



# RADIO TEST REPORT

For

MODEL NO.:1836

FCC ID: C3K1836

IC ID: 3048A-1836

Test Report No. R-TR492-FCCISED-UNII-3

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FCC CFR47 Part 15 Subpart E  
Innovation, Science and Economic Development  
Canada RSS-247 Issue 2

*Prepared by*

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TESTING CERT #3472.01

## 1 Record of Revisions

Revision	Date	Section	Page(s)	Summary of Changes	Author/Revised By:
1.0	6/21/2018	All	All	Version 1.0	Andy Shen
2.0	6/25/2018	9.1.2, 9.2.2, 9.3.2, 9.4.2	11, 12, 21, 22	Corrected typo with KDB version number.	Andy Shen
		9.2.5.4	19	Typo correction in table header.	
3.0	6/27/2018	8	10	Added details on test setup.	Andy Shen

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# Test Report Attestation

**Microsoft Corporation****Model:** 1836**FCC ID:** C3K1836**ISED ID:** 3048A-1836**Applicable Standards**

Specification	Test Result
Output Power and PSD Requirements of FCC CFR47 Rule Parts 15.207, 15.209, 15.407	Pass
Output Power and PSD Requirements of Innovation, Science and Economic Development Canada RSS-247 Issue 2, RSS-GEN Issue 5	Pass

Microsoft EMC Laboratory attests that the product model identified in this report has been tested to and meets the requirements identified in the above standards. The test results in this report solely pertains to the specific sample tested, under the conditions and operating modes as provided by the customer.

This report shall not be used to claim product certification, approval, or endorsement by A2LA or any agency of any Government. Reproduction, duplication or publication of extracts from this test report is prohibited and requires prior written approval of Microsoft EMC Laboratory.

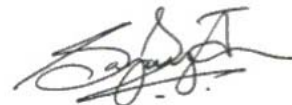
This report is to address a permissive change on model 1836, to reduce the output power in 5725-5850 MHz only.

This report replaces the previously issued report #R-TR492-FCCISED-UNII-2 issued by Microsoft EMC Labs on 6/25/2018.



Written By: Andy Shen

Radio Test Engineer



Reviewed/ Issued By: Sajay Jose

EMC/RF Compliance Lab Manager

## 2 Deviations from Standards

None.

## 3 Facilities and Accreditations

### 3.1 Test Facility

All test facilities used to collect the test data are located at Microsoft EMC Laboratory,  
17760 NE 67<sup>th</sup> Ct,  
Redmond WA, 98052, USA

### 3.2 Accreditations

The lab is established and follows procedures as outlined in IEC/ISO 17025 and A2LA accreditation requirements.

A2LA Accredited Testing Certificate Number: 3472.01

FCC Registration Number: US1141

IC Site Registration Numbers: 3048A-3, 3048A-4

### 3.3 Test Equipment

The site and related equipment are constructed in conformance with the requirements of ANSI C63.4:2014 and other equivalent applicable standards.

ANSI C63.10:2013 and the appropriate KDB test methods were followed.

## 4 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the product, as specified in ETSI TR 100 028. This represents an expanded uncertainty expressed at 95% confidence level using a coverage factor k=2. These levels are for reference only and not included to determine product compliance.

Expanded uncertainty calculations are available upon request.

Test item	Uncertainty	Unit
Uncertainty for Conducted Power test	1.277	dB
Uncertainty for Bandwidth test	178	kHz
Uncertainty for test site temperature	0.5	°C
Uncertainty for test site Humidity	3	%

## 5 Product Description

Company Name:	Microsoft Corporation
Address:	One Microsoft Way
City, State, Zip:	Redmond, WA 98052-6399
Customer Contact:	Pamela Galvan
Functional Description of the EUT:	Microsoft Wireless Input Device
Model:	1836
FCC ID:	C3K1836
IC ID:	3048A-1836
Radios in EUT:	IEEE 802.11a/n supporting 20 MHz Bandwidths 5150- 5250 MHz, 5250-5350 MHz, 5470-5725 MHz and 5725- 5850 MHz.
Radio under test:	IEEE 802.11a/n 5725- 5850 MHz (20MHz Bandwidth)
Modulation(s):	OFDM – BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
EUT Classification:	UNII
Equipment Design State:	Prototype/Production Equivalent
Equipment Condition:	Good

### 5.1 Test Configurations

Test software “MTK MT7637 QA 0.0.1.63” from the module vendor were used to program the EUT to transmit continuously.

This report contains data from the following worst-case modes of operation:

802.11a: 6Mbps, 20MHz BW.

802.11n HT20: MCS0, 20MHz BW.

### 5.2 Environmental Conditions

Ambient air temperature of the test site was within the range of 10 °C to 40 °C (50 °F to 104 °F) unless the EUT specified testing over a different temperature range. Humidity levels were in the range of 10% to 90% relative humidity. Testing conditions were within tolerance, and any deviations required from the EUT are reported.

### 5.3 Antenna Requirements and Gain Information

The antennas are internal, permanently attached and there are no provisions for connection to an external antenna.

Antenna Gain		
Frequency Band (MHz)	Main Antenna Peak Gain (dBi)	Diversity Antenna Peak Gain (dBi)
UNII Band 3 – 5725 to 5850	5.6	6.4

### 5.4 Equipment Modifications

No modifications were made during testing.

### 5.5 Dates of Testing

Testing was performed from 3/22, 6/14 and 6/19/2018.

### 5.6 Test Sample Details

#### RF Conducted Test Samples:

SN	Internal Lab ID	Design State
02560000893802	R-484-032218-09	EV2
02560000477814	R-484-041818-02	DV

Radio FW: 4.5.1680.0

Radio Driver Version: WDM Driver v0.0.3.40/ FTDI Driver v2.12.28.0



## 6 Test Results Summary

Test Description	Applicable Bands (GHz)	FCC CFR 47/ISED Rule Part	Limit	Test Result
26dB Emission Bandwidth	5.47 – 5.725	15.407 (a) RSS-247 [6.2.1]	Reporting and Measurement Purposes	NA
Output Power	5.725 – 5.85	15.407 (a)(3) RSS-247 [6.2]	≤ 1000 mW	Pass
Power Spectral Density	5.725 – 5.85	15.407 (a)(3) RSS-247 [6.2]	≤ 30dBm/500kHz	Pass

## 7 Test Equipment List

Manufacturer	Description	Model #	Asset #	Calibration Due
Agilent	Spectrum Analyzer	N9030A	EMC-370	5/28/2019
Murata	RF Cable	MXHQ87WA3000	RF-596	NA <sup>1</sup>
Pasternack	RF Cable	PE304-200CM	RF-446	NA <sup>1</sup>
Pasternack	10dB Attenuator	PE7087-10	RF-340	NA <sup>1</sup>

<sup>1</sup>Note: These items are characterized before test.

## 8 Test Setup Details

All antenna port conducted measurements were performed on a bench-top setup consisting of a spectrum analyzer, RF attenuator, and pre-characterized RF cables.

The correction factors between the EUT and the spectrum analyzer were added internally in the analyzer settings. The plots displayed takes into account these correction factors.

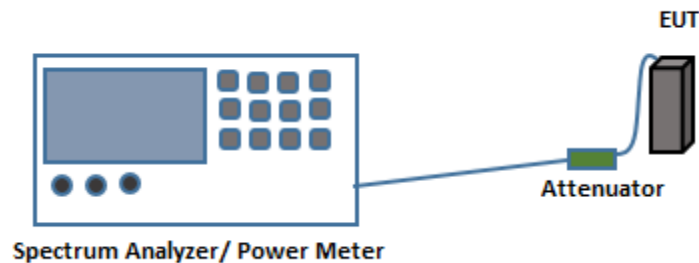


Figure 8-1. Test Setup for Antenna port conducted measurements

## 9 Test Results- Conducted

### 9.1 26-dB Emission Bandwidth

#### 9.1.1 Test Requirement:

FCC CFR 47 Rule Part 15.407 (a)  
ISED RSS-247 [6.2.1]

#### 9.1.2 Test Method:

Measurements were performed according to the procedures defined in KDB 789033- General UNII Test Procedures New Rules v02r01 and ANSI C63.10:2013.

