



**FCC PART 15  
TEST REPORT  
No. I21Z61482-IOT02**

**for**

**TCL Communication Ltd.**

**5G NR/ LTE/WCDMA/GSM Mobile Phone**

**T781S,T781SPP**

**FCC ID : 2ACCJN056**

**with**

**Hardware Version: 03**

**Software Version: 3D4Y**

**Issued Date: 2021-09-24**

**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.

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## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
I21Z61482-IOT02	Rev.0	1st edition	2021-09-24
I21Z61482-IOT02	Rev.1	show “/” on the table if there is no measurement on other data rates. Page 13~16	2021-09-24



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## 1. TEST LABORATORY

### 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.

### 1.1. Testing Location

Conducted testing Location: CTTL(huayuan North Road)

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

Radiated testing Location: CTTL(huayuan North Road)

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

### 1.2. Testing Environment

Normal Temperature: 15-35°C

Relative Humidity: 20-75%

### 1.3. Project date

Testing Start Date: 2021-08-13

Testing End Date: 2021-09-18

### 1.4. Signature

封爱宇

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**Feng Aiyu**  
(Prepared this test report)

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**Zheng Wei**  
(Reviewed this test report)

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**Hu Xiaoyu**  
(Approved this test report)



## **2. Client Information**

### **2.1. Applicant Information**

Company Name: TCL Communication Ltd.  
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science  
Park, Shatin, NT, Hong Kong  
City: /  
Postal Code: /  
Country: /  
Contact: Gong Zhizhou  
Telephone: 0086-755-36611722  
E-mail: zhizhou.gong@tcl.com

### **2.2. Manufacturer Information**

Company Name: TCL Communication Ltd.  
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science  
Park, Shatin, NT, Hong Kong  
City: /  
Postal Code: /  
Country: /  
Contact: Gong Zhizhou  
Telephone: 0086-755-36611722  
E-mail: zhizhou.gong@tcl.com



**3. EQUIPMENT UNDER TEST (EUT) AND**

**ANCILLARY EQUIPMENT(AE)**

**3.1. About EUT**

Description	5G NR/ LTE/WCDMA/GSM Mobile Phone
Model name	T781S,T781SPP
FCC ID	2ACCJN056
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
EUT16	016048000212259	03	3D4Y
EUT1	016048000215997	03	3D4Y

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

**3.3. Internal Identification of AE used during the test**

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

**AE1**

Model	TLp043F1
Manufacturer	BYD
Capacity	4360 mAh
Nominal Voltage	3.85V

**AE2**

Model	QC13US
Manufacturer	BYD
Note	/

**AE3**

Model	CDA0000183C1
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Manufacturer Juwei  
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 5G NR/ LTE/WCDMA/GSM Mobile 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	/	<b>P</b>
Peak Power Spectral Density	15.407	/	<b>P</b>
Occupied 26dB Bandwidth	15.403	/	<b>P</b>
Band edge compliance (Radiated)	15.209	/	<b>P</b>
Transmitter spurious emissions (Radiated)	15.407	/	<b>P</b>
AC Powerline Conducted Emission (150kHz- 30MHz)	15.407	/	<b>P</b>
Frequency Stability	15.407	/	<b>P</b>
99% Occupied bandwidth	/	/	<b>P</b>
Transmit Power Control	15.407	/	<b>NA</b>

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/matrix 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°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	2022-05-15
2	LISN	ENV216	101200	R&S	1 year	2022-05-30
3	Test Receiver	ESCI	100344	R&S	1 year	2022-02-23
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	100235	Rohde & Schwarz	1 year	2022-02-23
2	BiLog Antenna	VULB9163	9163-1223	Schwarzbeck	1 year	2022-03-22
3	Dual-Ridge Waveguide Horn Antenna	3115	6914	ETS-Lindgren	1 year	2022-02-03
4	Bluetooth Tester	CBT	101042	Rohde & Schwarz	1 year	2022-01-03



## 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)
$30\text{MHz} \leq f \leq 2\text{GHz}$	1.22
$2\text{GHz} \leq f \leq 3.6\text{GHz}$	1.22
$3.6\text{GHz} \leq f \leq 8\text{GHz}$	1.22
$8\text{GHz} \leq f \leq 12.75\text{GHz}$	1.51
$12.75\text{GHz} \leq f \leq 26\text{GHz}$	1.51
$26\text{GHz} \leq f \leq 40\text{GHz}$	1.59

#### Radiated (k=2)

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

### 8.6. AC Power-line Conducted Emission

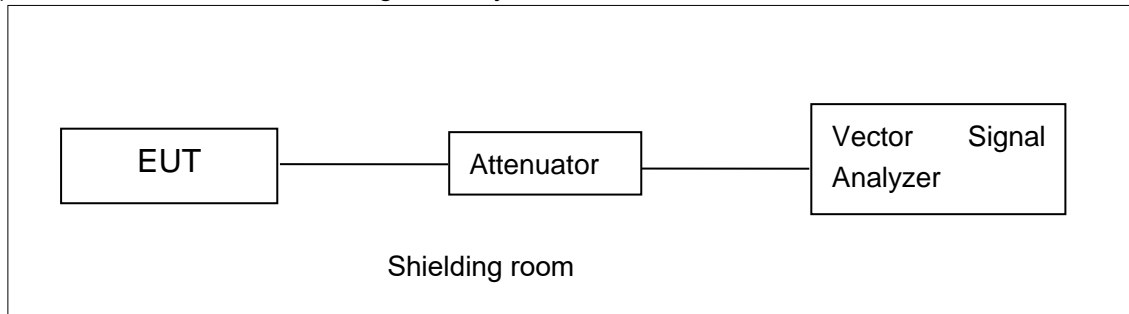
Measurement Uncertainty : 3.38,k=2

## 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

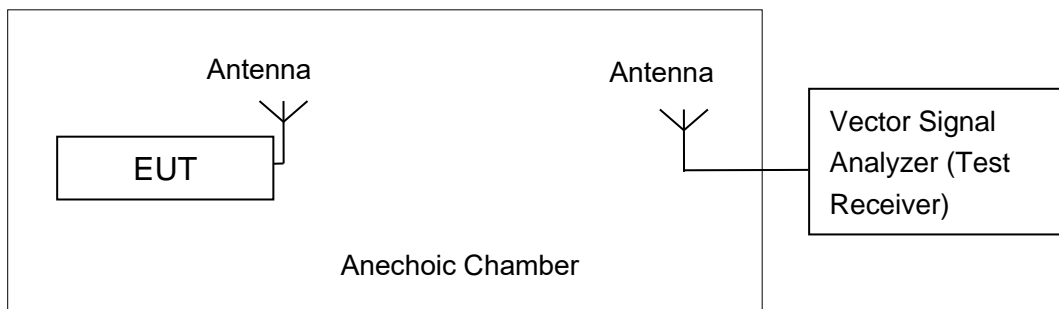


#### A.1.2. Radiated Emission Measurements

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

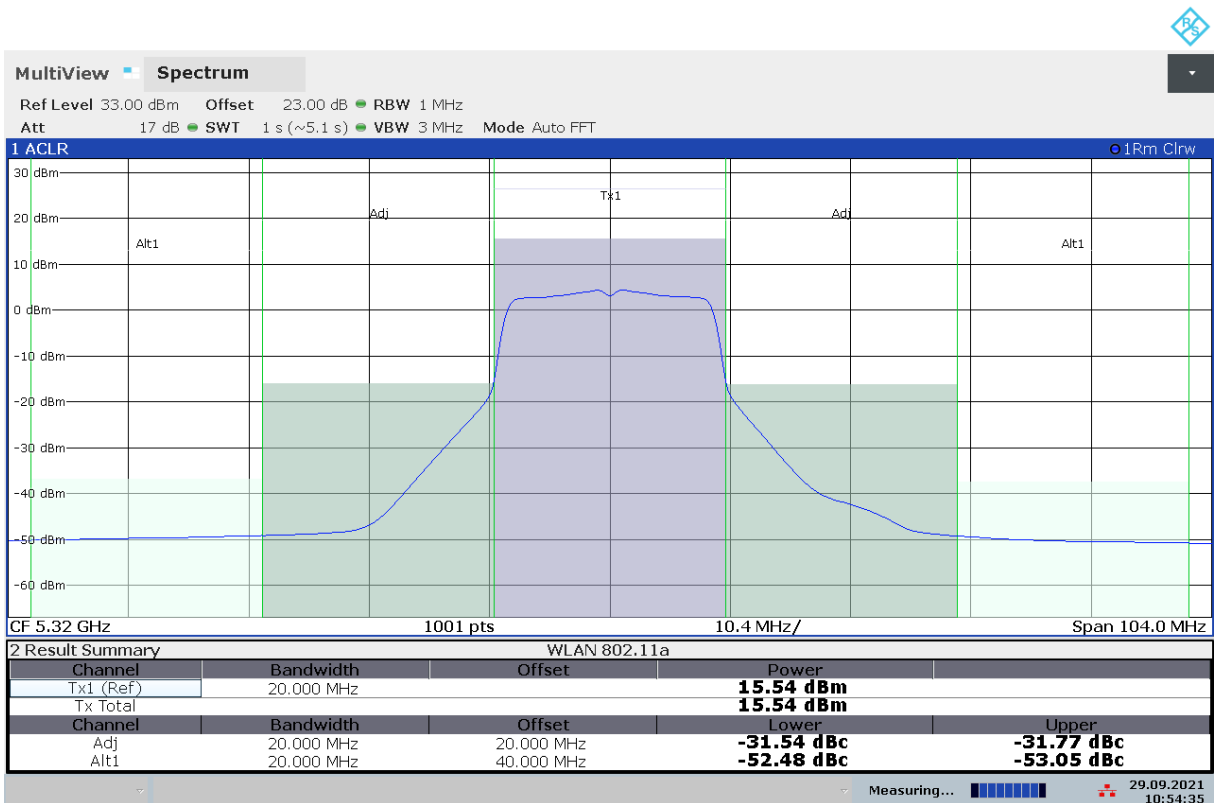
### Measurement Limit and Method:

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 measurement method SA-2 is made according to KDB 789033

### Measurement Results:EUT16:



PIC.ANT10 11a 6Mbps 5320MHz Power

### 802.11a mode

Mode	Channel	Test Result (dBm)							
		Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
802.11a	5180MHz (Ch36)	16.06	/	/	/	/	/	/	/
	5200MHz (Ch40)	16.08	/	/	/	/	/	/	/
	5240MHz(Ch48)	15.73	/	/	/	/	/	/	/
	5260MHz(Ch52)	15.76	/	/	/	/	/	/	/
	5280MHz(Ch56)	15.98	/	/	/	/	/	/	/
	5320MHz(Ch64)	15.54	/	/	/	/	/	/	/
	5500MHz(Ch100)	13.36	/	/	/	/	/	/	/



	5580MHz(Ch116)	14.84	/	/	/	/	/	/	/
	5700MHz(Ch140)	14.87	/	/	/	/	/	/	/
	5720MHz(CH144)	12.28	/	/	/	/	/	/	/

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

**802.11n-HT20 mode**

Mode	Channel	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT20)	5180MHz (Ch36)	16.03	/	/	/	/	/	/	/
	5200MHz (Ch40)	16.02	/	/	/	/	/	/	/
	5240MHz(Ch48)	15.70	/	/	/	/	/	/	/
	5260MHz(Ch52)	15.74	/	/	/	/	/	/	/
	5280MHz(Ch56)	15.90	/	/	/	/	/	/	/
	5320MHz(Ch64)	16.18	/	/	/	/	/	/	/
	5500MHz(Ch100)	13.34	/	/	/	/	/	/	/
	5580MHz(Ch116)	14.84	/	/	/	/	/	/	/
	5700MHz(Ch140)	14.86	/	/	/	/	/	/	/
	5720MHz(CH144)	12.26	/	/	/	/	/	/	/

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

**802.11ac-HT20 mode**

Mode	Channel	Test Result (dBm)								
		Data Rate								
		MCS0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8
802.11 ac (HT20)	5180MHz (Ch36)	15.62	/	/	/	/	/	/	/	/
	5200MHz (Ch40)	15.76	/	/	/	/	/	/	/	/
	5240MHz(Ch48)	15.38	/	/	/	/	/	/	/	/
	5260MHz(Ch52)	15.44	/	/	/	/	/	/	/	/
	5280MHz(Ch56)	15.67	/	/	/	/	/	/	/	/
	5320MHz(Ch64)	15.93	/	/	/	/	/	/	/	/
	5500MHz(Ch100)	13.03	/	/	/	/	/	/	/	/
	5580MHz(Ch116)	14.53	/	/	/	/	/	/	/	/
	5700MHz(Ch140)	14.55	/	/	/	/	/	/	/	/
	5720MHz(CH144 )	12.27	/	/	/	/	/	/	/	/

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



**802.11n-HT40 mode**

Mode	Channel	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT40)	5190MHz (Ch38)	14.96	/	/	/	/	/	/	/
	5230MHz(Ch46)	14.96	/	/	/	/	/	/	/
	5270MHz(Ch54)	14.91	/	/	/	/	/	/	/
	5310MHz(Ch62)	15.40	/	/	/	/	/	/	/
	5510MHz(Ch102)	13.02	/	/	/	/	/	/	/
	5550MHz(Ch110)	12.80	/	/	/	/	/	/	/
	5670MHz(Ch134)	14.47	/	/	/	/	/	/	/
5710MHz(CH142)	11.64	/	/	/	/	/	/	/	

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

**802.11ac-HT40 mode**

Mode	Channel	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11 ac (HT40)	5190MHz (Ch38)	15.46	/	/	/	/	/	/	/	/	/
	5230MHz(Ch46)	15.49	/	/	/	/	/	/	/	/	/
	5270MHz(Ch54)	15.39	/	/	/	/	/	/	/	/	/
	5310MHz(Ch62)	15.88	/	/	/	/	/	/	/	/	/
	5510MHz(Ch102)	12.99	/	/	/	/	/	/	/	/	/
	5550MHz(Ch110)	13.38	/	/	/	/	/	/	/	/	/
	5670MHz(Ch134)	14.97	/	/	/	/	/	/	/	/	/
5710MHz(CH142)	11.68	/	/	/	/	/	/	/	/	/	

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

**802.11ac-HT80 mode**

Mode	Channel	Test Result (dBm)									
		Data Rate									



		MCS0	MC S1	MC S2	MC S3	MC S4	MC S5	MC S6	MC S7	MC S8	MCS9
802.11ac (HT80)	5210MHz(C h42)	14.99	/	/	/	/	/	/	/	/	/
	5290MHz(C h58)	14.97	/	/	/	/	/	/	/	/	/
	5530MHz(C h106)	12.31	/	/	/	/	/	/	/	/	/
	5610MHz(C h122)	14.36	/	/	/	/	/	/	/	/	/
	5690MHz(C h138)	11.29	/	/	/	/	/	/	/	/	/

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

The duty cycle of all mode are 98%.



### A.3. Peak Power Spectral Density (conducted)

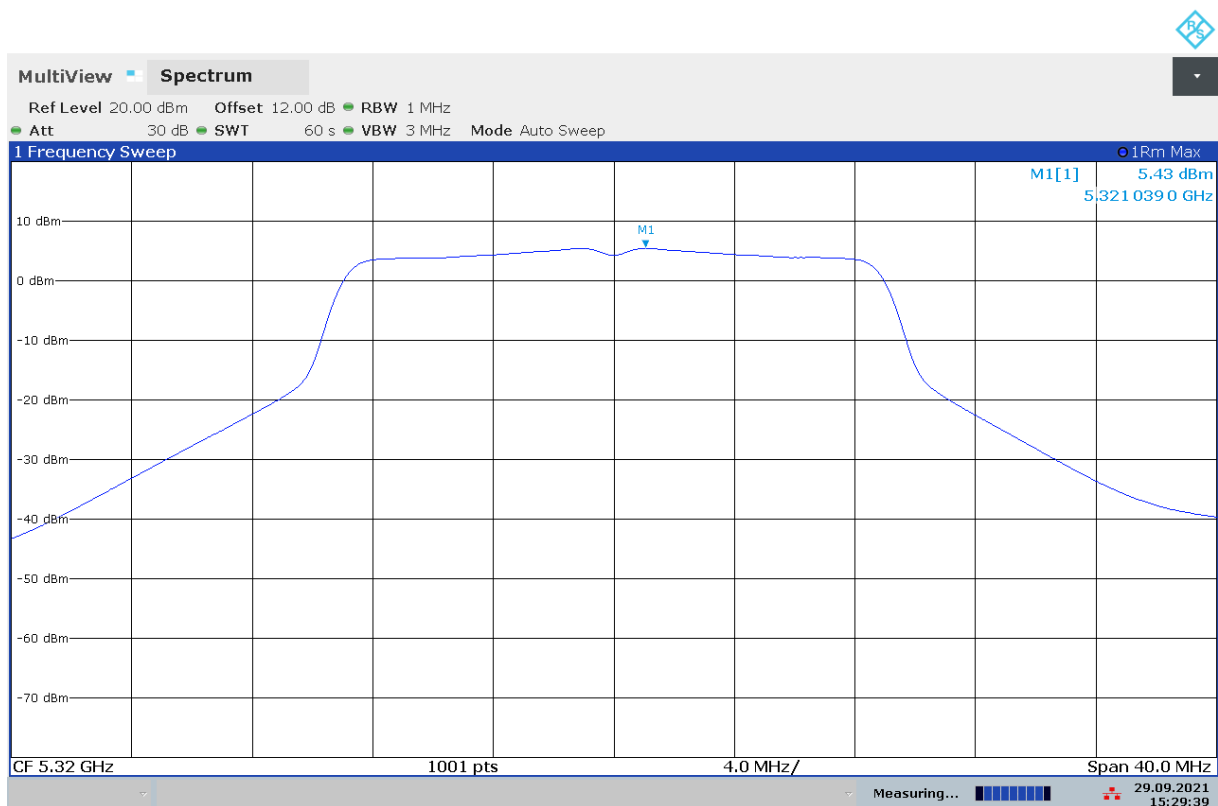
**Measurement Limit:**

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:**

**EUT16:**



**PIC. Power Spectral Density 802.11a CH64**

Mode	Frequency	Power Spectral Density	Conclusion
		(dBm/MHz)	
802.11a	5180 MHz	4.60	P
	5200 MHz	4.66	P
	5240 MHz	4.43	P
	5260 MHz	4.51	P



	5280 MHz	4.64	P
	5320 MHz	5.43	P
	5500 MHz	2.07	P
	5580 MHz	3.58	P
	5700 MHz	3.63	P
	5720 MHz	1.07	P
802.11n (HT20)	5180 MHz	4.58	P
	5200 MHz	4.73	P
	5240 MHz	4.50	P
	5260 MHz	4.53	P
	5280 MHz	4.76	P
	5320 MHz	5.01	P
	5500 MHz	2.79	P
	5580 MHz	3.63	P
	5700 MHz	-0.01	P
	5720 MHz	1.11	P
802.11ac (HT20)	5180 MHz	4.65	P
	5200 MHz	4.79	P
	5240 MHz	4.53	P
	5260 MHz	-0.56	P
	5280 MHz	4.81	P
	5320 MHz	5.05	P
	5500 MHz	-0.16	P
	5580 MHz	2.16	P
	5700 MHz	3.68	P
	5720 MHz	1.12	P
802.11n (HT40)	5190 MHz	1.06	P
	5230 MHz	1.09	P
	5270 MHz	1.05	P
	5310 MHz	1.55	P
	5510 MHz	0.13	P
	5550 MHz	-1.00	P
	5670 MHz	0.2	P
	5710 MHz	-2.55	P
802.11ac (HT40)	5190 MHz	1.65	P
	5230 MHz	1.61	P
	5270 MHz	1.52	P
	5310 MHz	1.98	P
	5510 MHz	-0.95	P
	5550 MHz	-0.63	P
	5670 MHz	1.03	P
	5710 MHz	-1.96	P
	5210MHz	-2.26	P



<b>802.11ac (HT80)</b>	5290MHz	-2.20	P
	5530MHz	-4.90	P
	5610MHz	-2.80	P
	5690MHz	-5.92	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:**

**EUT16:**

Mode	Frequency	Occupied 26dB Bandwidth	
		( MHz)	
802.11a	5180 MHz	25.40	P
	5200 MHz	25.28	P
	5240 MHz	25.48	P
	5260 MHz	24.88	P
	5280 MHz	25.64	P
	5320 MHz	25.52	P
	5500 MHz	25.32	P
	5580 MHz	26.16	P
	5700 MHz	25.88	P
	5720 MHz	25.52	P
802.11n HT20	5180 MHz	25.36	P
	5200 MHz	25.72	P
	5240 MHz	25.44	P
	5260 MHz	25.40	P
	5280 MHz	25.48	P
	5320 MHz	25.12	P
	5500 MHz	25.48	P
	5580 MHz	25.64	P
	5700 MHz	25.20	P
	5720 MHz	25.24	P
802.11ac HT20	5180 MHz	25.44	P
	5200 MHz	25.20	P
	5240 MHz	25.28	P
	5260 MHz	25.32	P
	5280 MHz	25.60	P
	5320 MHz	25.12	P
	5500 MHz	25.48	P



	5580 MHz	26.32	P
	5700 MHz	25.88	P
	5720 MHz	25.28	P
802.11n (HT40)	5190 MHz	42.40	P
	5230 MHz	42.40	P
	5270 MHz	42.56	P
	5310 MHz	42.64	P
	5510 MHz	42.48	P
	5550 MHz	42.56	P
	5670 MHz	42.48	P
802.11ac (HT40)	5190 MHz	42.64	P
	5230 MHz	42.80	P
	5270 MHz	42.40	P
	5310 MHz	42.24	P
	5510 MHz	42.48	P
	5550 MHz	42.64	P
	5670 MHz	42.24	P
802.11ac (HT80)	5210MHz	84.80	P
	5290MHz	84.80	P
	5530MHz	84.96	P
	5610MHz	84.00	P
	5690MHz	84.16	P

**Conclusion: PASS**

**Test graphs as below:**

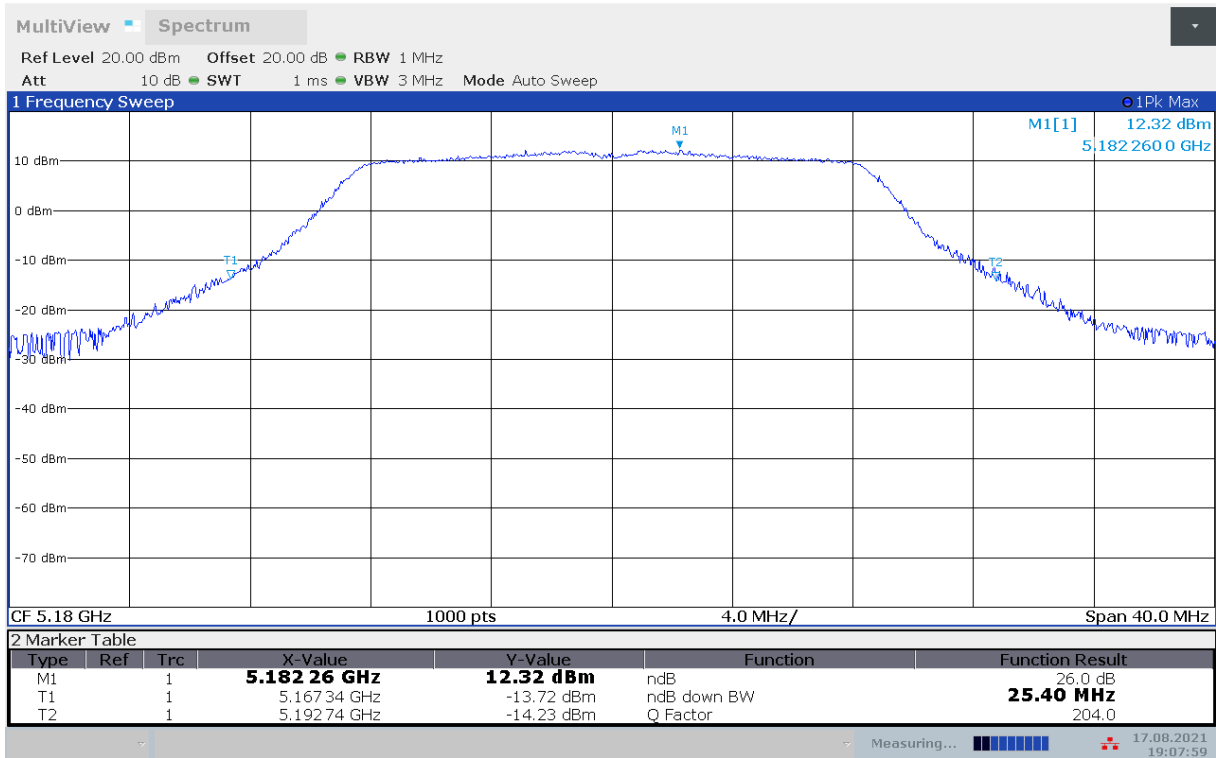


Fig.1 Occupied 26dB Bandwidth (802.11a, 5180MHz)

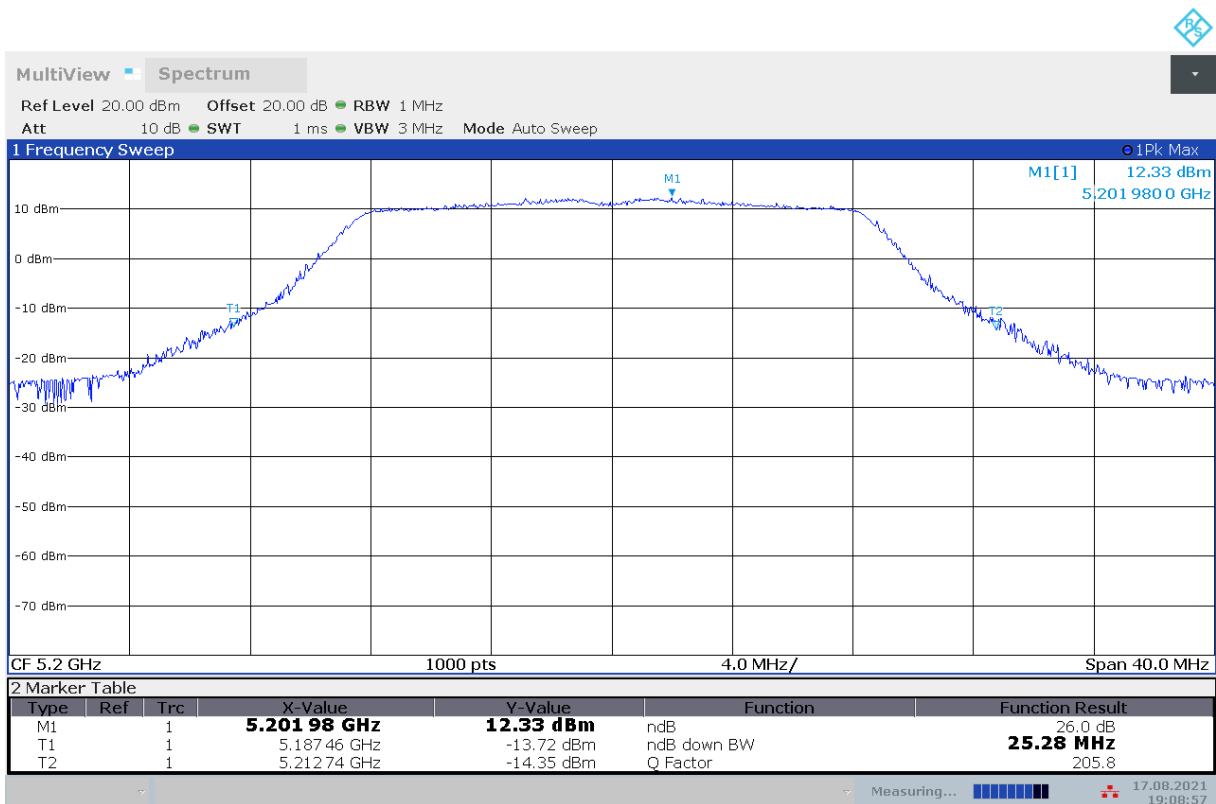


Fig.2 Occupied 26dB Bandwidth (802.11a, 5200MHz)

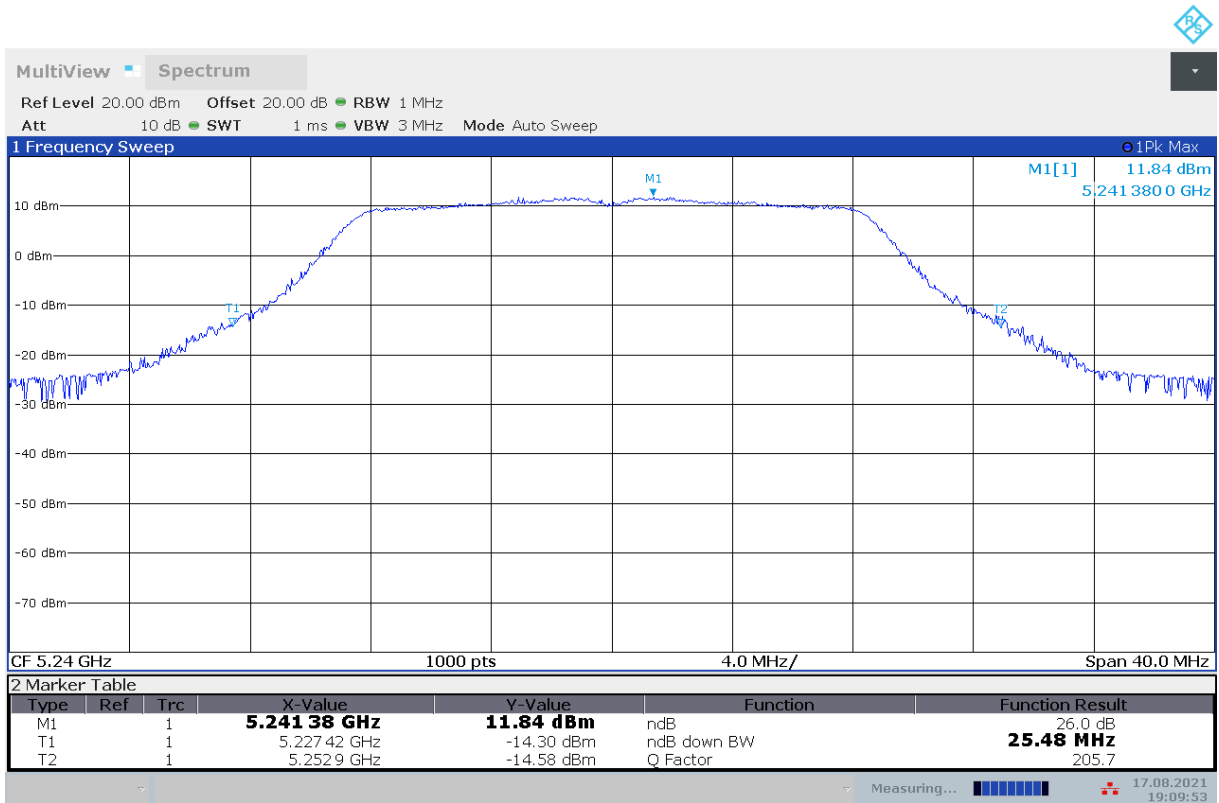


Fig.3 Occupied 26dB Bandwidth (802.11a, 5240MHz)

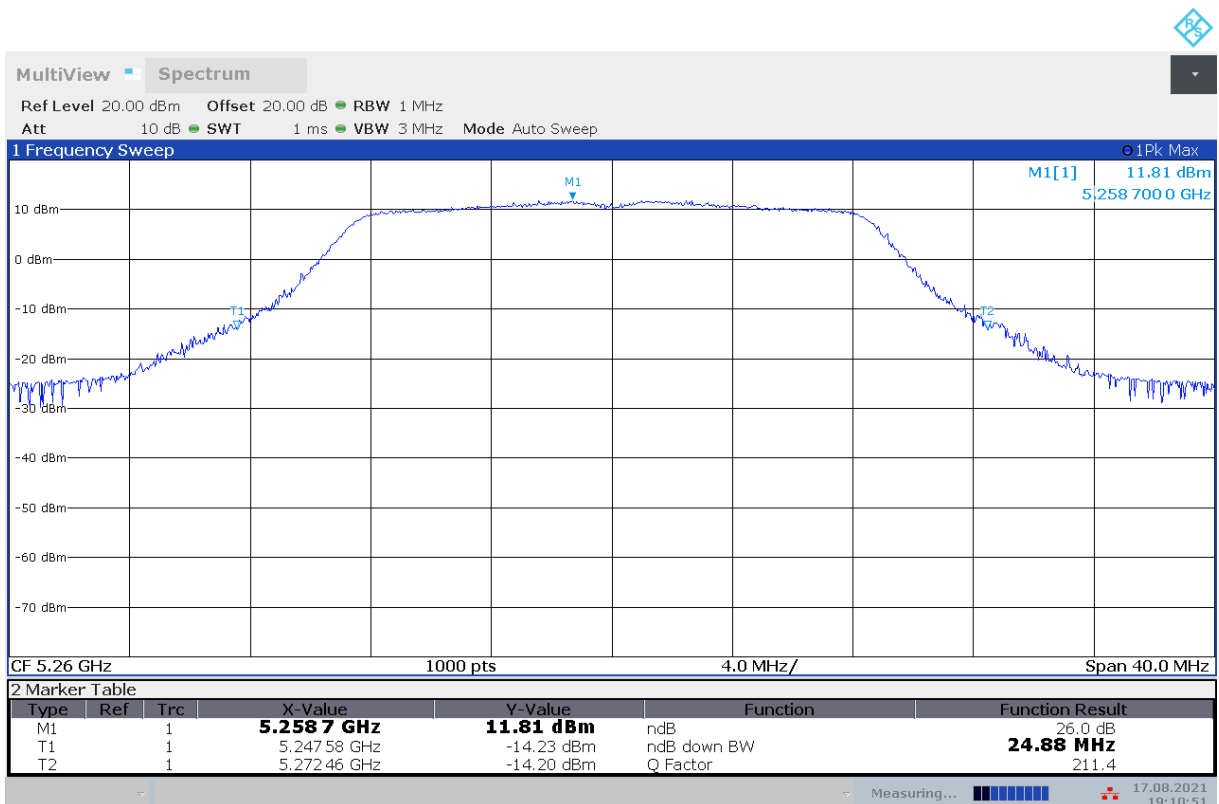


Fig.4 Occupied 26dB Bandwidth (802.11a, 5260MHz)

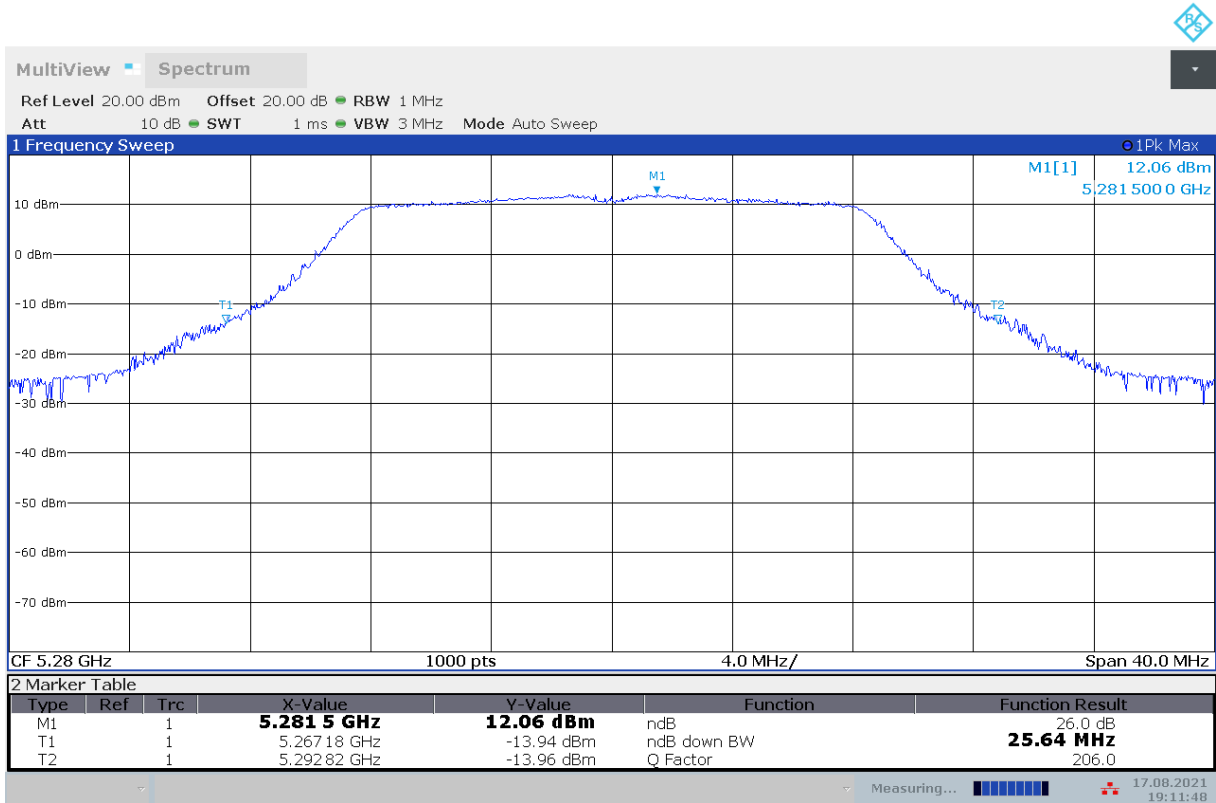


Fig.5 Occupied 26dB Bandwidth (802.11a, 5280MHz)

