



FCC PART 15 TEST REPORT No. I17Z60505-SRD06

for

TCL Communication Ltd.

**GSM Quad-band /UMTS Quad-band CDMA/EVDO Tri-band /LTE 13
bands mobile phone**

6060S

With

FCC ID: 2ACCJA024

Hardware Version: 04

Software Version: v4E1W

Issued Date: 2017-06-12



Note: The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I17Z60505-SRD06	Rev.0	1st edition	2017-05-22
I17Z60505-SRD06	Rev.1	Update the unit of OBW	2017-06-12

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1. TEST LATORATORY

1.1. Testing Location

Conducted testing Location: CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,
P. R. China100191

Radiated testing Location: CTTL(BDA)

Address: No. 18 Jia Kangding Street, BDA District, Beijing, P. R.
China 100191

1.2. Testing Environment

Normal Temperature: 15-35℃
Extreme Temperature: -20/+60℃
Relative Humidity: 20-75%

1.3. Project data

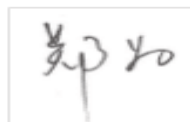
Testing Start Date: 2017-4-17
Testing End Date: 2017-5-19

1.4. Signature



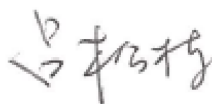
Jiang Xue

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(Approved this test report)

2. CLIENT INFORMATION

2.1. Applicant Information

Company Name: TCL Communication Ltd.
Address: 5F, C building, No. 232, Liang Jing Road ZhangJiang High-Tech Park,
Pudong Area Shanghai, P.R. China. 201203
City: Shanghai
Postal Code: 201203
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2.2. Manufacturer Information

Company Name: TCL Communication Ltd.
Address: 5F, C building, No. 232, Liang Jing Road ZhangJiang High-Tech Park,
Pudong Area Shanghai, P.R. China. 201203
City: Shanghai
Postal Code: 201203
Country: China
Contact: Gong Zhizhou
Telephone: 0086-21-31363544
Fax: 0086-21-61460602

3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY

EQUIPMENT(AE)

3.1. About EUT

Description	GSM Quad-band /UMTS Quad-band CDMA/EVDO Tri-band /LTE 13 bands mobile phone
Model name	6060S
FCC ID	2ACCJA024
IC ID	/
WLAN Frequency Range	ISM Bands: -5150MHz~5350MHz -5470MHz~5725MHz -5725MHz~5850MHz
Type of modulation	OFDM
Antenna	Integral Antenna
Voltage	3.85 V DC by Battery

Note: Photographs of EUT are shown in ANNEX C of this test report. Components list, please refer to documents of the manufacturer.

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
EUT1	01490900006748	04	v4E1W
EUT2	01490900000778	04	v4E1W

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE used during the test

AE ID*	Description	Type	SN
AE1	battery	/	/
AE2	battery	/	/
AE3	Travel charger	/	1760505CH005/004/008
AE4	USB Cable	/	1760505DC005
AE5	USB Cable	/	1760505DC011
AE6	USB Cable	/	1760505DC003

AE1

Model	CAC2560001CJ
Manufacturer	COSLIGHT
Capacitance	2560 mAh
Nominal voltage	3.85V

AE2

Model	CAC2560002C1
Manufacturer	BYD
Capacitance	2560 mAh
Nominal voltage	3.85V

AE3

Model	CBA0059AGAC2
Manufacturer	Tenpao
Length of cable	/

AE4

Model	CDA0000078CF
Manufacturer	LUXSHARE
Length of cable	/

AE5

Model	CDA0000078C1
Manufacturer	juwei
Length of cable	/

AE6

Model	CDA0000103CF
Manufacturer	LUXSHARE
Length of cable	/

*AE ID: is used to identify the test sample in the lab internally.

3.4. General Description

The Equipment under Test (EUT) is a model of GSM Quad-band /UMTS Quad-band CDMA/EVDO Tri-band /LTE 13 bands mobile phone with integrated antenna and inbuilt battery.

It has Bluetooth (EDR) function.

It consists of normal options: travel charger, USB cable and Phone.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the client.

3.5. Interpretation of the Test Environment

For the test methods, the test environment uncertainty figures correspond to an expansion factor $k=2$.

Measurement Uncertainty

Parameter	Uncertainty
temperature	0.48°C
humidity	2 %
DC voltages	0.003V

4. REFERENCE DOCUMENTS

4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

FCC Part15	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices	2015
ANSI C63.10	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2014
UNII: KDB 789033	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E	2014-06

5. LABORATORY ENVIRONMENT

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Semi-anechoic chamber.

6. SUMMARY OF TEST RESULTS

6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15E	Sub-clause of IC	Verdict
Maximum Output Power	15.407	/	P
Power Spectral Density	15.407	/	P
Occupied 26dB Bandwidth	15.403	/	P
Band edge compliance	15.407	/	P
Transmitter spurious emissions radiated	15.407	/	P
Spurious emissions radiated < 30 MHz	15.407	/	P
Spurious emissions conducted < 30 MHz	15.407	/	P
Frequency Stability	15.407	/	P
Transmit Power Control	15.407	/	NA

Please refer to **ANNEX A** for detail.

Terms used in Verdict column

P	Pass, The EUT complies with the essential requirements in the standard.
NM	Not measured, The test was not measured by CTTL
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the standard

6.2. Statements

CTTL has evaluated the test cases requested by the client/manufacture as listed in section 6.1 of this report for the EUT specified in section 3 according to the standards or reference documents listed in section 4.1.

This report only deals with the WLAN function among the features described in section 3.

6.3. Test Conditions

For this report, all the test cases are tested under normal temperature and normal voltage, and also under norm humidity, the specific condition is shown as follows:

Temperature	26°C
Voltage	3.84V
Humidity	44%

7. TEST EQUIPMENTS UTILIZED

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration date	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	2016-06-07	2017-06-06
2	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration date	Calibration Due date
1	Test Receiver	ESU26	100235	Rohde & Schwarz	2017-03-02	2018-04-01
2	Loop antenna	HFH2-Z2	829324/007	Rohde & Schwarz	2014-12-17	2017-12-16
3	BiLog Antenna	VULB9163	301	Schwarzbeck	2014-12-17	2017-12-16
4	Dual-Ridge Waveguide Horn Antenna	3115	6914	EMCO	2014-12-16	2017-12-15
5	Dual-Ridge Waveguide Horn Antenna	3116	2661	ETS-Lindgren	2014-06-18	2017-06-17
6	Vector Signal Analyzer	FSV40	101047	Rohde & Schwarz	2016-06-29	2017-06-28
7	Semi-anechoic chamber	/	CT000332-1074	Frankonia German	/	/

Test Software Utilized

Test Item	Test Software and Version	Software Vendor
Radiated Continuous Emission	EMC32 V9.01.00	R&S
Conducted Continuous Emission	EMC32 V8.52.0	R&S

8. Measurement Uncertainty

8.1. Transmitter Output Power

Measurement Uncertainty: 0.339dB,k=1.96

8.2. Peak Power Spectral Density

Measurement Uncertainty: 0.705dBm/MHz,k=1.96

8.3. Occupied Channel Bandwidth

Measurement Uncertainty: 60.80Hz,k=1.96

8.4. Band Edges Compliance

Measurement Uncertainty : 0.62dBm,k=1.96

8.5. Spurious Emissions

Conducted (k=1.96)

Frequency Range	Uncertainty(dBm)
$30\text{MHz} \leq f \leq 2\text{GHz}$	1.22
$2\text{GHz} \leq f \leq 3.6\text{GHz}$	1.22
$3.6\text{GHz} \leq f \leq 8\text{GHz}$	1.22
$8\text{GHz} \leq f \leq 12.75\text{GHz}$	1.51
$12.75\text{GHz} \leq f \leq 26\text{GHz}$	1.51
$26\text{GHz} \leq f \leq 40\text{GHz}$	1.59

Radiated (k=2)

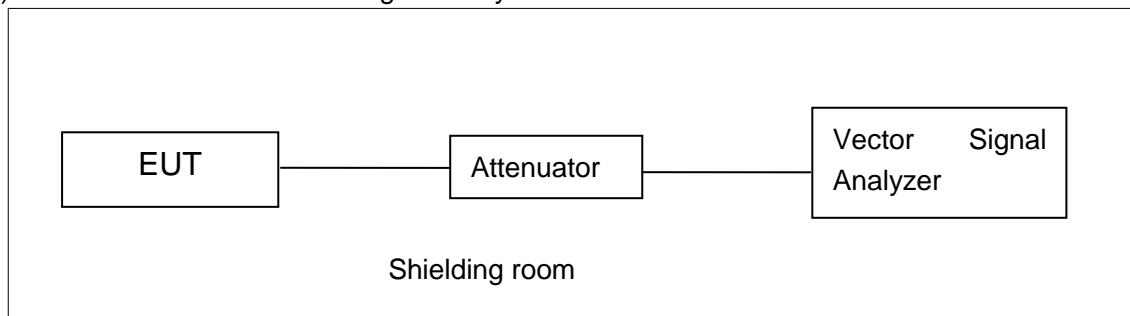
Frequency Range	Uncertainty(dBm)
9kHz-30MHz	/
$30\text{MHz} \leq f \leq 1\text{GHz}$	4.86
$1\text{GHz} \leq f \leq 18\text{GHz}$	5.26
$18\text{GHz} \leq f \leq 40\text{GHz}$	5.28

ANNEX A: MEASUREMENT RESULTS

A.1. Measurement Method

A.1.1. Conducted Measurements

- 1). Connect the EUT to the test system correctly.
- 2). Set the EUT to the required work mode.
- 3). Set the EUT to the required channel.
- 4). Set the spectrum analyzer to start measurement.
- 5). Record the values. Vector Signal Analyzer

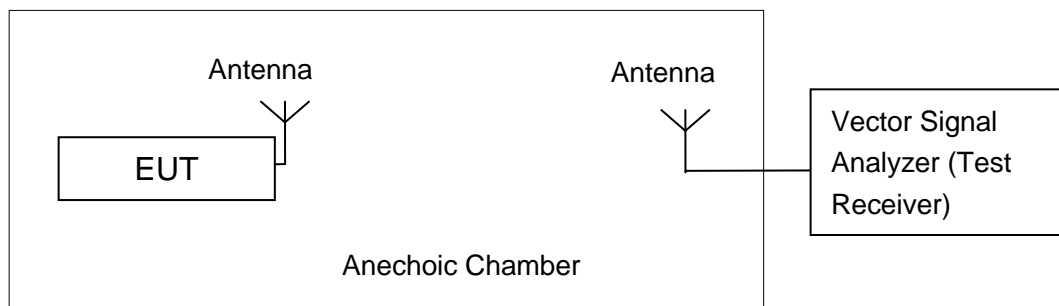


A.1.2. Radiated Emission Measurements

In the case of radiated emission, the used settings are as follows,

Sweep frequency from 30 MHz to 1GHz, RBW = 100 kHz, VBW = 300 kHz;

Sweep frequency from 1 GHz to 26GHz, RBW = 1MHz, VBW = 10Hz;



The measurement is made according to KDB 789033

The radiated emission test is performed in semi-anechoic chamber. The distance from the EUT to the reference point of measurement antenna is 3m. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result.

A.2. Maximum output Power

Measurement Limit and Method:

Standard	Frequency (MHz)	Limit (dBm)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	24dBm
	5250MHz~5350MHz	24dBm or 11+10logB
	5470MHz~5725MHz	24dBm or 11+10logB

Limit use the less value, and B is the 26dB bandwidth.

The measurement method SA-1 is made according to KDB 789033

Measurement Results:

802.11a mode

Mode	Channel	Test Result (dBm)							
		Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
802.11a	5180MHz (Ch36)	15.75	15.67	14.74	14.60	13.54	13.35	12.15	11.08
	5200MHz (Ch40)	15.63	/	/	/	/	/	/	/
	5240MHz(Ch48)	16.25	/	/	/	/	/	/	/
	5260MHz(Ch52)	15.92	/	/	/	/	/	/	/
	5280MHz(Ch56)	16.22	/	/	/	/	/	/	/
	5320MHz(Ch64)	16.28	/	/	/	/	/	/	/
	5500MHz(Ch100)	15.15	/	/	/	/	/	/	/
	5580MHz(Ch116)	15.45	/	/	/	/	/	/	/
	5700MHz(Ch140)	14.70	/	/	/	/	/	/	/

The data rate 6Mbps is selected as worse condition, and the following cases are performed with this condition.

802.11n-HT20 mode

Mode	Channel	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT20)	5180MHz (Ch36)	16.05	15.89	14.90	14.72	13.59	12.40	11.33	10.30
	5200MHz (Ch40)	15.72	/	/	/	/	/	/	/
	5240MHz(Ch48)	16.31	/	/	/	/	/	/	/
	5260MHz(Ch52)	15.99	/	/	/	/	/	/	/
	5280MHz(Ch56)	16.27	/	/	/	/	/	/	/
	5320MHz(Ch64)	16.32	/	/	/	/	/	/	/
	5500MHz(Ch100)	15.18	/	/	/	/	/	/	/
	5580MHz(Ch116)	15.48	/	/	/	/	/	/	/
	5700MHz(Ch140)	14.71	/	/	/	/	/	/	/

The data rate MCS0 is selected as worse condition, and the following cases are performed with this condition.

802.11n-HT40 mode

Mode	Channel	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT40)	5190MHz (Ch38)	15.20	14.99	13.85	13.57	12.25	10.95	9.79	8.66
	5230MHz(Ch46)	15.49	/	/	/	/	/	/	/
	5270MHz(Ch54)	15.67	/	/	/	/	/	/	/
	5310MHz(Ch62)	15.95	/	/	/	/	/	/	/
	5510MHz(Ch102)	14.68	/	/	/	/	/	/	/
	5550MHz(Ch110)	15.37	/	/	/	/	/	/	/
	5670MHz(Ch134)	14.56	/	/	/	/	/	/	/

The data rate MCS0 is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT20 mode

Mode	Channel	Test Result (dBm)								
		Data Rate								
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
802.11 ac (HT20)	5180MHz (Ch36)	14.23	13.64	12.34	10.88	9.18	8.85	7.60	7.40	7.07
	5200MHz (Ch40)	13.88	/	/	/	/	/	/	/	/
	5240MHz(Ch48)	14.51	/	/	/	/	/	/	/	/
	5260MHz(Ch52)	14.09	/	/	/	/	/	/	/	/
	5280MHz(Ch56)	14.50	/	/	/	/	/	/	/	/
	5320MHz(Ch64)	14.60	/	/	/	/	/	/	/	/
	5500MHz(Ch100)	13.91	/	/	/	/	/	/	/	/
	5580MHz(Ch116)	13.70	/	/	/	/	/	/	/	/
	5700MHz(Ch140)	13.23	/	/	/	/	/	/	/	/

The data rate MCS0 is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT40 mode

Mode	Channel	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11 ac (HT40)	5190MHz (Ch38)	13.35	12.54	10.94	9.25	7.65	7.23	6.06	5.86	5.64	5.58
	5230MHz(Ch46)	13.63	/	/	/	/	/	/	/	/	/
	5270MHz(Ch54)	13.89	/	/	/	/	/	/	/	/	/
	5310MHz(Ch62)	14.19	/	/	/	/	/	/	/	/	/
	5510MHz(Ch102)	12.73	/	/	/	/	/	/	/	/	/
	5550MHz(Ch110)	13.51	/	/	/	/	/	/	/	/	/
	5670MHz(Ch134)	13.70	/	/	/	/	/	/	/	/	/

The data rate MCS0 is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT80 mode

Mode	Channel	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11 ac (HT80)	5210MHz(Ch42)	11.27	9.89	9.26	7.76	6.24	5.93	4.74	4.73	4.57	4.36
	5290MHz(Ch58)	11.91	/	/	/	/	/	/	/	/	/
	5530MHz(Ch106)	10.79	/	/	/	/	/	/	/	/	/
	5610MHz(Ch122)	10.84	/	/	/	/	/	/	/	/	/

The data rate MCS0 is selected as worse condition, and the following cases are performed with this condition.

A.3. Peak Power Spectral Density (conducted)

Measurement Limit:

Standard	Frequency (MHz)	Limit (dBm/MHz)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	11
	5250MHz~5350MHz	11
	5470MHz~5725MHz	11

The output power measurement method SA-1 is made according to KDB 789033

Measurement Results:

Mode	Channel	Power Spectral Density (dBm/MHz)	Conclusion
802.11a	5180 MHz	6.37	P
	5200 MHz	5.52	P
	5240 MHz	5.92	P
	5260 MHz	5.93	P
	5280 MHz	5.80	P
	5320 MHz	6.30	P
	5500 MHz	4.98	P
	5580 MHz	5.48	P
	5700 MHz	4.41	P

Note:802.11a was selected as the worst-case of the test case.

Conclusion: PASS

A.4. Occupied 26dB Bandwidth(conducted)

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.403 (i)	/

The measurement is made according to KDB 789033

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
-------------------------	---------

Measurement Result:

Mode	Channel	Occupied 26dB Bandwidth (MHz)		conclusion
802.11n HT20	5180 MHz	Fig.1	47.50	P
	5200 MHz	Fig.2	46.95	P
	5240 MHz	Fig.3	48.25	P
	5260 MHz	Fig.4	48.15	P
	5280 MHz	Fig.5	48.95	P
	5320 MHz	Fig.6	48.55	P
	5500 MHz	Fig.7	47.60	P
	5580 MHz	Fig.8	48.30	P
	5700 MHz	Fig.9	45.45	P
802.11n HT40	5190 MHz	Fig.10	70.84	P
	5230 MHz	Fig.11	79.92	P
	5270 MHz	Fig.12	80.00	P
	5310 MHz	Fig.13	80.00	P
	5510 MHz	Fig.14	80.00	P
	5550 MHz	Fig.15	80.00	P
	5670 MHz	Fig.16	80.00	P
802.11ac HT80	5210MHz	Fig.17	94.56	P
	5290MHz	Fig.18	135.68	P
	5530MHz	Fig.19	122.40	P
	5610MHz	Fig.20	122.72	P

Conclusion: PASS

Test graphs as below:

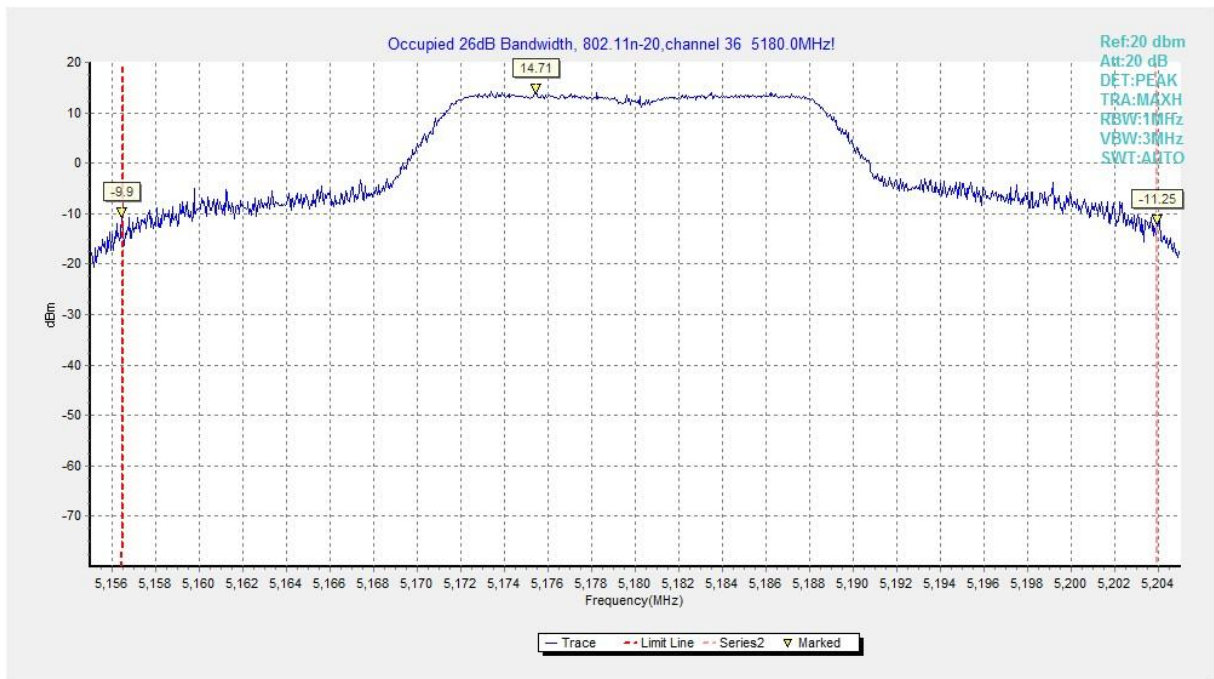


Fig. 1 Occupied 26dB Bandwidth (802.11n-HT20, 5180MHz)

