

TEST REPORT

of

FCC Part 15 Subpart E §15.407 / RSS-210 Issue 8, RSS-Gen Issue 3

FCC ID/IC Certification : A3LNX1 / 649E- NX1

Equipment Under Test : Digital Camera
Model Name : NX1
Applicant : SAMSUNG ELECTRONICS Co., Ltd.
Manufacturer : SAMSUNG ELECTRONICS Co., Ltd.
Date of Test(s) : 2014. 08. 20 ~ 2014. 09. 15
Date of Issue : 2014. 09. 16

In the configuration tested, the EUT complied with the standards specified above.

Tested By:



Harim Lee

Date:

2014. 09. 16

Approved By:



Hyunchoe You

Date:

2014. 09. 16

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1. General information

1.1 Testing laboratory

SGS Korea Co., Ltd. (Gunpo Laboratory)

-Wireless Div. 2FL, 10-2, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 435-837

All SGS services are rendered in accordance with the applicable SGS conditions of service available on request and accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>.

Phone No. : + 82 31 688 0901

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1.2. Details of Applicant

Applicant : SAMSUNG ELECTRONICS Co., Ltd.

Address : 129, Samsung-ro, Yeongtong-gu Suwon-si, Gyeonggi-do, 443-742 Korea, Republic of

Contact Person : Jeung, Young-Hee

Phone No. : +82 10 2205 7555

1.3. Description of EUT

Kind of Product	Digital Camera
Model Name	NX1
Power Supply	DC 7.2 V
Frequency Range	2 402 MHz ~ 2 480 MHz (BT), 2 412 MHz ~ 2 462 MHz (11b/g/n_HT20), 5 745 MHz ~ 5 825 MHz (Band 3: 11a/n_HT20, 11ac_VHT20), 5 755 MHz ~ 5 795 MHz (Band 3: 11n_HT40, 11ac_VHT40), 5 775 MHz (Band 3: 11ac_VHT80), 5 180 MHz ~ 5 240 MHz (Band 1: 11a/n_HT20, 11ac_VHT20), 5 190 MHz ~ 5 230 MHz (Band 1: 11n_HT40, 11ac_VHT40), 5 210 MHz (Band 1: 11ac_VHT80), 5 260 MHz ~ 5 320 MHz (Band 2A: 11a/n_HT20, 11ac_VHT20), 5 270 MHz ~ 5 310 MHz (Band 2A: 11n_HT40, 11ac_VHT40), 5 290 MHz (Band 2A: 11ac_VHT80), 5 500 MHz ~ 5 700 MHz (Band 2C: 11a/n_HT20, 11ac_VHT20), 5 510 MHz ~ 5 670 MHz (Band 2C: 11n_HT40, 11ac_VHT40), 5 530 MHz (Band 2C: 11ac_VHT80)
Modulation Technique	DSSS, OFDM, GFSK, $\pi/4$ DQPSK, 8DPSK
Number of Channels	11 channel (11b/g/n_HT20), 5 channel (Band 3: 11a/n_HT20, 11ac_VHT20), 2 channel (Band 3: 11n_HT40, 11ac_VHT40), 1 channel (Band 3: 11ac_VHT80), 4 channel (Band 1: 11a/n_HT20, 11ac_VHT20), 2 channel (Band 1: 11n_HT40, 11ac_VHT40), 1 channel (Band 1: 11ac_VHT80), 4 channel (Band 2A: 11a/n_HT20, 11ac_VHT20), 2 channel (Band 2A: 11n_HT40, 11ac_VHT40), 1 channel (Band 2A: 11ac_VHT80), 8 channel (Band 2C: 11a/n_HT20, 11ac_VHT20), 3 channel (Band 2C: 11n_HT40, 11ac_VHT40), 1 channel (Band 2C: 11ac_VHT80), 79 channel (BT)
Antenna Type	Internal type (SISO)
Antenna Gain	2 402 MHz ~ 2 480 MHz, 2 412 MHz ~ 2 462 MHz: -3.59 dB i, 5 180 MHz ~ 5 320 MHz: -3.46 dB i, 5 500 MHz ~ 5 700 MHz: -3.60 dB i, 5 745 MHz ~ 5 805 MHz: -3.36 dB i

1.4. Declaration by the manufacturer

- EUT is SLAVE without DFS and TPC.

- Duty cycle $\geq$ 98 percent

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1.5. Test equipment list

Equipment	Manufacturer	Model	S/N	Cal Date	Cal Interval	Cal Due.
Signal Generator	R&S	SMBV100A	259067	Jun. 25, 2014	Annual	Jun. 25, 2015
Signal Generator	R&S	SMR40	100272	Jul. 18, 2014	Annual	Jul. 18, 2015
Spectrum Analyzer	Agilent	N9030A	US51350132	Oct. 08, 2013	Annual	Oct. 08, 2014
Attenuator	AEROFLEX/INMET	18N-20dB	2	Mar. 18, 2014	Annual	Mar. 18, 2015
Band Reject Filter	Wainwright	WRCJV5150/5350-5130/ 5370-50/16SS	1	Sep. 28, 2013	Annual	Sep. 28, 2014
Band Reject Filter	Wainwright	WRCJV5470/5725-5450/ 5745-50/20SS	1	Sep. 28, 2013	Annual	Sep. 28, 2014
High Pass Filter	Wainwright	WHK6.0/18G-10SS	11	Jun. 10, 2014	Annual	Jun. 10, 2015
High Pass Filter	Wainwright	WHNX7.5/26.5G-6SS	11	Jun. 10, 2014	Annual	Jun. 10, 2015
Low Pass Filter	Mini-Circuits	NLP-1200+	V 8979400903-2	Mar. 21, 2014	Annual	Mar. 21, 2015
Power Meter	Anritsu	ML2495A	1223004	Jun. 10, 2014	Annual	Jun. 10, 2015
Power Sensor	Anritsu	MA2411B	1207272	Jun. 10, 2014	Annual	Jun. 10, 2015
Power Sensor	R&S	NRP-Z81	100418	Mar. 19, 2014	Annual	Mar. 19, 2015
DC power Supply	Agilent	U8002A	MY49030063	Dec. 12, 2013	Annual	Dec. 12, 2014
Preamplifier	H.P.	8447D	2944A07087	Jan. 06, 2014	Annual	Jan. 06, 2015
Preamplifier	R&S	SCU 18	10117	Jan. 14, 2014	Annual	Jan. 14, 2015
Preamplifier	MITEQ Inc.	JS44-18004000-35-8P	1546891	Apr. 28, 2014	Annual	Apr. 28, 2015
Loop Antenna	R&S	HFH2-Z2	100118	Jul. 12, 2013	Biennial	Jul. 12, 2015
Bilog Antenna	SCHWARZBECK	VULB9163	396	Jun. 07, 2013	Biennial	Jun. 07, 2015
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170431	May 15, 2014	Biennial	May 15, 2016
Horn Antenna	R&S	HF906	100326	Dec. 10, 2013	Biennial	Dec. 10, 2015
Test Receiver	R&S	ESU26	100109	Mar. 04, 2014	Annual	Mar. 04, 2015
Antenna Master	INN-CO	MM4000	N/A	N/A	N/A	N.C.R.
Turn Table	INN-CO	DS 1200 S	N/A	N/A	N/A	N.C.R.
Test Receiver	R&S	ESCI7	100911	Jan. 24, 2014	Annual	Jan. 24, 2015
Two-Line V-Network	R&S	ENV216	100190	Jan. 02, 2014	Annual	Jan. 02, 2015
Anechoic Chamber	SY Corporation	L × W × H (6.5 m × 3.5 m × 3.5 m)	N/A	N/A	N/A	N.C.R.
Anechoic Chamber	SY Corporation	L × W × H (9.6 m × 6.4 m × 6.6 m)	N/A	N/A	N/A	N.C.R.

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1.6. Summary of test result

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part15, RSS-210,RSS-Gen			
Section in FCC 15	Section in RSS-210 RSS-Gen	Test Item	Result
15.205(a) 15.209(a) 15.407(b)	RSS-Gen 7 A9.2	Transmitter radiated spurious emissions and Conducted spurious emission	Complied
15.407(e) 15.407(a)	RSS-210 A8.2(a) RSS-Gen 4.6.1	26 dB bandwidth, 6 dB bandwidth, 99 % bandwidth	Complied
15.407(a)	A9.2	Output power	Complied
15.407(a)	A9.2	Peak power spectral density	Complied
15.207	RSS-Gen 7.2.4	Transmitter AC Power Line Conducted Emission	Complied

1.7. Test Procedure(s)

The measurement procedures described in the American National Standard for Methods of Measurement of Radio-Noise Emission from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz (ANSI C63.4-2003) and the guidance provided in KDB 789033 were used in the measurement of the DUT.

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1.8. Sample calculation

Where relevant, the following sample calculation is provided:

1.8.1. Conducted test

Offset value (dB) = Attenuator (dB) + Cable loss (dB)

1.8.2. Radiation test

Field strength level (dB μ V/m) = Measured level (dB μ V) + Antenna factor (dB) + Cable loss (dB) - amplifier (dB)

1.9. Test report revision

Revision	Report number	Date of Issue	Description
0	F690501/RF-RTL008000	2014.09.11	Initial
1	F690501/RF-RTL008000-1	2014.09.16	Re-Tested Spurious emission Correct Typo

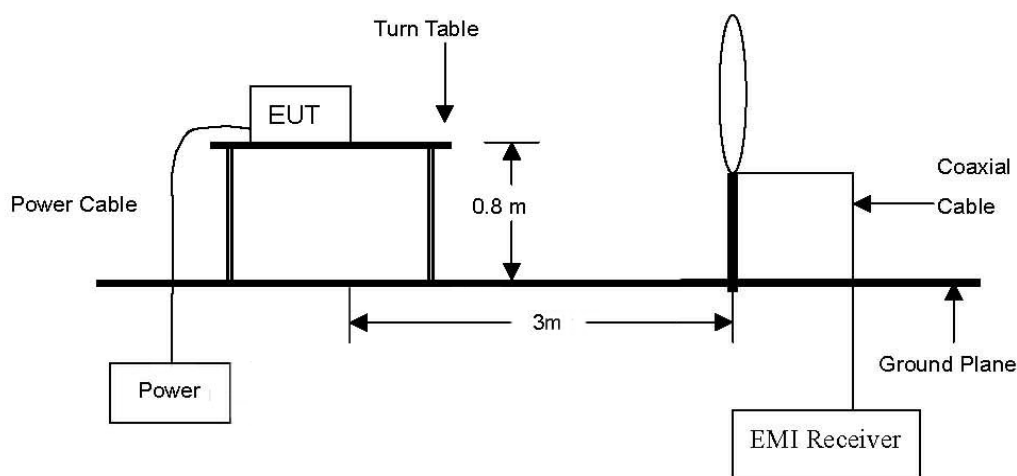
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2. Transmitter radiated spurious emissions and conducted spurious emission

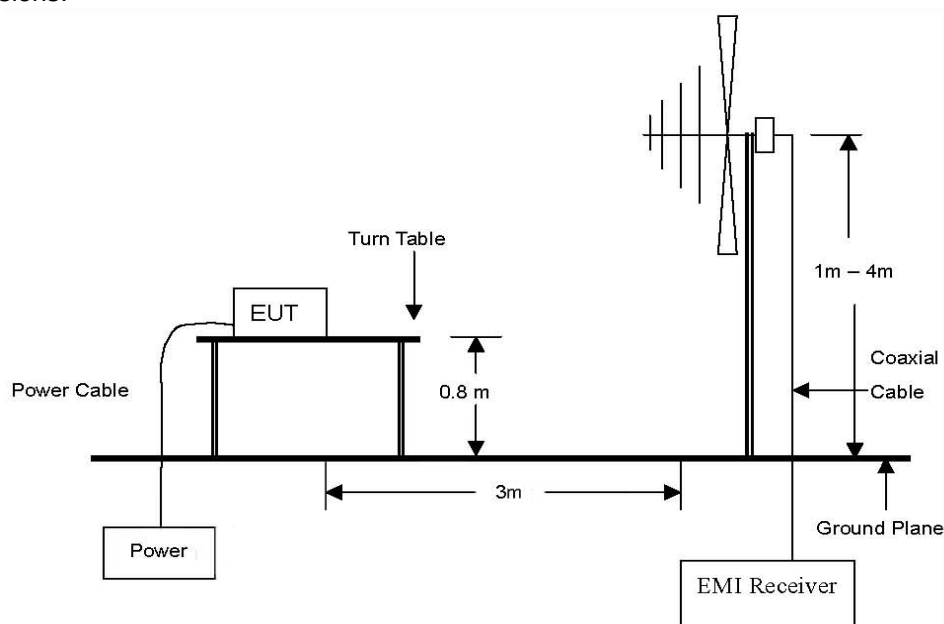
2.1. Test setup

2.1.1. Transmitter Radiated Spurious Emissions

The diagram below shows the test setup that is utilized to make the measurements for emission from 9 kHz to 30 MHz Emissions.

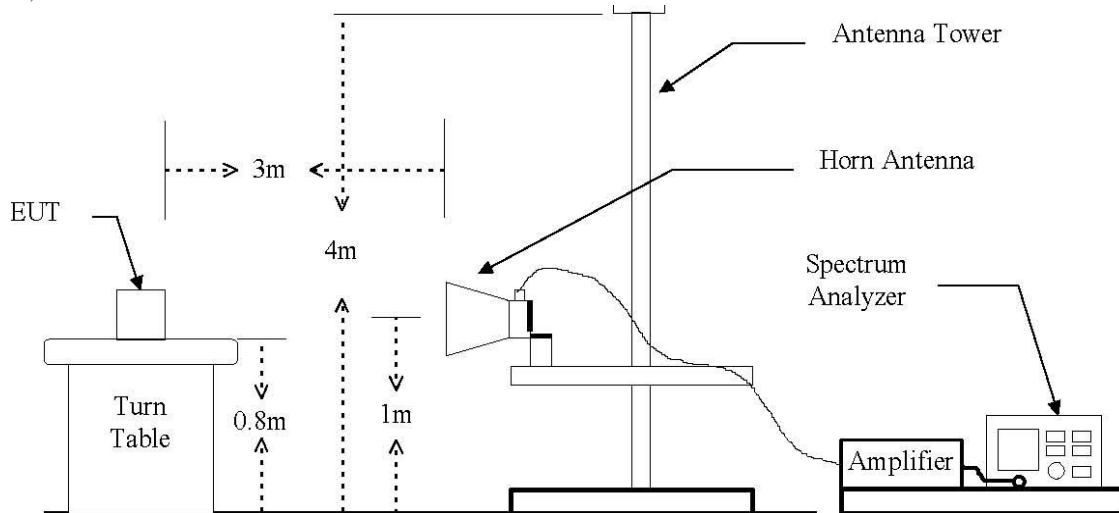


The diagram below shows the test setup that is utilized to make the measurements for emission from 30 MHz to 1 GHz Emissions.



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The diagram below shows the test setup that is utilized to make the measurements for emission. The spurious emissions were investigated from 1 GHz to the 10th harmonic of the highest fundamental frequency or 40 GHz, whichever is lower.



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2.2. Limit

For transmitters operating in the 5.15 ~ 5.25 GHz band: all emissions outside of the 5.15 ~ 5.35 GHz band shall not exceed an EIRP of -27 m/MHz.

For transmitters operating in the 5.25 ~ 5.35 GHz band: all emissions outside of the 5.15 ~ 5.35 GHz band shall not exceed an EIRP of -27 dB m/MHz. Devices operating in the 5.25 ~ 5.35 GHz band that generate emissions in the 5.15 ~ 5.25 GHz band must meet all applicable technical requirements for operation in the 5.15 ~ 5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dB m/MHz in the 5.15 ~ 5.25 GHz band.

For transmitters operating in the 5.47 ~ 5.725 GHz band: all emissions outside of the 5.47 ~ 5.725 GHz band shall not exceed an EIRP of -27 dB m/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

According to § 15.209(a), Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table :

Frequency (MHz)	Distance (Meters)	Field Strength (dBμV/m)	Field Strength (μV/m)
0.009 – 0.490	300	$20 \log (2\,400/F(\text{kHz}))$	$2\,400/F(\text{kHz})$
0.490 – 1.705	30	$20 \log (24\,000/F(\text{kHz}))$	$24\,000/F(\text{kHz})$
1.705 – 30.0	30	29.54	30
30 - 88	3	40.0	100
88 – 216	3	43.5	150
216 – 960	3	46.0	200
Above 960	3	54.0	500

2.3. Test procedures

Radiated spurious emissions from the EUT were measured according to the dictates in section G of KDB 789033 New rules v01 and ANSI C63.4 2003.

All data rates and modes were investigated for conducted spurious emissions. The emissions of the configuration that produced the worst case emissions are reported in this section.

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2.3. Test procedures for radiated spurious emissions

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
2. During performing radiated emission below 1 GHz, the EUT was set 3 meters away from the interference receiving antenna, which was mounted on the top of a variable-height antenna tower. During performing radiated emission above 1 GHz, the EUT was set 3 meter away from the interference-receiving antenna.
3. The antenna is a bi-log antenna, a horn antenna and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE;

- The measurements for below 1 GHz refer to section II.G.4.

Compliance shall be demonstrated using CISPR quasi-peak detection; however, peak detection is permitted as an alternative to quasi-peak detection.

- The measurements for above 1 GHz refer to section II.G.5.

Peak emission levels are measured by setting the analyzer as follows:

Set to RBW = 1 MHz, VBW ≥ 3 MHz, Detector = Peak, Sweep time = auto, Trace mode= Max hold

- The measurements for above 1 GHz refer to section II.G.6.

Average emission levels are measured by setting the analyzer as follows:

Set to RBW = 1 MHz, VBW ≥ 3 MHz, Detector = RMS, Averaging type = power(i.e., RMS), Sweep time = auto, Trace mode= trace average of at least 100 traces. If the transmission is not continuous, the number of traces shall be increased by a factor of 1/x, where x is the duty cycle.

If duty cycle < 98 percent, a correction factor shall be added to the measurement results.

- Power averaging (RMS) mode was used above the correction factor is 10 log (1/x), where x is the duty cycle.

To get a maximum emission level from the EUT, the EUT is manipulated through three orthogonal planes.

Worst orthogonal plan of EUT is **Y – axis** during radiation test.

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2.4. Test result

Ambient temperature : (24 ± 1) °C
Relative humidity : 49 % R.H.

2.4.1. Spurious radiated emission

The frequency spectrum from 9 kHz to 1 000 MHz was investigated.

Radiated Emissions			Ant.	Correction Factors		Total	FCC Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP + CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
46.09	37.74	Peak	H	11.40	-27.04	22.10	40.00	17.90
98.02	33.97	Peak	H	13.41	-26.38	21.00	43.50	22.50
161.96	32.02	Peak	H	11.72	-25.64	18.10	43.50	25.40
276.58	33.37	Peak	V	14.45	-24.82	23.00	46.00	23.00
465.57	32.96	Peak	V	17.92	-24.98	25.90	46.00	20.10
842.46	35.19	Peak	V	21.93	-23.52	33.60	46.00	12.40
Above 900.00	Not detected	-	-	-	-	-	-	-

Remark:

1. Spurious emissions for all channels and modes were investigated and almost the same below 1 GHz.
2. Reported spurious emissions are in **11a / 6 Mbps / 116 channel** as worst case among other modes.
3. Radiated spurious emission measurement as below
(Actual = Reading + Antenna Factor + Amp + CL)

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2.4.2. Spurious radiated emission for above 1 GHz

802.11a (Band 1)_6 Mbps

A. Low Channel (5 180 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*5 150.00	12.58	Peak	H	33.43	9.32	55.33	74.00	18.67
*5 150.00	4.15	Average	H	33.43	9.32	46.90	54.00	7.10
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
10 362.35	36.40	Peak	H	37.58	-30.00	43.98	68.23	24.25
Above 10 400.000	Not detected	-	-	-	-	-	-	-

B. Middle Channel (5 220 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
10 438.36	36.37	Peak	H	37.67	-30.19	43.85	68.23	24.38
Above 10 500.000	Not detected	-	-	-	-	-	-	-

C. High Channel (5 240 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
10 482.23	35.54	Peak	H	37.61	-30.31	42.84	68.23	25.39
Above 10 500.000	Not detected	-	-	-	-	-	-	-

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802.11a (Band 2A)_6 Mbps

A. Low Channel (5 260 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
10 521.21	34.45	Peak	H	37.52	-30.39	41.58	68.23	26.65
Above 10 600.000	Not detected	-	-	-	-	-	-	-

B. Middle Channel (5 300 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*10 597.63	34.89	Peak	H	37.63	-30.46	42.06	68.23	26.17
Above 10 600.000	Not detected	-	-	-	-	-	-	-

C. High Channel (5 320 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	11.84	Peak	H	33.75	9.32	54.91	74.00	19.09
*5 350.00	4.53	Average	H	33.75	9.32	47.60	54.00	6.40
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*10 639.62	35.54	Peak	H	37.67	-30.14	43.07	74.00	30.93
*10 639.62	25.39	Average	H	37.67	-30.14	32.92	54.00	21.08
Above 10 700.000	Not detected	-	-	-	-	-	-	-

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802.11a (Band 2C)_6 Mbps

A. Low Channel (5 500 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 460.00	15.32	Peak	H	34.29	9.12	58.73	74.00	15.27
*5 460.00	5.24	Average	H	34.29	9.12	48.65	54.00	5.35
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*10 998.20	35.96	Peak	H	38.10	-29.58	44.48	74.00	29.52
*10 998.20	26.01	Average	H	38.10	-29.58	34.53	54.00	19.47
Above 11 000.000	Not detected	-	-	-	-	-	-	-

B. Middle Channel (5 580 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 160.24	35.24	Peak	H	37.94	-29.53	43.65	74.00	30.35
*11 160.24	26.49	Average	H	37.94	-29.53	34.90	54.00	19.10
Above 11 200.000	Not detected	-	-	-	-	-	-	-

C. High Channel (5 700 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 401.88	35.10	Peak	H	37.93	-29.11	43.92	74.00	30.08
*11 401.88	25.12	Average	H	37.93	-29.11	33.94	54.00	20.06
Above 11 500.000	Not detected	-	-	-	-	-	-	-

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802.11a (Band 3)_6 Mbps

A. Low Channel (5 745 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 713.84	15.16	Peak	H	34.11	9.38	58.65	68.23	9.58
5 725.00	15.18	Peak	H	34.13	9.45	58.76	78.23	19.47
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 490.85	34.24	Peak	H	38.39	-30.48	42.15	74.00	31.85
*11 490.85	25.87	Average	H	38.39	-30.48	33.78	54.00	20.22
Above 11 500.000	Not detected	-	-	-	-	-	-	-

B. Middle Channel (5 785 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 571.41	34.92	Peak	H	38.42	-31.61	41.73	74.00	32.27
*11 571.41	25.91	Average	H	38.42	-31.61	32.72	54.00	21.28
Above 11 600.000	Not detected	-	-	-	-	-	-	-

C. High Channel (5 825 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 850.00	15.22	Peak	H	34.14	9.53	58.89	78.23	19.34
5 861.24	15.34	Peak	H	34.21	9.69	59.24	68.23	8.99
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 651.11	35.14	Peak	H	38.36	-31.79	41.71	74.00	32.29
*11 651.11	26.14	Average	H	38.36	-31.79	32.71	54.00	21.29
Above 11 700.000	Not detected	-	-	-	-	-	-	-

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802.11an_HT20 (Band 1)_MCS0

A. Low Channel (5 180 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 150.00	12.93	Peak	H	33.43	9.32	55.68	74.00	18.32
*5 150.00	4.78	Average	H	33.43	9.32	47.53	54.00	6.47
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
10 360.38	36.54	Peak	H	37.58	-29.99	44.13	68.23	24.10
Above 10 400.000	Not detected	-	-	-	-	-	-	-

B. Middle Channel (5 220 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
10 440.26	36.52	Peak	H	37.67	-30.19	44.00	68.23	24.23
Above 10 500.000	Not detected	-	-	-	-	-	-	-

C. High Channel (5 240 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
10 481.79	35.40	Peak	H	37.61	-30.31	42.70	68.23	25.53
Above 10 500.000	Not detected	-	-	-	-	-	-	-

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802.11an_HT20 (Band 2A)_MCS0

A. Low Channel (5 260 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*10 520.55	34.33	Peak	H	37.52	-30.38	41.47	68.23	26.76
Above 10 600.000	Not detected	-	-	-	-	-	-	-

B. Middle Channel (5 300 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*10 602.23	34.83	Peak	H	37.64	-30.44	42.03	74.00	31.97
*10 602.23	26.74	Average	H	37.64	-30.44	33.94	54.00	20.06
Above 10 700.000	Not detected	-	-	-	-	-	-	-

C. High Channel (5 320 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*5 350.00	12.30	Peak	H	33.75	9.32	55.37	74.00	18.63
*5 350.00	4.64	Average	H	33.75	9.32	47.71	54.00	6.29
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*10 640.61	35.47	Peak	H	37.67	-30.14	43.00	74.00	31.00
*10 640.61	25.46	Average	H	37.67	-30.14	32.99	54.00	21.01
Above 10 700.000	Not detected	-	-	-	-	-	-	-

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802.11an_HT20 (Band 2C)_MCS0

A. Low Channel (5 500 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 460.00	15.43	Peak	H	34.29	9.12	58.84	74.00	15.16
*5 460.00	5.21	Average	H	34.29	9.12	48.62	54.00	5.38
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 000.38	35.98	Peak	H	38.09	-29.59	44.48	74.00	29.52
*11 000.38	26.08	Average	H	38.09	-29.59	34.58	54.00	19.42
Above 11 100.000	Not detected	-	-	-	-	-	-	-

B. Middle Channel (5 580 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 160.46	35.35	Peak	H	37.94	-29.53	43.76	74.00	30.24
*11 160.46	26.64	Average	H	37.94	-29.53	35.05	54.00	18.95
Above 11 200.000	Not detected	-	-	-	-	-	-	-

