



Revision History				
Version	Issue Date	Revisions Content		
R_V0	2024-09-04	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	
	Address.	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.
- (5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.



## 2 Product Information

# 2.1 Application Information

Company Name:	FOXX Development Inc.	
Address:	3480 Preston Ridge Road, Suite500, Alpharetta, GA 30005, USA	

#### 2.2 Manufacturer Information

Company Name:	FOXX Development Inc.
Address:	3480 Preston Ridge Road, Suite500, Alpharetta, GA 30005, USA

## 2.3 Factory Information

Company Name:	FOXX Development Inc.
Address:	3480 Preston Ridge Road, Suite500, Alpharetta, GA 30005, USA

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

EUT Name:	Smart Phone
Test Model Number:	C67
Series Model Number:	N/A
Description of Model name differentiation:	N/A

#### 2.5 Technical Information

Power Supply:	DC 5V from adaptor or DC 3.87V from battery
Power Adaptor:	Input: 100-240V 50/60Hz 0.3A Output: 5.0V2.0A 10W Model: HJ-0502000W2-US
Battery parameter:	Capacity: 4900mAh 18.963Wh Nominal voltage: 3.87V Max charging voltage: 4.45V
Operation Frequency Range	U-NII Band 1: 5.18~5.24 GHz U-NII Band 2A: 5.26~5.32 GHz U-NII Band 2C: 5.50~5.70 GHz U-NII Band 3: 5.745~5.825 GHz
Frequency Block	U-NII Band 1: 5.15~5.25 GHz U-NII Band 2A: 5.25~5.35 GHz U-NII Band 2C: 5.47~5.725 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:	FPC antenna
Antenna Gain:	5.18~5.24 GHz: 1.23dBi 5.26~5.32 GHz: 1.23dBi 5.50~5.70 GHz: 1.23dBi 5.725~5.85 GHz: 1.23dBi
Notes	

#### 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.



# 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

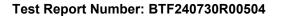
## 3.2 Uncertainty of Test

Item	Measurement Uncertainty
Conducted Emission (150 kHz-30 MHz)	±2.64dB
Occupied Bandwidth	±69kHz
Transmitter Power, Conducted	±0.87dB
Power Spectral Density	±0.69dB
Conducted Spurious Emissions	±0.95dB
Radiated Spurious Emissions (above 1GHz)	1-6GHz: ±3.94dB 6-18GHz: ±4.16dB
Radiated Spurious Emissions (30M - 1GHz)	±4.12dB

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.

### 3.3 Summary of Test Result

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

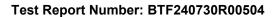
# **Test Configuration**

# **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	2023-11-16	2024-11-15		
Coaxial Switcher	SCHWARZBECK	CX210	CX210	2023-11-16	2024-11-15		
V-LISN	SCHWARZBECK	NSLK 8127	01073	2023-11-16	2024-11-15		
LISN	AFJ	LS16/110VAC	16010020076	2023-11-16	2024-11-15		
EMI Receiver	ROHDE&SCHWA RZ	ESCI3	101422	2023-11-16	2024-11-15		

<b>Duty Cycle</b>					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
RFTest software	1	V1.00	1	1	/
RF Control Unit	Techy	TR1029-1	1	2023-11-16	2024-11-15
RF Sensor Unit	Techy	TR1029-2	1	2023-11-16	2024-11-15
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2023-11-16	2024-11-15
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2023-11-16	2024-11-15
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2023-11-16	2024-11-15
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2023-11-16	2024-11-15

Maximum conducted output power								
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
RFTest software	1	V1.00	1	1	/			
RF Control Unit	Techy	TR1029-1	1	2023-11-16	2024-11-15			
RF Sensor Unit	Techy	TR1029-2	1	2023-11-16	2024-11-15			
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2023-11-16	2024-11-15			
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2023-11-16	2024-11-15			
WIDEBAND RADIO COMMNUNICATION	Rohde & Schwarz	CMW500	161997	2023-11-16	2024-11-15			



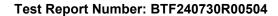


TESTER					
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2023-11-16	2024-11-15

Power spectral density							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
RFTest software	1	V1.00	/	1	/		
RF Control Unit	Techy	TR1029-1	/	2023-11-16	2024-11-15		
RF Sensor Unit	Techy	TR1029-2	1	2023-11-16	2024-11-15		
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2023-11-16	2024-11-15		
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2023-11-16	2024-11-15		
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2023-11-16	2024-11-15		
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2023-11-16	2024-11-15		

Emission bandwidth and occupied bandwidth							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
RFTest software	1	V1.00	1	1	/		
RF Control Unit	Techy	TR1029-1	1	2023-11-16	2024-11-15		
RF Sensor Unit	Techy	TR1029-2	1	2023-11-16	2024-11-15		
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2023-11-16	2024-11-15		
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2023-11-16	2024-11-15		
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2023-11-16	2024-11-15		
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2023-11-16	2024-11-15		

Channel Availability Check Time							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
RFTest software	1	V1.00	1	/	1		
RF Control Unit	Techy	TR1029-1	1	2023-11-16	2024-11-15		
RF Sensor Unit	Techy	TR1029-2	1	2023-11-16	2024-11-15		
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2023-11-16	2024-11-15		
Adjustable Direct	Dongguan	etm-6050c	20211026123	2023-11-16	2024-11-15		





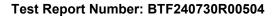
Current Regulated Power Supply	Tongmen Electronic Technology Co., LTD	31			
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2023-11-16	2024-11-15
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2023-11-16	2024-11-15

U-NII Detection Bandwidth								
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
RFTest software	1	V1.00	1	1	/			
RF Control Unit	Techy	TR1029-1	1	2023-11-16	2024-11-15			
RF Sensor Unit	Techy	TR1029-2	1	2023-11-16	2024-11-15			
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2023-11-16	2024-11-15			
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2023-11-16	2024-11-15			
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2023-11-16	2024-11-15			
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2023-11-16	2024-11-15			

Statistical Performance Check							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
RFTest software	1	V1.00	1	/	1		
RF Control Unit	Techy	TR1029-1	1	2023-11-16	2024-11-15		
RF Sensor Unit	Techy	TR1029-2	1	2023-11-16	2024-11-15		
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2023-11-16	2024-11-15		
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2023-11-16	2024-11-15		
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2023-11-16	2024-11-15		
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2023-11-16	2024-11-15		

Channel Move Time, Channel Closing Transmission Time								
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
RFTest software	1	V1.00	1	1	1			
RF Control Unit	Techy	TR1029-1	1	2023-11-16	2024-11-15			
RF Sensor Unit	Techy	TR1029-2	1	2023-11-16	2024-11-15			
Programmable constant temperature	ZZCKONG	ZZ-K02A	20210928007	2023-11-16	2024-11-15			

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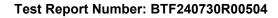


and humidity box					
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2023-11-16	2024-11-15
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2023-11-16	2024-11-15
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2023-11-16	2024-11-15

Non-Occupancy Perio	Non-Occupancy Period Test					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
RFTest software	1	V1.00	1	1	1	
RF Control Unit	Techy	TR1029-1	1	2023-11-16	2024-11-15	
RF Sensor Unit	Techy	TR1029-2	1	2023-11-16	2024-11-15	
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2023-11-16	2024-11-15	
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2023-11-16	2024-11-15	
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2023-11-16	2024-11-15	
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2023-11-16	2024-11-15	

<b>DFS Detection Thresh</b>	DFS Detection Thresholds					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
RFTest software	1	V1.00	1	1	1	
RF Control Unit	Techy	TR1029-1	1	2023-11-16	2024-11-15	
RF Sensor Unit	Techy	TR1029-2	1	2023-11-16	2024-11-15	
Programmable constant temperature and humidity box	ZZCKONG	ZZ-K02A	20210928007	2023-11-16	2024-11-15	
Adjustable Direct Current Regulated Power Supply	Dongguan Tongmen Electronic Technology Co., LTD	etm-6050c	20211026123	2023-11-16	2024-11-15	
WIDEBAND RADIO COMMNUNICATION TESTER	Rohde & Schwarz	CMW500	161997	2023-11-16	2024-11-15	
MXA Signal Analyzer	KEYSIGHT	N9020A	MY50410020	2023-11-16	2024-11-15	

Band edge emissions (Radiated)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Coaxial cable Multiflex 141	Schwarzbeck	N/SMA 0.5m	517386	1	1
Preamplifier	SCHWARZBECK	BBV9744	00246	2023-11-16	2023-11-23





RE Cable	REBES Talent	UF1-SMASMAM-1 0m	21101566	2023-11-16	2024-11-15
RE Cable	REBES Talent	UF2-NMNM-10m	21101570	2023-11-16	2024-11-15
RE Cable	REBES Talent	UF1-SMASMAM-1 m	21101568	2023-11-16	2024-11-15
RE Cable	REBES Talent	UF2-NMNM-1m	21101576	2023-11-16	2024-11-15
RE Cable	REBES Talent	UF2-NMNM-2.5m	21101573	2023-11-16	2024-11-15
POSITIONAL CONTROLLER	SKET	PCI-GPIB	1	1	2024-11-15
Horn Antenna	SCHWARZBECK	BBHA9170	01157	2023-11-16	2024-11-15
EMI TEST RECEIVER	ROHDE&SCHWA RZ	ESCI7	101032	2023-11-16	2024-11-15
SIGNAL ANALYZER	ROHDE&SCHWA RZ	FSQ40	100010	2023-11-16	2024-11-15
POSITIONAL CONTROLLER	SKET	PCI-GPIB	1	1	1
Broadband Preamplilifier	SCHWARZBECK	BBV9718D	80000	2023-11-16	2024-11-15
Horn Antenna	SCHWARZBECK	BBHA9120D	2597	2023-11-16	2024-11-15
EZ_EMC	Frad	FA-03A2 RE+	1	/	/
POSITIONAL CONTROLLER	SKET	PCI-GPIB	1	1	1
Log periodic antenna	SCHWARZBECK	VULB 9168	01328	2023-11-16	2024-11-15

Undesirable emission	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	1	1	
Preamplifier	SCHWARZBECK	BBV9744	00246	2023-11-16	2024-11-15	
RE Cable	REBES Talent	UF1-SMASMAM-1 0m	21101566	2023-11-16	2024-11-15	
RE Cable	REBES Talent	UF2-NMNM-10m	21101570	2023-11-16	2024-11-15	
RE Cable	REBES Talent	UF1-SMASMAM-1 m	21101568	2023-11-16	2024-11-15	
RE Cable	REBES Talent	UF2-NMNM-1m	21101576	2023-11-16	2024-11-15	
RE Cable	REBES Talent	UF2-NMNM-2.5m	21101573	2023-11-16	2024-11-15	
POSITIONAL CONTROLLER	SKET	PCI-GPIB	1	1	1	
Horn Antenna	SCHWARZBECK	BBHA9170	01157	2023-11-16	2024-11-15	
EMI TEST RECEIVER	ROHDE&SCHWA RZ	ESCI7	101032	2023-11-16	2024-11-15	
SIGNAL ANALYZER	ROHDE&SCHWA RZ	FSQ40	100010	2023-11-16	2024-11-15	
POSITIONAL CONTROLLER	SKET	PCI-GPIB	1	1	1	
Broadband Preamplilifier	SCHWARZBECK	BBV9718D	00008	2023-11-16	2024-11-15	
Horn Antenna	SCHWARZBECK	BBHA9120D	2597	2023-11-16	2024-11-15	
EZ_EMC	Frad	FA-03A2 RE+	1	1	/	
POSITIONAL CONTROLLER	SKET	PCI-GPIB	1	1	1	



Log periodic antenna   SCHWARZBECK	VULB 9168	01328	2021-11-28	2024-11-15
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Undesirable emission limits (above 1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Coaxial cable Multiflex 141	Schwarzbeck	N/SMA 0.5m	517386	1	/
Preamplifier	SCHWARZBECK	BBV9744	00246	2023-11-16	2024-11-15
RE Cable	REBES Talent	UF1-SMASMAM-1 0m	21101566	2023-11-16	2024-11-15
RE Cable	REBES Talent	UF2-NMNM-10m	21101570	2023-11-16	2024-11-15
RE Cable	REBES Talent	UF1-SMASMAM-1 m	21101568	2023-11-16	2024-11-15
RE Cable	REBES Talent	UF2-NMNM-1m	21101576	2023-11-16	2024-11-15
RE Cable	REBES Talent	UF2-NMNM-2.5m	21101573	2023-11-16	2024-11-15
POSITIONAL CONTROLLER	SKET	PCI-GPIB	1	1	/
Horn Antenna	SCHWARZBECK	BBHA9170	01157	2023-11-16	2024-11-15
EMI TEST RECEIVER	ROHDE&SCHWA RZ	ESCI7	101032	2023-11-16	2024-11-15
SIGNAL ANALYZER	ROHDE&SCHWA RZ	FSQ40	100010	2023-11-16	2024-11-15
POSITIONAL CONTROLLER	SKET	PCI-GPIB	1	1	1
Broadband Preamplilifier	SCHWARZBECK	BBV9718D	80000	2023-11-16	2024-11-15
Horn Antenna	SCHWARZBECK	BBHA9120D	2597	2023-11-16	2024-11-15
EZ_EMC	Frad	FA-03A2 RE+	1	1	/
POSITIONAL CONTROLLER	SKET	PCI-GPIB	1	1	1
Log periodic antenna	SCHWARZBECK	VULB 9168	01328	2023-11-16	2024-11-15

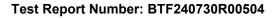


# 4.2 Test Auxiliary Equipment

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.
ТМ3	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





# **Evaluation Results (Evaluation)**

# 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.

#### Radio Spectrum Matter Test Results (RF) 6

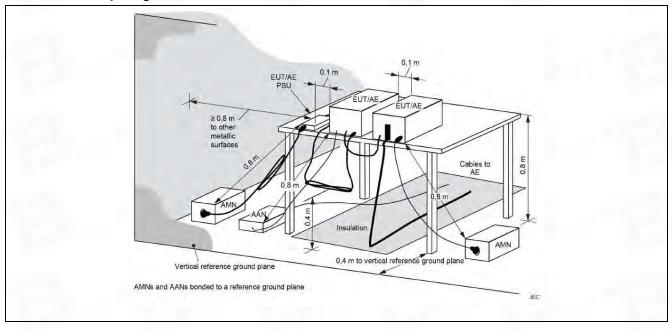
# **Conducted Emission at AC power line**

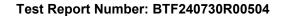
Test Requirement:	47 CFR Part 15.207(a)		
Test Method:	Refer to ANSI C63.10-2020 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices		
	Frequency of emission (MHz)	Conducted limit (dE Quasi-peak	βμV) Average
Test Limit:	0.15-0.5 0.5-5	66 to 56* 56	56 to 46* 46
	5-30 *Decreases with the logarithm of t	60 he frequency.	50