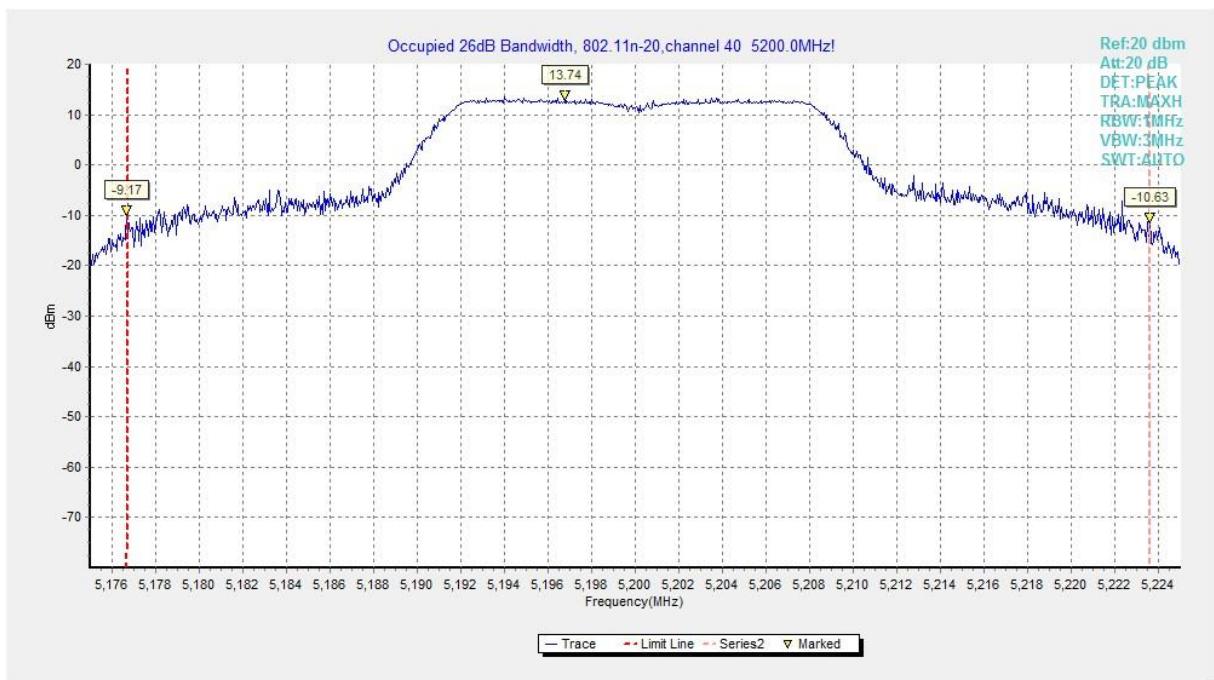


Fig. 2 Occupied 26dB Bandwidth (802.11n-HT20, 5200MHz)

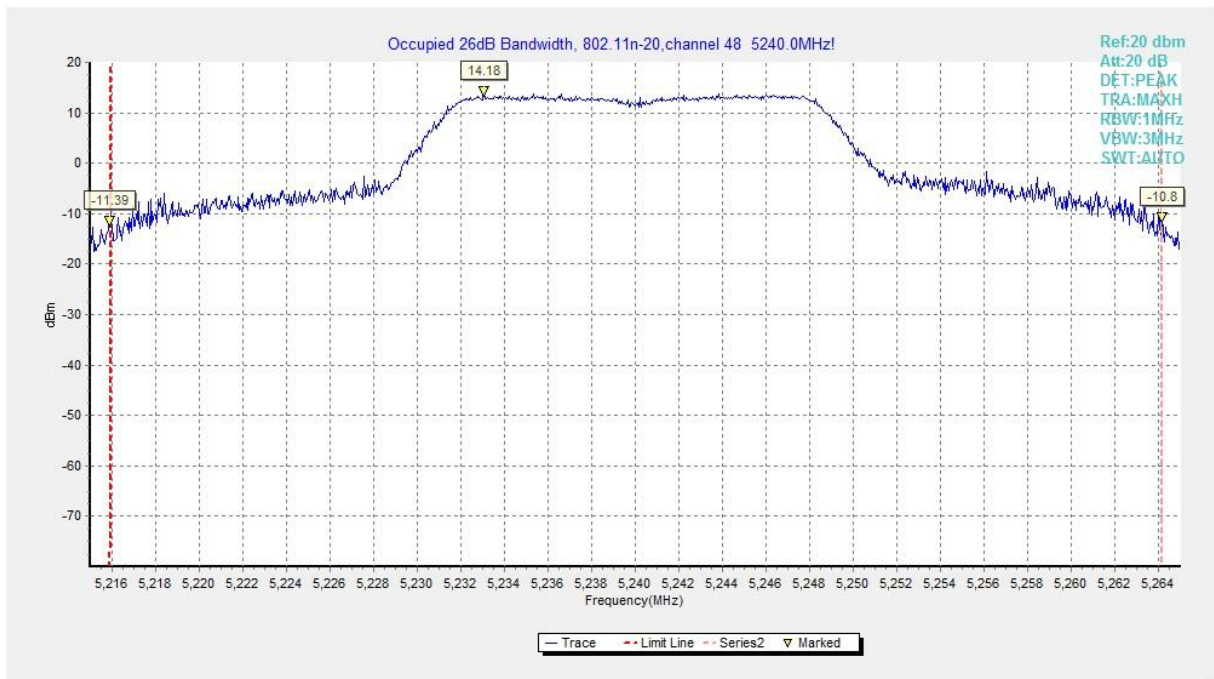


Fig. 3 Occupied 26dB Bandwidth (802.11n-HT20, 5240MHz)

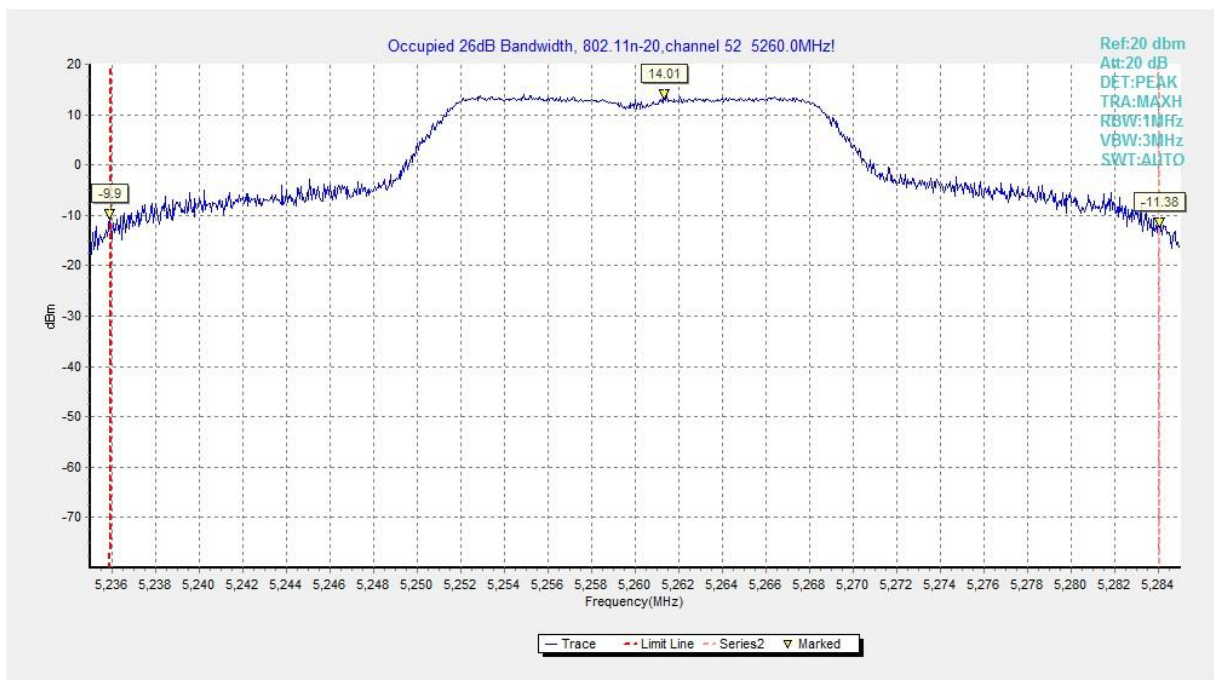


Fig. 4 Occupied 26dB Bandwidth (802.11 n-HT20, 5260MHz)

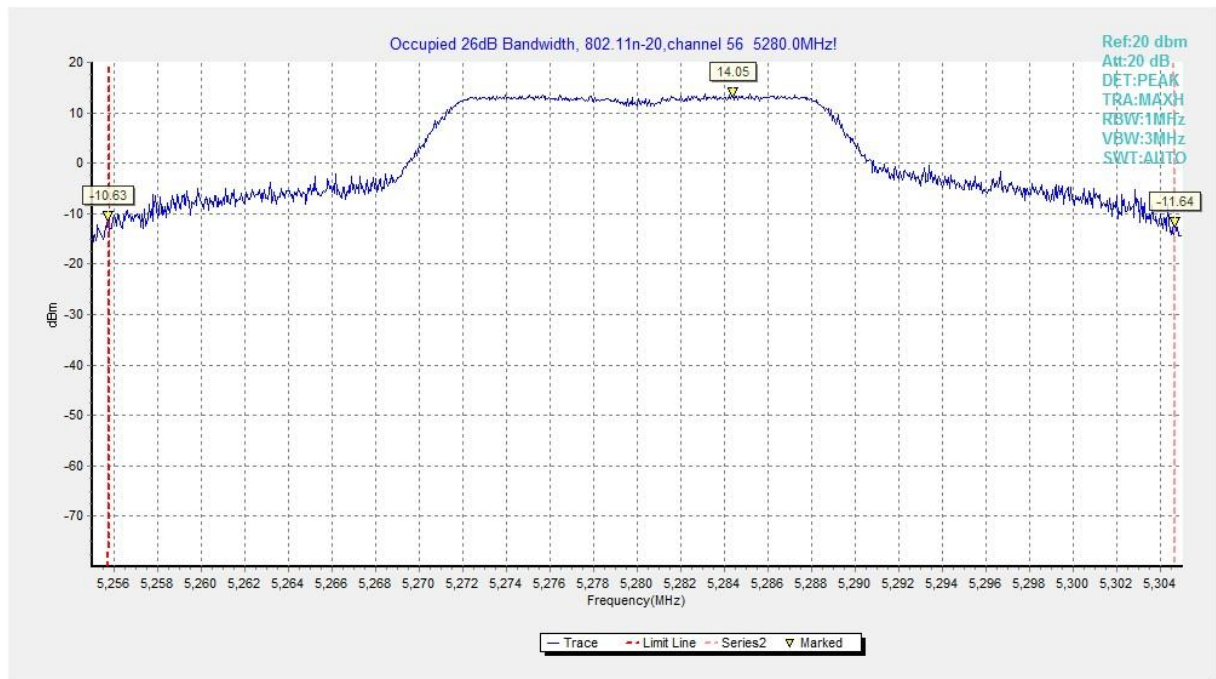


Fig. 5 Occupied 26dB Bandwidth (802.11 n-HT20, 5280MHz)

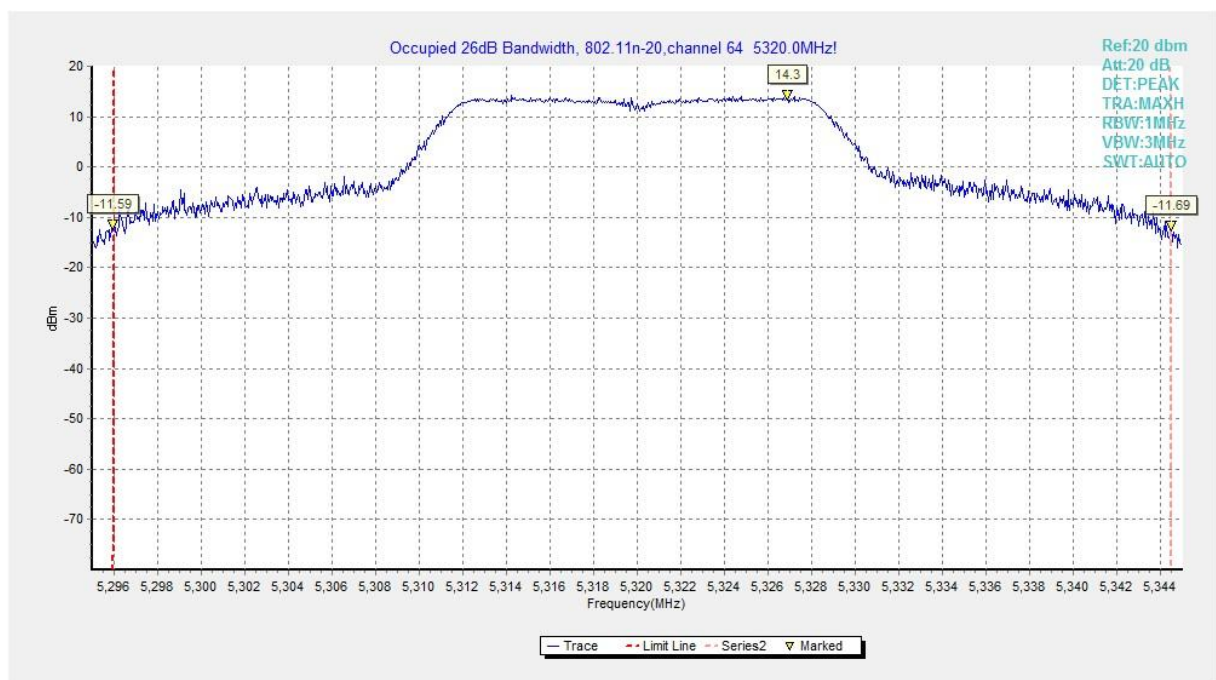


Fig. 6 Occupied 26dB Bandwidth (802.11 n-HT20, 5320MHz)

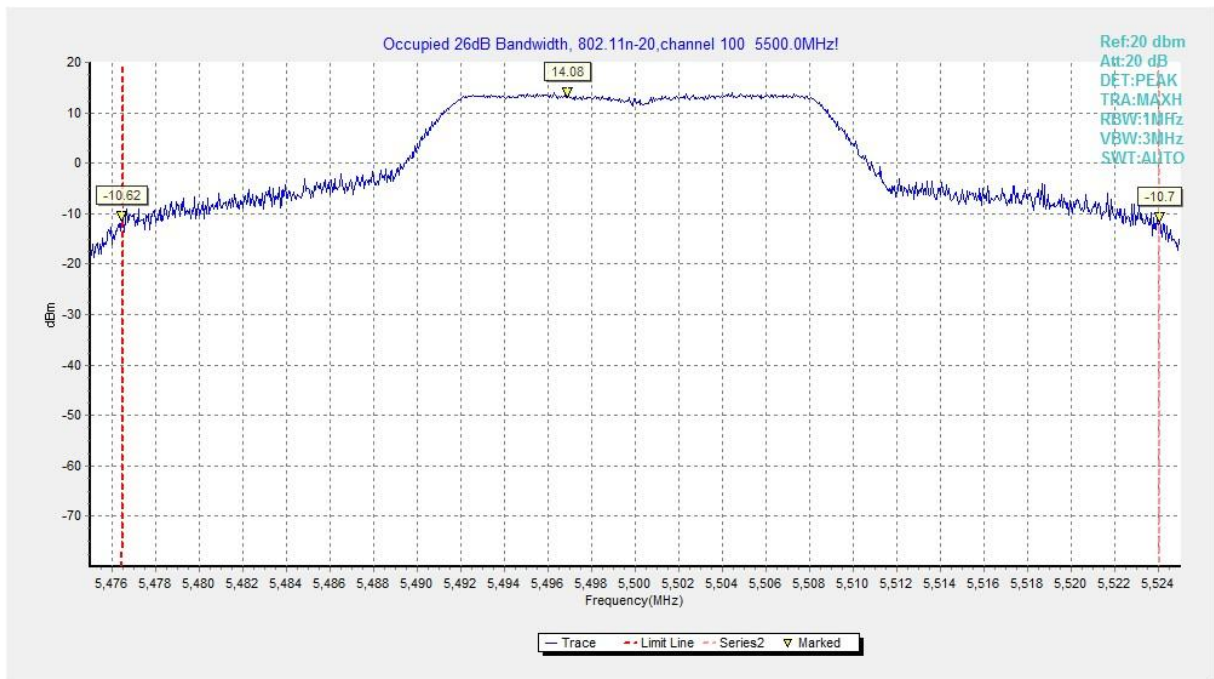


Fig. 7 Occupied 26dB Bandwidth (802.11 n-HT20, 5500MHz)

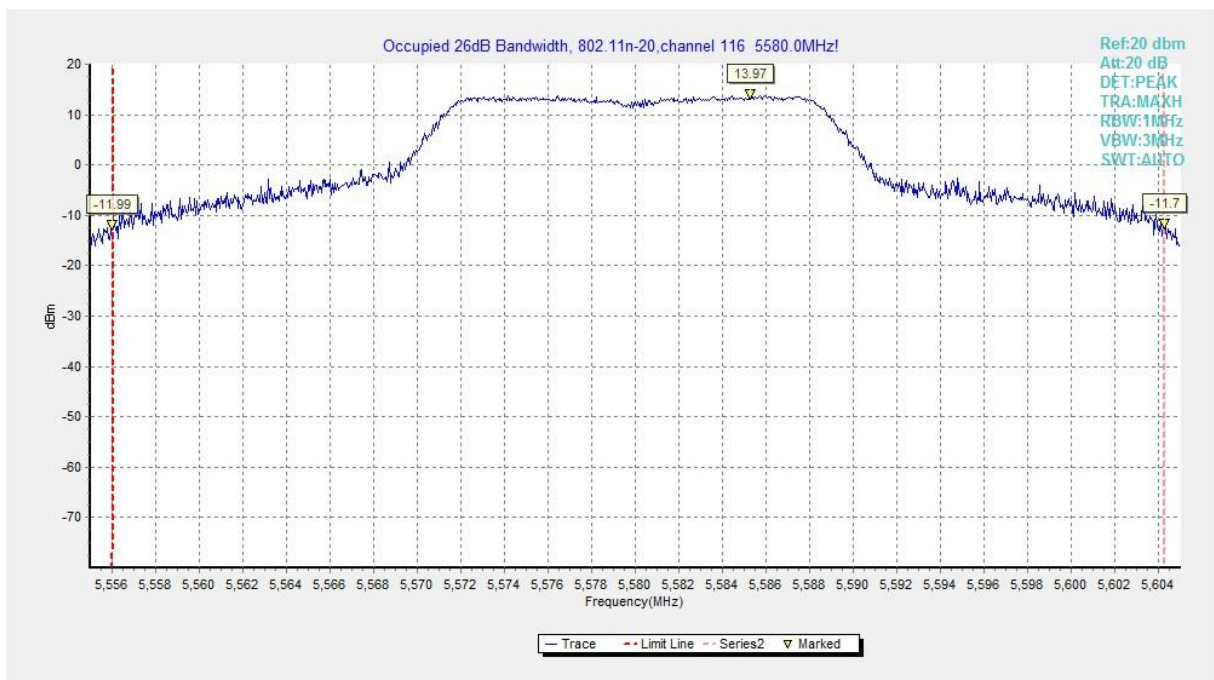


Fig. 8 Occupied 26dB Bandwidth (802.11 n-HT20, 5580MHz)