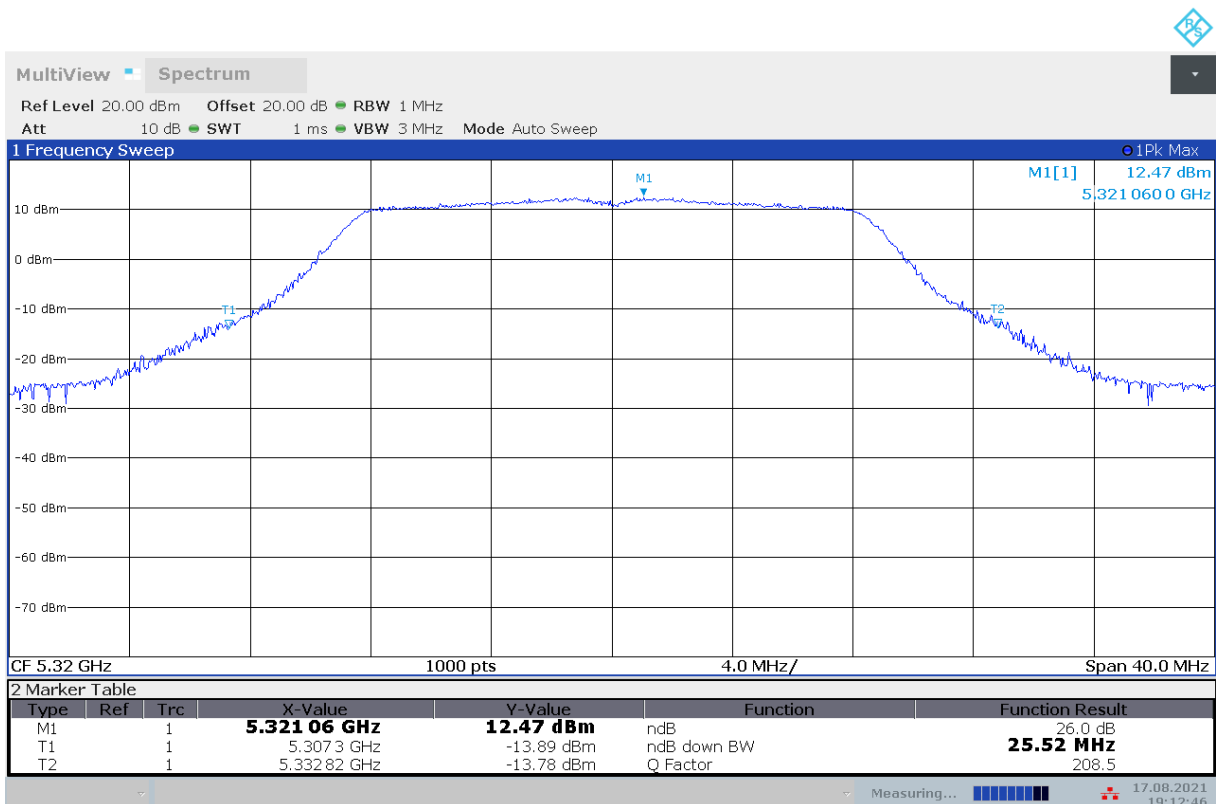


Fig.6 Occupied 26dB Bandwidth (802.11a, 5320MHz)



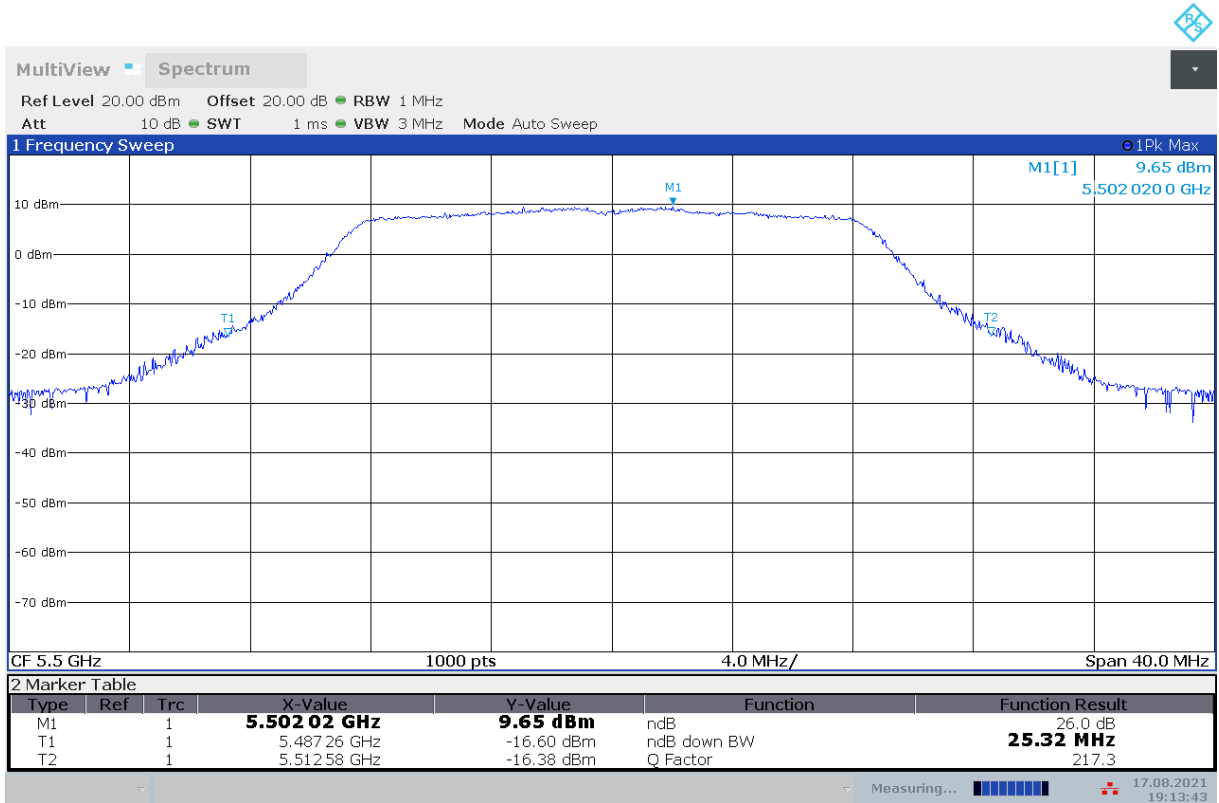


Fig.7 Occupied 26dB Bandwidth (802.11a, 5500MHz)

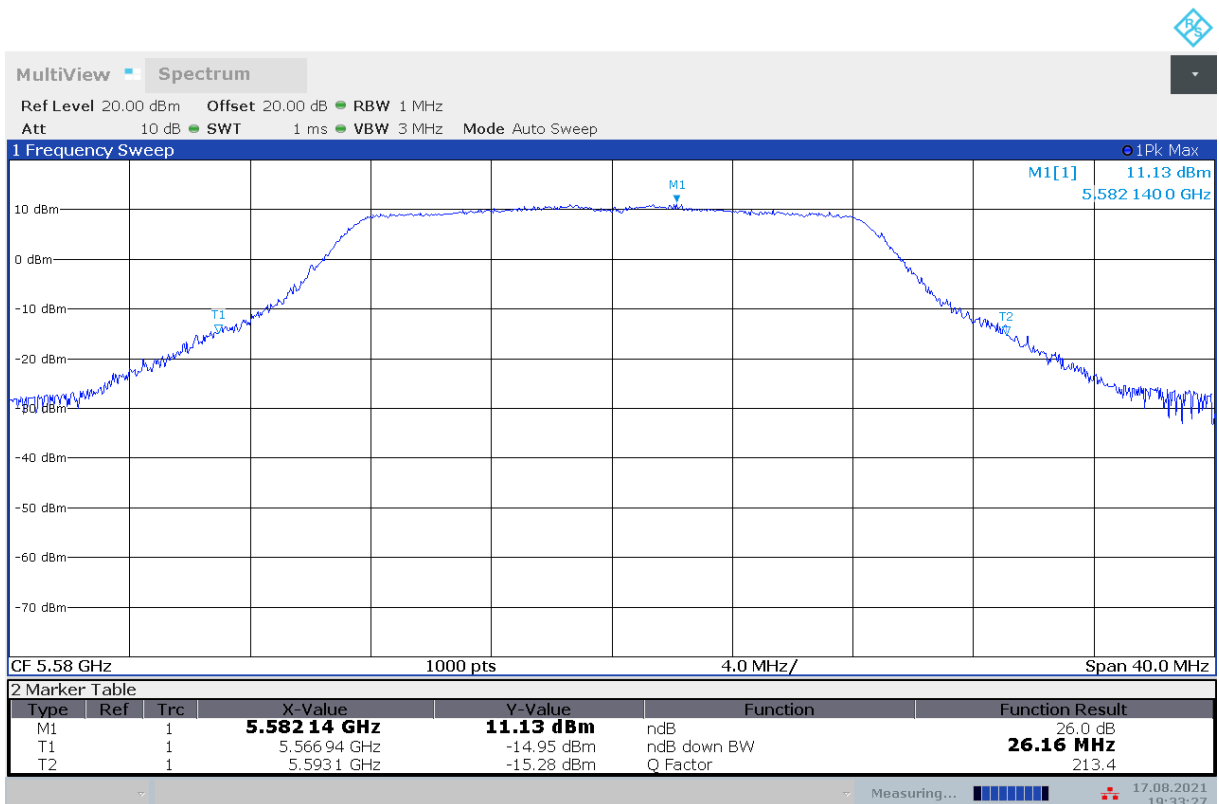


Fig.8 Occupied 26dB Bandwidth (802.11a, 5580MHz)

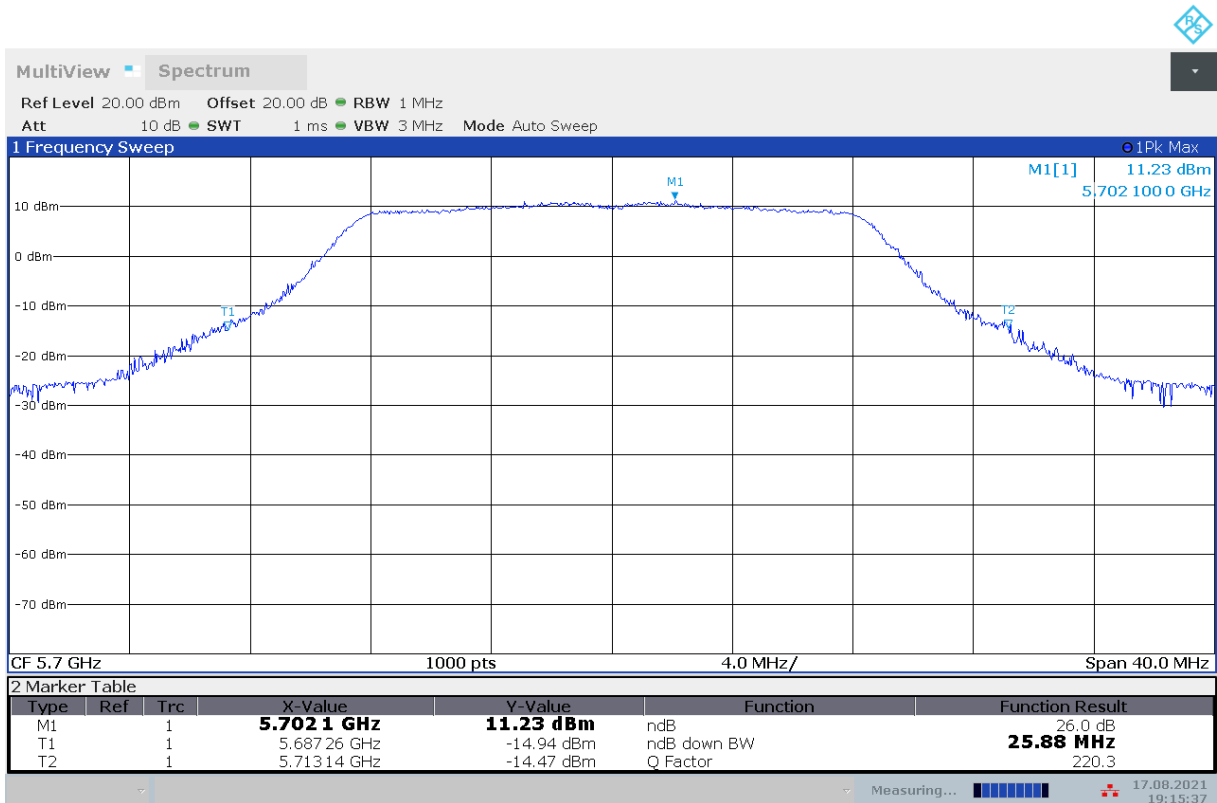


Fig.9 Occupied 26dB Bandwidth (802.11a, 5700MHz)

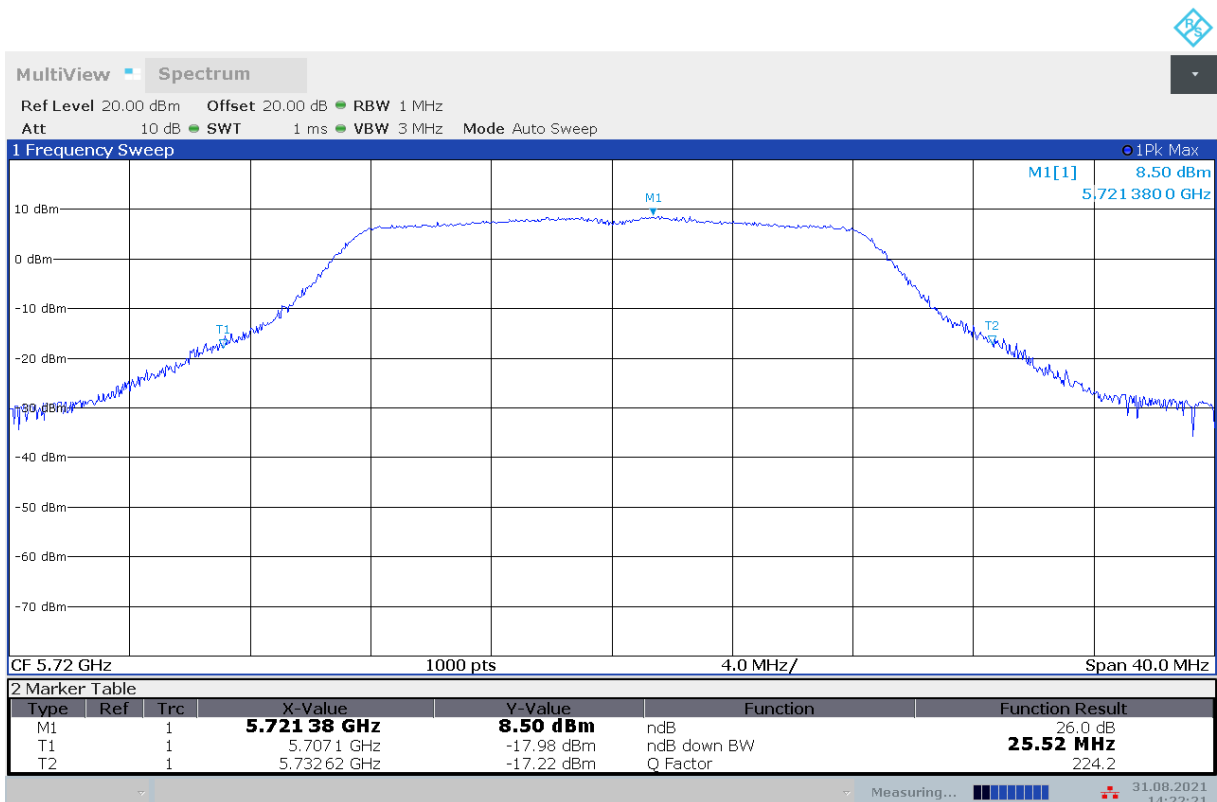


Fig.10 Occupied 26dB Bandwidth (802.11a, 5720MHz)

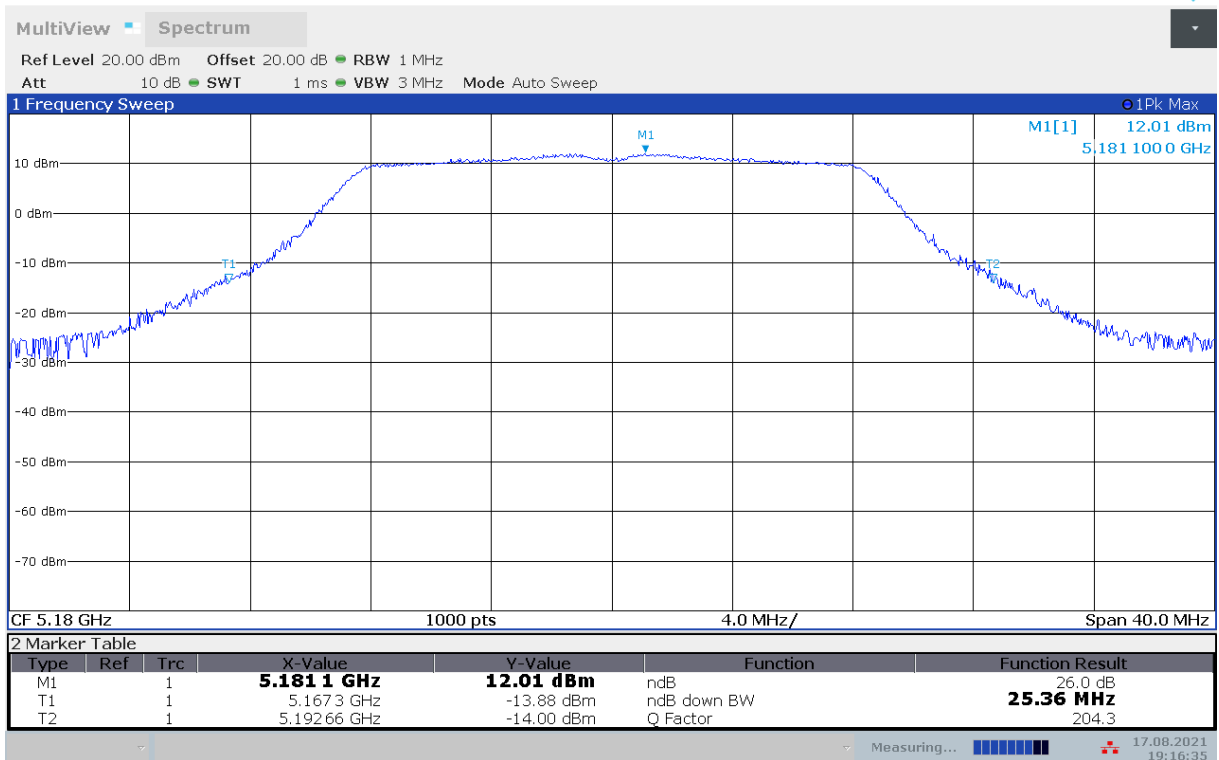


Fig.11 Occupied 26dB Bandwidth (802.11n-HT20, 5180MHz)

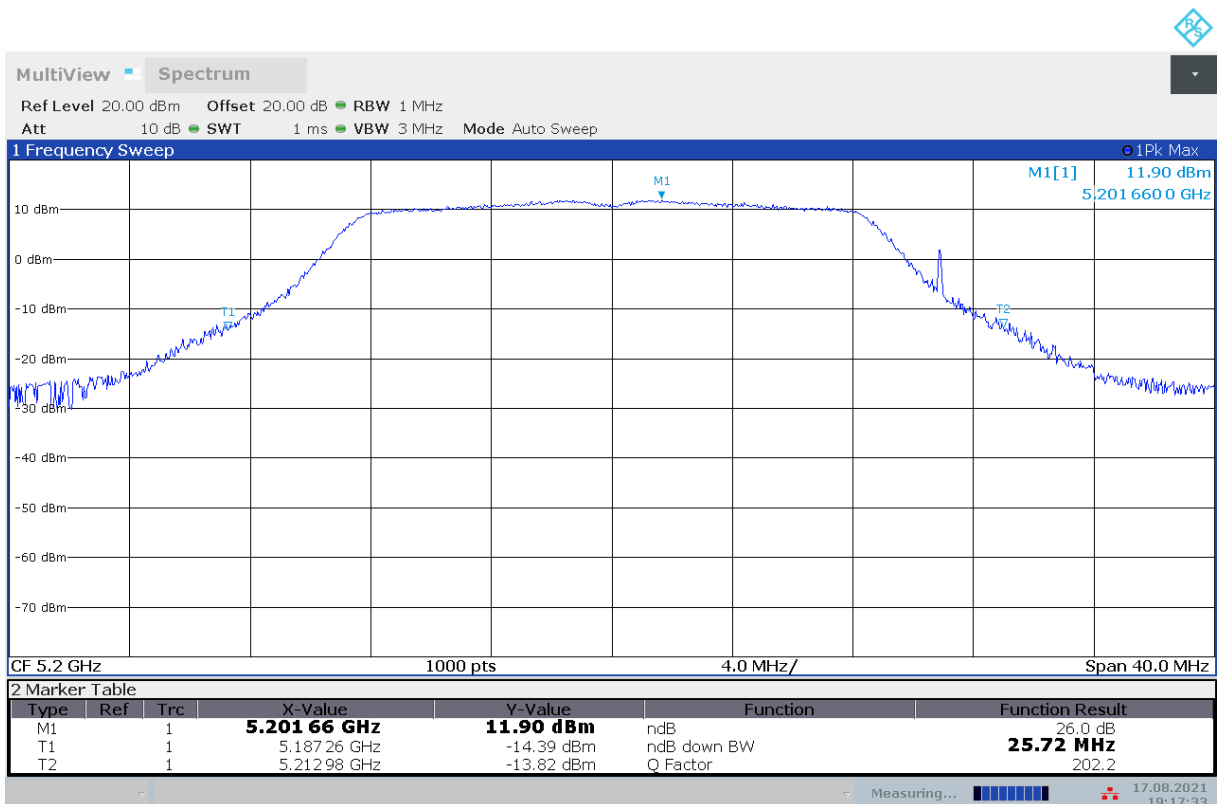


Fig.12 Occupied 26dB Bandwidth (802.11n-HT20, 5200MHz)

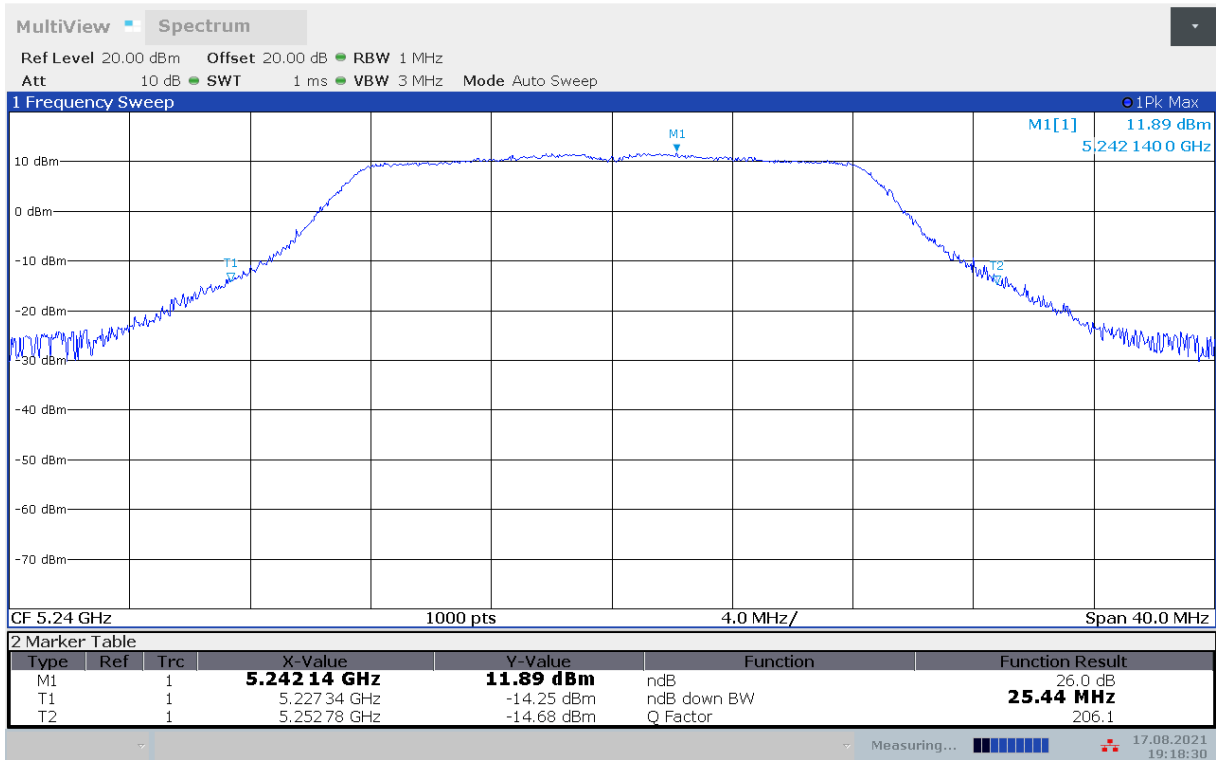


Fig.13 Occupied 26dB Bandwidth (802.11n-HT20, 5240MHz)

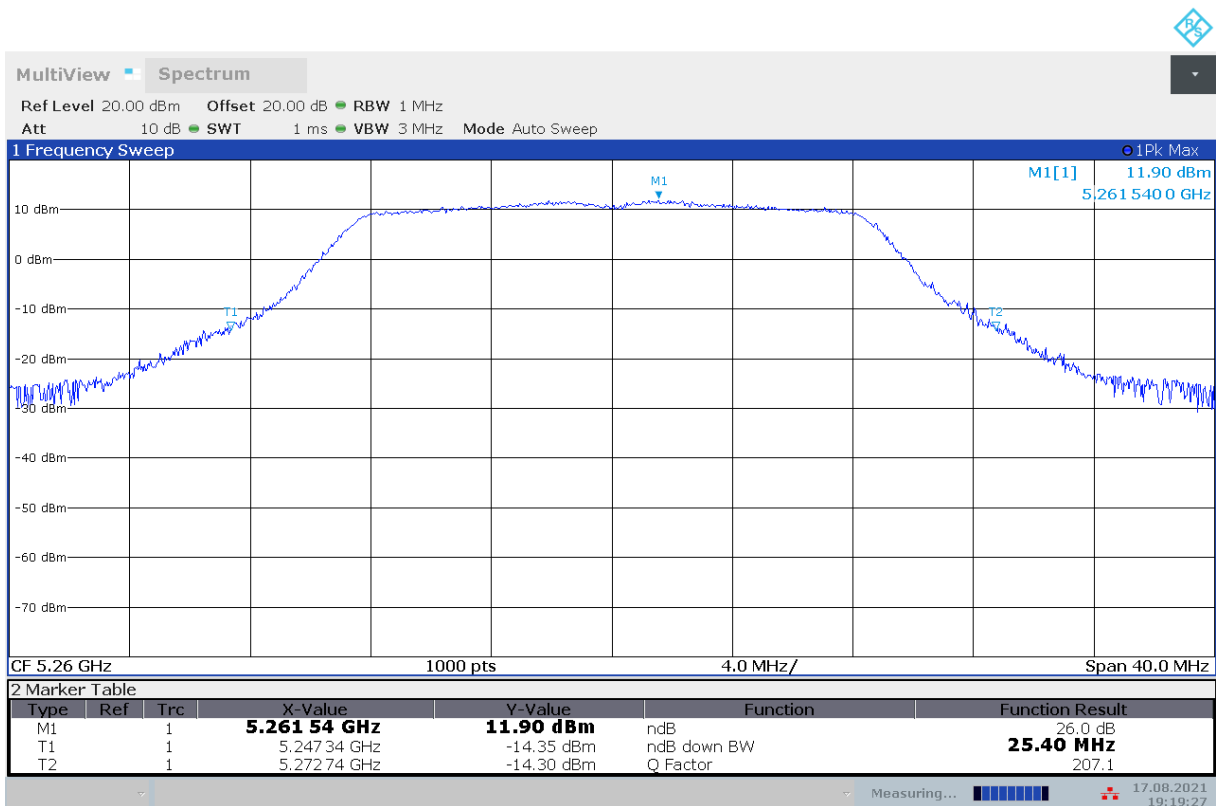


Fig.14 Occupied 26dB Bandwidth (802.11n-HT20, 5260MHz)

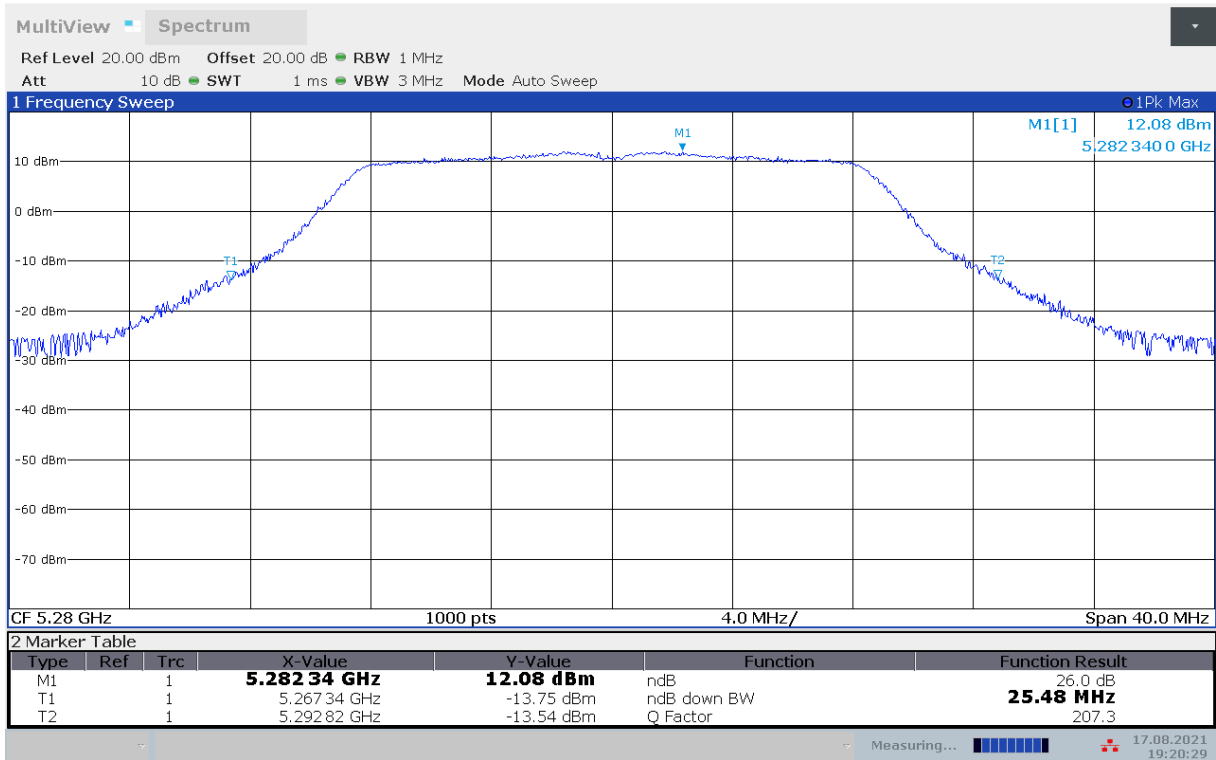


Fig.15 Occupied 26dB Bandwidth (802.11n-HT20, 5280MHz)

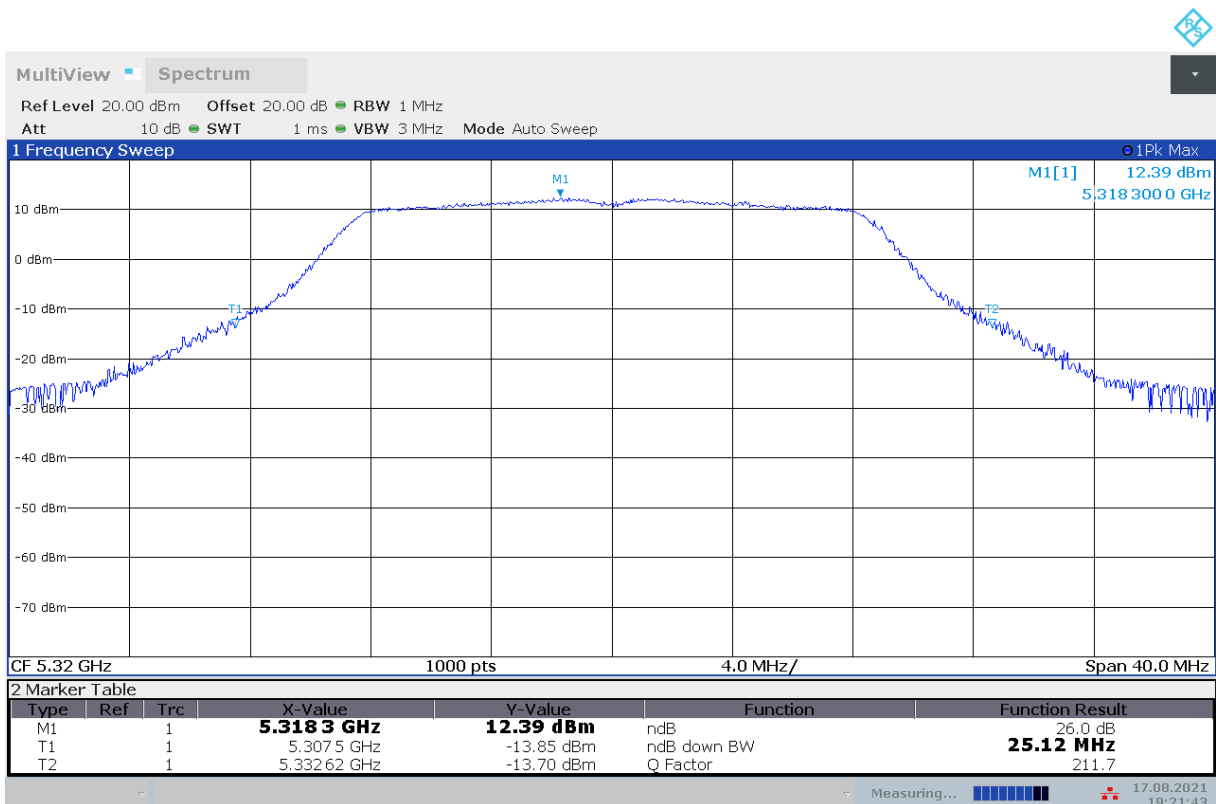


Fig.16 Occupied 26dB Bandwidth (802.11n-HT20, 5320MHz)

