

# **RF** Test Report

## For

#### **Applicant Name:**

#### DOKE COMMUNICATION (HK) LIMITED

Address:

EUT Name:

Brand Name:

Model Number:

RM 1902 EASEY COMM BLDG 253-261 HENNESSY ROAD WANCHAI HK CHINA **Mobile Phone** Blackview BV4800 (3+64) Series Model Number: Refer to section 2

## **Issued By**

#### **Company Name:**

Address:

BTF Testing Lab (Shenzhen) Co., Ltd. F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China

**Report Number:** Test Standards:

BTF231007R01604 47 CFR Part 15E

**Test Conclusion:** FCC ID: Test Date: Date of Issue:

Pass 2A7DX-BV4800-64 2023-10-09 to 2023-10-31 2023-11-01

Prepared By:

Date:

Approved By:

Date:

hris Chris Liu / Proie 2023-11-01

Ryan.CJ / EMC Manager 2023-11-01

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Revision History		
Version	Issue Date	Revisions Content
R_V0	2023-11-01	Original

Note: Once the revision has been made, then previous versions reports are invalid.

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## 1 Introduction

#### 1.1 Identification of Testing Laboratory

Company Name:	BTF Testing Lab (Shenzhen) Co., Ltd.
Address:	F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China
Phone Number:	+86-0755-23146130
Fax Number:	+86-0755-23146130

#### 1.2 Identification of the Responsible Testing Location

Company Name:	BTF Testing Lab (Shenzhen) Co., Ltd.	
Address:	F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China	
Phone Number:	+86-0755-23146130	
Fax Number:	+86-0755-23146130	
FCC Registration Number:	518915	
Designation Number:	CN1330	

#### 1.3 Announcement

(1) The test report reference to the report template version v0.

(2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.

(3) The test report is invalid if there is any evidence and/or falsification.

(4) This document may not be altered or revised in any way unless done so by BTF and all revisions are duly noted in the revisions section.

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(6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

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## 2 **Product Information**

### 2.1 Application Information

Company Name:	DOKE COMMUNICATION (HK) LIMITED		
Address:	RM 1902 EASEY COMM BLDG 253-261 HENNESSY ROAD WANCHAI HK CHINA		

#### 2.2 Manufacturer Information

Company Name:	Shenzhen DOKE Electronic Co., Ltd
Address:	801, Building3, 7th Industrial Zone, Yulv Community, Yutang Road, Guangming District, Shenzhen, China.

#### 2.3 Factory Information

Company Name:	Shenzhen DOKE Electronic Co., Ltd		
Address:	801, Building3, 7th Industrial Zone, Yulv Community, Yutang Road, Guangming District, Shenzhen, China.		

#### 2.4 General Description of Equipment under Test (EUT)

EUT Name:	Mobile Phone
Test Model Number:	BV4800 (3+64)
Hardware Version:	HCT-M662MB-B2
Software Version:	BV4800_NEU_M662_V1.0

#### 2.5 Technical Information

Power Supply:	DC 3.85V form battery
Operation Frequency	U-NII Band 1: 5.18~5.24 GHz
Range	U-NII Band 3: 5.745~5.825 GHz
Frequency Block	U-NII Band 1: 5.15~5.25 GHz U-NII Band 3: 5.725~5.85 GHz
Channel Bandwidth	802.11a: 20 MHz 802.11n: 20 MHz, 40 MHz 802.11ac: 20 MHz, 40 MHz, 80 MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	-0.45 dBi

#### Note:

#: The antenna gain provided by the applicant, and the laboratory will not be responsible for the accumulated calculation results which covers the information provided by the applicant.

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## 3 Summary of Test Results

#### 3.1 Test Standards

The tests were performed according to following standards:

47 CFR Part 15E: Unlicensed National Information Infrastructure Devices

#### 3.2 Uncertainty of Test

Item	Measurement Uncertainty		
Conducted Emission (150 kHz-30 MHz) ±2.64dB			
The following measurement uncertainty levels have been estimated for tests performed on the EUT as			
specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately			
the 95% confidence level using a coverage factor of k=2.			

Item	Standard	Requirement	Result
Antenna requirement	47 CFR Part 15E	Part 15.203	Pass
Conducted Emission at AC power line	47 CFR Part 15E	47 CFR Part 15.207(a)	Pass
Maximum conducted output power	47 CFR Part 15E	47 CFR Part 15.407(a)(1)(i) 47 CFR Part 15.407(a)(1)(ii) 47 CFR Part 15.407(a)(1)(iii) 47 CFR Part 15.407(a)(1)(iv) 47 CFR Part 15.407(a)(2) 47 CFR Part 15.407(a)(3)(i)	Pass
Power spectral density	47 CFR Part 15E	47 CFR Part 15.407(a)(1)(i) 47 CFR Part 15.407(a)(1)(ii) 47 CFR Part 15.407(a)(1)(iii) 47 CFR Part 15.407(a)(1)(iv) 47 CFR Part 15.407(a)(2) 47 CFR Part 15.407(a)(3)(i)	Pass
Emission bandwidth and occupied bandwidth	47 CFR Part 15E	U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use. 47 CFR Part 15.407(e)	Pass
Channel Availability Check Time	47 CFR Part 15E	47 CFR Part 15.407(h)(2)(ii)	Pass
U-NII Detection Bandwidth	47 CFR Part 15E	47 CFR Part 15.407(h)(2)	Pass
Statistical Performance Check	47 CFR Part 15E	KDB 935210 D02, Clause 5.1 Table 2	Pass
Channel Move Time, Channel Closing Transmission Time	47 CFR Part 15E	47 CFR Part 15.407(h)(2)(iii)	Pass
Non-Occupancy Period Test	47 CFR Part 15E	47 CFR Part 15.407(h)(2)(iv)	Pass
DFS Detection Thresholds	47 CFR Part 15E	KDB 905462 D02, Clause 5.2 Table 3	Pass
Band edge emissions (Radiated)	47 CFR Part 15E	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(2) 47 CFR Part 15.407(b)(4) 47 CFR Part 15.407(b)(10)	Pass
Undesirable emission limits (below 1GHz)	47 CFR Part 15E	47 CFR Part 15.407(b)(9)	Pass
Undesirable emission limits (above 1GHz)	47 CFR Part 15E	47 CFR Part 15.407(b)(1) 47 CFR Part 15.407(b)(2) 47 CFR Part 15.407(b)(4) 47 CFR Part 15.407(b)(10)	Pass

#### 3.3 Summary of Test Result

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#### **Test Configuration** 4

#### 4.1 **Test Equipment List**

Conducted Emission at AC power line								
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
Pulse Limiter	SCHWARZBECK	VTSD 9561-F	00953	2022-11-24	2023-11-23			
Coaxial Switcher	SCHWARZBECK	CX210	CX210	2022-11-24	2023-11-23			
V-LISN	SCHWARZBECK	NSLK 8127	01073	2022-11-24	2023-11-23			
LISN	AFJ	LS16/110VAC	16010020076	2023-02-23	2024-02-22			
EMI Receiver	ROHDE&SCHWA RZ	ESCI3	101422	2022-11-24	2023-11-23			

Duty Cycle					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
RFTest software	/	V1.00	/	/	/
RF Control Unit	Techy	TR1029-1	/	2022-11-24	2023-11-23
RF Sensor Unit	Techy	TR1029-2	/	2022-11-24	2023-11-23
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2022-11-24	2023-11-23
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2022-11-24	2023-11-23
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2022-11-24	2023-11-23
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2022-11-24	2023-11-23

Maximum conducted output power							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
RFTest software	/	V1.00	/	/	/		
RF Control Unit	Techy	TR1029-1	/	2022-11-24	2023-11-23		
RF Sensor Unit	Techy	TR1029-2	/	2022-11-24	2023-11-23		
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2022-11-24	2023-11-23		
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2022-11-24	2023-11-23		
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2022-11-24	2023-11-23		
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2022-11-24	2023-11-23		

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Power spectral density							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
RFTest software	/	V1.00	/	/	/		
RF Control Unit	Techy	TR1029-1	/	2022-11-24	2023-11-23		
RF Sensor Unit	Techy	TR1029-2	/	2022-11-24	2023-11-23		
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2022-11-24	2023-11-23		
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2022-11-24	2023-11-23		
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2022-11-24	2023-11-23		
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2022-11-24	2023-11-23		

Emission bandwidth and occupied bandwidth								
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
RFTest software	/	V1.00	/	/	/			
RF Control Unit	Techy	TR1029-1	/	2022-11-24	2023-11-23			
RF Sensor Unit	Techy	TR1029-2	/	2022-11-24	2023-11-23			
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2022-11-24	2023-11-23			
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2022-11-24	2023-11-23			
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2022-11-24	2023-11-23			
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2022-11-24	2023-11-23			

Channel Availability Check Time								
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
RFTest software	/	V1.00	/	/	/			
RF Control Unit	Techy	TR1029-1	/	2022-11-24	2023-11-23			
RF Sensor Unit	Techy	TR1029-2	/	2022-11-24	2023-11-23			
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2022-11-24	2023-11-23			
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2022-11-24	2023-11-23			
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2022-11-24	2023-11-23			

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TESTER

MXA Signal Analyzer

**KEYSIGHT** 

2022-11-24

2023-11-23

MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2022-11-24	2023-11-23					
J-NII Detection Bandwidth										
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date					
RFTest software	/	V1.00	/	/	/					
RF Control Unit	Techy	TR1029-1	/	2022-11-24	2023-11-23					
RF Sensor Unit	Techy	TR1029-2	/	2022-11-24	2023-11-23					
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2022-11-24	2023-11-23					
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2022-11-24	2023-11-23					
WIDEBAND RADIO COMMNUNICATION	Rohde & Schwarz	CMW500	161997	2022-11-24	2023-11-23					

N9020A

MY50410020

Statistical Performance Check								
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
RFTest software	/	V1.00	/	/	/			
RF Control Unit	Techy	TR1029-1	/	2022-11-24	2023-11-23			
RF Sensor Unit	Techy	TR1029-2	/	2022-11-24	2023-11-23			
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2022-11-24	2023-11-23			
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2022-11-24	2023-11-23			
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2022-11-24	2023-11-23			
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2022-11-24	2023-11-23			

Channel Move Time, Channel Closing Transmission Time								
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
RFTest software	/	V1.00	/	/	/			
RF Control Unit	Techy	TR1029-1	/	2022-11-24	2023-11-23			
RF Sensor Unit	Techy	TR1029-2	/	2022-11-24	2023-11-23			
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2022-11-24	2023-11-23			
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2022-11-24	2023-11-23			

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WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2022-11-24	2023-11-23
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2022-11-24	2023-11-23

Non-Occupancy Period Test							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
RFTest software	/	V1.00	/	/	/		
RF Control Unit	Techy	TR1029-1	/	2022-11-24	2023-11-23		
RF Sensor Unit	Techy	TR1029-2	/	2022-11-24	2023-11-23		
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2022-11-24	2023-11-23		
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2022-11-24	2023-11-23		
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2022-11-24	2023-11-23		
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2022-11-24	2023-11-23		

DFS Detection Thresholds							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
RFTest software	/	V1.00	/	/	/		
RF Control Unit	Techy	TR1029-1	/	2022-11-24	2023-11-23		
RF Sensor Unit	Techy	TR1029-2	/	2022-11-24	2023-11-23		
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2022-11-24	2023-11-23		
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2022-11-24	2023-11-23		
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2022-11-24	2023-11-23		
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2022-11-24	2023-11-23		

Band edge emissions (Radiated)								
Equipment	Manufacturer	Model No	Cal Date	Cal Due Date				
Coaxial cable Multiflex 141	Schwarzbeck	N/SMA 0.5m	517386	2023-03-24	2024-03-23			
Preamplifier	Preamplifier SCHWARZBECK		00246	2022-11-24	2023-11-23			
RE Cable	REBES Talent	UF1-SMASMAM-1 0m	21101566	2022-11-24	2023-11-23			
RE Cable	REBES Talent	UF2-NMNM-10m	21101570	2022-11-24	2023-11-23			
RE Cable	REBES Talent	UF1-SMASMAM-1 m	21101568	2022-11-24	2023-11-23			

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REBES Talent REBES Talent	UF2-NMNM-1m	21101576	2022-11-24	2023-11-23	
REBES Talent					
	UF2-NMNM-2.5m	21101573	2022-11-24	2023-11-23	
SKET	PCI-GPIB	1	1	1	
CHWARZBECK	BBHA9170	01157	2021-11-28	2023-11-27	
OHDE&SCHWA RZ	ESCI7	101032	2022-11-24	2023-11-23	
ROHDE&SCHWA RZ FSQ40 100010		100010	2022-11-24	2023-11-23	
SKET	PCI-GPIB	/	/	/	
CHWARZBECK	BBV9718D	00008	2023-03-24	2024-03-23	
CHWARZBECK	BBHA9120D	2597	2022-05-22	2024-05-21	
Frad	FA-03A2 RE+	/	/	/	
SKET	PCI-GPIB	1	/	1	
CHWARZBECK	VULB 9168	01328	2021-11-28	2023-11-27	
	CHWARZBECK DHDE&SCHWA RZ DHDE&SCHWA RZ SKET CHWARZBECK CHWARZBECK Frad SKET	CHWARZBECKBBHA9170OHDE&SCHWA RZESCI7OHDE&SCHWA RZFSQ40SKETPCI-GPIBCHWARZBECKBBV9718DCHWARZBECKBBHA9120DFradFA-03A2 RE+SKETPCI-GPIB	CHWARZBECKBBHA917001157OHDE&SCHWA RZESCI7101032OHDE&SCHWA RZFSQ40100010SKETPCI-GPIB/CHWARZBECKBBV9718D00008CHWARZBECKBBHA9120D2597FradFA-03A2 RE+/SKETPCI-GPIB/	CHWARZBECK         BBHA9170         01157         2021-11-28           OHDE&SCHWA RZ         ESCI7         101032         2022-11-24           OHDE&SCHWA RZ         FSQ40         100010         2022-11-24           SKET         PCI-GPIB         /         /           CHWARZBECK         BBV9718D         00008         2023-03-24           CHWARZBECK         BBHA9120D         2597         2022-05-22           Frad         FA-03A2 RE+         /         /           SKET         PCI-GPIB         /         /	

Undesirable emission limits (below 1GHz)								
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
Coaxial cable Multiflex 141	Schwarzbeck	N/SMA 0.5m	517386	2023-03-24	2024-03-23			
Preamplifier	SCHWARZBECK	BBV9744	00246	2022-11-24	2023-11-23			
RE Cable	REBES Talent	UF1-SMASMAM-1 0m	21101566	2022-11-24	2023-11-23			
RE Cable	REBES Talent	UF2-NMNM-10m	21101570	2022-11-24	2023-11-23			
RE Cable	REBES Talent	UF1-SMASMAM-1 m	21101568	2022-11-24	2023-11-23			
RE Cable	REBES Talent	UF2-NMNM-1m	21101576	2022-11-24	2023-11-23			
RE Cable	REBES Talent	UF2-NMNM-2.5m	21101573	2022-11-24	2023-11-23			
POSITIONAL CONTROLLER	SKEI		1	/	/			
Horn Antenna	SCHWARZBECK	BBHA9170	01157	2021-11-28	2023-11-27			
EMI TEST RECEIVER	ROHDE&SCHWA RZ	ESCI7	101032	2022-11-24	2023-11-23			
SIGNAL ANALYZER	ROHDE&SCHWA RZ	FSQ40	100010	2022-11-24	2023-11-23			
POSITIONAL CONTROLLER	SKET	PCI-GPIB	1	/	/			
Broadband Preamplilifier	SCHWARZBECK	BBV9718D	00008	2023-03-24	2024-03-23			
Horn Antenna	SCHWARZBECK	BBHA9120D	2597	2022-05-22	2024-05-21			
EZ_EMC	Frad	FA-03A2 RE+	/	/	/			
POSITIONAL CONTROLLER	POSITIONAL SKET		1	/	1			
Log periodic antenna	SCHWARZBECK	VULB 9168	01328	2021-11-28	2023-11-27			

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Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Coaxial cable Multiflex 141	Schwarzbeck	N/SMA 0.5m	517386	2023-03-24	2024-03-23
Preamplifier	SCHWARZBECK	BBV9744	00246	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF1-SMASMAM-1 0m	21101566	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-10m	21101570	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF1-SMASMAM-1 m	21101568	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-1m	21101576	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-2.5m	21101573	2022-11-24	2023-11-23
POSITIONAL CONTROLLER	SKET	PCI-GPIB	1	/	/
Horn Antenna	SCHWARZBECK	BBHA9170	01157	2021-11-28	2023-11-27
EMI TEST RECEIVER	ROHDE&SCHWA RZ	ESCI7	101032	2022-11-24	2023-11-23
SIGNAL ANALYZER	ROHDE&SCHWA RZ	FSQ40	100010	2022-11-24	2023-11-23
POSITIONAL CONTROLLER	SKET	PCI-GPIB	1	1	/
Broadband Preamplilifier	SCHWARZBECK	BBV9718D	00008	2023-03-24	2024-03-23
Horn Antenna	SCHWARZBECK	BBHA9120D	2597	2022-05-22	2024-05-21
EZ_EMC	Frad	FA-03A2 RE+	/	/	/
POSITIONAL CONTROLLER	SKET	PCI-GPIB	1	/	/
Log periodic antenna	SCHWARZBECK	VULB 9168	01328	2021-11-28	2023-11-27



### 4.2 Test Auxiliary Equipment

The EUT was tested as an independent device.

#### 4.3 Test Modes

No.	Test Modes	Description
TM1	802.11a mode	Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.
TM2	802.11n mode	Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.
TM3	802.11ac mode	Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. Only the data of worst case is recorded in the report.
TM4	Normal Operating	Keep the EUT works in normal operating mode and connect to companion device



## 5 Evaluation Results (Evaluation)

#### 5.1 Antenna requirement

	An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a
Test Requirement:	permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

## 6 Radio Spectrum Matter Test Results (RF)

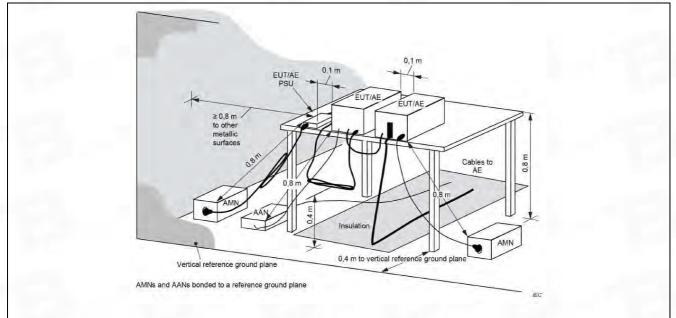
## 6.1 Conducted Emission at AC power line

Test Requirement:	47 CFR Part 15.207(a)							
Test Method:	Refer to ANSI C63.10-2013 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices							
	Frequency of emission (MHz)	Conducted limit (dBµV)						
		Quasi-peak	Average					
Toot Limit:	0.15-0.5	66 to 56*	56 to 46*					
Test Limit:	0.5-5	56	46					
	5-30	60 50						
	*Decreases with the logarithm of the frequency.							

#### 6.1.1 E.U.T. Operation:

Operating Environment:			
Temperature:	25.5 °C		1000
Humidity:	50.6 %		1.000
Atmospheric Pressure:	1010 mbar		

#### 6.1.2 Test Setup Diagram:



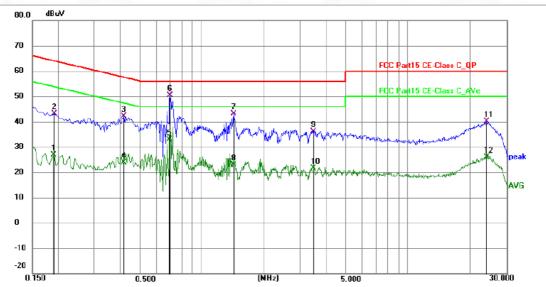
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#### 6.1.3 Test Data:

TM1 / Line: Line / Band: U-NII 1 / BW: 20 / CH: L



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1903	16.22	10.58	26.80	54.02	-27.22	AVG	Р	
2	0.1905	32.43	10.58	43.01	64.01	-21.00	QP	Р	
3	0.4154	31.58	10.60	42.18	57.54	-15.36	QP	Р	
4	0.4154	13.31	10.60	23.91	47.54	-23.63	AVG	Р	
5	0.6945	22.22	10.73	32.95	46.00	-13.05	AVG	Р	
6 *	0.6990	39.64	10.73	50.37	56.00	-5.63	QP	Р	
7	1.4190	32.27	10.74	43.01	56.00	-12.99	QP	Р	
8	1.4325	12.23	10.74	22.97	46.00	-23.03	AVG	Р	
9	3.4890	25.46	10.72	36.18	56.00	-19.82	QP	Р	
10	3.4890	10.87	10.72	21.59	46.00	-24.41	AVG	Р	
11	24.0900	29.13	11.04	40.17	60.00	-19.83	QP	Р	
12	24.0900	14.80	11.04	25.84	50.00	-24.16	AVG	Р	

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dBuV 80.0 70 FCC ⇒C OP 60 50 2 12 40 30 20 AVG 10 0 -10 -20 (MHz) 30.000 0.150 0.500 5.000

#### TM1 / Line: Neutral / Band: U-NII 1 / BW: 20 / CH: L

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1796	14.92	10.57	25.49	54.50	-29.01	AVG	Р	
2	0.1814	33.26	10.57	43.83	64.42	-20.59	QP	Р	
3	0.5639	11.01	10.65	21.66	46.00	-24.34	AVG	Р	
4	0.5685	28.65	10.65	39.30	56.00	-16.70	QP	Р	
5	0.6945	22.83	10.73	33.56	46.00	-12.44	AVG	Р	
6 *	0.6990	37.90	10.73	48.63	56.00	-7.37	QP	Р	
7	1.4144	10.06	10.74	20.80	46.00	-25.20	AVG	Р	
8	1.4280	31.54	10.74	42.28	56.00	-13.72	QP	Р	
9	2.6790	25.96	10.70	36.66	56.00	-19.34	QP	Р	
10	2.7014	10.55	10.70	21.25	46.00	-24.75	AVG	Р	
11	24.1035	13.86	11.04	24.90	50.00	-25.10	AVG	Р	
12	24.4095	31.52	11.04	42.56	60.00	-17.44	QP	Р	

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### 6.2 Duty Cycle

Test Requirement:	All measurements are to be performed with the EUT transmitting at 100% duty cycle at its maximum power control level; however, if 100% duty cycle cannot be achieved, measurements of duty cycle, x, and maximum-power transmission duration, T, are required for each tested mode of operation.
Test Method:	ANSI C63.10-2013 section 12.2 (b)
Test Limit:	No limits, only for report use.
Procedure:	<ul> <li>i) Set the center frequency of the instrument to the center frequency of the transmission.</li> <li>ii) Set RBW &gt;= EBW if possible; otherwise, set RBW to the largest available value.</li> <li>iii) Set VBW &gt;= RBW.</li> <li>iv) Set detector = peak.</li> <li>v) The zero-span measurement method shall not be used unless both RBW and VBW are &gt; 50/T, where T is defined in item a1) of 12.2, and the number of sweep points across duration T exceeds 100.</li> </ul>

#### 6.2.1 E.U.T. Operation:

Operating Environment:	
Temperature:	25.5 °C
Humidity:	50.6 %
Atmospheric Pressure:	1010 mbar

#### 6.2.2 Test Data:

Please Refer to Appendix for Details.



#### 6.3 Maximum conducted output power

0.5 Maximum conducted output power					
		47 CFR Part 15.407(a)(1)(i) 47 CFR Part 15.407(a)(1)(ii) 47 CFR Part 15.407(a)(1)(iii)			
Test Requirement:		47 CFR Part 15.407(a)(1)(iv) 47 CFR Part 15.407(a)(2)			
		47 CFR Part 15.407(a)(2) 47 CFR Part 15.407(a)(3)(i)			
Test I	Method:	ANSI C63.10-2013, section 12.3			
		For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).			
		For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.			
		For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power.			
Test I	Limit:	For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed,			
		point-to-point operations. For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the			
		maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.			
		For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.			

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	For the band 5.725-5.850 GHz, the maximum conducted output power over the
	frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, the
	maximum conducted output power shall be reduced by the amount in dB that the
	directional gain of the antenna exceeds 6 dBi.
	However, fixed point-to-point U-NII devices operating in this band may employ
	transmitting antennas with directional gain greater than 6 dBi without any
	corresponding reduction in transmitter conducted power. Fixed, point-to-point
	operations exclude the use of point-to-multipoint systems, omnidirectional
	applications, and multiple collocated transmitters transmitting the same
	information. The operator of the U-NII device, or if the equipment is professionally
	installed, the installer, is responsible for ensuring that systems employing high gain
	directional antennas are used exclusively for fixed, point-to-point operations.
	Method SA-1
	a) Set span to encompass the entire 26 dB EBW or 99% OBW of the signal.
	b) Set RBW = 1 MHz.
	c) Set VBW >= 3 MHz.
	d) Number of points in sweep >= [2 × span / RBW]. (This gives bin-to-bin spacing
	<= RBW / 2, so
	that narrowband signals are not lost between frequency bins.)
	e) Sweep time = auto.
	f) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample
	detector mode.
	g) If transmit duty cycle < 98%, use a video trigger with the trigger level set to
	enable triggering
	only on full power pulses. The transmitter shall operate at maximum power control
Procedure:	level for the
Procedure:	entire duration of every sweep. If the EUT transmits continuously (i.e., with no OFF intervals) or
	at duty cycle >= 98%, and if each transmission is entirely at the maximum power
	control level.
	then the trigger shall be set to "free run."
	h) Trace average at least 100 traces in power averaging (rms) mode.
	i) Compute power by integrating the spectrum across the 26 dB EBW or 99% OBW
	of the signal
	using the instrument's band power measurement function, with band limits set
	equal to the
	EBW or OBW band edges. If the instrument does not have a band power function,
	then sum the
	spectrum levels (in power units) at 1 MHz intervals extending across the 26 dB
	EBW or 99%
	OBW of the spectrum.
631 EUT Operatio	n.

#### 6.3.1 E.U.T. Operation:

Operating Environment:	
Temperature:	25.5 °C
Humidity:	50.6 %
Atmospheric Pressure:	1010 mbar

#### 6.3.2 Test Data:

Please Refer to Appendix for Details.



### 6.4 Power spectral density

	0.4 I Ower spectral				
		47 CFR Part 15.407(a)(1)(i)			
		47 CFR Part 15.407(a)(1)(ii)			
	Test Requirement:	47 CFR Part 15.407(a)(1)(iii)			
		47 CFR Part 15.407(a)(1)(iv)			
		47 CFR Part 15.407(a)(2)			
-		47 CFR Part 15.407(a)(3)(i)			
	Test Method:	ANSI C63.10-2013, section 12.5			
		For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.			
		For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.			
		For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.			
		Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.			
	Test Limit:	Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.			
		For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.			
		For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the			
		directional gain of the antenna exceeds 6 dBi. For the band 5.725-5.850 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter			

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	conducted power.
	Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.
	a) Create an average power spectrum for the EUT operating mode being tested by following the instructions in 12.3.2 for measuring maximum conducted output power using a
	spectrum analyzer or EMI receiver; that is, select the appropriate test method (SA-1, SA-2,
	SA-3, or their respective alternatives) and apply it up to, but not including, the step labeled,
	"Compute power" (This procedure is required even if the maximum conducted output power
	<ul> <li>measurement was performed using the power meter method PM.)</li> <li>b) Use the peak search function on the instrument to find the peak of the spectrum.</li> <li>c) Make the following adjustments to the peak value of the spectrum, if applicable:</li> <li>1) If method SA-2 or SA-2A was used, then add [10 log (1 / D)], where D is the duty cycle, to the peak of the spectrum.</li> </ul>
	<ul><li>2) If method SA-3A was used and the linear mode was used in step h) of 12.3.2.7, add</li></ul>
Procedure:	1 dB to the final result to compensate for the difference between linear averaging and
	power averaging. d) The result is the PPSD.
	e) The procedure in item a) through item c) requires the use of 1 MHz resolution bandwidth to
	satisfy the 1 MHz measurement bandwidth specified by some regulatory authorities. This
	requirement also permits use of resolution bandwidths less than 1 MHz "provided that the
	measured power is integrated to show the total power over the measurement bandwidth" (i.e.,
	1 MHz). If measurements are performed using a reduced resolution bandwidth and integrated
	<ul> <li>over 1 MHz bandwidth, the following adjustments to the procedures apply:</li> <li>1) Set RBW &gt;= 1 / T, where T is defined in 12.2 a).</li> <li>2) Set VBW &gt;= [3 × RBW].</li> </ul>
	<ul> <li>3) Care shall be taken such that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.</li> </ul>

#### 6.4.1 E.U.T. Operation:

Operating Environment:		
Temperature:	25.5 °C	
Humidity:	50.6 %	
Atmospheric Pressure:	1010 mbar	

#### 6.4.2 Test Data:

Please Refer to Appendix for Details.

