



TEST REPORT

Report Number : A-007-16-C

Date of Issue: 22 March 2017

FCC Rules and Regulations Part 15 Subpart E Unlicensed NII devices.

This test report is to certify that the device was tested according to the requirements of the above. The results of this report should not be construed to imply compliance of devices other than the sample tested. Without the laboratory approval by the documents, this report should not be copied in part.

1. Applicant

Company Name : Funai Electric Co., Ltd.
Mailing Address : 7-1, 7-chome, Nakagaito, Daito, Osaka 574-0013, Japan

2. Identification of Tested Device

Type of Device : Transmitter
FCC ID : ADTU9W30X
Device Name : WiFi Module
Model Number : U9W30X
Serial Number : T027100001
Trade Name : FUNAI
Type of Test : Production Pre-production Prototype

3. Test Items

AC Power Line Conducted Emission	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Emission Bandwidth	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Maximum Conducted Output Power	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Peak Power Spectral Density	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Spurious Emission	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Frequency Stability	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
U-NII Detection Bandwidth	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input checked="" type="checkbox"/> N/A (*1)
Channel Availability Check Time	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input checked="" type="checkbox"/> N/A (*1)
Channel Closing Transmission Time	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Channel Move Time	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input type="checkbox"/> N/A
Non-Occupancy Period	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input checked="" type="checkbox"/> N/A (*1)
Statistical Performance Check	<input type="checkbox"/> Pass	<input type="checkbox"/> Fail	<input checked="" type="checkbox"/> N/A (*1)

Refer the below reason(s) with respect to the decision and justification not to test.

(*1) EUT Specifications (*2) Request of Applicant (*3) According to Test Plan

KEC Electronic Industry Development Center Testing Division
3-2-2, Hikari-dai, Seika-cho, Soraku-gun, Kyoto 619-0237 Japan

Test Engineer(s)

Naoki Norimoto



VLAC-005

Approved by

Ikuya Minematsu / Group Manager



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1. REVISION HISTORY

Report Version	Page	Description	Date of Issue	Status
A	-	Initial issue of report	22 March 2017	Original



2. LABORATORY INFORMATION

2.1. Laboratory Accreditation

The KEC has been accredited by the following organizations based on their criteria for testing laboratory (ISO/IEC 17025).

(1) Voluntary EMC Laboratory Accreditation Center Inc. (VLAC) : Accreditation Number: VLAC-005

2.2. Test Facility

All tests described in this report were performed by:

Name: KEC Electronic Industry Development Center
Testing Division

Address: 3-2-2, Hikari-dai, Seika-cho, Soraku-gun, Kyoto 619-0237 Japan

Anechoic Chamber	: <input type="checkbox"/> No.1	<input type="checkbox"/> No.2	<input type="checkbox"/> No.3	<input type="checkbox"/> No.6	<input type="checkbox"/> No.7
	<input type="checkbox"/> No.8	<input type="checkbox"/> No.9	<input type="checkbox"/> No.10	<input checked="" type="checkbox"/> No.11	<input checked="" type="checkbox"/> No.12
Shielded Room	: <input type="checkbox"/> No.1	<input type="checkbox"/> No.7	<input type="checkbox"/> No.8	<input checked="" type="checkbox"/> No.9	<input type="checkbox"/> No.10
Harmonic Current Meas. Room	: <input type="checkbox"/>				



2.3. Measurement Uncertainty

The result of a measurement is only an approximation or estimate of the value of a specific quantity. And thus the measurand is complete only when a statement of uncertainty is given. KEC quotes Measurement Uncertainty (U) as follows.

Frequency Range Measurement (Frequency Band measurement)	+/- 3.0%
Time Base Measurement (Hopping dwell time)	+/- 2.4%
Carrier Frequency Measurement (Frequency measurement) EN300 328, EM301 893, FCC Part 15C and E	+/- 2.0×10^{-7}
Carrier Frequency Measurement (Frequency measurement) EN300 330	+/- 1.5×10^{-7}
Power Density Measurement (Spectrum Analyzer Method)	+/- 0.6 dB
RF Output Power (e.i.r.p) Measurement (Power Meter Method)	+1.0 / -1.1 dB
Conducted Spurious Measurement (9kHz – 26.5GHz)	+0.8 / -0.8 dB
Conducted Spurious Measurement (26.5GHz – 40GHz)	+1.0 / -1.1 dB
Effective Radiated Power Measurement (30 – 200MHz)	+3.4 / -3.6 dB
Effective Radiated Power Measurement (200 – 1000MHz)	+3.3 / -3.3 dB
Effective Radiated Power Measurement (1 – 12.75GHz)	+4.4 / -5.1 dB
Effective Radiated Power Measurement (12.75 – 18.0GHz)	+4.5 / -5.1 dB
Effective Radiated Power Measurement (18.0 – 40.0GHz)	+4.7 / -4.4 dB
Temperature control on thermostatic chamber test	+/- 1.4 °C

Expiration Date : 2017/9/30

The above values are calculated as Expanded Uncertainty ($k=2$ [Approximately 95%]).

[Note]

If the measured result is below the specification limit and a margin is less than the above measurement uncertainty, it is impossible to determine compliance at a level of confidence of approximately 95%. However, the measured result indicates high probability that the tested device complies with the specification limit.



3. GENERAL INFORMATION

3.1. Product Description

(1) Technical Specifications

(a) Wireless-LAN 2.4GHz

Type of Radio	IEEE802.11b IEEE802.11g IEEE802.11n HT20, HT40
Frequency of Operation	IEEE802.11b: 2412MHz - 2462MHz IEEE802.11g: 2412MHz - 2462MHz IEEE802.11n HT20: 2412MHz - 2462MHz IEEE802.11n HT40: 2422MHz - 2452MHz
Output Power	IEEE802.11b: 15dBm IEEE802.11g: 15dBm IEEE802.11n HT20: 15dBm IEEE802.11n HT40: 15dBm
Antenna Gain	Ant A: 2.1 dBi max Ant B: 3.3 dBi max
Antenna Type	1/4 lambda monopole antenna
Antenna Impedance	50ohm
Modulation / Spreading	DSSS, OFDM
Type of Modulation	IEEE802.11b(DSSS): BPSK, QPSK, CCK IEEE802.11g/n(OFDM): BPSK, QPSK, 16QAM, 64QAM
Nominal Bandwidth	20MHz, 40MHz
Transmit Chains	IEEE802.11b/g: 1 IEEE802.11n: 2

[Note]

11b/g : used only Ant A

11n : used only MIMO



(b) Wireless-LAN 5GHz

Type of Radio	IEEE802.11a IEEE802.11n HT20, HT40 IEEE802.11ac HT20, HT40, HT 80	
Frequency of Operation	IEEE802.11a / IEEE802.11n HT20 / IEEE802.11ac HT20	5180MHz - 5240MHz, 5260MHz - 5320MHz, 5500MHz - 5700MHz, 5745MHz - 5825MHz
	IEEE802.11n HT40 / IEEE802.11ac HT40	5190MHz - 5230MHz, 5270MHz - 5310MHz, 5510MHz - 5670MHz, 5755MHz - 5795MHz
	IEEE802.11ac HT80	5210MHz, 5290MHz, 5530MHz - 5610MHz, 5775MHz
Output Power	IEEE802.11a: 12dBm IEEE 802.11n HT20: 12dBm IEEE 802.11n HT40: 12dBm IEEE 802.11a HT20: 12dBm IEEE 802.11a HT40: 12dBm IEEE 802.11a HT80: 12dBm	
Antenna Gain	Ant A: -0.1 dBi max Ant B: 0.6 dBi max	
Antenna Type	1/4 lambda monopole antenna	
Antenna Impedance	50ohm	
Modulation	OFDM	
Type of Modulation	IEEE 802.11a/n/ac(OFDM): BPSK, QPSK, 16QAM, 64QAM, 256QAM	
Nominal Bandwidth	20MHz, 40MHz, 80MHz	
Transmit Chains	IEEE 802.11a:1 IEEE 802.11n/ac:2	
DFS Related Operating Mode	Client without radar detection	

[Note]

