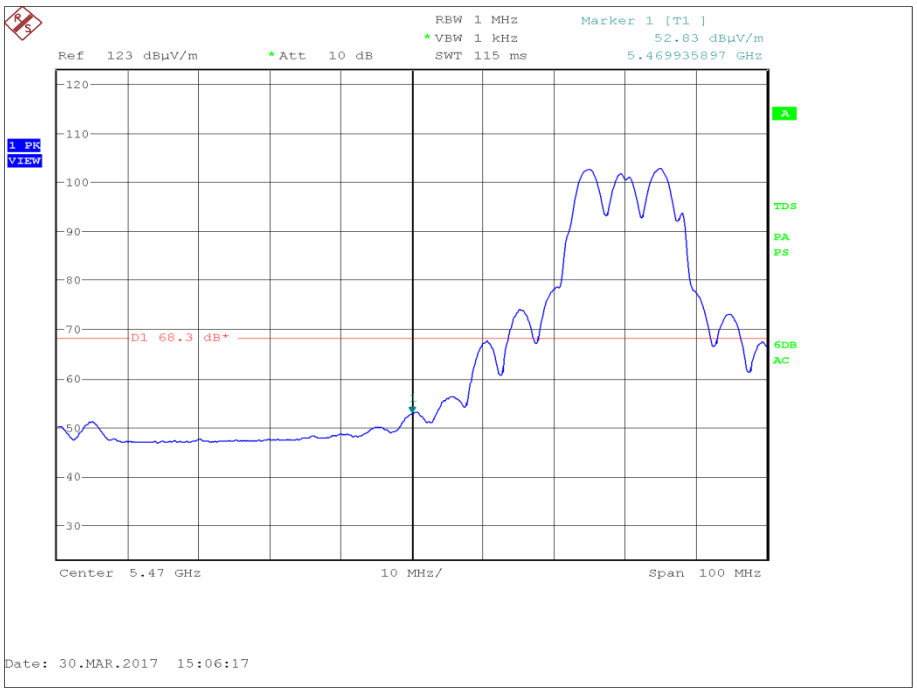

Figure 38 - U-NII 2c - Authorised Band Edge at 5470 MHz - Highest Conducted Power

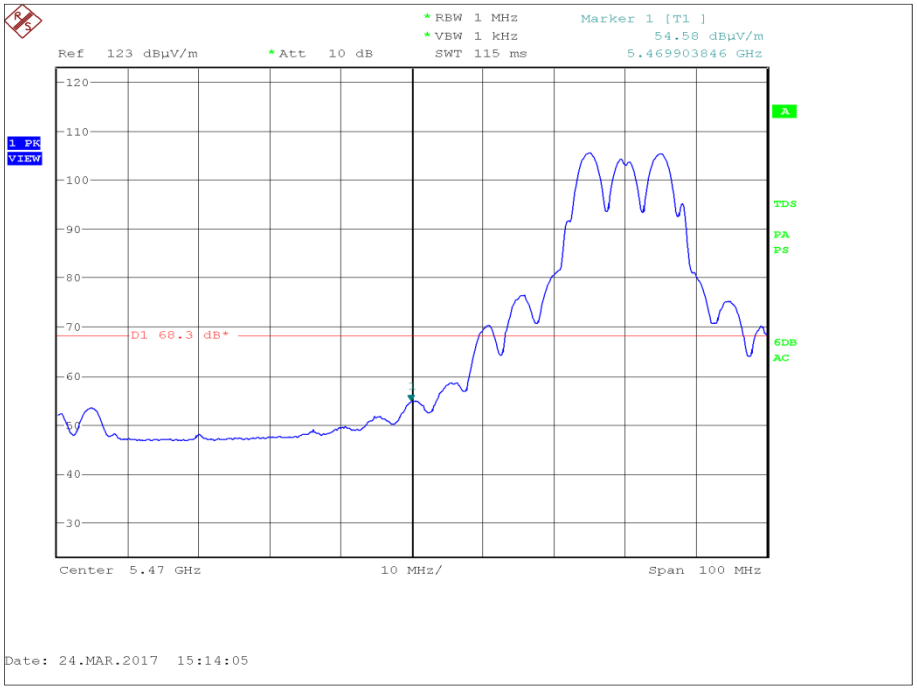

Figure 39 - U-NII 2c - Authorised Band Edge at 5470 MHz - Widest Emission Bandwidth

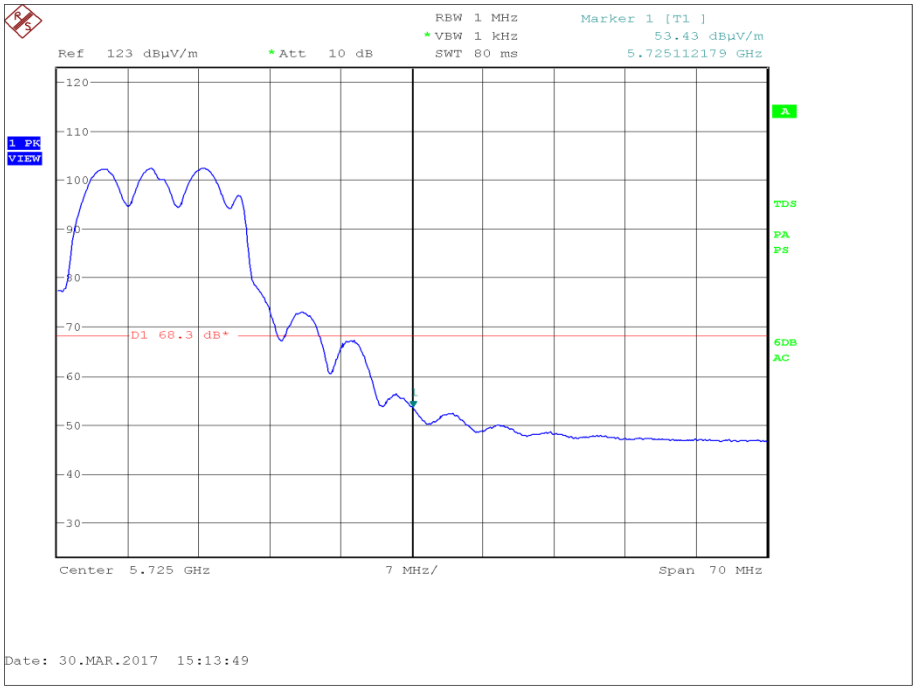

Figure 40 - U-NII 2c - Authorised Band Edge at 5725 MHz - Highest Conducted Power

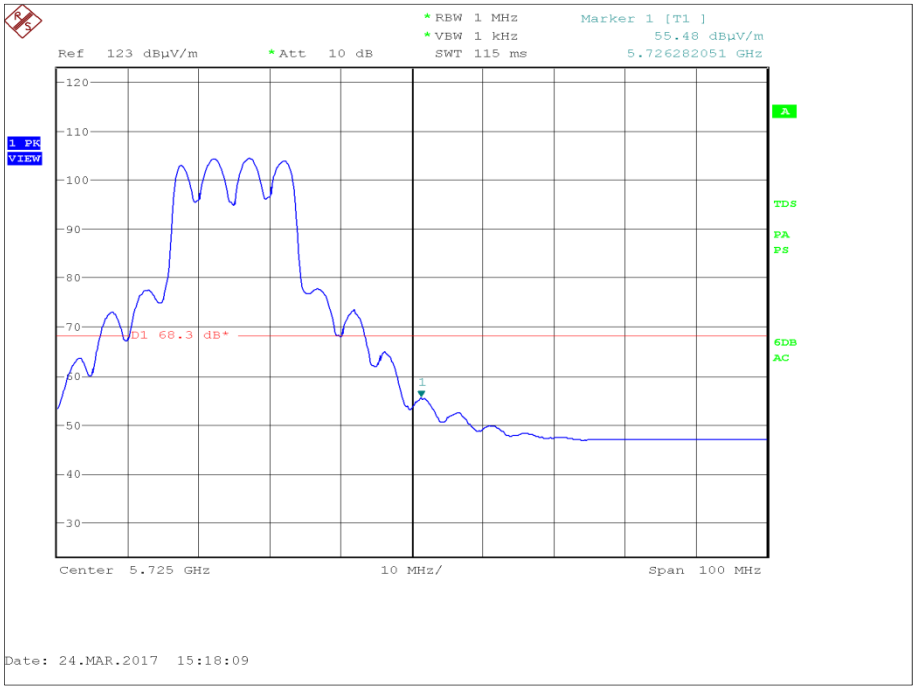

Figure 41 - U-NII 2c - Authorised Band Edge at 5725 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5745	5725	62.17
Widest Emission Bandwidth	12 Mbps	5745	5725	63.16
Highest Conducted Power	6 Mbps	5825	5850	61.08
Widest Emission Bandwidth	12 Mbps	5825	5850	63.61

Table 133 - U-NII 3 - Authorised Band Edge Results

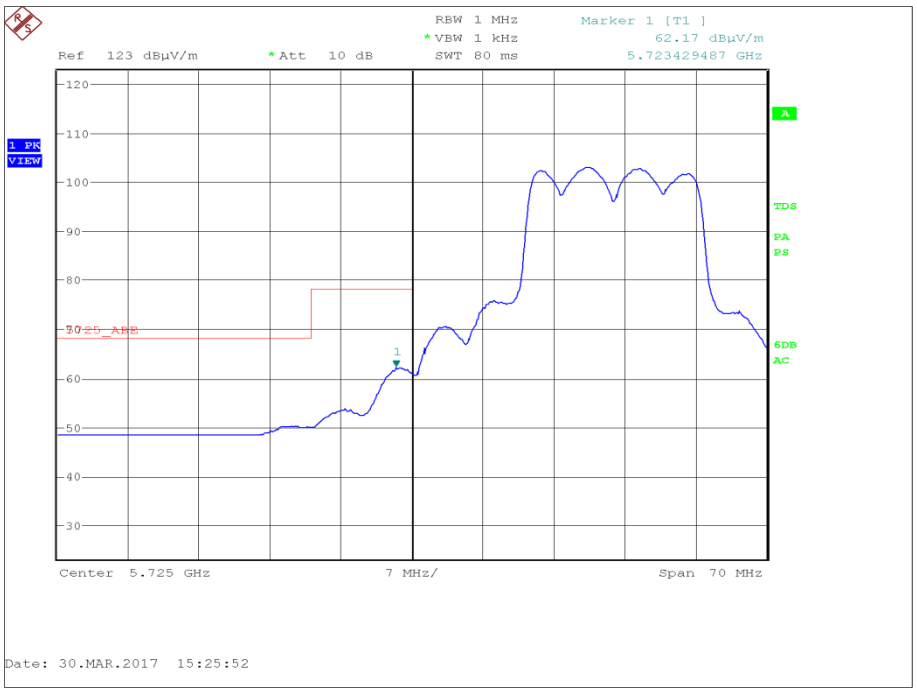

Figure 42 - U-NII 3 - Authorised Band Edge at 5725 MHz - Highest Conducted Power

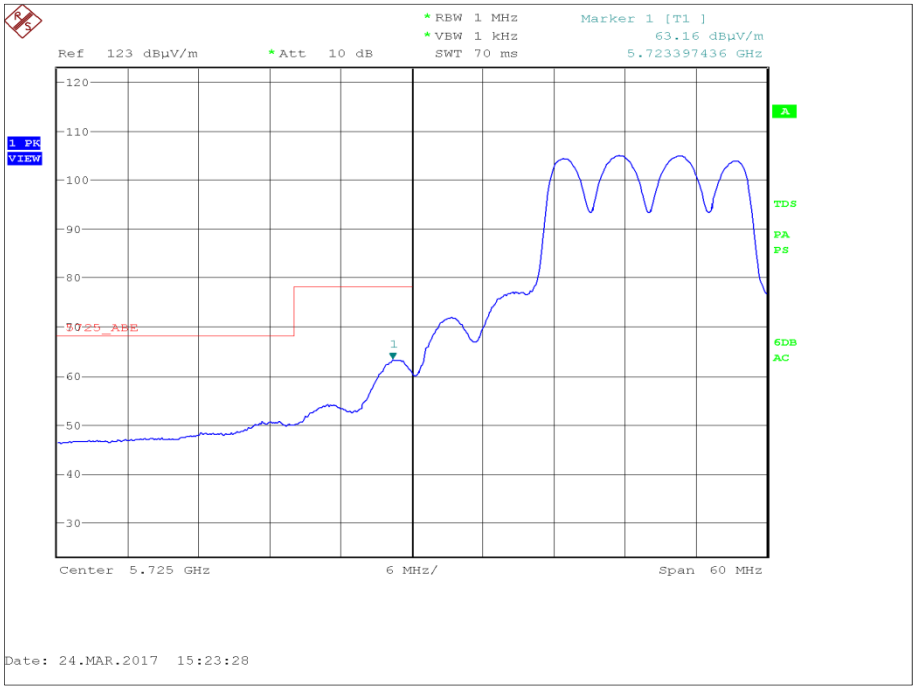

Figure 43 - U-NII 3 - Authorised Band Edge at 5725 MHz - Widest Emission Bandwidth

