FCC PART 15
TEST REPORT
No.23T04Z80263-08

for

BLU Products, Inc.

Smart Phone

B170D

FCC ID:YHLBLUB170D

with

Hardware Version: V1.0

Software Version: BLU_B170D_V14.0.01.05.01.01_FSec

Issued Date: 2023-11-28

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.

Test Laboratory:

CTTL-Telecommunication Technology Labs, CAICT

No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191.

Tel:+86(0)10-62304633-2512, Fax:+86(0)10-62304633-2504

Email: cttl_terminals@caict.ac.cn, website: www.caict.ac.cn

REPORT HISTORY

Report Number	Revision	Description	Issue Date
23T04Z80263-08	Rev.0	1st edition	2023-11-14
23T04Z80263-08	Rev.1	Adding the Loop Antenna in P11 Adding the description “In total, three EUT elevation positions are measured” in P53 Add the polts for Output power、Duty cycle and Peak Power Spectral Density. Update the 99% Occupied bandwidth results for 11ac80 Adding the “Automatically discontinued Transmission” in P10	2023-11-28

Note: the latest revision of the test report supersedes all previous version.

CONTENTS

1. Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under American Association for Laboratory Accreditation (A2LA) with lab code 7049.01, and is also an FCC accredited test laboratory (CN1349), and ISED accredited test laboratory (CAB identifier:CN0066). The detail accreditation scope can be found on A2LA 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°C

Relative Humidity: 20-75%

1.4. Project date

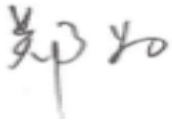
Testing Start Date: 2023-10-11

Testing End Date: 2023-11-06

1.5. Signature

Yao Xingyu

(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
Postal Code:	/
Country:	US
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
Postal Code:	/
Country:	US
Telephone:	305.715.7171
Fax:	305.436.8819

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	Smart Phone
Model name	B170D
FCC ID	YHLBLUB170D
WLAN Frequency Band	ISM Bands: -5150MHz~5250MHz -5250MHz~5350MHz -5470MHz~5725MHz
Type of modulation	OFDM
Antenna	Integral Antenna
Nominal Voltage	3.85V
Extreme High Voltage	4.40V
Extreme Low Voltage	3.60V

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
UT28a	359979710002223	V1.0	BLU_B170D_V14.0.01.05.01.01_FSec	2023-10-12
UT16a	359979710001274	V1.0	BLU_B170D_V14.0.01.05.01.01_FSec	2023-10-12

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

UT16a is used for Conduction test, UT28a is used for Radiation test.

3.3. Internal Identification of AE used during the test

AE ID*	Description	Note	Manufacturer
AE1	Battery	C926547500P	Hunan Gaoyuan Battery Co., LTD
AE2	Charger	US-SP-2000	ShenZhen BaiJunDa Electronic CO.,LTD.
AE3	USB cable	CL2105-4	Dongguan Yuwei Electronic Technology Co., Ltd.

*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 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	2021
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. 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**
99% Occupied bandwidth	/	/	**P**
Transmit Power Control	15.407	/	**NA**
Automatically discontinued Transmission(note 1)	15.407	/	**NA**

Note 1: The device can automatically discontinue transmission in case of either absence of information to transmitter operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

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 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.

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	3.85V
Humidity	44%

7. Test Facilities 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	2024-07-04
2	LISN	ENV216	101200	Rohde & Schwarz	1 year	2024-06-05
3	Test Receiver	ESCI	100344	Rohde& Schwarz	1 year	2024-02-28
4	Attenuator	10dB/2W	/	Rosenberger	/	/
5	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

FACT3-5

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESW44	103015	R&S	1 year	2024-02-11
2	EMI Antenna	VULB9163	9163-235	Schwarzbeck	1 year	2024-06-10
3	EMI Antenna	3117	00139065	ETS	1 year	2024-09-13
4	Test Receiver	LB-180400-25-C-KF	2110084000006	A-INFO	1 year	2024-03-02
5	Loop Antenna	HFH2-Z2	829324/007	R&S	2 year	2024-12-23

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 26dB Emission 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	5.29
1GHz ≤ f ≤18GHz	5.62
18GHz ≤ f ≤40GHz	3.52

8.6 AC Power-line Conducted Emission

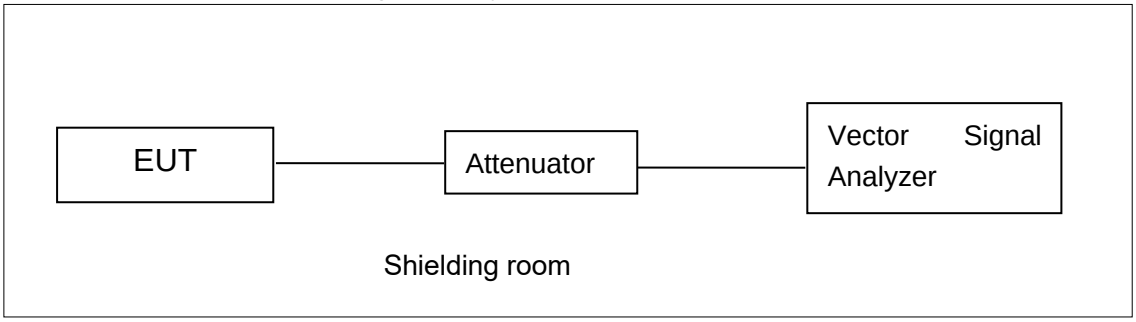
Measurement Uncertainty : 3.10dB,k=2

ANNEX A: Detailed Test Results

A.1. Measurement Method

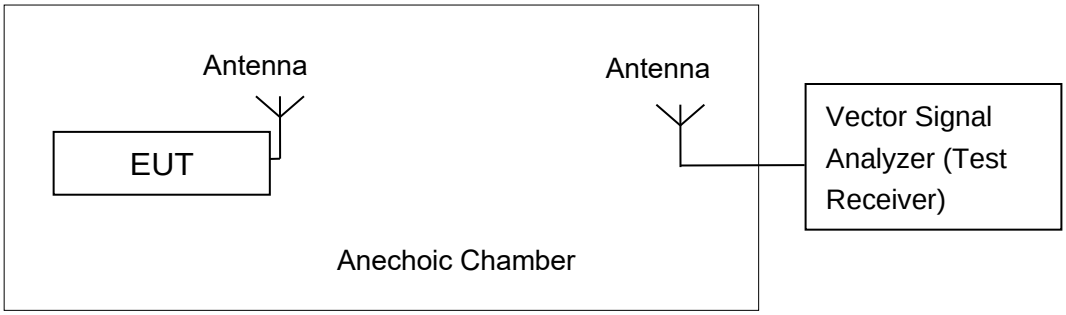
A.1.1. Conducted Measurements

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 = 3MHz;



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

A.2.1 Antenna Gain

Antenna gain is -4.0dBi and the value is supplied by the applicant or manufacturer.

A.2.2 Maximum output Power-Conducted

EUT ID: UT16a

Measurement Results:

802.11a mode

Mode	Frequency	Test Result (dBm)							
		Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
802.11a	5180MHz	17.49	/	/	/	/	/	/	/
	5200MHz	17.19	/	/	/	/	/	/	/
	5240MHz	16.67	/	/	/	/	/	/	/
	5260MHz	17.34	/	/	/	/	/	/	/
	5280MHz	16.96	/	/	/	/	/	/	/
	5320MHz	16.79	/	/	/	/	/	/	/
	5500MHz	17.16	/	/	/	/	/	/	/
	5580MHz	17.42	/	/	/	/	/	/	/
	5700MHz	16.04	/	/	/	/	/	/	/
	5720MHz	16.12	/	/	/	/	/	/	/

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	16.79	/	/	/	/	/	/	/
	5200MHz	16.68	/	/	/	/	/	/	/
	5240MHz	16.14	/	/	/	/	/	/	/
	5260MHz	16.33	/	/	/	/	/	/	/
	5280MHz	16.42	/	/	/	/	/	/	/
	5320MHz	16.29	/	/	/	/	/	/	/
	5500MHz	16.63	/	/	/	/	/	/	/

	5580MHz	17.10	/	/	/	/	/	/	/
	5700MHz	16.36	/	/	/	/	/	/	/
	5720MHz	16.24	/	/	/	/	/	/	/

The data rate MSC0 is selected as worst condition, and the following cases are performed with this condition.

802.11ac-VHT20 mode

Mode	Frequency	Test Result (dBm)								
		Data Rate								
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
802.11ac (VHT20)	5180MHz	17.05	/	/	/	/	/	/	/	/
	5200MHz	17.11	/	/	/	/	/	/	/	/
	5240MHz	16.57	/	/	/	/	/	/	/	/
	5260MHz	17.26	/	/	/	/	/	/	/	/
	5280MHz	17.11	/	/	/	/	/	/	/	/
	5320MHz	17.03	/	/	/	/	/	/	/	/
	5500MHz	16.65	/	/	/	/	/	/	/	/
	5580MHz	17.12	/	/	/	/	/	/	/	/
	5700MHz	16.15	/	/	/	/	/	/	/	/
	5720MHz	16.03	/	/	/	/	/	/	/	/

The data rate MSC0 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	15.62	/	/	/	/	/	/	/
	5230MHz	15.13	/	/	/	/	/	/	/
	5270MHz	15.45	/	/	/	/	/	/	/
	5310MHz	15.05	/	/	/	/	/	/	/
	5510MHz	15.66	/	/	/	/	/	/	/
	5550MHz	15.76	/	/	/	/	/	/	/
	5670MHz	15.51	/	/	/	/	/	/	/
	5710MHz	15.03	/	/	/	/	/	/	/

The data rate MSC0 is selected as worst condition, and the following cases are performed with this condition.

802.11ac-VHT40 mode

Mode	Frequency	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac (VHT40)	5190MHz	16.40	/	/	/	/	/	/	/	/	/
	5230MHz	16.05	/	/	/	/	/	/	/	/	/
	5270MHz	16.10	/	/	/	/	/	/	/	/	/
	5310MHz	16.17	/	/	/	/	/	/	/	/	/
	5510MHz	16.55	/	/	/	/	/	/	/	/	/
	5550MHz	16.85	/	/	/	/	/	/	/	/	/
	5670MHz	16.38	/	/	/	/	/	/	/	/	/
	5710MHz	16.02	/	/	/	/	/	/	/	/	/

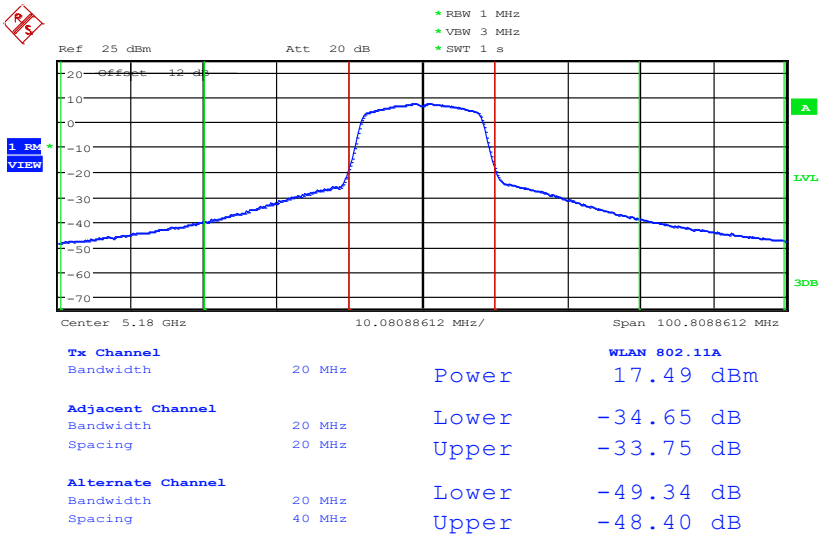
The data rate MSC0 is selected as worst condition, and the following cases are performed with this condition.

802.11ac-VHT80 mode

Mode	Frequency	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac (VHT80)	5210MHz	15.09	/	/	/	/	/	/	/	/	/
	5290MHz	15.04	/	/	/	/	/	/	/	/	/
	5530MHz	15.52	/	/	/	/	/	/	/	/	/
	5610MHz	15.68	/	/	/	/	/	/	/	/	/
	5690MHz	15.20	/	/	/	/	/	/	/	/	/

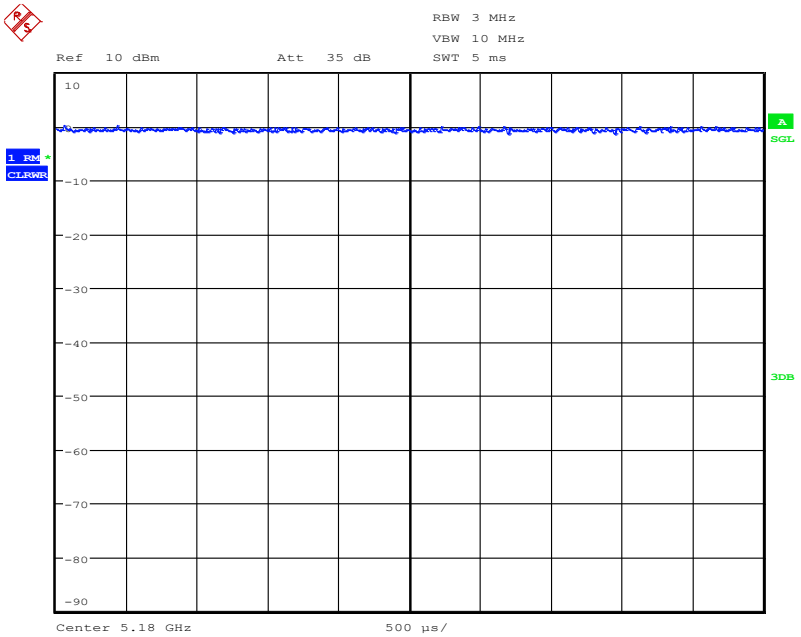
The data rate MSC0 is selected as worst condition, and the following cases are performed with this condition.

The duty cycle of all mode are 100%.



Date: 1.NOV.2023 17:25:14

Maximum output Power:11a CH36



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Duty cycle:11a CH36

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

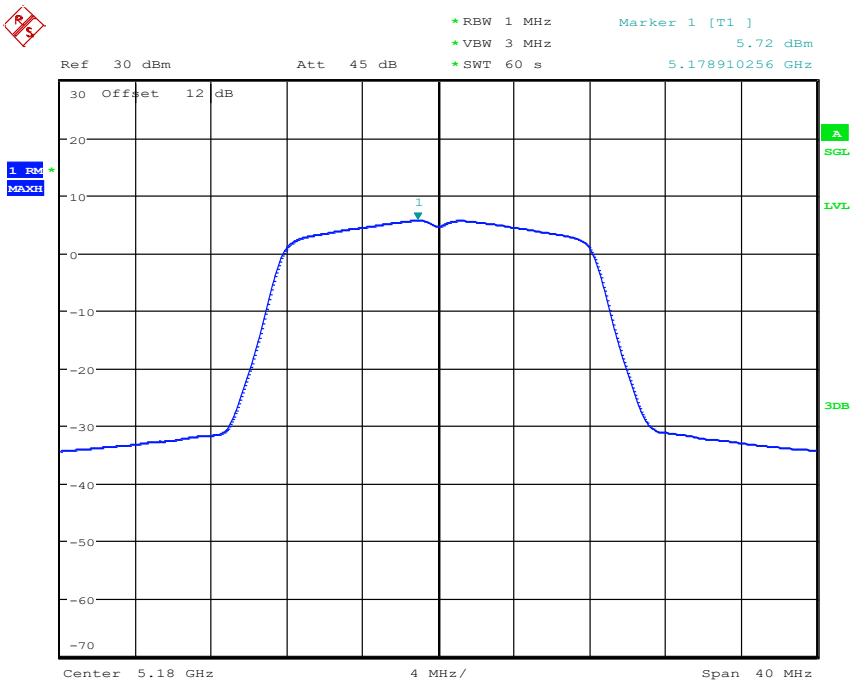
The output power measurement method Section F is made according to KDB 789033

EUT ID: UT16a

Measurement Results:

Mode	Frequency	Power Spectral Density (dBm/MHz)	Conclusion
802.11a	5180 MHz	5.72	P
	5200 MHz	5.48	P
	5240 MHz	5.23	P
	5260 MHz	5.55	P
	5280 MHz	5.25	P
	5320 MHz	5.34	P
	5500 MHz	4.62	P
	5580 MHz	5.08	P
	5700 MHz	4.62	P
	5720 MHz	4.43	P
802.11ac VHT20	5180 MHz	5.15	P
	5200 MHz	5.28	P
	5240 MHz	4.82	P
	5260 MHz	5.20	P
	5280 MHz	5.15	P
	5320 MHz	4.81	P
	5500 MHz	4.53	P
	5580 MHz	5.14	P
	5700 MHz	3.93	P
	5720 MHz	3.91	P
802.11ac VHT40	5190 MHz	2.07	P
	5230 MHz	1.49	P
	5270 MHz	1.39	P
	5310 MHz	1.18	P
	5510 MHz	1.41	P
	5550 MHz	1.60	P
	5670 MHz	1.33	P
	5710 MHz	1.12	P
802.11ac VHT80	5210 MHz	-2.87	P
	5290 MHz	-2.82	P

	5530 MHz	-3.06	P
	5610 MHz	-1.59	P
	5690 MHz	-3.37	P



Peak Power Spectral Density:11a CH36

Conclusion: PASS

A.4. 26dB Emission 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

EUT ID: UT16a

Measurement Result:

Mode	Frequency	26dB Emission Bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.1	20.04	P
	5200 MHz	Fig.2	20.12	P
	5240 MHz	Fig.3	20.04	P
	5260 MHz	Fig.4	20.48	P
	5280 MHz	Fig.5	20.76	P
	5320 MHz	Fig.6	20.40	P
	5500 MHz	Fig.7	20.04	P
	5580 MHz	Fig.8	19.92	P
	5700 MHz	Fig.9	20.00	P
	5720 MHz	Fig.10	20.04	P
802.11ac VHT20	5180 MHz	Fig.11	20.44	P
	5200 MHz	Fig.12	20.44	P
	5240 MHz	Fig.13	20.36	P
	5260 MHz	Fig.14	20.56	P
	5280 MHz	Fig.15	20.80	P
	5320 MHz	Fig.16	21.44	P
	5500 MHz	Fig.17	20.36	P
	5580 MHz	Fig.18	20.36	P
	5700 MHz	Fig.19	20.32	P
	5720 MHz	Fig.20	20.36	
802.11ac VHT40	5190 MHz	Fig.21	40.96	P
	5230 MHz	Fig.22	41.20	P
	5270 MHz	Fig.23	41.28	P
	5310 MHz	Fig.24	41.60	P
	5510 MHz	Fig.25	41.28	P
	5550 MHz	Fig.26	41.28	P
	5670 MHz	Fig.27	41.12	P
	5710 MHz	Fig.28	40.88	P
802.11ac	5210MHz	Fig.29	81.76	P

VHT80	5290MHz	Fig.30	81.92	P
	5530MHz	Fig.31	81.76	P
	5610 MHz	Fig.32	81.12	P
	5690MHz	Fig.33	81.60	P

Test graphs as below:

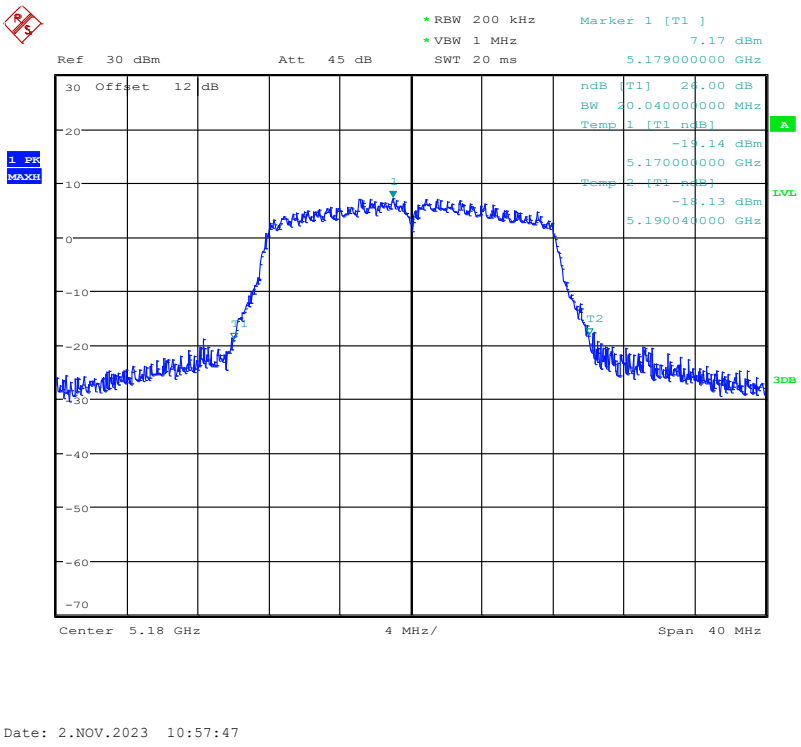


Fig.1 26dB Emission Bandwidth (802.11a, 5180MHz)

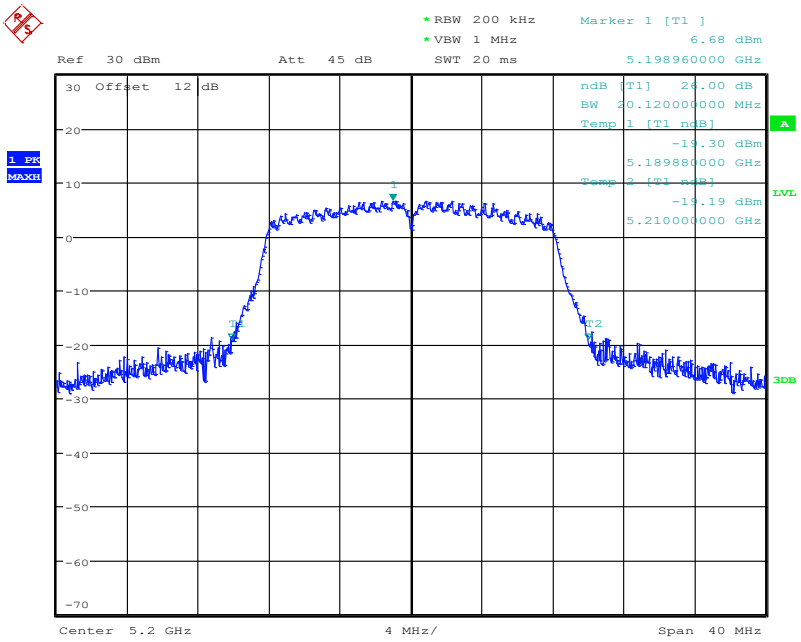


Fig.2 26dB Emission Bandwidth (802.11a, 5200MHz)

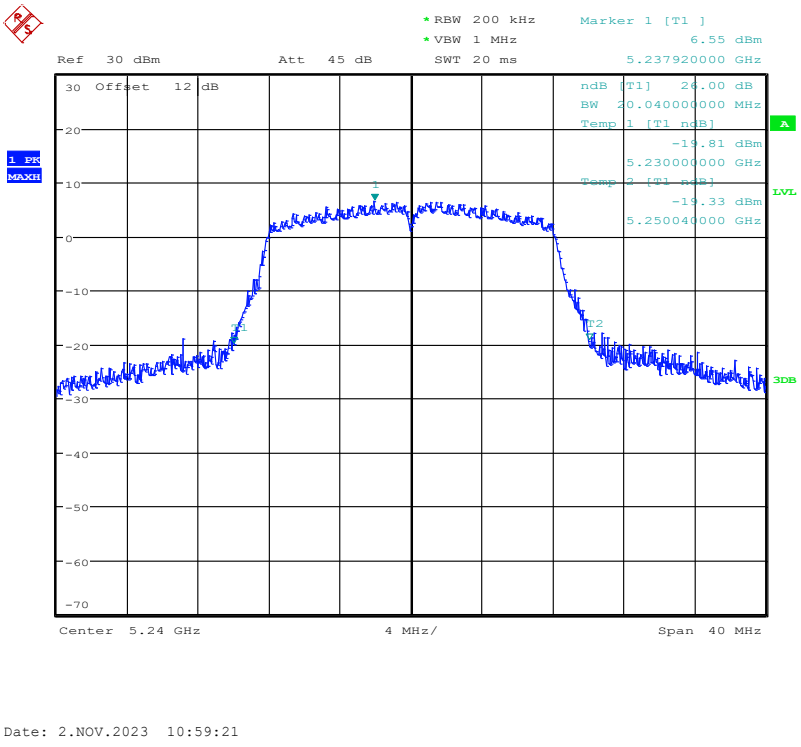


Fig.3 26dB Emission Bandwidth (802.11a, 5240MHz)

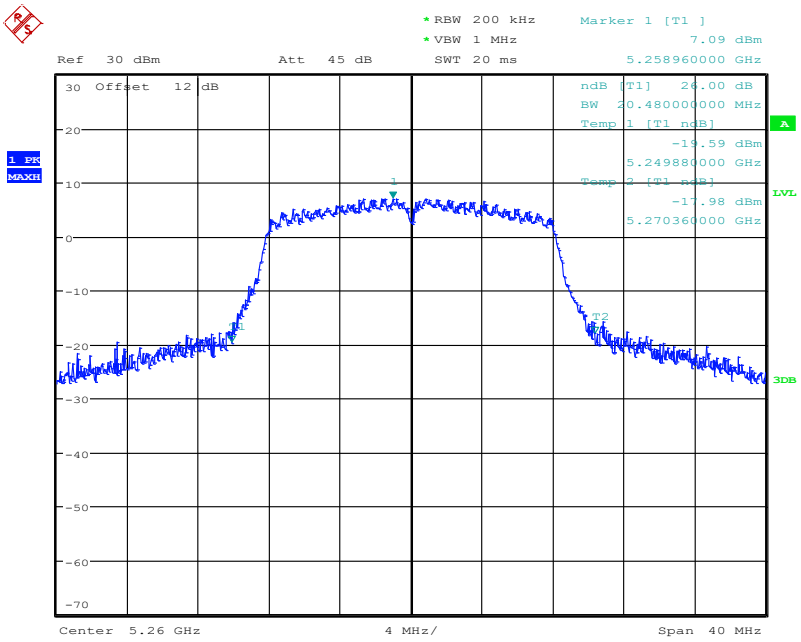


Fig.4 26dB Emission Bandwidth (802.11a, 5260MHz)

