



FCC TEST REPORT

FCC ID: 2A3EJDEEPPERWIFI-01A

Product	:	Deeper Connect Wi-Fi Adapter
Model Name	:	DCWA01
Brand	:	N/A
Report No.	:	PTC21112400103E-FC02
Sample ID	:	PTC21112400103-1#

Prepared for

Deeper Network Inc.

5200 Great America pkwy, Santa Clara CA USA 95054

Prepared by

Precise Testing & Certification Co., Ltd.

Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China



1 TEST RESULT CERTIFICATION

Applicant's name : Deeper Network Inc.
Address : 5200 Great America pkwy, Santa Clara CA USA 95054
Manufacture's name : Deeper Network Inc.
Address : 5200 Great America pkwy, Santa Clara CA USA 95054
Product name : Deeper Connect Wi-Fi Adapter
Model name : DCWA01
Standards : FCC CFR47 Part 15 Section 15.407
Test procedure : ANSI C63.10:2013
Test Date : Dec. 02, 2021 to Jan. 17, 2022
Date of Issue : Jan. 18, 2022
Test Result : Pass

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Test Engineer:

A handwritten signature in black ink that reads "Leo Yang".

Leo Yang / Engineer

Technical Manager:

A handwritten signature in black ink that reads "Chris Du".

Chris Du / Manager



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2 Test Summary

FCC Part15 (15.407)		
Test Item	FCC standard	Judgment
AC Conducted Emission	15.207	PASS
26dB/6dB Bandwidth	§ 15.407 (a) (26 dB) / § 15.407 (e) (6 dB)	PASS
Maximum Conducted Output Power	15.407(a)	PASS
Radiated Emission And (Unwanted Emissions) Measurement	15.407(b)& 15.209	PASS
Radiated Restricted Band Edge Measurement	15.407(b)& 15.205	PASS
Power Spectral Density	15.407(a)	PASS
Frequency Stability	15.407(g)	PASS
Automatically Discontinue Transmission	15.407(c)	PASS
Antenna Requirement	15.203	PASS

Note: Reference to the ANSI C63.10-2013, KDB 789033 D02v01r01, KDB 662911 D01v02r01.
" N/A" denotes test is not applicable in this Test Report.

2.1 Test Site

Precise Testing & Certification Co., Ltd

Address: Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China

FCC Registration Number: 790290

A2LA Certificate No.: 4408.01

IC Registration Number: 12191A-1

Designation Number: CN1219



3 General Information

3.1 General Description of EUT

EUT Name:	Deeper Connect Wi-Fi Adapter
Model No.:	DCWA01
Antenna Gain:	2dBi
Operation frequency:	For 802.11a/n-HT20/ac-VHT20: 5180~5240MHz, 5745~5825MHz For 802.11n-HT40/ac-VHT40: 5190~5230MHz, 5755~5795MHz For 802.11ac-VHT80: 5210MHz, 5775MHz
Modulation Type and Antenna Type:	802.11a/n/ac: OFDM Internal PCB Antenna
Maximum Average Output Power with 5GHz	802.11a: 6.72dBm 802.11n-HT20: 6.65dBm 802.11n-HT40: 6.68dBm 802.11ac-VHT20: 6.46dBm 802.11ac-VHT40: 6.69dBm 802.11ac-VHT80: 6.68dBm
Power Supply:	DC 5V 0.5A
Hardware Version:	V1.4
Software Version:	V1.0



Channel List

Channel List for 802.11a/n-HT20/ac-VHT20

Channel	Frequency (MHz)						
36	5180	40	5200	44	5220	--	--
48	5240	149	5745	153	5765	--	--
157	5785	161	5805	165	5825	--	--

Channel List for 802.11n-HT40/ac-VHT40

Channel	Frequency (MHz)						
38	5190	46	5230	151	5755	159	5795

Channel List for 802.11ac-VHT80

Channel	Frequency (MHz)						
42	5210	155	5775	-	--	--	--

1. All the modulation modes were tested with DC 5v via USB port, the data of the worst mode with notebook recorded.

3.2 Description of Test conditions

- (1) EUT was tested in normal configuration (Please See following Block diagram)

1. Block diagram of EUT configuration(TX Mode)



- (2) E.U.T. test conditions:

15.31(e): For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominalrated supply voltage. For battery operated equipment, the equipment tests shall be performed using a new battery.

- (3) Test frequencies:

According to the 15.31(m) Measurements on intentional radiators or receivers, other than TV broadcast receivers, shall be performed and. If required reported for each band in which the device can be operated with the device operating at the number of frequencies in each band specified in the following table:

Frequency range over which device operates	Number of frequencies	Location in the range of operation
1 MHz or less	1	Middle
1 to 10 MHz	2	1 near top and 1 near bottom
More than 10 MHz	3	1 near top, 1 near middle and 1 near bottom

- (4) Frequency range of radiated measurements:

According to the 15.33, The test range will be up to the tenth harmonic of the highest fundamental frequency.

- (5) The EUT 's duty cycle is set to 100%

- (6) The measurements are performed at all Bit Rate of Transmitter, For all tests the worst-case was selected as the table below, the data of the worst-case is shown in the report.

Test Mode	Mode 1: Transmit by 802.11a
	Mode 2: Transmit by 802.11n-HT20
	Mode 3: Transmit by 802.11n-HT40
	Mode 4: Transmit by 802.11ac-VHT20
	Mode 5: Transmit by 802.11ac-VHT40
	Mode 6: Transmit by 802.11ac-VHT80



4 Equipments List for All Test Items

RF Conducted Test

Name of Equipment	Manufacturer	Model	Serial No.	Last calibration	Calibration Due	Calibration period
MXA Signal Analyzer	Agilent	N9020A	MY56070279	Aug. 21, 2021	Aug. 20, 2022	1 year
Coaxial Cable	CDS	79254	46107086	Aug. 21, 2021	Aug. 20, 2022	1 year
Power Meter	Anritsu	ML2495A	0949003	Aug. 21, 2021	Aug. 20, 2022	1 year
Power Sensor	Anritsu	MA2411B	0917017	Aug. 21, 2021	Aug. 20, 2022	1 year
Spectrum Analyzer	Rohde&Schwarz	FSU26	1166.1660.26	Aug. 21, 2021	Aug. 20, 2022	1 year
Temperature Chamber	TERCHY	MHG-800N	E21104	Aug. 21, 2021	Aug. 20, 2022	1 year
Temp. / Humidity Meter	Anymetre	JR913	N/A	Aug. 21, 2021	Aug. 20, 2022	1 year
DC Power Supply	DAZHENG	PS-605D	20018978	Aug. 21, 2021	Aug. 20, 2022	1 year
AC POWER SOUCE	UMART	HPA1010	N/A	Aug. 21, 2021	Aug. 20, 2022	1 year

Remark: The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.

