FCC PART 15
TEST REPORT
No.I22Z62030-IOT20

for

BLU Products,Inc.

Smart phone

B135DL

With

FCC ID: YHLBLUB135DL

Hardware Version: V1.0

Software Version: BLU_B135DL_V12.0.01.05.01.04

Issued Date: 2023-01-30

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.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S.Government.

Test Laboratory:

CTTL-Telecommunication Technology Labs, CAICT

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I22Z62030-IOT20	Rev.0	1st edition	2023-01-30

CONTENTS

1. TEST LATORATORY

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP) with lab code 600118-0, and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (ISED#: 24849). The detail accreditation scope can be found on NVLAP website.

1.2. 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.18A, Kangding Street, Beijing Economic-Technology Development Area, Beijing, P. R. China 100176

1.3. Testing Environment

Normal Temperature: 15-35℃

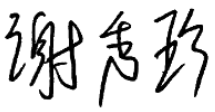
Relative Humidity: 20-75%

1.4. Project date

Testing Start Date: 2022-11-04

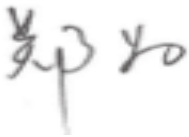
Testing End Date: 2023-01-30

1.5. Signature



Xie Xiuzhen

(Prepared this test report)



Zheng Wei

(Reviewed this test report)

Pang Shuai

(Approved this test report)

2. CLIENT INFORMATION

2.1. Applicant Information

Company Name:	BLU Products,Inc.
Address:	8600 NW 36th Street, Suite #200 Doral, FL 33166.
City:	Doral
Contact:	Zeng wei
Country:	America
Email:	zwei@ctasiasz.com
Telephone:	305.715.7171
Fax:	305.436.8819

2.2. Manufacturer Information

Company Name:	BLU Products,Inc.
Address:	8600 NW 36th Street, Suite #200 Doral, FL 33166.
City:	Doral
Contact:	Zeng wei
Country:	America
Email:	zwei@ctasiasz.com
Telephone:	305.715.7171
Fax:	305.436.8819

3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARYEQUIPMENT(AE)

3.1. About EUT

Description	Smart phone
Model name	B135DL
FCC ID	YHLBLUB135DL
WLAN Frequency Band	ISM Bands: -5150MHz~5250MHz -5250MHz~5350MHz -5470MHz~5725MHz
Type of modulation	OFDM
Antenna	Integral Antenna
Voltage	3.85V

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
UT33a	356074290009021	V1.0	BLU_B135DL_V12.0.01.05.01.04
UT68a	356074290014740	V1.0	BLU_B135DL_V12.0.01.05.01.04

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

UT33a is used for Conduction test, UT68a is used for Radiation test.

3.3. Internal Identification of AE used during the test

AE ID*	Description	SN
AE1	Battery	/
AE2	Battery	/
AE3	Charger	/
AE4	Charger	/
AE5	USB Cable	/
AE6	USB Cable	/

AE1

Model	TN-BP4000N3
Manufacturer	Guangdong Fenghua New Energy Co.,Ltd.
Capacity	4000mAh
Nominal Voltage	3.85V

AE2

Model	TN-BP4000N3
Manufacturer	Ganfeng
Capacity	4000mAh
Nominal Voltage	3.85V

AE3

Model	TN-050200U3
Manufacturer	Dong Guan City GangQi Electronic Co.,Ltd.
Length of cable	/

AE4

Model	TN-050200U3
Manufacturer	Guangdong Beicom Electronics Co.,Ltd.
Length of cable	/

AE5

Model	336275
Manufacturer	SUNTOPS ELECTRONICS CO.,LTD
Length of cable	/

AE6

Model	T365-011B-1	/
Manufacturer	Shenzhen Yihuaxing Electronics Co. Ltd.	/
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 Smart phone with integrated antenna and inbuilt battery.

It has Bluetooth (EDR)function.

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

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	2018
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	2013
UNII: KDB 789033 D02	General U-NII Test Procedures New Rules v02r01	2017-12

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**
Peak Power Spectral Density	15.407	/	**P**
Occupied 26dB Bandwidth	15.403	/	**P**
Band edge compliance (Radiated)	15.209	/	**P**
Transmitter spurious emissions (Radiated)	15.407	/	**P**
AC Powerline Conducted Emission (150kHz- 30MHz)	15.407	/	**P**
Frequency Stability	15.407	/	**P**
99% Occupied bandwidth	/	/	**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/manufacturer 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℃
Voltage	3.85V
Humidity	44%

7. TEST EQUIPMENTS UTILIZED

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	1 year	2023-05-15
2	Test Receiver	ESCI	100766	Rohde & Schwarz	1 year	2023-03-21
3	LISN	ESH2-Z5	829991/012	Rohde & Schwarz	1 year	2023-06-29
4	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESU26	100376	R&S	1 year	2023-09-22
2	EMI Antenna	3115	00146404	ETS-Lindgren	1 year	2023-03-08
3	EMI Antenna	3117	00119024	ETS-Lindgren	1 year	2023-06-07

8. Measurement Uncertainty

8.1 Transmitter Output Power

Measurement Uncertainty: 0.387dB,k=1.96

8.2 Peak Power Spectral Density

Measurement Uncertainty: 0.705dB,k=1.96

8.3 Occupied Channel Bandwidth

Measurement Uncertainty: 60.80Hz,k=1.96

8.4 Band Edges Compliance

Measurement Uncertainty : 0.62dB,k=1.96

8.5 Spurious Emissions

Conducted (k=1.96)

Frequency Range	Uncertainty(dB)
30MHz ≤ f ≤ 2GHz	1.22
2GHz ≤ f ≤3.6GHz	1.22
3.6GHz ≤ f ≤8GHz	1.22
8GHz ≤ f ≤12.75GHz	1.51
12.75GHz ≤ f ≤26GHz	1.51
26GHz ≤ f ≤40GHz	1.59

Radiated (k=2)

Frequency Range	Uncertainty(dB)
9kHz-30MHz	/
30MHz ≤ f ≤ 1GHz	5.73
1GHz ≤ f ≤18GHz	5.58
18GHz ≤ f ≤40GHz	3.37

8.6 AC Power-line Conducted Emission

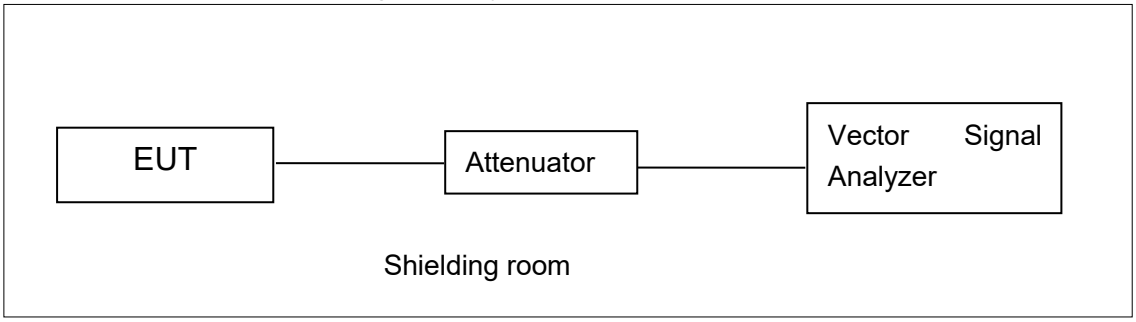
Measurement Uncertainty : 3.08,k=2

ANNEX A: MEASUREMENT RESULTS

A.1. Measurement Method

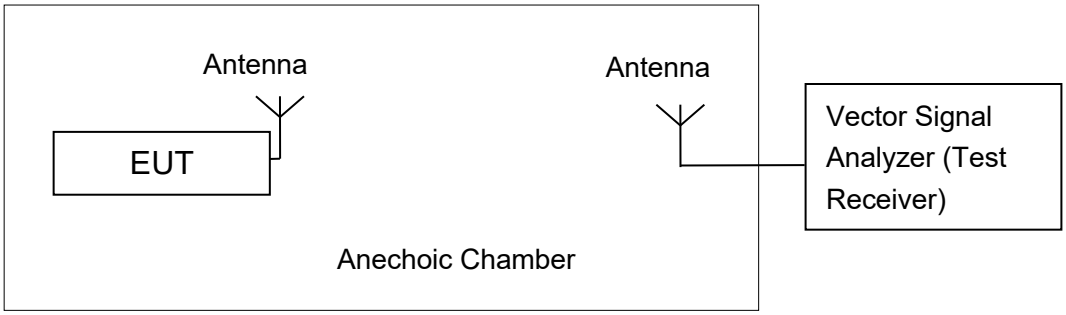
A.1.1. Conducted Measurements

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 measurementmethod SA-2 is made according to KDB 789033

Measurement Results:

Antenna Gain: -1.14dBi

802.11a mode

Mode	Frequency	Test Result (dBm)							
		Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
802.11a	5180MHz	16.72	/	/	/	/	/	/	/
	5200MHz	16.95	/	/	/	/	/	/	/
	5240MHz	17.03	/	/	/	/	/	/	/
	5260MHz	17.01	/	/	/	/	/	/	/
	5280MHz	16.97	/	/	/	/	/	/	/
	5320MHz	17.01	/	/	/	/	/	/	/
	5500MHz	16.17	/	/	/	/	/	/	/
	5580MHz	16.60	/	/	/	/	/	/	/
	5700MHz	14.54	/	/	/	/	/	/	/
	5720MHz	16.58	/	/	/	/	/	/	/

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

802.11n-HT20 mode

Mode	Frequency	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT20)	5180MHz	16.62	/	/	/	/	/	/	/
	5200MHz	16.79	/	/	/	/	/	/	/
	5240MHz	16.43	/	/	/	/	/	/	/
	5260MHz	16.41	/	/	/	/	/	/	/
	5280MHz	16.22	/	/	/	/	/	/	/
	5320MHz	16.12	/	/	/	/	/	/	/
	5500MHz	16.57	/	/	/	/	/	/	/
	5580MHz	16.29	/	/	/	/	/	/	/
	5700MHz	14.06	/	/	/	/	/	/	/
	5720MHz	16.45	/	/	/	/	/	/	/

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

this condition.

802.11ac-HT20 mode

Mode	Frequency	Test Result (dBm)								
		Data Rate								
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
802.11ac (HT20)	5180MHz	16.83	/	/	/	/	/	/	/	/
	5200MHz	16.43	/	/	/	/	/	/	/	/
	5240MHz	16.53	/	/	/	/	/	/	/	/
	5260MHz	16.44	/	/	/	/	/	/	/	/
	5280MHz	16.35	/	/	/	/	/	/	/	/
	5320MHz	16.35	/	/	/	/	/	/	/	/
	5500MHz	16.78	/	/	/	/	/	/	/	/
	5580MHz	16.25	/	/	/	/	/	/	/	/
	5700MHz	14.23	/	/	/	/	/	/	/	/
	5720MHz	16.41	/	/	/	/	/	/	/	/

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

802.11n-HT40 mode

Mode	Frequency	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT40)	5190MHz	16.34	/	/	/	/	/	/	/
	5230MHz	16.25	/	/	/	/	/	/	/
	5270MHz	16.21	/	/	/	/	/	/	/
	5310MHz	16.18	/	/	/	/	/	/	/
	5510MHz	14.29	/	/	/	/	/	/	/
	5550MHz	16.56	/	/	/	/	/	/	/
	5670MHz	16.12	/	/	/	/	/	/	/
	5710MHz	16.01	/	/	/	/	/	/	/

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

802.11ac-HT40 mode

Mode	Frequency	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac (HT40)	5190MHz	16.42	/	/	/	/	/	/	/	/	/
	5230MHz	16.03	/	/	/	/	/	/	/	/	/
	5270MHz	16.31	/	/	/	/	/	/	/	/	/
	5310MHz	16.19	/	/	/	/	/	/	/	/	/

	5510MHz	14.35	/	/	/	/	/	/	/	/	/
	5550MHz	16.57	/	/	/	/	/	/	/	/	/
	5670MHz	15.23	/	/	/	/	/	/	/	/	/
	5710MHz	16.48	/	/	/	/	/	/	/	/	/

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

802.11ac-HT80 mode

Mode	Frequency	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac (HT80)	5210MHz	16.43	/	/	/	/	/	/	/	/	/
	5290MHz	15.18	/	/	/	/	/	/	/	/	/
	5530MHz	13.21	/	/	/	/	/	/	/	/	/
	5610MHz	15.11	/	/	/	/	/	/	/	/	/
	5690MHz	16.49	/	/	/	/	/	/	/	/	/

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

The duty cycle of all mode are 100%

Conclusion: PASS

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 Section F is made according to KDB 789033

Measurement Results:

Mode	Frequency	Power Spectral Density (dBm/MHz)	Conclusion
802.11a	5180 MHz	6.02	P
	5200 MHz	6.07	P
	5240 MHz	6.64	P
	5260 MHz	6.20	P
	5280 MHz	6.02	P
	5320 MHz	5.82	P
	5500 MHz	5.01	P
	5580 MHz	5.69	P
	5700 MHz	3.46	P
	5720 MHz	5.98	P
802.11ac HT20	5180 MHz	5.94	P
	5200 MHz	5.96	P
	5240 MHz	6.55	P
	5260 MHz	6.11	P
	5280 MHz	5.92	P
	5320 MHz	5.72	P
	5500 MHz	5.92	P
	5580 MHz	5.33	P
	5700 MHz	3.13	P
	5720 MHz	5.62	P
802.11ac HT40	5190 MHz	3.13	P
	5230 MHz	2.74	P
	5270 MHz	3.09	P
	5310 MHz	2.64	P
	5510 MHz	0.71	P
	5550 MHz	2.30	P
	5670 MHz	1.32	P
	5710 MHz	2.53	P
802.11ac HT80	5210MHz	-0.49	P
	5290MHz	-1.28	P
	5530MHz	-3.93	P

	5610MHz	-1.51	P
	5690MHz	-0.76	P

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	Frequency	Occupied 26dB Bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.1	20.80	P
	5200 MHz	Fig.2	22.25	P
	5240 MHz	Fig.3	29.60	P
	5260 MHz	Fig.4	21.30	P
	5280 MHz	Fig.5	22.50	P
	5320 MHz	Fig.6	21.40	P
	5500 MHz	Fig.7	21.30	P
	5580 MHz	Fig.8	29.50	P
	5700 MHz	Fig.9	20.50	P
	5720 MHz	Fig.10	25.85	P
802.11ac HT20	5180 MHz	Fig.11	21.90	P
	5200 MHz	Fig.12	24.40	P
	5240 MHz	Fig.13	27.95	P
	5260 MHz	Fig.14	23.35	P
	5280 MHz	Fig.15	22.95	P
	5320 MHz	Fig.16	23.40	P
	5500 MHz	Fig.17	24.40	P
	5580 MHz	Fig.18	29.20	P
	5700 MHz	Fig.19	20.85	P
	5720 MHz	Fig.20	22.75	P
802.11ac HT40	5190 MHz	Fig.21	40.96	P
	5230 MHz	Fig.22	40.96	P
	5270 MHz	Fig.23	47.20	P
	5310 MHz	Fig.24	40.96	P

	5510 MHz	Fig.25	41.04	P
	5550 MHz	Fig.26	41.12	P
	5670 MHz	Fig.27	40.88	P
	5710 MHz	Fig.28	45.84	P
802.11ac HT80	5210MHz	Fig.29	83.84	P
	5290MHz	Fig.30	81.28	P
	5530MHz	Fig.31	81.44	P
	5610MHz	Fig.32	81.44	P
	5690MHz	Fig.33	87.68	P

Conclusion: PASS

Test graphs as below:

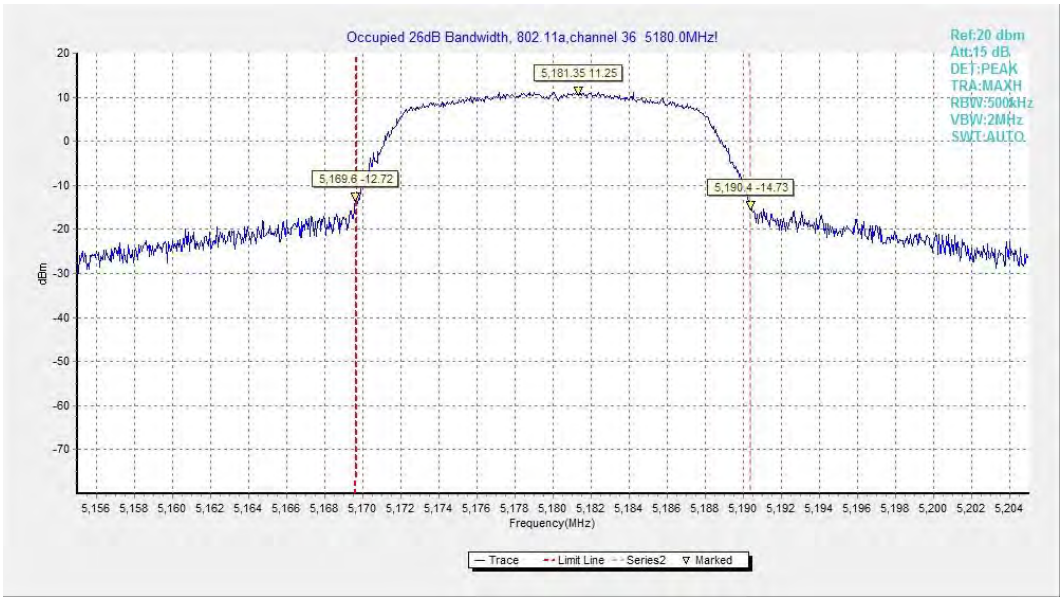


Fig.1 Occupied 26dB Bandwidth (802.11a, 5180MHz)

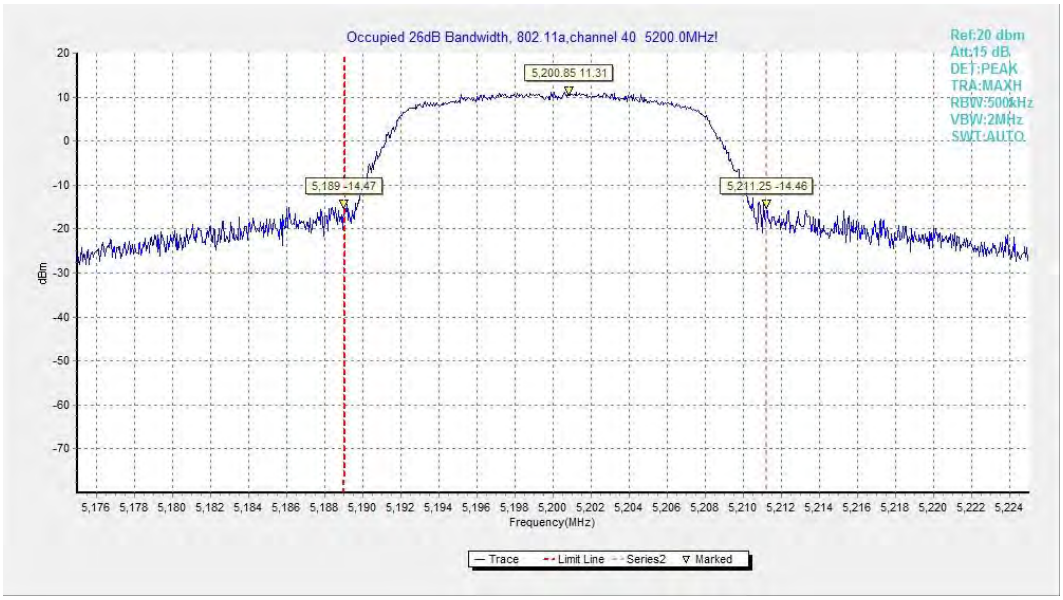


Fig.2 Occupied 26dB Bandwidth (802.11a, 5200MHz)

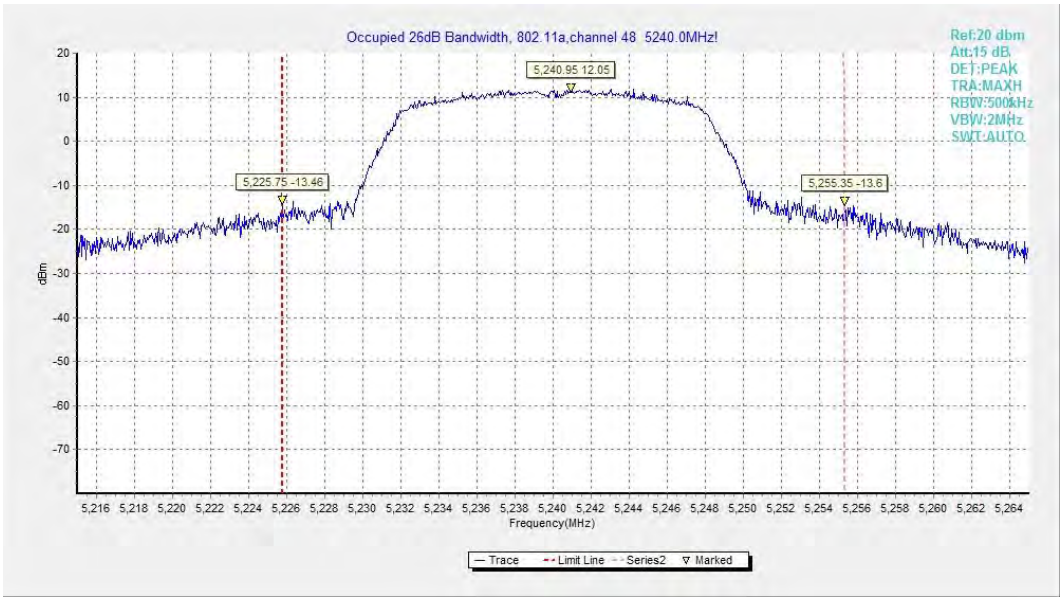


Fig.3 Occupied 26dB Bandwidth (802.11a, 5240MHz)

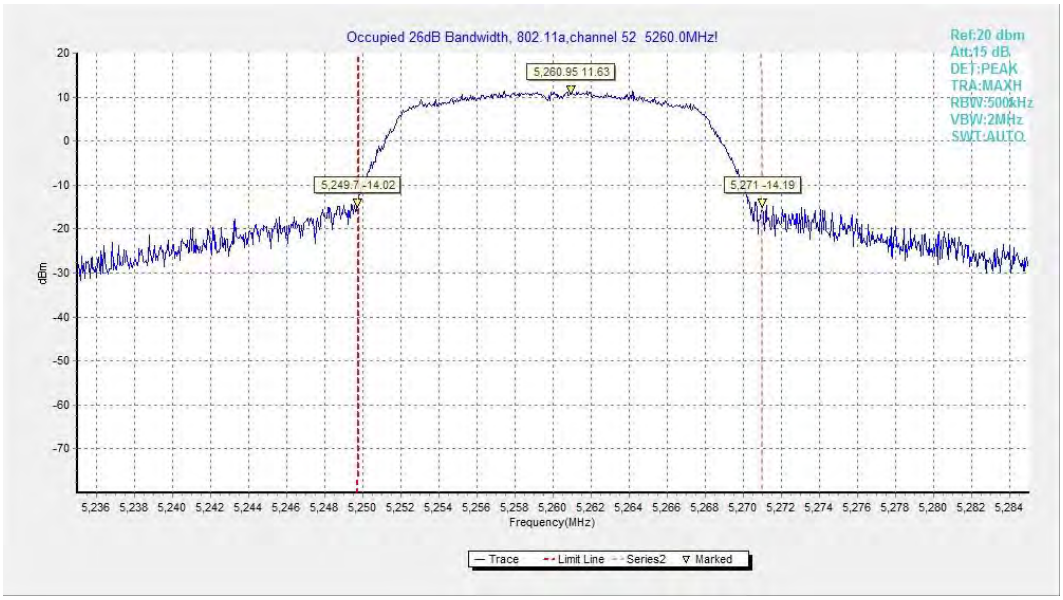


Fig.4 Occupied 26dB Bandwidth (802.11a, 5260MHz)