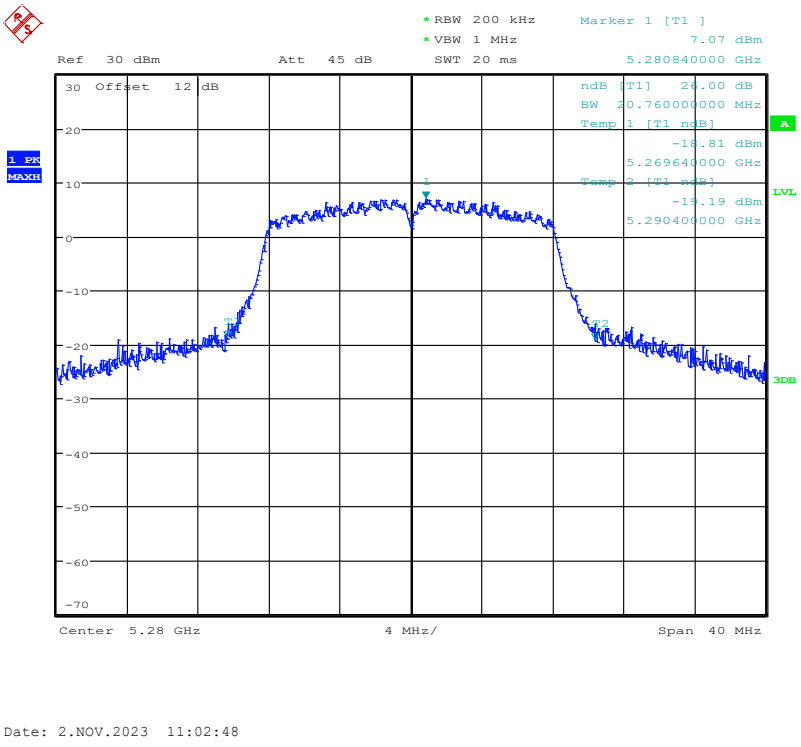


Fig.5 26dB Emission Bandwidth (802.11a, 5280MHz)

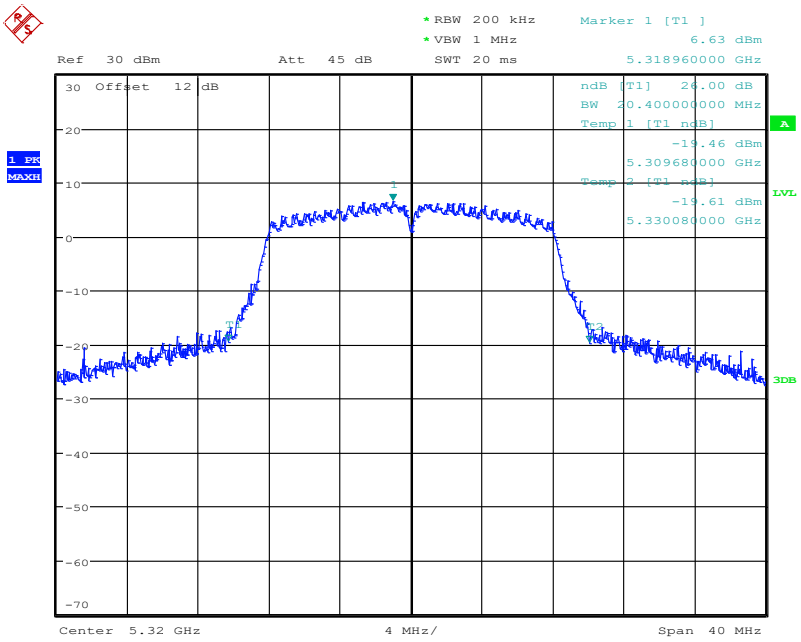


Fig.6 26dB Emission Bandwidth (802.11a, 5320MHz)

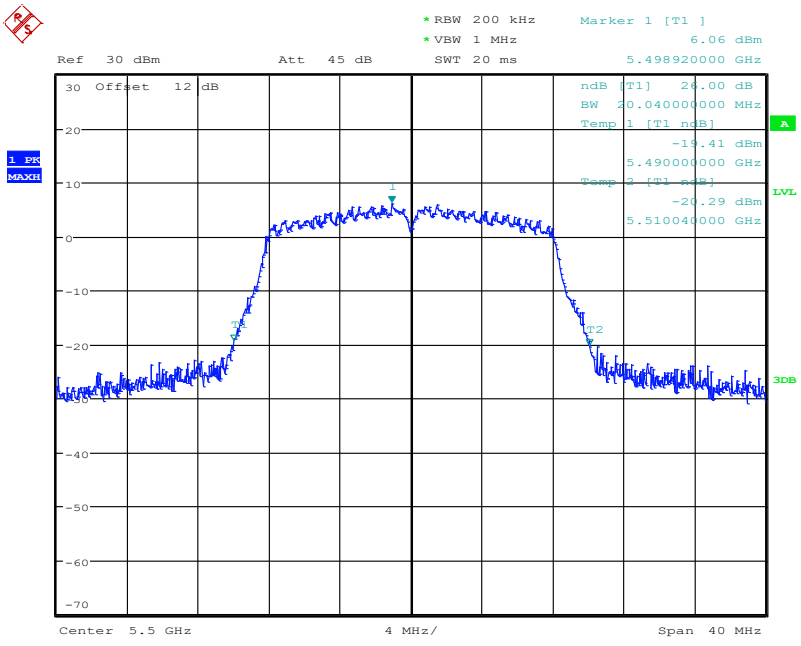


Fig.7 26dB Emission Bandwidth (802.11a, 5500MHz)

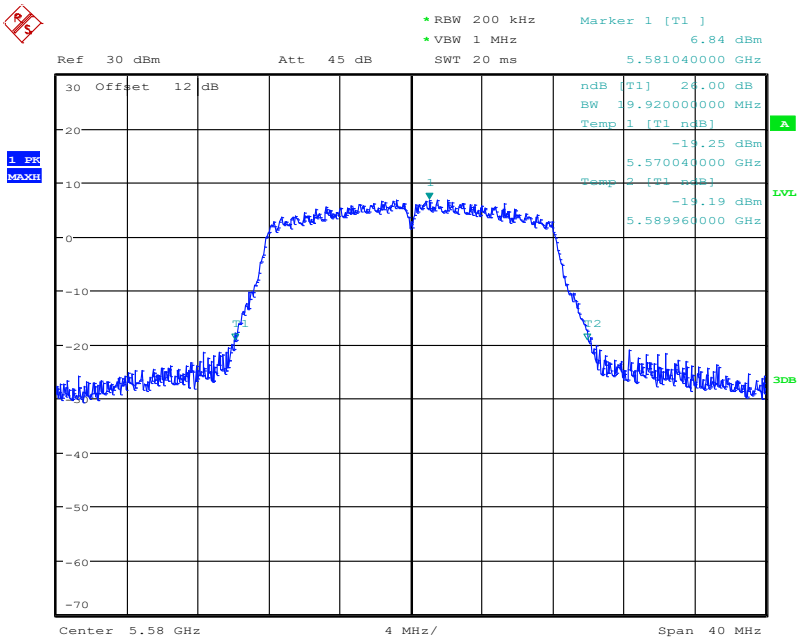


Fig.8 26dB Emission Bandwidth (802.11a, 5580MHz)

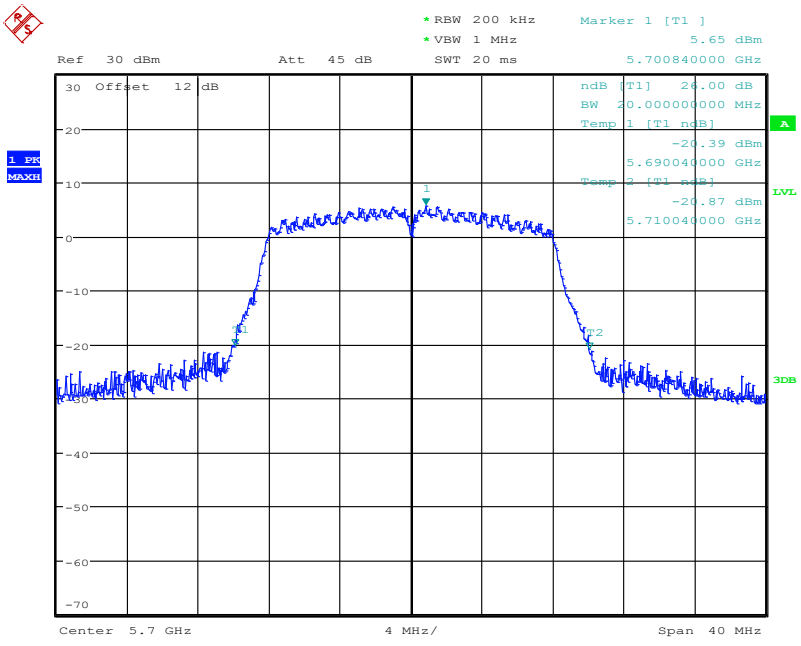
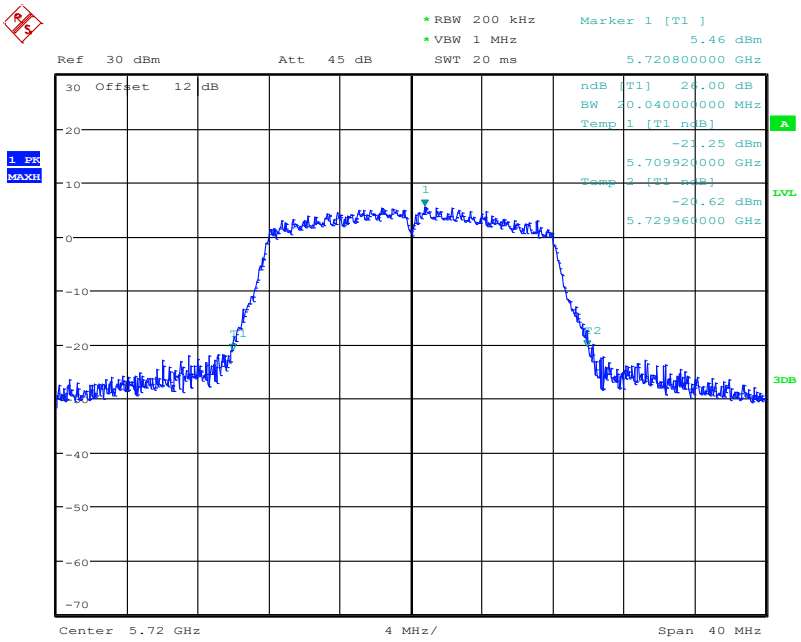
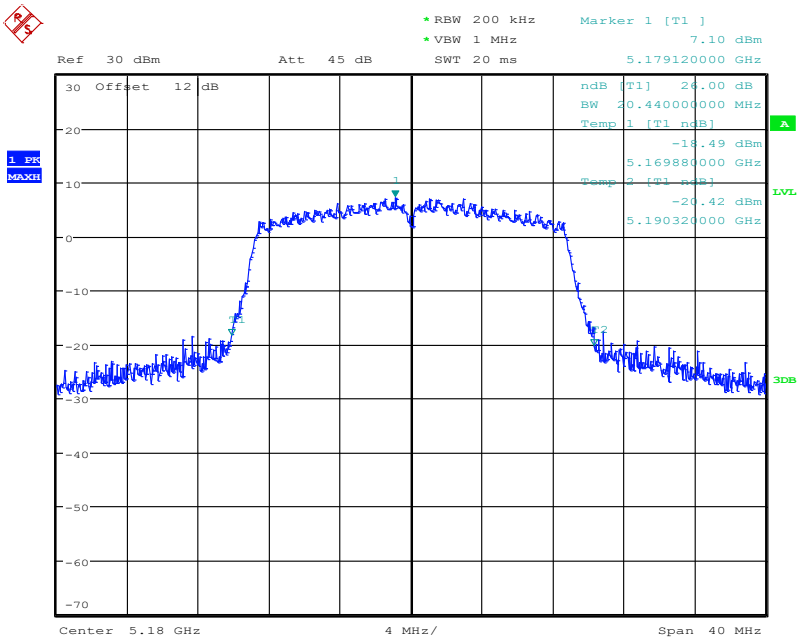


Fig.9 26dB Emission Bandwidth (802.11a, 5700MHz)



Date: 2.NOV.2023 11:06:52

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



Date: 2.NOV.2023 11:11:35

Fig.11 26dB Emission Bandwidth (802.11ac-VHT20, 5180MHz)

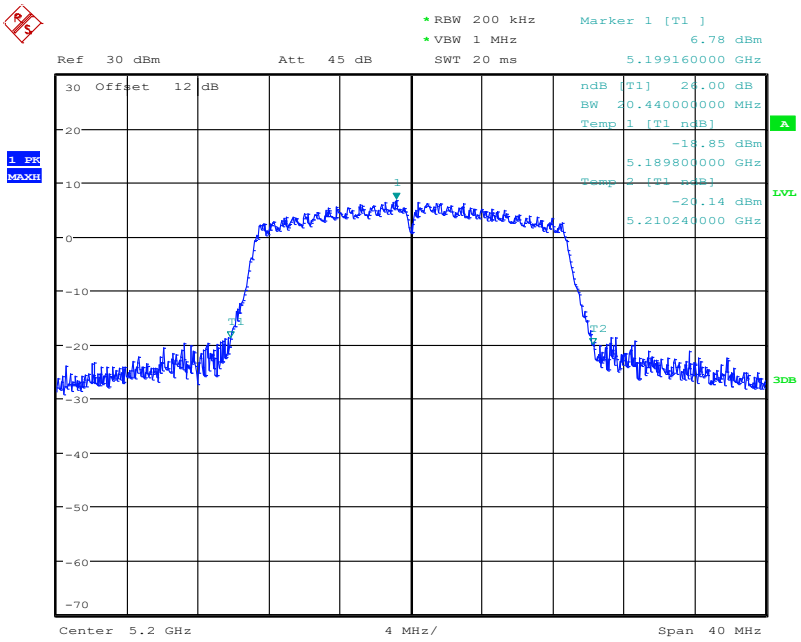


Fig.12 26dB Emission Bandwidth (802.11ac-VHT20, 5200MHz)

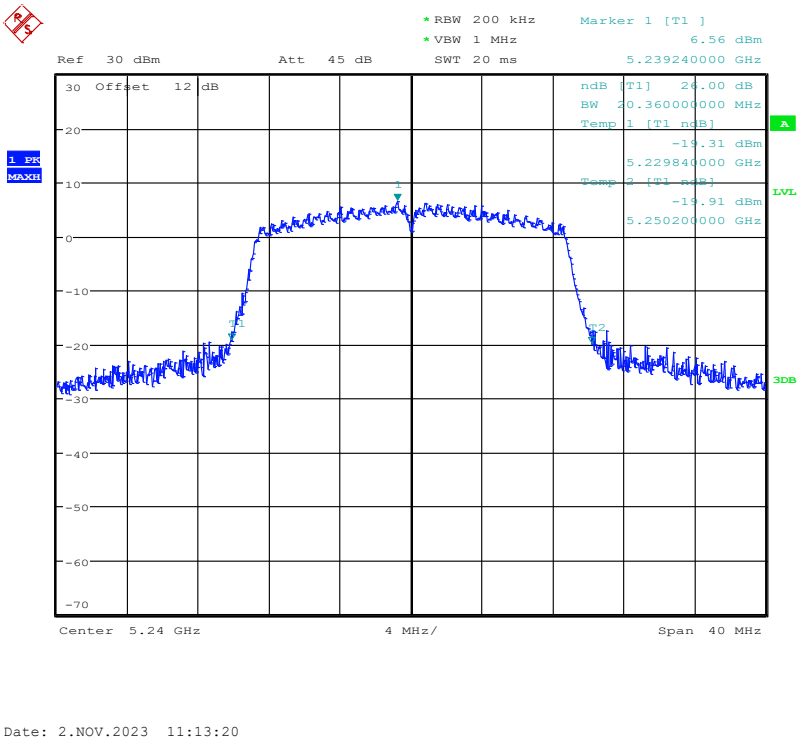


Fig.13 26dB Emission Bandwidth (802.11ac-VHT20, 5240MHz)

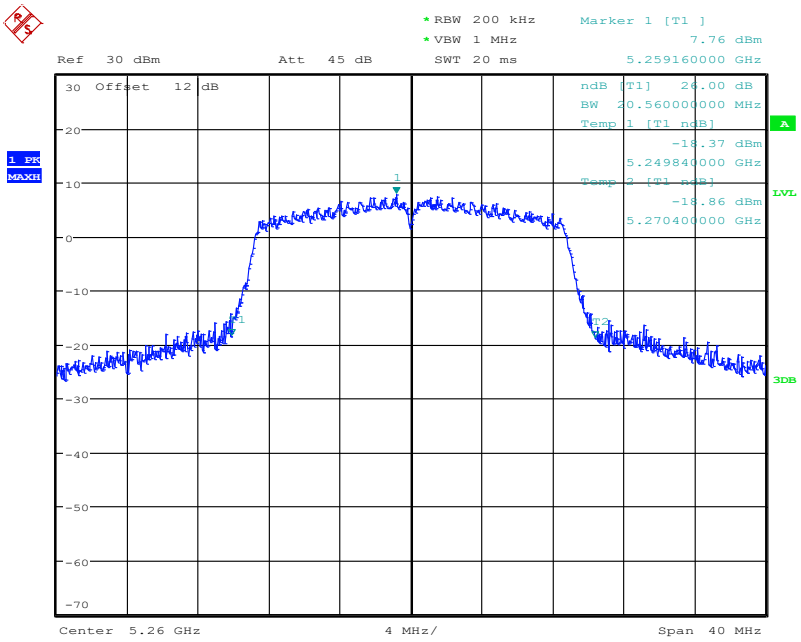


Fig.14 26dB Emission Bandwidth (802.11ac-VHT20, 5260MHz)

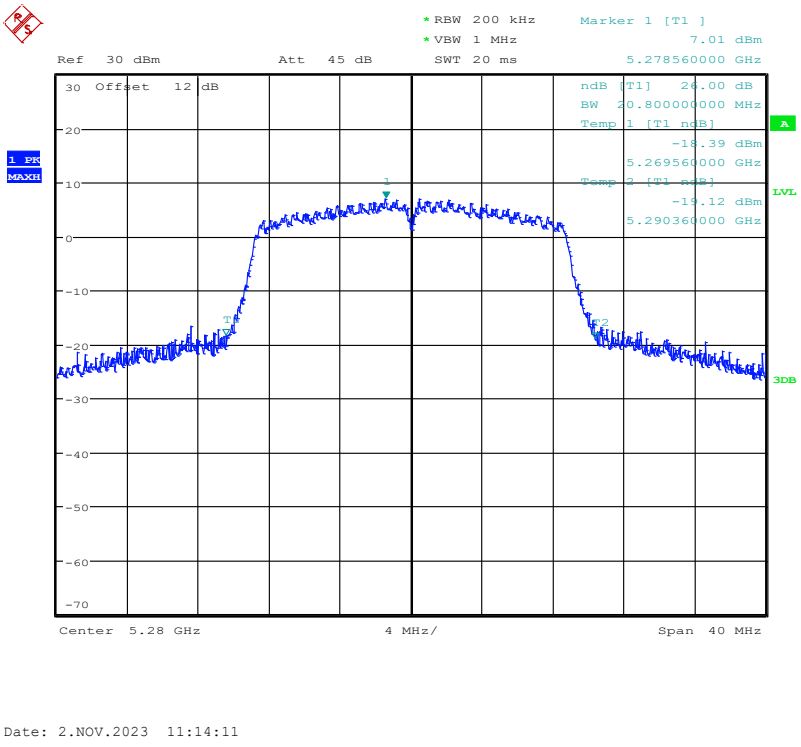


Fig.15 26dB Emission Bandwidth (802.11ac-VHT20, 5280MHz)

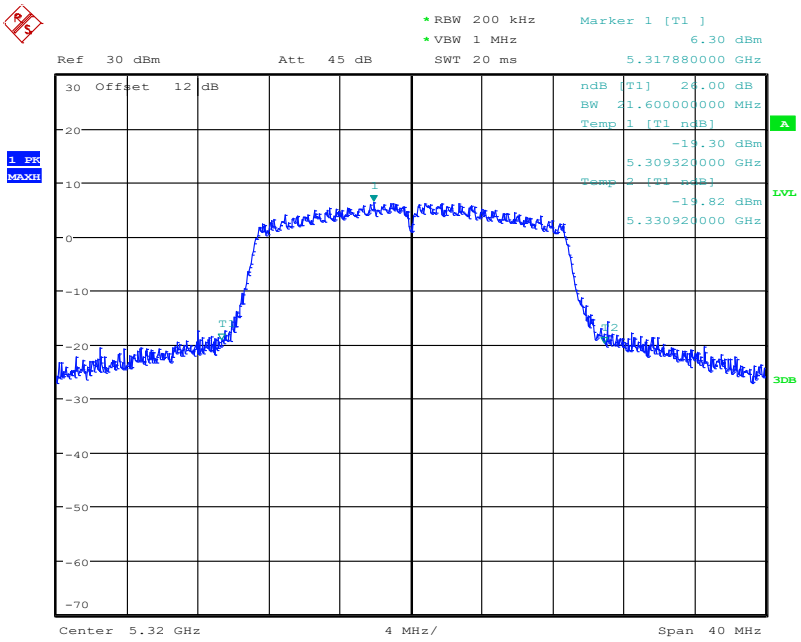


Fig.16 26dB Emission Bandwidth (802.11ac-VHT20, 5320MHz)

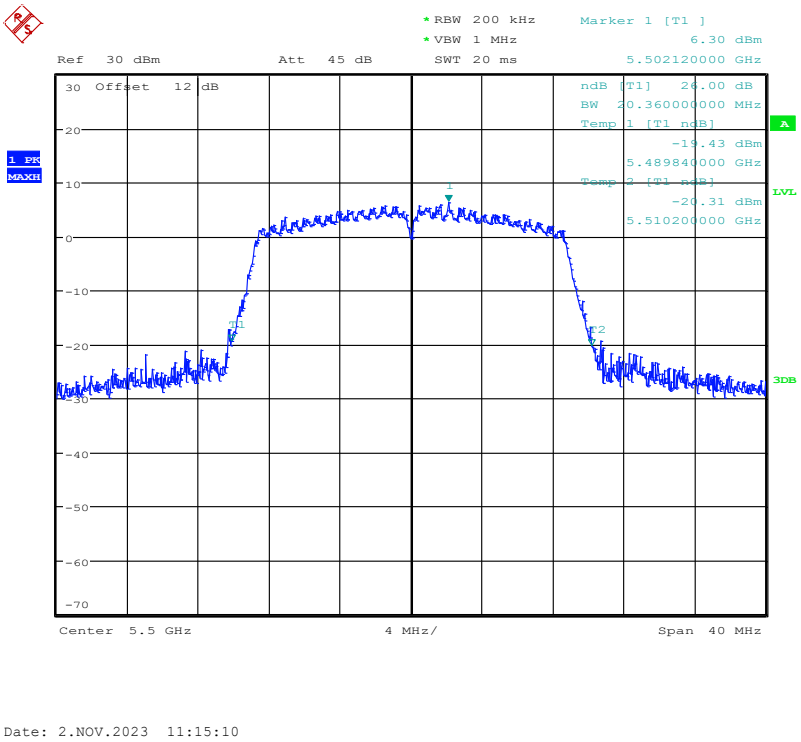


Fig.17 26dB Emission Bandwidth (802. 11ac-VHT20, 5500MHz)

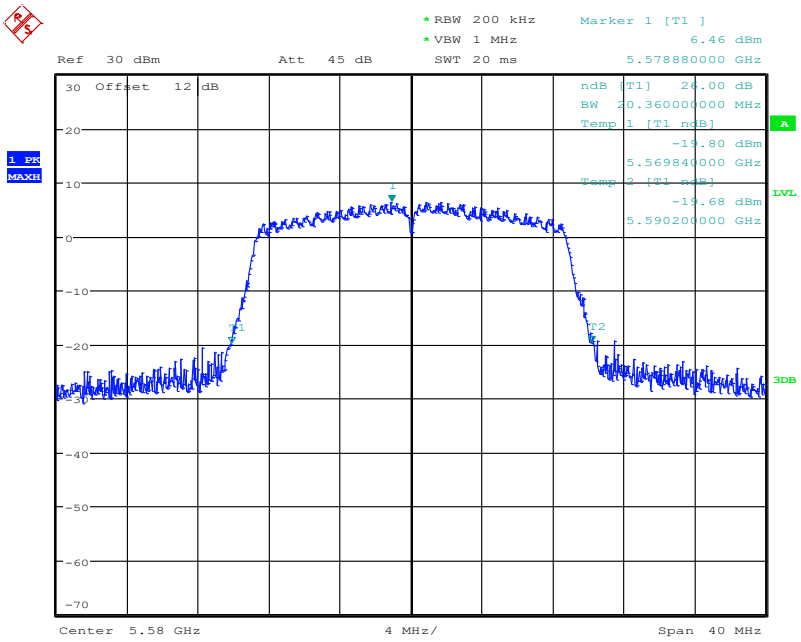


Fig.18 26dB Emission Bandwidth (802. 11ac-VHT20, 5580MHz)