11a : used only Ant A

11n/ac : used only MIMO

(2) Maximum Oscillators Frequency

· SOC : 11650MHz VCO

(3) Software Version

· MPTool.exe : Ver. 1.0.0.9
· rtwlanump.sys (USB Driver) : v1014.0.1128.2011

(4) Firmware Version

: -

(5) Interface and Provide Terminal

· USB : USB 2.0 (voltage: 3.3V)
· WiFi RF Antenna connector for TEST : MHF type (50 ohm)

(6) Rated Power Supply

: DC 3.3V ±5%
(Test for AC 120V,60Hz (AC Adapter supply))



4. TESTED SYSTEM

4.1. Reference Rule and Specification

(1) Reference Rule and Regulation	: FCC Rule Part 15 Subpart E, Unlicensed National Information Infrastructure Devices
	<input checked="" type="checkbox"/> Section 15.205 <input checked="" type="checkbox"/> Section 15.207 <input checked="" type="checkbox"/> Section 15.209 <input checked="" type="checkbox"/> Section 15.407 (a)(1) <input checked="" type="checkbox"/> Section 15.407 (a)(2) <input checked="" type="checkbox"/> Section 15.407 (a)(3) <input checked="" type="checkbox"/> Section 15.407 (b)(1) <input checked="" type="checkbox"/> Section 15.407 (b)(2) <input checked="" type="checkbox"/> Section 15.407 (b)(3) <input checked="" type="checkbox"/> Section 15.407 (b)(4) <input checked="" type="checkbox"/> Section 15.407 (e) <input checked="" type="checkbox"/> Section 15.407 (g) <input type="checkbox"/> Section 15.407 (h)(1) <input checked="" type="checkbox"/> Section 15.407 (h)(2)
(2) Test Procedure	: ANSI C63.10-2013 KDB Publication No.789033 D02 General UNII Test Procedures New Rules v01r03 KDB Publication No. 905462 D02 UNII DFS Compliance Procedures New Rules v02

4.2. Date of Test

Receipt of Test Sample : 26 January 2017
Condition of Test Sample : Damage is not found on the set.
 Damage is found on the set. (Details are described in this report)

Test Completed on : 26 February 2017
Condition of Test Sample : Damage is not found on the set.
 Damage is found on the set. (Details are described in this report)

4.3. Deviation of Standard

without deviation, with deviation (details are found inside of this report)



4.4. Test Mode

Test Item	Operating Mode	Test Frequency	Power Setting
AC Power Line Conducted Emission	11a	5240MHz	12dBm
6dB, 26dB Emission Bandwidth	11a/11n-HT20/11ac-HT20	5180MHz / 5200MHz / 5240MHz / 5260MHz 5300MHz / 5320MHz / 5500MHz / 5580MHz 5700MHz / 5745MHz / 5785MHz / 5825MHz	12dBm
	11n-HT40/11ac-HT40	5190MHz / 5230MHz / 5270MHz / 5310MHz 5510MHz / 5550MHz / 5670MHz / 5775MHz 5795MHz	
	11ac-HT80	5210MHz / 5290MHz / 5530MHz / 5610MHz 5775MHz	
Maximum Conducted Output Power	11a/11n-HT20/11ac-HT20	5180MHz / 5200MHz / 5240MHz / 5260MHz 5300MHz / 5320MHz / 5500MHz / 5580MHz 5700MHz / 5745MHz / 5785MHz / 5825MHz	12dBm
	11n-HT40/11ac-HT40	5190MHz / 5230MHz / 5270MHz / 5310MHz 5510MHz / 5550MHz / 5670MHz / 5775MHz 5795MHz	
	11ac-HT80	5210MHz / 5290MHz / 5530MHz / 5610MHz 5775MHz	
Peak Power Spectral Density	11a/11n-HT20/11ac-HT20	5180MHz / 5200MHz / 5240MHz / 5260MHz 5300MHz / 5320MHz / 5500MHz / 5580MHz 5700MHz / 5745MHz / 5785MHz / 5825MHz	12dBm
	11n-HT40/11ac-HT40	5190MHz / 5230MHz / 5270MHz / 5310MHz 5510MHz / 5550MHz / 5670MHz / 5775MHz 5795MHz	
	11ac-HT80	5210MHz / 5290MHz / 5530MHz / 5610MHz 5775MHz	
Spurious Emissions / Restricted Band Edges (Radiated / Conducted) (*1)	11a/11n-HT20/11ac-HT20	5180MHz / 5200MHz / 5240MHz / 5260MHz 5300MHz / 5320MHz / 5500MHz / 5580MHz 5700MHz / 5745MHz / 5785MHz / 5825MHz	12dBm
	11n-HT40/11ac-HT40	5190MHz / 5230MHz / 5270MHz / 5310MHz 5510MHz / 5550MHz / 5670MHz / 5775MHz 5795MHz	
	11ac-HT80	5210MHz / 5290MHz / 5530MHz / 5610MHz 5775MHz	
Frequency Stability	11a/11n-HT20/11ac-HT20	5180MHz / 5200MHz / 5240MHz / 5260MHz 5300MHz / 5320MHz / 5500MHz / 5580MHz 5700MHz / 5745MHz / 5785MHz / 5825MHz	12dBm
	11n-HT40/11ac-HT40	5190MHz / 5230MHz / 5270MHz / 5310MHz 5510MHz / 5550MHz / 5670MHz / 5775MHz 5795MHz	
	11ac-HT80	5210MHz / 5290MHz / 5530MHz / 5610MHz 5775MHz	
In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time	11ac-HT80	5290MHz	-

Worst Data Rate/MCS		
Operating Mode	Data Rate/MCS	Worst Data Rate/MCS
11a Ant A	6-54 Mbps	54 Mbps
11n-HT20 MIMO	MCS 8-15	MCS 11
11n-HT40 MIMO	MCS 8-15	MCS 8
11ac-HT20 MIMO	MCS 0-8	MCS 0
11ac-HT40 MIMO	MCS 0-9	MCS 2
11ac-HT80 MIMO	MCS 0-9	MCS 0

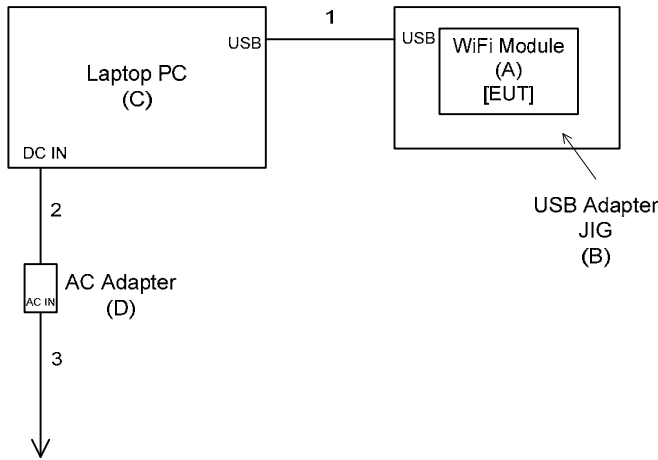
Extreme Test Condition for Frequency Stability	
Temperature	Min 0 deg C / Max +60 deg C
Voltage	DC 3.135 V to DC 3.465 V

[Note]

- (1) The test program was prepared by the applicant.
- (2) The spurious emissions data of the each modes were checked in three orthogonal axes, and the data of the producing the maximum emissions were reported at each frequency.
- (3) AC Power Line Conducted Emission and Spurious Emissions of 30MHz to 1000MHz performed in worst mode of Maximum Conducted Output Power.
(*1) Radiated measurement : above 30MHz, Conducted measurement : below 30MHz