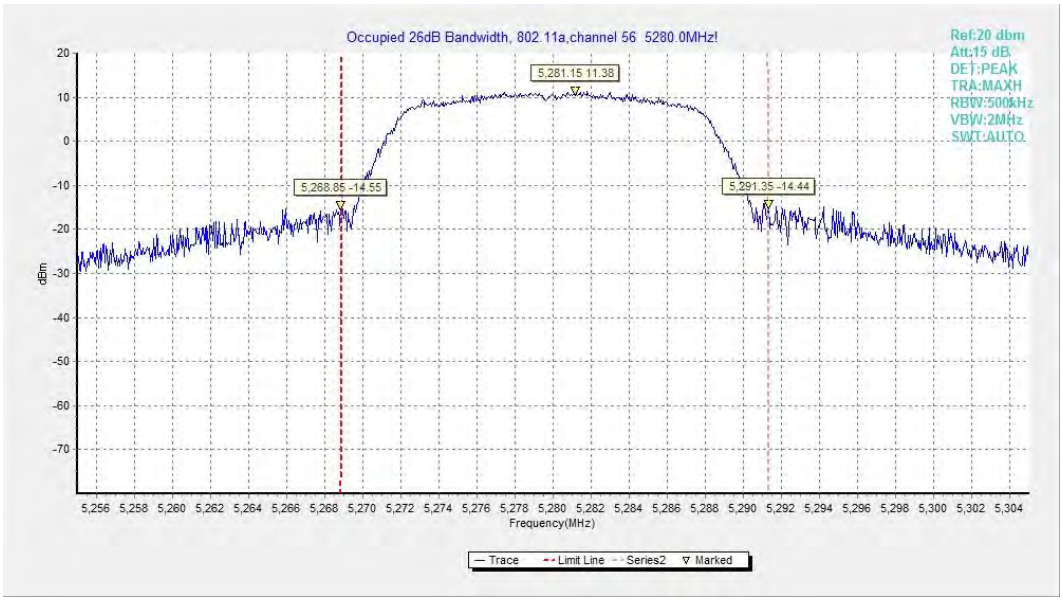


Fig.5 Occupied 26dB Bandwidth (802.11a, 5280MHz)

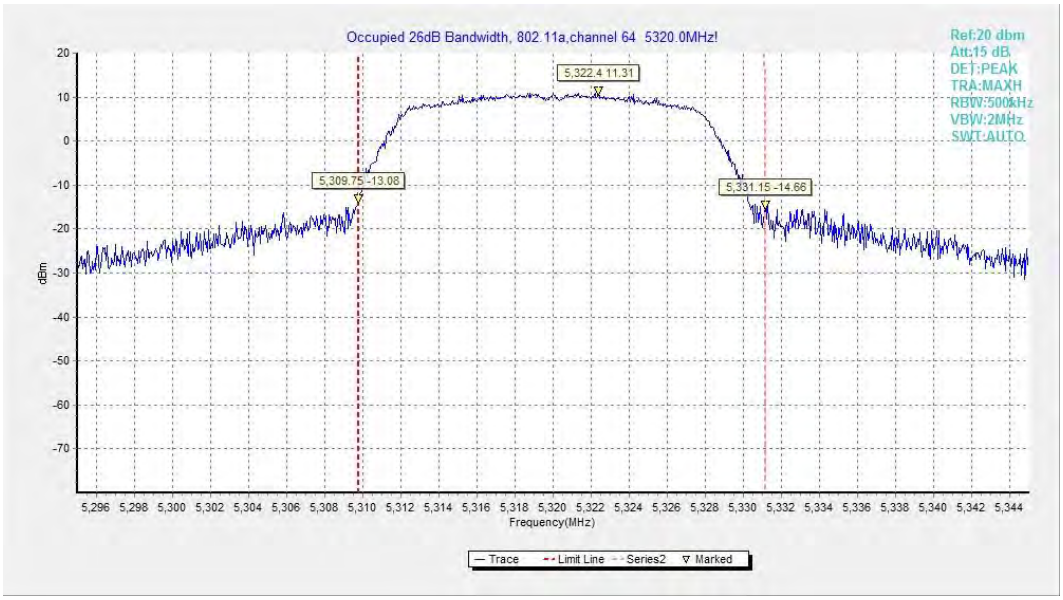


Fig.6 Occupied 26dB Bandwidth (802.11a, 5320MHz)

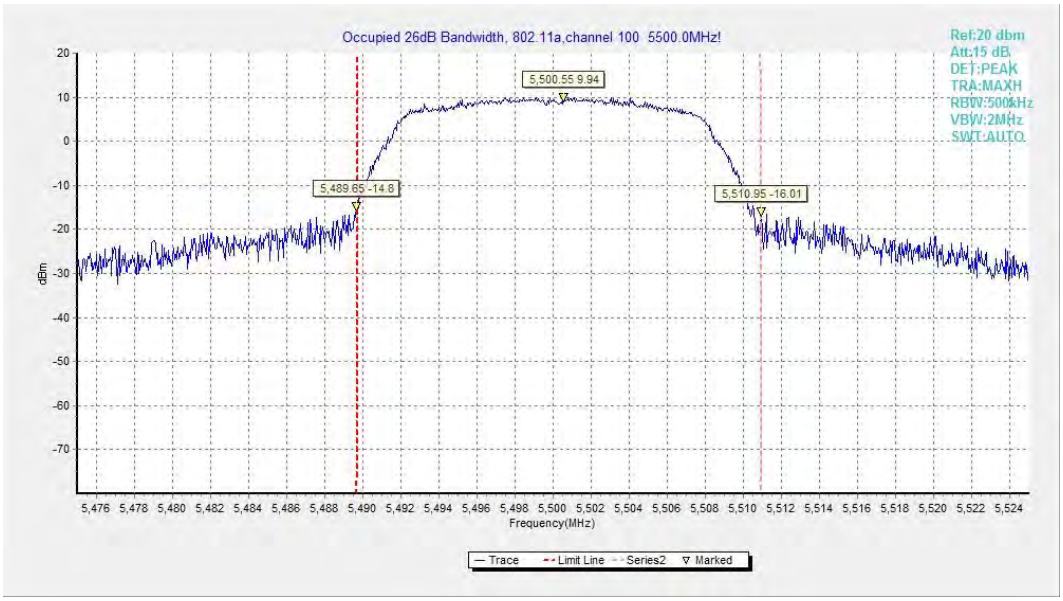


Fig.7 Occupied 26dB Bandwidth (802.11a, 5500MHz)

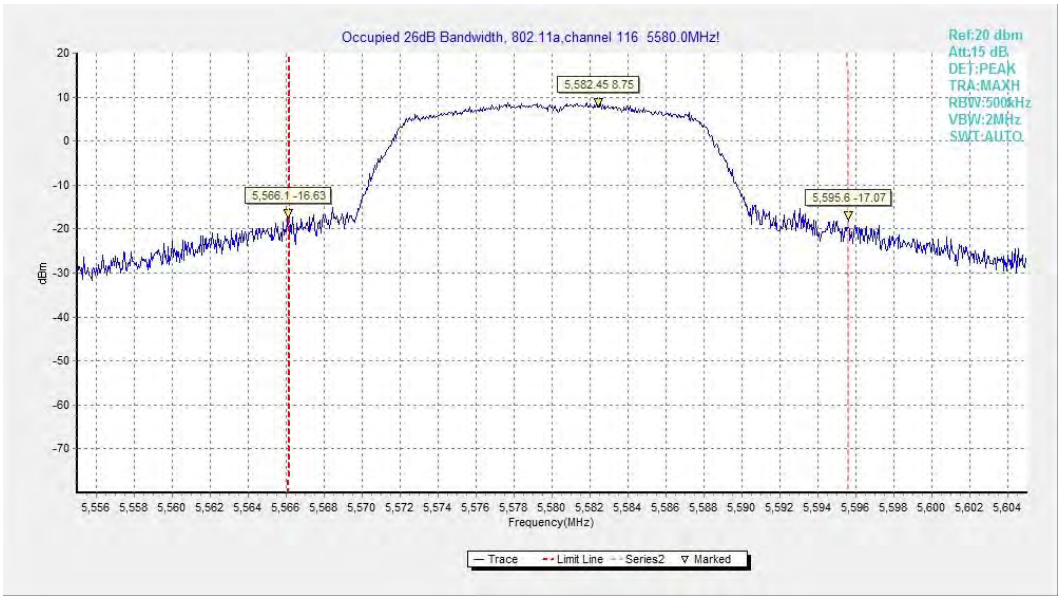


Fig.8 Occupied 26dB Bandwidth (802.11a, 5580MHz)

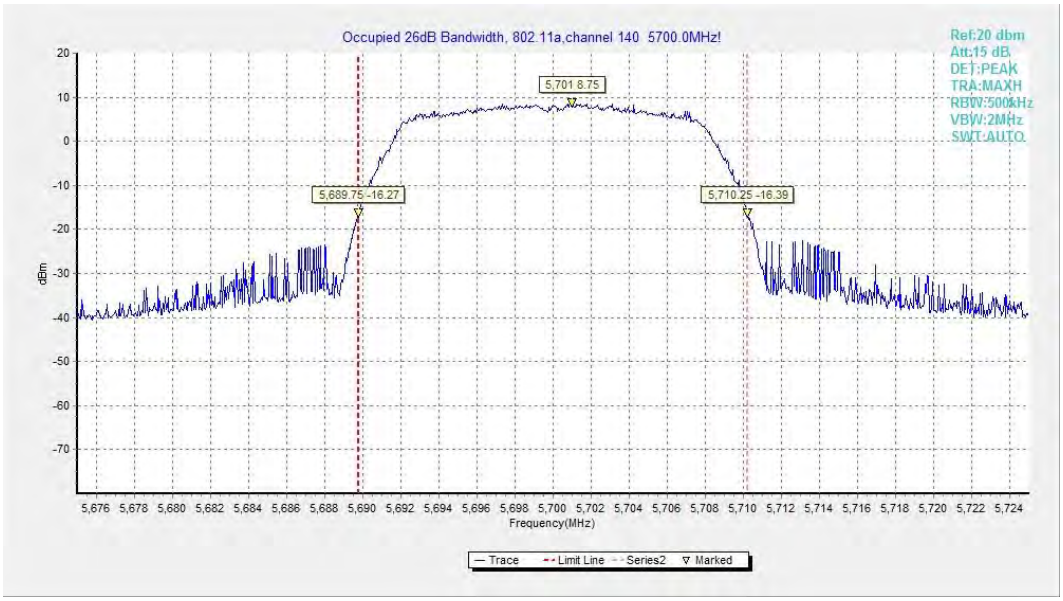


Fig.9 Occupied 26dB Bandwidth (802.11a, 5700MHz)

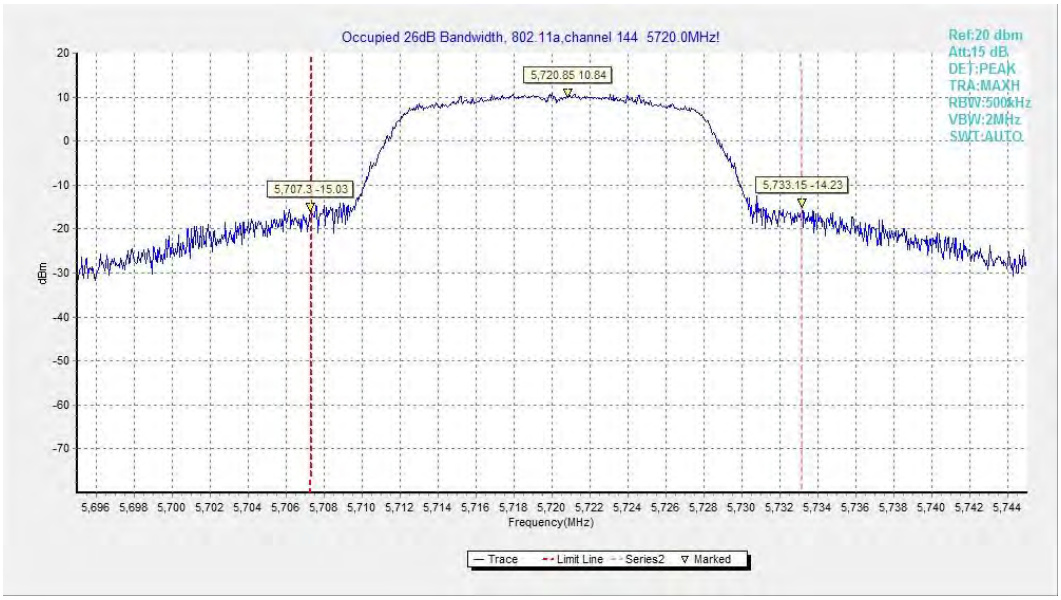


Fig.10 Occupied 26dB Bandwidth (802.11a, 5720MHz)

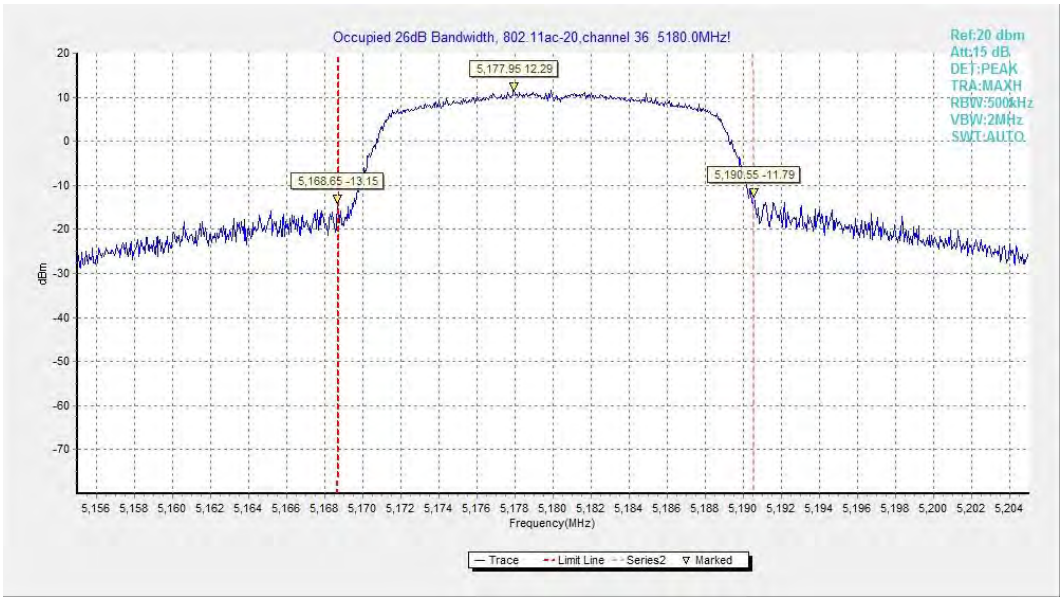


Fig.11 Occupied 26dB Bandwidth (802.11ac-HT20, 5180MHz)

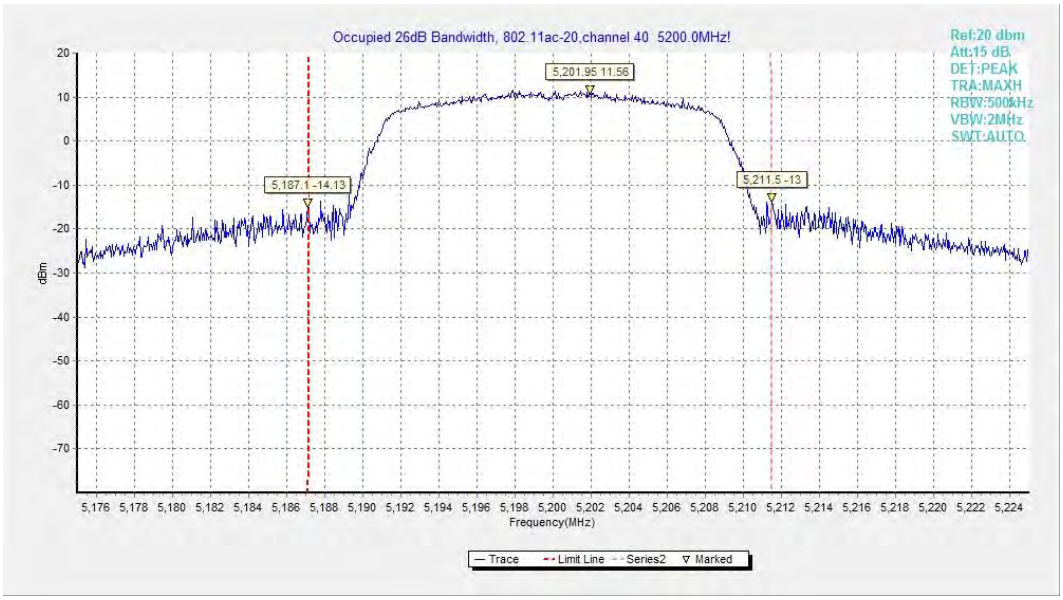


Fig.12 Occupied 26dB Bandwidth (802.11ac-HT20, 5200MHz)

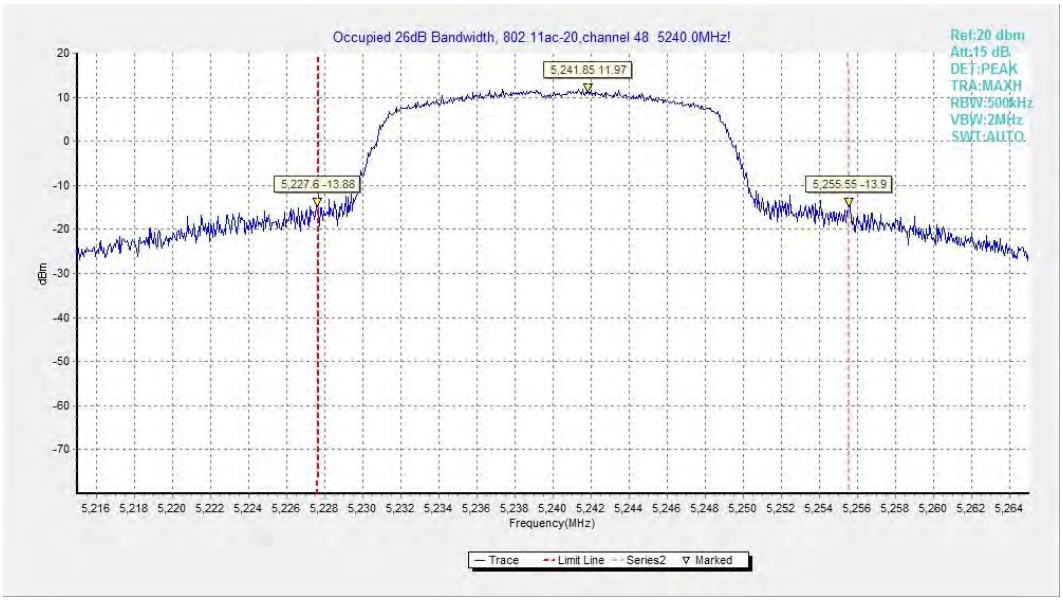


Fig.13 Occupied 26dB Bandwidth (802.11ac-HT20, 5240MHz)

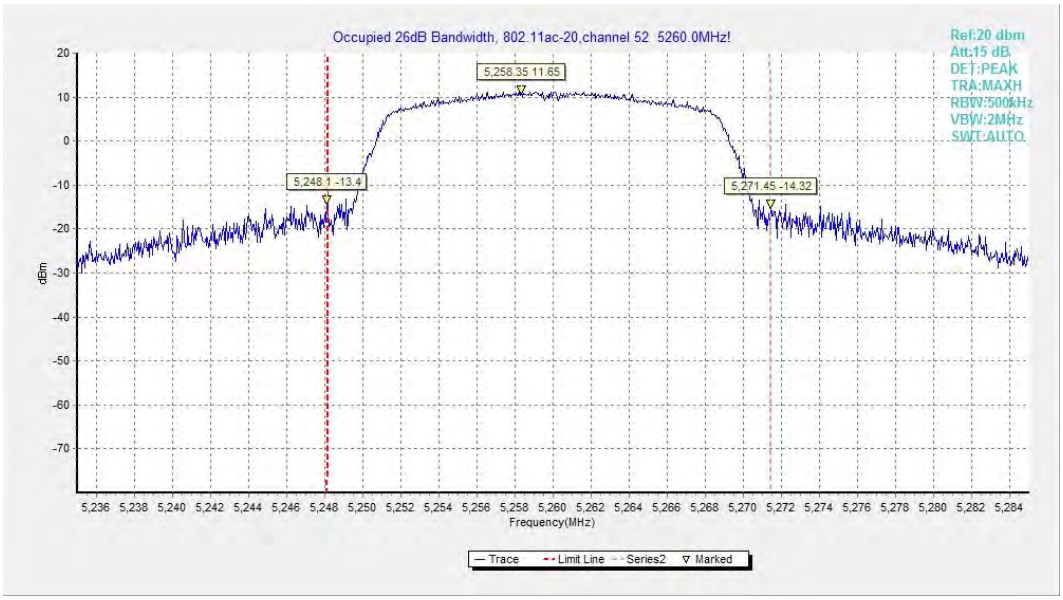


Fig.14 Occupied 26dB Bandwidth (802.11ac-HT20, 5260MHz)