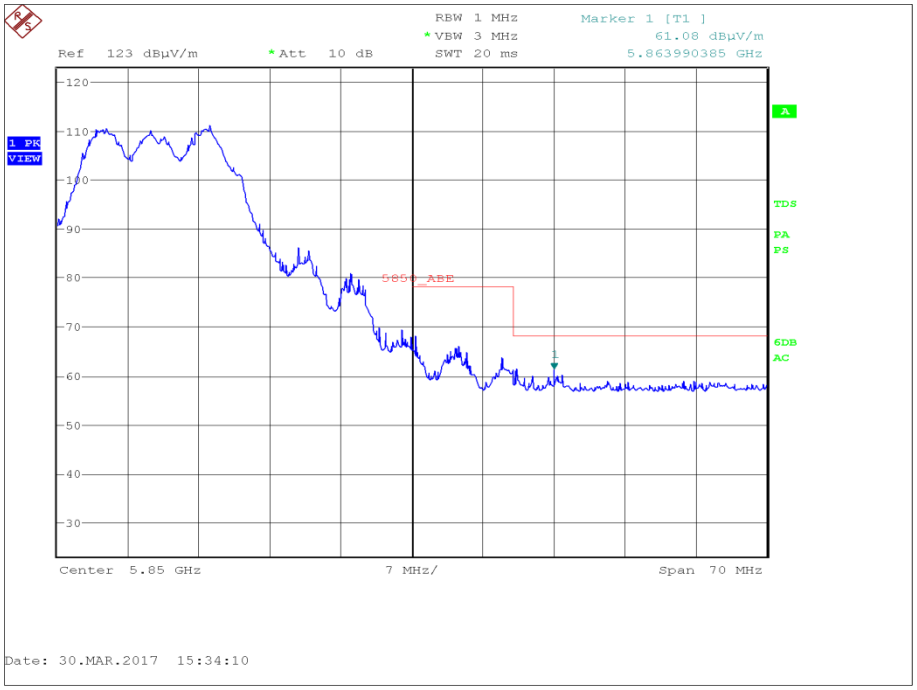

Figure 44 - U-NII 3 - Authorised Band Edge at 5850 MHz - Highest Conducted Power

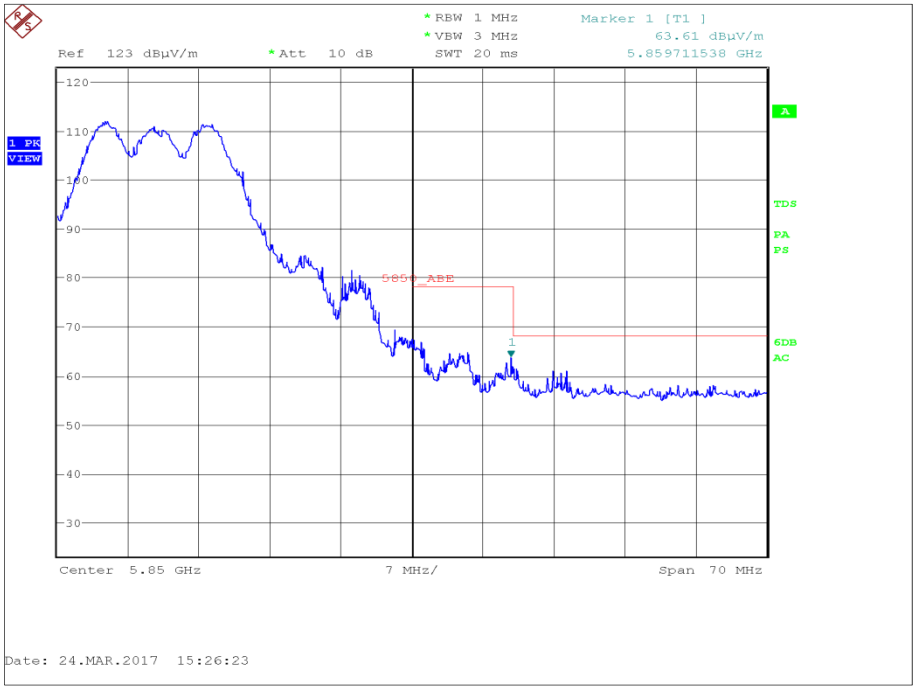

Figure 45 - U-NII 3 - Authorised Band Edge at 5850 MHz - Widest Emission Bandwidth

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

For transmitters operating in the 5.15-5.25 GHz band: ≤-27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.25-5.35 GHz band: ≤-27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.47-5.725 GHz band: ≤-27 dBm/MHz outside 5470-5725 MHz

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Industry Canada RSS-247, Limit Clause 6.2.1.2, 6.2.2.2, 6.2.3.2 and 6.2.4.2

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB.

For transmitters with operating frequencies in the bands 5250-5350 MHz and 5470-5725 MHz, all emissions outside the band 5250-5350 MHz and 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;
b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;
c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and
d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

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Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5180	5150	49.16
Widest Emission Bandwidth	12 Mbps	5180	5150	49.79

Table 134 - UNII 1 - Authorised Band Edge Results

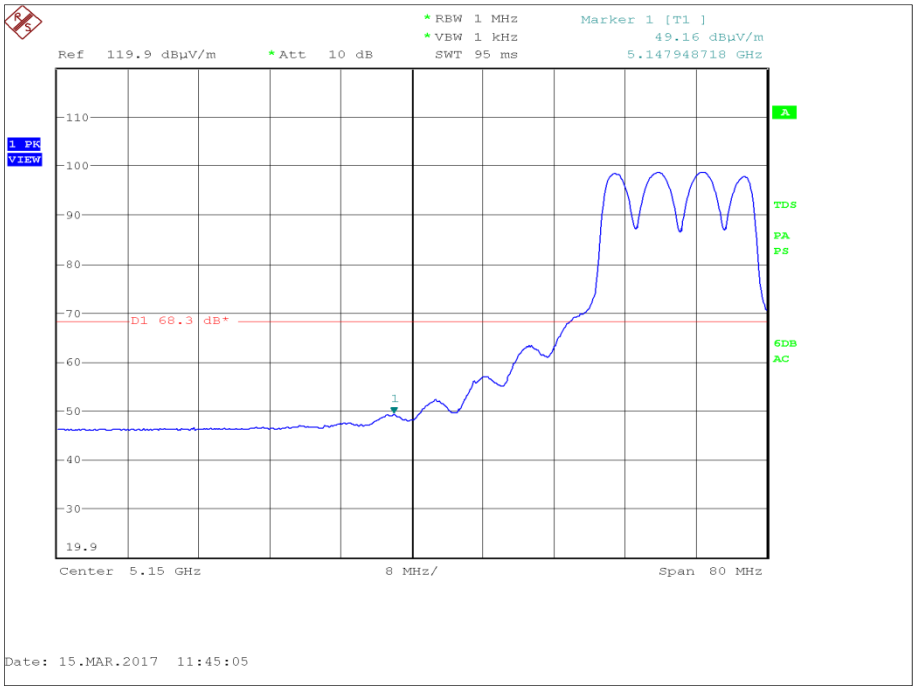

Figure 46 - U-NII 1 - Authorised Band Edge at 5150 MHz - Highest Conducted Power

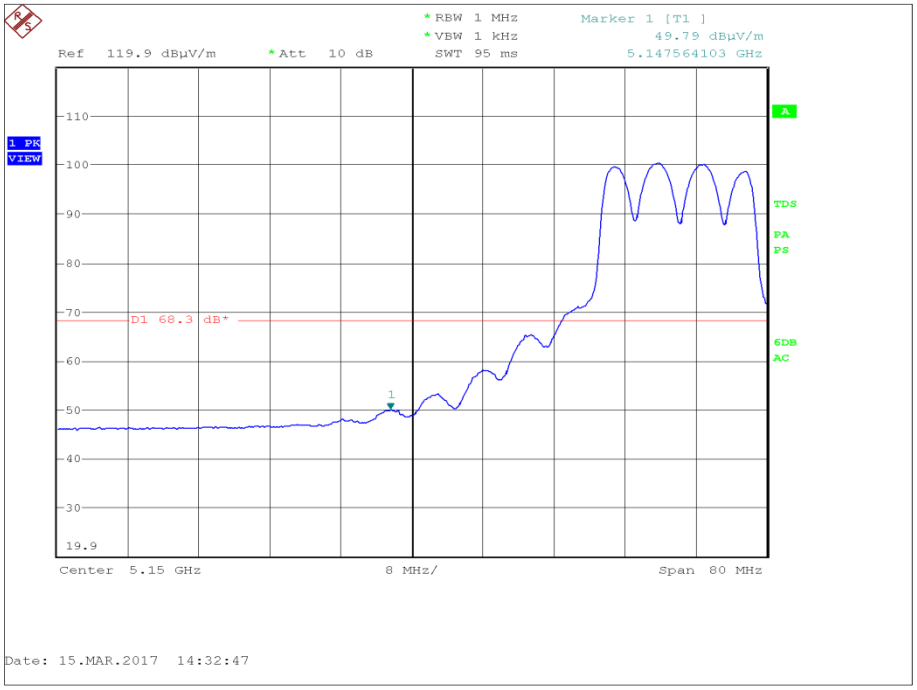

Figure 47 - U-NII 1 - Authorised Band Edge at 5150 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5320	5350	48.08
Widest Emission Bandwidth	12 Mbps	5320	5350	48.95

Table 135 - U-NII 2a - Authorised Band Edge Results

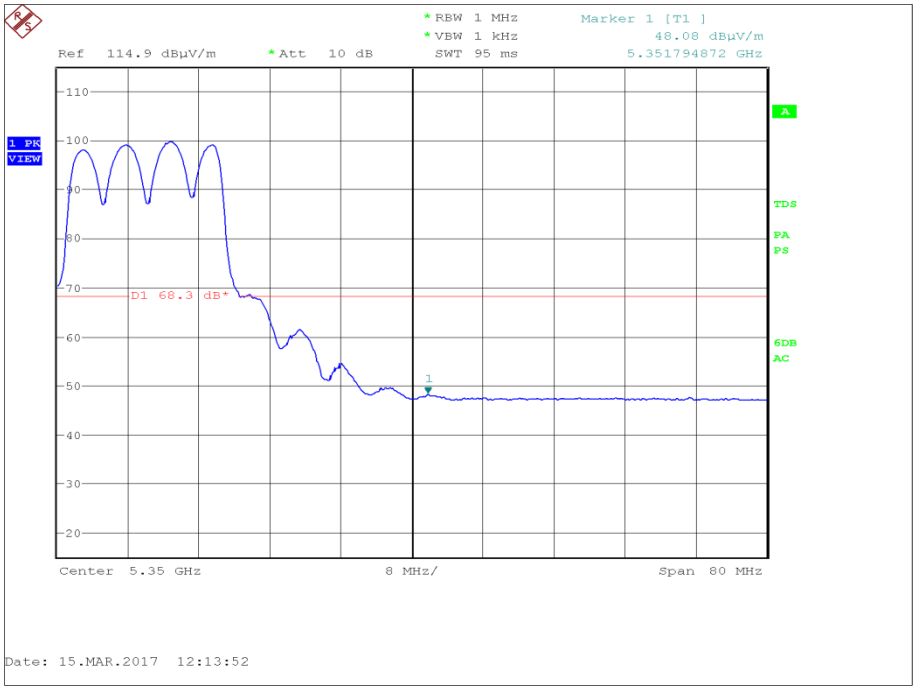

Figure 48 - U-NII 2a - Authorised Band Edge at 5350 MHz - Highest Conducted Power

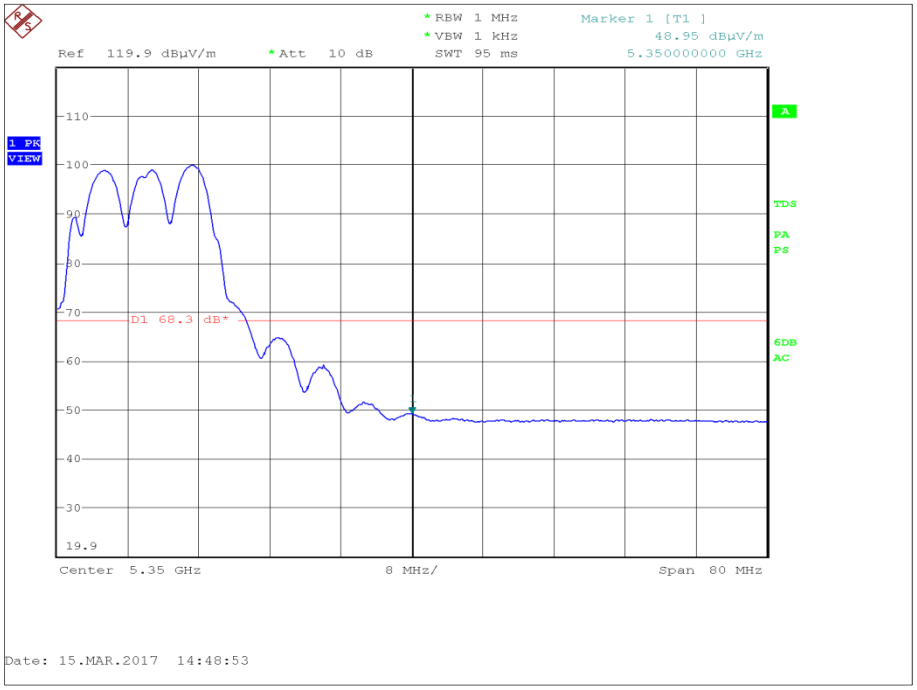

Figure 49 - U-NII 2a - Authorised Band Edge at 5350 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5500	5470	48.77
Widest Emission Bandwidth	12 Mbps	5500	5470	49.65
Highest Conducted Power	6 Mbps	5700	5725	49.45
Widest Emission Bandwidth	12 Mbps	5700	5725	50.01

Table 136 - U-NII 2c - Authorised Band Edge Results

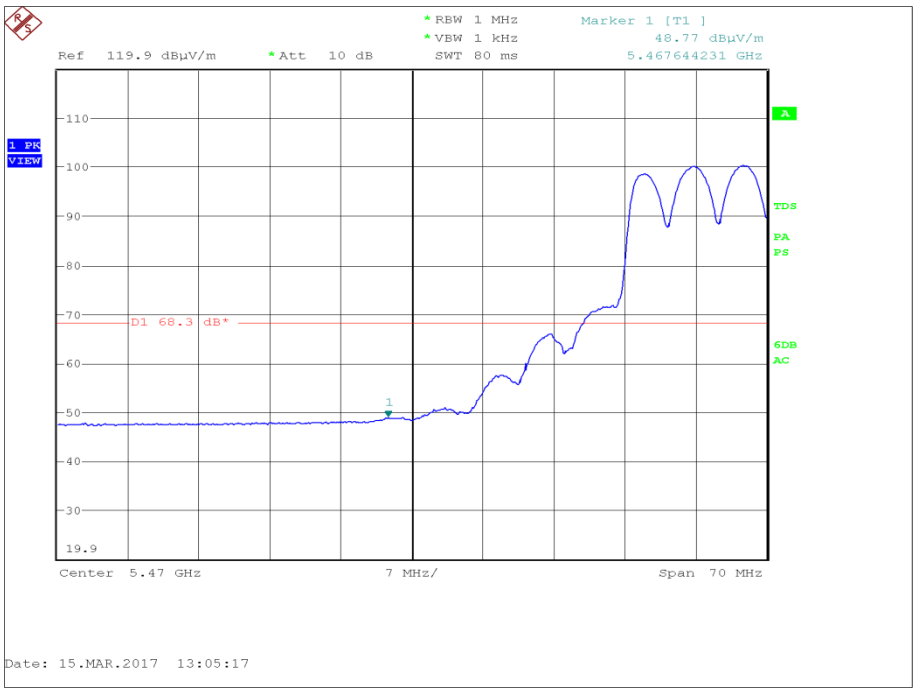

Figure 50 - U-NII 2c - Authorised Band Edge at 5470 MHz - Highest Conducted Power