Radiated Emissions

Name of Equipment	Manufacturer	Model	Serial No.	Last calibration	Calibration Due	Calibration period
EMI Test Receiver	Rohde&Schwarz	ESCI	101417	Aug. 21, 2021	Aug. 20, 2022	1 year
Loop Antenna	Schwarzbeck	FMZB 1519	012	Aug. 21, 2021	Aug. 20, 2022	1 year
Bilog Antenna	SCHWARZBECK	VULB9160	9160-3355	Aug. 21, 2021	Aug. 20, 2022	1 year
Preamplifier (low frequency)	SCHWARZBECK	BBV 9475	9745-0013	Aug. 21, 2021	Aug. 20, 2022	1 year



Cable	Schwarzbeck	PLF-100	549489	Aug. 21, 2021	Aug. 20, 2022	1 year
Spectrum Analyzer	Agilent	E4407B	MY45109572	Aug. 21, 2021	Aug. 20, 2022	1 year
Horn Antenna	SCHWARZBECK	9120D	9120D-1246	Aug. 21, 2021	Aug. 20, 2022	1 year
Power Amplifier	LUNAR EM	LNA1G18-40	J10100000081	Aug. 21, 2021	Aug. 20, 2022	1 year
Horn Antenna	SCHWARZBECK	BBHA 9170	9170-181	Aug. 21, 2021	Aug. 20, 2022	1 year
Amplifier	SCHWARZBECK	BBV 9721	9721-205	Aug. 21, 2021	Aug. 20, 2022	1 year
Cable	H+S	CBL-26	N/A	Aug. 21, 2021	Aug. 20, 2022	1 year
RF Cable	R&S	R204	R21X	Aug. 21, 2021	Aug. 20, 2022	1 year

Conducted Emissions

Name of Equipment	Manufacturer	Model	Serial No.	Last calibration	Calibration Due	Calibration period
EMI Test Receiver	Rohde&Schwarz	ESCI	101417	Aug. 21, 2021	Aug. 20, 2022	1 year
Artificial Mains Network	Rohde&Schwarz	L2-16B	000WX31025	Aug. 21, 2021	Aug. 20, 2022	1 year
Artificial Mains Network	Rohde&Schwarz	ENV216	101342	Aug. 21, 2021	Aug. 20, 2022	1 year

4.1 Measurement Uncertainty

Parameter	Uncertainty
RF output power, conducted	±1.0dB
Power Spectral Density, conducted	±2.2dB
Radio Frequency	± 1 x 10 ⁻⁶
Bandwidth	± 1.5 x 10 ⁻⁶
Time	±2%
Duty Cycle	±2%
Temperature	±1°C
Humidity	±5%
DC and low frequency voltages	±3%



Conducted Emissions (150kHz~30MHz)	±3.64dB
Radiated Emission(9KHz~30MHz)	±2.54dB
Radiated Emission(30MHz~1GHz)	±5.03dB
Radiated Emission(1GHz~25GHz)	±4.74dB
Radiated Emission(25GHz-40GHz)	±4.14dB
Remark: The coverage Factor (k=2), and measurement Uncertainty for a level of Confidence of 95%	



4.2 Description of Support Units

Equipment	Model No.	Series No.
Notebook	Thinkpad X230i	CN131171



5 Test Result

5.1 Conduction Emissions Measurement

5.1.1 Applied procedures / Limit

(Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Quasi-peak (dBuV)	Average (dBuV)	Standard
0.15 -0.5	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	56.00	46.00	
5.0 -30.0	60.00	50.00	

0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	
5.0 -30.0	60.00	50.00	

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

5.1.2 E.U.T. Operation

Operating Environment :