C. High Channel (5 700 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 401.03	34.96	Peak	H	37.93	-29.10	43.79	74.00	30.21
*11 401.03	25.11	Average	H	37.93	-29.10	33.94	54.00	20.06
Above 11 500.000	Not detected	-	-	-	-	-	-	-

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802.11an_HT20 (Band 3)_MCS0

A. Low Channel (5 745 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 714.36	15.06	Peak	H	34.11	9.38	58.55	68.23	9.68
5 725.00	15.09	Peak	H	34.13	9.45	58.67	78.23	19.56
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 490.07	34.14	Peak	H	38.39	-30.47	42.06	74.00	31.94
*11 490.07	25.81	Average	H	38.39	-30.47	33.73	54.00	20.27
Above 10 500.000	Not detected	-	-	-	-	-	-	-

B. Middle Channel (5 785 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 570.94	34.98	Peak	H	38.42	-31.60	41.80	74.00	32.20
*11 570.94	25.91	Average	H	38.42	-31.60	32.73	54.00	21.27
Above 10 600.000	Not detected	-	-	-	-	-	-	-

C. High Channel (5 825 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 850.00	15.16	Peak	H	34.14	9.53	58.83	78.23	19.40
5 860.95	15.31	Peak	H	34.21	9.68	59.20	68.23	9.03
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 651.38	35.06	Peak	H	38.36	-31.79	41.63	74.00	32.37
*11 651.38	26.27	Average	H	38.36	-31.79	32.84	54.00	21.16
Above 10 700.000	Not detected	-	-	-	-	-	-	-

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802.11an_HT40 (Band 1)_MCS0

A. Low Channel (5 190 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 150.00	12.84	Peak	H	33.43	9.32	55.59	74.00	18.41
*5 150.00	4.91	Average	H	33.43	9.32	47.66	54.00	6.34
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
10 380.43	36.72	Peak	H	37.54	-30.03	44.23	68.20	23.97
Above 10 400.000	Not detected	-	-	-	-	-	-	-

B. High Channel (5 230 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*10 460.27	35.84	Peak	H	37.62	-30.25	43.21	68.23	25.02
Above 10 500.000	Not detected	-	-	-	-	-	-	-

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802.11an_HT40 (Band 2A)_MCS0

A. Low Channel (5 270 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
10 540.61	35.99	Peak	H	37.54	-30.40	43.13	68.20	25.07
Above 10 600.000	Not detected	-	-	-	-	-	-	-

B. High Channel (5 310 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	12.54	Peak	H	33.75	9.32	55.61	74.00	18.39
*5 350.00	4.76	Average	H	33.75	9.32	47.83	54.00	6.17
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*10 621.38	36.05	Peak	H	37.71	-30.30	43.46	74.00	30.54
*10 621.38	25.46	Average	H	37.71	-30.30	32.87	54.00	21.13
Above 10 700.000	Not detected	-	-	-	-	-	-	-

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802.11an_HT40 (Band 2C)_MCS0

A. Low Channel (5 510 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*5 460.00	13.36	Peak	H	34.29	9.12	56.77	74.00	17.23
*5 460.00	4.84	Average	H	34.29	9.12	48.25	54.00	5.75
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 020.74	35.84	Peak	H	38.14	-29.55	44.43	74.00	29.57
*11 020.74	26.02	Average	H	38.14	-29.55	34.61	54.00	19.39
Above 11 100.000	Not detected	-	-	-	-	-	-	-

B. Middle Channel (5 550 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 101.12	35.91	Peak	H	38.01	-29.42	44.50	74.00	29.50
*11 101.12	26.03	Average	H	38.01	-29.42	34.62	54.00	19.38
Above 11 200.000	Not detected	-	-	-	-	-	-	-

C. High Channel (5 670 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 340.48	36.04	Peak	H	37.55	-29.95	43.64	74.00	30.36
*11 340.48	25.72	Average	H	37.55	-29.95	33.32	54.00	20.68
Above 11 400.000	Not detected	-	-	-	-	-	-	-

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802.11an_HT40 (Band 3)_MCS0

A. Low Channel (5 755 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5 713.58	14.61	Peak	H	34.11	9.38	58.10	68.23	10.13
5 725.00	14.56	Peak	H	34.13	9.45	58.14	78.23	20.09
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 510.76	36.24	Peak	H	38.47	-30.77	43.94	74.00	30.06
*11 510.76	26.85	Average	H	38.47	-30.77	34.55	54.00	19.45
Above 11 600.000	Not detected	-	-	-	-	-	-	-

B. High Channel (5 795 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5 850.00	14.89	Peak	H	34.14	9.53	58.56	78.23	19.67
5 864.16	14.76	Peak	H	34.21	9.73	58.70	68.23	9.53
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 590.44	35.85	Peak	H	38.40	-31.87	42.38	74.00	31.62
*11 590.44	25.86	Average	H	38.40	-31.87	32.39	54.00	21.61
Above 11 600.000	Not detected	-	-	-	-	-	-	-

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802.11ac_VHT20 (Band 1)_MCS0

A. Low Channel (5 180 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 150.00	12.38	Peak	H	33.43	9.32	55.13	74.00	18.87
*5 150.00	4.35	Average	H	33.43	9.32	47.10	54.00	6.90
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
10 362.03	36.63	Peak	H	37.58	-30.00	44.21	68.23	24.02
Above 10 400.000	Not detected	-	-	-	-	-	-	-

B. Middle Channel (5 220 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
10 440.45	36.57	Peak	H	37.67	-30.19	44.05	68.23	24.18
Above 10 500.000	Not detected	-	-	-	-	-	-	-

C. High Channel (5 240 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*10 480.26	35.39	Peak	H	37.61	-30.30	42.70	68.23	25.53
Above 10 500.000	Not detected	-	-	-	-	-	-	-

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802.11ac_VHT20 (Band 2A)_MCS0

A. Low Channel (5 260 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
10 520.79	34.22	Peak	H	37.52	-30.38	41.36	68.23	26.87
Above 10 600.000	Not detected	-	-	-	-	-	-	-

B. Middle Channel (5 300 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*10 602.38	34.80	Peak	H	37.64	-30.44	42.00	74.00	32.00
*10 602.38	26.76	Average	H	37.64	-30.44	33.96	54.00	20.04
Above 10 700.000	Not detected	-	-	-	-	-	-	-

C. High Channel (5 320 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*5 350.00	12.86	Peak	H	33.75	9.32	55.93	74.00	18.07
*5 350.00	4.24	Average	H	33.75	9.32	47.31	54.00	6.69
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*10 639.89	35.36	Peak	H	37.67	-30.14	42.89	74.00	31.11
*10 639.89	25.38	Average	H	37.67	-30.14	32.91	54.00	21.09
Above 10 700.000	Not detected	-	-	-	-	-	-	-

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802.11ac_VHT20 (Band 2C)_MCS0

A. Low Channel (5 500 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 460.00	12.32	Peak	H	34.29	9.12	55.73	74.00	18.27
*5 460.00	4.75	Average	H	34.29	9.12	48.16	54.00	5.84
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 001.38	36.08	Peak	H	38.09	-29.59	44.58	74.00	29.42
*11 001.38	26.15	Average	H	38.09	-29.59	34.65	54.00	19.35
Above 11 100.000	Not detected	-	-	-	-	-	-	-

B. Middle Channel (5 580 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 160.46	35.36	Peak	H	37.94	-29.53	43.77	74.00	30.23
*11 160.46	26.54	Average	H	37.94	-29.53	34.95	54.00	19.05
Above 11 200.000	Not detected	-	-	-	-	-	-	-

C. High Channel (5 700 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 401.35	35.03	Peak	H	37.93	-29.10	43.86	74.00	30.14
*11 401.35	25.08	Average	H	37.93	-29.10	33.91	54.00	20.09
Above 11 500.000	Not detected	-	-	-	-	-	-	-

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802.11ac_VHT20 (Band 3)_MCS0

A. Low Channel (5 745 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 711.89	14.86	Peak	H	34.11	9.37	58.34	68.23	9.89
5 725.00	14.32	Peak	H	34.13	9.45	57.90	78.23	20.33
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 490.46	34.00	Peak	H	38.39	-30.48	41.91	74.00	32.09
*11 490.46	25.85	Average	H	38.39	-30.48	33.76	54.00	20.24
Above 11 500.000	Not detected	-	-	-	-	-	-	-

B. Middle Channel (5 785 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 569.46	34.96	Peak	H	38.43	-31.58	41.81	74.00	32.19
*11 569.46	25.77	Average	H	38.43	-31.58	32.62	54.00	21.38
Above 11 600.000	Not detected	-	-	-	-	-	-	-

B. High Channel (5 825 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 850.00	14.18	Peak	H	34.14	9.53	57.85	78.23	20.38
5 863.24	14.51	Peak	H	34.21	9.72	58.44	68.23	9.79
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 649.38	34.91	Peak	H	38.36	-31.80	41.47	74.00	32.53
*11 649.38	26.41	Average	H	38.36	-31.80	32.97	54.00	21.03
Above 11 700.000	Not detected	-	-	-	-	-	-	-

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802.11ac_VHT40 (Band 1)_MCS0

A. Low Channel (5 190 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 150.00	12.72	Peak	H	33.43	9.32	55.47	74.00	18.53
*5 150.00	4.52	Average	H	33.43	9.32	47.27	54.00	6.73
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
10 380.25	36.81	Peak	H	37.54	-30.03	44.32	68.23	23.91
Above 10 400.000	Not detected	-	-	-	-	-	-	-

B. High Channel (5 230 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
10 460.19	35.74	Peak	H	37.62	-30.25	43.11	68.23	25.12
Above 10 500.000	Not detected	-	-	-	-	-	-	-

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802.11ac_VHT40 (Band 2A)_MCS0

A. Low Channel (5 270 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
10 541.35	35.94	Peak	H	37.54	-30.40	43.08	68.23	25.15
Above 10 600.000	Not detected	-	-	-	-	-	-	-

B. High Channel (5 310 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*5 350.00	12.84	Peak	H	33.75	9.32	55.91	74.00	18.09
*5 350.00	4.77	Average	H	33.75	9.32	47.84	54.00	6.16
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*10 620.14	36.08	Peak	H	37.71	-30.30	43.49	74.00	30.51
*10 620.14	25.38	Average	H	37.71	-30.30	32.79	54.00	21.21
Above 10 700.000	Not detected	-	-	-	-	-	-	-

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802.11ac_VHT40 (Band 2C)_MCS0
A. Low Channel (5 510 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*5 460.00	12.86	Peak	H	34.29	9.12	56.27	74.00	17.73
*5 460.00	4.98	Average	H	34.29	9.12	48.39	54.00	5.61
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 021.25	35.93	Peak	H	38.14	-29.55	44.52	74.00	29.48
*11 021.25	26.12	Average	H	38.14	-29.55	34.71	54.00	19.29
Above 11 100.000	Not detected	-	-	-	-	-	-	-

B. Middle Channel (5 550 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 101.13	36.00	Peak	H	38.01	-29.42	44.59	74.00	29.41
*11 101.13	26.06	Average	H	38.01	-29.42	34.65	54.00	19.35
Above 11 200.000	Not detected	-	-	-	-	-	-	-

C. High Channel (5 670 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 339.59	36.13	Peak	H	38.11	-29.50	44.74	74.00	29.26
*11 339.59	25.78	Average	H	38.11	-29.50	34.39	54.00	19.61
Above 11 400.000	Not detected	-	-	-	-	-	-	-

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802.11ac_VHT40 (Band 3)_MCS0

A. Low Channel (5 755 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 714.35	14.36	Peak	H	34.11	9.38	57.85	68.23	10.38
5 725.00	14.72	Peak	H	34.13	9.45	58.30	78.23	19.93
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 510.46	36.22	Peak	H	38.47	-30.76	43.93	74.00	30.07
*11 510.46	26.92	Average	H	38.47	-30.76	34.63	54.00	19.37
Above 11 600.000	Not detected	-	-	-	-	-	-	-

B. High Channel (5 795 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 850.00	14.69	Peak	H	34.14	9.53	58.36	78.23	19.87
5 861.26	14.95	Peak	H	34.21	9.69	58.85	68.23	9.38
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*11 590.78	35.86	Peak	H	38.40	-31.87	42.39	74.00	31.61
*11 590.78	25.96	Average	H	38.40	-31.87	32.49	54.00	21.51
Above 11 600.000	Not detected	-	-	-	-	-	-	-

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802.11ac_VHT80 (Band 1)_MCS0

A. Low Channel (5 210 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 150.00	12.59	Peak	H	33.43	9.32	55.34	74.00	18.66
*5 150.00	4.76	Average	H	33.43	9.32	47.51	54.00	6.49
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
10 421.09	35.67	Peak	H	37.64	-30.14	43.17	68.23	25.06
Above 10 500.000	Not detected	-	-	-	-	-	-	-

802.11ac_VHT80 (Band 2A)_MCS0

A. Low Channel (5 290 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	12.76	Peak	H	33.75	9.32	55.83	74.00	18.17
*5 350.00	4.91	Average	H	33.75	9.32	47.98	54.00	6.02
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
10 582.22	35.79	Peak	H	37.63	-30.44	42.98	68.23	25.25
Above 10 600.000	Not detected	-	-	-	-	-	-	-

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802.11ac_VHT80 (Band 2C)_MCS0

A. Low Channel (5 530 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*5 460.00	13.35	Peak	H	34.29	9.12	56.76	74.00	17.24
*5 460.00	5.01	Average	H	34.29	9.12	48.42	54.00	5.58
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 061.38	36.14	Peak	H	38.06	-29.49	44.71	74.00	29.29
*11 061.38	26.03	Average	H	38.06	-29.49	34.60	54.00	19.40
Above 11 700.000	Not detected	-	-	-	-	-	-	-

802.11ac_VHT80 (Band 3)_MCS0

A. Low Channel (5 775 MHz)

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5 713.22	14.38	Peak	H	34.11	9.38	57.87	68.23	10.36
5 725.00	14.62	Peak	H	34.13	9.45	58.20	78.23	20.03
5 850.00	14.76	Peak	H	34.14	9.53	58.43	78.23	19.80
5 861.46	14.81	Peak	H	34.21	9.69	58.71	68.23	9.52
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 550.25	36.29	Peak	H	38.47	-31.31	43.45	74.00	30.55
*11 550.25	26.04	Average	H	38.47	-31.31	33.20	54.00	20.80
Above 11 600.000	Not detected	-	-	-	-	-	-	-

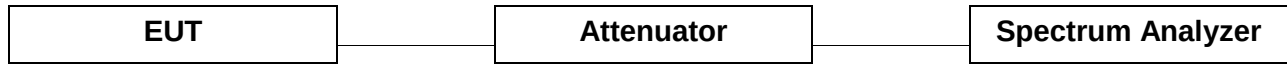
Remark:

1. "*" means the restricted band.
2. Radiated emissions measured in frequency above 1 000 MHz were made with an instrument using Peak / average detector mode if frequency was in restricted band. Otherwise the frequency was in outside of restricted band, only peak detector should be used.
3. If frequency was outside of restricted band, the calculation method for peak limit is same as below:
 $68.23 \text{ dB}\mu\text{V/m} = \text{EIRP} - 20 \log(d) + 104.77 = -27 - 20 \log(3) + 104.77$
 $78.23 \text{ dB}\mu\text{V/m} = \text{EIRP} - 20 \log(d) + 104.77 = -17 - 20 \log(3) + 104.77$
 *distance: 3 m, *EIRP: -27 dB m/MHz, -17 dB m/MHz

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3. 26 dB bandwidth

3.1. Test setup



3.2. Test procedure

All data rates and modes were investigated for this test. The full data for the worst case data rate are reported in this section.

1. This measurement settings are specified in section II.C.1 of KDB 789033 New Rules_v01.
2. Set RBW: approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1 %

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

According to KDB 644545 D01 v01r02 and 15.215(c), 20 dB bandwidth measurement were investigated to check whether a single emission is within a particular band or not.

In addition, the 20 dB bandwidth plots were reported at the end of this section.

In the result,

- DFS requirements are not applicable in the 5 150 MHz– 5 250 MHz
- No emission is within the 5 600 MHz– 5 650 MHz TDWR band

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3.4. Test result

Ambient temperature : (24 ± 1) °C
Relative humidity : 49 % R.H.

3.4.1. 26 dB Bandwidth

Band	Mode	Frequency (MHz)	Ch.	Data Rate	26 dB Bandwidth (MHz)
U-NII 1	11a	5 180	36	6	19.24
		5 220	44	6	19.48
		5 240	48	6	19.46
	11an_HT20	5 180	36	MCS0	19.72
		5 220	44	MCS0	19.74
		5 240	48	MCS0	19.79
	11an_HT40	5 190	38	MCS0	39.83
		5 230	46	MCS0	39.95
	11ac_VHT20	5 180	36	MCS0	19.78
		5 220	44	MCS0	19.66
		5 240	48	MCS0	19.84
	11ac_VHT40	5 190	38	MCS0	39.79
		5 230	46	MCS0	40.19
	11ac_VHT80	5 210	42	MCS0	81.86
U-NII 2A	11a	5 260	52	6	19.39
		5 300	60	6	19.30
		5 320	64	6	19.56
	11an_HT20	5 260	52	MCS0	19.89
		5 300	60	MCS0	19.76
		5 320	64	MCS0	19.76
	11an_HT40	5 270	54	MCS0	39.68
		5 310	62	MCS0	40.06
	11ac_VHT20	5 260	52	MCS0	19.58
		5 300	60	MCS0	19.88
		5 320	64	MCS0	20.05
	11ac_VHT40	5 270	54	MCS0	39.94
		5 310	62	MCS0	39.63
	11ac_VHT80	5 290	58	MCS0	81.45
U-NII 2C	11a	5 500	100	6	19.38
		5 580	116	6	19.35
		5 700	140	6	19.37
	11an_HT20	5 500	100	MCS0	19.63
		5 580	116	MCS0	19.70
		5 700	140	MCS0	19.72
	11an_HT40	5 510	102	MCS0	39.88
		5 550	110	MCS0	39.73
		5 670	134	MCS0	39.91
	11ac_VHT20	5 500	100	MCS0	19.92
		5 580	116	MCS0	19.94
		5 700	140	MCS0	19.69
	11ac_VHT40	5 510	102	MCS0	39.91
		5 550	110	MCS0	40.17
		5 670	134	MCS0	39.97
	11ac_VHT80	5 530	106	MCS0	81.66

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3.4.2. 20 dB Bandwidth

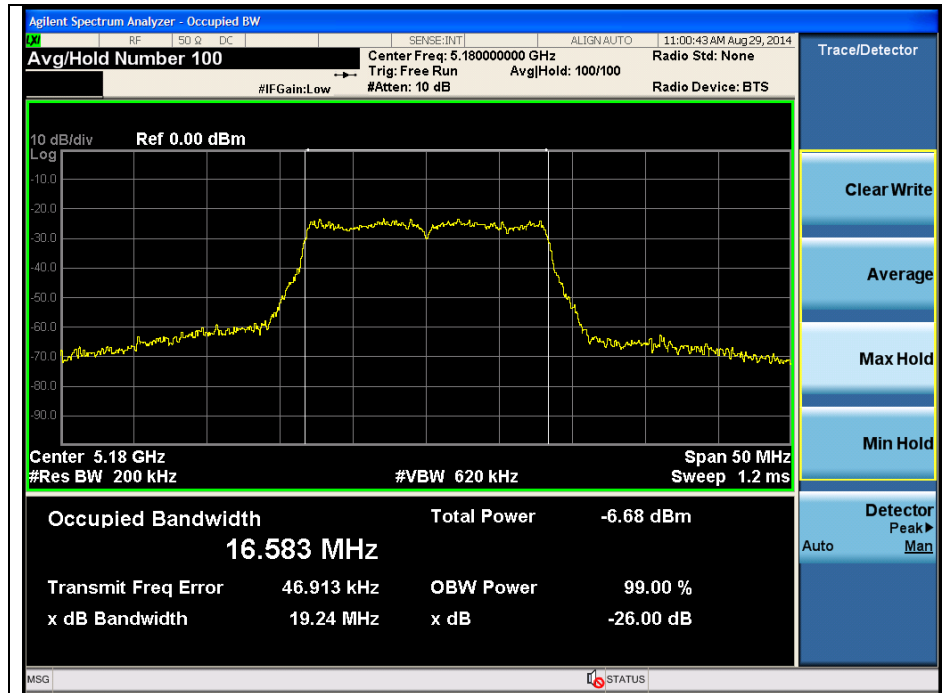
Band	Mode	Frequency (MHz)	Ch.	Data Rate	20 dB Bandwidth (MHz)
U-NII 1	11a	5 240	48	6	18.59
	11an_HT20	5 240	48	MCS0	18.76
	11an_HT40	5 230	46	MCS0	38.38
	11ac_VHT20	5 240	48	MCS0	18.72
	11ac_VHT40	5 230	46	MCS0	38.45
	11ac_VHT80	5 210	42	MCS0	79.95
U-NII 2C	11a	5 580	116	6	18.14
		5 660	132	6	17.92
	11n_HT20	5 580	116	MCS0	18.83
		5 660	132	MCS0	18.69
	11n_HT40	5 550	110	MCS0	38.44
		5 670	134	MCS0	38.29
	11ac_VHT20	5 580	116	MCS0	18.81
		5 660	132	MCS0	18.92
	11ac_VHT40	5 550	110	MCS0	38.40
		5 670	134	MCS0	38.35
	11ac_VHT80	5 530	106	MCS0	79.85

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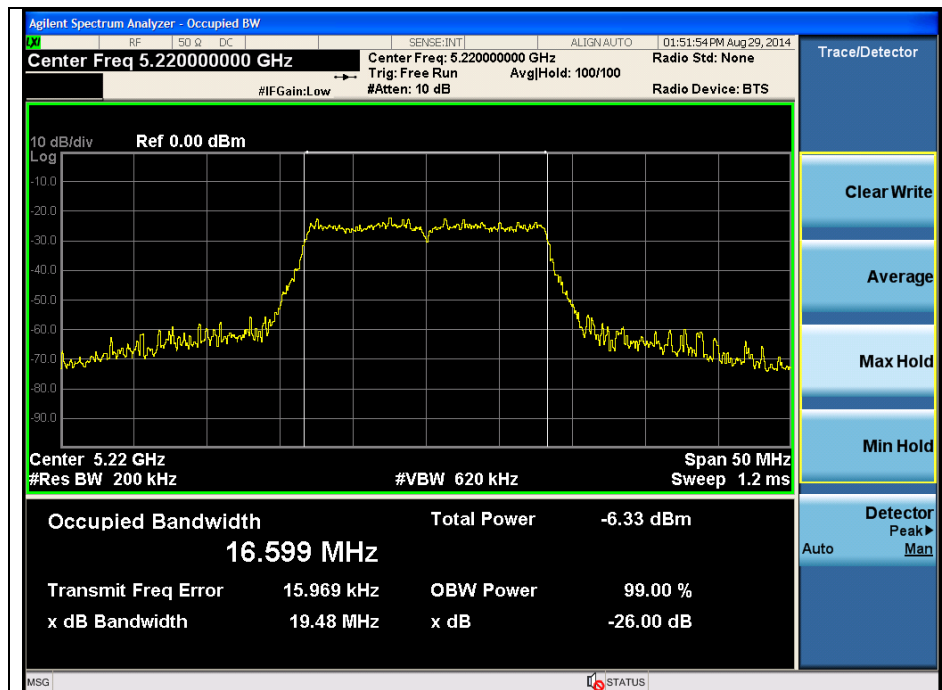
26 dB Bandwidth

802.11a (Band 1)

Low Channel (5 180 MHz)

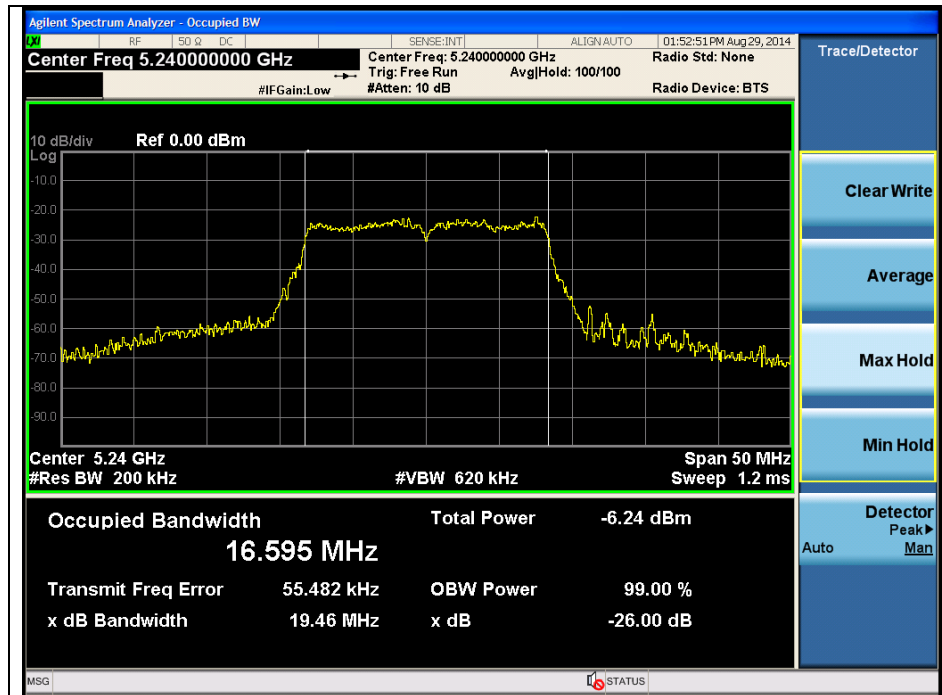


Middle Channel (5 220 MHz)