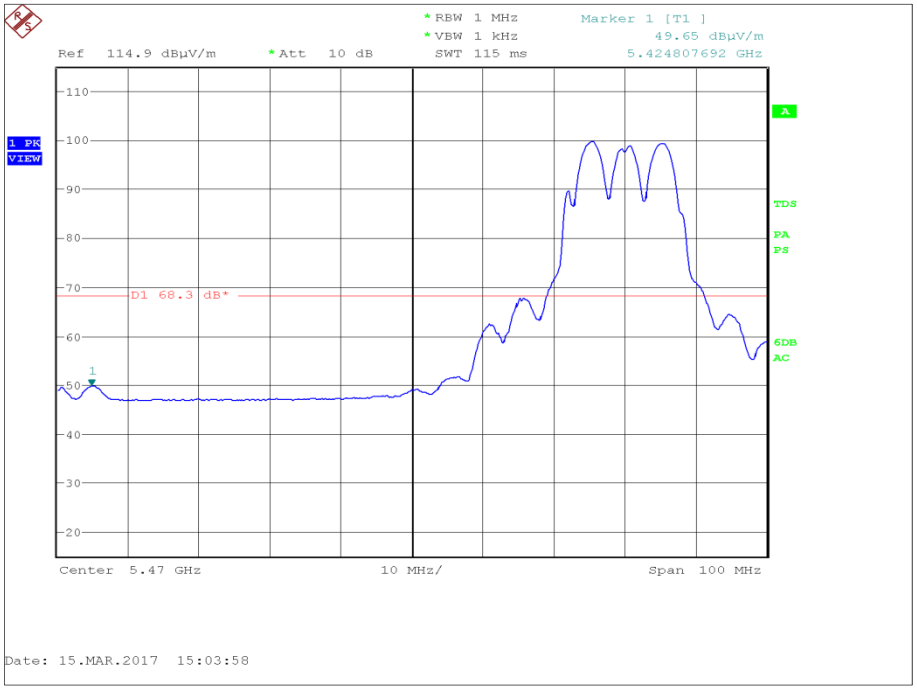

Figure 51 - U-NII 2c - Authorised Band Edge at 5470 MHz - Widest Emission Bandwidth

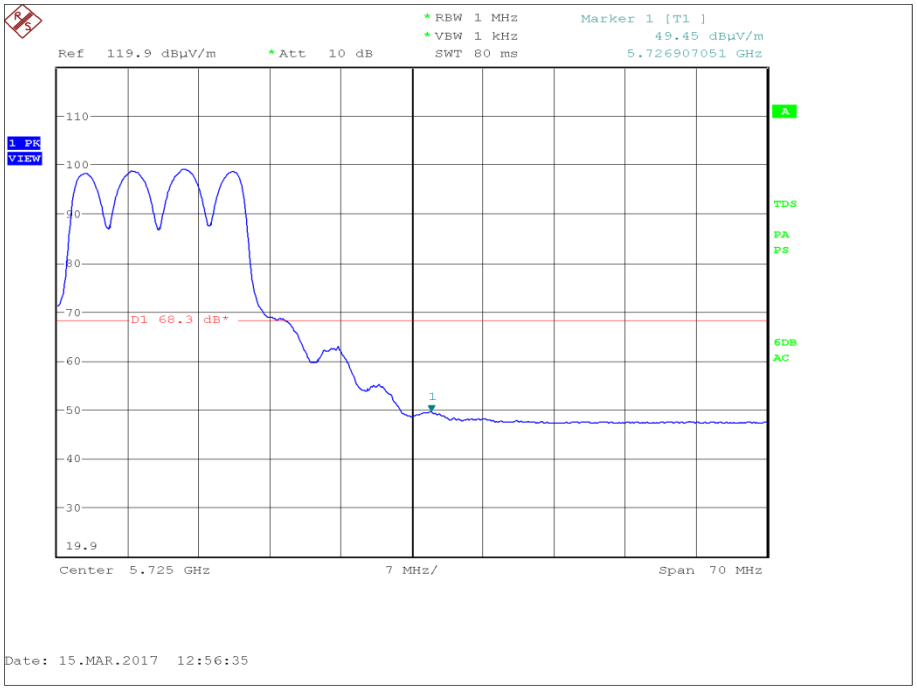

Figure 52 - U-NII 2c - Authorised Band Edge at 5725 MHz - Highest Conducted Power

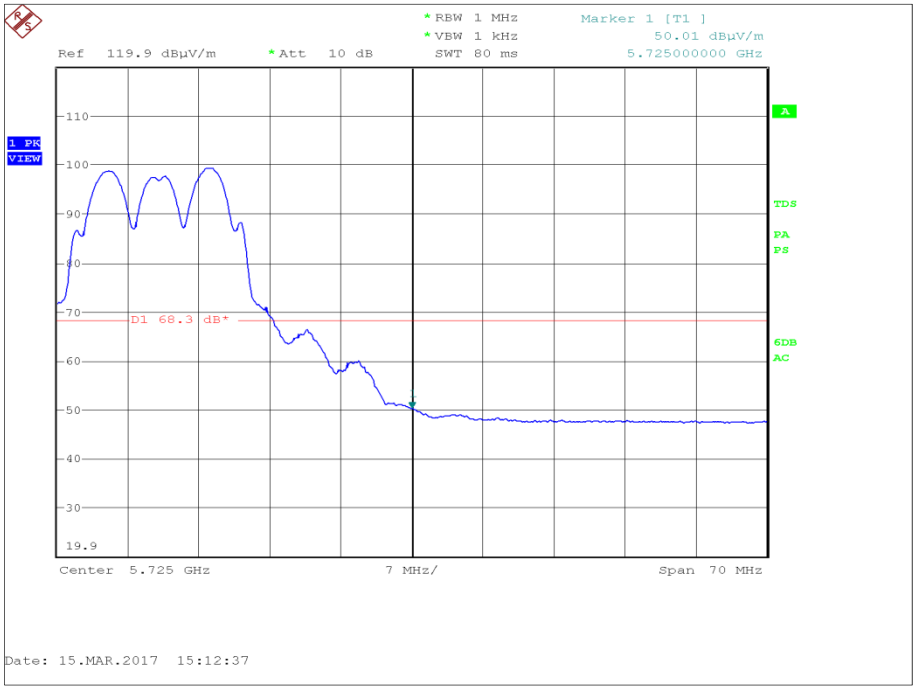

Figure 53 - U-NII 2c - Authorised Band Edge at 5725 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5745	5725	48.22
Widest Emission Bandwidth	12 Mbps	5745	5725	48.03
Highest Conducted Power	6 Mbps	5825	5850	60.34
Widest Emission Bandwidth	12 Mbps	5825	5850	60.51

Table 137 - U-NII 3 - Authorised Band Edge Results

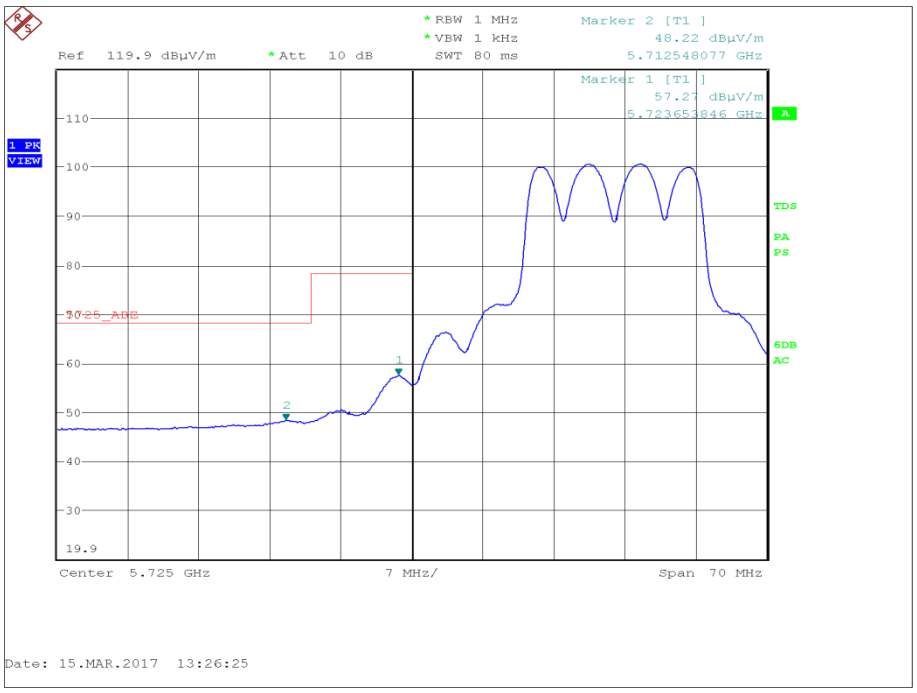

Figure 54 - U-NII 3 - Authorised Band Edge at 5725 MHz - Highest Conducted Power

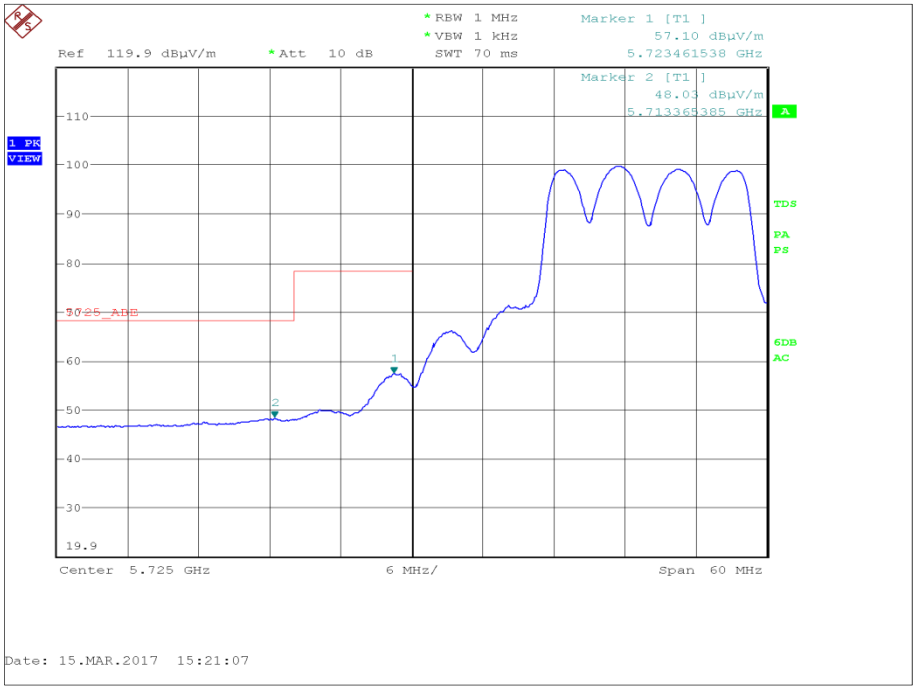

Figure 55 - U-NII 3 - Authorised Band Edge at 5725 MHz - Widest Emission Bandwidth

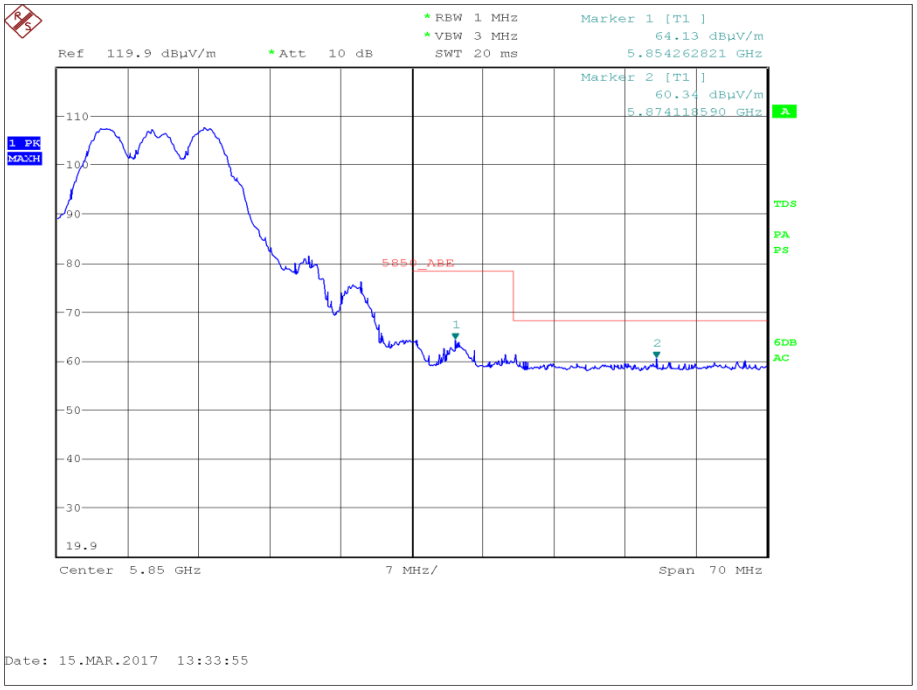

Figure 56 - U-NII 3 - Authorised Band Edge at 5850 MHz - Highest Conducted Power

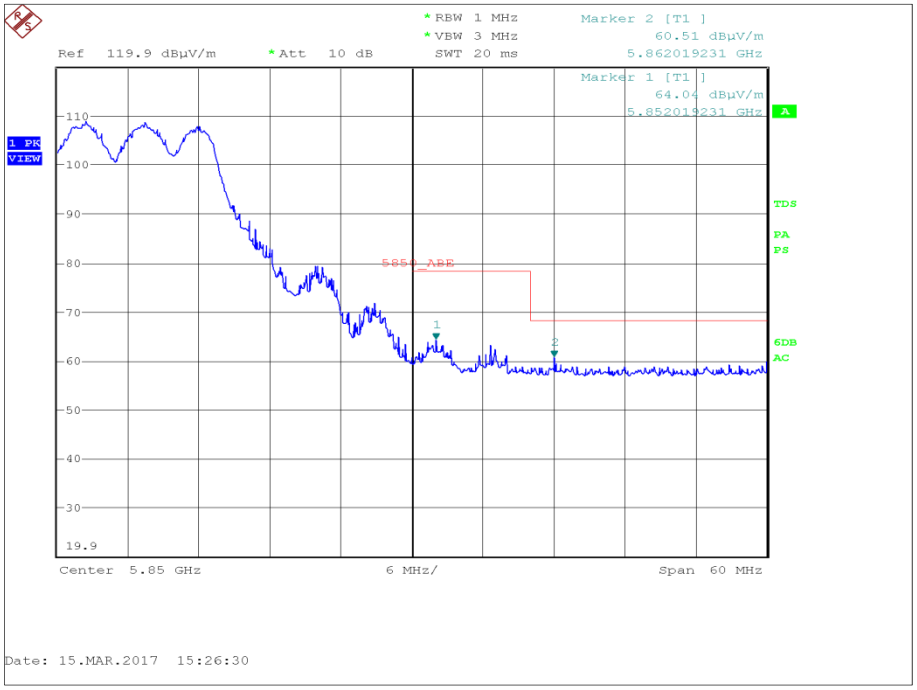

Figure 57 - U-NII 3 - Authorised Band Edge at 5850 MHz - Widest Emission Bandwidth

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

For transmitters operating in the 5.15-5.25 GHz band: ≤-27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.25-5.35 GHz band: ≤-27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.47-5.725 GHz band: ≤-27 dBm/MHz outside 5470-5725 MHz

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Industry Canada RSS-247, Limit Clause 6.2.1.2, 6.2.2.2, 6.2.3.2 and 6.2.4.2

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB.