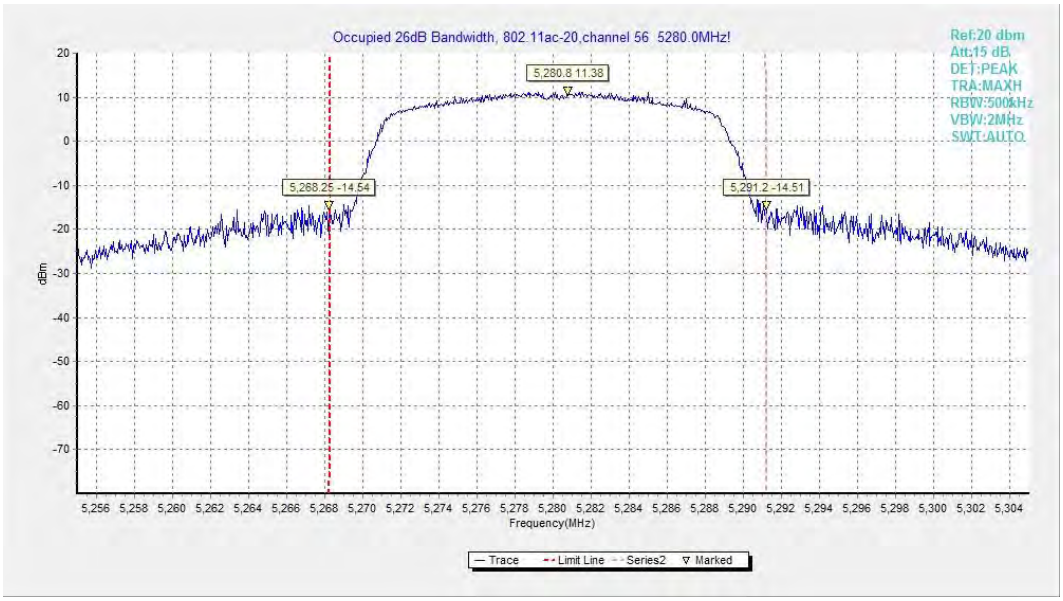


Fig.15 Occupied 26dB Bandwidth (802.11ac-HT20, 5280MHz)

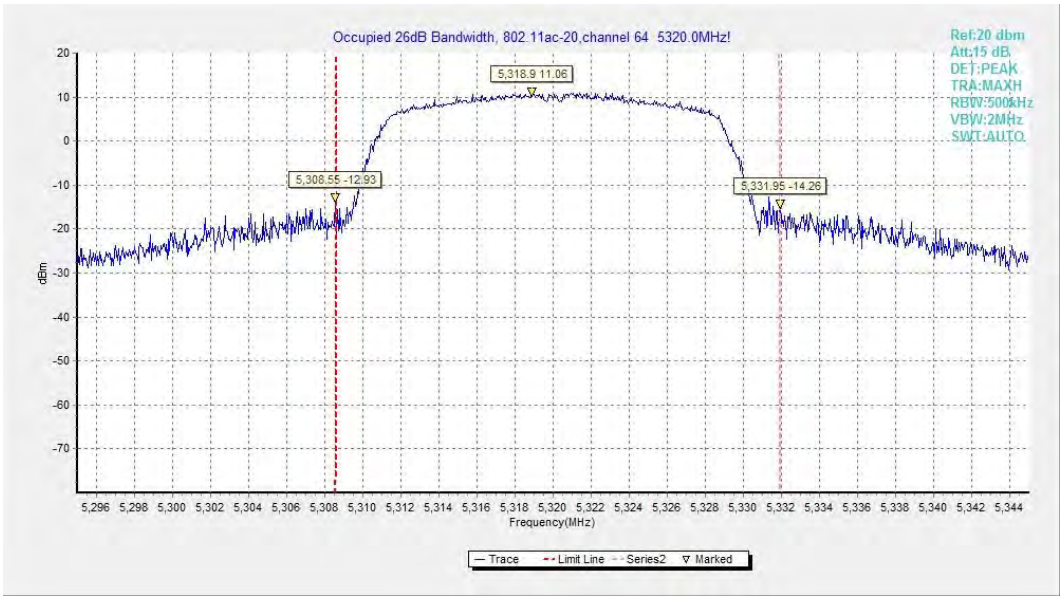


Fig.16 Occupied 26dB Bandwidth (802.11ac-HT20, 5320MHz)

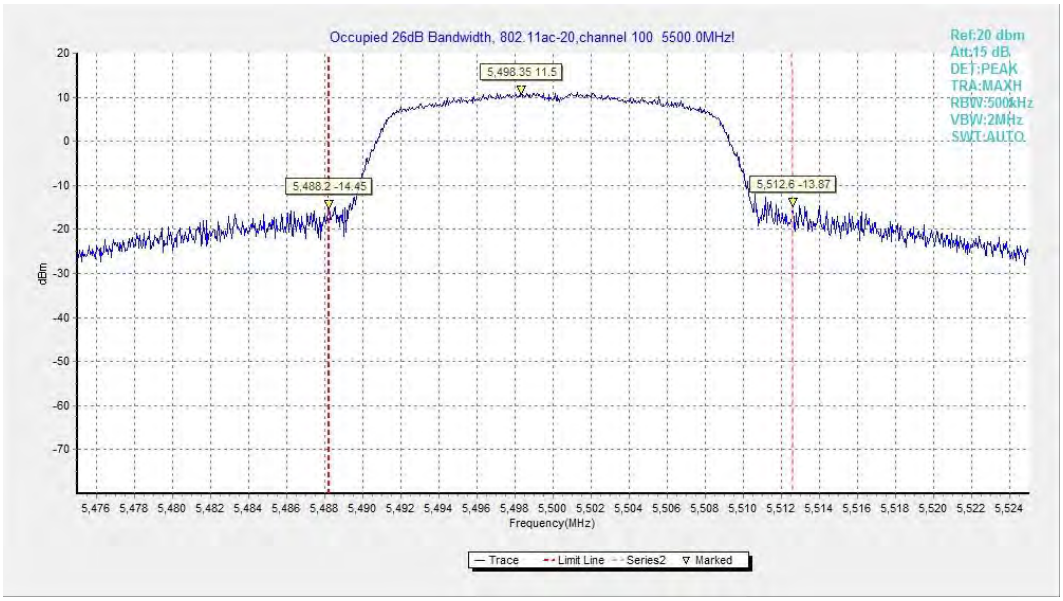


Fig.17 Occupied 26dB Bandwidth (802. 11ac-HT20, 5500MHz)

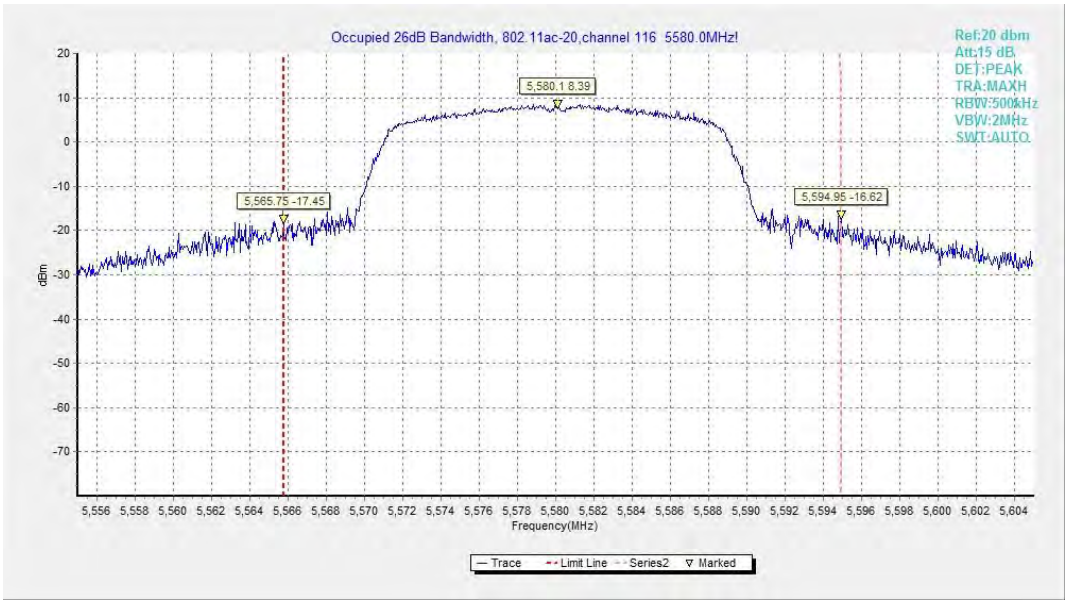


Fig.18 Occupied 26dB Bandwidth (802. 11ac-HT20, 5580MHz)

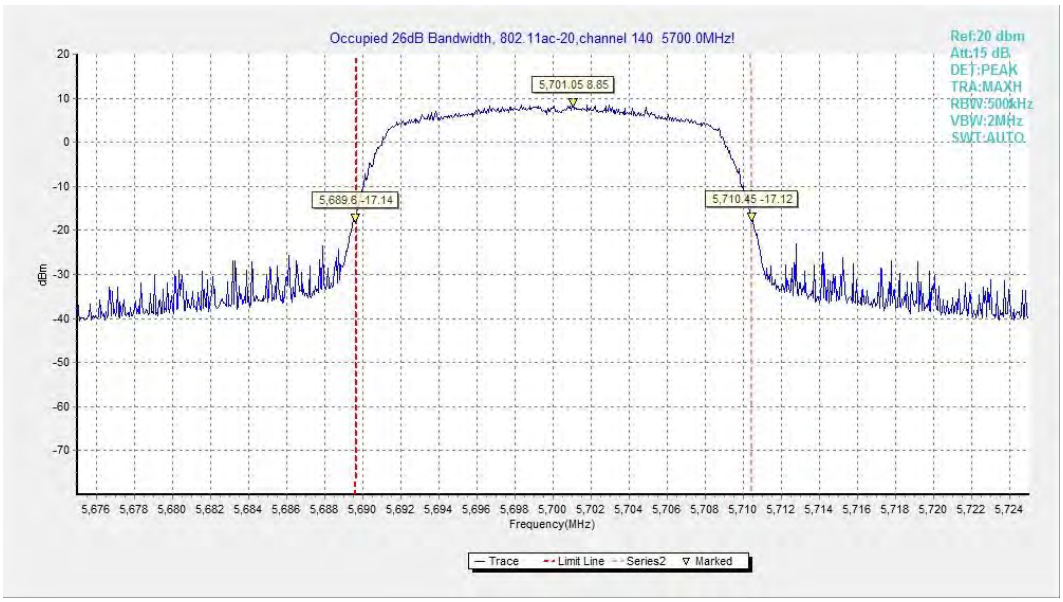


Fig.19 Occupied 26dB Bandwidth (802. 11ac-HT20, 5700MHz)

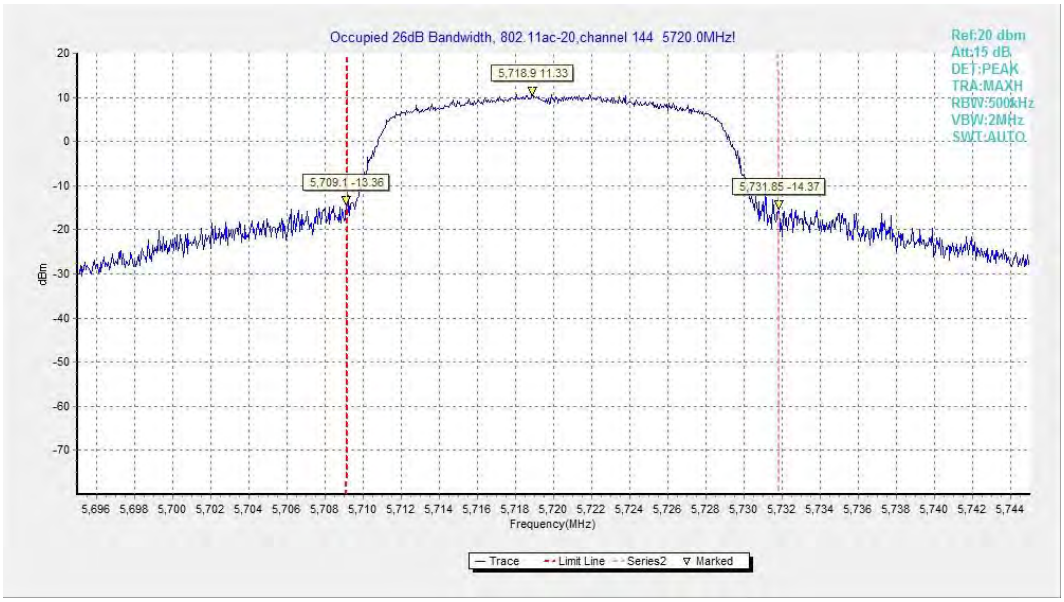


Fig.20 Occupied 26dB Bandwidth (802. 11ac-HT20, 5720MHz)

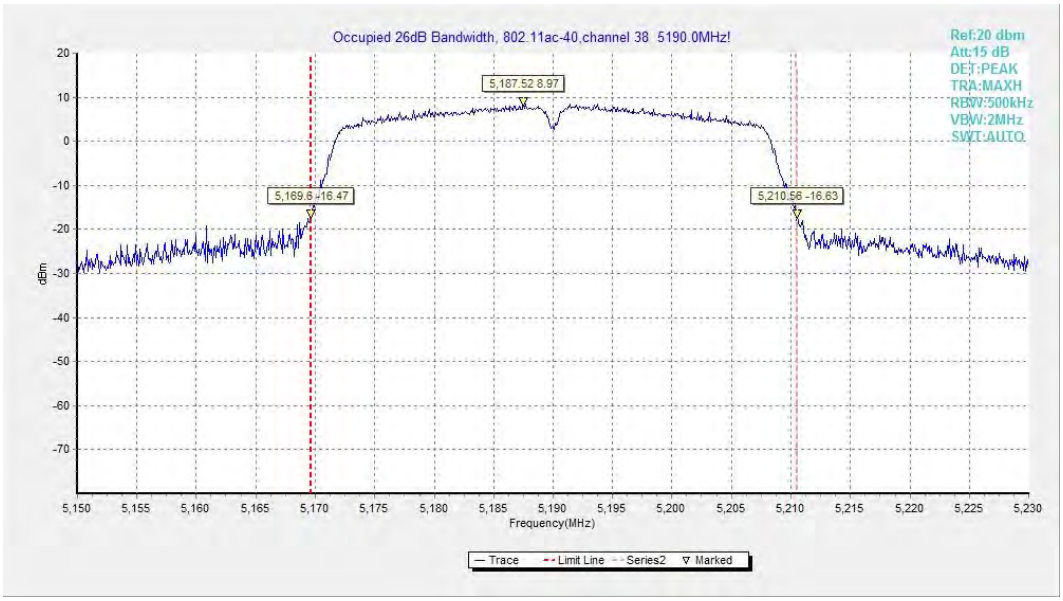


Fig.21 Occupied 26dB Bandwidth (802.11ac-HT40, 5190MHz)

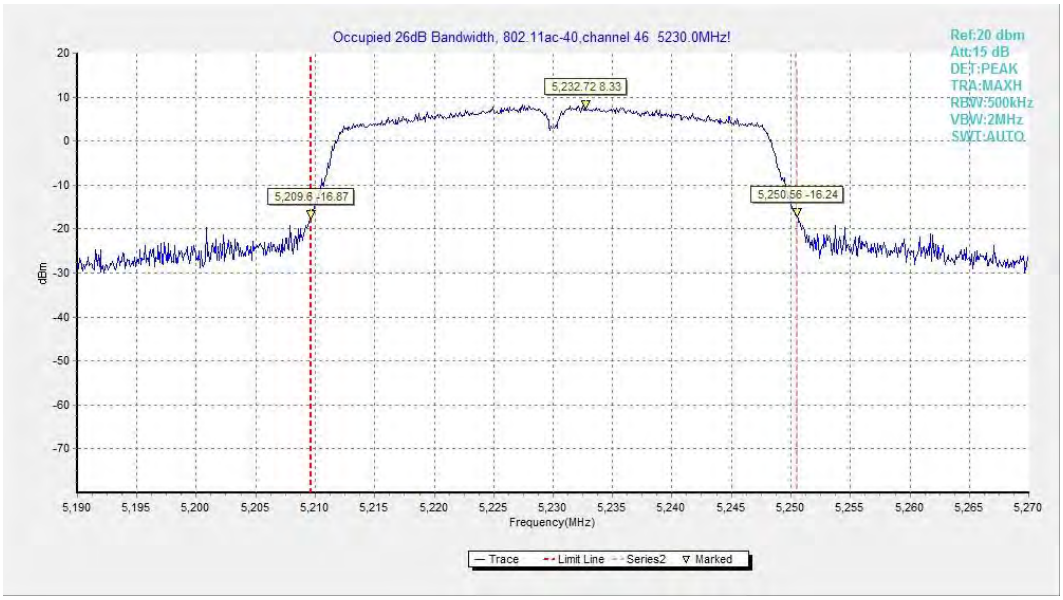


Fig.22 Occupied 26dB Bandwidth (802.11ac-HT40, 5230MHz)

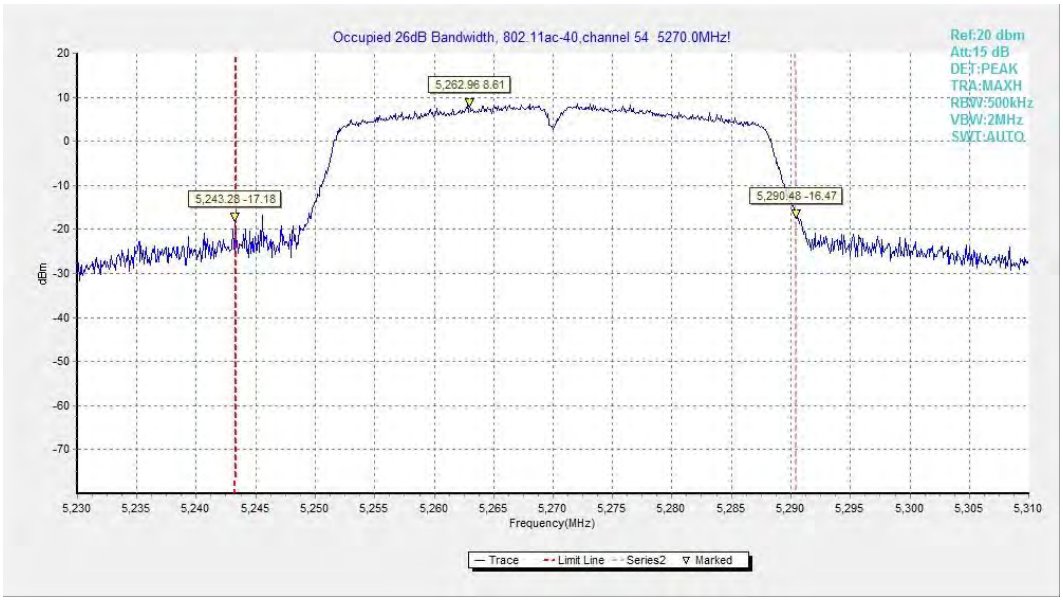


Fig.23 Occupied 26dB Bandwidth (802.11ac-HT40, 5270MHz)

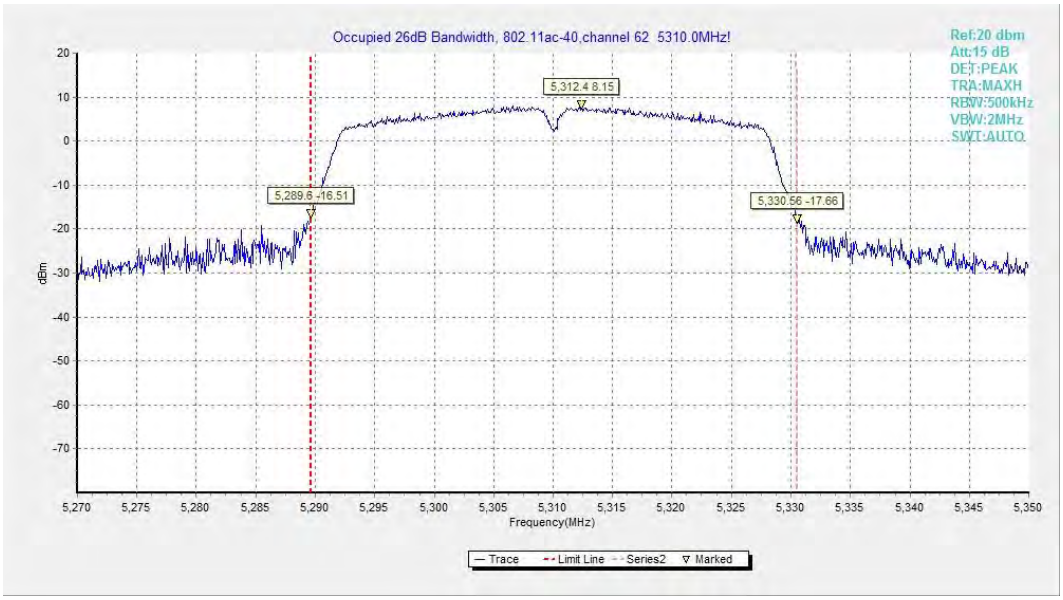


Fig.24 Occupied 26dB Bandwidth (802.11ac-HT40, 5310MHz)

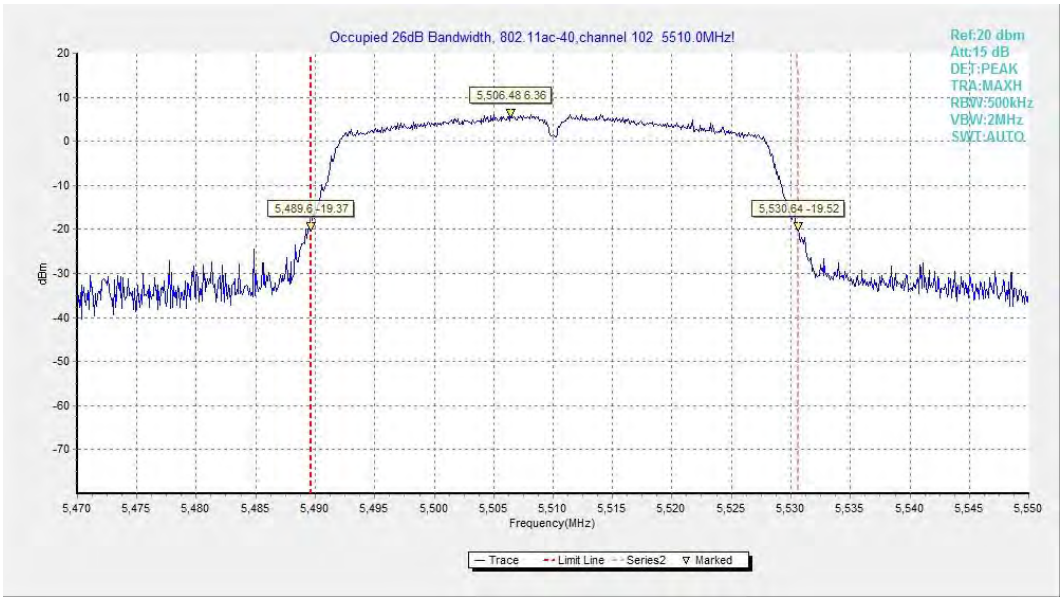


Fig.25 Occupied 26dB Bandwidth (802. 11ac-HT40, 5510MHz)