Temperature : 23.9 °C
Humidity : 51.4 % RH
Atmospheric Pressure : 101.21kPa



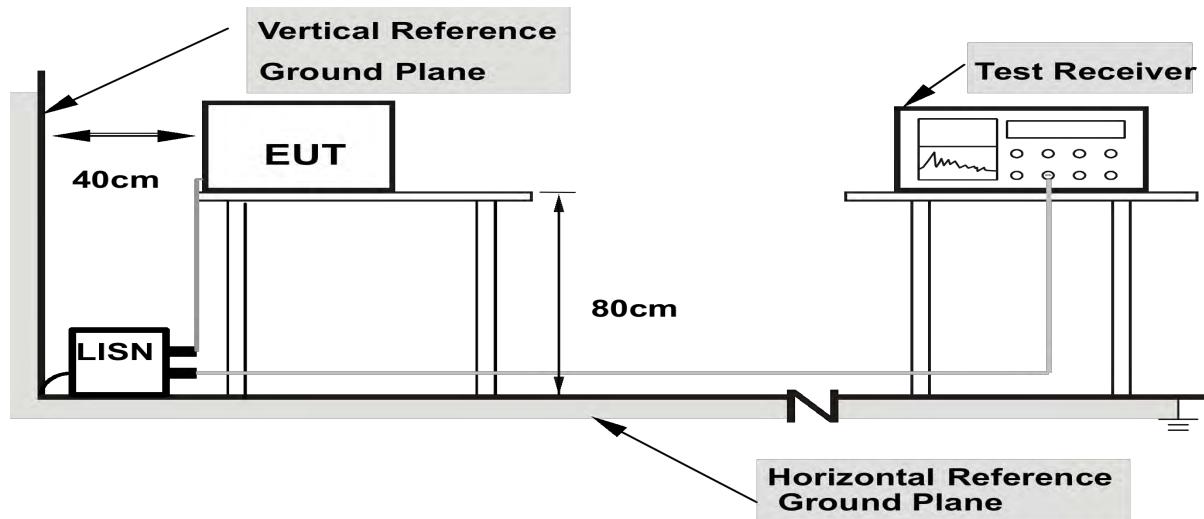
5.1.3 Test procedure

- a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos

5.1.4 DEVIATION FROM TEST STANDARD

No deviation

5.1.5 TEST SETUP

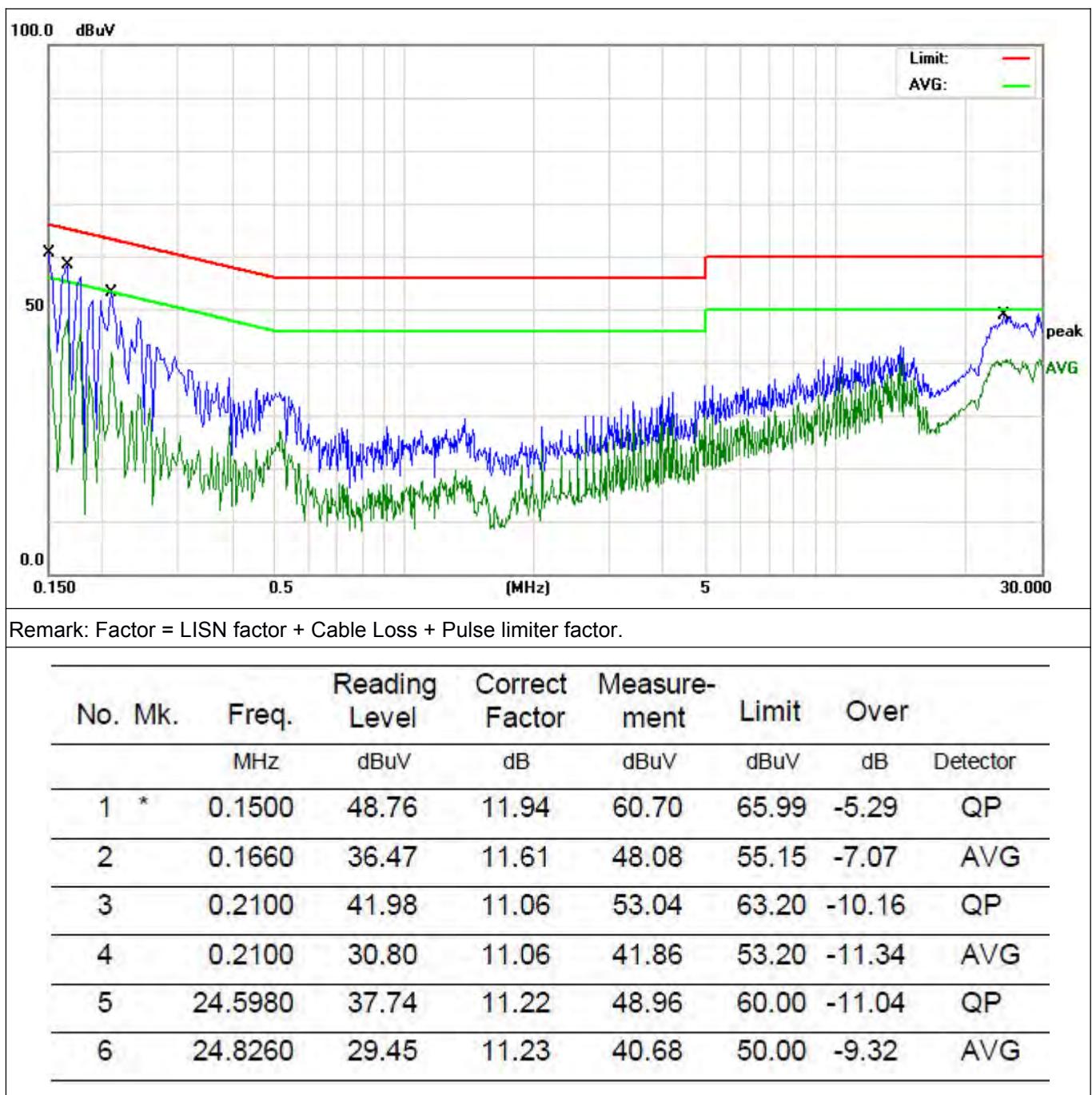


Note:

1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

5.1.6 Test results

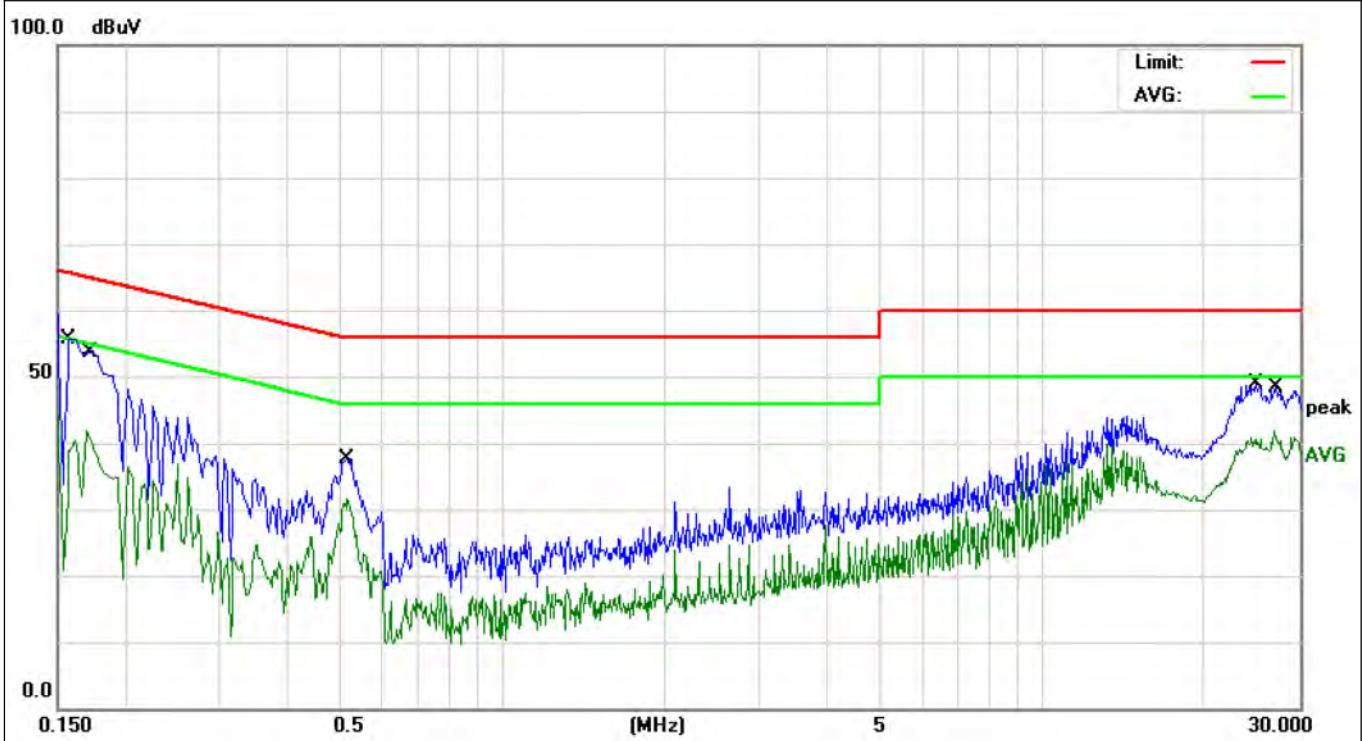
Line



Note: Emission Level = Reading + AMN Factor+Cable Loss

Over limited=Emission Level - Limit

Neutre



Remark: Factor = LISN factor + Cable Loss + Pulse limiter factor.

No.	Mk.	Freq. MHz	Reading	Correct	Measure-	Limit	Over dB	Over Detector
			Level dBuV	Factor dB	ment dBuV			
1		0.1580	43.99	11.75	55.74	65.56	-9.82	QP
2		0.1700	30.35	11.55	41.90	54.96	-13.06	AVG
3		0.5180	27.72	10.01	37.73	56.00	-18.27	QP
4		0.5180	21.56	10.01	31.57	46.00	-14.43	AVG
5		25.0180	37.57	11.23	48.80	60.00	-11.20	QP
6	*	26.8980	30.56	11.29	41.85	50.00	-8.15	AVG

Note: Emission Level = Reading + AMN Factor+Cable Loss

Over limited=Emission Level - Limit



5.2 Radiated Emissions Measurement

5.2.1 Applied procedures / Limit

Test FCC Part15 section 15.407

Requirement:

Limits:

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20 dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement 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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz at 3M)

FREQUENCY (MHz)	PEAK (dBuV/m)	AVERAGE (dBuV/m)
Above 1000	74	54

Notes:

- (1) The lower limit shall apply at the transition frequencies.
- (2) Emission level (dBuV/m) = 20 log Emission level (uV/m).
- (3) For frequencies above 1000 MHz, the field strength limits are based on average detector, 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.

Measurement Distance: 3m (Semi-Anechoic Chamber)

Frequency range 9 kHz – 40 GHz for transmitting mode.

Test instrumentation resolution bandwidth
9 kHz (9 kHz - 30 MHz), 120 kHz (30 MHz - 1000 MHz), 1 MHz (1000 MHz – 40 GHz)



Detector: For PK and QP value:

RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz

VBW \geq RBW

Sweep = auto

Detector function = peak

Trace = max hold

For AV value:

RBW = 1 MHz for $f \geq 1$ GHz,

VBW = 10 Hz

Sweep = auto

Detector function = peak

Trace = max hold

Test Procedure:

1) 9 kHz to 30 MHz emissions:

For testing performed with the loop antenna, testing was performed in accordance to ANSI C63.10. The centre of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specified distance from the EUT. During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane.