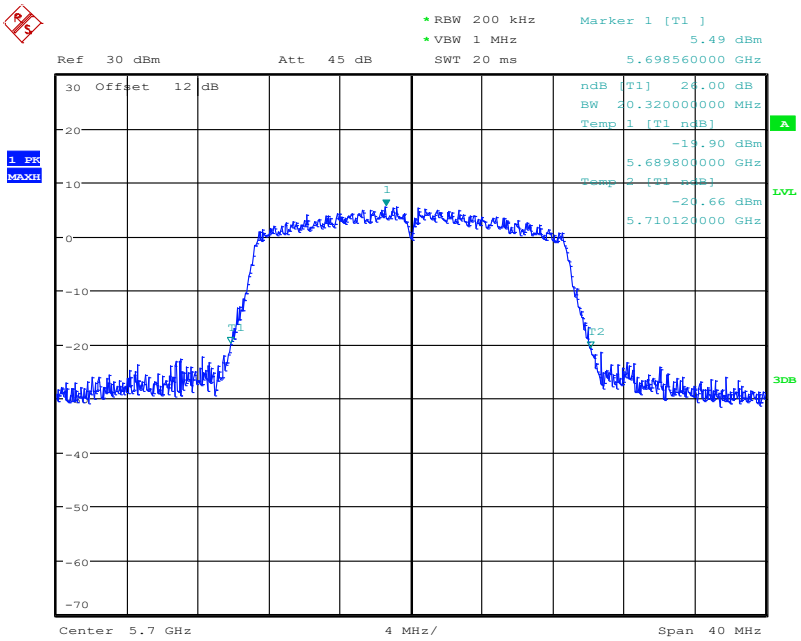


Fig.19 26dB Emission Bandwidth (802. 11ac-VHT20, 5700MHz)

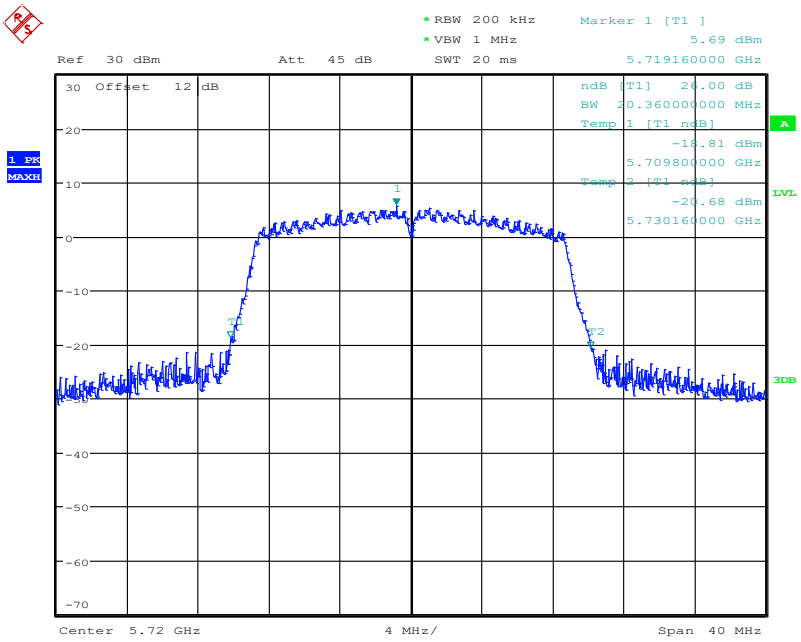


Fig.20 26dB Emission Bandwidth (802. 11ac-VHT20, 5720MHz)

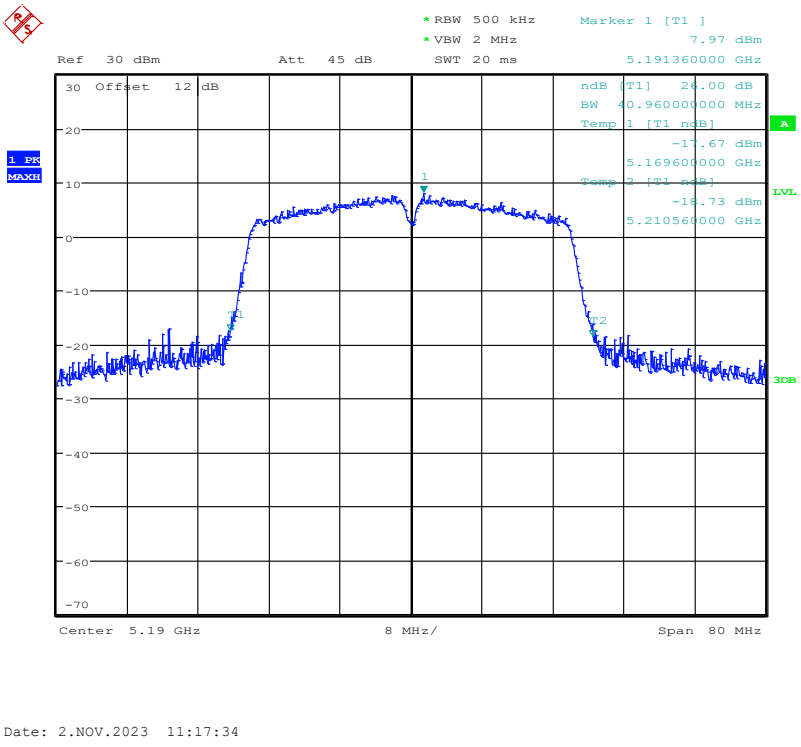


Fig.21 26dB Emission Bandwidth (802.11ac-VHT40, 5190MHz)

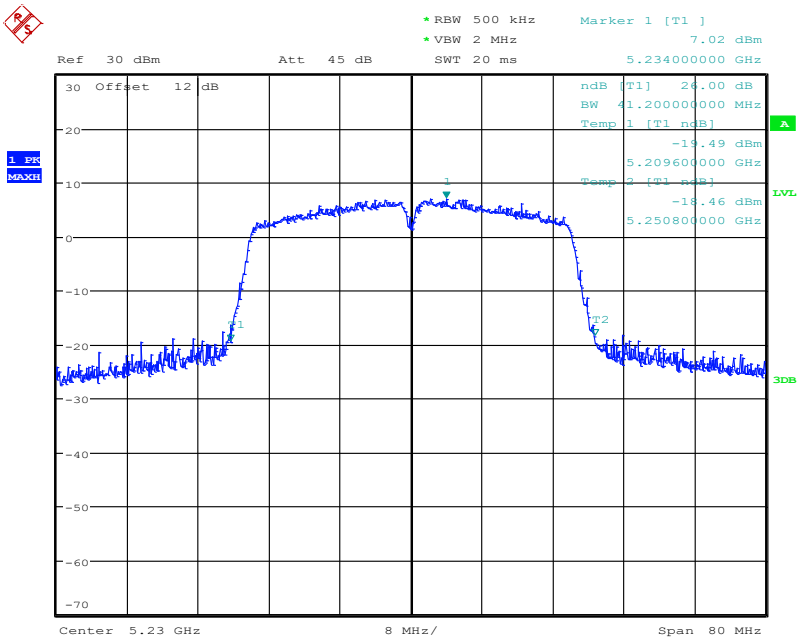


Fig.22 26dB Emission Bandwidth (802.11ac-VHT40, 5230MHz)

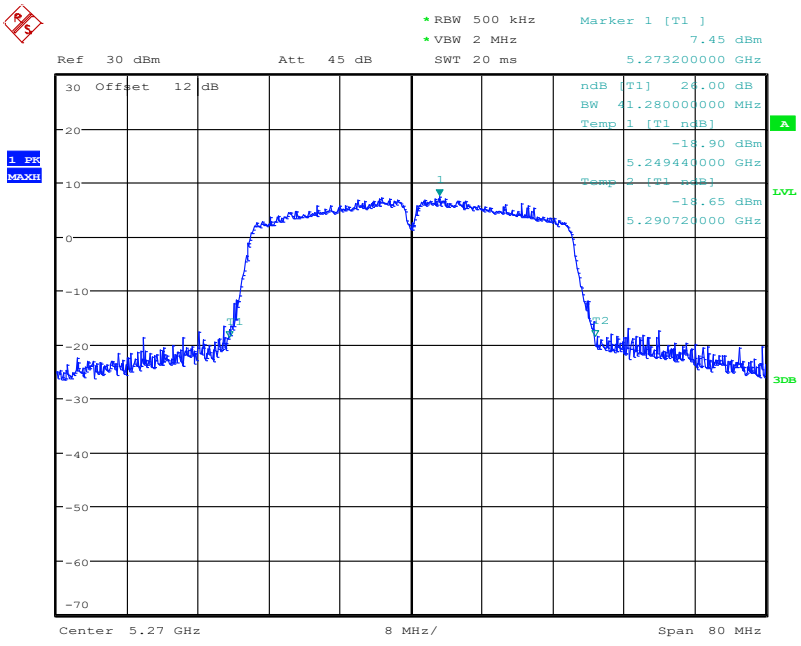


Fig.23 26dB Emission Bandwidth (802.11ac-VHT40, 5270MHz)

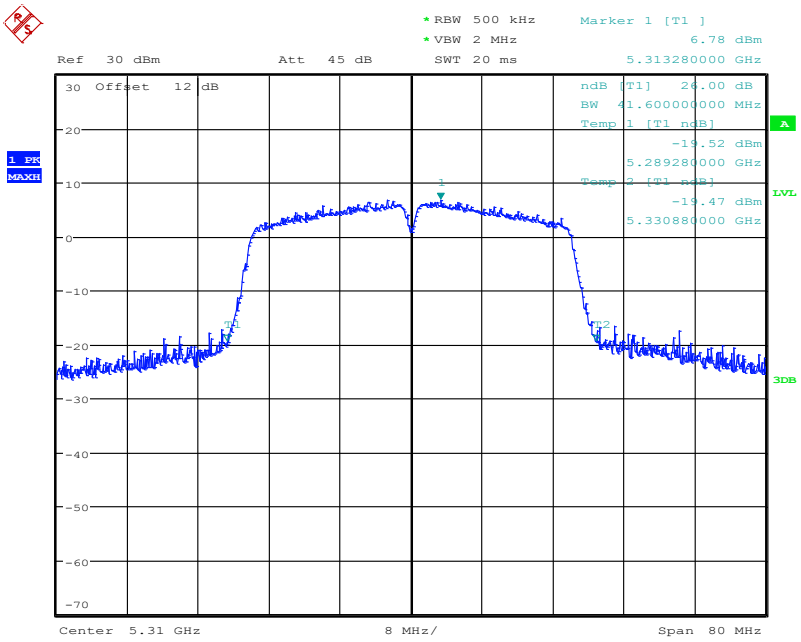


Fig.24 26dB Emission Bandwidth (802.11ac-VHT40, 5310MHz)

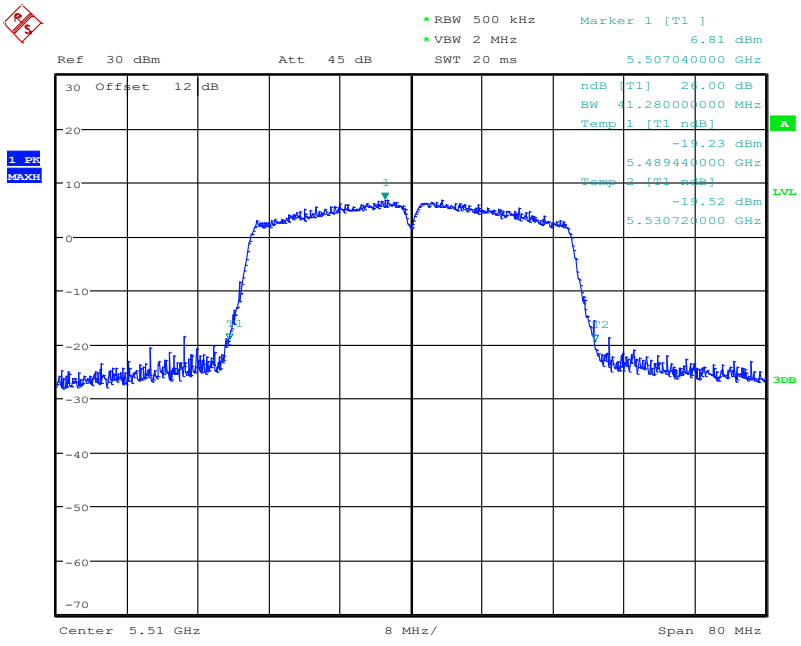


Fig.25 26dB Emission Bandwidth (802. 11ac-VHT40, 5510MHz)

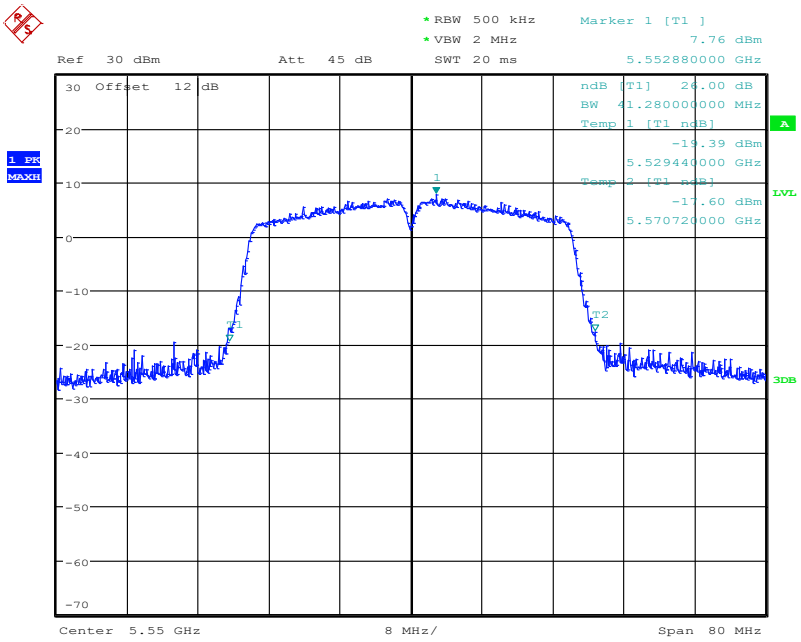


Fig.26 26dB Emission Bandwidth (802. 11ac-VHT40, 5550MHz)

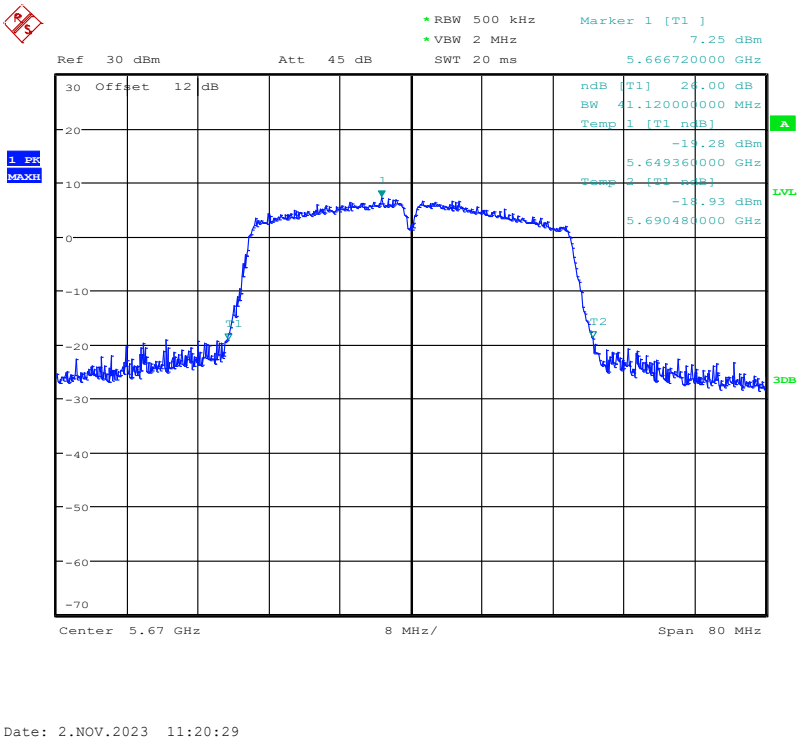


Fig.27 26dB Emission Bandwidth (802. 11ac-VHT40, 5670MHz)

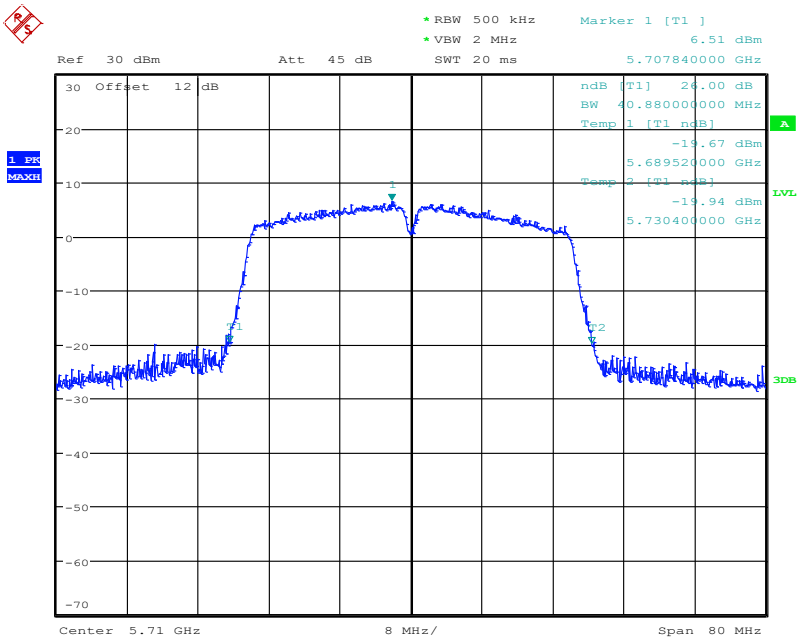


Fig.28 26dB Emission Bandwidth (802. 11ac-VHT40, 5710MHz)

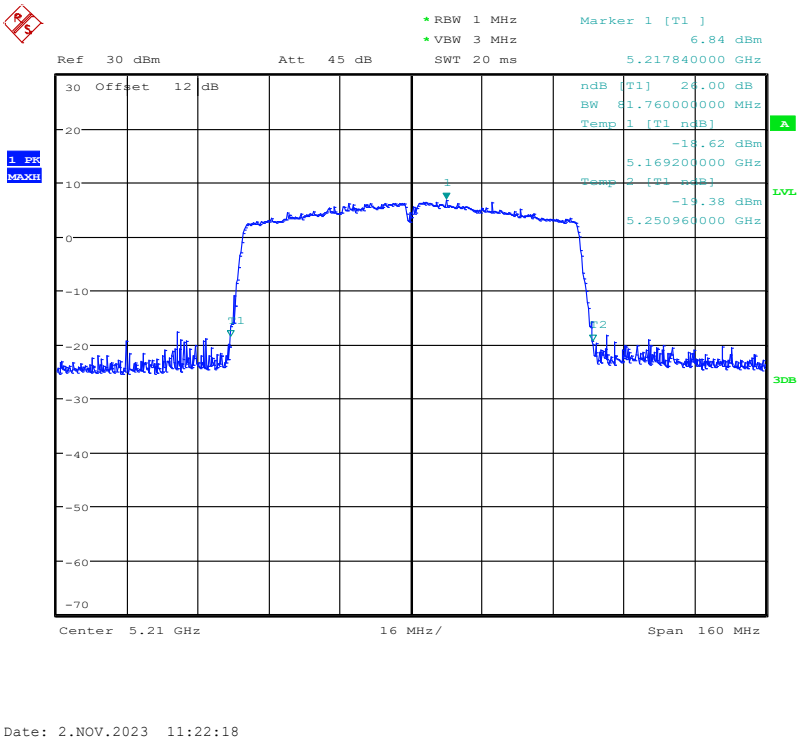


Fig.29 26dB Emission Bandwidth (802. 11ac-VHT80, 5210MHz)

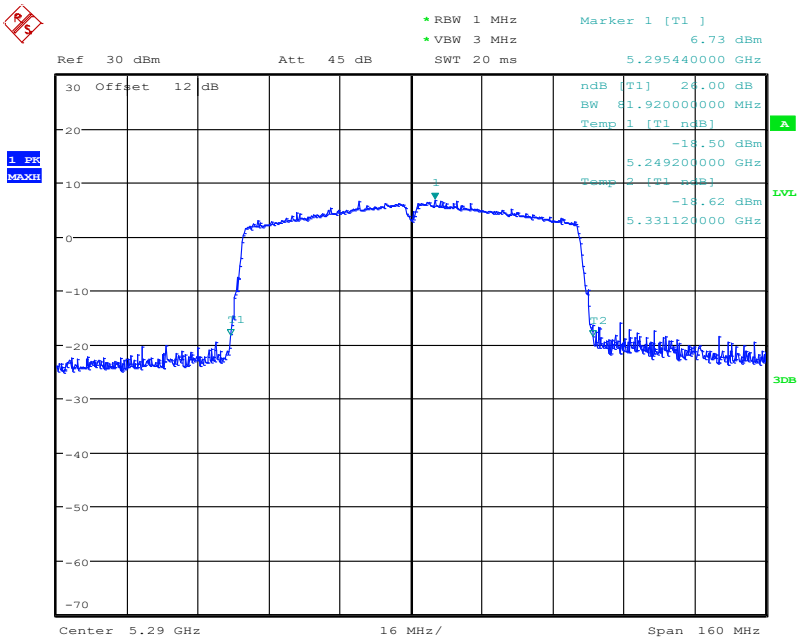


Fig.30 26dB Emission Bandwidth (802. 11ac-VHT80, 5290MHz)

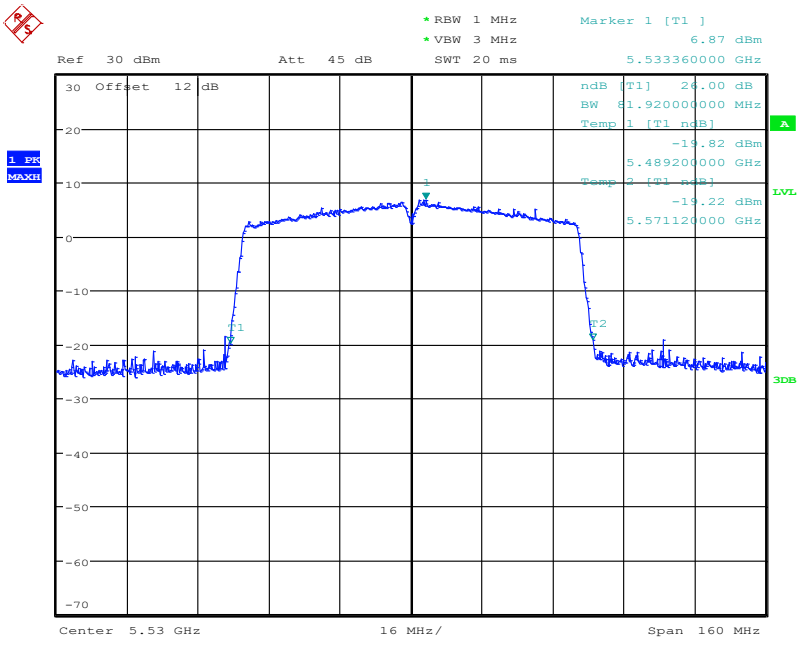


Fig.31 26dB Emission Bandwidth (802. 11ac-VHT80, 5530MHz)

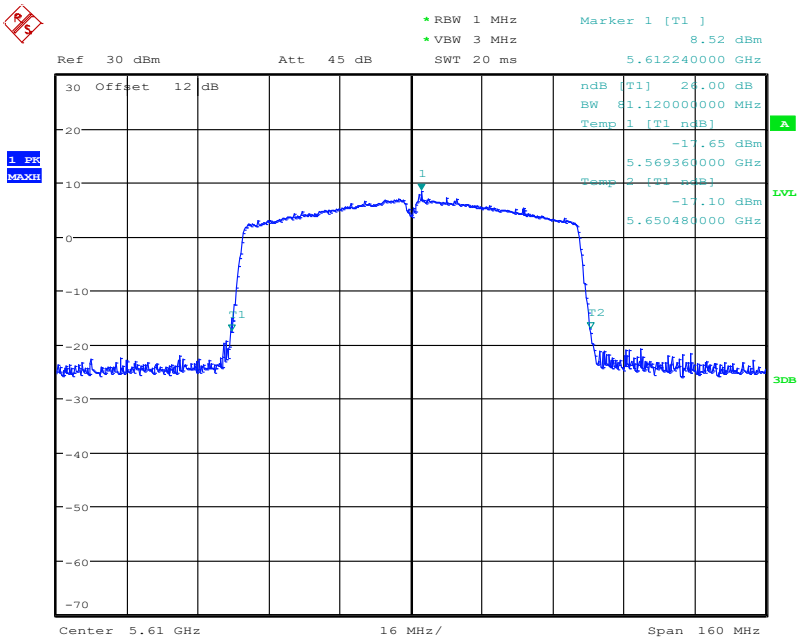


Fig.32 26dB Emission Bandwidth (802. 11ac-VHT80, 5610MHz)