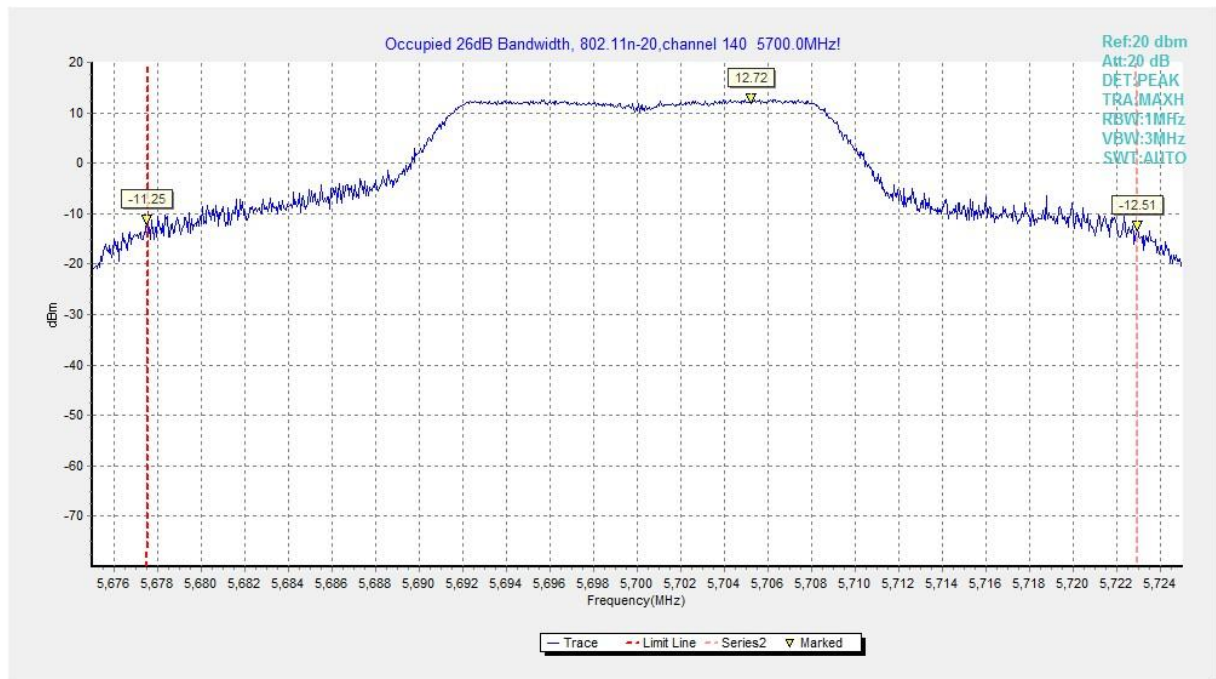


Fig. 9 Occupied 26dB Bandwidth (802.11 n-HT20, 5700MHz)

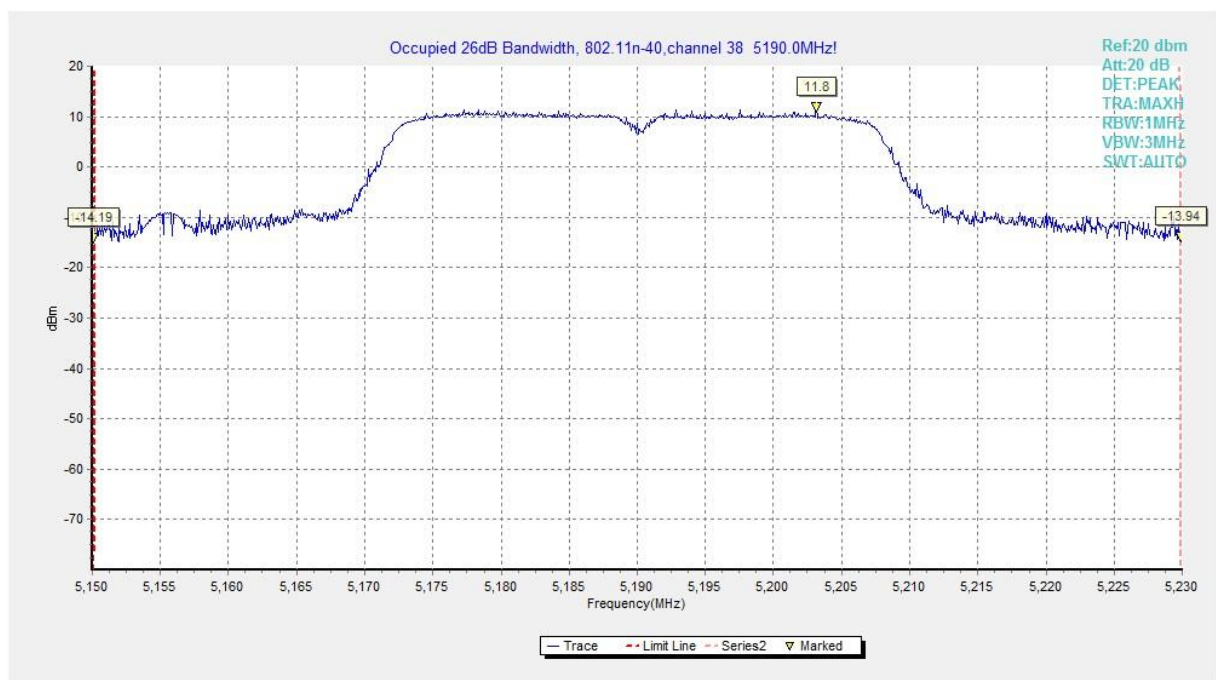


Fig. 10 Occupied 26dB Bandwidth (802.11n-HT40, 5190MHz)

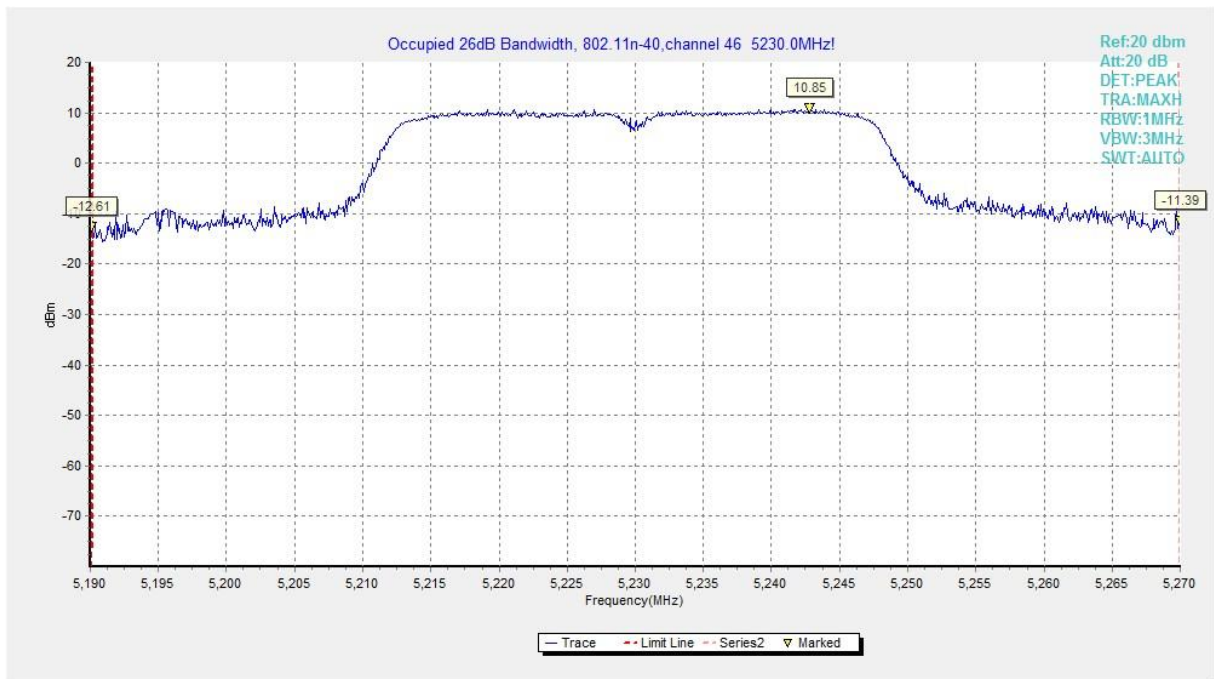


Fig. 11 Occupied 26dB Bandwidth (802.11n-HT40, 5230MHz)

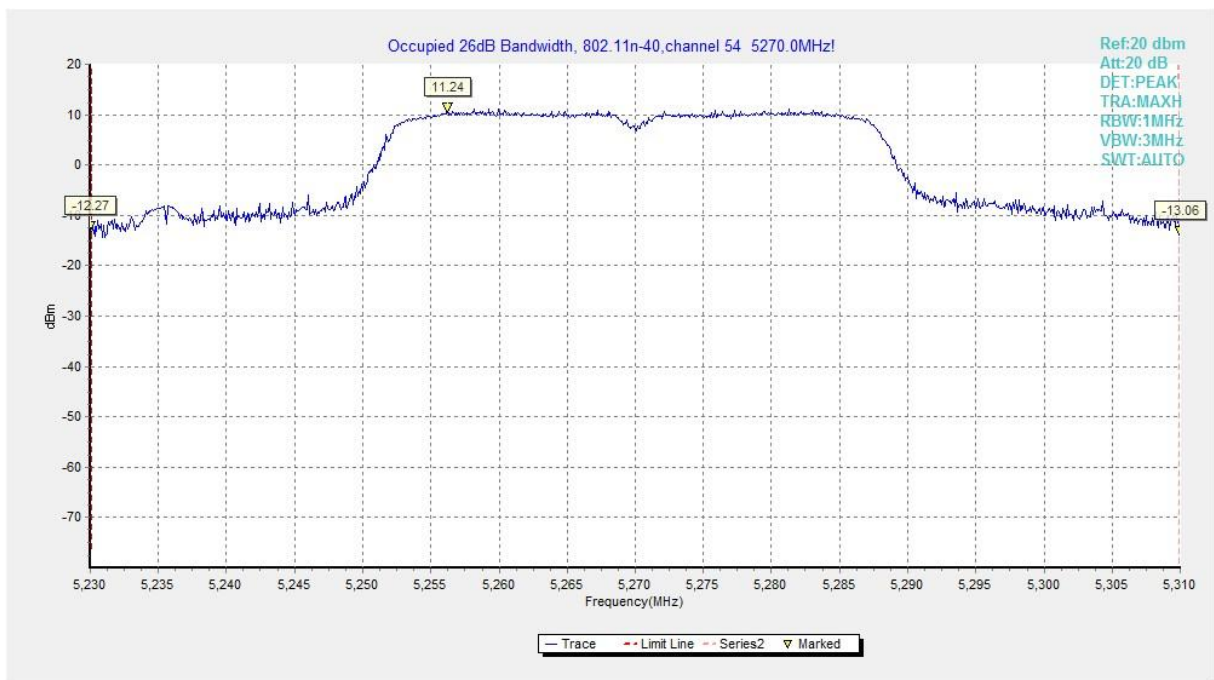


Fig. 12 Occupied 26dB Bandwidth (802.11n-HT40, 5270MHz)

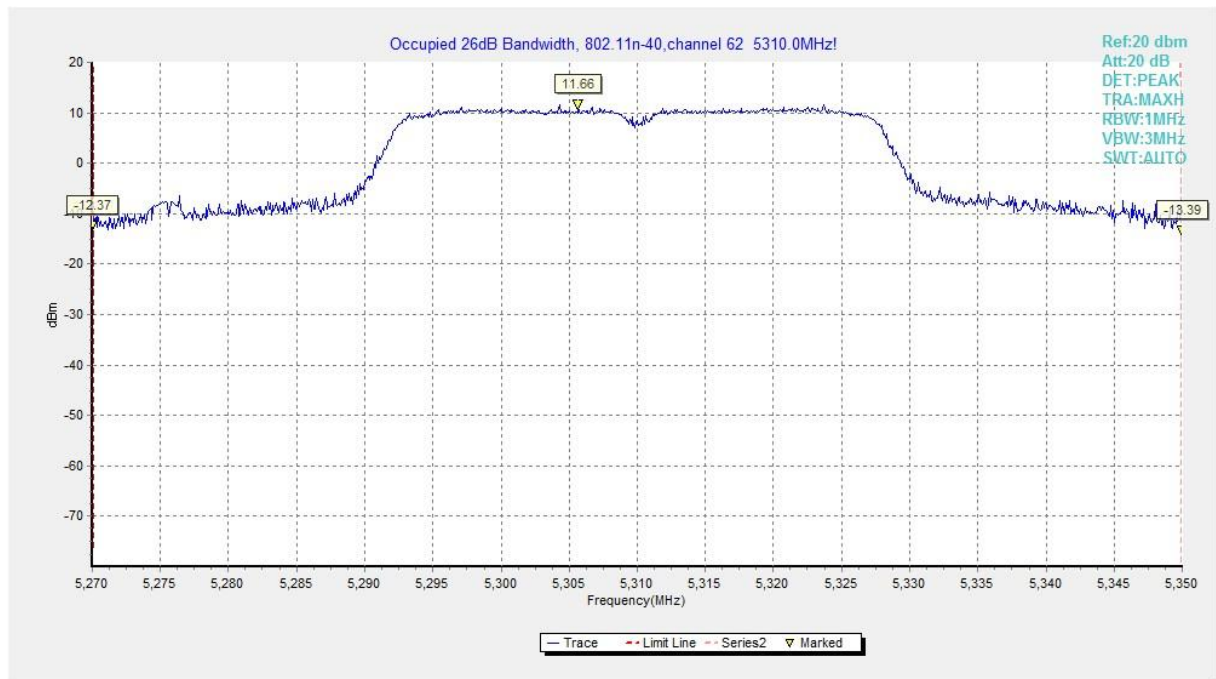


Fig. 13 Occupied 26dB Bandwidth (802.11n-HT40, 5310MHz)

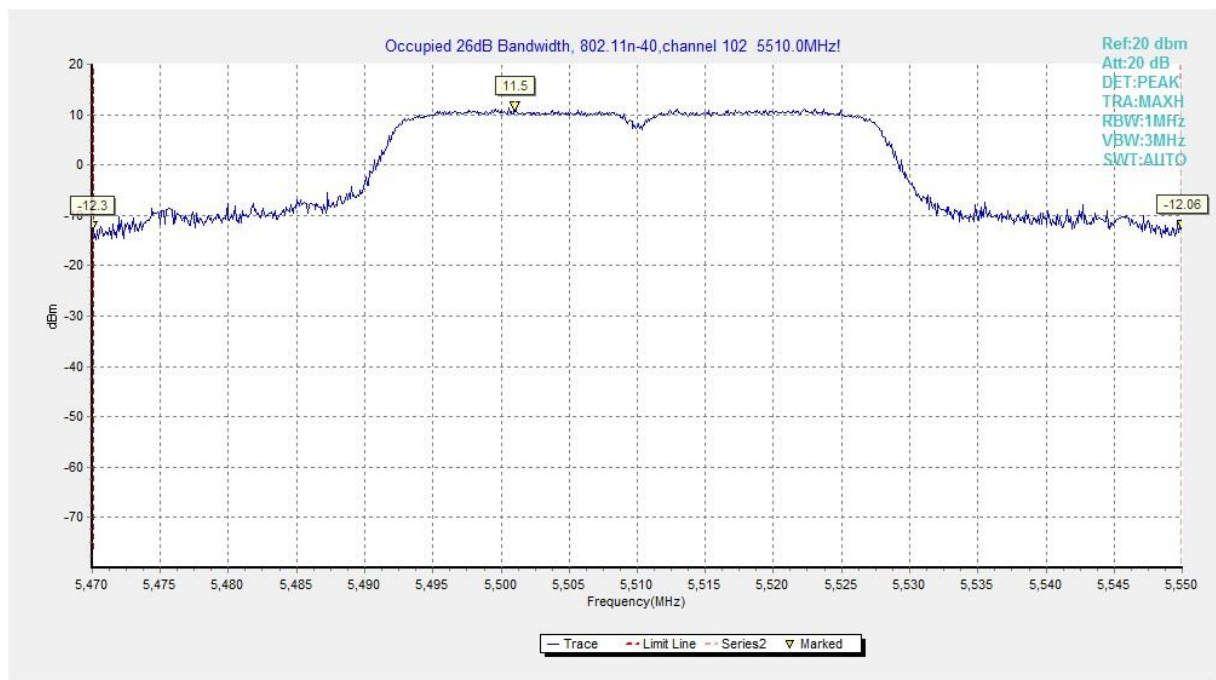


Fig. 14 Occupied 26dB Bandwidth (802.11n-HT40, 5510MHz)

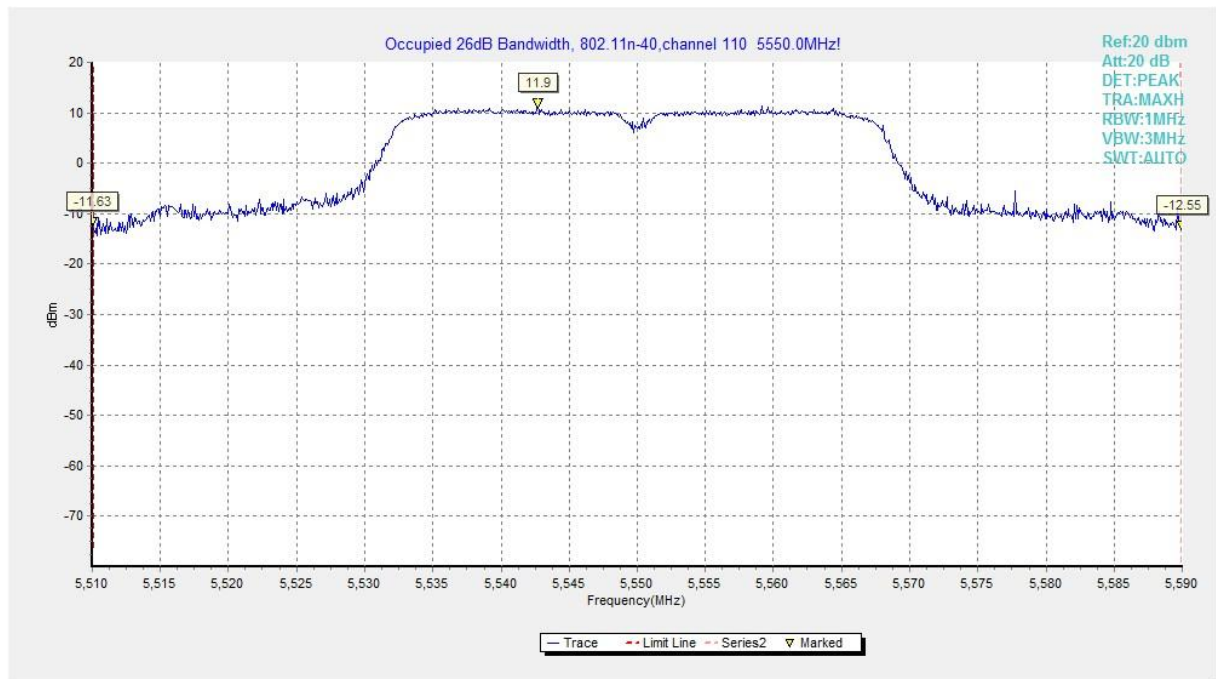


Fig. 15 Occupied 26dB Bandwidth (802.11n-HT40, 5550MHz)

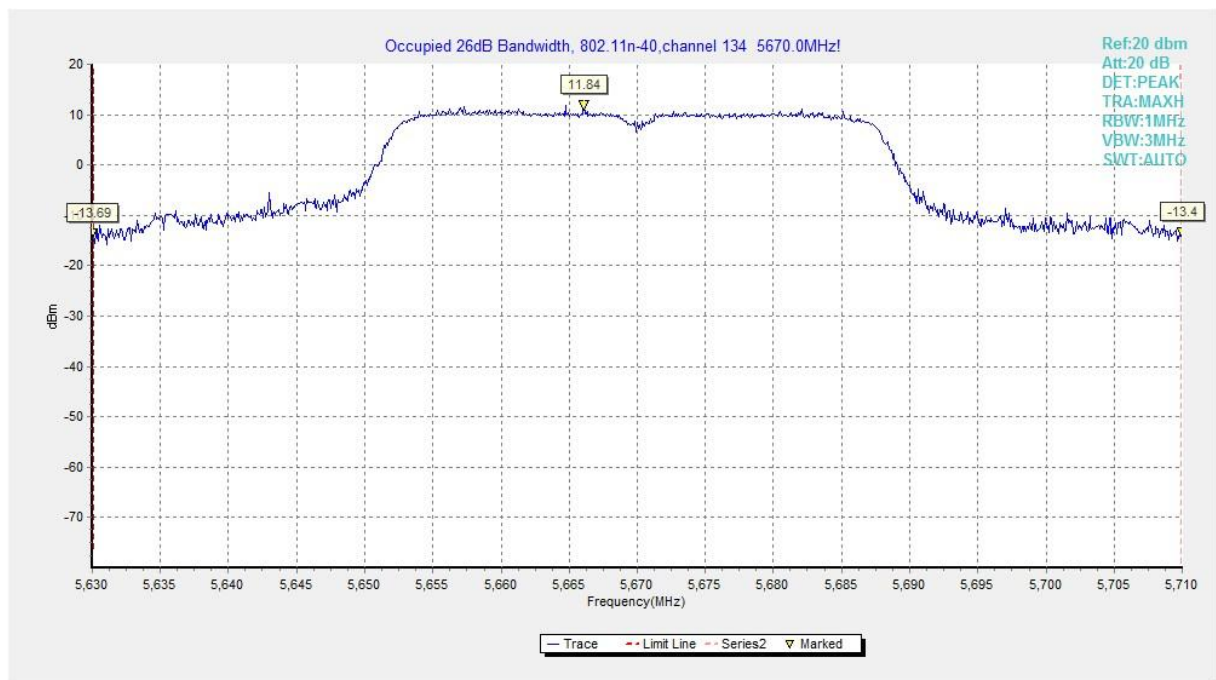


Fig. 16 Occupied 26dB Bandwidth (802. 11n-HT40, 5670MHz)