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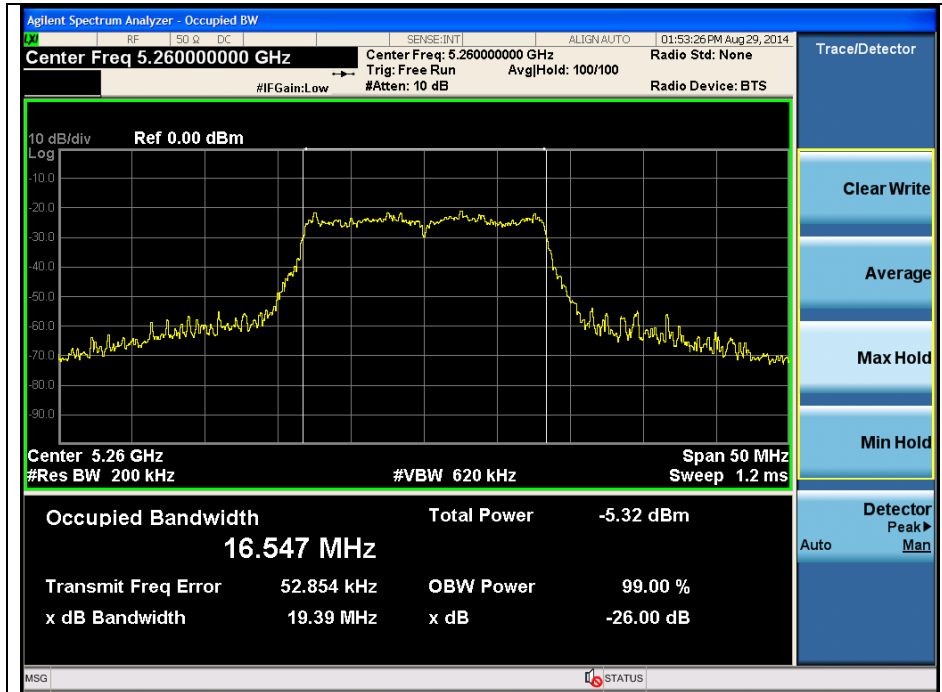
High Channel (5 240 MHz)



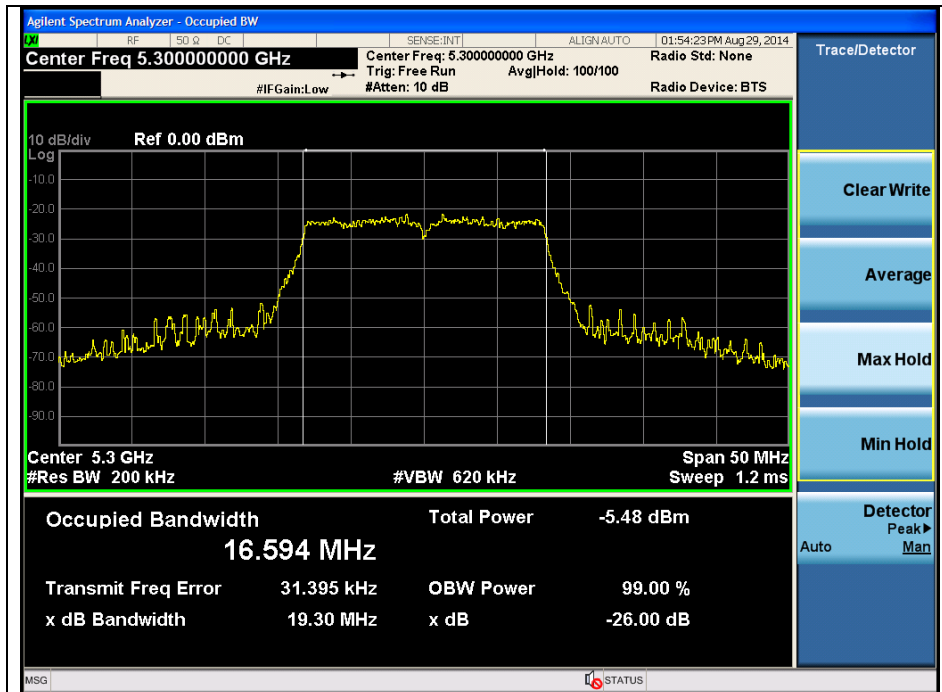
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802.11a (Band 2A)

Low Channel (5 260 MHz)

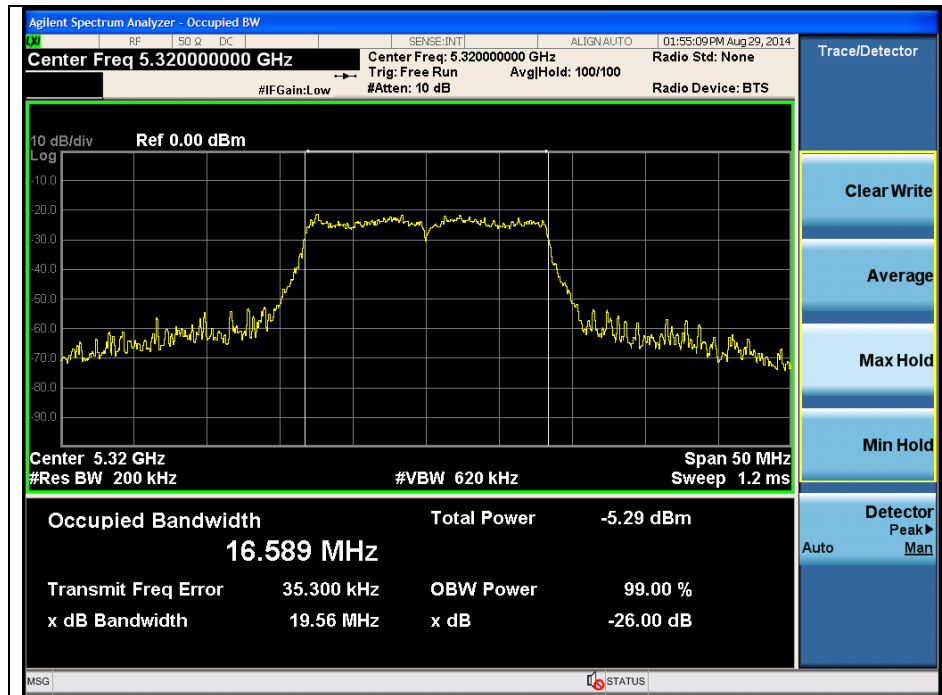


Middle Channel (5 300 MHz)



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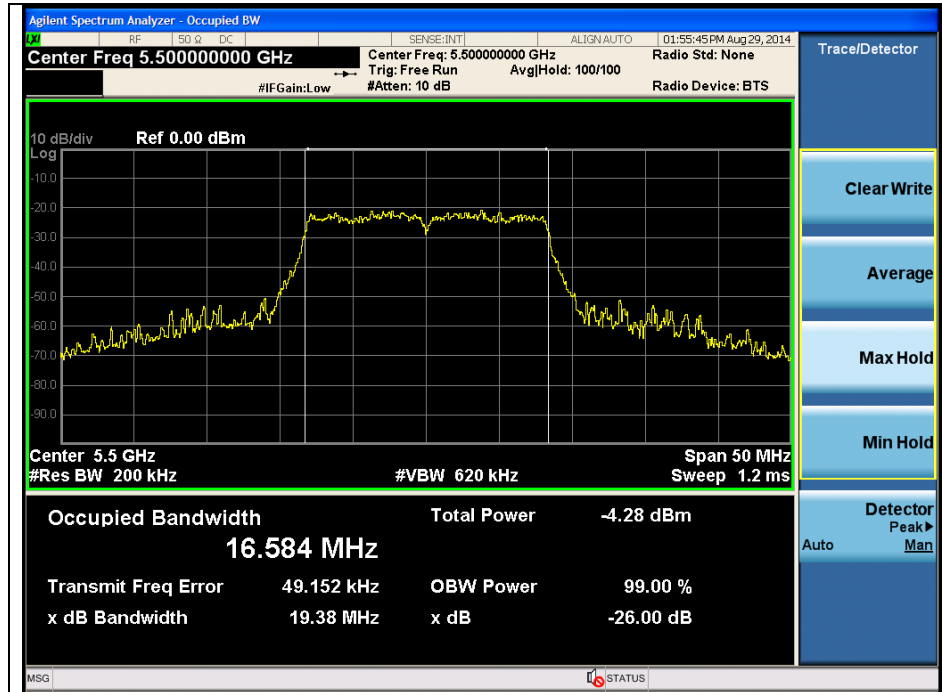
High Channel (5 320 MHz)



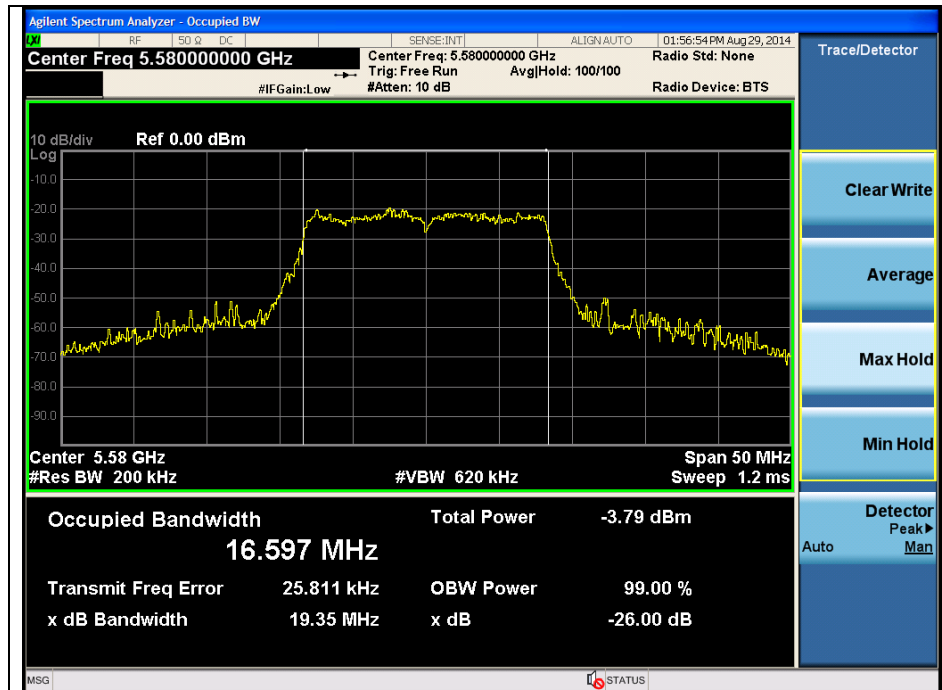
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802.11a (Band 2C)

Low Channel (5 500 MHz)

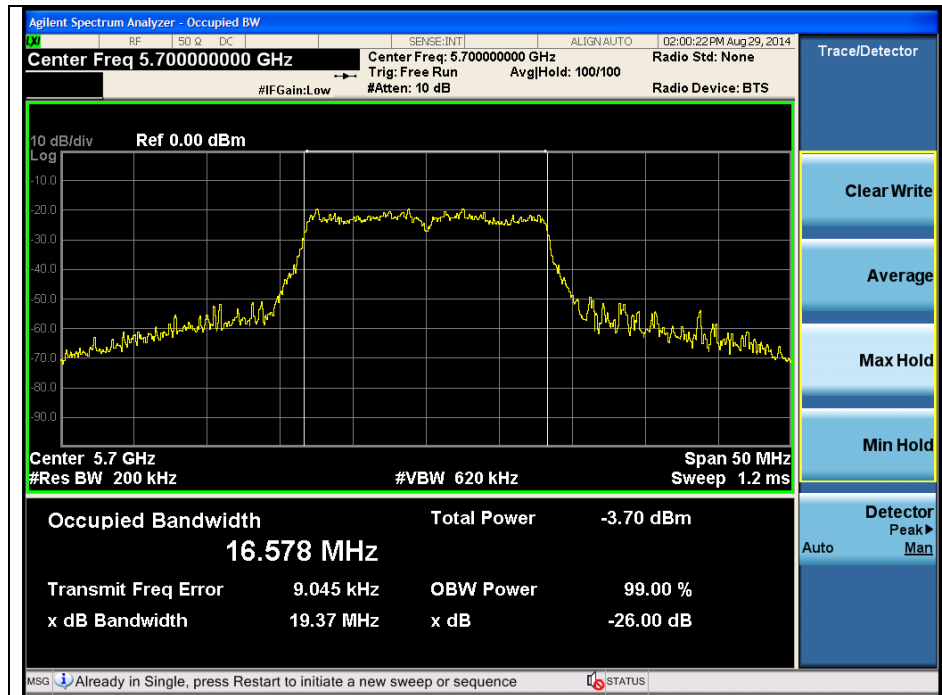


Middle Channel (5 580 MHz)



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High Channel (5 700 MHz)



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4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 435-040

<http://www.sgsgroup.kr>

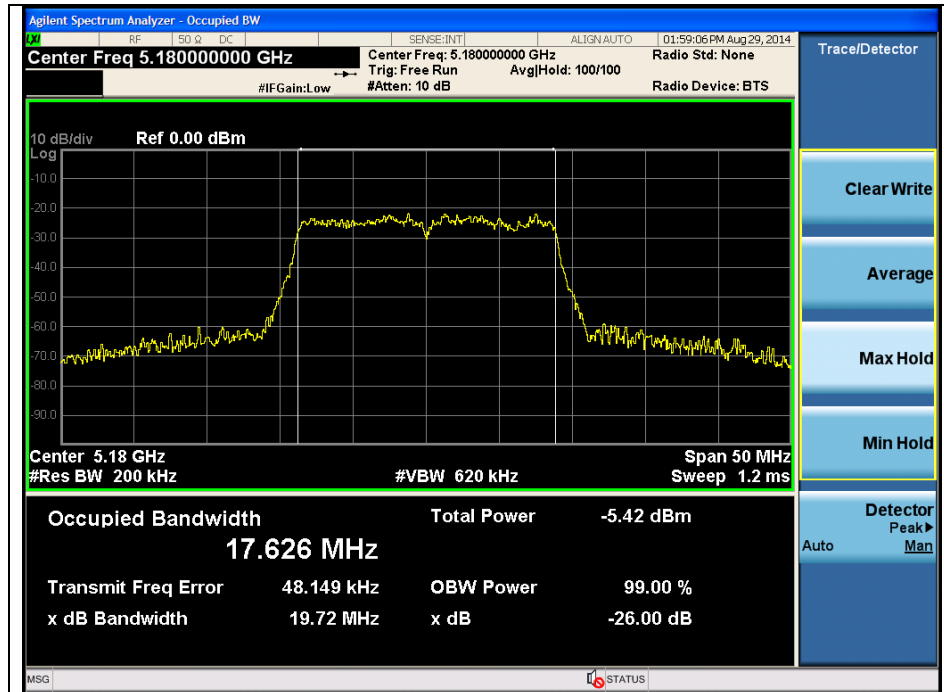
RTT5041-20(2014.01.20)(2)

Tel. +82 31 428 5700 / Fax. +82 31 427 2370

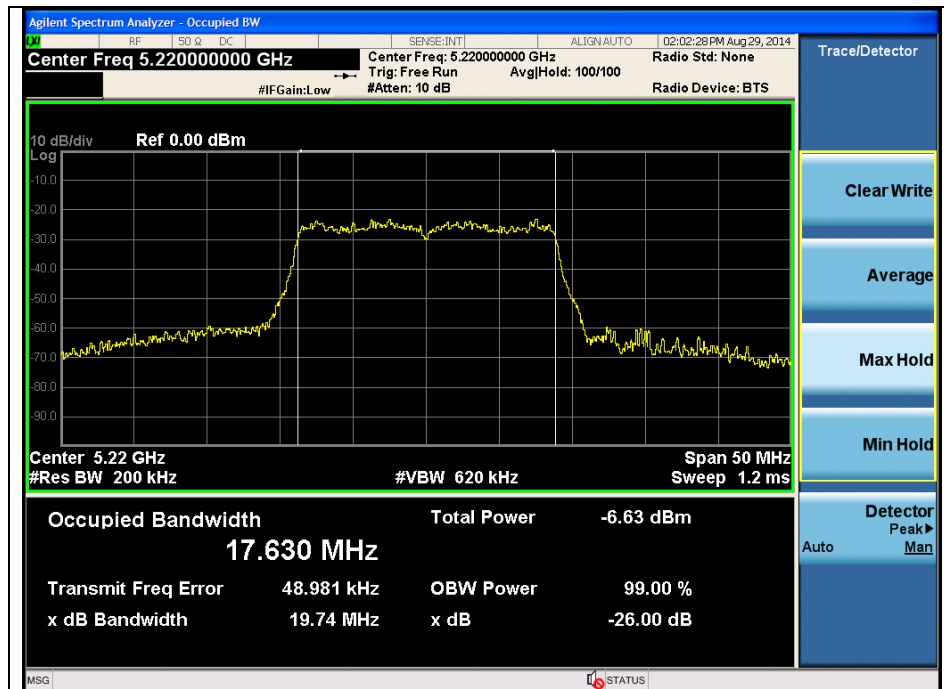
A4(210 mm x 297 mm)

802.11n_HT20 (Band 1)

Low Channel (5 180 MHz)

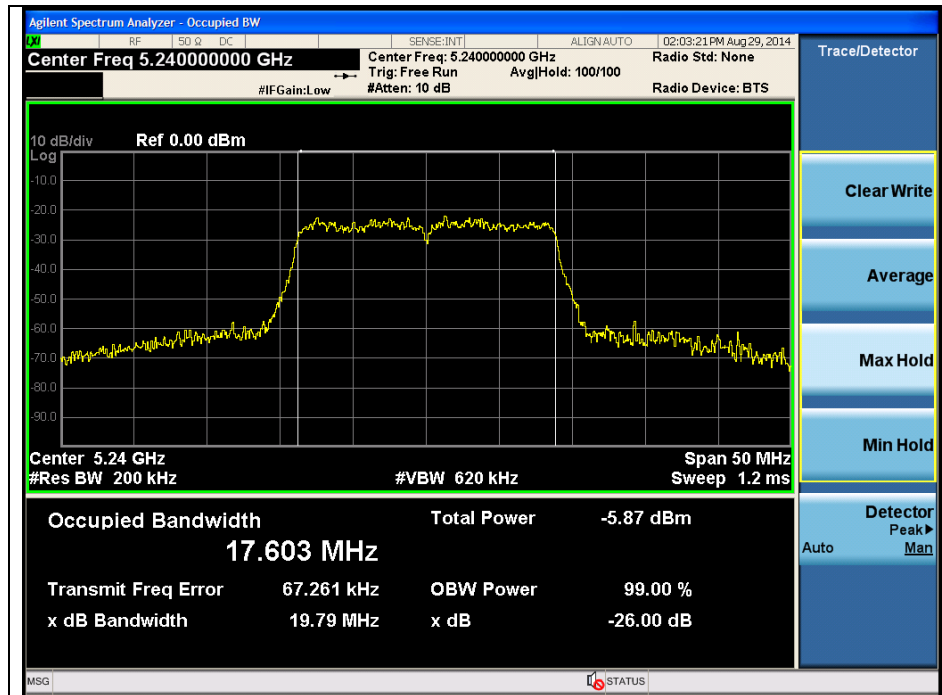


Middle Channel (5 220 MHz)



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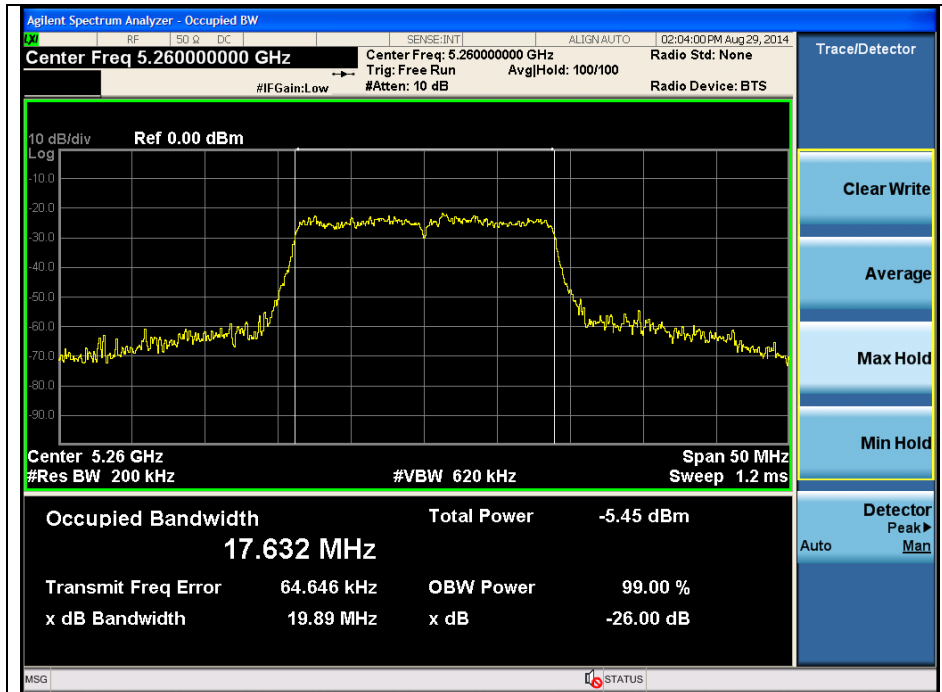
High Channel (5 240 MHz)



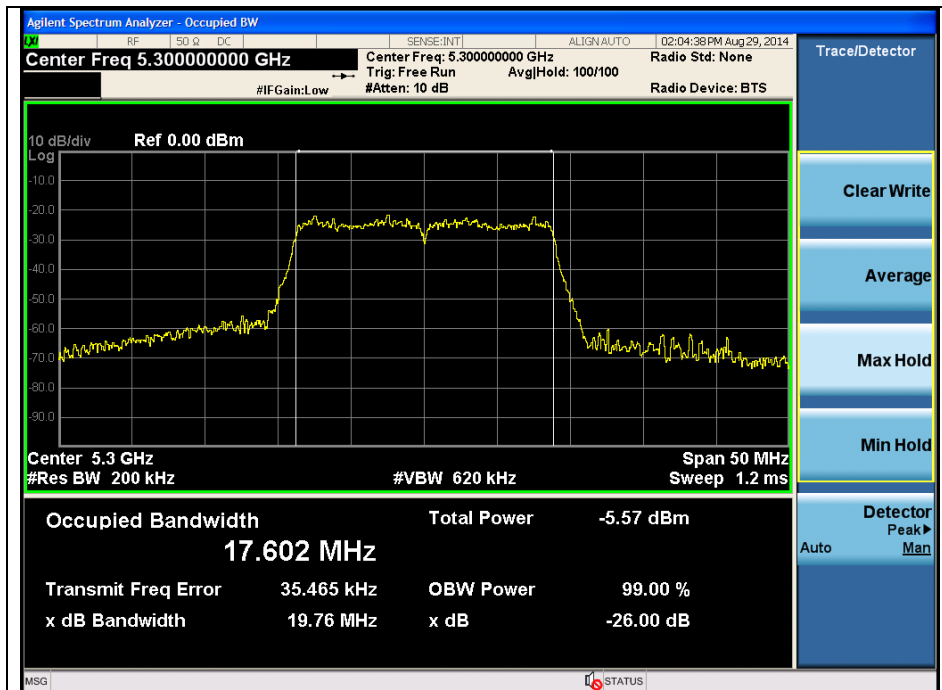
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802.11n_HT20 (Band 2A)

Low Channel (5 260 MHz)

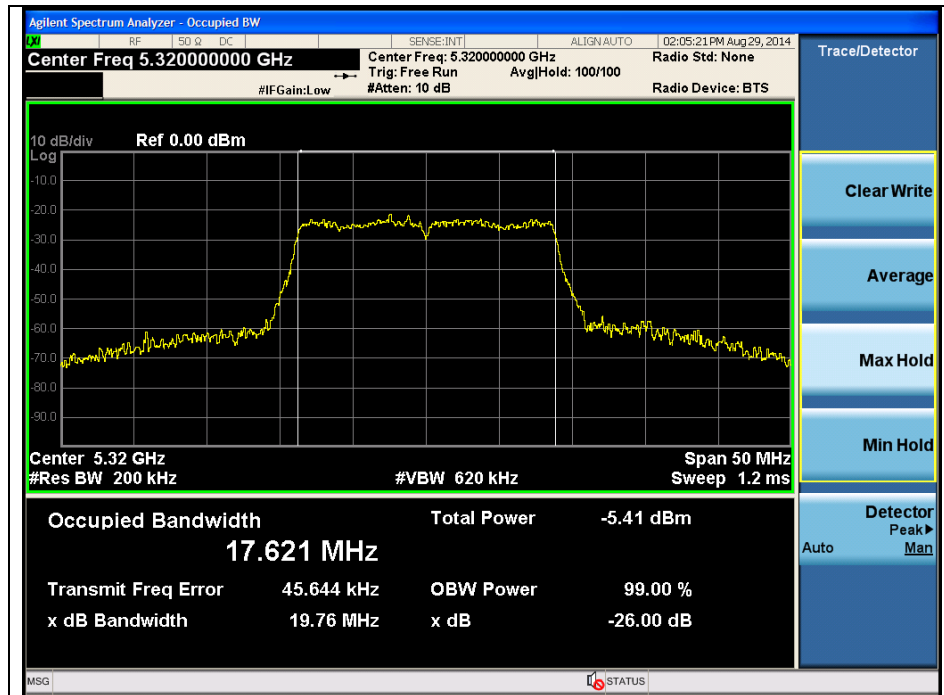


Middle Channel (5 300 MHz)