2) 30 MHz to 1 GHz emissions:

For testing performed with the bi-log type antenna, testing was performed in accordance to ANSI C63.10. The measurement is performed with the EUT rotated 360°, the antenna height scanned between 1m and 4m, and the antenna rotated to repeat the measurement for both the horizontal and vertical antenna polarizations.

3) 1 GHz to 40 GHz emissions:

Test site with RF absorbing material covering the ground plane that met the site validation criterion called out in CISPR 16-1-4:2007 was used to perform radiated emission test above 1 GHz.

For testing performed with the horn antenna, testing was performed in accordance to ANSI C63.10. The measurement is performed with the EUT rotated 360°, the antenna height scan between 1m and 4m, and the antenna rotated to repeat the measurement for both the horizontal and vertical antenna polarizations.

For the radiated emission test above 1GHz:



Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

And according 15.35(a)

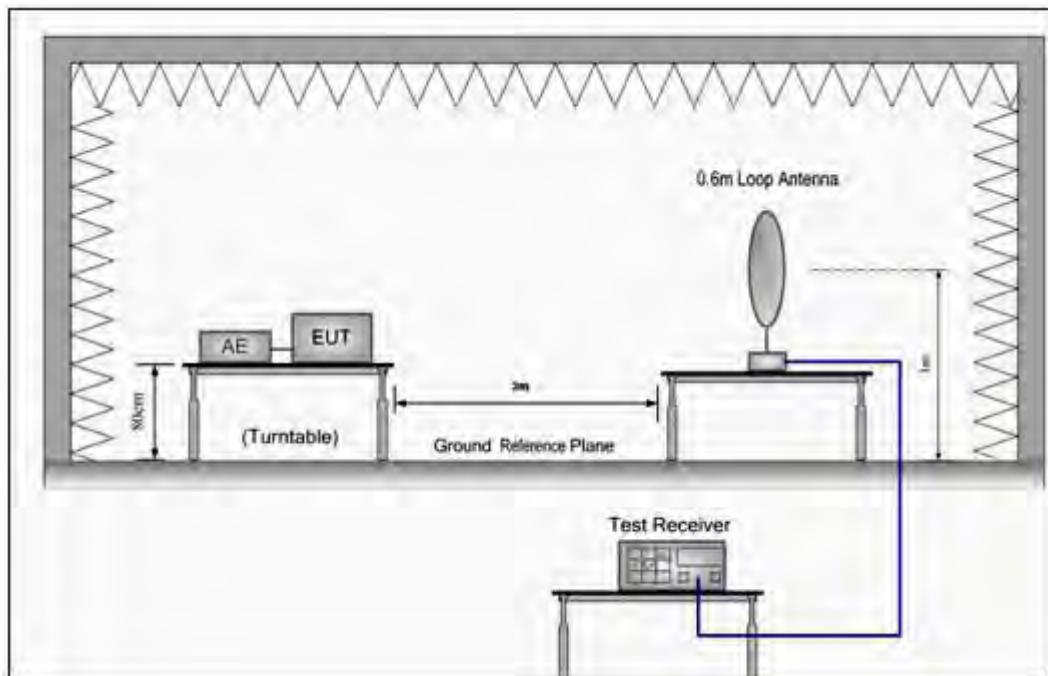
15.35(a) On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a CISPR quasi-peak detector function and related measurement bandwidths, unless otherwise specified. The specifications for the measuring instrument using the CISPR quasi-peak detector can be found in Publication 16 of the International Special Committee on Radio Interference (CISPR) of the International Electro technical Commission. As an alternative to CISPR quasi-peak measurements, the responsible party, at its option, may demonstrate compliance with the emission limits using measuring equipment employing a peak detector function, properly adjusted for such factors as pulse desensitization, as long as the same bandwidths as indicated for CISPR quasi-peak measurements are employed.

Note: For pulse modulated devices with a pulse-repetition frequency of 20 Hz or less and for which CISPR quasi-peak measurements are specified, compliance with the regulations shall be demonstrated using measuring equipment employing a peak detector function, properly adjusted for such factors as pulse desensitization, using the same measurement bandwidths that are indicated for CISPR quasi-peak measurements.

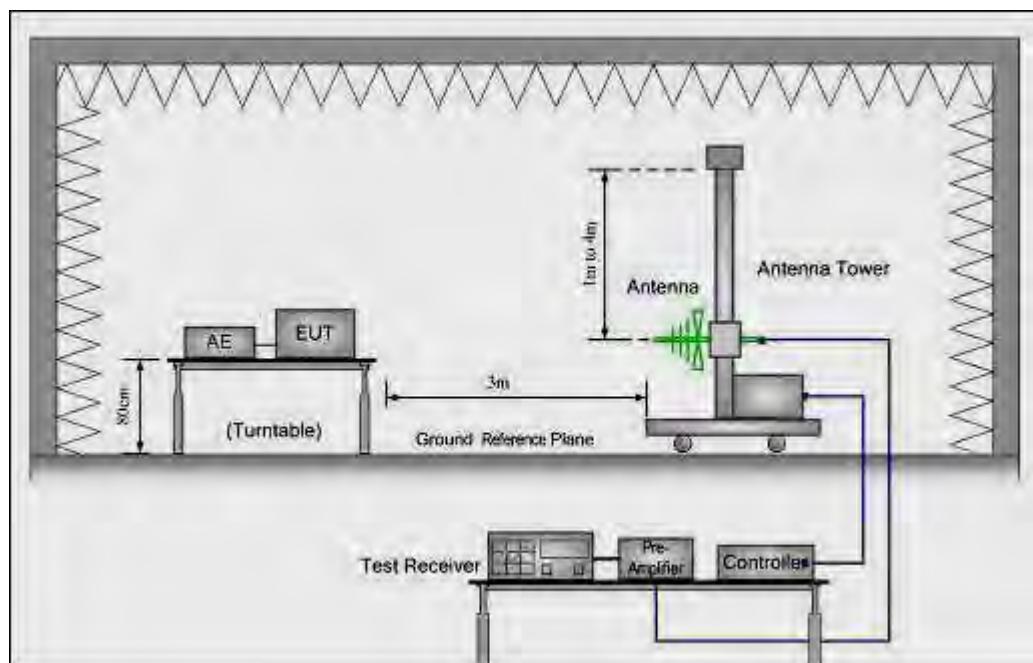
According to 15.35 (b) Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1 MHz. When average radiated emission measurements are specified in this part, including average emission measurements below 1000 MHz, there also is a limit on the peak level of the radio frequency emissions. Unless otherwise specified, e.g., see §§ 15.250, 15.252, 15.255, and 15.509-15.519 of this part, the limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device, e.g., the total peak power level. Note that the use of a pulse desensitization correction factor may be needed to determine the total peak emission level. The instruction manual or application note for the measurement instrument should be consulted for determining pulse desensitization factors, as necessary.