#### **Spectrum Analyzer settings:**

RBW = approximately 1% of the Emissions Bandwidth

VBW  $\geq$  3xRBW

Trace Mode= Peak Detector (Max Hold)

Sweep time= Auto

The in-built functionality of the Spectrum Analyzer is used to measure the 26-dB emission bandwidth.

#### 9.1.3 Limits:

Reporting and measurement purposes only.

#### 9.1.4 Test Results:

See Section 9.2.5.

## 9.2 99% Occupied Bandwidth

### 9.2.1 Test Requirement:

ISED RSS-247 [6.2]

### 9.2.2 Test Method:

Measurements were performed according to the procedures defined in KDB 789033- General UNII Test Procedures New Rules v02r01 and ANSI C63.10 2013.

#### **Spectrum Analyzer settings:**

Set the center frequency to the nominal EUT channel center frequency

Span = 1.5 to 5.0 times the 99% Occupied Bandwidth

RBW = 1% to 5% of the 99% Occupied Bandwidth

VBW  $\geq$  3xRBW

Trace Mode= Peak Detector (Max Hold)

Sweep time= Auto

The built-in functionality of the Spectrum Analyzer is used to measure the 99% Occupied Bandwidth.

### 9.2.3 Limits:

Reporting and measurement purposes only.

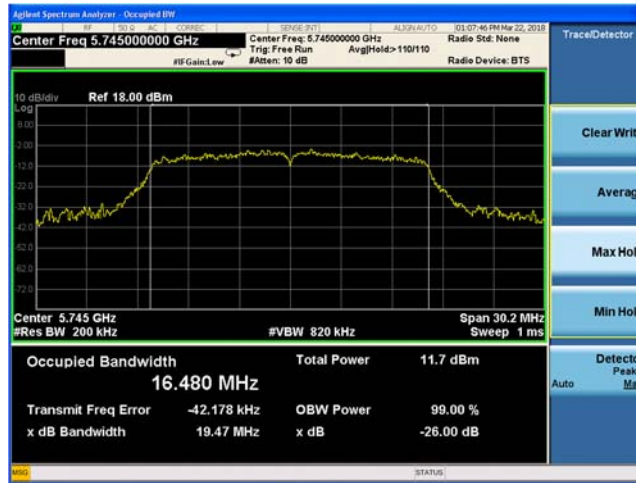
### 9.2.4 Test Results:

See Section 9.2.5.

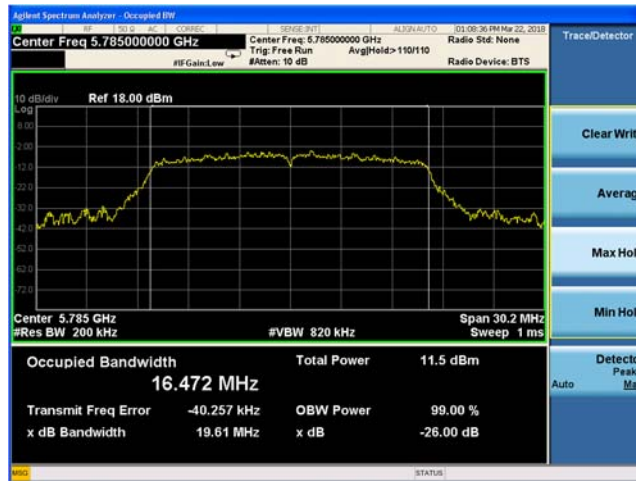
9.2.5 Test Data:

9.2.5.1 Main Antenna 802.11a 26-dB Emission Bandwidth

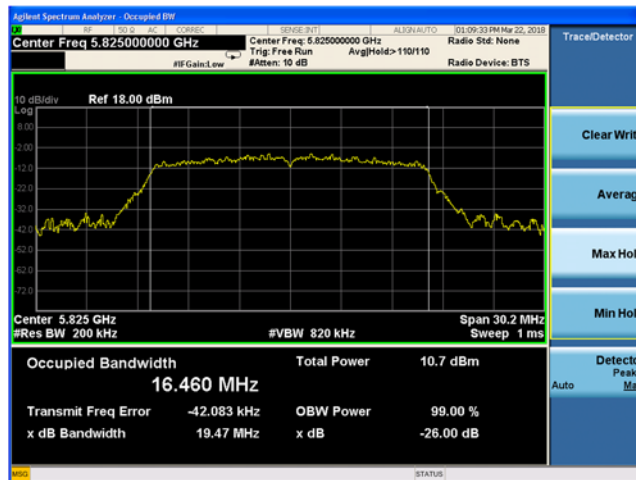
Main antenna 802.11a 26-dB Emission Bandwidth				
Band	Channel No.	Frequency (MHz)	26-dB Emission Bandwidth (MHz)	99% Occupied BW (MHz)
UNII-3	149	5745	19.47	16.48
	157	5785	19.61	16.47
	165	5825	19.47	16.46



Plot 9-1. 26-dB Emission Bandwidth and 99% OBW, Main Antenna 802.11a (Ch. 149)



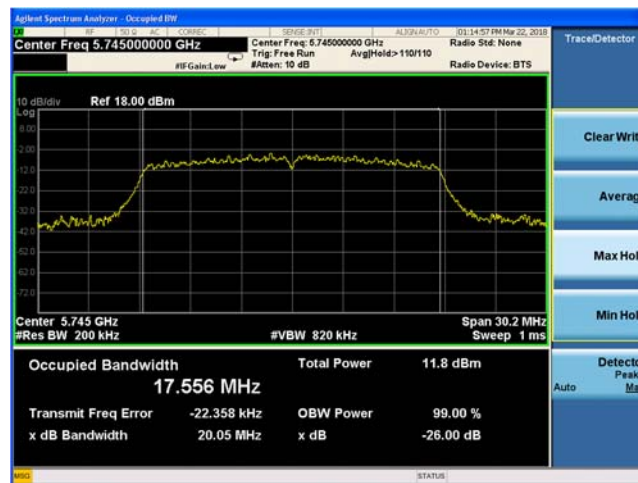
Plot 9-2. 26-dB Emission Bandwidth and 99% OBW, Main Antenna 802.11a (Ch. 157)



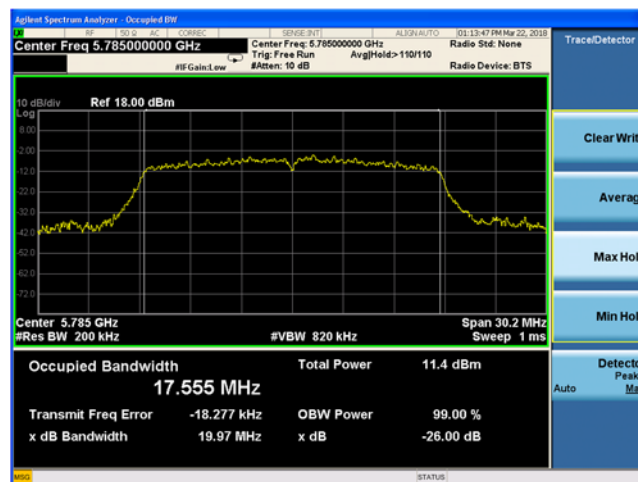
Plot 9-3. 26-dB Emission Bandwidth and 99% OBW, Main Antenna 802.11a (Ch. 165)