For transmitters with operating frequencies in the bands 5250-5350 MHz and 5470-5725 MHz, all emissions outside the band 5250-5350 MHz and 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;
b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;
c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and
d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

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Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Measured Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	MCS0	5180	5150	52.80
Widest Emission Bandwidth	MCS3	5180	5150	52.74

Table 138 - UNII 1 - Authorised Band Edge Results

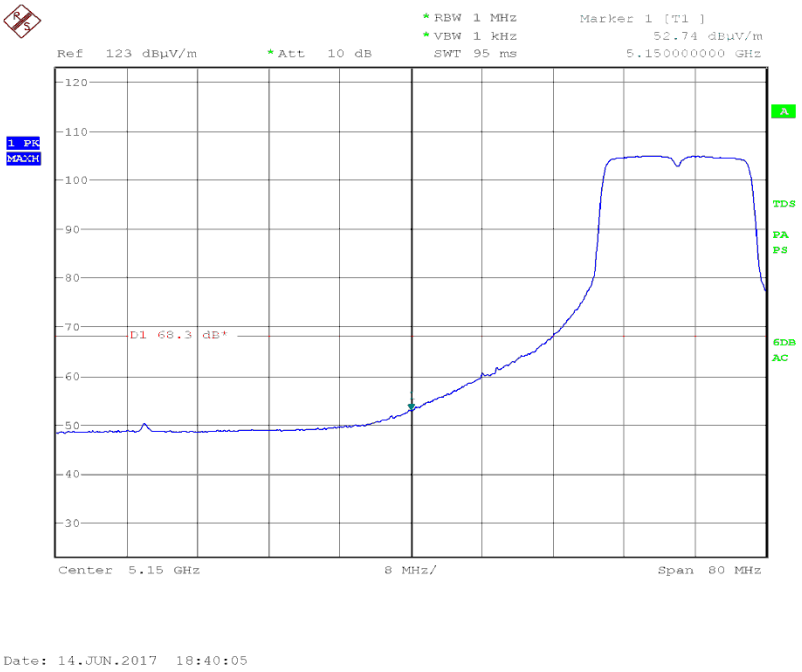

Figure 58 - U-NII 1 - Authorised Band Edge at 5150 MHz - Highest Conducted Power

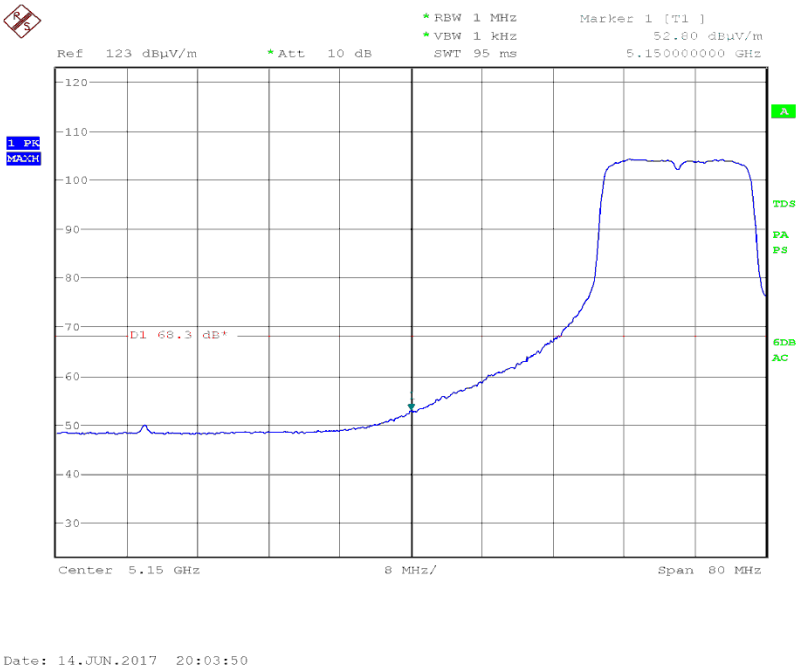

Figure 59 - U-NII 1 - Authorised Band Edge at 5150 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Measured Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5320	5350	50.21
Widest Emission Bandwidth	12 Mbps	5320	5350	59.46

Table 139 - U-NII 2a - Authorised Band Edge Results

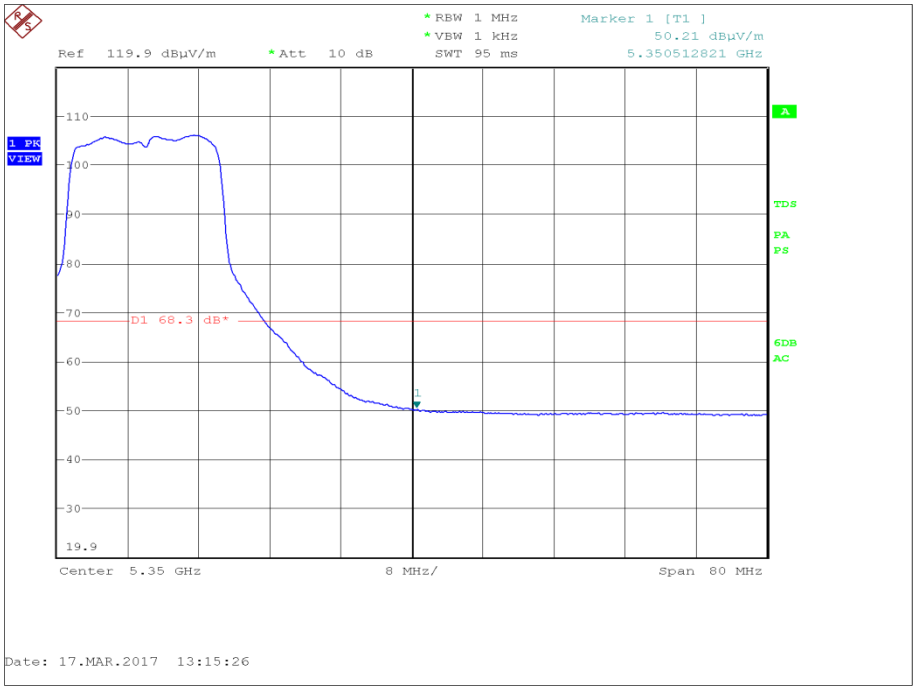

Figure 60 - U-NII 2a - Authorised Band Edge at 5350 MHz - Highest Conducted Power

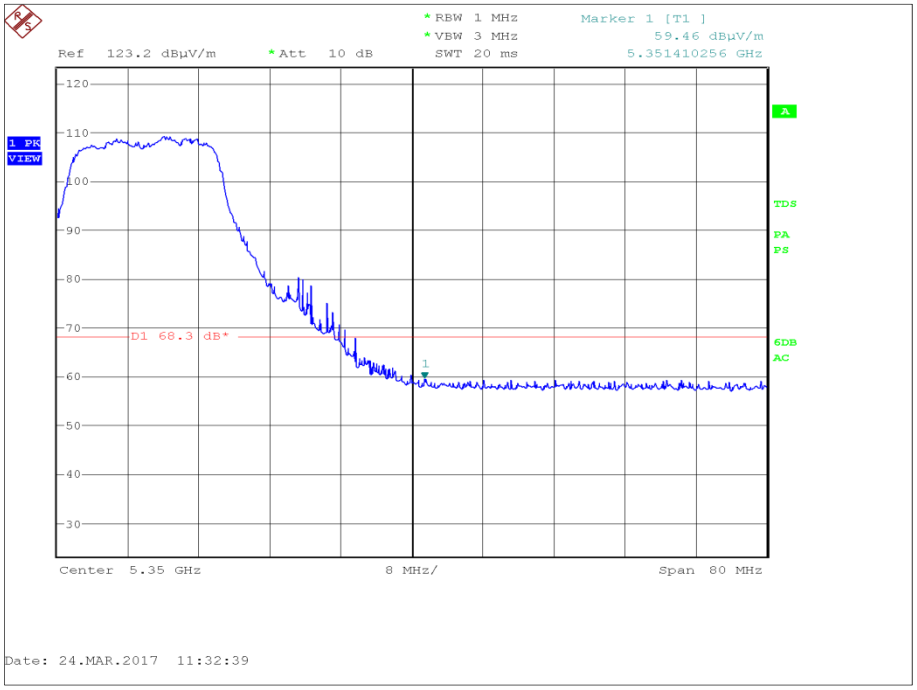

Figure 61 - U-NII 2a - Authorised Band Edge at 5350 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Measured Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5500	5470	58.91
Widest Emission Bandwidth	12 Mbps	5500	5470	63.85
Highest Conducted Power	6 Mbps	5700	5725	51.80
Widest Emission Bandwidth	12 Mbps	5700	5725	50.79