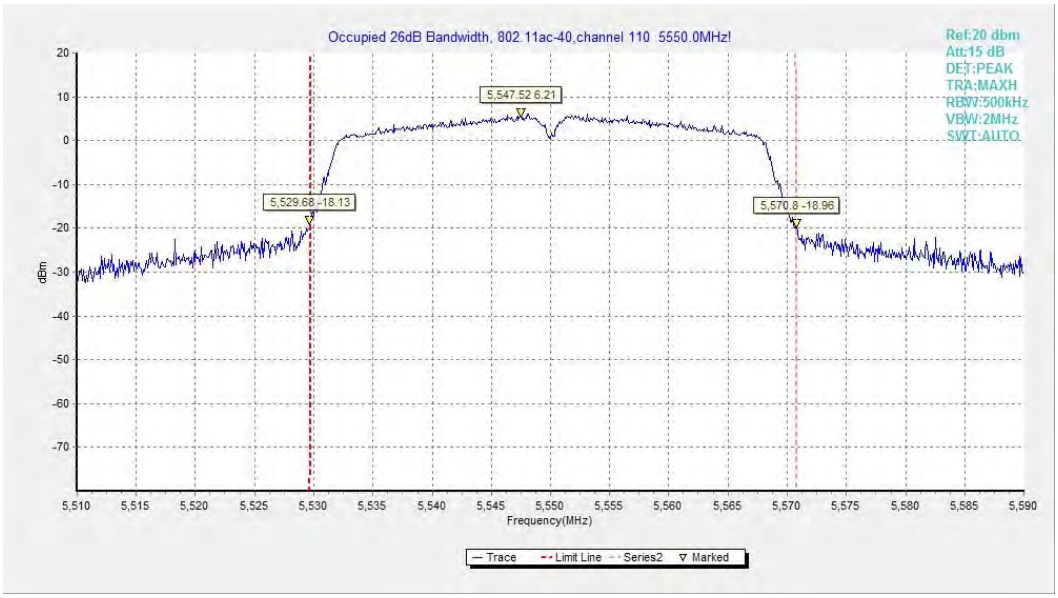


Fig.26 Occupied 26dB Bandwidth (802. 11ac-HT40, 5550MHz)

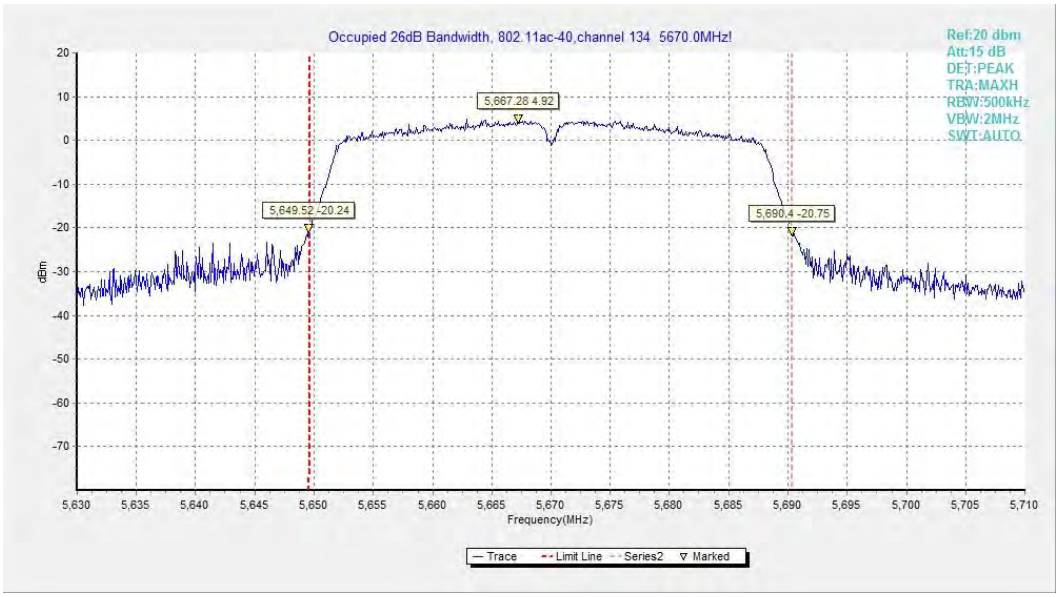


Fig.27 Occupied 26dB Bandwidth (802. 11ac-HT40, 5670MHz)

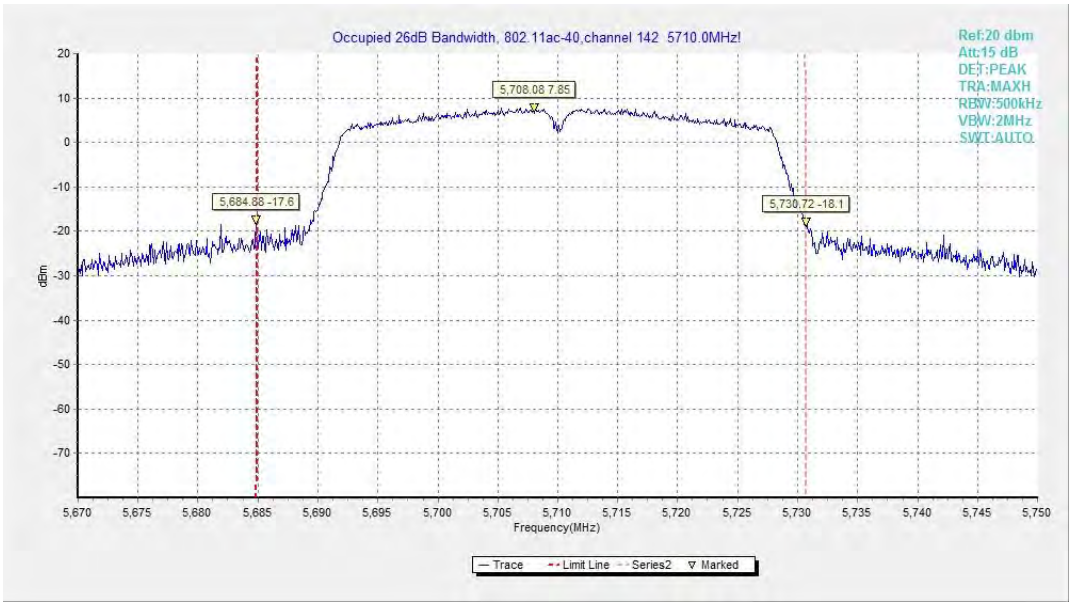


Fig.28 Occupied 26dB Bandwidth (802. 11ac-HT40, 5710MHz)

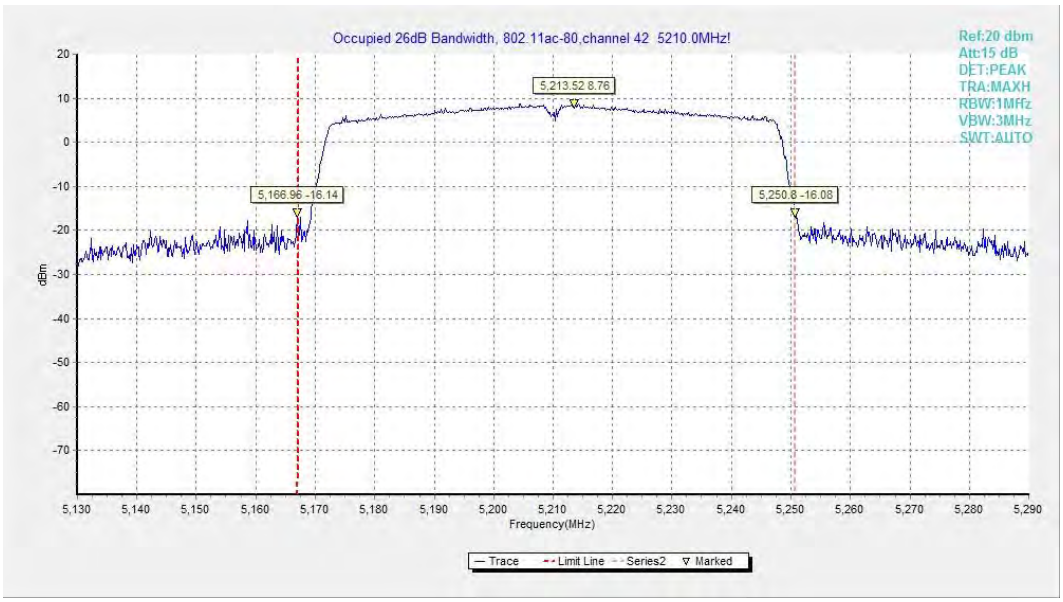


Fig.29 Occupied 26dB Bandwidth (802. 11ac-HT80, 5210MHz)

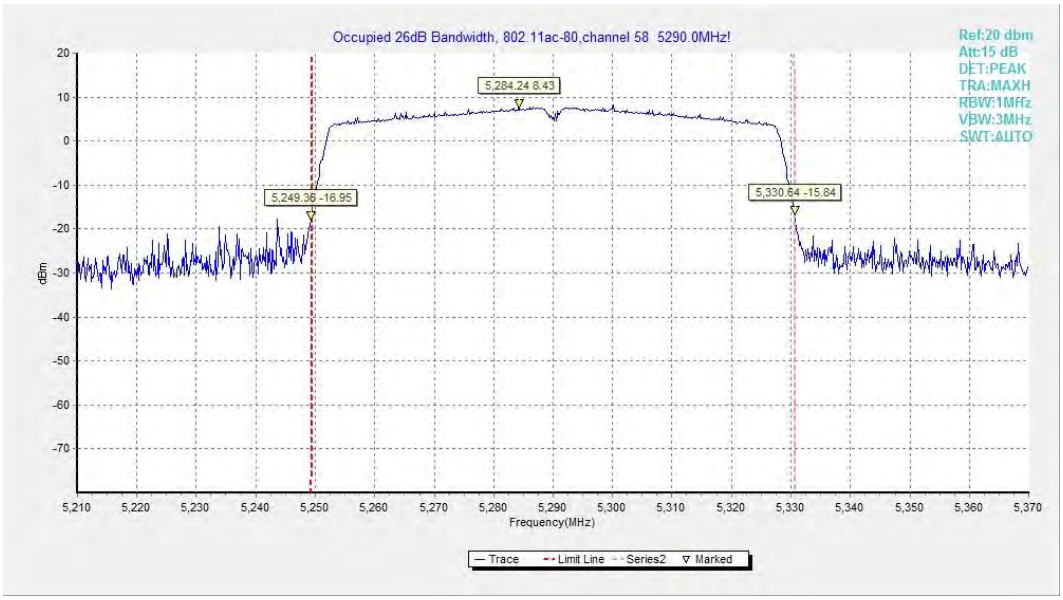


Fig.30 Occupied 26dB Bandwidth (802. 11ac-HT80, 5290MHz)

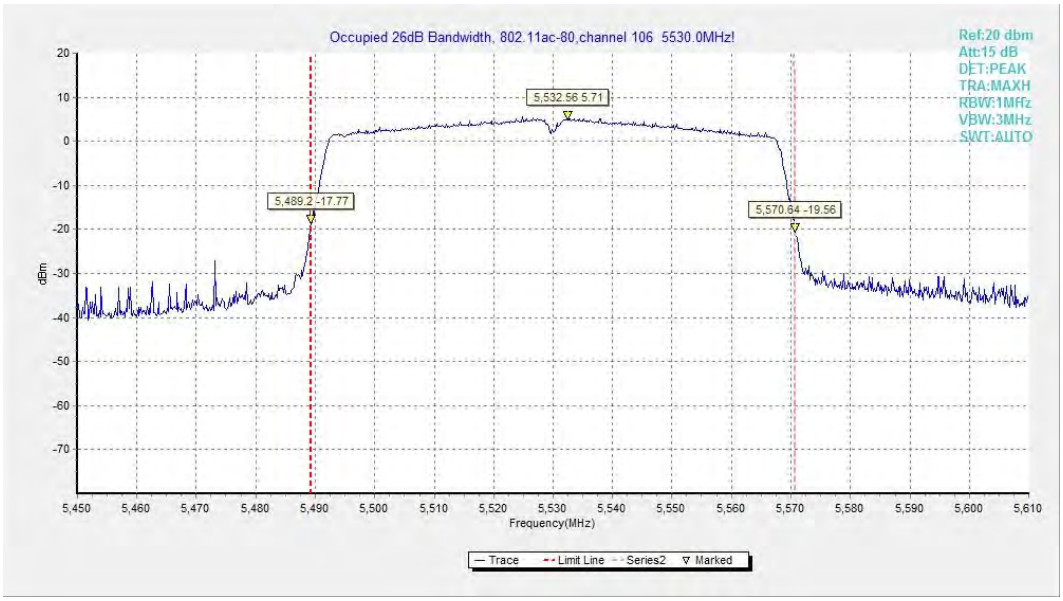


Fig.31 Occupied 26dB Bandwidth (802. 11ac-HT80, 5530MHz)

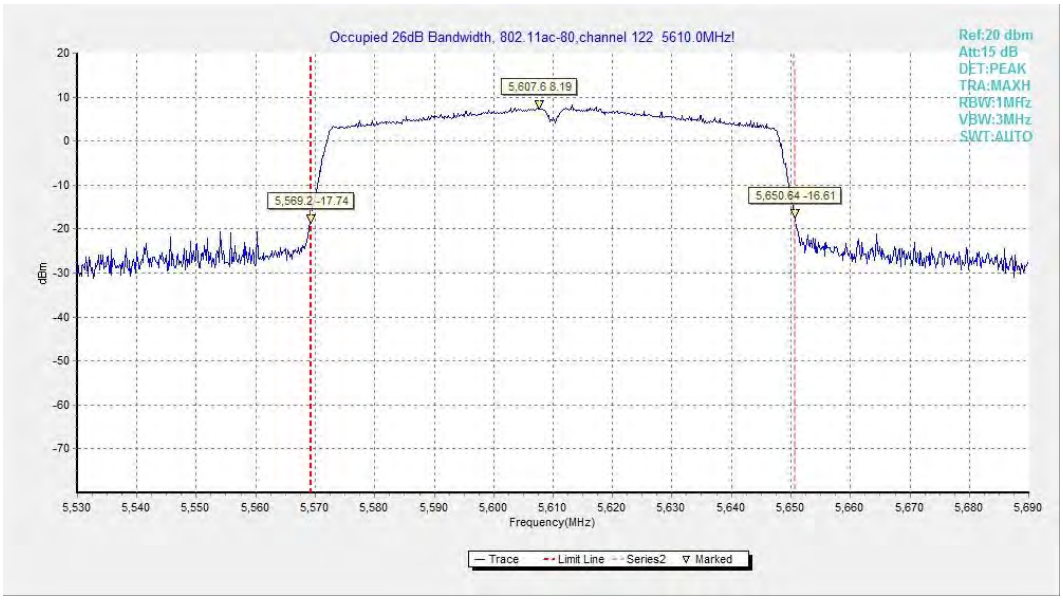


Fig.32 Occupied 26dB Bandwidth (802. 11ac-HT80, 5610MHz)

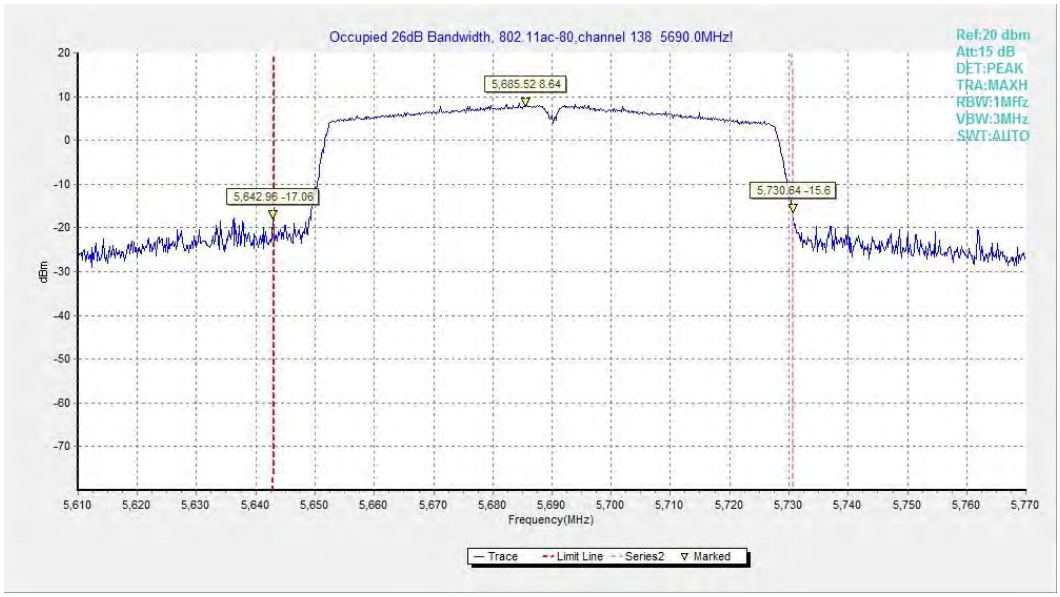


Fig.33 Occupied 26dB Bandwidth (802. 11ac-HT80, 5690MHz)

A.5. Band Edges Compliance

A5.1 Band Edges - Radiated

Measurement Limit:

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

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(uV/m)	Field strength(dBuV/m)	Measurement distance(m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

The measurement is made according to ANSI C63.10-2013 and KDB 789033

Measurement Result:

Mode	Channel	Test Results	Conclusion
802.11a	5180 MHz	Fig.34	P
	5320 MHz	Fig.35	P
	5500 MHz	Fig.36	P
	5700 MHz	Fig.37	P
802.11n HT20	5180 MHz	Fig.38	P
	5320 MHz	Fig.39	P
	5500 MHz	Fig.40	P
	5700 MHz	Fig.41	P
802.11n HT40	5190 MHz	Fig.42	P
	5310 MHz	Fig.43	P
	5510 MHz	Fig.44	P
	5670 MHz	Fig.45	P
802.11ac HT20	5180 MHz	Fig.46	P
	5320 MHz	Fig.47	P
	5500 MHz	Fig.48	P
	5700 MHz	Fig.49	P
802.11ac HT40	5190 MHz	Fig.50	P
	5310 MHz	Fig.51	P
	5510 MHz	Fig.52	P
	5670 MHz	Fig.53	P
802.11ac HT80	5210MHz	Fig.54	P
	5290MHz	Fig.55	P
	5530MHz	Fig.56	P
	5610MHz	Fig.57	P

Conclusion: PASS

Test graphs as below:

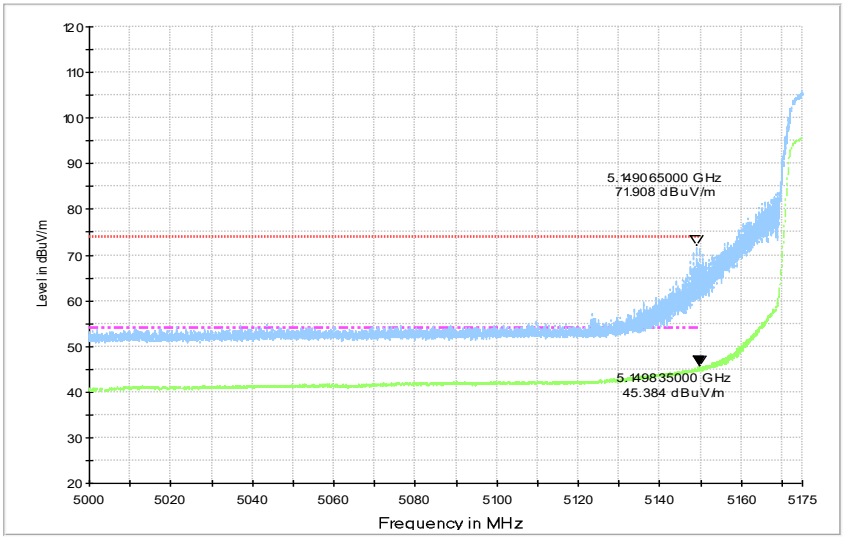


Fig.34 Band Edges (802.11a Ch36, 5180MHz)

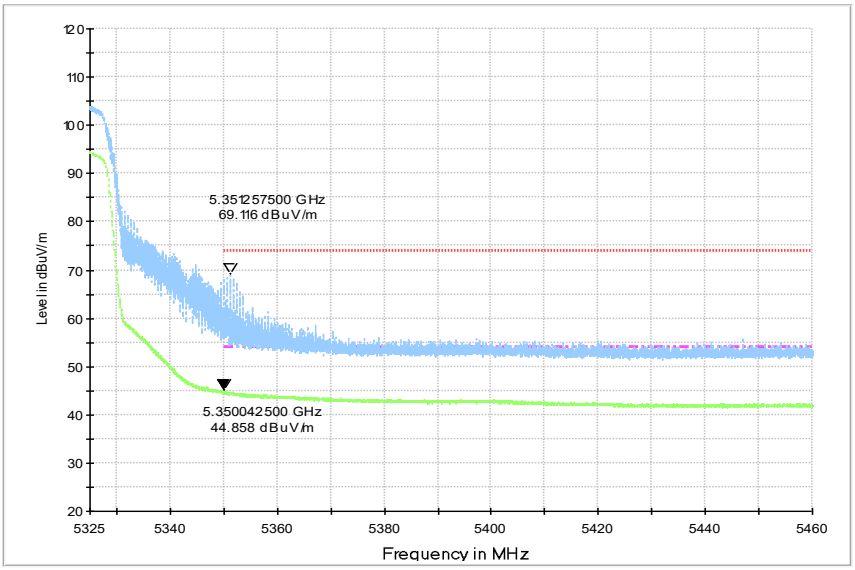


Fig.35 Band Edges (802.11a Ch64, 5320MHz)

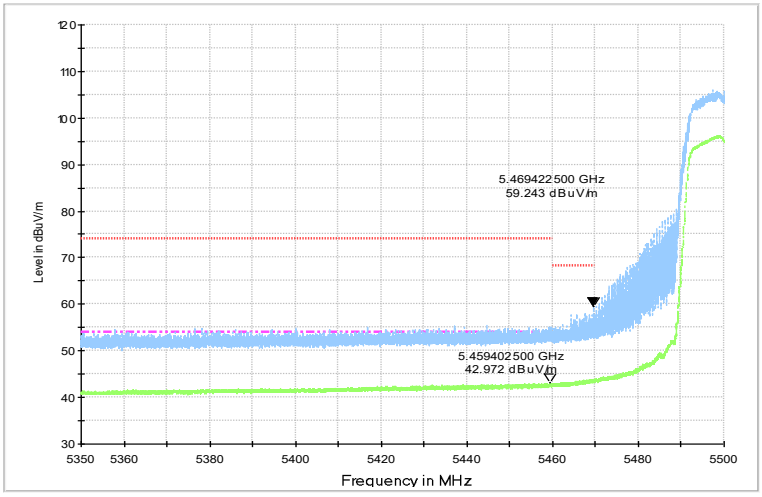


Fig.36 Band Edges (802.11a Ch100, 5500MHz)