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

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

#### 6.1.2 Test Setup Diagram:

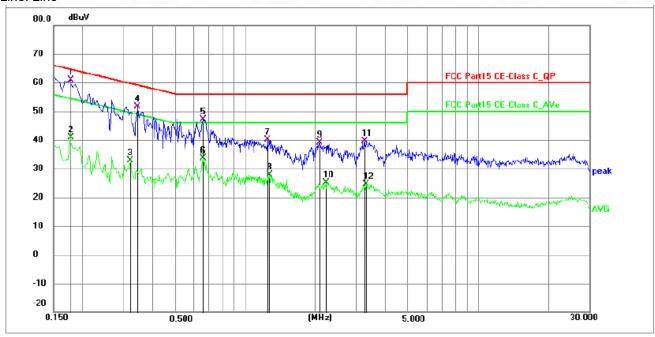




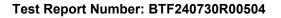


#### 6.1.3 Test Data:

All modes are tested, and only the worst mode 802.11a 5260MHz is showed in the report Line: Line

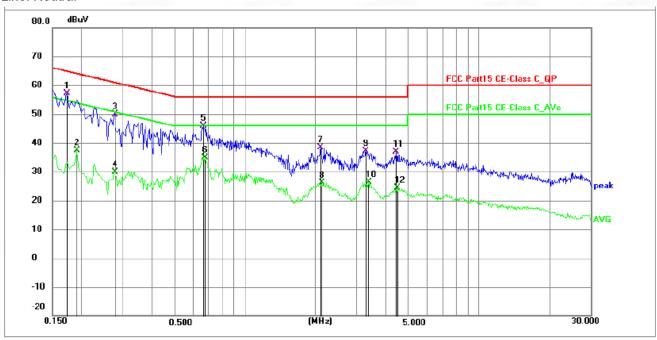


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1 *	0.1770	50.28	10.51	60.79	64.63	-3.84	QP	Р	
2	0.1770	30.45	10.51	40.96	54.63	-13.67	AVG	Р	
3	0.3209	22.37	10.57	32.94	49.68	-16.74	AVG	Р	
4	0.3435	40.96	10.57	51.53	59.12	-7.59	QP	Р	
5	0.6582	36.51	10.66	47.17	56.00	-8.83	QP	Р	
6	0.6582	23.03	10.66	33.69	46.00	-12.31	AVG	Р	
7	1.2480	29.38	10.66	40.04	56.00	-15.96	QP	Р	
8	1.2701	17.29	10.66	27.95	46.00	-18.05	AVG	Р	
9	2.0850	28.41	10.68	39.09	56.00	-16.91	QP	Р	
10	2.2244	14.37	10.68	25.05	46.00	-20.95	AVG	Р	
11	3.2505	29.02	10.65	39.67	56.00	-16.33	QP	Р	
12	3.2955	14.04	10.65	24.69	46.00	-21.31	AVG	Р	

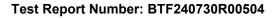




Line: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1 *	0.1723	46.64	10.49	57.13	64.85	-7.72	QP	Р	
2	0.1905	26.84	10.54	37.38	54.01	-16.63	AVG	Р	
3	0.2760	39.41	10.56	49.97	60.94	-10.97	QP	Р	
4	0.2760	19.40	10.56	29.96	50.94	-20.98	AVG	Р	
5	0.6630	35.18	10.66	45.84	56.00	-10.16	QP	Р	
6	0.6720	24.15	10.67	34.82	46.00	-11.18	AVG	Р	
7	2.1030	27.61	10.68	38.29	56.00	-17.71	QP	Р	
8	2.1433	15.46	10.68	26.14	46.00	-19.86	AVG	Р	
9	3.2910	26.55	10.65	37.20	56.00	-18.80	QP	Р	
10	3.3810	15.81	10.64	26.45	46.00	-19.55	AVG	Р	
11	4.4160	26.14	10.70	36.84	56.00	-19.16	QP	Р	
12	4.4923	13.62	10.70	24.32	46.00	-21.68	AVG	Р	





# 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 C63.10-2020 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:

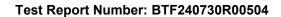
Please Refer to Appendix for Details.





### 6.3 Maximum conducted output power

olo maximam cona	ucted output power
	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)
rest requirement.	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 C63.10-2020, 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.
Test Limit:	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.  For fixed point-to-point transmitters that employ a directional antenna gain greater
Took Emilie.	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.





	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 level for the
Procedure:	entire duration of every sweep. If the EUT transmits continuously (i.e., with no OFF
Flocedule.	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.
C24 FUT Operations	

#### 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:

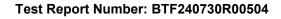
Please Refer to Appendix for Details.





### 6.4 Power spectral density

6.4 Power spectral	density
	47 CFR Part 15.407(a)(1)(i)
	47 CFR Part 15.407(a)(1)(ii)
To at Danwinson ant	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)(3)(i)
Test Method:	ANSI C63.10-2020, 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. Fixed, point-to-point operations exclude the use of point-to-multipoint systems,
Test Limit:	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





	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
	measurement was performed using the power meter method PM.)
	b) Use the peak search function on the instrument to find the peak of the spectrum.
	c) Make the following adjustments to the peak value of the spectrum, if applicable:
	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.
	2) If method SA-3A was used and the linear mode was used in step h) of 12.3.2.7,
	add
Procedure:	1 dB to the final result to compensate for the difference between linear averaging
1 10004410.	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
	over 1 MHz bandwidth, the following adjustments to the procedures apply:
	1) Set RBW >= 1 / T, where T is defined in 12.2 a).
	2) Set VBW >= [3 × RBW].
	of continuous transmission or are corrected upward for duty cycle.
	3) Care shall be taken such that the measurements are performed during a period

#### 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.





# 6.5 Emission bandwidth and occupied bandwidth

Tarak Danishin	U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use.
Test Requirement:	U-NII 3, U-NII 4: 47 CFR Part 15.407(e)
Test Method:	ANSI C63.10-2020, section 6.9.3 & 12.4
Test Method.	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.
	Emission bandwidth:
	a) Set RBW = approximately 1% of the emission bandwidth.
	b) Set the VBW > RBW.
	c) Detector = peak.
	d) Trace mode = max hold.
	e) Measure the maximum width of the emission that is 26 dB down from the peak of the emission.
	Compare this with the RBW setting of the instrument. Readjust RBW and repeat
	measurement
	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% of
	the OBW,
	and VBW shall be approximately three times the RBW, unless otherwise specified
	by the
	applicable requirement.
	c) Set the reference level of the instrument as required, keeping the signal from
Procedure:	exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral
riocedule.	envelope
	shall be more than [10 log (OBW/RBW)] below the reference level. Specific
	guidance is given
	in 4.1.5.2.
	d) Step a) through step c) might require iteration to adjust within the specified
	range.
	e) Video averaging is not permitted. Where practical, a sample detection and single
	sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace
	stabilizes) shall be
	used.
	f) Use the 99% power bandwidth function of the instrument (if available) and report
	the measured
	bandwidth.
	g) If the instrument does not have a 99% power bandwidth function, then the trace
	data points are recovered and directly summed in linear power terms. The recovered amplitude
	data points,
	beginning at the lowest frequency, are placed in a running sum until 0.5% of the
	total is reached;
	that frequency is recorded as the lower frequency. The process is repeated until
	99.5% of the
	total is reached; that frequency is recorded as the upper frequency. The 99%





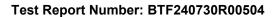
power bandwidth is
the difference between these two frequencies.
h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument
display; the plot axes and the scale units per division shall be clearly labeled.  Tabular data may
be reported in addition to the plot(s).
6 dB 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:

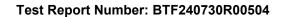
Please Refer to Appendix for Details.





# 6.6 Band edge emissions (Radiated)

	47 CFR Part 15.407(b)	(1)					
Toot Doguiroment	47 CFR Part 15.407(b)	(2)					
Test Requirement:	47 CFR Part 15.407(b)	(4)					
	47 CFR Part 15.407(b)	` '					
Test Method:		ANSI C63.10-2020, section 12.7.4, 12.7.5, 12.7.6					
Tool Mourou.	For transmitters operat			ssions outside of the			
	5.15-5.35 GHz band sh For transmitters operat	nall not exceed an e.i.r.	p. of −27 dBm/N	1Hz.			
	5.15-5.35 GHz band sh						
	For transmitters operat						
	All emissions shall be I						
	or below the band edge						
	below the band edge, a						
	linearly to a level of 15						
	from 5 MHz above or b		creasing linearry	to a level of 27			
	dBm/MHz at the band	<u> </u>	N 41 1-				
	MHz	MHz	MHz	GHz			
	0.090-0.110	16.42-16.423	399.9-410	4.5-5.15			
	10.495-0.505	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			
	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			
			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. 2	13.25-13.4			
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 13.36-13.41	322-335.4	3600-4400	(2)			
	¹Until February 1, 1999	, this restricted band s	hall be 0.490-0.5	510 MHz.			
	<sup>2</sup> Above 38.6						
	The field strength of er exceed the limits show MHz, compliance with measurement instrume 1000 MHz, compliance based on the average 15.35apply to these me	n in § 15.209. At frequenthe limits in § 15.209shentation employing a Clewith the emission limit value of the measured	encies equal to c all be demonstra SPR quasi-peak s in § 15.209sha	or less than 1000 ated using a detector. Above all be demonstrated			
	Except as provided els	ewhere in this subpart,	the emissions fi	rom an intentional			



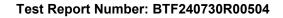


	radiator shall not exceed	d the field strength levels spec	ified in the following table:
	Frequency (MHz)	Field strength	Measurement
		(microvolts/meter)	distance
		(,	(meters)
	0.009-0.490	2400/F(kHz)	300
	0.490-1.705	24000/F(kHz)	30
	1.705-30.0	30	30
	30-88	100 **	3
	88-216	150 **	3
	216-960	200 **	3
	Above 960	500	3
	Above 1GHz:	300	3
Procedure:	above the ground at a 3 degrees to determine the b. The EUT was set 3 m was mounted on the top c. The antenna height is determine the maximum polarizations of the antended. For each suspected of the antenna was tuned of below 30MHz, the an was turned from 0 degree. The test-receiver syst Bandwidth with Maximum f. If the emission level of specified, then testing conception reported. Otherwise the re-tested one by one us in a data sheet.  g. Test the EUT in the long the set of the	f the EUT in peak mode was 1 ould be stopped and the peak emissions that did not have 1 ing peak or average method as owest channel, the middle chartements are performed in X, Y,	r. The table was rotated 360 tion. Ince-receiving antenna, which tower. In meters above the ground to oth horizontal and vertical surement. Indeed to its worst case and then eters (for the test frequency meter) and the rotatable table maximum reading. Inction and Specified  OdB lower than the limit values of the EUT would be odB margin would be as specified and then reported the positioning for
	i. Repeat above proceds Remark: 1. Level= Read Level+ 0 2. Scan from 18GHz to points marked on above	found the X axis positioning wares until all frequencies meas Cable Loss+ Antenna Factor- I 40GHz, the disturbance above a plots are the highest emission	Preamp Factor e 18GHz was very low. The ns could be found when
	emissions from the radioneed not be reported. 3. As shown in this sect	oints had been displayed. The ator which are attenuated more ion, for frequencies above 1Gl mits. However, the peak field s	e than 20dB below the limit Hz, the field strength limits
	not exceed the maximum dB under any condition than the average limit, of	m permitted average limits spe of modulation. For the emissionly the peak measurement is	cified above by more than 20 ons whose peak level is lowe shown in the report.
		ve 18GHz were very low and the ound when testing, so only the	

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

(	Operating Environment:	
-	Temperature:	25.5 °C
П	Humidity:	50.6 %

displayed.

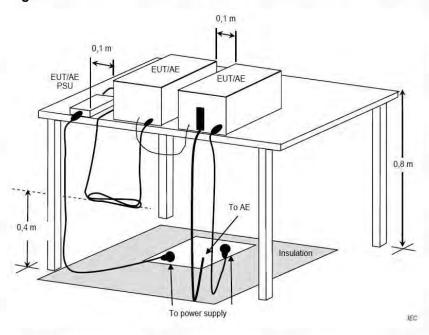




Atmospheric Pressure:

1010 mbar

## 6.6.2 Test Setup Diagram:







#### 6.6.3 Test Data:

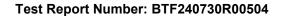
Note: All modes are tested, and only the worst mode 802.11a 5260MHz is showed in the report

Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization
	UNII-1 802.11a - 5180MHz Lowest band-edge						
4500.00	70.62	-28.79	41.83	74.00	-32.17	Peak	Н
5150.00	72.37	-27.24	45.13	74.00	-28.87	Peak	Н
4500.00	69.73	-28.79	40.94	74.00	-33.06	Peak	V
5150.00	70.33	-27.24	43.09	74.00	-30.91	Peak	V

Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization
	UNII-2a 802.11a - 5320MHz high band-edge						
5350.00	70.15	-27.08	43.07	74.00	-30.93	Peak	Н
5460.00	72.81	-26.99	45.82	74.00	-28.18	Peak	Н
5350.00	70.26	-27.08	43.18	74.00	-30.82	Peak	V
5460.00	71.37	-26.99	44.38	74.00	-29.62	Peak	V

Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization
	UNII-2c - 802.11a 5500MHz Lowest band-edge						
5460.00	77.99	-26.99	51.00	74.00	-23.00	Peak	Н
5470.00	78.10	-26.98	51.12	68.30	-17.18	Peak	Н
5460.00	78.68	-26.99	51.69	74.00	-22.31	Peak	V
5470.00	76.29	-26.98	49.31	68.30	-18.99	Peak	V

Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization	
	UNII-2c - 802.11a 5700MHz high band-edge							
5725.00	76.92	-26.22	50.70	68.30	-17.60	Peak	Н	
5725.00	74.43	-26.22	48.21	68.30	-20.09	Peak	V	





Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization
		UNII-3 8	302.11a - 5745	MHz Lowest ba	nd-edge		
5650.00	70.09	-26.46	43.63	68.20	-24.57	Peak	Н
5700.00	90.43	-26.30	64.13	105.20	-41.07	Peak	Н
5720.00	97.49	-26.24	71.25	110.80	-39.55	Peak	Н
5725.00	98.36	-26.22	72.14	122.20	-50.06	Peak	Н
5650.00	72.74	-26.46	46.28	68.20	-21.92	Peak	V
5700.00	92.28	-26.30	65.98	105.20	-39.22	Peak	V
5720.00	96.84	-26.24	70.60	110.80	-40.20	Peak	V
5725.00	98.26	-26.22	72.04	122.20	-50.16	Peak	V