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#### 6.5 Emission bandwidth and occupied bandwidth

Test Requirement:	U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use. U-NII 3, U-NII 4: 47 CFR Part 15.407(e)
Test Method:	ANSI C63.10-2013, section 6.9.3 & 12.4
	KDB 789033 D02, Clause C.2
Test Limit:	U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use. U-NII 3, U-NII 4: Within the 5.725-5.850 GHz and 5.850-5.895 GHz bands, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.
	<ul> <li>Emission bandwidth:</li> <li>a) Set RBW = approximately 1% of the emission bandwidth.</li> <li>b) Set the VBW &gt; RBW.</li> <li>c) Detector = peak.</li> <li>d) Trace mode = max hold.</li> <li>e) Measure the maximum width of the emission that is 26 dB down from the peak of the emission.</li> <li>Compare this with the RBW setting of the instrument. Readjust RBW and repeat measurement</li> </ul>
	as needed until the RBW/EBW ratio is approximately 1%.
	Occupied bandwidth: 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% o 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
Procedure:	maximum input mixer level for linear operation. In general, the peak of the spectra 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.
	<ul> <li>f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.</li> </ul>
	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%

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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).
6 dB emission bandwidth:
a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3 >= RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.
g) Measure the maximum width of the emission that is constrained by the
frequencies associated with the two outermost amplitude points (upper and lower
frequencies) that are attenuated by 6 dB relative to the maximum level measured
in the fundamental emission.

#### 6.5.1 E.U.T. Operation:

Operating Environment:	
Temperature:	25.5 °C
Humidity:	50.6 %
Atmospheric Pressure:	1010 mbar

#### 6.5.2 Test Data:

Please Refer to Appendix for Details.



#### 6.6 Band edge emissions (Radiated)

	47 CFR Part 15.407(b)				
Test Requirement:         47 CFR Part 15.407(b)(2)           47 CFR Datt 15.407(b)(4)					
lest Requirement.	47 CFR Part 15.407(b)	(4)			
	47 CFR Part 15.407(b)	(10)			
Test Method:	ANSI C63.10-2013, se	ANSI C63.10-2013, section 12.7.4, 12.7.5, 12.7.6			
	For transmitters operat	ting in the 5.15-5.25 GH	Iz band: All emis	ssions outside of the	
	5.15-5.35 GHz band sl	nall not exceed an e.i.r.	p. of −27 dBm/N	1Hz.	
	For transmitters operat				
	5.15-5.35 GHz band sl	nall not exceed an e.i.r.	p. of −27 dBm/N	1Hz.	
	For transmitters operat				
	All emissions shall be l				
		e increasing linearly to			
		and from 25 MHz above			
		.6 dBm/MHz at 5 MHz			
	from 5 MHz above or b	elow the band edge inc	creasing linearly	to a level of 27	
	dBm/MHz at the band	edge.			
	MHz	MHz	MHz	GHz	
	0.090-0.110	16.42-16.423	399.9-410	4.5-5.15	
	<sup>1</sup> 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46	
	2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75	
	4.125-4.128	25.5-25.67	1300-1427		
	4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2	
	4.20725-4.20775	73-74.6	1645.5-1646.	9.3-9.5	
	1.20120 1.20110	1011.0	5	0.0 0.0	
	6.215-6.218	74.8-75.2	1660-1710	10.6-12.7	
	6.26775-6.26825	108-121.94	1718.8-1722.	13.25-13.4	
	0.20113-0.20023	100-121.94	2	10.20-10.4	
Test Limit:	6.31175-6.31225	123-138	2200-2300	14.47-14.5	
	8.291-8.294	149.9-150.05	2310-2390	15.35-16.2	
	8.362-8.366	156.52475-156.525 25	2483.5-2500	17.7-21.4	
	8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12	
	8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0	
	12.29-12.293	167.72-173.2	3332-3339	31.2-31.8	
	12.51975-12.52025	240-285	3345.8-3358	36.43-36.5	
	12.57675-12.57725	322-335.4	3600-4400	( <sup>2</sup> )	
	13.36-13.41				
	<sup>1</sup> Until February 1, 1999	<sup>1</sup> Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.			
	<sup>2</sup> Above 38.6				
		nissions appearing with			
	exceed the limits show				
		the limits in § 15.209sh			
	measurement instrume	entation employing a CI	SPR quasi-peak	detector. Above	
		1000 MHz, compliance with the emission limits in § 15.209shall be demonstrated			
	based on the average				
		15.35apply to these measurements.			
	_				
	Except as provided els	ewhere in this subpart,	the emissions fi	rom an intentional	

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	radiator shall not exceed	the field strength levels spec	cified in the following table:		
	Frequency (MHz)	Field strength	Measurement		
		(microvolts/meter)	distance		
		(more vene) motor)	(meters)		
	0.009-0.490	2400/F(kHz)	300		
	0.490-1.705	24000/F(kHz)	30		
	1.705-30.0	30	30		
	30-88	100 **	3		
	88-216	150 **	3		
	216-960	200 **	3		
	Above 960	500	3		
	Above 1GHz:				
		EUT was placed on the top o meter fully-anechoic chambe			
		e position of the highest radia			
			nce-receiving antenna, which		
		of a variable-height antenna varied from one meter to fou	ir meters above the ground to		
	determine the maximum	value of the field strength. B	oth horizontal and vertical		
		nna are set to make the mean			
			ed to its worst case and then neters (for the test frequency		
		of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.			
		e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.			
			10dP lower than the limit		
		f the EUT in peak mode was			
	specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be				
	-	ng peak or average method a	as specified and then reported		
Procedure:	in a data sheet.				
		west channel, the middle cha			
		ements are performed in X, Y			
		found the X axis positioning v			
	i. Repeat above procedu	ures until all frequencies mea	sured was complete.		
	Remark:				
		Cable Loss+ Antenna Factor-			
	2. Scan from 18GHz to	40GHz, the disturbance abov	e 18GHz was very low. The		
		plots are the highest emission			
		oints had been displayed. The			
		ator which are attenuated more			
	need not be reported.				
		on, for frequencies above 1G	Hz the field strength limits		
			strength of any emission shall		
			ecified above by more than 20		
			ons whose peak level is lower		
		nly the peak measurement is			
		e 18GHz were very low and t			
		ound when testing, so only the	e above harmonics had been		
	displayed.				
661 EUT Operatio					

#### 6.6.1 E.U.T. Operation:

Operating Environment:		
Temperature:	25.5 °C	
Humidity: 50.6 %		

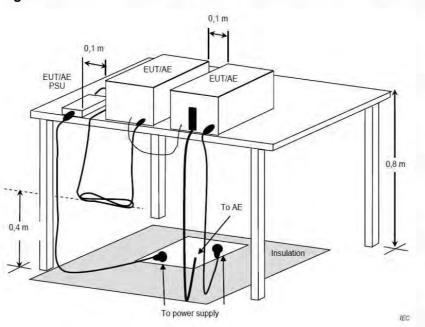
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## Atmospheric Pressure: 1010 mbar

#### 6.6.2 Test Setup Diagram:



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#### 6.6.3 Test Data:

# Note: All the mode have been tested, and only the worst mode 802.11a re in the report UNII-1 20M\_5180MHz\_Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	
1 *	5127.200	73.12	-27.26	45.86	74.00	-28.14	peak	Р	
2	5150.000	69.61	-27.24	42.37	74.00	-31.63	peak	Р	
UNII-1 20M_5180MHz_Vertical									
	Frequency	Reading	Factor	Level	Limit	Margin			

No.	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Detector	P/F
1 *	5145.060	75.78	-27.25	48.53	74.00	-25.47	peak	Р
2	5150.000	74.75	-27.24	47.51	74.00	-26.49	peak	Р

#### UNII-1 20M\_5320MHz\_Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	5350.000	55.60	6.37	61.97	125.20	-63.23	peak	Р
2	5460.000	44.49	6.57	51.06	125.20	-74.14	peak	Р

#### UNII-1 20M\_5320MHz\_Vertical

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	5350.000	63.99	4.63	68.62	125.20	-56.58	peak	Р
2	5460.000	46.74	4.79	51.53	125.20	-73.67	peak	Р

#### UNII-3 20M\_5745MHz\_Horizontal

No.	Frequency	Reading	Factor	Level	Limit	Margin	Detector	P/F
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Delector	171
1	5650.000	89.48	-31.90	57.58	68.20	-10.62	peak	Р
2	5700.000	96.42	-32.01	64.41	105.60	-41.19	peak	Р
3	5720.000	97.32	-32.07	65.25	110.8	-45.55	peak	Р

#### UNII-1 20M\_5745MHz\_Vertical

N	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	5650.000	89.71	-31.81	57.90	68.20	-10.30	peak	Р
2	5700.000	96.65	-31.92	64.73	105.60	-40.87	peak	Р
3	5720.000	97.55	-31.98	65.57	110.8	-45.23	peak	Р

#### UNII-3 20M 5825MHz Horizontal

No	Frequency	Reading	Factor	Level	Limit	Margin	Detector	P/F
No.	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Delector	F/F
1	5850.000	88.34	-31.76	56.58	122.20	-65.62	peak	Р
2	5875.000	95.28	-31.87	63.41	110.80	-47.39	peak	Р
3	5925.000	94.10	-31.93	62.17	68.20	-6.03	peak	Р

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#### UNII-3 20M\_5825MHz\_Vertical

No	Frequency	Reading	Factor	Level	Limit	Margin	Detector	P/F
No.	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Delector	Г/Г
1	5850.000	88.57	-31.70	56.87	122.20	-65.33	peak	Р
2	5875.000	95.51	-31.81	63.70	110.80	-47.10	peak	Р
3	5925.000	94.33	-31.87	62.46	68.20	-5.74	peak	Р



#### Undesirable emission limits (below 1GHz) 6.7

Test Requirement:	47 CFR Part 15.407(b)(9)					
Test Method:	ANSI C63.10-2013, section	12.7.4, 12.7.5, 12.7.6				
	Unwanted emissions below limits set forth in § 15.209.	<sup>,</sup> 1 GHz must comply with the	general field strength			
	Except as provided elsewhere in this subpart, the emissions from an interadiator shall not exceed the field strength levels specified in the following Frequency (MHz) Field strength Measurem					
To a line to	and the second se	(microvolts/meter)	distance			
Test Limit:	0.009-0.490 0.490-1.705 1.705-30.0 30-88	2400/F(kHz) 24000/F(kHz) 30 100 **	(meters) 300 30 30 30 3			
	88-216	150 **	3			
	216-960 Above 960	200 ** 500	3 3			
Procedure:	above the ground at a 3 me degrees to determine the p b. The EUT was set 3 or 10 which was mounted on the c. The antenna height is va determine the maximum va polarizations of the antenna d. For each suspected emis the antenna was tuned to h of below 30MHz, the antenn was turned from 0 degrees e. The test-receiver system Bandwidth with Maximum H f. If the emission level of the specified, then testing could reported. Otherwise the em re-tested one by one using data sheet. g. Test the EUT in the lowe h. The radiation measurem Transmitting mode, and fou i. Repeat above procedures Remark: 1. Level= Read Level+ Cab 2. Scan from 9kHz to 30MH points marked on above plot testing, so only above point emissions from the radiator need not be reported. 3. The disturbance below 1	T was placed on the top of a peter semi-anechoic chamber. osition of the highest radiation meters away from the interfet top of a variable-height anten- ried from one meter to four m lue of the field strength. Both a are set to make the measure ssion, the EUT was arranged eights from 1 meter to 4 meter ha was tuned to heights 1 met to 360 degrees to find the ma- was set to Peak Detect Fund- fold Mode. e EUT in peak mode was 10d d be stopped and the peak va- issions that did not have 10dl quasi-peak method as specified st channel, the middle channel ents are performed in X, Y, Z and the X axis positioning which is until all frequencies measure to be disturbance below 30M obts are the highest emissions is had been displayed. The ar- which are attenuated more the GHz was very low and the has testing, so only the above har	The table was rotated 360 h. prence-receiving antenna, ina tower. eters above the ground to horizontal and vertical ement. to its worst case and then ers (for the test frequency ter) and the rotatable table aximum reading. tion and Specified B lower than the limit lues of the EUT would be B margin would be ied and then reported in a el, the Highest channel. axis positioning for ch it is the worst case. ed was complete. eamp Factor Mz was very low. The could be found when nplitude of spurious nan 20dB below the limit rmonics were the highest			

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# B

a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters
above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360
degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which
was mounted on the top of a variable-height antenna tower.
c. The antenna height is varied from one meter to four meters above the ground to
determine the maximum value of the field strength. Both horizontal and vertical
polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then
the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency
of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table
was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Peak Detect Function and Specified
Bandwidth with Maximum Hold Mode.
f. If the emission level of the EUT in peak mode was 10dB lower than the limit
specified, then testing could be stopped and the peak values of the EUT would be
reported. Otherwise the emissions that did not have 10dB margin would be
re-tested one by one using peak or average method as specified and then reported
in a data sheet.
g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
h. The radiation measurements are performed in X, Y, Z axis positioning for
Transmitting mode, and found the X axis positioning which it is the worst case.
i. Repeat above procedures until all frequencies measured was complete.
Remark:
1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The
points marked on above plots are the highest emissions could be found when
testing, so only above points had been displayed. The amplitude of spurious
emissions from the radiator which are attenuated more than 20dB below the limit
need not be reported.
3. As shown in this section, for frequencies above 1GHz, the field strength limits
are based on average limits. However, the peak field strength of any emission shall
not exceed the maximum permitted average limits specified above by more than 20
dB under any condition of modulation. For the emissions whose peak level is lower
than the average limit, only the peak measurement is shown in the report.
4. The disturbance above 18GHz were very low and the harmonics were the
highest point could be found when testing, so only the above harmonics had been
displayed.
displayed.

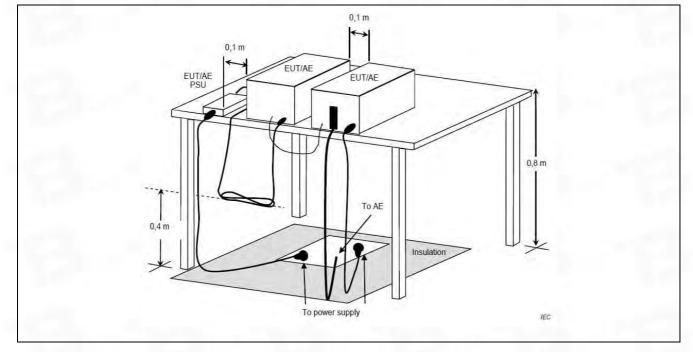
#### 6.7.1 E.U.T. Operation:

Operating Environment:	Operating Environment:						
Temperature:	25.5 °C						
Humidity:	50.6 %						
Atmospheric Pressure:	1010 mbar						

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#### 6.7.2 Test Setup Diagram:

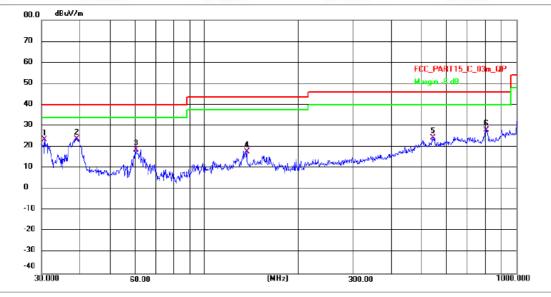


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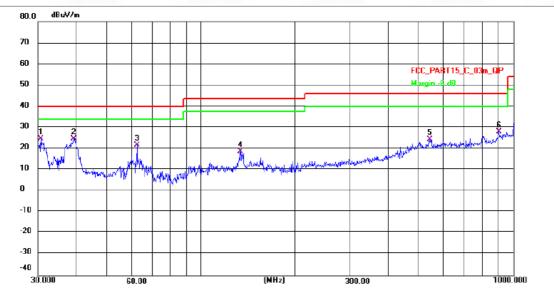
#### 6.7.3 Test Data:

Note: All the mode have been tested, and only the worst mode are in the report TM1 / Polarization: Horizontal / Band: U-NII 1 / BW: 20 / CH: L



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	30.6378	43.17	-19.63	23.54	40.00	-16.46	QP	Р
2 *	38.9560	44.44	-20.55	23.89	40.00	-16.11	QP	Р
3	60.2801	38.75	-20.15	18.60	40.00	-21.40	QP	Р
4	136.6993	45.60	-27.90	17.70	43.50	-25.80	QP	Р
5	539.4775	45.95	-21.55	24.40	46.00	-21.60	QP	Р
6	803.1933	51.53	-23.67	27.86	46.00	-18.14	QP	Р





#### TM1 / Polarization: Vertical / Band: U-NII 1 / BW: 20 / CH: L

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	30.6378	44.17	-19.63	24.54	40.00	-15.46	QP	Р
2 *	39.2301	45.18	-20.54	24.64	40.00	-15.36	QP	Р
3	62.4313	41.73	-20.12	21.61	40.00	-18.39	QP	Р
4	133.6188	46.60	-27.92	18.68	43.50	-24.82	QP	Р
5	539.4775	45.95	-21.55	24.40	46.00	-21.60	QP	Р
6	900.1474	49.89	-22.08	27.81	46.00	-18.19	QP	Р



#### 6.8 Undesirable emission limits (above 1GHz)

0.0 Ondesirable							
	47 CFR Part 15.407(b)	(1)					
Test Deguirement	47 CFR Part 15.407(b)	(2)					
Test Requirement:	47 CFR Part 15.407(b)	47 CFR Part 15.407(b)(4)					
	47 CFR Part 15.407(b)	(10)					
Test Method:	ANSI C63.10-2013, section 12.7.4, 12.7.5, 12.7.6						
		ting in the 5.15-5.25 GH		sions outside of the			
		5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.					
		For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the					
	5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.						
		For transmitters operating solely in the 5.725-5.850 GHz band:					
	All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or						
	or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz ab below the band edge, and from 25 MHz above or below the band edge in						
	linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band						
from 5 MHz above or below the band edge increasing linearly to a le							
	dBm/MHz at the band edge.						
	MHz	мнz	MHz	GHz			
	0.090-0.110	16.42-16.423	399.9-410	4.5-5.15			
	<sup>1</sup> 0.495-0.505	16.69475-16.69525		5.35-5.46			
	2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75			
	4.125-4.128	25.5-25.67	1300-1427	8.025-8.5			
		37.5-38.25					
	4.17725-4.17775		1435-1626.5	9.0-9.2			
	4.20725-4.20775	73-74.6	1645.5-1646.	9.3-9.5			
			5				
	6.215-6.218	74.8-75.2	1660-1710	10.6-12.7			
	6.26775-6.26825	108-121.94	1718.8-1722.	13.25-13.4			
			2				
Test Limit:	6.31175-6.31225	123-138	2200-2300	14.47-14.5			
	8.291-8.294	149.9-150.05	2310-2390	15.35-16.2			
	8.362-8.366	156.52475-156.525	2483.5-2500	17.7-21.4			
		25					
	8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12			
	8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0			
	12.29-12.293	167.72-173.2	3332-3339	31.2-31.8			
	12.51975-12.52025	240-285	3345.8-3358	36.43-36.5			
	12.57675-12.57725	322-335.4	3600-4400	( <sup>2</sup> )			
	13.36-13.41	522-555.4	3000-4400	()			
	13.30-13.41						
		9, this restricted band s	nall be 0.490-0.3				
	<sup>2</sup> Above 38.6						
		nissions appearing with					
	exceed the limits show						
	MHz, compliance with	the limits in § 15.209sh	all be demonstra	ated using			
		entation employing a CI					
	1000 MHz, compliance	with the emission limit	s in § 15.209sha	all be demonstrated			
		value of the measured					
	15.35apply to these me						
	Except as provided els	Except as provided elsewhere in this subpart, the emissions from an intentional					
		ed the field strength lev					
	Frequency (MHz)	Field strength		Measurement			
				measurement			

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		(microvolts/meter)	distance
			(meters)
	0.009-0.490	2400/F(kHz)	300
	0.490-1.705	24000/F(kHz)	30
	1.705-30.0	30	30
	30-88	100 **	3
	88-216	150 **	3
	216-960	200 **	3
	Above 960	500	3
	Above 1GHz:	300	5
Procedure:	<ul> <li>above the ground at a degrees to determine to b. The EUT was set 3 was mounted on the to c. The antenna height determine the maximul polarizations of the and d. For each suspected the antenna was turned from 0 degree. The test-receiver sy Bandwidth with Maxim f. If the emission level specified, then testing reported. Otherwise the re-tested one by one u in a data sheet.</li> <li>g. Test the EUT in the h. The radiation measures. Transmitting mode, and i. Repeat above proce Remark:</li> <li>1. Level= Read Level+</li> <li>2. Scan from 18GHz to points marked on above testing, so only above emissions from the radiation the average limit, 4. The disturbance above limit, 4. The disturbance a</li></ul>	e EUT was placed on the top of 3 meter fully-anechoic chamber the position of the highest radiati meters away from the interferen op of a variable-height antenna to is varied from one meter to four im value of the field strength. Boi tenna are set to make the measu emission, the EUT was arrange d to heights from 1 meter to 4 mean intenna was tuned to heights 1 m prees to 360 degrees to find the r stem was set to Peak Detect Fu pum Hold Mode. of the EUT in peak mode was 10 could be stopped and the peak of e emissions that did not have 10 using peak or average method as lowest channel, the middle chan urements are performed in X, Y, d found the X axis positioning w dures until all frequencies measu - Cable Loss+ Antenna Factor- Fo 0 40GHz, the disturbance above we plots are the highest emission points had been displayed. The diator which are attenuated more ction, for frequencies above 1GH limits. However, the peak field st um permitted average limits spect n of modulation. For the emission only the peak measurement is spect on of modulation. For the emission only the peak measurement is spect on of modulation. For the emission only the peak measurement is spect on of modulation. For the emission only the peak measurement is spect on for modulation. For the emission only the peak measurement is spect on for modulation. For the emission only the peak measurement is spect on for modulation. For the emission only the peak measurement is spect on for modulation. For the emission only the peak measurement is spect on for modulation. For the emission only the peak measurement is spect on for modulation. For the emission only the peak measurement is spect on for modulation. For the emission only the peak measurement is spect on for modulation. For the emission only the peak measurement is spect on for modulation. For the emission only the peak measurement is spect on for modulation. For the emission on the form of	. The table was rotated 360 ion. ce-receiving antenna, which ower. meters above the ground to th horizontal and vertical urement. d to its worst case and then eters (for the test frequency neter) and the rotatable table maximum reading. nction and Specified OdB lower than the limit values of the EUT would be OdB margin would be a specified and then reported anel, the Highest channel. Z axis positioning for hich it is the worst case. ured was complete. Preamp Factor 18GHz was very low. The as could be found when amplitude of spurious a than 20dB below the limit tz, the field strength limits trength of any emission shall cified above by more than 20 ns whose peak level is lower shown in the report. te harmonics were the

#### 6.8.1 E.U.T. Operation:

Operating Environment:	
Temperature:	25.5 °C
Humidity:	50.6 %
Atmospheric Pressure:	1010 mbar

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# 6.8.2 Test Data:

# Not:All of the mode had be tested, only the worse mode of 802.11a are show in the report: UNII-1\_20M\_5180MHz\_Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	1223.540	62.63	-30.20	32.43	74.00	-41.57	peak	Р
2	2318.242	59.30	-30.57	28.73	74.00	-45.27	peak	Р
3	3165.754	59.72	-29.36	30.36	74.00	-43.64	peak	Р
4	6966.923	55.56	-24.96	30.60	74.00	-43.40	peak	Р
5 *	10357.726	80.89	-24.45	56.44	74.00	-17.56	peak	Р
6	15546.413	65.91	-21.51	44.40	74.00	-29.60	peak	Р
				0014 544				

# UNII-1\_20M\_5180MHz\_Vertical

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	1262.701	64.82	-30.41	34.41	74.00	-39.59	peak	Р
2	2358.114	66.26	-30.53	35.73	74.00	-38.27	peak	Р
3	3173.082	64.60	-29.36	35.24	74.00	-38.76	peak	Р
4	7045.902	64.48	-24.92	39.56	74.00	-34.44	peak	Р
5 *	10357.726	80.16	-24.45	55.71	74.00	-18.29	peak	Р
6	15546.413	74.97	-21.51	53.46	74.00	-20.54	peak	Р

# UNII-1\_20M\_5200MHz\_Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	1176.376	67.63	-29.94	37.69	74.00	-36.31	peak	Р
2	2219.239	65.23	-30.68	34.55	74.00	-39.45	peak	Р
3	3172.166	63.21	-29.36	33.85	74.00	-40.15	peak	Р
4 *	10402.730	83.61	-24.47	59.14	74.00	-14.86	peak	Р
5	15600.428	70.36	-21.51	48.85	74.00	-25.15	peak	Р

# UNII-1\_20M\_5200MHz\_Vertical

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	1085.236	67.58	-29.45	38.13	74.00	-35.87	peak	Р
2	2109.169	64.25	-30.81	33.44	74.00	-40.56	peak	Р
3	3344.470	62.92	-29.20	33.72	74.00	-40.28	peak	Р
4	7324.150	58.60	-24.83	33.77	74.00	-40.23	peak	Р
5 *	10399.723	79.61	-24.47	55.14	74.00	-18.86	peak	Р
6	15600.428	69.83	-21.51	48.32	74.00	-25.68	peak	Р

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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F			
1	1176.376	65.04	-29.94	35.10	74.00	-38.90	peak	Р			
2	2253.498	63.24	-30.65	32.59	74.00	-41.41	peak	Р			
3	2952.739	60.55	-29.59	30.96	74.00	-43.04	peak	Р			
4	7171.231	54.02	-24.88	29.14	74.00	-44.86	peak	Р			
5 *	10438.873	77.47	-24.49	52.98	74.00	-21.02	peak	Р			
6	14255.157	63.36	-21.14	42.22	74.00	-31.78	peak	Р			

## UNII-1 20M 5240MHz Horizontal

# UNII-1\_20M\_5240MHz\_Vertical

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	1023.688	70.74	-29.11	41.63	74.00	-32.37	peak	Р
2	2273.123	69.33	-30.62	38.71	74.00	-35.29	peak	Р
3	3326.154	70.18	-29.21	40.97	74.00	-33.03	peak	Р
4	7646.466	69.50	-25.00	44.50	74.00	-29.50	peak	Р
5 *	10444.910	86.40	-24.49	61.91	74.00	-12.09	peak	Р
6	15659.157	76.13	-21.53	54.60	74.00	-19.40	peak	Р

# UNII-3\_20M\_5745MHz\_Horizontal

No.	Frequency	Reading	Factor	Level	Limit	Margin	Detector	P/F
INO.	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Delector	F/F
1	2692.632	77.53	-29.51	48.02	74.00	-25.98	peak	Р
2	4091.632	80.90	-30.02	50.88	74.00	-23.12	peak	Р
3	7705.312	81.53	-30.24	51.29	74.00	-22.71	peak	Р
4	8685.582	79.13	-31.02	48.11	74.00	-25.89	peak	Р
5	10987.473	79.57	-31.51	48.06	74.00	-25.94	peak	Р
6	14646.084	81.19	-30.60	50.59	74.00	-23.41	peak	Р