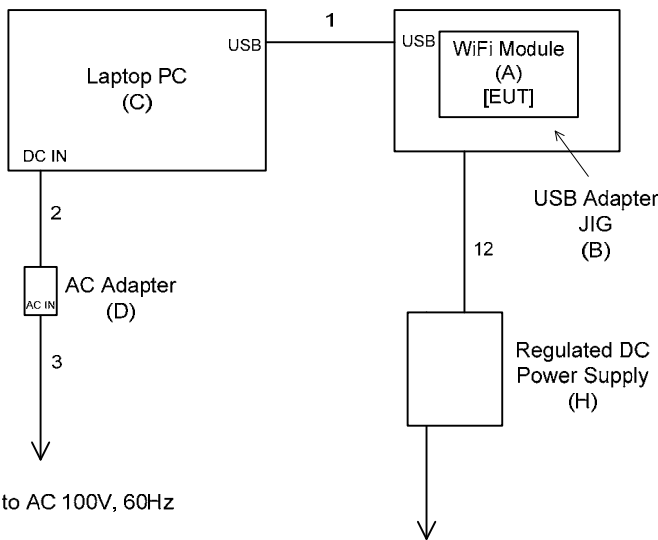
4.5. Block Diagram of TEST System

(1) Radiated/Conducted Emission



to AC 120V, 60Hz

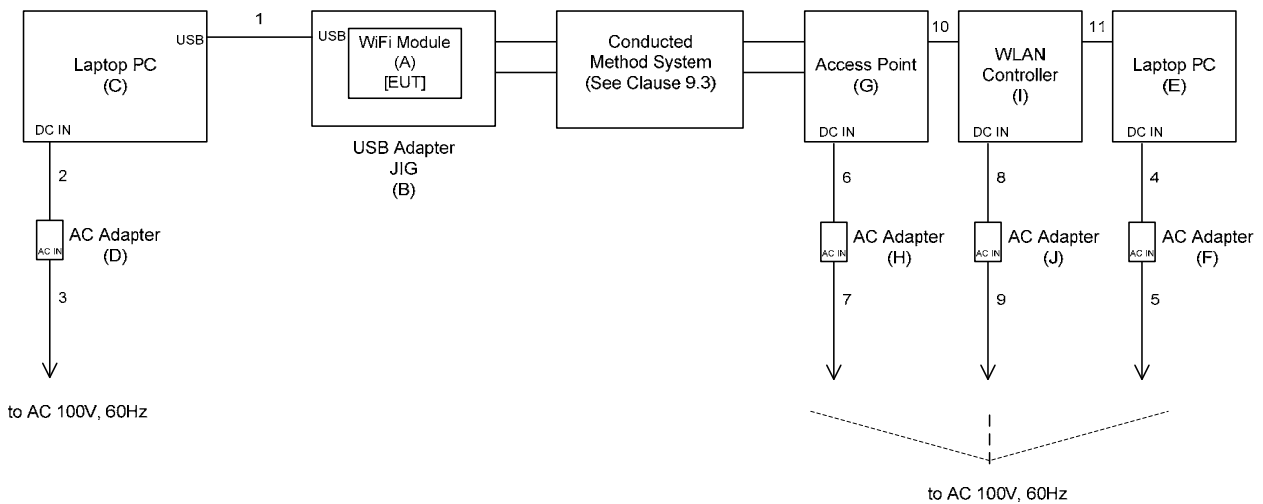
(2) Frequency Stability



to AC 100V, 60Hz

to AC 100V, 60Hz

(3) DFS



to AC 100V, 60Hz

to AC 100V, 60Hz



4.6. List of Test System

No.	Device Name	Model Number	Serial Number	Trade Name	Note
A	WiFi Module	U9W30X	T027100001	FUNAI	EUT
B	USB Adapter JIG	U9W30XT/U9W40XT-2L	-	-	
C	Laptop PC	Compaq nx9040	CNF4442871	Hewlett-Packard	(2)
		CF-19DC1AXS	7GKSA56169	Panasonic	(3)
D	AC Adapter	Series PPP009S	18057-A316	Hewlett-Packard	(2)
		CF-AA1632A M1	1632AM107508920 C	Panasonic	(3)
E	Laptop PC	K53T	BBN0CJ581567472	ASUS	
F	AC Adapter	ADP-90CD	83MW1AN008Z		
G	Access Point	AIR-CAP3702E-A-K9	FJC1951F0XC	CISCO	(4)
H	AC Adapter	AA25480L	ALD0628G18W	CISCO	
I	WLAN Controller	WLAN 2500 Series Controller	PSZ20461EU0	CISCO	
J	AC Adapter	PA-1800-3A	LIT20373524	LITE ON	
H	Regulated DC Power Supply	7326	-	KIKUSUI	

[Note]

- (1) Option of EUT
- (2) Conducted Measurement
- (3) Radiated Measurement
- (4) FCC ID:LDK102087

4.7. List of Cables

No.	Cable Name	Shielded (Y/N)	Length (m)	Note
1	USB Cable	Y	1.0	
2	DC Power Cord	N	1.8	AC Adapter for Series PPP009S (1)
			1.3	AC Adapter for CF-AA1632A M1, with one ferrite core(1-turn) (1)
3	AC Power Cord	N	0.9	AC Adapter for Series PPP009S (3)
			0.8	AC Adapter for CF-AA1632A M1 (4)
4	DC Power Cord	N	1.8	with one ferrite core(1-turn) (1)
5	AC Power Cord	N	1.8	(4)
6	DC Power Cord	N	1.8	with one ferrite core(1-turn) (1)
7	AC Power Cord	N	2.4	(3)
8	DC Power Cord	N	1.8	with one ferrite core(1-turn) (1)
9	AC Power Cord	N	1.8	(4)
10	LAN Cable	N	1.0	
11	LAN Cable	N	1.0	
12	DC Power Cord	N	1.0	
13	AC Power Cord	N	1.0	(1),(4)

[Note]

- (1) Undetachable cable type
- (2) Accessories cable of EUT
- (3) 3-wires type, earth plug is grounded.
- (4) 2-wires type



5. AC POWER LINE CONDUCTED EMISSION MEASUREMENT

5.1. Test Procedure

- (1) The EUT is placed in accordance with ANSI C63.10.
- (2) The EUT is activated as to simulate a worst data rate.
- (3) Connect the EUT's AC power cord to one Line Impedance Stabilization Network (LISN).
- (4) Any other power cord of other equipment is connected to a LISN different from the LISN used for the EUT.
- (5) Connect the spectrum analyzer (*1) to the measuring port of the LISN for the EUT, using a calibrated coaxial cable.
- (6) To find out the maximum emission of the configuration of the EUT System, the operation mode and the position of the cables are changed, then preliminary conducted measurement are performed.
- (7) The spectrums are scanned from 150kHz to 30MHz and collect the six highest emissions minimum on the spectrum analyzer relative to the limits in the whole range.
- (8) The test receiver (*2) is connected to the LISN for the EUT, and the six highest emissions minimum recorded above are measured.

[Note]

(*1) Spectrum Analyzer Set Up Conditions

Frequency range : 150kHz – 30MHz
 Resolution bandwidth : 10kHz (6dB Bandwidth)
 Video bandwidth : 1MHz
 Detector : Peak

(*2) Test Receiver Set Up Conditions

Detector function : Quasi – Peak / Average (if necessary)
 IF bandwidth : 10kHz (6dB Bandwidth)

5.2. Test Software List

KEC No.	Software Name	Version	Manufacture
TF-088	TEPTO Conducted emission automatic measurement	2.60162	TSJ
TF-110	Junction sheet	1.6H	KEC



5.3. Test Results

11a 5240MHz

Measured Frequency (MHz)	Correction Factor (dB)	Meter Reading				Maximum RF Voltage		Limit		Margin for Limit	
		Q-Peak		Average		Q-Peak (dBµV)	Average (dBµV)	Q-Peak (dBµV)	Average (dBµV)	Q-Peak (dB)	Average (dB)
		Va (dBµV)	Vb (dBµV)	Va (dBµV)	Vb (dBµV)						
0.150	10.4	32.2	32.9	6.5	6.5	43.3	16.9	66.0	56.0	22.7	39.1
0.205	10.3	39.2	38.8	32.4	32.4	49.5	42.7	63.4	53.4	13.9	10.7
0.348	10.3	30.6	30.2	25.1	24.3	40.9	35.4	59.0	49.0	18.1	13.6
0.409	10.3	30.0	29.6	28.4	27.7	40.3	38.7	57.7	47.7	17.4	9.0
0.543	10.3	27.1	27.2	25.9	26.1	37.5	36.4	56.0	46.0	18.5	9.6
16.822	10.9	32.2	31.1	25.2	25.5	43.1	36.4	60.0	50.0	16.9	13.6
24.241	11.2	20.8	20.0	10.9	10.5	32.0	22.1	60.0	50.0	28.0	27.9

[Note]
 (1) Correction Factor includes the LISN Factor, cable loss and attenuator loss.
 (2) The EUT is powered by the PC via the USB. Therefore AC Power Line Conducted Emission measured on the PC Power Line.