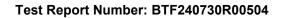
Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization
		UNII-3	302.11a - 5825	MHz Lowest ba	nd-edge		
5850.00	96.97	-25.82	71.15	122.20	-51.05	Peak	Н
5855.00	91.47	-25.80	65.67	110.80	-45.13	Peak	Н
5875.00	71.09	-25.73	45.36	105.20	-59.84	Peak	Н
5925.00	71.49	-25.57	45.92	68.20	-22.28	Peak	Н
5850.00	94.83	-25.82	69.01	122.20	-53.19	Peak	V
5855.00	92.16	-25.80	66.36	110.80	-44.44	Peak	V
5875.00	70.81	-25.73	45.08	105.20	-60.12	Peak	V
5925.00	71.02	-25.57	45.45	68.20	-22.75	Peak	V





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

Test Requirement:	47 CFR Part 15.407(b)(9)				
Test Method:	ANSI C63.10-2020, section 12.7.4, 12.7.5, 12.7.6				
	limits set forth in § 15.20  Except as provided else	low 1 GHz must comply with to 109.  where in this subpart, the emist the field strength levels spectively field strength (microvolts/meter)	ssions from an intentional		
Test Limit:		(microvoits/meter)	(meters)		
TOSK EMITTE	0.009-0.490 0.490-1.705 1.705-30.0 30-88 88-216 216-960 Above 960	2400/F(kHz) 24000/F(kHz) 30 100 ** 150 ** 200 **	300 30 30 3 3 3 3 3		
Procedure:	above the ground at a 3 degrees to determine the b. The EUT was set 3 or which was mounted on a c. The antenna height is determine the maximum polarizations of the antend. For each suspected of the antenna was tuned to below 30MHz, the and was turned from 0 degree. The test-receiver systim Bandwidth with Maximum f. If the emission level of specified, then testing concepted. Otherwise the re-tested one by one us data sheet.  g. Test the EUT in the load to the testing mode, and in the rediation measure. Transmitting mode, and in the readiation measure.  1. Level = Read Level + (2. Scan from 9kHz to 30 points marked on above testing, so only above pemissions from the radiation meed not be reported.  3. The disturbance below	EUT was placed on the top of meter semi-anechoic chamber e position of the highest radiater 10 meters away from the interest the top of a variable-height and a varied from one meter to four a value of the field strength. Both and are set to make the meast emission, the EUT was arranged to heights from 1 meter to 4 meters as to 360 degrees to find the tem was set to Peak Detect Furn Hold Mode. If the EUT in peak mode was 1 could be stopped and the peak emissions that did not have 10 ting quasi-peak method as specified was are performed in X, Y, found the X axis positioning was until all frequencies meast contained and the peak emissions that did not have 10 ting quasi-peak method as specified was 1 and 10 till frequencies meast contained the peak ements are performed in X, Y, found the X axis positioning was until all frequencies meast contained the highest emission on the had been displayed. The later which are attenuated more was 1 till for the peak entering, so only the above in the first was very low and the entesting, so only the above in the position of the peak entering and the entesting, so only the above in the position of the peak entering and the entesting, so only the above in the peak entering and the entesting, so only the above in the position of the peak entering and the entesting, so only the above in the peak entering and the	er. The table was rotated 360 tion.  Inference-receiving antenna, tenna tower.  In meters above the ground to oth horizontal and vertical urement.  Indeed to its worst case and then eters (for the test frequency meter) and the rotatable table maximum reading.  Inction and Specified  OdB lower than the limit values of the EUT would be odB margin would be offied and then reported in a mel, the Highest channel.  It is the worst case.  Increamp Factor of MHz was very low. The maximum reading to the could be found when amplitude of spurious than 20dB below the limit harmonics were the highest		

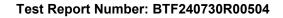




- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which 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.

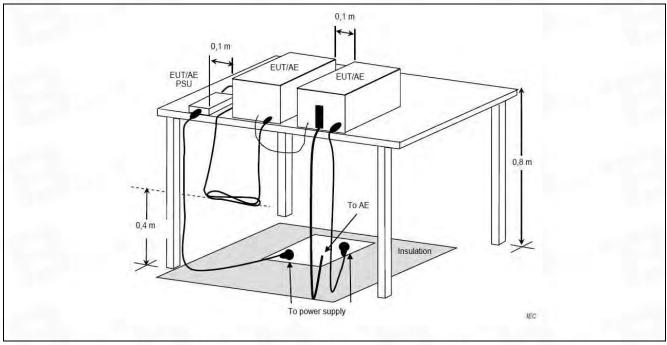
#### 6.7.1 E.U.T. Operation:

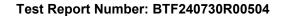
Operating Environment:	
Temperature:	25.5 °C
Humidity:	50.6 %
Atmospheric Pressure:	1010 mbar





# 6.7.2 Test Setup Diagram:



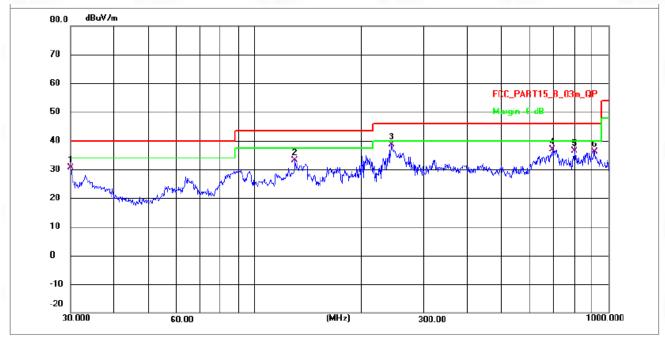




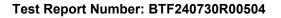
#### 6.7.3 Test Data:

Note: All modes are tested, and only the worst mode 802.11a 5260MHz is showed in the report.

Polarization: Horizontal

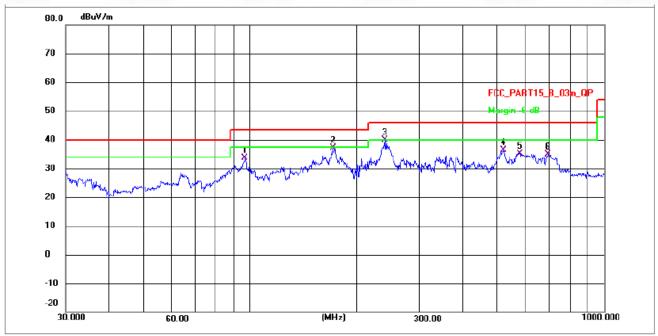


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	30.0000	33.92	-3.32	30.60	40.00	-9.40	QP	Р
2	129.6950	55.41	-22.19	33.22	43.50	-10.28	QP	Р
3 *	243.3771	59.78	-21.11	38.67	46.00	-7.33	QP	Р
4	694.4174	54.55	-17.65	36.90	46.00	-9.10	QP	Р
5	798.9796	54.14	-17.85	36.29	46.00	-9.71	QP	Р
6	916.0683	52.27	-16.13	36.14	46.00	-9.86	QP	Р

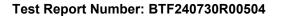




#### Polarization: Vertical



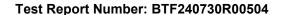
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	96.6050	56.08	-22.52	33.56	43.50	-9.94	QP	Р
2	171.3925	58.97	-21.81	37.16	43.50	-6.34	QP	Р
3 *	240.4084	60.95	-21.15	39.80	46.00	-6.20	QP	Р
4	519.9755	55.16	-18.86	36.30	46.00	-9.70	QP	Р
5	577.6562	53.67	-18.48	35.19	46.00	-10.81	QP	Р
6	694.4174	52.55	-17.65	34.90	46.00	-11.10	QP	Р





# 6.8 Undesirable emission limits (above 1GHz)

	47 OFF Part 45 407(L)										
	47 CFR Part 15.407(b)										
Test Requirement:	47 CFR Part 15.407(b)										
	47 CFR Part 15.407(b)										
	47 CFR Part 15.407(b)										
Test Method:		ection 12.7.4, 12.7.5, 12									
		ting in the 5.15-5.25 GH									
		hall not exceed an e.i.r.									
		ting in the 5.25-5.35 GH									
	5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.										
	For transmitters opera-	For transmitters operating solely in the 5.725-5.850 GHz band:									
		limited to a level of −27									
		e increasing linearly to									
		and from 25 MHz above									
		.6 dBm/MHz at 5 MHz									
		pelow the band edge in	creasing linearly	to a level of 27							
	dBm/MHz at the band	•		011							
	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		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							
	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							
			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								
	6.31175-6.31225	123-138	2200-2300	14.47-14.5							
Test Limit:	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							
	0.002 0.000	25	2100.0 2000	2							
	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 13.36-13.41	322-335.4	3600-4400	(2)							
		9, this restricted band s	hall be 0.490-0.5	510 MHz.							
	<sup>2</sup> Above 38.6										
	The field strength of er	missions appearing with	nin these frequer	ncv bands shall not							
		n in § 15.209. At freque									
		the limits in § 15.209sh									
	•	entation employing a Cl		•							
		e with the emission limit									
	15.35apply to these m	value of the measured easurements.	emissions. The	hiovieione in 8							
	.0.000,000										
		sewhere in this subpart,									
		ed the field strength lev									
	Frequency (MHz)	Field strength		Measurement							





	(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:		
a. For above 1GHz, t	the EUT was placed on the top of	a rotating table 1.5 meters
above the ground at	the EUT was placed on the top of a 3 meter fully-anechoic chamber e the position of the highest radiat	The table was rotated 360
above the ground at degrees to determine	a 3 meter fully-anechoic chamber	The table was rotated 360 ion.
above the ground at degrees to determine b. The EUT was set 3	a 3 meter fully-anechoic chamber the position of the highest radiat meters away from the interferen	The table was rotated 360 ion. ioe-receiving antenna, which
above the ground at degrees to determine b. The EUT was set 3 was mounted on the	a 3 meter fully-anechoic chamber the position of the highest radiat 3 meters away from the interferen top of a variable-height antenna t	The table was rotated 360 ion. ce-receiving antenna, which ower.
above the ground at degrees to determine b. The EUT was set 3 was mounted on the c. The antenna heigh	a 3 meter fully-anechoic chamber the position of the highest radiat 3 meters away from the interferen top of a variable-height antenna t at is varied from one meter to four	The table was rotated 360 ion. ce-receiving antenna, which ower. meters above the ground to
above the ground at degrees to determine b. The EUT was set 3 was mounted on the c. The antenna heigh determine the maxim	a 3 meter fully-anechoic chamber the position of the highest radiat 3 meters away from the interferen top of a variable-height antenna t at is varied from one meter to four num value of the field strength. Bo	The table was rotated 360 ion. Ice-receiving antenna, which ower. In meters above the ground to the horizontal and vertical
above the ground at degrees to determine b. The EUT was set 3 was mounted on the c. The antenna heigh determine the maxim polarizations of the a	a 3 meter fully-anechoic chamber the position of the highest radiat 3 meters away from the interferen top of a variable-height antenna t at is varied from one meter to four	The table was rotated 360 ion. Ice-receiving antenna, which ower. Independent of the ground to the the desired the meters above the ground to the horizontal and vertical urement.

Bandwidth with Maximum Hold Mode.

#### Procedure:

in a data sheet. g. Test the EUT in the lowest channel, the middle channel, the Highest channel.

re-tested one by one using peak or average method as specified and then reported

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

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

- 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.

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

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





#### 6.8.2 Test Data:

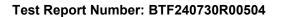
Note: All modes are tested, and only the worst mode 802.11a 5260MHz is showed in the report.

Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization		
	UNII-1 802.11a - 5180MHz TX mode								
10360.00	71.15	-24.45	46.70	74.00	-27.30	Peak	Н		
15540.00	70.40	-21.50	48.90	74.00	-25.10	Peak	Н		
10360.00	70.22	-24.45	45.77	74.00	-28.23	Peak	V		
15540.00	70.26	-21.50	48.76	74.00	-25.24	Peak	V		

Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization	
	UNII-1 802.11a - 5220MHz TX mode							
10440.00	69.26	-24.49	44.77	74.00	-29.23	Peak	Н	
15660.00	73.06	-21.53	51.53	74.00	-22.47	Peak	Н	
10440.00	69.78	-24.49	45.29	74.00	-28.71	Peak	V	
15660.00	72.83	-21.53	51.30	74.00	-22.70	Peak	V	

Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization	
	UNII-1 802.11a - 5240MHz TX mode							
10480.00	68.79	-24.51	44.28	74.00	-29.72	Peak	Н	
15720.00	72.25	-21.56	50.69	74.00	-23.31	Peak	Н	
10480.00	70.74	-24.51	46.23	74.00	-27.77	Peak	V	
15720.00	71.37	-21.56	49.81	74.00	-24.19	Peak	V	

Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization	
	UNII-2a 802.11a - 5260MHz TX mode							
10520.00	70.77	-24.40	46.37	74.00	-27.63	Peak	Н	
15780.00	71.32	-21.55	49.77	74.00	-24.23	Peak	Н	
10520.00	69.21	-24.40	44.81	74.00	-29.19	Peak	V	
15780.00	71.37	-21.55	49.82	74.00	-24.18	Peak	V	



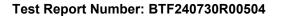


Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization
		UN	II-2a 802.11a -	- 5300MHz TX m	ode		
10600.00	70.83	-24.30	46.53	74.00	-27.47	Peak	Н
15900.00	70.79	-21.57	49.22	74.00	-24.78	Peak	Н
10600.00	70.83	-24.30	46.53	74.00	-27.47	Peak	V
15900.00	72.76	-21.57	51.19	74.00	-22.81	Peak	V

Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization
		UNII-	UNII-2a 802.1	1a - 5320MHz TX	mode		
10640.00	68.97	-24.22	44.75	74.00	-29.25	Peak	Н
15960.00	73.01	-21.59	51.42	74.00	-22.58	Peak	Н
10640.00	69.00	-24.22	44.78	74.00	-29.22	Peak	V
15960.00	71.27	-21.59	49.68	74.00	-24.32	Peak	V

Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization
		UN	II-2c 802.11a	- 5500MHz TX m	ode		
11000.00	70.52	-23.44	47.08	74.00	-26.92	Peak	Н
16500.00	70.24	-19.19	51.05	74.00	-22.95	Peak	Н
11000.00	69.37	-23.44	45.93	74.00	-28.07	Peak	V
16500.00	72.44	-19.19	53.25	74.00	-20.75	Peak	V

Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization
		UN	II-2c 802.11a -	- 5580MHz TX m	ode		
11160.00	71.39	-23.32	48.07	74.00	-25.93	Peak	Н
16740.00	70.30	-18.75	51.55	74.00	-22.45	Peak	Н
11160.00	71.44	-23.32	48.12	74.00	-25.88	Peak	V
16740.00	70.43	-18.75	51.68	74.00	-22.32	Peak	V