9.2.5.2 Main Antenna 802.11n 26-dB Emission Bandwidth

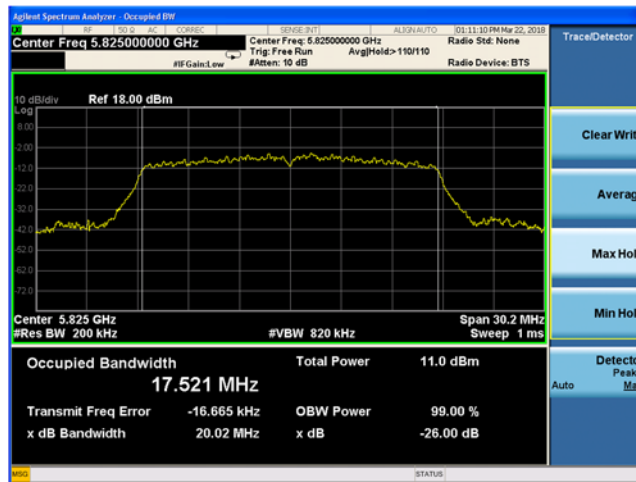
Main antenna 802.11n 26-dB Emission Bandwidth				
Band	Channel No.	Frequency (MHz)	26-dB Emission Bandwidth (MHz)	99% Occupied BW (MHz)
UNII-3	149	5745	20.05	17.56
	157	5785	19.97	17.56
	165	5825	20.02	17.52



Plot 9-4. 26-dB Emission Bandwidth and 99% OBW, Main Antenna 802.11n (Ch. 149)



Plot 9-5. 26-dB Emission Bandwidth and 99% OBW, Main Antenna 802.11n (Ch. 157)

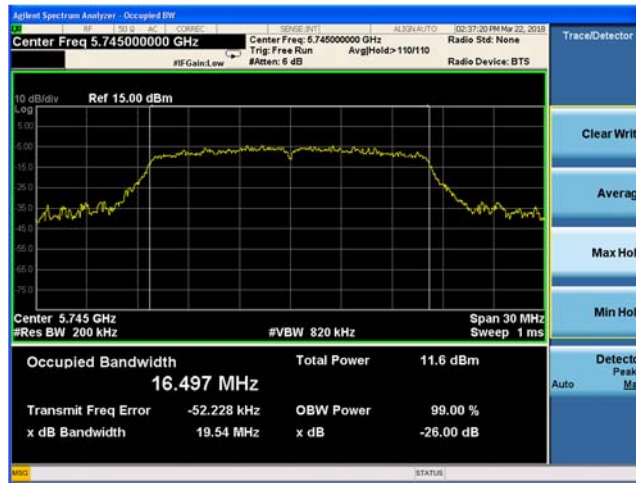


Plot 9-6. 26-dB Emission Bandwidth and 99% OBW, Main Antenna 802.11n (Ch. 165)

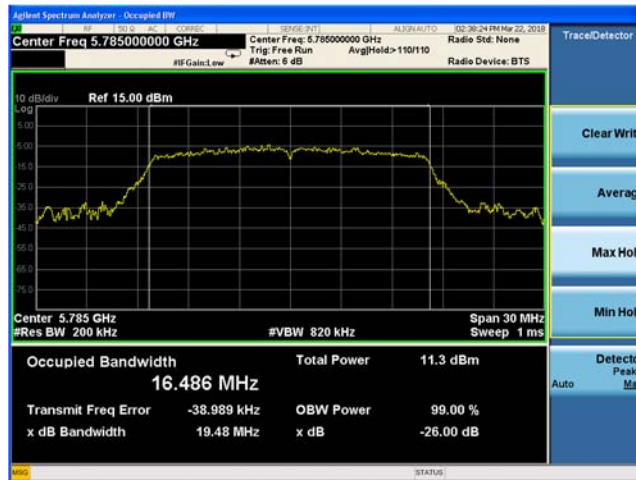


9.2.5.3 Diversity Antenna 802.11a HT20 26-dB Emission Bandwidth

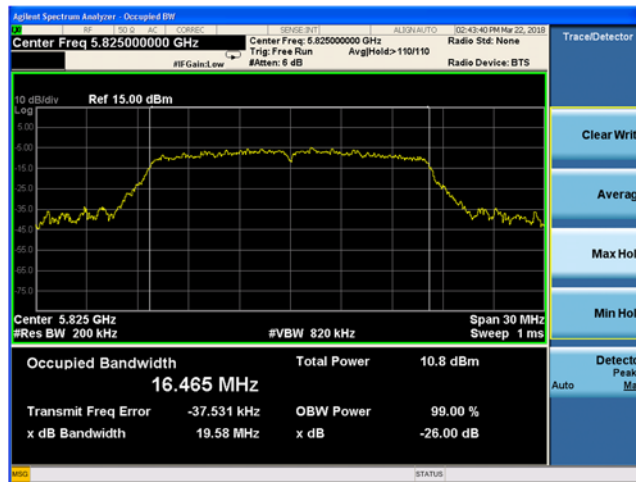
Diversity Antenna 802.11n HT20 26-dB Emission Bandwidth				
Band	Channel No.	Frequency (MHz)	26-dB Emission Bandwidth (MHz)	99% Occupied BW (MHz)
UNII-3	149	5745	19.54	16.50
	157	5785	19.48	16.49
	165	5825	19.58	16.47



Plot 9-7. 26-dB Emission Bandwidth and 99% OBW, Diversity antenna 802.11n HT20 (Ch.149)



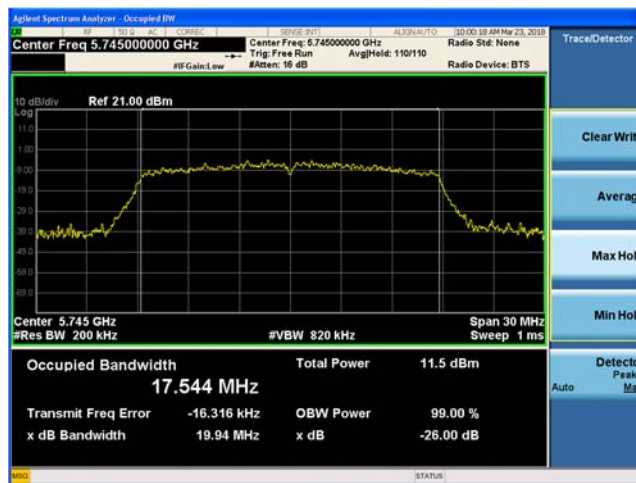
Plot 9-8. 26-dB Emission Bandwidth and 99% OBW, Diversity antenna 802.11n HT20 (Ch.157)



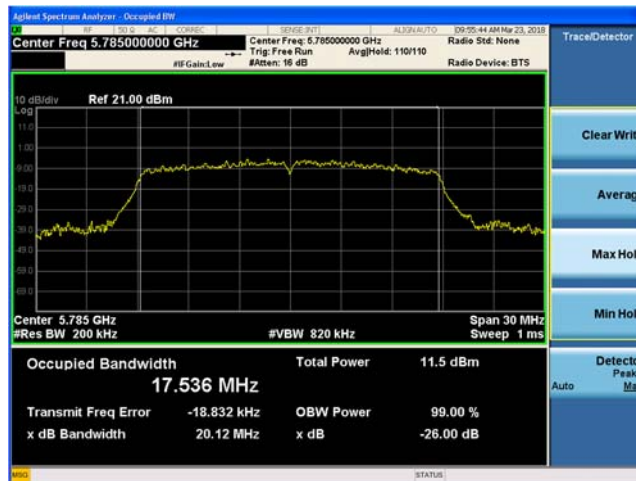
Plot 9-9. 26-dB Emission Bandwidth and 99% OBW, Diversity antenna 802.11n HT20 (Ch.165)