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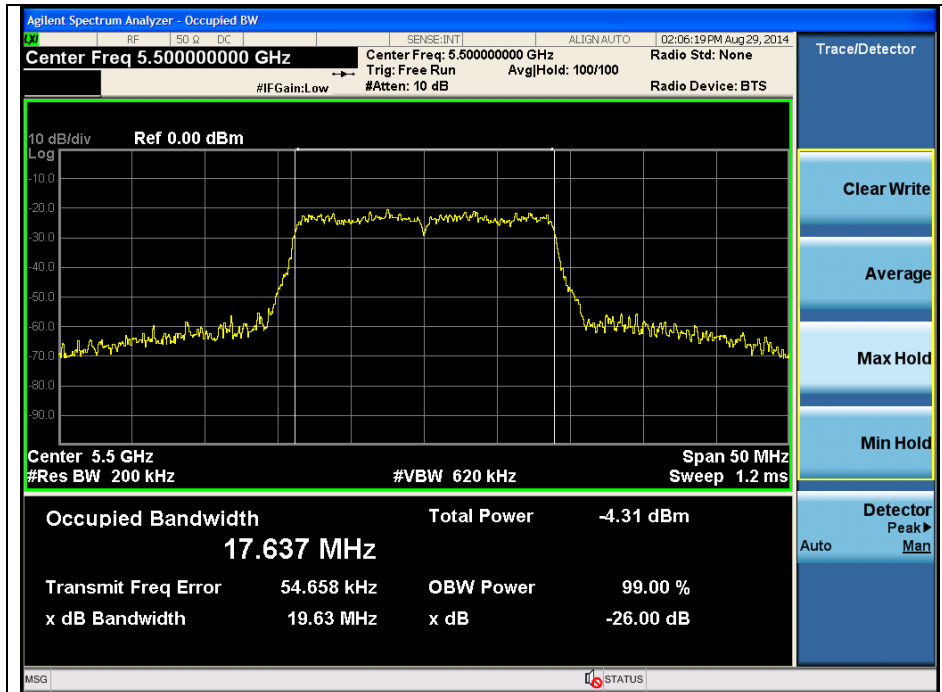
High Channel (5 320 MHz)



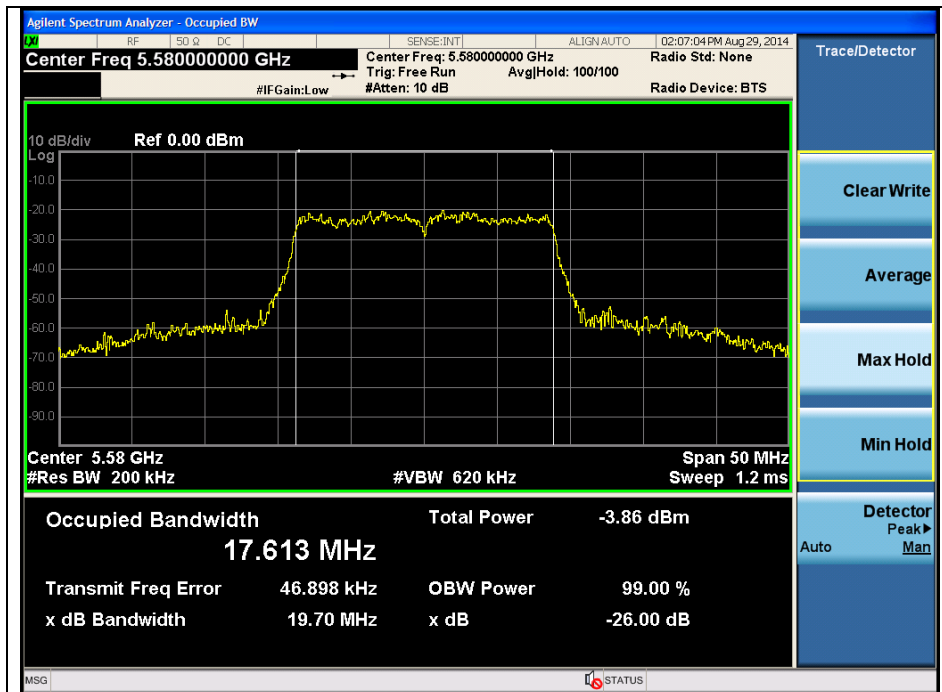
The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.

802.11n_HT20 (Band 2C)

Low Channel (5 500 MHz)

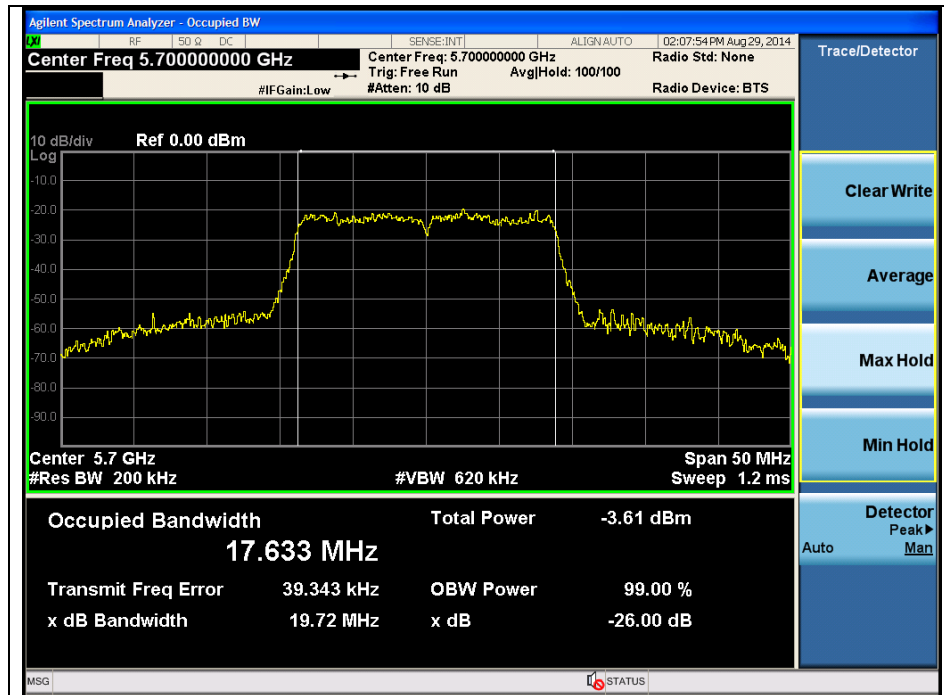


Middle Channel (5 580 MHz)



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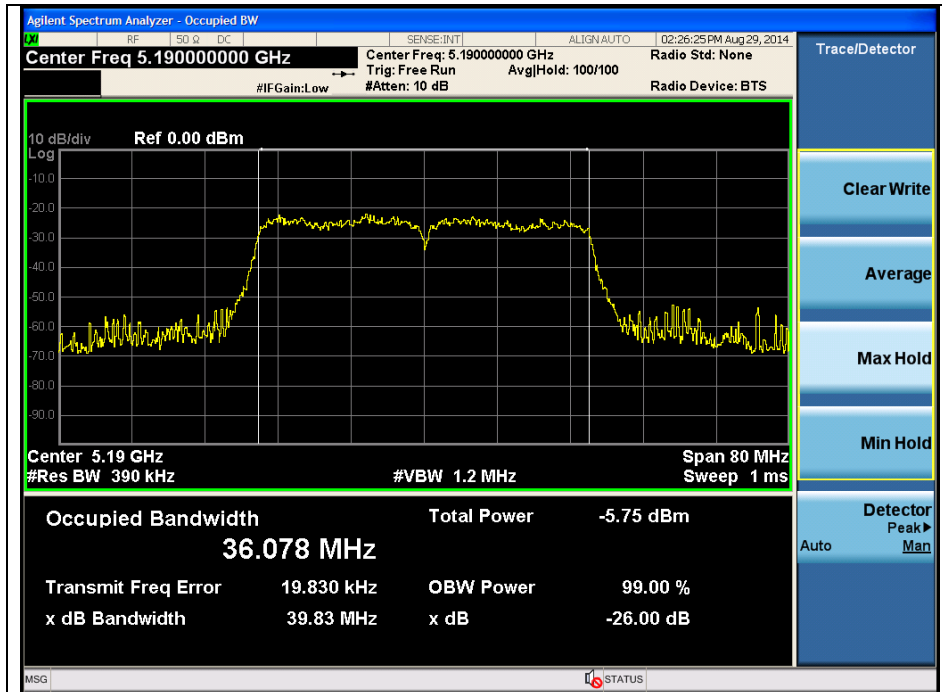
High Channel (5 700 MHz)



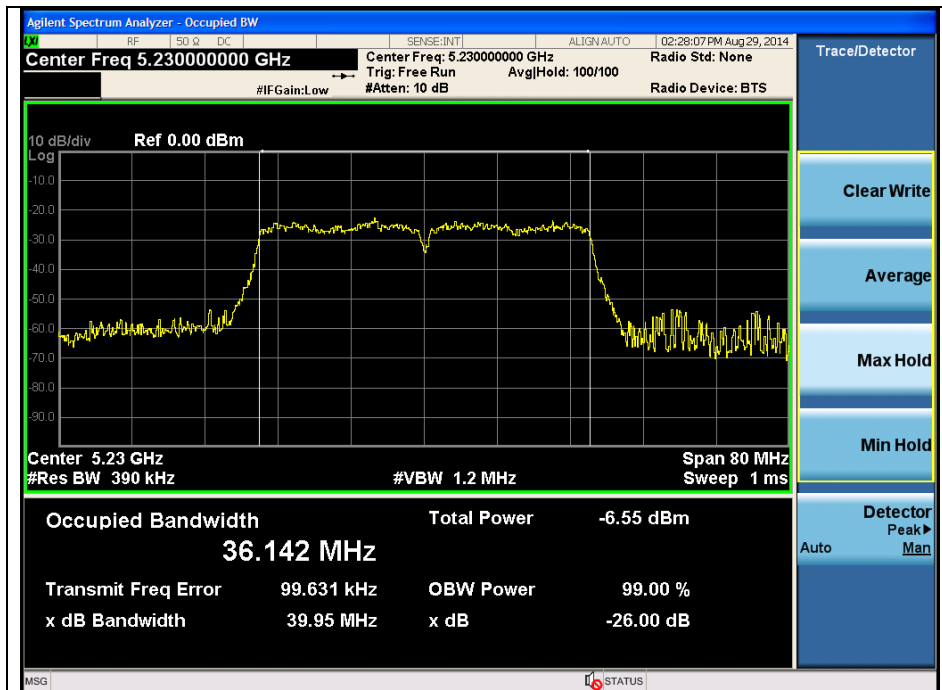
The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.

802.11n_HT40 (Band 1)

Low Channel (5 190 MHz)



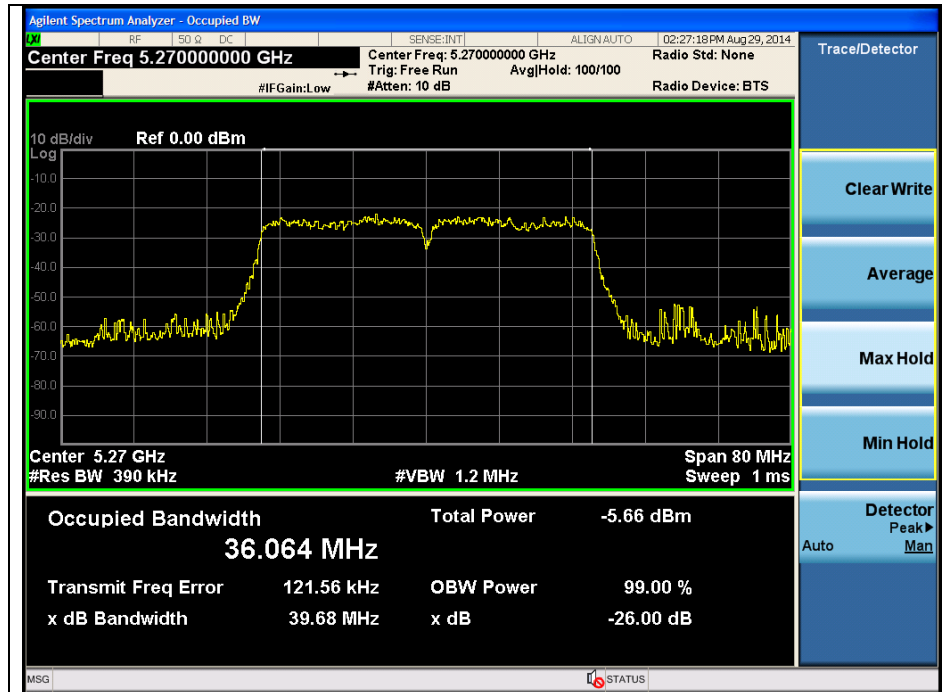
High Channel (5 230 MHz)



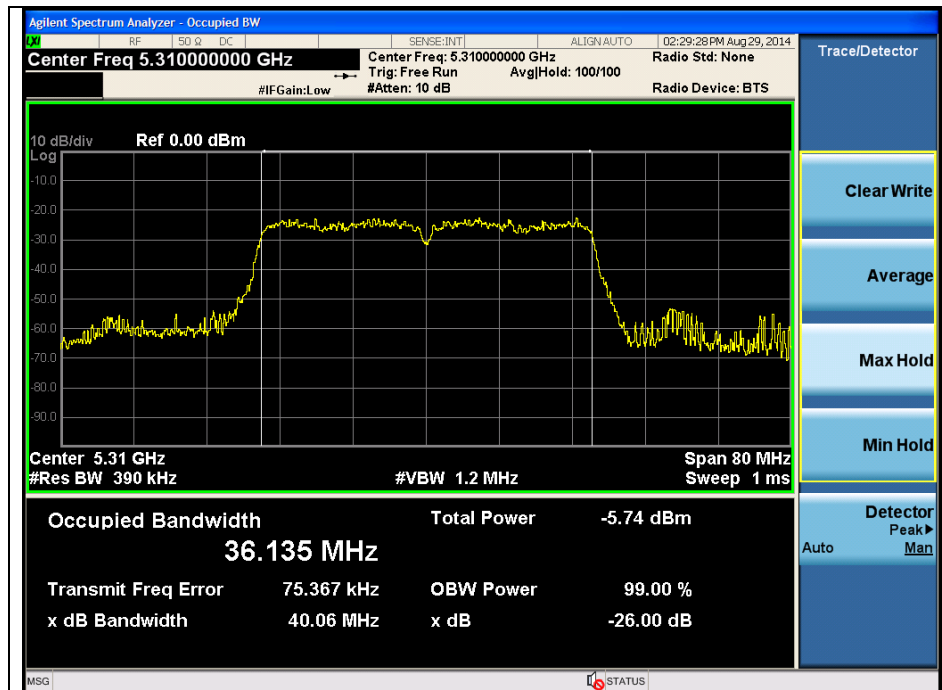
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802.11n_HT40 (Band 2A)

Low Channel (5 270 MHz)



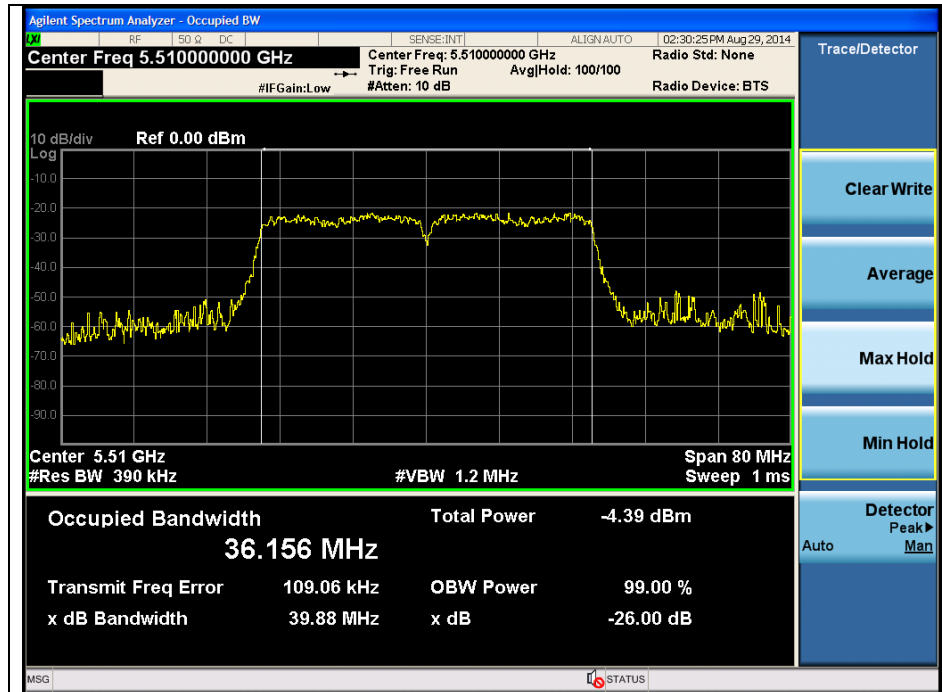
High Channel (5 310 MHz)



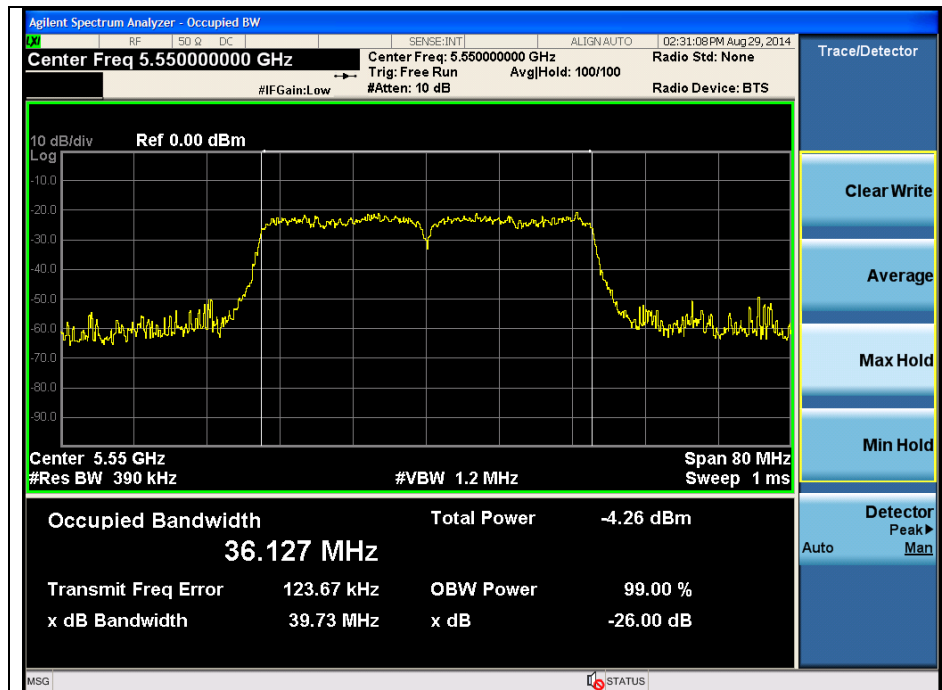
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802.11n_HT40 (Band 2C)

Low Channel (5 510 MHz)

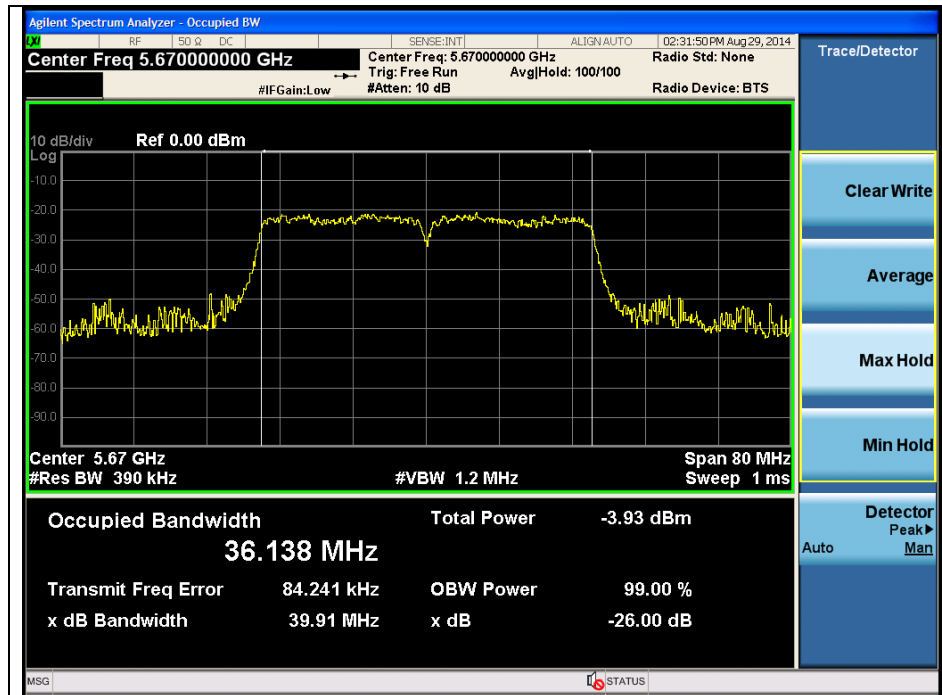


Low Channel (5 550 MHz)



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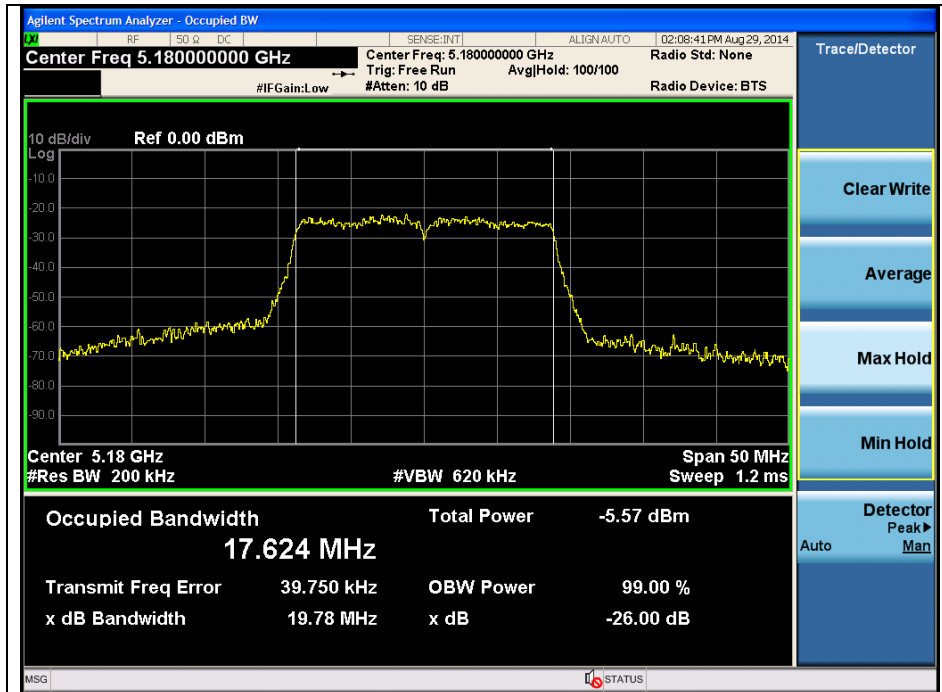
High Channel (5 670 MHz)



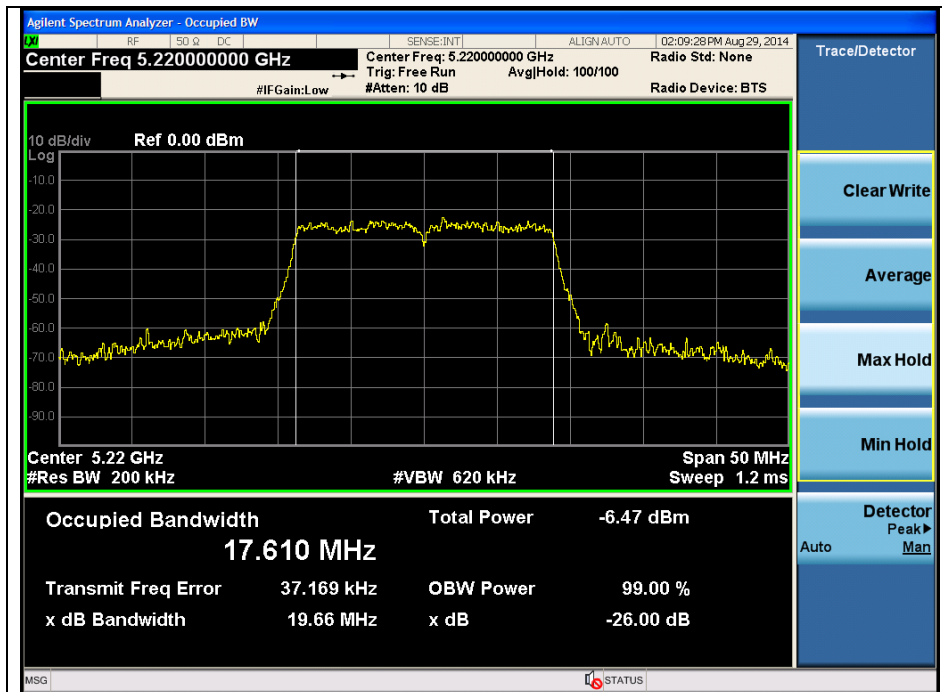
The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.