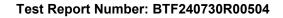


Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization
	UNII- UNII-2c 802.11a - 5700MHz TX mode						
11400.00	69.75	-23.14	46.61	74.00	-27.39	Peak	Н
17100.00	72.33	-17.89	54.44	74.00	-19.56	Peak	Н
11400.00	70.26	-23.14	47.12	74.00	-26.88	Peak	V
17100.00	71.72	-17.89	53.83	74.00	-20.17	Peak	V

Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization
		UN	III-3 802.11a -	5745MHz TX mo	ode		
11490.00	67.98	-23.07	44.91	74.00	-29.09	Peak	Н
17235.00	67.52	-17.36	50.16	74.00	-23.84	Peak	Н
11490.00	69.05	-23.07	45.98	74.00	-28.02	Peak	V
17235.00	69.43	-17.36	52.07	74.00	-21.93	Peak	V

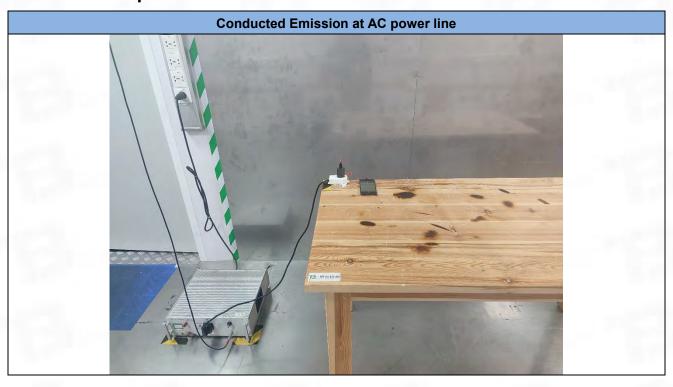
Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization
		UN	III-3 802.11a -	5785MHz TX mo	ode		
11570.00	69.91	-22.95	46.96	74.00	-27.04	Peak	Н
17355.00	71.17	-16.89	54.28	74.00	-19.72	Peak	Н
11570.00	69.04	-22.95	46.09	74.00	-27.91	Peak	V
17355.00	68.60	-16.89	51.71	74.00	-22.29	Peak	V

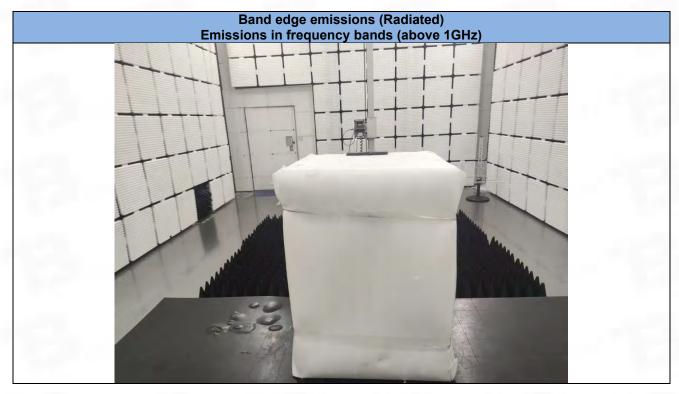
Frequency (MHz)	Read Level (dBuV)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Detector	Polarization
		UN	III-3 802.11a -	5825MHz TX mo	ode		
11650.00	68.12	-22.80	45.32	74.00	-28.68	Peak	Н
17475.00	70.14	-16.41	53.73	74.00	-20.27	Peak	Н
11650.00	67.72	-22.80	44.92	74.00	-29.08	Peak	V
17475.00	69.42	-16.41	53.01	74.00	-20.99	Peak	V

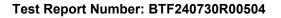




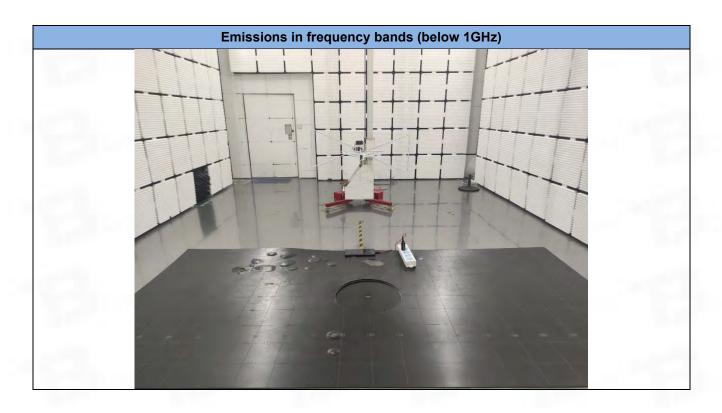
## **Test Setup Photos**

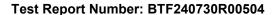






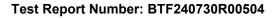








# **Appendix**



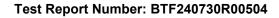


# 1. Duty Cycle

## 1.1 Test Result

### 1.1.1 Ant1

				A	nt1		
Mode	TX	Frequency	T_on	Period	Duty Cycle	Duty Cycle	Max. DC
Mode	Туре	(MHz)	(ms)	(ms)	(%)	Correction Factor (dB)	Variation (%)
		5180	1.395	1.437	97.08	0.13	0.12
		5200	1.393	1.436	97.01	0.13	0.26
		5240	1.393	1.436	97.01	0.13	0.12
		5260	1.393	1.436	97.01	0.13	0.13
		5300	1.393	1.437	96.94	0.14	0.12
000 11-	CICO	5320	1.395	1.438	97.01	0.13	0.12
802.11a	SISO	5500	1.393	1.435	97.07	0.13	0.00
		5580	1.394	1.436	97.08	0.13	0.12
		5700	1.393	1.436	97.01	0.13	0.13
		5745	1.393	1.436	97.01	0.13	0.13
		5785	1.393	1.437	96.94	0.14	0.13
		5825	1.393	1.435	97.07	0.13	0.12
		5180	1.290	1.332	96.85	0.14	0.13
		5200	1.290	1.332	96.85	0.14	0.00
		5240	1.290	1.332	96.85	0.14	0.00
		5260	1.290	1.333	96.77	0.14	0.26
		5300	1.290	1.333	96.77	0.14	0.13
802.11n	0100	5320	1.290	1.334	96.70	0.15	0.13
(HT20)	SISO	5500	1.290	1.334	96.70	0.15	0.13
		5580	1.290	1.334	96.70	0.15	0.13
		5700	1.290	1.332	96.85	0.14	0.00
		5745	1.289	1.333	96.70	0.15	0.26
		5785	1.289	1.331	96.84	0.14	0.00
		5825	1.289	1.331	96.84	0.14	0.00
		5190	0.639	0.681	93.83	0.28	0.13
		5230	0.638	0.680	93.82	0.28	0.25
802.11n	0100	5270	0.638	0.680	93.82	0.28	0.25
(HT40)	SISO	5310	0.638	0.680	93.82	0.28	0.26
		5510	0.637	0.679	93.81	0.28	0.01
		5550	0.638	0.680	93.82	0.28	0.25





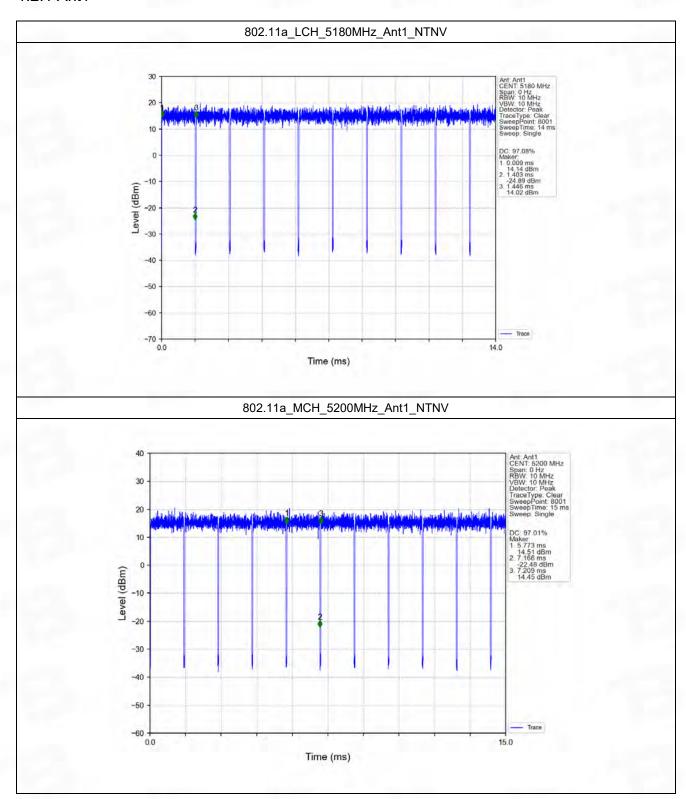
		5670	0.638	0.680	93.82	0.28	0.13
		5755	0.637	0.679	93.81	0.28	0.14
		5795	0.638	0.680	93.82	0.28	0.25
		5180	1.187	1.233	96.27	0.17	0.13
		5200	1.186	1.231	96.34	0.16	0.13
		5240	1.186	1.232	96.27	0.17	0.13
		5260	1.186	1.232	96.27	0.17	0.13
		5300	1.186	1.232	96.27	0.17	0.00
802.11ac	CICO	5320	1.187	1.232	96.35	0.16	0.13
(VHT20)	SISO	5500	1.187	1.232	96.35	0.16	0.13
		5580	1.186	1.232	96.27	0.17	0.13
		5700	1.186	1.233	96.19	0.17	0.26
		5745	1.185	1.232	96.19	0.17	0.13
		5785	1.186	1.233	96.19	0.17	0.13
		5825	1.186	1.233	96.19	0.17	0.13
		5190	0.591	0.636	92.92	0.32	0.12
		5230	0.594	0.637	93.25	0.30	0.35
		5270	0.594	0.636	93.40	0.30	0.11
000 44		5310	0.593	0.636	93.24	0.30	0.12
802.11ac	SISO	5510	0.592	0.636	93.08	0.31	0.23
(VHT40)		5550	0.593	0.636	93.24	0.30	0.12
		5670	0.594	0.636	93.40	0.30	0.01
		5755	0.591	0.636	92.92	0.32	0.12
		5795	0.593	0.636	93.24	0.30	0.23
		5210	0.299	0.340	87.94	0.56	0.12
		5290	0.297	0.341	87.10	0.60	0.11
802.11ac	SISO	5530	0.298	0.340	87.65	0.57	0.28
(VHT80)		5610	0.298	0.340	87.65	0.57	0.11
		5775	0.295	0.340	86.76	0.62	0.12

Test Report Number: BTF240730R00504



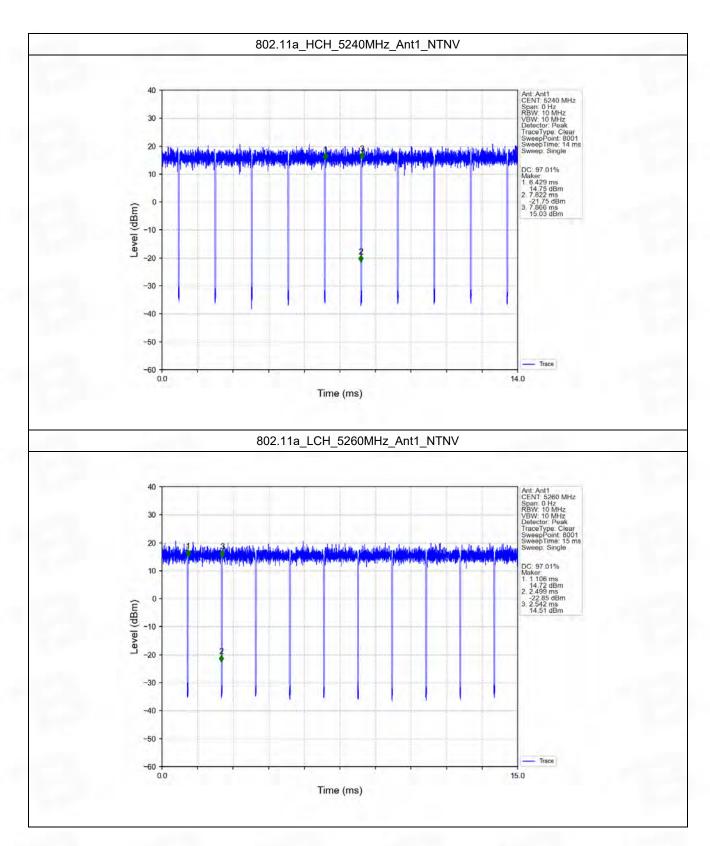
## 1.2 Test Graph

### 1.2.1 Ant1

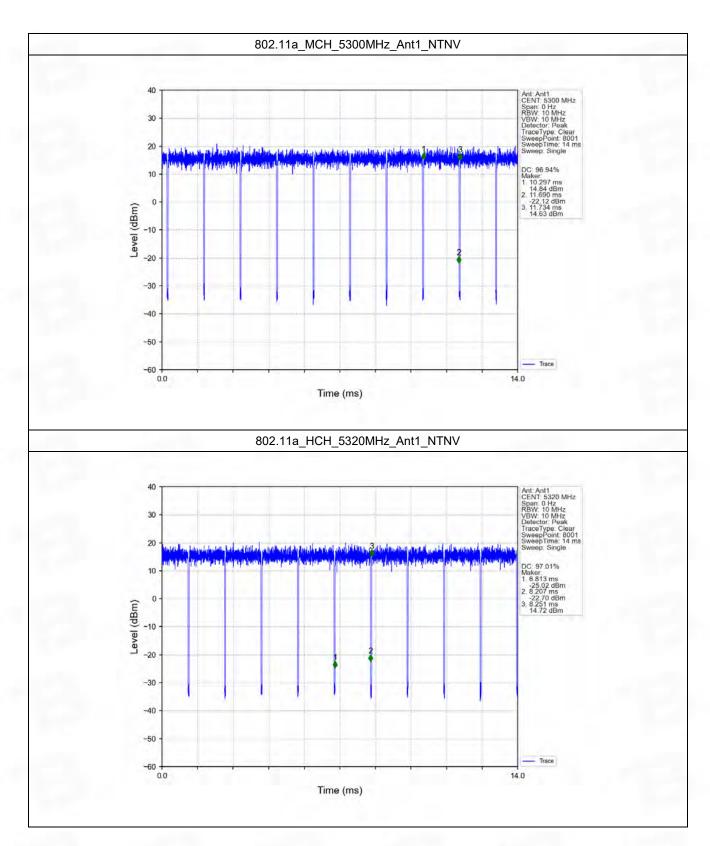


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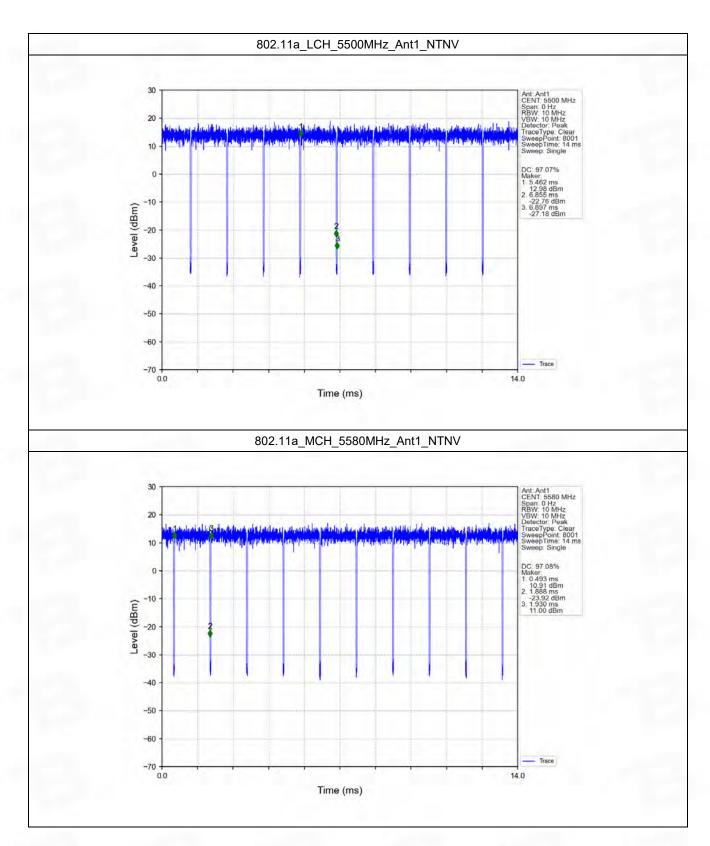