[Calculation method]
 Maximum RF Voltage (dBµV)
 = Meter Reading (at maximum level of Va or Vb) (dBµV) + Correction Factor (dB)

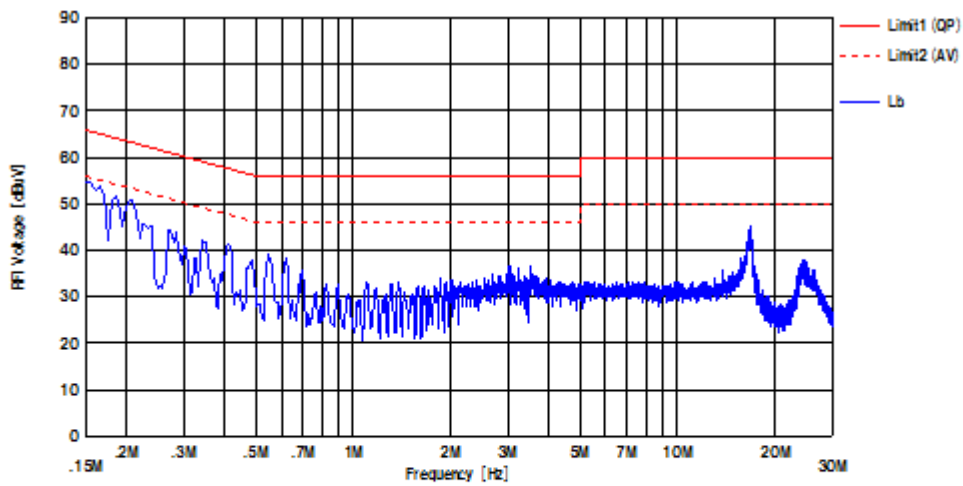
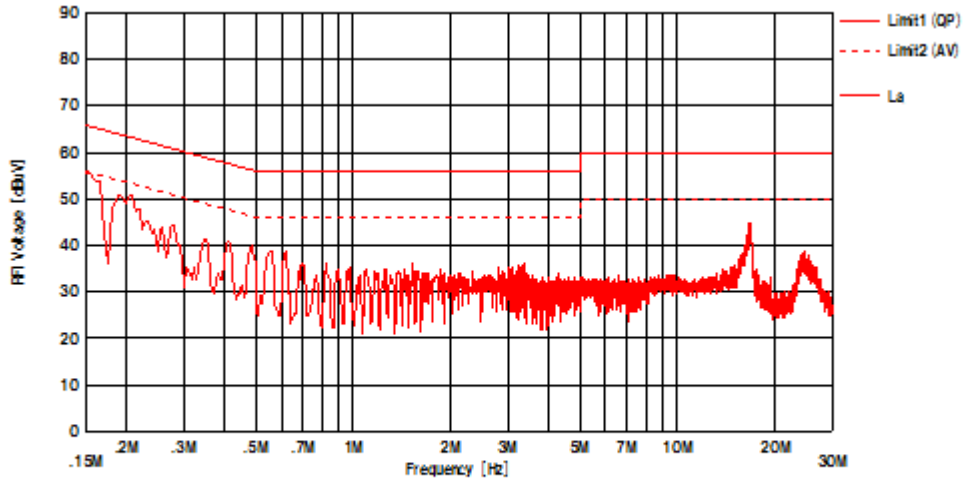
At the next page, the result of exploratory conducted emission measurement by using the spectrum analyzer is shown by the spectrum chart.

Tested Date	Environment	
	Temperature	Humidity
13 February 2017	19 °C	27 %



Test Results in Graph

11a 5240MHz





6. EMISSION BANDWIDTH

6.1. Test Procedure

- (1) Connect the EUT RF output port to spectrum analyzer (*1) via calibrated coaxial cable and suitable attenuator (if necessary).
- (2) Activates the EUT System and execute the software prepared for test, if necessary.
- (3) To find out the worst condition, the transmitting data rate of EUT is changed.
- (4) 26dB and 6dB Bandwidth is measured using the function of spectrum analyzer.

[Note]

(*1) Spectrum Analyzer Set Up Conditions (26dB Bandwidth)

Resolution bandwidth : approximately 1% of the emission bandwidth
Video bandwidth : >RBW
Detector function : Peak
x dB : -26dB

Spectrum Analyzer Set Up Conditions (6dB Bandwidth)

Resolution bandwidth : 100kHz
Video bandwidth : 3 x RBW
Detector function : Peak
x dB : -6dB



6.2. Test Results of 26dB Emission Bandwidth

11a

Measured Frequency (MHz)	26dB Bandwidth (MHz)	99% OBW Bandwidth (MHz)
5180	20.70	16.57
5220	20.78	16.58
5240	20.28	16.57
5260	20.22	16.59
5300	20.59	16.54
5320	20.69	16.56
5500	20.69	16.55
5580	20.57	16.56
5700	20.63	16.57
5745	20.40	16.54
5785	20.56	16.55
5825	20.39	16.55

11n-HT20

Measured Frequency (MHz)	26dB Bandwidth (MHz)	99% OBW Bandwidth (MHz)
5180	20.16	17.68
5220	20.56	17.68
5240	20.39	17.66
5260	20.76	17.68
5300	20.76	17.68
5320	20.18	17.67
5500	20.63	17.68
5580	20.34	17.67
5700	20.23	17.66
5745	20.76	17.67
5785	20.57	17.65
5825	20.40	17.65

11n-HT40

Measured Frequency (MHz)	26dB Bandwidth (MHz)	99% OBW Bandwidth (MHz)
5190	42.19	36.34
5230	42.54	36.36
5270	42.13	36.32
5310	41.77	36.35
5510	42.16	36.35
5550	41.80	36.30
5670	41.57	36.34
5755	42.22	36.32
5795	42.59	36.31



11ac-HT20

Measured Frequency (MHz)	26dB Bandwidth (MHz)	99% OBW Bandwidth (MHz)
5180	21.10	17.69
5220	21.13	17.69
5240	21.16	17.70
5260	21.24	17.70
5300	21.07	17.70
5320	21.05	17.70
5500	21.27	17.69
5580	21.30	17.70
5700	21.12	17.69
5745	21.26	17.69
5785	21.30	17.70
5825	21.02	17.68

11ac-HT40

Measured Frequency (MHz)	26dB Bandwidth (MHz)	99% OBW Bandwidth (MHz)
5190	43.16	36.38
5230	42.37	36.45
5270	43.34	36.47
5310	42.75	36.48
5510	42.85	36.43
5550	42.97	36.45
5670	42.98	36.45
5755	42.44	36.44
5795	42.48	36.40

11ac-HT80

Measured Frequency (MHz)	26dB Bandwidth (MHz)	99% OBW Bandwidth (MHz)
5210	80.56	75.16
5290	80.37	75.25
5530	80.46	75.14
5610	80.76	75.20
5775	80.74	75.17

[Note]

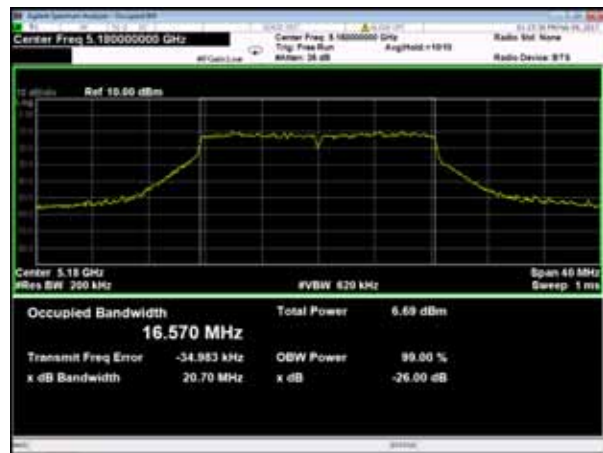
See next page figure.