802.11ac_VHT20 (Band 1)

Low Channel (5 180 MHz)

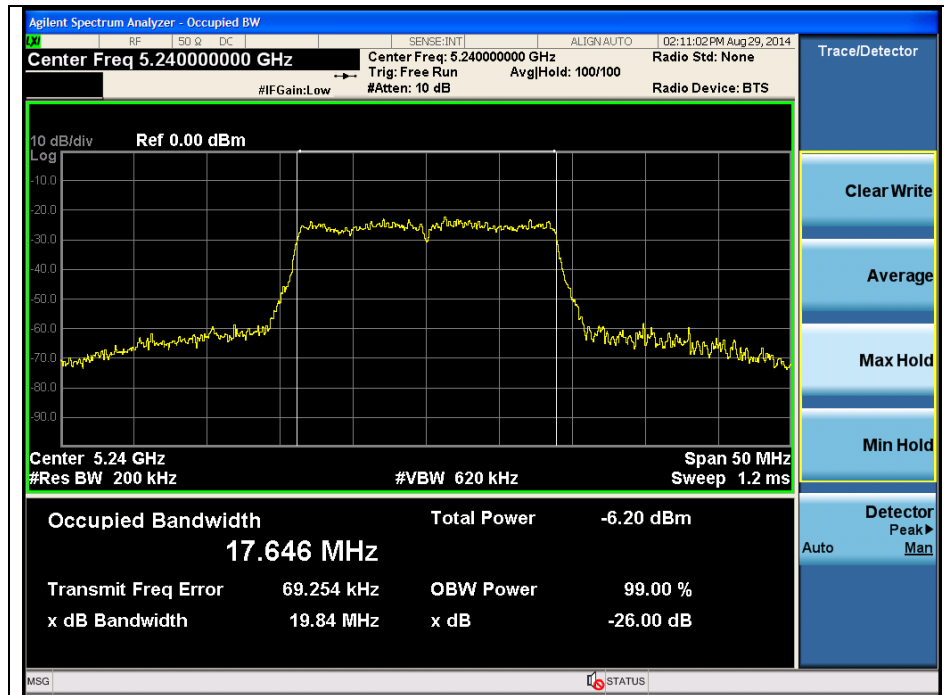


Middle Channel (5 220 MHz)



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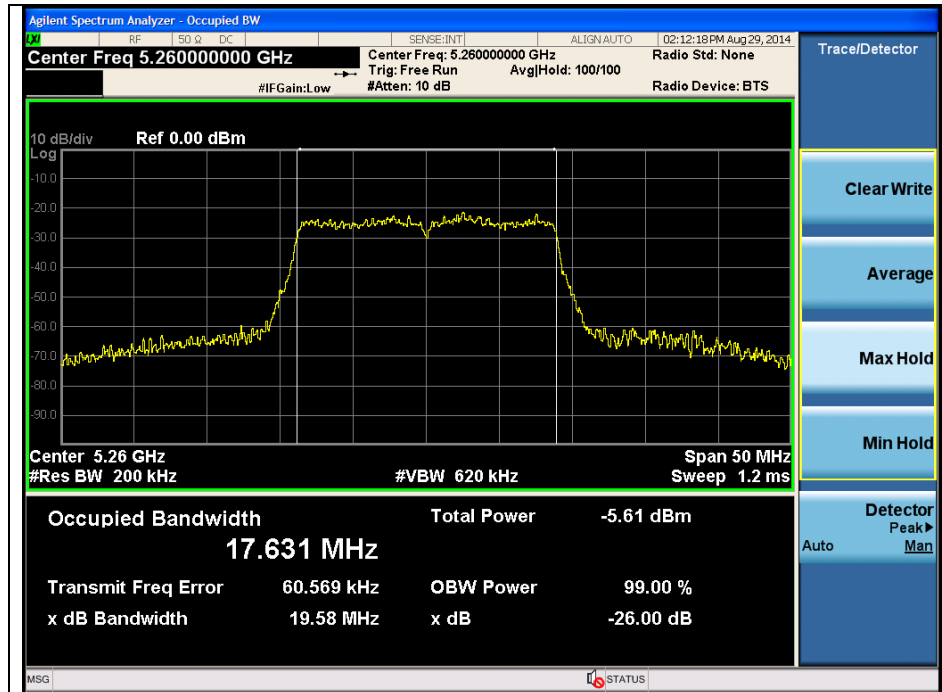
High Channel (5 240 MHz)



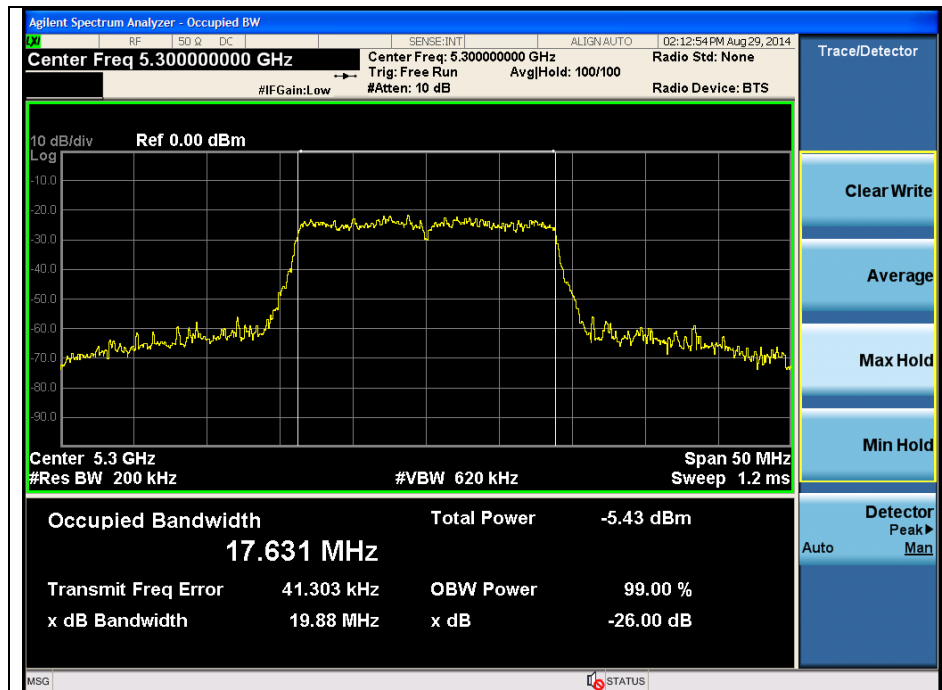
The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.

802.11ac_VHT20 (Band 2A)

Low Channel (5 260 MHz)

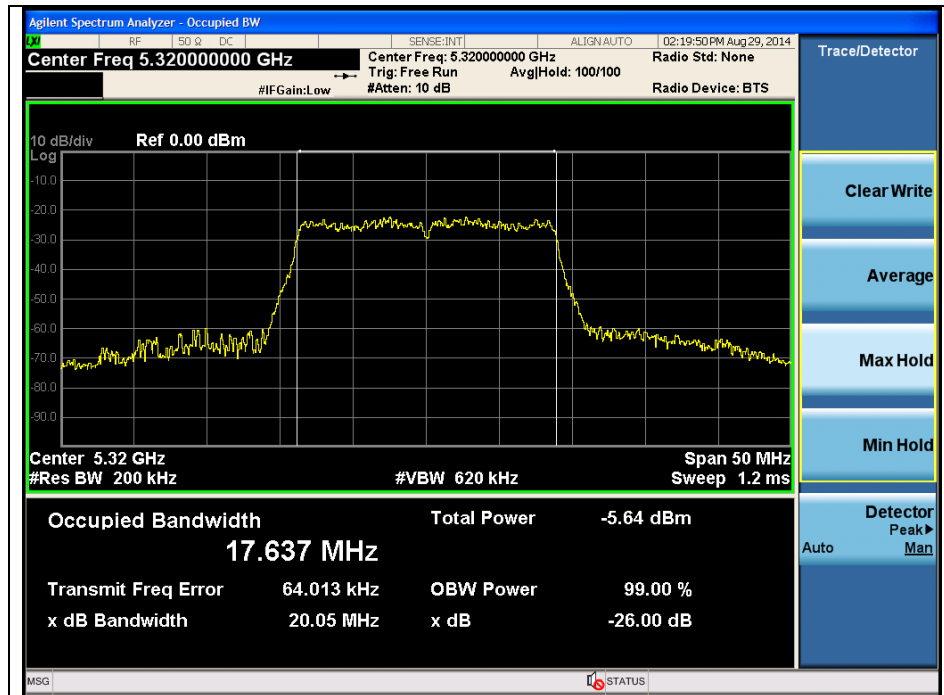


Middle Channel (5 300 MHz)



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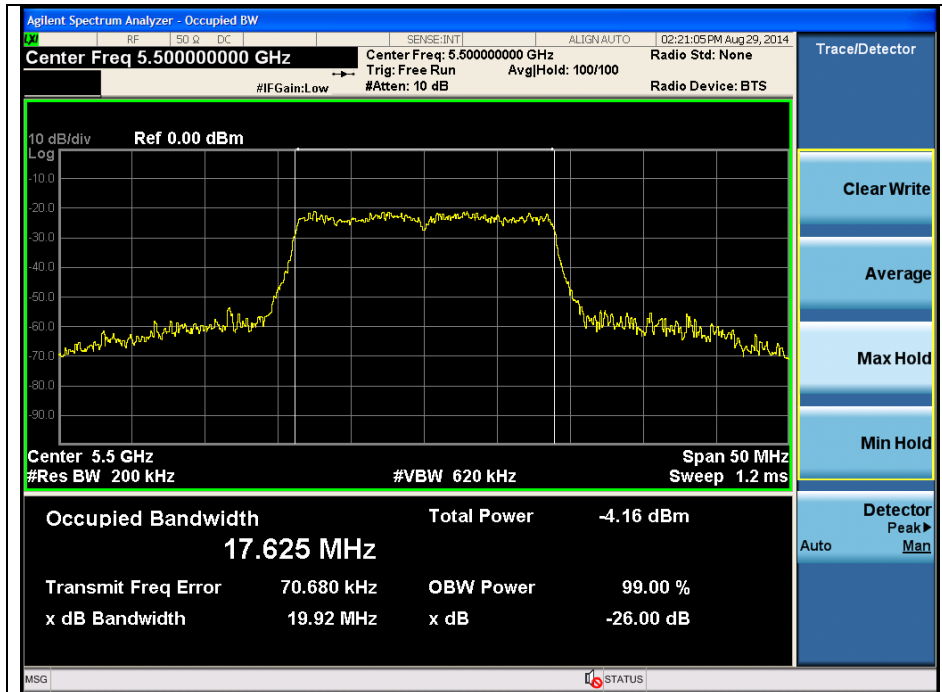
High Channel (5 320 MHz)



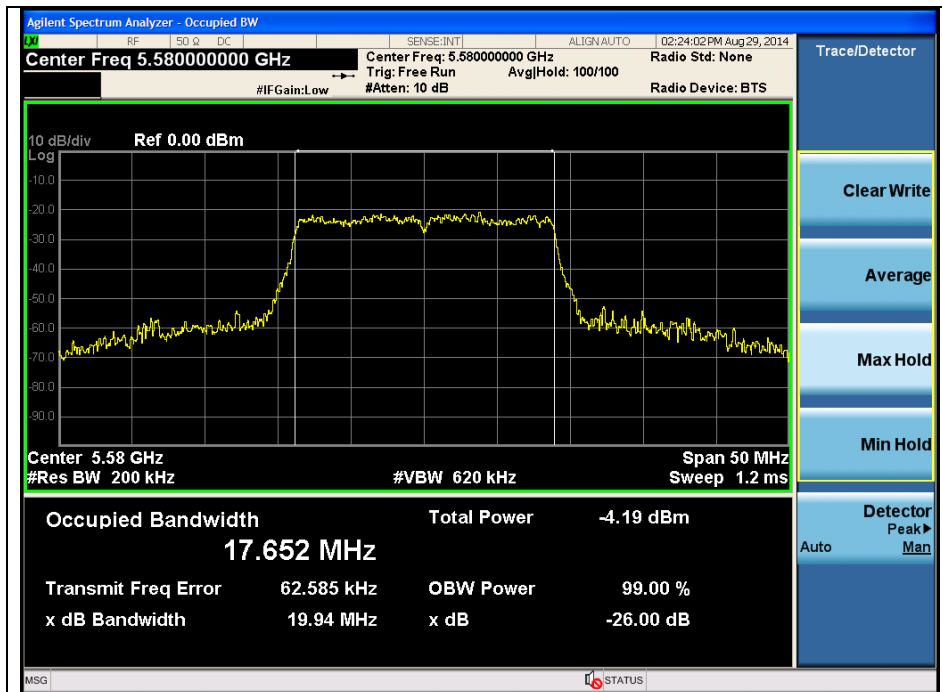
The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.

802.11ac_VHT20 (Band 2C)

Low Channel (5 500 MHz)

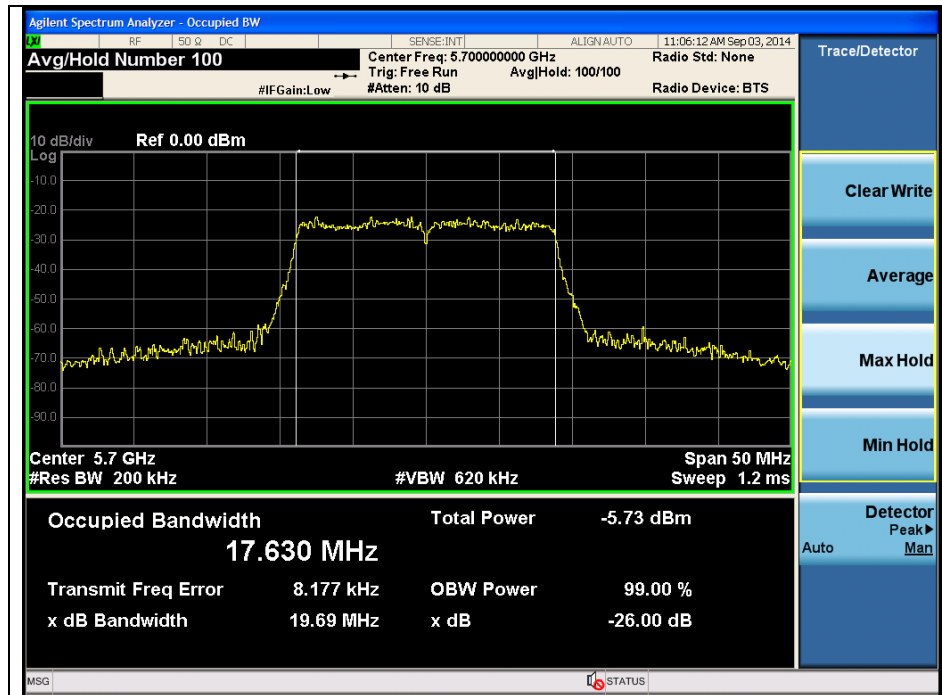


Middle Channel (5 580 MHz)



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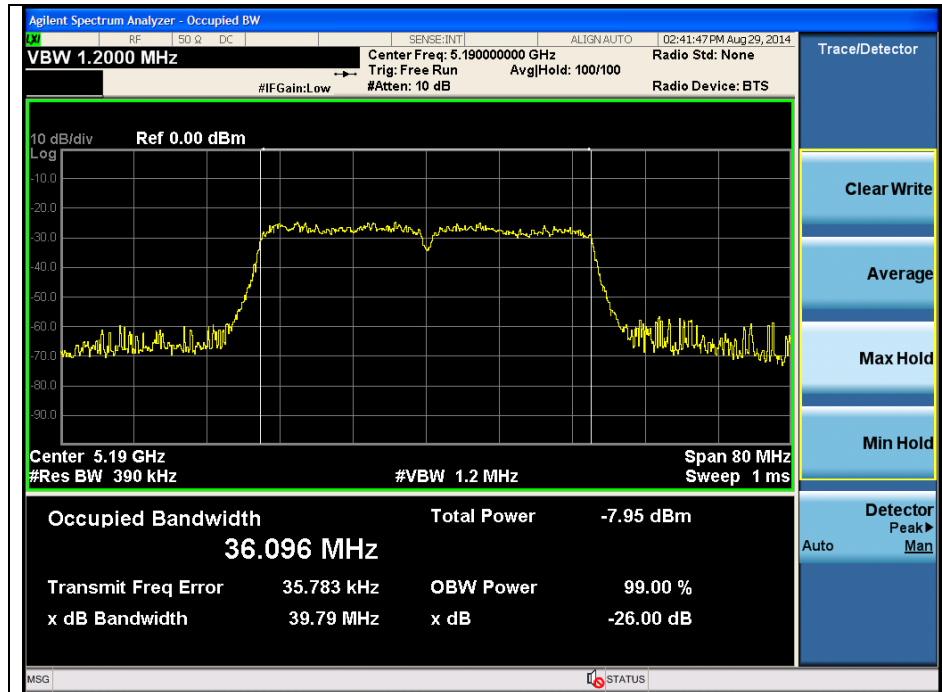
High Channel (5 700 MHz)



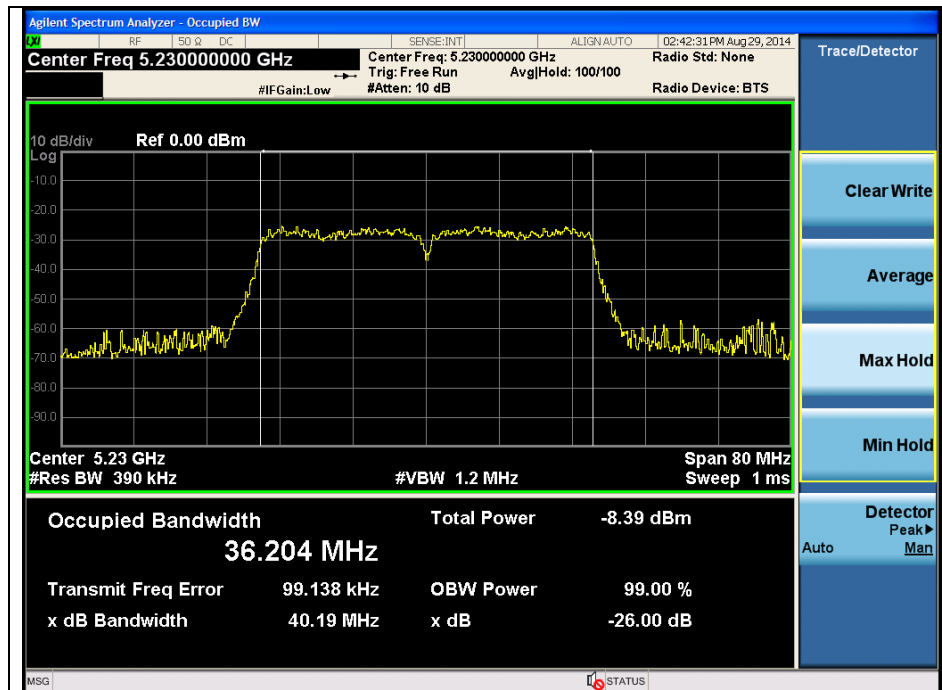
The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.

802.11ac_VHT40 (Band 1)

Low Channel (5 190 MHz)



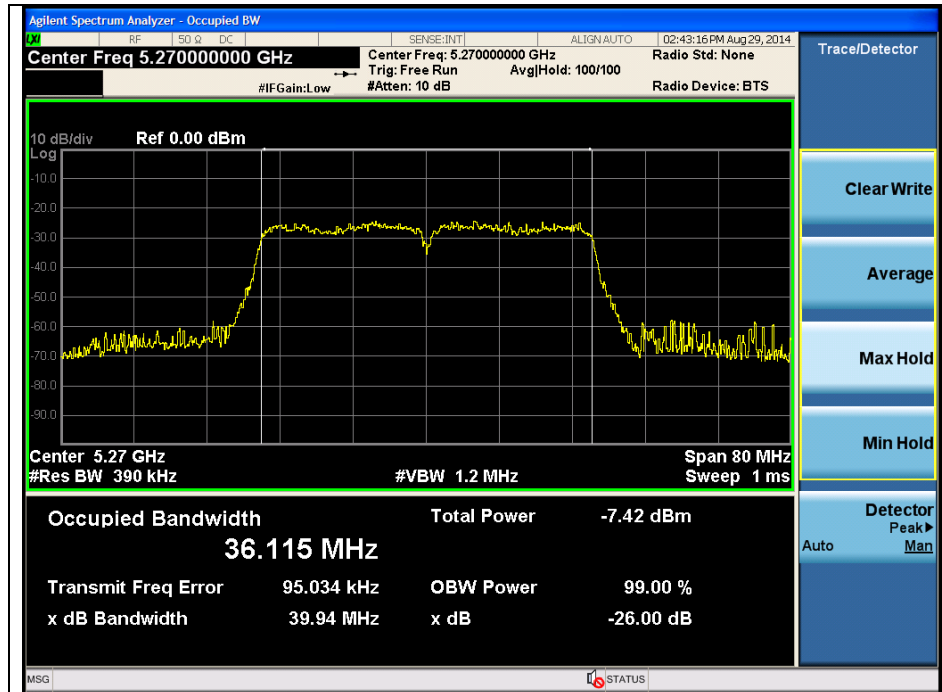
High Channel (5 230 MHz)



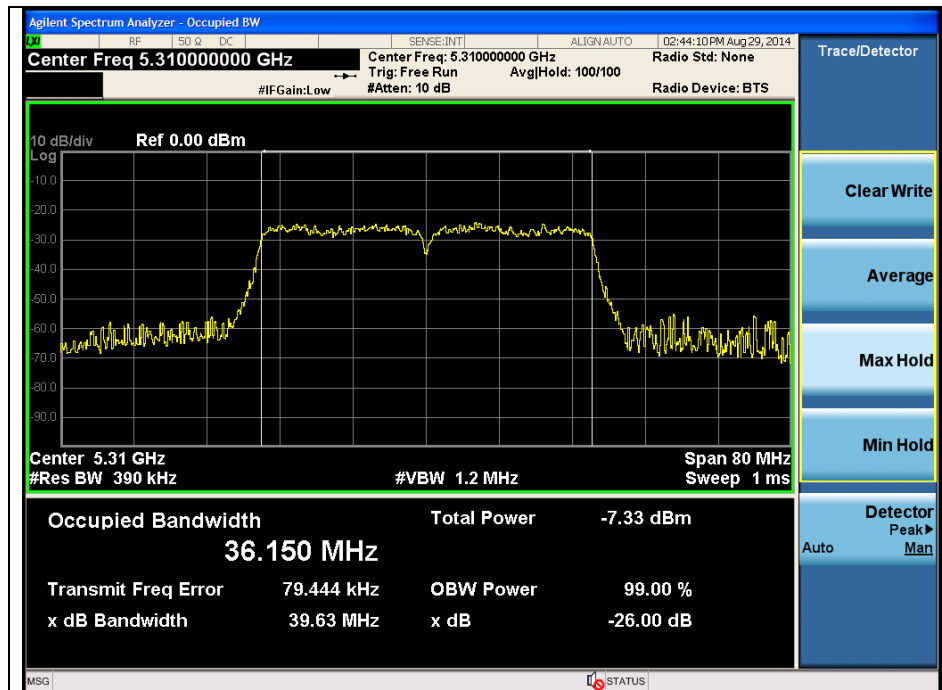
The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.

802.11ac_VHT40 (Band 2A)

Low Channel (5 270 MHz)



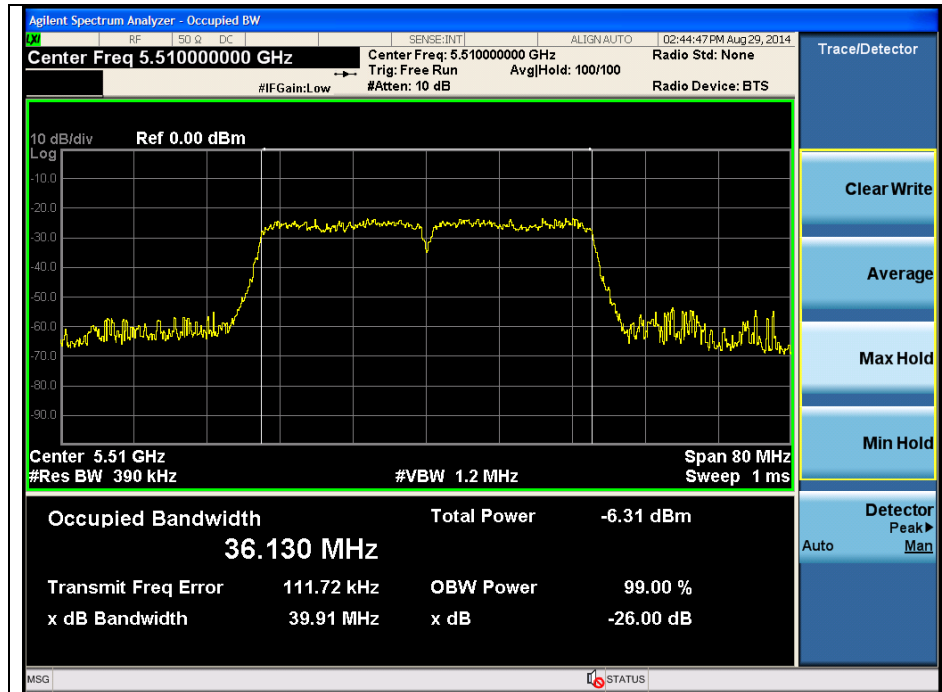
High Channel (5 310 MHz)



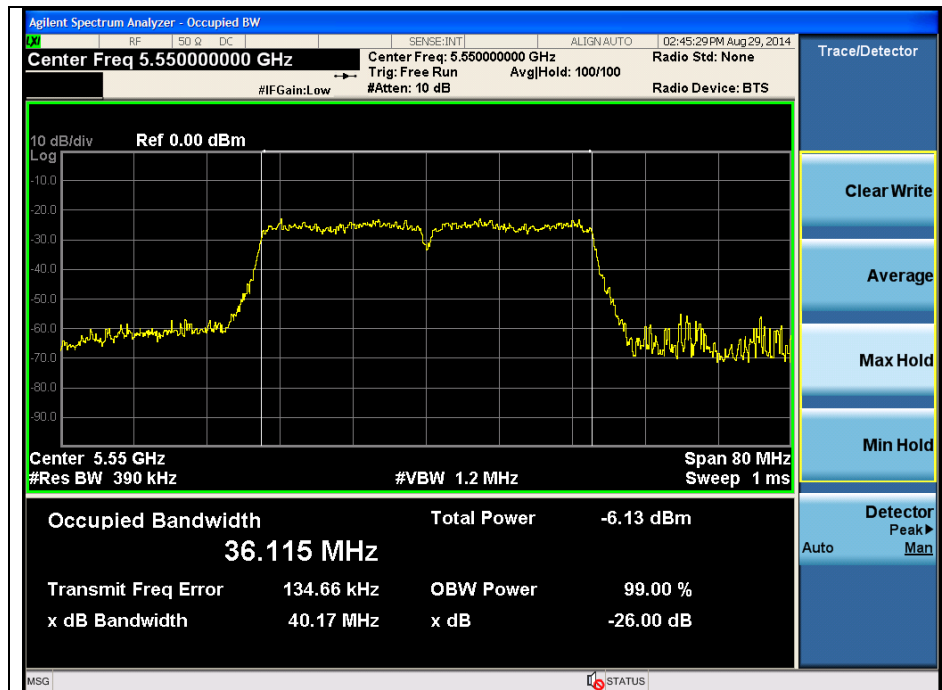
The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.