### UNII-3 20M 5745MHz Vertical

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No.	Frequency	Reading	Factor	Level	Limit	Margin	Detector	P/F
INU.	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Delector	
1	2464.365	78.00	-29.40	48.60	74.00	-25.40	peak	Р
2	3863.365	81.37	-29.91	51.46	74.00	-22.54	peak	Р
3	7477.045	82.00	-30.13	51. <mark>8</mark> 7	74.00	-22.13	peak	Р
4	8457.315	79.60	-30.91	48.69	74.00	-25.31	peak	Р
5	10759.206	80.04	-31.40	48.64	74.00	-25.36	peak	Р
6	14417.817	81.66	-30.49	51.17	74.00	-22.83	peak	Р

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# Test Report Number: BTF231007R01604



No.	Frequency	Reading	Factor	Level	Limit	Margin	Detector	P/F					
INU.	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Delector						
1	3131.352	77.46	-29.51	47.95	74.00	-26.05	peak	Р					
2	4530.352	80.83	-30.02	50.81	74.00	-23.19	peak	Р					
3	8144.032	81.46	-30.24	51.22	74.00	-22.78	peak	Р					
4	9124.302	79.06	-31.02	48.04	74.00	-25.96	peak	Р					
5	11426.193	79.50	-31.51	47.99	74.00	-26.01	peak	Р					
6	15084.804	81.12	-30.60	50.52	74.00	-23.48	peak	Р					

# UNII-3 20M 5785MHz Horizontal

# UNII-3\_20M\_5785MHz\_Vertical

No.	Frequency	Reading	Factor	Level	Limit	Margin	Detector	P/F
INU.	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Delector	
1	2464.635	78.19	-29.30	48.89	74.00	-25.11	peak	Р
2	3863.635	81.56	-29.81	51.75	74.00	-22.25	peak	Р
3	7477.315	82.19	-30.03	52.16	74.00	-21.84	peak	Р
4	8457.585	79.79	-30.81	48.98	74.00	-25.02	peak	Р
5	10759.476	80.23	-31.30	48.93	74.00	-25.07	peak	Р
6	14418.087	81.85	-30.39	51.46	74.00	-22.54	peak	Р

# UNII-3\_20M\_5825MHz\_Horizontal

Frequency	D a selin a						
· · · · · · · · · · · · · · · · · · ·	Reading	Factor	Level	Limit	Margin	Dotoctor	P/F
(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Delector	E/F
1827.354	78.30	-29.62	48.68	74.00	-25.32	peak	Р
3226.354	81.67	-30.13	51.54	74.00	-22.46	peak	Р
6840.034	82.30	-30.35	51.95	74.00	-22.05	peak	Р
7820.304	79.90	-31.13	48.77	74.00	-25.23	peak	Р
10122.195	80.34	-31.62	48.72	74.00	-25.28	peak	Р
13780.806	81.96	-30.71	51.25	74.00	-22.75	peak	Р
	1827.354           3226.354           6840.034           7820.304           10122.195	1827.354         78.30           3226.354         81.67           6840.034         82.30           7820.304         79.90           10122.195         80.34	1827.354         78.30         -29.62           3226.354         81.67         -30.13           6840.034         82.30         -30.35           7820.304         79.90         -31.13           10122.195         80.34         -31.62	1827.354         78.30         -29.62         48.68           3226.354         81.67         -30.13         51.54           6840.034         82.30         -30.35         51.95           7820.304         79.90         -31.13         48.77           10122.195         80.34         -31.62         48.72	1827.354         78.30         -29.62         48.68         74.00           3226.354         81.67         -30.13         51.54         74.00           6840.034         82.30         -30.35         51.95         74.00           7820.304         79.90         -31.13         48.77         74.00           10122.195         80.34         -31.62         48.72         74.00	1827.35478.30-29.6248.6874.00-25.323226.35481.67-30.1351.5474.00-22.466840.03482.30-30.3551.9574.00-22.057820.30479.90-31.1348.7774.00-25.2310122.19580.34-31.6248.7274.00-25.28	1827.35478.30-29.6248.6874.00-25.32peak3226.35481.67-30.1351.5474.00-22.46peak6840.03482.30-30.3551.9574.00-22.05peak7820.30479.90-31.1348.7774.00-25.23peak10122.19580.34-31.6248.7274.00-25.28peak

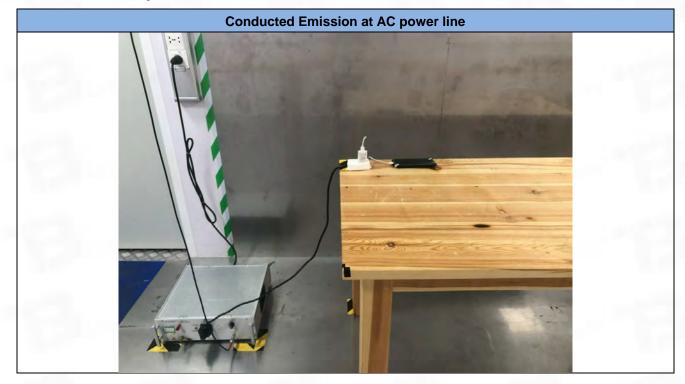
# UNII-3\_20M\_5825MHz\_Vertical

Frequency	Reading	Factor	Level	Limit	Margin	Detector	P/F
(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Delector	
752.362	78.43	-29.55	48.88	74.00	-25.12	peak	P
3226.354	81.80	-30.06	51.74	74.00	-22.26	peak	Р
6840.034	82.43	-30.28	52.15	74.00	-21.85	peak	Р
7820.304	80.03	-31.06	48.97	74.00	-25.03	peak	Р
10122.195	80.47	-31.55	48.92	74.00	-25.08	peak	Р
13780.806	82.09	-30.64	51.45	74.00	-22.55	peak	Р
	(MHz) 752.362 3226.354 6840.034 7820.304 10122.195	(MHz)(dBuV)752.36278.433226.35481.806840.03482.437820.30480.0310122.19580.47	(MHz)(dBuV)(dB/m)752.36278.43-29.553226.35481.80-30.066840.03482.43-30.287820.30480.03-31.0610122.19580.47-31.55	(MHz)(dBuV)(dB/m)(dBuV/m)752.36278.43-29.5548.883226.35481.80-30.0651.746840.03482.43-30.2852.157820.30480.03-31.0648.9710122.19580.47-31.5548.92	(MHz)(dBuV)(dB/m)(dBuV/m)(dBuV/m)752.36278.43-29.5548.8874.003226.35481.80-30.0651.7474.006840.03482.43-30.2852.1574.007820.30480.03-31.0648.9774.0010122.19580.47-31.5548.9274.00	(MHz)(dBuV)(dB/m)(dBuV/m)(dBuV/m)(dBuV/m)752.36278.43-29.5548.8874.00-25.123226.35481.80-30.0651.7474.00-22.266840.03482.43-30.2852.1574.00-21.857820.30480.03-31.0648.9774.00-25.0310122.19580.47-31.5548.9274.00-25.08	(MHz)(dBuV)(dB/m)(dBuV/m)(dBuV/m)(dB)Detector752.36278.43-29.5548.8874.00-25.12peak3226.35481.80-30.0651.7474.00-22.26peak6840.03482.43-30.2852.1574.00-21.85peak7820.30480.03-31.0648.9774.00-25.03peak10122.19580.47-31.5548.9274.00-25.08peak

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#### 7 **Test Setup Photos**

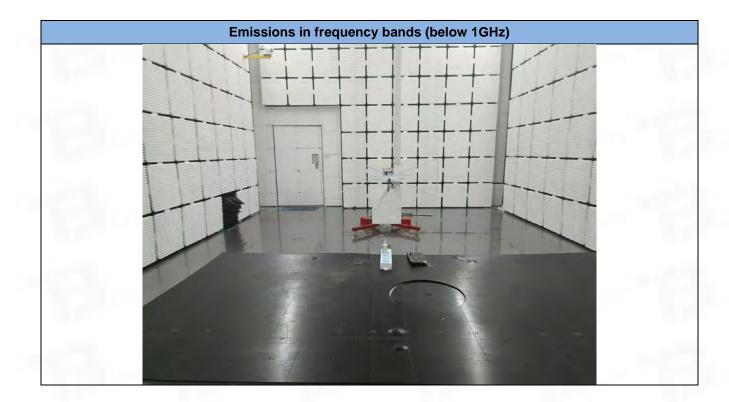


# Band edge emissions (Radiated) Emissions in frequency bands (above 1GHz)

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Test Report Number: BTF230913R00704



# 8 EUT Constructional Details (EUT Photos)

Please refer to the test report NO. BTF231007R01601

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Test Report Number: BTF230913R00704

# Appendix

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# 1. Duty Cycle

# 1.1 Ant1

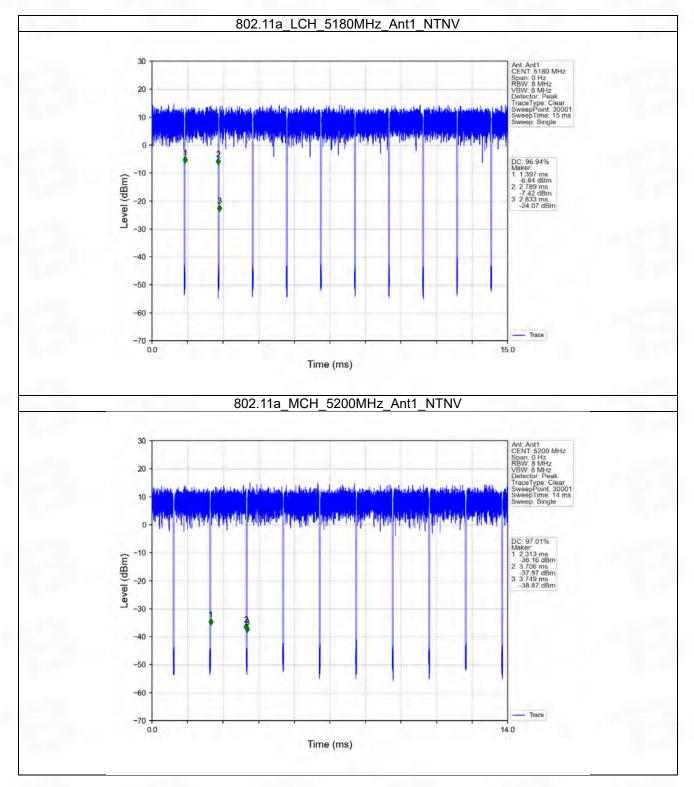
# 1.1.1 Test Result

				A	Ant1		
Mode	TX	Frequency	T_on	Period	Duty Cycle	Duty Cycle	Max. DC
Mode	Туре	(MHz)	(ms)	(ms)	(%)	Correction Factor (dB)	Variation (%)
		5180	1.393	1.437	96.94	0.14	0.00
802.11a	SISO	5200	1.393	1.436	97.01	0.13	0.03
		5240	1.392	1.437	96.87	0.14	0.07
		5745	1.394	1.428	97.62	0.10	0.03
1000		5785	1.393	1.428	97.55	0.11	0.03
		5825	1.394	1.428	97.62	0.10	0.03
	SISO	5180	1.301	1.345	96.73	0.14	0.07
		5200	1.301	1.345	96.73	0.14	0.03
802.11n		5240	1.300	1.344	96.73	0.14	0.03
(HT20)		5745	1.301	1.336	97.38	0.12	0.03
		5785	1.301	1.336	97.38	0.12	0.03
		5825	1.301	1.335	97.45	0.11	0.03
	SISO	5190	0.648	0.692	93.64	0.29	0.07
802.11n		5230	0.648	0.692	93.64	0.29	0.07
(HT40)		5755	0.649	0.683	95.02	0.22	0.03
		5795	0.649	0.683	95.02	0.22	0.00
	SISO	5180	1.313	1.356	96.83	0.14	0.07
802.11ac (VHT20)		5200	1.314	1.356	96.90	0.14	0.03
		5240	1.314	1.357	96.83	0.14	0.07
		5745	1.302	1.336	97.46	0.11	0.03
		5785	1.301	1.336	97.38	0.12	0.03
		5825	8.383	8.413	99.64	0.02	0.04
802.11ac (VHT40)	SISO	5190	0.652	0.696	93.68	0.28	0.04
		5230	0.652	0.696	93.68	0.28	0.03
		5755	0.648	0.683	94.88	0.23	0.03
		5795	0.649	0.683	95.02	0.22	0.00
802.11ac	SISO	5210	0.326	0.368	88.59	0.53	0.03
(VHT80)	3130	5775	68.457	68.864	99.41	0.03	0.00

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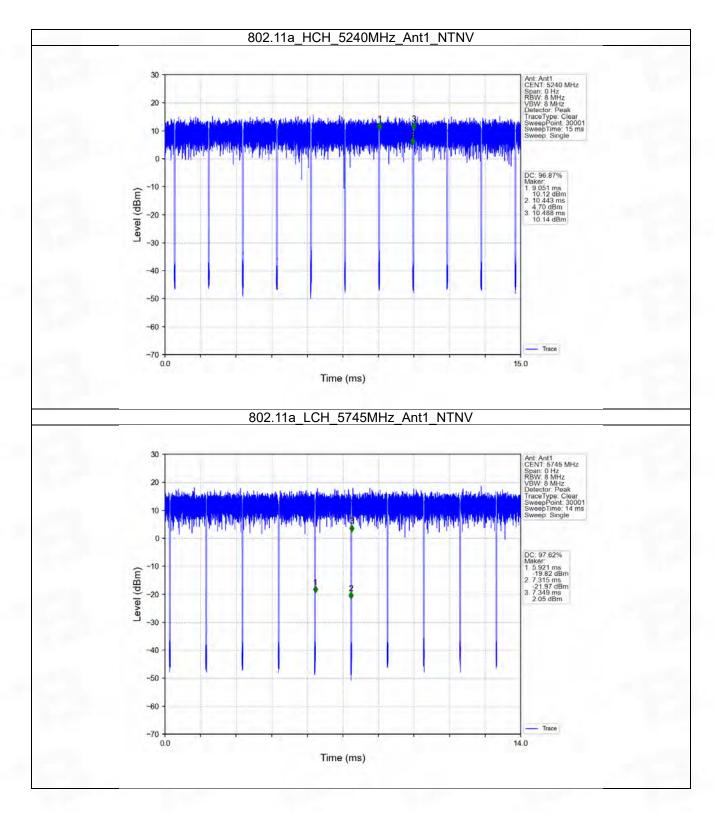


# 1.1.2 Test Graph



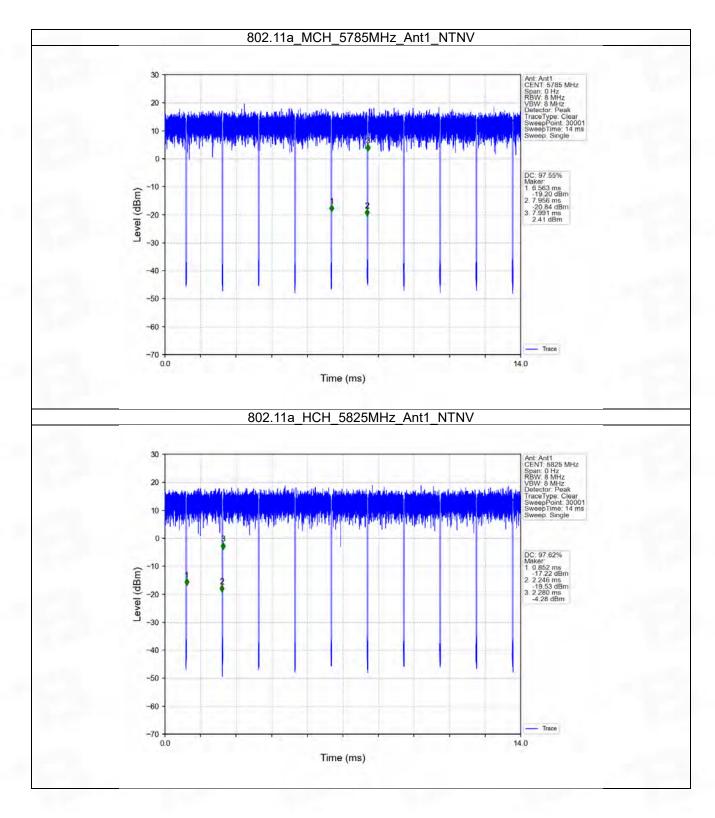
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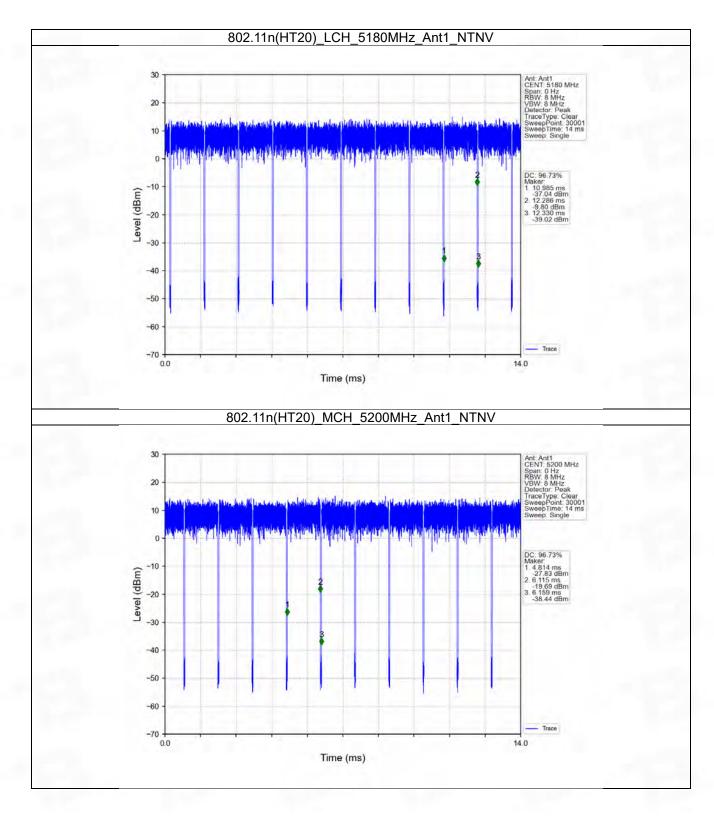
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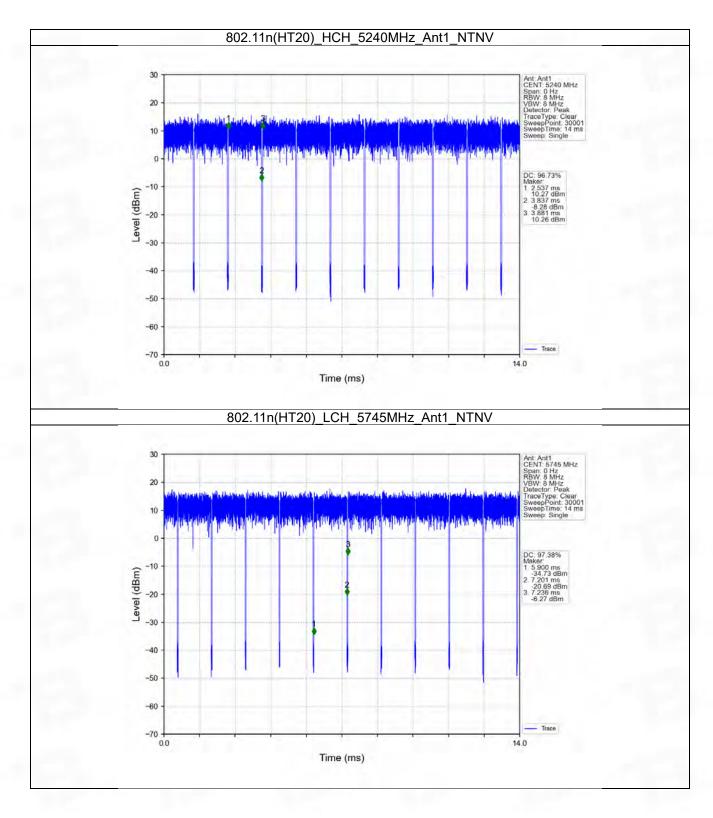
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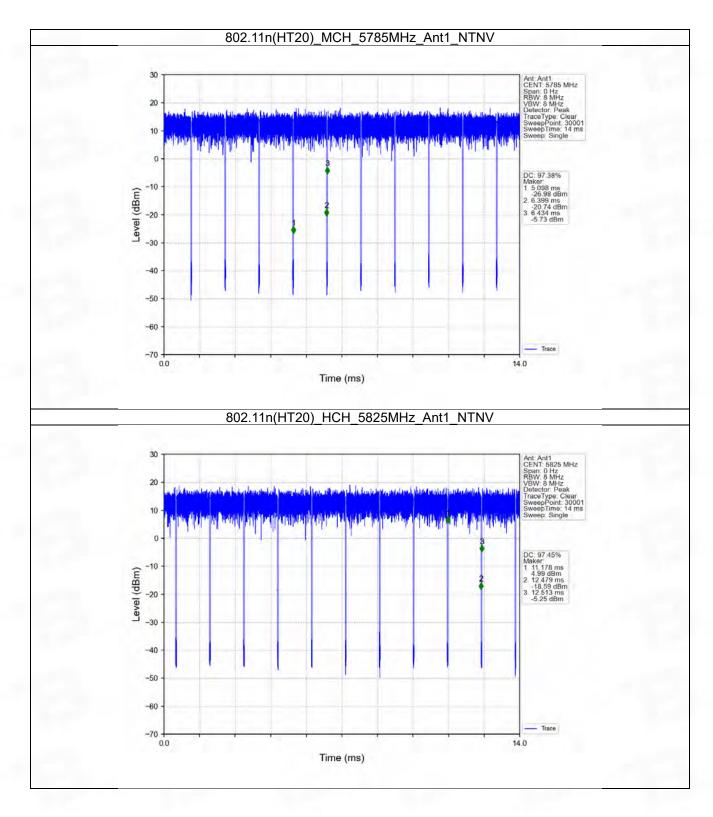
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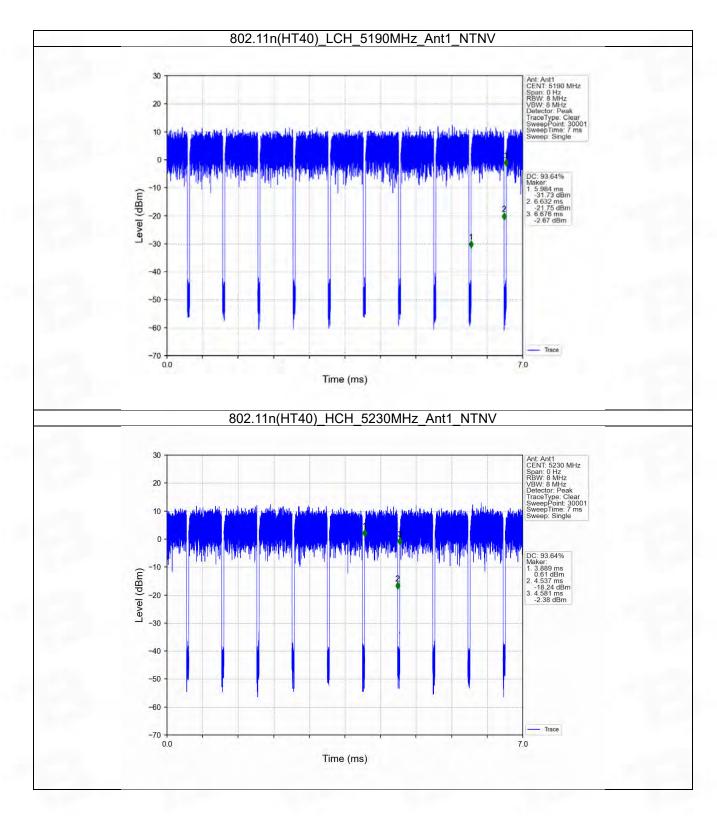




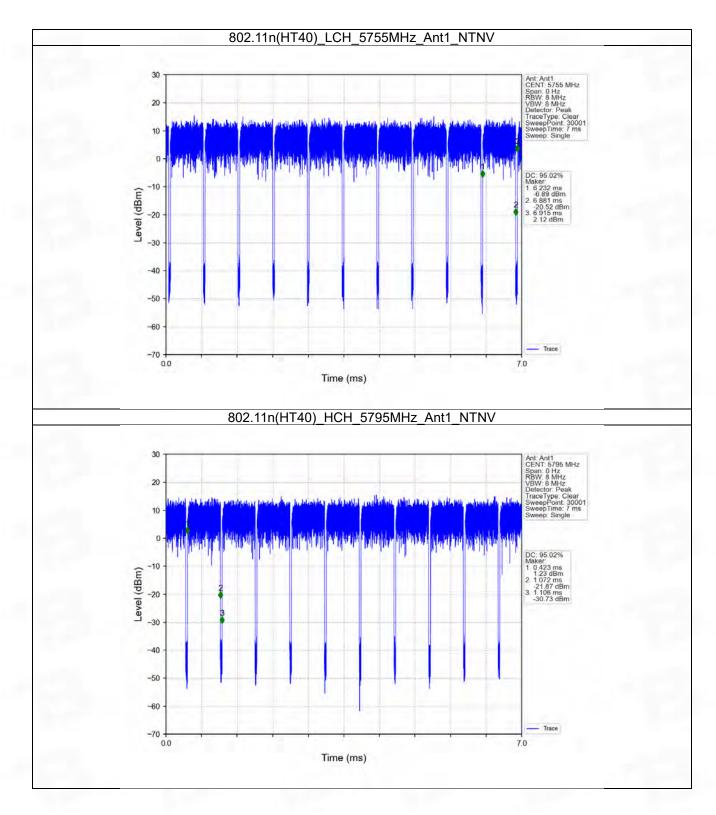
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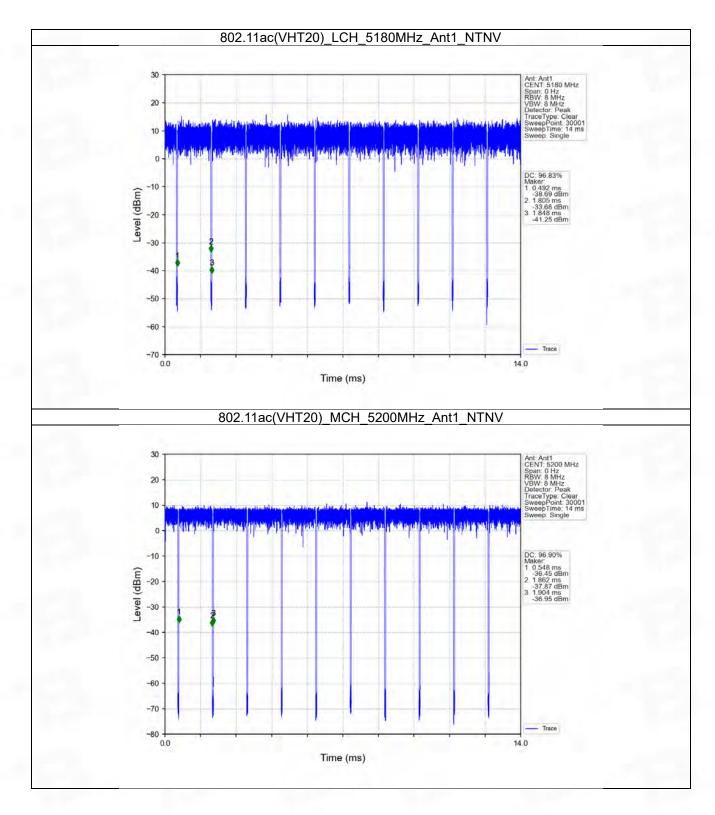