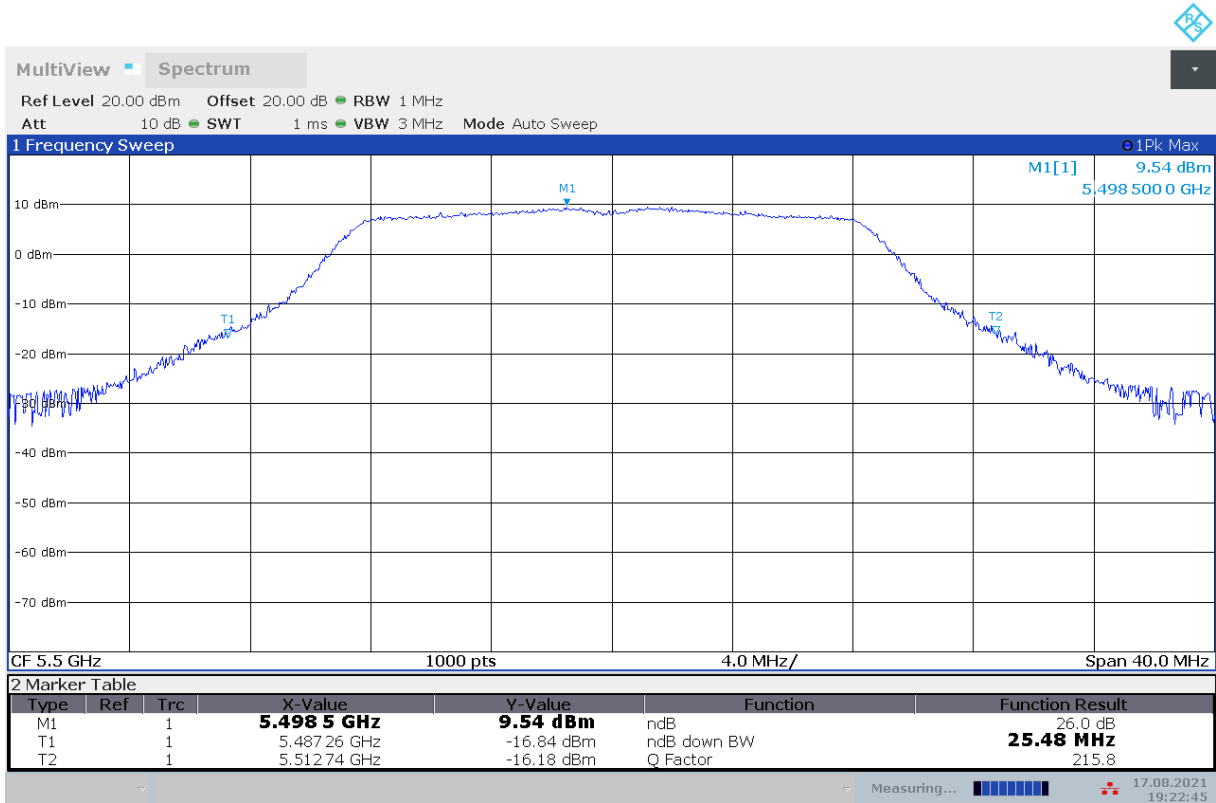


Fig.17 Occupied 26dB Bandwidth (802. 11n-HT20, 5500MHz)

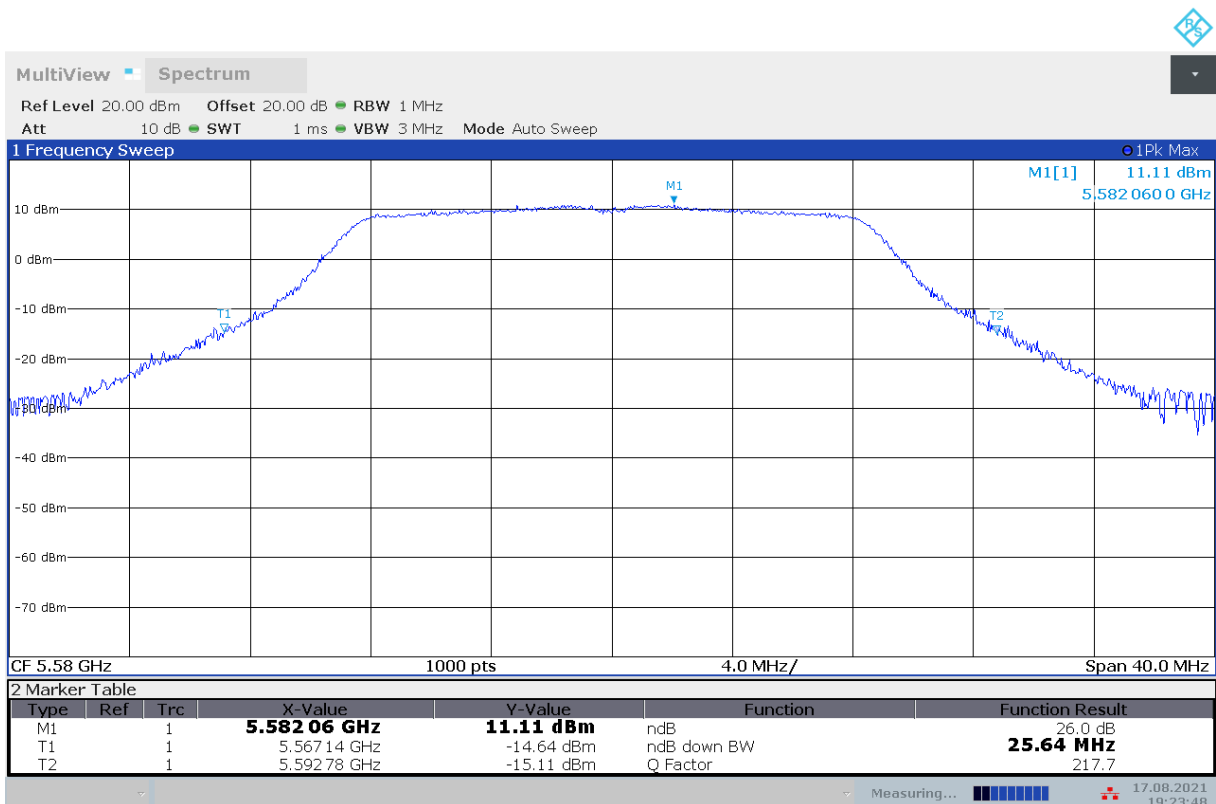


Fig.18 Occupied 26dB Bandwidth (802. 11n-HT20, 5580MHz)

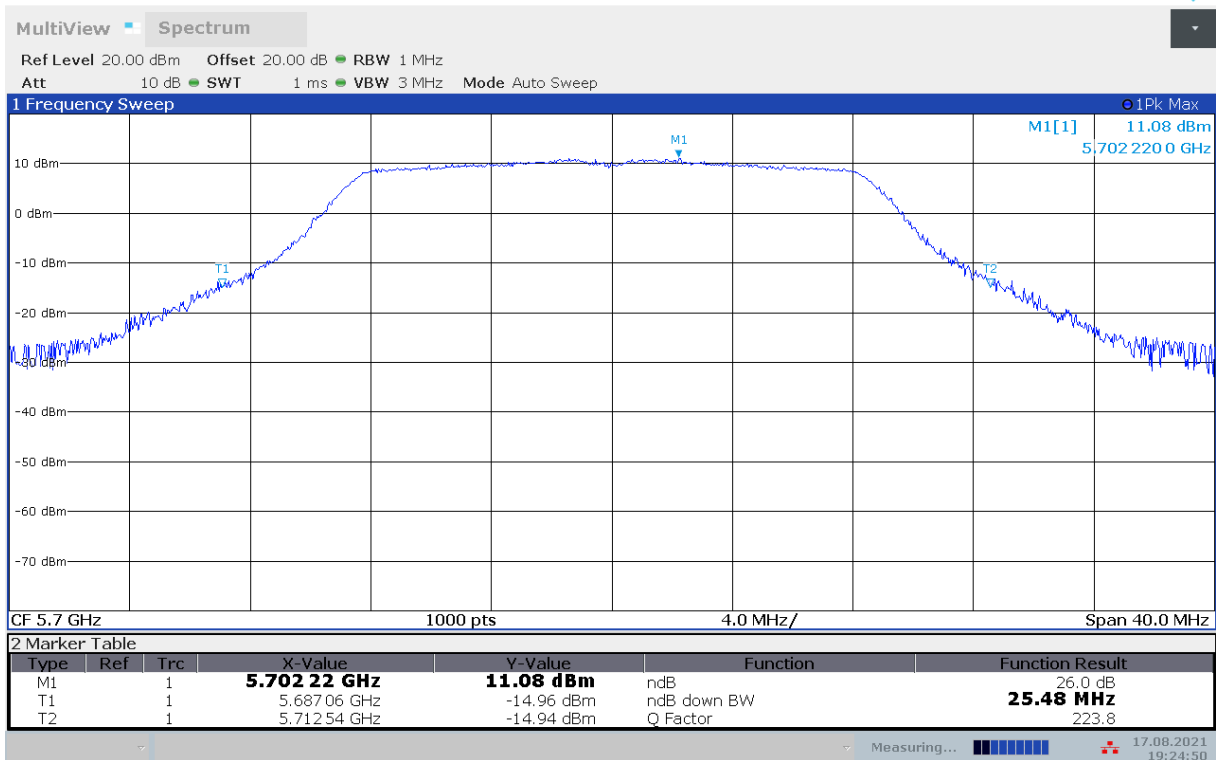


Fig.19 Occupied 26dB Bandwidth (802. 11n-HT20, 5700MHz)

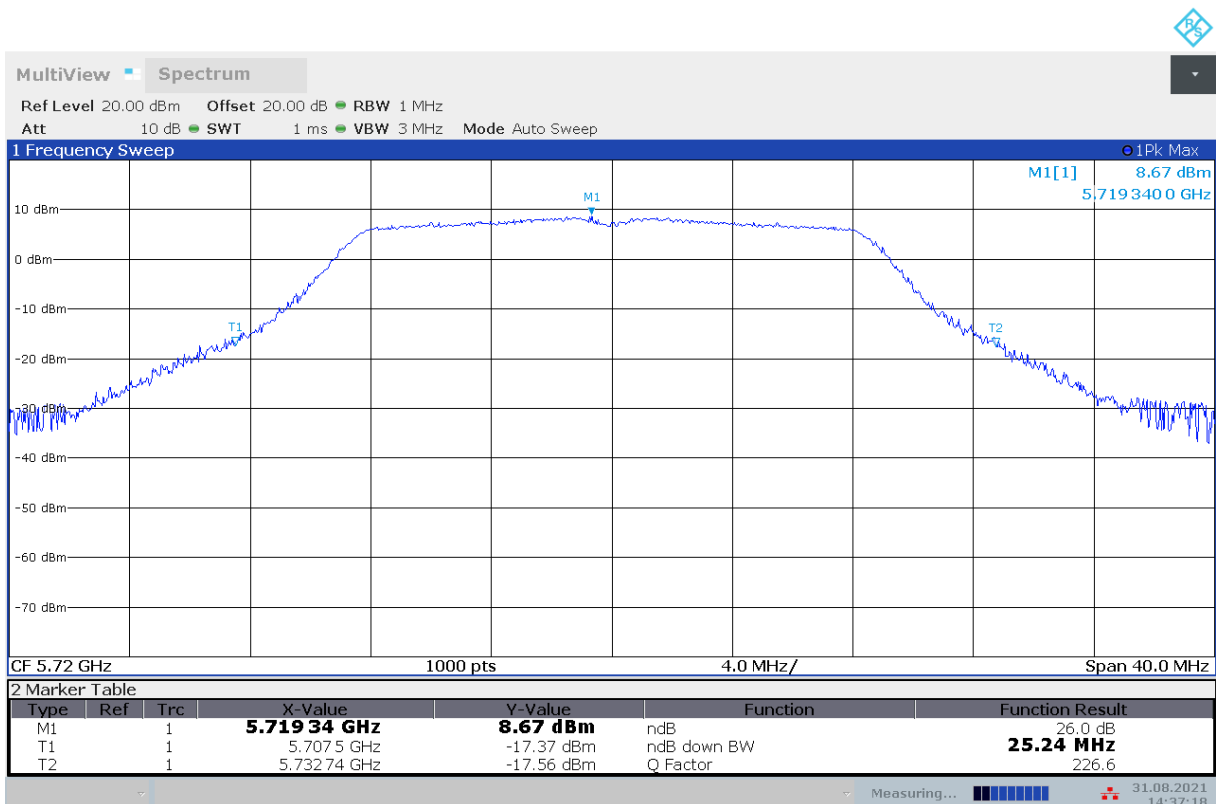


Fig.20 Occupied 26dB Bandwidth (802. 11n-HT20, 5720MHz)

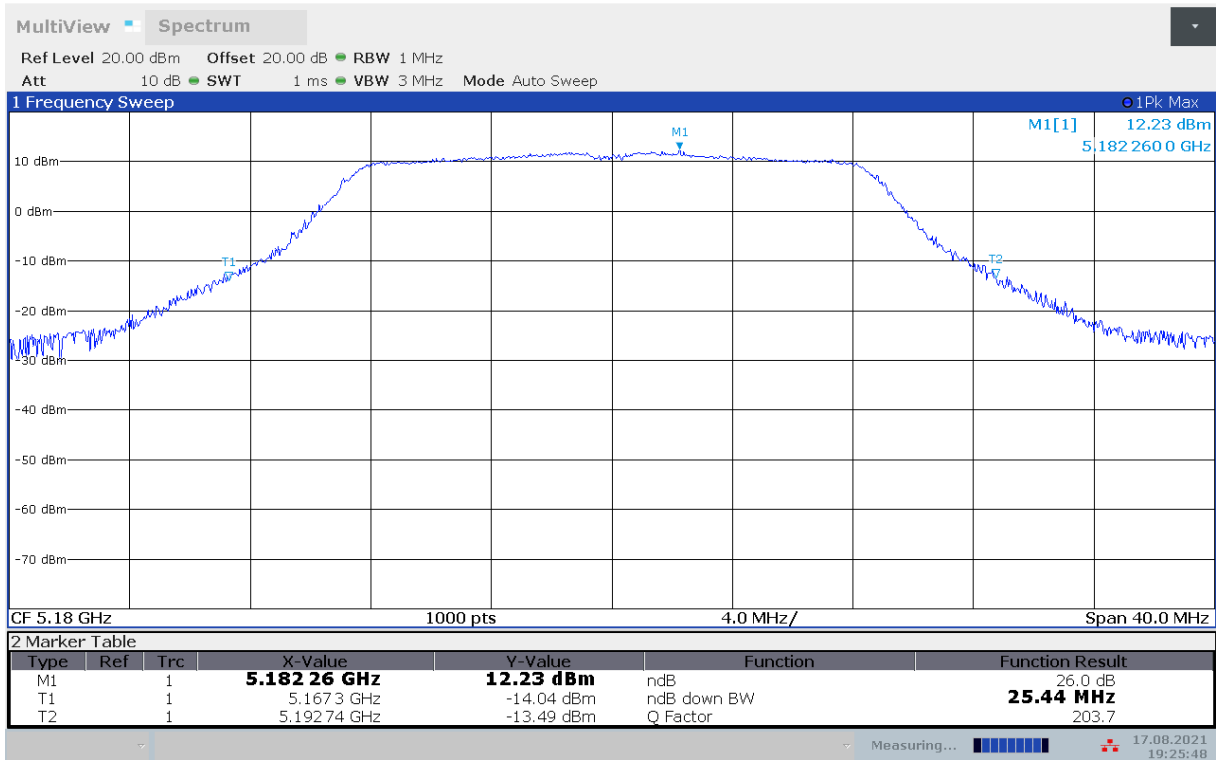


Fig.21 Occupied 26dB Bandwidth (802.11ac-HT20, 5180MHz)

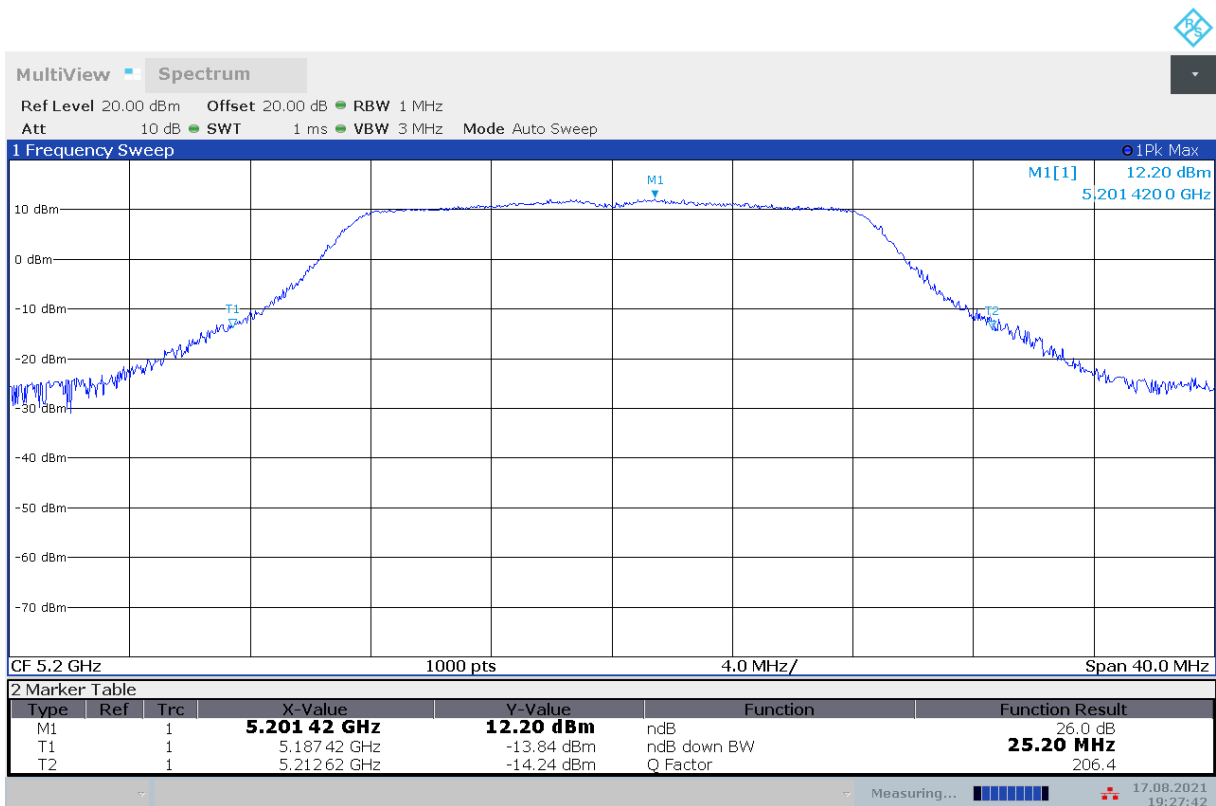


Fig.22 Occupied 26dB Bandwidth (802.11ac-HT20, 5200MHz)



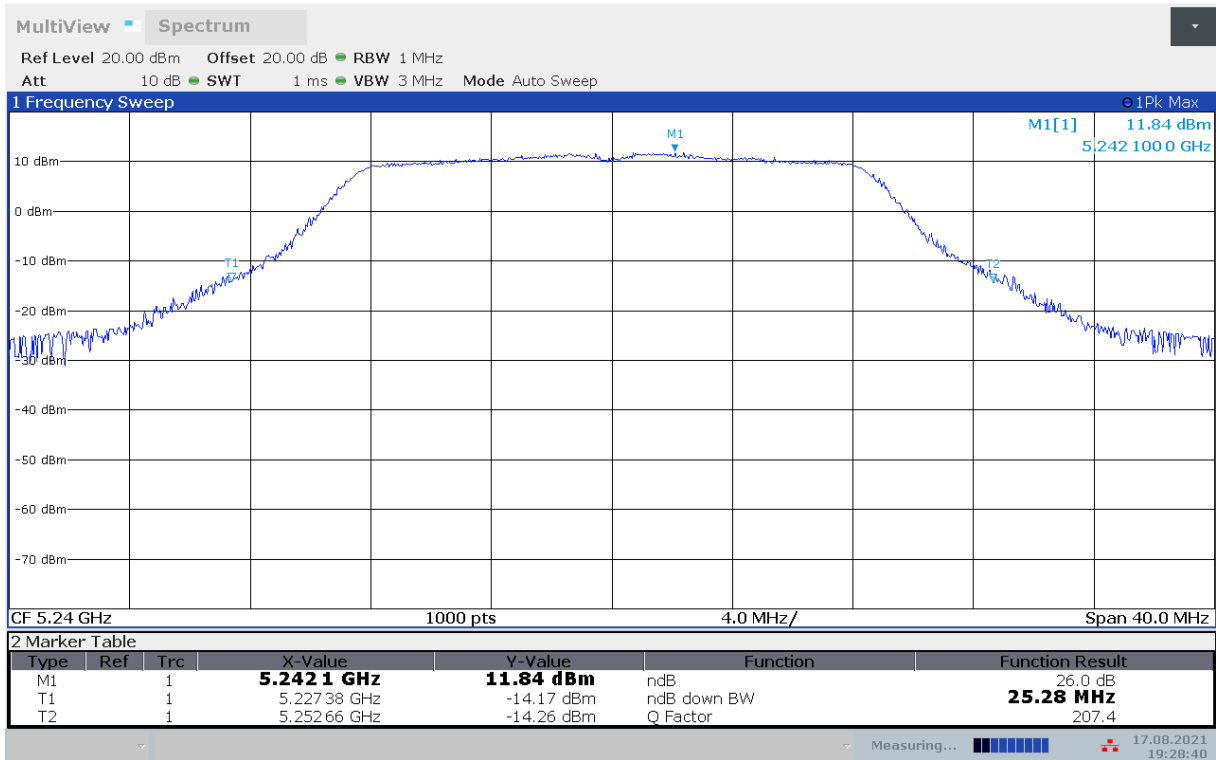


Fig.23 Occupied 26dB Bandwidth (802.11ac-HT20, 5240MHz)

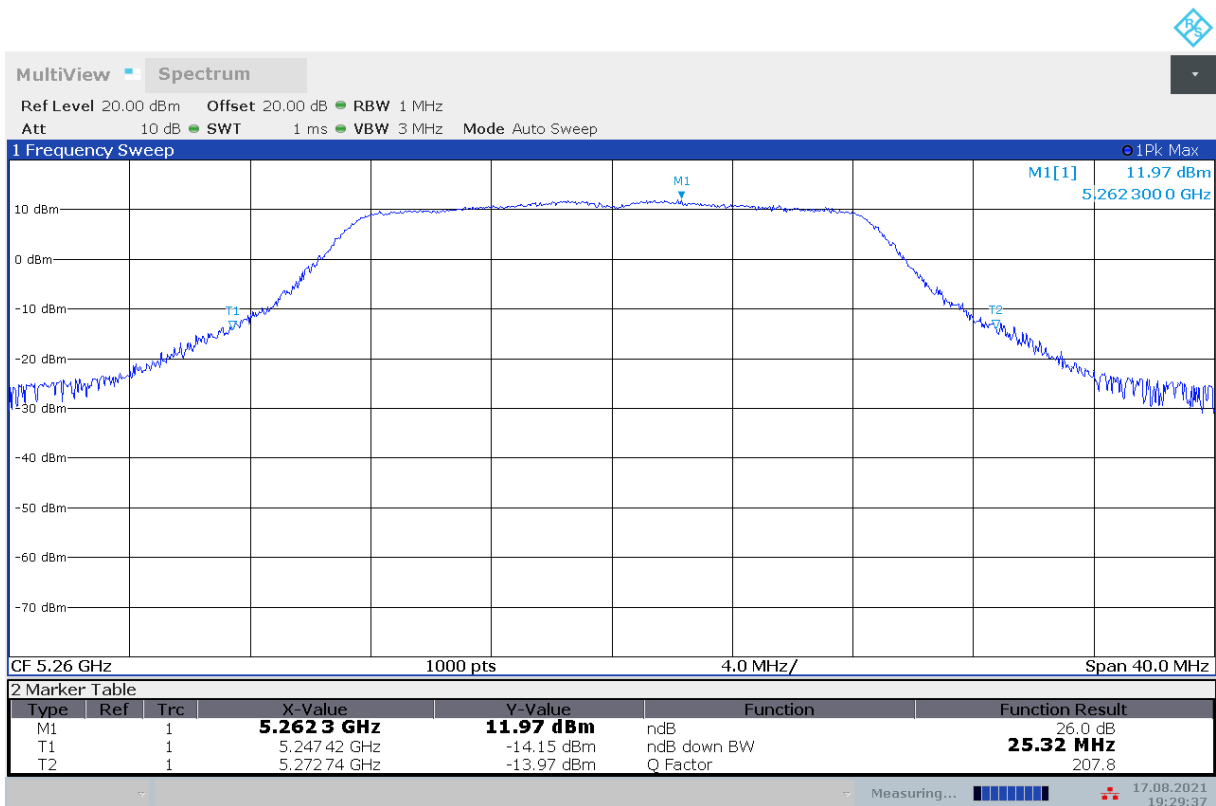


Fig.24 Occupied 26dB Bandwidth (802.11ac-HT20, 5260MHz)

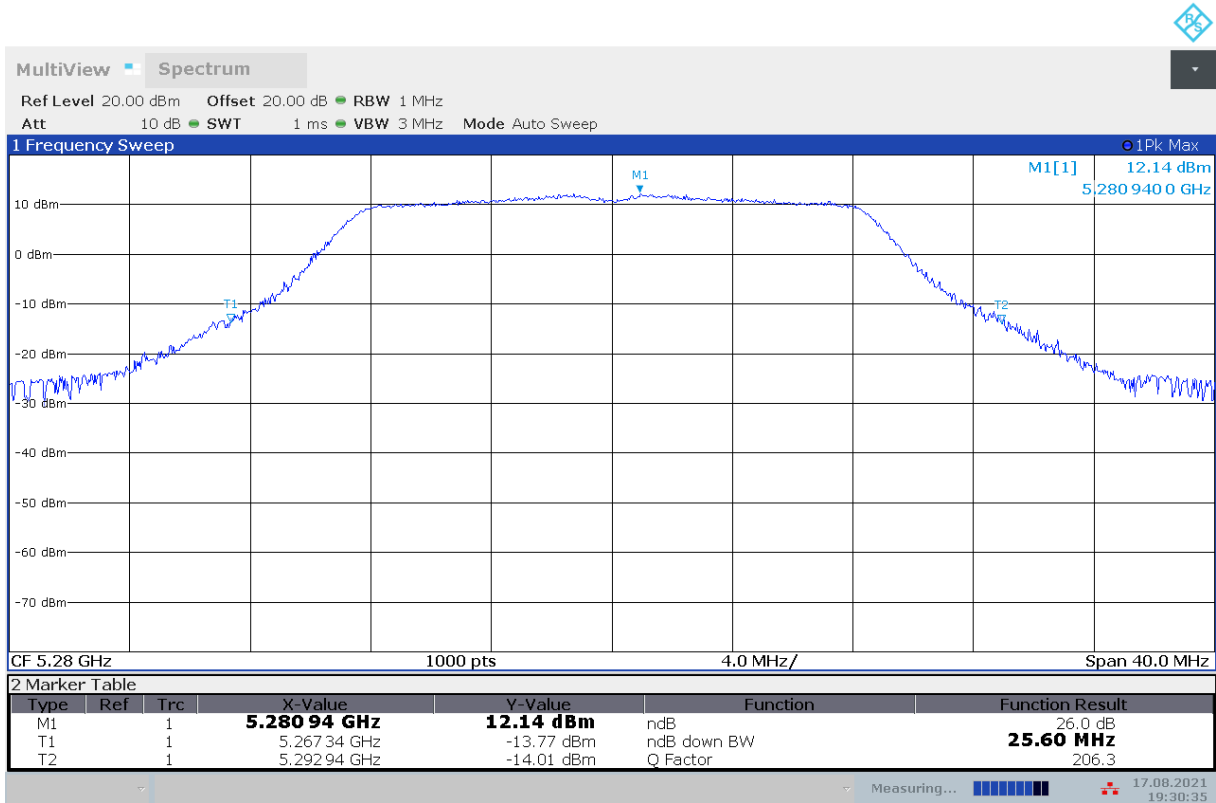


Fig.25 Occupied 26dB Bandwidth (802.11ac-HT20, 5280MHz)

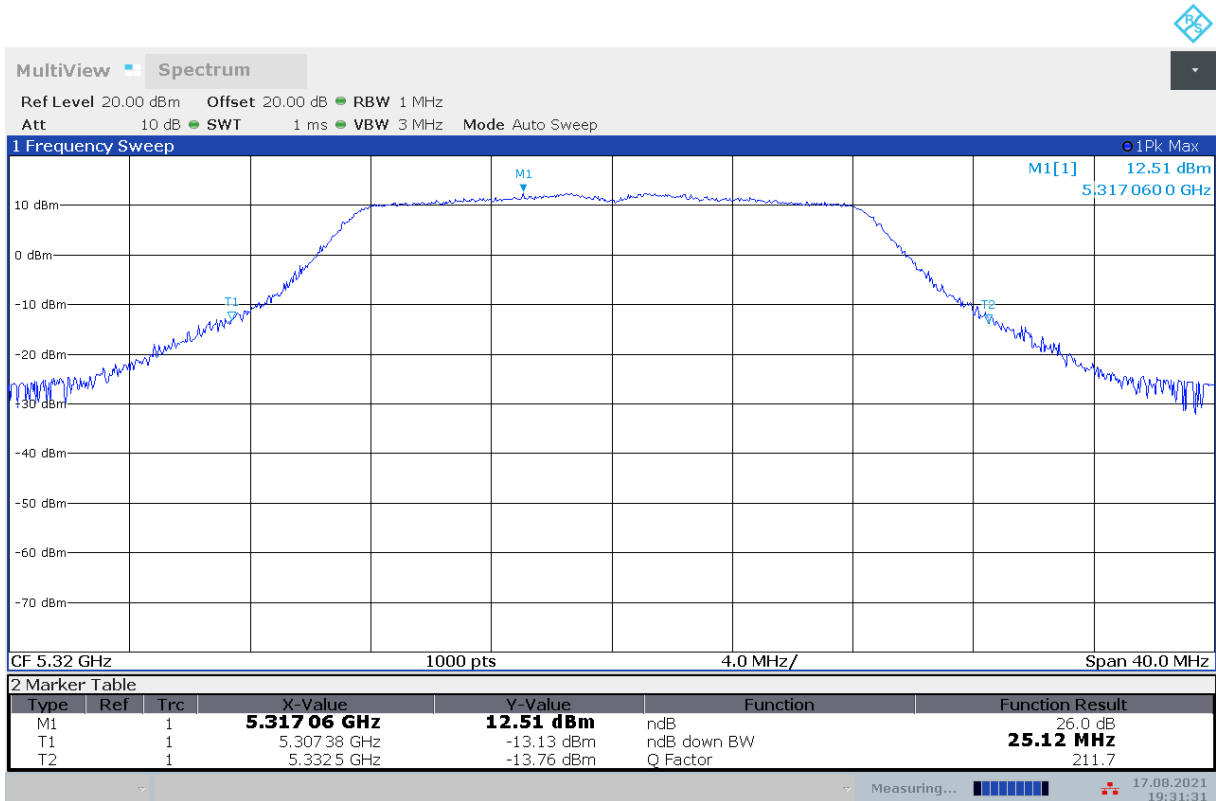


Fig.26 Occupied 26dB Bandwidth (802.11ac-HT20, 5320MHz)

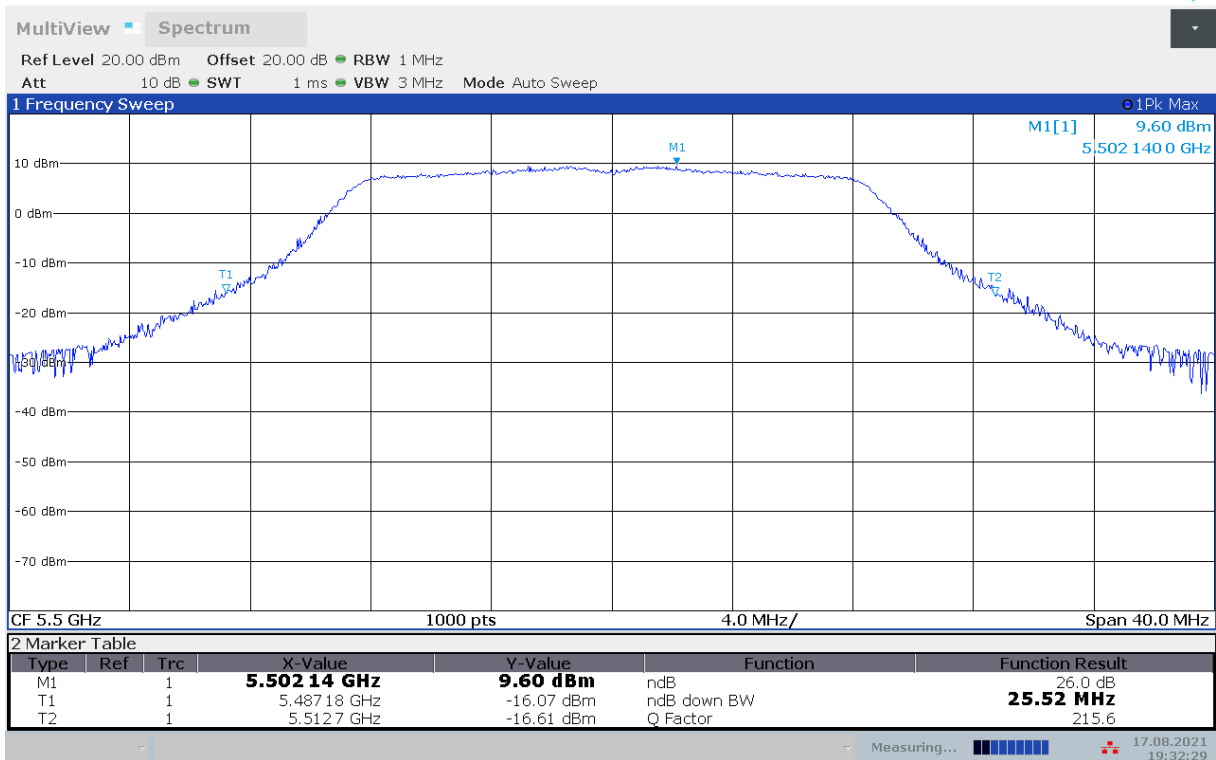


Fig.27 Occupied 26dB Bandwidth (802. 11ac-HT20, 5500MHz)

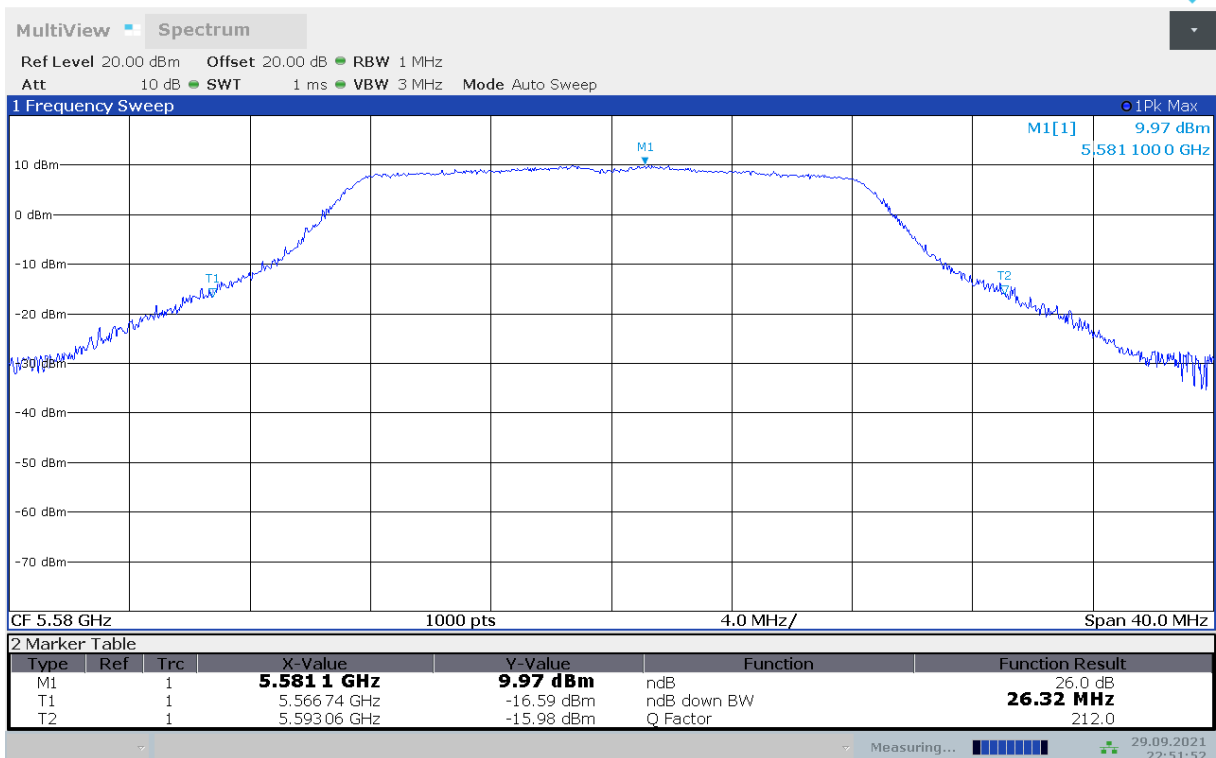


Fig.28 Occupied 26dB Bandwidth (802. 11ac-HT20, 5580MHz)