Fig. 17 Occupied 26dB Bandwidth (802. 11ac-HT80, 5210MHz)

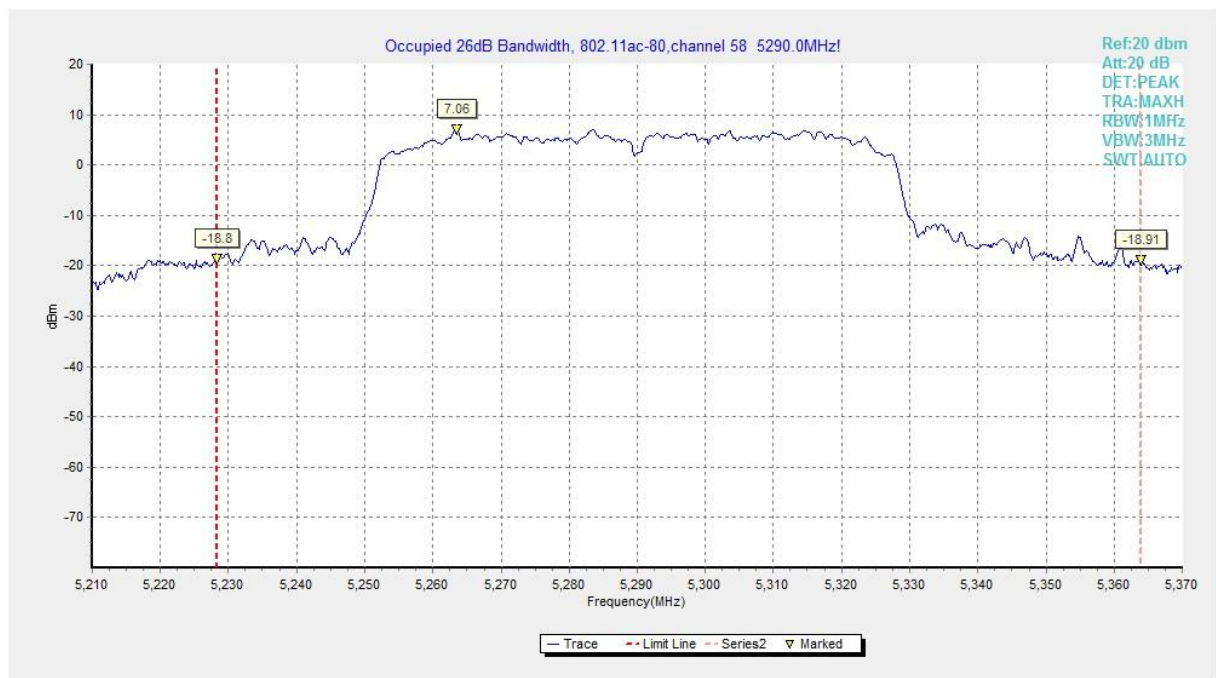


Fig. 18 Occupied 26dB Bandwidth (802. 11ac-HT80, 52900MHz)

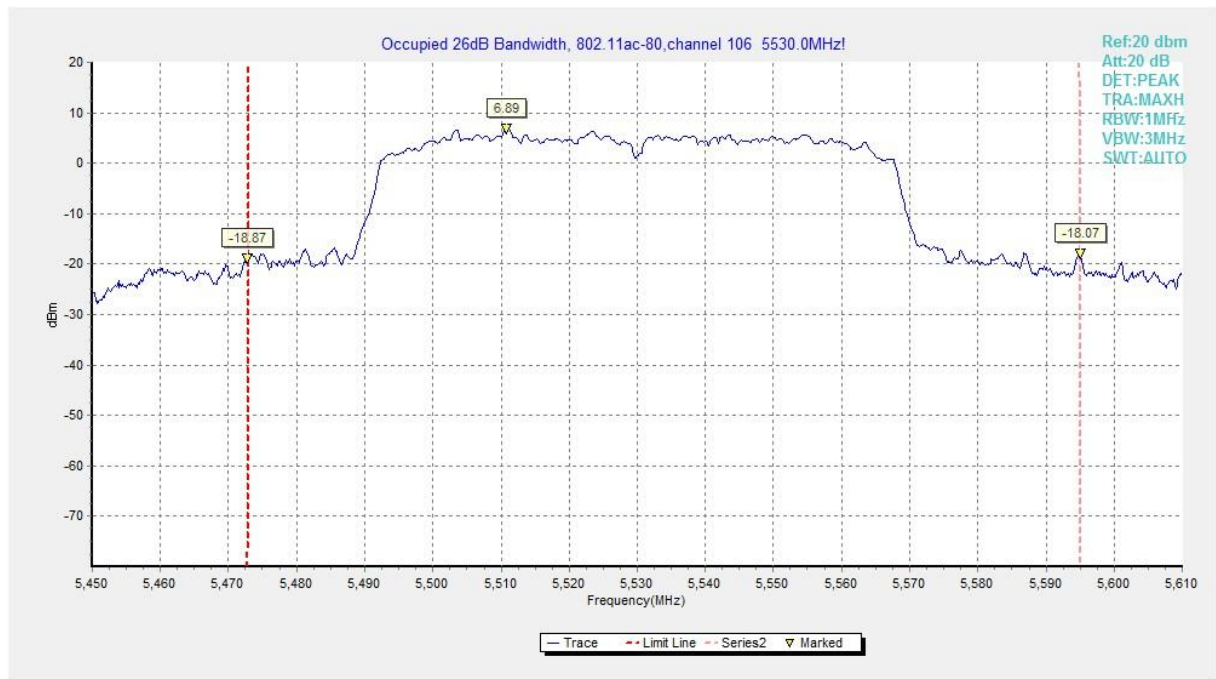


Fig. 19 Occupied 26dB Bandwidth (802.11ac-HT80, 5530MHz)

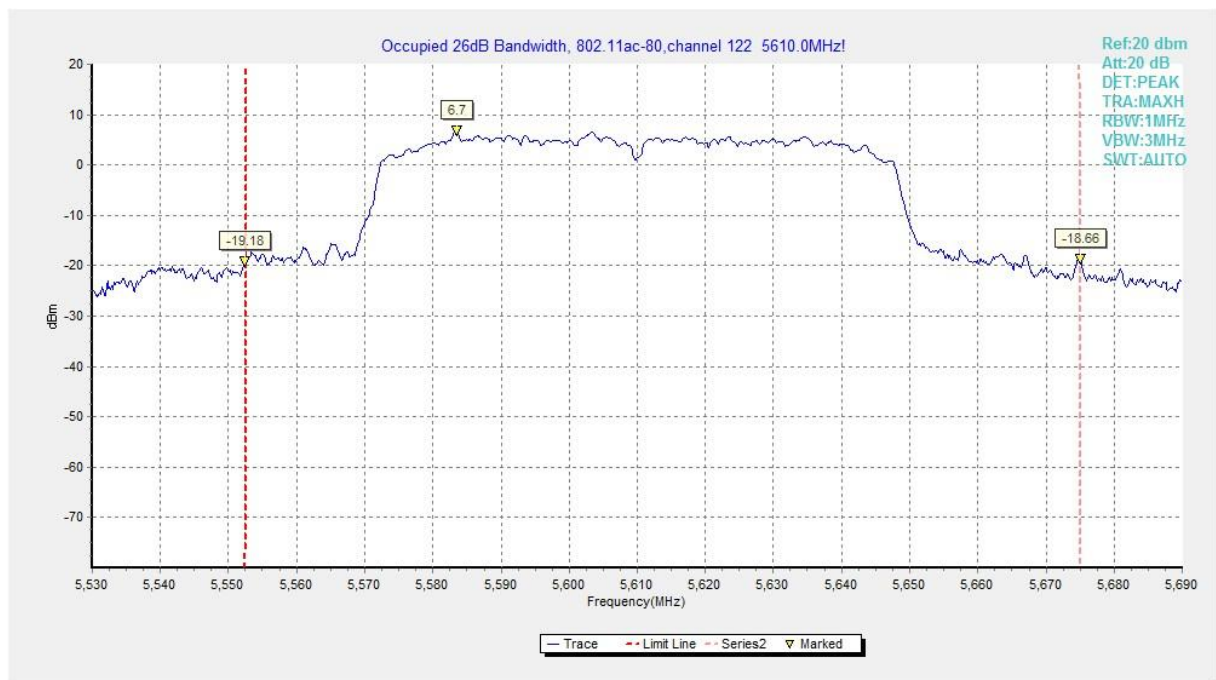


Fig. 20 Occupied 26dB Bandwidth (802.11ac-HT80, 5610MHz)

A.5. Band Edges Compliance

A5.1 Band Edges - Radiated

Measurement Limit:

Standard	Limit (dBμ V/m)	
FCC 47 CFR Part 15.209	Peak	74
	Average	54

The measurement is made according to KDB 789033

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Measurement Uncertainty:

Measurement Uncertainty	0.75dB
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Measurement Result:

Mode	Channel	Test Results	Conclusion
802.11a	5180 MHz	Fig.21	P
	5320 MHz	Fig.22	P
	5500 MHz	Fig.23	P
	5700 MHz	Fig.24	P
802.11n HT20	5180 MHz	Fig.25	P
	5320 MHz	Fig.26	P
	5500 MHz	Fig.27	P
	5700 MHz	Fig.28	P
802.11n HT40	5190 MHz	Fig.29	P
	5310 MHz	Fig.30	P
	5510 MHz	Fig.31	P
	5670 MHz	Fig.32	P
802.11ac HT80	5210MHz	Fig.33	P
	5290MHz	Fig.34	P
	5530MHz	Fig.35	P

Conclusion: PASS

Test graphs as below:

RE - Power-5.125GHz-5.175GHz

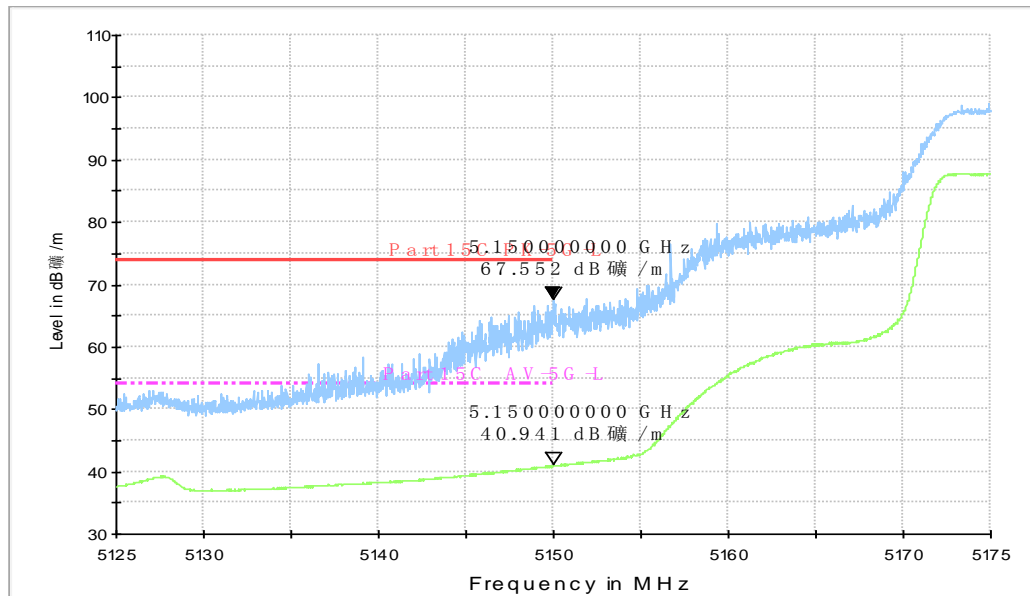


Fig. 21 Band Edges (802.11a, 5180MHz)

RE - Power-5.325GHz-5.375GHz

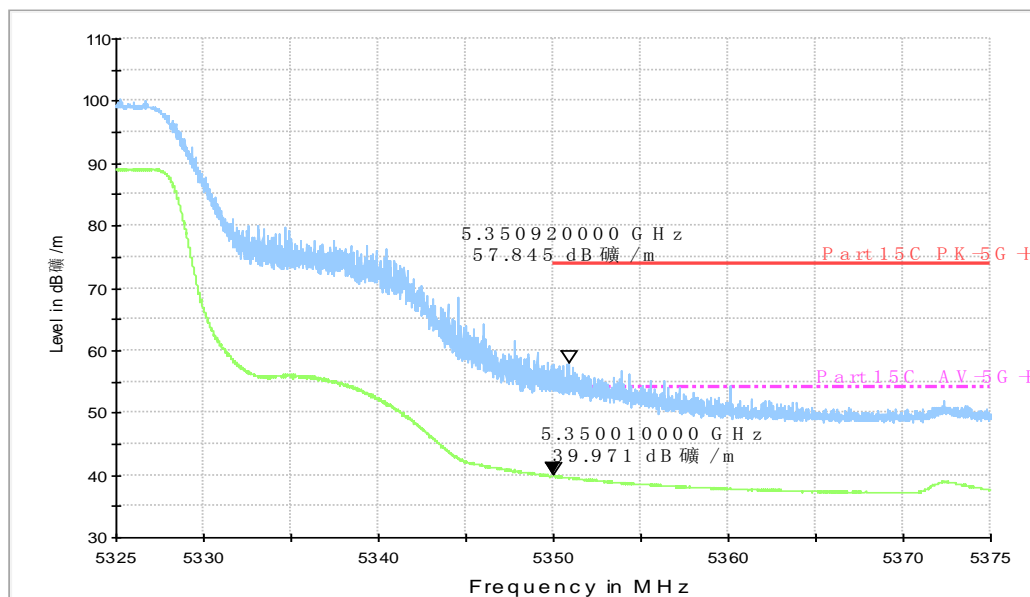


Fig. 22 Band Edges (802.11a, 5320MHz)

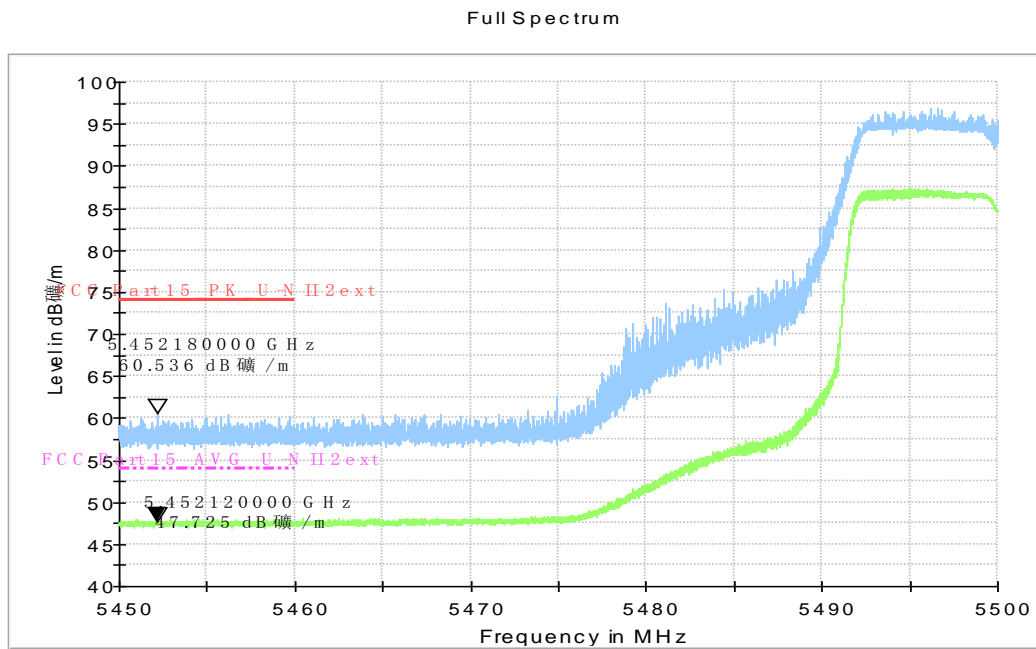


Fig. 23 Band Edges (802.11a, 5500MHz)

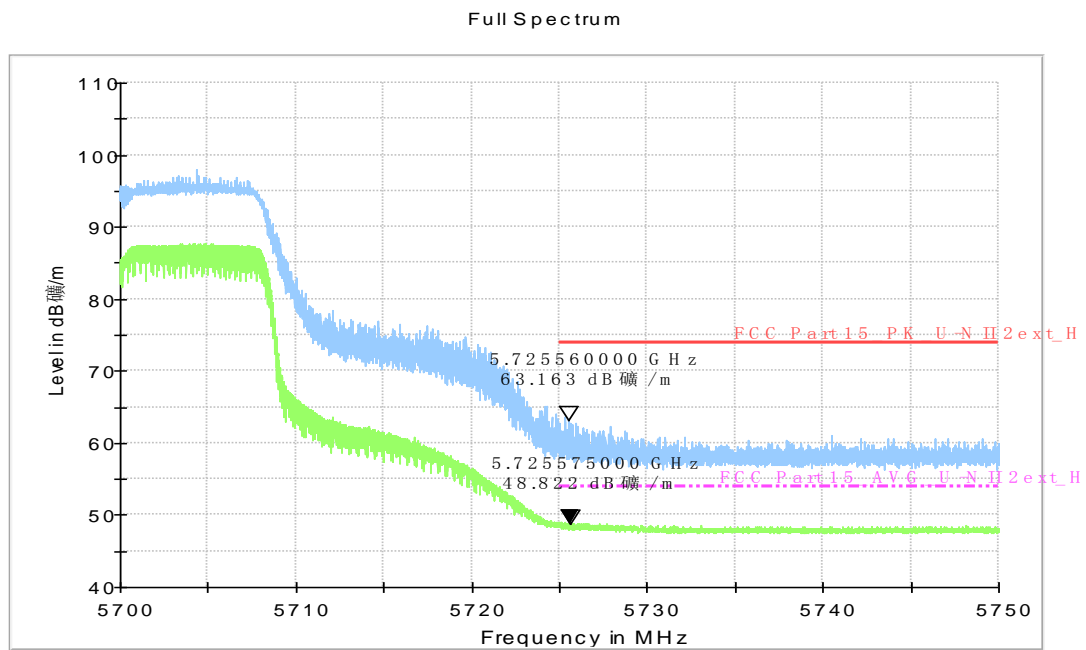


Fig. 24 Band Edges (802.11a, 5700MHz)

RE - Power-5.125GHz-5.175GHz

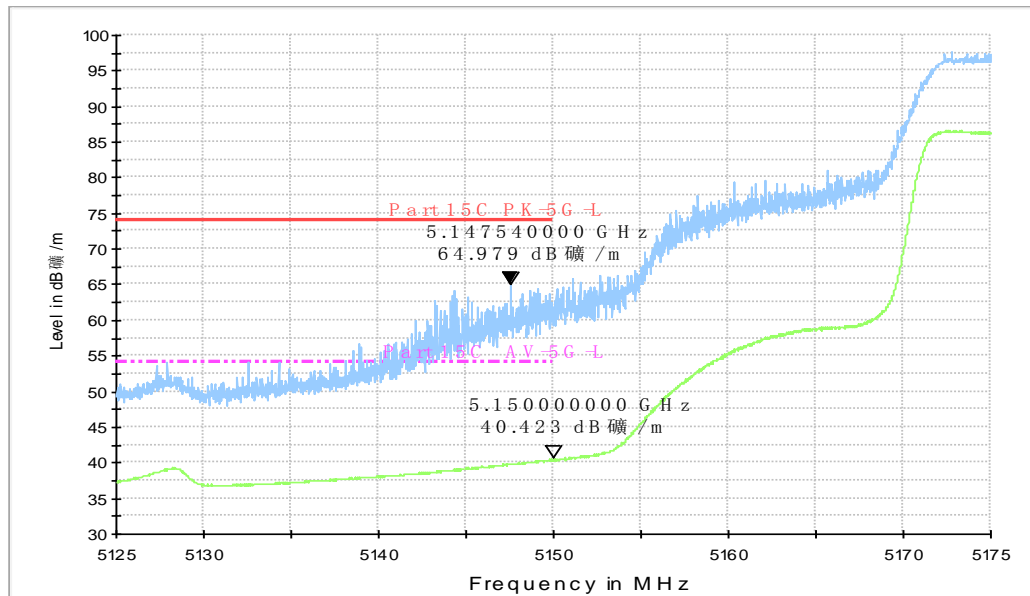


Fig. 25 Band Edges (802.11n-HT20, 5180MHz)