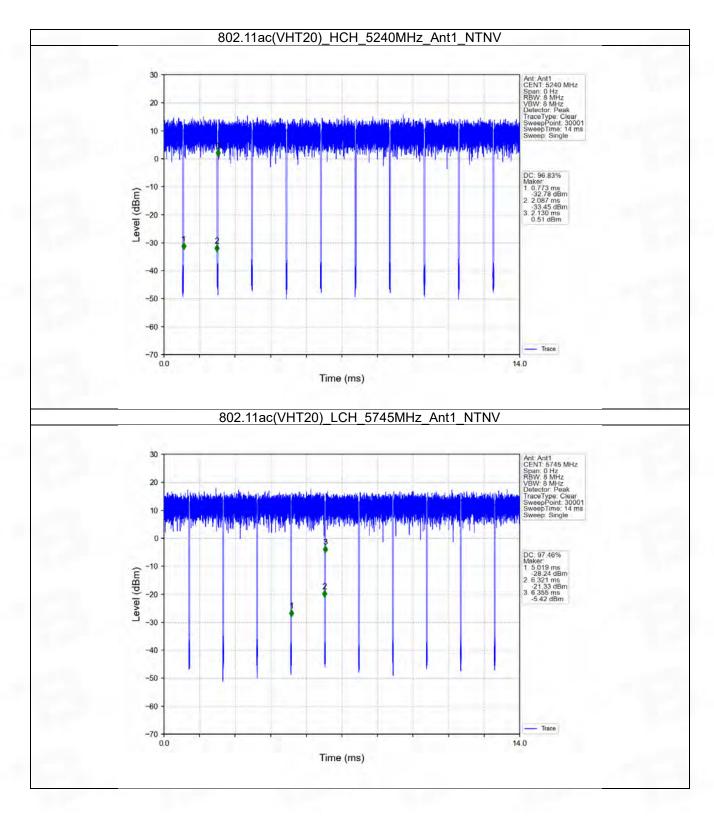






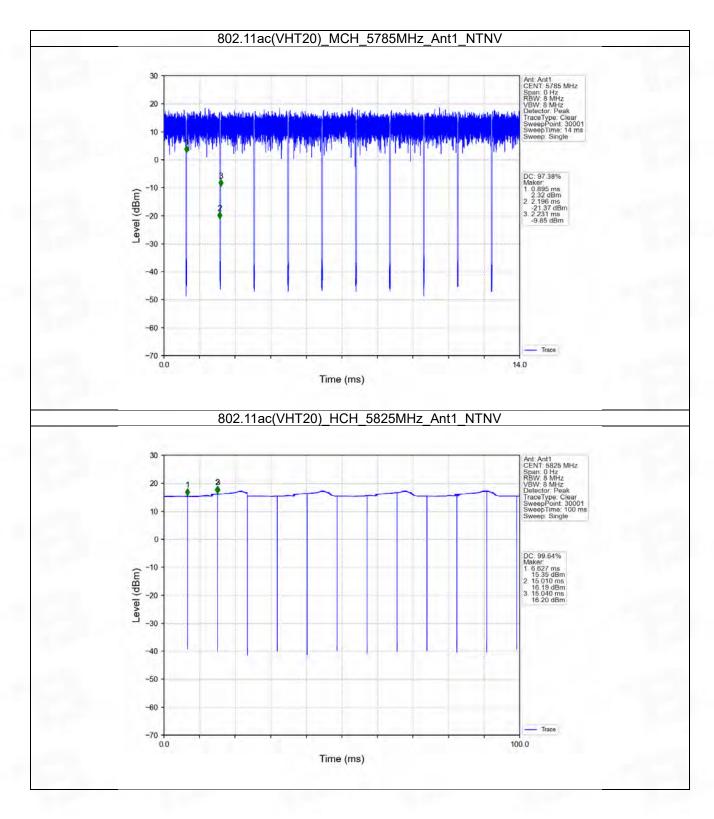






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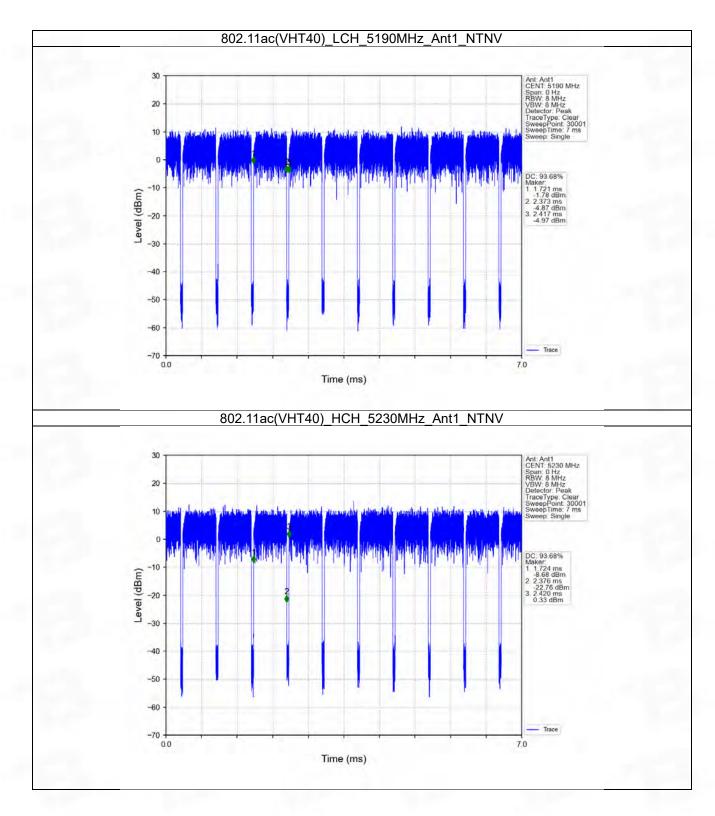




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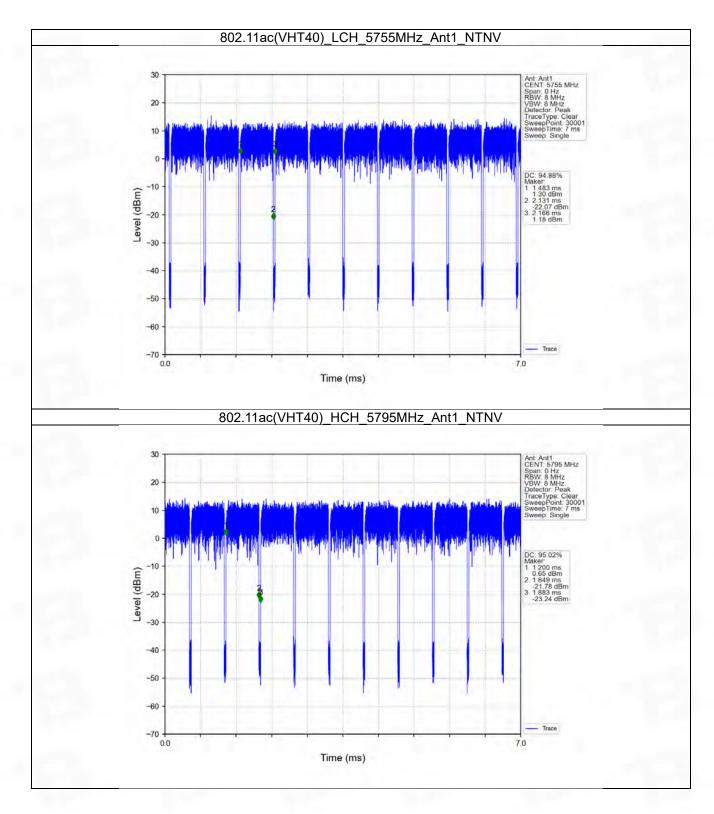
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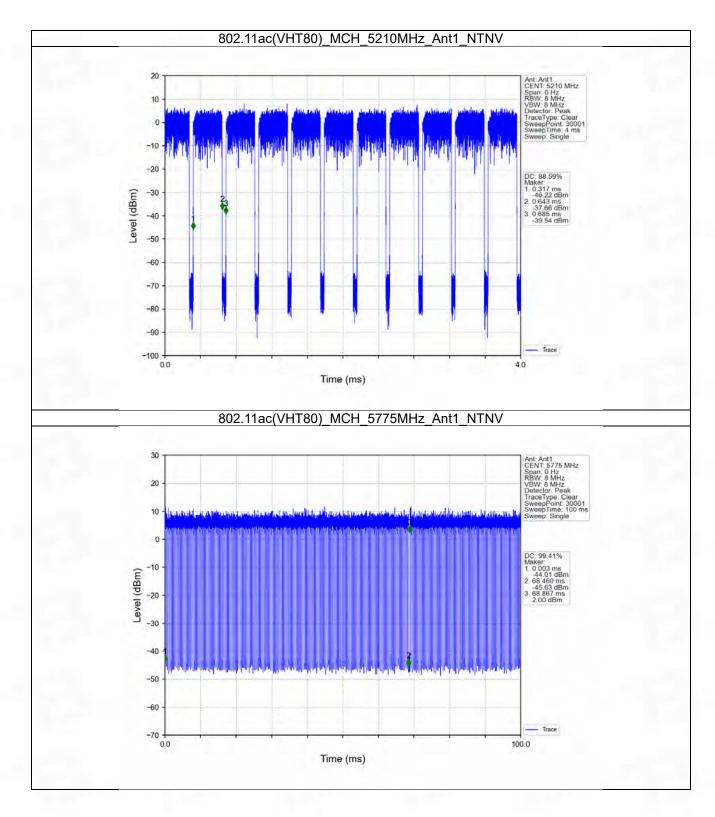
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# 2. Bandwidth

# 2.1 OBW

# 2.1.1 Test Result

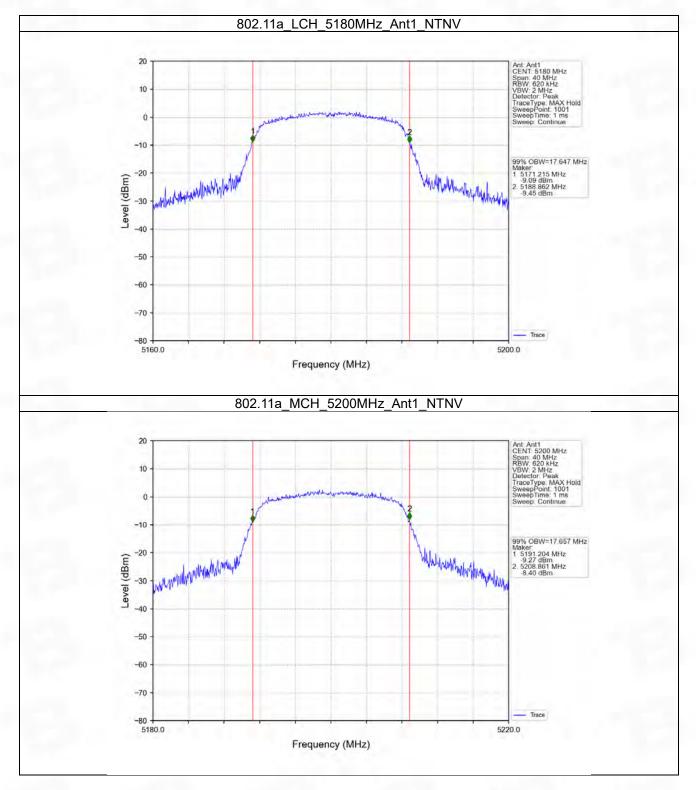
Mode	TX	Frequency (MHz)	ANT	99% Occupied Ba	) ( a mali a f	
	Туре			Result	Limit	Verdict
	SISO	5180	1	17.647	1	Pass
		5200	1	17.657	/	Pass
000 11-		5240	1	17.603	1	Pass
802.11a		5745	1	17.674	1	Pass
		5785	1	17.568	/	Pass
		5825	1	17.494	1	Pass
802.11n (HT20)	SISO	5180	1	18.537	/	Pass
		5200	1	18.576	1	Pass
		5240	1	18.586	1	Pass
		5745	1	18.459	/	Pass
. ,		5785	1	18.280	/	Pass
		5825	1	18.218	/	Pass
	SISO	5190	1	37.271	/	Pass
802.11n		5230	1	37.255	1	Pass
(HT40)		5755	1	36.955	1	Pass
· · ·		5795	1	36.723	/	Pass
	SISO	5180	1	18.352	/	Pass
		5200	1	18.382	1	Pass
802.11ac		5240	1	18.501	1	Pass
(VHT20)		5745	1	18.365	/	Pass
		5785	1	18.242	/	Pass
		5825	1	12.511	1	Pass
802.11ac (VHT40)	SISO	5190	1	36.605	/	Pass
		5230	1	36.695	1	Pass
		5755	1	36.886	/	Pass
		5795	1	36.661	/	Pass
802.11ac (VHT80)	SISO	5210	1	76.243	/	Pass
		5775	1	75.874	/	Pass

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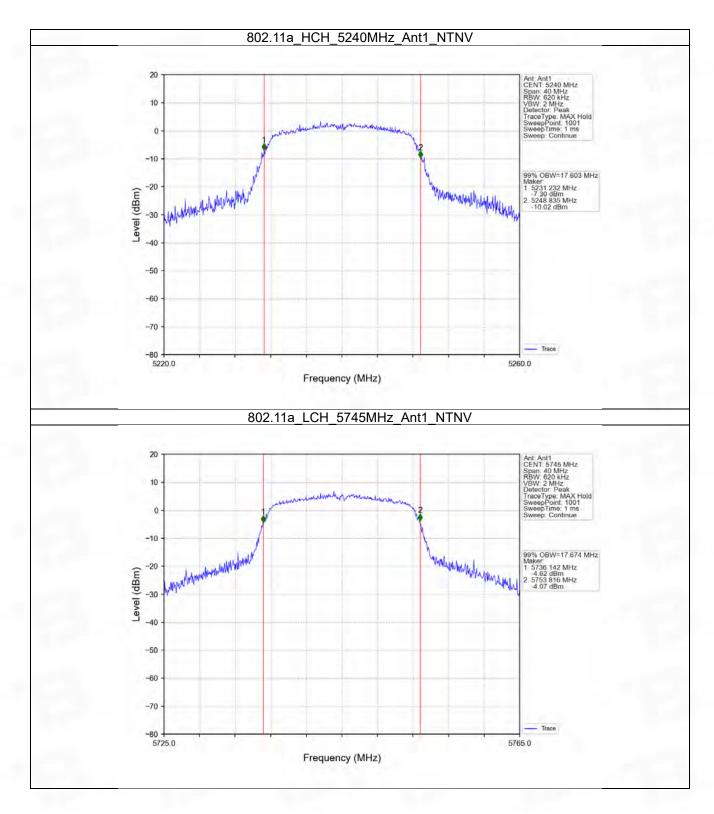


# 2.1.2 Test Graph



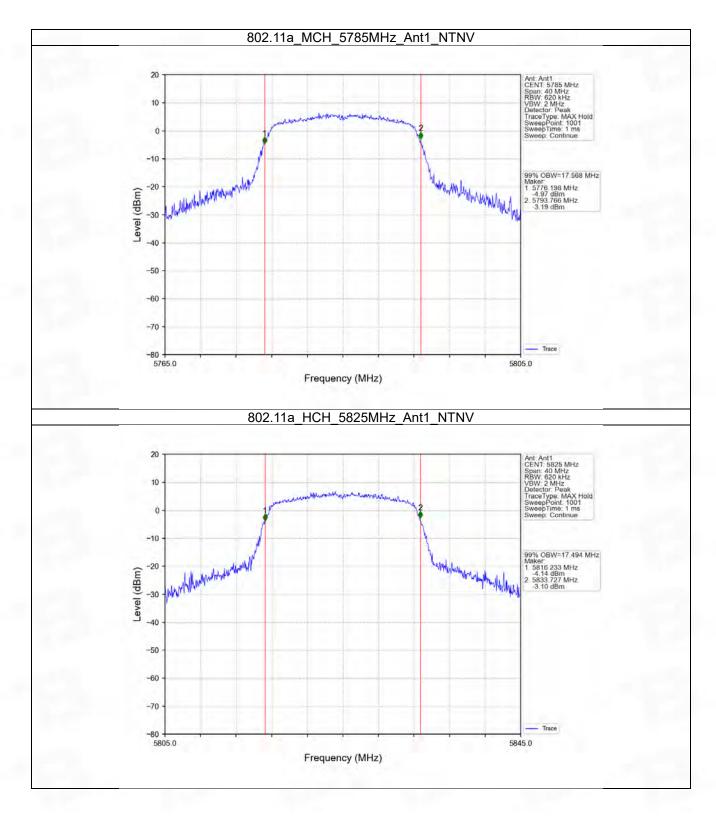
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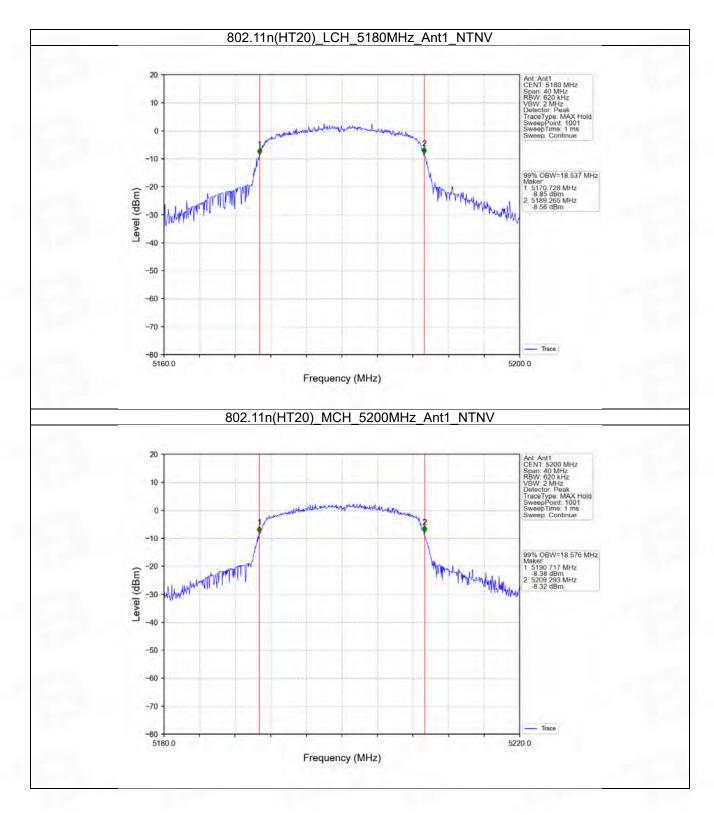
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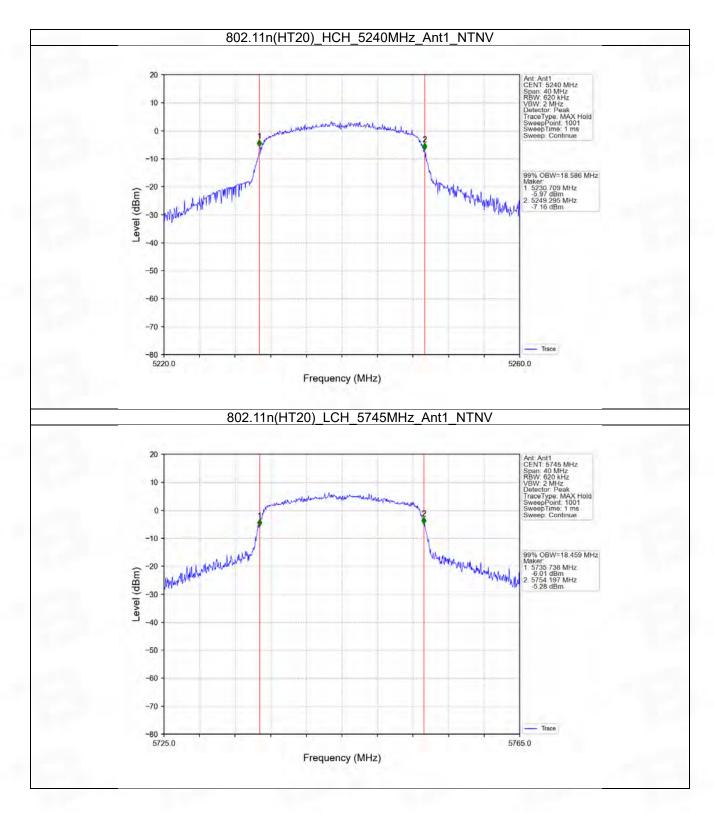


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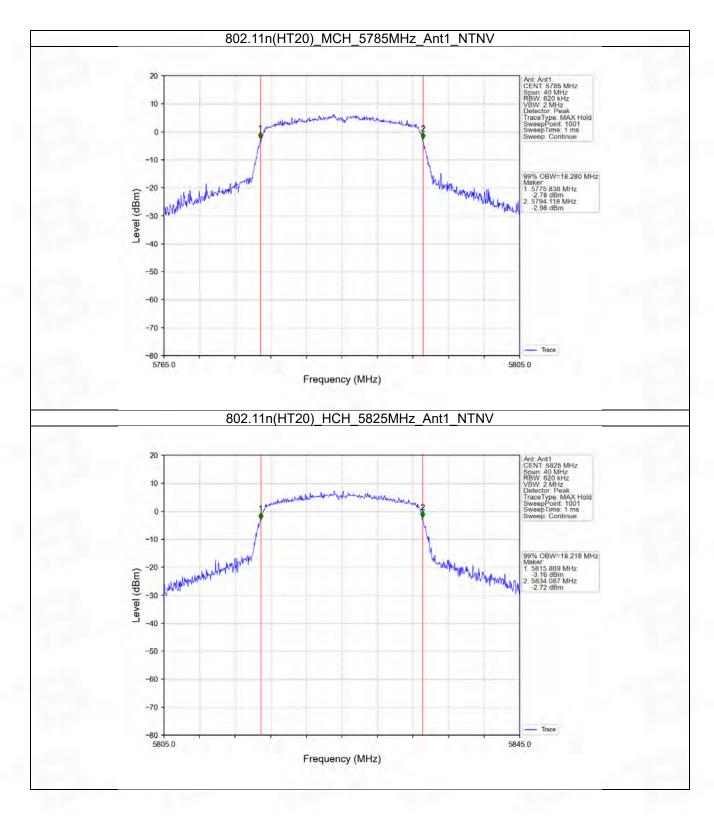




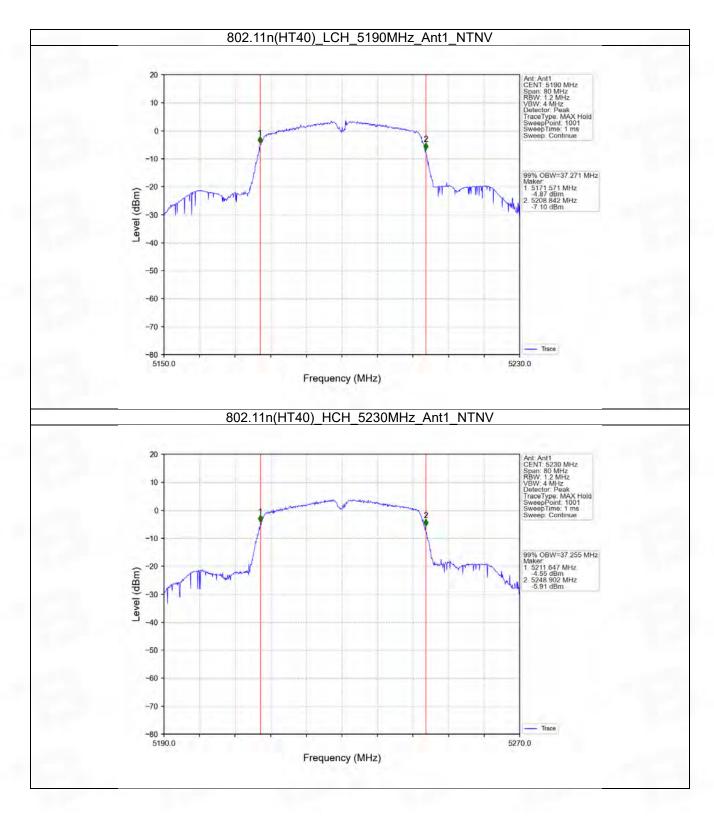






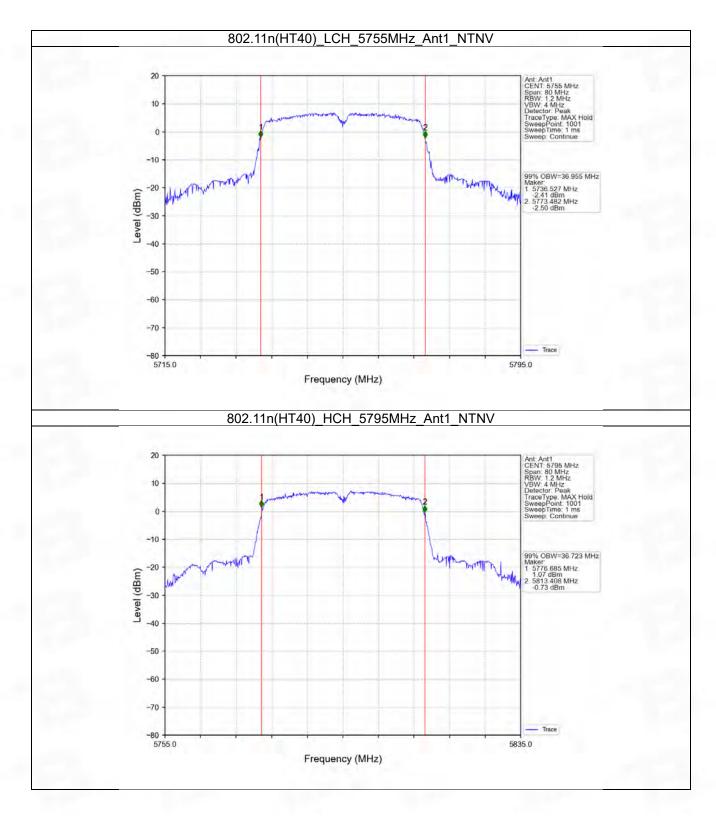






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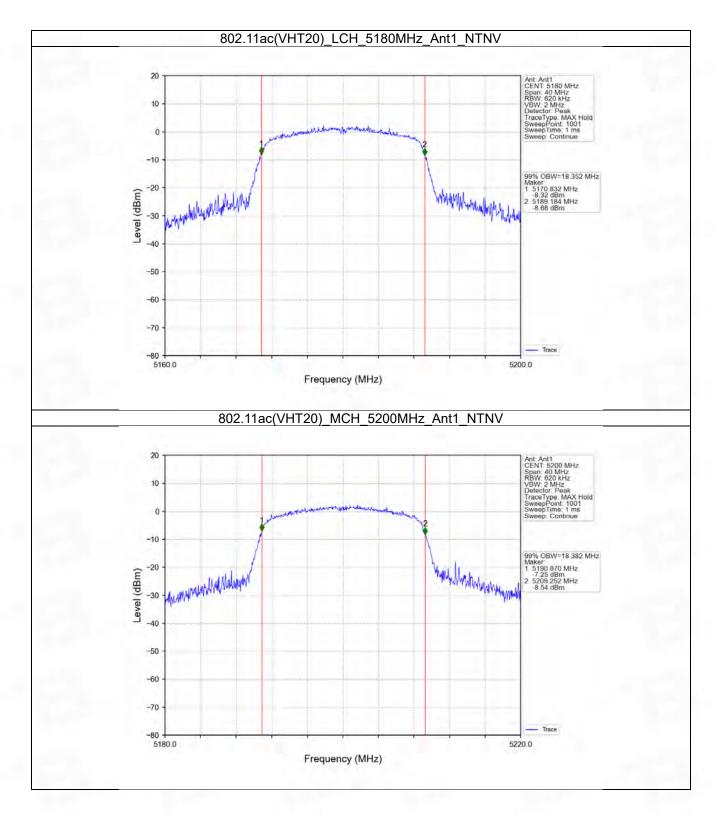