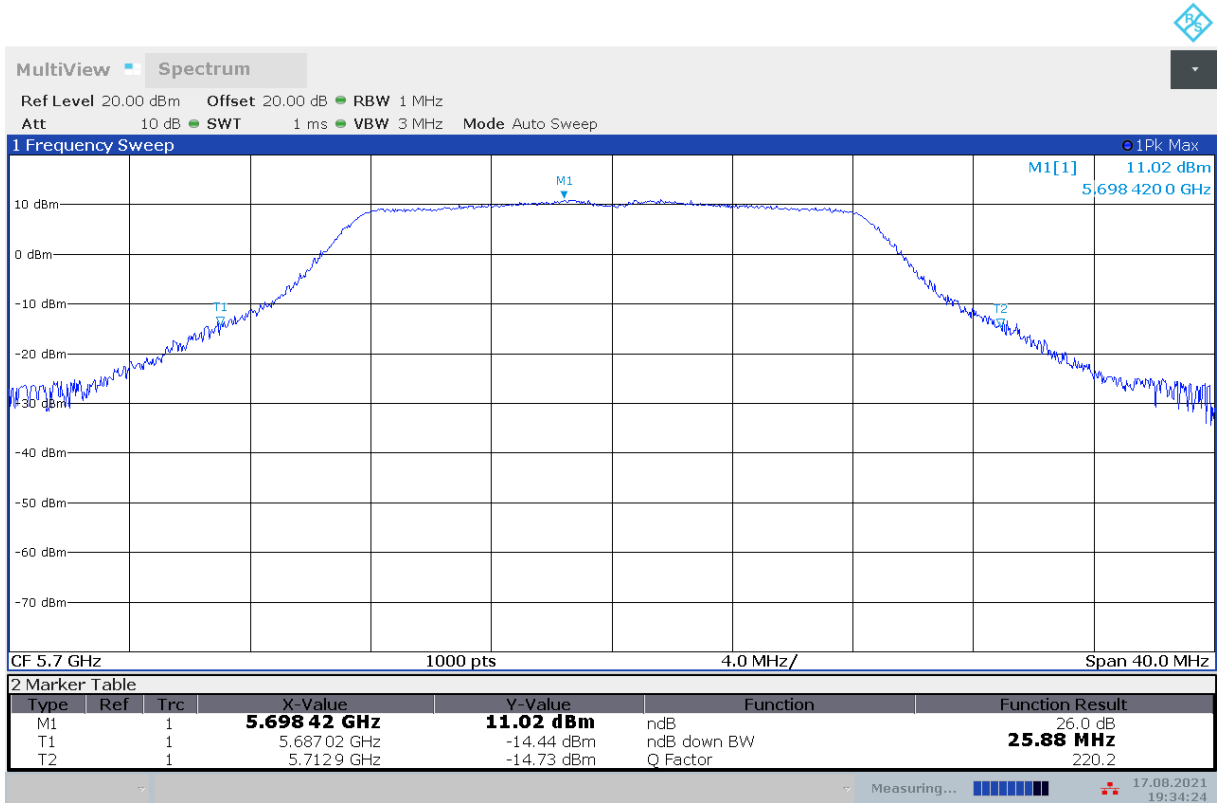


Fig.29 Occupied 26dB Bandwidth (802. 11ac-HT20, 5700MHz)

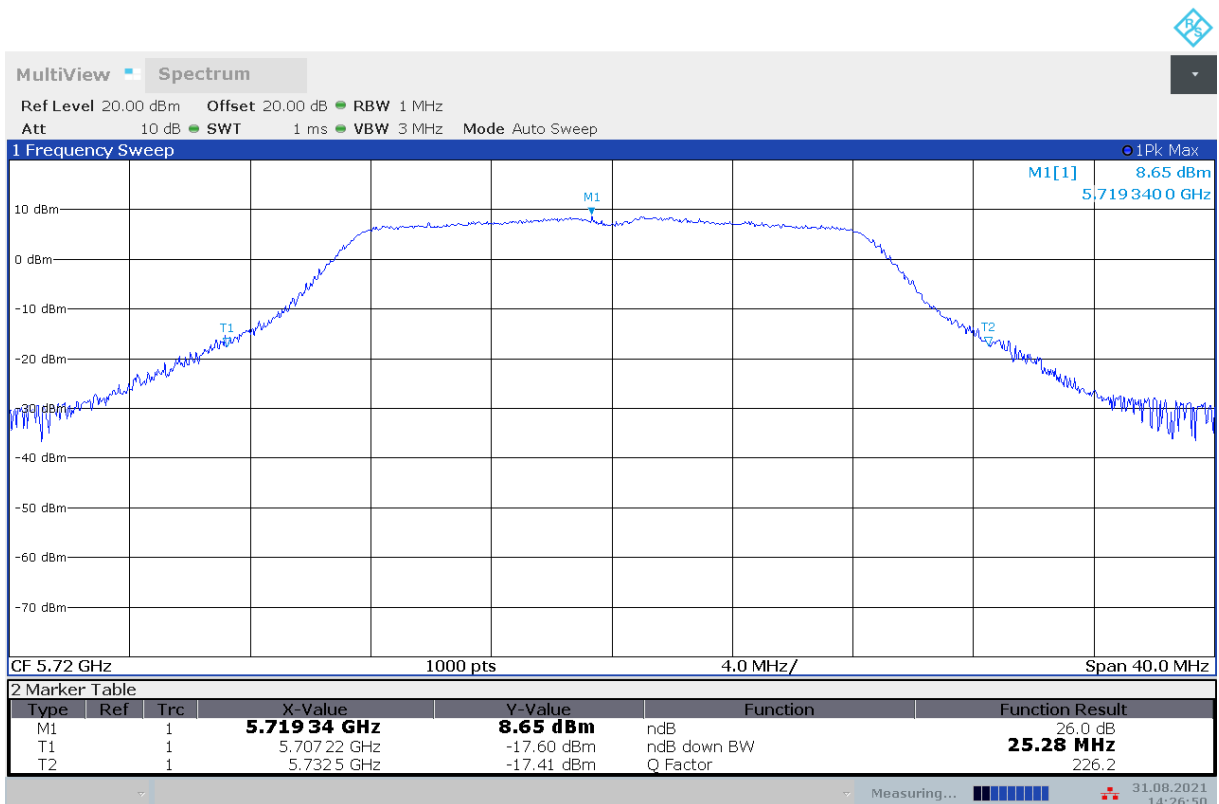


Fig.30 Occupied 26dB Bandwidth (802. 11ac-HT20, 5720MHz)

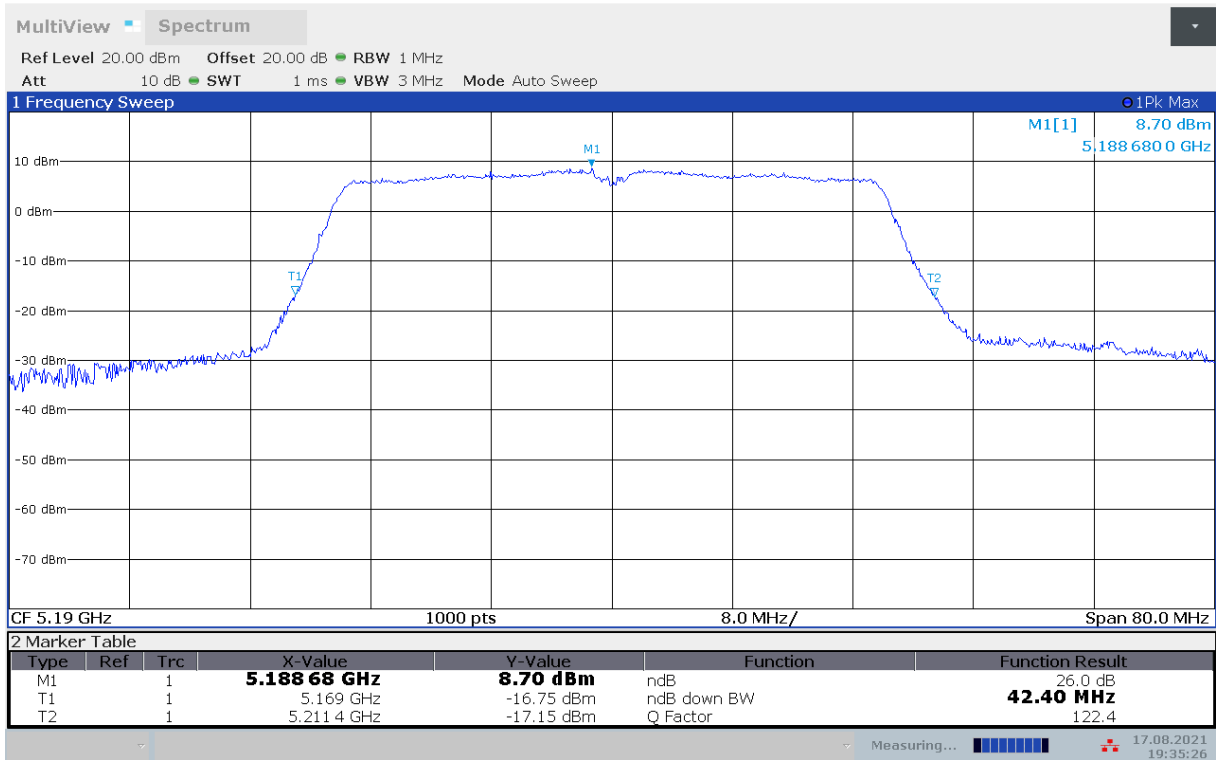


Fig.31 Occupied 26dB Bandwidth (802.11n-HT40, 5190MHz)

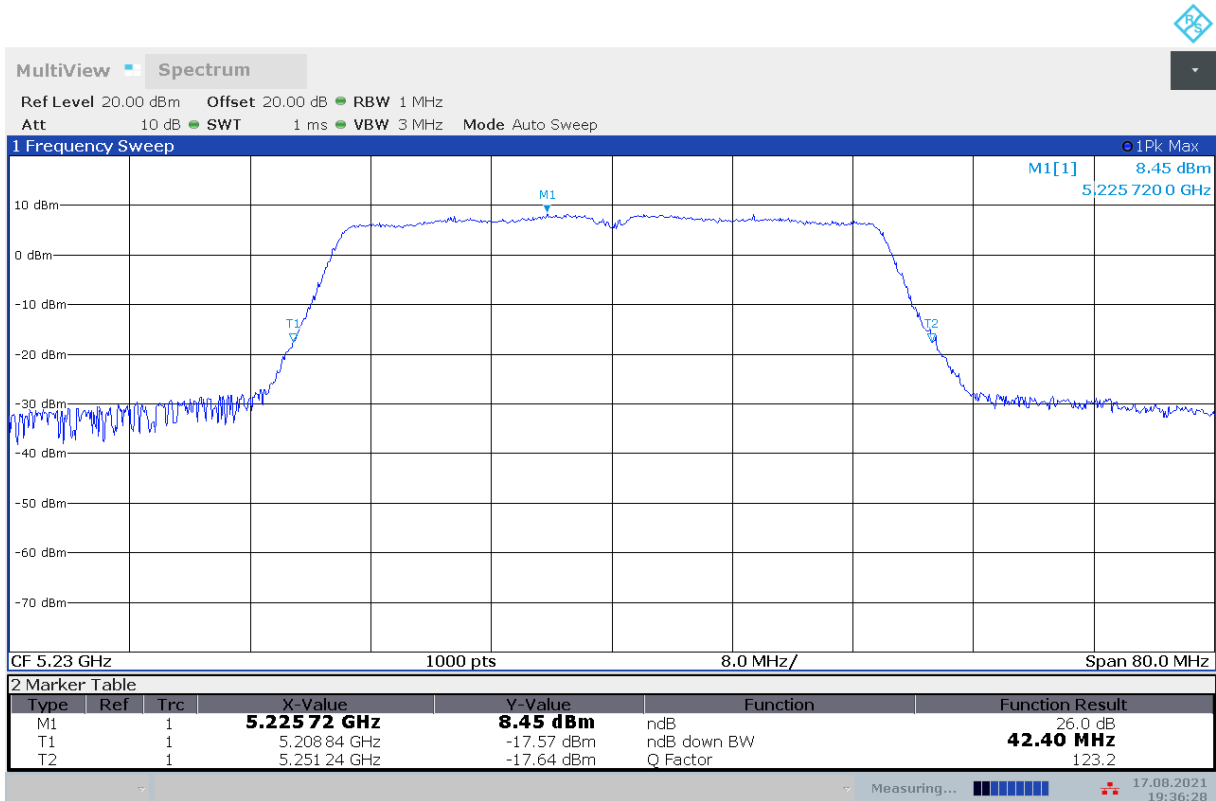


Fig.32 Occupied 26dB Bandwidth (802.11n-HT40, 5230MHz)

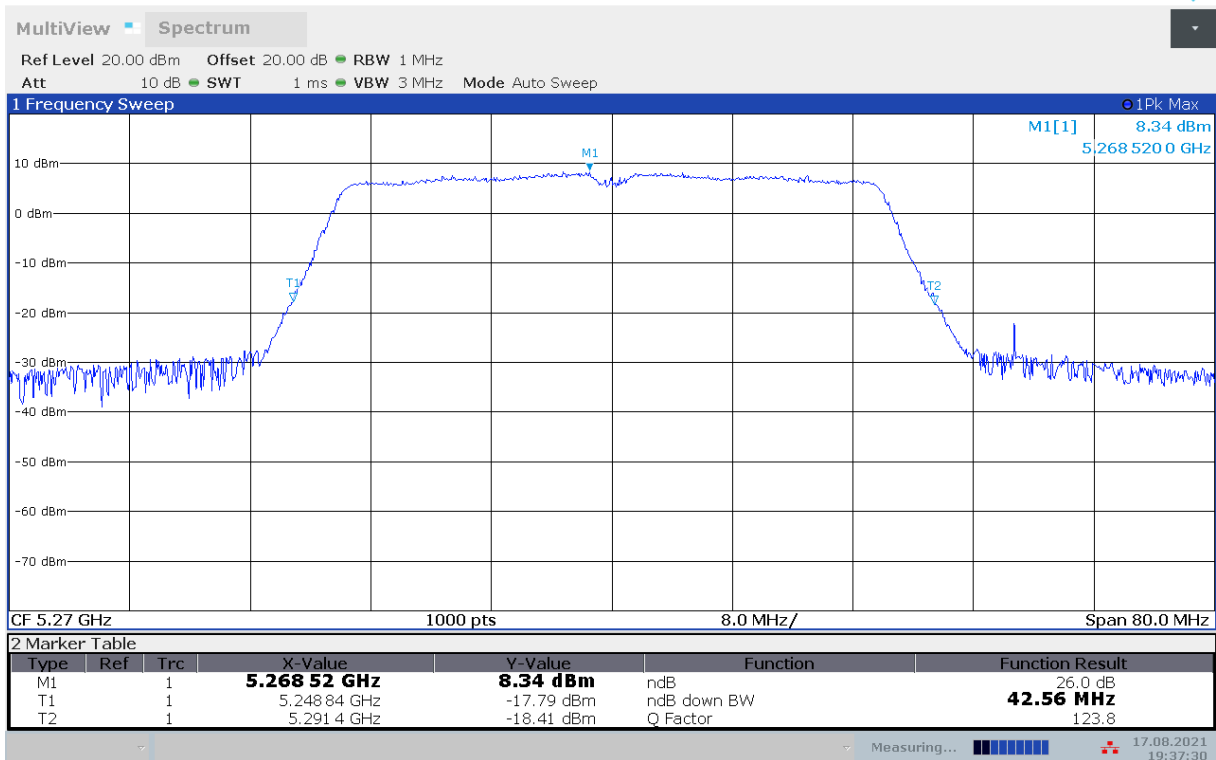


Fig.33 Occupied 26dB Bandwidth (802.11n-HT40, 5270MHz)

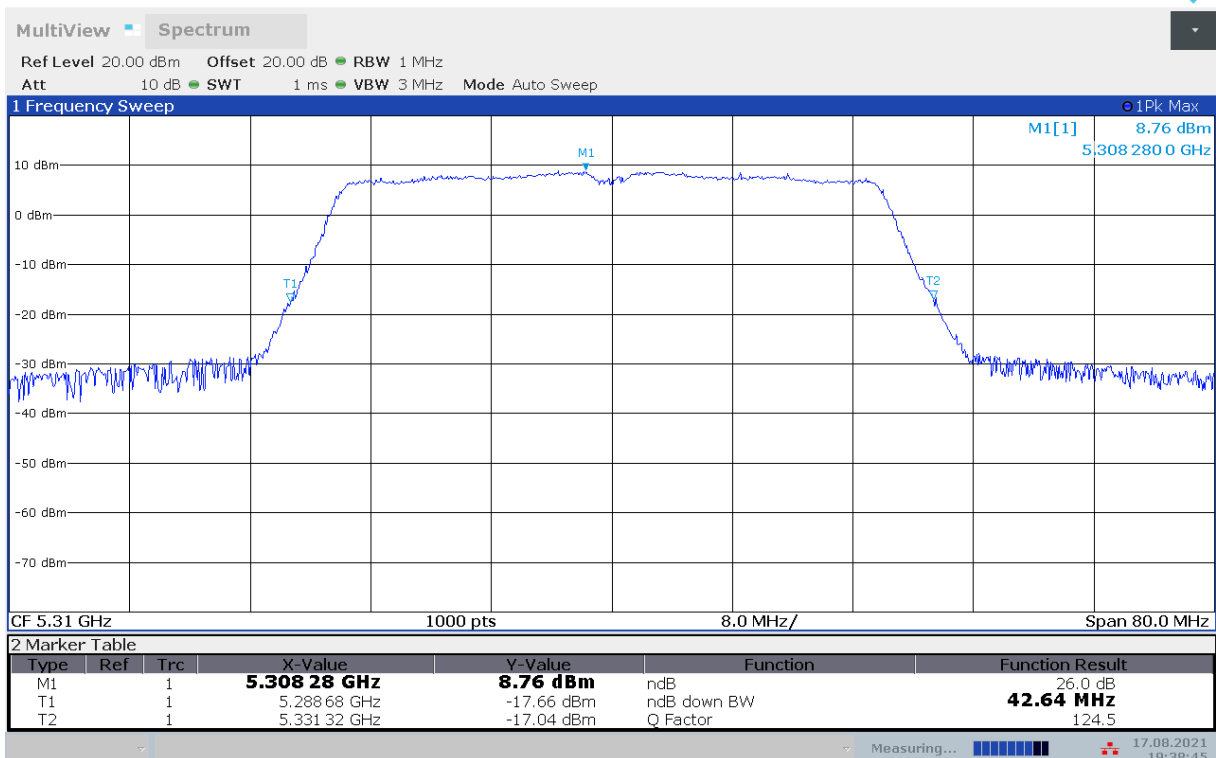


Fig.34 Occupied 26dB Bandwidth (802.11n-HT40, 5310MHz)

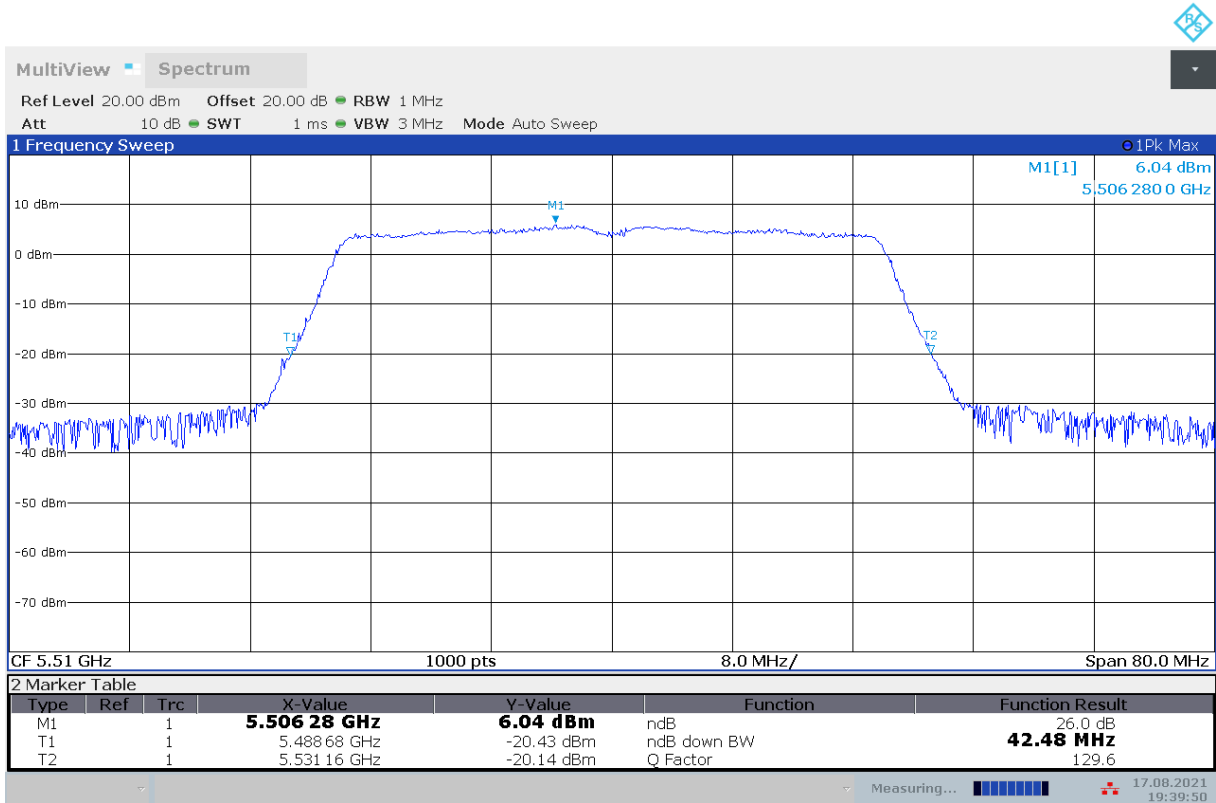


Fig.35 Occupied 26dB Bandwidth (802. 11n-HT40, 5510MHz)

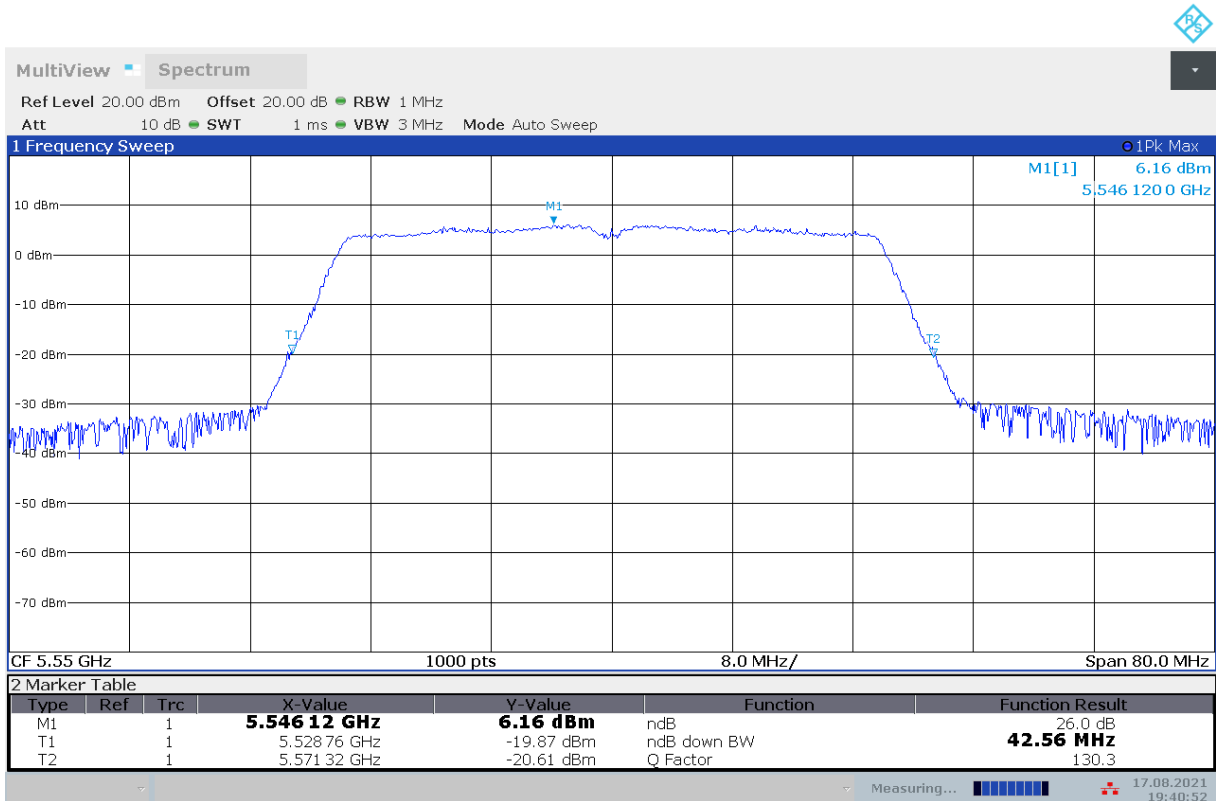


Fig.36 Occupied 26dB Bandwidth (802. 11n-HT40, 5550MHz)

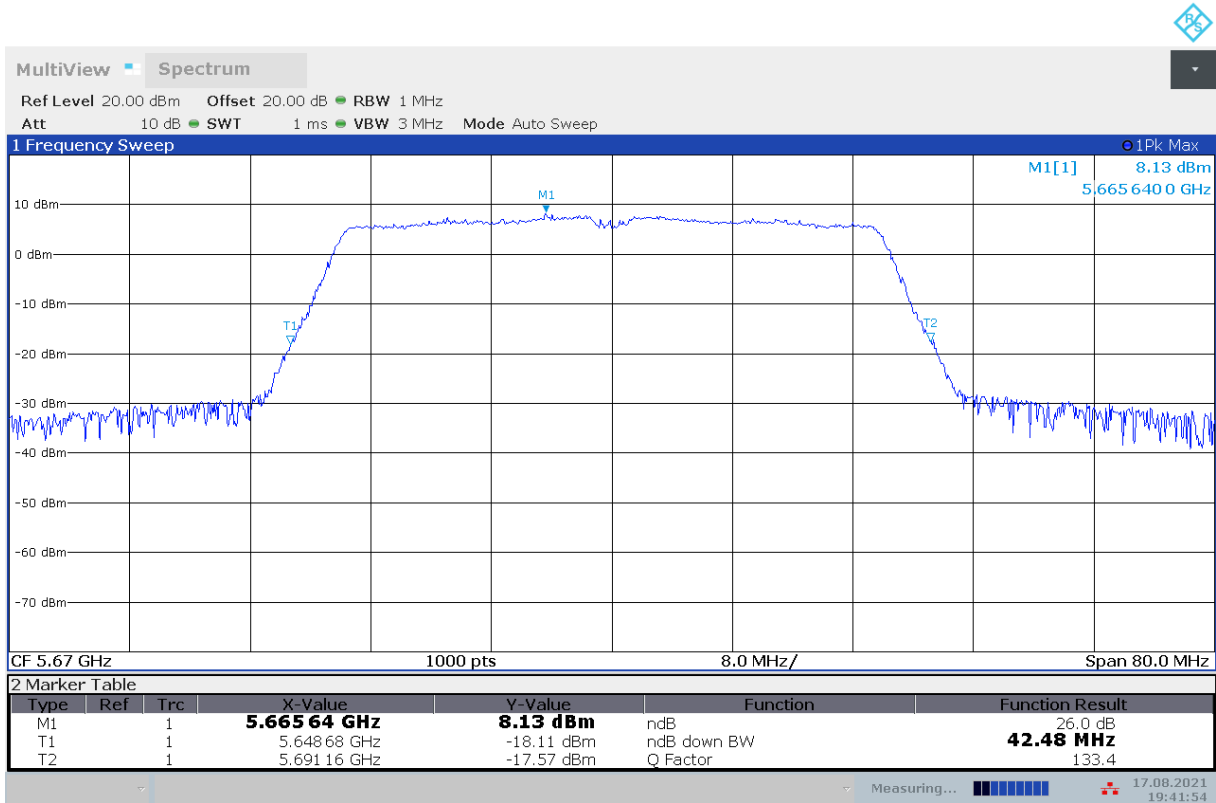


Fig.37 Occupied 26dB Bandwidth (802. 11n-HT40, 5670MHz)

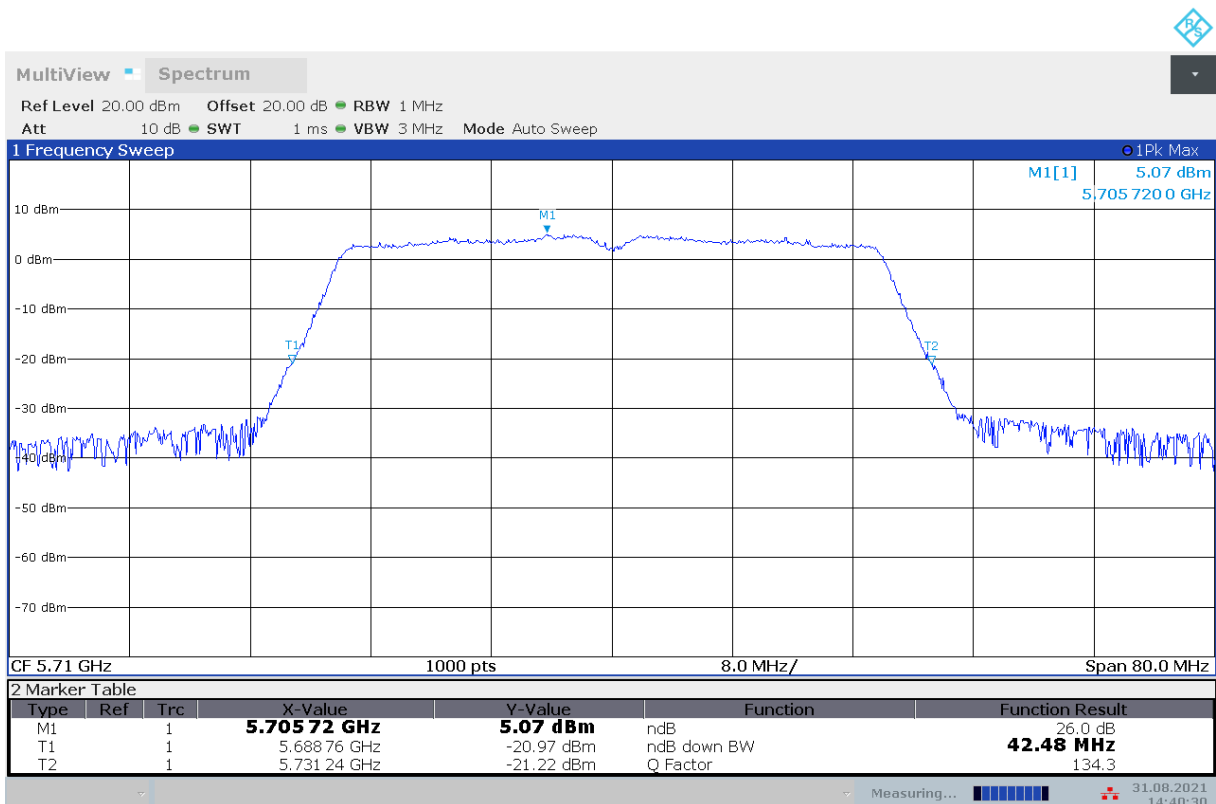


Fig.38 Occupied 26dB Bandwidth (802. 11n-HT40, 5710MHz)



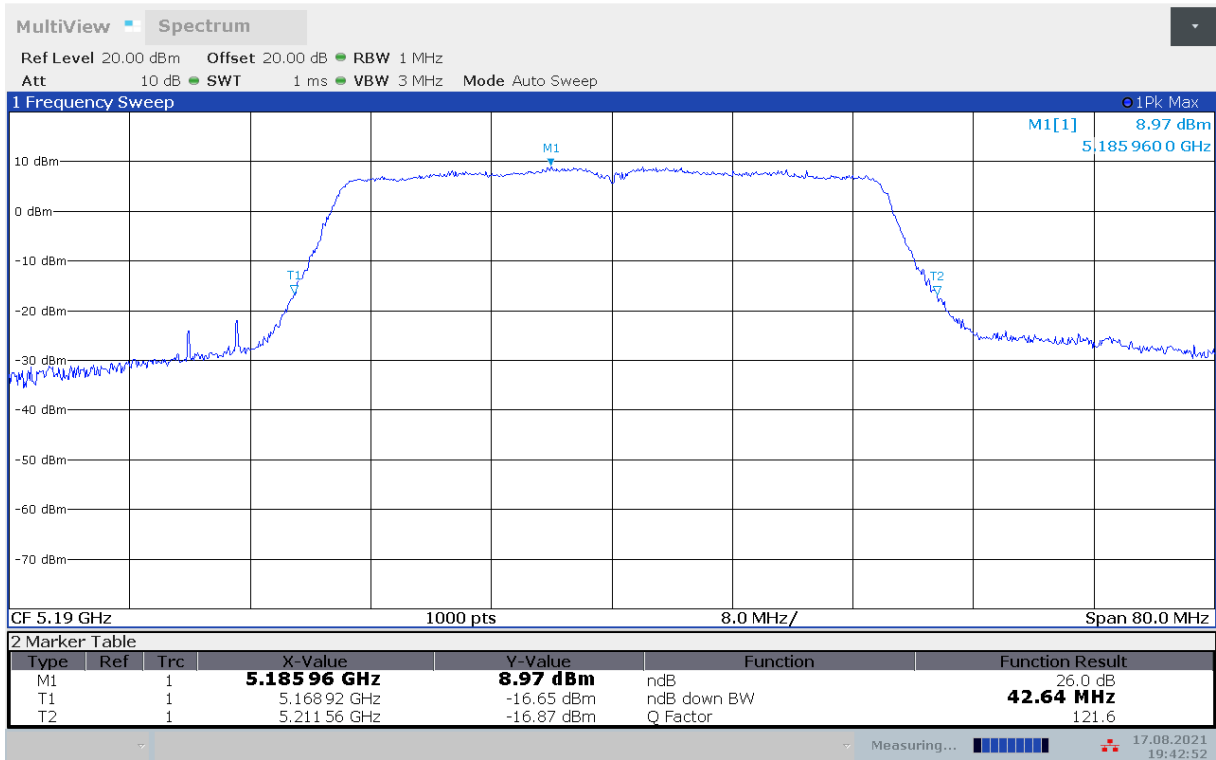


Fig.39 Occupied 26dB Bandwidth (802.11ac-HT40, 5190MHz)

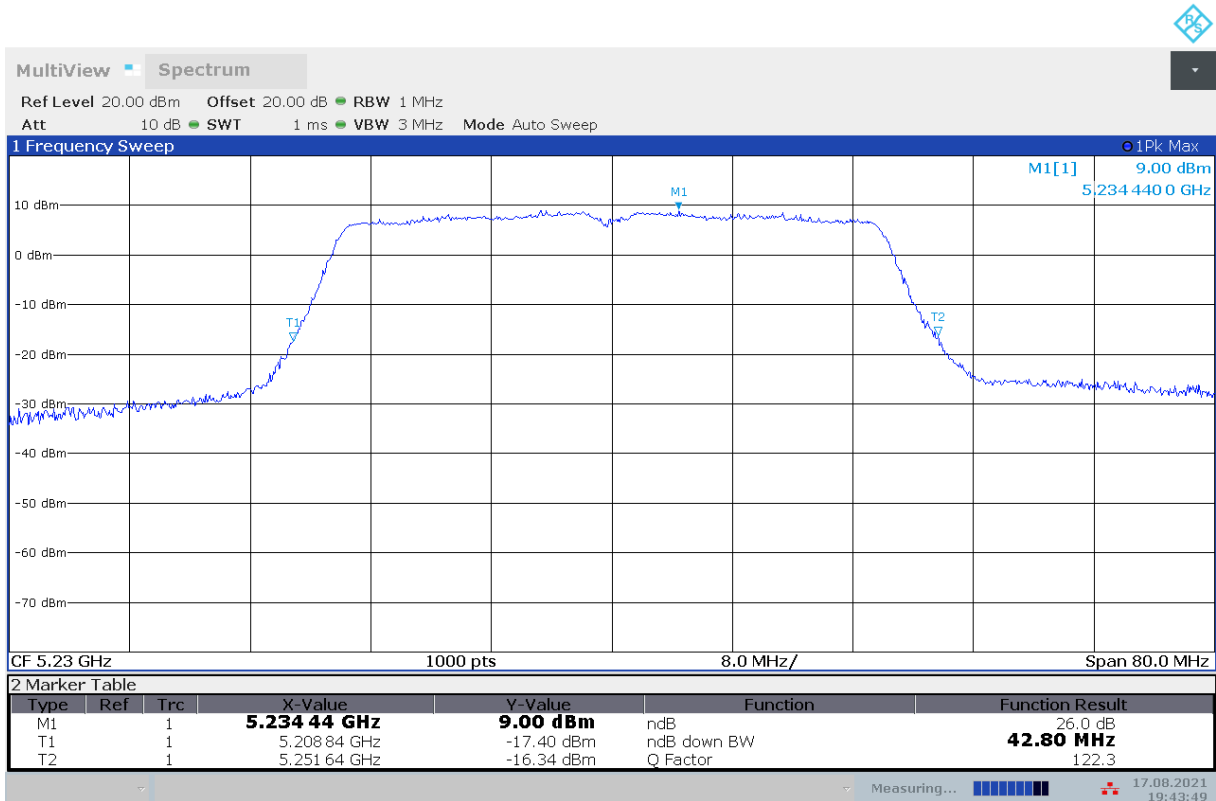


Fig.40 Occupied 26dB Bandwidth (802.11ac-HT40, 5230MHz)