Tested Date	Environment	
	Temperature	Humidity
9 February 2017	22 °C	35 %

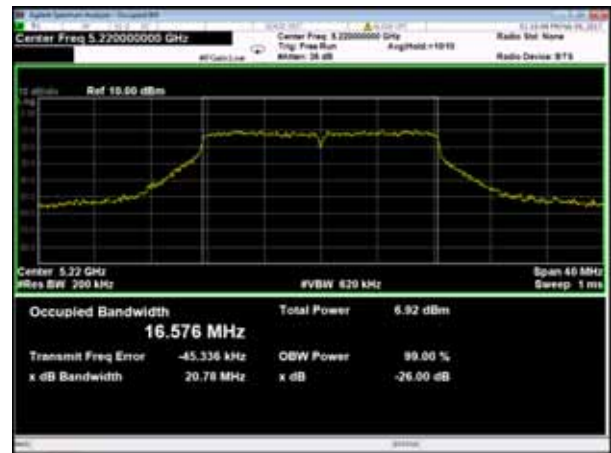


11a

5180MHz



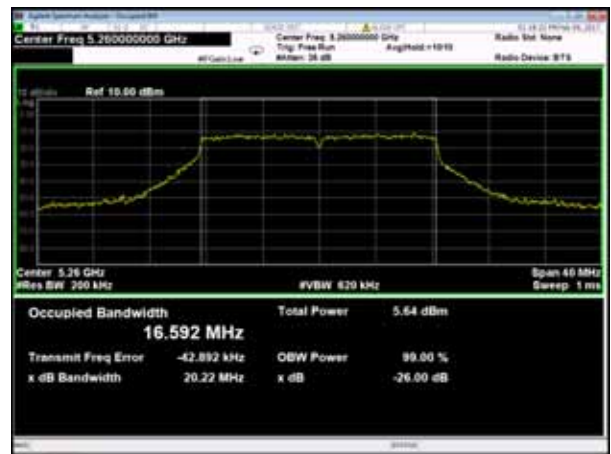
5220MHz



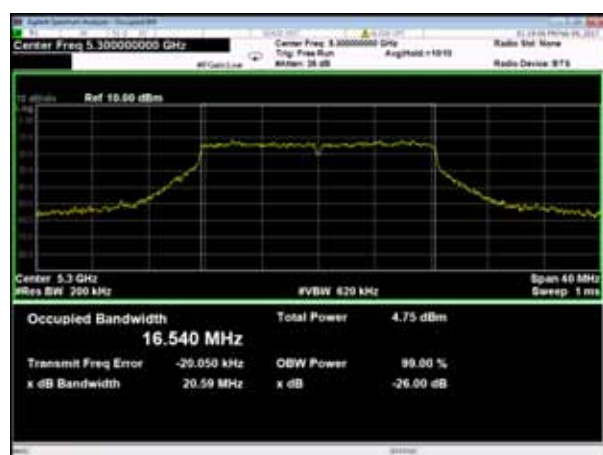
5240MHz



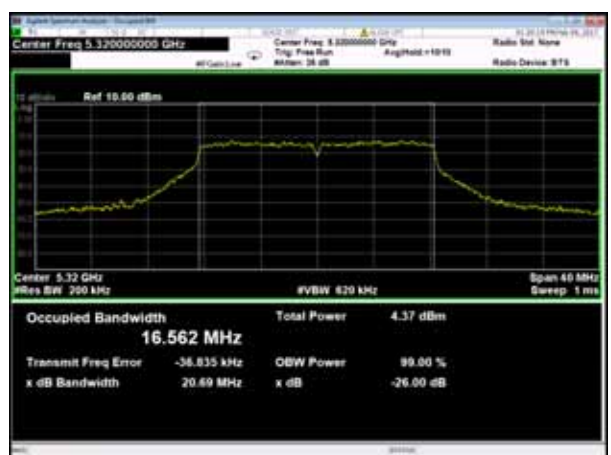
5260MHz



5300MHz



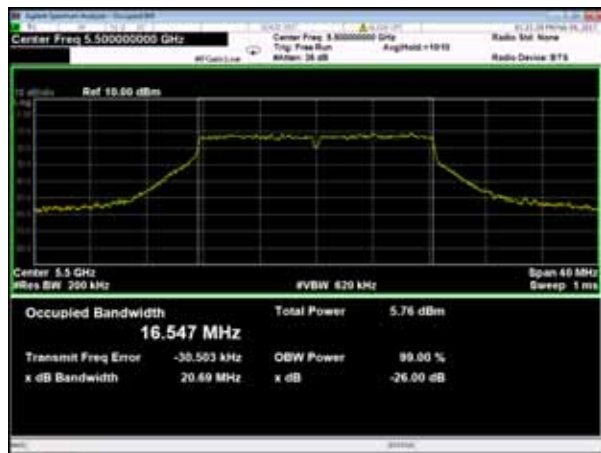
5320MHz



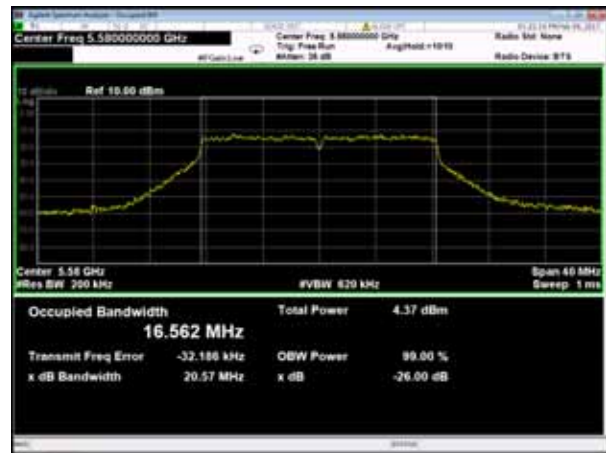


11a

5500MHz



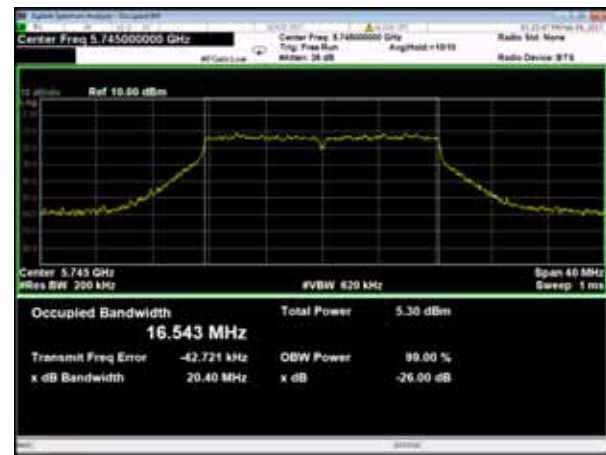
5580MHz



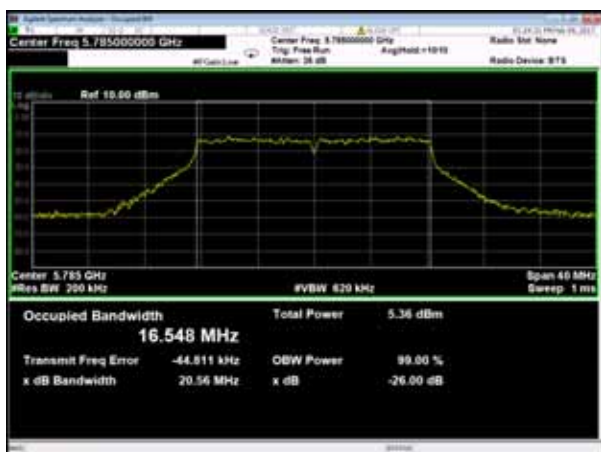
5700MHz



5745MHz



5785MHz



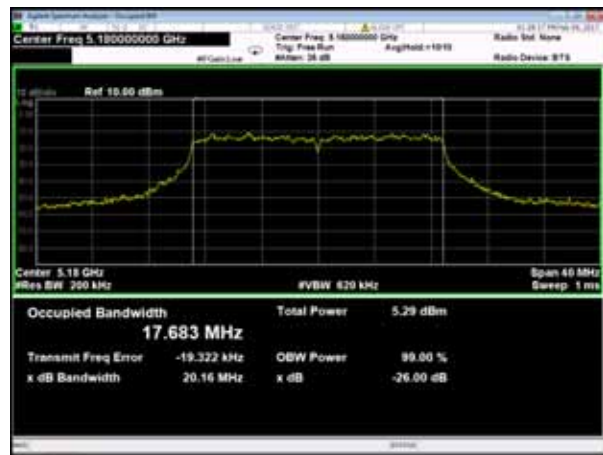
5825MHz



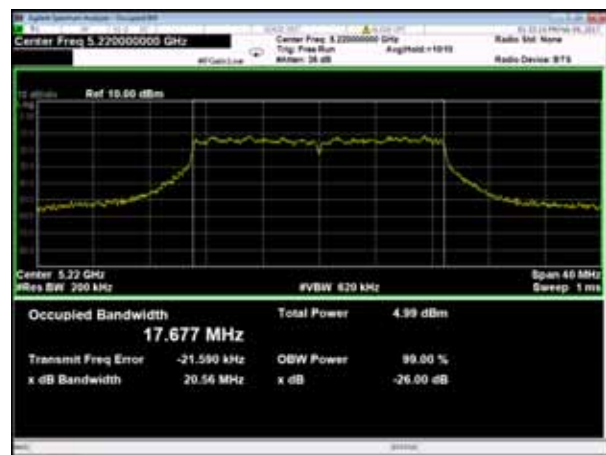


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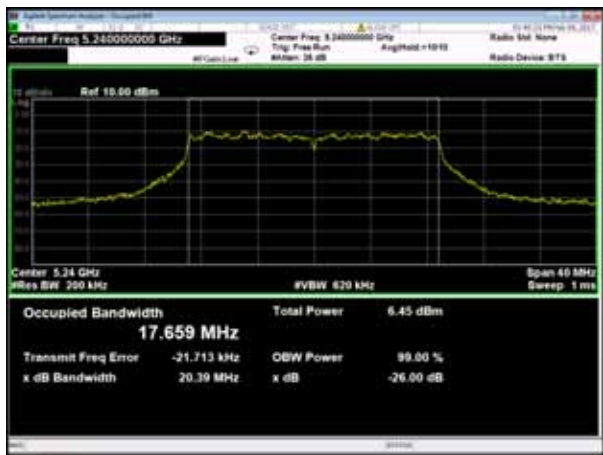
5180MHz