802.11ac_VHT40 (Band 2C)

Low Channel (5 510 MHz)

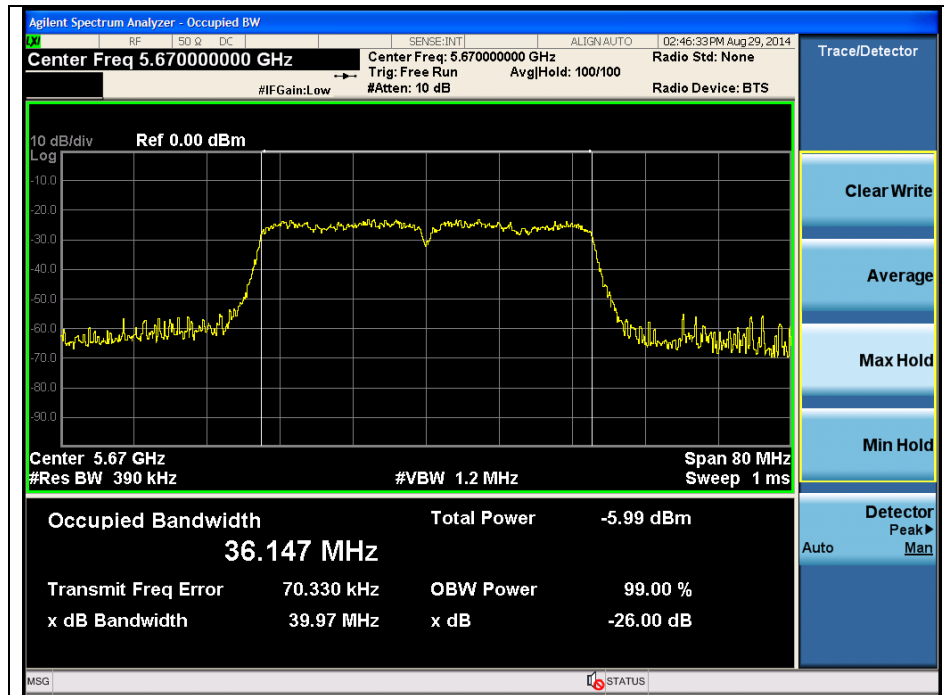


Low Channel (5 550 MHz)



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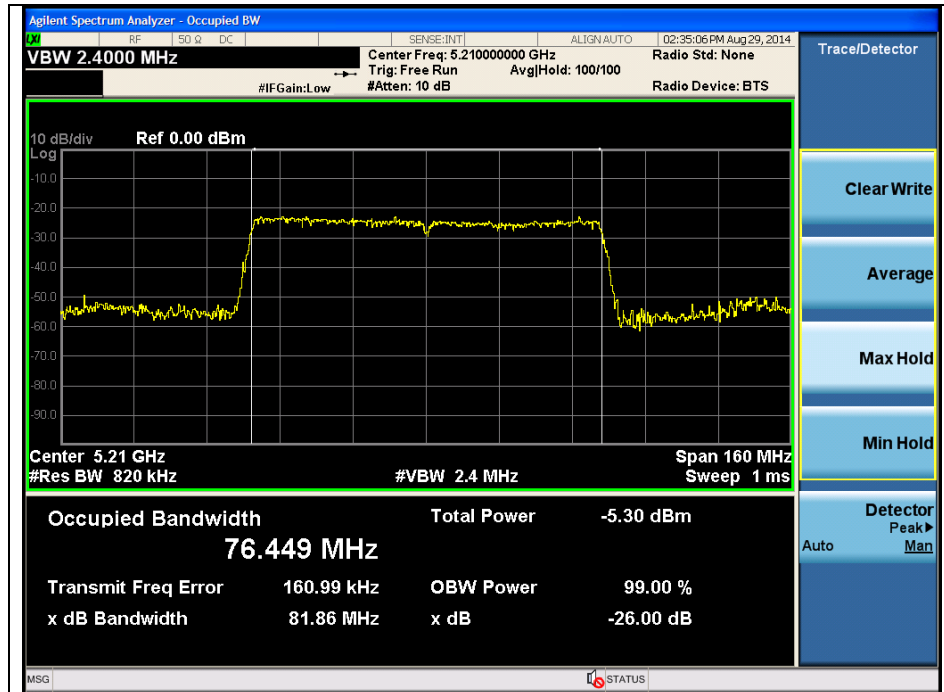
High Channel (5 670 MHz)



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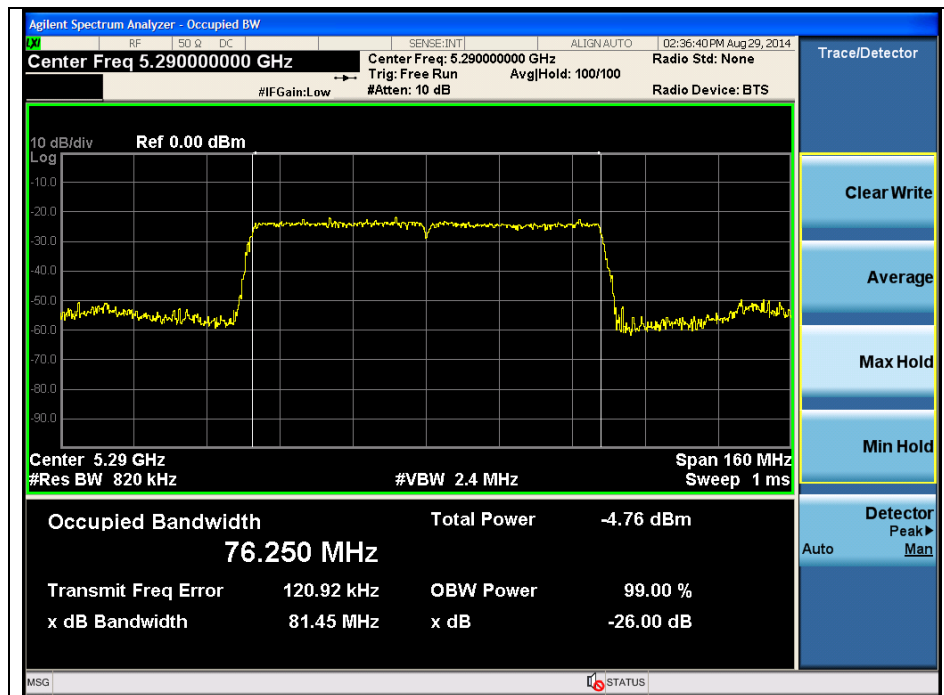
802.11ac_VHT80 (Band 1)

Middle Channel (5 210 MHz)



802.11ac_VHT80 (Band 2A)

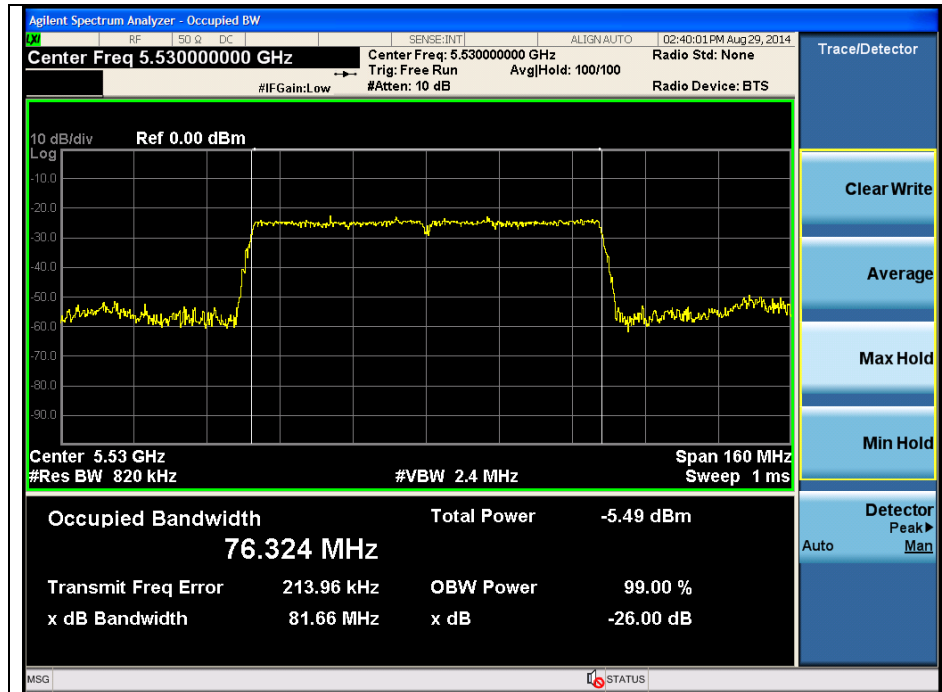
Middle Channel (5 290 MHz)



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802.11ac_VHT80 (Band 2C)

Middle Channel (5.530 MHz)

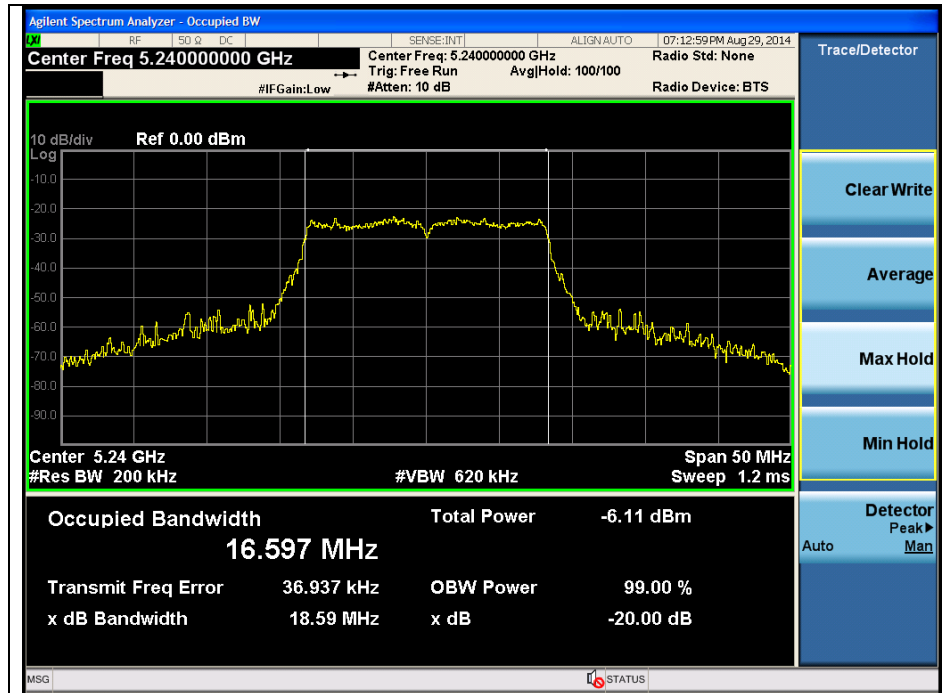


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20 dB Bandwidth

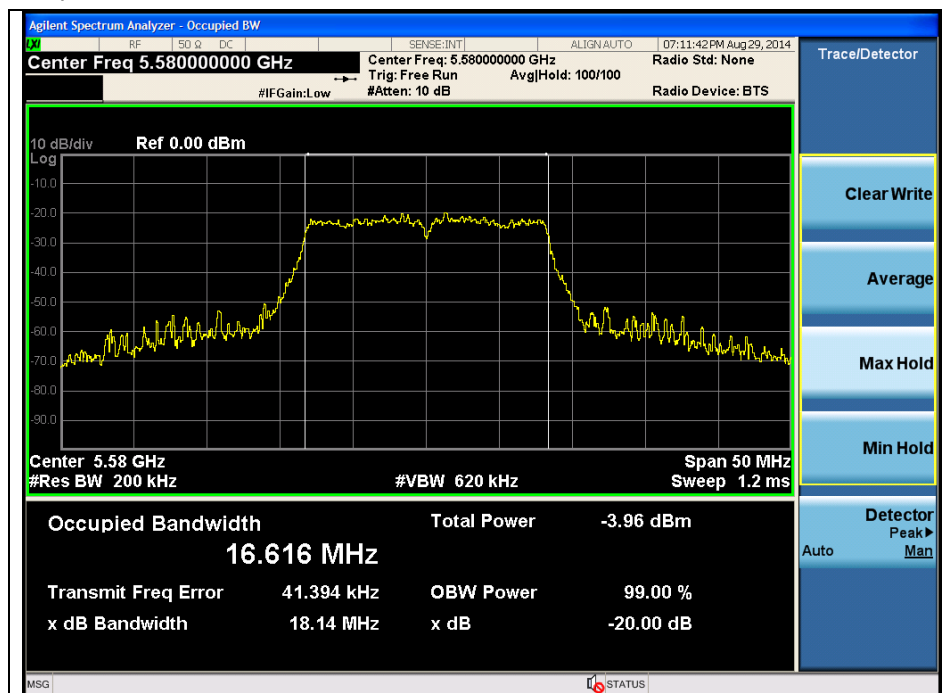
802.11a (Band 1)

Channel (5 240 MHz)



802.11a (Band 2A)

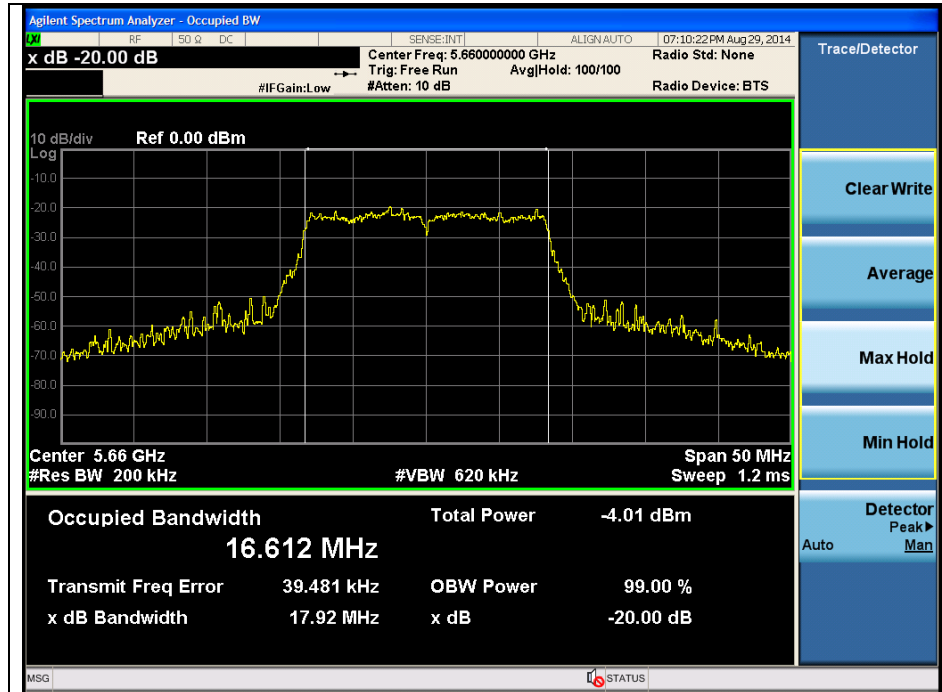
Channel (5 580 MHz)



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802.11a (Band 2C)

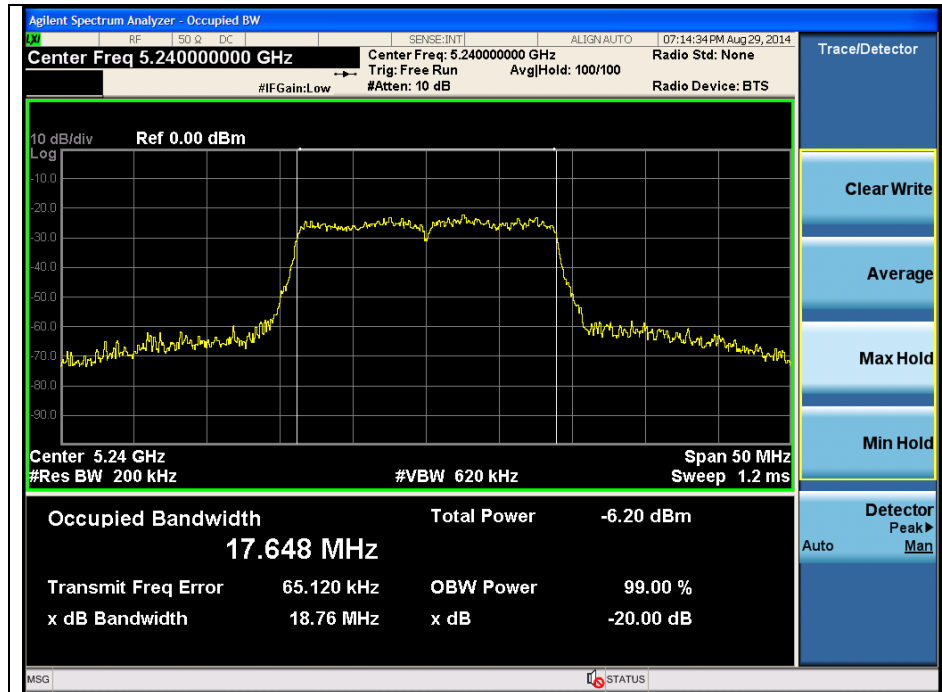
Channel (5 660 MHz)



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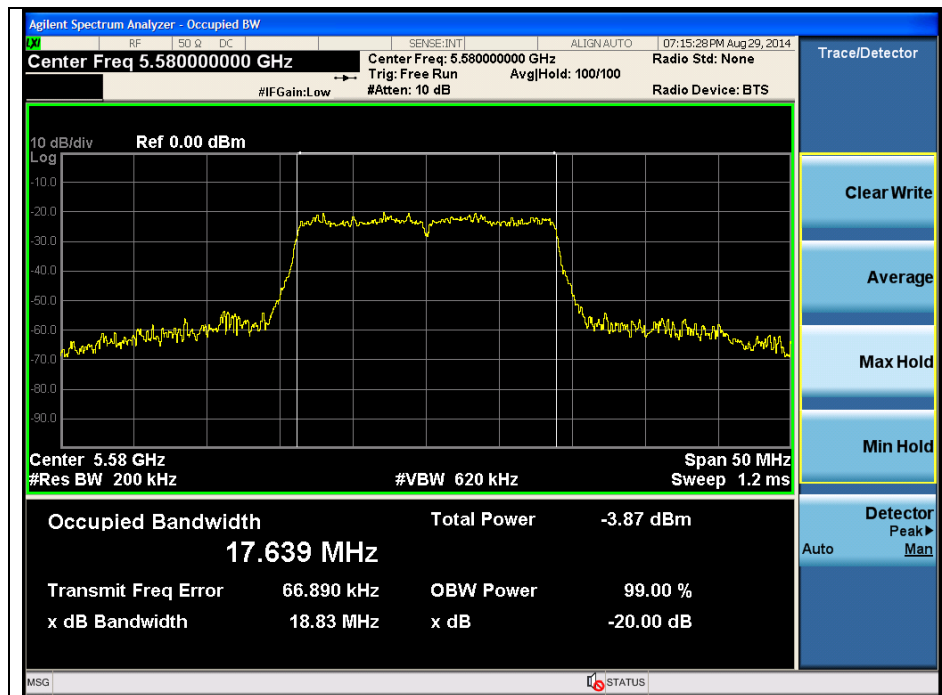
802.11n_HT20 (Band 1)

Channel (5 240 MHz)



802.11n_HT20 (Band 2A)

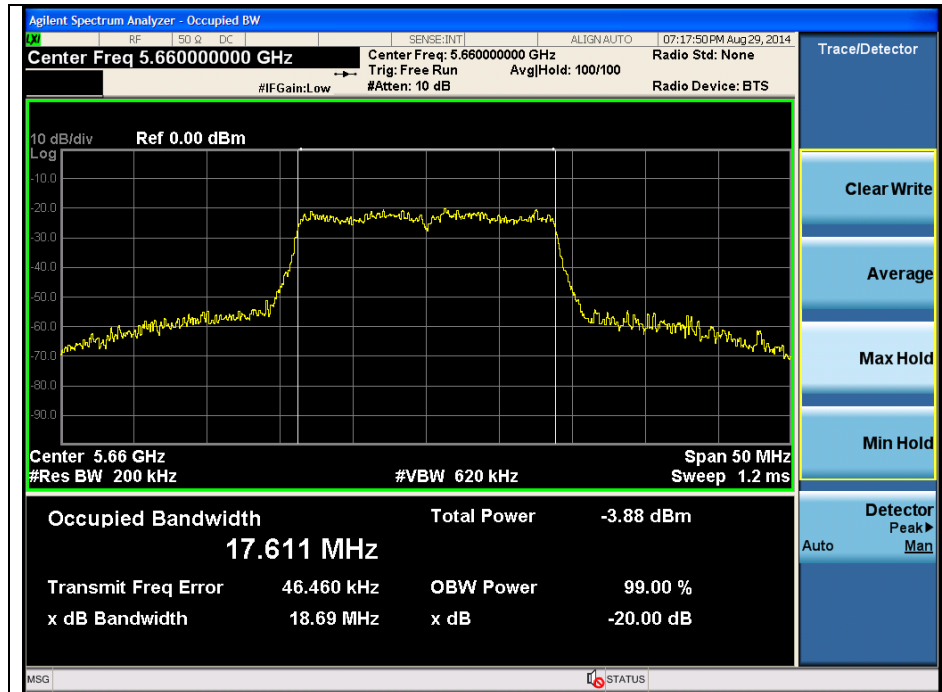
Channel (5 580 MHz)



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802.11n_HT20 (Band 2C)

Channel (5 660 MHz)



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SGS Korea Co., Ltd. (Gunpo Laboratory)

4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 435-040

<http://www.sgsgroup.kr>

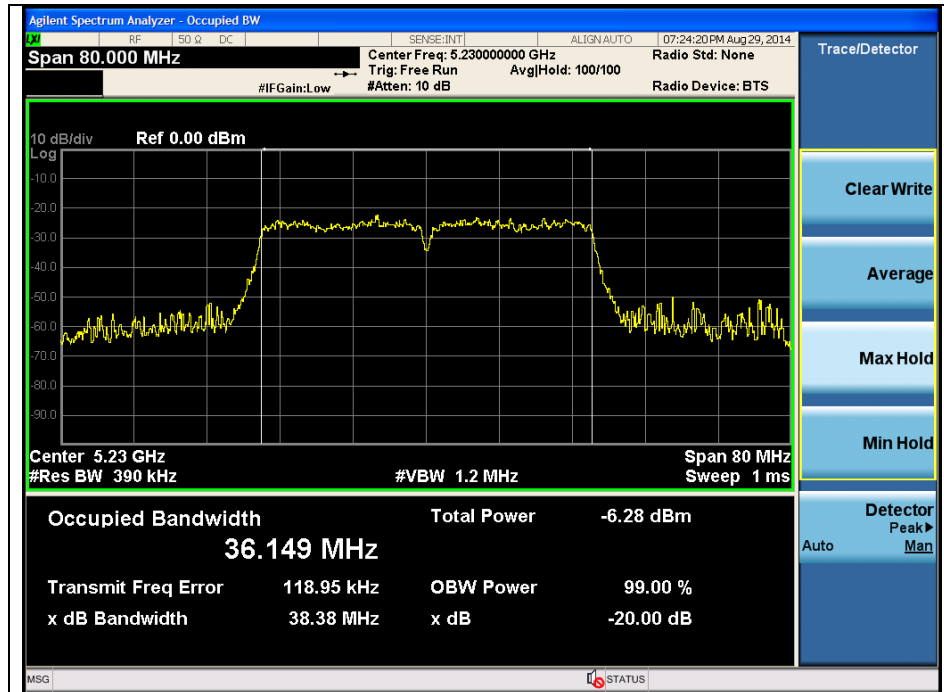
RTT5041-20(2014.01.20)(2)

Tel. +82 31 428 5700 / Fax. +82 31 427 2370

A4(210 mm x 297 mm)