Test Configuration:

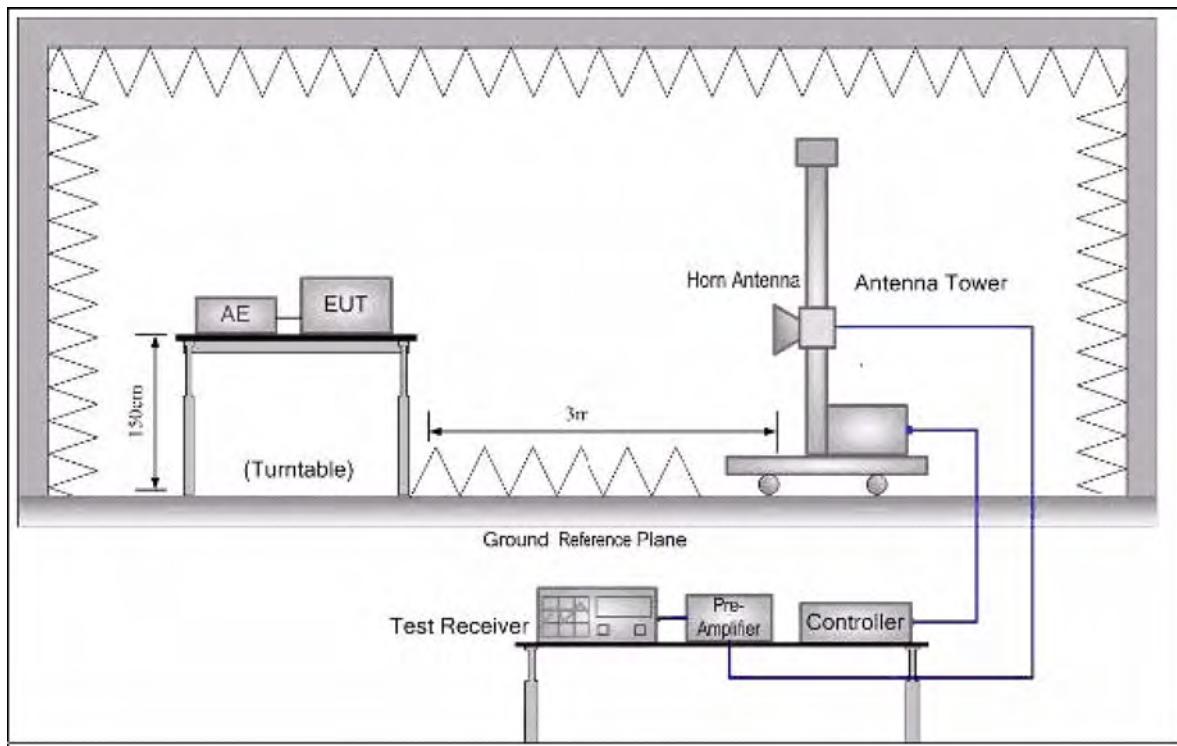
- 1) 9 kHz to 30 MHz emissions:



- 2) 30 MHz to 1 GHz emissions:



3) 1 GHz to 40 GHz emissions:



The field strength is calculated by adding the Antenna Factor, Cable Loss & Per-amplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna, Factor + Cable Loss – Preamplifier Factor



5.2.2 E.U.T. Operation

Operating Environment :

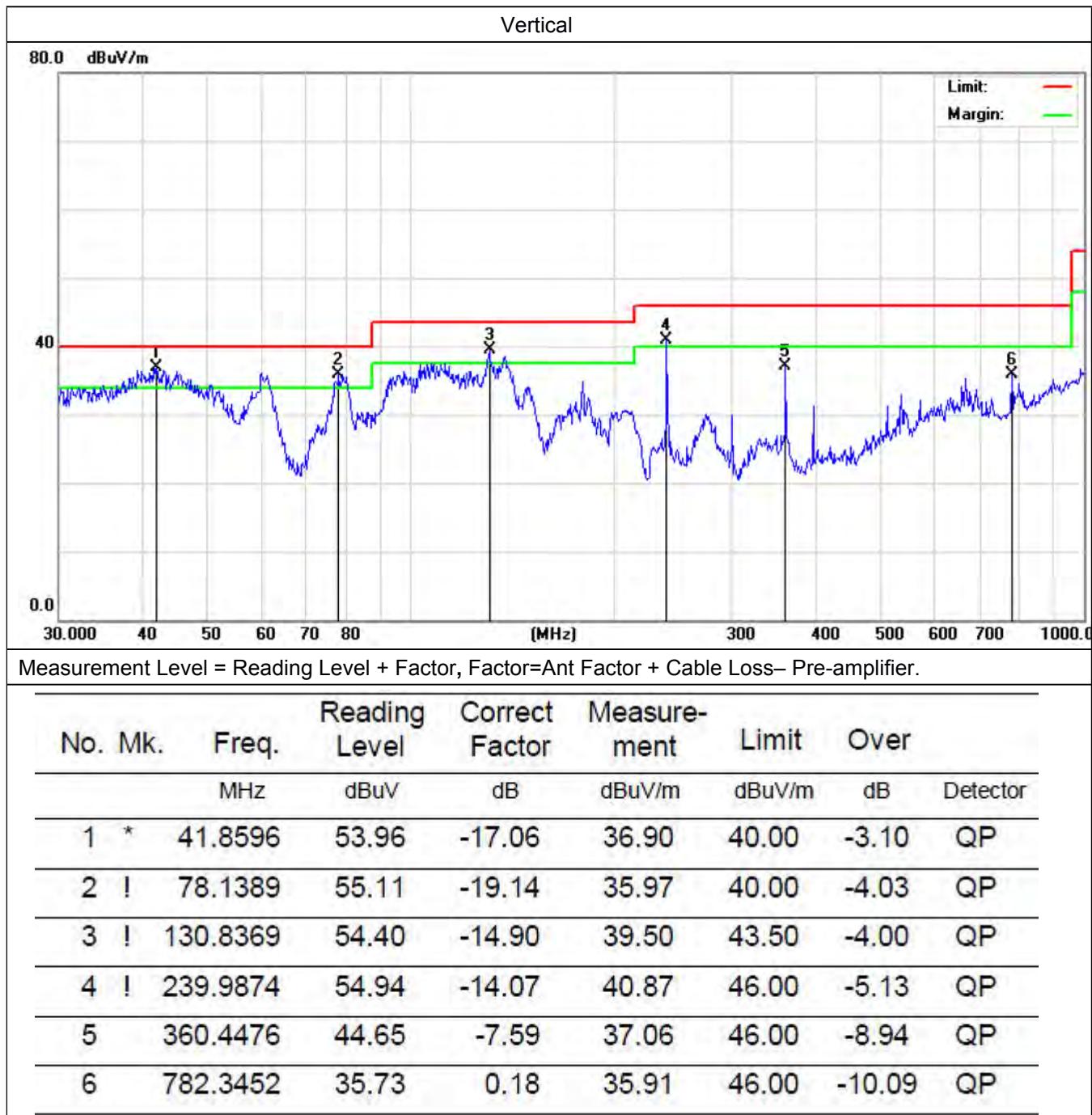
Temperature : 23.9 °C
Humidity : 51.4 % RH
Atmospheric Pressure : 101.21kPa