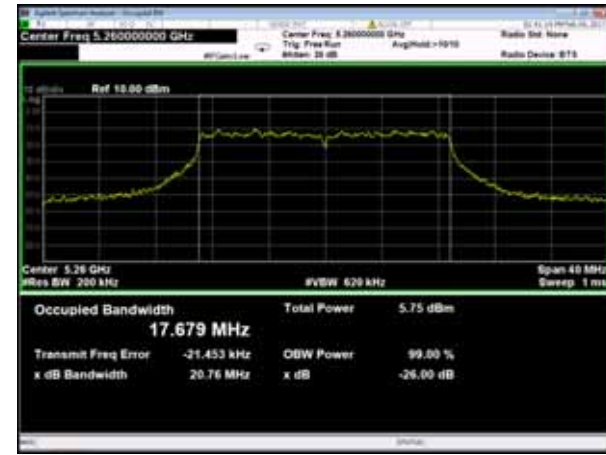
5220MHz



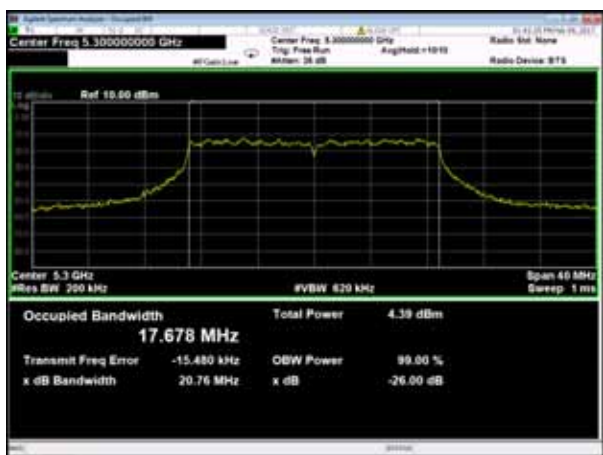
5240MHz



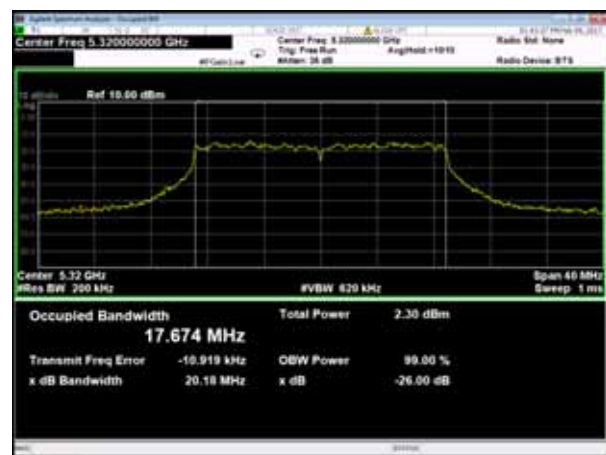
5260MHz



5300MHz



5320MHz





11n-HT20

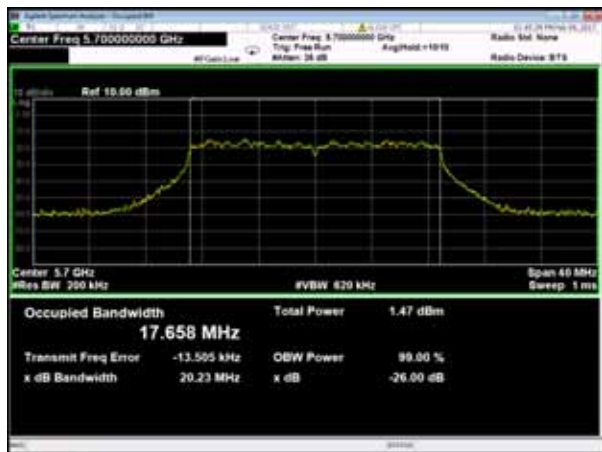
5500MHz



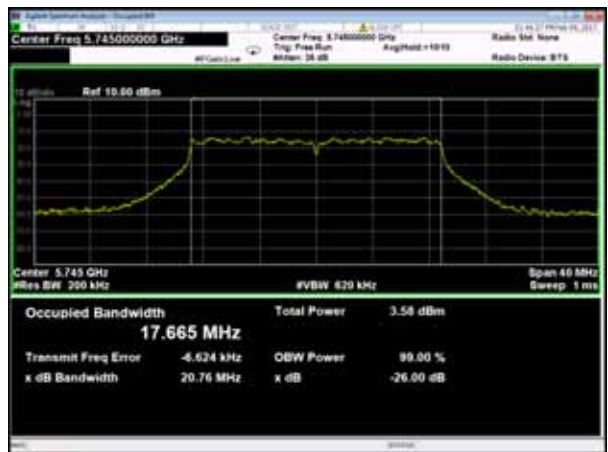
5580MHz



5700MHz



5745MHz



5785MHz



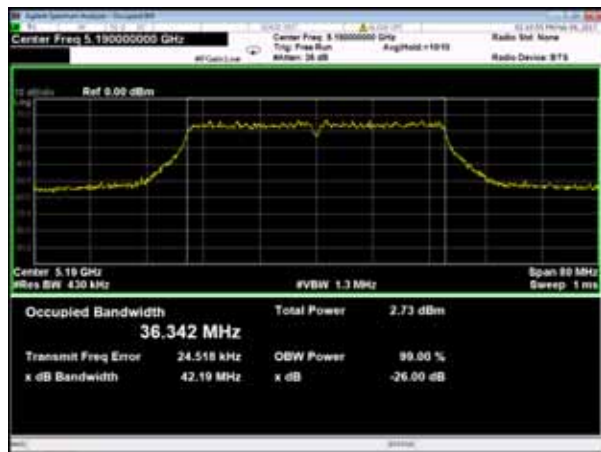
5825MHz





11n-HT40

5190MHz



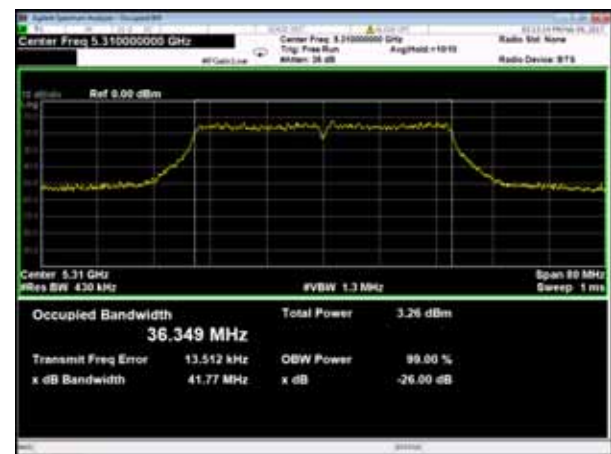
5230MHz



5270MHz



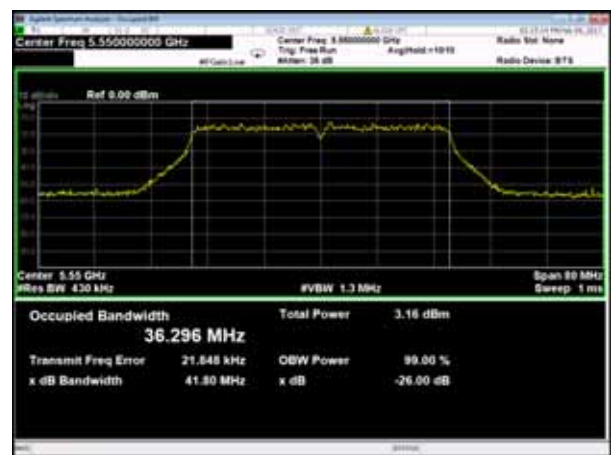
5310MHz