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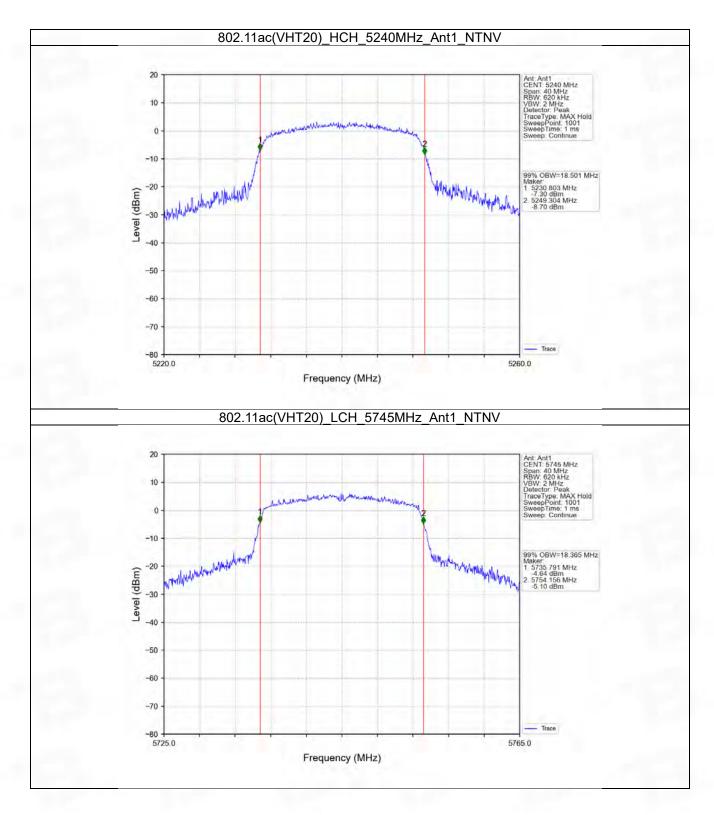
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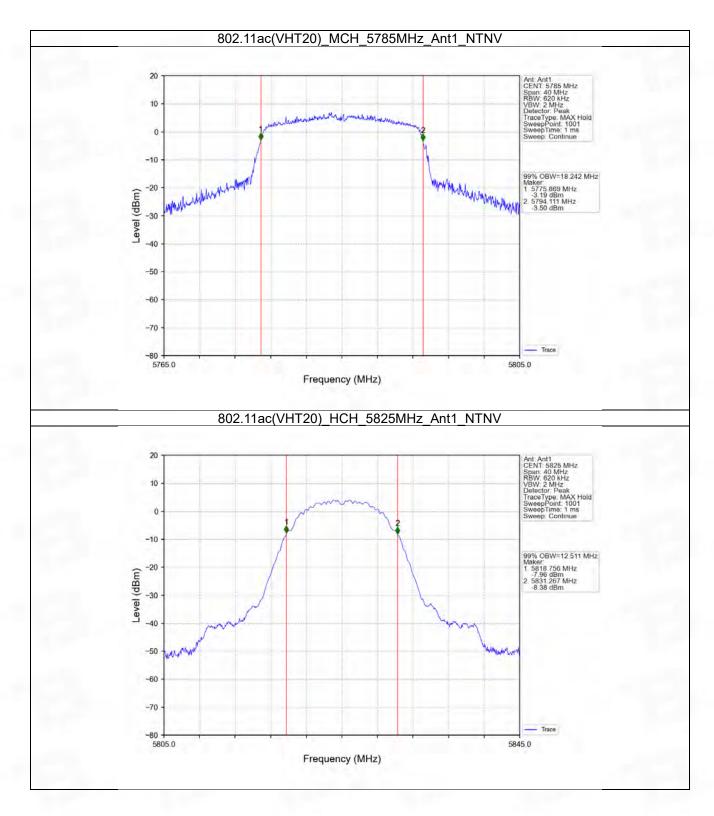


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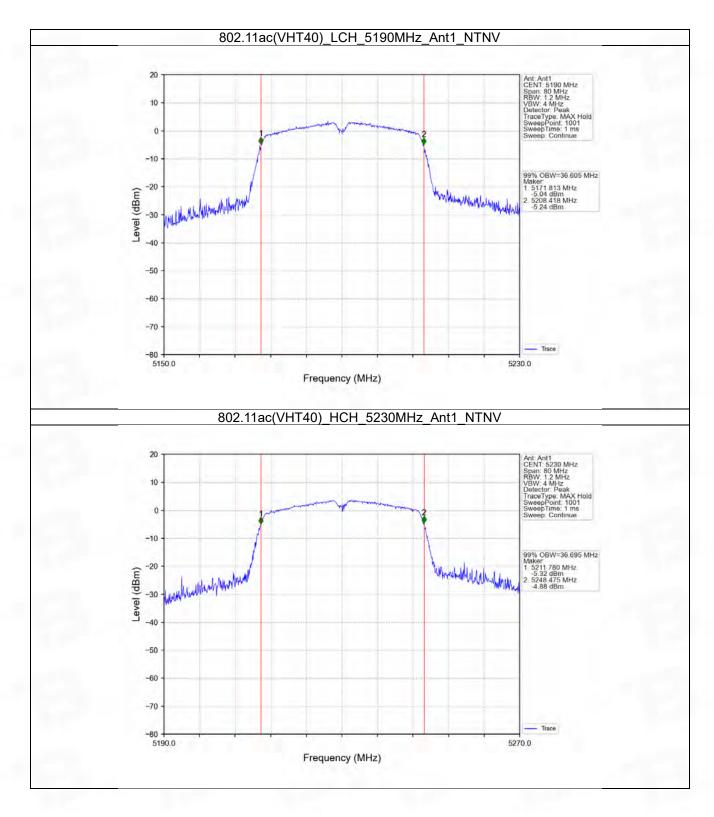




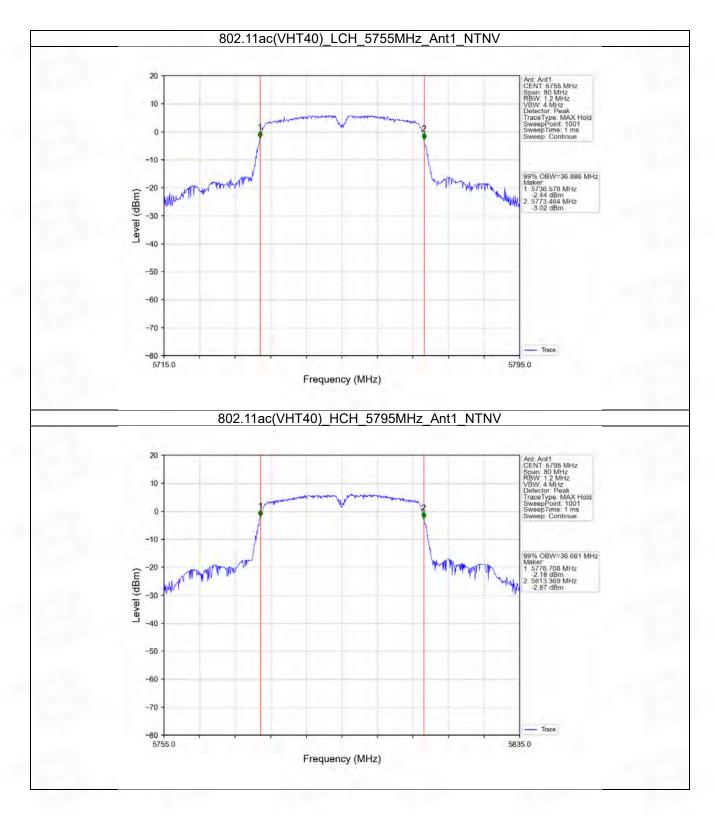


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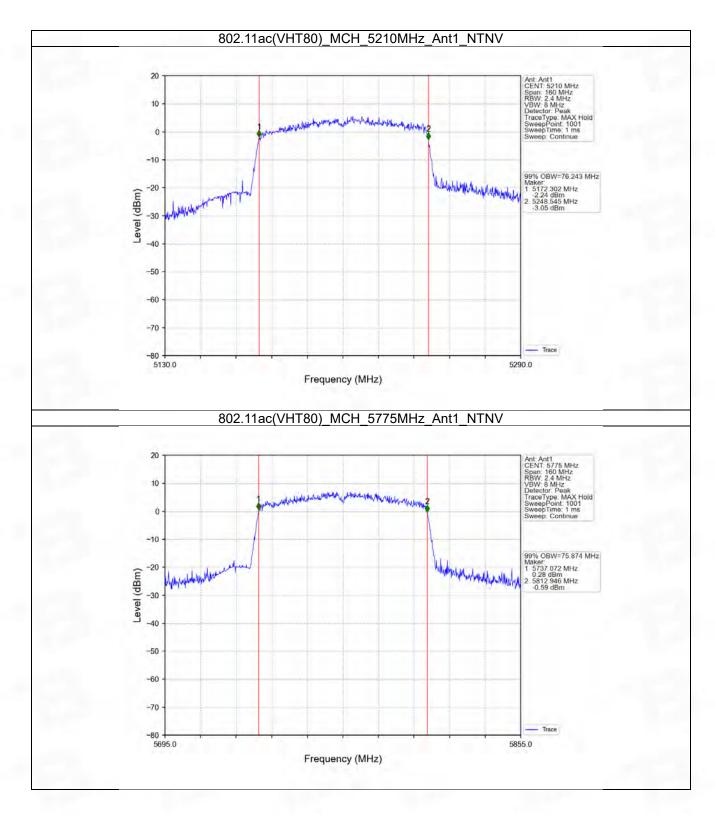












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# 2.2 6dB BW

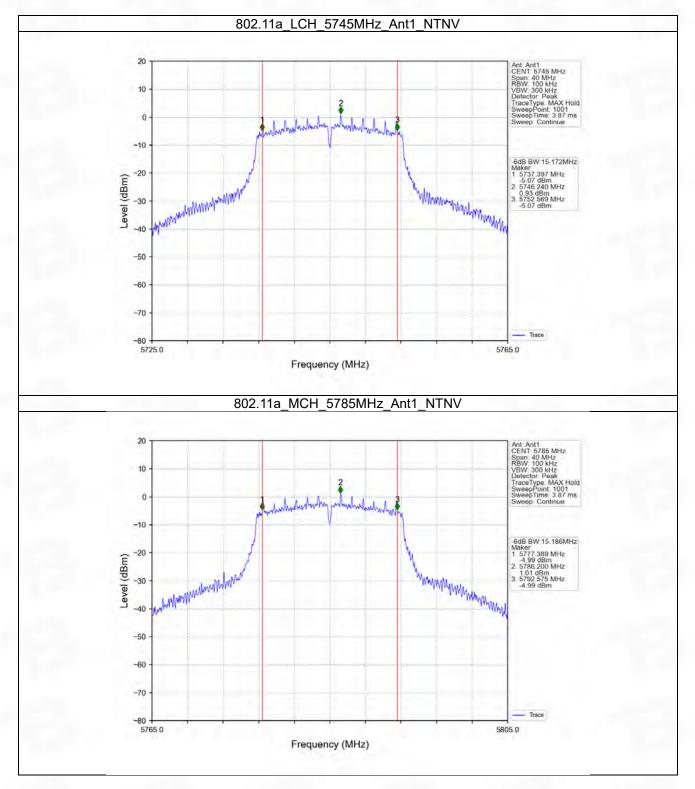
## 2.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Vardiat
				Result	Limit	Verdict
802.11a	SISO	5745	1	15.172	>=0.5	Pass
		5785	1	15.186	>=0.5	Pass
		5825	1	15.190	>=0.5	Pass
802.11n (HT20)	SISO	5745	1	15.177	>=0.5	Pass
		5785	1	15.345	>=0.5	Pass
(11120)		5825	1	15.173	>=0.5	Pass
802.11n (HT40)	SISO	5755	1	35.191	>=0.5	Pass
		5795	1	35.211	>=0.5	Pass
802.11ac	SISO	5745	1	15.123	>=0.5	Pass
(VHT20)		5785	1	15.176	>=0.5	Pass
(VH120)		5825	1	9.095	>=0.5	Pass
802.11ac (VHT40)	SISO	5755	1	35.215	>=0.5	Pass
		5795	1	35.218	>=0.5	Pass
802.11ac (VHT80)	SISO	5775	1	75.156	>=0.5	Pass

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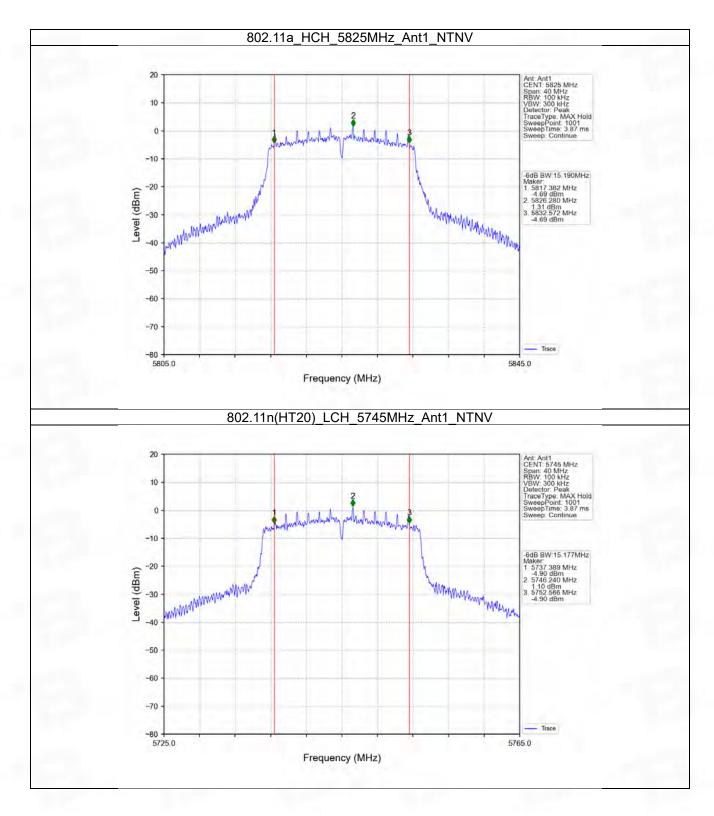


#### 2.2.2 Test Graph



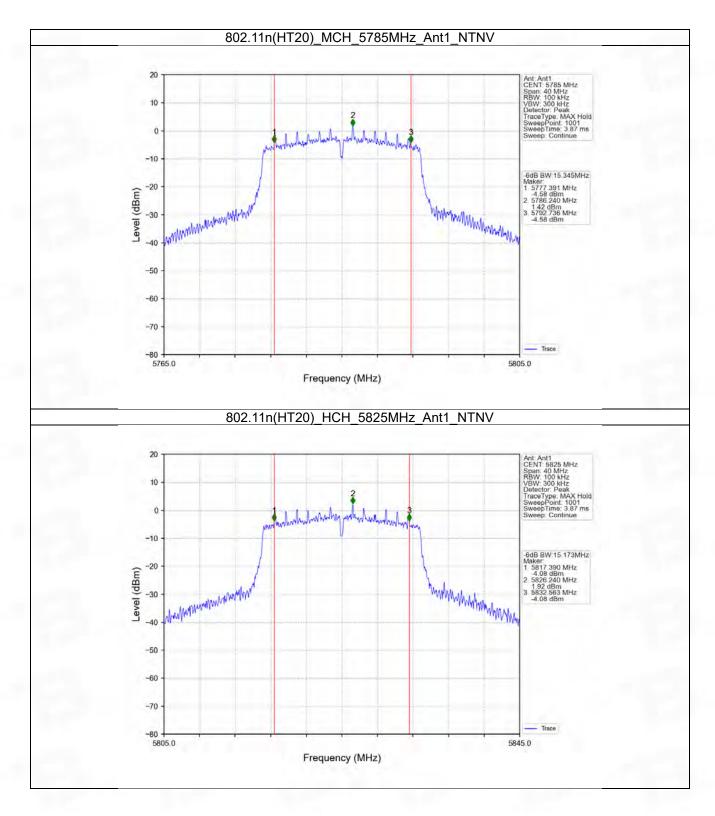
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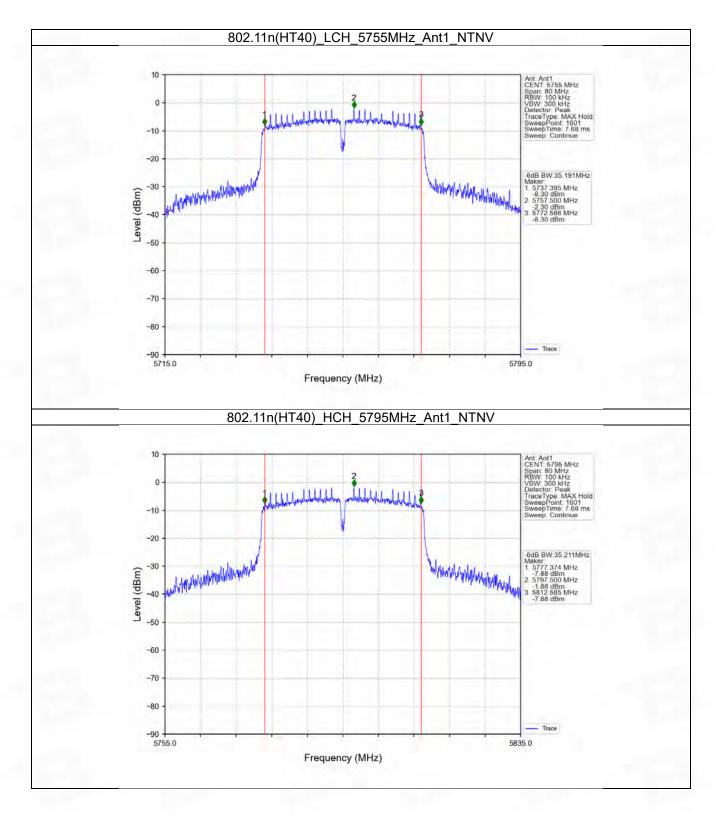


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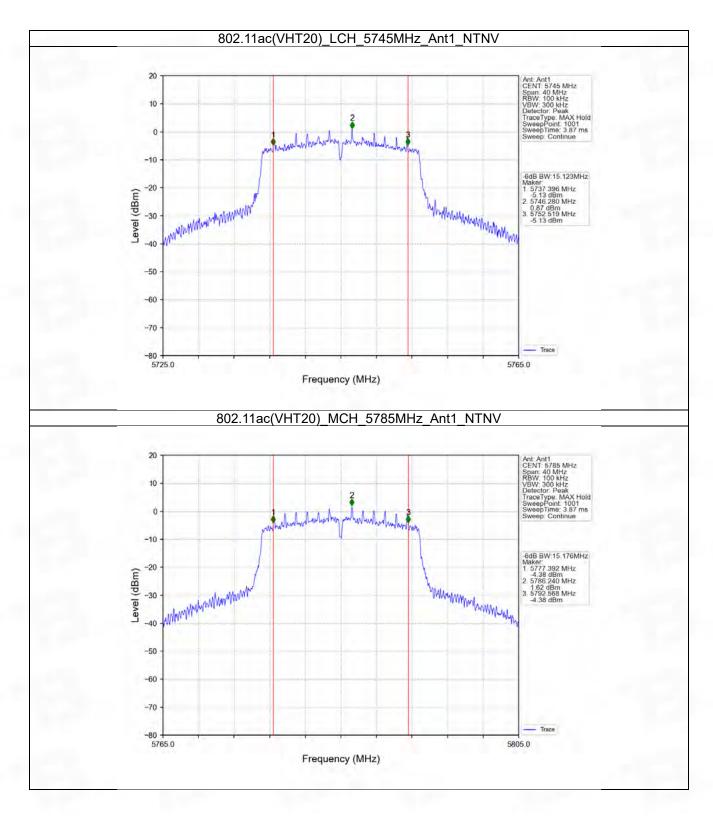




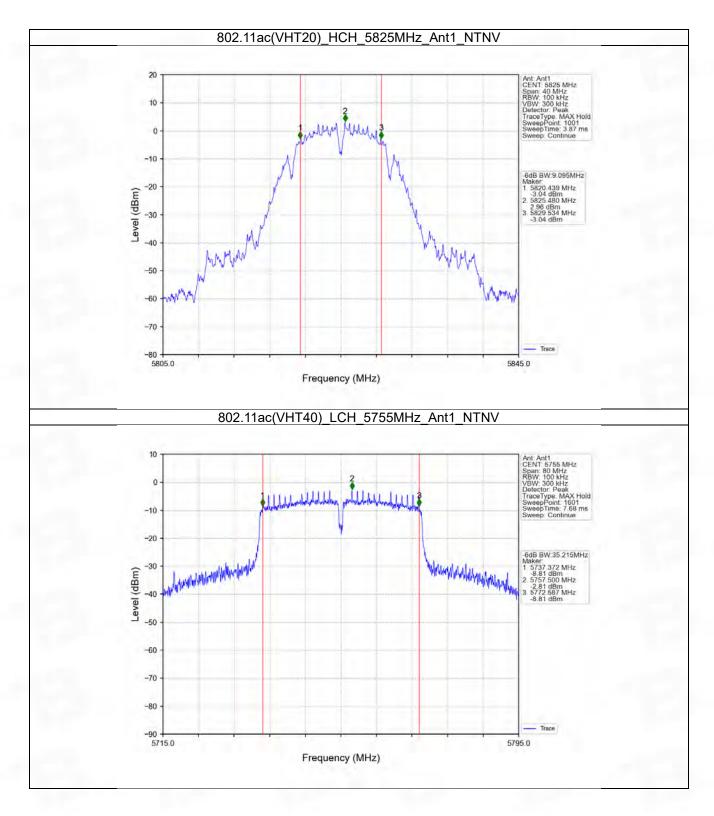




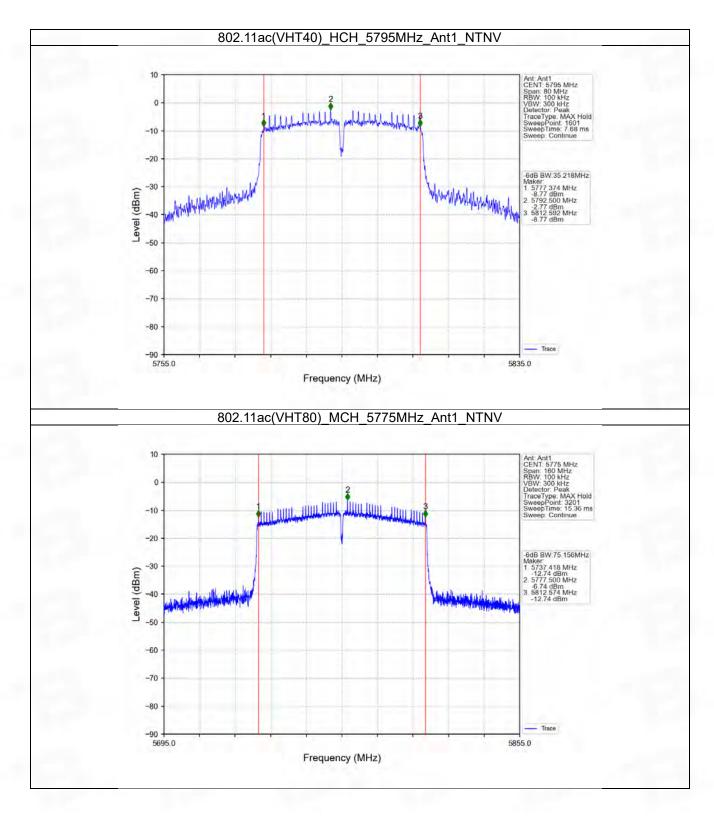














# 2.3 26dB BW

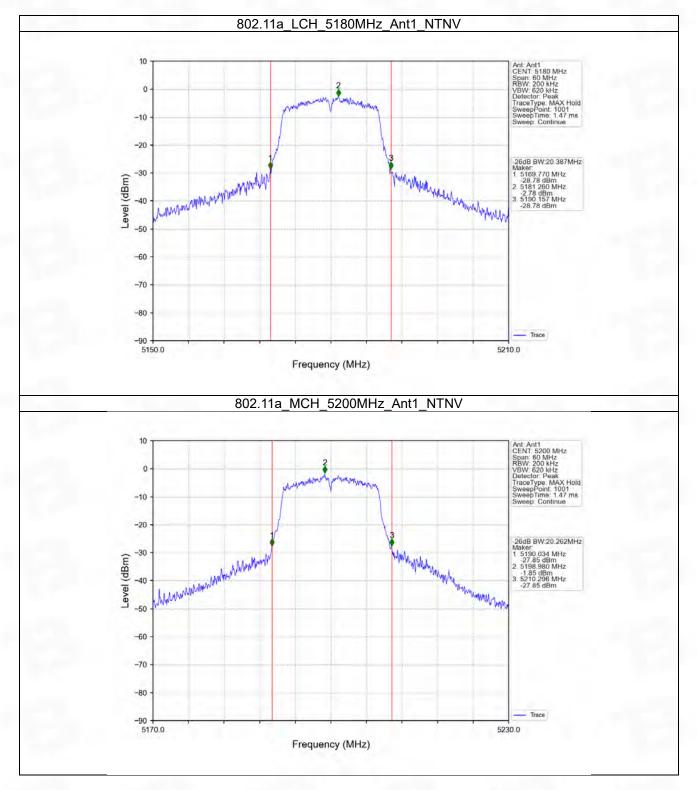
### 2.3.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT -	26dB Bandwidth (MHz)		Vordiat
				Result	Limit	Verdict
802.11a	SISO	5180	1	20.387	/	Pass
		5200	1	20.262	1	Pass
		5240	1	21.026	/	Pass
802.11n (HT20)	SISO	5180	1	22.191	/	Pass
		5200	1	22.857	1	Pass
		5240	1	22.687	/	Pass
802.11n (HT40)	SISO	5190	1	53.550	1	Pass
		5230	1	53.438	1	Pass
802.11ac (VHT20)	SISO	5180	1	20.314	1	Pass
		5200	1	21.500	1	Pass
		5240	1	20.666	1	Pass
802.11ac (VHT40)	SISO	5190	1	45.886	1	Pass
		5230	1	49.677	1	Pass
802.11ac (VHT80)	SISO	5210	1	116.356	1	Pass

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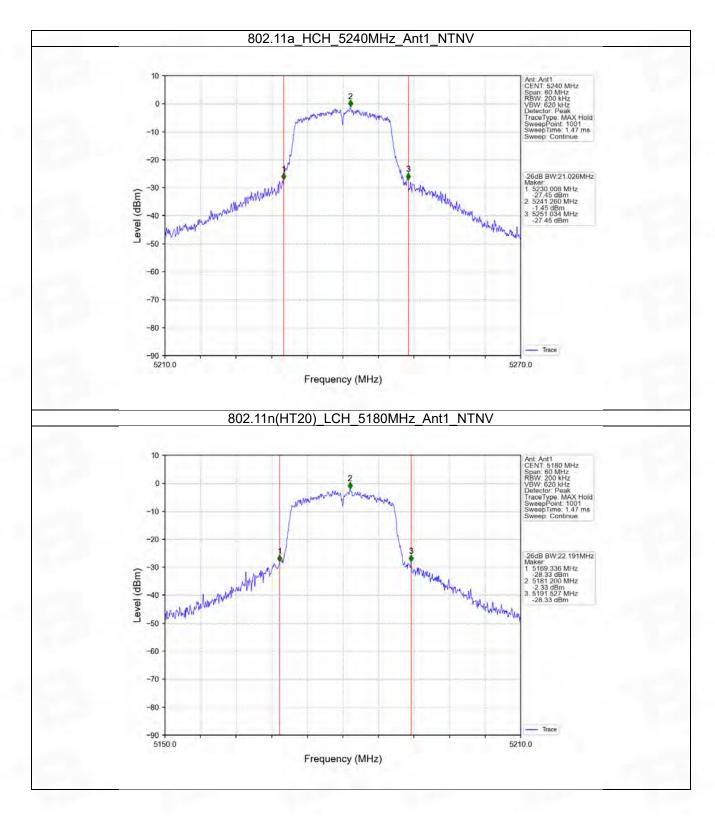