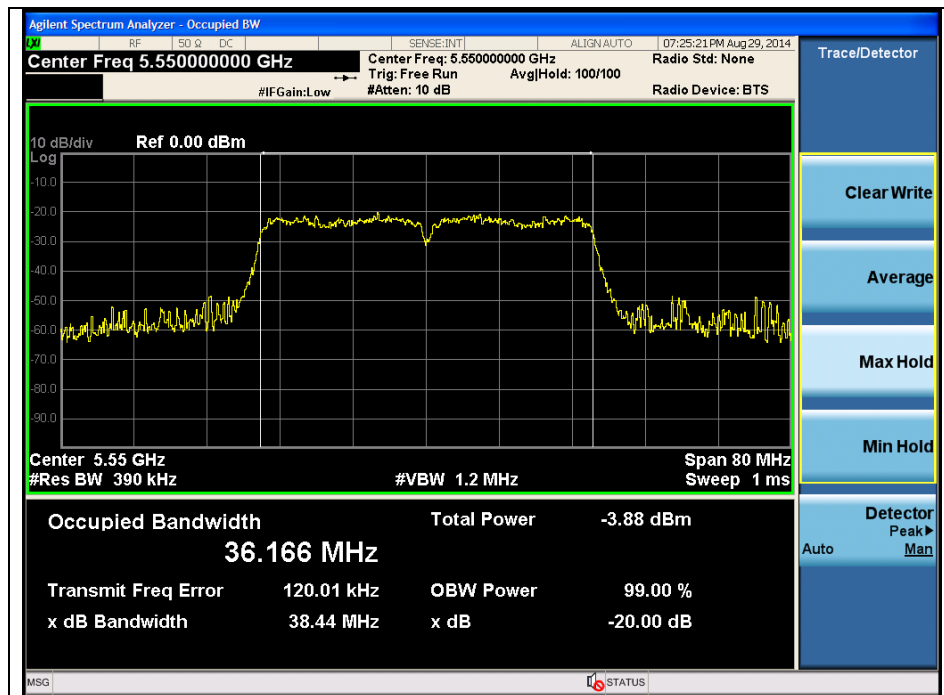
802.11n_HT40 (Band 1)

Channel (5 230 MHz)



802.11n_HT40 (Band 2A)

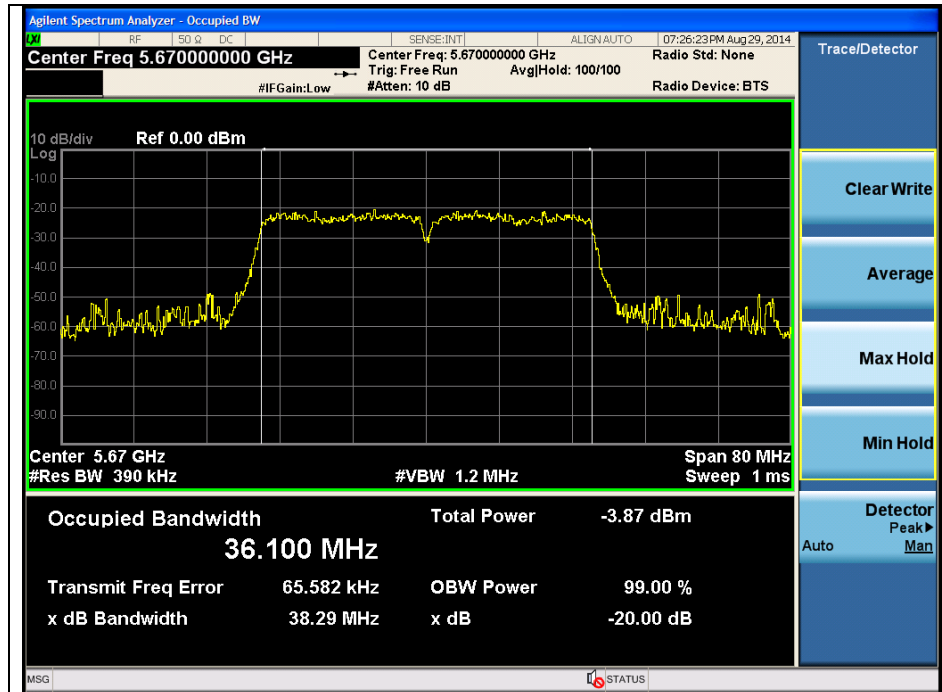
Channel (5 550 MHz)



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802.11n_HT40 (Band 2C)

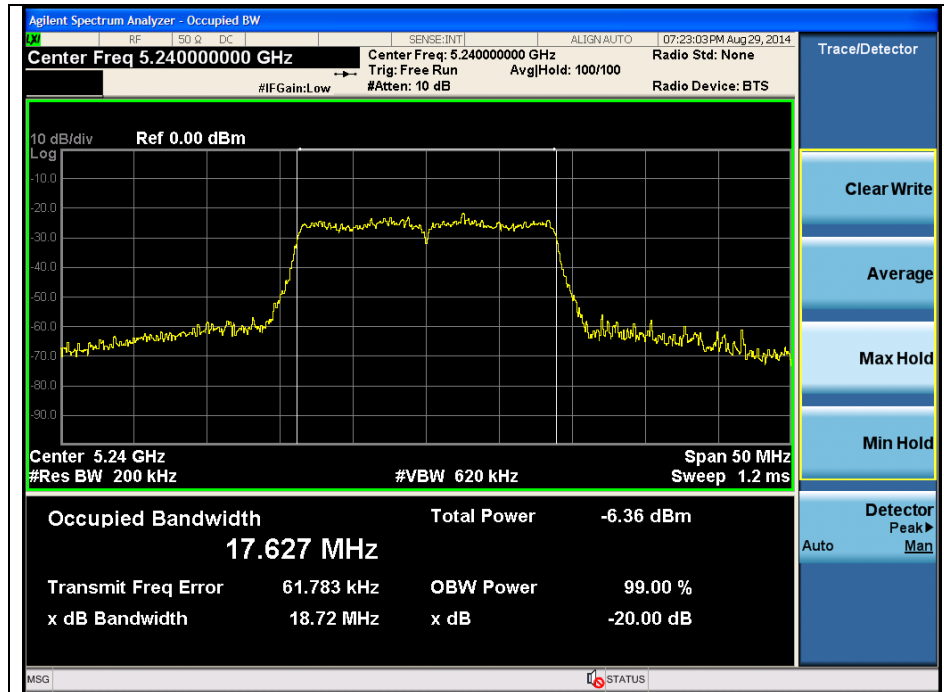
Channel (5 670 MHz)



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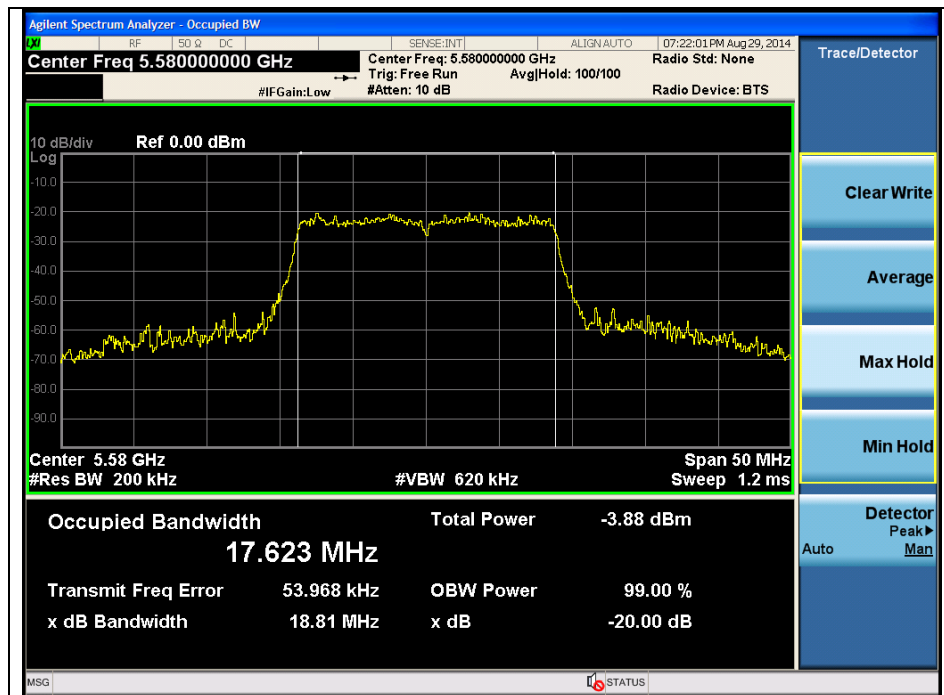
802.11ac_VHT20 (Band 1)

Channel (5 240 MHz)



802.11ac_VHT20 (Band 2A)

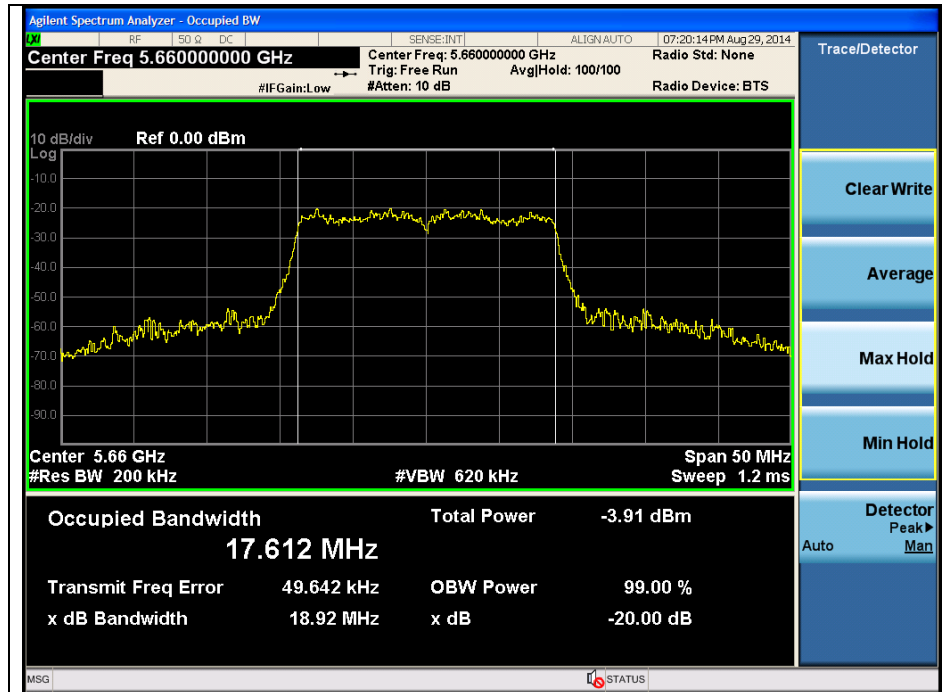
Channel (5 580 MHz)



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802.11ac_VHT20 (Band 2C)

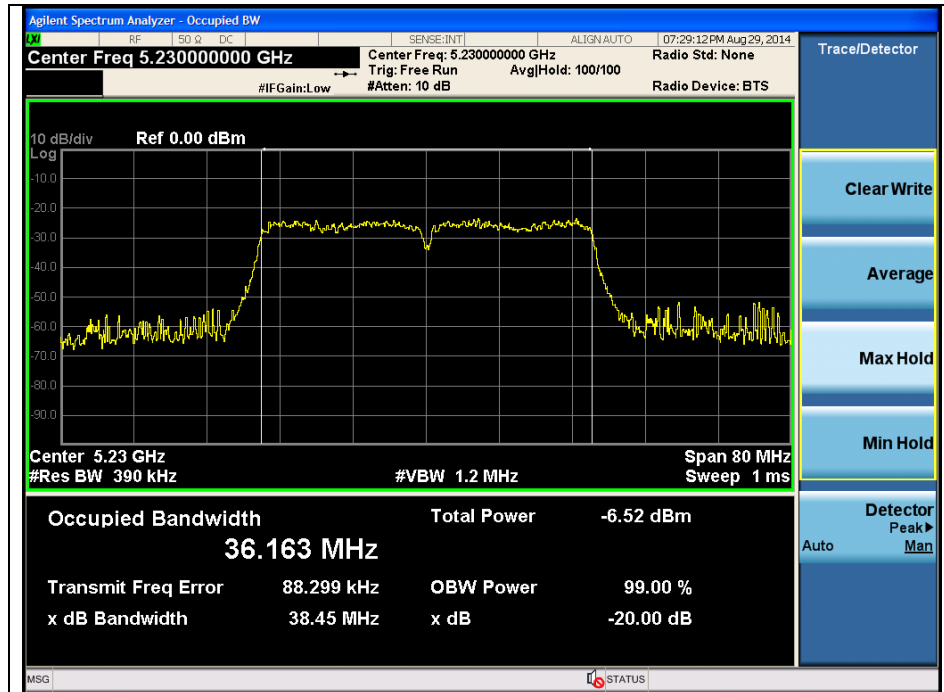
Channel (5 660 MHz)



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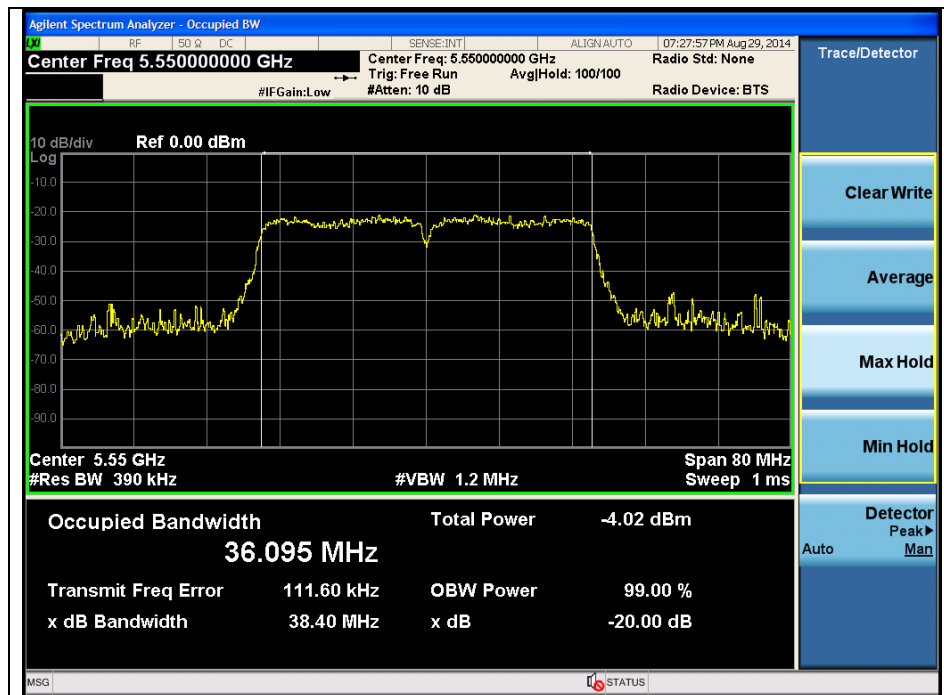
802.11ac_VHT40 (Band 1)

Channel (5 230 MHz)



802.11ac_VHT40 (Band 2A)

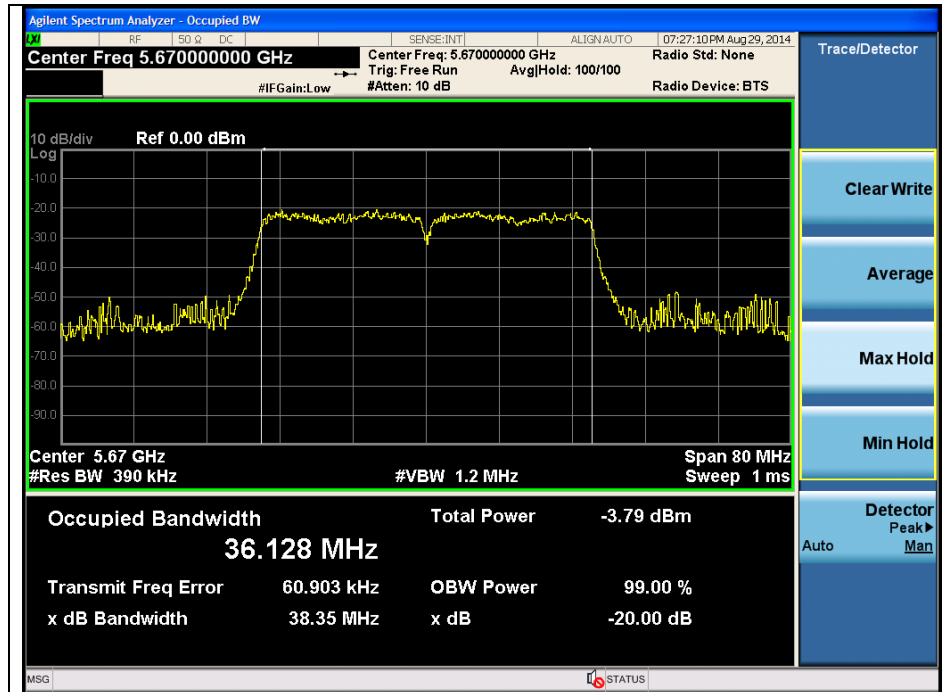
Channel (5 550 MHz)



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802.11ac_VHT40 (Band 2C)

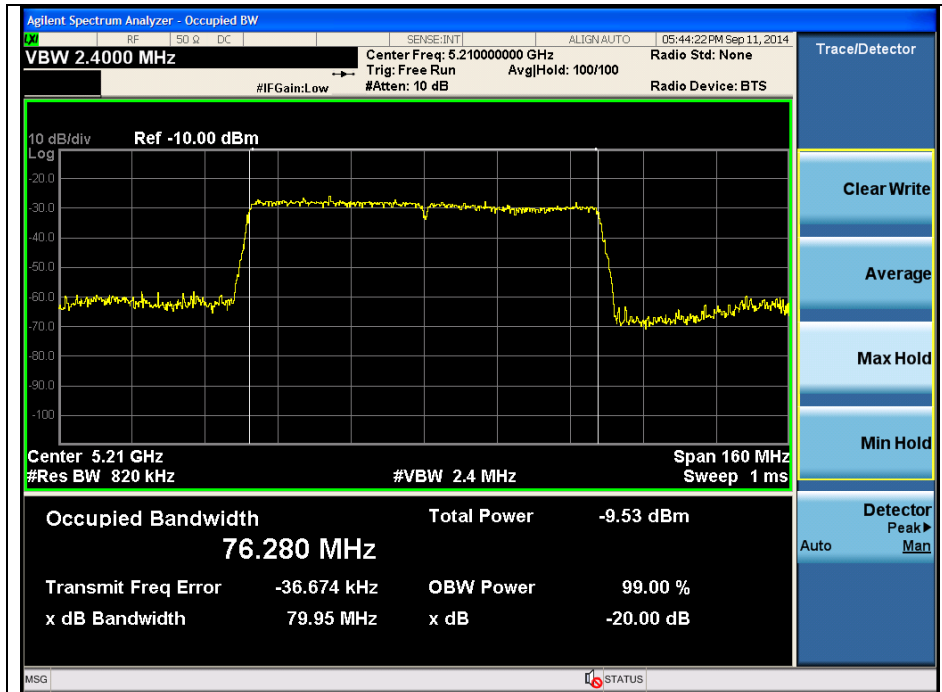
Channel (5 670 MHz)



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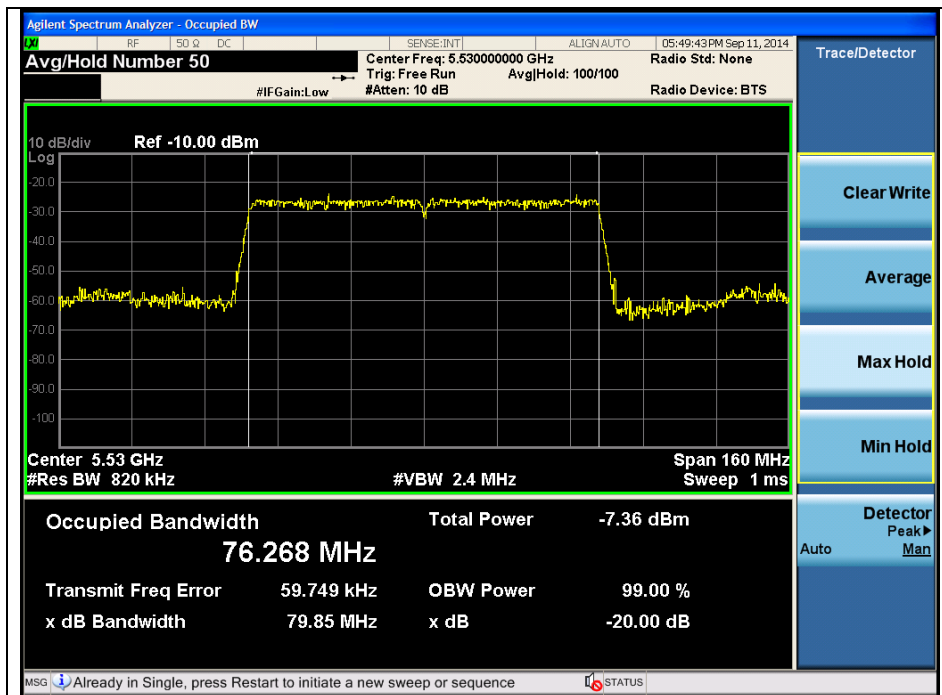
802.11ac_VHT80 (Band 1)

Channel (5 210 MHz)



802.11ac_VHT80 (Band 2A)

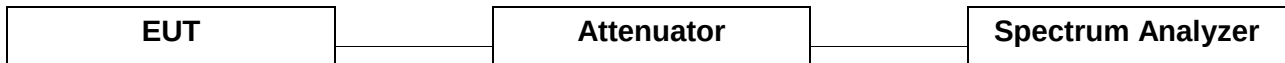
Channel (5 530 MHz)



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4. 6 dB bandwidth

4.1. Test setup



4.2. Limit

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

4.3. Test procedure

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) = $3 \times \text{RBW}$.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

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4.4. Test result

Ambient temperature : (24 ± 1) °C
Relative humidity : 49 % R.H.

4.4.1. 6 dB Bandwidth

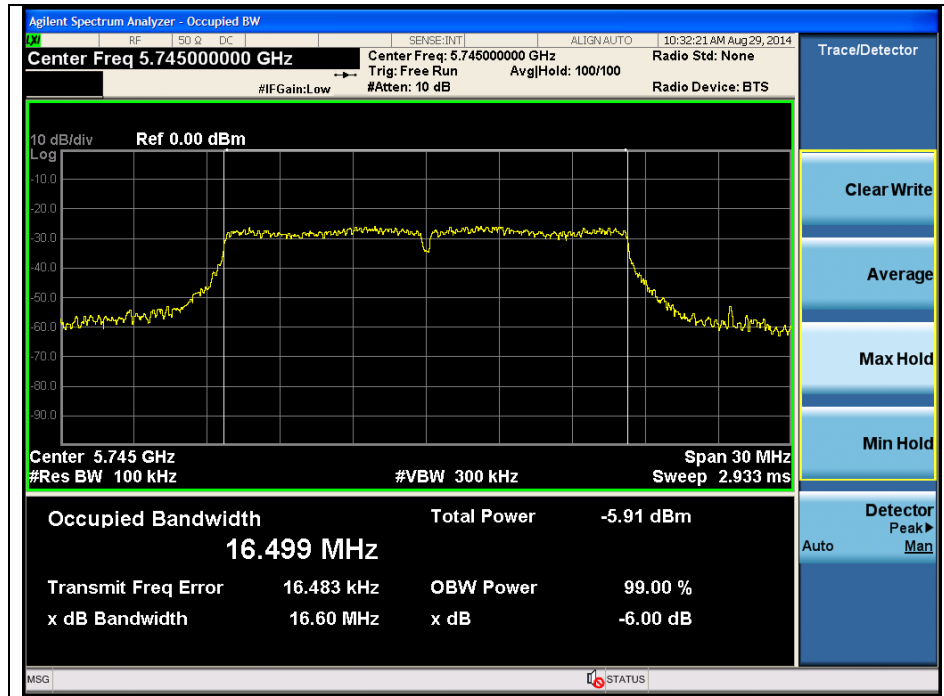
Band	Mode	Frequency (MHz)	Ch.	Data Rate	6 dB Bandwidth (MHz)
U-NII 1	11a	5 745	149	6	16.60
		5 785	157	6	16.54
		5 825	165	6	16.55
	11an_HT20	5 745	149	MCS0	17.70
		5 785	157	MCS0	17.72
		5 825	165	MCS0	17.71
	11an_HT40	5 755	151	MCS0	36.47
		5 795	159	MCS0	36.47
	11ac_VHT20	5 745	149	MCS0	17.74
		5 785	157	MCS0	17.76
		5 825	165	MCS0	17.75
	11ac_VHT40	5 755	151	MCS0	36.45
		5 795	159	MCS0	36.48
	11ac_VHT80	5 775	155	MCS0	76.70

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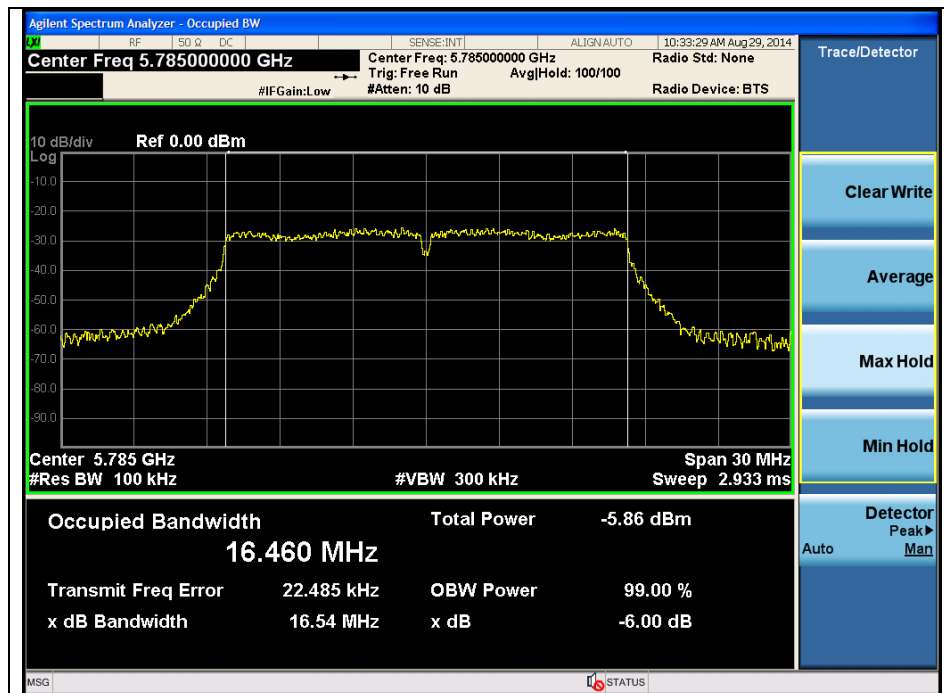
6 dB Bandwidth