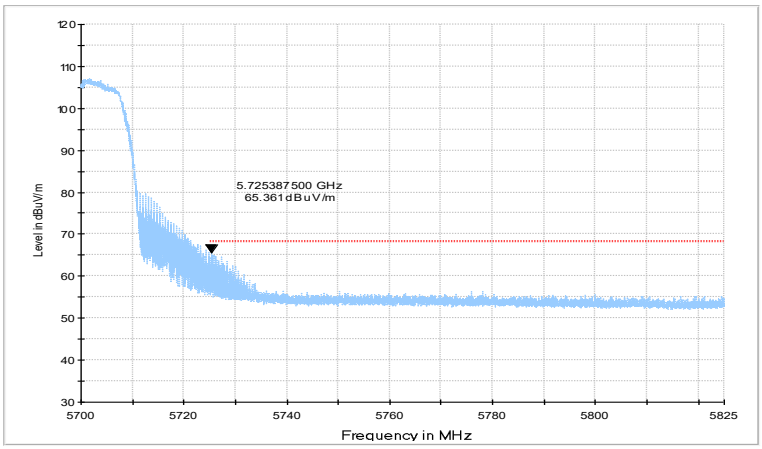


Fig.37 Band Edges (802.11a Ch140, 5700MHz)

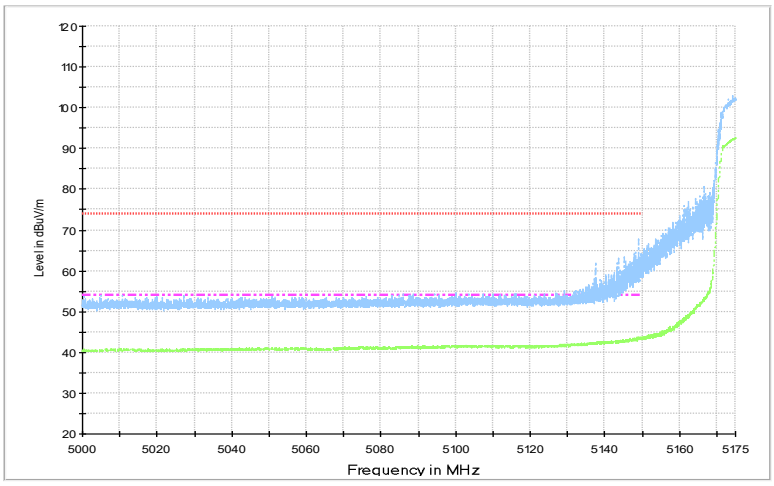


Fig.38 Band Edges (802.11n-HT20 Ch36, 5180MHz)

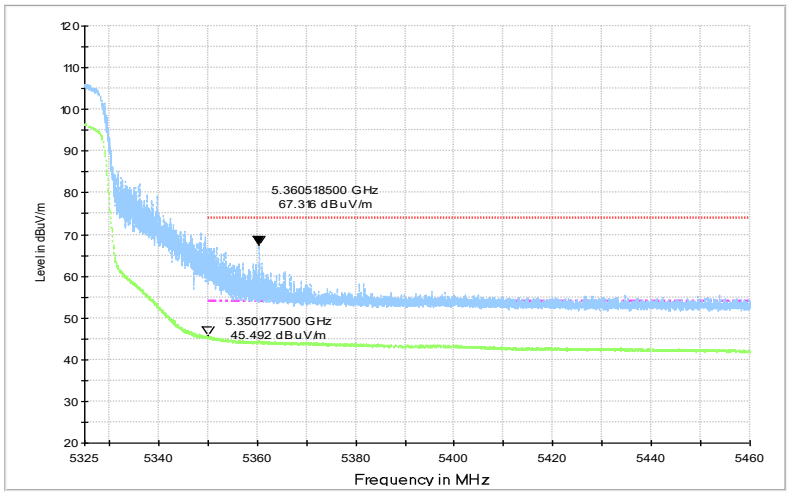


Fig.39 Band Edges (802.11n-HT20 Ch64, 5320MHz)

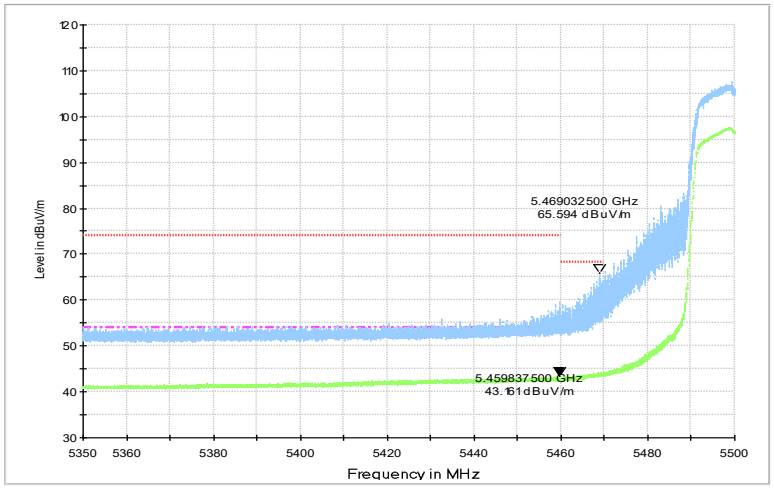


Fig.40 Band Edges (802.11n-HT20 Ch100, 5500MHz)

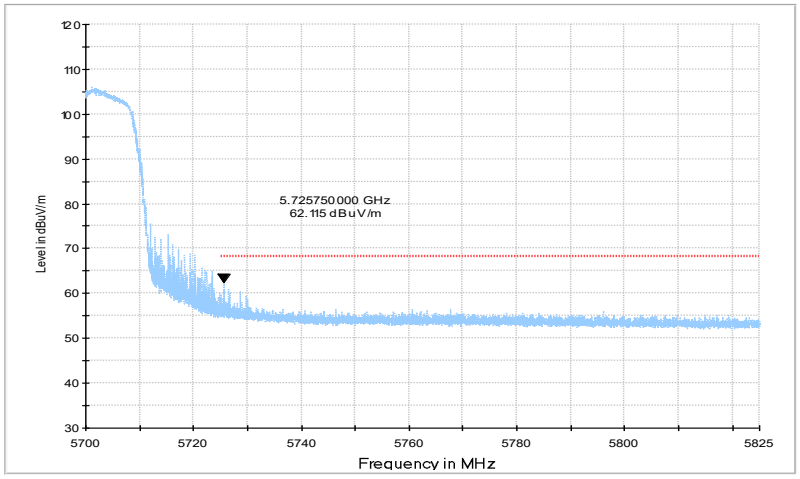


Fig.41 Band Edges (802.11n-HT20 Ch140, 5700MHz)

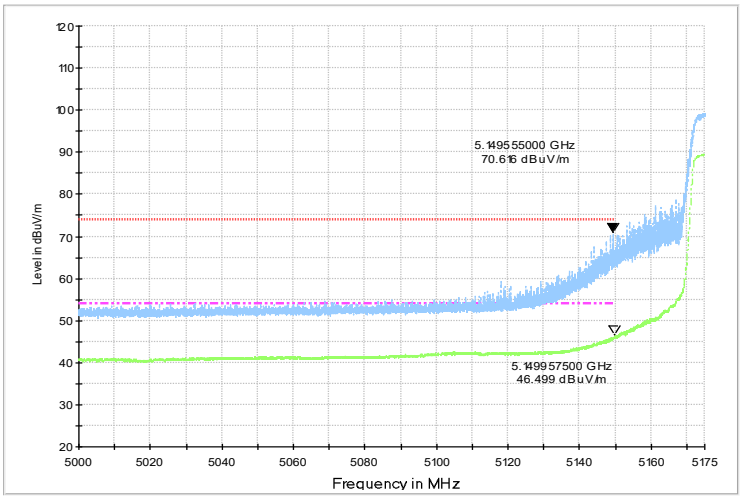


Fig.42 Band Edges (802.11n-HT40 Ch38, 5190MHz)

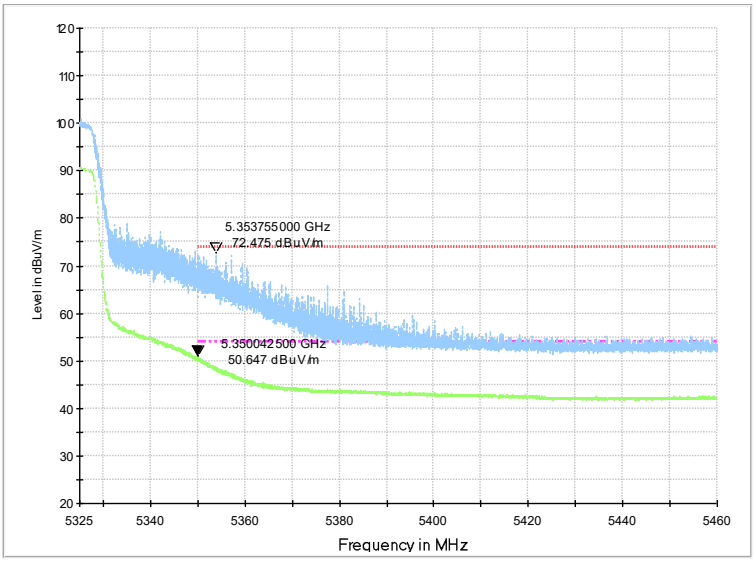


Fig.43 Band Edges (802.11n-HT40 Ch62, 5310MHz)

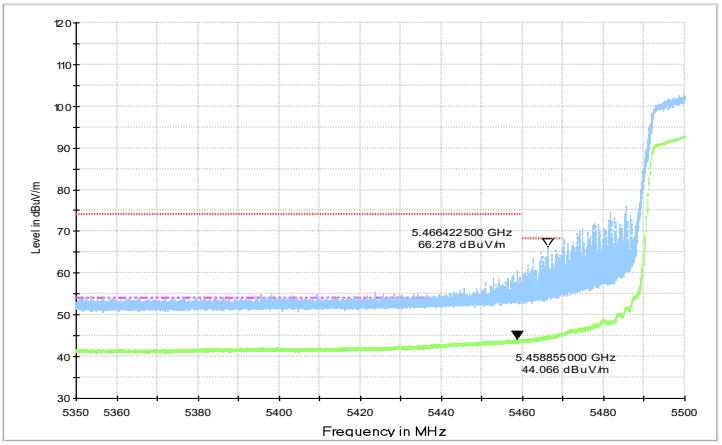


Fig.44 Band Edges (802.11n-HT40 Ch102, 5510MHz)

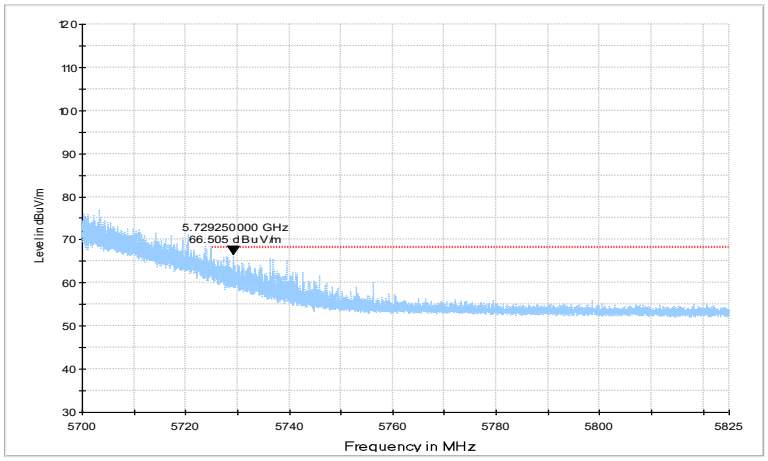


Fig.45 Band Edges (802.11n-HT40 Ch134, 5670MHz)

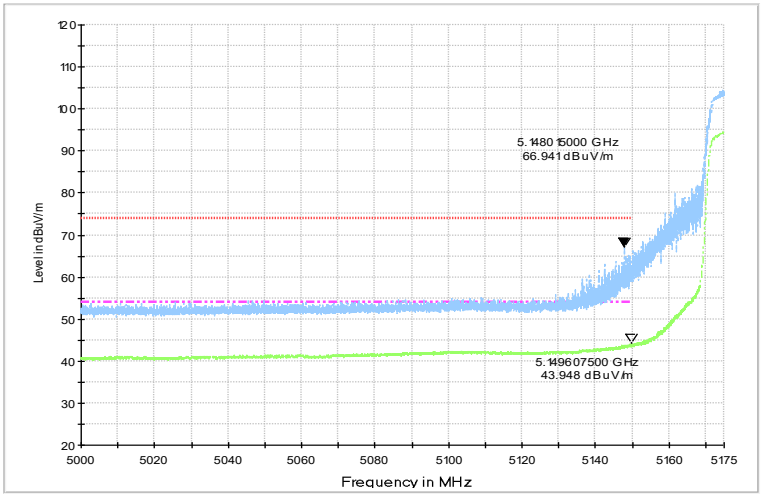


Fig.46 Band Edges (802.11ac-HT20 Ch36, 5180MHz)

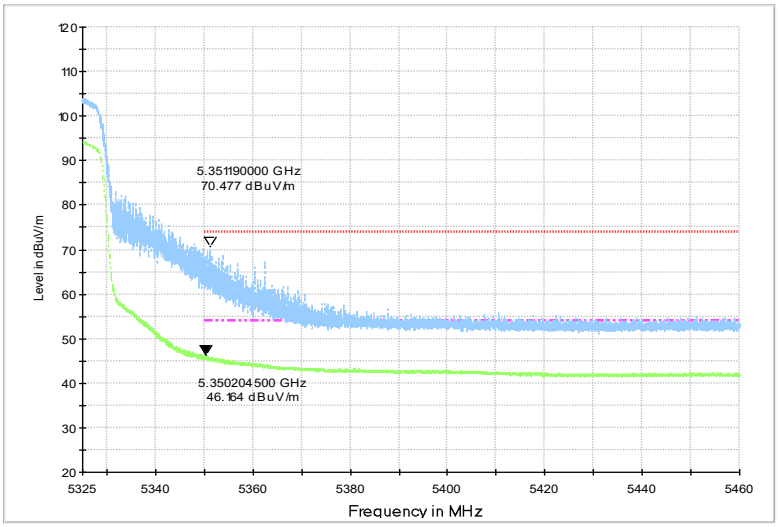


Fig.47 Band Edges (802.11ac-HT20 Ch64, 5320MHz)

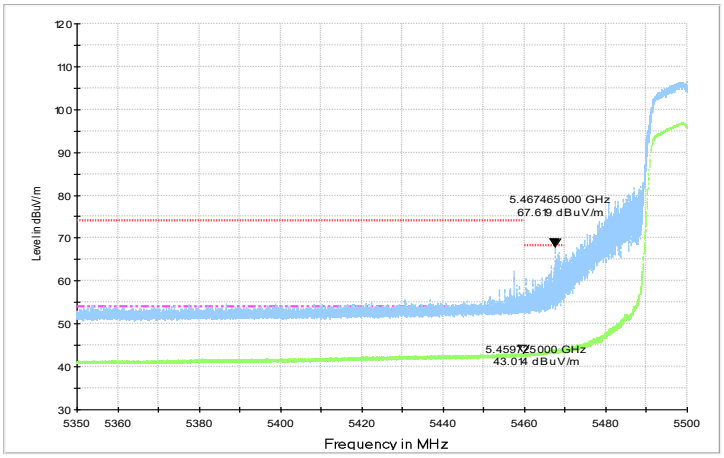


Fig.48 Band Edges (802.11ac-HT20 Ch100, 5500MHz)

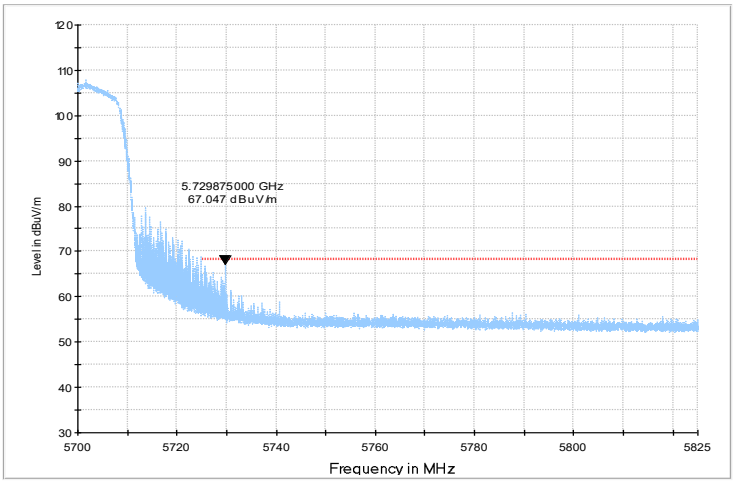


Fig.49 Band Edges (802.11ac-HT20 Ch140, 5700MHz)

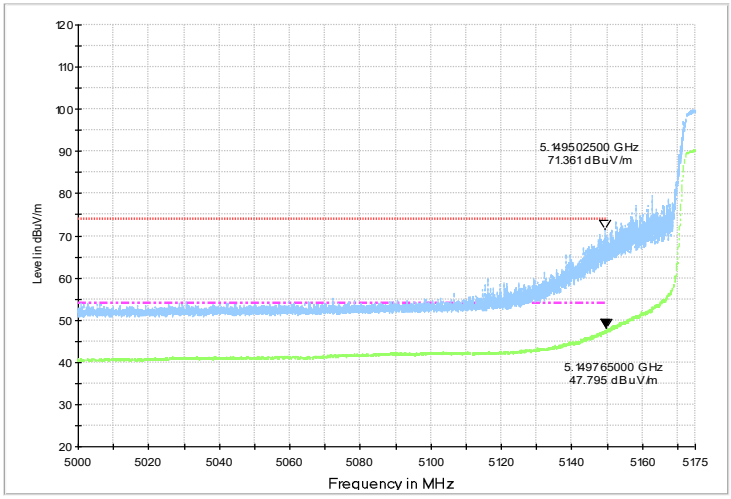


Fig.50 Band Edges (802.11ac-HT40 Ch38, 5190MHz)

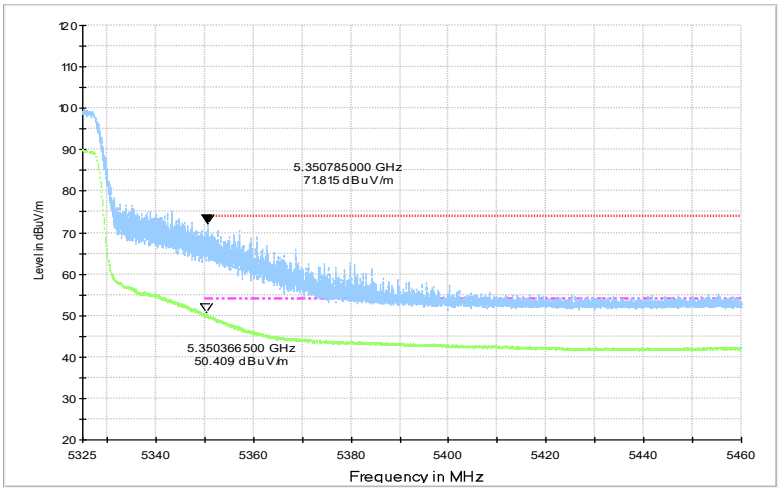


Fig.51 Band Edges (802.11ac-HT40 Ch62, 5310MHz)

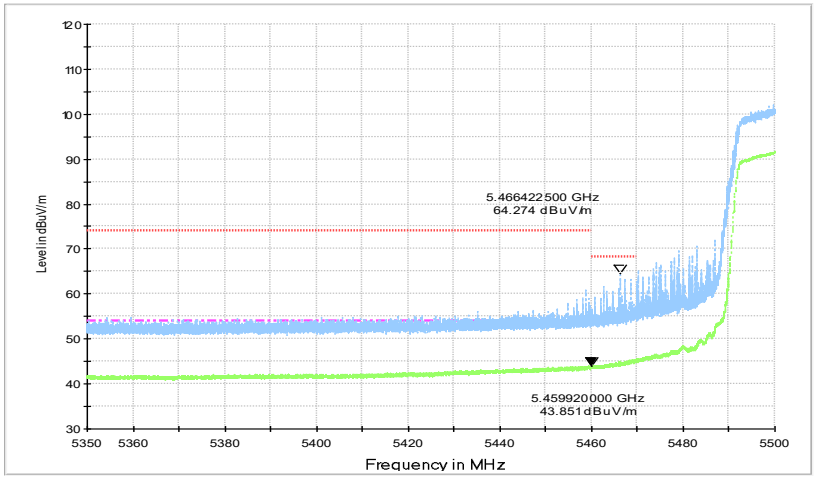


Fig.52 Band Edges (802.11ac-HT40 Ch102, 5510MHz)

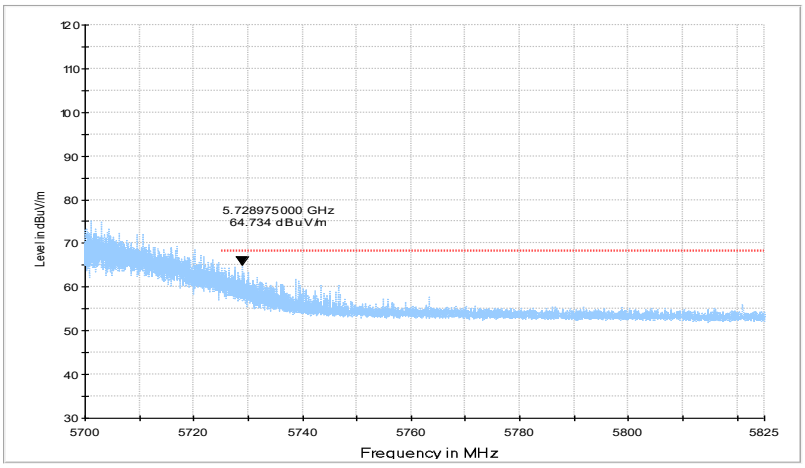


Fig.53 Band Edges (802.11ac-HT40 Ch134, 5670MHz)

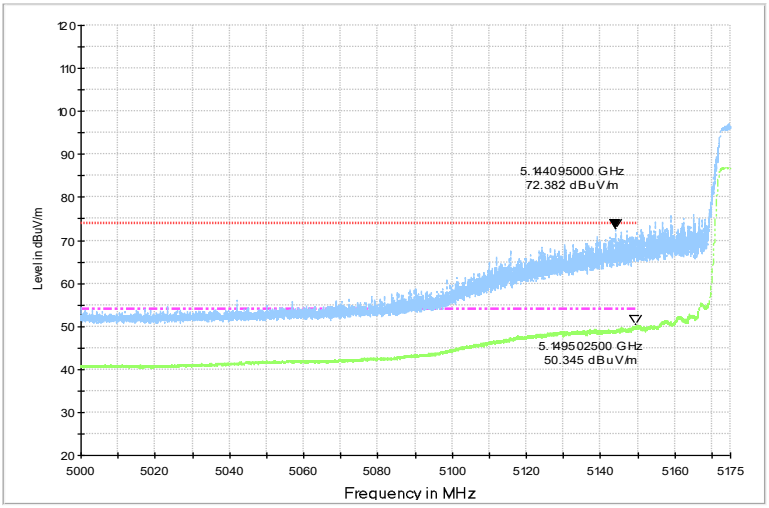


Fig.54 Band Edges (802.11ac-HT80 Ch42 , 5210MHz)