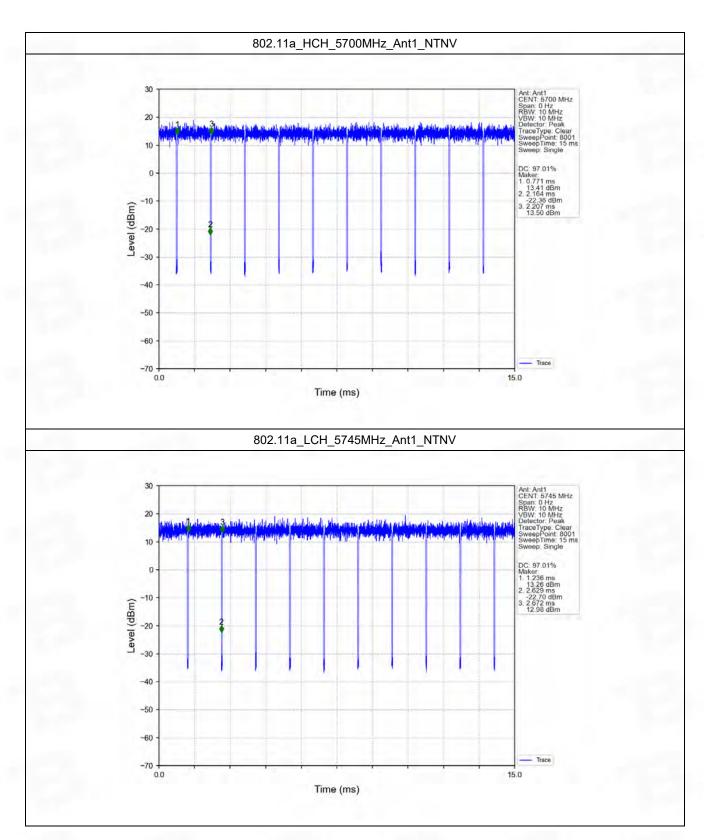




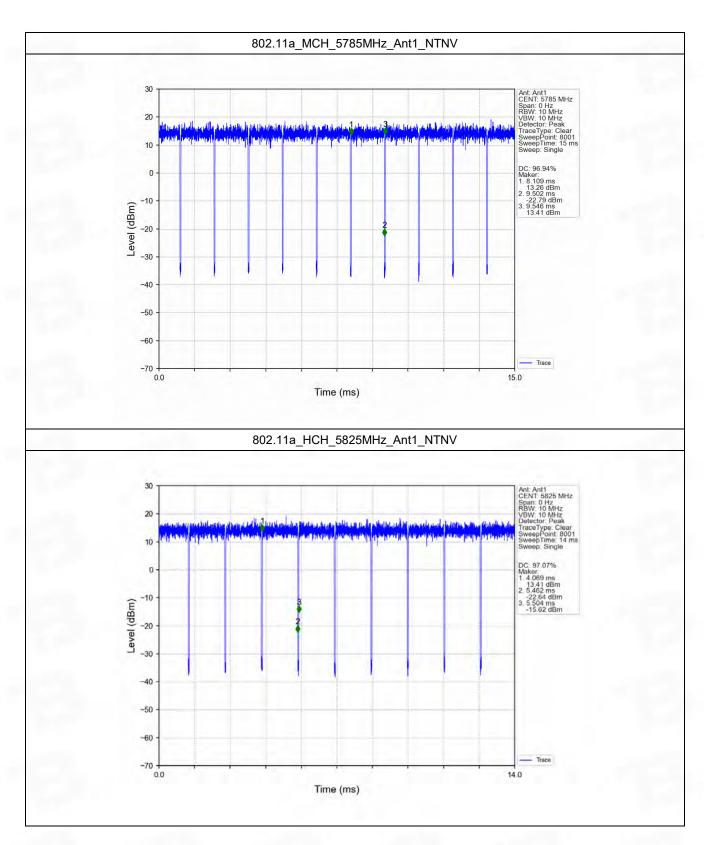




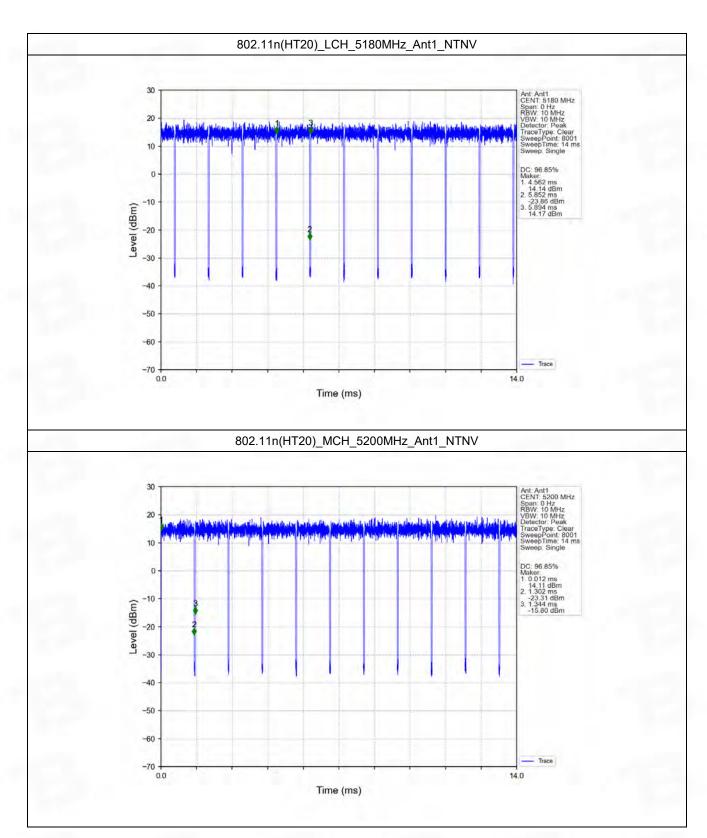




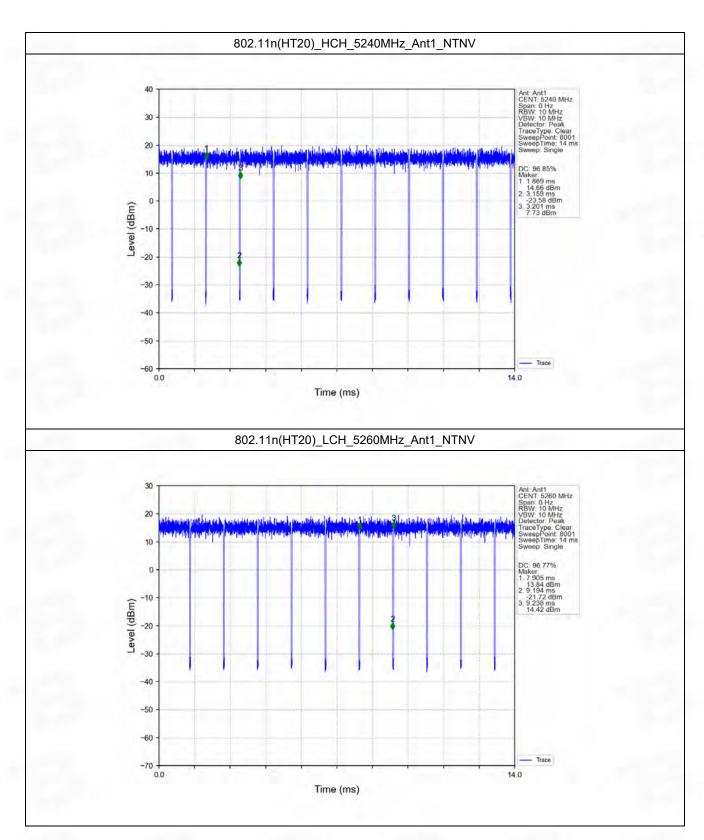




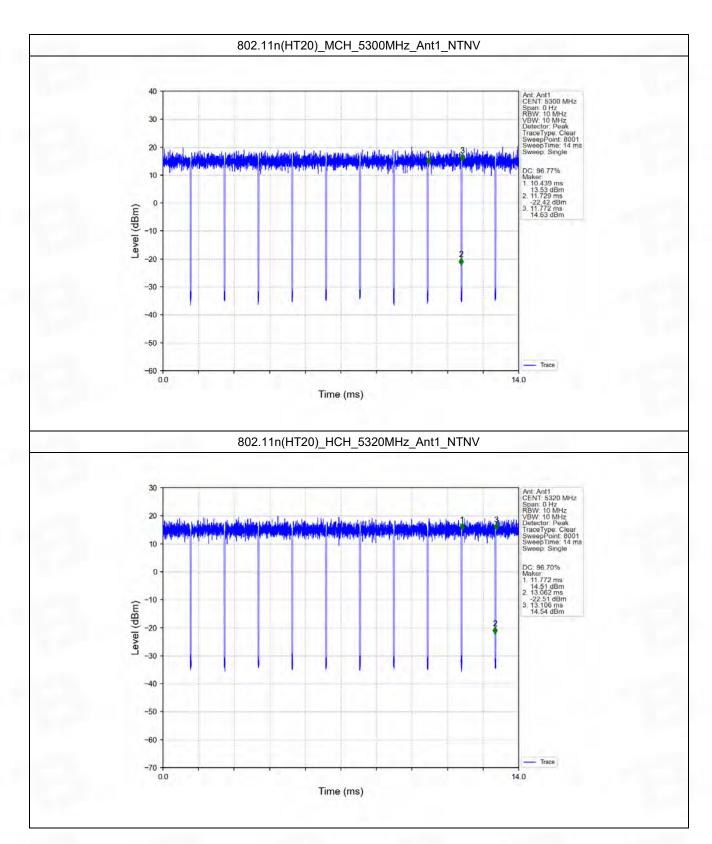




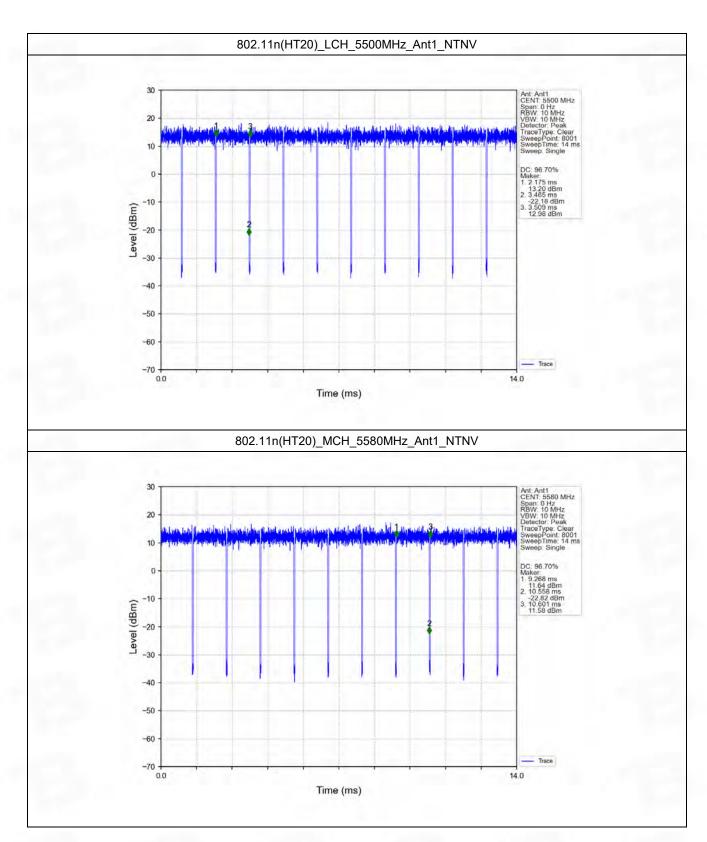




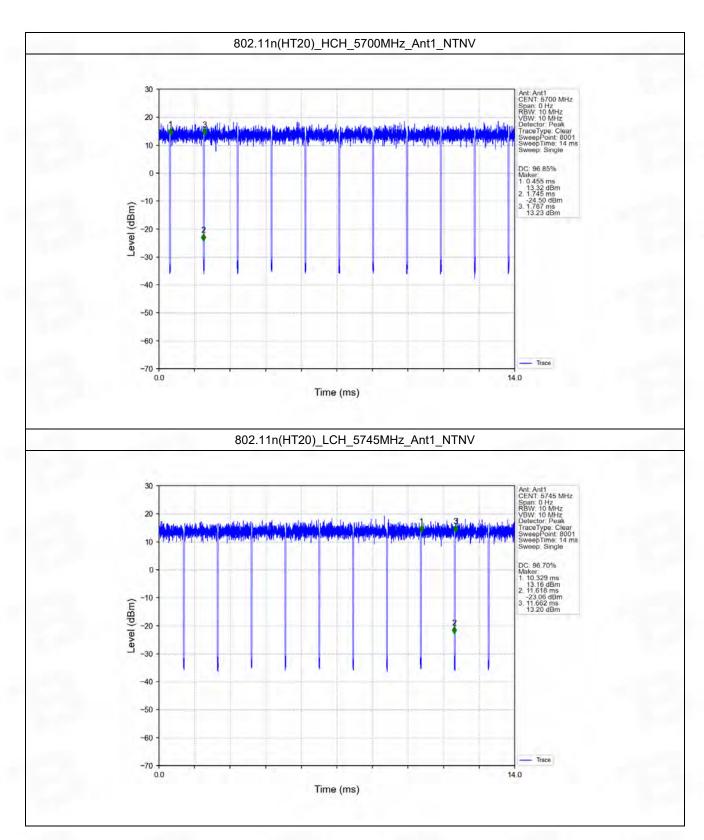




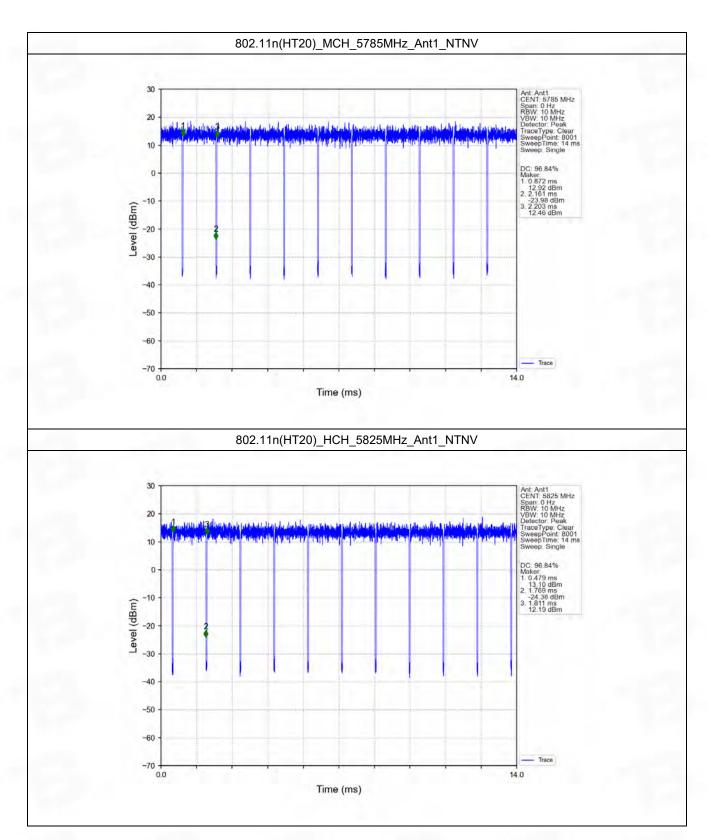




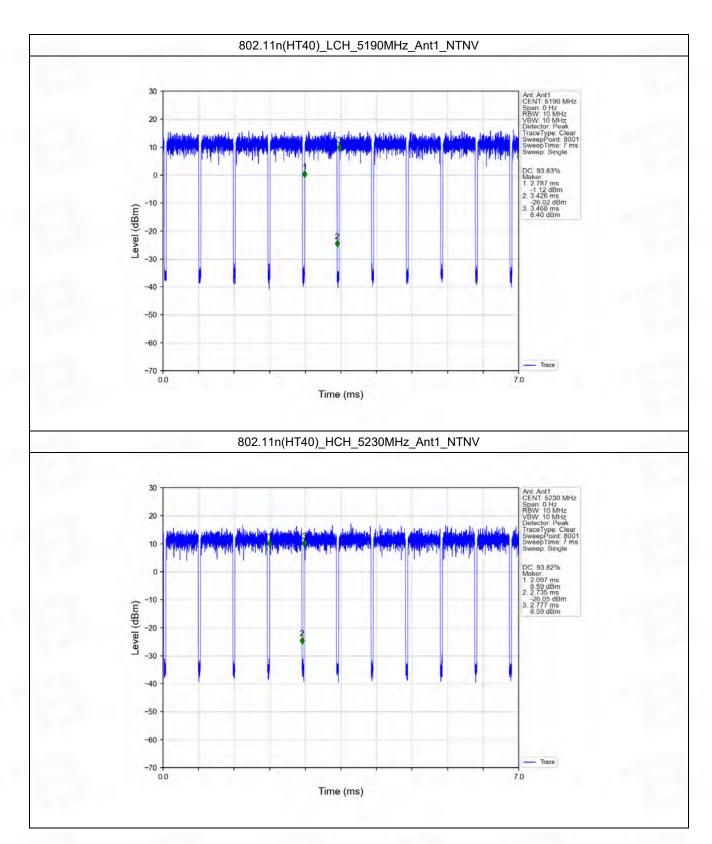




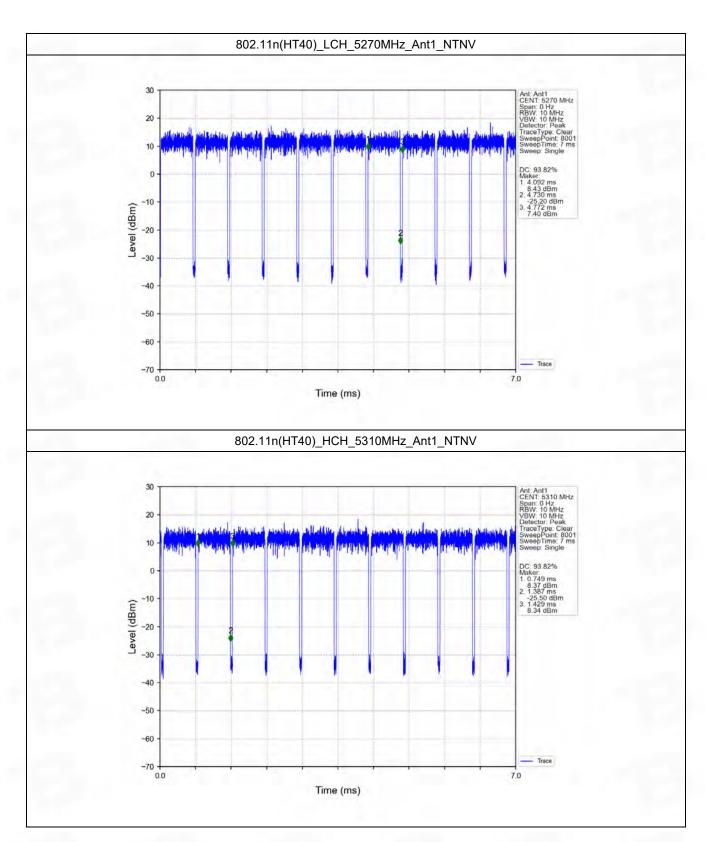




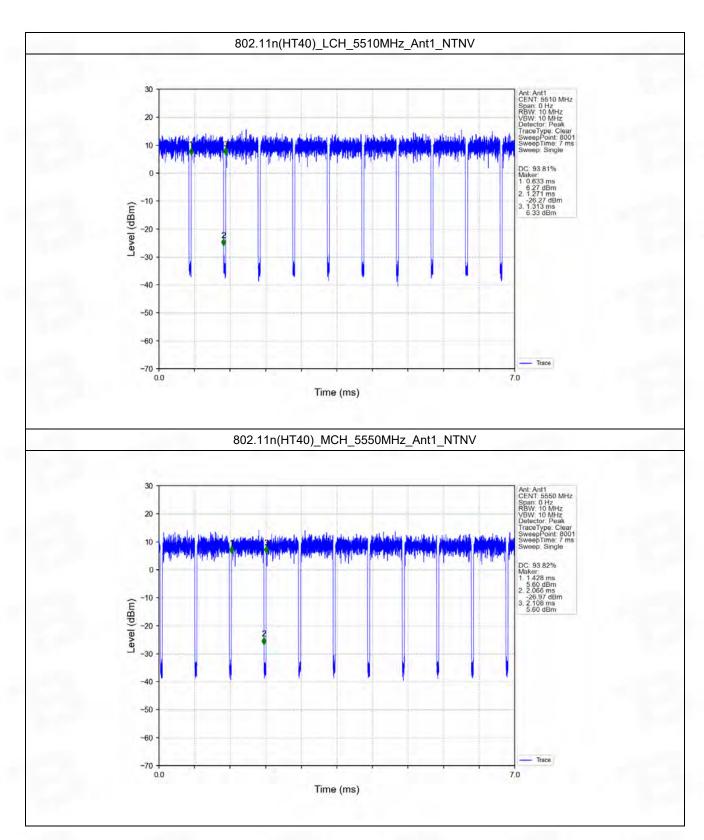




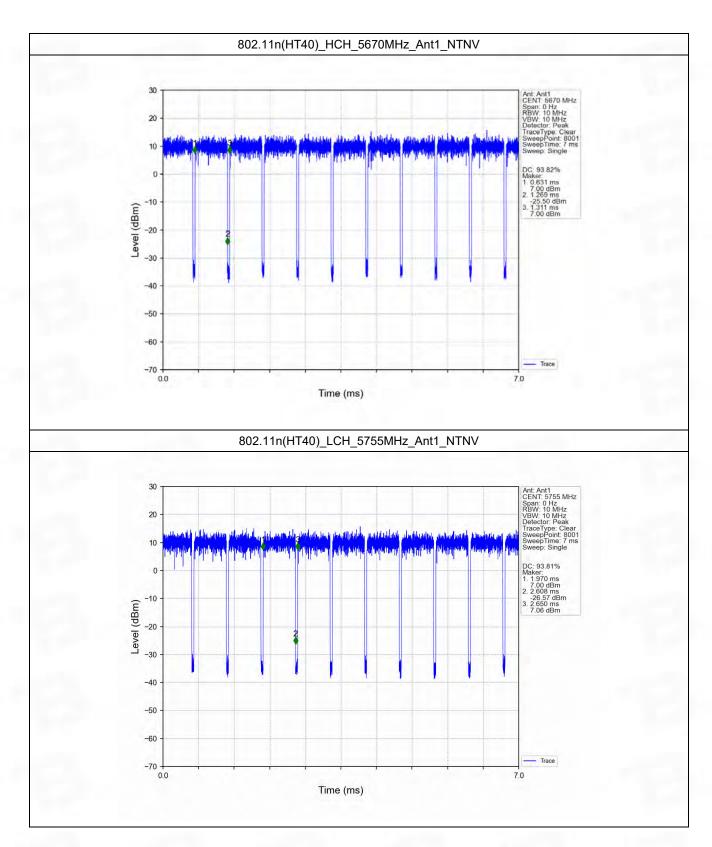




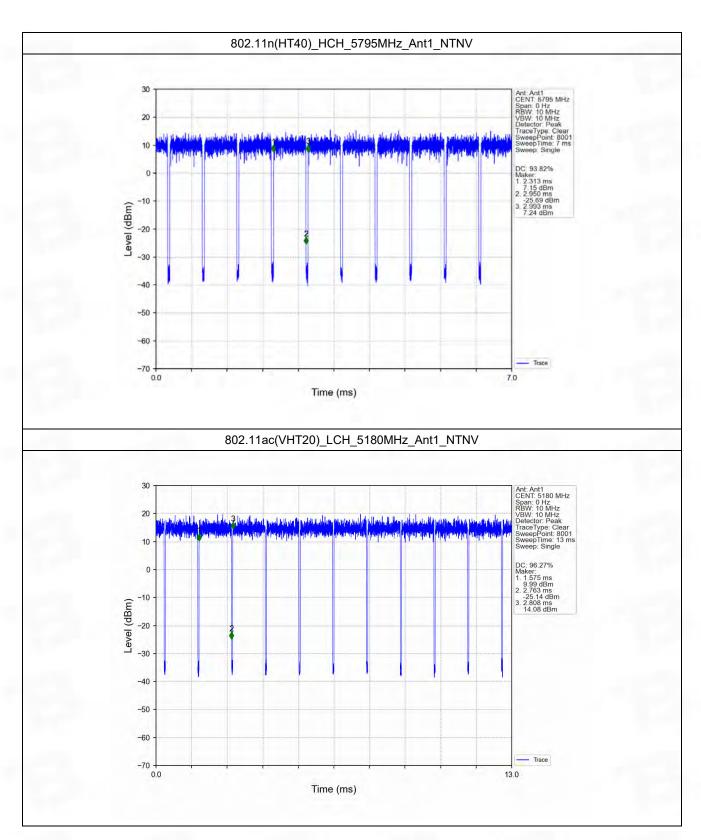




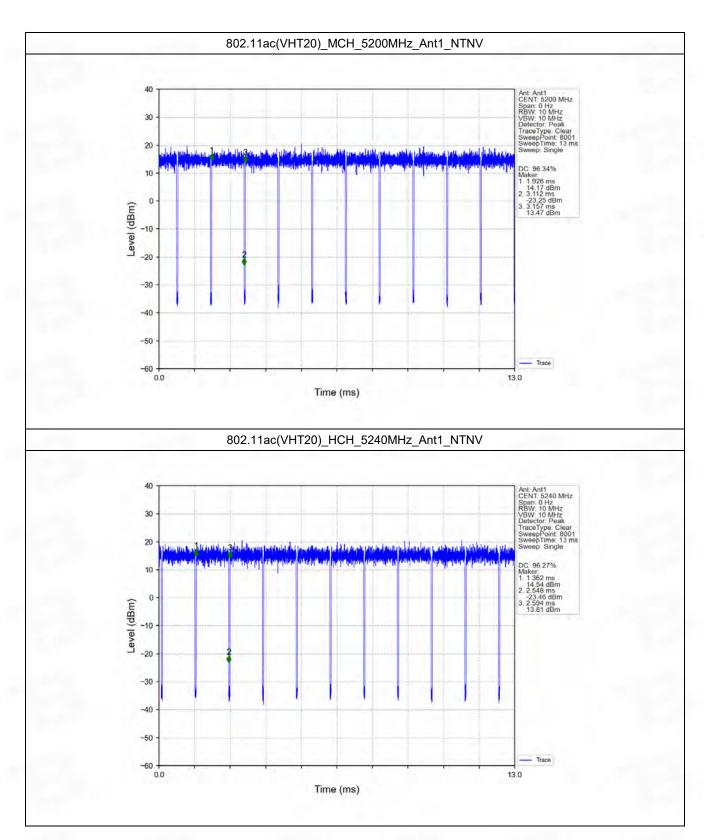




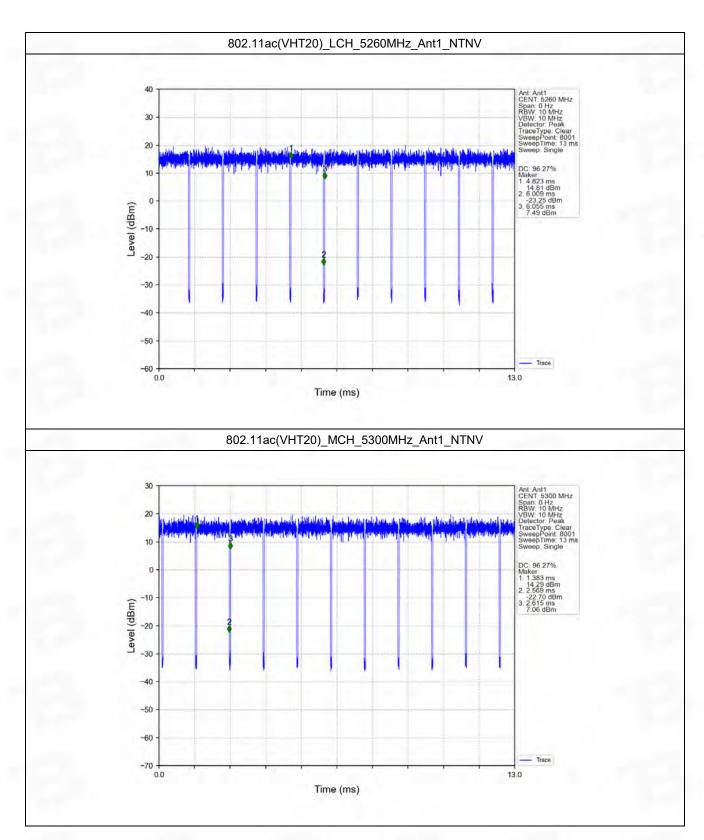




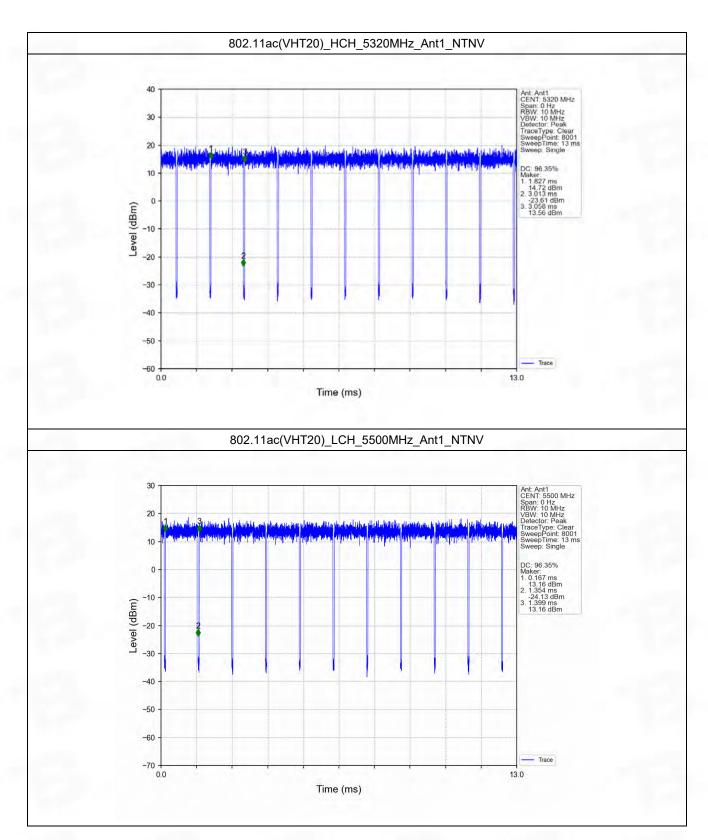




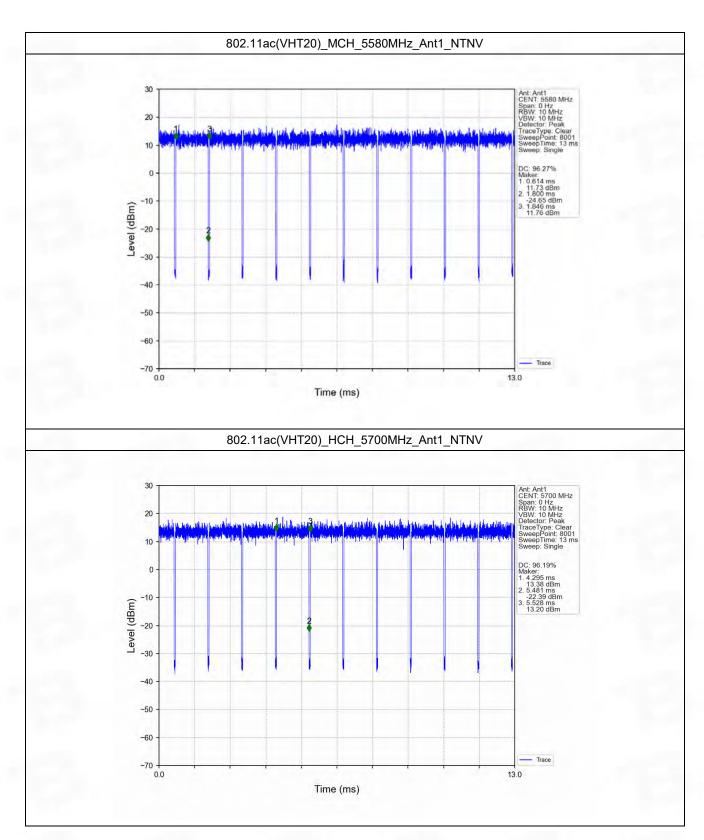




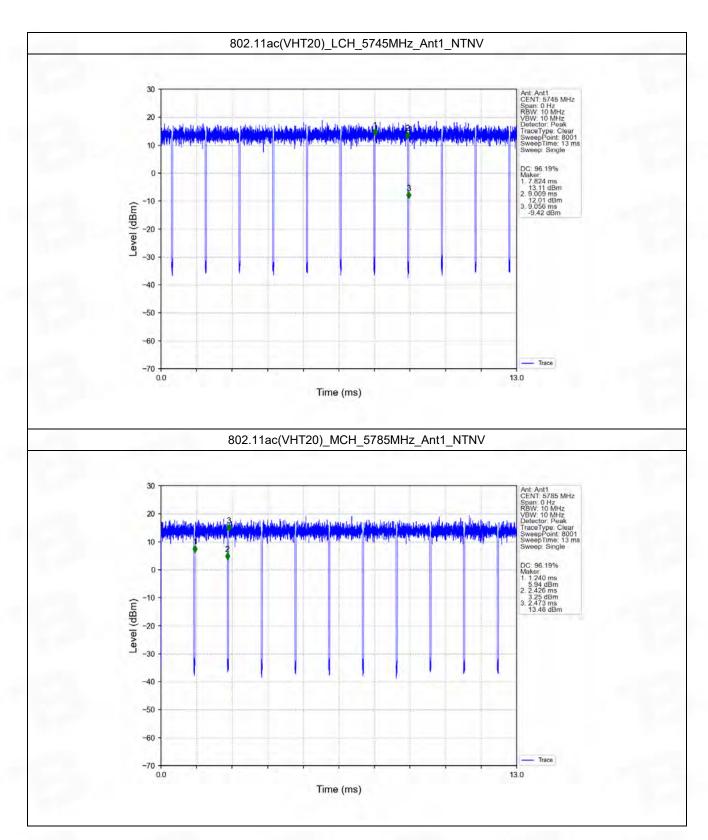




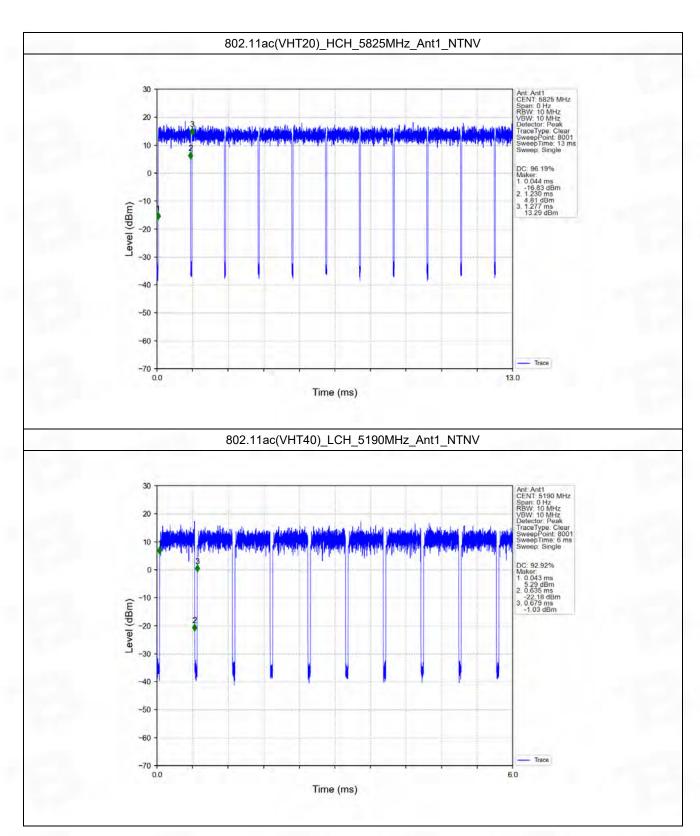




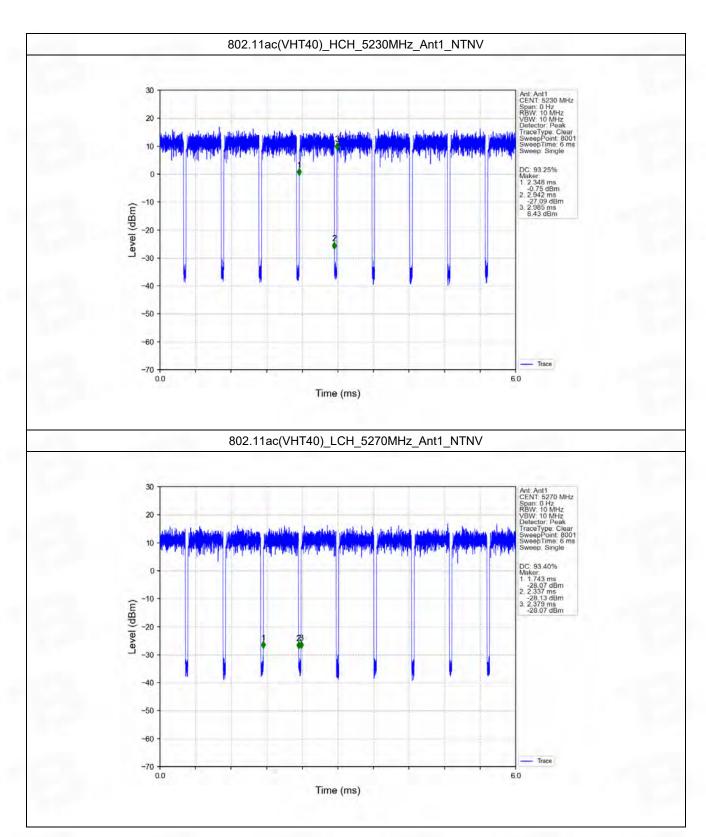




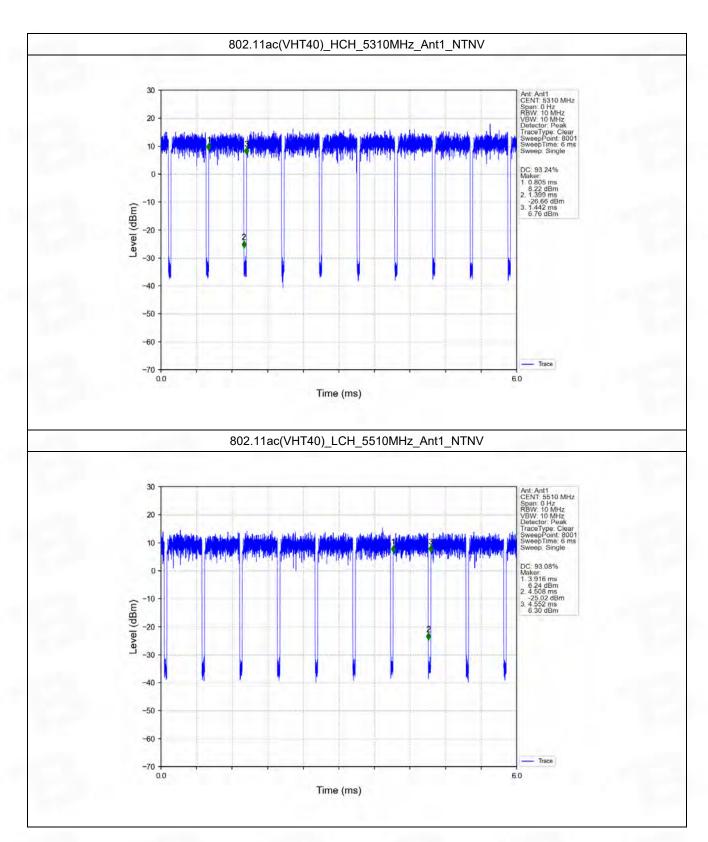




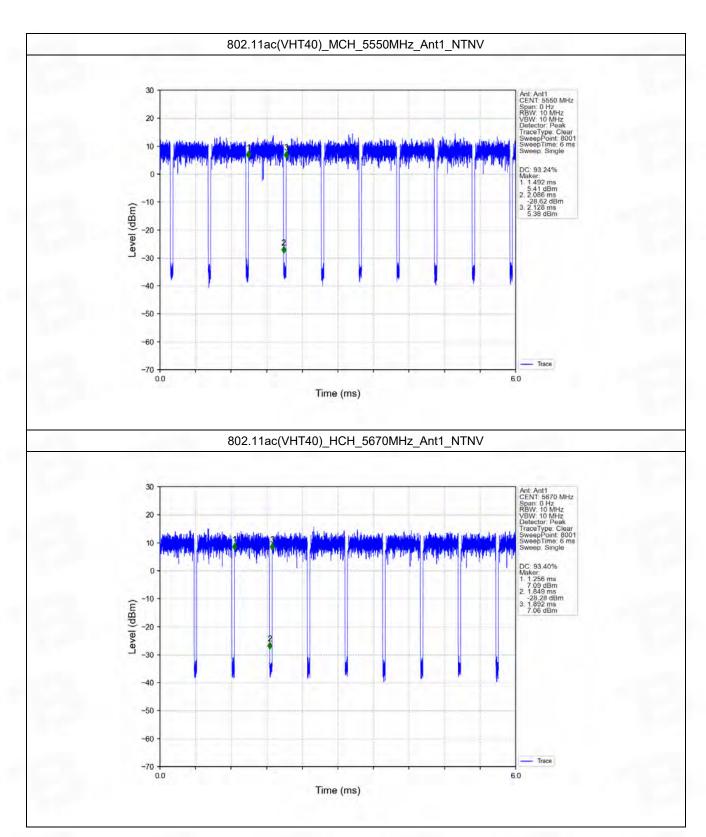




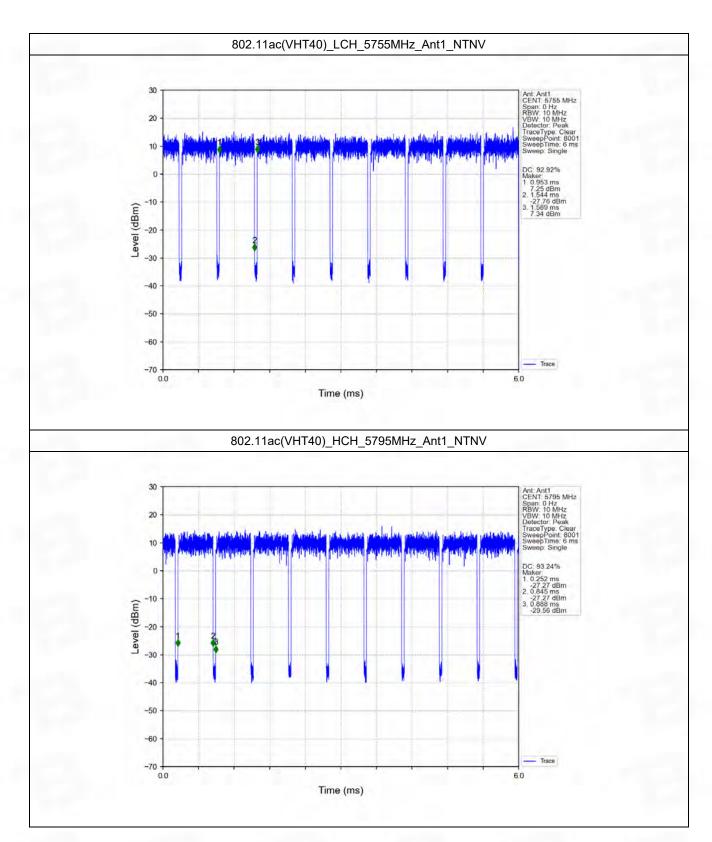




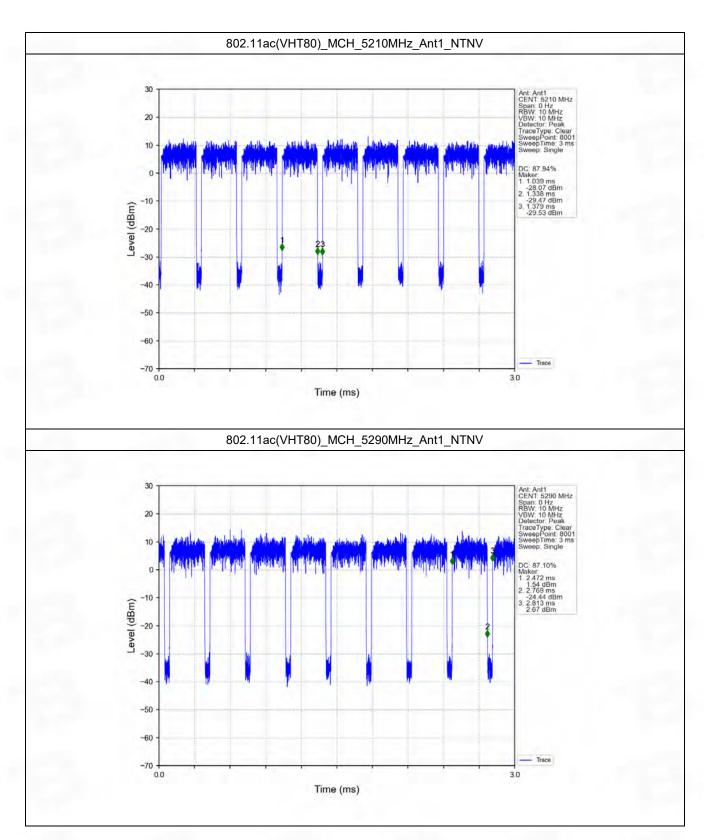




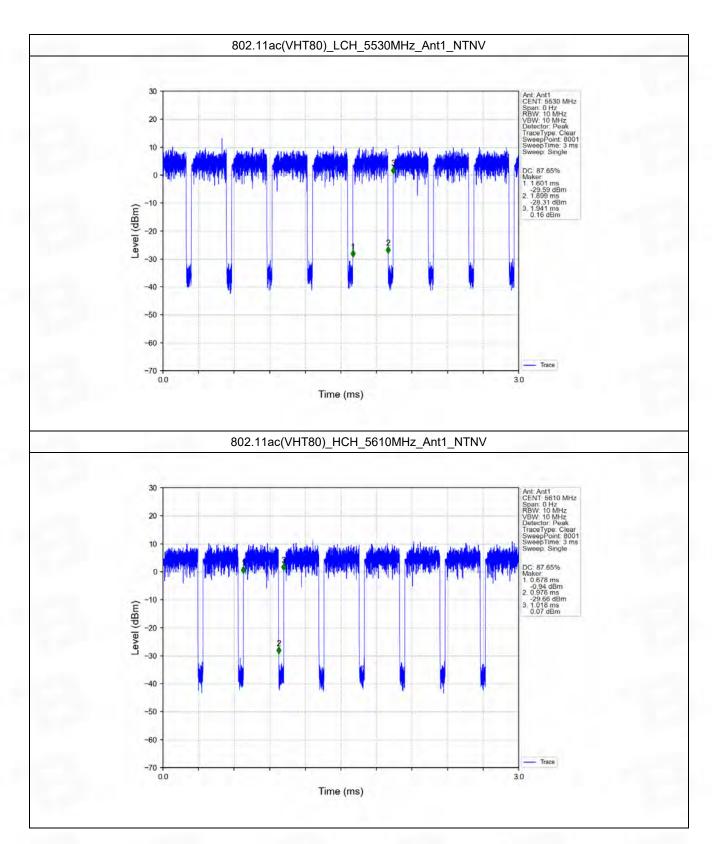




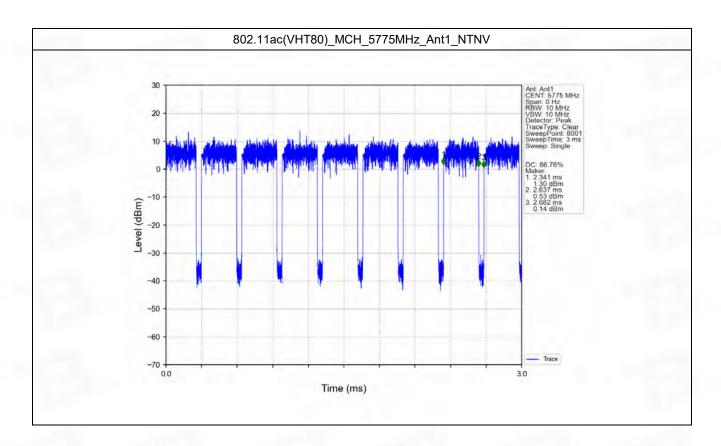


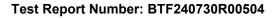












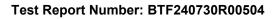