5.2.3 Radiated Emissions Test Data

9 kHz~30 MHz Field Strength of Unwanted Emissions. Quasi-Peak Measurement

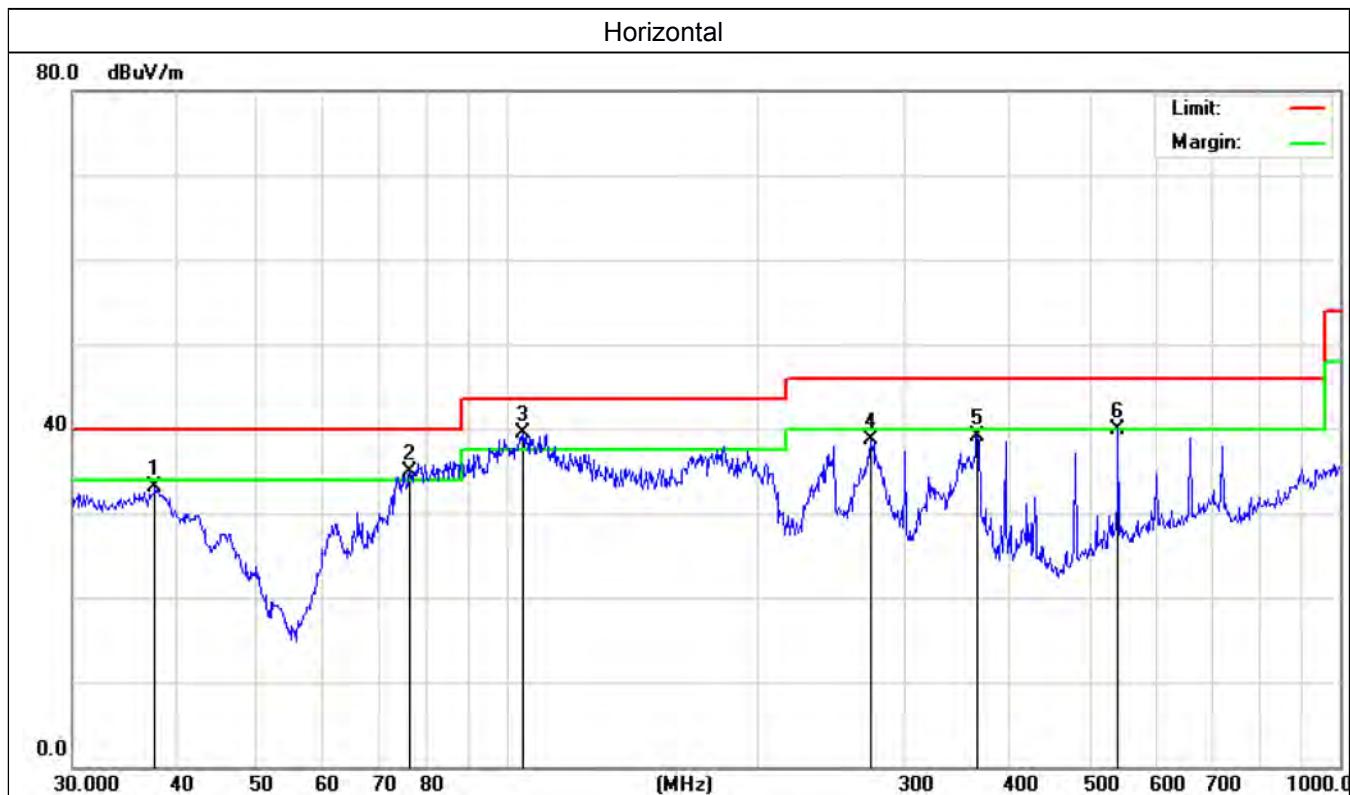
The measurements with active loop antenna were greater than 20dB below the limit, so the test data were not recorded in the test report.

30 MHz~1 GHz Field Strength of Unwanted Emissions. Quasi-Peak Measurement



Note: Emission Level = Reading + Antenna Factor + Cable Loss – Pre-amplifier

Over limit=Emission Level - limit



Measurement Level = Reading Level + Factor, Factor=Ant Factor + Cable Loss – Pre-amplifier.

No.	Mk.	Freq. MHz	Reading	Correct	Measure-	Limit	Over
			Level dBuV	Factor dB	ment dBuV/m		
1		37.6798	47.53	-14.51	33.02	40.00	-6.98 QP
2	!	76.2442	53.78	-18.88	34.90	40.00	-5.10 QP
3	*	104.1701	55.13	-15.63	39.50	43.50	-4.00 QP
4		273.2341	50.88	-12.16	38.72	46.00	-7.28 QP
5		366.8231	46.77	-7.57	39.20	46.00	-6.80 QP
6		541.3723	44.14	-4.14	40.00	46.00	-6.00 QP

Note: Emission Level = Reading + Antenna Factor + Cable Loss – Pre-amplifier

Over limit=Emission Level - limit

**1~40 GHz Field Strength of Fundamental & Field Strength of Unwanted Emissions.****Peak & Average Measurement.**

TX Mode:	Ant	Measurement Distance:	3 m
Test channel:	802.11a-5180MHz	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10360.000	39.31	12.56	51.87	74.00	-22.13	PEAK
15540.000	37.85	16.45	54.30	74.00	-19.70	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10360.000	38.52	12.56	51.08	74.00	-22.92	PEAK
15540.000	36.49	16.45	52.94	74.00	-21.06	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.
Average measurement was not performed if peak level lower than average limit.
No any other emissions level which are attenuated less than 20dB below the limit.
According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.
Hence there no other emissions have been reported.



TX Mode:	Ant	Measurement Distance:	3 m			
Test channel:	802.11a-5220 MHz	Frequency Range:	1GHz to 40GHz			
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10440.000	36.67	12.64	49.31	74.00	-24.69	PEAK
15660.000	35.54	16.53	52.07	74.00	-21.93	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10440.000	37.12	12.64	49.76	74.00	-24.24	PEAK
15660.000	35.36	16.53	51.89	74.00	-22.11	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant	Measurement Distance:	3 m			
Test channel:	802.11a-5240 MHz	Frequency Range:	1GHz to 40GHz			
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10480.000	36.48	12.68	49.16	74.00	-24.84	PEAK
15720.000	34.75	16.54	51.29	74.00	-22.71	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10480.000	35.12	12.68	47.80	74.00	-26.20	PEAK
15720.000	34.37	16.54	50.91	74.00	-23.09	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant	Measurement Distance:	3 m							
Test channel:	802.11a-5745 MHz	Frequency Range:	1GHz to 40GHz							
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.									
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.									
Vertical										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
11490.000	33.84	16.82	50.66	74.00	-23.34	PEAK				
17235.000	35.72	22.93	58.65	74.00	-15.35	PEAK				
Horizontal										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
11490.000	34.21	16.82	51.03	74.00	-22.97	PEAK				
17235.000	35.58	22.93	58.51	74.00	-15.49	PEAK				

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant	Measurement Distance:	3 m			
Test channel:	802.11a-5785 MHz	Frequency Range:	1GHz to 40GHz			
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11570.000	34.10	16.71	50.81	74.00	-23.19	PEAK
17355.000	36.79	24.37	61.16	74.00	-12.84	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11570.000	33.25	16.71	49.96	74.00	-24.04	PEAK
17355.000	35.58	24.37	59.95	74.00	-14.05	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant	Measurement Distance:	3 m							
Test channel:	802.11a-5825 MHz	Frequency Range:	1GHz to 40GHz							
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.									
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.									
Vertical										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
11650.000	34.12	16.61	50.73	74.00	-23.27	PEAK				
17475.000	29.38	25.01	54.39	74.00	-19.61	PEAK				
Horizontal										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
11650.000	35.72	16.61	52.33	74.00	-21.67	PEAK				
17475.000	28.82	25.01	53.83	74.00	-20.17	PEAK				