RE - Power-5.325GHz-5.375GHz

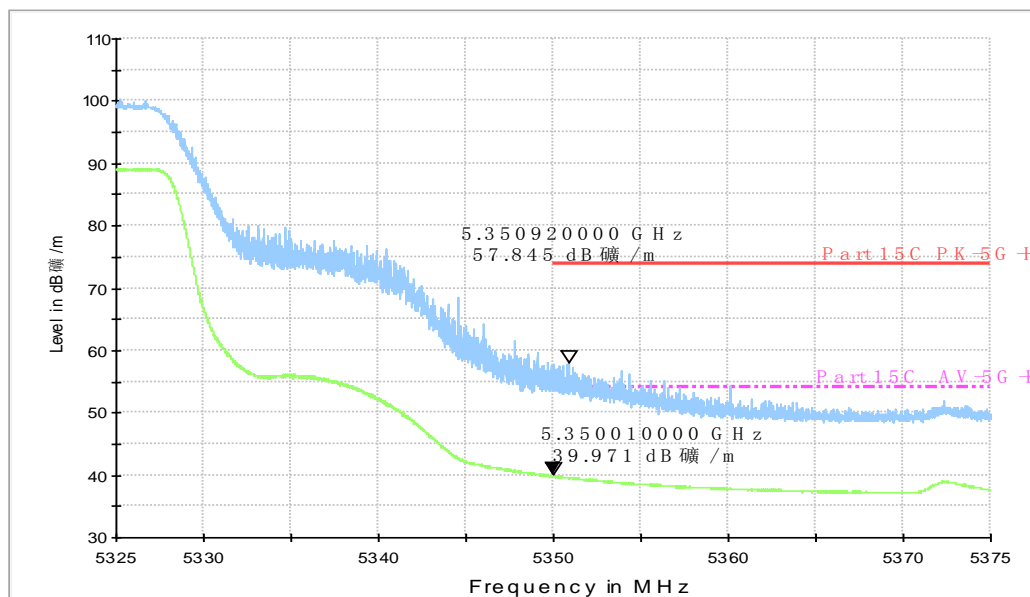


Fig. 26 Band Edges (802.11n-HT20, 5320MHz)

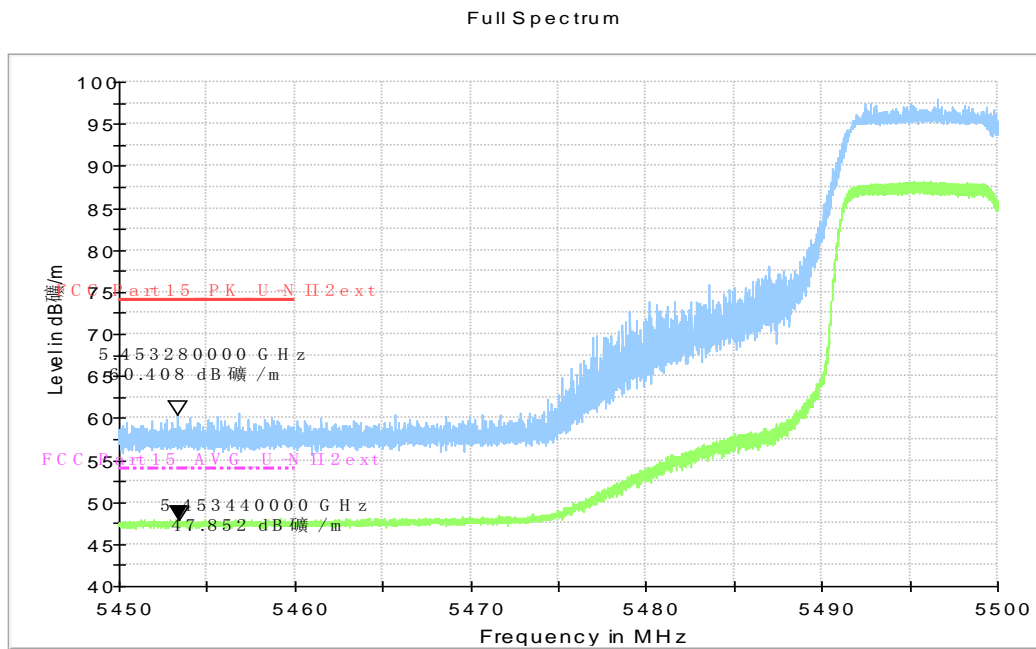


Fig. 27 Band Edges (802.11n-HT20, 5500MHz)

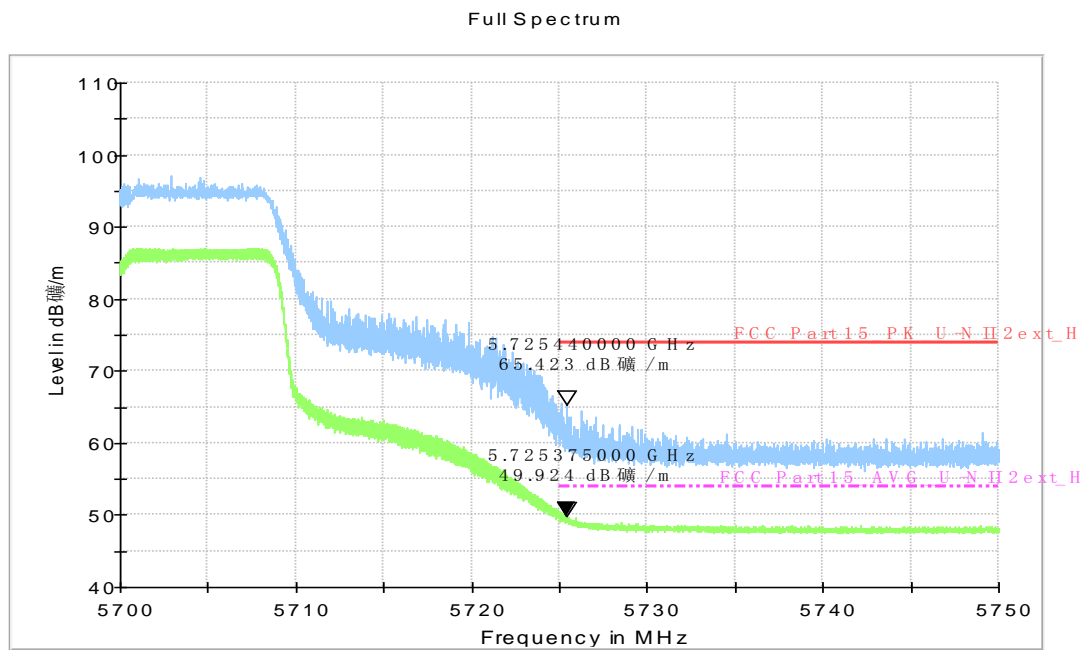


Fig. 28 Band Edges (802.11n-HT20, 5700MHz)

RE - Power-5.125GHz-5.175GHz

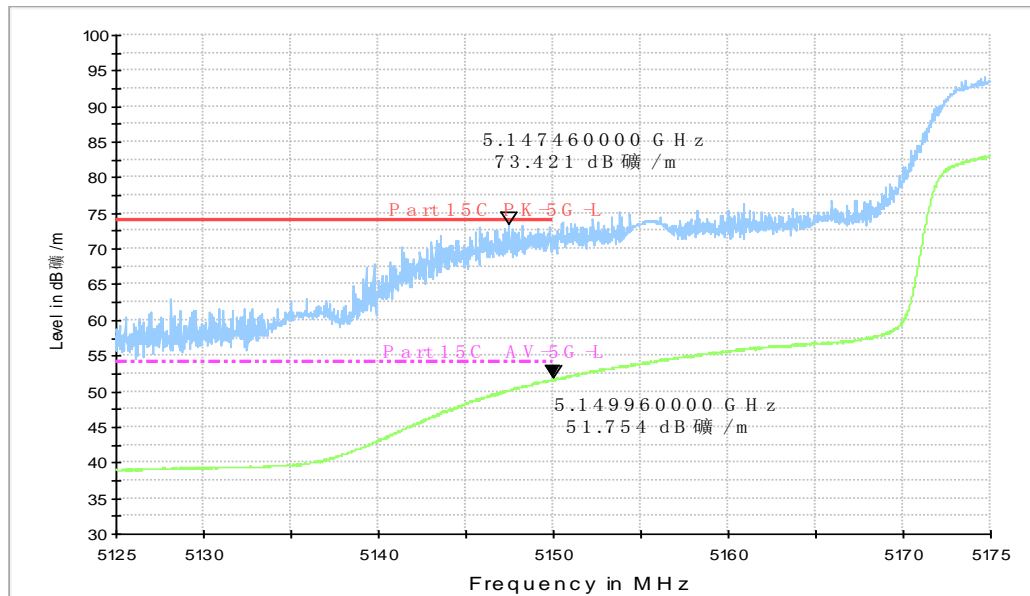


Fig. 29 Band Edges (802.11n-HT40, 5190MHz)

RE - Power-5.325GHz-5.375GHz

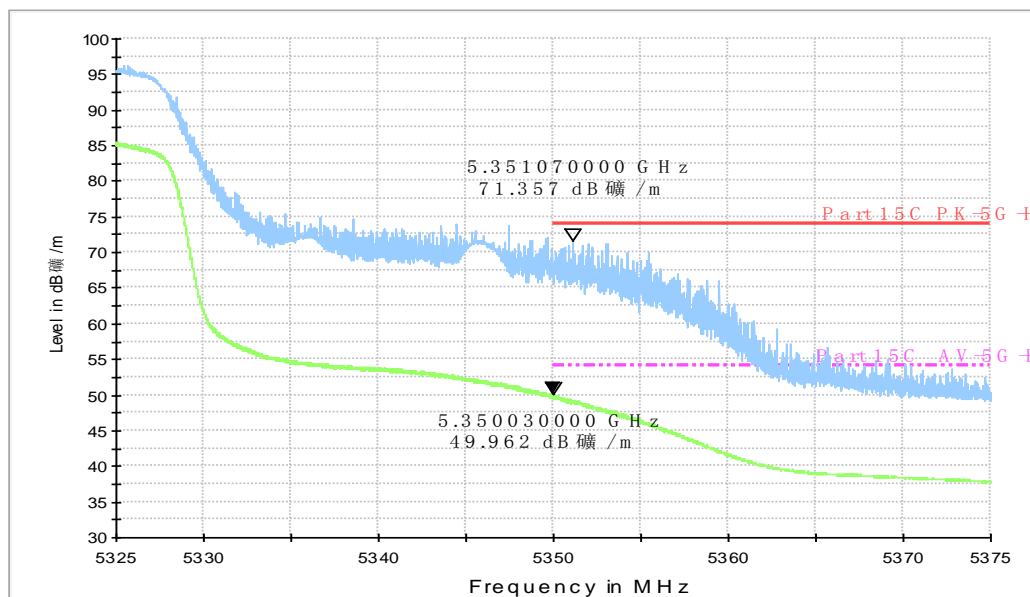


Fig. 30 Band Edges (802.11n-HT40, 5310MHz)

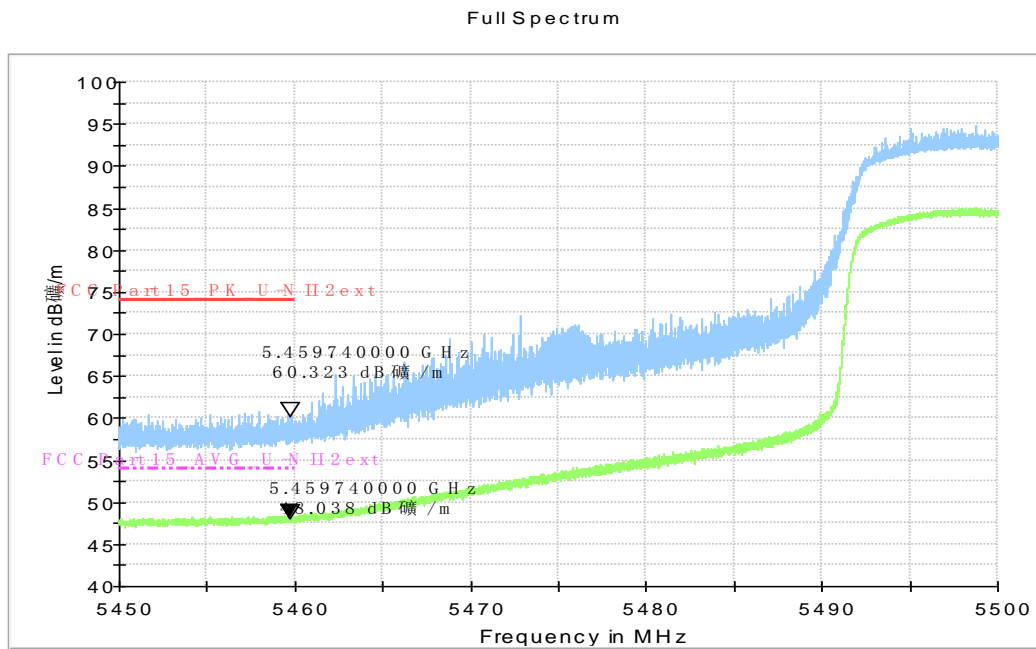


Fig. 31 Band Edges (802.11n-HT40, 5510MHz)

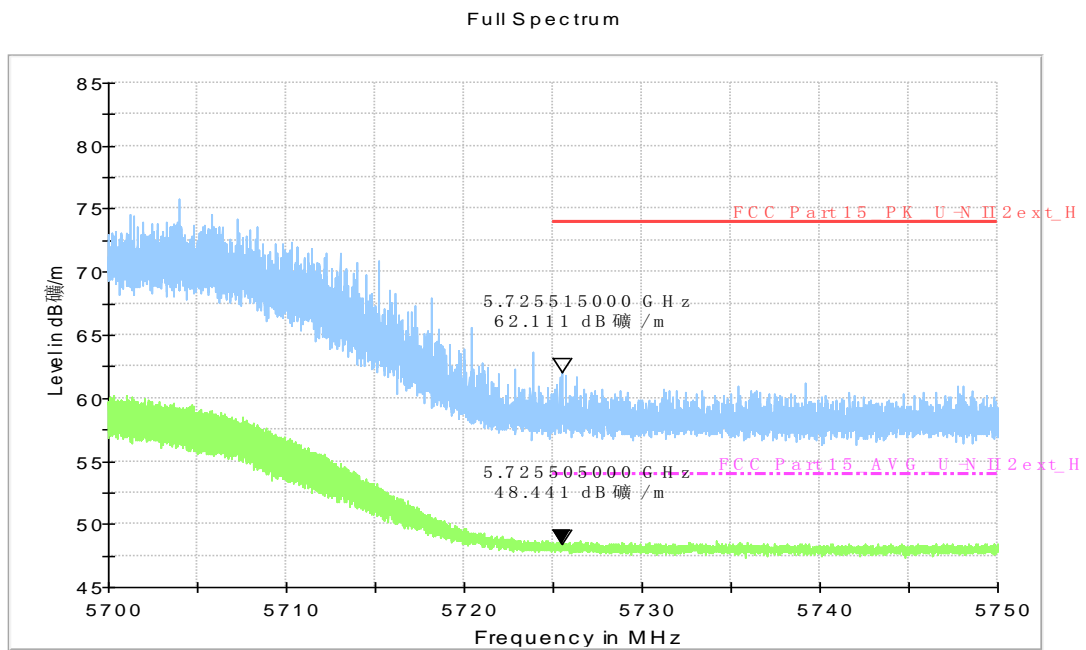


Fig. 32 Band Edges (802.11n-HT40, 5670MHz)

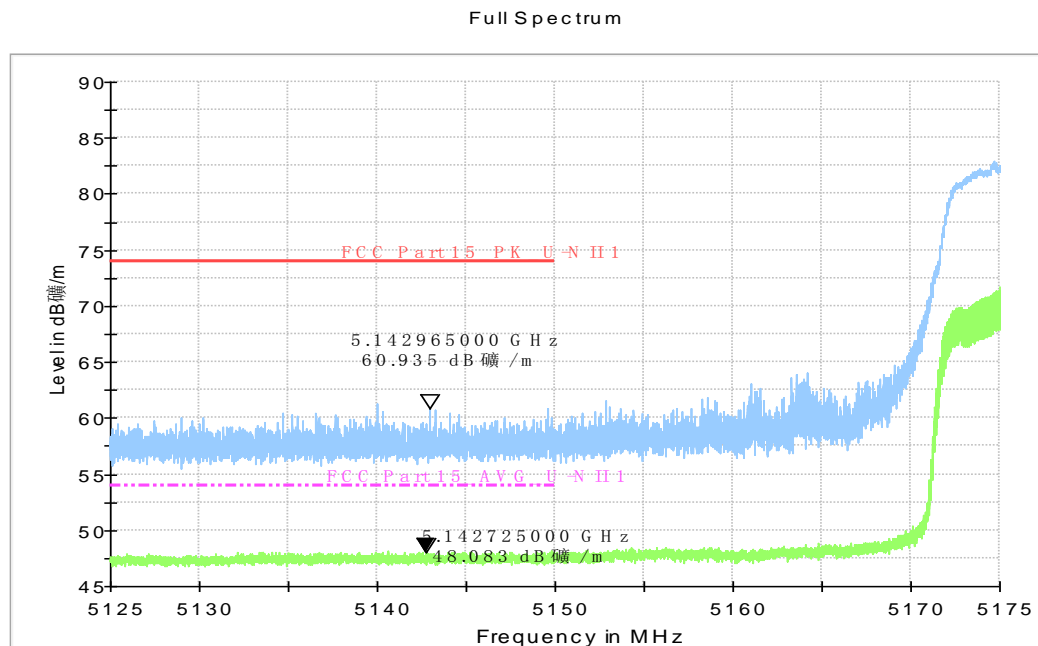


Fig. 33 Band Edges (802.11ac-HT80, 5210MHz)

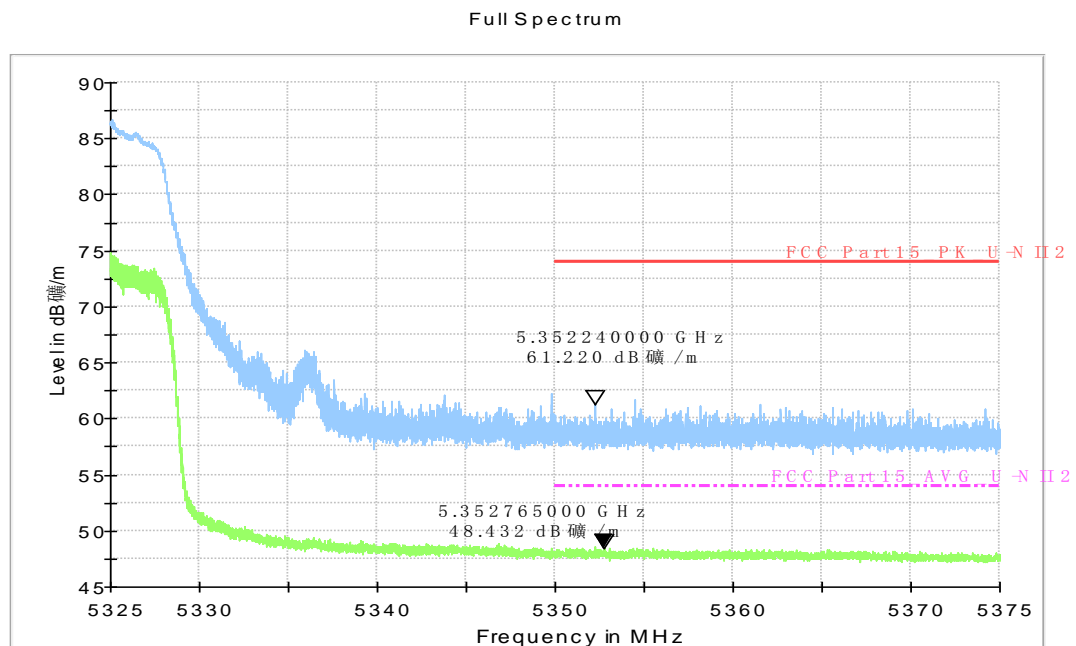


Fig. 34 Band Edges (802.11ac-HT80, 5290MHz)