# 2. Bandwidth

## 2.1 Test Result

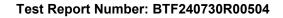
### 2.1.1 OBW

Mode	TX	Frequency	ANT	99% Occupied Bandwidth (MHz)		Verdict
	Туре	(MHz)	ANI	Result	Limit	verdic
		5180	1	18.269	1	Pass
		5200	1	18.178	1	Pass
		5240	1	18.135	1	Pass
		5260	1	18.167	1	Pass
		5300	1	18.190	1	Pass
802.11a	SISO	5320	1	18.197	1	Pass
802.11a	5150	5500	1	18.203	1	Pass
		5580	1	18.250	1	Pass
		5700	1	18.188	1	Pass
		5745	1	18.219	1	Pass
		5785	1	18.141	1	Pass
		5825	1	18.221	1	Pass
		5180	1	18.921	1	Pass
		5200	1	18.834	1	Pass
		5240	1	18.881	1	Pass
		5260	1	18.842	1	Pass
		5300	1	18.832	1	Pass
802.11n	0100	5320	1	18.839	1	Pass
(HT20)	SISO	5500	1	18.988	1	Pass
		5580	1	18.938	1	Pass
		5700	1	18.900	1	Pass
		5745	1	18.858	1	Pass
		5785	1	18.863	1	Pass
		5825	1	18.948	1	Pass
	SISO	5190	1	36.718	1	Pass
802.11n		5230	1	36.791	1	Pass
		5270	1	36.739	1	Pass
		5310	1	36.690	1	Pass
(HT40)		5510	1	36.936	1	Pass
		5550	1	36.872	1	Pass
		5670	1	36.836	1	Pass





		5755	1	36.935	1	Pass
		5795	1	36.755	1	Pass
		5180	1	18.663	1	Pass
		5200	1	18.619	1	Pass
		5240	1	18.696	1	Pass
		5260	1	18.574	1	Pass
		5300	1	18.600	1	Pass
802.11ac	SISO	5320	1	18.622	1	Pass
(VHT20)	SISO	5500	1	18.709	1	Pass
		5580	1	18.703	1	Pass