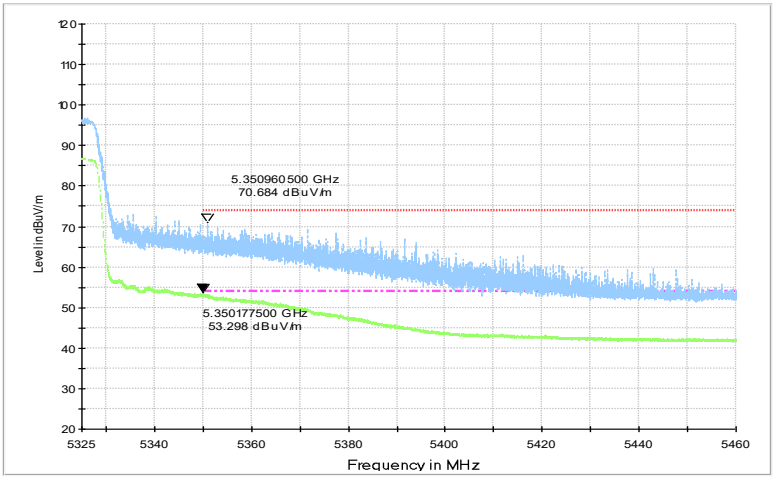


Fig.55 Band Edges (802.11ac-HT80 Ch58, 5290MHz)

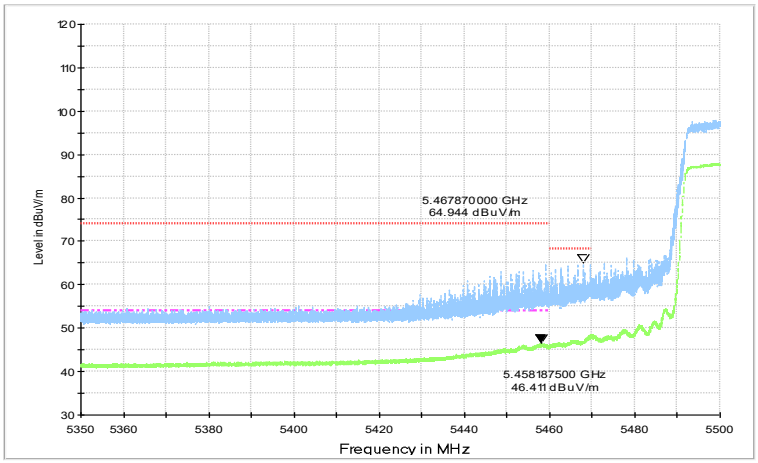


Fig.56 Band Edges (802.11ac-HT80 Ch106, 5530MHz)

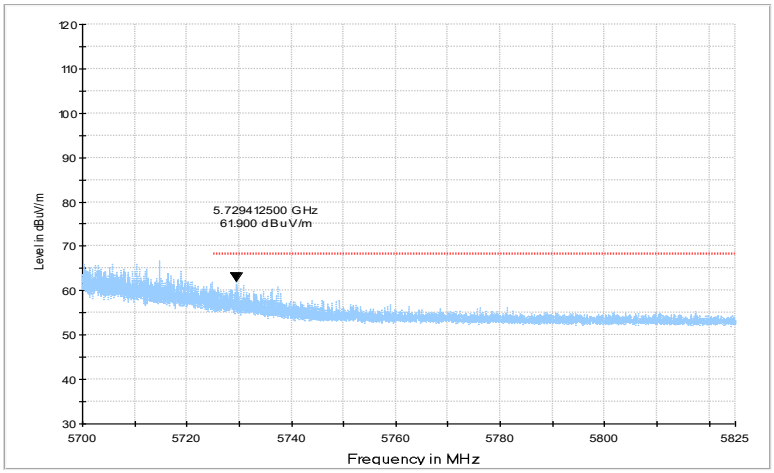


Fig.57 Band Edges (802.11ac-HT80 Ch122, 5610MHz)

A.6. Transmitter Spurious Emission

Measurement Limit:

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

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(uV/m)	Field strength(dBuV/m)	Measurement distance(m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

The measurement is made according to ANSI C63.10-2013 and KDB 789033

Measurement Results:

802.11a mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11a	36(5180MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	40(5200MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	48(5240MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	52(5260MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	56(5280MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	64(5320MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	100(5500MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	120(5600MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	140(5700MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n -HT20	36(5180MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	40(5200MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	48(5240MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	52(5260MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	56(5280MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	64(5320MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	100(5500MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	120(5600MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	140(5700MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n HT40	38(5190MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	46(5230MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	54(5270MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	62(5310MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	102(5510MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	118(5590MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	134(5670MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P

802.11ac-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11ac -HT20	36(5180MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	40(5200MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	48(5240MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	52(5260MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	56(5280MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	64(5320MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	100(5500MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	120(5600MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	140(5700MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

802.11ac-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11ac HT40	38(5190MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	46(5230MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	54(5270MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	62(5310MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	102(5510MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	118(5590MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	134(5670MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P

802.11ac-HT80 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11ac – HT80	42(5210MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	58(5290MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	106(5530MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	122(5610MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

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:

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

AVERAGE Results:

802.11a

Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17978.400	41.18	-25.50	46.66	20.02	54.00	12.82	H
17968.500	41.17	-25.50	46.66	20.01	54.00	12.83	H
12331.000	38.79	-31.10	38.94	30.95	54.00	15.21	H
12332.800	38.45	-31.10	38.94	30.61	54.00	15.55	H
8287.700	38.30	-34.97	37.56	35.70	54.00	15.70	H
8288.100	38.10	-34.97	37.56	35.50	54.00	15.90	H

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17937.300	41.61	-25.50	46.66	20.45	54.00	12.39	H
17963.000	41.24	-25.50	46.66	20.08	54.00	12.76	H
12005.700	37.38	-31.48	39.09	29.77	54.00	16.62	H
12330.600	37.33	-31.10	38.94	29.49	54.00	16.67	H
8320.000	36.61	-34.97	37.56	34.01	54.00	17.39	H
8319.600	35.96	-34.97	37.56	33.36	54.00	18.04	H

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17973.600	41.44	-25.50	46.66	20.28	54.00	12.56	H
17906.900	41.41	-25.50	46.66	20.25	54.00	12.59	V
12261.700	37.71	-31.43	38.99	30.15	54.00	16.29	H
12220.600	37.69	-31.43	38.99	30.13	54.00	16.31	H
8383.800	35.28	-34.50	37.68	32.10	54.00	18.72	H
8384.200	34.46	-34.50	37.68	31.28	54.00	19.54	H

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17953.100	41.39	-25.50	46.66	20.23	54.00	12.61	H
17979.100	40.88	-25.50	46.66	19.72	54.00	13.12	H
12330.200	37.93	-31.10	38.94	30.09	54.00	16.07	H
12331.700	37.49	-31.10	38.94	29.65	54.00	16.51	H
8416.100	34.13	-34.35	37.79	30.69	54.00	19.87	H
8495.600	34.03	-34.13	37.86	30.29	54.00	19.97	V

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17942.100	40.86	-25.50	46.66	19.70	54.00	13.14	V
17977.300	40.65	-25.50	46.66	19.49	54.00	13.35	H
12330.200	37.53	-31.10	38.94	29.69	54.00	16.47	H
12293.600	37.38	-31.10	38.94	29.54	54.00	16.62	H
8497.100	33.86	-34.13	37.86	30.12	54.00	20.14	V
8357.800	33.85	-34.50	37.68	30.67	54.00	20.15	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17975.100	41.70	-25.50	46.66	20.54	54.00	12.30	V
17978.400	41.27	-25.50	46.66	20.11	54.00	12.73	V
10641.700	40.73	-32.76	38.38	35.11	54.00	13.27	V
10637.300	40.42	-32.76	38.38	34.80	54.00	13.58	V
8493.800	34.35	-34.13	37.86	30.61	54.00	19.65	V
8340.500	33.55	-34.50	37.68	30.37	54.00	20.45	H

Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11000.000	49.55	-32.82	38.70	43.67	54.00	4.45	V
10997.400	49.54	-32.82	38.70	43.66	54.00	4.46	V
17932.200	40.99	-25.50	46.66	19.83	54.00	13.01	H
17956.400	40.72	-25.50	46.66	19.56	54.00	13.28	V
8235.700	34.07	-35.19	37.45	31.82	54.00	19.93	H
8490.500	34.01	-34.35	37.79	30.57	54.00	19.99	V

Channel 120

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11203.100	52.93	-32.60	38.75	46.79	54.00	1.07	V
11196.900	52.52	-32.60	38.75	46.38	54.00	1.48	V
17945.400	41.06	-25.50	46.66	19.90	54.00	12.94	V
17889.600	41.01	-25.50	46.66	19.85	54.00	12.99	H
8238.600	34.39	-35.19	37.45	32.14	54.00	19.61	V
9451.200	34.10	-32.95	37.91	29.13	54.00	19.90	H

Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11404.000	50.95	-32.42	38.79	44.58	54.00	3.05	H
11403.700	50.92	-32.42	38.79	44.55	54.00	3.08	H
17934.700	41.20	-25.50	46.66	20.04	54.00	12.80	H
17981.700	41.00	-25.50	46.66	19.84	54.00	13.00	H
9183.500	33.82	-33.85	38.08	29.59	54.00	20.18	V
9064.700	33.62	-33.76	38.13	29.25	54.00	20.38	H

802.11n-HT20

Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17977.600	41.27	-25.50	46.66	20.11	54.00	12.73	H
17940.600	41.13	-25.50	46.66	19.97	54.00	12.87	H
12329.900	37.92	-31.10	38.94	30.08	54.00	16.08	V
12331.000	37.87	-31.10	38.94	30.03	54.00	16.13	V
8288.100	36.62	-34.97	37.56	34.02	54.00	17.38	H
8287.700	36.37	-34.97	37.56	33.77	54.00	17.63	H

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17975.800	41.65	-25.50	46.66	20.49	54.00	12.35	V
17975.100	41.43	-25.50	46.66	20.27	54.00	12.57	V
12331.000	37.74	-31.10	38.94	29.90	54.00	16.26	H
12332.800	37.57	-31.10	38.94	29.73	54.00	16.43	H
8320.000	35.96	-34.97	37.56	33.36	54.00	18.04	H
8319.300	34.62	-34.97	37.56	32.02	54.00	19.38	H

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17974.300	41.39	-25.50	46.66	20.23	54.00	12.61	H
17975.800	41.24	-25.50	46.66	20.08	54.00	12.76	V
12328.000	37.97	-31.10	38.94	30.13	54.00	16.03	V
12329.500	37.82	-31.10	38.94	29.98	54.00	16.18	H
8383.800	35.61	-34.50	37.68	32.43	54.00	18.39	H
8384.200	35.43	-34.50	37.68	32.25	54.00	18.57	H

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17979.100	41.28	-25.50	46.66	20.12	54.00	12.72	V
17976.900	40.75	-25.50	46.66	19.59	54.00	13.25	H
12332.800	37.46	-31.10	38.94	29.62	54.00	16.54	V
12331.000	37.31	-31.10	38.94	29.47	54.00	16.69	H
9039.800	34.13	-33.76	38.13	29.76	54.00	19.87	H
8416.100	33.85	-34.35	37.79	30.41	54.00	20.15	H

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17979.800	41.29	-25.50	46.66	20.13	54.00	12.71	H
17975.100	41.26	-25.50	46.66	20.10	54.00	12.74	V
12285.100	37.55	-31.10	38.94	29.71	54.00	16.45	V
12220.600	37.53	-31.43	38.99	29.97	54.00	16.47	H
9032.100	33.89	-33.76	38.13	29.52	54.00	20.11	V
8498.200	33.86	-34.13	37.86	30.12	54.00	20.14	H

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
10639.900	41.32	-32.76	38.38	35.70	54.00	12.68	V
10641.000	40.94	-32.76	38.38	35.32	54.00	13.06	V
17975.100	40.87	-25.50	46.66	19.71	54.00	13.13	H
17966.600	40.81	-25.50	46.66	19.65	54.00	13.19	H
8285.500	33.96	-34.97	37.56	31.36	54.00	20.04	V
9070.600	33.83	-33.76	38.13	29.46	54.00	20.17	H

Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
10997.400	48.79	-32.82	38.70	42.91	54.00	5.21	H
10997.800	48.73	-32.82	38.70	42.85	54.00	5.27	H
17978.400	40.81	-25.50	46.66	19.65	54.00	13.19	V
17888.900	40.78	-25.50	46.66	19.62	54.00	13.22	V
8468.900	34.06	-34.35	37.79	30.62	54.00	19.94	V
9154.500	33.86	-33.85	38.08	29.63	54.00	20.14	H

Channel 120

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11199.100	52.17	-32.60	38.75	46.03	54.00	1.83	V
11198.700	51.73	-32.60	38.75	45.59	54.00	2.27	V
17956.400	40.85	-25.50	46.66	19.69	54.00	13.15	H
17869.800	40.65	-25.50	46.66	19.49	54.00	13.35	V
8346.400	33.82	-34.50	37.68	30.64	54.00	20.18	V
8277.800	33.74	-34.97	37.56	31.14	54.00	20.26	V

Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11402.900	50.88	-32.42	38.79	44.51	54.00	3.12	V
11399.300	50.86	-32.42	38.79	44.49	54.00	3.14	V
17950.500	41.14	-25.50	46.66	19.98	54.00	12.86	V
17979.800	40.77	-25.50	46.66	19.61	54.00	13.23	H
9497.700	34.03	-33.19	37.93	29.30	54.00	19.97	V
9051.500	33.88	-33.76	38.13	29.51	54.00	20.12	V

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Channel 38

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17976.500	40.95	-25.50	46.66	19.79	54.00	13.05	V
17932.900	40.46	-25.50	46.66	19.30	54.00	13.54	V
12308.600	37.65	-31.10	38.94	29.81	54.00	16.35	V
12332.800	37.42	-31.10	38.94	29.58	54.00	16.58	H
8304.200	36.12	-34.97	37.56	33.52	54.00	17.88	H
8303.500	35.35	-34.97	37.56	32.75	54.00	18.65	H

Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17956.400	40.88	-25.50	46.66	19.72	54.00	13.12	H
17944.600	40.82	-25.50	46.66	19.66	54.00	13.18	H
12333.200	38.24	-31.10	38.94	30.40	54.00	15.76	V
12263.100	37.66	-31.43	38.99	30.10	54.00	16.34	H
8285.500	34.67	-34.97	37.56	32.07	54.00	19.33	V
8368.000	34.39	-34.50	37.68	31.21	54.00	19.61	H

Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17976.500	41.20	-25.50	46.66	20.04	54.00	12.80	H
17974.300	41.11	-25.50	46.66	19.95	54.00	12.89	V
12331.300	37.92	-31.10	38.94	30.08	54.00	16.08	V
12333.200	37.73	-31.10	38.94	29.89	54.00	16.27	V
8210.400	34.26	-35.19	37.45	32.01	54.00	19.74	V
9060.300	34.22	-33.76	38.13	29.85	54.00	19.78	V

Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17940.600	40.86	-25.50	46.66	19.70	54.00	13.14	H
17864.700	40.83	-25.50	46.66	19.67	54.00	13.17	H
10616.400	39.68	-32.76	38.38	34.06	54.00	14.32	V
10627.800	39.68	-32.76	38.38	34.06	54.00	14.32	V
8342.400	34.79	-34.50	37.68	31.61	54.00	19.21	H
8493.100	34.79	-34.35	37.79	31.35	54.00	19.21	V

Channel 102

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11020.500	46.47	-32.49	38.72	40.23	54.00	7.53	V
11018.700	45.99	-32.49	38.72	39.75	54.00	8.01	V
17882.700	40.68	-25.50	46.66	19.52	54.00	13.32	H
17961.100	40.57	-25.50	46.66	19.41	54.00	13.43	H
8412.800	33.90	-34.35	37.79	30.46	54.00	20.10	V
8351.900	33.67	-34.50	37.68	30.49	54.00	20.33	H

Channel 118

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11188.800	46.59	-32.60	38.75	40.45	54.00	7.41	V
11185.100	46.52	-32.60	38.75	40.38	54.00	7.48	V
17889.600	40.68	-25.50	46.66	19.52	54.00	13.32	H
17907.200	40.59	-25.50	46.66	19.43	54.00	13.41	H
9196.000	33.70	-33.85	38.08	29.47	54.00	20.30	H
8497.800	33.61	-34.13	37.86	29.87	54.00	20.39	H

Channel 134

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11338.800	52.71	-32.42	38.79	46.34	54.00	1.29	V
11341.300	50.72	-32.42	38.79	44.35	54.00	3.28	V
17971.800	40.60	-25.50	46.66	19.44	54.00	13.40	V
17880.500	40.42	-25.50	46.66	19.26	54.00	13.58	H
9053.300	33.71	-33.76	38.13	29.34	54.00	20.29	H
9066.200	33.68	-33.76	38.13	29.31	54.00	20.32	H

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Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17976.500	41.27	-25.50	46.66	20.11	54.00	12.73	H
17904.300	41.04	-25.50	46.66	19.88	54.00	12.96	H
12327.300	37.37	-31.10	38.94	29.53	54.00	16.63	H
8288.100	37.36	-34.97	37.56	34.76	54.00	16.64	H
12331.700	37.36	-31.10	38.94	29.52	54.00	16.64	H
8287.700	36.69	-34.97	37.56	34.09	54.00	17.31	H

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17951.200	40.79	-25.50	46.66	19.63	54.00	13.21	H
17975.100	40.73	-25.50	46.66	19.57	54.00	13.27	V
12331.300	37.14	-31.10	38.94	29.30	54.00	16.86	H
12266.400	37.10	-31.43	38.99	29.54	54.00	16.90	H
8320.000	36.73	-34.97	37.56	34.13	54.00	17.27	H
8319.600	35.79	-34.97	37.56	33.19	54.00	18.21	H

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17856.600	41.22	-25.50	46.66	20.06	54.00	12.78	V
17949.800	40.88	-25.50	46.66	19.72	54.00	13.12	V
12332.400	37.72	-31.10	38.94	29.88	54.00	16.28	H
12332.100	37.68	-31.10	38.94	29.84	54.00	16.32	H
8384.200	34.75	-34.50	37.68	31.57	54.00	19.25	H
8383.800	34.28	-34.50	37.68	31.10	54.00	19.72	H

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17979.800	41.37	-25.50	46.66	20.21	54.00	12.63	H
17978.400	41.35	-25.50	46.66	20.19	54.00	12.65	V
12266.400	38.41	-31.43	38.99	30.85	54.00	15.59	V
12330.200	38.07	-31.10	38.94	30.23	54.00	15.93	H
8355.600	34.21	-34.50	37.68	31.03	54.00	19.79	V
9050.000	34.14	-33.76	38.13	29.77	54.00	19.86	V

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17972.500	41.36	-25.50	46.66	20.20	54.00	12.64	V
17978.400	41.29	-25.50	46.66	20.13	54.00	12.71	V
12222.800	37.89	-31.43	38.99	30.33	54.00	16.11	H
12258.000	37.85	-31.43	38.99	30.29	54.00	16.15	H
9499.900	34.33	-33.19	37.93	29.60	54.00	19.67	H
8063.700	34.22	-34.68	37.22	31.69	54.00	19.78	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17967.700	41.57	-25.50	46.66	20.41	54.00	12.43	V
17980.600	41.25	-25.50	46.66	20.09	54.00	12.75	V
10637.000	40.97	-32.76	38.38	35.35	54.00	13.03	V
10634.000	40.59	-32.76	38.38	34.97	54.00	13.41	V
8494.200	34.23	-34.13	37.86	30.49	54.00	19.77	H
8423.800	34.02	-34.35	37.79	30.58	54.00	19.98	V

Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11001.800	43.67	-32.49	38.72	37.43	54.00	10.33	H
10999.600	43.28	-32.82	38.70	37.40	54.00	10.72	H
17952.000	40.71	-25.50	46.66	19.55	54.00	13.29	V
17975.800	40.57	-25.50	46.66	19.41	54.00	13.43	H
9064.700	33.68	-33.76	38.13	29.31	54.00	20.32	V
9041.600	33.60	-33.76	38.13	29.23	54.00	20.40	H

Channel 120

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11203.500	46.30	-32.60	38.75	40.16	54.00	7.70	H
11200.200	46.05	-32.60	38.75	39.91	54.00	7.95	H
17869.100	40.91	-25.50	46.66	19.75	54.00	13.09	H
17969.200	40.90	-25.50	46.66	19.74	54.00	13.10	H
9415.200	34.08	-32.95	37.91	29.11	54.00	19.92	V
9028.800	33.97	-33.76	38.13	29.60	54.00	20.03	H

Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11400.700	51.98	-32.42	38.79	45.61	54.00	2.02	V
11401.100	51.43	-32.42	38.79	45.06	54.00	2.57	V
17972.500	40.86	-25.50	46.66	19.70	54.00	13.14	H
17975.800	40.71	-25.50	46.66	19.55	54.00	13.29	H
8277.800	33.66	-34.97	37.56	31.06	54.00	20.34	H
8349.700	33.49	-34.50	37.68	30.31	54.00	20.51	H

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Channel 38

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17902.500	41.43	-25.50	46.66	20.27	54.00	12.57	V
17972.900	40.72	-25.50	46.66	19.56	54.00	13.28	H
12332.400	37.80	-31.10	38.94	29.96	54.00	16.20	H
12331.300	37.64	-31.10	38.94	29.80	54.00	16.36	H
8304.200	35.92	-34.97	37.56	33.32	54.00	18.08	H
8303.900	35.89	-34.97	37.56	33.29	54.00	18.11	H

Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17864.000	41.14	-25.50	46.66	19.98	54.00	12.86	H
17973.600	40.72	-25.50	46.66	19.56	54.00	13.28	V
12332.400	37.52	-31.10	38.94	29.68	54.00	16.48	H
12259.100	37.46	-31.43	38.99	29.90	54.00	16.54	H
8368.000	34.86	-34.50	37.68	31.68	54.00	19.14	H
8367.700	34.63	-34.50	37.68	31.45	54.00	19.37	H

Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17967.000	41.80	-25.50	46.66	20.64	54.00	12.20	H
17931.800	41.30	-25.50	46.66	20.14	54.00	12.70	V
10618.600	40.61	-32.76	38.38	34.99	54.00	13.39	V
10620.800	40.56	-32.76	38.38	34.94	54.00	13.44	V
8319.600	34.03	-34.97	37.56	31.43	54.00	19.97	V
9385.200	33.98	-32.95	37.91	29.01	54.00	20.02	V

Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17954.500	41.70	-25.50	46.66	20.54	54.00	12.30	V
17974.300	40.80	-25.50	46.66	19.64	54.00	13.20	V
12331.000	37.63	-31.10	38.94	29.79	54.00	16.37	H
12332.800	37.32	-31.10	38.94	29.48	54.00	16.68	H
8333.600	34.11	-34.50	37.68	30.93	54.00	19.89	H
8497.100	34.08	-34.13	37.86	30.34	54.00	19.92	H

Channel 102

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11018.300	45.44	-32.49	38.72	39.20	54.00	8.56	V
11021.200	44.99	-32.49	38.72	38.75	54.00	9.01	V
17871.700	40.91	-25.50	46.66	19.75	54.00	13.09	V
17927.000	40.82	-25.50	46.66	19.66	54.00	13.18	H
9022.500	34.07	-33.76	38.13	29.70	54.00	19.93	H
9079.000	34.05	-33.76	38.13	29.68	54.00	19.95	H

Channel 118

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11184.400	47.56	-32.60	38.75	41.42	54.00	6.44	V
11176.700	46.66	-32.60	38.75	40.52	54.00	7.34	V
17840.100	40.65	-25.50	46.66	19.49	54.00	13.35	V
17829.100	40.56	-25.50	46.66	19.40	54.00	13.44	V
8482.400	33.74	-34.35	37.79	30.30	54.00	20.26	V
8285.500	33.71	-34.97	37.56	31.11	54.00	20.29	H

Channel 134

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11334.400	51.10	-32.36	38.77	44.70	54.00	2.90	V
11338.800	50.83	-32.42	38.79	44.46	54.00	3.17	V
17937.300	41.20	-25.50	46.66	20.04	54.00	12.80	V
17974.300	40.79	-25.50	46.66	19.63	54.00	13.21	H
9081.600	33.84	-33.76	38.13	29.47	54.00	20.16	V
9074.600	33.72	-33.76	38.13	29.35	54.00	20.28	V

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Channel 42

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17976.500	41.02	-25.50	46.66	19.86	54.00	12.98	H
17976.200	40.97	-25.50	46.66	19.81	54.00	13.03	H
12330.200	37.99	-31.10	38.94	30.15	54.00	16.01	H
12328.400	37.73	-31.10	38.94	29.89	54.00	16.27	H
8335.800	35.66	-34.50	37.68	32.48	54.00	18.34	H
8336.100	35.05	-34.50	37.68	31.87	54.00	18.95	H

Channel 58

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17938.800	41.15	-25.50	46.66	19.99	54.00	12.85	H
17975.100	41.03	-25.50	46.66	19.87	54.00	12.97	H
12332.400	37.51	-31.10	38.94	29.67	54.00	16.49	H
12310.800	37.42	-31.10	38.94	29.58	54.00	16.58	H
9064.700	34.49	-33.76	38.13	30.12	54.00	19.51	V
8357.800	33.71	-34.50	37.68	30.53	54.00	20.29	V

Channel 106

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11078.800	41.04	-32.49	38.72	34.80	54.00	12.96	V
17936.200	40.88	-25.50	46.66	19.72	54.00	13.12	V
17908.300	40.71	-25.50	46.66	19.55	54.00	13.29	H
11081.000	40.57	-32.49	38.72	34.33	54.00	13.43	V
9055.900	34.56	-33.76	38.13	30.19	54.00	19.44	H
8483.900	33.90	-34.35	37.79	30.46	54.00	20.10	V

Channel 122

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11241.200	43.46	-32.36	38.77	37.06	54.00	10.54	H
11240.100	42.61	-32.36	38.77	36.21	54.00	11.39	V
17948.700	40.87	-25.50	46.66	19.71	54.00	13.13	V
17979.800	40.73	-25.50	46.66	19.57	54.00	13.27	H
9044.200	33.84	-33.76	38.13	29.47	54.00	20.16	H
9139.100	33.83	-33.85	38.08	29.60	54.00	20.17	V

PEAK Results:

802.11a

Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
10354.300	50.46	-33.68	38.17	45.96	68.30	17.84	H
10360.900	50.38	-33.68	38.17	45.88	68.30	17.92	H
16977.700	50.03	-26.32	42.36	33.98	68.30	18.27	H
17006.300	49.52	-26.32	42.36	33.47	68.30	18.78	H
10137.900	44.00	-33.45	38.13	39.32	68.30	24.30	V
10309.200	43.98	-33.68	38.17	39.48	68.30	24.32	V

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
10401.600	50.96	-33.22	38.19	45.99	68.30	17.34	H
17157.000	50.64	-26.60	43.36	33.88	68.30	17.66	V
17935.500	50.36	-25.50	46.66	29.20	74.00	23.64	V
10397.500	50.13	-33.22	38.19	45.16	68.30	18.17	H
10215.300	44.03	-33.33	38.15	39.21	68.30	24.27	H
10236.200	43.51	-33.33	38.15	38.69	68.30	24.79	H

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
10476.700	51.33	-32.99	38.27	46.04	68.30	16.97	V
10482.200	50.03	-32.99	38.27	44.74	68.30	18.27	V
17969.600	49.49	-25.50	46.66	28.33	74.00	24.51	H
17942.800	49.38	-25.50	46.66	28.22	74.00	24.62	V
10282.000	43.33	-33.68	38.17	38.83	68.30	24.97	V
10246.500	43.27	-33.33	38.15	38.45	68.30	25.03	H

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17437.200	49.71	-26.85	45.25	31.31	68.30	18.59	V
17087.400	49.34	-26.60	43.36	32.58	68.30	18.96	H
10515.200	48.97	-32.99	38.27	43.68	68.30	19.33	H
10522.200	47.60	-32.99	38.27	42.31	68.30	20.70	H
10125.500	43.15	-33.45	38.13	38.47	68.30	25.15	V
10249.400	42.96	-33.33	38.15	38.14	68.30	25.34	V

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17872.800	49.49	-25.50	46.66	28.33	74.00	24.51	H
10562.200	49.33	-32.99	38.27	44.04	68.30	18.97	V
17975.800	49.31	-25.50	46.66	28.15	74.00	24.69	H
10560.000	47.99	-32.99	38.27	42.70	68.30	20.31	H
8859.000	43.51	-33.54	38.14	38.90	68.30	24.79	V
10243.900	43.41	-33.33	38.15	38.59	68.30	24.89	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17978.400	49.65	-25.50	46.66	28.49	74.00	24.35	V
17975.800	49.38	-25.50	46.66	28.22	74.00	24.62	V
10640.600	49.35	-32.76	38.38	43.73	74.00	24.65	V
10644.700	48.16	-32.76	38.38	42.54	74.00	25.84	V
10176.400	44.07	-33.33	38.15	39.25	68.30	24.23	V
8883.200	43.73	-33.54	38.14	39.12	68.30	24.57	V

Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
10997.400	58.64	-32.82	38.70	52.76	74.00	15.36	V
11002.200	56.67	-32.49	38.72	50.43	74.00	17.33	V
17951.600	49.88	-25.50	46.66	28.72	74.00	24.12	V
17935.800	49.66	-25.50	46.66	28.50	74.00	24.34	H
10088.400	43.31	-33.45	38.13	38.63	68.30	24.99	V
10065.300	43.29	-33.45	38.13	38.61	68.30	25.01	H

Channel 120

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11197.600	59.58	-32.60	38.75	53.44	74.00	14.42	V
11198.000	59.11	-32.60	38.75	52.97	74.00	14.89	V
16862.600	49.34	-26.62	41.49	34.47	68.30	18.96	V
16016.000	49.17	-27.35	38.54	37.98	74.00	24.83	H
10228.500	43.80	-33.33	38.15	38.98	68.30	24.50	H
10093.600	43.31	-33.45	38.13	38.63	68.30	24.99	V

Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11400.000	58.78	-32.42	38.79	52.41	74.00	15.22	V
11404.000	58.56	-32.42	38.79	52.19	74.00	15.44	H
17937.700	49.77	-25.50	46.66	28.61	74.00	24.23	H
17890.000	49.29	-25.50	46.66	28.13	74.00	24.71	H
8566.000	43.21	-34.13	37.86	39.47	68.30	25.09	H
8562.000	43.08	-34.13	37.86	39.34	68.30	25.22	V

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Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
10359.000	49.72	-33.68	38.17	45.22	68.30	18.58	H
17056.200	49.52	-26.60	43.36	32.76	68.30	18.78	H
17198.500	49.52	-26.60	43.36	32.76	68.30	18.78	V
10356.800	48.96	-33.68	38.17	44.46	68.30	19.34	H
10227.800	43.69	-33.33	38.15	38.87	68.30	24.61	H
8287.000	43.61	-34.97	37.56	41.01	74.00	30.39	H

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
16835.100	49.90	-26.62	41.49	35.03	68.30	18.40	H
17977.300	49.80	-25.50	46.66	28.64	74.00	24.20	H
10396.100	49.68	-33.22	38.19	44.71	68.30	18.62	V
10397.900	49.40	-33.22	38.19	44.43	68.30	18.90	V
9630.800	43.39	-33.06	37.97	38.48	68.30	24.91	H
9241.400	43.26	-33.73	38.02	38.97	68.30	25.04	H

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
10479.300	50.32	-32.99	38.27	45.03	68.30	17.98	V
10480.400	50.25	-32.99	38.27	44.96	68.30	18.05	V
17860.700	49.76	-25.50	46.66	28.60	74.00	24.24	V
16863.700	49.67	-26.62	41.49	34.80	68.30	18.63	H
8536.300	43.69	-34.13	37.86	39.95	68.30	24.61	V
8890.200	43.65	-33.54	38.14	39.04	68.30	24.65	V

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
10520.000	50.00	-32.99	38.27	44.71	68.30	18.30	H
17936.600	49.58	-25.50	46.66	28.42	74.00	24.42	V
17830.600	49.41	-25.50	46.66	28.25	74.00	24.59	H
10515.200	47.72	-32.99	38.27	42.43	68.30	20.58	H
10170.200	43.31	-33.33	38.15	38.49	68.30	24.99	V
10135.000	43.25	-33.45	38.13	38.57	68.30	25.05	H

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17970.700	50.02	-25.50	46.66	28.86	74.00	23.98	H
17011.100	49.84	-26.32	42.36	33.79	68.30	18.46	V
10558.100	48.35	-32.99	38.27	43.06	68.30	19.95	H
10560.700	48.08	-32.99	38.27	42.79	68.30	20.22	H
10285.300	43.22	-33.68	38.17	38.72	68.30	25.08	H
8499.300	43.06	-34.13	37.86	39.32	74.00	30.94	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17370.400	49.48	-25.95	44.35	31.07	68.30	18.82	V
17339.300	49.42	-25.95	44.35	31.01	68.30	18.88	H
10641.400	47.98	-32.76	38.38	42.36	74.00	26.02	V
10638.400	47.74	-32.76	38.38	42.12	74.00	26.26	H
8857.500	43.03	-33.54	38.14	38.42	68.30	25.27	H
10208.700	43.02	-33.33	38.15	38.20	68.30	25.28	H

Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
10996.300	56.69	-32.82	38.70	50.81	74.00	17.31	H
10998.100	55.51	-32.82	38.70	49.63	74.00	18.49	H
17866.900	49.74	-25.50	46.66	28.58	74.00	24.26	V
17908.000	49.72	-25.50	46.66	28.56	74.00	24.28	H
10110.100	44.36	-33.45	38.13	39.68	68.30	23.94	V
10167.300	44.24	-33.33	38.15	39.42	68.30	24.06	H

Channel 120

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11194.700	59.68	-32.60	38.75	53.54	74.00	14.32	V
11196.500	59.67	-32.60	38.75	53.53	74.00	14.33	V
17869.100	49.46	-25.50	46.66	28.30	74.00	24.54	V
17935.800	49.33	-25.50	46.66	28.17	74.00	24.67	V
10244.300	43.46	-33.33	38.15	38.64	68.30	24.84	V
10106.800	43.28	-33.45	38.13	38.60	68.30	25.02	H

Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11401.800	58.70	-32.42	38.79	52.33	74.00	15.30	H
11398.900	58.63	-32.42	38.79	52.26	74.00	15.37	H
16876.900	49.75	-26.32	42.36	33.70	68.30	18.55	H
17096.500	49.03	-26.60	43.36	32.27	68.30	19.27	H
8607.800	43.48	-34.38	37.93	39.93	68.30	24.82	V
8879.200	43.16	-33.54	38.14	38.55	68.30	25.14	V

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Channel 38

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
16837.300	49.38	-26.62	41.49	34.51	68.30	18.92	V
16974.100	49.16	-26.32	42.36	33.11	68.30	19.14	V
12329.900	46.12	-31.10	38.94	38.28	74.00	27.88	H
12224.300	46.09	-31.43	38.99	38.53	74.00	27.91	H
10104.200	43.94	-33.45	38.13	39.26	68.30	24.36	V
10070.800	43.25	-33.45	38.13	38.57	68.30	25.05	H

Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
16828.500	49.64	-26.62	41.49	34.77	68.30	18.66	H
17959.700	49.18	-25.50	46.66	28.02	74.00	24.82	H
12332.400	45.54	-31.10	38.94	37.70	74.00	28.46	H
12262.000	45.48	-31.43	38.99	37.92	74.00	28.52	V
8176.300	43.48	-35.19	37.45	41.23	74.00	30.52	H
10132.800	43.24	-33.45	38.13	38.56	68.30	25.06	V

Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17366.000	50.05	-25.95	44.35	31.64	68.30	18.25	V
17974.000	50.03	-25.50	46.66	28.87	74.00	23.97	H
10541.300	47.15	-32.99	38.27	41.86	68.30	21.15	V
10540.500	47.12	-32.99	38.27	41.83	68.30	21.18	V
10211.300	43.86	-33.33	38.15	39.04	68.30	24.44	H
9705.300	43.39	-33.00	38.01	38.39	68.30	24.91	V

Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
16832.500	49.40	-26.62	41.49	34.53	68.30	18.90	V
17967.000	49.38	-25.50	46.66	28.22	74.00	24.62	H
10624.900	47.21	-32.76	38.38	41.59	74.00	26.79	V
10623.400	47.12	-32.76	38.38	41.50	74.00	26.88	V
10156.600	43.57	-33.45	38.13	38.89	68.30	24.73	V
10132.800	43.40	-33.45	38.13	38.72	68.30	24.90	H

Channel 102

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11019.800	53.29	-32.49	38.72	47.05	74.00	20.71	V
11019.400	53.06	-32.49	38.72	46.82	74.00	20.94	V
16971.100	49.51	-26.32	42.36	33.46	68.30	18.79	V
17972.500	49.23	-25.50	46.66	28.07	74.00	24.77	V
10275.400	43.24	-33.68	38.17	38.74	68.30	25.06	V
10125.800	42.82	-33.45	38.13	38.14	68.30	25.48	V

Channel 118

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11182.900	55.32	-32.60	38.75	49.18	74.00	18.68	V
11180.400	54.90	-32.60	38.75	48.76	74.00	19.10	V
17868.400	49.42	-25.50	46.66	28.26	74.00	24.58	V
17871.300	49.00	-25.50	46.66	27.84	74.00	25.00	H
10132.100	43.47	-33.45	38.13	38.79	68.30	24.83	H
10146.000	42.97	-33.45	38.13	38.29	68.30	25.33	H

Channel 134

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11341.300	59.97	-32.42	38.79	53.60	74.00	14.03	V
11346.500	58.53	-32.42	38.79	52.16	74.00	15.47	V
17824.000	49.65	-25.50	46.66	28.49	74.00	24.35	V
17019.200	49.38	-26.32	42.36	33.33	68.30	18.92	H
10292.700	42.96	-33.68	38.17	38.46	68.30	25.34	H
8882.100	42.82	-33.54	38.14	38.21	68.30	25.48	H

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Channel 36

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17365.300	50.11	-25.95	44.35	31.70	68.30	18.19	H
17970.700	49.66	-25.50	46.66	28.50	74.00	24.34	V
10357.600	48.90	-33.68	38.17	44.40	68.30	19.40	H
10363.400	48.14	-33.68	38.17	43.64	68.30	20.16	V
10260.800	43.99	-33.33	38.15	39.17	68.30	24.31	V
10248.700	43.47	-33.33	38.15	38.65	68.30	24.83	H

Channel 40

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
10403.800	49.67	-33.22	38.19	44.70	68.30	18.63	H
17832.100	49.39	-25.50	46.66	28.23	74.00	24.61	V
10396.800	49.38	-33.22	38.19	44.41	68.30	18.92	V
16975.500	49.31	-26.32	42.36	33.26	68.30	18.99	H
8888.000	43.51	-33.54	38.14	38.90	68.30	24.79	H
9116.400	43.39	-33.85	38.08	39.16	74.00	30.61	H

Channel 48

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17921.900	49.62	-25.50	46.66	28.46	74.00	24.38	V
17975.400	49.38	-25.50	46.66	28.22	74.00	24.62	V
10481.100	48.86	-32.99	38.27	43.57	68.30	19.44	H
10478.900	48.80	-32.99	38.27	43.51	68.30	19.50	H
10265.200	43.69	-33.68	38.17	39.19	68.30	24.61	V
10103.100	43.55	-33.45	38.13	38.87	68.30	24.75	H

Channel 52

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
16865.900	49.70	-26.62	41.49	34.83	68.30	18.60	V
17946.100	49.65	-25.50	46.66	28.49	74.00	24.35	H
10520.700	48.73	-32.99	38.27	43.44	68.30	19.57	H
10517.800	48.35	-32.99	38.27	43.06	68.30	19.95	H
10314.700	44.47	-33.68	38.17	39.97	68.30	23.83	V
10134.300	44.30	-33.45	38.13	39.62	68.30	24.00	V

Channel 56

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17866.200	49.82	-25.50	46.66	28.66	74.00	24.18	H
17870.200	49.57	-25.50	46.66	28.41	74.00	24.43	H
10554.500	48.11	-32.99	38.27	42.82	68.30	20.19	V
10558.900	48.03	-32.99	38.27	42.74	68.30	20.27	H
10065.300	43.60	-33.45	38.13	38.92	68.30	24.70	V
10270.300	43.57	-33.68	38.17	39.07	68.30	24.73	V

Channel 64

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17616.500	50.03	-25.74	45.95	29.82	68.30	18.27	V
17955.600	49.57	-25.50	46.66	28.41	74.00	24.43	V
10642.100	48.75	-32.76	38.38	43.13	74.00	25.25	V
10644.700	48.58	-32.76	38.38	42.96	74.00	25.42	V
8859.000	43.76	-33.54	38.14	39.15	68.30	24.54	H
8901.500	43.44	-33.54	38.14	38.83	68.30	24.86	H

Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11008.400	51.12	-32.49	38.72	44.88	74.00	22.88	H
10995.600	50.36	-32.82	38.70	44.48	74.00	23.64	V
17964.100	49.22	-25.50	46.66	28.06	74.00	24.78	V
17970.300	49.19	-25.50	46.66	28.03	74.00	24.81	V
9920.500	43.19	-33.48	38.08	38.59	68.30	25.11	H
10113.000	43.14	-33.45	38.13	38.46	68.30	25.16	H

Channel 120

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11206.400	53.99	-32.60	38.75	47.85	74.00	20.01	H
11199.800	53.04	-32.60	38.75	46.90	74.00	20.96	H
17065.700	49.54	-26.60	43.36	32.78	68.30	18.76	H
16853.400	49.32	-26.62	41.49	34.45	68.30	18.98	H
10239.100	43.20	-33.33	38.15	38.38	68.30	25.10	V
10288.300	42.90	-33.68	38.17	38.40	68.30	25.40	V

Channel 140

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11399.600	60.00	-32.42	38.79	53.63	74.00	14.00	H
11400.400	59.14	-32.42	38.79	52.77	74.00	14.86	V
15959.500	49.61	-27.35	38.54	38.42	74.00	24.39	V
17813.000	49.37	-25.50	46.66	28.21	74.00	24.63	V
10154.400	43.24	-33.45	38.13	38.56	68.30	25.06	V
10269.200	43.24	-33.68	38.17	38.74	68.30	25.06	V

802.11ac-HT40

Channel 38

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17935.800	49.78	-25.50	46.66	28.62	74.00	24.22	H
17044.800	49.67	-26.60	43.36	32.91	68.30	18.63	V
10394.600	46.85	-33.22	38.19	41.88	68.30	21.45	H
12190.900	46.39	-31.43	38.99	38.83	74.00	27.61	V
10074.100	43.77	-33.45	38.13	39.09	68.30	24.53	V
10066.800	43.71	-33.45	38.13	39.03	68.30	24.59	V

Channel 46

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17946.800	49.56	-25.50	46.66	28.40	74.00	24.44	V
17966.300	49.44	-25.50	46.66	28.28	74.00	24.56	V
10465.400	46.34	-33.22	38.19	41.37	68.30	21.96	H
10444.800	46.09	-33.22	38.19	41.12	68.30	22.21	H
10244.300	43.66	-33.33	38.15	38.84	68.30	24.64	H
8906.700	42.93	-33.54	38.14	38.32	68.30	25.37	H

Channel 54

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17869.800	50.64	-25.50	46.66	29.48	74.00	23.36	V
17365.700	50.05	-25.95	44.35	31.64	68.30	18.25	H
10628.200	48.57	-32.76	38.38	42.95	74.00	25.43	V
10638.400	48.09	-32.76	38.38	42.47	74.00	25.91	V
10128.400	43.37	-33.45	38.13	38.69	68.30	24.93	V
8313.800	43.12	-34.97	37.56	40.52	74.00	30.88	H

Channel 62

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
16866.300	49.82	-26.62	41.49	34.95	68.30	18.48	V
17226.000	49.67	-25.95	44.35	31.26	68.30	18.63	H
10536.500	47.08	-32.99	38.27	41.79	68.30	21.22	H
10539.800	46.66	-32.99	38.27	41.37	68.30	21.64	V
10165.800	43.80	-33.33	38.15	38.98	68.30	24.50	H
10111.200	43.30	-33.45	38.13	38.62	68.30	25.00	V

Channel 102

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11016.800	52.17	-32.49	38.72	45.93	74.00	21.83	V
11013.900	52.16	-32.49	38.72	45.92	74.00	21.84	V
17980.600	48.95	-25.50	46.66	27.79	74.00	25.05	V
17299.700	48.94	-25.95	44.35	30.53	68.30	19.36	H
10263.700	43.53	-33.68	38.17	39.03	68.30	24.77	V
10245.400	43.18	-33.33	38.15	38.36	68.30	25.12	H

Channel 118

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11176.700	55.88	-32.60	38.75	49.74	74.00	18.12	V
11176.300	55.05	-32.60	38.75	48.91	74.00	18.95	V
17980.900	49.46	-25.50	46.66	28.30	74.00	24.54	V
17114.900	49.21	-26.60	43.36	32.45	68.30	19.09	H
10146.700	43.99	-33.45	38.13	39.31	68.30	24.31	H
10119.600	43.27	-33.45	38.13	38.59	68.30	25.03	V

Channel 134

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11353.800	57.86	-32.42	38.79	51.49	74.00	16.14	V
11337.300	57.38	-32.42	38.79	51.01	74.00	16.62	V
17337.400	49.51	-25.95	44.35	31.10	68.30	18.79	V
16526.700	49.40	-26.96	39.82	36.54	68.30	18.90	H
9962.300	43.16	-33.63	38.11	38.68	68.30	25.14	H
10292.300	43.04	-33.68	38.17	38.54	68.30	25.26	H

802.11ac-HT80

Channel 42

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17156.700	50.60	-26.60	43.36	33.84	68.30	17.70	H
17907.200	50.16	-25.50	46.66	29.00	74.00	23.84	V
12328.400	46.26	-31.10	38.94	38.42	74.00	27.74	H
12193.500	45.96	-31.43	38.99	38.40	74.00	28.04	H
9049.300	43.24	-33.76	38.13	38.87	74.00	30.76	V
9886.400	43.17	-33.48	38.08	38.57	68.30	25.13	H

Channel 58

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17941.300	49.46	-25.50	46.66	28.30	74.00	24.54	H
16858.900	49.26	-26.62	41.49	34.39	68.30	19.04	H
12004.600	45.90	-31.48	39.09	38.29	74.00	28.10	H
12302.400	45.70	-31.10	38.94	37.86	74.00	28.30	V
10249.800	43.93	-33.33	38.15	39.11	68.30	24.37	H
10132.800	43.74	-33.45	38.13	39.06	68.30	24.56	V

Channel 106

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17842.000	49.84	-25.50	46.66	28.68	74.00	24.16	V
17939.500	49.20	-25.50	46.66	28.04	74.00	24.80	H
11077.000	47.73	-32.49	38.72	41.49	74.00	26.27	V
11081.400	47.20	-32.49	38.72	40.96	74.00	26.80	V
8861.900	43.49	-33.54	38.14	38.88	68.30	24.81	V
10274.000	43.08	-33.68	38.17	38.58	68.30	25.22	H

Channel 122

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
11240.500	50.11	-32.36	38.77	43.71	74.00	23.89	V
11214.100	49.64	-32.60	38.75	43.50	74.00	24.36	H
16864.400	49.03	-26.62	41.49	34.16	68.30	19.27	V
16838.000	48.87	-26.62	41.49	34.00	68.30	19.43	V
8848.400	43.18	-33.54	38.14	38.57	68.30	25.12	V
9982.800	42.99	-33.63	38.11	38.51	68.30	25.31	H

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

Test Condition:

Voltage（V）	Frequency（Hz）
120	60

Measurement uncertainty:

Expanded measurement uncertainty for this test item is U =3.10dB, k=2.