Full Spectrum

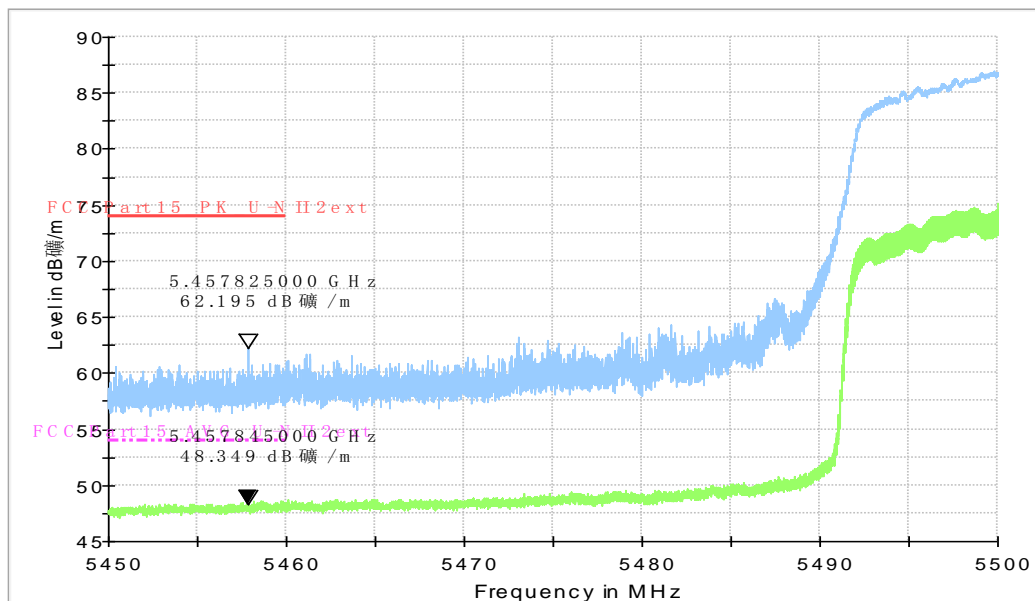


Fig. 35 Band Edges (802.11ac-HT80, 5530MHz)

A.6. Transmitter Spurious Emission

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.407	-27 dBm/MHz

The measurement is made according to KDB 789033

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Limit in restricted band:

Frequency of emission (MHz)	Field strength(dBμV/m)	Measurement distance(m)
30-88	40.0	3
88-216	43.5	3
216-960	46.0	3
Above 960	54.0	3

Note: for frequency range below 960MHz, the limit in 15.209 is defined in 10m test distance. The limit used above is calculated from 10m to 3m

Measurement uncertainty:

Max expanded measurement uncertainty for this test item is $U = 5.28$ dB, $k=2$.

Measurement Results:

Conclusion: PASS

Note:

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

P_{Mea} is the field strength recorded from the instrument.

The measurement results are obtained as described below:

$$\text{Result} = P_{Mea} + A_{Rpl} = P_{Mea} + \text{Cable Loss} + \text{Antenna Factor}$$

Average

802.11a

Channel 36

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
5127.300	37.7	-33.2	34.4	36.43	H
5145.900	36.7	-33.0	34.4	35.25	H
10360.000	45.8	-29.8	37.9	37.64	H
15540.000	35.8	-26.3	40.1	22.02	H
17792.400	40.1	-23.3	41.0	22.38	H
17836.100	39.4	-23.4	40.9	21.82	H

Channel 40

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
5147.700	37.2	-33.0	34.4	35.75	H
5252.700	37.2	-32.4	34.4	35.22	H
10400.000	44.7	-29.6	38.0	36.31	H
15600.000	35.6	-26.4	40.1	21.78	H
17736.800	40.3	-24.2	41.0	23.47	H
17748.400	40.3	-24.0	41.0	23.24	H

Channel 48

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
5254.200	51.2	-32.4	34.4	49.17	H
5255.700	51.1	-32.4	34.4	49.11	H
10479.300	45.4	-30.6	38.1	37.94	H
15720.400	36.9	-26.4	40.2	23.07	H
17732.700	39.3	-24.3	41.0	22.53	H
17810.800	40.2	-23.0	41.0	22.30	H

Channel 52

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5207.700	36.9	-32.5	34.4	34.95	H
5239.500	42.5	-32.5	34.4	40.59	H
10520.000	45.6	-30.9	38.1	38.41	H
15780.000	35.4	-26.3	40.2	21.52	H
17806.400	40.1	-23.0	41.0	22.17	H
17805.300	40.1	-23.1	41.0	22.17	H

Channel 56

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5226.600	36.6	-32.5	34.4	34.71	H
5352.000	36.5	-31.9	34.6	33.78	H
10559.600	44.4	-30.2	38.1	36.40	H
15840.000	36.5	-26.2	40.3	22.40	H
17810.800	40.0	-23.0	41.0	22.11	H
17811.900	40.0	-23.0	41.0	22.11	H

Channel 64

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5350.200	37.0	-31.9	34.6	34.27	H
5373.000	36.7	-32.0	34.6	34.11	H
10639.900	44.5	-29.3	38.2	35.61	H
15960.000	37.0	-25.8	40.5	22.37	H
17805.300	40.0	-23.1	41.0	22.12	H
17807.500	40.0	-23.0	41.0	22.06	H

Channel 100

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5452.120	47.7	-34.9	34.6	48.00	H
11000.000	42.5	-22.9	39.0	26.40	H
17912.400	44.1	-18.5	45.6	17.00	H
17909.200	44.1	-18.5	45.6	17.00	H
17918.400	44.1	-17.7	45.6	16.20	H
17903.600	44.0	-18.5	45.6	16.90	H

Channel 120

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
11200.000	42.1	-22.4	39.0	25.50	H
17915.200	44.0	-17.7	45.6	16.10	H
17918.400	43.9	-17.7	45.6	16.00	H
17912.800	43.9	-18.5	45.6	16.80	H
17923.600	43.9	-17.7	45.6	16.00	H
17909.600	43.9	-18.5	45.6	16.80	H

Channel 140

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5725.575	48.8	-33.8	35.1	47.50	H
11427.600	41.6	-22.6	39.0	25.20	H
17918.400	43.9	-17.7	45.6	16.00	H
17908.000	43.9	-18.5	45.6	16.80	H
17913.600	43.8	-18.5	45.6	16.70	H
17913.200	43.8	-18.5	45.6	16.70	H

802.11n-HT20

Channel 36

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5128.500	36.8	-33.2	34.4	35.53	H
5149.800	38.1	-32.9	34.4	36.60	H
10359.400	44.9	-29.8	37.9	36.77	H
15540.000	35.9	-26.3	40.1	22.14	H
17808.600	40.4	-23.0	41.0	22.42	H
17733.800	39.4	-24.2	41.0	22.57	H

Channel 40

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5148.000	37.3	-33.0	34.4	35.83	H
5252.100	37.2	-32.4	34.4	35.16	H
10400.000	45.8	-29.6	38.0	37.42	H
15600.000	35.3	-26.4	40.1	21.54	H
17732.700	39.3	-24.3	41.0	22.56	H
17804.200	40.4	-23.1	41.0	22.56	H

Channel 48

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5254.500	52.5	-32.4	34.4	50.50	H
5256.300	52.5	-32.4	34.4	50.50	H
10480.000	45.7	-30.6	38.1	38.25	H
15720.000	36.5	-26.4	40.2	22.68	H
17796.500	40.3	-23.2	41.0	22.50	H
17887.800	39.3	-24.0	40.9	22.50	H

Channel 52

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5208.600	37.1	-32.5	34.4	35.20	H
5235.900	40.4	-32.5	34.4	38.50	H
10520.000	45.5	-30.9	38.1	38.29	H
15780.000	35.4	-26.3	40.2	21.54	H
17801.400	40.0	-23.1	41.0	22.17	H
17802.000	40.0	-23.1	41.0	22.16	H

Channel 56

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5228.400	36.6	-32.5	34.4	34.71	H
5351.400	36.5	-31.9	34.6	33.84	H
10559.600	45.7	-30.2	38.1	37.70	H
15840.000	36.6	-26.2	40.3	22.47	H
17807.500	40.1	-23.0	41.0	22.13	H
17805.300	40.0	-23.1	41.0	22.13	H

Channel 64

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5351.100	37.6	-31.9	34.6	34.91	H
5352.900	37.3	-31.9	34.6	34.57	H
10639.900	45.2	-29.3	38.2	36.37	H
15960.000	37.1	-25.8	40.5	22.41	H
17811.900	40.1	-23.0	41.0	22.20	H
17808.600	40.1	-23.0	41.0	22.17	H

Channel 100

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5453.440	47.9	-34.9	34.6	48.20	H
11000.000	41.8	-22.9	39.0	25.70	H
17905.600	43.8	-18.5	45.6	16.70	H
17915.600	43.8	-17.7	45.6	15.90	H
17909.600	43.8	-18.5	45.6	16.70	H
17913.200	43.8	-18.5	45.6	16.70	H

Channel 120

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
11200.000	41.5	-22.4	39.0	24.90	H
17914.800	44.1	-17.7	45.6	16.20	H
17912.400	44.0	-18.5	45.6	16.90	H
17911.200	44.0	-18.5	45.6	16.90	H
17918.000	43.9	-17.7	45.6	16.00	H
17921.600	43.9	-17.7	45.6	16.00	H

Channel 140

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5725.375	49.9	-33.8	35.1	48.60	H
11400.000	39.6	-22.6	39.0	23.20	H
17911.200	44.0	-18.5	45.6	16.90	H
17909.200	43.9	-18.5	45.6	16.80	H
17912.800	43.9	-18.5	45.6	16.80	H
17916.800	43.9	-17.7	45.6	16.00	H

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Channel 38

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5148.600	48.6	-33.0	34.4	47.15	H
5149.960	49.3	-32.9	34.4	47.83	H
10380.300	45.8	-29.7	38.0	37.56	H
15570.000	36.2	-26.3	40.1	22.43	H
17810.800	40.4	-23.0	41.0	22.43	H
17722.800	39.2	-24.4	41.0	22.58	H

Channel 46

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5253.300	49.1	-32.4	34.4	47.12	H
5256.300	48.3	-32.4	34.4	46.24	H
10460.000	45.5	-30.4	38.1	37.81	H
15690.000	35.9	-26.4	40.2	22.11	H
17809.700	40.3	-23.0	41.0	22.34	H
17721.700	39.1	-24.4	41.0	22.50	H

Channel 54

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5233.200	43.3	-32.5	34.4	41.40	H
5237.100	45.3	-32.5	34.4	43.42	H
10539.800	43.6	-30.5	38.1	36.03	H
15811.000	36.2	-26.3	40.3	22.27	H
17804.200	40.0	-23.1	41.0	22.15	H
17809.700	40.0	-23.0	41.0	22.05	H

Channel 62

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5350.200	42.9	-31.9	34.6	40.16	H
5351.100	42.4	-31.9	34.6	39.69	H
10620.100	45.7	-29.2	38.1	36.75	H
15930.000	36.8	-25.9	40.4	22.33	H
10620.100	45.7	-29.2	38.1	36.75	H
10619.000	44.2	-29.2	38.1	35.24	H

Channel 102

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5459.740	48.0	-34.9	34.6	48.30	H
11020.000	40.4	-23.1	39.0	24.50	H
17925.600	44.1	-17.7	45.6	16.20	H
17914.800	44.1	-17.7	45.6	16.20	H
17906.000	44.0	-18.5	45.6	16.90	H
17904.400	44.0	-18.5	45.6	16.90	H

Channel 118

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
11180.000	40.8	-22.4	39.0	24.20	H
17924.400	44.1	-17.7	45.6	16.20	H
17921.600	44.0	-17.7	45.6	16.10	H
17913.200	43.9	-18.5	45.6	16.80	H
17912.000	43.9	-18.5	45.6	16.80	H
17916.400	43.9	-17.7	45.6	16.00	H

Channel 134

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5725.505	48.4	-33.8	35.1	47.10	H
11340.000	38.7	-22.6	39.0	22.30	H
17906.400	43.9	-18.5	45.6	16.80	V
17910.000	43.8	-18.5	45.6	16.70	H
17913.600	43.8	-18.5	45.6	16.70	H
17904.400	43.8	-18.5	45.6	16.70	H

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Channel 36

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5128.500	37.3	-33.2	34.4	36.00	H
5149.500	37.3	-32.9	34.4	35.81	H
10359.400	44.8	-29.8	37.9	36.68	H
15540.000	35.9	-26.3	40.1	22.11	H
17808.600	39.3	-23.0	41.0	21.35	H
17733.800	39.6	-24.2	41.0	22.79	H

Channel 40

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5148.300	36.8	-33.0	34.4	35.36	H
5251.800	36.9	-32.4	34.4	34.94	H
10400.000	46.0	-29.6	38.0	37.67	H
15600.000	35.9	-26.4	40.1	22.10	H
17809.700	40.3	-23.0	41.0	22.38	H
17722.800	39.0	-24.4	41.0	22.44	H

Channel 48

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5251.800	48.3	-32.4	34.4	46.30	H
5253.000	46.7	-32.4	34.4	44.70	H
10480.000	44.6	-30.6	38.1	37.15	H
15720.000	35.7	-26.4	40.2	21.82	H
17419.200	40.4	-25.4	41.2	24.50	H
17817.600	40.2	-23.1	40.9	22.38	H

Channel 52

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5243.700	44.7	-32.5	34.4	42.76	H
5245.500	45.3	-32.5	34.4	43.36	H
10520.000	44.3	-30.9	38.1	37.10	H
15780.000	36.5	-26.3	40.2	22.63	H
17801.400	40.4	-23.1	41.0	22.56	H
17802.000	39.5	-23.1	41.0	21.61	H

Channel 56

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5247.000	36.6	-32.4	34.4	34.60	H
5352.000	36.5	-31.9	34.6	33.80	H
10559.600	45.3	-30.2	38.1	37.39	H
15840.000	36.6	-26.2	40.3	22.54	H
17802.300	39.6	-23.1	41.0	21.71	H
17886.400	40.0	-24.0	40.9	23.13	H

Channel 64

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5352.600	36.8	-31.9	34.6	34.15	H
5371.800	36.7	-32.0	34.6	34.07	H
10639.900	44.0	-29.3	38.2	35.19	H
15960.000	37.2	-25.8	40.5	22.54	H
17812.900	40.4	-23.0	40.9	22.46	H
17818.600	40.3	-23.1	40.9	22.52	H

Channel 100

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5451.050	47.9	-34.9	34.6	48.20	H
11000.000	42.5	-22.9	39.0	26.40	H
17912.400	44.1	-18.5	45.6	17.00	H
17909.200	44.1	-18.5	45.6	17.00	H
17918.400	44.1	-17.7	45.6	16.20	H
17903.600	44.0	-18.5	45.6	16.90	H

Channel 120

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
11200.000	41.1	-22.4	39.0	24.50	H
17910.400	44.1	-18.5	45.6	17.00	H
17916.400	44.1	-17.7	45.6	16.20	H
17910.800	44.0	-18.5	45.6	16.90	H
17904.800	44.0	-18.5	45.6	16.90	H
17908.800	43.9	-18.5	45.6	16.80	H

Channel 140

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5725.490	49.2	-33.8	35.1	47.90	H
11400.000	38.7	-22.6	39.0	22.30	H
17922.800	44.0	-17.7	45.6	16.10	H
17926.800	43.9	-17.7	45.6	16.00	H
17918.000	43.9	-17.7	45.6	16.00	H
17915.200	43.8	-17.7	45.6	15.90	H

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Channel 38

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5148.600	43.9	-33.0	34.4	42.38	H
5149.340	44.1	-32.9	34.4	42.64	H
10380.300	44.9	-29.7	38.0	36.64	H
15570.000	35.9	-26.3	40.1	22.12	H
17897.700	40.3	-24.2	40.9	23.63	H
17953.800	38.6	-24.9	40.8	22.65	H

Channel 46

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5251.200	45.7	-32.4	34.4	43.73	H
5252.400	45.1	-32.4	34.4	43.08	H
10380.300	44.9	-29.7	38.0	36.64	H
15690.600	35.9	-26.4	40.2	22.09	H
17809.700	40.3	-23.0	41.0	22.38	H
17455.500	38.6	-25.2	41.2	22.55	H

Channel 54

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5233.200	43.3	-32.5	34.4	41.40	H
5237.100	45.3	-32.5	34.4	43.42	H
10539.800	43.6	-30.5	38.1	36.03	H
15811.000	36.2	-26.3	40.3	22.27	H
17804.200	40.0	-23.1	41.0	22.15	H
17809.700	40.0	-23.0	41.0	22.05	H

Channel 62

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5350.200	42.9	-31.9	34.6	40.16	H
5351.100	42.4	-31.9	34.6	39.69	H
10620.100	45.7	-29.2	38.1	36.75	H
15930.000	36.8	-25.9	40.4	22.33	H
10620.100	45.7	-29.2	38.1	36.75	H
10619.000	44.2	-29.2	38.1	35.24	H

Channel 102

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5455.725	47.9	-34.9	34.6	48.20	H
11020.000	40.2	-23.1	39.0	24.30	H
17909.200	44.0	-18.5	45.6	16.90	H
17925.600	43.9	-17.7	45.6	16.00	H
17915.600	43.9	-17.7	45.6	16.00	H
17908.000	43.9	-18.5	45.6	16.80	H

Channel 118

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
11180.000	40.5	-22.4	39.0	23.90	H
17911.200	44.0	-18.5	45.6	16.90	H
17913.200	44.0	-18.5	45.6	16.90	H
17925.600	43.9	-17.7	45.6	16.00	H
17923.600	43.9	-17.7	45.6	16.00	H
17918.000	43.9	-17.7	45.6	16.00	H

Channel 134

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5725.380	47.9	-33.8	35.1	46.60	H
11340.000	38.6	-22.6	39.0	22.20	H
17914.800	44.0	-17.7	45.6	16.10	H
17910.400	43.9	-18.5	45.6	16.80	H
17918.400	43.8	-17.7	45.6	15.90	H
17916.000	43.8	-17.7	45.6	15.90	H

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Channel 42

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5142.725	48.1	-35.1	34.6	48.60	H
17916.400	44.1	-17.7	45.6	16.20	H
17919.600	44.0	-17.7	45.6	16.10	H
17915.200	44.0	-17.7	45.6	16.10	H
17910.800	44.0	-18.5	45.6	16.90	H
17902.000	43.9	-18.5	45.6	16.80	H

Channel 58

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5352.765	48.4	-34.8	34.6	48.60	H
17907.200	44.1	-18.5	45.6	17.00	H
17913.600	44.1	-18.5	45.6	17.00	H
17920.000	44.1	-17.7	45.6	16.20	H
17918.800	44.0	-17.7	45.6	16.10	H
17910.000	44.0	-18.5	45.6	16.90	H

Channel 106

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5457.845	48.3	-34.9	34.6	48.60	H
17913.200	44.2	-18.5	45.6	17.10	H
17912.800	44.1	-18.5	45.6	17.00	H
17924.400	44.0	-17.7	45.6	16.10	H
17915.200	43.9	-17.7	45.6	16.00	H
17902.400	43.9	-18.5	45.6	16.80	H

Peak
802.11a

Channel 36

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5148.940	66.7	-33.0	34.4	65.21	H
5150.000	67.6	-32.9	34.4	66.05	H
10360.000	50.6	-29.8	37.9	42.43	H
15540.000	50.8	-26.3	40.1	37.00	H
17792.400	53.1	-23.3	41.0	35.44	V
17836.100	52.3	-23.4	40.9	34.70	H