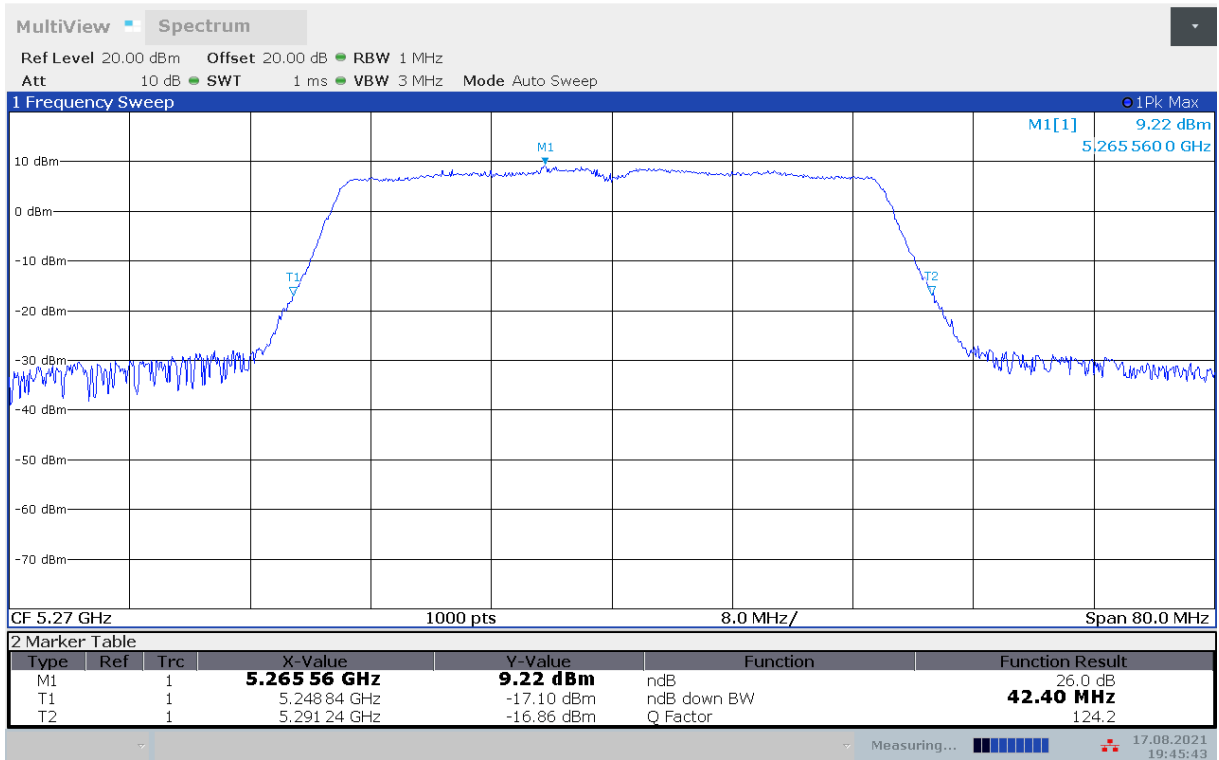


Fig.41 Occupied 26dB Bandwidth (802.11ac-HT40, 5270MHz)

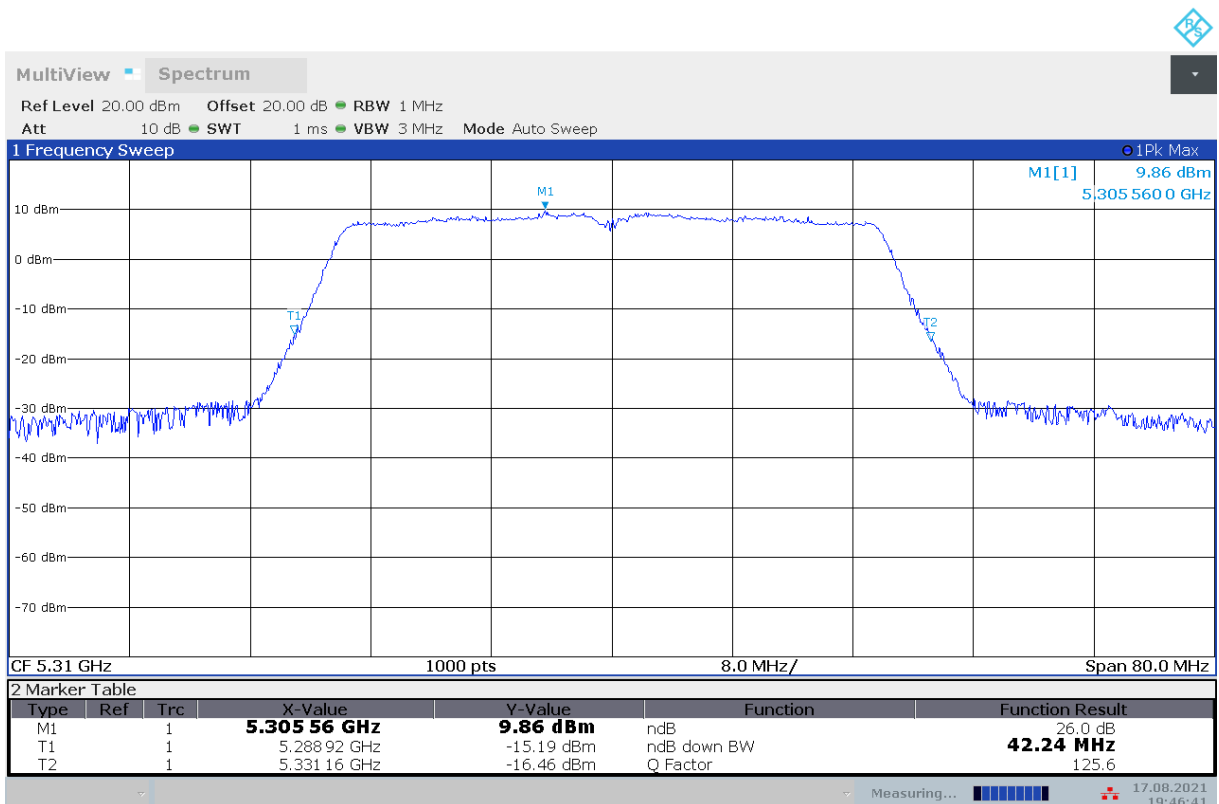


Fig.42 Occupied 26dB Bandwidth (802.11ac-HT40, 5310MHz)

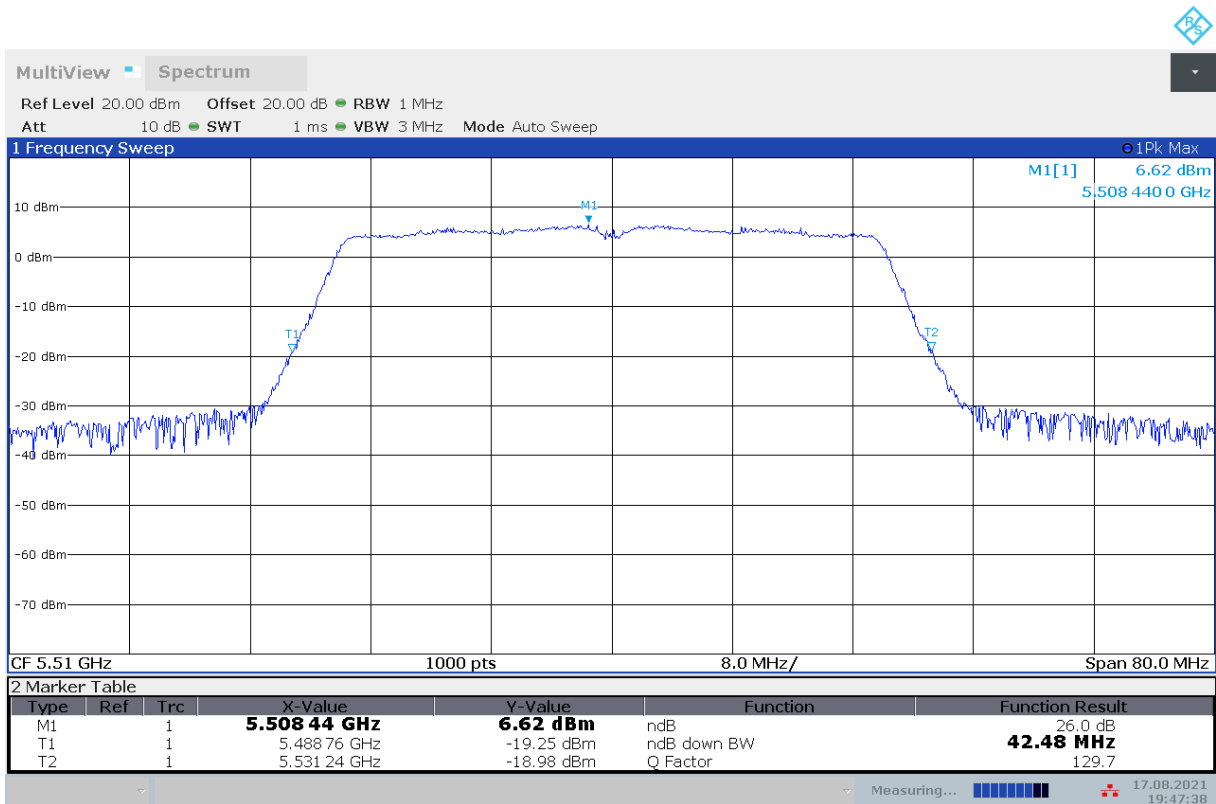


Fig.43 Occupied 26dB Bandwidth (802.11ac-HT40, 5510MHz)

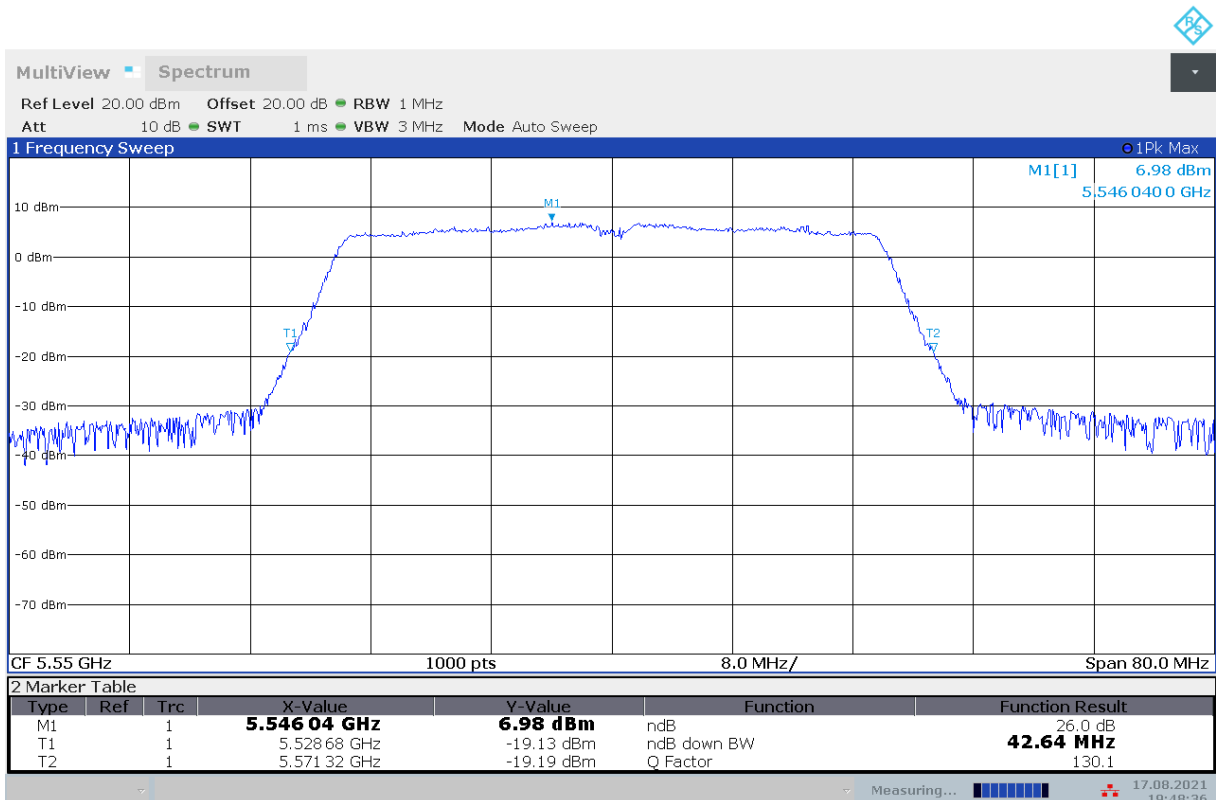


Fig.44 Occupied 26dB Bandwidth (802.11ac-HT40, 5550MHz)

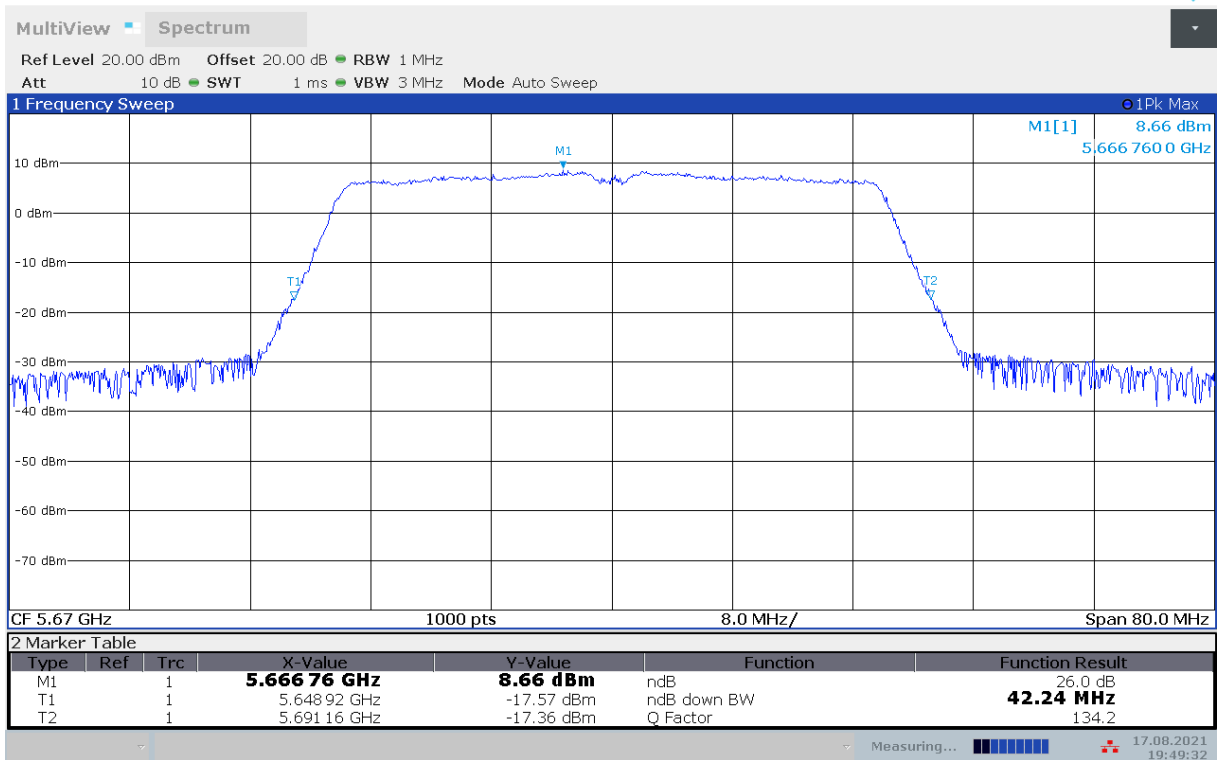


Fig.45 Occupied 26dB Bandwidth (802.11ac-HT40, 5670MHz)

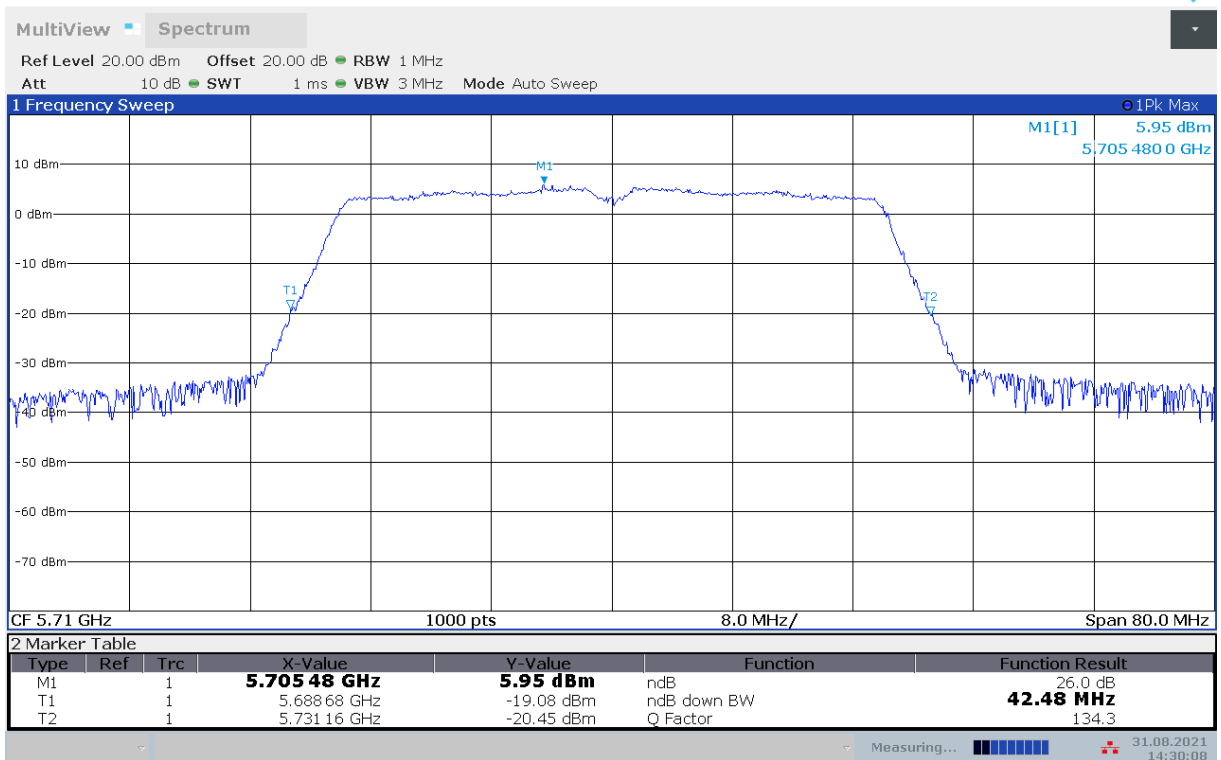


Fig.46 Occupied 26dB Bandwidth (802.11ac-HT40, 5710MHz)

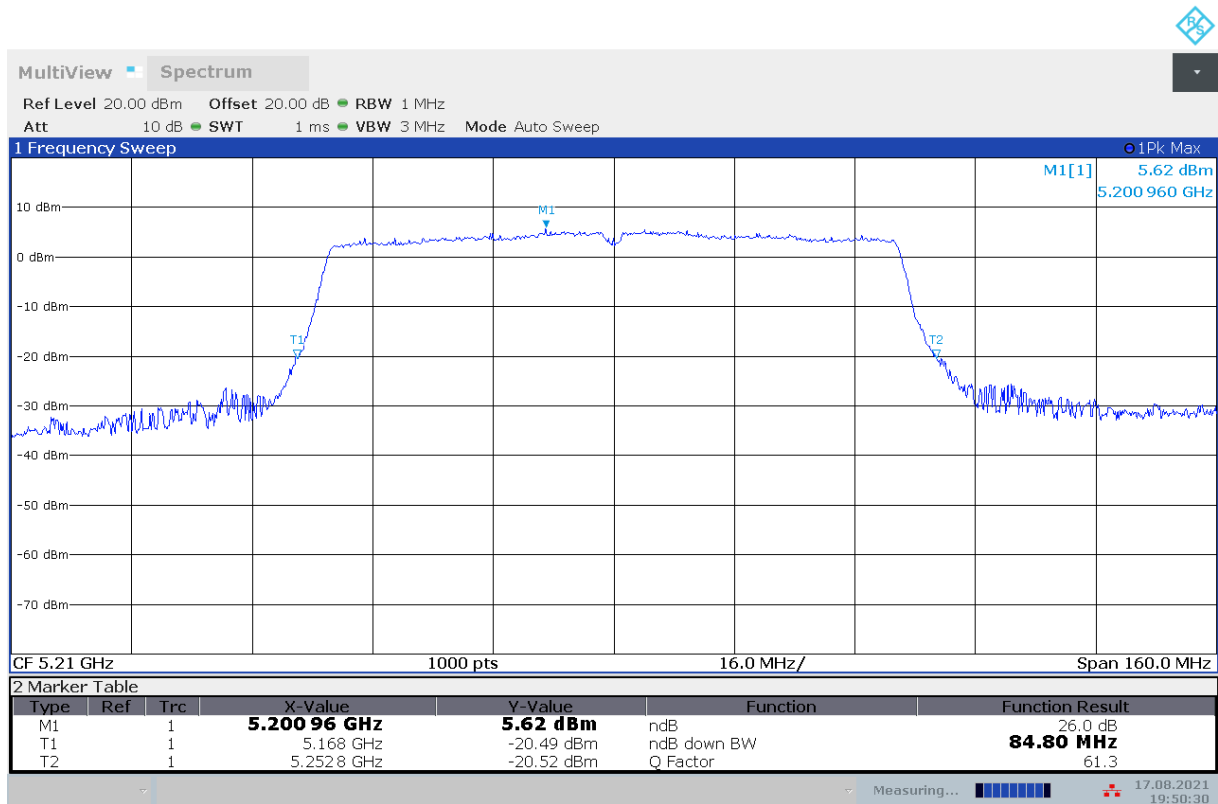


Fig.47 Occupied 26dB Bandwidth (802.11ac-HT80, 5210MHz)

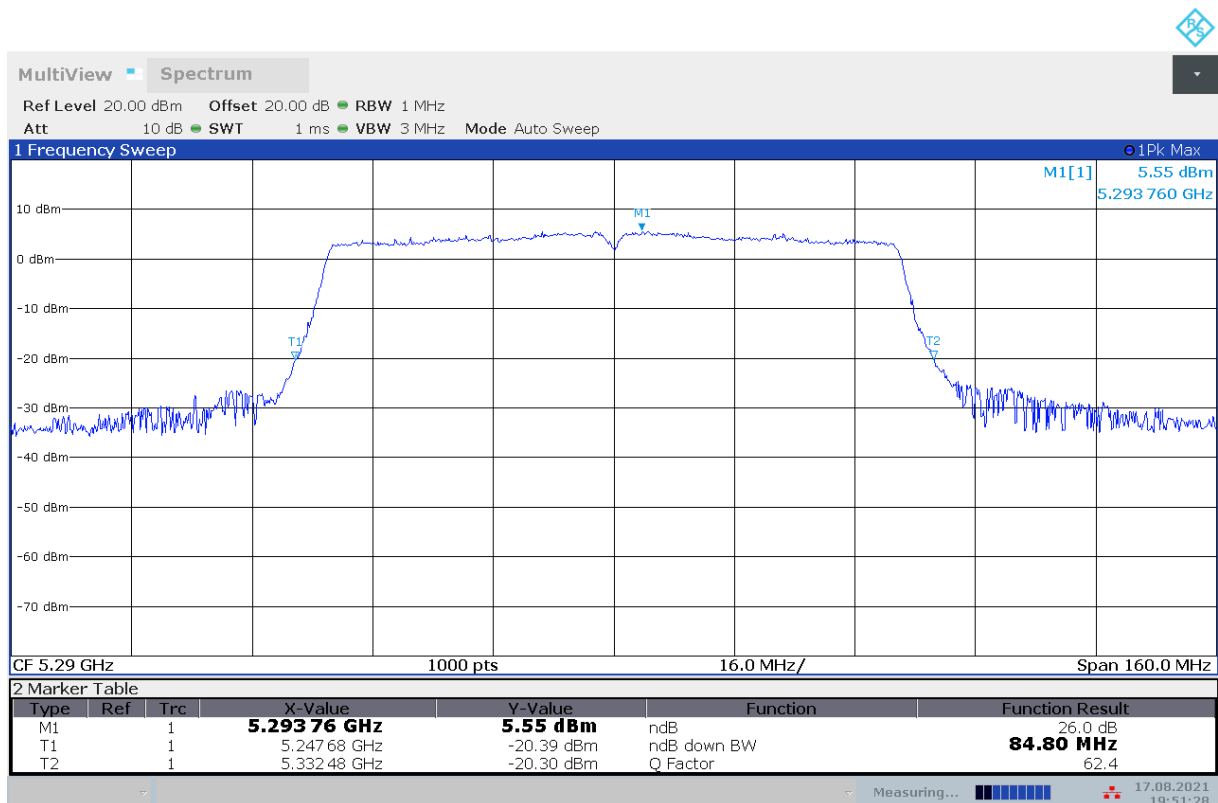


Fig.48 Occupied 26dB Bandwidth (802.11ac-HT80, 5290MHz)

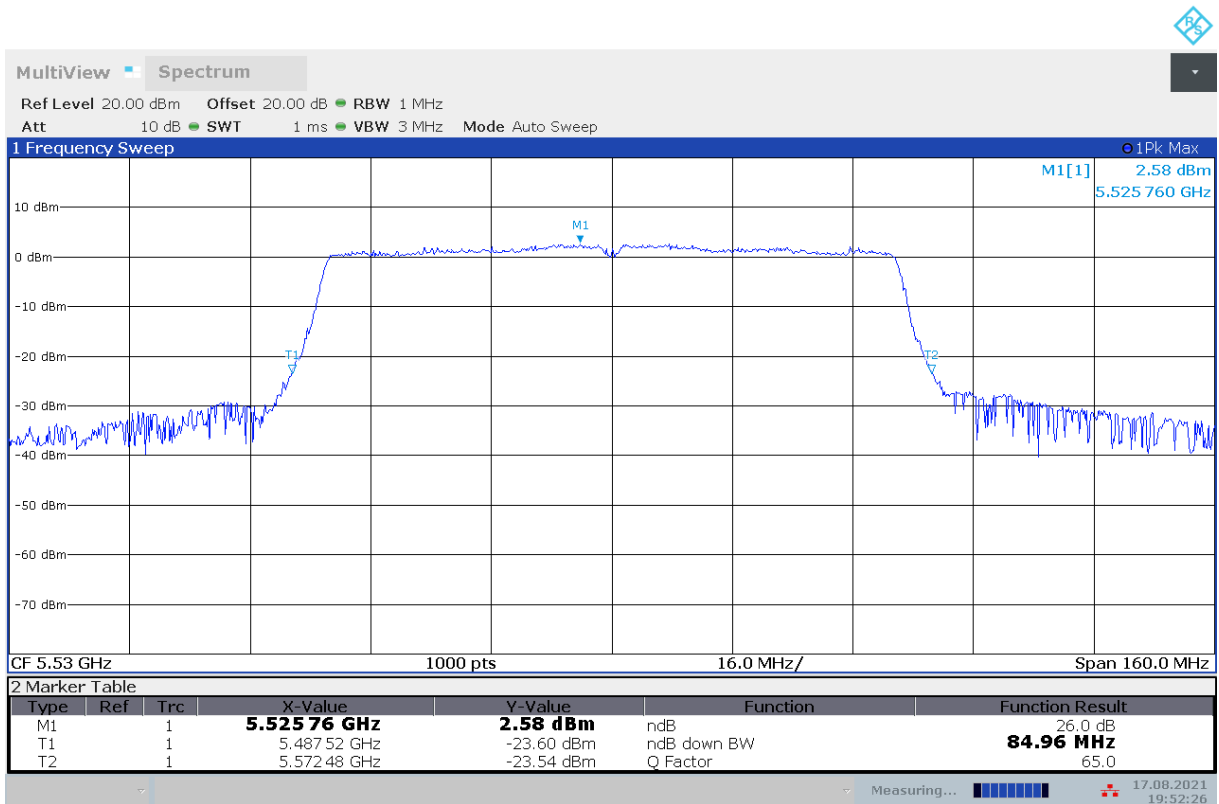
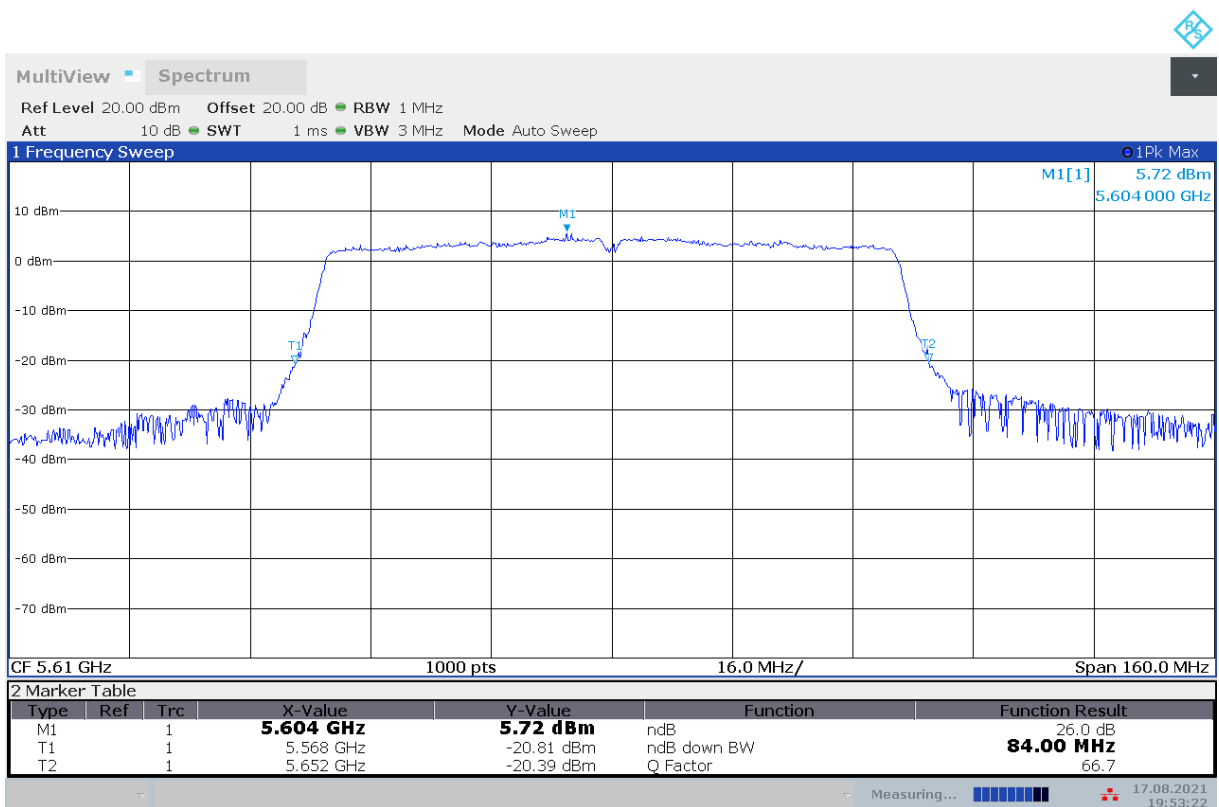
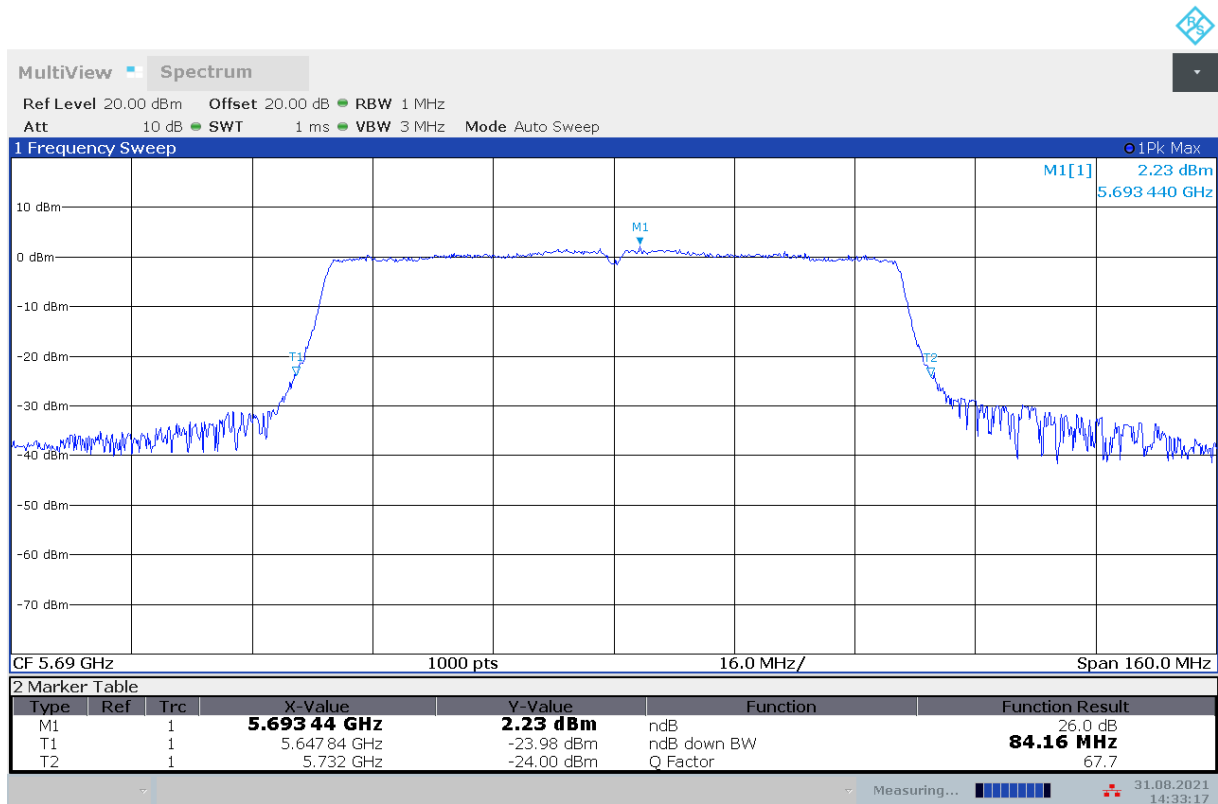


Fig.49 Occupied 26dB Bandwidth (802.11ac-HT80, 5530MHz)



**Fig.50 Occupied 26dB Bandwidth (802. 11ac-HT80, 5610MHz)**



**Fig.51 Occupied 26dB Bandwidth (802. 11ac-HT80, 5690MHz)**

## 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:

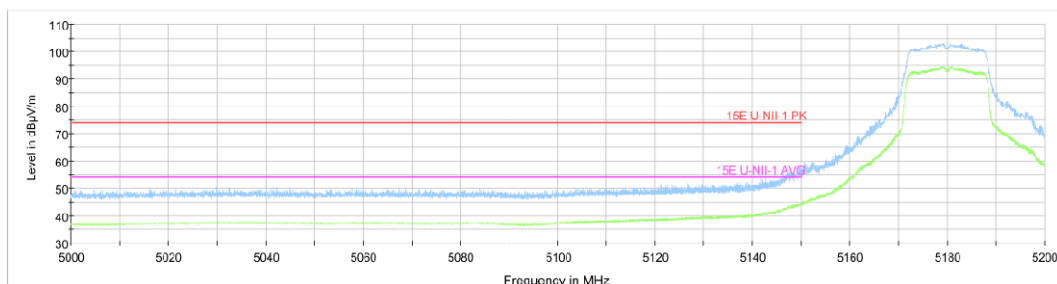
**EUT ID: EUT1**

Mode	Channel	Test Results	Conclusion
802.11a	5180 MHz	Fig.1	P
	5320 MHz	Fig.2	P
	5500 MHz	Fig.3	P
	5700 MHz	Fig.4	P
802.11n HT20	5180 MHz	Fig.5	P
	5320 MHz	Fig.6	P
	5500 MHz	Fig.7	P
	5700 MHz	Fig.8	P
802.11ac HT20	5180 MHz	Fig.9	P
	5320 MHz	Fig.10	P
	5500 MHz	Fig.11	P
	5700 MHz	Fig.12	P
802.11n HT40	5190 MHz	Fig.13	P
	5310 MHz	Fig.14	P
	5510 MHz	Fig.15	P
	5670 MHz	Fig.16	P
802.11ac HT40	5190 MHz	Fig.17	P
	5310 MHz	Fig.18	P
	5510 MHz	Fig.19	P
	5670 MHz	Fig.20	P
802.11ac HT80	5210MHz	Fig.21	P
	5290MHz	Fig.22	P
	5530MHz	Fig.23	P
	5610MHz	Fig.24	P

**Conclusion: PASS**

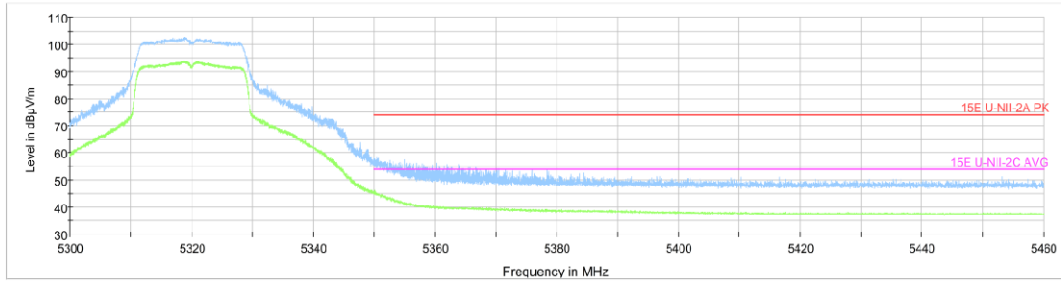
Note: The measurement results showed here are worst cases.