Table 140 - U-NII 2c - Authorised Band Edge Results

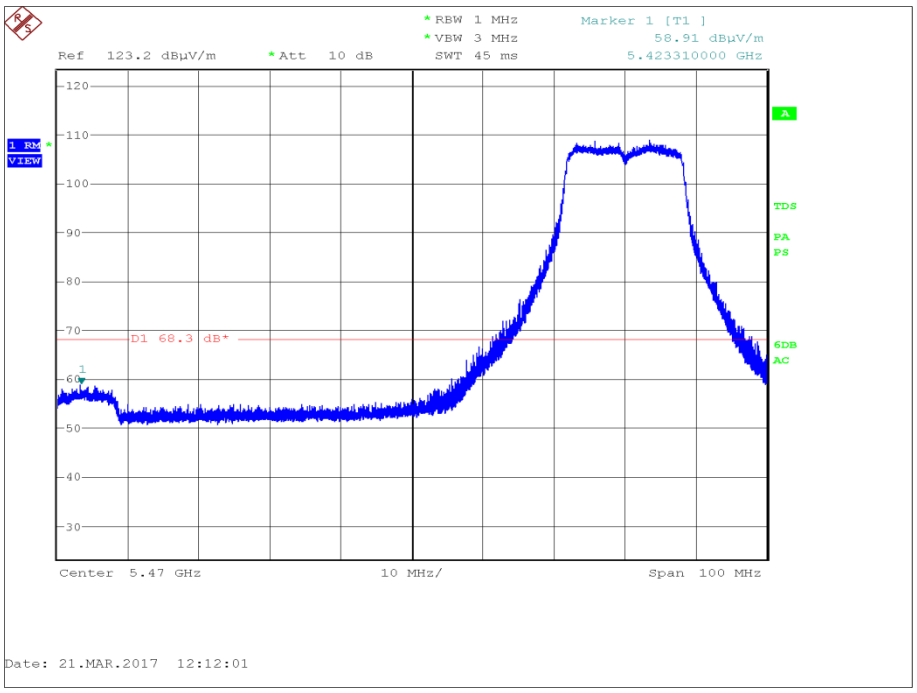

Figure 62 - Authorised Band Edge at 5470 MHz - Highest Conducted Power

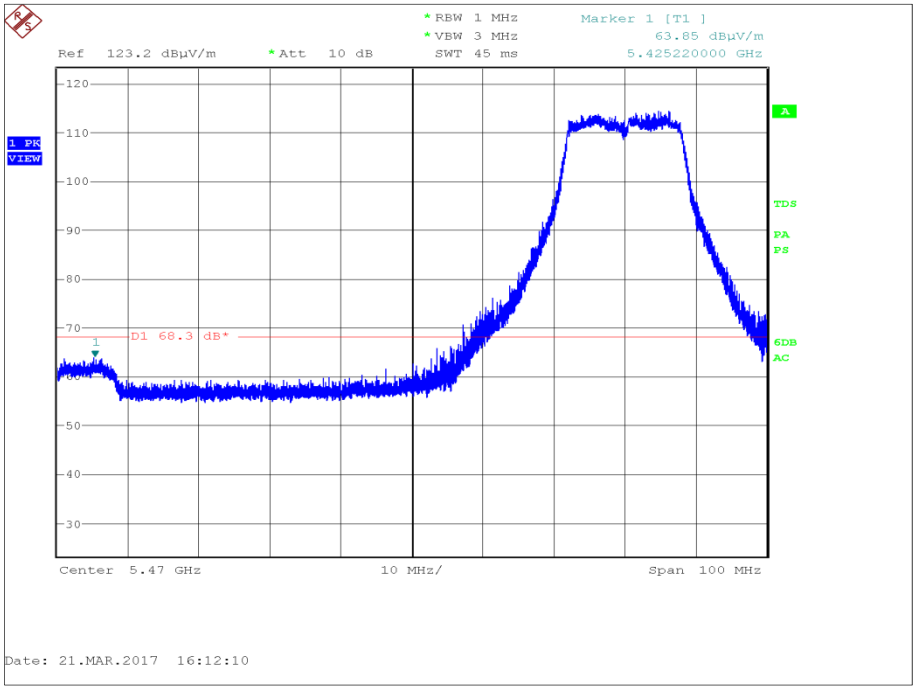

Figure 63 - Authorised Band Edge at 5470 MHz - Widest Emission Bandwidth

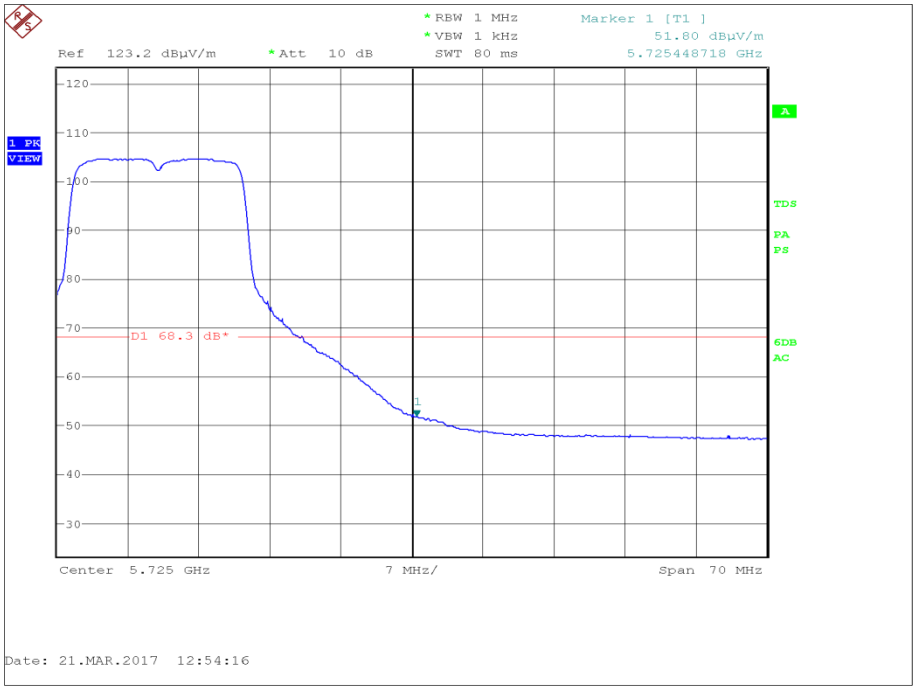

Figure 64 - Authorised Band Edge at 5725 MHz - Highest Conducted Power

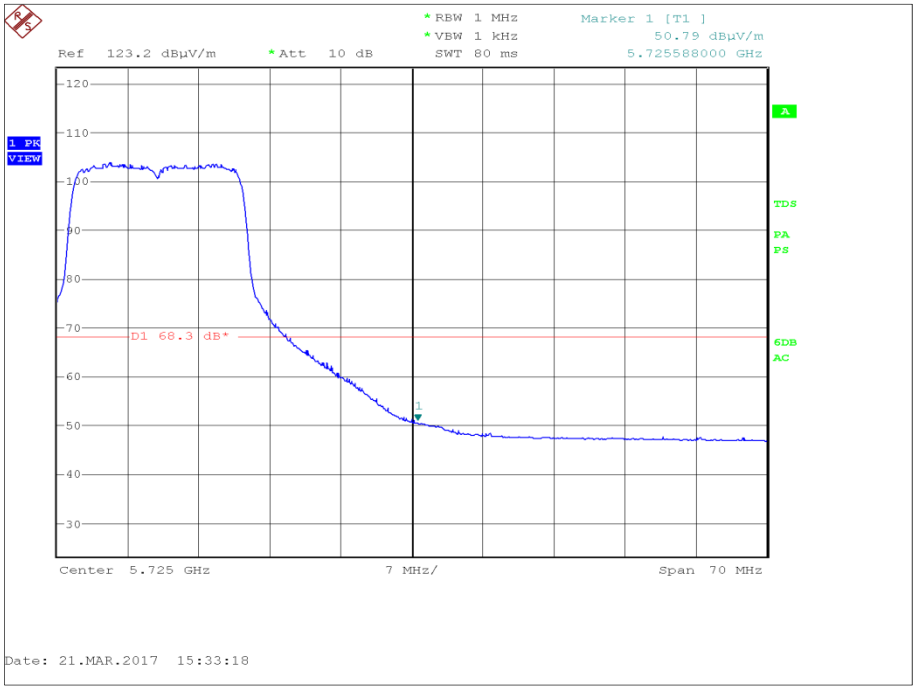

Figure 65 - Authorised Band Edge at 5725 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Measured Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5745	5725	60.58
Widest Emission Bandwidth	12 Mbps	5745	5725	59.92
Highest Conducted Power	6 Mbps	5825	5850	66.44
Widest Emission Bandwidth	12 Mbps	5825	5850	67.99

Table 141 - U-NII 3 - Authorised Band Edge Results

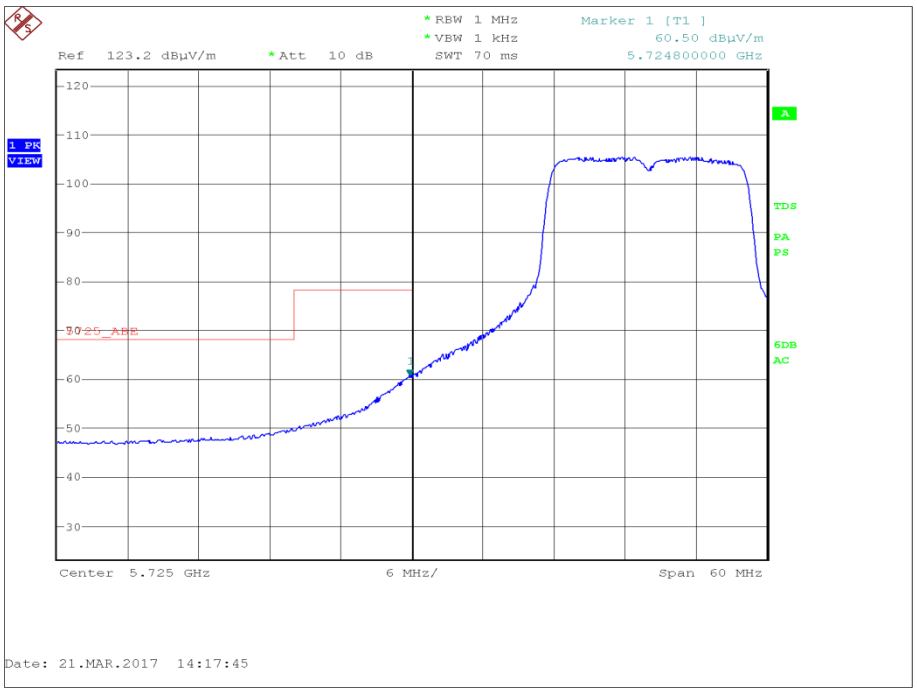

Figure 66 - Authorised Band Edge at 5725 MHz - Highest Conducted Power

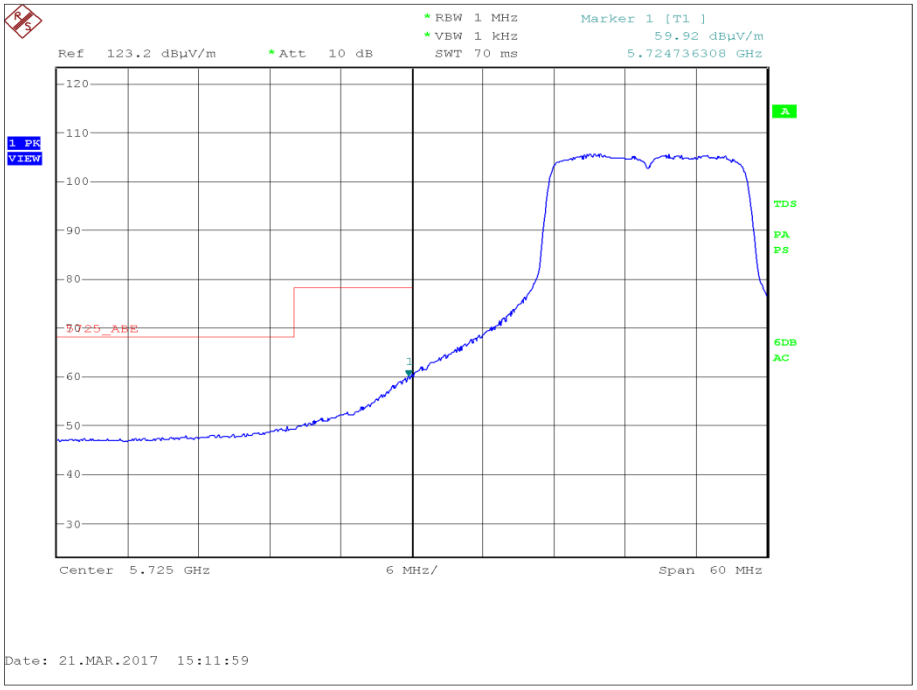

Figure 67 - Authorised Band Edge at 5725 MHz - Widest Emission Bandwidth

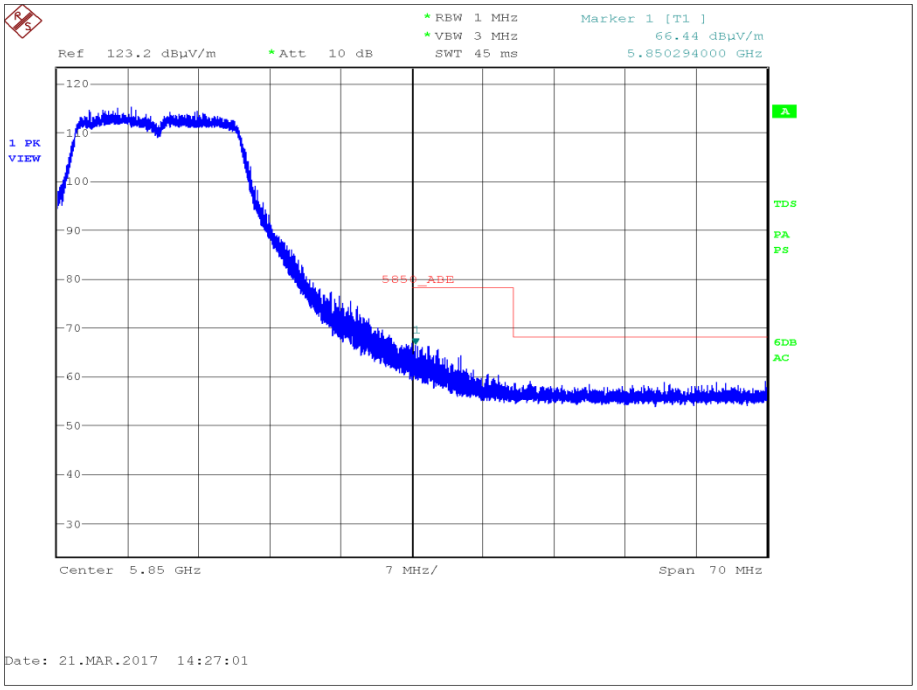

Figure 68 - Authorised Band Edge at 5850 MHz - Highest Conducted Power

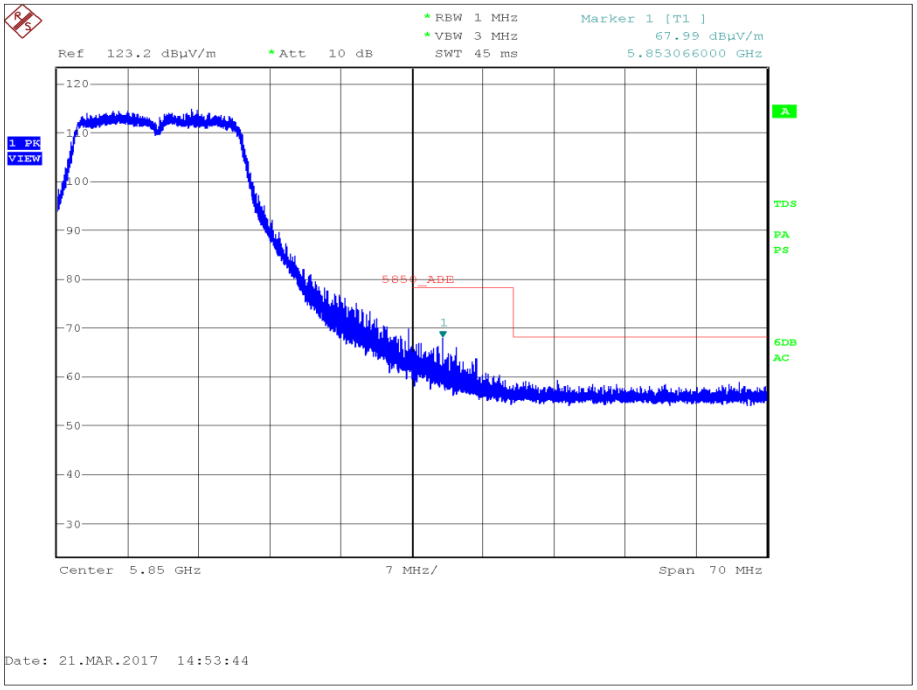

Figure 69 - Authorised Band Edge at 5850 MHz - Widest Emission Bandwidth

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

For transmitters operating in the 5.15-5.25 GHz band: ≤-27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.25-5.35 GHz band: ≤-27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.47-5.725 GHz band: ≤-27 dBm/MHz outside 5470-5725 MHz

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Industry Canada RSS-247, Limit Clause 6.2.1.2, 6.2.2.2, 6.2.3.2 and 6.2.4.2

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB.

For transmitters with operating frequencies in the bands 5250-5350 MHz and 5470-5725 MHz, all emissions outside the band 5250-5350 MHz and 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;
b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;
c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and
d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

ANT795-6MT - 802.11n 20 MHz Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Measured Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	MCS0	5180	5150	51.07
Widest Emission Bandwidth	MCS3	5180	5150	51.40

Table 142 - UNII 1 - Authorised Band Edge Results

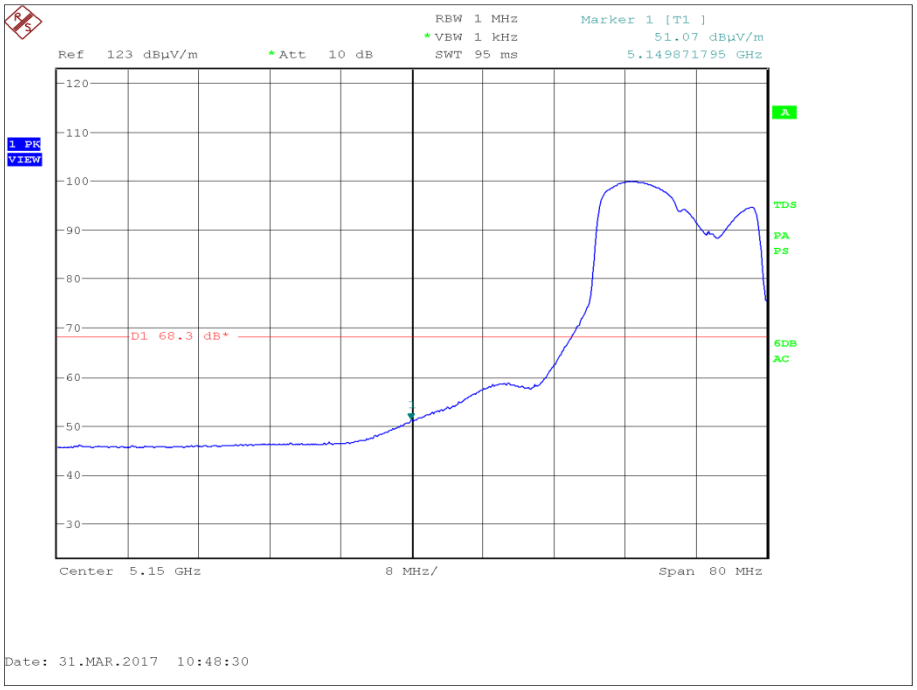

Figure 70 - U-NII 1 - Authorised Band Edge at 5150 MHz - Highest Conducted Power

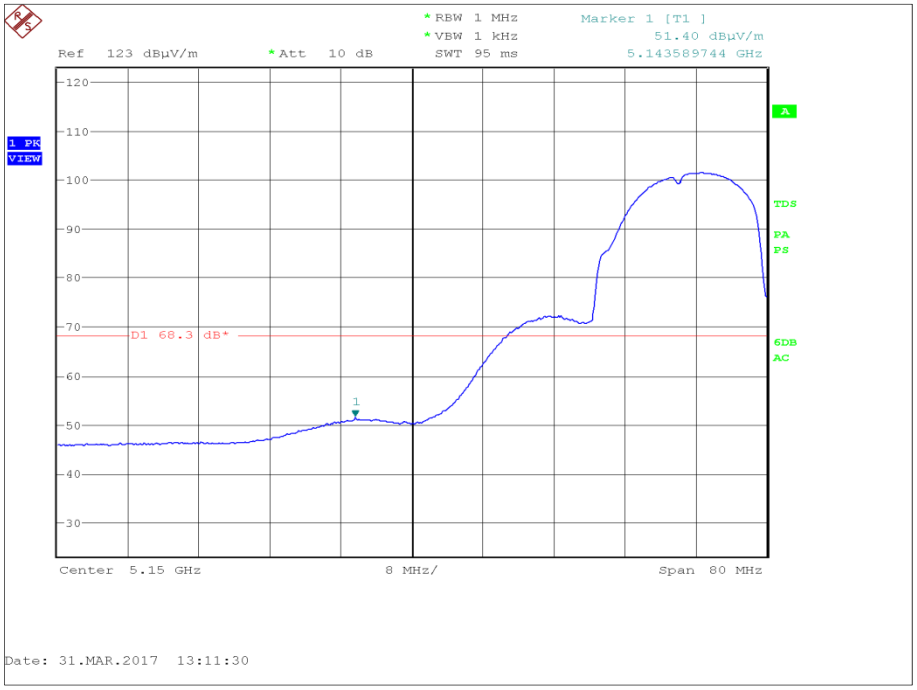

Figure 71 - U-NII 1 - Authorised Band Edge at 5150 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Measured Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	MCS0	5320	5350	58.58
Widest Emission Bandwidth	MCS3	5320	5350	53.14