5510MHz



5550MHz



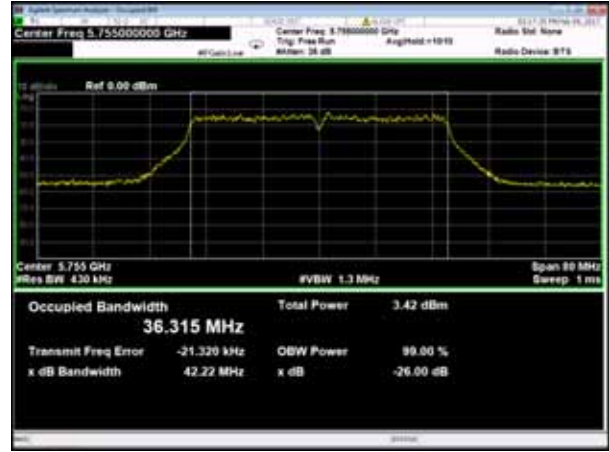


11n-HT40

5670MHz



5755MHz



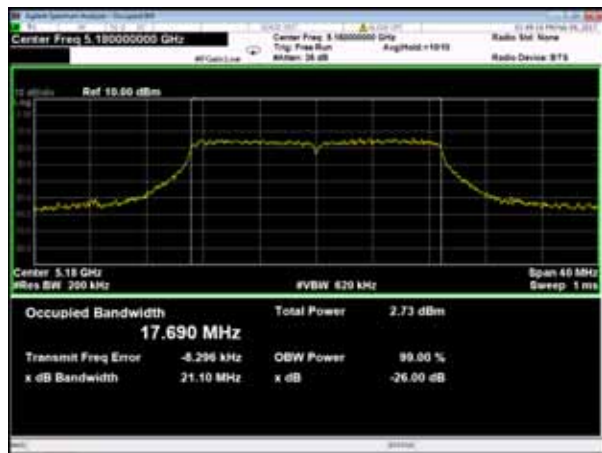
5795MHz





1lac-HT20

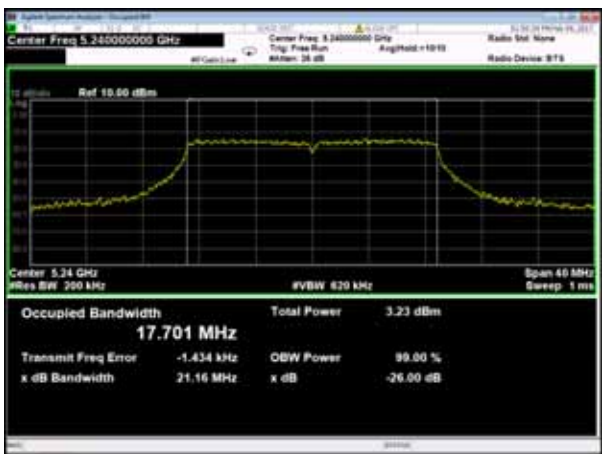
5180MHz



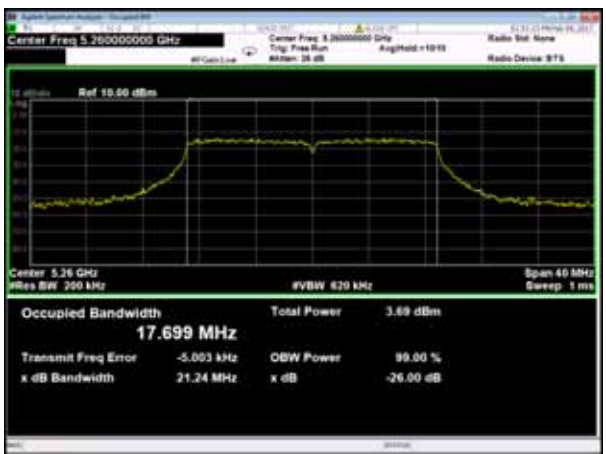
5220MHz



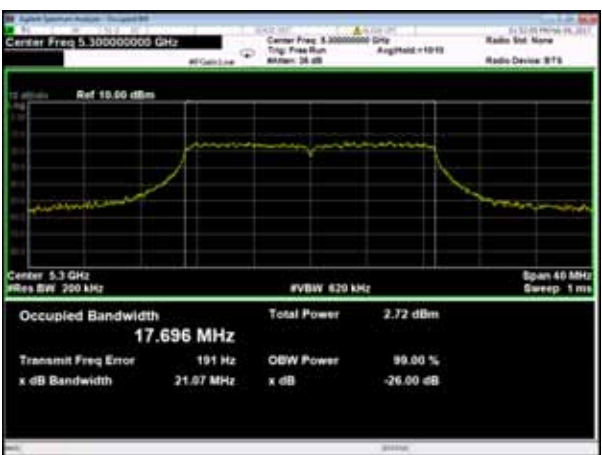
5240MHz



5260MHz



5300MHz



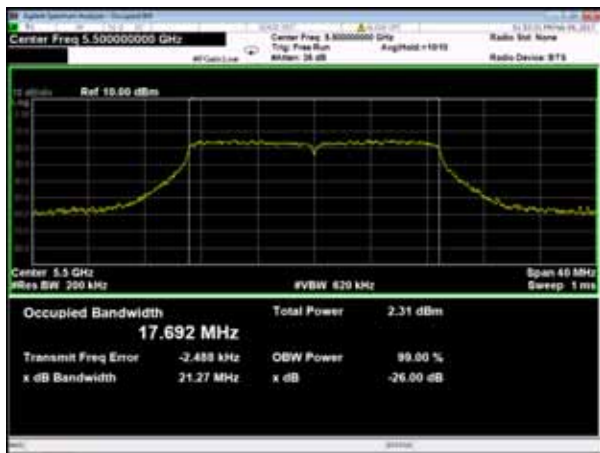
5320MHz



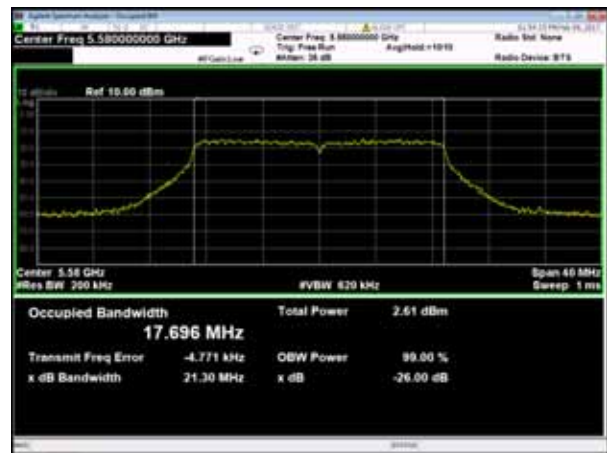


1lac-HT20

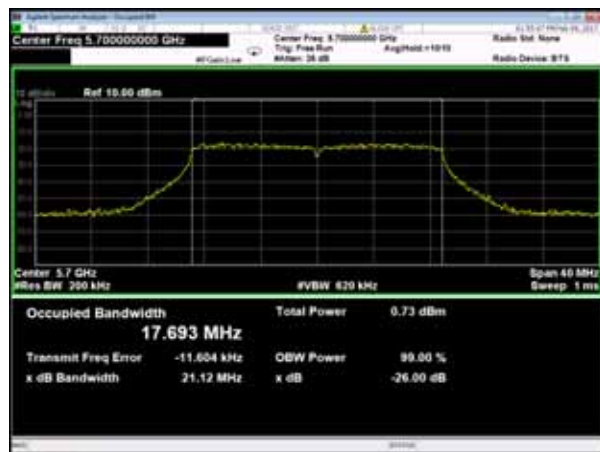
5500MHz