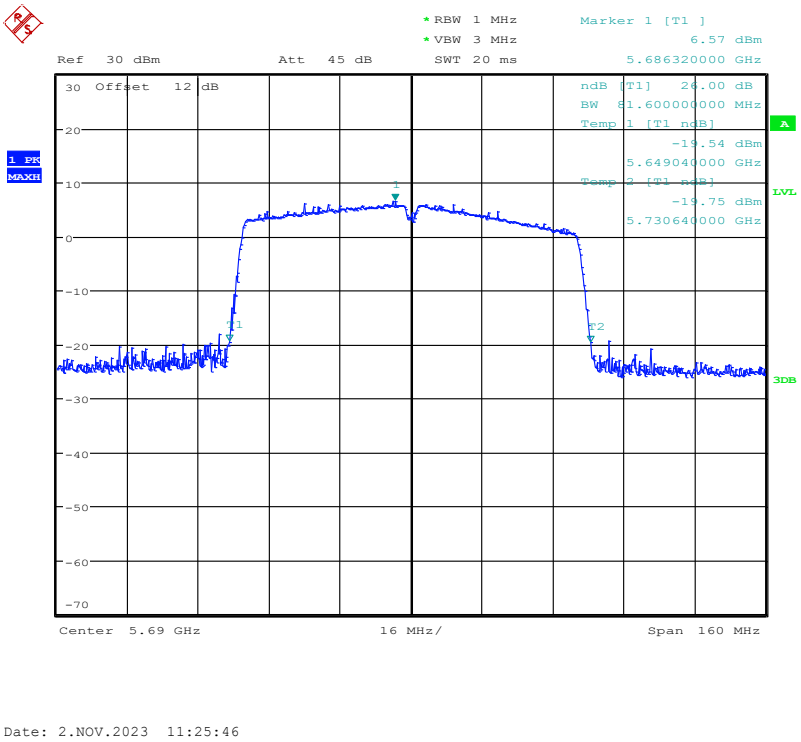


Fig.33 26dB Emission Bandwidth (802. 11ac-VHT80, 5690MHz)

Conclusion: PASS

A.5. Band Edges Compliance

A5.1 Band Edges - Radiated

Measurement Limit:

Standard	Limit (dB μ 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

Measurement Result:

Mode	Frequency	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
802.11ac HT20	5180 MHz	Fig.42	P
	5320 MHz	Fig.43	P
	5500 MHz	Fig.44	P
	5700 MHz	Fig.45	P
802.11n HT40	5190 MHz	Fig.46	P
	5310 MHz	Fig.47	P
	5510 MHz	Fig.48	P
	5670 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:

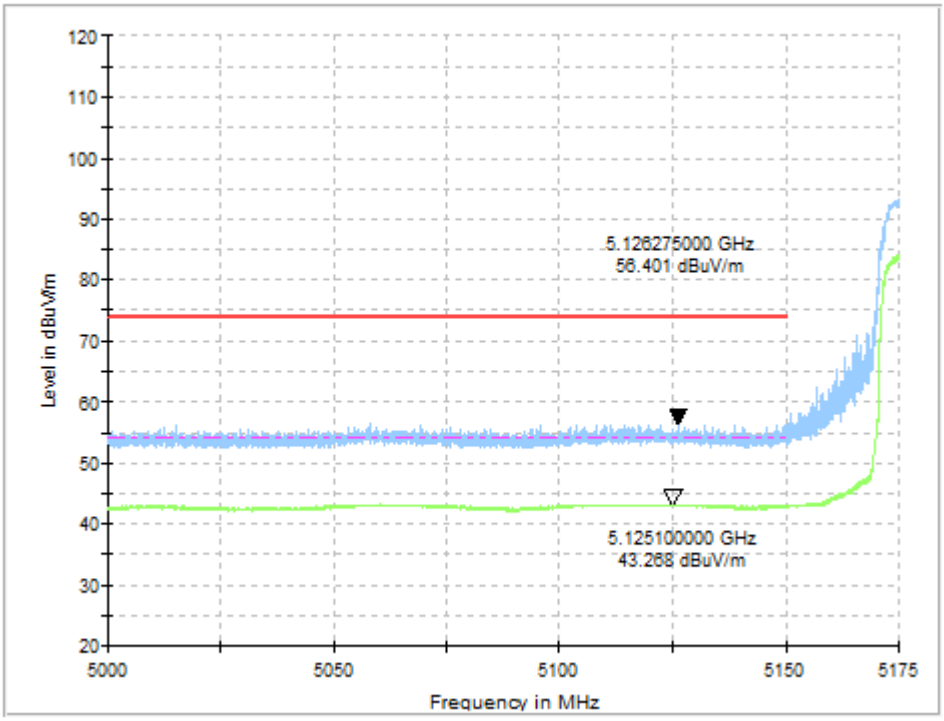


Fig. 34 Band Edges (802.11a Ch36, 5180MHz)

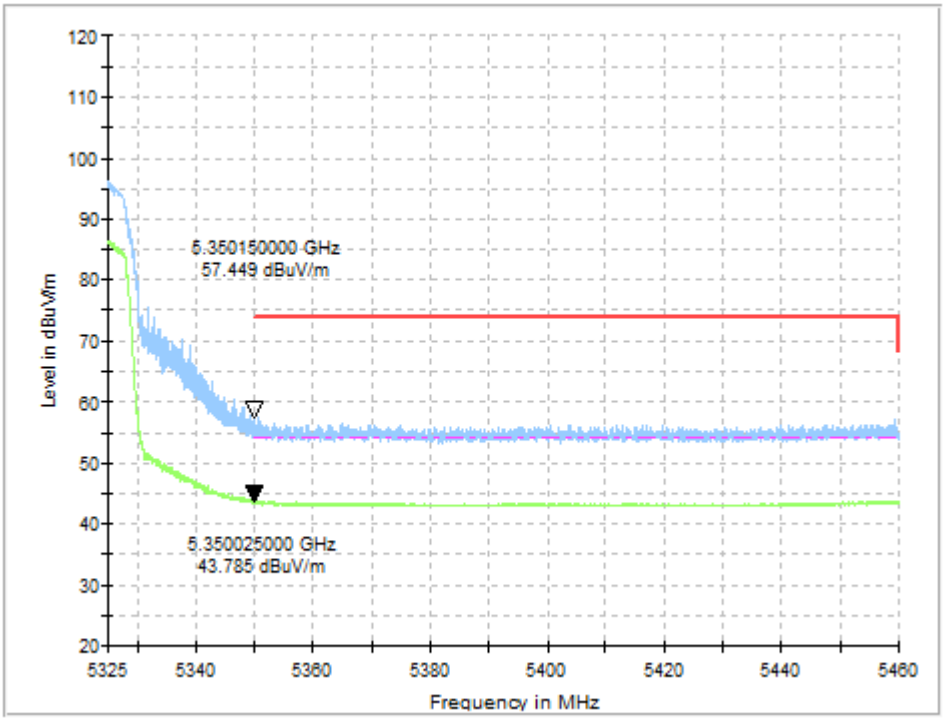


Fig. 35 Band Edges (802.11a Ch64, 5320MHz)

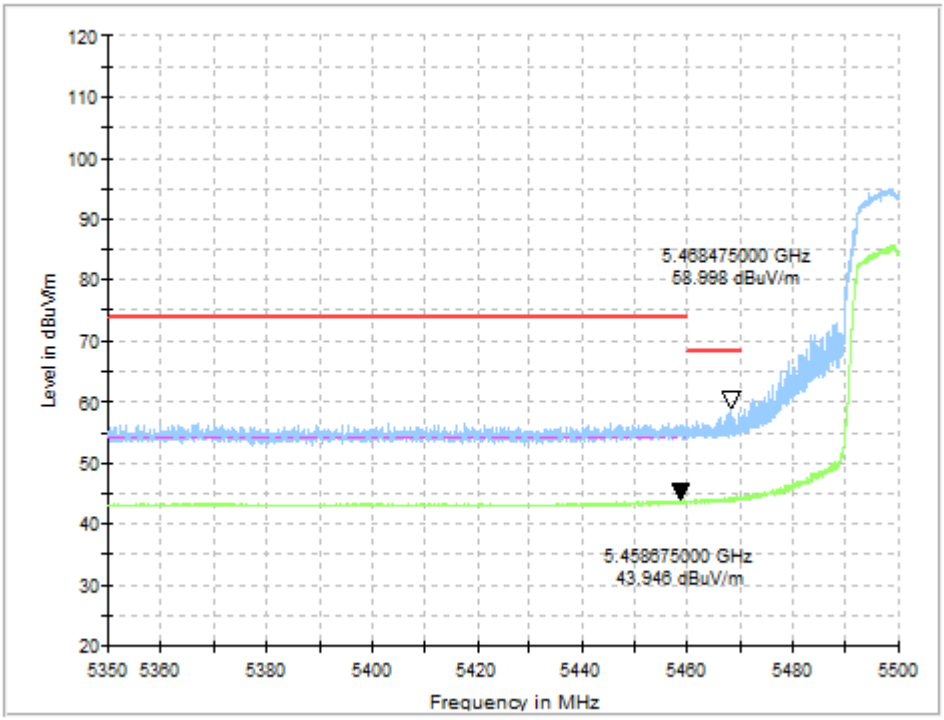


Fig. 36 Band Edges (802.11a Ch100, 5500MHz)

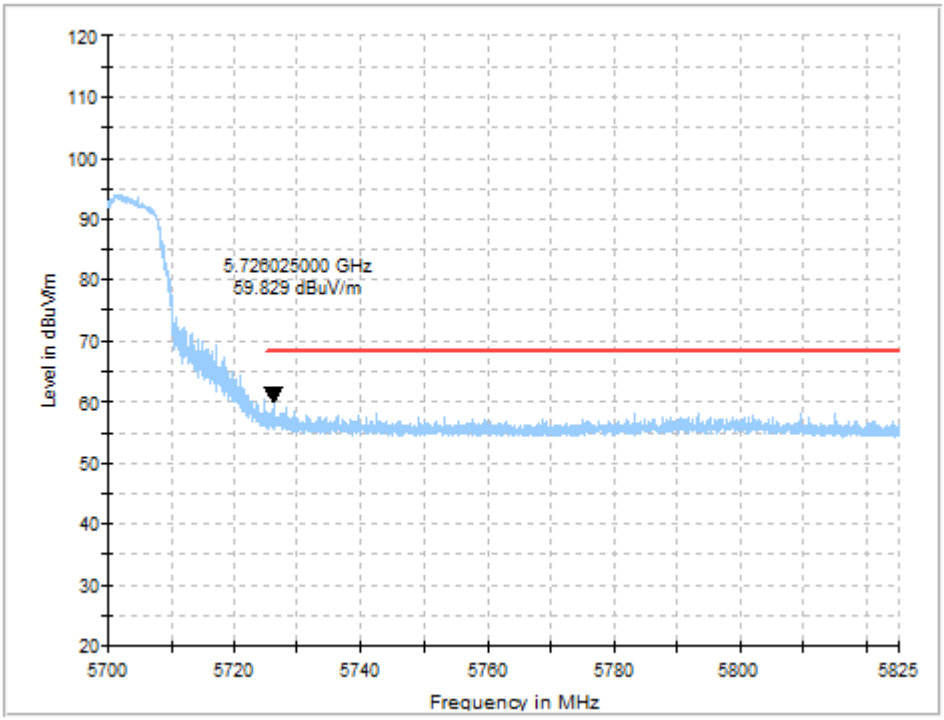


Fig. 37 Band Edges (802.11a Ch140, 5700MHz)

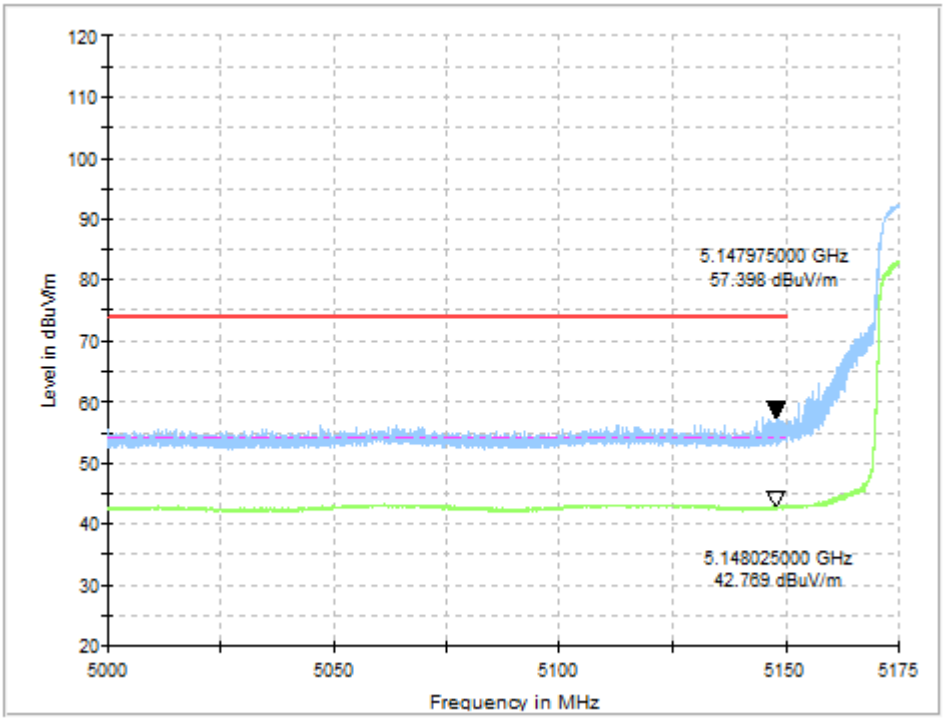


Fig. 38 Band Edges (802.11n-HT20 Ch36, 5180MHz)

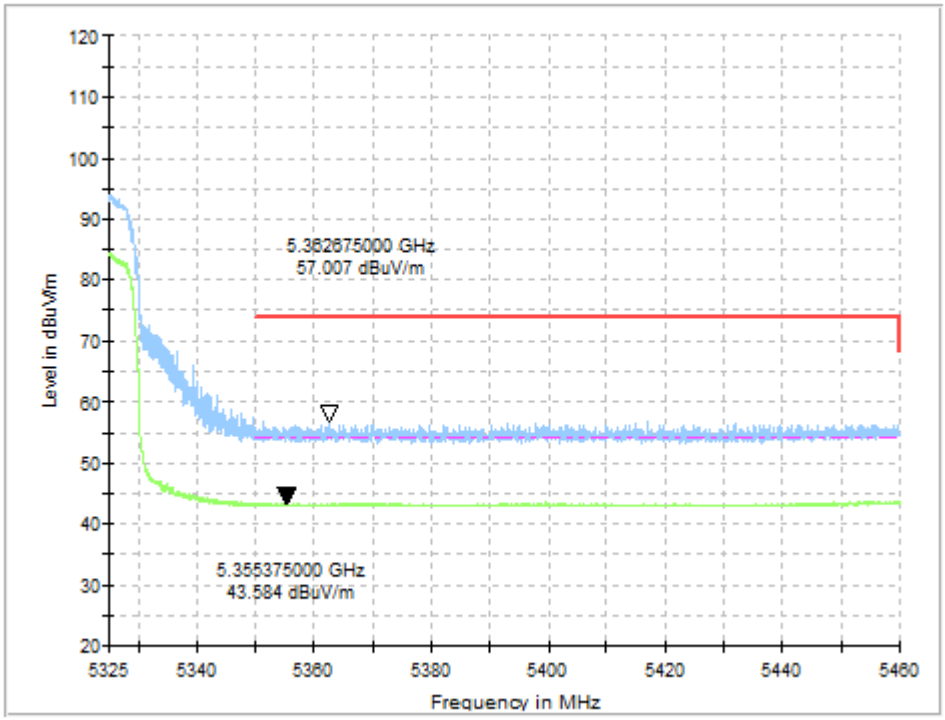


Fig. 39 Band Edges (802.11n-HT20 Ch64, 5320MHz)

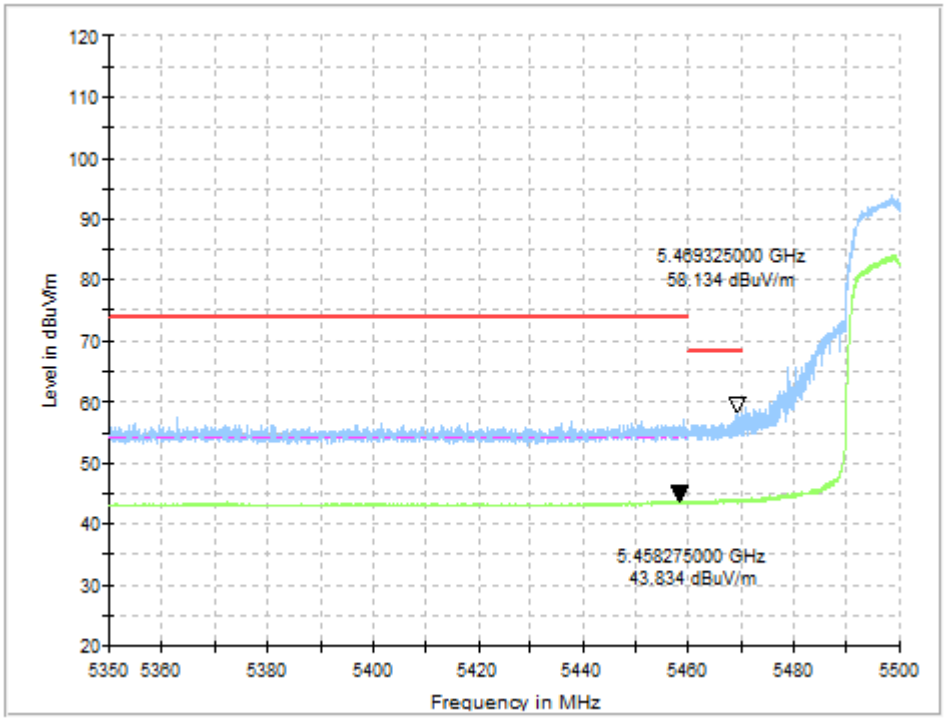


Fig. 40 Band Edges (802.11n-HT20 Ch100, 5500MHz)

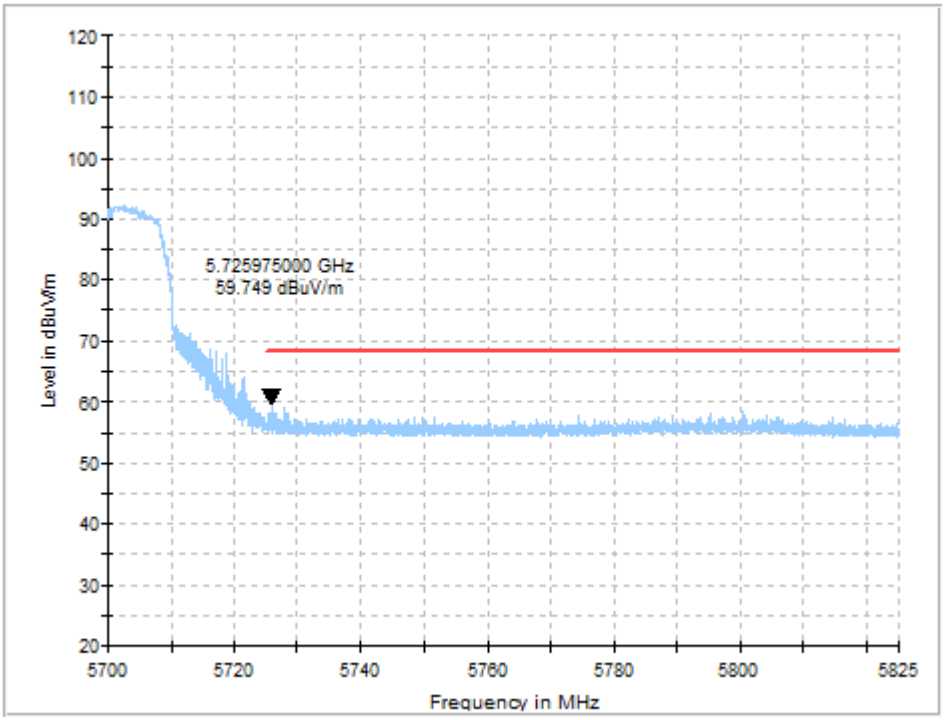


Fig. 41 Band Edges (802.11n-HT20 Ch140, 5700MHz)

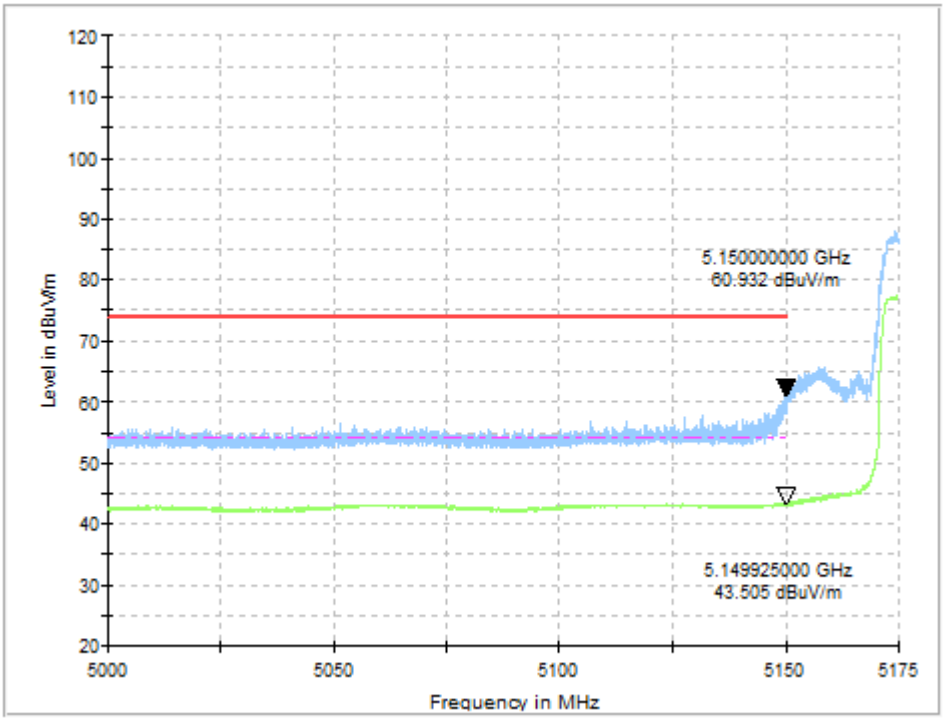


Fig. 42 Band Edges (802.11n-HT40 Ch38, 5190MHz)

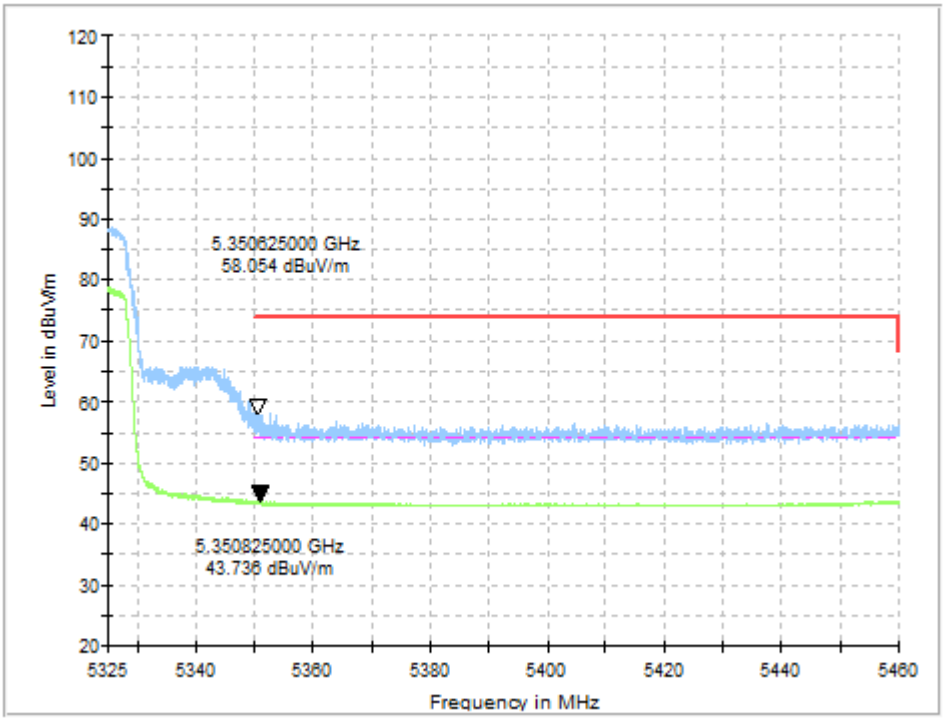


Fig. 43 Band Edges (802.11n-HT40 Ch62, 5310MHz)

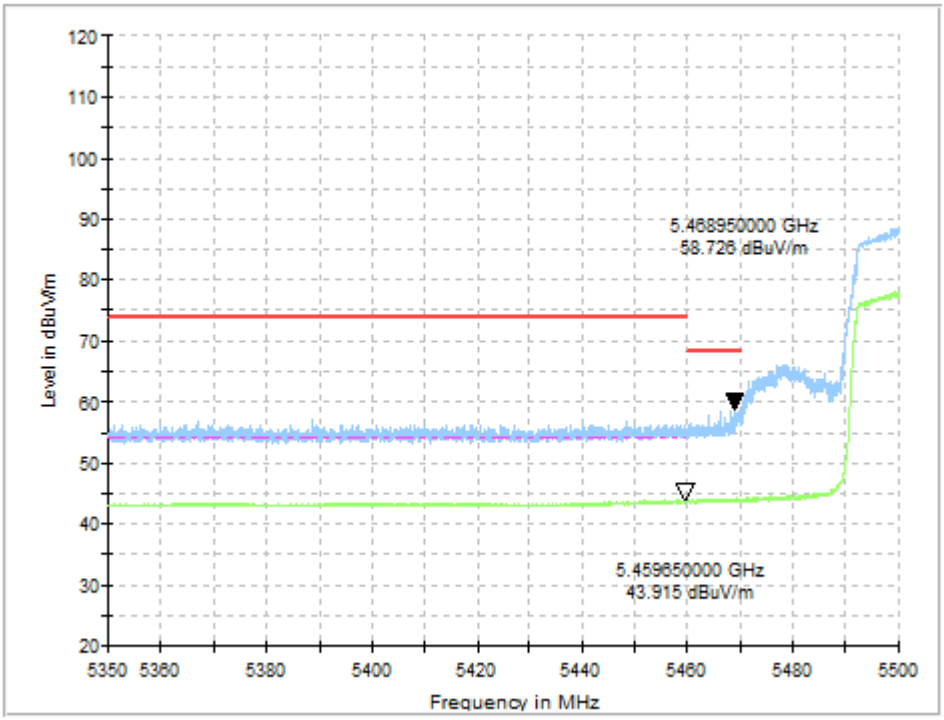


Fig. 44 Band Edges (802.11n-HT40 Ch102, 5510MHz)