Table 143 - U-NII 2a - Authorised Band Edge Results

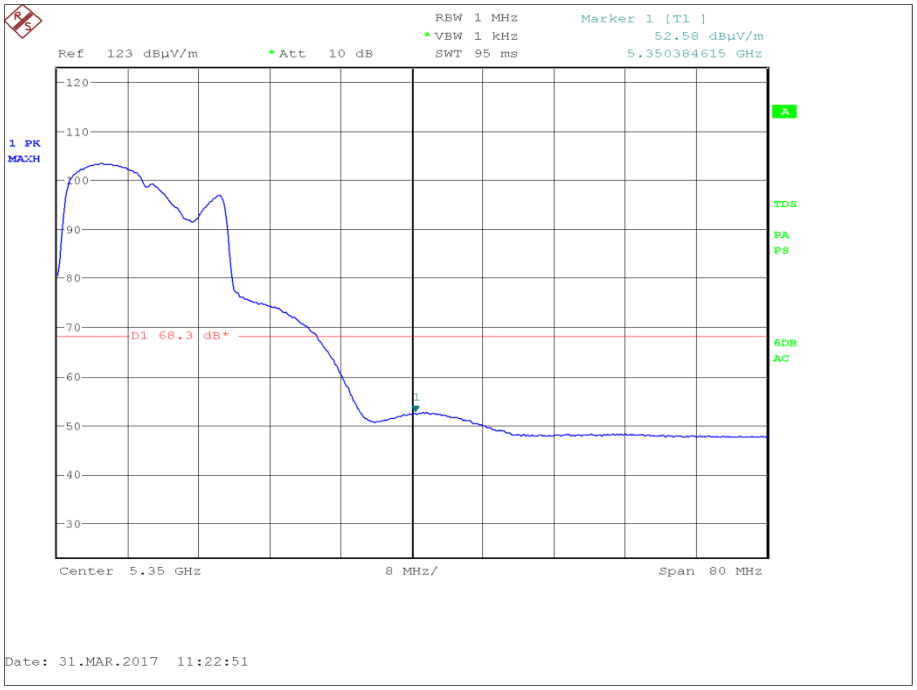

Figure 72 - U-NII 2a - Authorised Band Edge at 5350 MHz - Highest Conducted Power

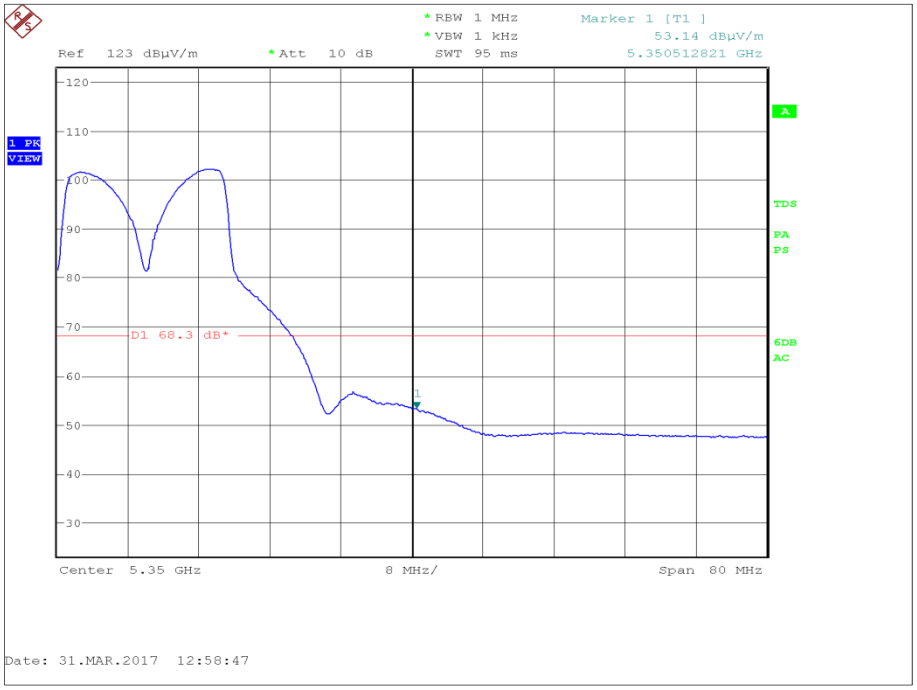

Figure 73 - U-NII 2a - Authorised Band Edge at 5350 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Measured Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	MCS0	5500	5470	51.10
Widest Emission Bandwidth	MCS3	5500	5470	52.19
Highest Conducted Power	MCS0	5700	5725	55.61
Widest Emission Bandwidth	MCS3	5700	5725	56.56

Table 144 - U-NII 2c - Authorised Band Edge Results

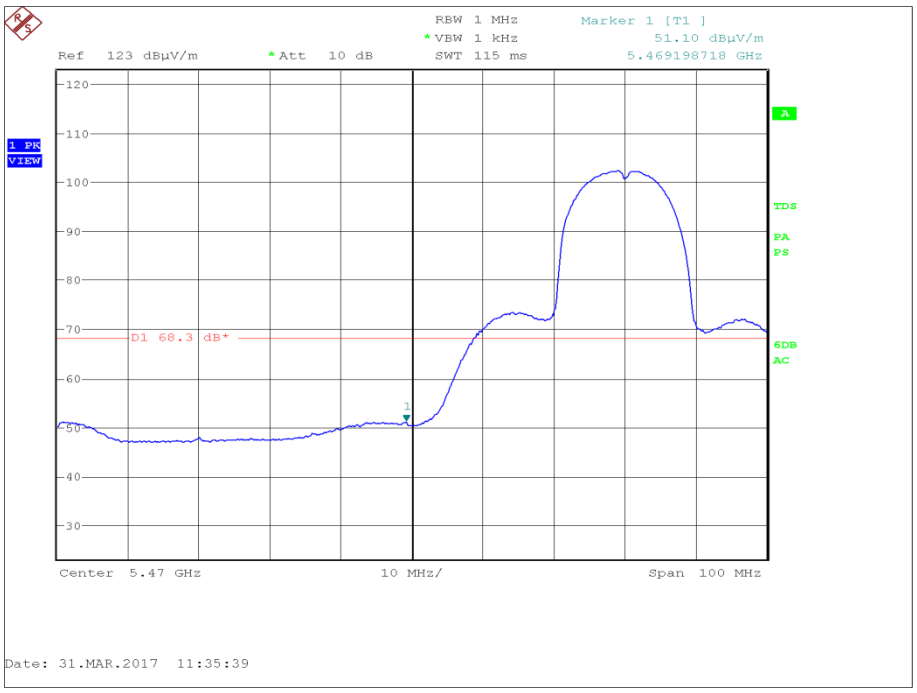

Figure 74 - Authorised Band Edge at 5470 MHz - Highest Conducted Power

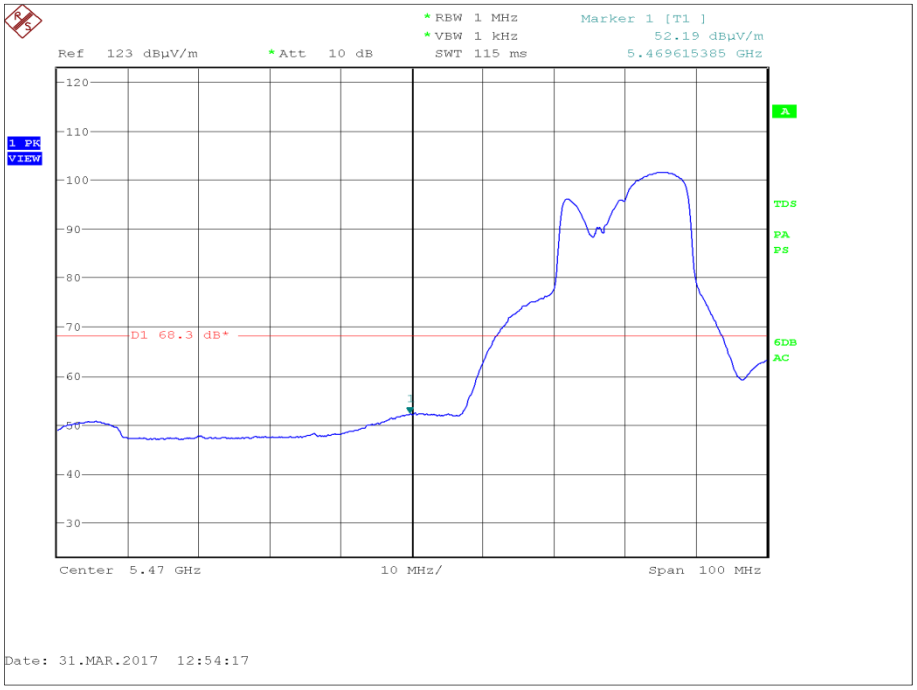

Figure 75 - Authorised Band Edge at 5470 MHz - Widest Emission Bandwidth

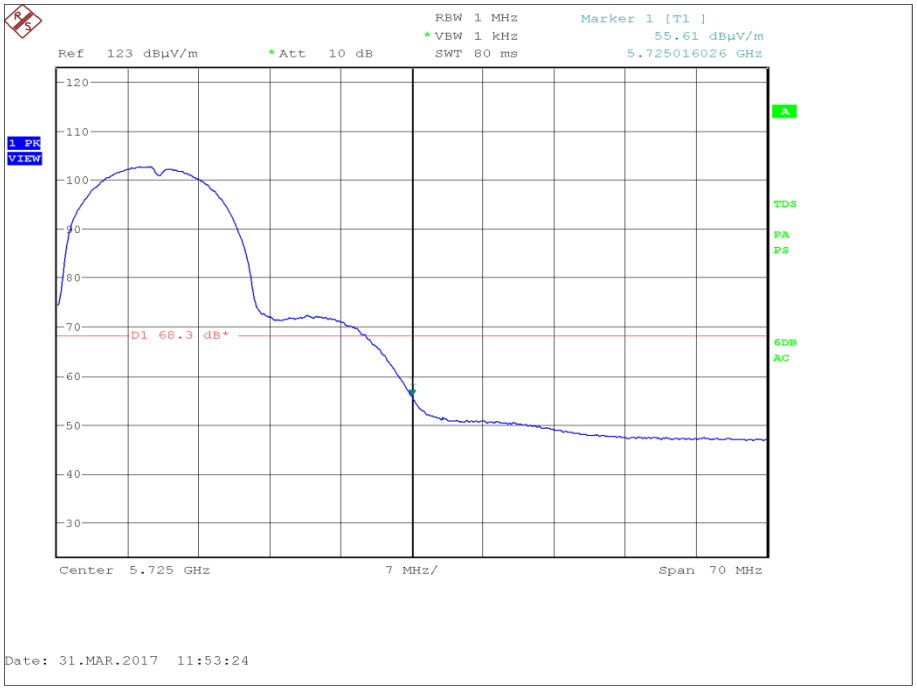

Figure 76 - Authorised Band Edge at 5725 MHz - Highest Conducted Power

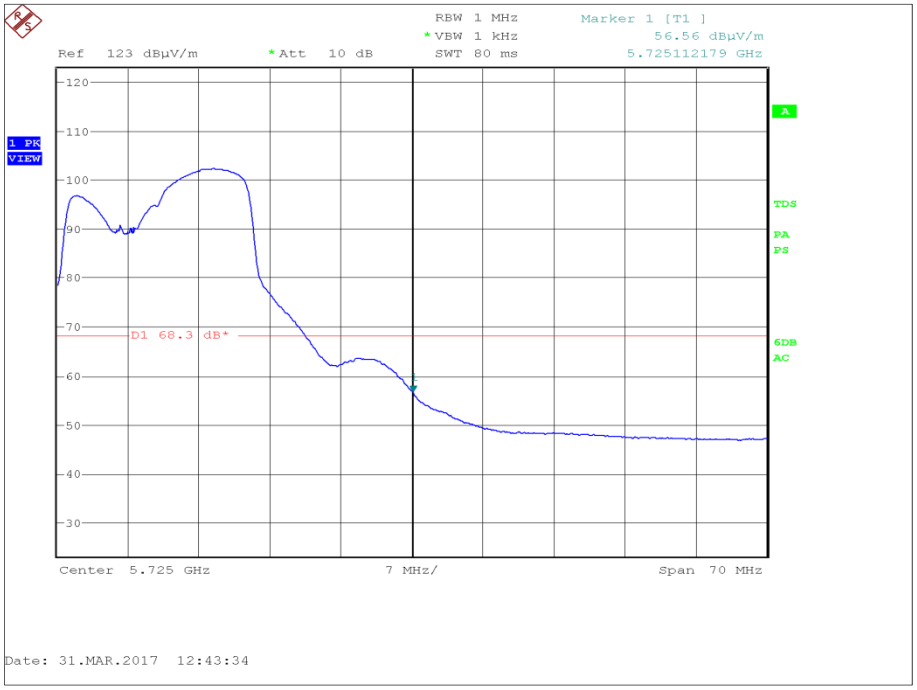

Figure 77 - Authorised Band Edge at 5725 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Measured Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	MCS0	5745	5725	67.84
Widest Emission Bandwidth	MCS3	5745	5725	68.39
Highest Conducted Power	MCS0	5825	5850	61.56
Widest Emission Bandwidth	MCS3	5825	5850	67.82