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant	Measurement Distance:	3 m			
Test channel:	802.11n HT20-5180MHz	Frequency Range:	1GHz to 40GHz			
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10360.000	33.24	12.56	45.80	74.00	-28.20	PEAK
15540.000	35.37	16.45	51.82	74.00	-22.18	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10360.000	35.73	12.56	48.29	74.00	-25.71	PEAK
15540.000	36.15	16.45	52.60	74.00	-21.40	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:		3 m					
Test channel:	802.11n HT20-5220MHz		Frequency Range:		1GHz to 40GHz					
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.									
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.									
Vertical										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
10440.000	33.98	12.64	46.62	74.00	-27.38	PEAK				
15660.000	29.44	16.53	45.97	74.00	-28.03	PEAK				
Horizontal										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
10440.000	32.12	12.64	44.76	74.00	-29.24	PEAK				
15660.000	28.91	16.53	45.44	74.00	-28.56	PEAK				

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant	Measurement Distance:	3 m
Test channel:	802.11n HT20-5240MHz	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10480.000	33.15	12.68	45.83	74.00	-28.17	PEAK
15720.000	29.36	16.54	45.90	74.00	-28.10	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10480.000	34.50	12.68	47.18	74.00	-26.82	PEAK
15720.000	28.83	16.54	45.37	74.00	-28.63	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:		3 m					
Test channel:	802.11n HT20-5745MHz		Frequency Range:		1GHz to 40GHz					
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.									
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.									
Vertical										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
11490.000	34.95	16.82	51.77	74.00	-22.23	PEAK				
17235.000	29.91	22.93	52.84	74.00	-21.16	PEAK				
Horizontal										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
11570.000	35.83	16.71	52.54	74.00	-21.46	PEAK				
17235.000	28.42	22.93	51.35	74.00	-22.65	PEAK				

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:		3 m					
Test channel:	802.11n HT20-5785MHz		Frequency Range:		1GHz to 40GHz					
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.									
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.									
Vertical										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
11570.000	35.39	16.71	52.10	74.00	-21.90	PEAK				
17355.000	28.72	24.37	53.09	74.00	-20.91	PEAK				
Horizontal										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
11570.000	36.12	16.71	52.83	74.00	-21.17	PEAK				
17355.000	29.48	24.37	53.85	74.00	-20.15	PEAK				

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:	3 m		
Test channel:	802.11n HT20-5825MHz		Frequency Range:	1GHz to 40GHz		
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11650.000	33.56	16.61	50.17	74.00	-23.83	PEAK
17475.000	29.71	25.01	54.72	74.00	-19.28	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11650.000	34.82	16.61	51.43	74.00	-22.57	PEAK
17475.000	28.37	25.01	53.38	74.00	-20.62	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:		3 m					
Test channel:	802.11n HT40-5190MHz		Frequency Range:		1GHz to 40GHz					
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.									
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.									
Vertical										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
10380.000	39.13	12.58	51.71	74.00	-22.29	PEAK				
15570.000	28.50	16.48	44.98	74.00	-29.02	PEAK				
Horizontal										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
10380.000	38.30	12.58	50.88	74.00	-23.12	PEAK				
15570.000	29.43	16.48	45.91	74.00	-28.09	PEAK				

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:		3 m					
Test channel:	802.11n HT40-5230MHz		Frequency Range:		1GHz to 40GHz					
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.									
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.									
Vertical										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
10460.000	37.40	12.66	50.06	74.00	-23.94	PEAK				
15690.000	28.21	16.53	44.74	74.00	-29.26	PEAK				
Horizontal										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
10460.000	36.23	12.66	48.89	74.00	-25.11	PEAK				
15690.000	26.54	16.53	43.07	74.00	-30.93	PEAK				

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant	Measurement Distance:	3 m			
Test channel:	802.11n HT40-5755MHz	Frequency Range:	1GHz to 40GHz			
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11510.000	34.59	16.78	51.37	74.00	-22.63	PEAK
17265.000	28.31	23.29	51.60	74.00	-22.40	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11510.000	35.12	16.78	51.90	74.00	-22.10	PEAK
17265.000	29.43	23.29	52.72	74.00	-21.28	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:	3 m		
Test channel:	802.11n HT40-5795MHz		Frequency Range:	1GHz to 40GHz		
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11590.000	36.31	16.69	53.00	74.00	-21.00	PEAK
17385.000	31.40	24.73	56.13	74.00	-17.87	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11590.000	34.87	16.69	51.56	74.00	-22.44	PEAK
17385.000	28.20	24.73	52.93	74.00	-21.07	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:	3 m		
Test channel:	802.11ac HT20-5180MHz		Frequency Range:	1GHz to 40GHz		
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10360.000	34.79	12.56	47.35	74.00	-26.65	PEAK
15540.000	30.48	16.45	46.93	74.00	-27.07	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10360.000	33.05	12.56	45.61	74.00	-28.39	PEAK
15540.000	29.34	16.45	45.79	74.00	-28.21	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:		3 m					
Test channel:	802.11ac HT20-5220MHz		Frequency Range:		1GHz to 40GHz					
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.									
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.									
Vertical										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
10440.000	34.87	12.64	47.51	74.00	-26.49	PEAK				
15660.000	31.69	16.53	48.22	74.00	-25.78	PEAK				
Horizontal										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
10440.000	33.66	12.64	46.30	74.00	-27.70	PEAK				
15660.000	32.01	16.53	48.54	74.00	-25.46	PEAK				

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant	Measurement Distance:	3 m
Test channel:	802.11ac HT20-5240MHz	Frequency Range:	1GHz to 40GHz
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.		

Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10480.000	34.46	12.68	47.14	74.00	-26.86	PEAK
15720.000	32.93	16.54	49.47	74.00	-24.53	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10480.000	33.15	12.68	45.83	74.00	-28.17	PEAK
15720.000	34.79	16.54	51.33	74.00	-22.67	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:	3 m					
Test channel:	802.11ac HT20-5745MHz		Frequency Range:	1GHz to 40GHz					
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.								
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.								
Vertical									
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type			
11490.000	34.93	16.82	51.75	74.00	-22.25	PEAK			
17235.000	32.76	22.93	55.69	74.00	-18.31	PEAK			
Horizontal									
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type			
11490.000	36.17	16.82	52.99	74.00	-21.01	PEAK			
17235.000	28.22	22.93	51.15	74.00	-22.85	PEAK			

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:		3 m					
Test channel:	802.11ac HT20-5785MHz		Frequency Range:		1GHz to 40GHz					
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.									
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.									
Vertical										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
11570.000	35.86	16.71	52.57	74.00	-21.43	PEAK				
17355.000	29.14	24.37	53.51	74.00	-20.49	PEAK				
Horizontal										
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type				
11570.000	34.27	16.71	50.98	74.00	-23.02	PEAK				
17355.000	28.66	24.37	53.03	74.00	-20.97	PEAK				