#### 2.3.2 Test Graph



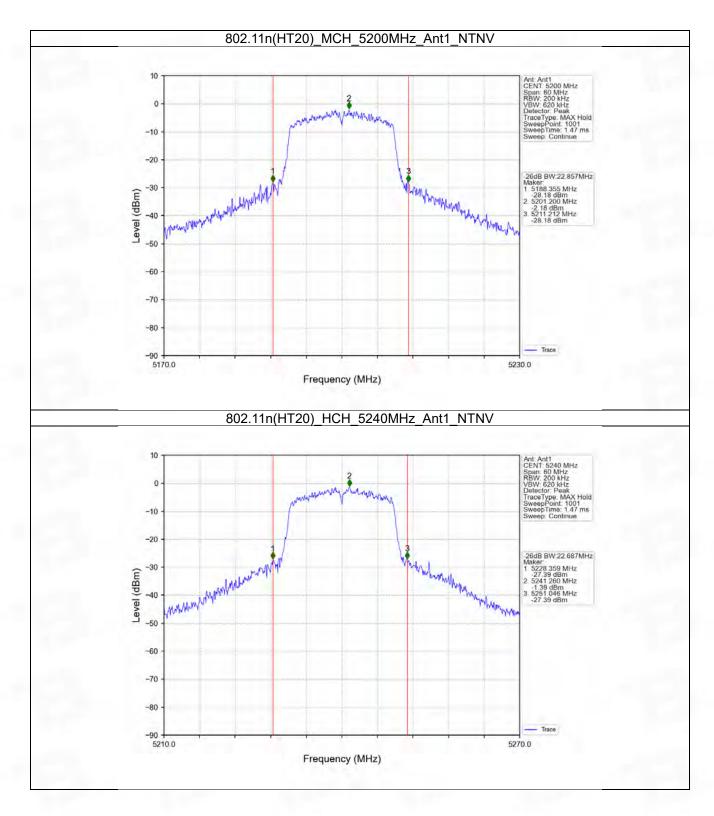
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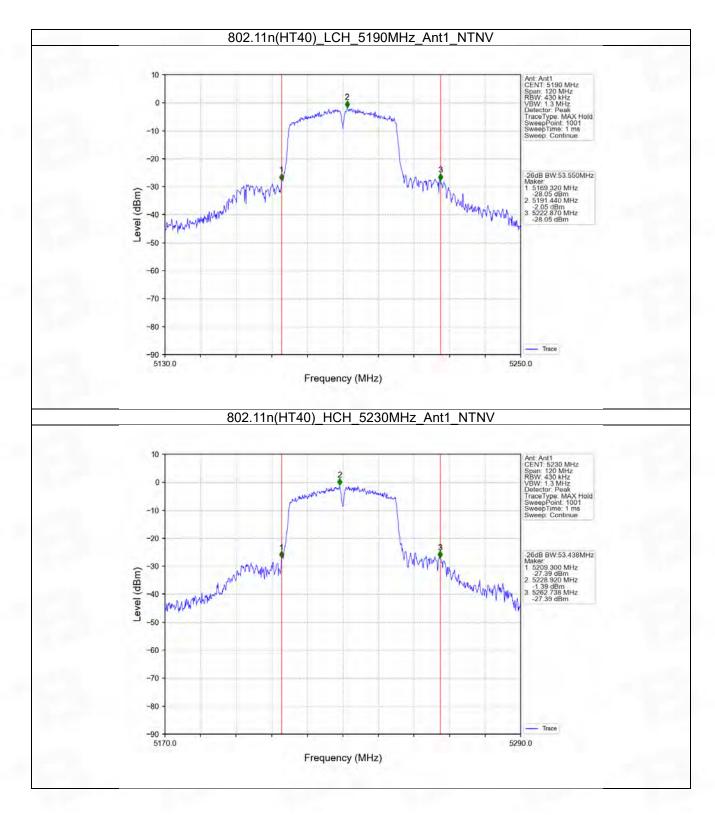
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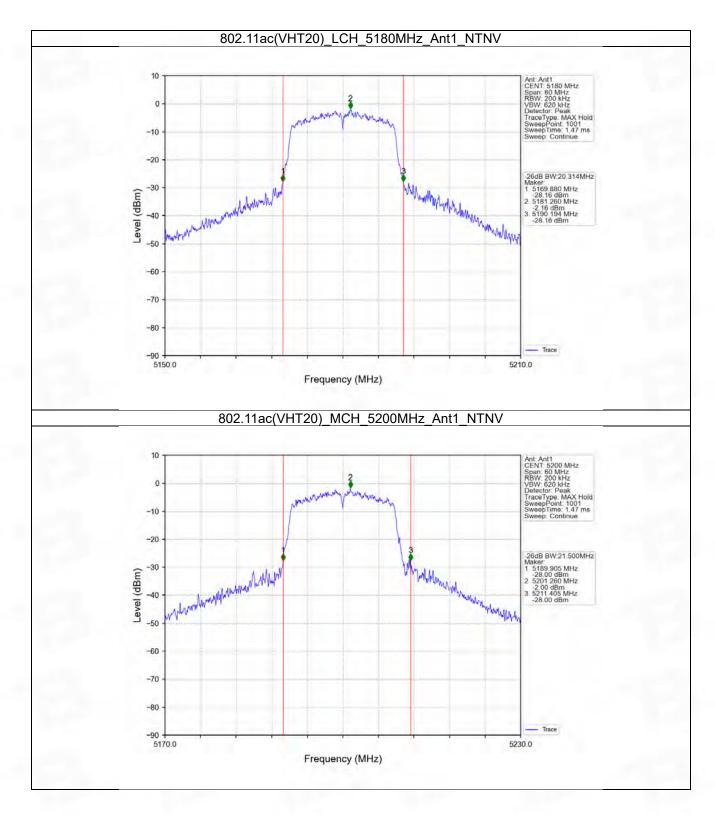
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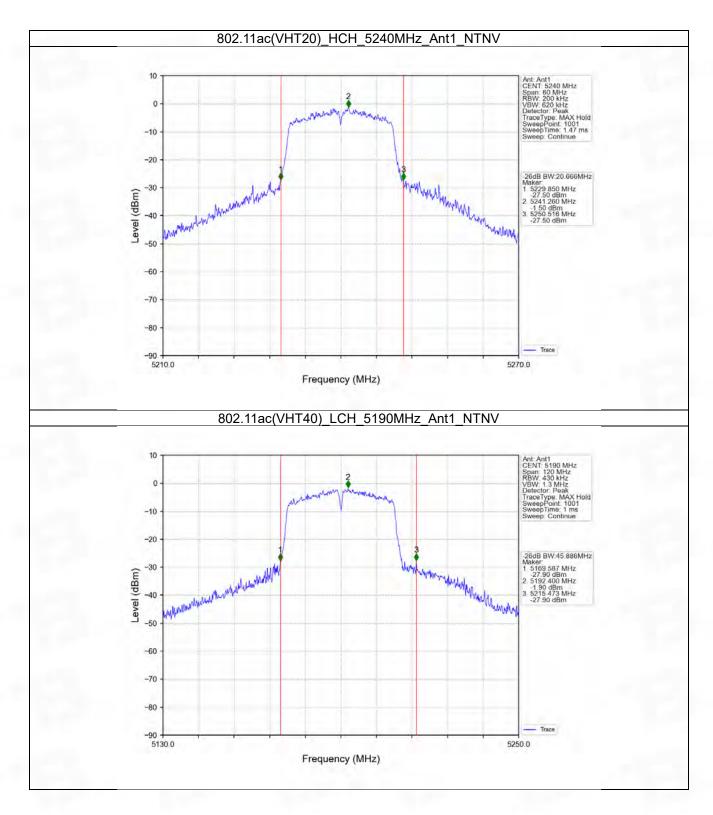
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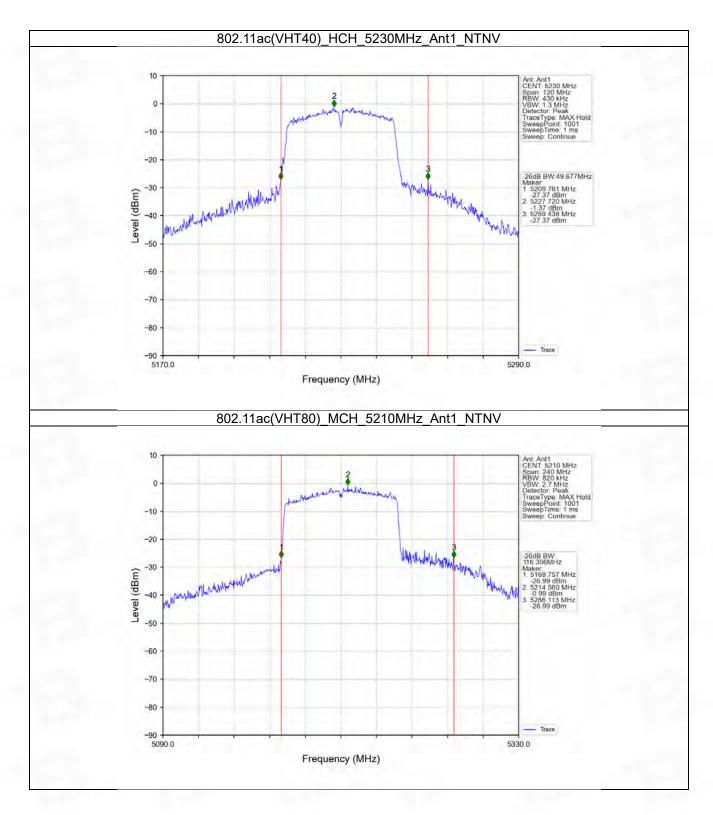


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# 3. Maximum Conducted Output Power

### 3.1 Power

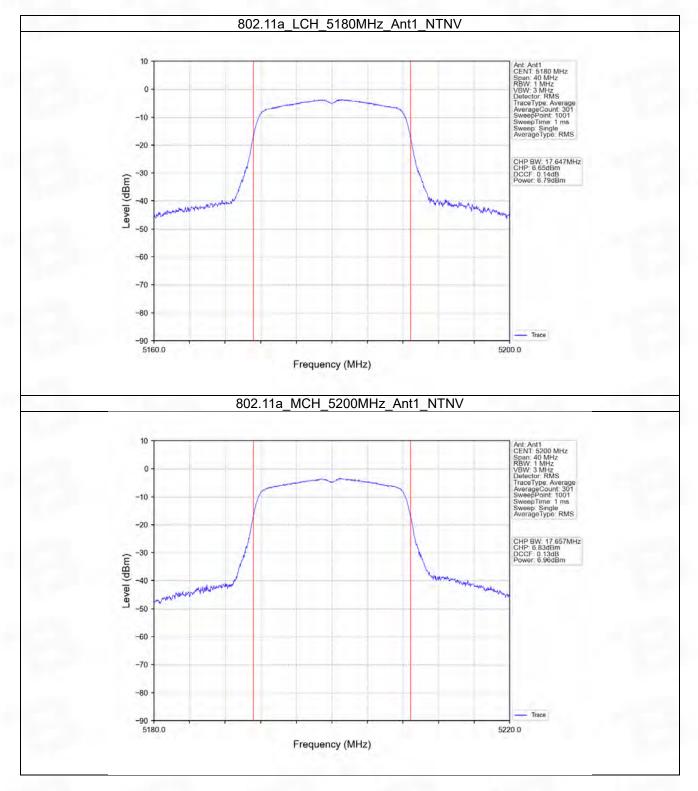
#### 3.1.1 Test Result

Mode	TX	Frequency	Maximum Average Condu	Vordict	
	Туре	(MHz)	ANT1	Limit	Verdict
802.11a	SISO	5180	6.79	<=23.98	Pass
		5200	6.96	<=23.98	Pass
		5240	7.75	<=23.98	Pass
		5745	10.89	<=30	Pass
		5785	11.21	<=30	Pass
		5825	11.48	<=30	Pass
		5180	6.92	<=23.98	Pass
		5200	7.19	<=23.98	Pass
802.11n	0100	5240	7.91	<=23.98	Pass
(HT20)	SISO	5745	10.84	<=30	Pass
	100	5785	11.12	<=30	Pass
		5825	11.75	<=30	Pass
	SISO	5190	7.20	<=23.98	Pass
802.11n (HT40)		5230	7.67	<=23.98	Pass
		5755	11.31	<=30	Pass
		5795	11.67	<=30	Pass
		5180	6.93	<=23.98	Pass
	SISO	5200	7.10	<=23.98	Pass
802.11ac		5240	7.82	<=23.98	Pass
(VHT20)		5745	10.82	<=30	Pass
		5785	11.37	<=30	Pass
		5825	10.76	<=30	Pass
802.11ac (VHT40)	SISO	5190	7.11	<=23.98	Pass
		5230	7.53	<=23.98	Pass
		5755	10.59	<=30	Pass
		5795	10.90	<=30	Pass
802.11ac	0100	5210	7.65	<=23.98	Pass
(VHT80) SISO	5775	8.56	<=30	Pass	
ote1: Antenn	a Gain: Ant1	l: -0.45dBi:			

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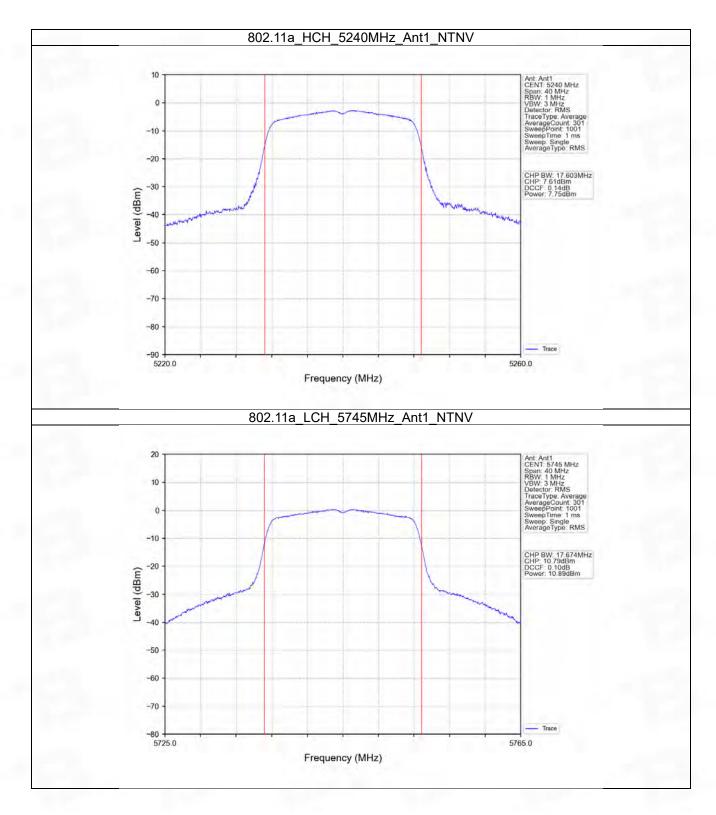


#### 3.1.2 Test Graph

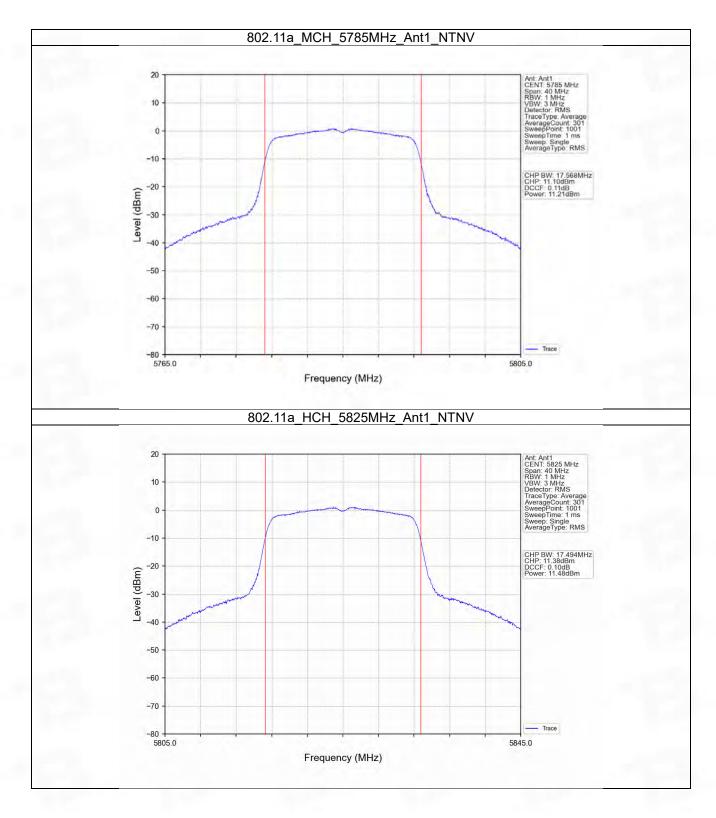


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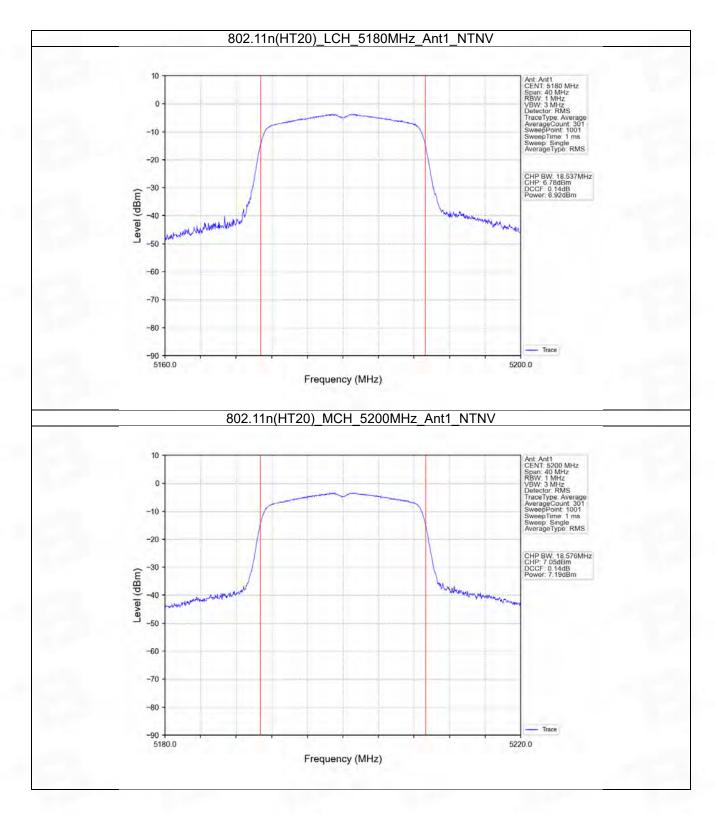






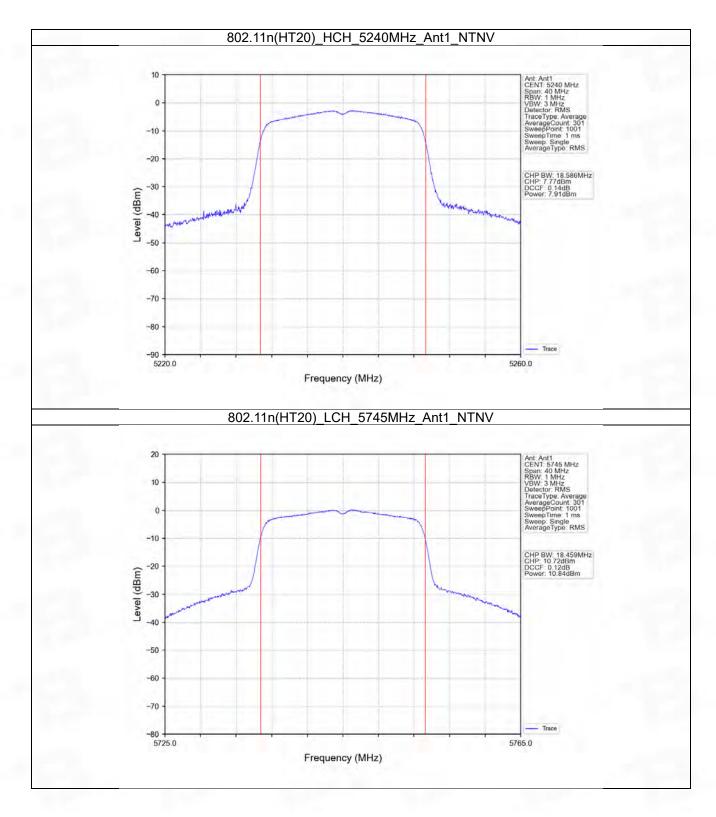
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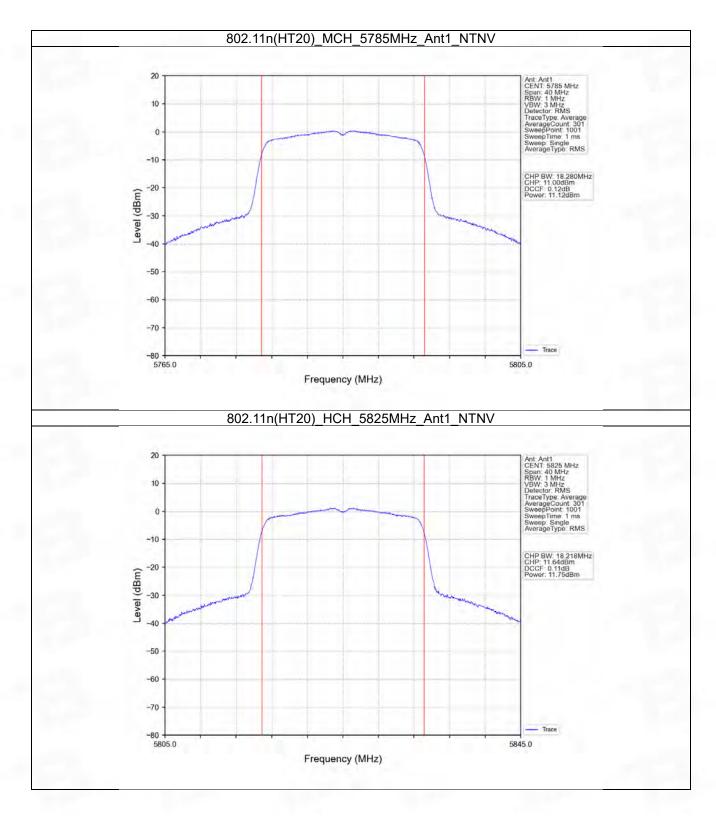


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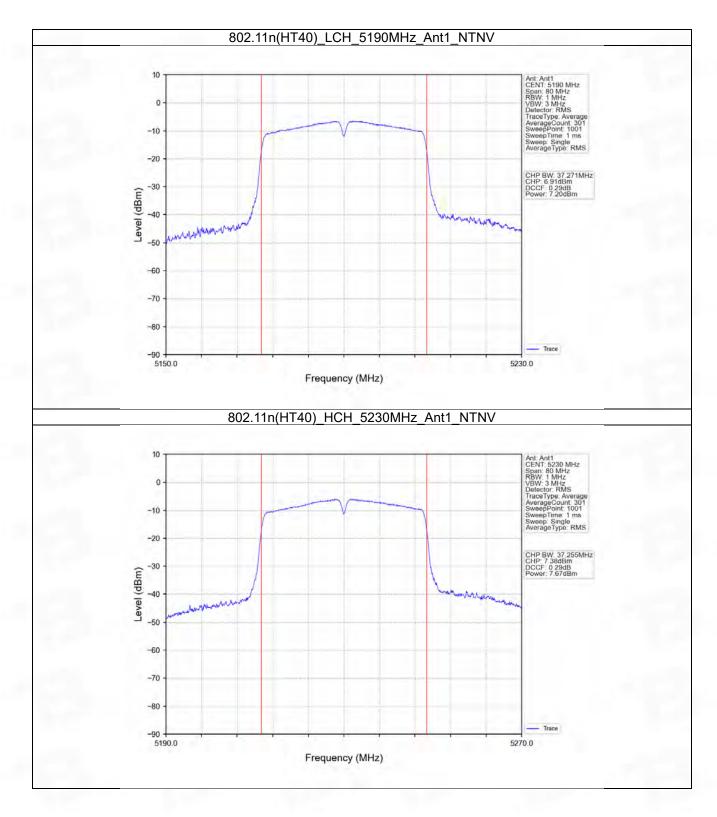






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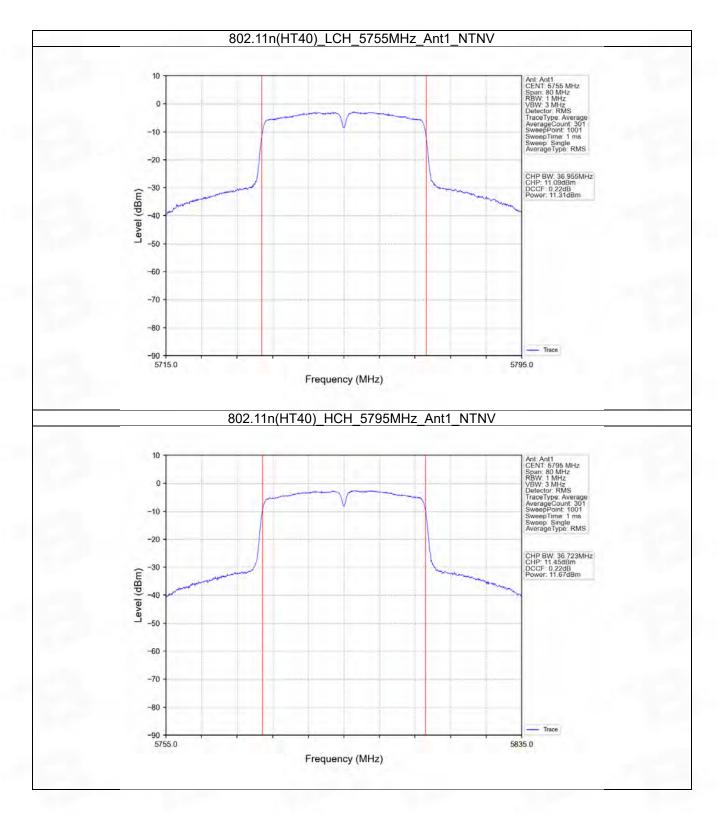