Table 145 - U-NII 3 - Authorised Band Edge Results

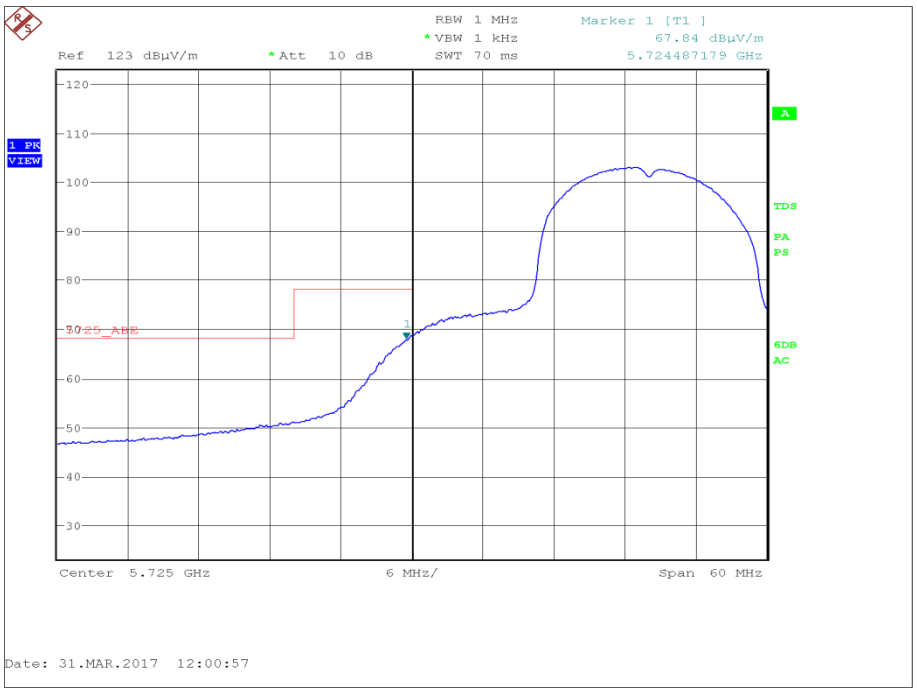

Figure 78 - Authorised Band Edge at 5725 MHz - Highest Conducted Power

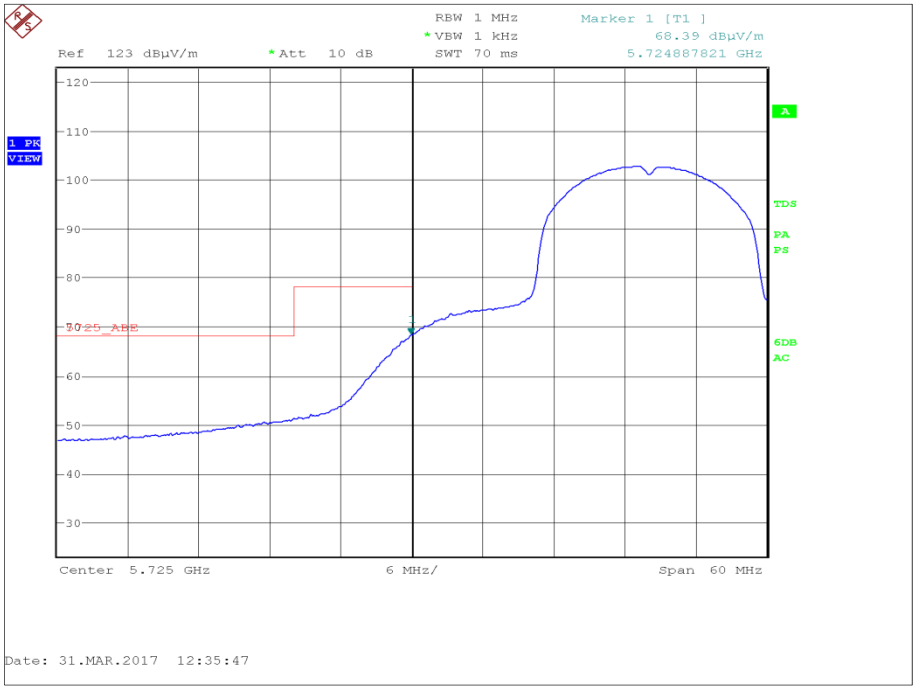

Figure 79 - Authorised Band Edge at 5725 MHz - Widest Emission Bandwidth

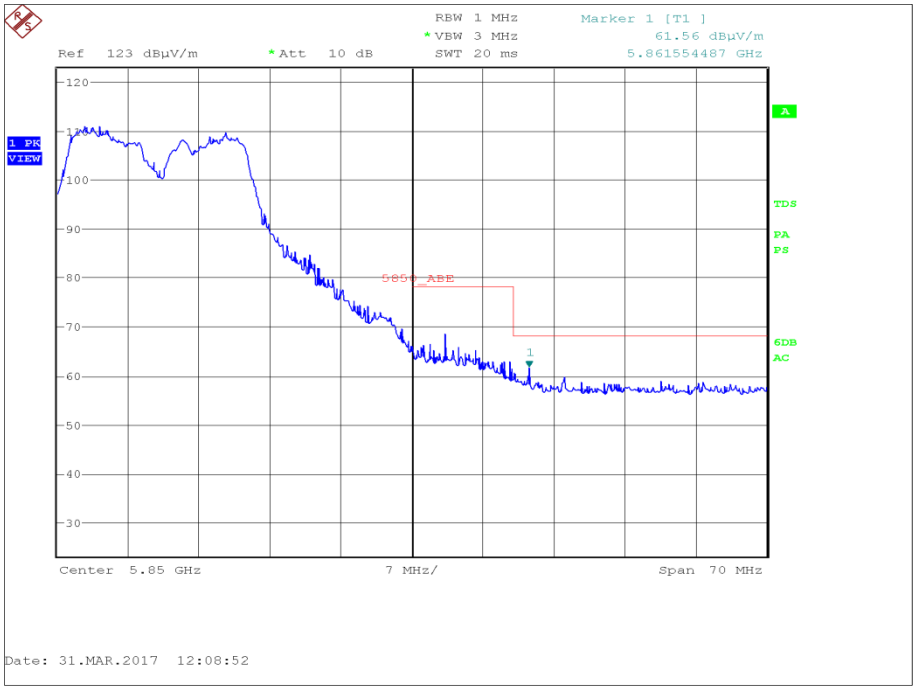

Figure 80 - Authorised Band Edge at 5850 MHz - Highest Conducted Power

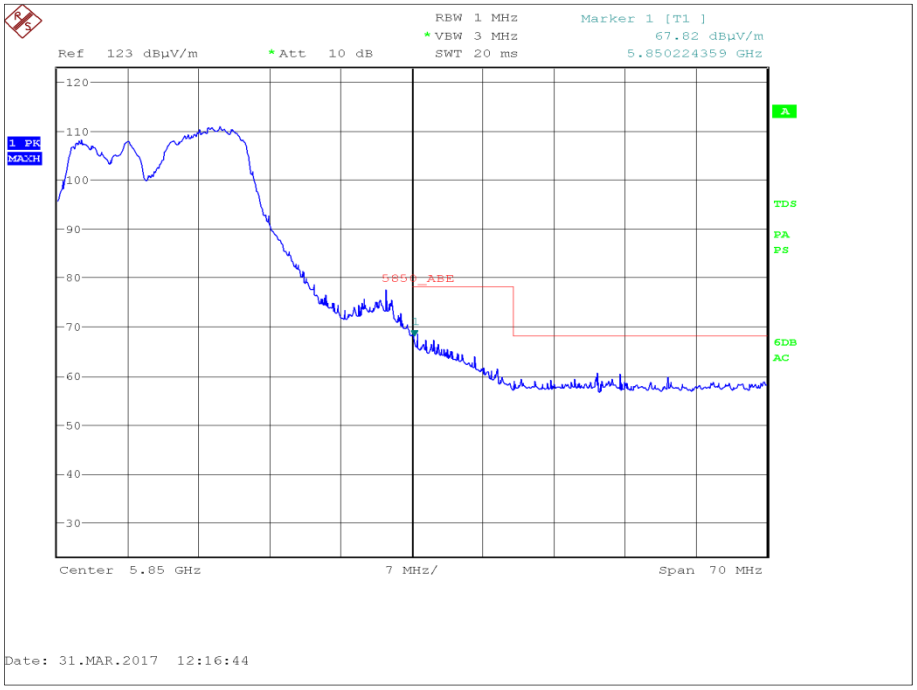

Figure 81 - Authorised Band Edge at 5850 MHz - Widest Emission Bandwidth

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

For transmitters operating in the 5.15-5.25 GHz band: ≤-27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.25-5.35 GHz band: ≤-27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.47-5.725 GHz band: ≤-27 dBm/MHz outside 5470-5725 MHz

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Industry Canada RSS-247, Limit Clause 6.2.1.2, 6.2.2.2, 6.2.3.2 and 6.2.4.2

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB.

For transmitters with operating frequencies in the bands 5250-5350 MHz and 5470-5725 MHz, all emissions outside the band 5250-5350 MHz and 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;
b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;
c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and
d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

ANT793-6DG - 802.11n 20 MHz Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Measured Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5180	5150	48.30
Widest Emission Bandwidth	12 Mbps	5180	5150	51.62

Table 146 - UNII 1 - Authorised Band Edge Results

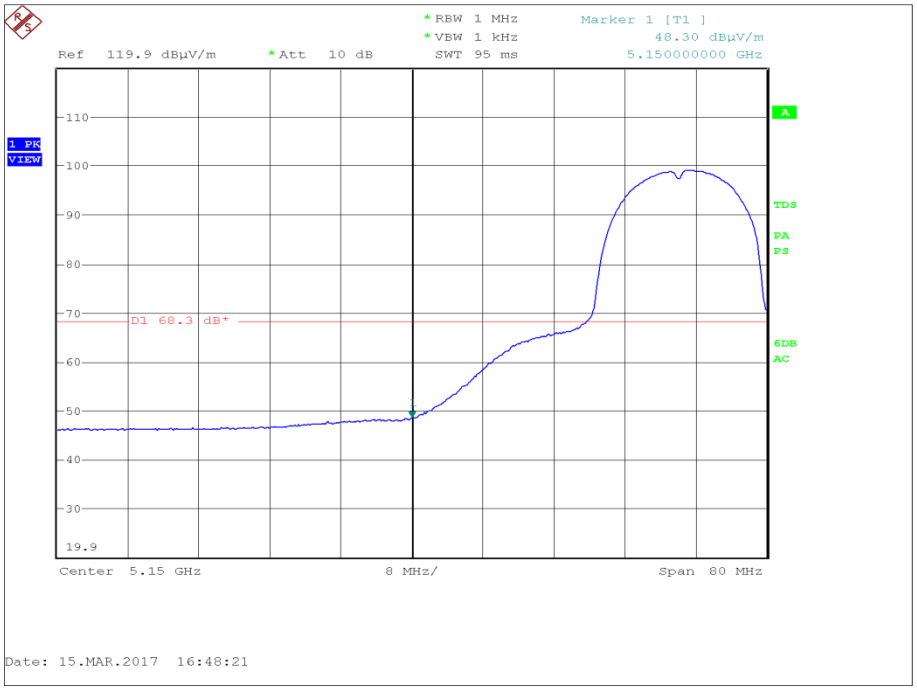

Figure 82 - U-NII 1 - Authorised Band Edge at 5150 MHz - Highest Conducted Power

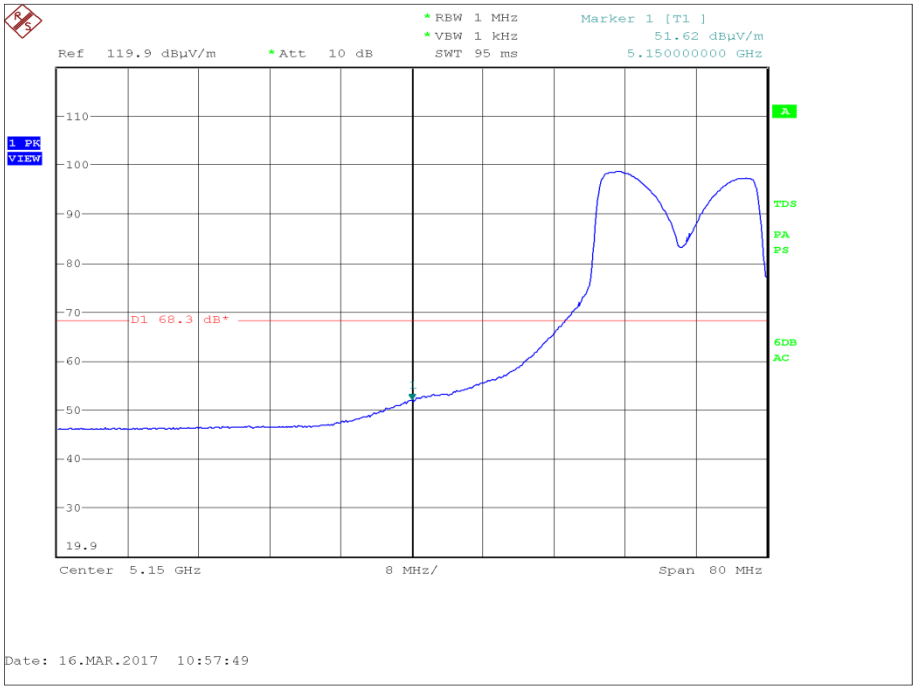

Figure 83 - U-NII 1 - Authorised Band Edge at 5150 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Measured Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5320	5350	60.77
Widest Emission Bandwidth	12 Mbps	5320	5350	61.28