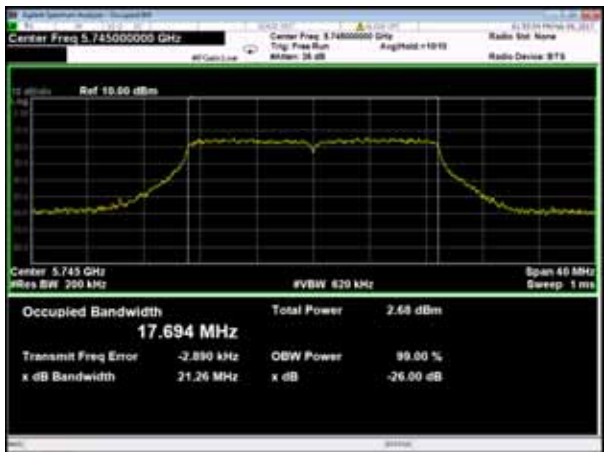
5580MHz



5700MHz



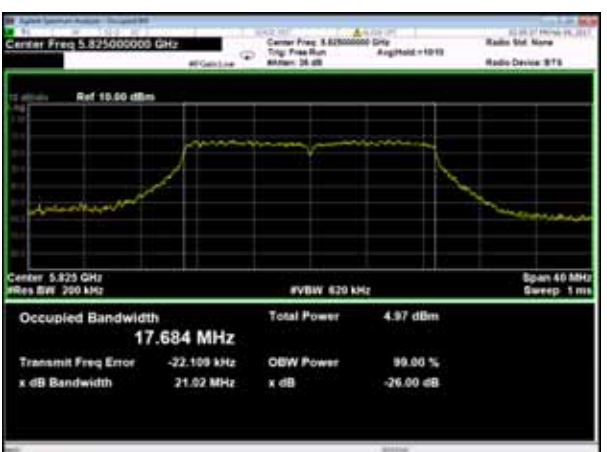
5745MHz



5785MHz



5825MHz





11ac-HT40

5190MHz



5230MHz



5270MHz



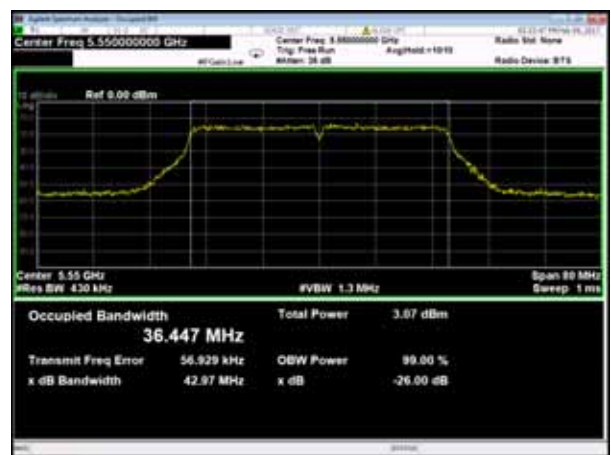
5310MHz



5510MHz



5550MHz





1lac-HT40

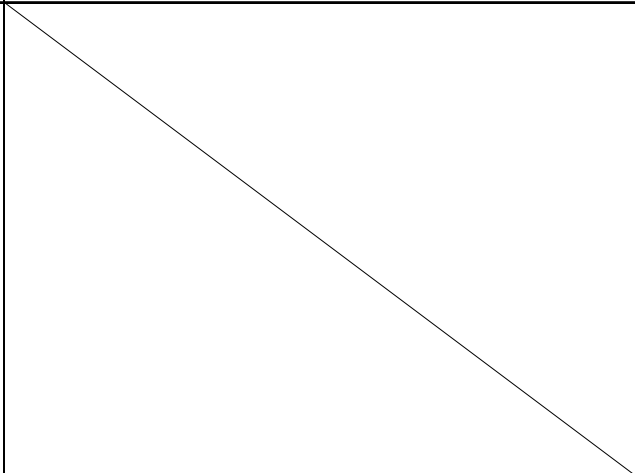
5670MHz



5755MHz



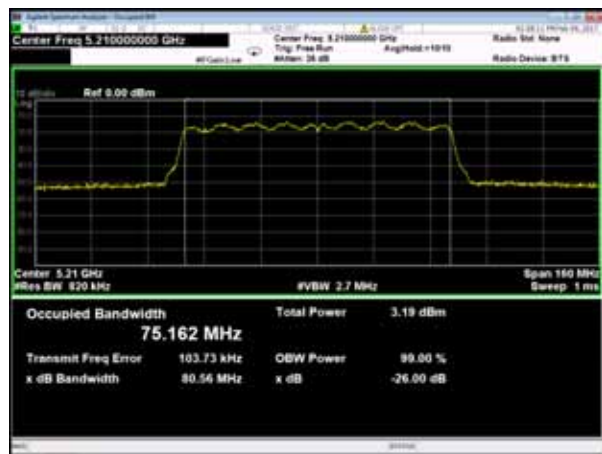
5795MHz



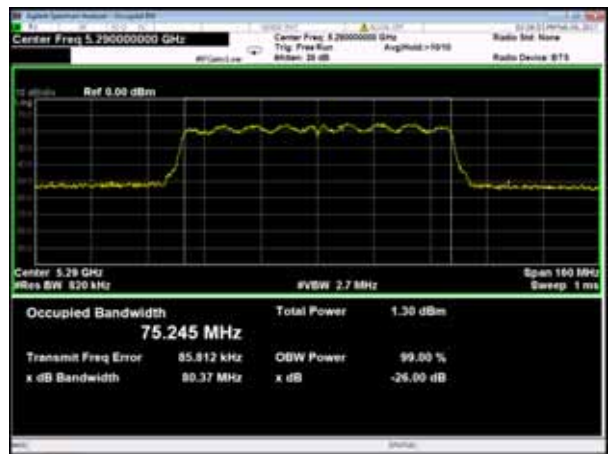


1lac-HT80

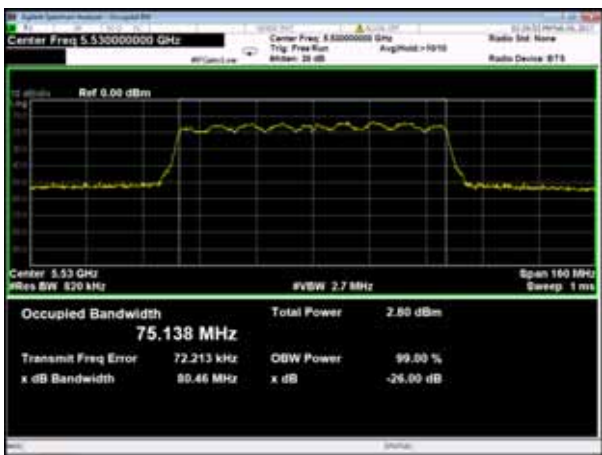
5210MHz



5290MHz



5530MHz



5610MHz



5775MHz