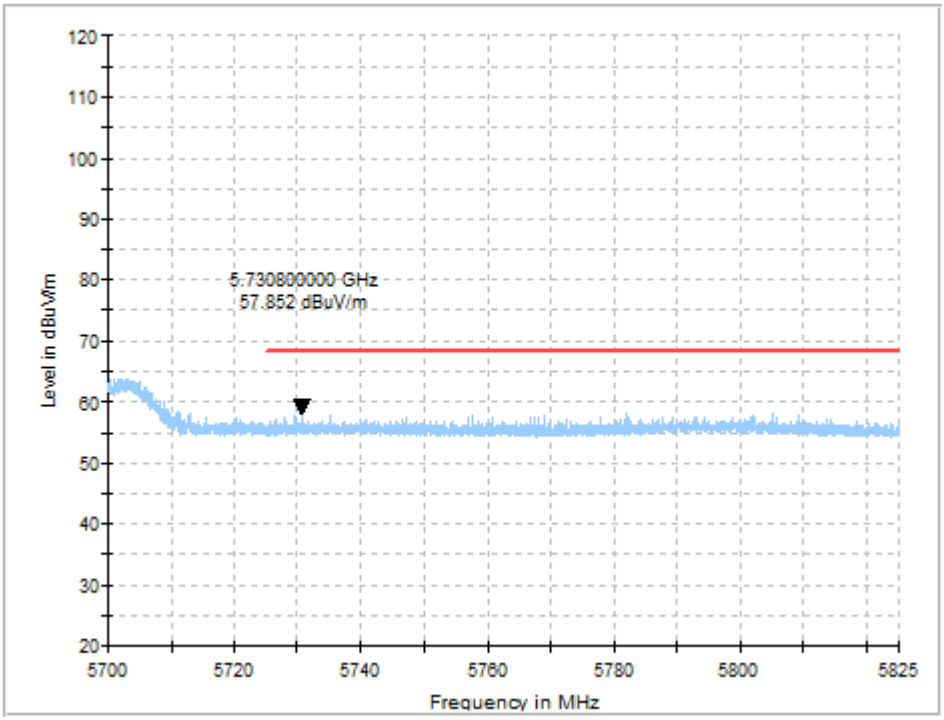


Fig. 45 Band Edges (802.11n-HT40 Ch134, 5670MHz)

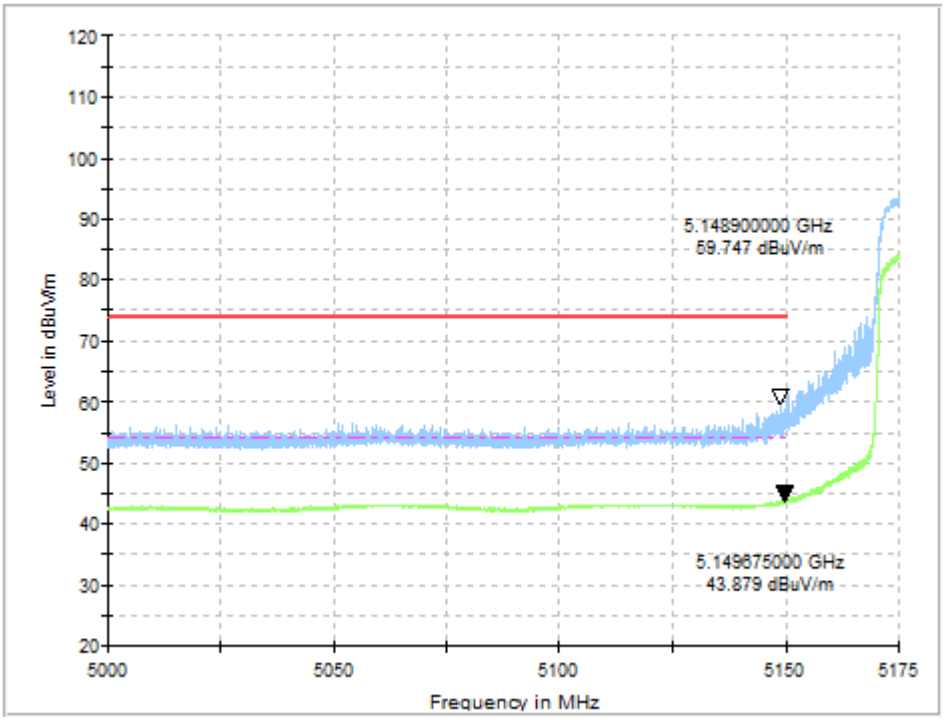


Fig. 46 Band Edges (802.11ac-HT20 Ch36, 5180MHz)

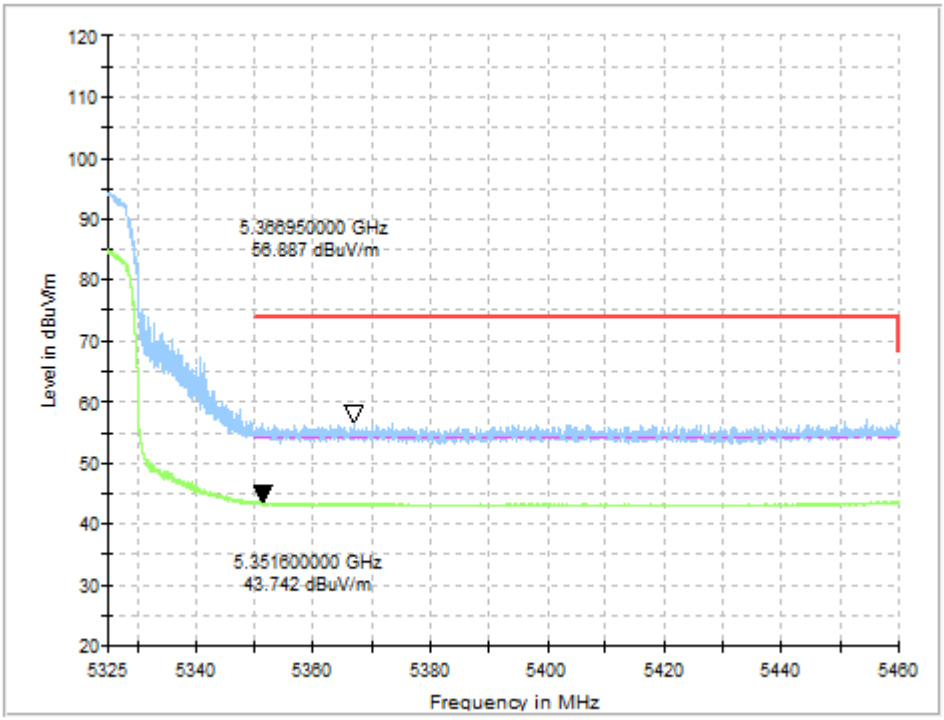


Fig. 47 Band Edges (802.11ac-HT20 Ch64, 5320MHz)

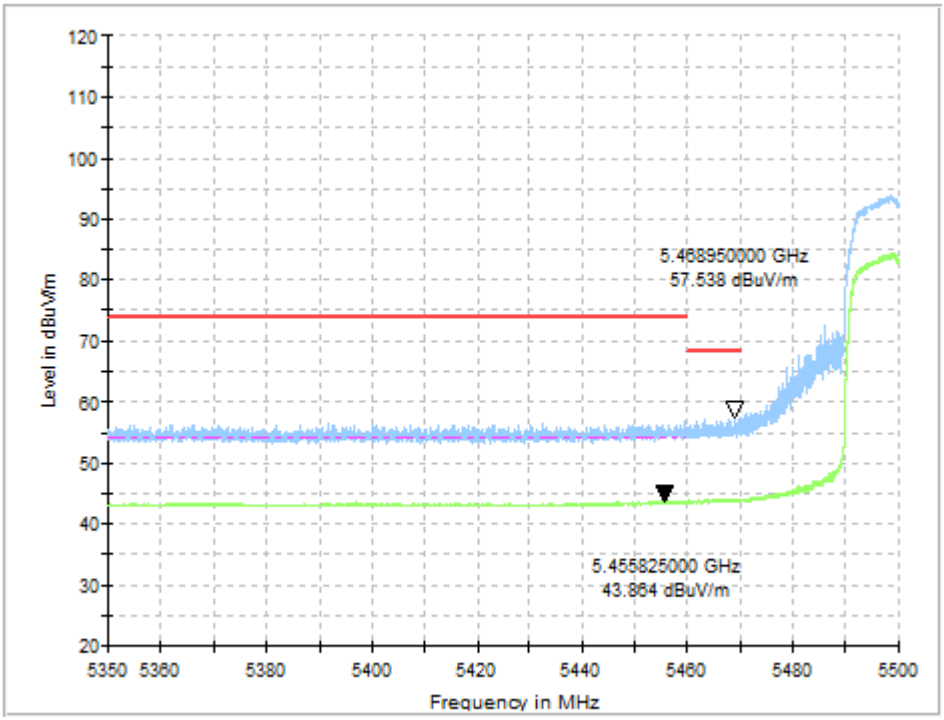


Fig. 48 Band Edges (802.11ac-HT20 Ch100, 5500MHz)

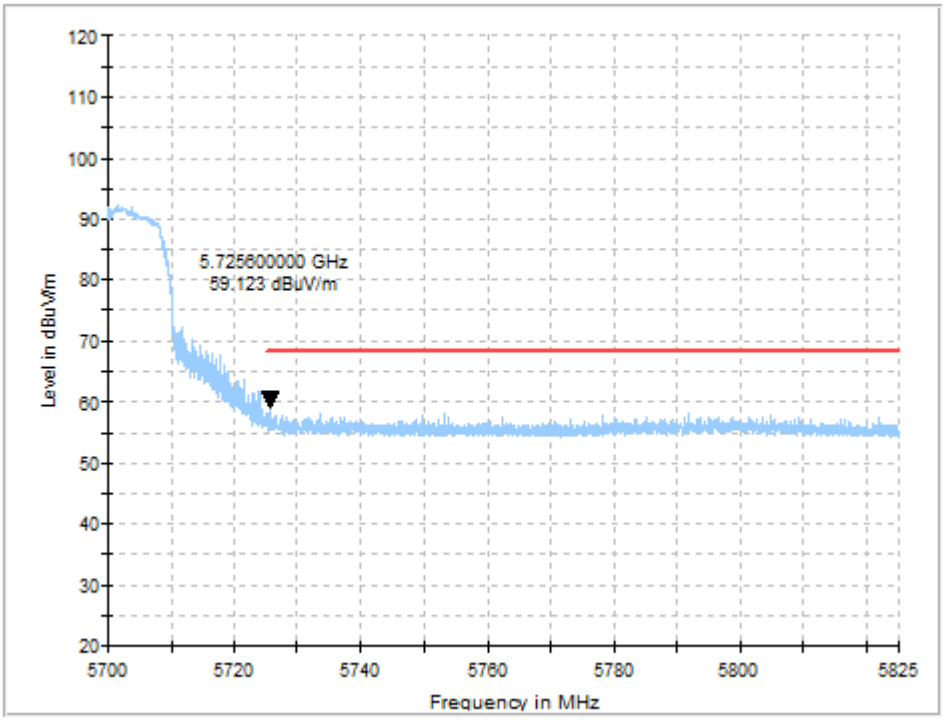


Fig. 49 Band Edges (802.11ac-HT20 Ch140, 5700MHz)

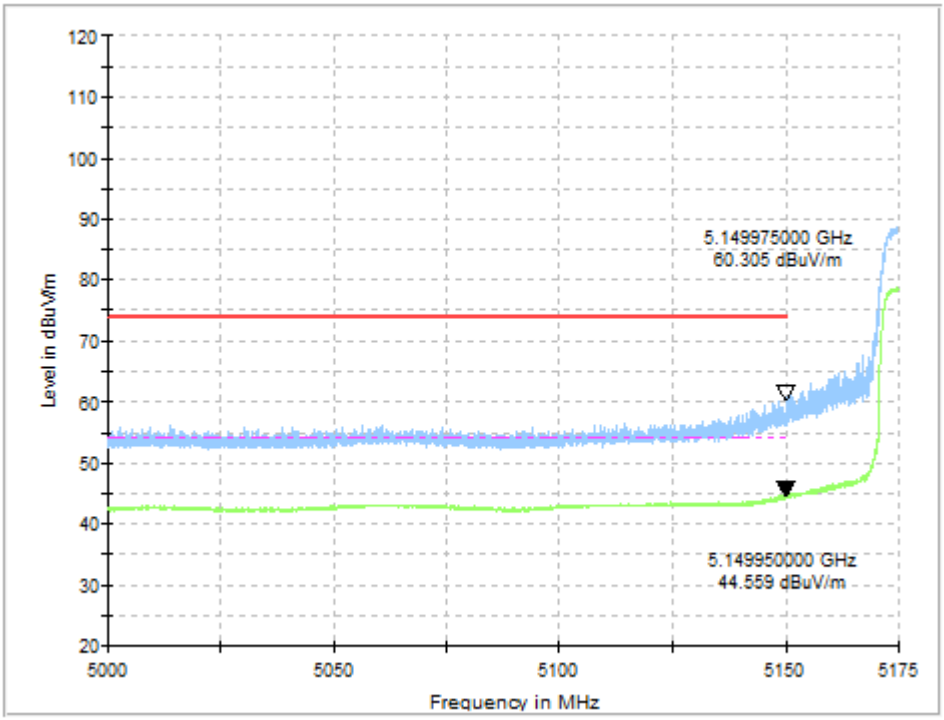


Fig. 50 Band Edges (802.11ac-HT40 Ch38, 5190MHz)

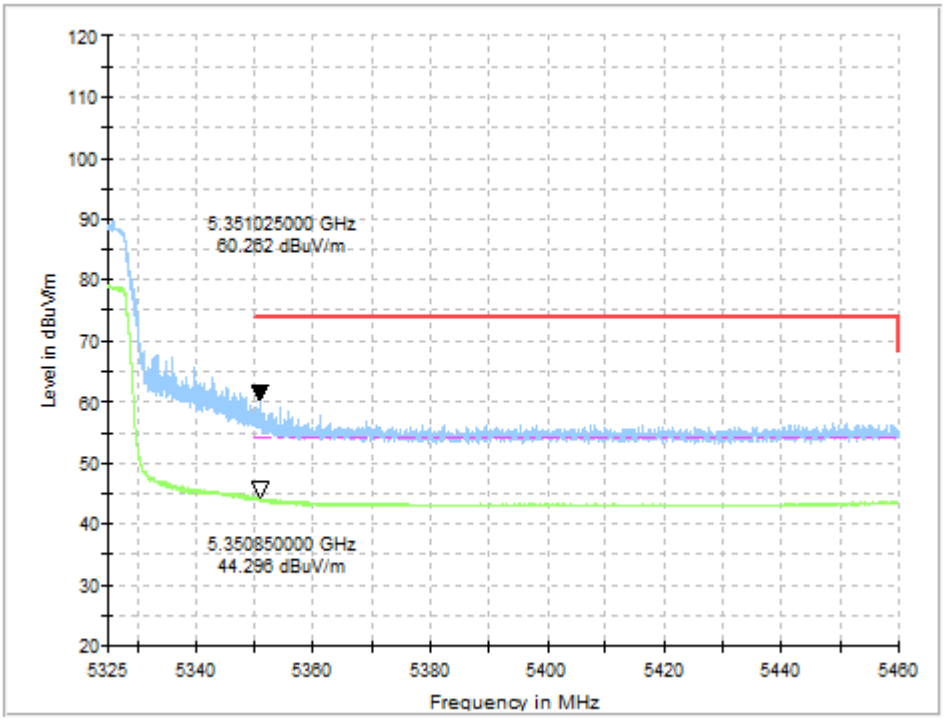


Fig. 51 Band Edges (802.11ac-HT40 Ch62, 5310MHz)

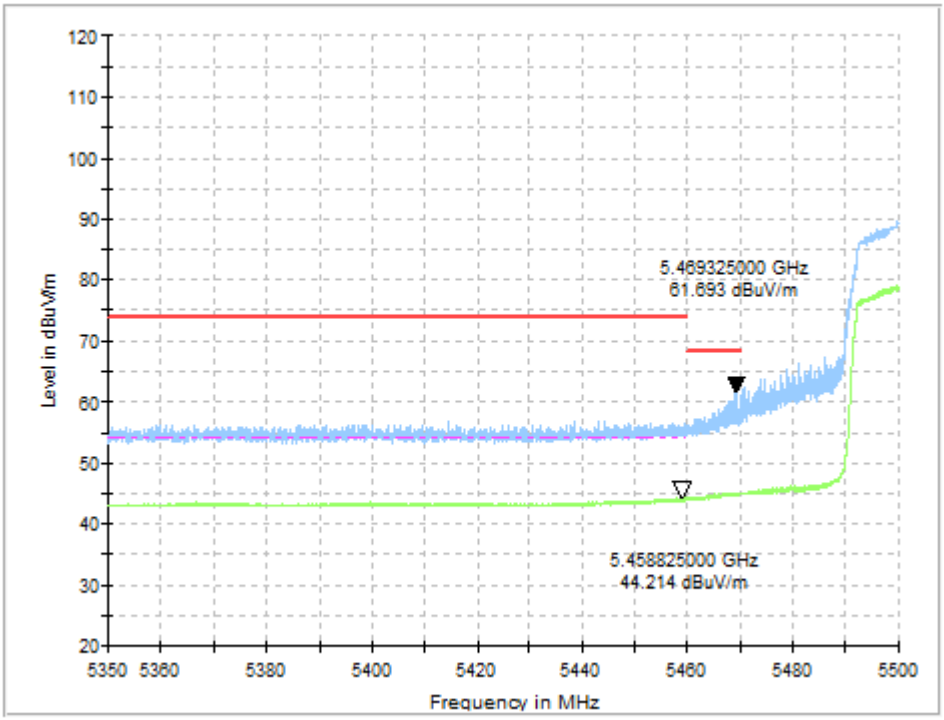


Fig. 52 Band Edges (802.11ac-HT40 Ch102, 5510MHz)

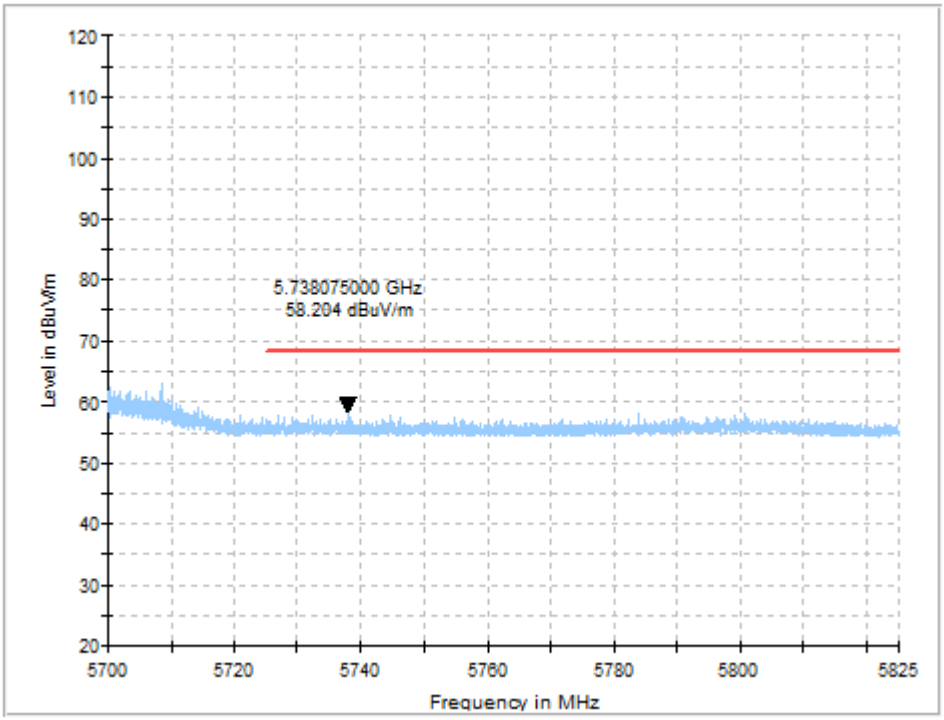


Fig. 53 Band Edges (802.11ac-HT40 Ch134, 5670MHz)

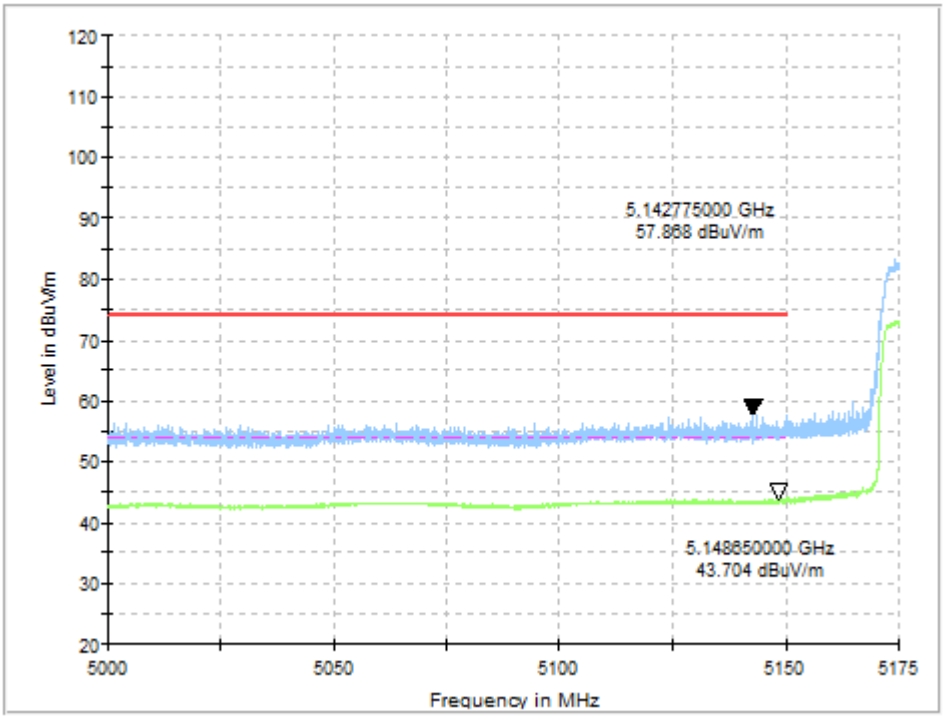


Fig. 54 Band Edges (802.11ac-HT80 Ch42 , 5210MHz)

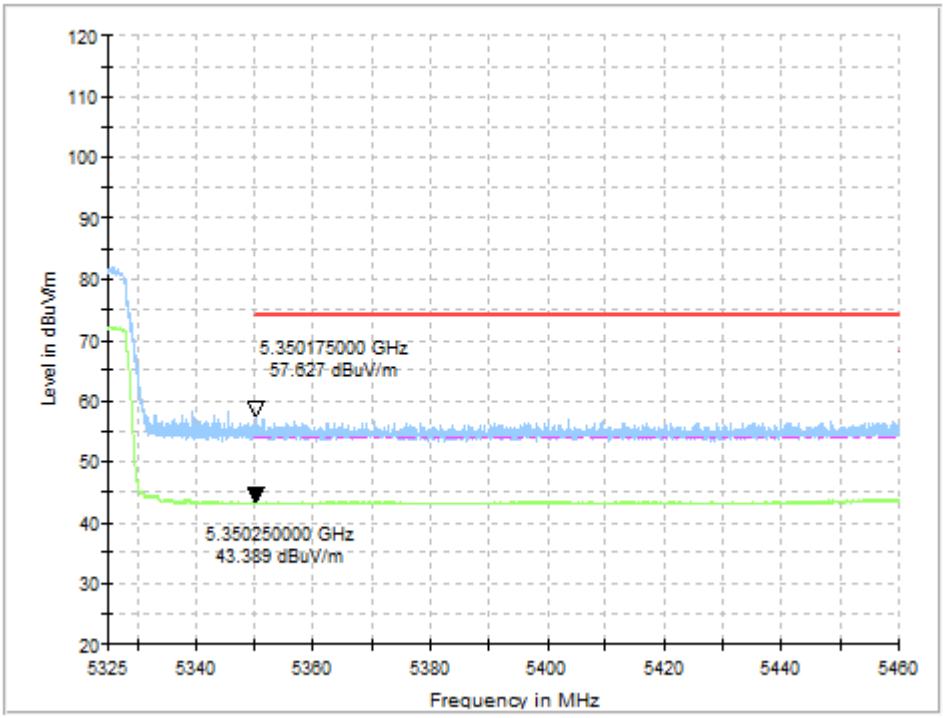


Fig. 55 Band Edges (802.11ac-HT80 Ch58, 5290MHz)