9.2.5.4 Diversity Antenna 802.11n HT20 26-dB Emission Bandwidth

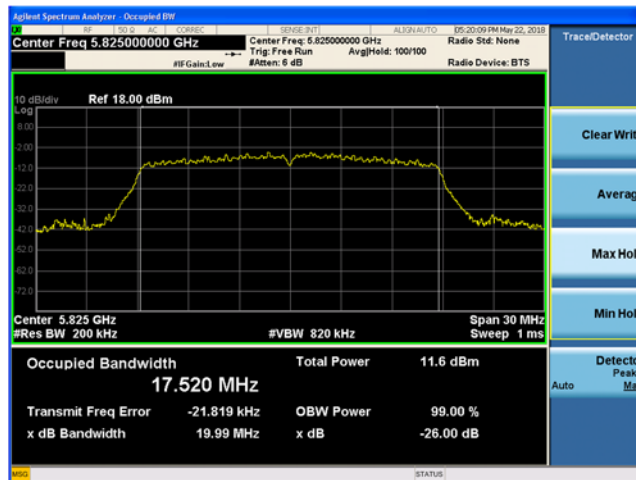
Diversity Antenna 802.11n HT20 26-dB Emission Bandwidth				
Band	Channel No.	Frequency (MHz)	26-dB Emission Bandwidth (MHz)	99% Occupied BW (MHz)
UNII-3	149	5745	19.94	17.54
	157	5785	20.12	17.54
	165	5825	19.99	17.52



Plot 9-10. 26-dB Emission Bandwidth and 99% OBW, Diversity antenna 802.11n HT20 (Ch. 149)



Plot 9-11. 26-dB Emission Bandwidth and 99% OBW, Diversity antenna 802.11n HT20 (Ch. 157)



Plot 9-12. 26-dB Emission Bandwidth and 99% OBW, Diversity antenna 802.11n HT20 (Ch. 165)

## 9.3 Maximum Conducted Output Power

### 9.3.1 Test Requirement:

FCC CFR 47 Rule Part 15.407 (a)  
ISED RSS-247 [6.2]

### 9.3.2 Test Method:

Measurements were performed according to the procedures defined in KDBs 789033- General UNII Test Procedures New Rules v02r01, 662911 D01 Multiple Transmitter Output v02r01, and ANSI C63.10 2013.

#### Spectrum Analyzer settings:

##### Average Power:

RBW= 1 MHz

VBW= 3 MHz

Detector = RMS

Trace Mode= Average over 100 traces

Sweep time= Auto

Sweep Point  $\geq 2 \times \text{Span} / \text{RBW}$

Span= large enough to encompass the 26-dB Emission Bandwidth or alternatively the 99% Occupied Bandwidth.

Use the band power measurement function to integrate the power over the 26-dB Emission Bandwidth or 99% Occupied Bandwidth.

### 9.3.3 Limits:

15.407: The maximum conducted output power shall not exceed the limits given the following table for antennas that do not exceed a directional gain  $> 6\text{dBi}$ :

Band of Operation (MHz)	15.407 Limit
5150 – 5250	24 dBm
5250 – 5350	24dBm or $11 \text{ dBm} + 10 \log (B)^{(1)}$
5470 – 5725	24dBm or $11 \text{ dBm} + 10 \log (B)^{(1)}$
5725 – 5825	30 dBm

Note(1): B is the 26-dB Emission bandwidth of signal in MHz.

RSS-247: The maximum conducted output power and/or EIRP shall not exceed the limits given the following table:

Band of Operation (MHz)	RSS-247 Conducted Output Power Limit	RSS-247 E.I.R.P Limit
5150 – 5250	--	23 dBm or $10 + 10 \log (B)^{(1)}$
5250 – 5350	24 dBm or $11 + 10 \log (B)^{(1)}$	30 dBm or $17 + 10 \log (B)^{(1)}$
5470 – 5725	24 dBm or $11 + 10 \log (B)^{(1)}$	30 dBm or $17 + 10 \log (B)^{(1)}$
5725 – 5825	30 dBm	--

Note(1): B is the 99% Occupied Bandwidth of the signal in MHz.

### 9.3.4 Test Results:

Pass. See Section 9.5.5 for test data.

## 9.4 Power Spectral Density

### 9.4.1 Test Requirement:

FCC CFR 47 Rule Part 15.407 (a)  
ISED RSS-247 [6.2]

### 9.4.2 Test Method:

Measurements were performed according to the procedures defined in KDBs 789033- General UNII Test Procedures New Rules v02r01, 662911 D01 Multiple Transmitter Output v02r01, and ANSI C63.10 2013.

#### **Spectrum Analyzer settings for devices operating in the bands 5.15 – 5.25 GHz, 5.25 – 5.35GHz, and 5.47 – 5.725GHz:**

RBW= 1 MHz

VBW= 3 MHz

Detector = RMS

Trace Mode= Average over 100 traces

Sweep time= Auto

Sweep Point  $\geq 2 \times \text{Span} / \text{RBW}$

Span= large enough to encompass the 26-dB Emission Bandwidth or alternatively the 99% Occupied Bandwidth. Use the peak marker function to identify the Maximum Power Spectral Density

#### **Spectrum Analyzer settings for devices operating in the bands 5.725 – 5.85 GHz:**

RBW= 100 kHz

VBW= Greater than or equal to 3 x RBW

Detector = RMS

Trace Mode= Average over 100 traces

Sweep time= Auto

Sweep Point  $\geq 2 \times \text{Span} / \text{RBW}$

Span= large enough to encompass the 26-dB Emission Bandwidth or alternatively the 99% Occupied Bandwidth. Use the peak marker function to identify the Maximum Power Spectral Density

Offset is added if measurements are performed using a reduced resolution bandwidth 100 kHz, add  $10 \times \log(500\text{kHz} / \text{RBW USED})$  to the measured result.

### 9.4.3 Limits:

15.407: The Maximum Power Spectral Density shall not exceed the limits given the following table for antennas that do not exceed a directional gain > 6dBi:

Band of Operation (MHz)	15.407 Limits
5150 – 5250	11dBm/MHz
5250 – 5350	11dBm/MHz
5470 – 5725	11dBm/MHz
5725 – 5825	30dBm/500kHz

Band of Operation (MHz)	RSS-247 Limits
5150 – 5250	10dBm/MHz e.i.r.p.
5250 – 5350	11dBm/MHz*
5470 – 5725	11dBm/MHz*
5725 – 5825	30dBm/500kHz

For antenna gains >6dBi, the conducted PSD limits are reduced by the amount it exceeds 6dBi.

### 9.4.4 Test Results:

Pass.

## 9.4.5 Test Data

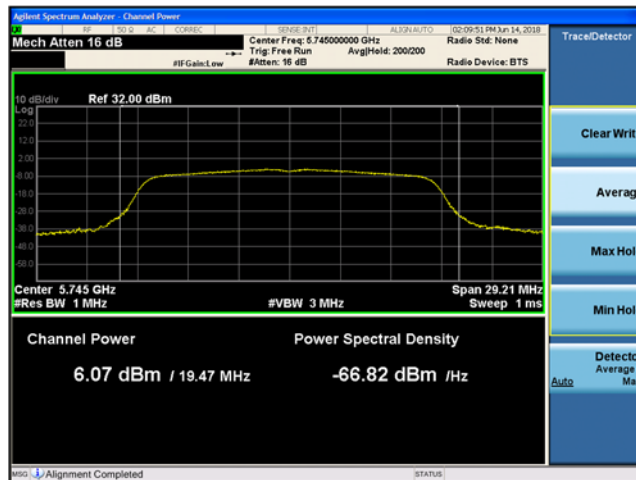
### 9.4.5.1 Main Antenna 802.11a Maximum Conducted Output Power

Main antenna 802.11a Maximum Conducted Output Power								
Chan. No.	Freq. (MHz)	Average Power (dBm)	Duty cycle correction factor (dBm)	Total Power (dBm)	15.407 Limit (dBm)	RSS-247 Limit (dBm)	15.407 Margin (dB)	RSS-247 Margin (dB)
149	5745	6.07	0.21	6.28	30.00	30.00	-23.72	-23.72
157	5785	6.41	0.21	6.62	30.00	30.00	-23.38	-23.38
165	5825	6.22	0.21	6.43	30.00	30.00	-23.57	-23.57