**Test graphs as below:**

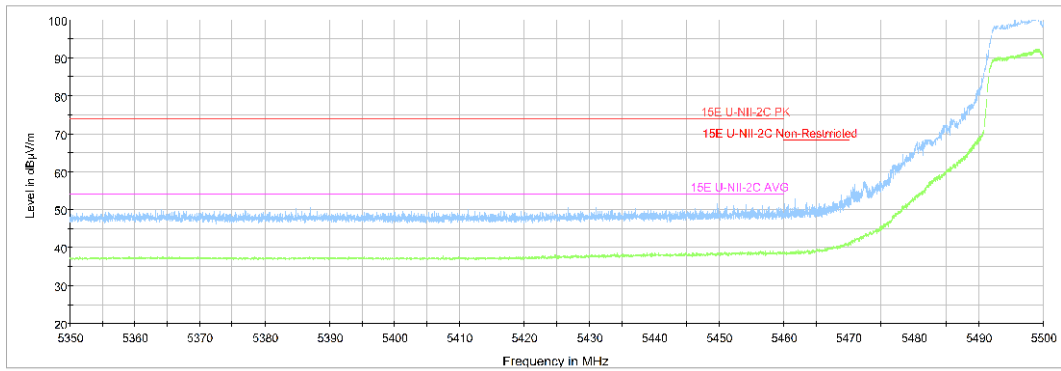


**Fig. 1 Band Edges (802.11a Ch36, 5180MHz)**

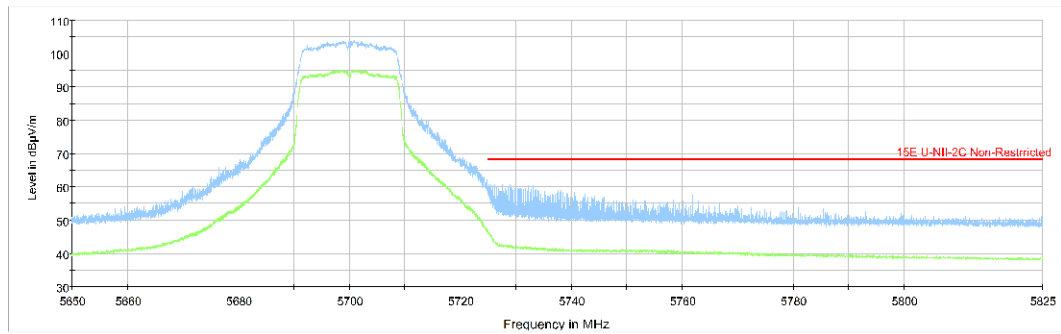




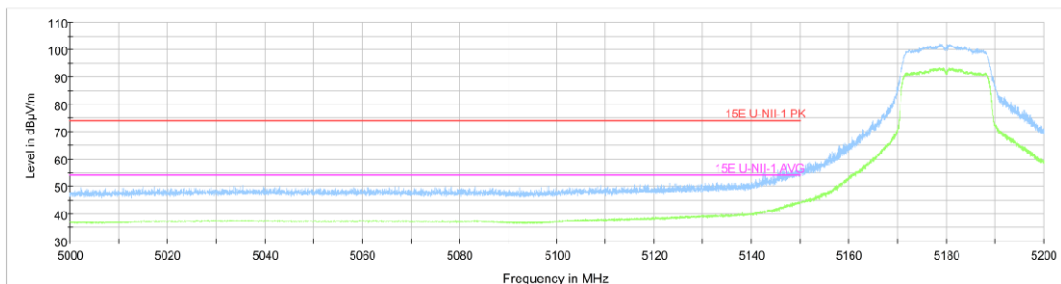
**Fig. 2 Band Edges (802.11a Ch64, 5320MHz)**



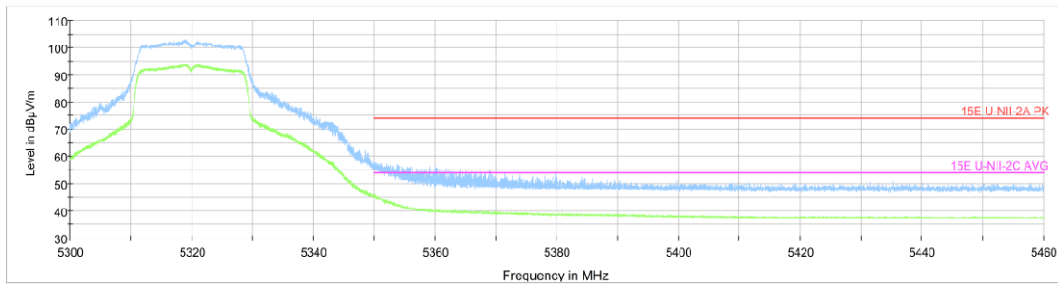
**Fig. 3 Band Edges (802.11a Ch100, 5500MHz)**



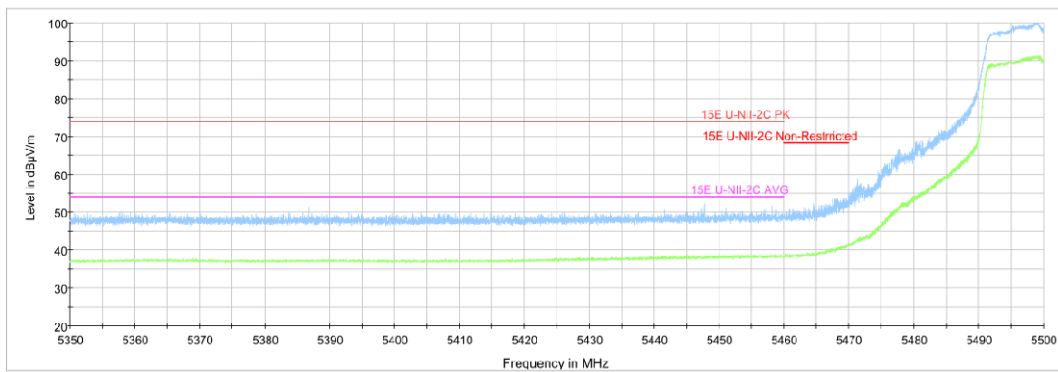
**Fig. 4 Band Edges (802.11a Ch140, 5700MHz)**



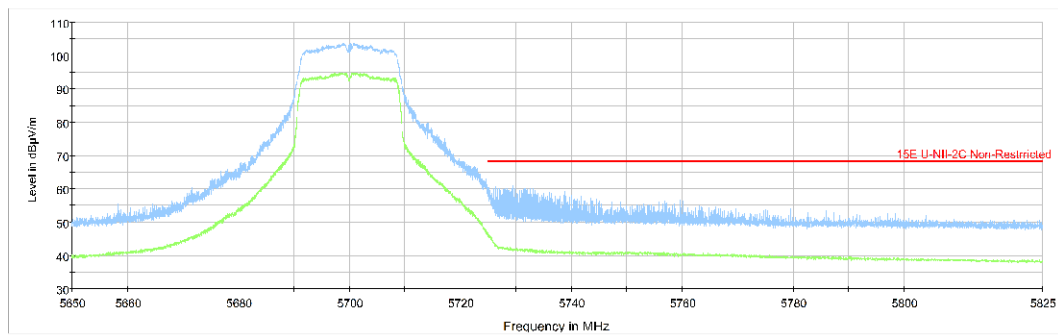
**Fig. 5 Band Edges (802.11n-HT20 Ch36, 5180MHz)**



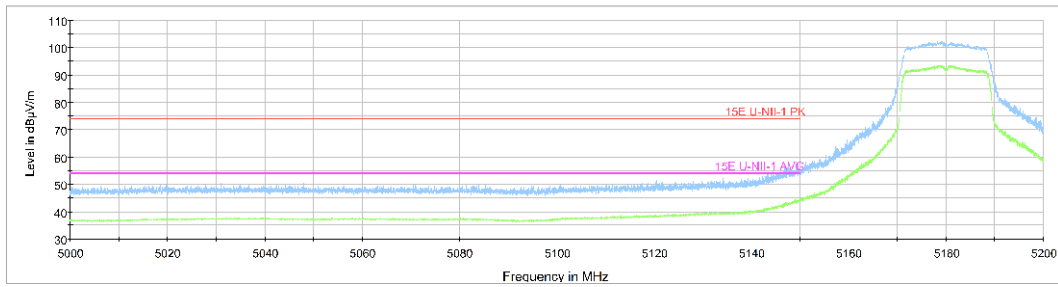
**Fig. 6 Band Edges (802.11n-HT20 Ch64, 5320MHz)**



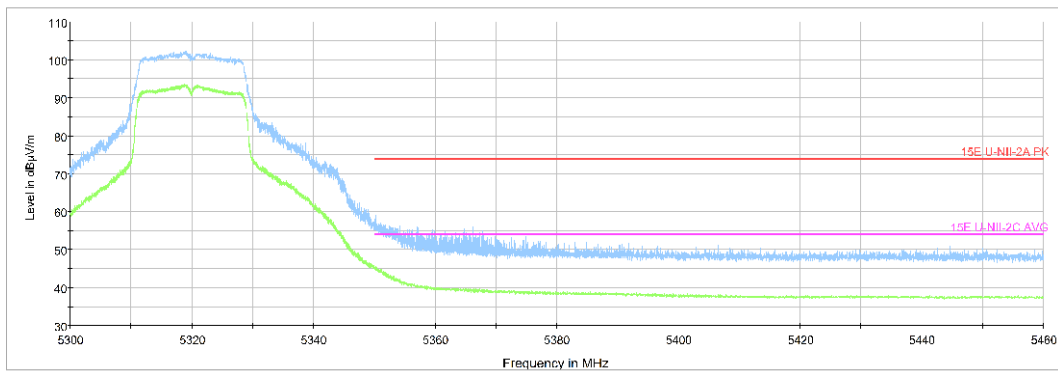
**Fig. 7 Band Edges (802.11n-HT20 Ch100, 5500MHz)**



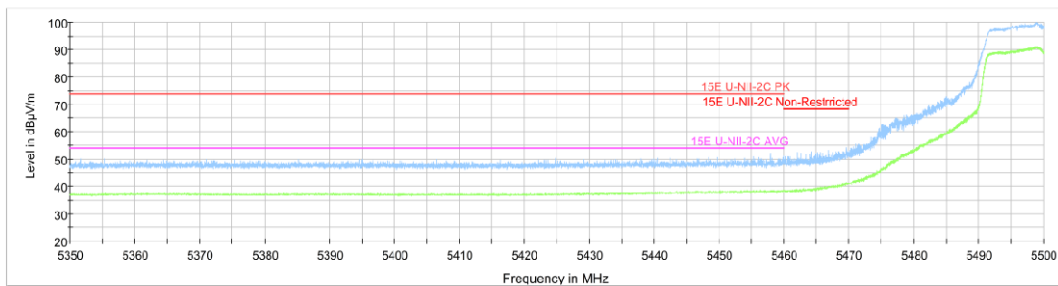
**Fig. 8 Band Edges (802.11n-HT20 Ch140, 5700MHz)**



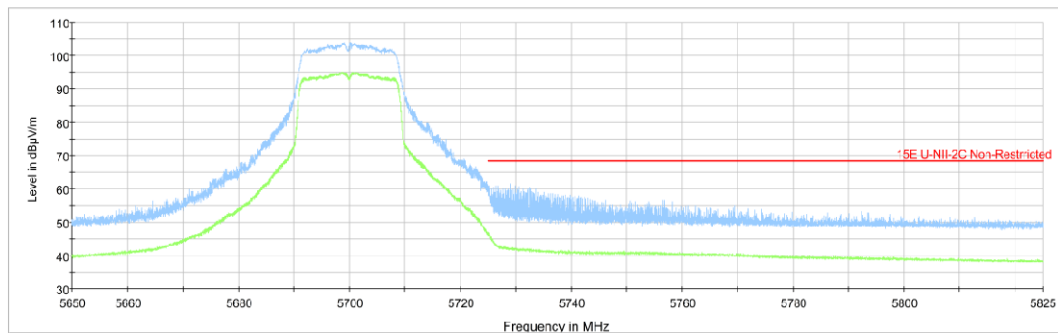
**Fig. 9 Band Edges (802.11ac-HT20 Ch36, 5180MHz)**



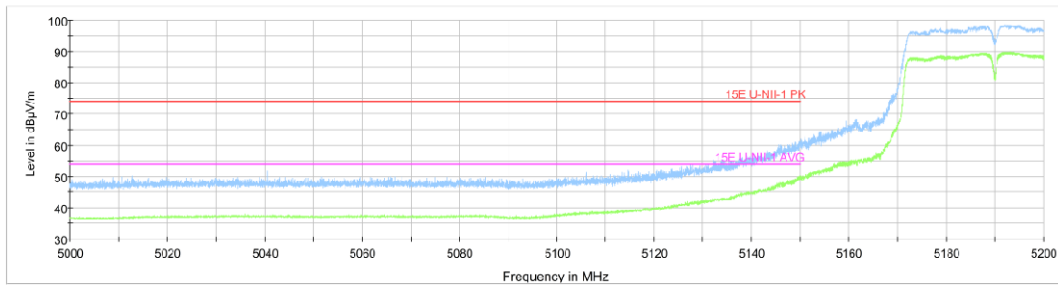
**Fig. 10 Band Edges (802.11ac-HT20 Ch64, 5320MHz)**



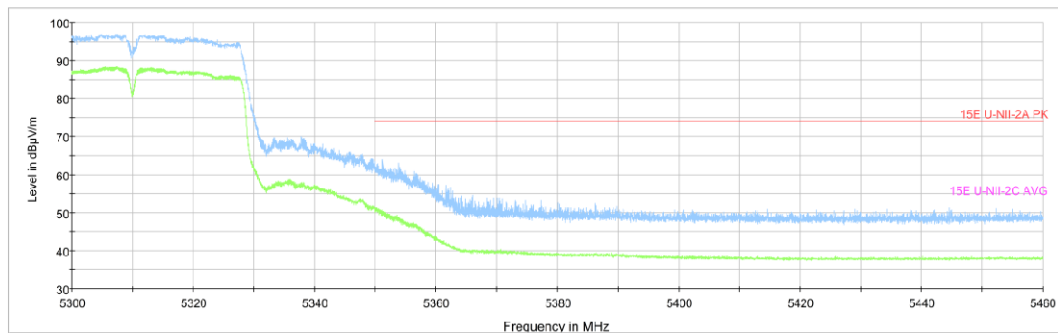
**Fig. 11 Band Edges (802.11ac-HT20 Ch100, 5500MHz)**



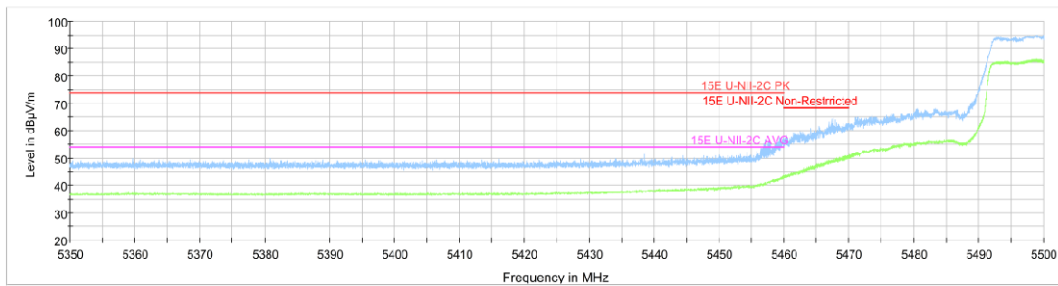
**Fig. 12 Band Edges (802.11ac-HT20 Ch140, 5700MHz)**



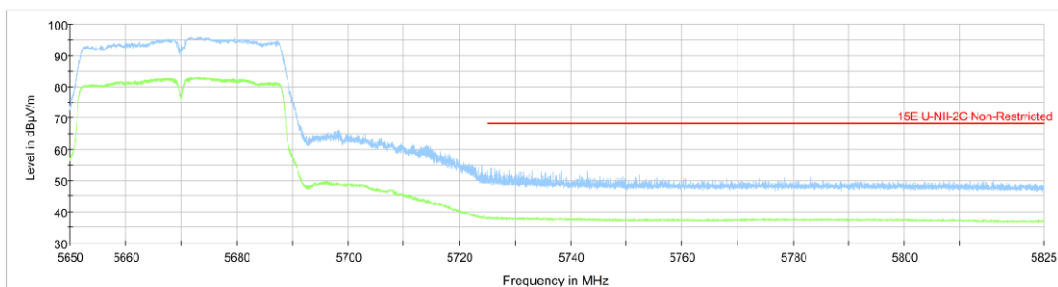
**Fig. 13 Band Edges (802.11n-HT40 Ch38, 5190MHz)**



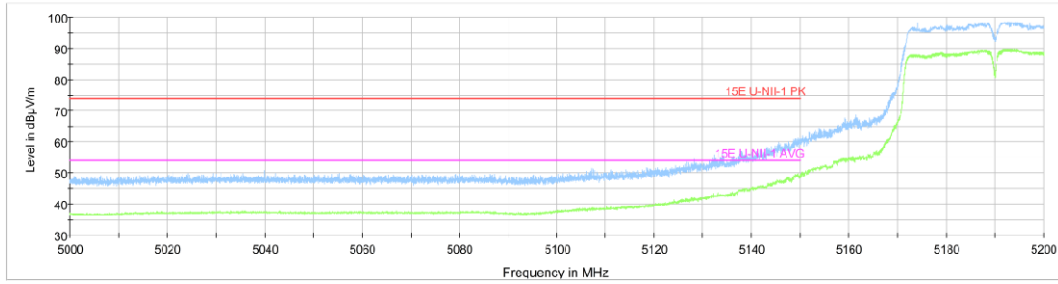
**Fig. 14 Band Edges (802.11n-HT40 Ch62, 5310MHz)**



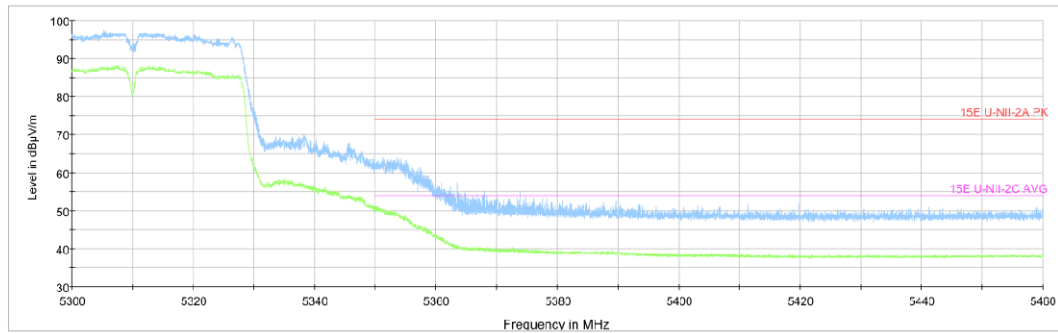
**Fig. 15 Band Edges (802.11n-HT40 Ch102, 5510MHz)**



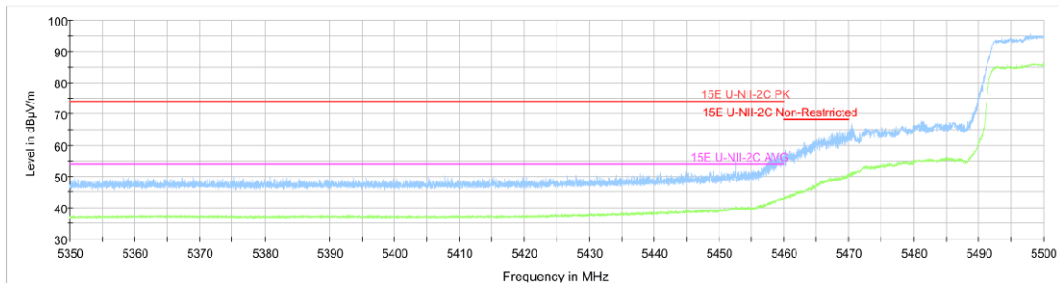
**Fig. 16 Band Edges (802.11n-HT40 Ch134, 5670MHz)**



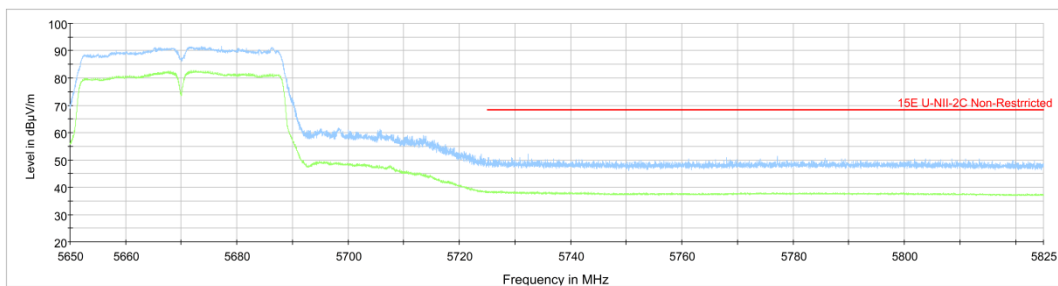
**Fig. 17 Band Edges (802.11ac-HT40 Ch38, 5190MHz)**



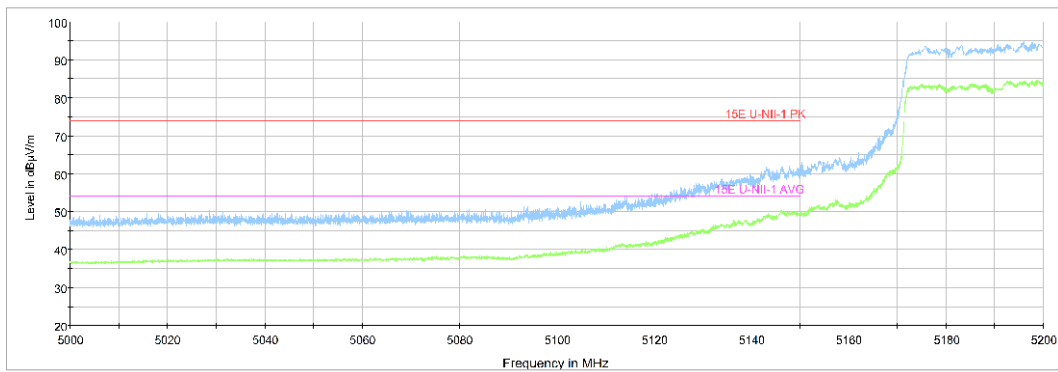
**Fig. 18 Band Edges (802.11ac-HT40 Ch62, 5310MHz)**



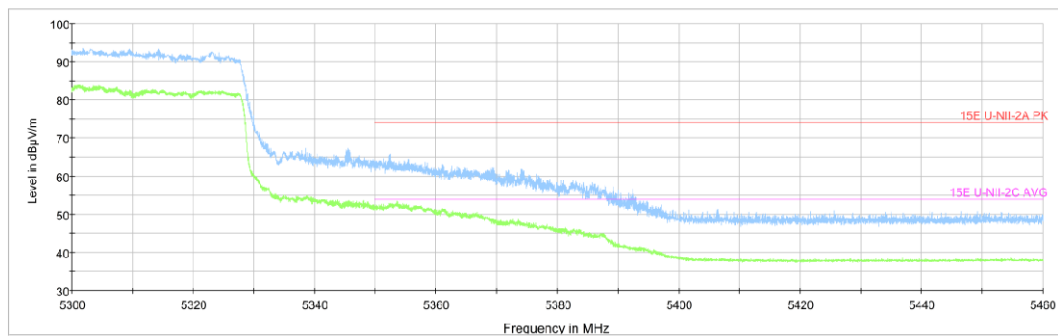
**Fig. 19 Band Edges (802.11ac-HT40 Ch102, 5510MHz)**



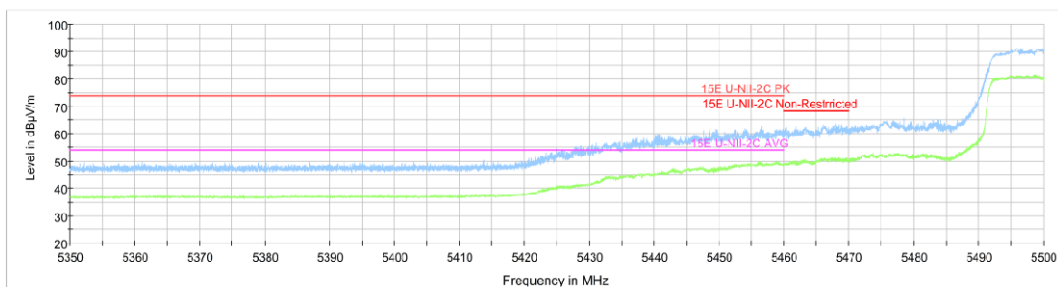
**Fig. 20 Band Edges (802.11ac-HT40 Ch134, 5670MHz)**



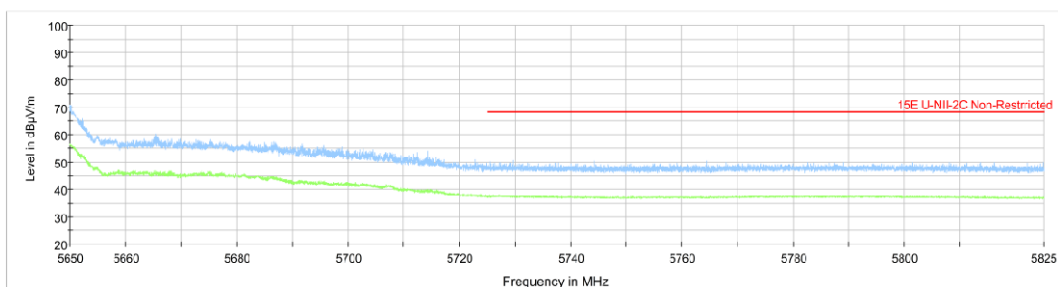
**Fig. 21 Band Edges (802.11ac-HT80 Ch42 , 5210MHz)**



**Fig. 22 Band Edges (802.11ac-HT80 Ch58, 5290MHz)**



**Fig. 23 Band Edges (802.11ac-HT80 Ch106, 5530MHz)**





**Fig. 24 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	---
		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	---
		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-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)	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
			26.5 GHz ~ 40 GHz	---	P
	48(5240MHz)	48(5240MHz)	1 GHz ~ 3 GHz	---	P
			3 GHz ~ 7 GHz	---	P
			7 GHz ~ 18 GHz	---	P
	52(5260MHz)	52(5260MHz)	1 GHz ~ 3 GHz	---	P
			3 GHz ~ 7 GHz	---	P
			7 GHz ~ 18 GHz	---	P
	56(5280MHz)	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)	64(5320MHz)	1 GHz ~ 3 GHz	---	P
			3 GHz ~ 7 GHz	---	P
			7 GHz ~ 18 GHz	---	P
	100(5500MHz)	100(5500MHz)	1 GHz ~ 3 GHz	---	P
			3 GHz ~ 7 GHz	---	P
			7 GHz ~ 18 GHz	---	P
	120(5600MHz)	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)	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-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
	106(5530MHz)	26.5 GHz ~ 40 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
	122(5610MHz)	7 GHz ~ 18 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
			7 GHz ~ 18 GHz	---

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



Note: The measurement results showed here are worst cases.