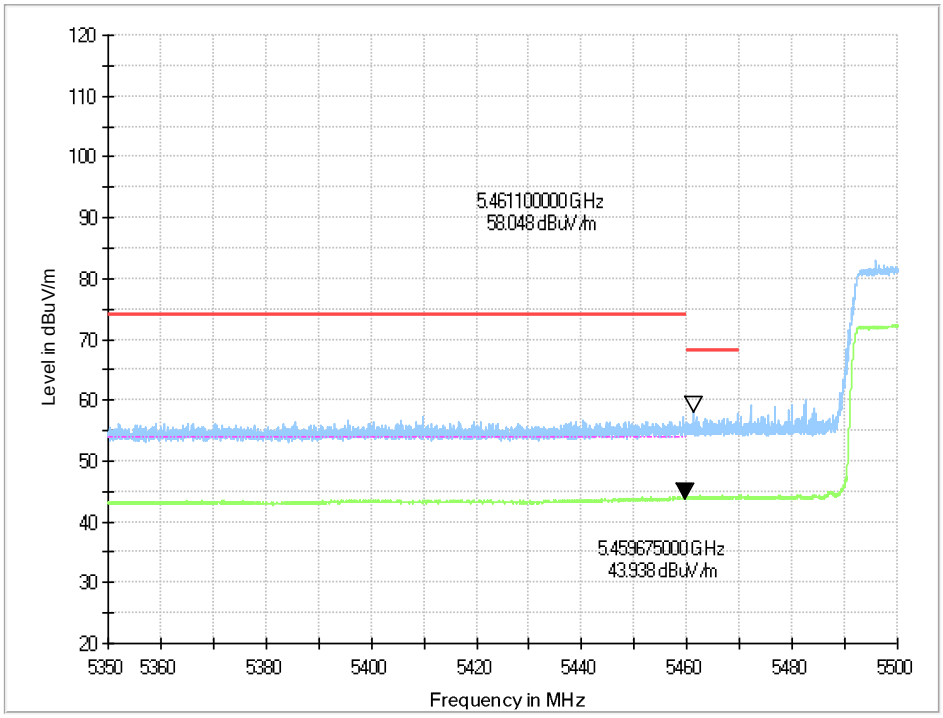


Fig. 56 Band Edges (802.11ac-HT80 Ch106, 5530MHz)

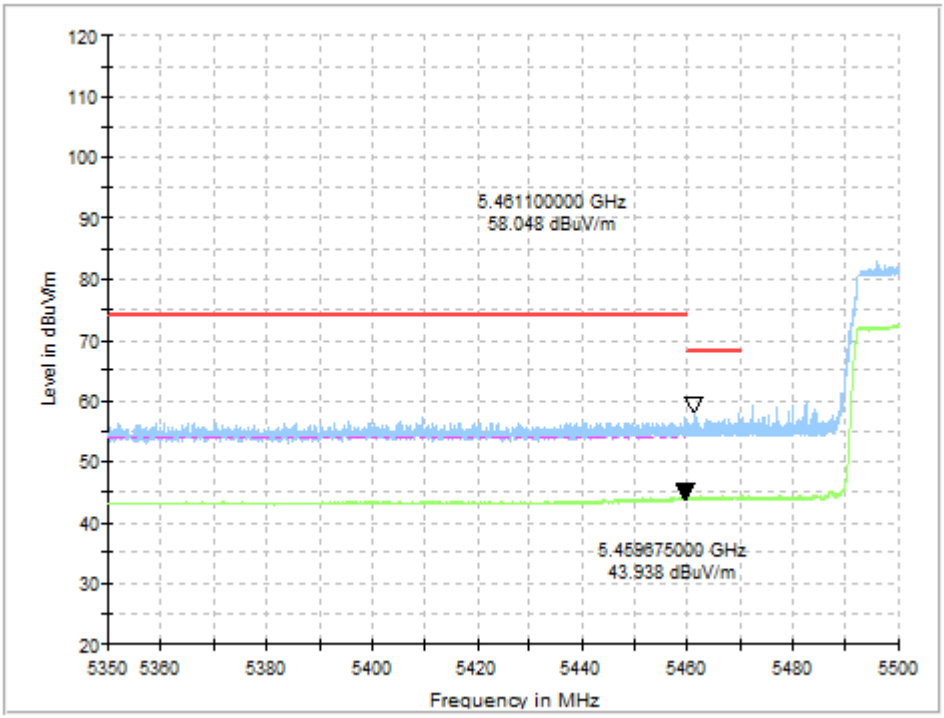


Fig. 57 Band Edges (802.11ac-HT80 Ch122, 5610MHz)

A.6. Transmitter Spurious Emission

Measurement Limit:

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

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

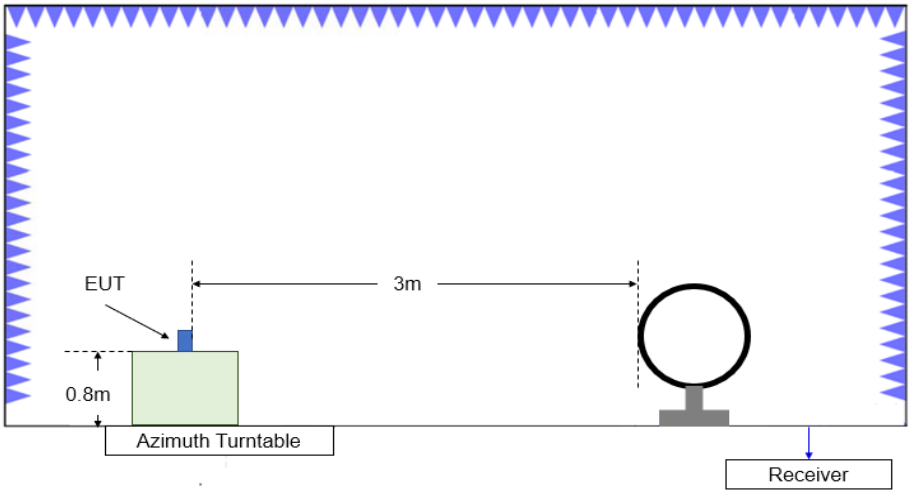
Note: for frequency range below 960MHz, the limit in 15.209 is defined in 10m test distance. The limit used above is calculated from 10m to 3m

Test Condition

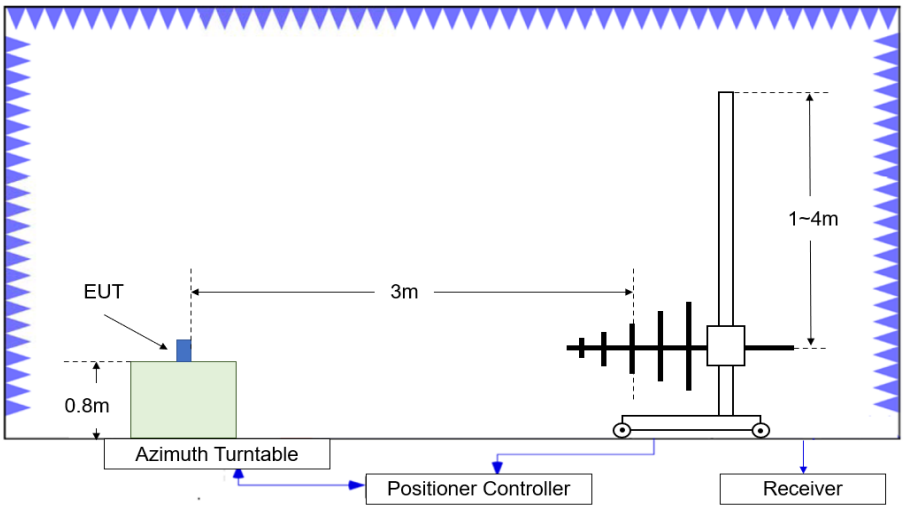
The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100KHz/300KHz	5
1000-4000	1MHz/3MHz	15
4000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

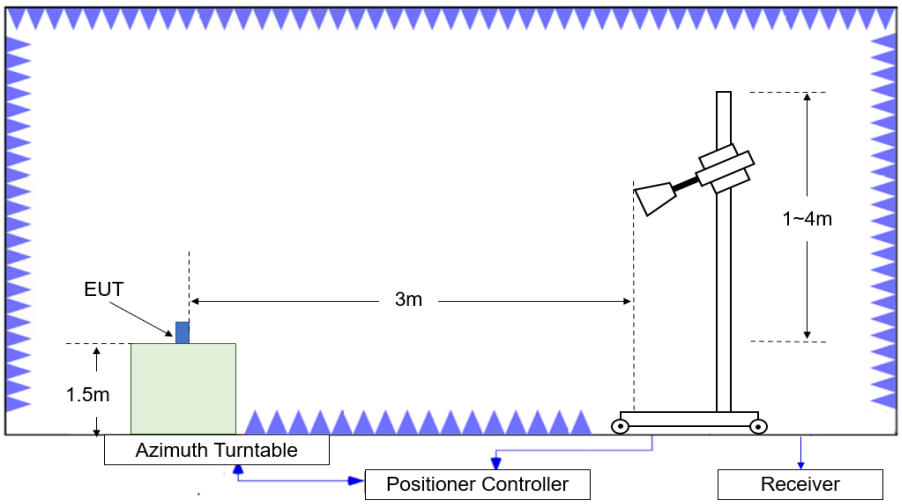
Test setup



Test Site Diagram (9kHz-30MHz)



Test Site Diagram (30MHz-1GHz)



Test Site Diagram (1GHz-40GHz)

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:

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

Test note

1. Investigation has been done on all modes and modulations/data rates. In total, three EUT elevation positions are measured. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

2. Spurious emissions for all channels were investigated and almost the same below 1GHz. According to FCC 47 CFR §15.31, emission levels are not report much lower than the limit by over 20dB

3. Measurement frequencies were performed from 9 kHz to the 10^{th} harmonic of highest fundamental frequency or 40GHz, whichever is lower.

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)
5119.200	42.42	-22.91	32.84	32.50	54.00	11.58	V
5128.400	42.31	-23.20	32.86	32.65	54.00	11.69	H
11854.000	36.07	-29.18	38.80	26.45	54.00	17.93	V
15540.000	35.09	-25.73	38.50	22.32	54.00	18.91	H
17927.500	39.75	-24.15	41.76	22.15	54.00	14.25	H
17992.000	40.05	-24.29	41.88	22.46	54.00	13.95	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)
5127.600	42.21	-23.17	32.86	32.53	54.00	11.79	V
5133.200	42.15	-23.37	32.87	32.65	54.00	11.85	H
11851.500	36.17	-29.14	38.80	26.51	54.00	17.83	H
15600.000	35.12	-25.40	38.50	22.01	54.00	18.88	V
17960.000	40.02	-24.20	41.82	22.39	54.00	13.98	H
17987.500	40.05	-24.28	41.88	22.46	54.00	13.95	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)
5364.800	42.43	-23.27	33.16	32.54	54.00	11.57	V
5371.200	42.52	-23.27	33.19	32.60	54.00	11.48	H
11865.500	36.10	-29.37	38.80	26.67	54.00	17.90	H
15720.000	34.66	-25.72	38.60	21.78	54.00	19.34	V
17801.500	39.66	-23.87	41.70	21.83	54.00	14.34	V
17991.500	39.97	-24.29	41.88	22.38	54.00	14.03	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)
5125.200	42.44	-23.09	32.85	32.67	54.00	11.56	H
5130.800	42.13	-23.28	32.86	32.55	54.00	11.87	V
10786.000	35.07	-30.59	38.70	26.96	54.00	18.93	V
15780.000	36.39	-25.53	38.60	23.32	54.00	17.61	H
17772.000	40.14	-24.02	41.73	22.43	54.00	13.86	H
17879.500	39.82	-24.17	41.70	22.29	54.00	14.18	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)
5355.200	42.39	-23.32	33.12	32.58	54.00	11.61	V
5364.000	42.46	-23.27	33.16	32.57	54.00	11.54	H
10732.000	34.38	-30.54	38.70	26.22	54.00	19.62	H
15840.000	36.16	-25.40	38.64	22.92	54.00	17.84	V
17834.500	39.54	-24.10	41.70	21.94	54.00	14.46	V
17907.000	39.66	-24.14	41.71	22.08	54.00	14.34	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)
5364.000	42.42	-23.27	33.16	32.54	54.00	11.58	V
5368.400	42.50	-23.26	33.17	32.59	54.00	11.50	H
10675.500	36.01	-30.18	38.70	27.50	54.00	17.99	V
15960.000	35.91	-25.25	38.82	22.35	54.00	18.09	H
17839.500	39.26	-24.14	41.70	21.70	54.00	14.74	V
17908.500	39.30	-24.14	41.72	21.73	54.00	14.70	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)
5457.200	42.61	-22.97	33.61	31.97	54.00	11.39	V
5458.800	42.69	-22.95	33.62	32.01	54.00	11.31	H
11000.000	34.99	-30.50	38.60	26.88	54.00	19.01	V
16187.000	35.14	-24.97	39.29	20.83	54.00	18.86	V
17897.500	39.38	-24.14	41.70	21.82	54.00	14.62	V
17945.500	39.55	-24.16	41.79	21.92	54.00	14.45	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)
5454.400	42.64	-23.02	33.61	32.05	48.30	5.66	H
5456.400	42.67	-22.99	33.61	32.04	48.30	5.63	H
11400.000	35.12	-29.02	38.80	25.34	48.30	13.18	H
17775.000	39.35	-24.01	41.72	21.63	48.30	8.95	V
17855.500	39.03	-24.20	41.70	21.53	48.30	9.27	H
17938.500	39.37	-24.16	41.78	21.75	48.30	8.93	V

Channel 144

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)
5456.400	42.73	-22.99	33.61	32.11	54.00	11.27	H
5458.400	42.83	-22.95	33.62	32.16	54.00	11.17	V
11440.000	34.95	-29.84	38.88	25.91	54.00	19.05	H
17693.000	39.47	-23.91	41.81	21.57	54.00	14.53	H
17824.000	39.60	-24.03	41.70	21.93	54.00	14.40	V
17981.500	39.95	-24.26	41.86	22.35	54.00	14.05	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)
5112.000	42.41	-22.96	32.82	32.54	54.00	11.59	H
5116.000	42.42	-22.93	32.83	32.52	54.00	11.58	V
11861.000	35.94	-29.29	38.80	26.43	54.00	18.06	H
15540.000	34.98	-25.73	38.50	22.21	54.00	19.02	V
17931.000	39.82	-24.15	41.76	22.21	54.00	14.18	V
17984.500	39.89	-24.27	41.87	22.30	54.00	14.11	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)
5120.800	42.48	-22.93	32.84	32.58	54.00	11.52	V
5133.600	42.12	-23.38	32.87	32.64	54.00	11.88	H
11850.500	36.20	-29.13	38.80	26.52	54.00	17.80	H
15600.000	35.04	-25.40	38.50	21.94	54.00	18.96	H
17959.000	39.98	-24.19	41.82	22.36	54.00	14.02	V
17991.500	39.98	-24.29	41.88	22.39	54.00	14.02	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)
5369.200	42.45	-23.26	33.18	32.53	54.00	11.55	V
5371.200	42.56	-23.27	33.19	32.64	54.00	11.44	V
11858.500	36.01	-29.25	38.80	26.47	54.00	17.99	V
15720.000	34.56	-25.72	38.60	21.69	54.00	19.44	V
17955.000	39.98	-24.18	41.81	22.35	54.00	14.02	H
17988.000	40.12	-24.28	41.88	22.53	54.00	13.88	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)
5124.000	42.37	-23.05	32.85	32.56	54.00	11.63	V
5127.200	42.26	-23.16	32.85	32.57	54.00	11.74	V
10704.000	34.41	-30.46	38.70	26.16	54.00	19.59	H
15780.000	35.47	-25.53	38.60	22.40	54.00	18.53	V
17807.500	39.55	-23.91	41.70	21.76	54.00	14.45	H
17913.500	39.59	-24.14	41.73	22.00	54.00	14.41	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)
5358.000	42.24	-23.29	33.13	32.40	54.00	11.76	V
5367.200	42.48	-23.26	33.17	32.57	54.00	11.52	V
10672.500	35.18	-30.15	38.70	26.63	54.00	18.82	V
15840.000	35.86	-25.40	38.64	22.61	54.00	18.14	V
17801.000	39.09	-23.86	41.70	21.25	54.00	14.91	V
17875.500	39.32	-24.17	41.70	21.79	54.00	14.68	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)
5360.000	42.45	-23.28	33.14	32.59	54.00	11.55	H
5369.200	42.50	-23.26	33.18	32.58	54.00	11.50	V
10640.000	34.11	-29.99	38.70	25.40	54.00	19.89	V
15960.000	35.93	-25.25	38.82	22.36	54.00	18.07	H
17768.500	39.62	-24.04	41.73	21.93	54.00	14.38	V
17860.500	39.32	-24.20	41.70	21.82	54.00	14.68	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)
5468.000	42.62	-22.93	33.64	31.92	54.00	11.38	V
5459.200	42.68	-22.94	33.62	32.00	54.00	11.32	H
11000.000	35.13	-30.50	38.60	27.03	54.00	18.87	H
16172.000	35.34	-24.99	39.27	21.05	54.00	18.66	H
17785.500	36.53	-23.94	41.71	18.75	54.00	17.47	H
17935.500	39.57	-24.16	41.77	21.96	54.00	14.43	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)
5457.200	42.64	-22.97	33.61	32.00	54.00	11.36	V
5459.200	42.65	-22.94	33.62	31.97	54.00	11.35	V
11400.000	35.15	-29.02	38.80	25.37	54.00	18.85	V
15850.500	35.94	-25.35	38.65	22.64	54.00	18.06	V
17954.000	39.84	-24.18	41.81	22.21	54.00	14.16	V
17986.500	39.91	-24.28	41.87	22.32	54.00	14.09	H

Channel 144

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)
5454.800	42.78	-23.01	33.61	32.19	54.00	11.22	H
5459.200	42.81	-22.94	33.62	32.13	54.00	11.19	V
11440.000	34.87	-29.84	38.88	25.83	54.00	19.13	H
17744.500	39.28	-24.13	41.76	21.66	54.00	14.72	V
17849.500	39.11	-24.21	41.70	21.62	54.00	14.89	H
17936.500	39.56	-24.16	41.77	21.94	54.00	14.44	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)
5145.200	42.44	-23.59	32.89	33.13	54.00	11.56	H
5148.000	42.62	-23.57	32.90	33.29	54.00	11.38	V
11852.500	36.17	-29.16	38.80	26.52	54.00	17.83	H
15570.000	35.29	-25.61	38.50	22.41	54.00	18.71	V
17955.500	40.04	-24.18	41.81	22.41	54.00	13.96	H
17990.500	40.04	-24.29	41.88	22.45	54.00	13.96	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)
5359.200	42.39	-23.28	33.14	32.54	54.00	11.61	V
5371.200	42.42	-23.27	33.19	32.51	54.00	11.58	V
11861.000	36.14	-29.29	38.80	26.63	54.00	17.86	H
15960.000	34.73	-25.25	38.82	21.16	54.00	19.27	V
17927.500	39.75	-24.15	41.76	22.15	54.00	14.25	H
17983.000	40.12	-24.27	41.87	22.52	54.00	13.88	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)
5123.600	42.33	-23.03	32.85	32.51	54.00	11.67	H
5128.800	42.23	-23.21	32.86	32.58	54.00	11.77	V
10720.500	34.34	-30.51	38.70	26.15	54.00	19.66	V
15810.000	35.27	-25.55	38.61	22.21	54.00	18.73	V
17845.500	39.19	-24.18	41.70	21.67	54.00	14.81	V
17937.000	39.55	-24.16	41.77	21.94	54.00	14.45	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)
5360.000	42.37	-23.28	33.14	32.50	54.00	11.63	H
5372.800	42.40	-23.28	33.19	32.50	54.00	11.60	H
10620.000	34.49	-30.14	38.70	25.93	54.00	19.51	V
15930.000	35.64	-25.49	38.76	22.37	54.00	18.36	V
17755.500	39.40	-24.12	41.74	21.78	54.00	14.60	H
17837.000	39.35	-24.12	41.70	21.77	54.00	14.65	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)
5455.600	42.72	-23.00	33.61	32.10	54.00	11.28	V
5457.200	42.78	-22.97	33.61	32.14	54.00	11.22	H
11020.000	35.14	-30.55	38.58	27.10	54.00	18.86	V
15829.000	35.80	-25.45	38.63	22.62	54.00	18.20	V
17953.000	39.98	-24.17	41.81	22.34	54.00	14.02	V
17989.000	39.97	-24.29	41.88	22.38	54.00	14.03	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)
5450.400	42.67	-23.08	33.60	32.15	54.00	11.33	H
5456.400	42.84	-22.99	33.61	32.21	54.00	11.16	H
11180.000	34.36	-30.17	38.50	26.03	54.00	19.64	V
15829.000	35.83	-25.45	38.63	22.65	54.00	18.17	H
17927.500	39.72	-24.15	41.76	22.12	54.00	14.28	V
17958.000	39.81	-24.19	41.82	22.18	54.00	14.19	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)
5454.400	42.64	-23.02	33.61	32.05	54.00	11.36	V
5458.400	42.74	-22.95	33.62	32.07	54.00	11.26	V
11340.000	34.54	-29.88	38.74	25.68	54.00	19.46	V
15851.000	35.84	-25.35	38.65	22.54	54.00	18.16	V
17956.500	39.92	-24.18	41.81	22.30	54.00	14.08	V
17987.000	39.96	-24.28	41.87	22.36	54.00	14.04	H

Channel 142

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)
5456.800	42.68	-22.98	33.61	32.05	54.00	11.32	V
5458.800	42.73	-22.95	33.62	32.06	54.00	11.27	H
11420.000	35.09	-29.43	38.84	25.68	54.00	18.91	H
17831.500	39.51	-24.08	41.70	21.89	54.00	14.49	H
17915.000	39.31	-24.15	41.73	21.72	54.00	14.69	H
17976.500	39.84	-24.25	41.85	22.23	54.00	14.16	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)
5148.000	42.85	-23.57	32.90	33.52	54.00	11.15	H
5149.600	43.18	-23.56	32.90	33.85	54.00	10.82	V
11861.000	36.11	-29.29	38.80	26.60	54.00	17.89	V
15540.000	35.05	-25.73	38.50	22.28	54.00	18.95	V
17927.500	39.79	-24.15	41.76	22.19	54.00	14.21	H
17981.000	40.10	-24.26	41.86	22.50	54.00	13.90	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)
5120.400	42.42	-22.92	32.84	32.50	54.00	11.58	H
5146.400	42.04	-23.58	32.89	32.73	54.00	11.96	V
11875.500	35.77	-29.53	38.80	26.49	54.00	18.23	V
15600.000	35.18	-25.40	38.50	22.07	54.00	18.82	V
17958.500	40.10	-24.19	41.82	22.47	54.00	13.90	V
17985.000	40.17	-24.27	41.87	22.57	54.00	13.83	V

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)
5365.200	42.47	-23.27	33.16	32.58	54.00	11.53	V
5370.800	42.55	-23.26	33.18	32.63	54.00	11.45	H
11827.500	35.81	-29.51	38.80	26.52	54.00	18.19	H
15720.000	34.70	-25.72	38.60	21.82	54.00	19.30	V
17959.500	40.21	-24.19	41.82	22.59	54.00	13.79	H
17994.500	40.14	-24.30	41.89	22.55	54.00	13.86	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)
5115.600	42.35	-22.93	32.83	32.45	54.00	11.65	H
5121.200	42.47	-22.95	32.84	32.57	54.00	11.53	H
10692.000	34.47	-30.36	38.70	26.13	54.00	19.53	V
15780.000	35.34	-25.53	38.60	22.27	54.00	18.66	H
17746.000	39.30	-24.14	41.75	21.68	54.00	14.70	H
17886.500	39.30	-24.16	41.70	21.76	54.00	14.70	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)
5354.800	42.35	-23.32	33.12	32.55	54.00	11.65	H
5357.200	42.32	-23.30	33.13	32.49	54.00	11.68	V
10667.500	34.98	-30.10	38.70	26.38	54.00	19.02	H
15840.000	35.71	-25.40	38.64	22.47	54.00	18.29	V
17755.500	39.36	-24.12	41.74	21.74	54.00	14.64	H
17905.500	39.34	-24.14	41.71	21.77	54.00	14.66	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)
5363.200	42.38	-23.27	33.15	32.50	54.00	11.62	V
5368.000	42.47	-23.26	33.17	32.55	54.00	11.53	V
10640.000	34.12	-29.99	38.70	25.41	54.00	19.88	V
15960.000	35.77	-25.25	38.82	22.20	54.00	18.23	H
17765.500	39.50	-24.06	41.73	21.83	54.00	14.50	H
17906.000	39.34	-24.14	41.71	21.77	54.00	14.66	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)
5456.400	42.69	-22.99	33.61	32.07	54.00	11.31	H
5457.600	42.76	-22.97	33.62	32.11	54.00	11.24	V
11000.000	34.97	-30.50	38.60	26.87	54.00	19.03	V
15871.000	35.81	-25.55	38.67	22.70	54.00	18.19	V
17957.000	39.90	-24.19	41.81	22.27	54.00	14.10	V
17987.000	40.02	-24.28	41.87	22.43	54.00	13.98	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)
5458.800	42.74	-22.95	33.62	32.07	54.00	11.26	V
5459.600	42.76	-22.93	33.62	32.07	54.00	11.24	H
11400.000	35.26	-29.02	38.80	25.48	54.00	18.74	V
15870.500	36.02	-25.55	38.67	22.90	54.00	17.98	V
17954.000	39.93	-24.18	41.81	22.29	54.00	14.07	H
17987.500	40.13	-24.28	41.88	22.53	54.00	13.87	H