802.11a (Band 3)

Low Channel (5 745 MHz)

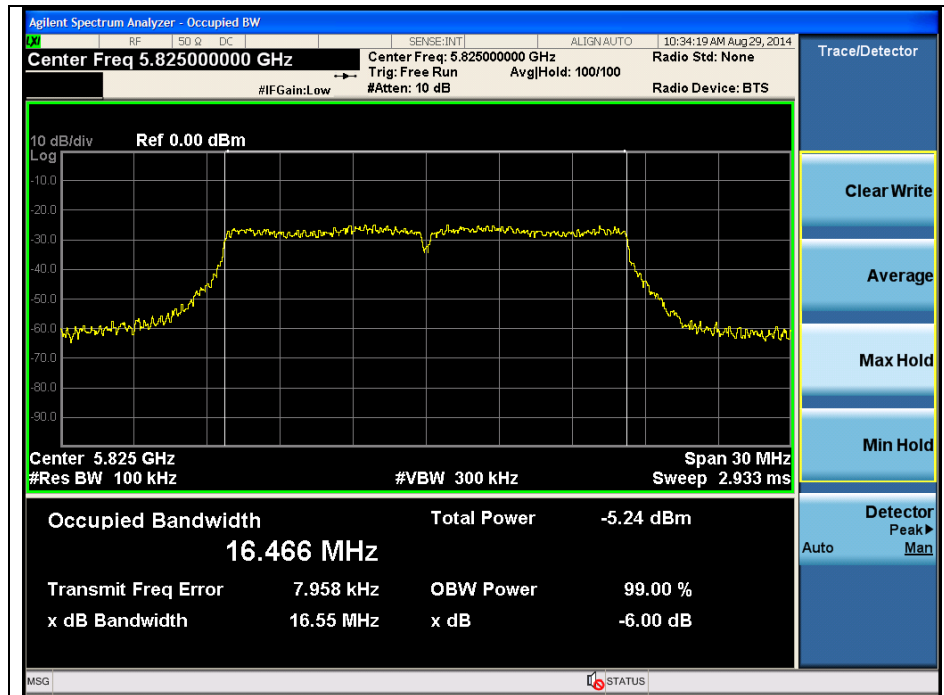


Middle Channel (5 785 MHz)



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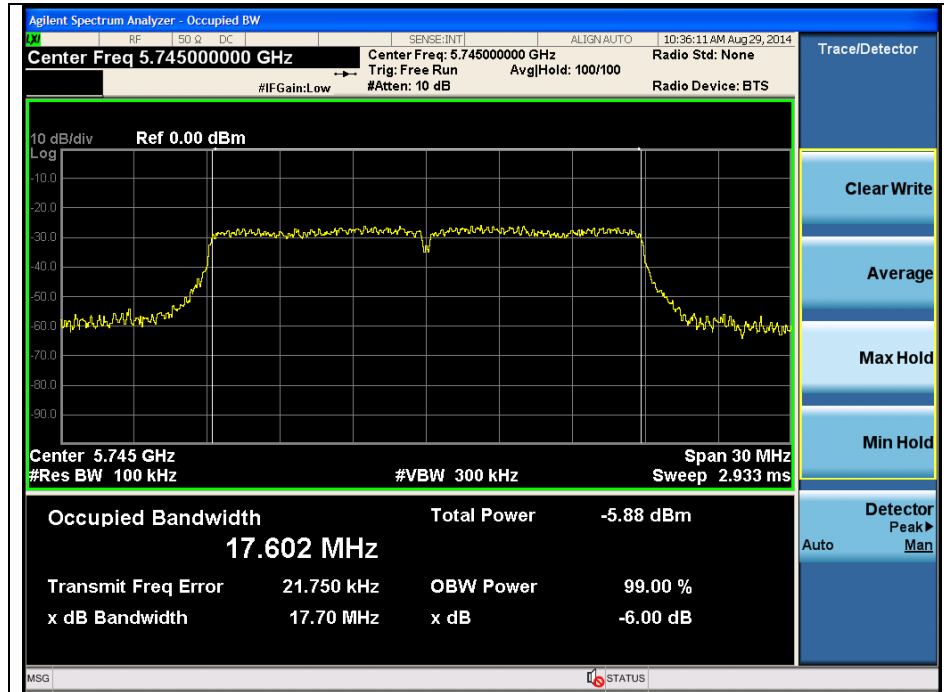
High Channel (5 825 MHz)



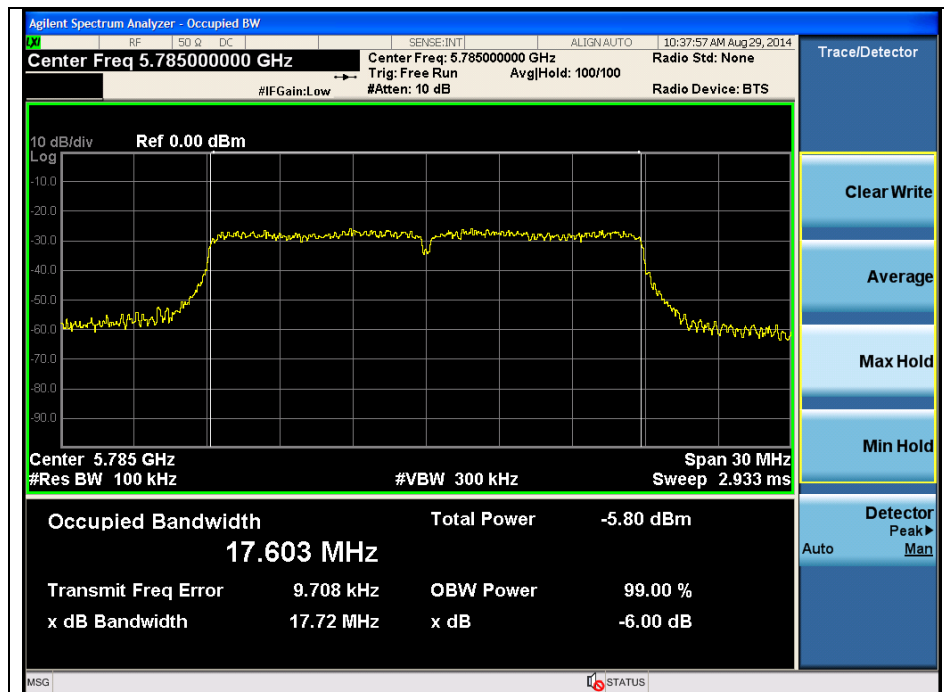
The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report cannot be reproduced, except in full, without prior written permission of the Company.

802.11an_HT20 (Band 3)

Low Channel (5 745 MHz)

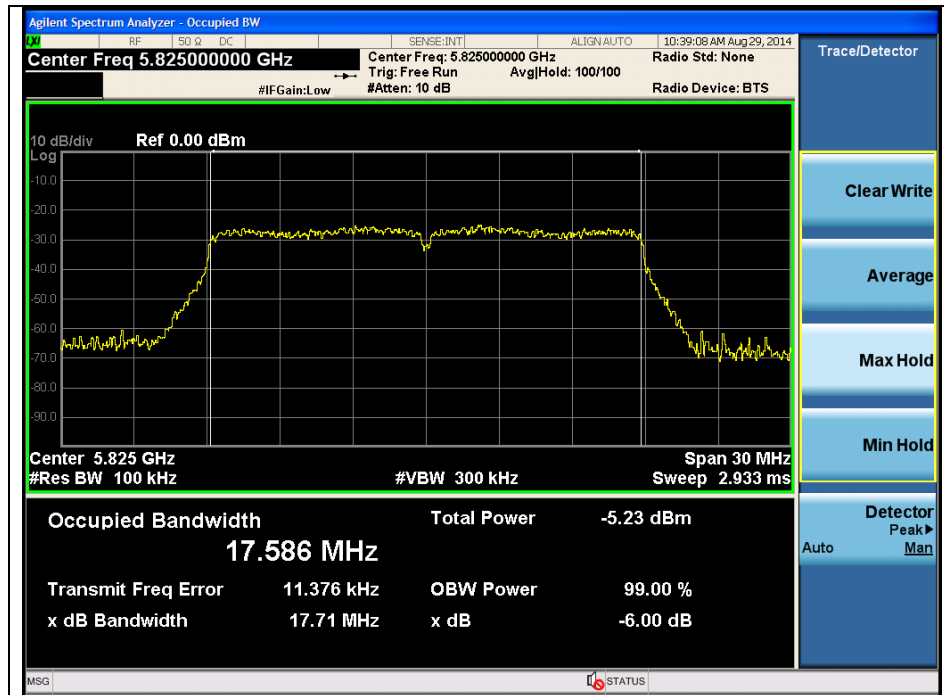


Middle Channel (5 785 MHz)



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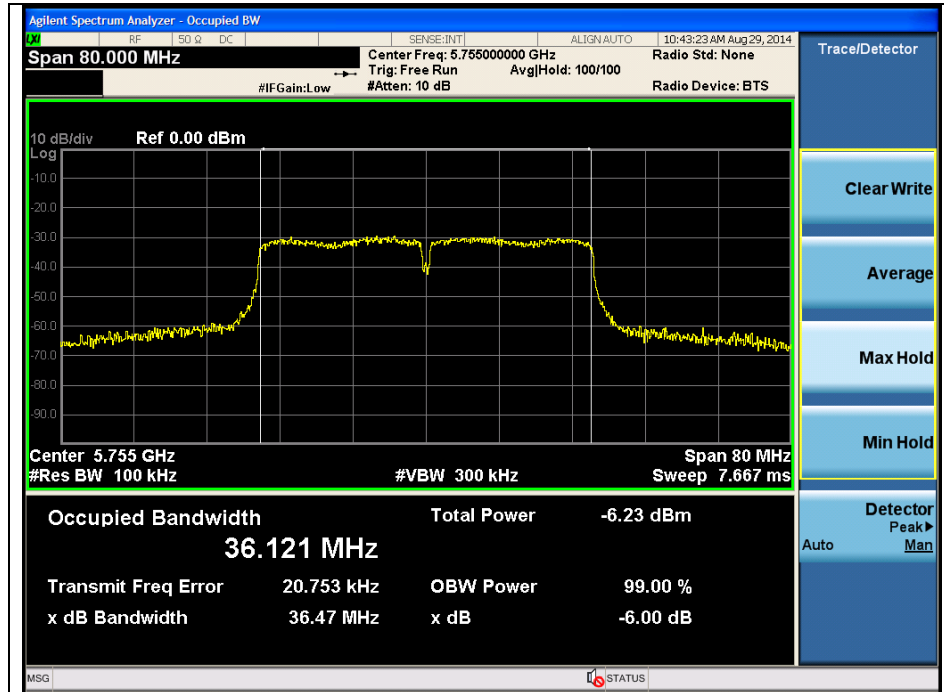
High Channel (5 825 MHz)



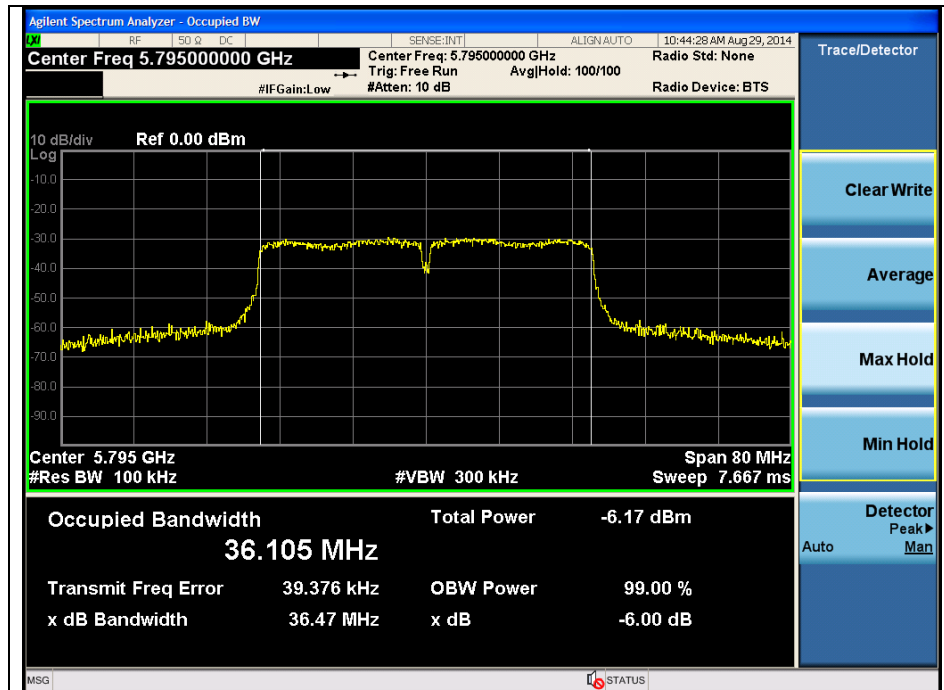
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802.11an_HT40 (Band 3)

Low Channel (5 755 MHz)



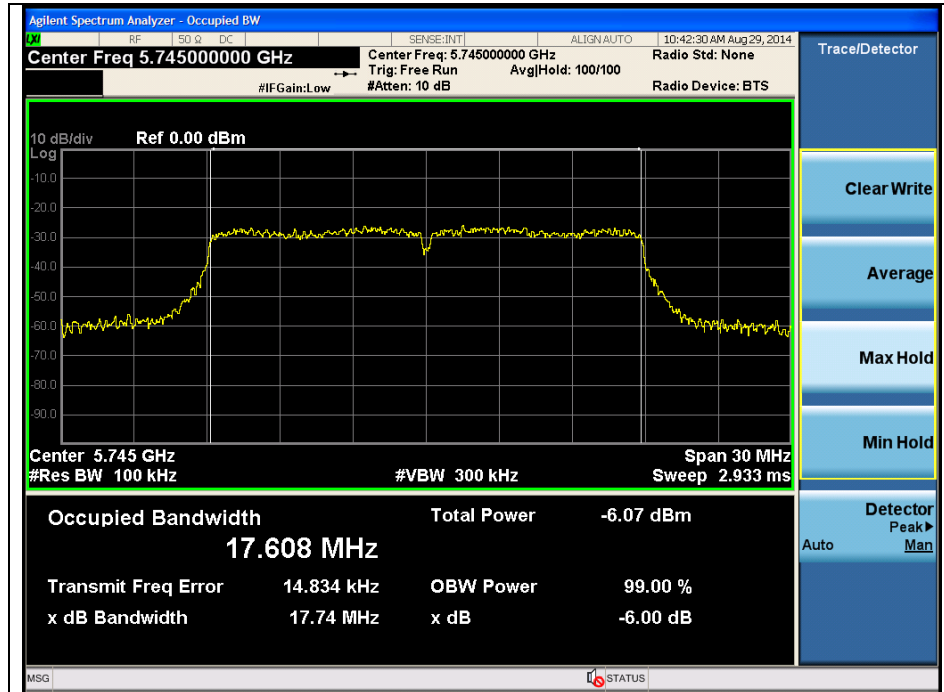
High Channel (5 795 MHz)



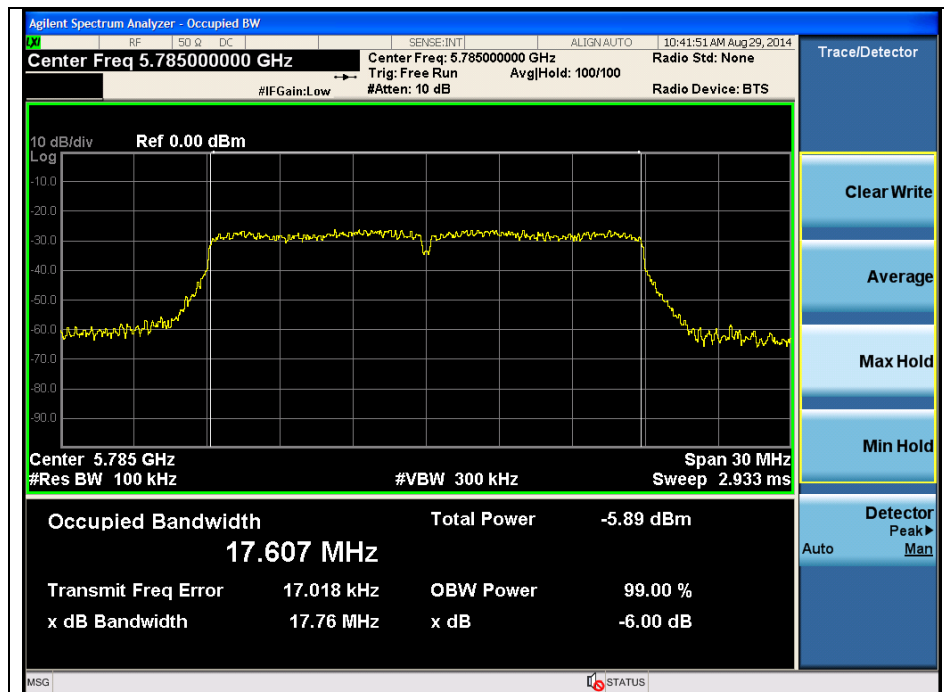
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802.11ac_VHT20 (Band 3)

Low Channel (5 745 MHz)

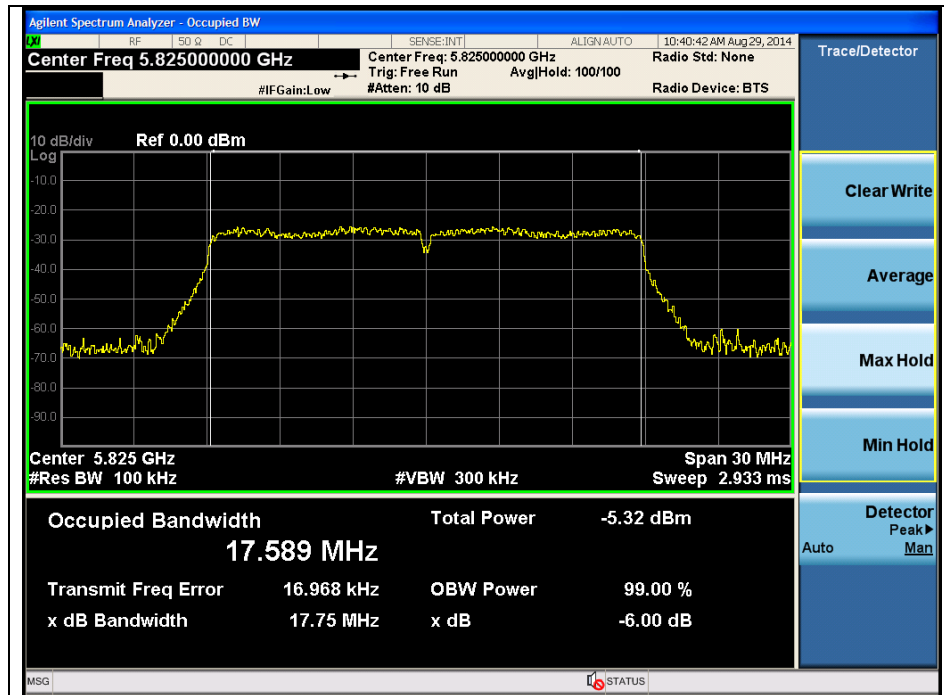


Middle Channel (5 785 MHz)



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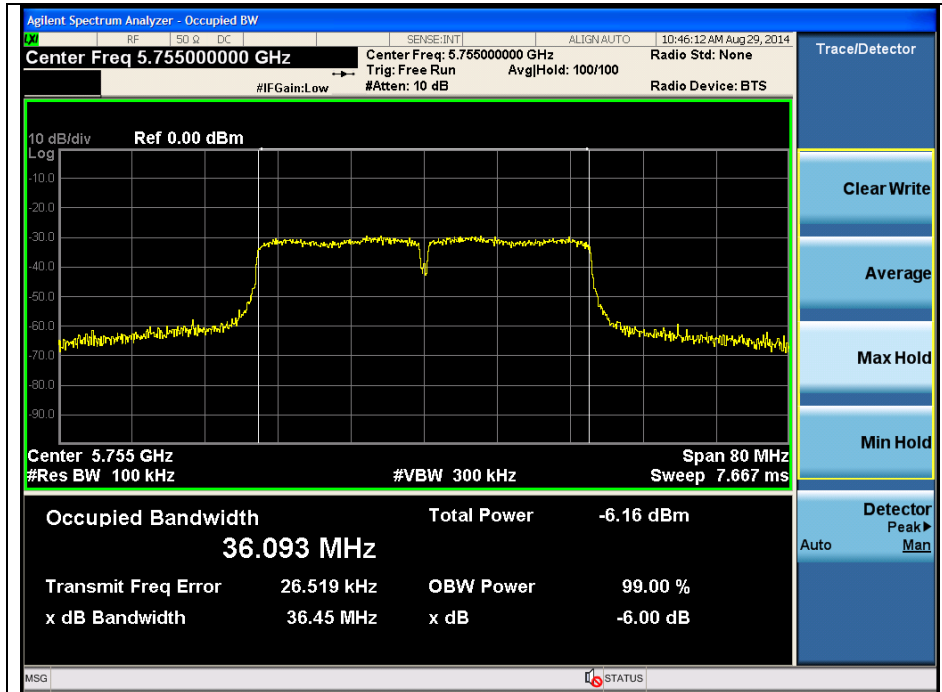
High Channel (5 825 MHz)



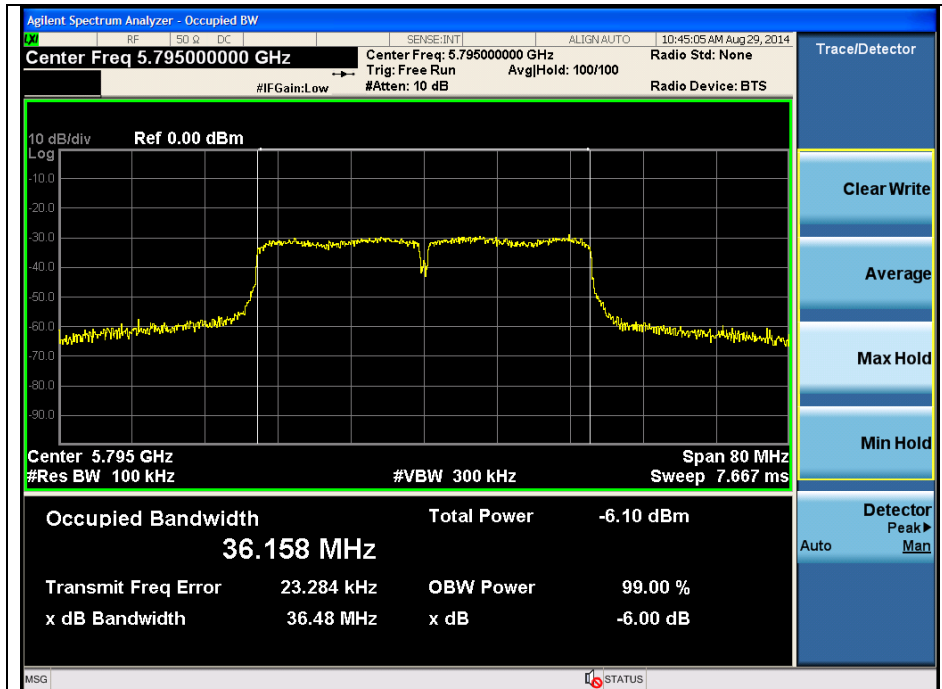
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802.11ac_VHT40 (Band 3)

Low Channel (5 755 MHz)



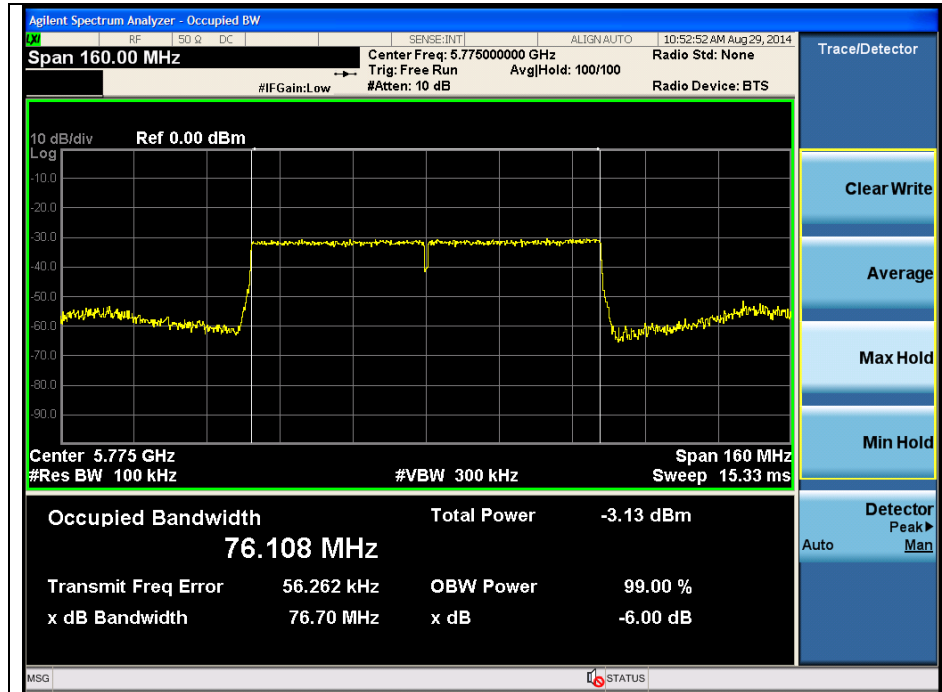
High Channel (5 795 MHz)



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802.11ac_VHT80 (Band 3)

Low Channel (5 775 MHz)



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