Table 147 - U-NII 2a - Authorised Band Edge Results

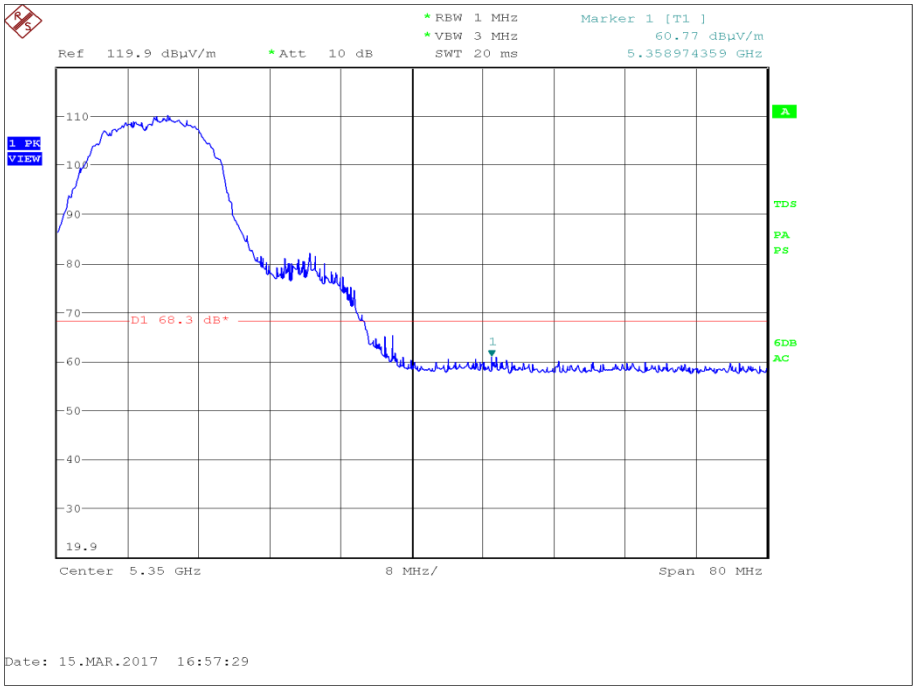

Figure 84 - U-NII 2a - Authorised Band Edge at 5350 MHz - Highest Conducted Power

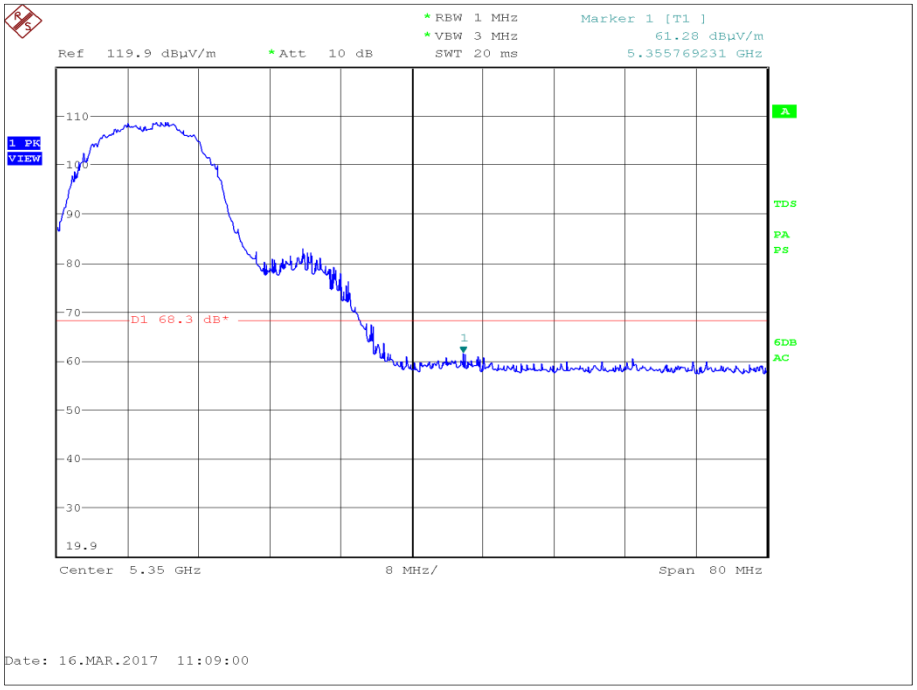

Figure 85 - U-NII 2a - Authorised Band Edge at 5350 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Measured Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5500	5470	49.90
Widest Emission Bandwidth	12 Mbps	5500	5470	48.79
Highest Conducted Power	6 Mbps	5700	5725	51.13
Widest Emission Bandwidth	12 Mbps	5700	5725	50.59

Table 148 - U-NII 2c - Authorised Band Edge Results

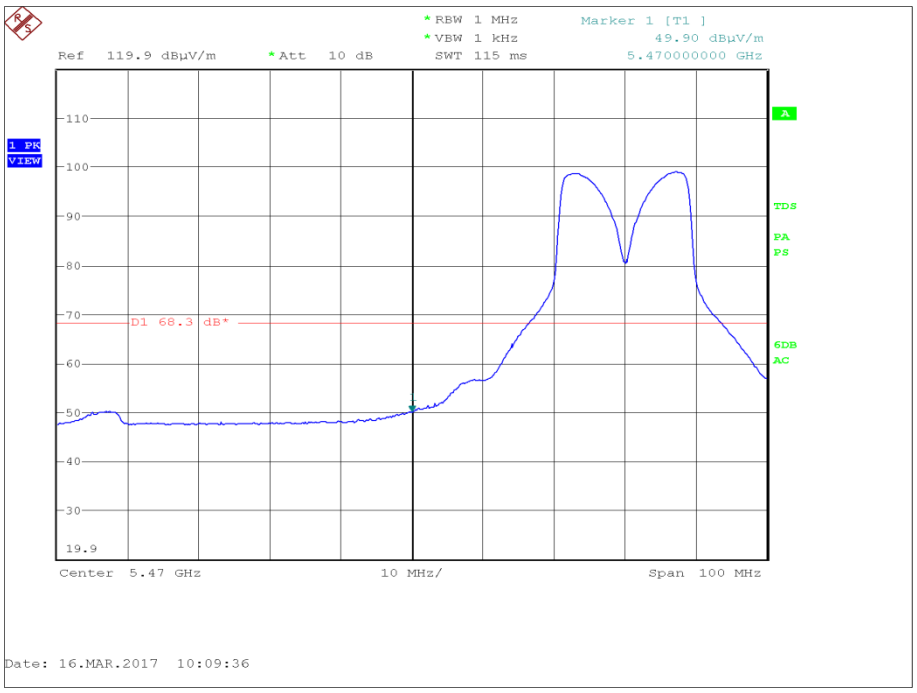

Figure 86 - Authorised Band Edge at 5470 MHz - Highest Conducted Power

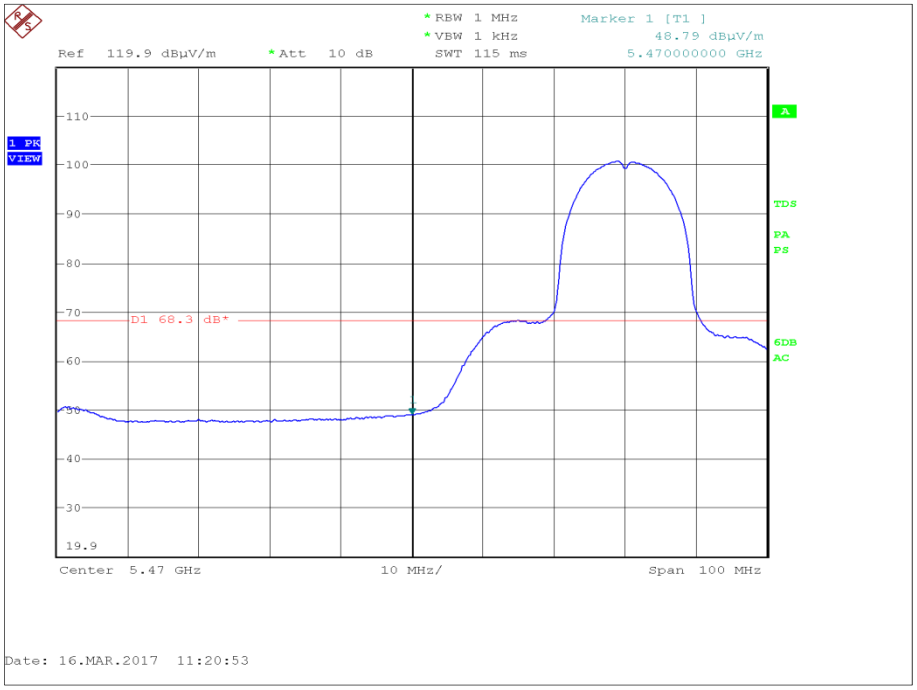

Figure 87 - Authorised Band Edge at 5470 MHz - Widest Emission Bandwidth

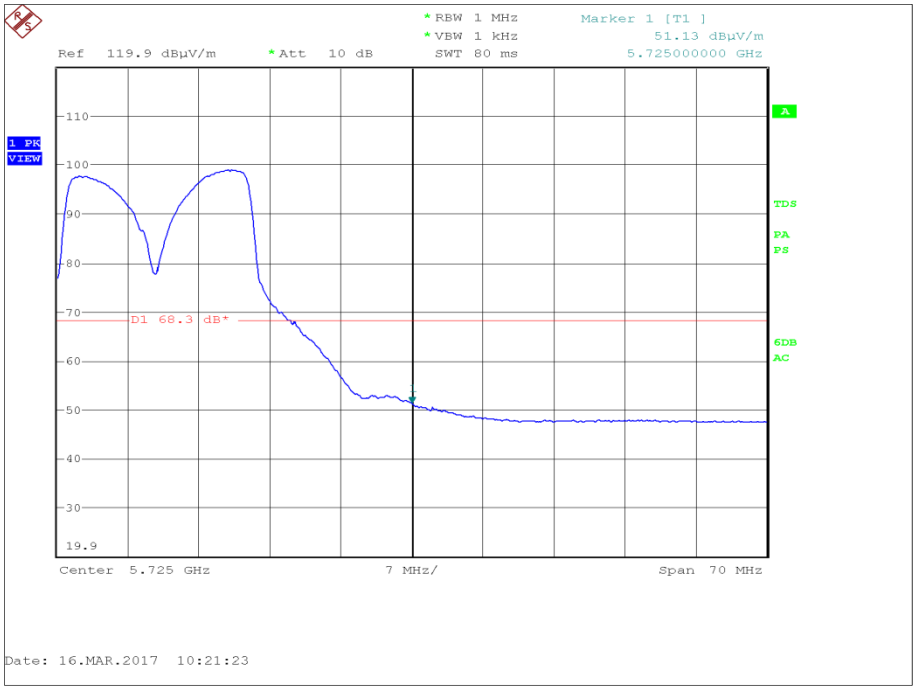

Figure 88 - Authorised Band Edge at 5725 MHz - Highest Conducted Power

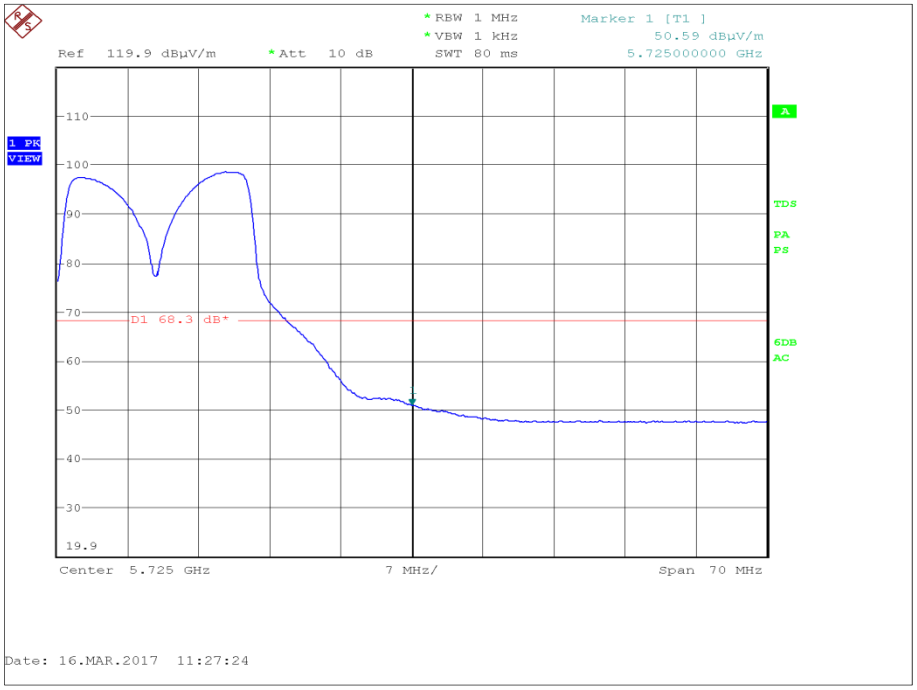

Figure 89 - Authorised Band Edge at 5725 MHz - Widest Emission Bandwidth

Measurement Configuration	Data Rate/MCS	Transmitter Frequency (MHz)	Measured Frequency (MHz)	Level (dBuv/m)
Highest Conducted Power	6 Mbps	5745	5725	63.57
Widest Emission Bandwidth	12 Mbps	5745	5725	64.10
Highest Conducted Power	6 Mbps	5825	5850	66.92
Widest Emission Bandwidth	12 Mbps	5825	5850	59.68

Table 149 - U-NII 3 - Authorised Band Edge Results

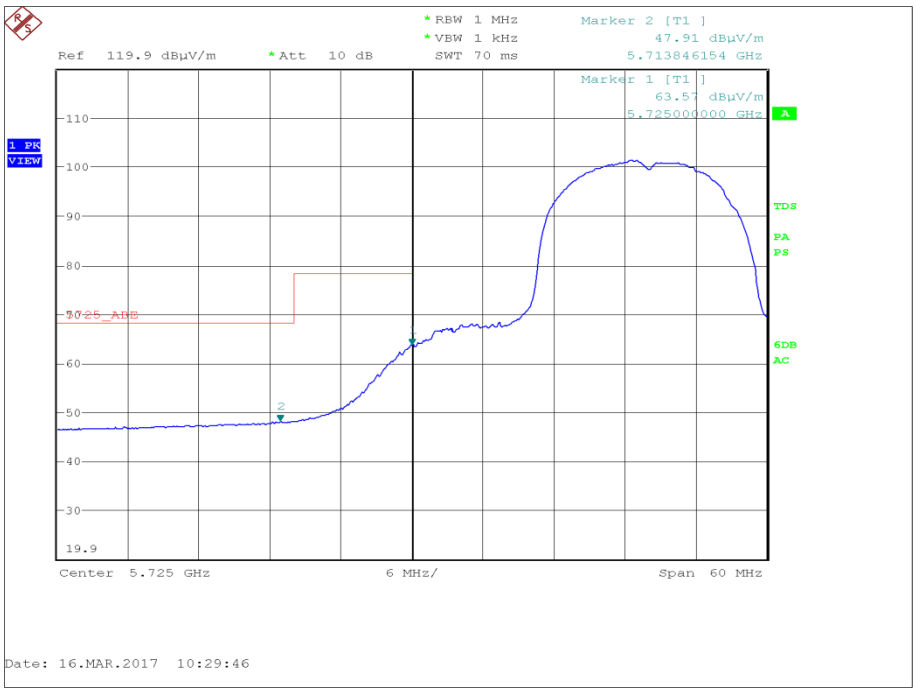

Figure 90 - Authorised Band Edge at 5725 MHz - Highest Conducted Power