		5700	1	18.647	1	Pass
		5745	1	18.637	1	Pass
		5785	1	18.643	1	Pass
		5825	1	18.618	1	Pass
	SISO	5190	1	36.591	1	Pass
		5230	1	36.692	1	Pass
		5270	1	36.653	1	Pass
802.11ac		5310	1	36.685	1	Pass
(VHT40)		5510	1	36.660	1	Pass
(٧Π140)		5550	1	36.753	1	Pass
		5670	1	36.682	1	Pass
		5755	1	36.692	1	Pass
		5795	1	36.666	1	Pass
	siso	5210	1	76.100	1	Pass
802.11ac (VHT80)		5290	1	76.085	1	Pass
		5530	1	76.312	1	Pass
		5610	1	76.236	1	Pass
		5775	1	76.083	1	Pass



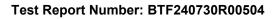


### 2.1.2 6dB BW

Mode	TX	Frequency (MHz)	ANIT	6dB Bandwidth (MHz)		\
	Туре		ANT	Result	Limit	Verdict
		5745	1	15.176	>=0.5	Pass
802.11a	SISO	5785	1	15.189	>=0.5	Pass
		5825	1	15.188	>=0.5	Pass
000.44=	SISO	5745	1	15.358	>=0.5	Pass
802.11n		5785	1	15.178	>=0.5	Pass
(HT20)		5825	1	15.197	>=0.5	Pass
802.11n (HT40)	0100	5755	1	35.167	>=0.5	Pass
	SISO	5795	1	35.149	>=0.5	Pass
000 11	SISO	5745	1	15.831	>=0.5	Pass
802.11ac (VHT20)		5785	1	15.516	>=0.5	Pass
		5825	1	15.549	>=0.5	Pass
802.11ac (VHT40)	SISO	5755	1	35.166	>=0.5	Pass
		5795	1	35.154	>=0.5	Pass
802.11ac (VHT80)	SISO	5775	1	75.126	>=0.5	Pass

## 2.1.3 26dB BW

Mode	TX Type	Frequency (MHz)	ANT	26dB Bandwidth (MHz)		\
Mode				Result	Limit	Verdict
		5180	1	20.502	1	Pass
	SISO	5200	1	20.601	1	Pass