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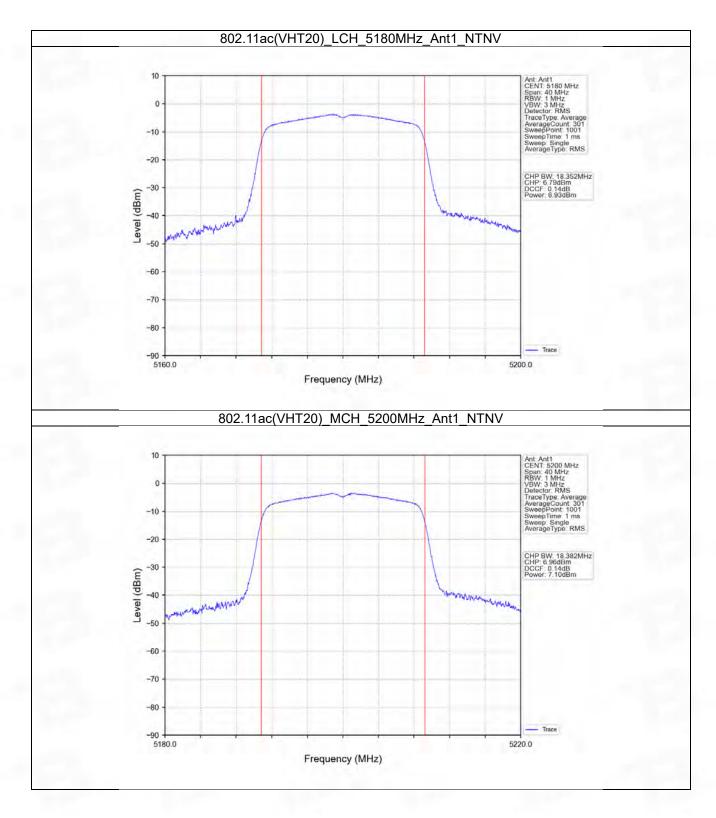
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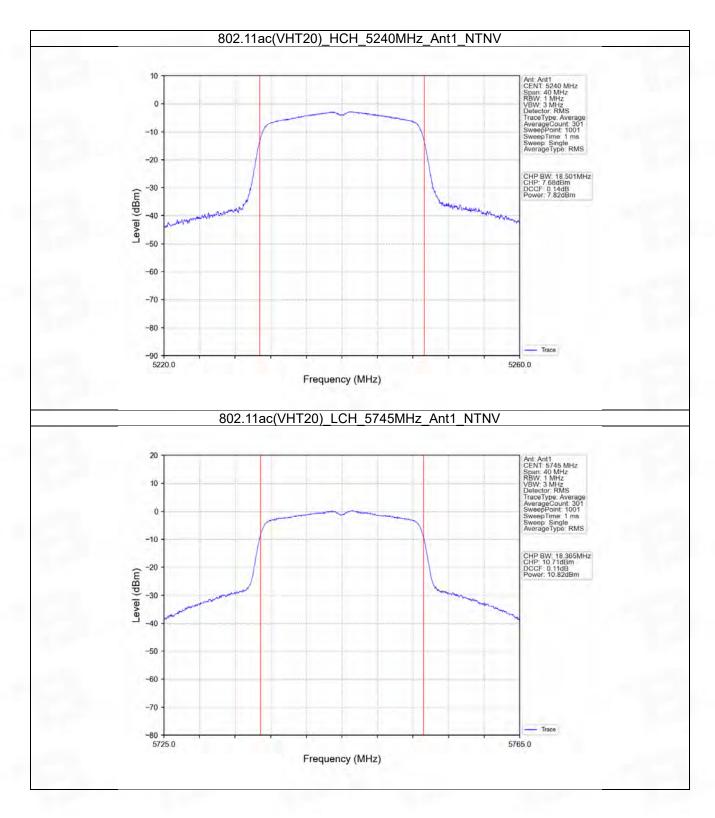
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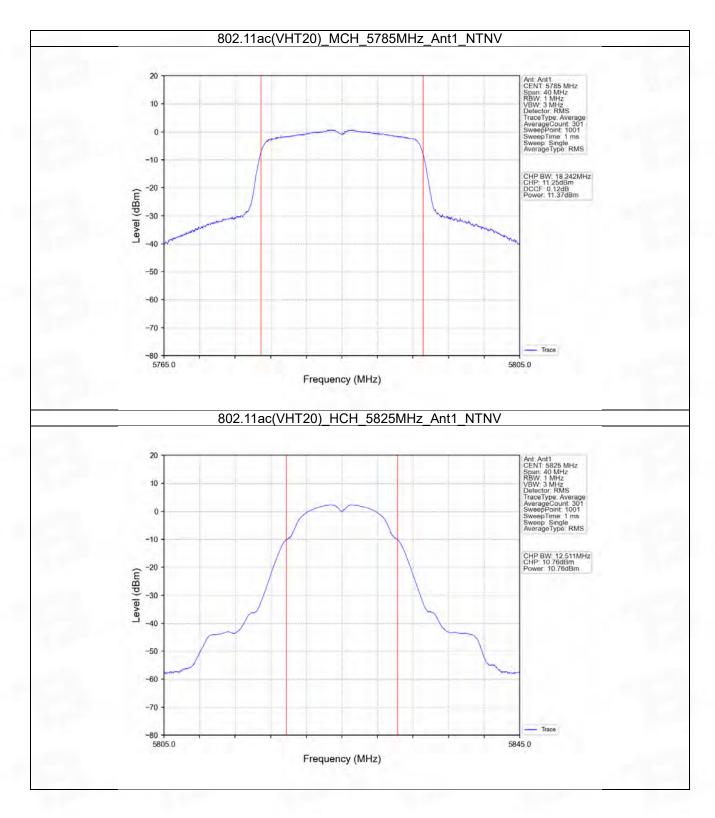
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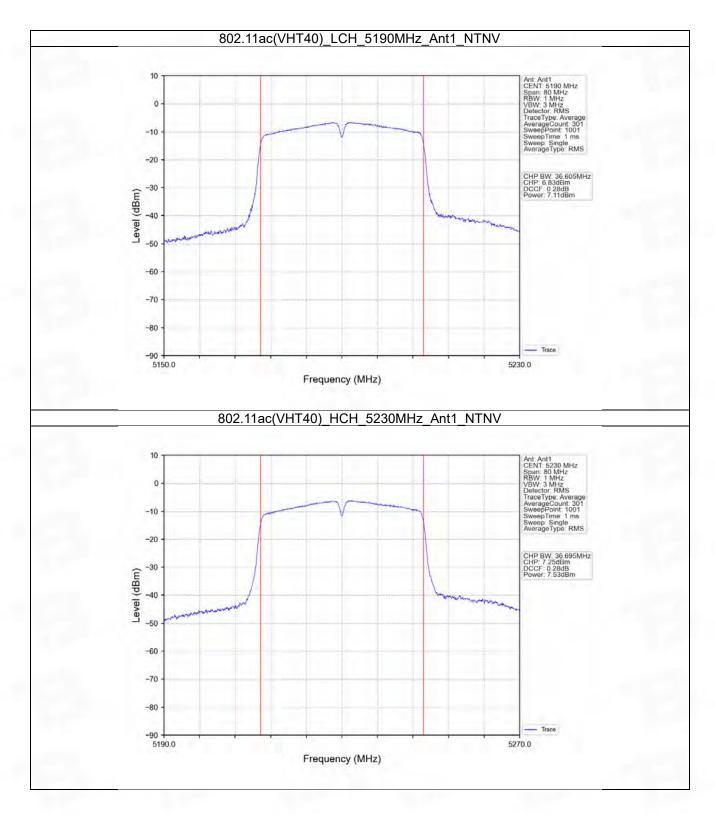


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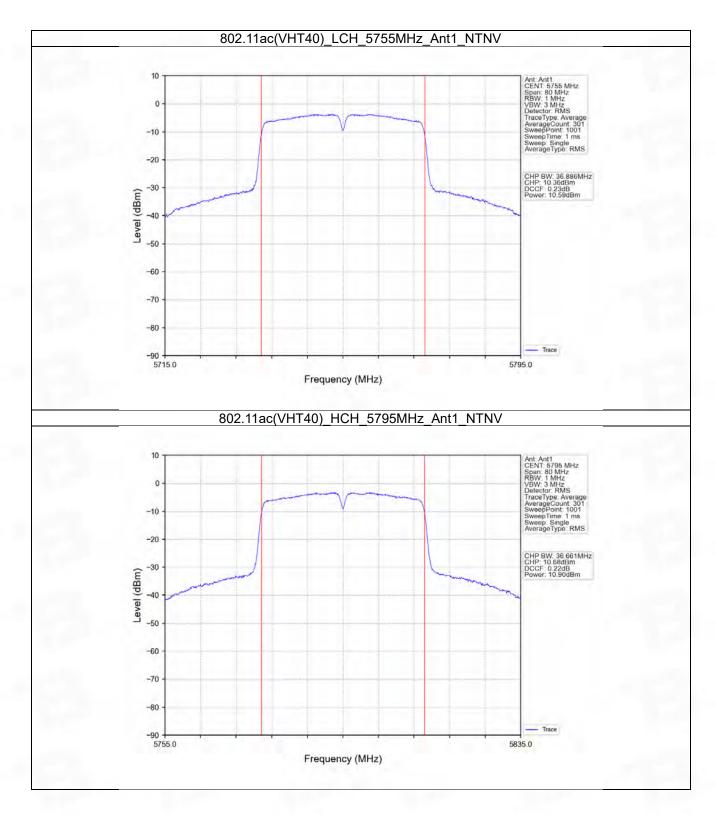






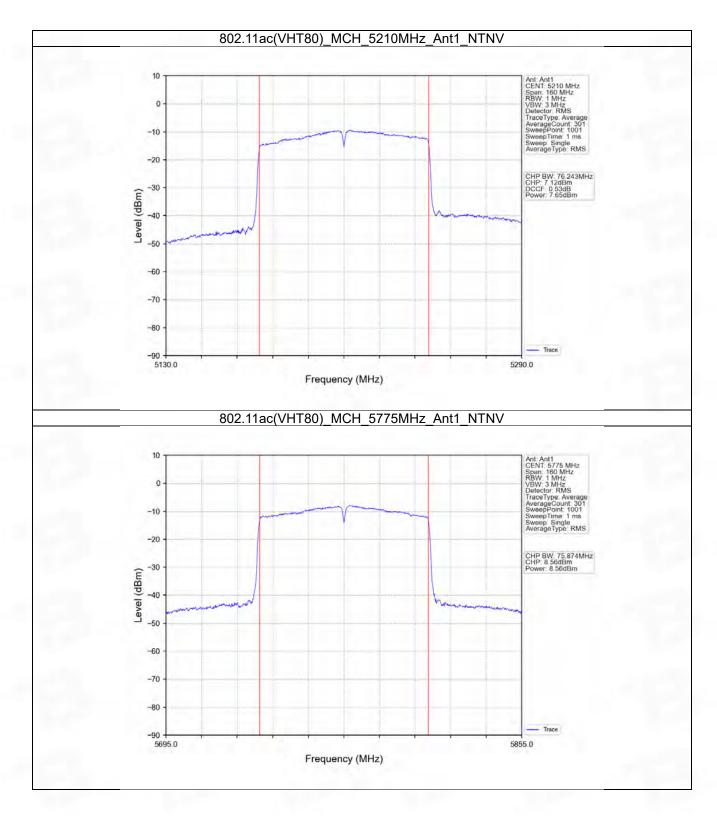
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# 4. Maximum Power Spectral Density

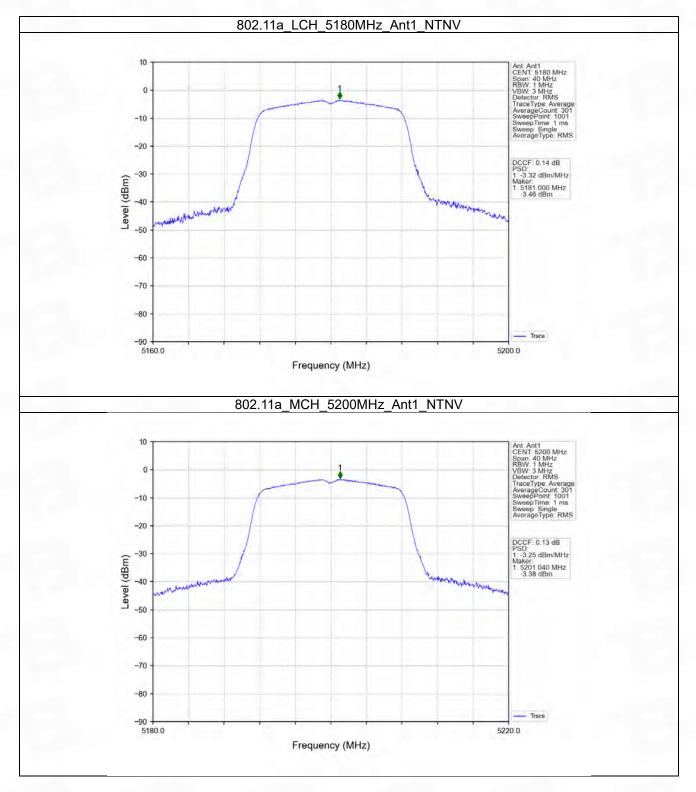
## 4.1 PSD

#### 4.1.1 Test Result

Mode	TX	Frequency	Maximum PS	Verdiet	
	Туре	(MHz)	ANT1	Limit	Verdict
802.11a	SISO	5180	-3.32	<=11	Pass
		5200	-3.25	<=11	Pass
		5240	-2.44	<=11	Pass
000 11p	SISO	5180	-3.85	<=11	Pass
802.11n (HT20)		5200	-3.59	<=11	Pass
(П120)		5240	-2.83	<=11	Pass
802.11n	SISO	5190	-6.36	<=11	Pass
(HT40)		5230	-5.91	<=11	Pass
000 11	SISO	5180	-3.52	<=11	Pass
802.11ac		5200	-3.99	<=11	Pass
(VHT20)		5240	-3.45	<=11	Pass
802.11ac (VHT40)	SISO	5190	-7.01	<=11	Pass
		5230	-6.27	<=11	Pass
802.11ac (VHT80)	SISO	5210	-9.19	<=11	Pass
Note1: Antenna	Gain: Ant1: -0.4	5dBi;			



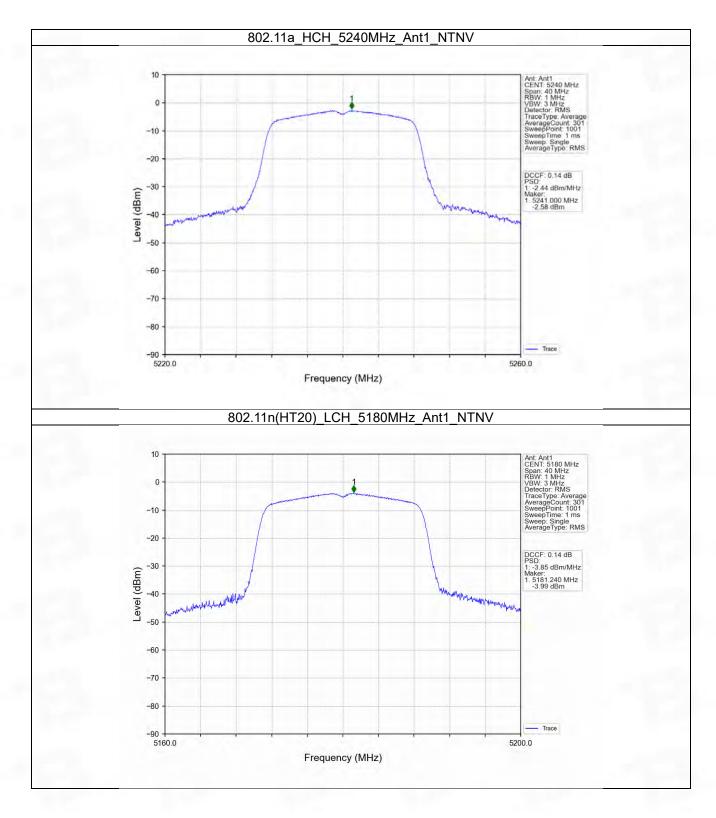
#### 4.1.2 Test Graph



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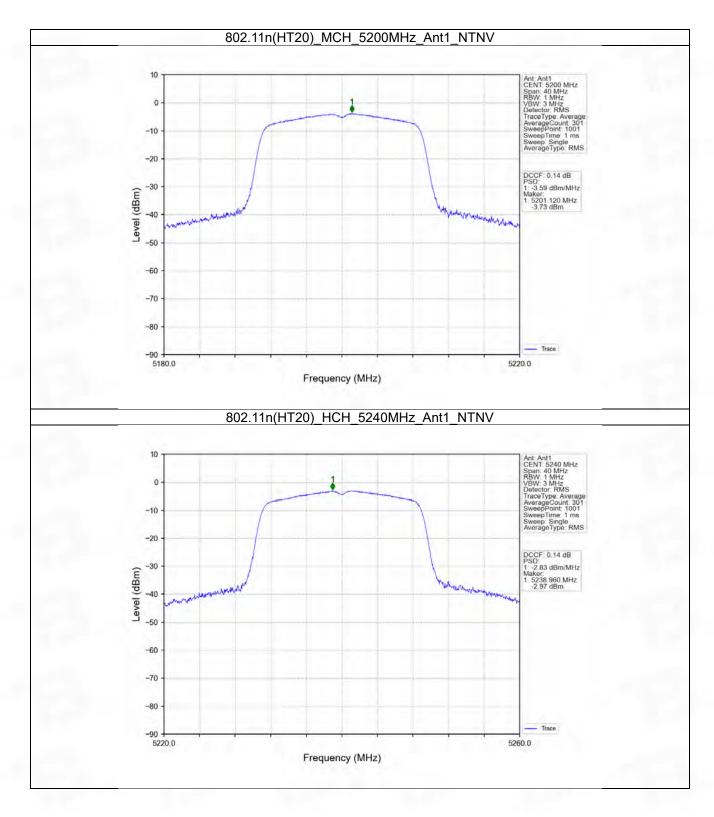
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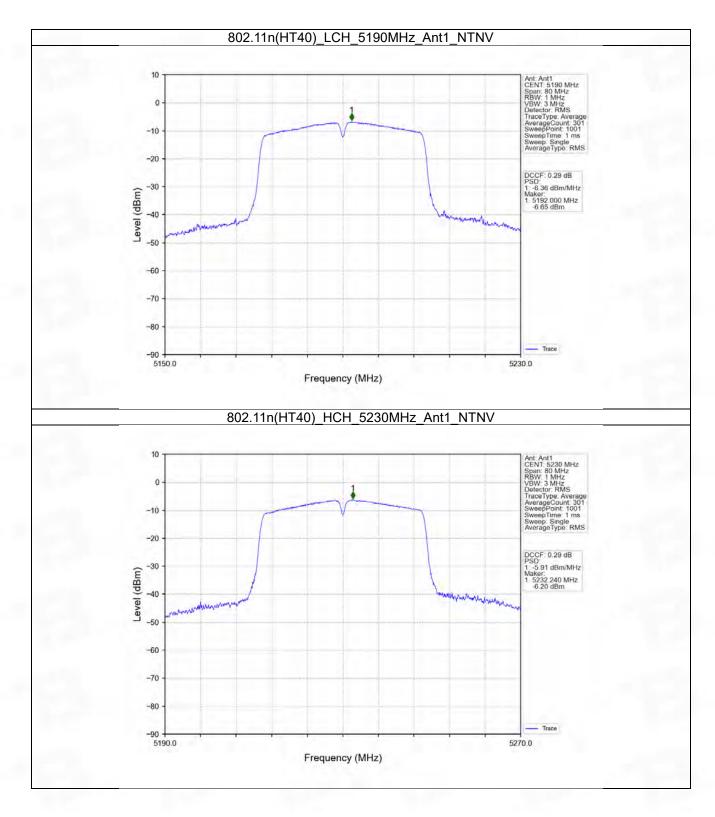
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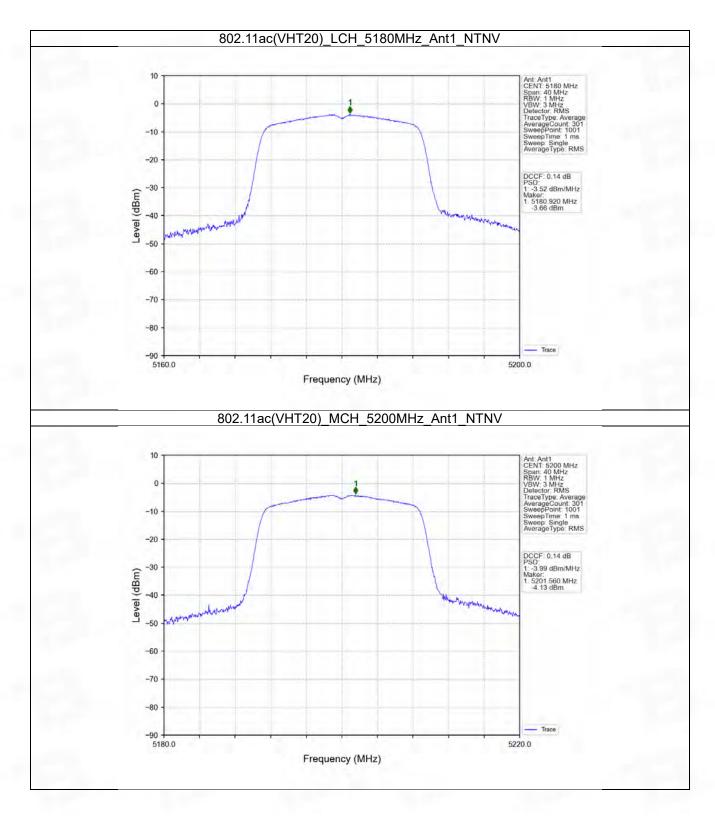
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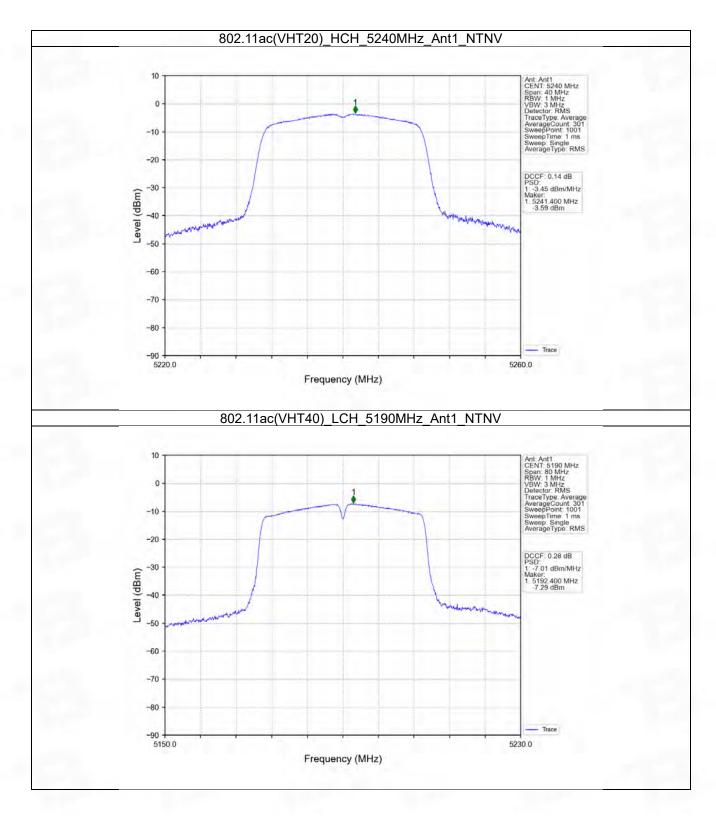
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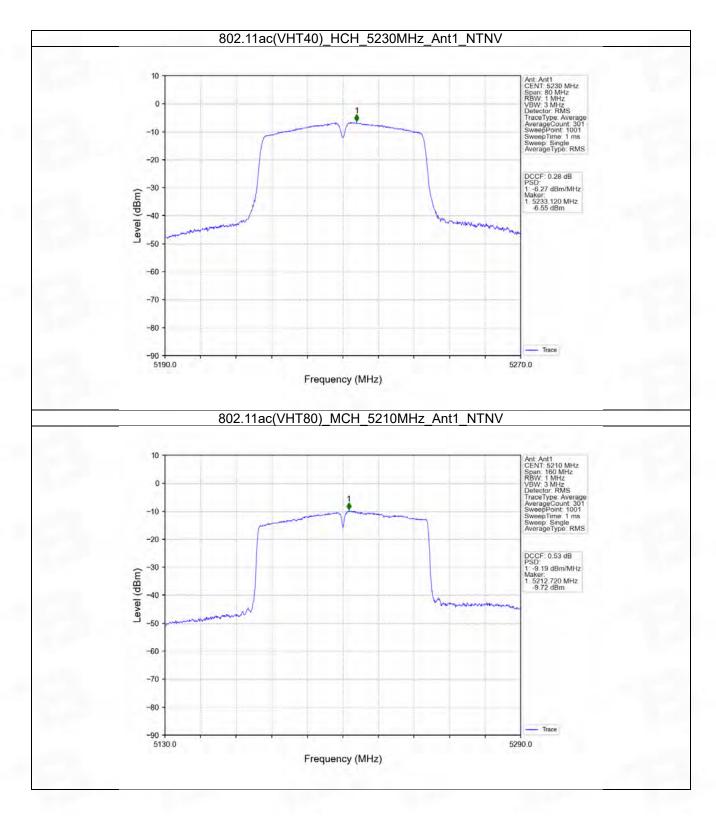


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# 4.2 PSD-Band3

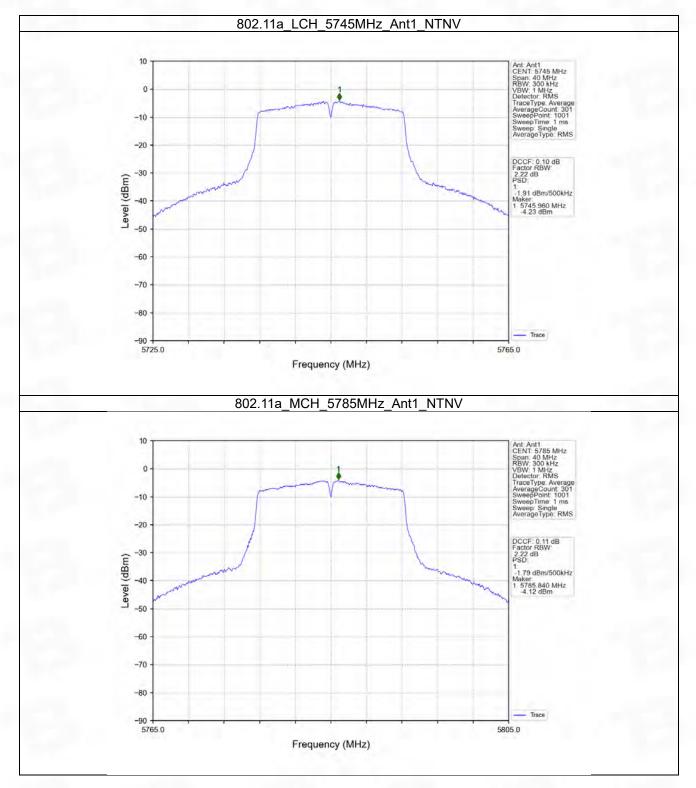
# 4.2.1 Test Result

Mada	TX	Frequency	Maximum PSD	Vardiat	
Mode	Туре	(MHz)	ANT1	Limit	Verdict
		5745	-1.91	<=30	Pass
802.11a	SISO	5785	-1.79	<=30	Pass
		5825	-1.56	<=30	Pass
000 11-		5745	-2.44	<=30	Pass
802.11n	SISO	5785	-2.08	<=30	Pass
(HT20)		5825	-1.63	<=30	Pass
802.11n (HT40)	SISO	5755	-5.57	<=30	Pass
	3130	5795	-5.25	<=30	Pass
000 11		5745	-2.16	<=30	Pass
802.11ac	SISO	5785	-1.82	<=30	Pass
(VHT20)		5825	0.64	<=30	Pass
802.11ac	SISO	5755	-6.45	<=30	Pass
(VHT40)	3130	5795	-5.82	<=30	Pass
802.11ac (VHT80)	SISO	5775	-10.95	<=30	Pass

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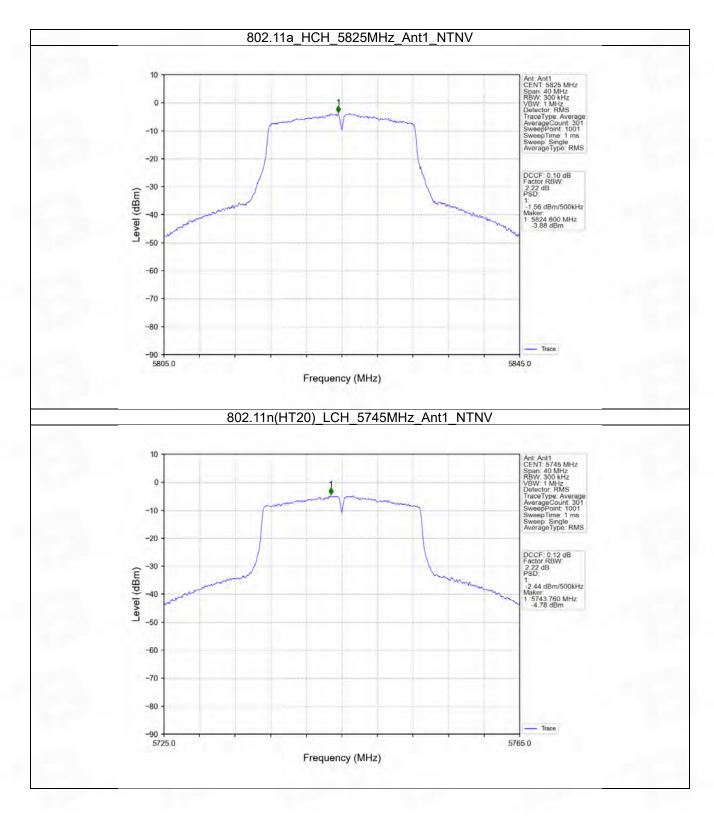