Channel 40

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5148.000	49.7	-33.0	34.4	48.23	H
5263.650	50.3	-32.3	34.4	48.17	H
10400.000	51.6	-29.6	38.0	43.21	V
15600.000	49.6	-26.4	40.1	35.83	V
17725.200	52.5	-24.4	41.0	35.84	H
17806.200	53.8	-23.0	41.0	35.91	V

Channel 48

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5254.950	70.7	-32.4	34.4	68.71	H
5259.300	71.3	-32.4	34.4	69.19	H
10480.000	50.0	-30.6	38.1	42.58	H
15720.000	51.9	-26.4	40.2	38.12	V
17419.200	52.3	-25.4	41.2	36.45	H
17817.600	53.7	-23.1	40.9	35.86	H

Channel 52

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5158.650	49.3	-32.8	34.4	47.67	H
5179.200	49.3	-32.5	34.4	47.36	H
10519.800	50.4	-30.9	38.1	43.20	V
15780.000	46.6	-26.3	40.2	32.68	V
17797.800	52.8	-23.2	41.0	34.97	H
17779.800	52.4	-23.5	41.0	34.90	H

Channel 56

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5226.000	49.8	-32.5	34.4	47.86	H
5370.450	49.2	-32.0	34.6	46.58	V
10560.000	49.7	-30.2	38.1	41.73	H
15840.000	48.8	-26.2	40.3	34.72	H
17795.400	52.4	-23.2	41.0	34.65	H
17816.400	52.1	-23.1	40.9	34.23	H

Channel 64

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5350.920	57.8	-31.9	34.6	55.15	H
5350.830	57.7	-31.9	34.6	55.05	H
10639.800	50.1	-29.3	38.2	41.24	V
15960.000	48.6	-25.8	40.5	33.92	V
17818.800	52.4	-23.1	40.9	34.63	V
17931.000	52.3	-24.6	40.9	36.05	V

Channel 100

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5452.180	60.5	-34.9	34.6	60.800	H
11000.000	47.4	-22.9	39.0	31.300	H
17987.200	56.2	-17.7	45.6	28.300	H
17938.400	55.8	-17.7	45.6	27.900	H
17902.800	55.7	-18.5	45.6	28.600	H
17935.600	55.7	-17.7	45.6	27.800	H

Channel 120

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
11200.000	47.6	-22.4	39.0	31.000	H
17866.800	55.8	-18.5	45.6	28.700	H
17924.400	55.7	-17.7	45.6	27.800	H
17832.000	55.6	-18.5	45.6	28.500	H
17905.600	55.6	-18.5	45.6	28.500	H
17906.000	55.6	-18.5	45.6	28.500	H

Channel 140

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5725.560	63.2	-33.8	35.1	61.900	H
11400.400	46.8	-22.6	39.0	30.400	H
17910.800	55.8	-18.5	45.6	28.700	H
17901.600	55.4	-18.5	45.6	28.300	H
17896.800	55.4	-18.5	45.6	28.300	H
17800.000	55.4	-18.5	45.6	28.300	H

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Channel 36

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5144.300	64.1	-33.0	34.4	62.68	H
5147.500	65.0	-33.0	34.4	63.53	H
10360.200	50.5	-29.8	37.9	42.32	V
15540.000	50.1	-26.3	40.1	36.36	H
17509.260	51.9	-25.4	41.2	36.05	H
17866.200	53.6	-23.8	40.9	36.43	V

Channel 40

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5147.250	49.4	-33.0	34.4	47.91	H
5293.800	50.0	-32.1	34.5	47.67	H
10400.000	50.9	-29.6	38.0	42.52	H
15600.000	50.5	-26.4	40.1	36.74	H
17827.200	53.6	-23.2	40.9	35.90	H
17802.600	52.8	-23.1	41.0	34.97	H

Channel 48

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5256.600	69.2	-32.4	34.4	67.15	H
5258.400	68.3	-32.4	34.4	66.21	H
10480.000	51.0	-30.6	38.1	43.52	H
15720.000	51.0	-26.4	40.2	37.20	V
17419.200	52.9	-25.4	41.2	37.04	H
17817.600	52.8	-23.1	40.9	34.99	V

Channel 52

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5208.300	49.6	-32.5	34.4	47.63	H
5229.900	51.3	-32.5	34.4	49.40	H
10520.400	49.7	-30.9	38.1	42.47	H
15780.000	46.8	-26.3	40.2	32.94	H
17802.600	53.5	-23.1	41.0	35.68	H
17830.200	53.2	-23.3	40.9	35.50	V

Channel 56

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5231.250	49.2	-32.5	34.4	47.33	H
5365.500	48.6	-32.0	34.6	46.00	H
10559.400	50.7	-30.2	38.1	42.73	V
15840.000	48.8	-26.2	40.3	34.74	V
17836.800	52.9	-23.4	40.9	35.38	V
17787.000	52.8	-23.4	41.0	35.19	V

Channel 64

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5350.290	57.6	-31.9	34.6	54.90	H
5351.200	58.4	-31.9	34.6	55.68	H
10639.800	50.6	-29.3	38.2	41.71	V
15960.000	48.4	-25.8	40.5	33.76	H
17796.600	52.9	-23.2	41.0	35.17	H
17807.400	52.9	-23.0	41.0	34.95	H

Channel 100

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5453.280	60.4	-34.9	34.6	60.700	H
11000.400	47.7	-22.9	39.0	31.600	H
17896.000	55.6	-18.5	45.6	28.500	H
17935.600	55.4	-17.7	45.6	27.500	H
17905.600	55.3	-18.5	45.6	28.200	H
17926.800	55.3	-17.7	45.6	27.400	H

Channel 120

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
11200.000	47.6	-22.4	39.0	31.000	H
17888.800	56.4	-18.5	45.6	29.300	H
17837.200	55.8	-18.5	45.6	28.700	H
17904.000	55.7	-18.5	45.6	28.600	H
17909.600	55.4	-18.5	45.6	28.300	H
17920.400	55.1	-17.7	45.6	27.200	H

Channel 140

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5725.440	65.4	-33.8	35.1	64.100	H
11400.000	47.0	-22.6	39.0	30.600	H
17949.600	55.7	-17.7	45.6	27.800	H
17915.200	55.6	-17.7	45.6	27.700	H
17863.200	55.6	-18.5	45.6	28.500	H
17811.200	55.5	-18.5	45.6	28.400	H

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Channel 38

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5147.460	73.4	-33.0	34.4	71.95	H
5148.240	73.3	-33.0	34.4	71.87	H
10380.000	50.8	-29.7	38.0	42.52	V
15570.200	50.9	-26.3	40.1	37.08	V
17060.400	53.7	-25.5	41.4	37.84	V
17815.200	53.4	-23.1	40.9	35.54	H

Channel 46

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5253.000	68.5	-32.4	34.4	66.49	H
5256.300	68.5	-32.4	34.4	66.50	H
10459.800	49.7	-30.4	38.1	41.96	V
15690.000	50.0	-26.4	40.2	36.15	H
16345.200	51.8	-25.6	40.8	36.59	V
17734.800	53.1	-24.2	41.0	36.34	V

Channel 54

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5236.200	64.8	-32.5	34.4	62.91	V
5228.250	60.3	-32.5	34.4	58.42	H
10540.200	48.7	-30.5	38.1	41.11	V
15810.000	49.4	-26.3	40.3	35.48	H
17834.400	53.7	-23.3	40.9	36.08	H
17796.600	52.6	-23.2	41.0	34.83	V

Channel 62

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5351.070	71.4	-31.9	34.6	68.66	V
5353.010	71.2	-31.9	34.6	68.52	H
10620.600	50.9	-29.2	38.1	41.96	H
15930.000	47.6	-25.9	40.4	33.08	V
17812.200	53.7	-23.0	40.9	35.78	V
17804.400	52.6	-23.1	41.0	34.67	H

Channel 102

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5459.740	60.3	-34.9	34.6	60.600	H
11020.000	47.0	-23.1	39.0	31.100	H
17906.000	55.8	-18.5	45.6	28.700	H
17892.000	55.6	-18.5	45.6	28.500	H
17878.000	55.4	-18.5	45.6	28.300	H
17904.800	55.3	-18.5	45.6	28.200	H

Channel 118

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
11180.000	47.4	-22.4	39.0	30.800	H
17873.200	55.7	-18.5	45.6	28.600	H
17907.200	55.5	-18.5	45.6	28.400	H
17880.000	55.4	-18.5	45.6	28.300	H
17912.400	55.3	-18.5	45.6	28.200	H
17915.200	55.3	-17.7	45.6	27.400	H

Channel 134

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5725.515	62.1	-33.8	35.1	60.800	H
11340.000	46.6	-22.6	39.0	30.200	H
17900.400	56.2	-18.5	45.6	29.100	H
17962.800	55.4	-17.7	45.6	27.500	H
17891.200	55.4	-18.5	45.6	28.300	H
17917.200	55.4	-17.7	45.6	27.500	H

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Channel 36

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5143.980	54.8	-33.0	34.4	53.38	H
5148.980	56.2	-33.0	34.4	54.71	H
10359.600	49.9	-29.8	37.9	41.73	V
14412.600	49.9	-27.3	39.6	37.66	V
16931.400	51.9	-25.7	41.4	36.15	H
17799.300	53.2	-23.2	41.0	35.44	V

Channel 40

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5148.300	49.5	-33.0	34.4	48.05	H
5272.800	49.0	-32.2	34.4	46.86	H
10400.400	51.1	-29.6	38.0	42.75	V
15600.200	54.2	-26.4	40.1	40.42	H
17808.600	51.6	-23.0	41.0	33.62	V
17748.500	53.0	-24.0	41.0	35.95	V

Channel 48

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5251.950	66.8	-32.4	34.4	64.81	H
5252.400	68.2	-32.4	34.4	66.23	H
10480.000	50.1	-30.6	38.1	42.62	H
15720.000	52.5	-26.4	40.2	38.62	V
17419.200	52.0	-25.4	41.2	36.11	V
17817.600	53.3	-23.1	40.9	35.47	H

Channel 52

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5238.600	61.7	-32.5	34.4	59.76	H
5241.900	62.4	-32.5	34.4	60.50	H
10519.800	51.1	-30.9	38.1	43.90	V
15780.000	48.2	-26.3	40.2	34.27	H
17787.100	53.0	-23.4	41.0	35.38	V
17823.600	53.1	-23.2	40.9	35.36	V

Channel 56

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5236.200	49.5	-32.5	34.4	47.59	H
5359.050	49.1	-31.9	34.6	46.45	H
10559.400	50.4	-30.2	38.1	42.40	H
15840.000	49.8	-26.2	40.3	35.73	V
17836.800	52.6	-23.4	40.9	35.07	V
17787.000	53.9	-23.4	41.0	36.29	V

Channel 64

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5350.360	55.9	-31.9	34.6	53.16	V
5350.440	55.9	-31.9	34.6	53.22	H
10639.800	49.9	-29.3	38.2	41.06	V
15960.000	50.3	-25.8	40.5	35.67	H
17796.600	52.9	-23.2	41.0	35.14	V
17807.400	52.9	-23.0	41.0	35.00	V

Channel 100

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5451.035	61.1	-34.9	34.6	61.400	H
11000.000	47.4	-22.9	39.0	31.300	H
17987.200	56.2	-17.7	45.6	28.300	H
17938.400	55.8	-17.7	45.6	27.900	H
17902.800	55.7	-18.5	45.6	28.600	H
17935.600	55.7	-17.7	45.6	27.800	H

Channel 120

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
11200.000	47.6	-22.4	39.0	31.000	H
17937.200	55.2	-17.7	45.6	27.300	H
17961.200	55.1	-17.7	45.6	27.200	H
17924.800	55.0	-17.7	45.6	27.100	H
17957.200	54.9	-17.7	45.6	27.000	H
17930.000	54.9	-17.7	45.6	27.000	H

Channel 140

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5725.530	60.1	-33.8	35.1	58.800	H
11400.000	46.6	-22.6	39.0	30.200	H
17934.400	55.7	-17.7	45.6	27.800	H
17972.800	55.7	-17.7	45.6	27.800	H
17937.600	55.6	-17.7	45.6	27.700	H
17788.800	55.6	-18.5	45.6	28.500	H

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Channel 38

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5148.260	64.9	-33.0	34.4	63.43	H
5148.400	65.0	-33.0	34.4	63.56	H
10380.200	50.8	-29.7	38.0	42.53	V
15570.500	50.8	-26.3	40.1	37.06	H
17013.200	51.8	-25.6	41.4	36.02	V
17819.400	52.3	-23.1	40.9	34.53	V

Channel 46

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17966.000	57.0	-17.7	45.6	29.1	H
17827.600	57.0	-18.5	45.6	29.9	H
17832.800	56.8	-18.5	45.6	29.7	H
17937.600	56.8	-17.7	45.6	28.9	H
17921.200	56.5	-17.7	45.6	28.6	H
17934.400	56.4	-17.7	45.6	28.5	H

Channel 54

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5239.200	59.8	-32.5	34.4	57.95	H
5242.350	61.3	-32.5	34.4	59.40	H
10540.200	49.3	-30.5	38.1	41.71	V
15815.400	49.8	-26.3	40.3	35.82	V
17801.400	53.4	-23.1	41.0	35.57	V
16950.600	52.6	-25.7	41.4	36.83	H

Channel 62

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5351.580	63.8	-31.9	34.6	61.13	H
5351.830	64.0	-31.9	34.6	61.32	H
10620.000	49.8	-29.2	38.1	40.77	H
15930.000	49.4	-25.9	40.4	34.89	V
17808.000	53.0	-23.0	41.0	35.02	V
17812.800	52.9	-23.0	40.9	34.95	V

Channel 102

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5455.700	60.3	-34.9	34.6	60.600	H
11020.000	47.7	-23.1	39.0	31.800	H
17840.800	55.9	-18.5	45.6	28.800	H
17907.200	55.8	-18.5	45.6	28.700	H
17881.600	55.3	-18.5	45.6	28.200	H
17939.200	55.2	-17.7	45.6	27.300	H

Channel 118

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
11180.000	46.9	-22.4	39.0	30.300	H
17912.800	56.2	-18.5	45.6	29.100	H
17932.400	55.9	-17.7	45.6	28.000	H
17908.000	55.9	-18.5	45.6	28.800	H
17909.200	55.5	-18.5	45.6	28.400	H
17920.400	55.5	-17.7	45.6	27.600	H

Channel 134

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5725.370	60.3	-33.8	35.1	59.000	H
11340.000	46.4	-22.6	39.0	30.000	H
17900.000	56.1	-18.5	45.6	29.000	H
17912.000	55.9	-18.5	45.6	28.800	H
17796.400	55.8	-18.5	45.6	28.700	H
17902.400	55.8	-18.5	45.6	28.700	H

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Channel 42

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5142.965	60.9	-35.1	34.6	61.400	H
17845.200	55.6	-18.5	45.6	28.500	H
17913.200	55.5	-18.5	45.6	28.400	H
17918.000	55.4	-17.7	45.6	27.500	H
17914.000	55.3	-18.5	45.6	28.200	H
17851.200	55.2	-18.5	45.6	28.100	H

Channel 58

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5352.240	61.2	-34.8	34.6	61.400	H
17892.400	56.1	-18.5	45.6	29.000	H
17933.600	55.9	-17.7	45.6	28.000	H
17951.600	55.9	-17.7	45.6	28.000	H
17839.200	55.7	-18.5	45.6	28.600	H
17706.000	55.7	-18.9	45.6	29.000	H

Channel 106

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
5457.825	62.2	-34.9	34.6	62.500	H
17916.000	55.8	-17.7	45.6	27.900	H
17978.400	55.4	-17.7	45.6	27.500	H
17910.400	55.3	-18.5	45.6	28.200	H
17911.600	55.3	-18.5	45.6	28.200	H
17916.400	55.3	-17.7	45.6	27.400	H

Sample calculation: 802.11ac 80MHz CH106–Peak, 5457.825 MHz

$$\text{Peak ERP(dBm)} = P_{\text{Mea}}(62.5 \text{ dBuV/m}) + \text{Cable Loss}(-34.9) + \text{Antenna Factor}(34.6) = 62.2 \text{ dBuV/m}$$

A.7. Conducted Emission (150kHz- 30MHz)

Test Condition:

Voltage (V)	Frequency (Hz)
110	60

Measurement uncertainty:

Expanded measurement uncertainty for this test item is $U = 3.38\text{dB}$, $k=2$.

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		11a mode	Idle	
0.15 to 0.5	66 to 56	Fig.36	Fig.37	P
0.5 to 5	56			
5 to 30	60			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		11a mode	Idle	
0.15 to 0.5	56 o 46	Fig.38	Fig.39	P
0.5 to 5	46			
5 to 30	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Conclusion: PASS

Test graphs as below:

traffic

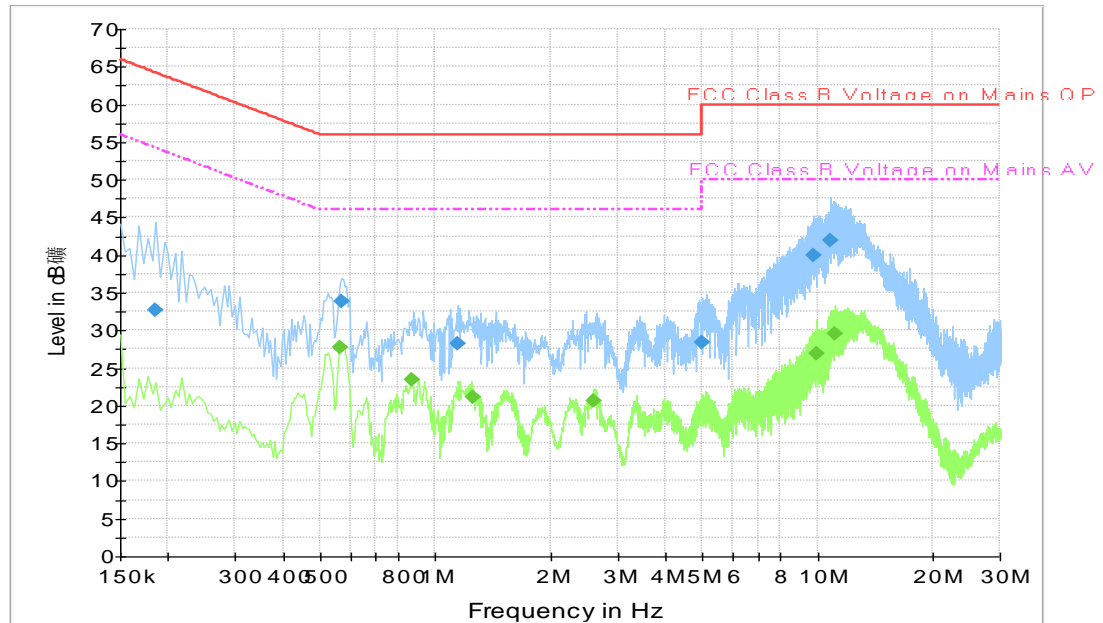


Fig. 36 AC Powerline Conducted Emission-802.11a

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.186000	32.7	L1	19.8	31.5	64.2
0.568500	33.8	N	19.9	22.2	56.0
1.149000	28.2	L1	19.7	27.8	56.0
4.974000	28.4	L1	19.6	27.6	56.0
9.802500	40.0	L1	19.7	20.0	60.0
10.837500	41.9	N	19.8	18.1	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.564000	27.8	N	19.9	18.2	46.0
0.865500	23.5	L1	19.8	22.5	46.0
1.257000	21.2	L1	19.7	24.8	46.0
2.589000	20.6	N	19.1	25.4	46.0
9.951000	26.9	N	19.8	23.1	50.0
11.139000	29.6	L1	19.7	20.4	50.0

idle

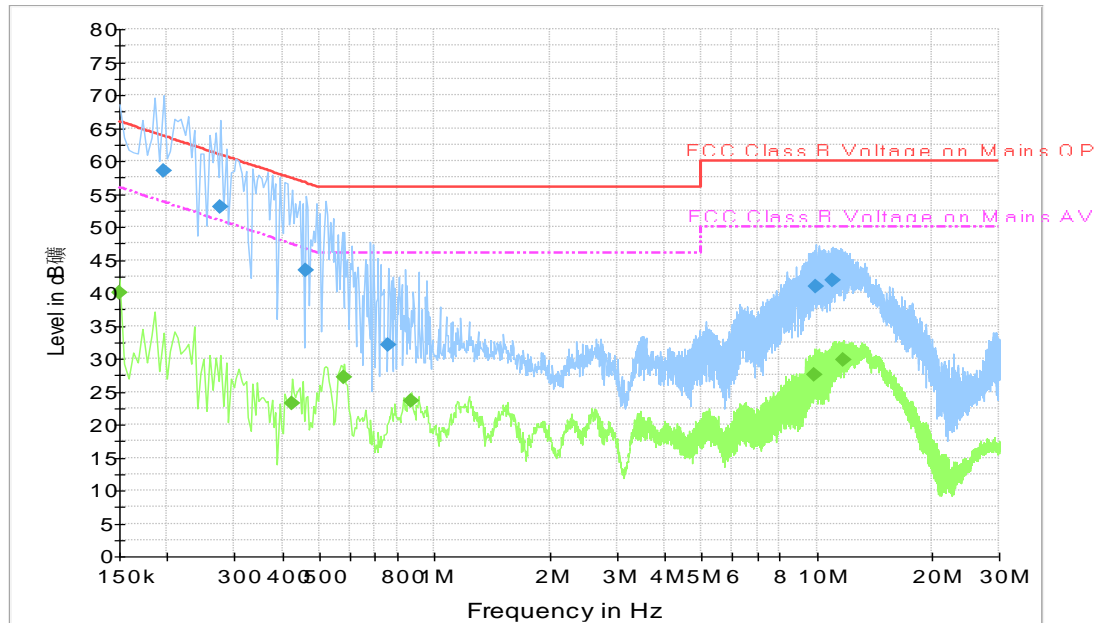


Fig. 37 AC Powerline Conducted Emission-Idle

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.195000	58.5	N	19.8	5.3	63.8
0.276000	53.1	N	19.8	7.9	60.9
0.460500	43.5	N	19.9	13.2	56.7
0.757500	32.2	N	19.8	23.8	56.0
9.946500	40.9	N	19.8	19.1	60.0
10.963500	41.8	N	19.8	18.2	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	40.0	N	20.2	16.0	56.0
0.424500	23.2	N	19.9	24.1	47.4
0.582000	27.2	N	19.9	18.8	46.0
0.870000	23.6	N	19.8	22.4	46.0
9.829500	27.6	N	19.8	22.4	50.0
11.742000	29.8	L1	19.7	20.2	50.0

A.8. 99% Occupied bandwidth

Method of Measurement: See ANSI C63.10-2013-clause 12.4.2.