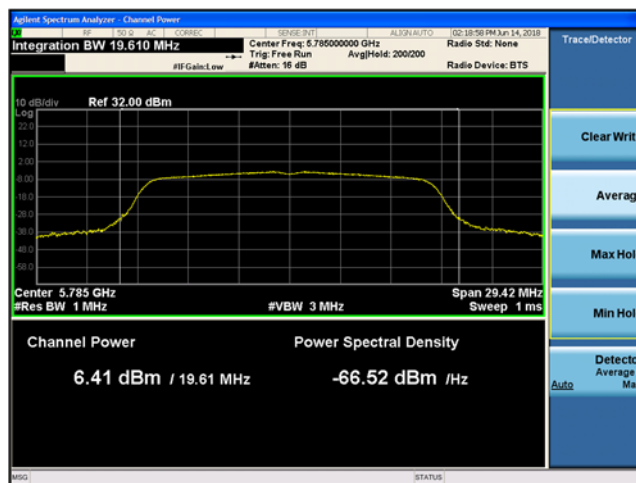
### 9.4.5.2 Main Antenna 802.11a Maximum Power Spectral Density

UNII-3 main antenna 802.11a Maximum Power Spectral Density/500kHz								
Chan. No.	Freq. (MHz)	Measured PSD/500kHz (dBm)	Duty cycle correction factor (dBm)	Total PSD $\left(\frac{dBm}{500 kHz}\right)$	15.407 Limit $\left(\frac{dBm}{500 kHz}\right)$	RSS-247 Limit $\left(\frac{dBm}{500 kHz}\right)$	15.407 Margin (dB)	RSS-247 Margin (dB)
149	5745	-5.84	0.21	-5.63	30.00	30.00	-35.63	-35.63
157	5785	-5.57	0.21	-5.36	30.00	30.00	-35.36	-35.36
165	5825	-5.65	0.21	-5.44	30.00	30.00	-35.44	-35.44

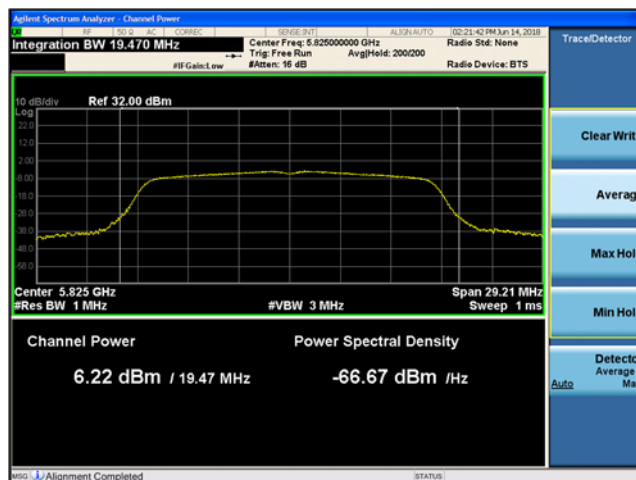




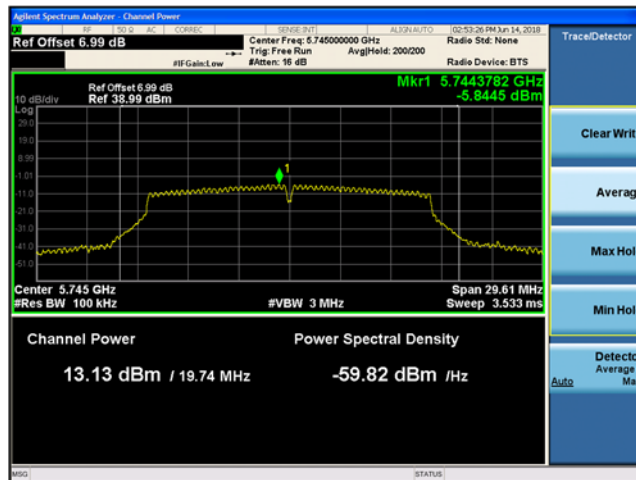
Plot 9-13. Maximum Conducted Output Power, Main antenna 802.11a (Ch. 149)



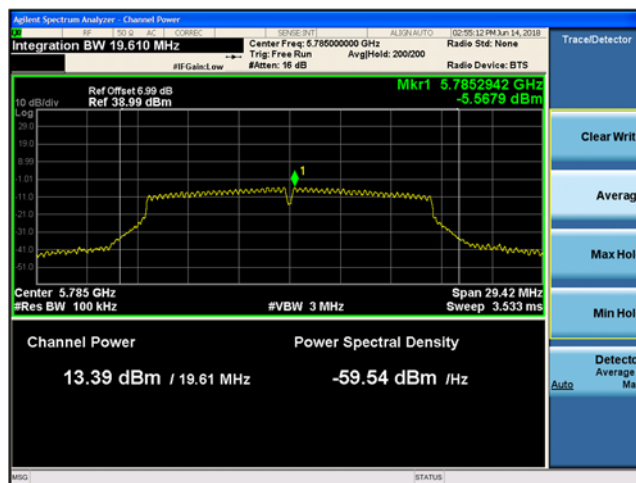
Plot 9-14. Maximum Conducted Output Power, Main antenna 802.11a (Ch. 157)



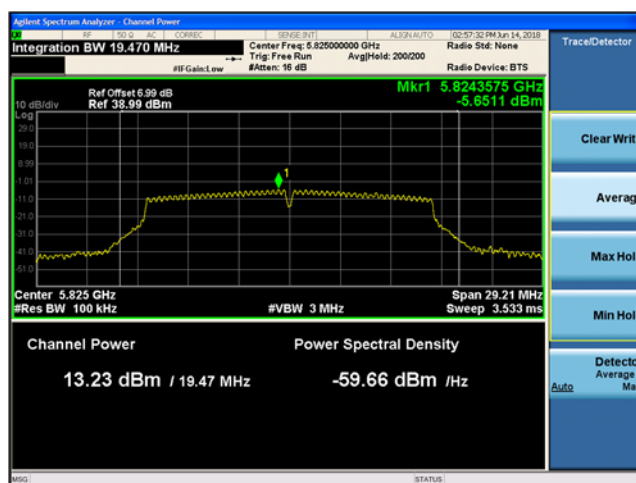
Plot 9-15. Maximum Conducted Output Power, Main antenna 802.11a (Ch. 165)



Plot 9-16. Maximum Power Spectral Density, Main antenna 802.11a (Ch. 149)



Plot 9-17. Maximum Power Spectral Density, Main antenna 802.11a (Ch. 157)



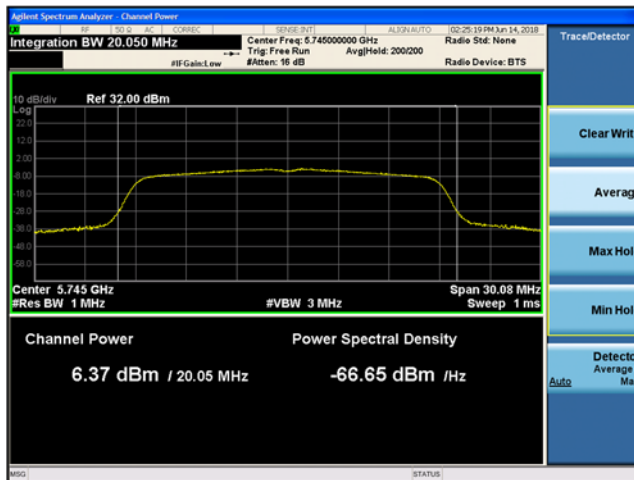
Plot 9-18. Maximum Power Spectral Density, Main antenna 802.11a (Ch. 165)