Channel 144

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)
5455.600	42.58	-23.00	33.61	31.97	54.00	11.42	V
5457.200	42.72	-22.97	33.61	32.07	54.00	11.28	V
11440.000	34.73	-29.84	38.88	25.70	54.00	19.27	H
17763.000	39.46	-24.08	41.74	21.80	54.00	14.54	H
17729.500	39.41	-24.06	41.77	21.69	54.00	14.59	V
17815.000	39.48	-23.96	41.70	21.74	54.00	14.52	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)
5148.000	43.36	-23.57	32.90	34.04	54.00	10.64	V
5149.200	43.62	-23.57	32.90	34.29	54.00	10.38	H
11820.500	35.77	-29.63	38.80	26.59	54.00	18.23	V
15570.000	35.41	-25.61	38.50	22.52	54.00	18.59	V
17954.000	40.07	-24.18	41.81	22.44	54.00	13.93	H
17986.500	40.19	-24.28	41.87	22.59	54.00	13.81	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)
5352.400	42.33	-23.34	33.11	32.56	54.00	11.67	H
5356.000	42.23	-23.31	33.12	32.41	54.00	11.77	H
11864.000	36.17	-29.34	38.80	26.71	54.00	17.83	V
15690.000	34.88	-25.89	38.59	22.19	54.00	19.12	H
17952.500	40.03	-24.17	41.81	22.39	54.00	13.97	H
17991.500	40.18	-24.29	41.88	22.59	54.00	13.82	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)
5123.200	42.38	-23.02	32.85	32.55	54.00	11.62	V
5130.800	42.06	-23.28	32.86	32.48	54.00	11.94	V
10675.000	35.07	-30.18	38.70	26.55	54.00	18.93	V
15810.000	35.42	-25.55	38.61	22.36	54.00	18.58	H
17985.500	39.88	-24.27	41.87	22.28	54.00	14.12	H
17859.000	39.31	-24.20	41.70	21.81	54.00	14.69	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)
5358.000	42.35	-23.29	33.13	32.51	54.00	11.65	H
5353.600	42.42	-23.33	33.11	32.63	54.00	11.58	V
10620.000	34.44	-30.14	38.70	25.88	54.00	19.56	V
15930.000	35.81	-25.49	38.76	22.53	54.00	18.19	V
17826.500	39.40	-24.04	41.70	21.75	54.00	14.60	H
17875.000	39.13	-24.18	41.70	21.60	54.00	14.87	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)
5456.400	42.69	-22.99	33.61	32.06	54.00	11.31	V
5457.600	42.78	-22.97	33.62	32.14	54.00	11.22	H
11020.000	35.01	-30.55	38.58	26.98	54.00	18.99	V
15830.500	35.80	-25.45	38.63	22.62	54.00	18.20	V
17955.000	39.93	-24.18	41.81	22.30	54.00	14.07	V
17987.500	40.02	-24.28	41.88	22.43	54.00	13.98	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)
5458.400	42.88	-22.95	33.62	32.22	54.00	11.12	H
5456.000	42.78	-22.99	33.61	32.16	54.00	11.22	H
11180.000	34.45	-30.17	38.50	26.12	54.00	19.55	V
15844.500	35.81	-25.37	38.64	22.54	54.00	18.19	V
17958.500	39.86	-24.19	41.82	22.23	54.00	14.14	V
17989.000	39.85	-24.29	41.88	22.26	54.00	14.15	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)
5456.000	42.66	-22.99	33.61	32.04	54.00	11.34	H
5457.600	42.69	-22.97	33.62	32.04	54.00	11.31	H
11340.000	34.44	-29.88	38.74	25.58	54.00	19.56	H
15861.000	35.77	-25.45	38.66	22.57	54.00	18.23	H
17799.500	39.60	-23.86	41.70	21.76	54.00	14.40	V
17959.000	39.74	-24.19	41.82	22.11	54.00	14.26	V

Channel 142

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)
5456.400	42.70	-22.99	33.61	32.07	54.00	11.30	H
5458.000	42.80	-22.96	33.62	32.14	54.00	11.20	V
11420.000	35.20	-29.43	38.84	25.79	54.00	18.80	H
17786.500	39.75	-23.94	41.71	21.97	54.00	14.25	V
17915.000	39.74	-24.15	41.73	22.16	54.00	14.26	V
17941.500	39.79	-24.16	41.78	22.16	54.00	14.21	H

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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)
5117.200	42.7	-22.9	32.8	32.81	54.0	11.3	V
5122.800	42.7	-23.0	32.8	32.82	54.0	11.3	V
10871.500	34.8	-30.7	38.6	26.86	54.0	19.2	V
15630.000	35.1	-25.6	38.5	22.22	54.0	18.9	V
17755.000	39.4	-24.1	41.7	21.81	54.0	14.6	V
17812.500	39.5	-23.9	41.7	21.72	54.0	14.5	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)
5350.400	42.3	-23.4	33.1	32.57	54.0	11.7	V
5352.400	42.3	-23.3	33.1	32.57	54.0	11.7	H
10750.000	34.2	-30.6	38.7	26.15	54.0	19.8	H
15870.000	35.8	-25.5	38.7	22.64	54.0	18.2	H
17734.500	39.4	-24.1	41.8	21.70	54.0	14.6	H
17778.000	39.6	-24.0	41.7	21.89	54.0	14.4	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)
5453.600	42.9	-23.0	33.6	32.36	54.0	11.1	V
5458.400	43.0	-23.0	33.6	32.37	54.0	11.0	V
11060.000	34.5	-30.6	38.5	26.59	54.0	19.5	H
16178.500	35.5	-25.0	39.3	21.25	54.0	18.5	H
17780.000	39.5	-24.0	41.7	21.79	54.0	14.5	H
17913.500	39.4	-24.1	41.7	21.85	54.0	14.6	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)
5457.200	42.6	-23.0	33.6	31.99	54.0	11.4	H
5458.800	42.7	-22.9	33.6	32.08	54.0	11.3	H
11220.000	34.4	-29.9	38.5	25.74	54.0	19.6	V
16142.500	35.5	-25.1	39.2	21.31	54.0	18.5	H
17774.000	39.4	-24.0	41.7	21.72	54.0	14.6	H
17912.500	39.4	-24.1	41.7	21.78	54.0	14.6	H

Channel 138

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)
5454.400	42.6	-23.0	33.6	32.04	54.0	11.4	V
5457.600	42.7	-23.0	33.6	32.04	54.0	11.3	H
11380.000	35.5	-29.3	38.8	26.06	54.0	18.5	V
17723.500	39.1	-24.0	41.8	21.31	54.0	14.9	H
17872.500	39.2	-24.2	41.7	21.69	54.0	14.8	H
17953.500	39.8	-24.2	41.8	22.13	54.0	14.2	H

PEAK Results:

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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)
5126.275	56.40	-23.13	32.85	46.67	74.00	17.60	H
5138.675	56.35	-23.56	32.88	47.04	74.00	17.65	H
10360.000	46.07	-29.98	38.56	37.49	68.30	22.23	H
15540.000	46.59	-25.73	38.50	33.82	74.00	27.41	V
17423.500	53.94	-24.38	42.00	36.31	68.30	14.36	V
17662.000	53.76	-23.86	41.84	35.78	68.30	14.54	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)
5166.000	55.76	-23.22	32.90	46.08	68.30	12.54	H
5264.800	55.84	-23.04	32.93	45.95	68.30	12.46	H
10400.000	47.19	-30.22	38.60	38.81	68.30	21.11	V
15600.000	46.23	-25.40	38.50	33.12	74.00	27.77	V
17350.000	53.78	-24.40	41.85	36.33	68.30	14.52	H
17606.000	52.96	-23.97	41.89	35.04	68.30	15.34	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)
5263.600	56.86	-23.03	32.93	46.96	68.30	11.44	H
5271.200	54.81	-23.12	32.94	44.99	68.30	13.49	V
10480.000	45.99	-29.89	38.68	37.20	68.30	22.31	V
15720.000	45.21	-25.72	38.60	32.33	74.00	28.79	H
17254.000	52.41	-24.45	41.61	35.25	68.30	15.89	H
17500.500	53.05	-24.06	42.00	35.11	68.30	15.25	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)
5212.800	54.49	-23.10	32.90	44.69	68.30	13.81	V
5232.800	56.61	-23.34	32.90	47.05	68.30	11.69	V
10520.000	47.38	-29.96	38.70	38.64	68.30	20.92	H
15780.000	48.02	-25.53	38.60	34.96	74.00	25.98	V
17287.500	54.25	-24.31	41.68	36.88	68.30	14.05	V
17560.000	54.22	-24.16	41.94	36.44	68.30	14.08	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)
5249.600	55.35	-23.19	32.90	45.64	68.30	12.95	H
5308.400	55.98	-23.03	33.02	45.99	68.30	12.32	H
10560.000	45.94	-30.30	38.70	37.55	68.30	22.36	H
15840.000	47.82	-25.40	38.64	34.58	74.00	26.18	H
17387.000	53.13	-24.38	41.96	35.56	68.30	15.16	V
17536.000	53.31	-24.17	41.96	35.52	68.30	14.99	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)
5350.150	57.45	-23.36	33.10	47.70	74.00	16.55	V
5350.550	57.42	-23.35	33.10	47.67	74.00	16.58	H
10640.000	46.32	-29.99	38.70	37.61	74.00	27.68	V
15960.000	47.47	-25.25	38.82	33.90	74.00	26.53	V
17522.000	52.63	-24.13	41.98	34.78	68.30	15.67	V
17622.500	51.77	-23.92	41.88	33.81	68.30	16.53	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)
5468.250	58.02	-22.93	33.64	47.31	68.30	10.28	V
5468.475	59.00	-22.93	33.64	48.30	68.30	9.30	V
11000.000	45.89	-30.50	38.60	37.79	74.00	28.11	V
16500.000	47.90	-24.78	40.10	32.59	68.30	20.40	H
17312.000	52.28	-24.29	41.74	34.84	68.30	16.02	H
17528.500	52.10	-24.14	41.97	34.27	68.30	16.20	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)
5726.025	59.83	-22.63	34.05	48.40	68.30	8.47	V
5726.150	59.51	-22.63	34.05	48.08	68.30	8.79	V
11400.000	35.12	-29.02	38.80	25.34	74.00	38.88	H
17100.000	49.40	-24.09	41.40	32.09	68.30	18.90	H
17319.500	53.69	-24.31	41.76	36.24	68.30	14.61	V
17417.500	52.57	-24.38	42.00	34.95	68.30	15.73	V

Channel 144

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)
5702.000	57.43	-22.83	34.00	46.26	68.30	10.87	H
5740.000	58.02	-22.59	34.08	46.53	68.30	10.28	H
11440.000	46.01	-29.84	38.88	36.97	74.00	27.99	V
17160.000	49.92	-24.16	41.46	32.63	68.30	18.38	H
17507.000	53.11	-24.08	41.99	35.20	68.30	15.19	H
17673.500	51.42	-23.88	41.83	33.47	68.30	16.88	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)
5146.275	57.27	-23.58	32.89	47.96	74.00	16.73	H
5147.975	57.40	-23.57	32.90	48.07	74.00	16.60	H
10360.000	45.31	-29.98	38.56	36.73	68.30	22.99	H
15540.000	45.88	-25.73	38.50	33.11	68.30	22.42	V
17390.000	52.77	-24.38	41.97	35.18	68.30	15.53	V
17624.500	53.61	-23.91	41.88	35.65	68.30	14.69	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)
5169.600	54.47	-23.15	32.90	44.72	68.30	13.83	V
5230.400	55.54	-23.34	32.90	45.99	68.30	12.76	V
10400.000	46.39	-30.22	38.60	38.00	68.30	21.91	H
15600.000	46.53	-25.40	38.50	33.43	74.00	27.47	H
16933.500	52.83	-24.42	40.97	36.28	68.30	15.47	H
17230.000	53.26	-24.42	41.56	36.12	68.30	15.04	V

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)
5270.800	54.81	-23.11	32.94	44.98	68.30	13.49	V
5274.000	53.90	-23.19	32.95	44.15	68.30	14.40	H
10480.000	45.77	-29.89	38.68	36.98	68.30	22.53	V
15720.000	45.34	-25.72	38.60	32.47	74.00	28.66	H
17201.100	52.83	-24.35	41.50	35.68	68.30	15.47	V
17372.500	52.87	-24.39	41.92	35.34	68.30	15.43	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)
5230.800	56.26	-23.34	32.90	46.70	68.30	12.04	V
5236.800	57.39	-23.32	32.90	47.81	68.30	10.91	H
10520.000	47.27	-29.96	38.70	38.53	68.30	21.03	V
15780.000	46.88	-25.53	38.60	33.81	74.00	27.12	V
17432.000	50.97	-24.38	42.00	33.34	68.30	17.33	H
17650.000	50.28	-23.84	41.85	32.27	68.30	18.02	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)
5256.000	56.24	-23.07	32.91	46.40	68.30	12.06	H
5298.000	57.26	-23.26	33.00	47.53	68.30	11.04	V
10560.000	46.92	-30.30	38.70	38.52	68.30	21.38	V
15840.000	47.84	-25.40	38.64	34.60	74.00	26.16	V
17391.000	51.09	-24.38	41.97	33.50	68.30	17.21	V
17579.000	50.93	-24.08	41.92	33.09	68.30	17.37	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)
5351.150	56.75	-23.35	33.10	46.99	74.00	17.25	H
5362.675	57.01	-23.27	33.15	47.13	74.00	16.99	V
10640.000	45.28	-29.99	38.70	36.57	74.00	28.72	H
15960.000	47.24	-25.25	38.82	33.67	74.00	26.76	H
17420.000	53.63	-24.38	42.00	36.01	68.30	14.67	H
17576.500	50.94	-24.09	41.92	33.10	68.30	17.36	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)
5469.325	58.13	-22.94	33.64	47.43	68.30	10.17	H
5469.875	58.05	-22.94	33.64	47.34	68.30	10.25	H
11000.000	45.53	-30.50	38.60	37.43	74.00	28.47	H
16500.000	48.45	-24.78	40.10	33.13	68.30	19.85	V
17301.500	52.40	-24.26	41.70	34.95	68.30	15.90	H
17492.500	52.73	-24.11	42.00	34.83	68.30	15.57	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)
5725.975	59.75	-22.63	34.05	48.32	68.30	8.55	H
5727.700	59.16	-22.63	34.06	47.74	68.30	9.14	H
11400.000	46.47	-29.02	38.80	36.69	74.00	27.53	H
17100.000	49.04	-24.09	41.40	31.73	68.30	19.26	H
17391.500	53.13	-24.38	41.97	35.54	68.30	15.16	V
17547.500	53.12	-24.20	41.95	35.36	68.30	15.18	V

Channel 144

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)
5701.200	57.29	-22.85	34.00	46.14	68.30	11.01	H
5740.400	57.95	-22.60	34.08	46.47	68.30	10.35	H
11440.000	45.08	-29.84	38.88	36.04	74.00	28.92	V
17160.000	49.45	-24.16	41.46	32.16	68.30	18.85	V
17500.500	50.51	-24.06	42.00	32.57	68.30	17.79	V
17561.500	53.47	-24.16	41.94	35.69	68.30	14.83	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)
5149.925	60.87	-23.56	32.90	51.53	74.00	13.13	H
5150.000	60.93	-23.56	32.90	51.59	74.00	13.07	V
10380.000	45.77	-30.10	38.58	37.29	68.30	22.53	H
15570.000	46.86	-25.61	38.50	33.97	74.00	27.14	H
17239.500	52.19	-24.44	41.58	35.05	68.30	16.11	V
17525.000	53.38	-24.13	41.97	35.54	68.30	14.92	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)
5278.400	54.88	-23.30	32.96	45.22	68.30	13.42	V
5285.600	55.32	-23.38	32.97	45.73	68.30	12.98	H
10460.000	47.30	-30.06	38.66	38.70	68.30	20.99	H
15690.000	45.53	-25.89	38.59	32.83	74.00	28.47	H
17180.000	52.24	-24.26	41.48	35.02	68.30	16.06	H
17496.000	52.80	-24.09	42.00	34.88	68.30	15.50	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)
5210.400	56.16	-23.05	32.90	46.31	68.30	12.14	V
5228.800	57.29	-23.33	32.90	47.72	68.30	11.01	V
10540.000	45.54	-30.19	38.70	37.03	68.30	22.76	H
15810.000	46.56	-25.55	38.61	33.50	74.00	27.44	H
17511.000	53.15	-24.09	41.99	35.26	68.30	15.15	H
17677.000	50.25	-23.88	41.82	32.31	68.30	18.05	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)
5350.625	58.05	-23.35	33.10	48.30	74.00	15.95	V
5352.725	57.92	-23.34	33.11	48.14	74.00	16.08	V
10620.000	46.41	-30.14	38.70	37.86	74.00	27.59	V
15930.000	46.53	-25.49	38.76	33.25	74.00	27.47	H
17399.500	52.77	-24.38	42.00	35.15	68.30	15.53	H
17593.000	52.26	-24.02	41.91	34.37	68.30	16.04	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)
5468.225	58.53	-22.93	33.64	47.83	68.30	9.77	H
5468.950	58.73	-22.93	33.64	48.02	68.30	9.57	V
11020.000	45.88	-30.55	38.58	37.85	74.00	28.12	V
16530.000	48.59	-24.71	40.07	33.23	68.30	19.71	V
17261.000	52.95	-24.42	41.62	35.75	68.30	15.35	V
17529.500	52.64	-24.15	41.97	34.81	68.30	15.66	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)
5550.800	57.20	-22.89	33.90	46.19	68.30	11.10	V
5629.600	57.41	-23.17	33.90	46.68	68.30	10.89	V
11180.000	45.25	-30.17	38.50	36.91	74.00	28.75	V
16770.000	48.87	-24.63	40.61	32.89	68.30	19.43	V
17218.500	52.65	-24.39	41.54	35.51	68.30	15.65	H
17584.000	53.56	-24.06	41.92	35.70	68.30	14.74	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)
5729.300	57.70	-22.64	34.06	46.28	68.30	10.60	H
5730.800	57.85	-22.64	34.06	46.43	68.30	10.45	H
11340.000	45.49	-29.88	38.74	36.63	74.00	28.51	H
17010.000	48.96	-24.59	41.13	32.42	68.30	19.34	V
17248.500	53.09	-24.46	41.60	35.95	68.30	15.21	H
17473.000	52.82	-24.23	42.00	35.05	68.30	15.48	H

Channel 142

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)
5679.600	55.53	-22.92	33.96	44.49	68.30	12.77	V
5742.000	57.13	-22.61	34.08	45.66	68.30	11.17	V
11420.000	45.74	-29.43	38.84	36.34	74.00	28.26	V
17130.000	48.77	-24.11	41.43	31.45	68.30	19.53	V
17427.500	52.42	-24.38	42.00	34.80	68.30	15.88	H
17539.000	52.33	-24.17	41.96	34.55	68.30	15.97	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)
5148.275	58.56	-23.57	32.90	49.24	74.00	15.44	V
5148.900	59.75	-23.57	32.90	50.42	74.00	14.25	H
10360.000	45.19	-29.98	38.56	36.61	68.30	23.11	H
15540.000	45.59	-25.73	38.50	32.82	74.00	28.41	H
17290.500	52.91	-24.29	41.68	35.52	68.30	15.39	H
17369.500	53.40	-24.39	41.91	35.88	68.30	14.90	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)
5167.600	57.35	-23.19	32.90	47.64	68.30	10.95	H
5230.800	55.30	-23.34	32.90	45.75	68.30	12.99	H
10400.000	46.35	-30.22	38.60	37.96	68.30	21.95	H
15600.000	45.45	-25.40	38.50	32.34	74.00	28.55	H
17289.000	52.68	-24.30	41.68	35.30	68.30	15.62	H
17517.000	53.43	-24.11	41.98	35.56	68.30	14.87	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)
5270.400	56.56	-23.10	32.94	46.72	68.30	11.74	V
5275.200	53.75	-23.22	32.95	44.02	68.30	14.55	V
10480.000	45.97	-29.89	38.68	37.18	68.30	22.33	H
15720.000	45.12	-25.72	38.60	32.24	74.00	28.88	V
17194.000	52.97	-24.32	41.49	35.79	68.30	15.33	H
17329.000	54.20	-24.34	41.79	36.76	68.30	14.09	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)
5213.200	55.33	-23.10	32.90	45.53	68.30	12.97	H
5220.400	55.14	-23.23	32.90	45.47	68.30	13.16	H
10520.000	46.83	-29.96	38.70	38.09	68.30	21.47	H
15780.000	45.68	-25.53	38.60	32.61	74.00	28.32	H
17354.500	51.60	-24.40	41.86	34.13	68.30	16.70	V
17672.000	49.89	-23.87	41.83	31.93	68.30	18.41	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)
5255.000	56.95	-23.09	32.91	47.13	68.30	11.35	H
5302.000	56.11	-23.18	33.00	46.28	68.30	12.19	V
10560.000	45.78	-30.30	38.70	37.39	68.30	22.52	H
15840.000	45.93	-25.40	38.64	32.69	74.00	28.07	V
17433.000	51.67	-24.38	42.00	34.05	68.30	16.63	V
17598.500	51.96	-23.99	41.90	34.05	68.30	16.34	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)
5351.575	56.70	-23.34	33.11	46.94	74.00	17.30	V
5366.950	56.89	-23.26	33.17	46.98	74.00	17.11	H
10640.000	45.74	-29.99	38.70	37.04	74.00	28.26	V
15960.000	46.68	-25.25	38.82	33.11	74.00	27.32	V
17417.000	52.28	-24.38	42.00	34.66	68.30	16.02	H
17613.000	51.82	-23.95	41.89	33.88	68.30	16.48	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)
5468.950	57.54	-22.93	33.64	46.83	68.30	10.76	V
5469.875	57.45	-22.94	33.64	46.75	68.30	10.85	H
11000.000	45.30	-30.50	38.60	37.20	74.00	28.70	H
16500.000	48.17	-24.78	40.10	32.86	68.30	20.13	V
17303.000	52.81	-24.26	41.71	35.37	68.30	15.49	H
17653.000	53.29	-23.84	41.85	35.29	68.30	15.01	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)
5725.450	58.04	-22.62	34.05	46.61	68.30	10.26	H
5725.600	59.12	-22.62	34.05	47.69	68.30	9.18	V
11400.000	45.91	-29.02	38.80	36.13	74.00	28.09	H
17100.000	51.20	-24.09	41.40	33.89	68.30	17.10	V
17303.500	53.29	-24.27	41.71	35.85	68.30	15.01	V
17631.500	53.16	-23.89	41.87	35.18	68.30	15.14	H

Channel 144

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)
5685.600	56.39	-22.92	33.97	45.33	68.30	11.91	V
5743.200	58.00	-22.62	34.09	46.53	68.30	10.30	V
11440.000	45.92	-29.84	38.88	36.88	74.00	28.08	H
17160.000	50.41	-24.16	41.46	33.11	68.30	17.89	H
17483.000	52.58	-24.17	42.00	34.75	68.30	15.72	H
17562.500	51.54	-24.15	41.94	33.75	68.30	16.76	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)
5148.725	60.30	-23.57	32.90	50.98	74.00	13.70	H
5149.975	60.30	-23.56	32.90	50.97	74.00	13.70	H
10380.000	45.41	-30.10	38.58	36.92	68.30	22.89	V
15570.000	45.88	-25.61	38.50	32.99	74.00	28.12	V
17259.500	52.90	-24.42	41.62	35.70	68.30	15.40	H
17662.500	53.60	-23.86	41.84	35.62	68.30	14.70	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)
5275.600	54.91	-23.23	32.95	45.19	68.30	13.38	V
5280.800	54.80	-23.35	32.96	45.18	68.30	13.50	H
10460.000	47.69	-30.06	38.66	39.09	68.30	20.61	V
15690.000	44.80	-25.89	38.59	32.11	74.00	29.20	H
17435.500	53.40	-24.38	42.00	35.78	68.30	14.90	V
17617.000	53.49	-23.94	41.88	35.54	68.30	14.81	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)
5220.400	55.37	-23.23	32.90	45.70	68.30	12.93	V
5224.800	55.94	-23.28	32.90	46.32	68.30	12.36	H
10540.000	45.67	-30.19	38.70	37.16	68.30	22.63	V
15810.000	46.21	-25.55	38.61	33.15	74.00	27.79	V
17361.000	51.96	-24.39	41.88	34.47	68.30	16.34	H
17675.500	51.86	-23.88	41.82	33.92	68.30	16.44	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)
5351.000	60.26	-23.35	33.10	50.51	74.00	13.74	V
5354.350	59.12	-23.32	33.12	49.33	74.00	14.88	H
10620.000	44.79	-30.14	38.70	36.23	74.00	29.21	H
15930.000	46.82	-25.49	38.76	33.54	74.00	27.18	V
17375.500	51.19	-24.39	41.93	33.65	68.30	17.11	H
17651.000	50.46	-23.84	41.85	32.45	68.30	17.84	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)
5469.075	61.40	-22.93	33.64	50.70	68.30	6.90	V
5469.325	61.69	-22.94	33.64	50.99	68.30	6.61	V
11020.000	45.22	-30.55	38.58	37.19	74.00	28.78	H
16530.000	47.46	-24.71	40.07	32.10	68.30	20.84	H
17309.000	53.50	-24.28	41.73	36.05	68.30	14.80	H
17553.500	53.16	-24.19	41.95	35.40	68.30	15.14	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)
555.200	57.52	0.00	0.00	57.52	68.30	10.78	H
5624.800	57.19	-23.08	33.90	46.37	68.30	11.11	V
11180.000	44.97	-30.17	38.50	36.63	74.00	29.03	H
16770.000	48.90	-24.63	40.61	32.92	68.30	19.40	H
17342.500	52.68	-24.38	41.83	35.22	68.30	15.62	H
17592.500	53.34	-24.02	41.91	35.45	68.30	14.96	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)
5732.450	57.65	-22.63	34.06	46.22	68.30	10.65	V
5738.075	58.20	-22.60	34.08	46.73	68.30	10.10	V
11340.000	45.16	-29.88	38.74	36.30	74.00	28.84	V
17010.000	48.58	-24.59	41.13	32.04	68.30	19.72	V
17264.500	52.27	-24.40	41.63	35.04	68.30	16.03	V
17604.000	53.51	-23.97	41.90	35.59	68.30	14.79	V