**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)
17996.700	46.32	-25.50	46.66	25.16	54.00	7.68	H
17990.100	46.08	-25.50	46.66	24.92	54.00	7.92	H
14490.500	39.18	-28.59	42.46	25.31	54.00	14.82	V
14492.600	39.17	-28.59	42.46	25.30	54.00	14.83	V
5149.600	44.43	-27.61	33.67	38.37	54.00	9.57	H
5150.000	44.41	-27.61	33.67	38.35	54.00	9.59	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)
17991.200	46.14	-25.50	46.66	24.98	54.00	7.86	V
17997.800	46.09	-25.50	46.66	24.93	54.00	7.91	H
14499.800	39.05	-28.59	42.46	25.18	54.00	14.95	H
14478.400	39.03	-28.59	42.46	25.16	54.00	14.97	H
11822.400	34.94	-31.85	39.05	27.74	54.00	19.06	V
11820.800	34.92	-31.85	39.05	27.72	54.00	19.08	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)
17974.200	46.14	-25.50	46.66	24.98	54.00	7.86	H
17981.300	46.07	-25.50	46.66	24.91	54.00	7.93	H
14499.200	39.09	-28.59	42.46	25.22	54.00	14.91	V
14485.500	39.06	-28.59	42.46	25.19	54.00	14.94	V
11843.900	35.09	-31.85	39.05	27.89	54.00	18.91	V
11807.000	35.03	-31.85	39.05	27.83	54.00	18.97	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)
17994.500	46.44	-25.50	46.66	25.28	54.00	7.56	V
17992.800	46.33	-25.50	46.66	25.17	54.00	7.67	V
14488.800	39.34	-28.59	42.46	25.47	54.00	14.66	V
14493.200	39.23	-28.59	42.46	25.36	54.00	14.77	V
11854.300	34.99	-31.85	39.05	27.79	54.00	19.01	V
11836.700	34.98	-31.85	39.05	27.78	54.00	19.02	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)
17987.900	46.64	-25.50	46.66	25.48	54.00	7.36	V
17996.700	46.53	-25.50	46.66	25.37	54.00	7.47	V
14470.600	39.49	-28.59	42.46	25.62	54.00	14.51	H
14482.200	39.47	-28.59	42.46	25.60	54.00	14.53	H
11833.400	35.32	-31.85	39.05	28.12	54.00	18.68	H
11920.900	35.06	-31.48	39.09	27.45	54.00	18.94	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)
17989.500	46.44	-25.50	46.66	25.28	54.00	7.56	V
17997.800	46.44	-25.50	46.66	25.28	54.00	7.56	H
14491.500	39.63	-28.59	42.46	25.76	54.00	14.37	V
14488.800	39.43	-28.59	42.46	25.56	54.00	14.57	H
5350.200	46.21	-27.43	34.01	39.63	54.00	7.79	H
5350.200	45.81	-27.43	34.01	39.23	54.00	8.19	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)
17982.400	46.57	-25.50	46.66	25.41	54.00	7.43	V
17985.700	46.45	-25.50	46.66	25.29	54.00	7.55	V
14478.900	39.51	-28.59	42.46	25.64	54.00	14.49	V
14477.200	39.29	-28.59	42.46	25.42	54.00	14.71	H
5457.900	39.12	-27.18	34.17	32.13	54.00	14.88	H
5458.300	39.09	-27.18	34.17	32.10	54.00	14.91	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)
17993.400	46.29	-25.50	46.66	25.13	54.00	7.71	H
17981.300	46.15	-25.50	46.66	24.99	54.00	7.85	H
14480.500	39.48	-28.59	42.46	25.61	54.00	14.52	H
14491.000	39.37	-28.59	42.46	25.50	54.00	14.63	H
11842.200	35.24	-31.85	39.05	28.04	54.00	18.76	V
11831.800	34.95	-31.85	39.05	27.75	54.00	19.05	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)
17985.700	46.62	-25.50	46.66	25.46	54.00	7.38	H
17995.600	46.39	-25.50	46.66	25.23	54.00	7.61	H
14497.000	39.40	-28.59	42.46	25.53	54.00	14.60	V
14496.500	39.33	-28.59	42.46	25.46	54.00	14.67	H
11843.900	35.25	-31.85	39.05	28.05	54.00	18.75	V
11813.000	35.18	-31.85	39.05	27.98	54.00	18.82	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)
17989.000	46.28	-25.50	46.66	25.12	54.00	7.72	H
17986.800	46.25	-25.50	46.66	25.09	54.00	7.75	V
14497.600	39.32	-28.59	42.46	25.45	54.00	14.68	H
14483.900	39.12	-28.59	42.46	25.25	54.00	14.88	V
11908.200	34.82	-31.85	39.05	27.62	54.00	19.18	V
11834.500	34.79	-31.85	39.05	27.59	54.00	19.21	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)
17981.300	46.21	-25.50	46.66	25.05	54.00	7.79	V
17989.000	46.12	-25.50	46.66	24.96	54.00	7.88	H
14499.200	39.54	-28.59	42.46	25.67	54.00	14.46	V
14493.800	39.48	-28.59	42.46	25.61	54.00	14.52	V
5149.800	44.49	-27.61	33.67	38.43	54.00	9.51	H
5149.700	44.45	-27.61	33.67	38.39	54.00	9.55	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)
17983.000	46.14	-25.50	46.66	24.98	54.00	7.86	V
17983.500	46.14	-25.50	46.66	24.98	54.00	7.86	V
14486.000	39.45	-28.59	42.46	25.58	54.00	14.55	H
14499.200	39.22	-28.59	42.46	25.35	54.00	14.78	V
11813.600	34.85	-31.85	39.05	27.65	54.00	19.15	H
11818.500	34.75	-31.85	39.05	27.55	54.00	19.25	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)
17990.700	46.41	-25.50	46.66	25.25	54.00	7.59	V
17986.800	46.15	-25.50	46.66	24.99	54.00	7.85	V
14499.200	39.24	-28.59	42.46	25.37	54.00	14.76	V
14494.900	39.19	-28.59	42.46	25.32	54.00	14.81	H
11836.700	35.09	-31.85	39.05	27.89	54.00	18.91	V
11855.400	34.95	-31.85	39.05	27.75	54.00	19.05	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)
17998.900	46.43	-25.50	46.66	25.27	54.00	7.57	V
17995.600	46.42	-25.50	46.66	25.26	54.00	7.58	V
14499.200	39.83	-28.59	42.46	25.96	54.00	14.17	V
14498.700	39.58	-28.59	42.46	25.71	54.00	14.42	V
11818.500	35.09	-31.85	39.05	27.89	54.00	18.91	V
11899.400	35.07	-31.85	39.05	27.87	54.00	18.93	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)
17996.200	46.54	-25.50	46.66	25.38	54.00	7.46	H
17998.900	46.53	-25.50	46.66	25.37	54.00	7.47	V
14499.800	39.44	-28.59	42.46	25.57	54.00	14.56	H
14486.000	39.32	-28.59	42.46	25.45	54.00	14.68	H
11818.000	35.24	-31.85	39.05	28.04	54.00	18.76	V
11836.700	34.95	-31.85	39.05	27.75	54.00	19.05	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)
17984.000	46.53	-25.50	46.66	25.37	54.00	7.47	H
17978.000	46.45	-25.50	46.66	25.29	54.00	7.55	H
14487.700	39.42	-28.59	42.46	25.55	54.00	14.58	V
14474.500	39.27	-28.59	42.46	25.40	54.00	14.73	H
5350.100	46.07	-27.43	34.01	39.49	54.00	7.93	H
5350.100	45.71	-27.43	34.01	39.13	54.00	8.29	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)
17991.200	46.75	-25.50	46.66	25.59	54.00	7.25	V
17996.200	46.28	-25.50	46.66	25.12	54.00	7.72	V
14496.000	39.43	-28.59	42.46	25.56	54.00	14.57	V
14491.000	39.40	-28.59	42.46	25.53	54.00	14.60	V
5458.500	38.83	-27.18	34.17	31.84	54.00	15.17	H
5456.400	38.77	-27.18	34.17	31.78	54.00	15.23	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)
17982.400	46.59	-25.50	46.66	25.43	54.00	7.41	H
17995.000	46.39	-25.50	46.66	25.23	54.00	7.61	H
14478.900	39.41	-28.59	42.46	25.54	54.00	14.59	H
14481.600	39.40	-28.59	42.46	25.53	54.00	14.60	V
11848.800	35.36	-31.85	39.05	28.16	54.00	18.64	H
11898.900	35.03	-31.85	39.05	27.83	54.00	18.97	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)
17992.800	46.28	-25.50	46.66	25.12	54.00	7.72	V
17990.100	46.24	-25.50	46.66	25.08	54.00	7.76	H
14479.500	39.42	-28.59	42.46	25.55	54.00	14.58	H
14480.500	39.40	-28.59	42.46	25.53	54.00	14.60	V
11818.500	35.43	-31.85	39.05	28.23	54.00	18.57	H
11823.000	35.20	-31.85	39.05	28.00	54.00	18.80	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)
17989.500	46.25	-25.50	46.66	25.09	54.00	7.75	V
17980.200	46.08	-25.50	46.66	24.92	54.00	7.92	V
14496.000	39.28	-28.59	42.46	25.41	54.00	14.72	V
14494.900	39.27	-28.59	42.46	25.40	54.00	14.73	H
11833.400	34.97	-31.85	39.05	27.77	54.00	19.03	H
11622.200	34.79	-32.31	38.91	28.20	54.00	19.21	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)
17989.000	46.09	-25.50	46.66	24.93	54.00	7.91	H
17974.200	46.08	-25.50	46.66	24.92	54.00	7.92	V
14491.500	39.16	-28.59	42.46	25.29	54.00	14.84	H
14477.200	39.04	-28.59	42.46	25.17	54.00	14.96	V
5150.000	44.91	-27.61	33.67	38.85	54.00	9.09	H
5149.900	44.55	-27.61	33.67	38.49	54.00	9.45	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)
17992.800	46.16	-25.50	46.66	25.00	54.00	7.84	V
17997.200	46.04	-25.50	46.66	24.88	54.00	7.96	H
14488.800	39.18	-28.59	42.46	25.31	54.00	14.82	V
14497.000	39.10	-28.59	42.46	25.23	54.00	14.90	H
11842.800	34.97	-31.85	39.05	27.77	54.00	19.03	H
11829.500	34.73	-31.85	39.05	27.53	54.00	19.27	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)
17994.000	46.64	-25.50	46.66	25.48	54.00	7.36	H
17996.200	46.20	-25.50	46.66	25.04	54.00	7.80	V
14477.200	39.21	-28.59	42.46	25.34	54.00	14.79	H
14478.900	39.19	-28.59	42.46	25.32	54.00	14.81	H
11821.900	35.07	-31.85	39.05	27.87	54.00	18.93	H
11846.600	35.04	-31.85	39.05	27.84	54.00	18.96	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)
17985.200	46.35	-25.50	46.66	25.19	54.00	7.65	H
17987.900	46.34	-25.50	46.66	25.18	54.00	7.66	H
14491.000	39.20	-28.59	42.46	25.33	54.00	14.80	H
14480.000	39.19	-28.59	42.46	25.32	54.00	14.81	H
11823.000	35.06	-31.85	39.05	27.86	54.00	18.94	V
11812.500	35.03	-31.85	39.05	27.83	54.00	18.97	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)
17997.200	46.52	-25.50	46.66	25.36	54.00	7.48	V
17998.900	46.39	-25.50	46.66	25.23	54.00	7.61	H
14497.000	39.44	-28.59	42.46	25.57	54.00	14.56	V
14472.900	39.22	-28.59	42.46	25.35	54.00	14.78	V
11910.400	35.21	-31.85	39.05	28.01	54.00	18.79	V
11834.500	35.15	-31.85	39.05	27.95	54.00	18.85	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)
17985.700	46.52	-25.50	46.66	25.36	54.00	7.48	H
17995.000	46.31	-25.50	46.66	25.15	54.00	7.69	H
14482.800	39.47	-28.59	42.46	25.60	54.00	14.53	V
14497.000	39.39	-28.59	42.46	25.52	54.00	14.61	V
5350.000	45.83	-27.43	34.01	39.25	54.00	8.17	H
5350.000	45.55	-27.43	34.01	38.97	54.00	8.45	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)
17995.600	46.38	-25.50	46.66	25.22	54.00	7.62	V
17994.500	46.32	-25.50	46.66	25.16	54.00	7.68	H
14492.100	39.64	-28.59	42.46	25.77	54.00	14.36	V
14482.200	39.41	-28.59	42.46	25.54	54.00	14.59	V
5456.400	38.62	-27.18	34.17	31.63	54.00	15.38	H
5458.300	38.59	-27.18	34.17	31.60	54.00	15.41	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)
17998.900	46.56	-25.50	46.66	25.40	54.00	7.44	V
17991.200	46.40	-25.50	46.66	25.24	54.00	7.60	H
14494.900	39.77	-28.59	42.46	25.90	54.00	14.23	V
14499.200	39.37	-28.59	42.46	25.50	54.00	14.63	V
11842.200	34.94	-31.85	39.05	27.74	54.00	19.06	V
11619.500	34.84	-32.31	38.91	28.25	54.00	19.16	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)
17993.400	46.42	-25.50	46.66	25.26	54.00	7.58	V
17994.000	46.36	-25.50	46.66	25.20	54.00	7.64	V
14495.400	39.51	-28.59	42.46	25.64	54.00	14.49	V
14482.800	39.37	-28.59	42.46	25.50	54.00	14.63	V
11820.800	34.98	-31.85	39.05	27.78	54.00	19.02	V
11821.900	34.95	-31.85	39.05	27.75	54.00	19.05	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)
17997.800	46.28	-25.50	46.66	25.12	54.00	7.72	H
17986.200	46.26	-25.50	46.66	25.10	54.00	7.74	H
14487.100	39.13	-28.59	42.46	25.26	54.00	14.87	H
14499.800	39.13	-28.59	42.46	25.26	54.00	14.87	H
11837.800	34.81	-31.85	39.05	27.61	54.00	19.19	H
11838.400	34.75	-31.85	39.05	27.55	54.00	19.25	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)
17992.800	46.23	-25.50	46.66	25.07	54.00	7.77	V
17997.800	46.23	-25.50	46.66	25.07	54.00	7.77	H
14479.500	39.42	-28.59	42.46	25.55	54.00	14.58	H
14480.500	39.32	-28.59	42.46	25.45	54.00	14.68	V
5149.900	50.12	-27.61	33.67	44.06	54.00	3.88	H
5149.700	50.04	-27.61	33.67	43.98	54.00	3.96	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)
17994.500	46.27	-25.50	46.66	25.11	54.00	7.73	V
17997.800	46.15	-25.50	46.66	24.99	54.00	7.85	V
14475.000	39.26	-28.59	42.46	25.39	54.00	14.74	H
14498.700	39.18	-28.59	42.46	25.31	54.00	14.82	V
11820.200	35.06	-31.85	39.05	27.86	54.00	18.94	V
11829.500	35.01	-31.85	39.05	27.81	54.00	18.99	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)
17998.300	46.40	-25.50	46.66	25.24	54.00	7.60	V
17981.300	46.33	-25.50	46.66	25.17	54.00	7.67	H
14483.900	39.59	-28.59	42.46	25.72	54.00	14.41	H
14477.800	39.51	-28.59	42.46	25.64	54.00	14.49	H
11825.700	35.04	-31.85	39.05	27.84	54.00	18.96	H
11821.900	34.92	-31.85	39.05	27.72	54.00	19.08	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)
17991.800	46.40	-25.50	46.66	25.24	54.00	7.60	H
17997.800	46.30	-25.50	46.66	25.14	54.00	7.70	V
14474.500	39.56	-28.59	42.46	25.69	54.00	14.44	V
14474.000	39.48	-28.59	42.46	25.61	54.00	14.52	V
5350.200	51.45	-27.43	34.01	44.87	54.00	2.55	H
5350.100	51.37	-27.43	34.01	44.79	54.00	2.63	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)
17994.000	46.53	-25.50	46.66	25.37	54.00	7.47	H
17996.200	46.34	-25.50	46.66	25.18	54.00	7.66	V
14478.900	39.23	-28.59	42.46	25.36	54.00	14.77	V
14488.200	39.23	-28.59	42.46	25.36	54.00	14.77	H
5459.800	43.45	-27.18	34.17	36.46	54.00	10.55	H
5459.900	43.41	-27.18	34.17	36.42	54.00	10.59	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)
17989.000	46.32	-25.50	46.66	25.16	54.00	7.68	H
17983.500	46.28	-25.50	46.66	25.12	54.00	7.72	H
14499.200	39.44	-28.59	42.46	25.57	54.00	14.56	H
14493.200	39.42	-28.59	42.46	25.55	54.00	14.58	V
11840.500	35.22	-31.85	39.05	28.02	54.00	18.78	H
11823.500	35.07	-31.85	39.05	27.87	54.00	18.93	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)
17998.900	46.74	-25.50	46.66	25.58	54.00	7.26	H
17997.800	46.43	-25.50	46.66	25.27	54.00	7.57	H
14477.800	39.83	-28.59	42.46	25.96	54.00	14.17	H
14485.000	39.56	-28.59	42.46	25.69	54.00	14.44	H
11831.800	35.25	-31.85	39.05	28.05	54.00	18.75	V
11849.400	34.99	-31.85	39.05	27.79	54.00	19.01	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)
17996.200	46.23	-25.50	46.66	25.07	54.00	7.77	H
17991.800	46.16	-25.50	46.66	25.00	54.00	7.84	H
14492.100	39.54	-28.59	42.46	25.67	54.00	14.46	H
14493.800	39.37	-28.59	42.46	25.50	54.00	14.63	V
11857.000	34.95	-31.85	39.05	27.75	54.00	19.05	V
11836.100	34.93	-31.85	39.05	27.73	54.00	19.07	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)
17991.800	46.42	-25.50	46.66	25.26	54.00	7.58	H
17989.500	46.29	-25.50	46.66	25.13	54.00	7.71	V
14494.900	39.15	-28.59	42.46	25.28	54.00	14.85	H
14499.800	39.13	-28.59	42.46	25.26	54.00	14.87	H
5149.600	49.73	-27.61	33.67	43.67	54.00	4.27	H
5149.500	49.66	-27.61	33.67	43.60	54.00	4.34	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)
17990.100	46.86	-25.50	46.66	25.70	54.00	7.14	H
17990.700	46.34	-25.50	46.66	25.18	54.00	7.66	V
14488.800	39.26	-28.59	42.46	25.39	54.00	14.74	V
14495.400	39.24	-28.59	42.46	25.37	54.00	14.76	V
11813.000	34.83	-31.85	39.05	27.63	54.00	19.17	V
11848.200	34.83	-31.85	39.05	27.63	54.00	19.17	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)
17990.100	46.51	-25.50	46.66	25.35	54.00	7.49	V
17998.900	46.27	-25.50	46.66	25.11	54.00	7.73	H
14483.900	39.69	-28.59	42.46	25.82	54.00	14.31	V
14491.000	39.43	-28.59	42.46	25.56	54.00	14.57	V
11814.700	35.10	-31.85	39.05	27.90	54.00	18.90	V
11856.500	35.06	-31.85	39.05	27.86	54.00	18.94	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)
17985.200	46.46	-25.50	46.66	25.30	54.00	7.54	V
17979.700	46.41	-25.50	46.66	25.25	54.00	7.59	V
14493.800	39.33	-28.59	42.46	25.46	54.00	14.67	H
14480.500	39.25	-28.59	42.46	25.38	54.00	14.75	H
5350.200	51.10	-27.43	34.01	44.52	54.00	2.90	H
5350.400	51.08	-27.43	34.01	44.50	54.00	2.92	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)
17995.600	46.53	-25.50	46.66	25.37	54.00	7.47	V
17994.500	46.33	-25.50	46.66	25.17	54.00	7.67	V
14486.000	39.37	-28.59	42.46	25.50	54.00	14.63	V
14488.200	39.37	-28.59	42.46	25.50	54.00	14.63	V
5460.000	43.38	-27.18	34.17	36.39	54.00	10.62	H
5459.900	43.28	-27.18	34.17	36.29	54.00	10.72	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)
17986.800	46.44	-25.50	46.66	25.28	54.00	7.56	V
17998.900	46.38	-25.50	46.66	25.22	54.00	7.62	V
14496.500	39.42	-28.59	42.46	25.55	54.00	14.58	H
14476.100	39.33	-28.59	42.46	25.46	54.00	14.67	H
11994.000	35.12	-31.48	39.09	27.51	54.00	18.88	V
11832.300	34.95	-31.85	39.05	27.75	54.00	19.05	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)
17997.200	46.46	-25.50	46.66	25.30	54.00	7.54	V
17987.300	46.29	-25.50	46.66	25.13	54.00	7.71	V
14493.200	39.44	-28.59	42.46	25.57	54.00	14.56	V
14478.900	39.29	-28.59	42.46	25.42	54.00	14.71	H
11833.400	34.95	-31.85	39.05	27.75	54.00	19.05	H
12000.000	34.89	-31.48	39.09	27.28	54.00	19.11	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)
17995.600	46.46	-25.50	46.66	25.30	54.00	7.54	V
17992.800	46.38	-25.50	46.66	25.22	54.00	7.62	V
14477.800	39.40	-28.59	42.46	25.53	54.00	14.60	H
14499.200	39.40	-28.59	42.46	25.53	54.00	14.60	V
11814.100	35.03	-31.85	39.05	27.83	54.00	18.97	V
11848.800	34.72	-31.85	39.05	27.52	54.00	19.28	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)
17991.800	46.57	-25.50	46.66	25.41	54.00	7.43	V
17998.300	46.49	-25.50	46.66	25.33	54.00	7.51	H
14494.300	39.33	-28.59	42.46	25.46	54.00	14.67	V
14496.500	39.25	-28.59	42.46	25.38	54.00	14.75	V
5146.100	50.34	-27.61	33.67	44.28	54.00	3.66	H
5146.200	50.22	-27.61	33.67	44.16	54.00	3.78	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)
17981.800	46.54	-25.50	46.66	25.38	54.00	7.46	V
17983.000	46.50	-25.50	46.66	25.34	54.00	7.50	V
14481.600	39.59	-28.59	42.46	25.72	54.00	14.41	H
14477.800	39.37	-28.59	42.46	25.50	54.00	14.63	H
5353.600	53.32	-27.43	34.01	46.74	54.00	0.68	H
5353.700	53.23	-27.43	34.01	46.65	54.00	0.77	H

## 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)
17998.900	46.50	-25.50	46.66	25.34	54.00	7.50	V
17998.300	46.38	-25.50	46.66	25.22	54.00	7.62	V
14479.500	39.48	-28.59	42.46	25.61	54.00	14.52	H
14499.200	39.39	-28.59	42.46	25.52	54.00	14.61	V
5458.900	50.01	-27.18	34.17	43.02	54.00	3.99	H
5456.400	49.80	-27.18	34.17	42.81	54.00	4.20	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)
17996.700	46.34	-25.50	46.66	25.18	54.00	7.66	H
17997.200	46.32	-25.50	46.66	25.16	54.00	7.68	V
14474.500	39.73	-28.59	42.46	25.86	54.00	14.27	H
14494.300	39.56	-28.59	42.46	25.69	54.00	14.44	H
11818.000	34.95	-31.85	39.05	27.75	54.00	19.05	V
11840.000	34.91	-31.85	39.05	27.71	54.00	19.09	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)
17990.100	46.28	-25.50	46.66	25.12	54.00	7.72	H
17992.300	46.21	-25.50	46.66	25.05	54.00	7.79	H
14484.400	39.21	-28.59	42.46	25.34	54.00	14.79	V
14487.100	39.16	-28.59	42.46	25.29	54.00	14.84	V
11817.500	35.04	-31.85	39.05	27.84	54.00	18.96	V
11917.500	34.85	-31.48	39.09	27.24	54.00	19.15	H

**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)
17995.000	57.81	-25.50	46.66	36.65	74.00	16.19	V
17996.700	57.62	-25.50	46.66	36.46	74.00	16.38	H
14396.400	51.07	-28.59	42.46	37.20	68.30	17.23	H
14401.900	51.03	-28.59	42.46	37.16	68.30	17.27	V
5149.600	57.83	-27.61	33.67	51.77	74.00	16.17	H
5149.900	57.57	-27.61	33.67	51.51	74.00	16.43	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)
17970.300	57.60	-25.50	46.66	36.44	74.00	16.40	H
17976.900	57.42	-25.50	46.66	36.26	74.00	16.58	H
14379.900	51.76	-28.42	42.34	37.84	68.30	16.54	V
14428.900	51.14	-28.59	42.46	37.27	68.30	17.16	V
11603.500	46.79	-32.31	38.91	40.20	74.00	27.21	V
11949.500	46.49	-31.48	39.09	38.88	74.00	27.51	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)
17896.000	57.65	-25.50	46.66	36.49	74.00	16.35	H
17962.600	57.26	-25.50	46.66	36.10	74.00	16.74	H
14323.200	51.36	-28.42	42.34	37.44	68.30	16.94	V
14491.500	51.30	-28.59	42.46	37.43	74.00	22.70	V
11845.500	46.76	-31.85	39.05	39.56	74.00	27.24	V
10482.000	46.15	-32.99	38.27	40.86	68.30	22.15	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)
17972.000	58.05	-25.50	46.66	36.89	74.00	15.95	V
17997.800	57.47	-25.50	46.66	36.31	74.00	16.53	V
14404.100	51.78	-28.59	42.46	37.91	68.30	16.52	H
14334.200	51.57	-28.42	42.34	37.65	68.30	16.73	H
11845.000	46.91	-31.85	39.05	39.71	74.00	27.09	H
8795.200	46.70	-33.90	38.07	42.53	68.30	21.60	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)
17985.200	57.55	-25.50	46.66	36.39	74.00	16.45	H
17973.600	57.25	-25.50	46.66	36.09	74.00	16.75	H
14503.100	52.89	-28.59	42.46	39.02	68.30	15.41	H
14514.100	51.79	-28.59	42.46	37.92	68.30	16.51	H
11961.000	47.43	-31.48	39.09	39.82	74.00	26.57	H
11862.500	46.97	-31.85	39.05	39.77	74.00	27.03	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)
17980.200	58.63	-25.50	46.66	37.47	74.00	15.37	H
17992.800	57.82	-25.50	46.66	36.66	74.00	16.18	H
14480.000	51.87	-28.59	42.46	38.00	74.00	22.13	H
14416.200	51.53	-28.59	42.46	37.66	68.30	16.77	H
5350.500	58.42	-27.43	34.01	51.84	74.00	15.58	H
5350.700	58.10	-27.43	34.01	51.52	74.00	15.90	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)
17996.200	58.03	-25.50	46.66	36.87	74.00	15.97	V
17974.700	57.87	-25.50	46.66	36.71	74.00	16.13	V
14371.100	51.47	-28.42	42.34	37.55	68.30	16.83	V
14305.600	51.20	-28.42	42.34	37.28	68.30	17.10	V
5449.800	51.63	-27.18	34.17	44.64	74.00	22.37	H
5469.500	54.25	-27.18	34.17	47.26	68.30	14.05	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)
17986.200	57.61	-25.50	46.66	36.45	74.00	16.39	V
17993.400	57.32	-25.50	46.66	36.16	74.00	16.68	H
14513.500	51.93	-28.59	42.46	38.06	68.30	16.37	H
14411.200	51.57	-28.59	42.46	37.70	68.30	16.73	V
11856.500	46.67	-31.85	39.05	39.47	74.00	27.33	V
11833.400	46.30	-31.85	39.05	39.10	74.00	27.70	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)
17988.500	57.44	-25.50	46.66	36.28	74.00	16.56	H
17994.500	57.40	-25.50	46.66	36.24	74.00	16.60	V
14368.400	52.32	-28.42	42.34	38.40	68.30	15.98	H
14712.100	51.66	-28.32	41.35	38.64	68.30	16.64	V
5731.500	61.00	-27.07	34.31	53.76	68.30	7.30	H
5726.200	60.97	-27.07	34.31	53.73	68.30	7.33	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)
17994.500	57.58	-25.50	46.66	36.42	74.00	16.42	H
17972.500	57.30	-25.50	46.66	36.14	74.00	16.70	H
14513.000	51.48	-28.59	42.46	37.61	68.30	16.82	H
14465.100	51.46	-28.59	42.46	37.59	68.30	16.84	V
11994.500	46.59	-31.48	39.09	38.98	74.00	27.41	V
11804.200	46.49	-31.85	39.05	39.29	74.00	27.51	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)
17994.000	57.77	-25.50	46.66	36.61	74.00	16.23	V
17994.500	57.39	-25.50	46.66	36.23	74.00	16.61	V
14367.800	51.59	-28.42	42.34	37.67	68.30	16.71	V
14310.600	51.37	-28.42	42.34	37.45	68.30	16.93	H
5147.300	57.83	-27.61	33.67	51.77	74.00	16.17	H
5149.400	56.99	-27.61	33.67	50.93	74.00	17.01	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)
17998.900	57.19	-25.50	46.66	36.03	74.00	16.81	H
17996.200	57.17	-25.50	46.66	36.01	74.00	16.83	V
14335.900	51.01	-28.42	42.34	37.09	68.30	17.29	V
14411.800	50.98	-28.59	42.46	37.11	68.30	17.32	V
11625.500	47.57	-32.31	38.91	40.98	74.00	26.43	V
11906.000	47.39	-31.85	39.05	40.19	74.00	26.61	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)
17997.800	57.33	-25.50	46.66	36.17	74.00	16.67	V
17990.700	57.16	-25.50	46.66	36.00	74.00	16.84	V
14426.600	51.43	-28.59	42.46	37.56	68.30	16.87	V
14371.600	51.32	-28.42	42.34	37.40	68.30	16.98	H
11791.000	46.82	-31.99	38.98	39.83	74.00	27.18	H
11832.900	46.54	-31.85	39.05	39.34	74.00	27.46	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)
17983.000	57.97	-25.50	46.66	36.81	74.00	16.03	V
17974.200	57.81	-25.50	46.66	36.65	74.00	16.19	V
14372.200	52.52	-28.42	42.34	38.60	68.30	15.78	H
14353.000	51.49	-28.42	42.34	37.57	68.30	16.81	V
11842.200	47.42	-31.85	39.05	40.22	74.00	26.58	V
11831.800	46.72	-31.85	39.05	39.52	74.00	27.28	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)
17987.300	57.71	-25.50	46.66	36.55	74.00	16.29	H
17998.300	57.34	-25.50	46.66	36.18	74.00	16.66	H
14582.900	51.08	-27.29	41.90	36.47	68.30	17.22	V
14674.100	51.06	-27.29	41.90	36.45	68.30	17.24	V
11988.000	47.06	-31.48	39.09	39.45	74.00	26.94	V
11804.800	46.79	-31.85	39.05	39.59	74.00	27.21	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)
17981.800	57.40	-25.50	46.66	36.24	74.00	16.60	V
17988.500	57.11	-25.50	46.66	35.95	74.00	16.89	V
14478.400	51.63	-28.59	42.46	37.76	74.00	22.37	V
14816.000	51.41	-28.32	41.35	38.39	68.30	16.89	H
5350.000	57.86	-27.43	34.01	51.28	74.00	16.14	H
5350.200	57.62	-27.43	34.01	51.04	74.00	16.38	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)
17998.300	57.97	-25.50	46.66	36.81	74.00	16.03	H
17996.700	57.55	-25.50	46.66	36.39	74.00	16.45	V
14463.000	51.43	-28.59	42.46	37.56	68.30	16.87	H
14404.600	51.35	-28.59	42.46	37.48	68.30	16.95	V
5447.700	52.23	-27.18	34.17	45.24	74.00	21.77	H
5468.200	53.80	-27.18	34.17	46.81	68.30	14.50	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)
17989.500	58.10	-25.50	46.66	36.94	74.00	15.90	H
17897.200	58.03	-25.50	46.66	36.87	74.00	15.97	H
14355.700	51.68	-28.42	42.34	37.76	68.30	16.62	V
14366.700	51.60	-28.42	42.34	37.68	68.30	16.70	V
11918.100	46.54	-31.48	39.09	38.93	74.00	27.46	V
11626.000	46.53	-32.31	38.91	39.94	74.00	27.47	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)
17987.300	57.57	-25.50	46.66	36.41	74.00	16.43	V
17996.700	57.53	-25.50	46.66	36.37	74.00	16.47	V
14465.700	51.70	-28.59	42.46	37.83	68.30	16.60	V
14108.800	51.36	-28.99	42.00	38.34	68.30	16.94	V
5726.100	61.18	-27.07	34.31	53.94	68.30	7.12	H
5729.500	60.81	-27.07	34.31	53.57	68.30	7.49	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)
17990.100	57.74	-25.50	46.66	36.58	74.00	16.26	V
17969.200	57.25	-25.50	46.66	36.09	74.00	16.75	V
14511.900	51.76	-28.59	42.46	37.89	68.30	16.54	V
14420.600	51.23	-28.59	42.46	37.36	68.30	17.07	V
11691.500	46.76	-31.99	38.98	39.77	74.00	27.24	V
11835.000	46.72	-31.85	39.05	39.52	74.00	27.28	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)
17994.500	57.91	-25.50	46.66	36.75	74.00	16.09	V
17974.200	57.41	-25.50	46.66	36.25	74.00	16.59	V
14345.200	51.54	-28.42	42.34	37.62	68.30	16.76	V
14894.100	51.35	-28.59	40.79	39.15	68.30	16.95	H
5147.600	57.41	-27.61	33.67	51.35	74.00	16.59	H
5149.600	57.41	-27.61	33.67	51.35	74.00	16.59	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)
17990.100	57.91	-25.50	46.66	36.75	74.00	16.09	H
17997.800	57.65	-25.50	46.66	36.49	74.00	16.35	V
14427.800	51.41	-28.59	42.46	37.54	68.30	16.89	V
14536.600	50.93	-27.29	41.90	36.32	68.30	17.37	V
11815.200	47.11	-31.85	39.05	39.91	74.00	26.89	H
11895.500	46.93	-31.85	39.05	39.73	74.00	27.07	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)
17994.000	57.94	-25.50	46.66	36.78	74.00	16.06	H
17903.200	57.63	-25.50	46.66	36.47	74.00	16.37	V
14483.300	51.87	-28.59	42.46	38.00	74.00	22.13	V
14500.400	51.01	-28.59	42.46	37.14	68.30	17.29	H
11844.400	47.36	-31.85	39.05	40.16	74.00	26.64	H
11710.200	46.92	-31.99	38.98	39.93	74.00	27.08	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)
17942.200	58.17	-25.50	46.66	37.01	74.00	15.83	V
17996.200	58.03	-25.50	46.66	36.87	74.00	15.97	H
14397.000	51.87	-28.59	42.46	38.00	68.30	16.43	V
14445.900	51.38	-28.59	42.46	37.51	68.30	16.92	V
11612.900	47.02	-32.31	38.91	40.43	74.00	26.98	V
11865.300	46.77	-31.85	39.05	39.57	74.00	27.23	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)
17992.300	58.00	-25.50	46.66	36.84	74.00	16.00	V
17968.700	57.73	-25.50	46.66	36.57	74.00	16.27	V
14373.300	51.34	-28.42	42.34	37.42	68.30	16.96	H
14429.400	51.34	-28.59	42.46	37.47	68.30	16.96	V
11902.100	47.10	-31.85	39.05	39.90	74.00	26.90	H
11160.800	46.87	-32.60	38.75	40.73	74.00	27.13	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)
17990.100	57.71	-25.50	46.66	36.55	74.00	16.29	H
17995.000	57.47	-25.50	46.66	36.31	74.00	16.53	H
14498.700	51.32	-28.59	42.46	37.45	74.00	22.68	V
14174.200	51.06	-28.99	42.00	38.04	68.30	17.24	H
5350.300	59.15	-27.43	34.01	52.57	74.00	14.85	H
5350.300	58.53	-27.43	34.01	51.95	74.00	15.47	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)
17963.700	59.10	-25.50	46.66	37.94	74.00	14.90	H
17995.600	58.00	-25.50	46.66	36.84	74.00	16.00	V
14599.400	52.08	-27.29	41.90	37.47	68.30	16.22	V
14697.200	51.73	-28.32	41.35	38.71	68.30	16.57	H
5457.900	52.08	-27.18	34.17	45.09	74.00	21.92	H
5469.600	54.16	-27.18	34.17	47.17	68.30	14.14	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)
17980.200	58.35	-25.50	46.66	37.19	74.00	15.65	V
17983.000	58.04	-25.50	46.66	36.88	74.00	15.96	H
14622.500	51.82	-27.29	41.90	37.21	68.30	16.48	H
14378.200	51.77	-28.42	42.34	37.85	68.30	16.53	V
10974.900	46.65	-32.82	38.70	40.77	74.00	27.35	V
11843.900	46.63	-31.85	39.05	39.43	74.00	27.37	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)
17979.700	58.39	-25.50	46.66	37.23	74.00	15.61	H
17973.600	58.22	-25.50	46.66	37.06	74.00	15.78	H
14371.100	51.75	-28.42	42.34	37.83	68.30	16.55	H
14432.100	51.64	-28.59	42.46	37.77	68.30	16.66	V
5729.100	61.40	-27.07	34.31	54.16	68.30	6.90	H
5726.400	60.93	-27.07	34.31	53.69	68.30	7.37	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)
17982.400	57.81	-25.50	46.66	36.65	74.00	16.19	H
17976.300	57.68	-25.50	46.66	36.52	74.00	16.32	V
14708.800	52.03	-28.32	41.35	39.01	68.30	16.27	V
14478.400	51.31	-28.59	42.46	37.44	74.00	22.69	H
11642.500	46.68	-32.31	38.91	40.09	74.00	27.32	V
11923.600	46.55	-31.48	39.09	38.94	74.00	27.45	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)
17980.200	57.67	-25.50	46.66	36.51	74.00	16.33	H
17995.000	57.60	-25.50	46.66	36.44	74.00	16.40	V
14422.200	51.10	-28.59	42.46	37.23	68.30	17.20	H
14805.000	51.10	-28.32	41.35	38.08	68.30	17.20	V
5149.800	61.40	-27.61	33.67	55.34	74.00	12.60	H
5149.800	61.15	-27.61	33.67	55.09	74.00	12.85	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)
17972.000	57.76	-25.50	46.66	36.60	74.00	16.24	V
17981.300	57.53	-25.50	46.66	36.37	74.00	16.47	V
14536.100	51.98	-28.59	42.46	38.11	68.30	16.32	V
14312.200	51.77	-28.42	42.34	37.85	68.30	16.53	V
11521.000	46.79	-32.26	38.84	40.22	74.00	27.21	H
11871.400	46.50	-31.85	39.05	39.30	74.00	27.50	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)
17986.800	57.81	-25.50	46.66	36.65	74.00	16.19	H
17925.800	57.75	-25.50	46.66	36.59	74.00	16.25	V
14432.700	51.74	-28.59	42.46	37.87	68.30	16.56	H
14413.500	51.72	-28.59	42.46	37.85	68.30	16.58	V
11615.000	46.92	-32.31	38.91	40.33	74.00	27.08	V
11925.800	46.77	-31.48	39.09	39.16	74.00	27.23	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)
17997.800	58.13	-25.50	46.66	36.97	74.00	15.87	V
17984.000	57.87	-25.50	46.66	36.71	74.00	16.13	H
14399.100	52.02	-28.59	42.46	38.15	68.30	16.28	V
14631.800	51.55	-27.29	41.90	36.94	68.30	16.75	H
5351.200	64.08	-27.43	34.01	57.50	74.00	9.92	H
5353.900	62.99	-27.43	34.01	56.41	74.00	11.01	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)
17976.300	57.44	-25.50	46.66	36.28	74.00	16.56	V
17973.600	57.43	-25.50	46.66	36.27	74.00	16.57	H
14350.200	51.83	-28.42	42.34	37.91	68.30	16.47	V
14310.000	51.73	-28.42	42.34	37.81	68.30	16.57	H
5459.300	57.50	-27.18	34.17	50.51	74.00	16.50	H
5467.600	64.70	-27.18	34.17	57.71	68.30	3.60	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)
17960.400	57.58	-25.50	46.66	36.42	74.00	16.42	V
17987.900	57.58	-25.50	46.66	36.42	74.00	16.42	V
14304.000	51.38	-28.42	42.34	37.46	68.30	16.92	H
14717.000	51.24	-28.32	41.35	38.22	68.30	17.06	V
11997.300	47.13	-31.48	39.09	39.52	74.00	26.87	V
11851.500	47.02	-31.85	39.05	39.82	74.00	26.98	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)
17984.000	58.41	-25.50	46.66	37.25	74.00	15.59	V
17997.800	58.08	-25.50	46.66	36.92	74.00	15.92	H
14354.600	52.24	-28.42	42.34	38.32	68.30	16.06	V
14339.800	51.72	-28.42	42.34	37.80	68.30	16.58	V
5725.700	53.97	-27.07	34.31	46.73	68.30	14.33	H
5726.300	53.92	-27.07	34.31	46.68	68.30	14.38	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)
17984.600	58.04	-25.50	46.66	36.88	74.00	15.96	H
17874.000	57.95	-25.50	46.66	36.79	74.00	16.05	H
14296.900	51.15	-28.42	42.34	37.23	68.30	17.15	H
14728.000	51.12	-28.32	41.35	38.10	68.30	17.18	V
11801.500	46.99	-31.85	39.05	39.79	74.00	27.01	V
11814.700	46.42	-31.85	39.05	39.22	74.00	27.58	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)
17996.200	57.92	-25.50	46.66	36.76	74.00	16.08	V
17984.600	57.87	-25.50	46.66	36.71	74.00	16.13	V
14519.600	51.37	-28.59	42.46	37.50	68.30	16.93	H
14489.900	51.35	-28.59	42.46	37.48	74.00	22.65	V
5149.700	61.40	-27.61	33.67	55.34	74.00	12.60	H
5149.100	61.12	-27.61	33.67	55.06	74.00	12.88	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)
17994.500	58.45	-25.50	46.66	37.29	74.00	15.55	V
17899.300	57.94	-25.50	46.66	36.78	74.00	16.06	H
14494.300	51.73	-28.59	42.46	37.86	74.00	22.27	H
14723.600	51.09	-28.32	41.35	38.07	68.30	17.21	V
11849.900	46.80	-31.85	39.05	39.60	74.00	27.20	V
11819.100	46.62	-31.85	39.05	39.42	74.00	27.38	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)
17995.000	57.67	-25.50	46.66	36.51	74.00	16.33	V
17994.000	57.37	-25.50	46.66	36.21	74.00	16.63	H
14398.600	51.78	-28.59	42.46	37.91	68.30	16.52	V
14301.800	51.54	-28.42	42.34	37.62	68.30	16.76	V
11895.000	46.88	-31.85	39.05	39.68	74.00	27.12	V
11713.500	46.77	-31.99	38.98	39.78	74.00	27.23	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)
17959.800	58.13	-25.50	46.66	36.97	74.00	15.87	H
17958.800	57.55	-25.50	46.66	36.39	74.00	16.45	H
14415.600	51.65	-28.59	42.46	37.78	68.30	16.65	V
14674.700	51.45	-27.29	41.90	36.84	68.30	16.85	V
5351.200	64.16	-27.43	34.01	57.58	74.00	9.84	H
5353.600	64.13	-27.43	34.01	57.55	74.00	9.87	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)
17998.900	57.62	-25.50	46.66	36.46	74.00	16.38	V
17941.200	57.44	-25.50	46.66	36.28	74.00	16.56	V
14690.600	51.82	-28.32	41.35	38.80	68.30	16.48	V
14406.900	51.72	-28.59	42.46	37.85	68.30	16.58	H
5458.100	57.48	-27.18	34.17	50.49	74.00	16.52	H
5470.000	64.78	-27.18	34.17	57.79	68.30	3.52	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)
17993.400	58.01	-25.50	46.66	36.85	74.00	15.99	V
17986.200	57.89	-25.50	46.66	36.73	74.00	16.11	V
14434.400	51.90	-28.59	42.46	38.03	68.30	16.40	V
14496.000	51.17	-28.59	42.46	37.30	74.00	22.83	H
11801.500	46.82	-31.85	39.05	39.62	74.00	27.18	H
11073.900	46.40	-32.49	38.72	40.16	74.00	27.60	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)
17998.300	58.06	-25.50	46.66	36.90	74.00	15.94	V
17987.300	57.73	-25.50	46.66	36.57	74.00	16.27	V
14381.000	51.65	-28.42	42.34	37.73	68.30	16.65	V
14366.700	51.22	-28.42	42.34	37.30	68.30	17.08	H
5732.400	52.09	-27.07	34.31	44.85	68.30	16.21	V
5777.100	51.42	-27.07	34.33	44.16	68.30	16.88	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)
17965.300	57.28	-25.50	46.66	36.12	74.00	16.72	V
17968.100	57.02	-25.50	46.66	35.86	74.00	16.98	H
14316.100	51.43	-28.42	42.34	37.51	68.30	16.87	V
14421.100	51.31	-28.59	42.46	37.44	68.30	16.99	V
11867.000	46.82	-31.85	39.05	39.62	74.00	27.18	H
11867.500	46.75	-31.85	39.05	39.55	74.00	27.25	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)
17980.800	58.54	-25.50	46.66	37.38	74.00	15.46	H
17974.700	58.47	-25.50	46.66	37.31	74.00	15.53	H
14471.800	51.15	-28.59	42.46	37.28	74.00	22.85	H
14703.300	51.07	-28.32	41.35	38.05	68.30	17.23	H
5147.800	62.01	-27.61	33.67	55.95	74.00	11.99	H
5146.300	61.78	-27.61	33.67	55.72	74.00	12.22	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)
17983.000	58.03	-25.50	46.66	36.87	74.00	15.97	V
17992.300	57.72	-25.50	46.66	36.56	74.00	16.28	H
14357.900	52.08	-28.42	42.34	38.16	68.30	16.22	V
14349.100	51.74	-28.42	42.34	37.82	68.30	16.56	H
5352.500	65.69	-27.43	34.01	59.11	74.00	8.31	H
5352.300	65.50	-27.43	34.01	58.92	74.00	8.50	H