**9.4.5.3 Main antenna 802.11n HT20 Maximum Conducted Output Power**

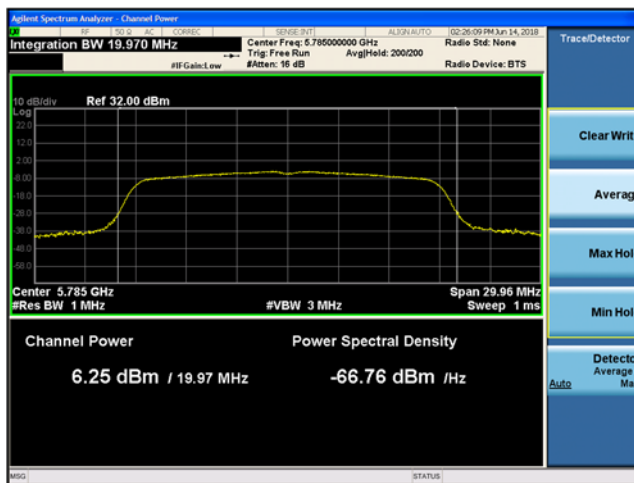
Main antenna 802.11n HT20 Maximum Conducted Output Power								
Chan. No.	Freq. (MHz)	Avg Power (dBm)	Duty Cycle correction factor (dBm)	Total Power (dBm)	15.407 Limit (dBm)	RSS-247 Limit (dBm)	15.407 Margin (dB)	RSS-247 Margin (dB)
149	5745	6.37	0.21	6.58	30.00	30.00	-23.42	-23.42
157	5785	6.25	0.21	6.46	30.00	30.00	-23.54	-23.54
165	5825	6.01	0.21	6.22	30.00	30.00	-23.78	-23.78

**9.4.5.4 Main antenna 802.11n HT20 Maximum Power Spectral Density**

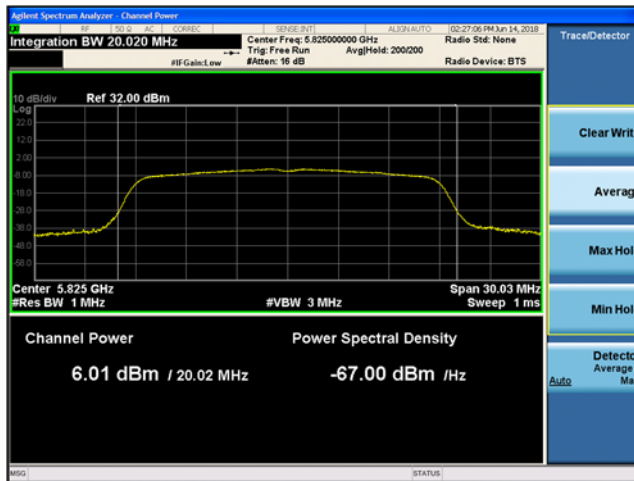
UNII-3 Main antenna 802.11n HT20 Maximum Power Spectral Density/500kHz								
Chan. No.	Freq. (MHz)	Measured PSD/MHZ (dBm)	Duty Cycle correction factor (dBm)	Total PSD $\frac{dBm}{500 kHz}$	15.407 Limit $\frac{dBm}{500 kHz}$	RSS-247 Limit $\frac{dBm}{500 kHz}$	15.407 Margin (dB)	RSS-247 Margin (dB)
149	5745	-5.70	0.21	-5.49	30.00	30.00	-35.49	-35.49
157	5785	-5.90	0.21	-5.69	30.00	30.00	-35.69	-35.69
165	5825	-6.00	0.21	-5.79	30.00	30.00	-35.79	-35.79



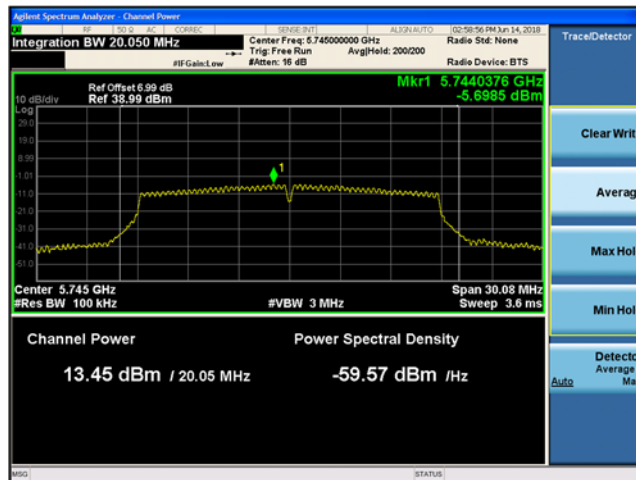
Plot 9-19. Maximum Conducted Output Power, Main antenna 802.11n HT20 (Ch. 149)



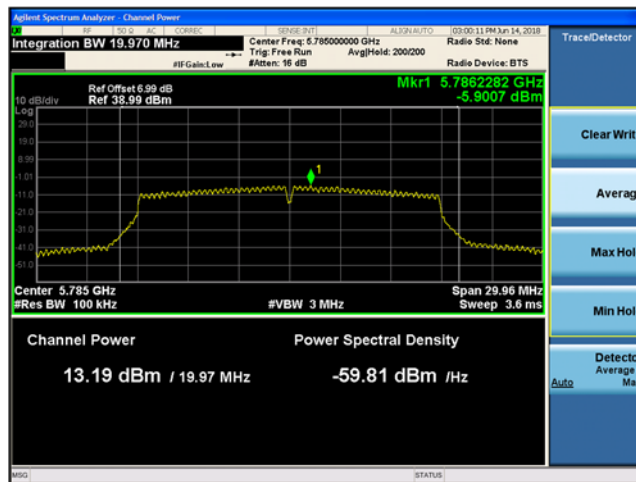
Plot 9-20. Maximum Conducted Output Power, Main antenna 802.11n HT20 (Ch. 157)



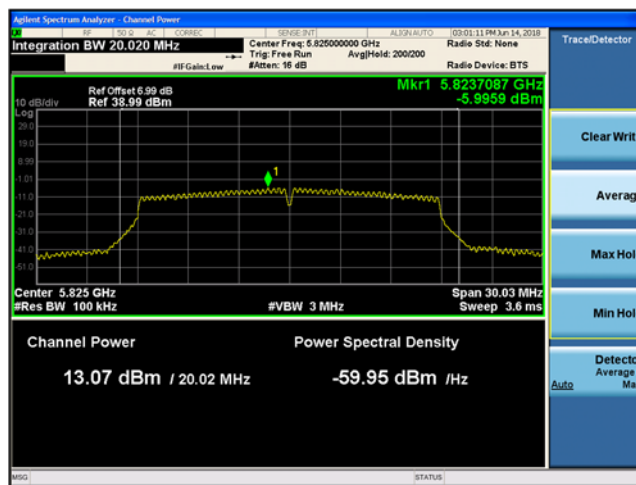
Plot 9-21. Maximum Conducted Output Power, Main antenna 802.11n HT20 (Ch. 165)



Plot 9-22. Maximum Power Spectral Density, Main antenna 802.1n HT20 (Ch. 149)



Plot 9-23. Maximum Power Spectral Density, Main antenna 802.11n HT20 (Ch. 157)



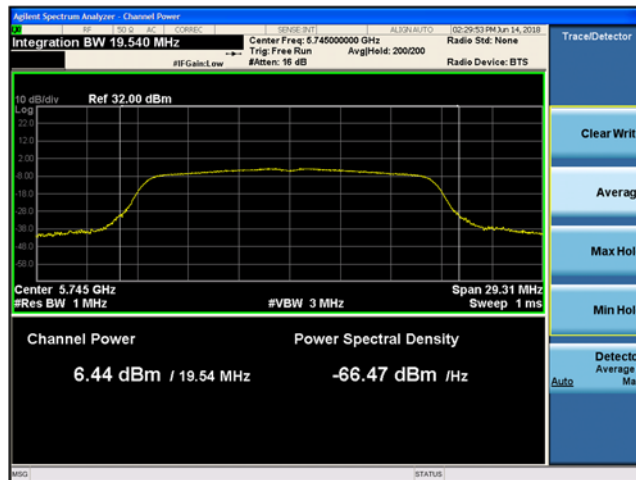
Plot 9-24. Maximum Power Spectral Density, Main antenna 802.11n HT20 (Ch. 165)