		5240	1	20.397	/	Pass
		5260	1	20.364	1	Pass
802.11a		5300	1	20.433	1	Pass
		5320	1	20.290	1	Pass
		5500	1	21.132	1	Pass
		5580	1	20.680	1	Pass
		5700	1	20.347	1	Pass
	SISO	5180	1	20.588	1	Pass
		5200	1	20.732	1	Pass
802.11n		5240	1	20.888	1	Pass
(HT20)		5260	1	20.661	1	Pass
		5300	1	20.616	1	Pass
		5320	1	20.688	1	Pass



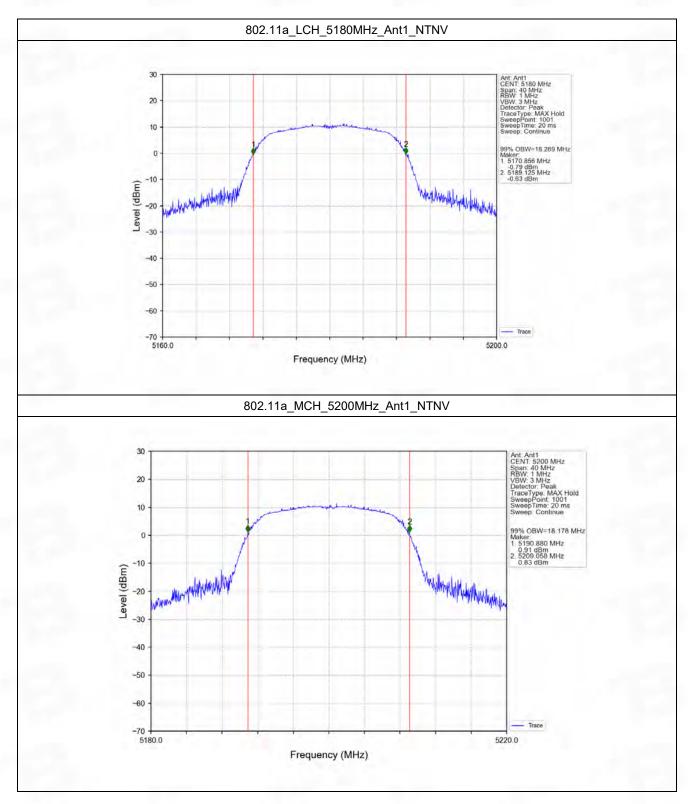


		5500	1	20.694	1	Pass
		5580	1	20.782	1	Pass
		5700	1	20.682	1	Pass
		5190	1	41.722	1	Pass
		5230	1	42.016	1	Pass
000 44-		5270	1	41.707	1	Pass
802.11n (HT40)	SISO	5310	1	41.669	1	Pass
(11140)		5510	1	55.044	1	Pass
		5550	1	54.411	1	Pass
		5670	1	41.603	1	Pass
		5180	1	21.809	1	Pass
		5200	1	20.609	1	Pass
		5240	1	20.596	1	Pass
802.11ac		5260	1	20.617	1	Pass
	SISO	5300	1	20.935	1	Pass
(VHT20)		5320	1	20.673	1	Pass
		5500	1	23.643	1	Pass
		5580	1	20.694	1	Pass
		5700	1	20.667	1	Pass
		5190	1	41.802	1	Pass
	SISO	5230	1	45.973	1	Pass
802.11ac		5270	1	41.705	1	Pass
		5310	1	41.695	1	Pass
(VHT40)		5510	1	43.057	1	Pass
		5550	1	43.754	1	Pass
		5670	1	41.755	1	Pass
	SISO -	5210	1	81.497	1	Pass
802.11ac		5290	1	83.146	1	Pass
(VHT80)		5530	1	81.572	1	Pass
		5610	1	81.483	1	Pass



## 2.2 Test Graph

### 2.2.1 OBW



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