## 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)
17993.400	57.89	-25.50	46.66	36.73	74.00	16.11	V
17998.900	57.63	-25.50	46.66	36.47	74.00	16.37	V
14480.000	51.57	-28.59	42.46	37.70	74.00	22.43	V
14314.500	51.51	-28.42	42.34	37.59	68.30	16.79	V
5456.500	62.53	-27.18	34.17	55.54	74.00	11.47	H
5468.100	63.43	-27.18	34.17	56.44	68.30	4.87	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)
17992.300	57.72	-25.50	46.66	36.56	74.00	16.28	H
17992.800	57.71	-25.50	46.66	36.55	74.00	16.29	V
14197.900	51.52	-28.99	42.00	38.50	68.30	16.78	H
14423.400	51.42	-28.59	42.46	37.55	68.30	16.88	V
5729.600	50.52	-27.07	34.31	43.28	68.30	17.78	V
5764.400	50.35	-27.07	34.33	43.09	68.30	17.95	V

## 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)
17991.200	57.98	-25.50	46.66	36.82	74.00	16.02	H
17998.300	57.03	-25.50	46.66	35.87	74.00	16.97	V
14613.100	51.78	-27.29	41.90	37.17	68.30	16.52	H
14336.500	51.26	-28.42	42.34	37.34	68.30	17.04	V
11974.800	47.12	-31.48	39.09	39.51	74.00	26.88	V
11783.900	46.92	-31.99	38.98	39.93	74.00	27.08	V



**A.7. AC Power line 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		
		802.11a	Idle	
0.15 to 0.5	66 to 56	Fig.78	Fig.79	<b>P</b>
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		
		802.11a	Idle	
0.15 to 0.5	67 56 to 46	Fig.78	Fig.79	<b>P</b>
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:

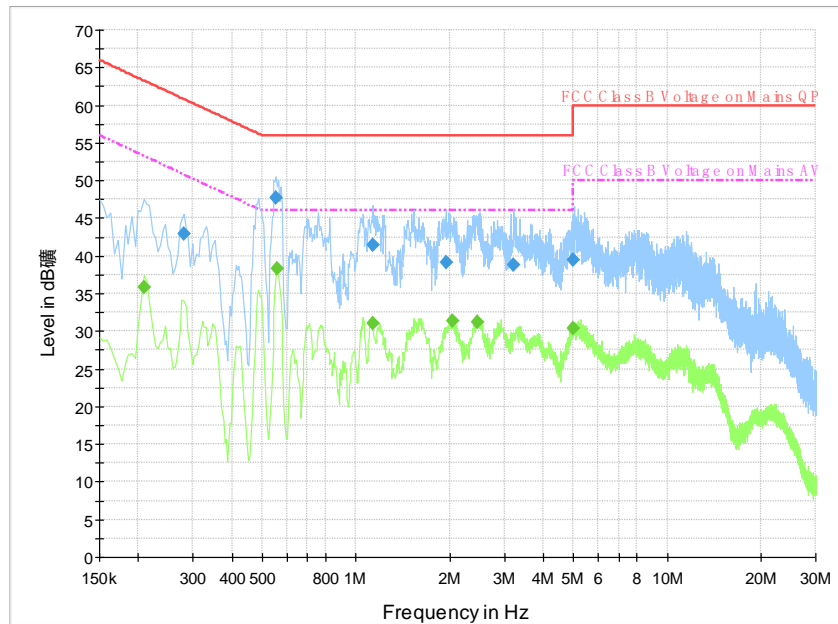


Fig. 25 Conducted Emission (802.11a, Ch36, TX)

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

### Final Result 1

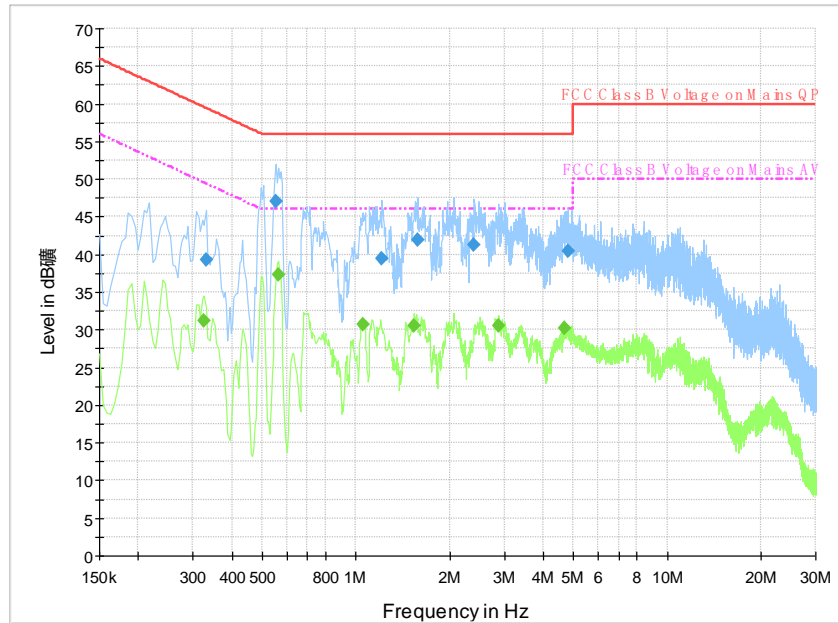
Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.280500	42.9	1000.0	9.000	On	L1	20.0	17.9	60.8
0.555000	47.7	1000.0	9.000	On	L1	19.9	8.3	56.0
1.131000	41.5	1000.0	9.000	On	L1	19.5	14.5	56.0
1.945500	39.1	1000.0	9.000	On	L1	19.4	16.9	56.0
3.223500	38.8	1000.0	9.000	On	L1	19.5	17.2	56.0
4.992000	39.4	1000.0	9.000	On	L1	19.6	16.6	56.0

### Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.208500	35.8	1000.0	9.000	On	L1	20.0	17.4	53.3
0.559500	38.3	1000.0	9.000	On	N	19.9	7.7	46.0
1.131000	31.1	1000.0	9.000	On	N	19.8	14.9	46.0
2.044500	31.4	1000.0	9.000	On	L1	19.5	14.6	46.0
2.463000	31.1	1000.0	9.000	On	L1	19.5	14.9	46.0
4.992000	30.3	1000.0	9.000	On	L1	19.6	15.7	46.0

Note2: The measurement results showed here are worst cases.

Idle:



**Fig. 26 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)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.330000	39.2	1000.0	9.000	On	N	19.8	20.2	59.5
0.555000	47.0	1000.0	9.000	On	L1	19.9	9.0	56.0
1.212000	39.5	1000.0	9.000	On	L1	19.5	16.5	56.0
1.581000	41.9	1000.0	9.000	On	L1	19.5	14.1	56.0
2.400000	41.3	1000.0	9.000	On	L1	19.5	14.7	56.0
4.803000	40.4	1000.0	9.000	On	L1	19.6	15.6	56.0

### Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.325500	31.3	1000.0	9.000	On	N	19.8	18.3	49.6
0.564000	37.3	1000.0	9.000	On	L1	19.8	8.7	46.0
1.050000	30.8	1000.0	9.000	On	N	19.8	15.2	46.0
1.540500	30.5	1000.0	9.000	On	N	19.8	15.5	46.0
2.863500	30.6	1000.0	9.000	On	L1	19.5	15.4	46.0
4.695000	30.2	1000.0	9.000	On	L1	19.6	15.8	46.0

Note2: The measurement results showed here are worst cases.

### A.8. 99% Occupied bandwidth

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

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

#### Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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#### Measurement Result:

#### Test Notes

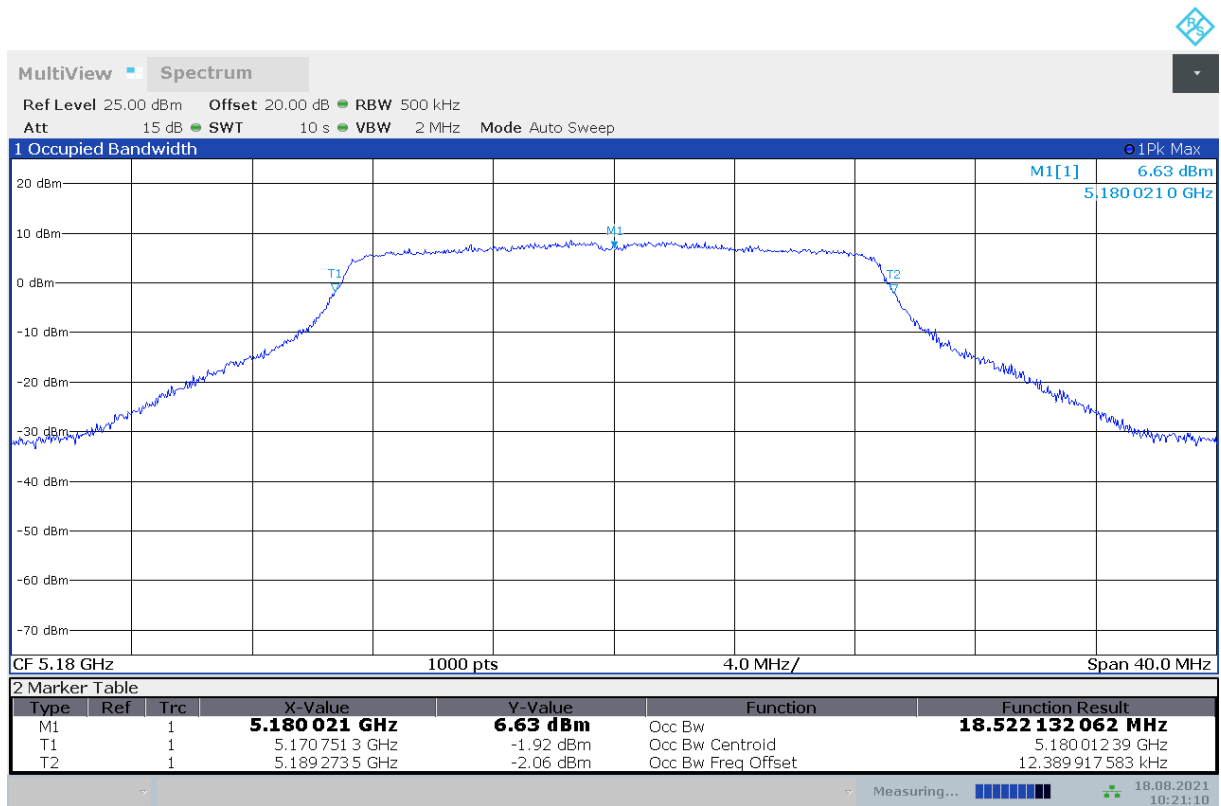
#### EUT16:

Mode	Frequency	99% Occupied bandwidth ( MHz)		conclusion
802.11a	5180 MHz	Fig.25	18.52	P
	5200 MHz	Fig.26	18.46	P
	5240 MHz	Fig.27	18.43	P
802.11ac HT20	5180 MHz	Fig.28	18.47	P
	5200 MHz	Fig.29	18.47	P

	5240 MHz	Fig.30	18.47	P
802.11ac HT40	5190 MHz	Fig.31	18.48	P
	5230 MHz	Fig.32	18.48	P
802.11ac HT80	5210 MHz	Fig.33	18.46	P

**Conclusion: PASS**

**Test graphs as below:**



**Fig.52 99% Occupied bandwidth (802.11a, 5180MHz)**

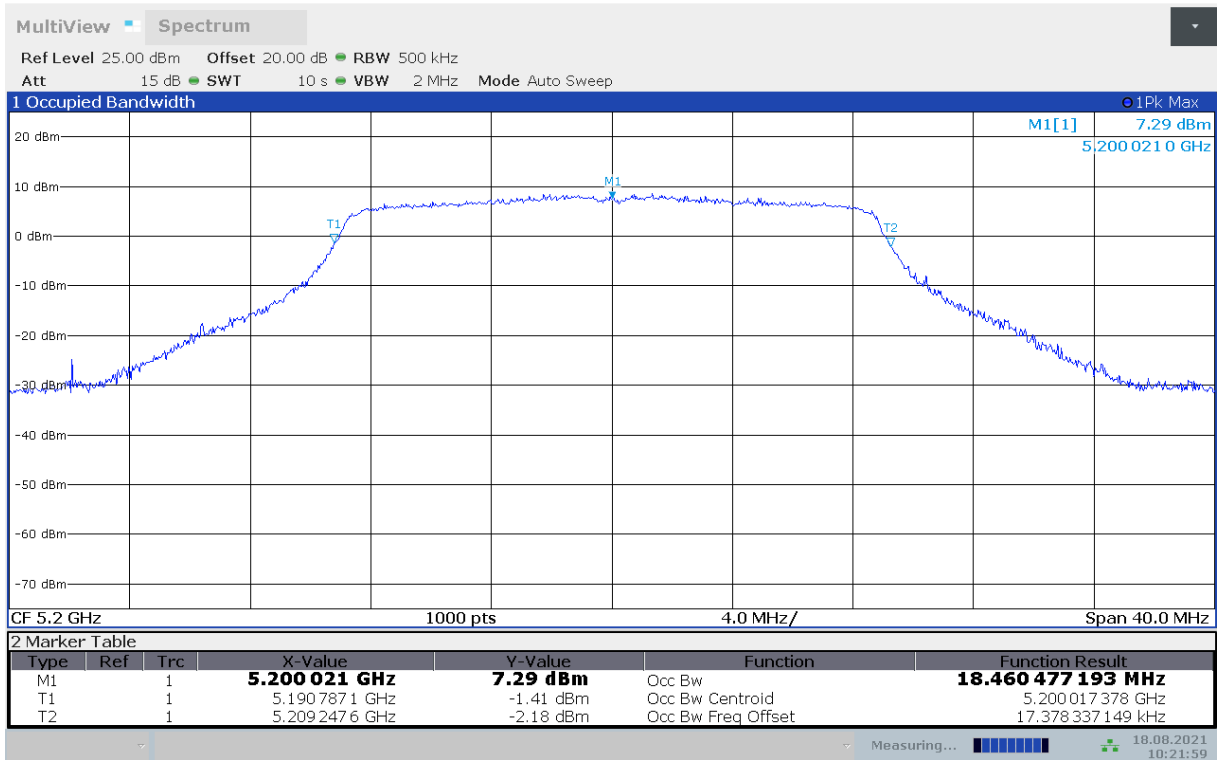


Fig.53 99% Occupied bandwidth (802.11a, 5200MHz)

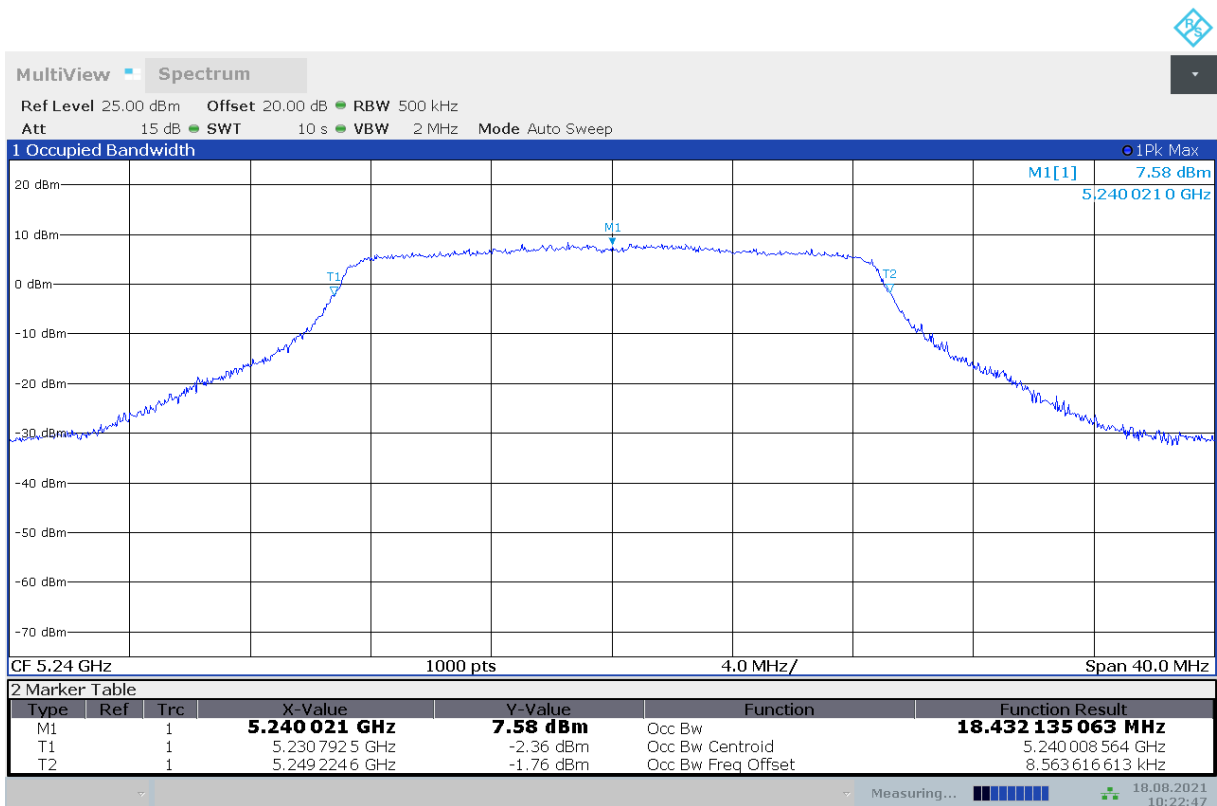
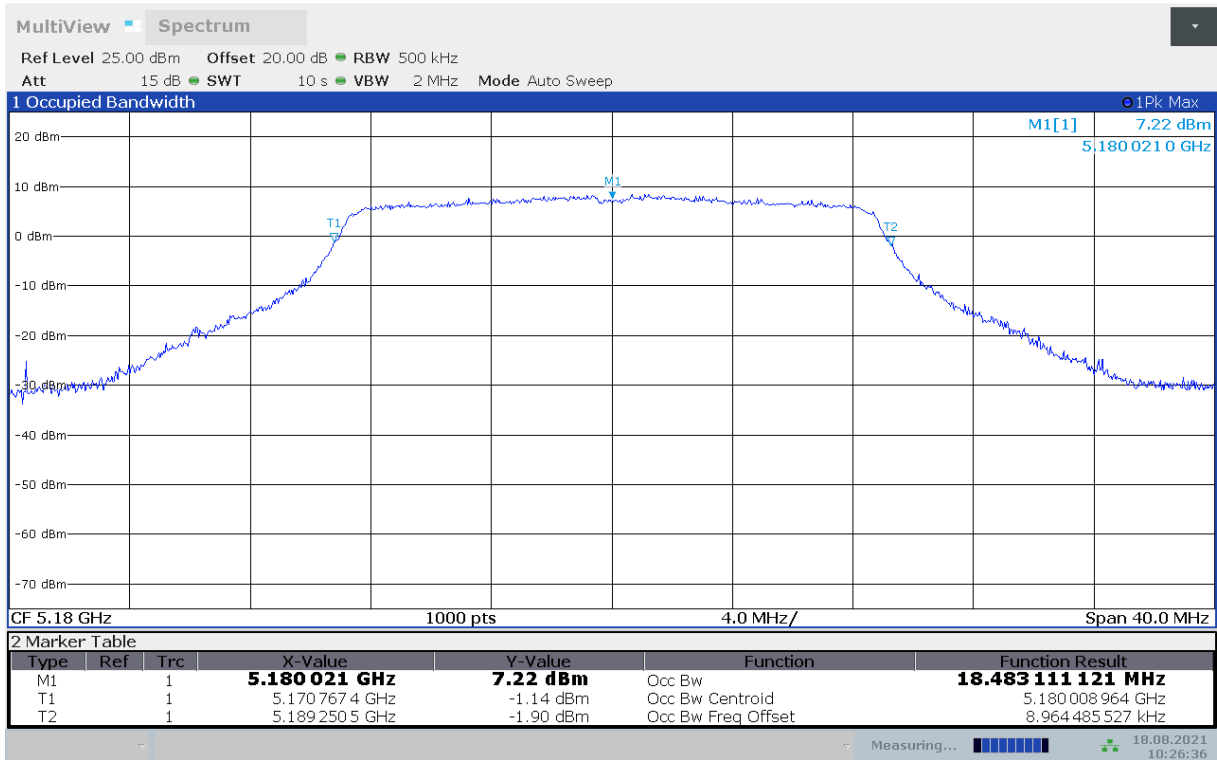
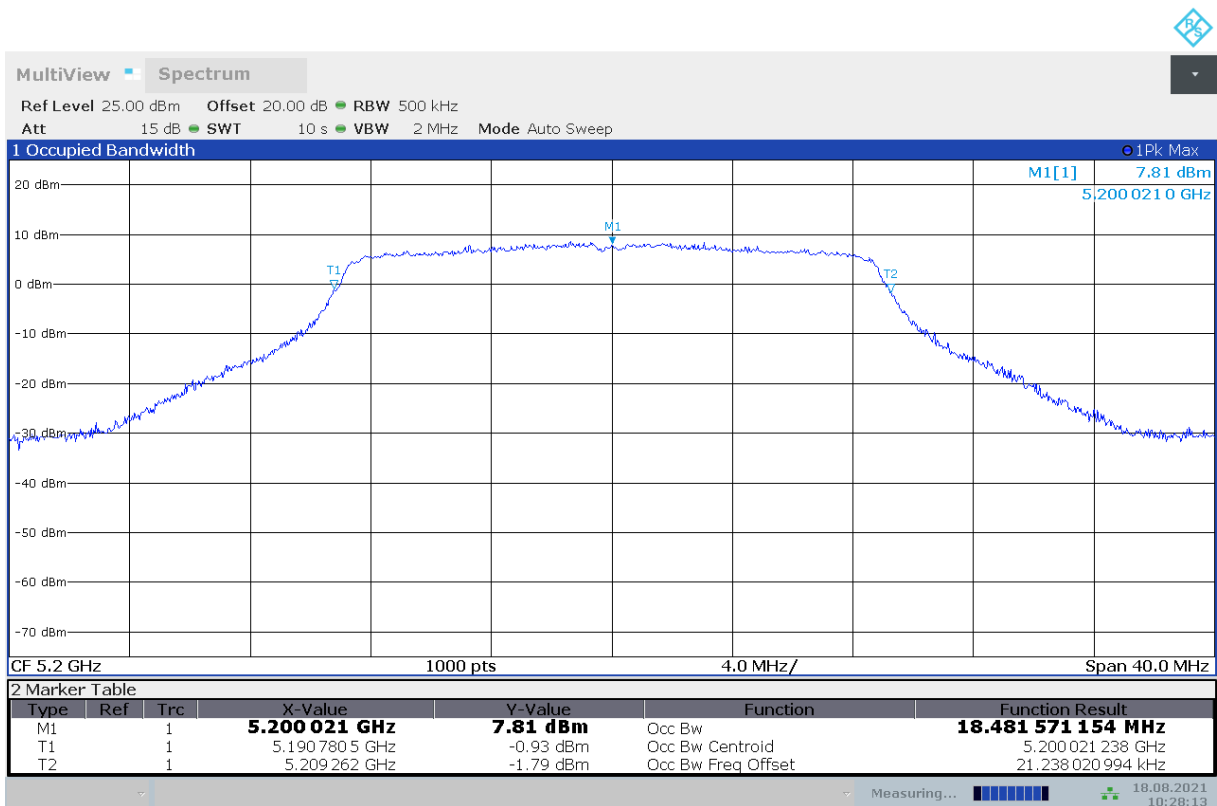


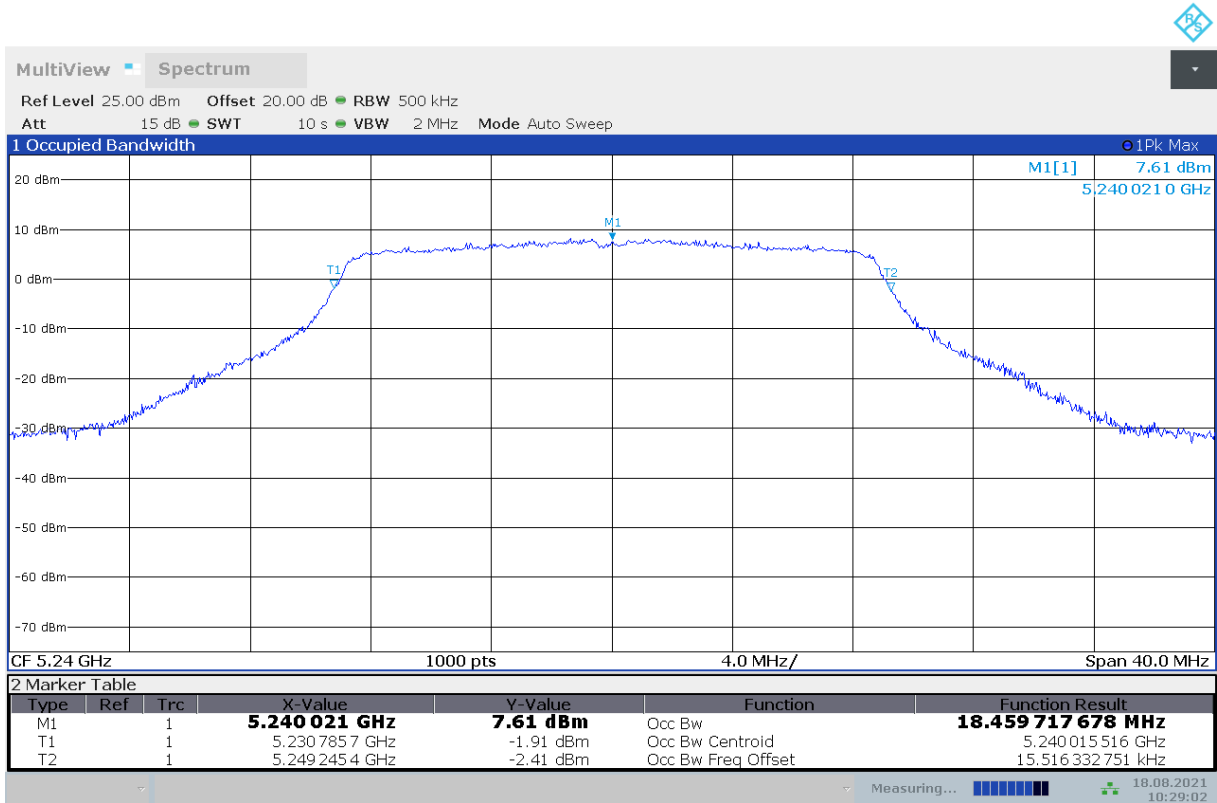
Fig.54 99% Occupied bandwidth (802.11a, 5240MHz)



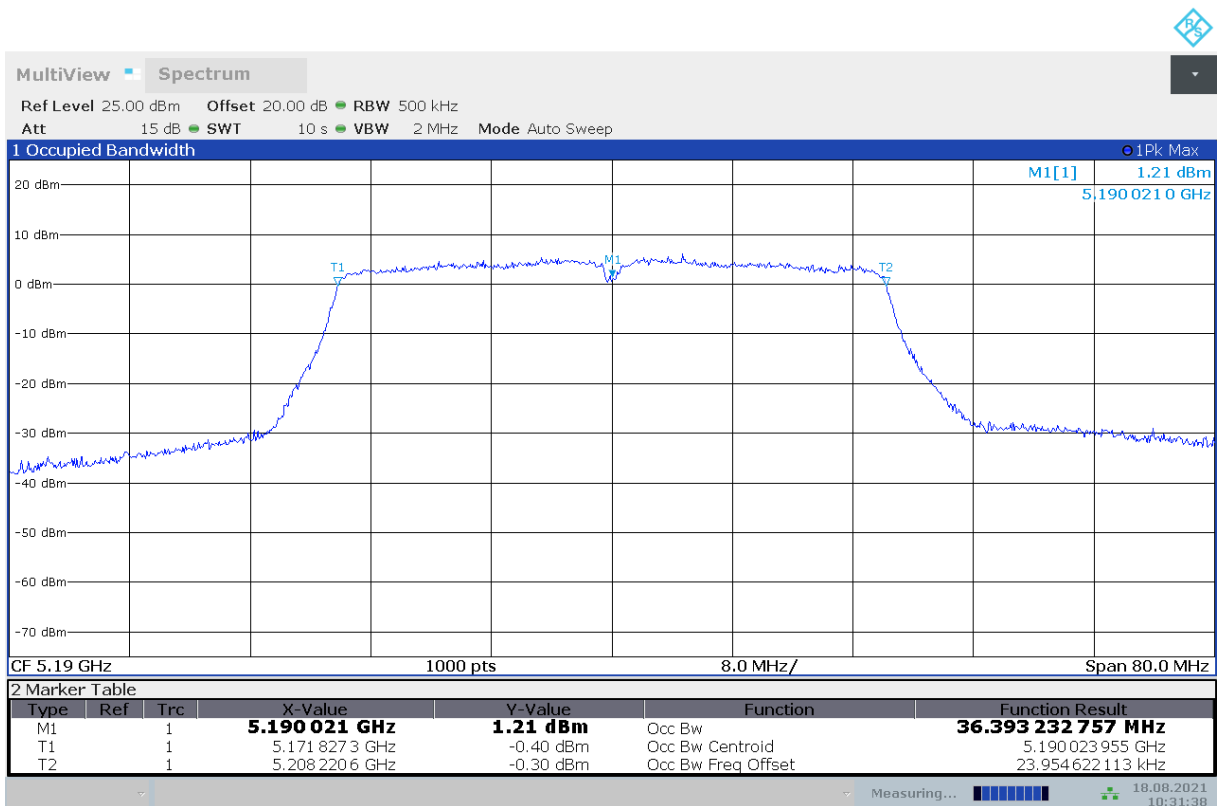
**Fig.55 99% Occupied bandwidth (802.11ac-HT20, 5180MHz)**



**Fig.56 99% Occupied bandwidth (802.11ac-HT20, 5200MHz)**

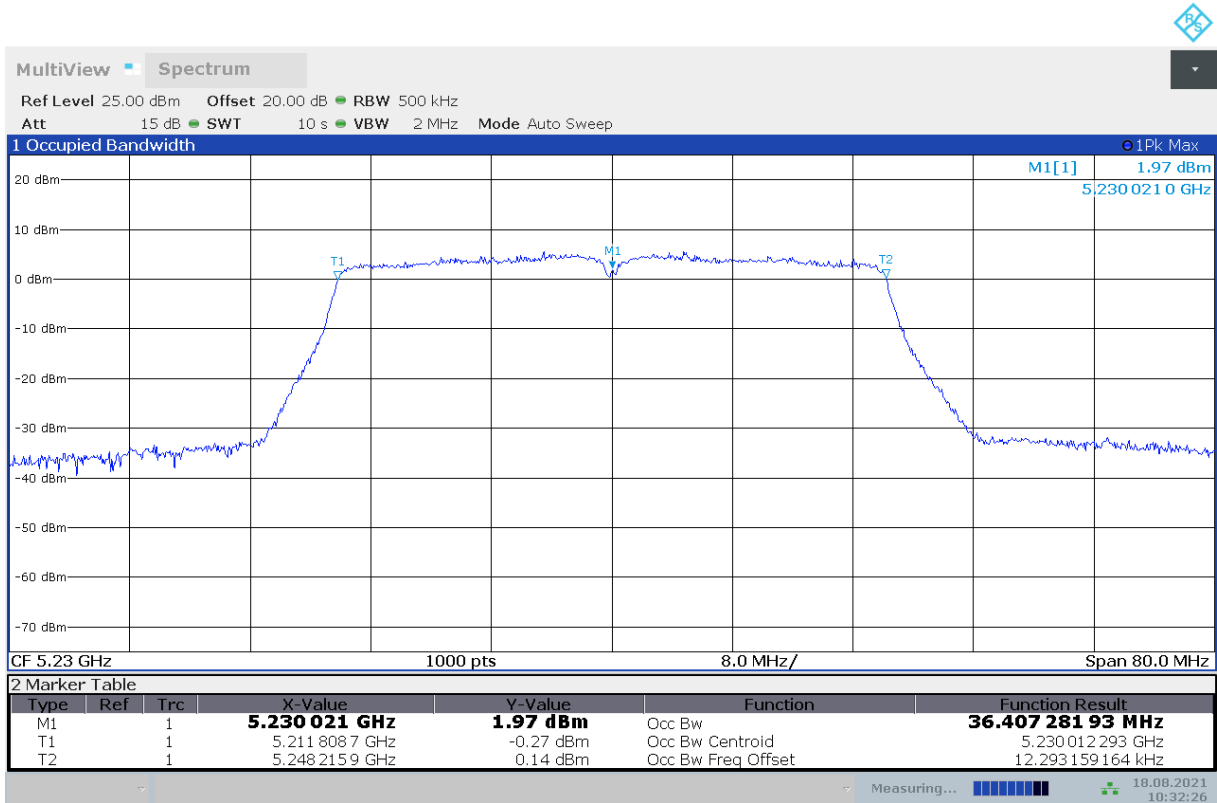


**Fig.57 99% Occupied bandwidth (802.11ac-HT20, 5240MHz)**

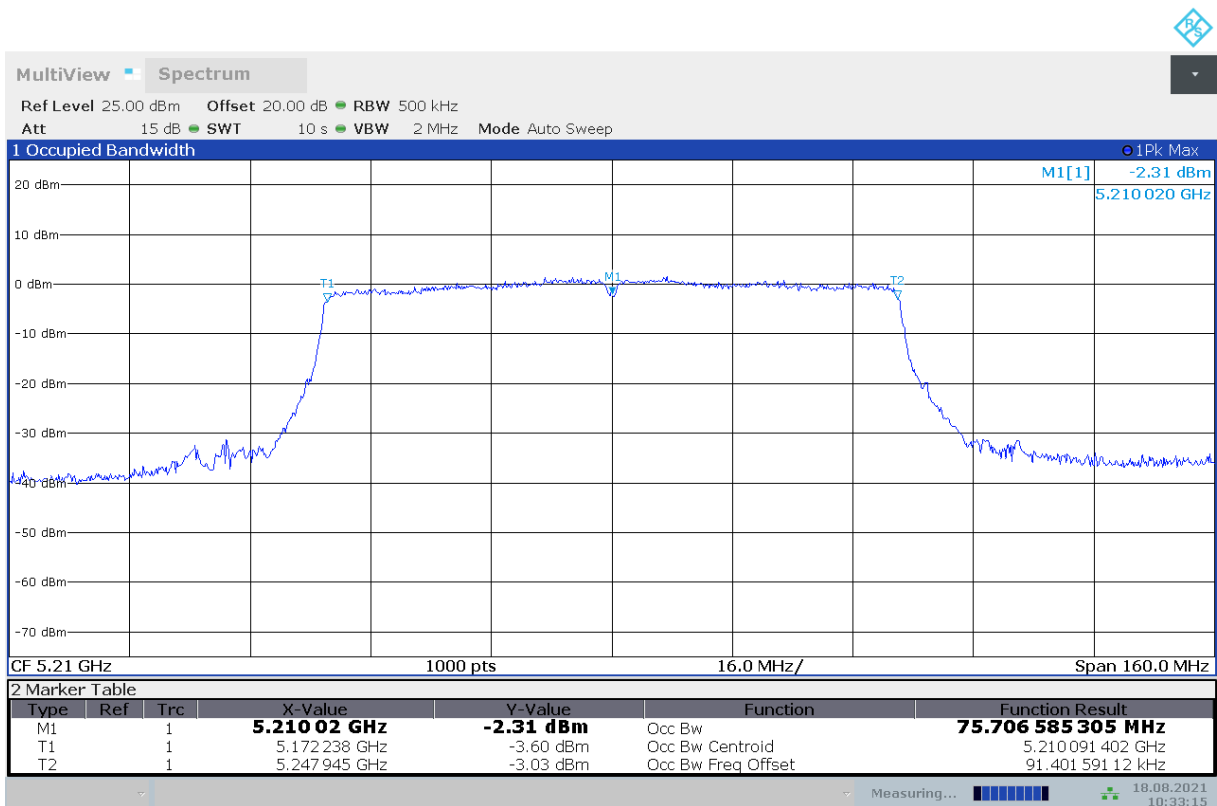


**Fig.58 99% Occupied bandwidth (802.11ac-HT40, 5190MHz)**





**Fig.59 99% Occupied bandwidth (802.11ac-HT40, 5230MHz)**



**Fig.60 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 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



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