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger AE5		
		802.11a	Idle	
0.15 to 0.5	66 to 56	Fig.58	Fig.59	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 AE5		
		802.11a	Idle	
0.15 to 0.5	67 56 to 46	Fig.58	Fig.59	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:

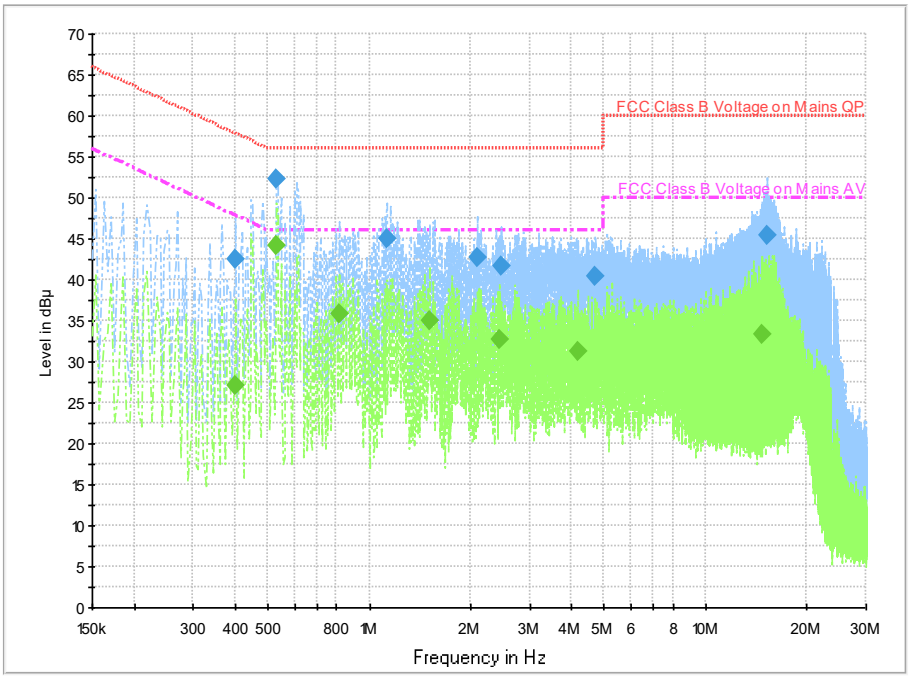

Fig.58 Conducted Emission (802.11a, Ch36, TX)

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.402000	42.5	9.000	On	L1	19.7	15.3	57.8
0.530000	52.3	9.000	On	L1	19.7	3.7	56.0
1.126000	45.0	9.000	On	L1	19.6	11.0	56.0
2.098000	42.6	9.000	On	L1	19.6	13.4	56.0
2.478000	41.7	9.000	On	L1	19.6	14.3	56.0
4.718000	40.4	9.000	On	L1	19.6	15.6	56.0

Final Result 2

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.402000	27.0	9.000	On	L1	19.7	20.8	47.8
0.530000	44.2	9.000	On	L1	19.7	1.8	46.0
0.814000	35.8	9.000	On	L1	19.7	10.2	46.0
1.510000	35.1	9.000	On	L1	19.6	10.9	46.0
2.450000	32.7	9.000	On	L1	19.6	13.3	46.0
4.150000	31.2	9.000	On	L1	19.6	14.8	46.0

Note2: The measurement results showed here are worst cases of the combinations of different cables and chargers

Idle:

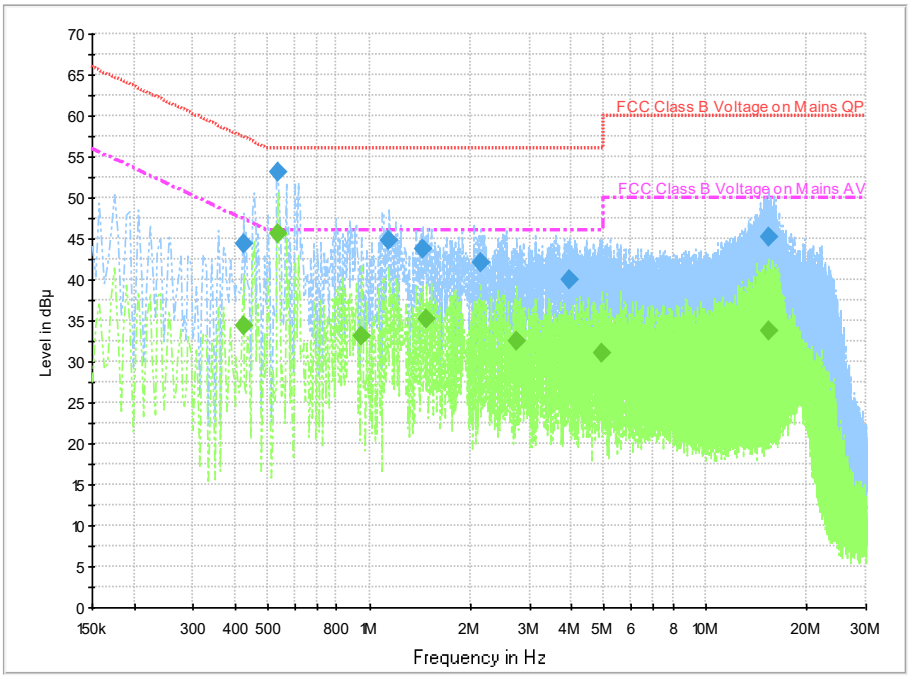

Fig.59 Conducted Emission(802.11a, IDLE)

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.422000	44.3	9.000	On	L1	19.7	13.1	57.4
0.534000	53.1	9.000	On	L1	19.7	2.9	56.0
1.142000	44.8	9.000	On	L1	19.7	11.2	56.0
1.446000	43.8	9.000	On	L1	19.7	12.2	56.0
2.142000	42.2	9.000	On	L1	19.6	13.8	56.0
3.942000	40.0	9.000	On	L1	19.6	16.0	56.0

Final Result 2

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.422000	34.4	9.000	On	L1	19.7	13.0	47.4
0.534000	45.6	9.000	On	L1	19.7	0.4	46.0
0.946000	33.2	9.000	On	L1	19.7	12.8	46.0
1.478000	35.2	9.000	On	L1	19.7	10.8	46.0
2.754000	32.5	9.000	On	L1	19.6	13.5	46.0
4.890000	31.1	9.000	On	L1	19.6	14.9	46.0

Note2: The measurement results showed here are worst cases of the combinations of different cables and chargers

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% ofthe 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

Measurement Result:

Mode	Frequency	99% Occupied bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.60	17.40	P
	5200 MHz	Fig.61	17.40	P
	5240 MHz	Fig.62	17.56	P
802.11ac HT20	5180 MHz	Fig.63	18.20	P
	5200 MHz	Fig.64	18.24	P
	5240 MHz	Fig.65	18.28	P
802.11ac HT40	5190 MHz	Fig.66	36.32	P
	5230 MHz	Fig.67	36.32	P
802.11ac HT80	5210 MHz	Fig.68	75.52	P

Conclusion: PASS

Test graphs as below:

Fig.60 99% Occupied bandwidth (802.11a, 5180MHz)

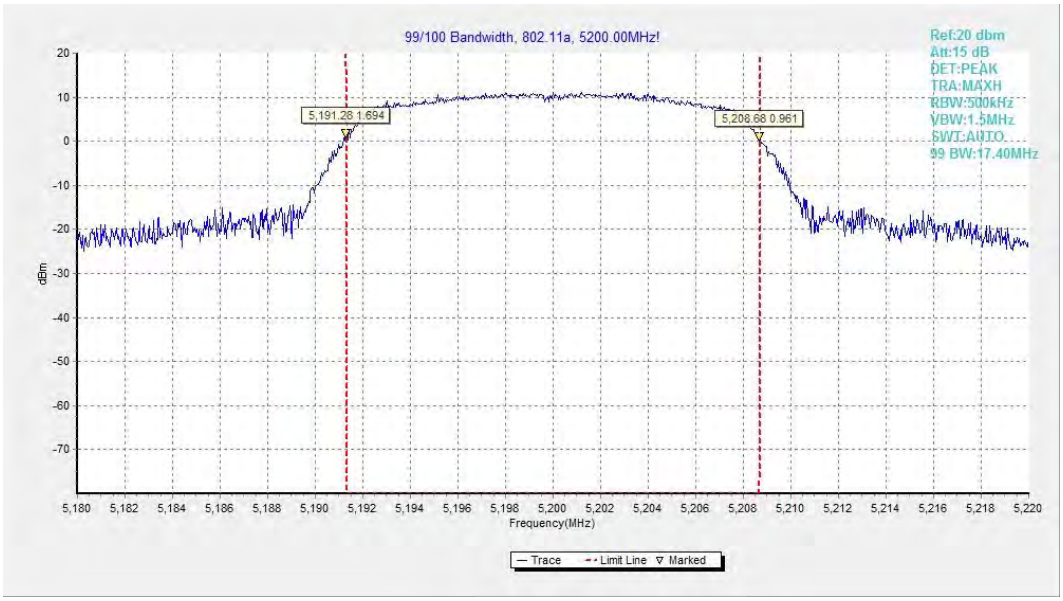

Fig.61 99% Occupied bandwidth (802.11a, 5200MHz)

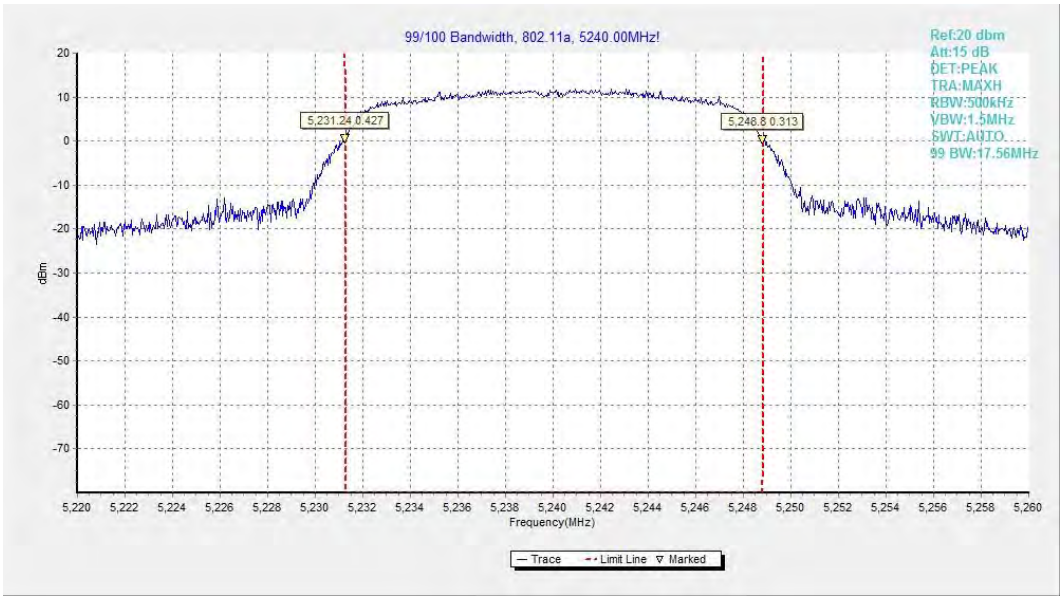

Fig.62 99% Occupied bandwidth (802.11a, 5240MHz)

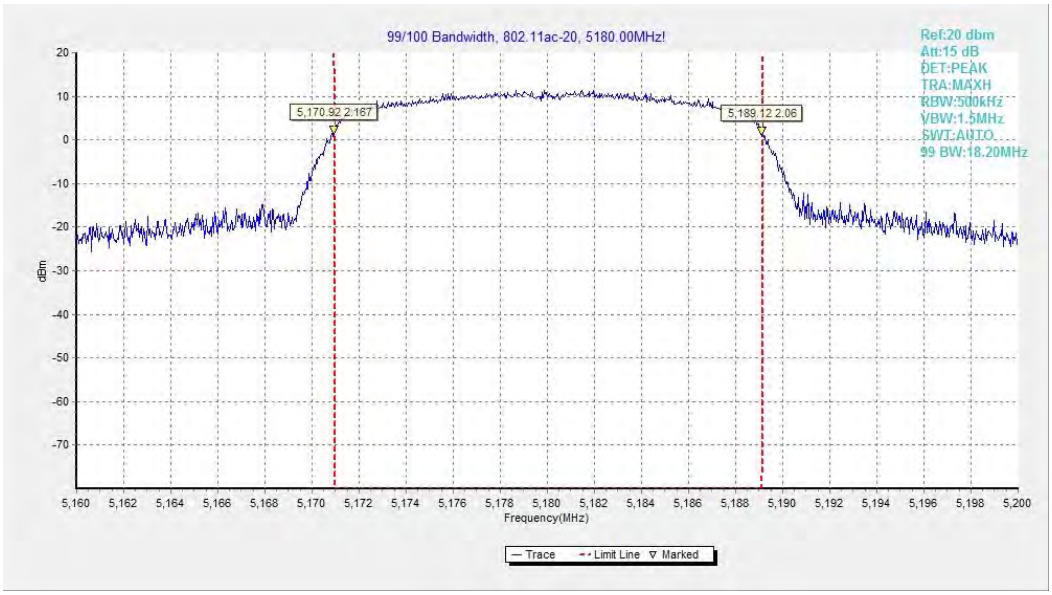

Fig.63 99% Occupied bandwidth (802.11ac-HT20, 5180MHz)

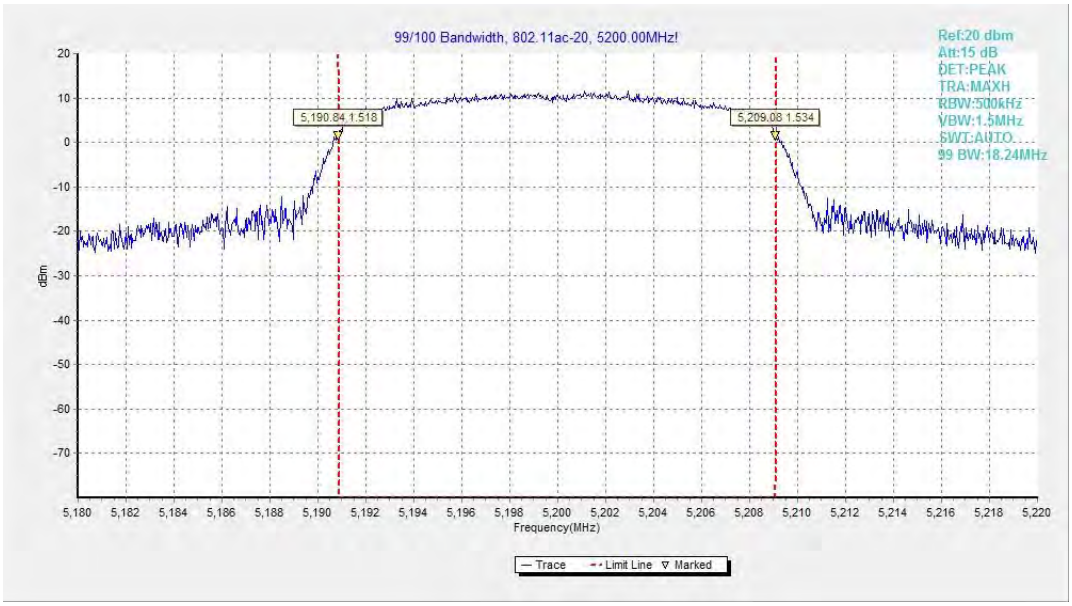

Fig.64 99% Occupied bandwidth (802.11ac-HT20, 5200MHz)

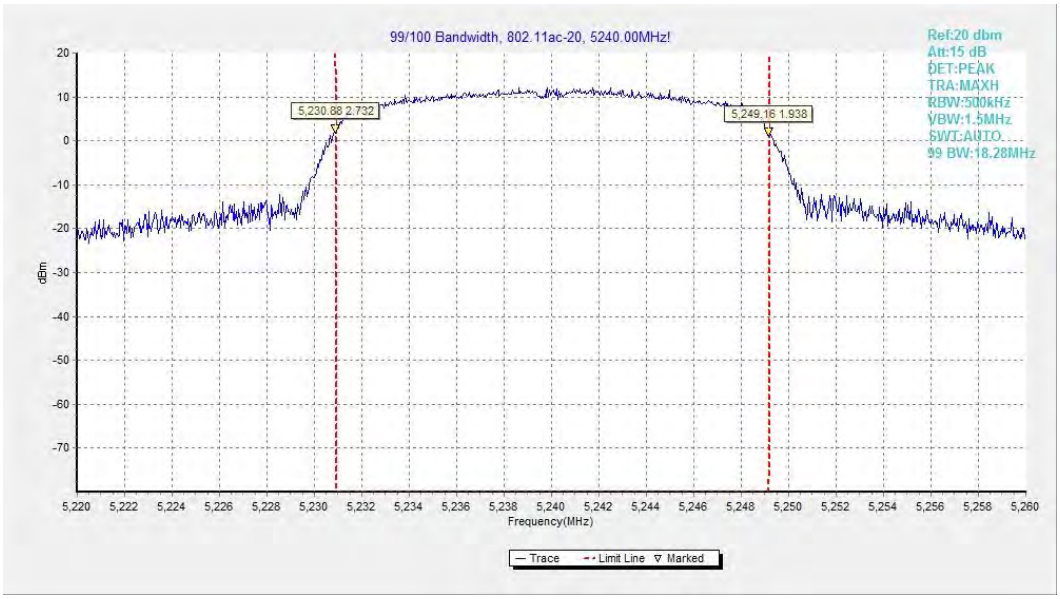

Fig.65 99% Occupied bandwidth (802.11ac-HT20, 5240MHz)

Fig.66 99% Occupied bandwidth (802.11ac-HT40, 5190MHz)

Fig.67 99% Occupied bandwidth (802.11ac-HT40, 5230MHz)

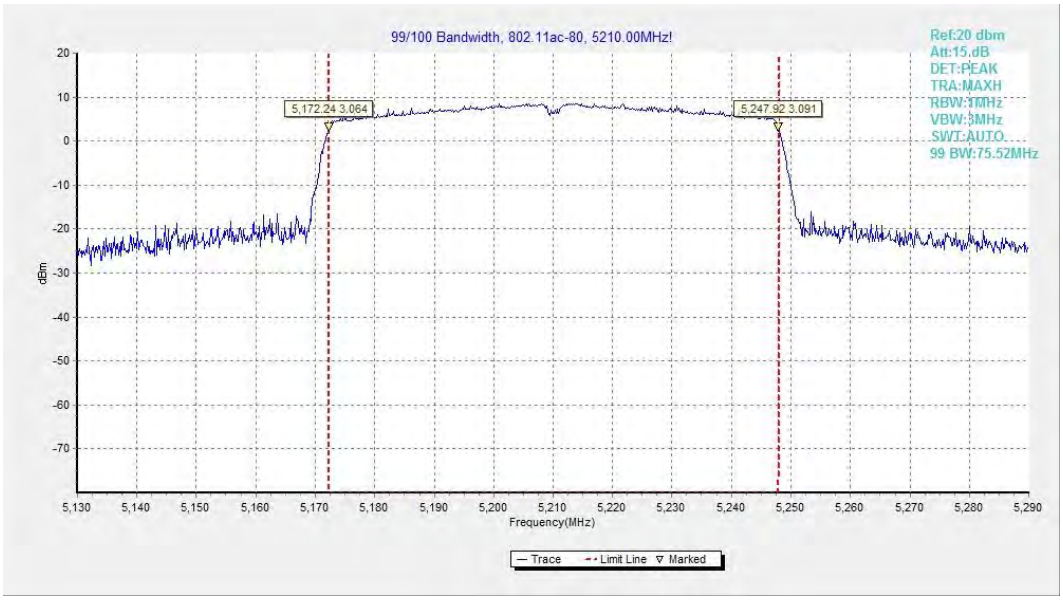

Fig.68 99% Occupied bandwidth (802.11ac-HT80, 5210MHz)

A.9. Power control

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

ANNEX B: EUT parameters

Disclaimer: The antenna gain and worse case provided by the client may affect the validity of the measurement results in this report, and the client shall bear the impact and consequences arising therefrom.

ANNEX C: Accreditation Certificate

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

ilac-MRA

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 600118-0

Telecommunication Technology Labs, CAICT
Beijing
China

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Electromagnetic Compatibility & Telecommunications

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2022-10-01 through 2023-09-30
Effective Dates

For the National Voluntary Laboratory Accreditation Program

*** END OF REPORT BODY ***