**9.4.5.5 Diversity Antenna 802.11a Maximum Conducted Output Power**

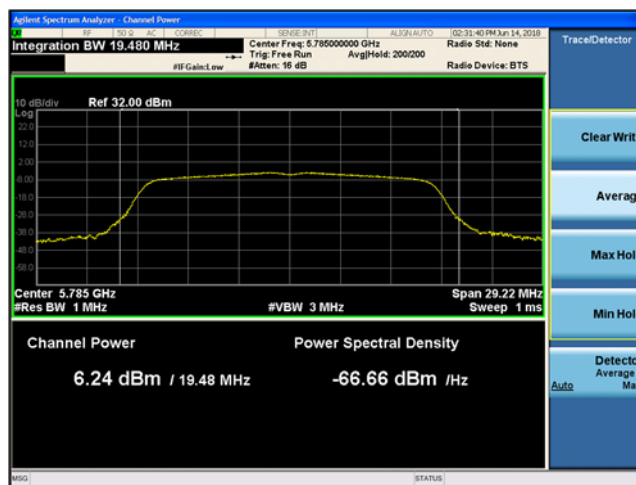
Diversity antenna 802.11a Maximum Conducted Output Power								
Chan. No.	Freq. (MHz)	Diversity Antenna (dBm)	Duty Cycle correction factor (dBm)	Total Power (dBm)	15.407 Limit (dBm)	RSS-247 Limit (dBm)	15.407 Margin (dB)	RSS-247 Margin (dB)
149	5745	6.44	0.20	6.64	29.60	29.60	-22.96	-22.96
157	5785	6.24	0.20	6.44	29.60	29.60	-23.16	-23.16
165	5825	6.02	0.20	6.22	29.60	29.60	-23.38	-23.38

**9.4.5.6 Diversity antenna 802.11a Maximum Spectral Density**

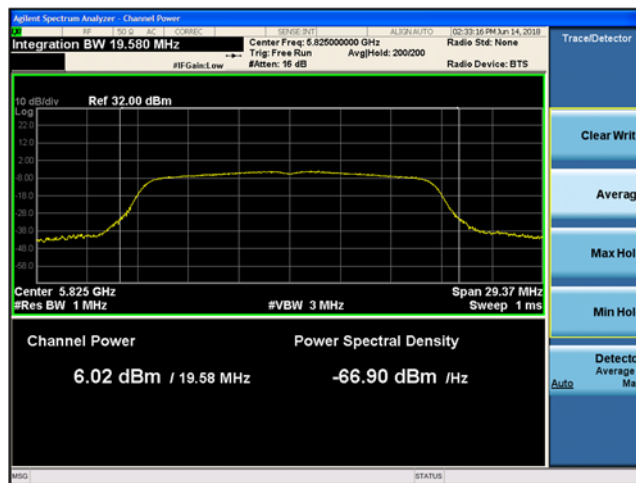
UNII-3 Diversity antenna 802.11a Maximum Power Spectral Density/500kHz								
Chan. No.	Freq. (MHz)	Measured PSD/MHZ (dBm)	Duty Cycle correction factor (dBm)	Total PSD $\frac{dBm}{500 kHz}$	15.407 Limit $\frac{dBm}{500 kHz}$	RSS-247 Limit $\frac{dBm}{500 kHz}$	15.407 Margin (dB)	RSS-247 Margin (dB)
149	5745	-5.53	0.20	-5.33	29.60	29.60	-34.93	-34.93
157	5785	-5.65	0.20	-5.45	29.60	29.60	-35.05	-35.05
165	5825	-5.71	0.20	-5.51	29.60	29.60	-35.11	-35.11



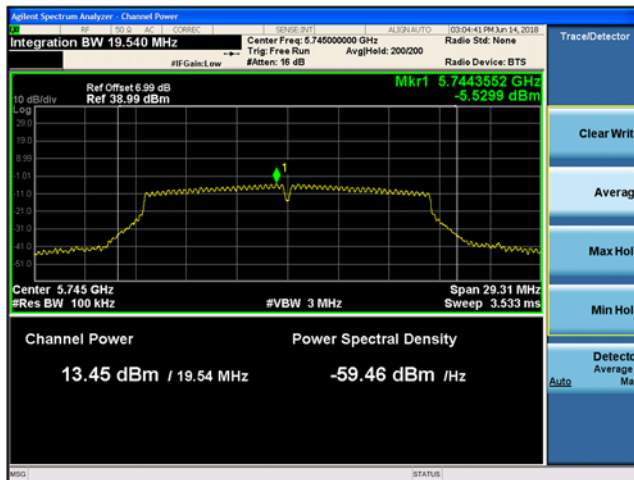
Plot 9-25. Maximum Output Power, Diversity antenna 802.11a (Ch. 149)



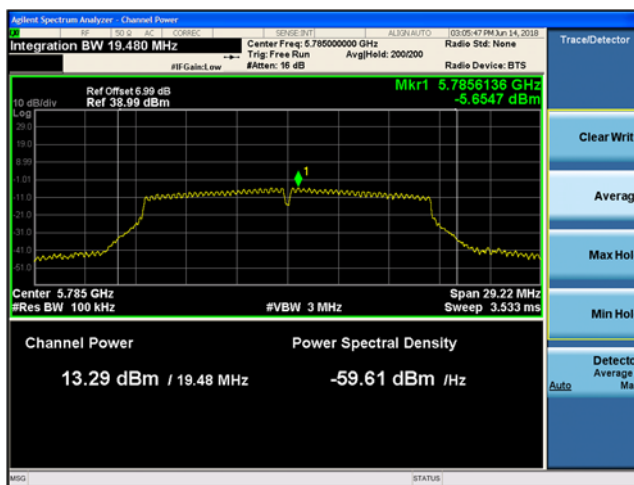
Plot 9-26. Maximum Output Power, Diversity antenna 802.11a (Ch. 157)



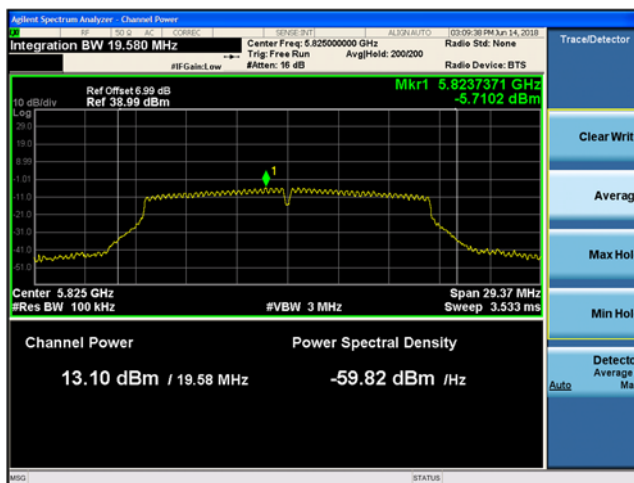
Plot 9-27. Maximum Output Power, Diversity antenna 802.11a (Ch. 165)



Plot 9-28. Maximum Power Density, Diversity antenna 802.11a (Ch. 157)



Plot 9-29. Maximum Power Density, Diversity antenna 802.11a (Ch. 165)



Plot 9-30. Maximum Power Density, Diversity antenna 802.11a (Ch. 144)