Channel 142

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)
5676.800	56.02	-22.87	33.95	44.94	68.30	12.28	V
5752.000	57.38	-22.74	34.12	46.00	68.30	10.92	V
11420.000	46.16	-29.43	38.84	36.76	74.00	27.84	H
17130.000	49.42	-24.11	41.43	32.09	68.30	18.88	V
17406.500	52.01	-24.38	42.00	34.39	68.30	16.29	V
17632.000	53.26	-23.89	41.87	35.28	68.30	15.04	V

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)
5142.775	57.9	-23.6	32.9	48.58	74.0	16.1	V
5143.800	57.6	-23.6	32.9	48.30	74.0	16.4	V
10420.000	46.9	-30.2	38.6	38.49	68.3	21.4	H
15630.000	46.6	-25.6	38.5	33.73	74.0	27.4	H
17244.000	53.0	-24.4	41.6	35.88	68.3	15.3	V
17545.500	52.8	-24.2	42.0	35.09	68.3	15.5	V

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)
5350.175	57.6	-23.4	33.1	47.88	74.0	16.4	V
5351.650	57.0	-23.3	33.1	47.25	74.0	17.0	V
10580.000	45.6	-30.3	38.7	37.20	68.3	22.7	H
15870.000	47.3	-25.5	38.7	34.20	74.0	26.7	V
17222.500	53.0	-24.4	41.5	35.85	68.3	15.3	V
17441.500	53.4	-24.4	42.0	35.77	68.3	14.9	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)
5461.100	58.0	-22.9	33.6	47.35	68.3	10.3	V
5459.575	57.8	-22.9	33.6	47.15	68.3	10.5	H
11060.000	45.4	-30.6	38.5	37.46	74.0	28.6	H
16590.000	48.5	-24.6	40.0	33.14	68.3	19.8	V
17312.500	53.1	-24.3	41.7	35.70	68.3	15.2	V
17631.500	51.5	-23.9	41.9	33.54	68.3	16.8	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)
5730.975	57.9	-22.6	34.1	46.45	68.3	10.4	V
5733.850	57.6	-22.6	34.1	46.15	68.3	10.7	H
11220.000	44.8	-29.9	38.5	36.13	74.0	29.2	H
16830.000	48.4	-25.0	40.8	32.66	68.3	19.9	V
17238.500	52.4	-24.4	41.6	35.30	68.3	15.9	H
17422.000	53.6	-24.4	42.0	35.98	68.3	14.7	H

Channel 138

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)
5647.600	56.8	-22.8	33.9	45.69	68.3	11.5	H
5734.400	56.0	-22.6	34.1	44.54	68.3	12.3	H
11380.000	46.1	-29.3	38.8	36.62	74.0	27.9	H
17070.000	51.0	-24.3	41.3	34.02	68.3	17.3	V
17542.000	52.5	-24.2	42.0	34.68	68.3	15.9	H
17466.500	52.8	-24.3	42.0	35.08	68.3	15.5	H

Conclusion: PASS

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

Test Condition:

Voltage（V）	Frequency（Hz）
110	60

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.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		
		11a mode	Idle	
0.15 to 0.5	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:

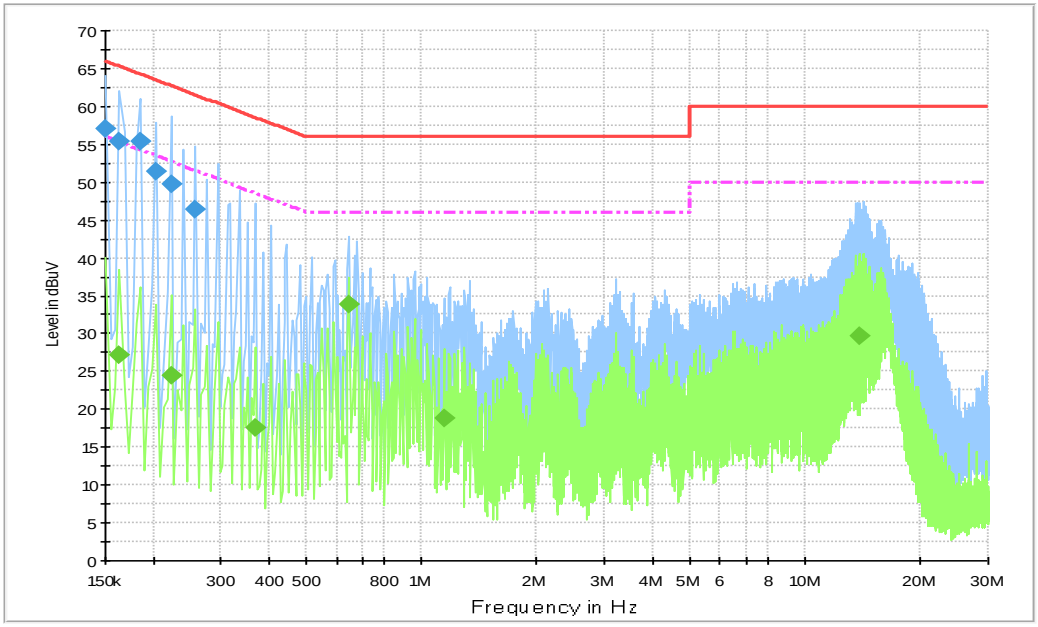

Fig.58 Conducted Emission(802.11a, Ch40, TX)

Measurement Result:

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	57.0	L1	19.4	9.0	66.0
0.163500	55.5	L1	19.5	9.8	65.3
0.186000	55.3	N	19.5	8.9	64.2
0.204000	51.3	L1	19.4	12.1	63.4
0.222000	49.8	L1	19.5	13.0	62.7
0.258000	46.3	L1	19.4	15.2	61.5

Measurement Result:

Frequency (MHz)	CAverage (dBuV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.163500	27.3	N	19.5	28.0	55.3
0.222000	24.4	L1	19.5	28.3	52.7
0.370500	17.5	N	19.5	31.0	48.5
0.645000	34.0	L1	19.5	12.0	46.0
1.144500	18.9	L1	19.5	27.1	46.0
13.830000	29.8	L1	19.8	20.2	50.0

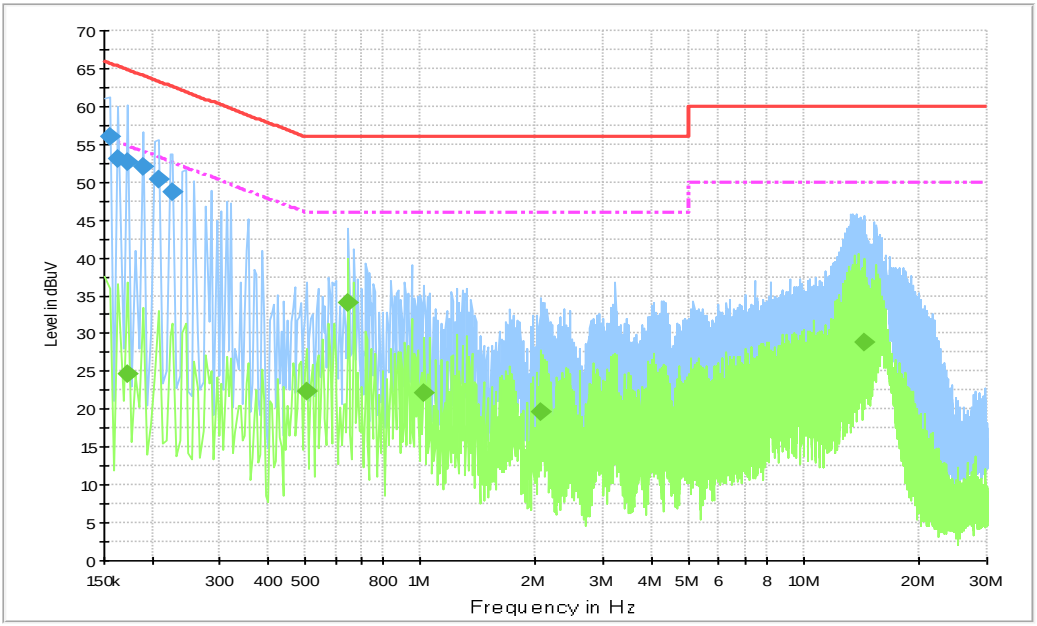

Fig.59 Conducted Emission(802.11a, IDLE)

Measurement Result:

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154500	56.0	N	19.4	9.8	65.8
0.163500	53.0	L1	19.5	12.3	65.3
0.172500	52.6	L1	19.4	12.3	64.8
0.190500	52.0	L1	19.5	12.0	64.0
0.208500	50.3	L1	19.4	12.9	63.3
0.226500	48.6	L1	19.5	13.9	62.6

Measurement Result:

Frequency (MHz)	CAverage (dBuV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.172500	24.8	N	19.4	30.1	54.8
0.505500	22.4	L1	19.5	23.6	46.0
0.649500	34.0	L1	19.5	12.0	46.0
1.023000	22.1	L1	19.4	23.9	46.0
2.062500	19.7	L1	19.5	26.3	46.0
14.298000	28.8	L1	19.8	21.2	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% 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

EUT ID: UT16a

Measurement Result:

Mode	Frequency	99% Occupied bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.60	17.69	P
	5200 MHz	Fig.61	17.82	P
	5240 MHz	Fig.62	17.88	P
802.11ac (VHT20)	5180 MHz	Fig.63	18.46	P
	5200 MHz	Fig.64	18.46	P
	5240 MHz	Fig.65	18.53	P
802.11ac (VHT40)	5190 MHz	Fig.66	36.41	P
	5230 MHz	Fig.67	36.54	P
802.11ac	5210 MHz	Fig.68	76.41	P

(VHT80)				

Test graphs as below:

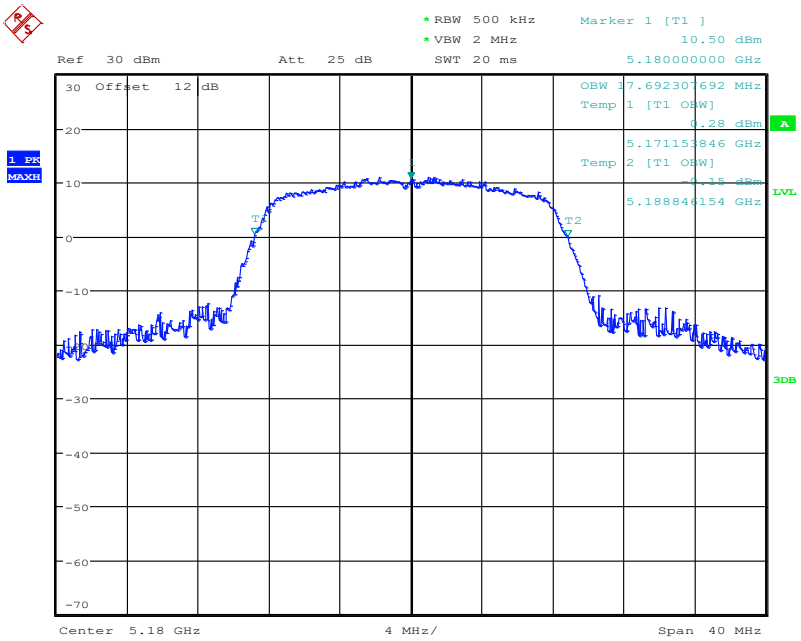

Fig.60 99% Occupied bandwidth (802.11a, 5180MHz)

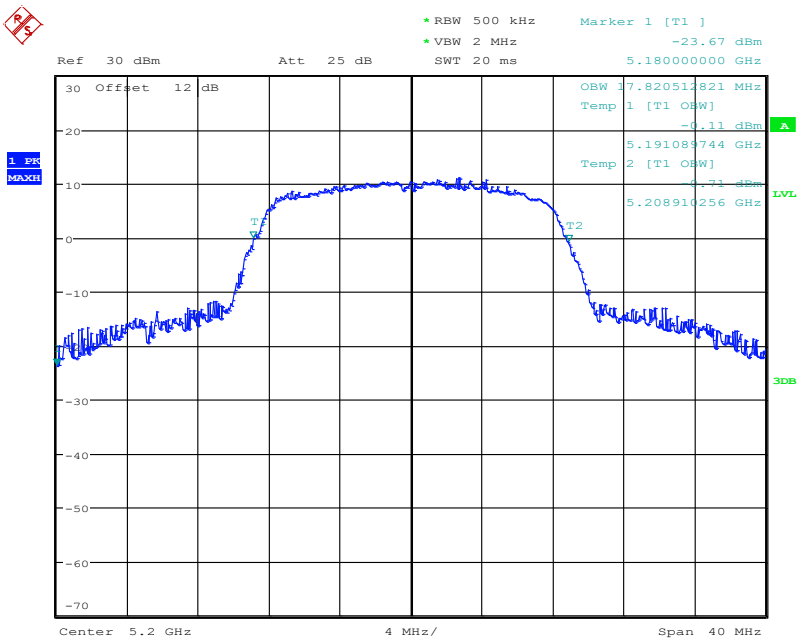

Fig.61 99% Occupied bandwidth (802.11a, 5200MHz)

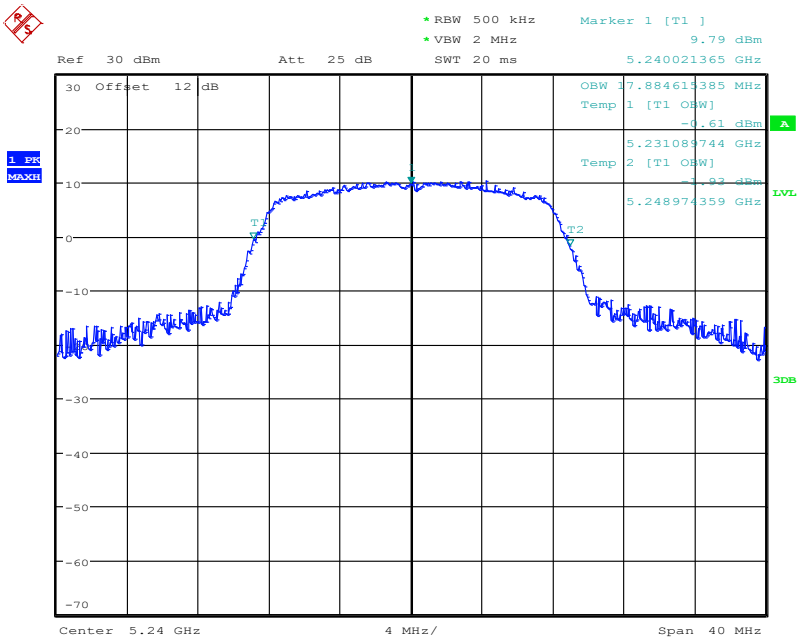

Fig.62 99% Occupied bandwidth (802.11a, 5240MHz)

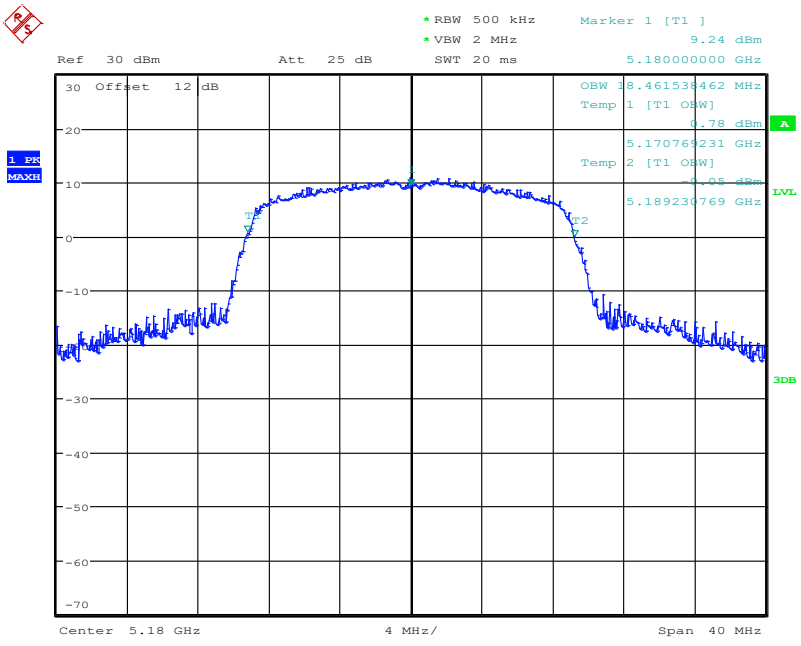

Fig.63 99% Occupied bandwidth (802.11ac-VHT20, 5180MHz)

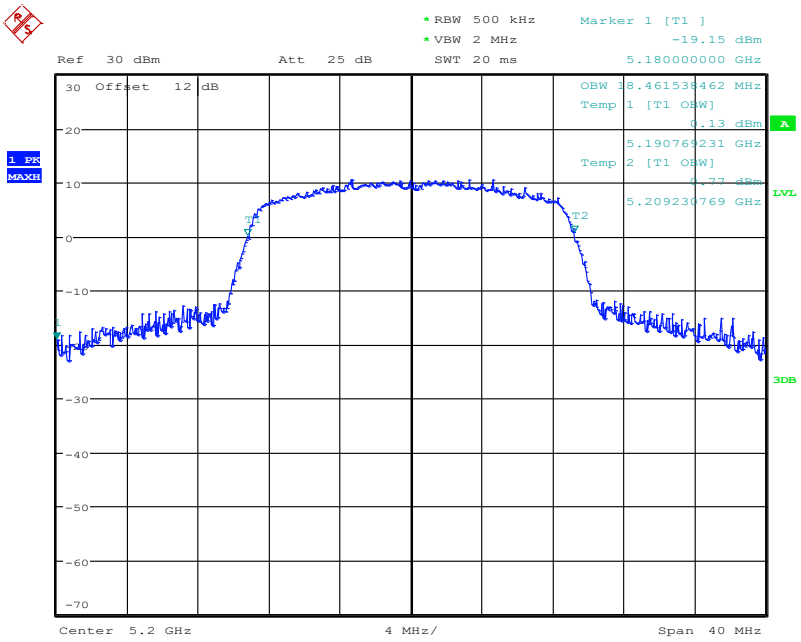

Fig.64 99% Occupied bandwidth (802.11ac-VHT20, 5200MHz)

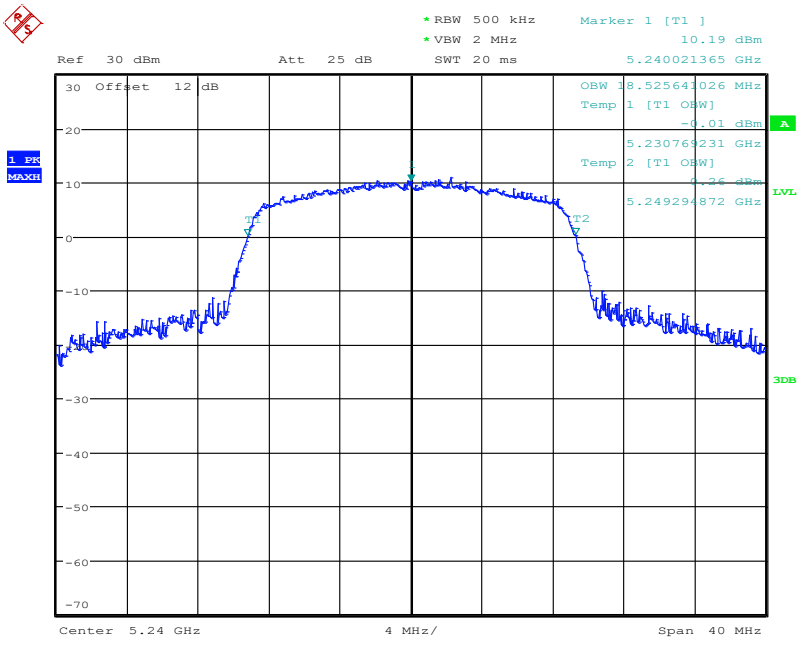

Fig.65 99% Occupied bandwidth (802.11ac-VHT20, 5240MHz)

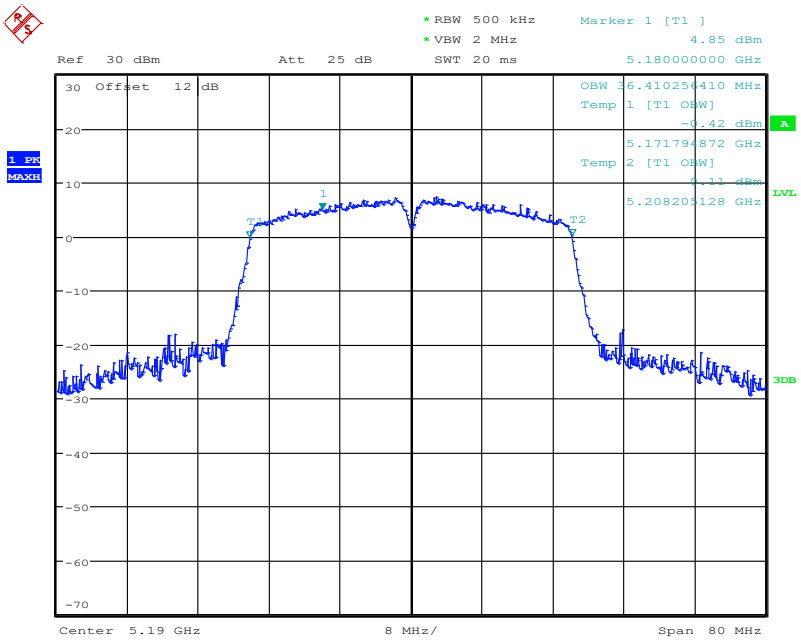

Fig.66 99% Occupied bandwidth (802.11ac-VHT40, 5190MHz)

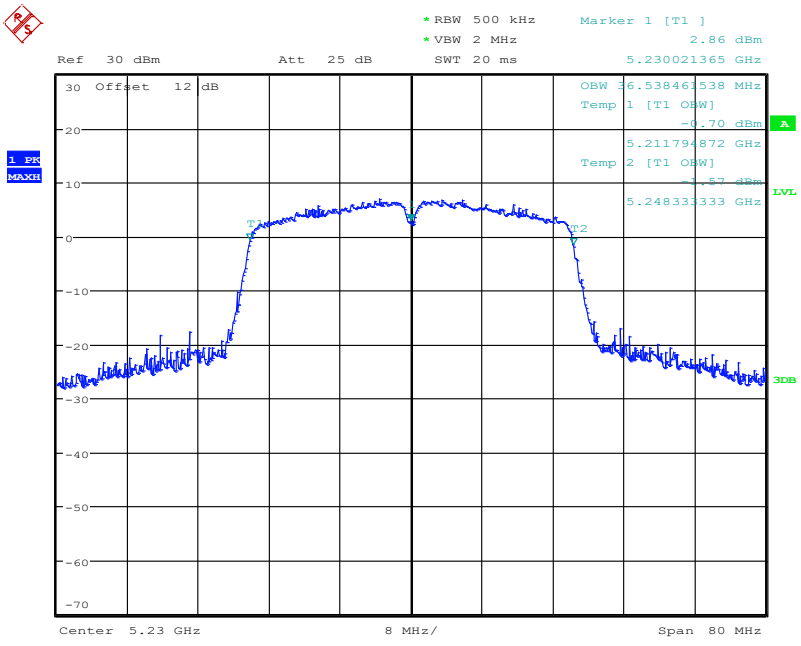

Fig.67 99% Occupied bandwidth (802.11ac-VHT40, 5230MHz)

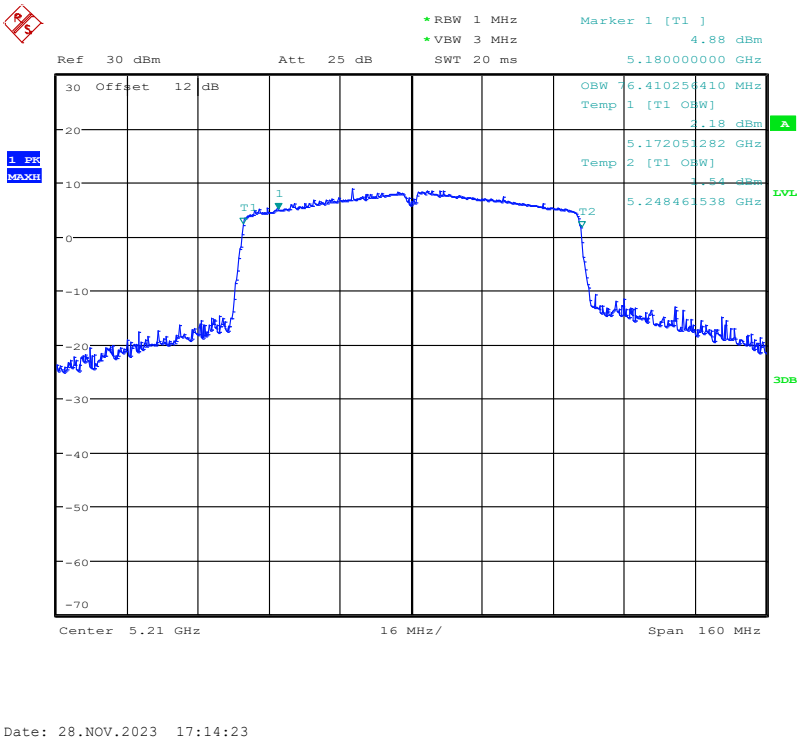

Fig.68 99% Occupied bandwidth (802.11ac-VHT80, 5210MHz)

Conclusion: PASS

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

Accredited Laboratory

A2LA has accredited

TELECOMMUNICATION TECHNOLOGY LABS, CAICT

Beijing, People's Republic of China

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).

Presented this 26th day of June 2023.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7049.01
Valid to July 31, 2024

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

***** END OF REPORT BODY *****