## 4.2.2 Test Graph



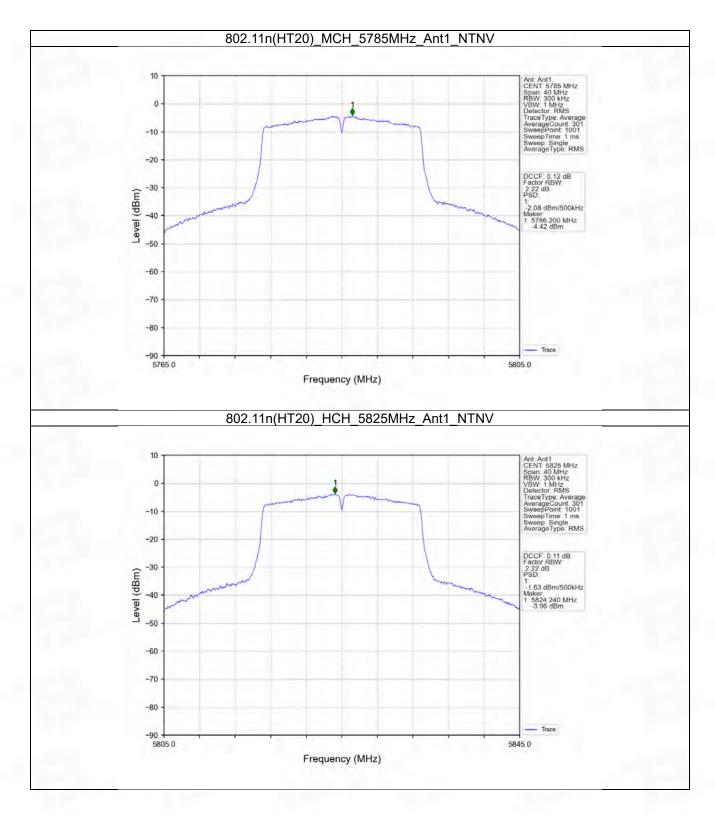
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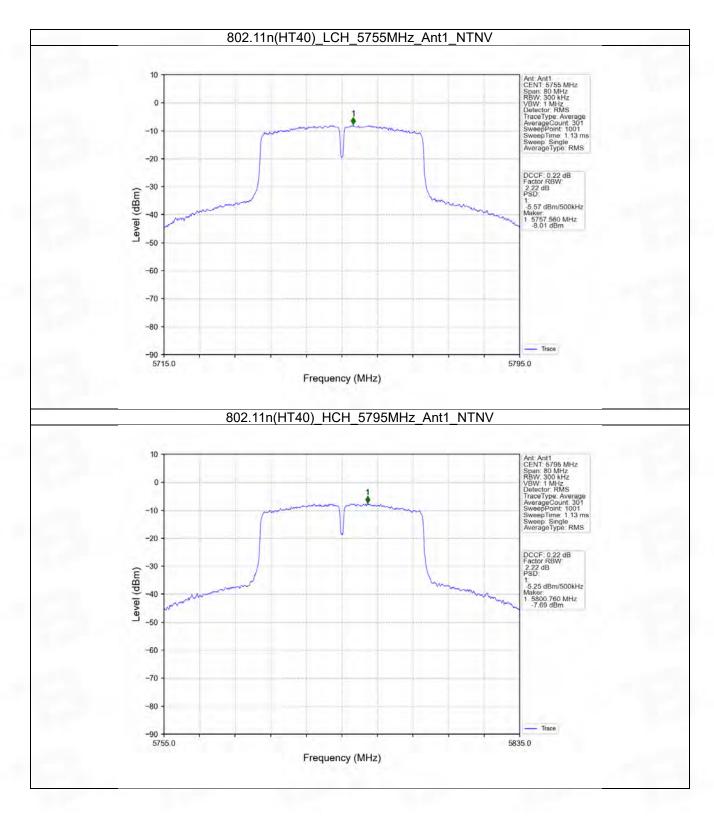
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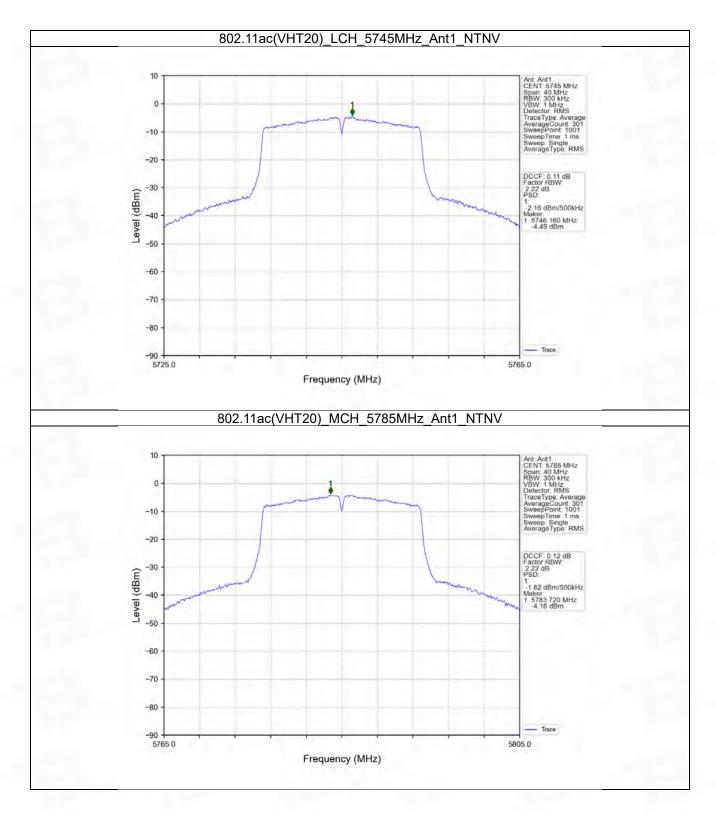
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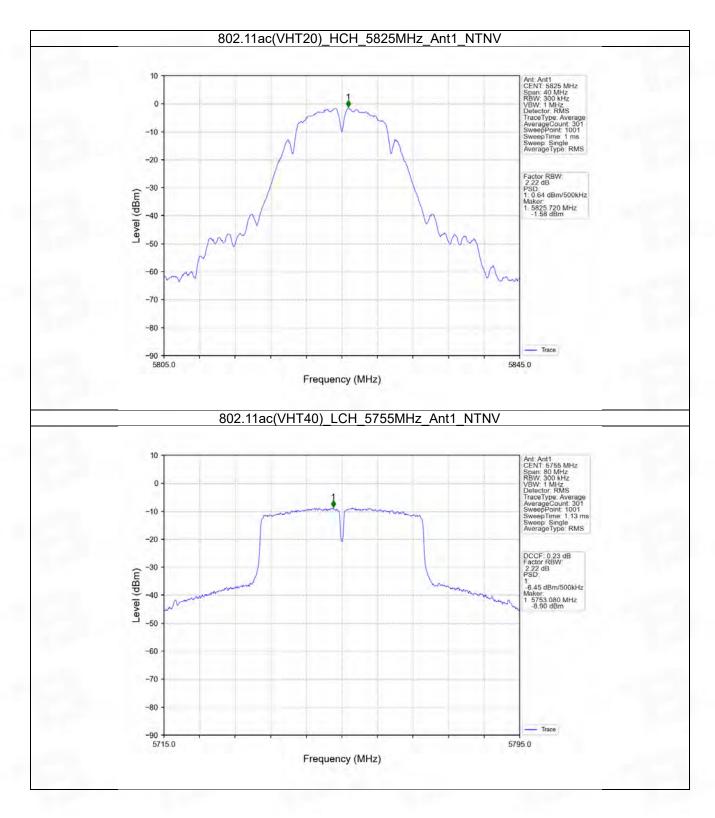
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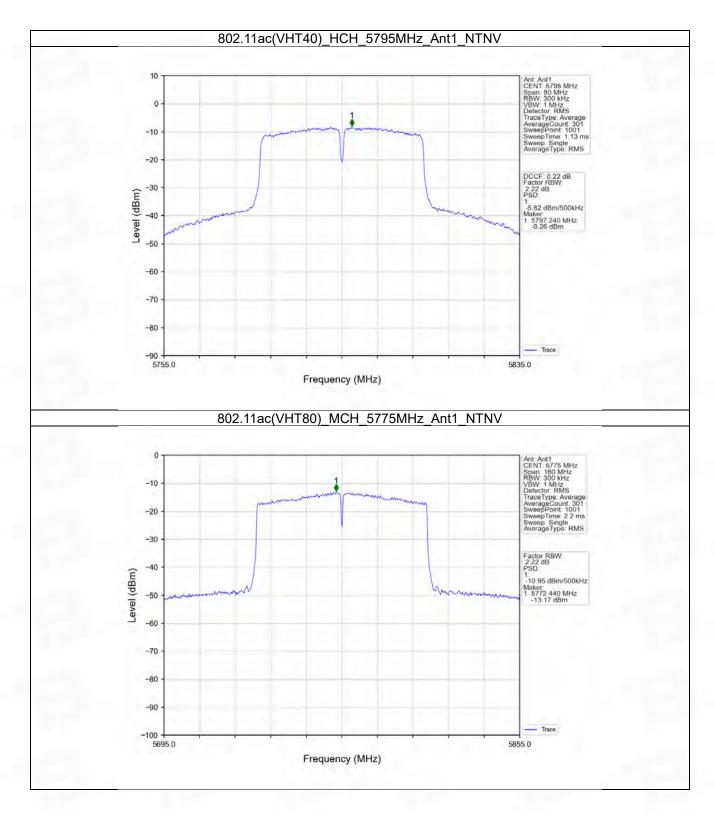
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# 5. Frequency Stability

# 5.1 Ant1

### 5.1.1 Test Result

Mode	ТХ	Frequency	Temperature	Ant1 Voltage	Measured Frequency	Limit	Verdict	
Widde	Туре	(MHz)	(°C)	(VAC)	(MHz)	(MHz)		
					102	5180.000	5150 to 5250	Pass
			20	120	5179.960	5150 to 5250	Pass	
				138	5179.960	5150 to 5250	Pass	
			-30	120	5180.060	5150 to 5250	Pass	
			-20	120	5180.000	5150 to 5250	Pass	
		5180	-10	120	5180.040	5150 to 5250	Pass	
			0	120	5180.020	5150 to 5250	Pass	
			10	120	5179.940	5150 to 5250	Pass	
			30	120	5180.060	5150 to 5250	Pass	
		and the second	40	120	5180.000	5150 to 5250	Pass	
			50	120	5180.120	5150 to 5250	Pass	
				102	5200.060	5150 to 5250	Pass	
			20	120	5200.000	5150 to 5250	Pass	
				138	5200.060	5150 to 5250	Pass	
			-30	120	5199.960	5150 to 5250	Pass	
		5200	-20	120	5199.980	5150 to 5250	Pass	
			-10	120	5200.000	5150 to 5250	Pass	
			0	120	5199.940	5150 to 5250	Pass	
		10	120	5200.000	5150 to 5250	Pass		
		30	120	5200.020	5150 to 5250	Pass		
802.11a	SISO	so	40	120	5200.020	5150 to 5250	Pass	
			50	120	5200.060	5150 to 5250	Pass	
				102	5239.980	5150 to 5250	Pass	
				20	120	5240.060	5150 to 5250	Pass
				138	5240.040	5150 to 5250	Pass	
			-30	120	5240.040	5150 to 5250	Pass	
			-20	120	5239.960	5150 to 5250	Pass	
		5240	-10	120	5239.920	5150 to 5250	Pass	
		100 C	0	120	5240.040	5150 to 5250	Pass	
			10	120	5240.060	5150 to 5250	Pass	
			30	120	5239.980	5150 to 5250	Pass	
			40	120	5240.000	5150 to 5250	Pass	
			50	120	5240.000	5150 to 5250	Pass	
				102	5745.080	5725 to 5850	Pass	
			20	120	5744.940	5725 to 5850	Pass	
			_0	138	5745.020	5725 to 5850	Pass	
			-30	120	5744.980	5725 to 5850	Pass	
		5745	-20	120	5744.960	5725 to 5850	Pass	
			-10	120	5745.020	5725 to 5850	Pass	
			0	120	5744.980	5725 to 5850	Pass	
			10	120	5744.900	5725 to 5850	Pass	

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			30	120	5744.960	5725 to 5850	Pass
			40	120	5744.960	5725 to 5850	Pass
			50	120	5744.940	5725 to 5850	Pass
		5785		102	5784.980	5725 to 5850	Pass
			20	120	5785.020	5725 to 5850	Pass
				138	5785.020	5725 to 5850	Pass
			-30	120	5785.000	5725 to 5850	Pass
			-20	120	5785.020	5725 to 5850	Pass
			-10	120	5784.940	5725 to 5850	Pass
			0	120	5785.000	5725 to 5850	Pass
			10	120	5784.980	5725 to 5850	Pass
		-	30	120	5784.980	5725 to 5850	Pass
			40	120	5784.980	5725 to 5850	Pass
			50	120	5785.040	5725 to 5850	Pass
	-		00	102	5824.900	5725 to 5850	Pase
			20	120	5824.880	5725 to 5850	Pase
			20	138	5824.980	5725 to 5850	Pase
			-30	120	5825.020	5725 to 5850	Pass
			-20	120	5825.060	5725 to 5850	Pass
		5825	-20	120	5825.060	5725 to 5850	Pas
		0020	0	120	5824.940	5725 to 5850	Pase
		-	10	120	5824.940	5725 to 5850	Pase
			30	120	5825.000	5725 to 5850	Pase
			40	120	5825.020	5725 to 5850	Pas
			50	120	5825.000	5725 to 5850	Pase
			50	102	5180.020	5150 to 5250	Pase
			20	120	5179.940	5150 to 5250	Pase
			20	138	5179.940	5150 to 5250	Pase
			-30	120	5180.080	5150 to 5250	Pas
			-30	120			
		5180			5180.060	5150 to 5250	Pase
		5160	-10	120	5179.960	5150 to 5250	Pase
		-	0	120	5180.040	5150 to 5250	Pase
		-	10	120	5180.020	5150 to 5250	Pase
			30	120	5179.960	5150 to 5250	Pase
		-	40	120	5180.000	5150 to 5250	Pase
			50	120	5179.960	5150 to 5250	Pase
			20	102	5200.020	5150 to 5250	Pase
202 11n			20	120	5200.020	5150 to 5250	Pase
802.11n	SISO	-	20	138	5199.960	5150 to 5250	Pase
(HT20)		-	-30	120	5200.020	5150 to 5250	Pase
		5200	-20	120	5199.940	5150 to 5250	Pase
		5200	-10	120	5200.000	5150 to 5250	Pase
		-	0	120	5200.060	5150 to 5250	Pase
			10	120	5200.020	5150 to 5250	Pase
			30	120	5199.980	5150 to 5250	Pase
			40	120	5199.960	5150 to 5250	Pase
			50	120	5200.020	5150 to 5250	Pase
			00	102	5240.080	5150 to 5250	Pase
			20	120	5239.980	5150 to 5250	Pase
		5240	00	138	5240.040	5150 to 5250	Pase
			-30	120	5240.040	5150 to 5250	Pase
			-20	120	5240.060	5150 to 5250	Pase
			-10	120	5240.040	5150 to 5250	Pase

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			0	120	5240.000	5150 to 5250	Pass
			10	120	5240.000	5150 to 5250	Pass
			30	120	5240.020	5150 to 5250	Pass
			40	120	5239.960	5150 to 5250	Pass
		F	50	120	5240.040	5150 to 5250	Pass
				102	5744.960	5725 to 5850	Pass
			20	120	5744.980	5725 to 5850	Pass
				138	5744.980	5725 to 5850	Pass
		5745	-30	120	5745.020	5725 to 5850	Pass
			-20	120	5744.980	5725 to 5850	Pass
			-10	120	5745.000	5725 to 5850	Pass
			0	120	5744.960	5725 to 5850	Pass
			10	120	5745.020	5725 to 5850	Pass
			30	120	5744.900	5725 to 5850	Pass
		F	40	120	5744.980	5725 to 5850	Pass
			50	120	5744.980	5725 to 5850	Pass
				102	5785.040	5725 to 5850	Pass
			20	120	5784.980	5725 to 5850	Pass
				138	5784.960	5725 to 5850	Pass
		F	-30	120	5785.000	5725 to 5850	Pass
			-20	120	5784.980	5725 to 5850	Pass
		5785	-10	120	5784.980	5725 to 5850	Pass
			0	120	5785.040	5725 to 5850	Pass
			10	120	5784.940	5725 to 5850	Pass
		-	30	120	5785.000	5725 to 5850	Pass
			40	120	5785.040	5725 to 5850	Pass
			50	120	5784.980	5725 to 5850	Pass
				102	5825.020	5725 to 5850	Pass
			20	120	5824.920	5725 to 5850	Pass
				138	5825.020	5725 to 5850	Pass
			-30	120	5825.040	5725 to 5850	Pass
			-20	120	5825.000	5725 to 5850	Pass
		5825	-10	120	5825.000	5725 to 5850	Pass
			0	120	5824.940	5725 to 5850	Pass
		-	10	120	5824.940	5725 to 5850	Pass
			30	120	5824.920	5725 to 5850	Pass
		F	40	120	5825.000	5725 to 5850	Pass
			50	120	5825.040	5725 to 5850	Pass
				102	5190.000	5150 to 5250	Pass
			20	120	5190.000	5150 to 5250	Pass
			-	138	5190.120	5150 to 5250	Pass
		F	-30	120	5190.000	5150 to 5250	Pass
			-20	120	5190.000	5150 to 5250	Pass
		5190	-10	120	5190.080	5150 to 5250	Pass
			0	120	5190.040	5150 to 5250	Pass
802.11n	SISO	siso	10	120	5190.040	5150 to 5250	Pass
(HT40)			30	120	5190.040	5150 to 5250	Pass
			40	120	5190.000	5150 to 5250	Pass
			50	120	5190.000	5150 to 5250	Pass
				102	5230.000	5150 to 5250	Pass
			20	120	5230.080	5150 to 5250	Pass
		5230	20	138	5230.040	5150 to 5250	Pass
		-	-30	120	5230.040	5150 to 5250	Pass

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			-20	120	5230.000	5150 to 5250	Pass
			-10	120	5230.120	5150 to 5250	Pass
			0	120	5230.000	5150 to 5250	Pass
			10	120	5230.080	5150 to 5250	Pass
		-	30	120	5230.080	5150 to 5250	Pass
			40	120	5230.080	5150 to 5250	Pass
			50	120	5230.040	5150 to 5250	Pass
				102	5755.000	5725 to 5850	Pass
		1000	20	120	5755.040	5725 to 5850	Pass
				138	5755.000	5725 to 5850	Pass
			-30	120	5755.000	5725 to 5850	Pass
			-20	120	5755.000	5725 to 5850	Pass
		5755	-10	120	5755.000	5725 to 5850	Pass
1000			0	120	5755.040	5725 to 5850	Pass
		-	10	120	5755.040	5725 to 5850	Pass
			30	120	5755.000	5725 to 5850	Pass
		-	40	120	5755.000	5725 to 5850	Pass
			50	120	5755.000	5725 to 5850	Pass
1.000				102	5795.000	5725 to 5850	Pass
			20	120	5795.000	5725 to 5850	Pass
				138	5795.000	5725 to 5850	Pass
			-30	120	5794.960	5725 to 5850	Pass
			-20	120	5795.000	5725 to 5850	Pass
1.10		5795	-10	120	5795.040	5725 to 5850	Pass
			0	120	5795.040	5725 to 5850	Pass
1000			10	120	5795.040	5725 to 5850	Pass
			30	120	5795.040	5725 to 5850	Pass
			40	120	5795.000	5725 to 5850	Pass
100			50	120	5795.040	5725 to 5850	Pass
	+			102	5180.040	5150 to 5250	Pass
100			20	120	5179.960	5150 to 5250	Pass
				138	5179.960	5150 to 5250	Pass
			-30	120	5180.020	5150 to 5250	Pass
1000			-20	120	5180.100	5150 to 5250	Pass
		5180	-10	120	5180.020	5150 to 5250	Pass
			0	120	5180.060	5150 to 5250	Pass
		-	10	120	5180.040	5150 to 5250	Pass
			30	120	5180.000	5150 to 5250	Pass
			40	120	5179.760	5150 to 5250	Pass
		F	50	120	5179.940	5150 to 5250	Pass
802.11ac				102	5200.000	5150 to 5250	Pass
(VHT20)	SISO		20	120	5200.000	5150 to 5250	Pass
. ,				138	5200.040	5150 to 5250	Pass
			-30	120	5199.880	5150 to 5250	Pass
		F	-20	120	5200.000	5150 to 5250	Pass
		5200	-10	120	5200.060	5150 to 5250	Pass
			0	120	5200.040	5150 to 5250	Pass
			10	120	5200.080	5150 to 5250	Pass
			30	120	5199.980	5150 to 5250	Pass
		F	40	120	5200.080	5150 to 5250	Pass
			50	120	5199.980	5150 to 5250	Pass
		50.40		102	5240.040	5150 to 5250	Pass
		5240	20	120	5239.920	5150 to 5250	Pass

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				138	5239.940	5150 to 5250	Pass
			-30	120	5240.100	5150 to 5250	Pass
			-20	120	5240.040	5150 to 5250	Pass
			-10	120	5240.040	5150 to 5250	Pass
		-	0	120	5240.060	5150 to 5250	Pass
			10	120	5239.960	5150 to 5250	Pass
		-	30	120	5240.040	5150 to 5250	Pass
		-	40	120	5240.000	5150 to 5250	Pass
			50	120	5239.960	5150 to 5250	Pass
	_			102	5744.940	5725 to 5850	Pase
			20	120	5745.000	5725 to 5850	Pas
				138	5744.980	5725 to 5850	Pas
			-30	120	5745.020	5725 to 5850	Pas
			-20	120	5744.980	5725 to 5850	Pas
		5745	-10	120	5744.980	5725 to 5850	Pase
		01.10	0	120	5744.980	5725 to 5850	Pas
		-	10	120	5744.980	5725 to 5850	Pas
			30	120	5745.000	5725 to 5850	Pas
			40	120	5745.000	5725 to 5850	Pas
		-	50	120	5745.000	5725 to 5850	Pas
			00	102	5785.000	5725 to 5850	Pas
			20	120	5784.960	5725 to 5850	Pas
			20	138	5785.040	5725 to 5850	Pas
			-30	120	5784.980	5725 to 5850	Pas
			-20	120	5785.040	5725 to 5850	Pas
		5785	-10	120	5784.960	5725 to 5850	Pas
		5705	0	120	5784.980	5725 to 5850	Pas
			10	120	5784.980	5725 to 5850	Pas
		-	30	120	5785.000	5725 to 5850	Pas
			40	120	5785.000	5725 to 5850	Pas
			50	120	5785.020	5725 to 5850	Pas
			50	120	5825.000		
			20			5725 to 5850	Pas
			20	120	5825.000	5725 to 5850	Pas
			20	138	5825.000	5725 to 5850	Pas
		-	-30	120	5824.980	5725 to 5850	Pas
		5825	-20 -10	120	<u>5825.000</u> 5824.980	5725 to 5850 5725 to 5850	Pas
		5625					Pas
		-	0	120	5824.980	5725 to 5850	Pas
			10	120	5824.980	5725 to 5850	Pas
		-	30	120	5824.980	5725 to 5850	Pas
		ŀ	40	120	5824.980	5725 to 5850	Pas
			50	120	5824.980	5725 to 5850	Pas
			20	102	5190.040	5150 to 5250	Pas
			20	120	5190.000	5150 to 5250	Pase
			20	138	5190.000	5150 to 5250	Pase
			-30	120	5190.040	5150 to 5250	Pas
802.11ac	0.00	5400	-20	120	5190.000	5150 to 5250	Pas
(VHT40)	SISO	5190	-10	120	5190.040	5150 to 5250	Pas
` '		_	0	120	5190.040	5150 to 5250	Pas
		-	10	120	5190.040	5150 to 5250	Pas
		-	30	120	5190.040	5150 to 5250	Pas
		-	40	120	5190.000	5150 to 5250	Pase
			50	120	5190.040	5150 to 5250	Pase

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				102	5230.040	5150 to 5250	Pass
			20	120	5230.040	5150 to 5250	Pass
				138	5230.040	5150 to 5250	Pass
1000		1000	-30	120	5230.040	5150 to 5250	Pass
		5230	-20	120	5230.040	5150 to 5250	Pass
			-10	120	5230.040	5150 to 5250	Pass
			0	120	5230.040	5150 to 5250	Pass
			10	120	5230.000	5150 to 5250	Pass
1000			30	120	5230.000	5150 to 5250	Pass
			40	120	5230.040	5150 to 5250	Pass
			50	120	5230.040	5150 to 5250	Pass
				102	5754.960	5725 to 5850	Pass
			20	120	5755.000	5725 to 5850	Pass
1000				138	5755.000	5725 to 5850	Pass
			-30	120	5755.040	5725 to 5850	Pass
			-20	120	5754.920	5725 to 5850	Pass
		5755	-10	120	5754.960	5725 to 5850	Pass
			0	120	5755.040	5725 to 5850	Pass
10.000			10	120	5755.000	5725 to 5850	Pass
			30	120	5755.040	5725 to 5850	Pass
			40	120	5755.000	5725 to 5850	Pase
			50	120	5755.040	5725 to 5850	Pass
				102	5795.040	5725 to 5850	Pase
1000			20	120	5795.000	5725 to 5850	Pass
				138	5795.040	5725 to 5850	Pase
			-30	120	5795.040	5725 to 5850	Pase
			-20	120	5795.040	5725 to 5850	Pass
		5795	-10	120	5795.000	5725 to 5850	Pass
1000			0	120	5795.000	5725 to 5850	Pass
			10	120	5795.000	5725 to 5850	Pase
			30	120	5795.040	5725 to 5850	Pase
			40	120	5795.000	5725 to 5850	Pass
			50	120	5795.040	5725 to 5850	Pase
				102	5210.075	5150 to 5250	Pass
			20	120	5210.075	5150 to 5250	Pase
				138	5210.000	5150 to 5250	Pase
			-30	120	5210.075	5150 to 5250	Pass
		1.00	-20	120	5210.075	5150 to 5250	Pass
		5210	-10	120	5210.075	5150 to 5250	Pass
			0	120	5210.075	5150 to 5250	Pase
			10	120	5210.000	5150 to 5250	Pase
			30	120	5210.150	5150 to 5250	Pase
802.11ac	SISO	9190	40	120	5210.000	5150 to 5250	Pass
(VHT80)	0.00		50	120	5210.075	5150 to 5250	Pase
	[			102	5775.000	5725 to 5850	Pass
			20	120	5775.000	5725 to 5850	Pass
				138	5775.000	5725 to 5850	Pass
1.00		1.00	-30	120	5775.075	5725 to 5850	Pass
		5775	-20	120	5775.000	5725 to 5850	Pase
			-10	120	5775.075	5725 to 5850	Pass
			0	120	5775.075	5725 to 5850	Pass
			10	120	5775.000	5725 to 5850	Pass
			30	120	5775.000	5725 to 5850	Pass

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40	120	5775.075	5725 to 5850	Pass
50	120	5775.075	5725 to 5850	Pass

# 6. Form731

# 6.1 Form731

# 6.1.1 Test Result

Lower Freq (MHz)	High Freq (MHz)	MAX Power (W)	MAX Power (dBm)
5180	5240	0.0062	7.91
5745	5825	0.0150	11.75
5190	5230	0.0058	7.67
5755	5795	0.0147	11.67
5210	5210	0.0058	7.65





BTF Testing Lab (Shenzhen) Co., Ltd.

F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China

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