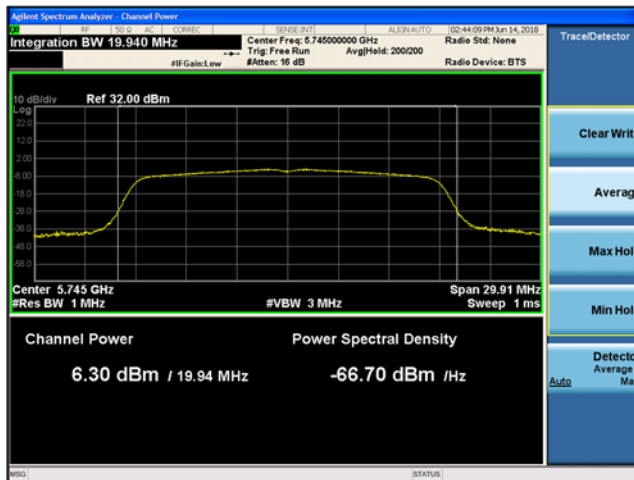


**9.4.5.7 Diversity Antenna 802.11n HT20 Maximum Conducted Output Power**

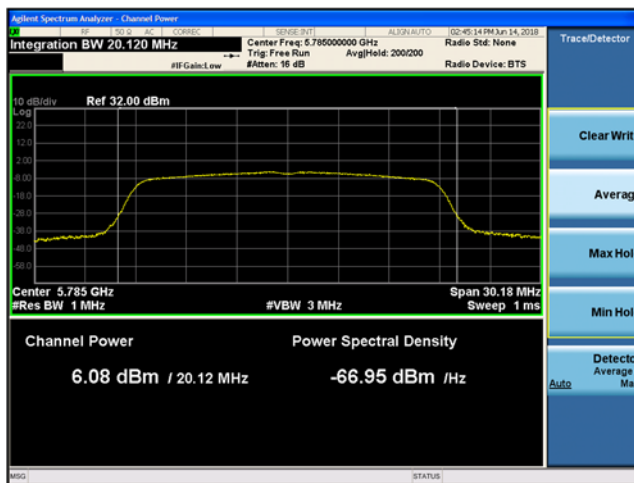
Diversity antenna 802.11n HT20 Maximum Conducted Output Power								
Chan. No.	Freq. (MHz)	Diversity Antenna (dBm)	Duty Cycle correction factor (dBm)	Total Power (dBm)	15.407 Limit (dBm)	RSS-247 Limit (dBm)	15.407 Margin (dB)	RSS-247 Margin (dB)
149	5745	6.30	0.21	6.51	29.60	29.60	-23.09	-23.09
157	5785	6.08	0.21	6.29	29.60	29.60	-23.31	-23.31
165	5825	6.43	0.21	6.64	29.60	29.60	-22.96	-22.96

**9.4.5.8 Diversity Antenna 802.11n HT20 Maximum Spectral Density**

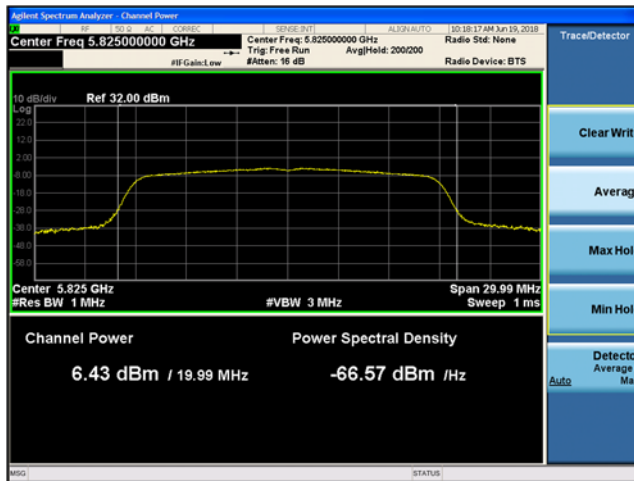
UNII-3 Diversity antenna 802.11n HT20 Maximum Power Spectral Density/500kHz								
Chan. No.	Freq. (MHz)	Measured PSD/MHZ (dBm)	Duty Cycle correction factor (dBm)	Total PSD $\frac{dBm}{500 kHz}$	15.407 Limit $\frac{dBm}{500 kHz}$	RSS-247 Limit $\frac{dBm}{500 kHz}$	15.407 Margin (dB)	RSS-247 Margin (dB)
149	5745	-5.77	0.21	-5.56	29.60	29.60	-35.16	-35.16
157	5785	-5.80	0.21	-5.59	29.60	29.60	-35.19	-35.19
165	5825	-5.17	0.21	-4.96	29.60	29.60	-34.56	-34.56



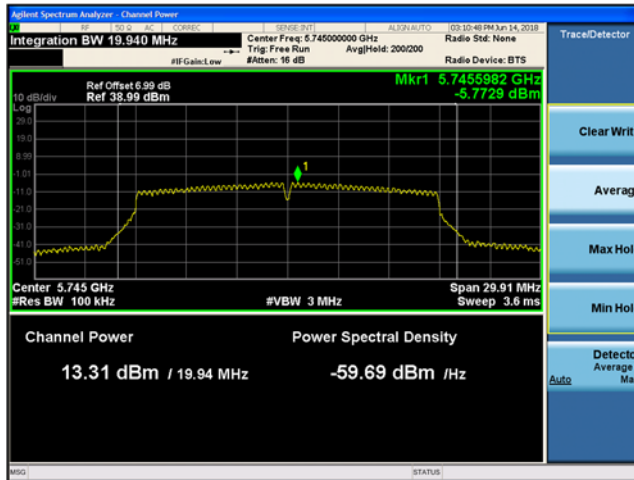
Plot 9-31. Max Conducted Output Power, Diversity Antenna 802.11n HT20 (Ch. 149)



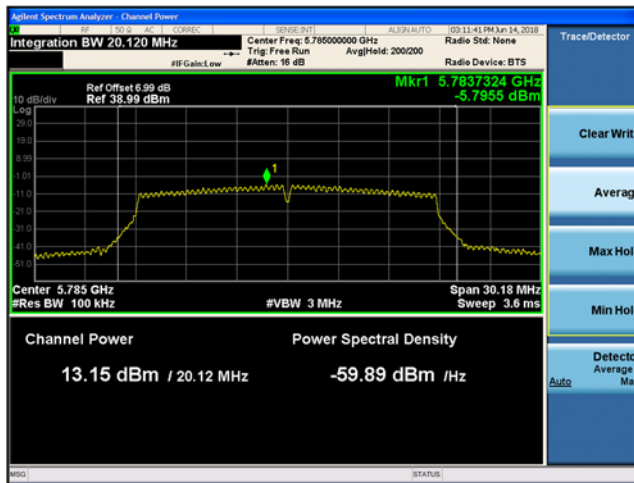
Plot 9-32. Maximum Conducted Output Power, Diversity Antenna 802.11n HT20 (Ch. 157)



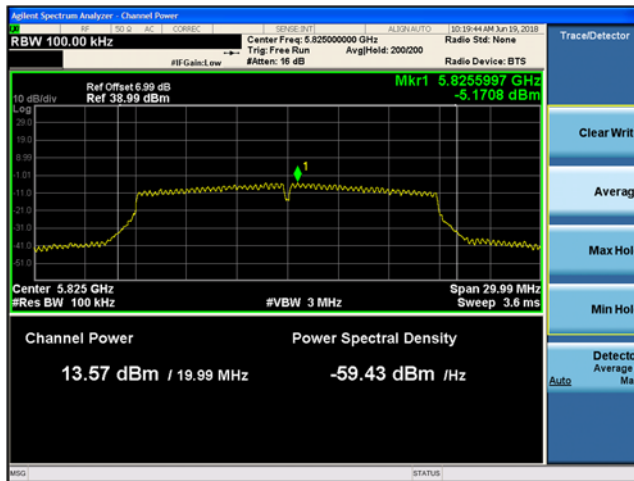
Plot 9-33. Maximum Conducted Output Power, Diversity Antenna 802.11n HT20 (Ch. 165)



Plot 9-34. Maximum Power Spectrum Density, Diversity Antenna 802.11n HT20 (Ch. 149)



Plot 9-35. Maximum Power Spectrum Density, Diversity Antenna 802.11n HT20 (Ch. 157)



Plot 9-36. Maximum Power Spectrum Density, Diversity Antenna 802.11n HT20 (Ch. 165)

# End of Report