- a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
- c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (OBW/RBW)]$ below the reference level. Specific guidance is given in 4.1.5.2.
- d) Step a) through step c) might require iteration to adjust within the specified range.
- e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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Measurement Result:

Mode	Channel	99% Occupied bandwidth (MHz)		conclusion
802.11n HT20	5180 MHz	Fig.40	18.16	P
	5200 MHz	Fig.41	18.16	P
	5240 MHz	Fig.42	18.96	P
802.11n HT40	5190 MHz	Fig.43	36.72	P
	5230 MHz	Fig.44	37.20	P
802.11ac HT80	5210 MHz	Fig.45	75.04	P

Conclusion: PASS

Test graphs as below:

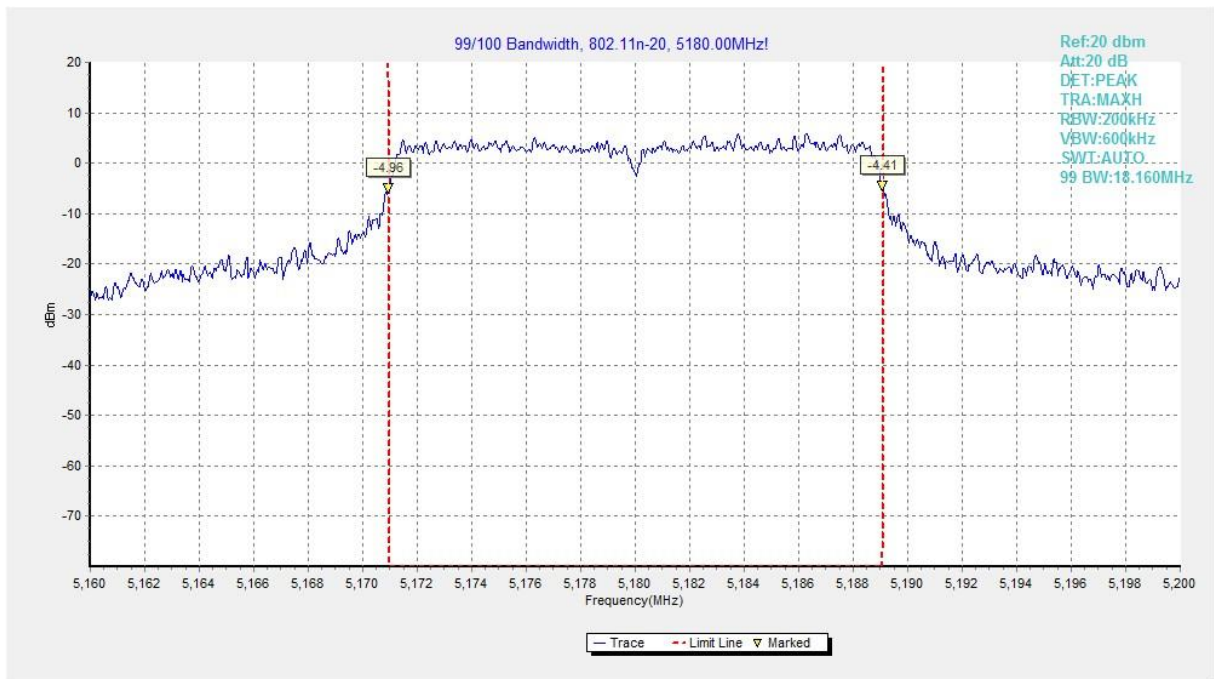


Fig. 38 99% Occupied bandwidth (802.11n-HT20, 5180MHz)

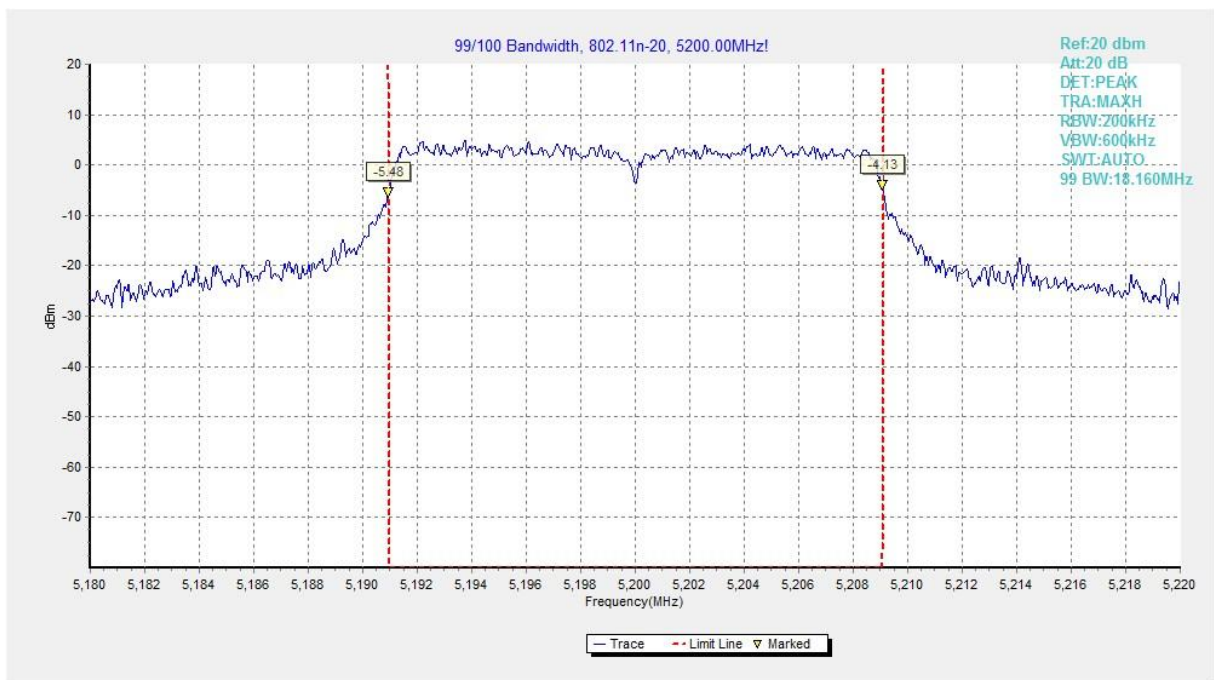


Fig. 39 99% Occupied bandwidth (802.11n-HT20, 5200MHz)

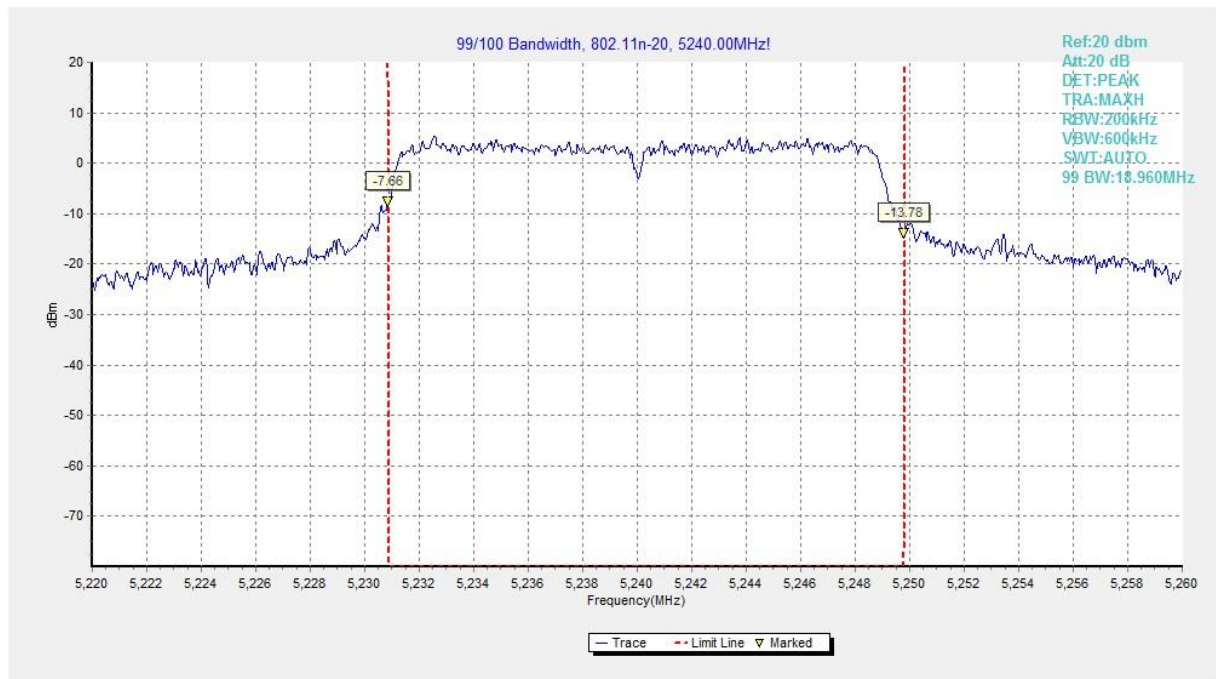


Fig. 40 99% Occupied bandwidth (802.11 n-HT20, 5240MHz)

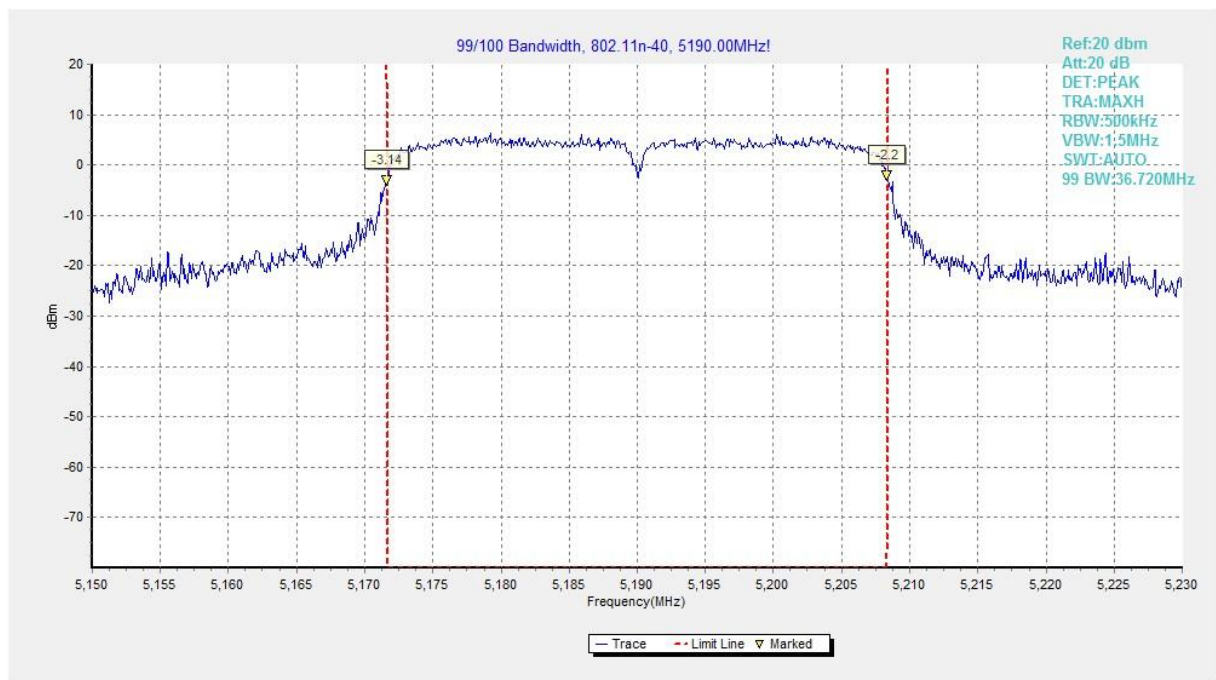


Fig. 41 99% Occupied bandwidth (802.11n-HT40, 5190MHz)

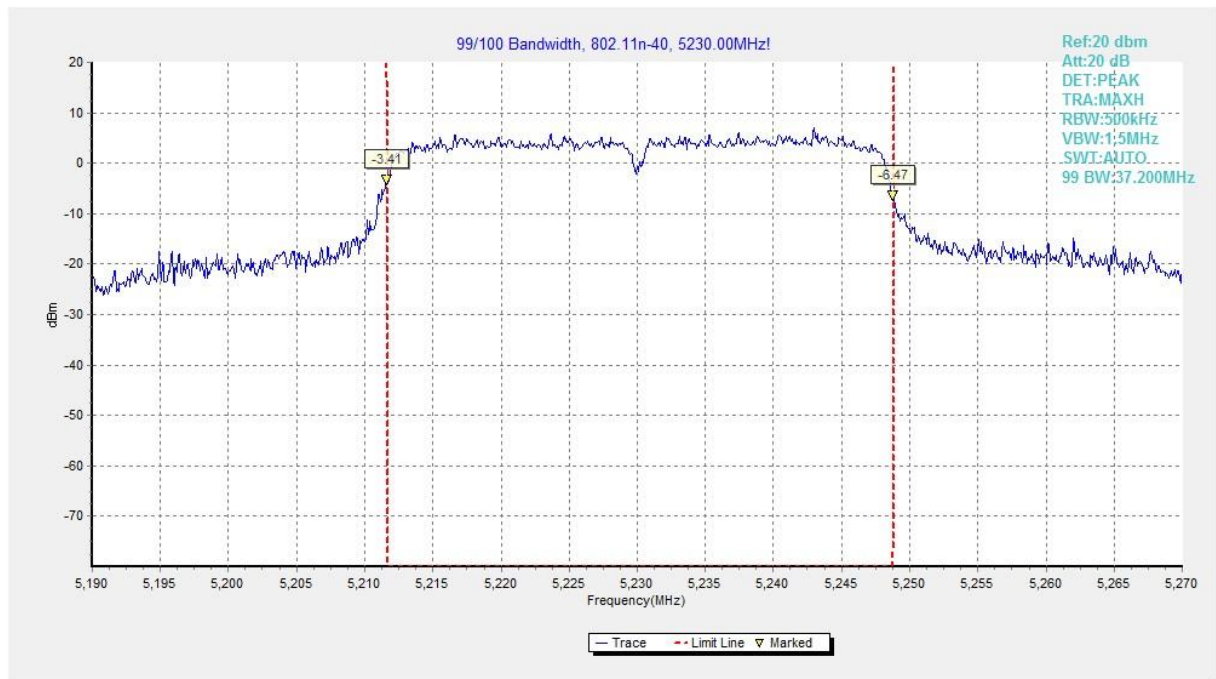


Fig. 42 99% Occupied bandwidth (802.11n-HT40, 5230MHz)

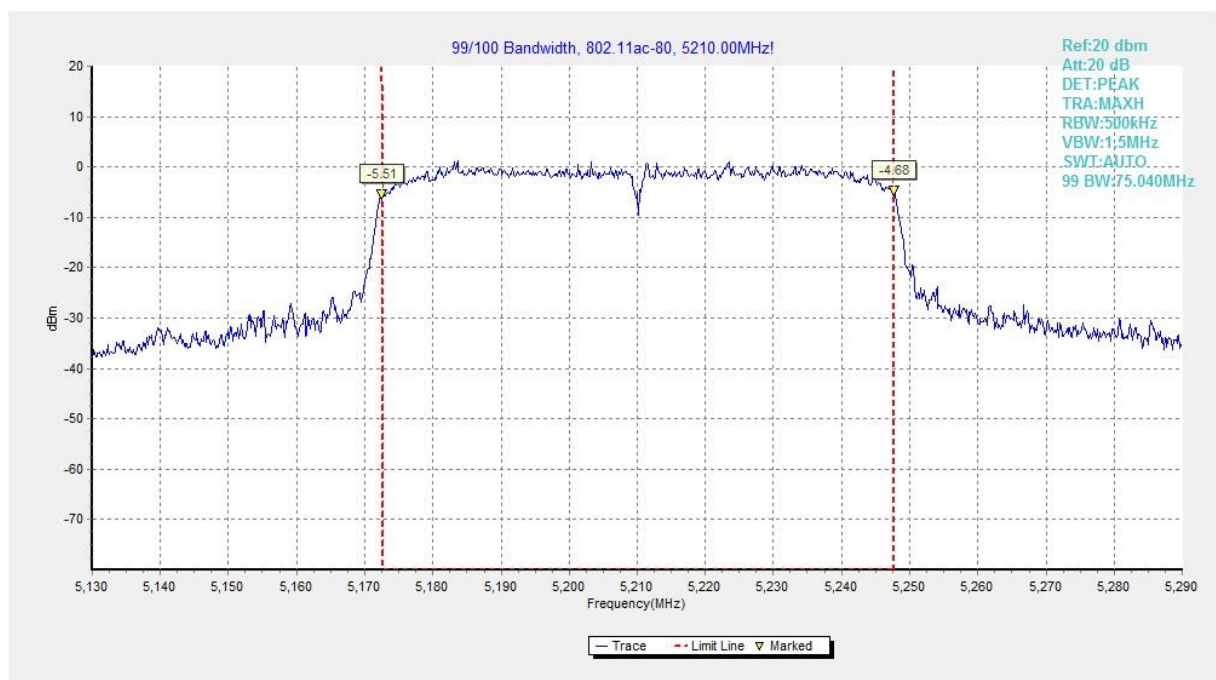


Fig. 43 99% Occupied bandwidth (802.11ac-HT80, 5210MHz)

A.9. Frequency Stability

Manufacturers ensured the EUT meet the requirement of frequency stability, such that an emission is maintained within the band of operation under all conditions of normal operation as

specified in the user's manual.

Measurement Result:

Mode	Channel	Test Condition		Result(MHz)
802.11a	5200 MHz	Tnom	Vnom	0.02
		Tmax	Vnom	
		Tmin	Vnom	
		Vmax	Tnom	
		Vmin	Tnom	
802.11n-HT40	5270 MHz	Tnom	Vnom	0.03
		Tmax	Vnom	
		Tmin	Vnom	
		Vmax	Tnom	
		Vmin	Tnom	
802.11n-HT-20	5700 MHz	Tnom	Vnom	0.04
		Tmax	Vnom	
		Tmin	Vnom	
		Vmax	Tnom	
		Vmin	Tnom	

A.10. Power control

A Transmission Power Control mechanism is not required for systems with an e.i.r.p. of less than 27dBm (500 mW).

*** END OF REPORT BODY ***