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:	3 m		
Test channel:	802.11ac HT20-5825MHz		Frequency Range:	1GHz to 40GHz		
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11650.000	35.58	16.61	52.19	74.00	-21.81	PEAK
17475.000	29.30	25.01	54.31	74.00	-19.69	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11650.000	33.29	16.61	49.90	74.00	-24.10	PEAK
17475.000	28.76	25.01	53.77	74.00	-20.23	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:	3 m		
Test channel:	802.11ac HT40-5190MHz		Frequency Range:	1GHz to 40GHz		
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10380.000	33.12	12.58	45.70	74.00	-28.30	PEAK
15570.000	30.35	16.48	46.83	74.00	-27.17	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10380.000	35.57	12.58	48.15	74.00	-25.85	PEAK
15570.000	32.60	16.48	49.08	74.00	-24.92	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:	3 m		
Test channel:	802.11ac HT40-5230MHz		Frequency Range:	1GHz to 40GHz		
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10460.000	34.21	12.66	46.87	74.00	-27.13	PEAK
15690.000	30.66	16.53	47.19	74.00	-26.81	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10460.000	35.14	12.66	47.80	74.00	-26.20	PEAK
15690.000	30.77	16.53	47.30	74.00	-26.70	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:	3 m		
Test channel:	802.11ac HT40-5755MHz		Frequency Range:	1GHz to 40GHz		
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11510.000	36.37	16.78	53.15	74.00	-20.85	PEAK
17265.000	32.92	23.29	56.21	74.00	-17.79	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11510.000	34.85	16.78	51.63	74.00	-22.37	PEAK
17265.000	31.20	23.29	54.49	74.00	-19.51	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:	3 m		
Test channel:	802.11ac HT40-5795MHz		Frequency Range:	1GHz to 40GHz		
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11590.000	33.17	16.69	49.86	74.00	-24.14	PEAK
17385.000	31.62	24.73	56.35	74.00	-17.65	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11590.000	34.80	16.69	51.49	74.00	-22.51	PEAK
17385.000	30.35	24.73	55.08	74.00	-18.92	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant		Measurement Distance:	3 m		
Test channel:	802.11ac HT80-5210MHz		Frequency Range:	1GHz to 40GHz		
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10420.000	32.16	12.62	44.78	74.00	-29.22	PEAK
15630.000	29.94	16.52	46.46	74.00	-27.54	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
10420.000	34.52	12.62	47.14	74.00	-26.86	PEAK
15630.000	31.76	16.52	48.28	74.00	-25.72	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



TX Mode:	Ant	Measurement Distance:	3 m			
Test channel:	802.11ac HT80-5775MHz	Frequency Range:	1GHz to 40GHz			
RBW/VBW:	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-40GHz, there is not show in the report.					
Vertical						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11550.000	33.11	16.73	49.84	74.00	-24.16	PEAK
17325.000	30.45	24.01	54.46	74.00	-19.54	PEAK
Horizontal						
Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
11550.000	34.78	16.73	51.51	74.00	-22.49	PEAK
17325.000	31.54	24.01	55.55	74.00	-18.45	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor -Preamplifier Factor.

Average measurement was not performed if peak level lower than average limit.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



5.3 Radiated Restricted Band Edge Measurement

5.3.1 Applied procedures / Limit

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 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.
- (2) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- (4) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
- (5) The provisions of §15.205 apply to intentional radiators operating under this section. (6) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

5.3.2 Test procedure

For Band edge

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	Lower Band Edge: 5150 MHz Upper Band Edge: 5350 MHz
RB / VB (emission in restricted band)	1000 KHz/3000 KHz
Trace-Mode:	Max hold

For Band edge

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	Lower Band Edge: 5700 to 5725 MHz Upper Band Edge: 5850 to 5870 MHz
RB / VB (emission in restricted band)	1000 KHz/3000 KHz
Trace-Mode:	Max hold



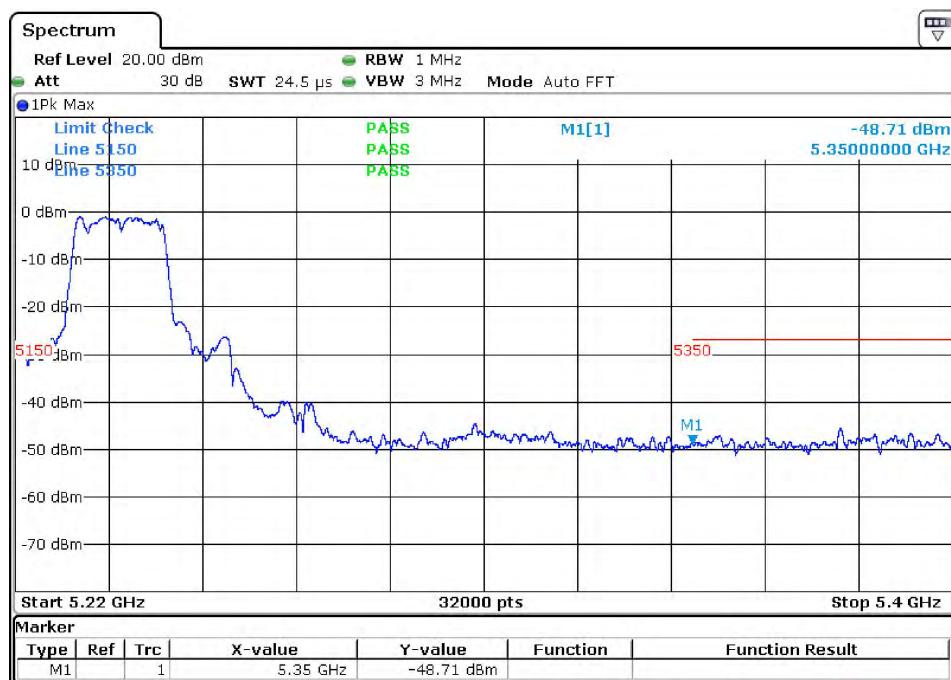
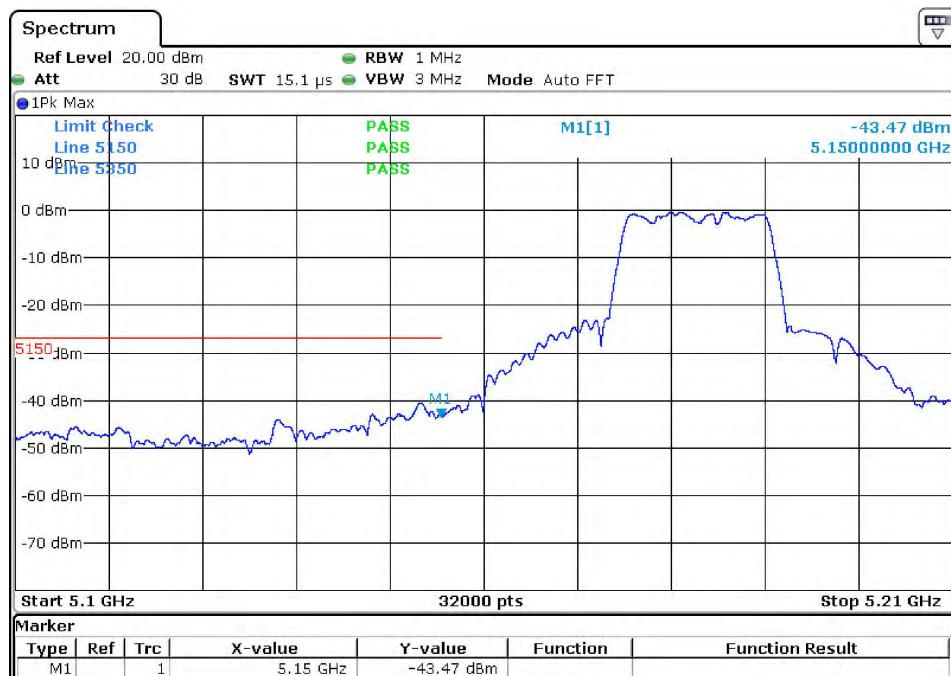
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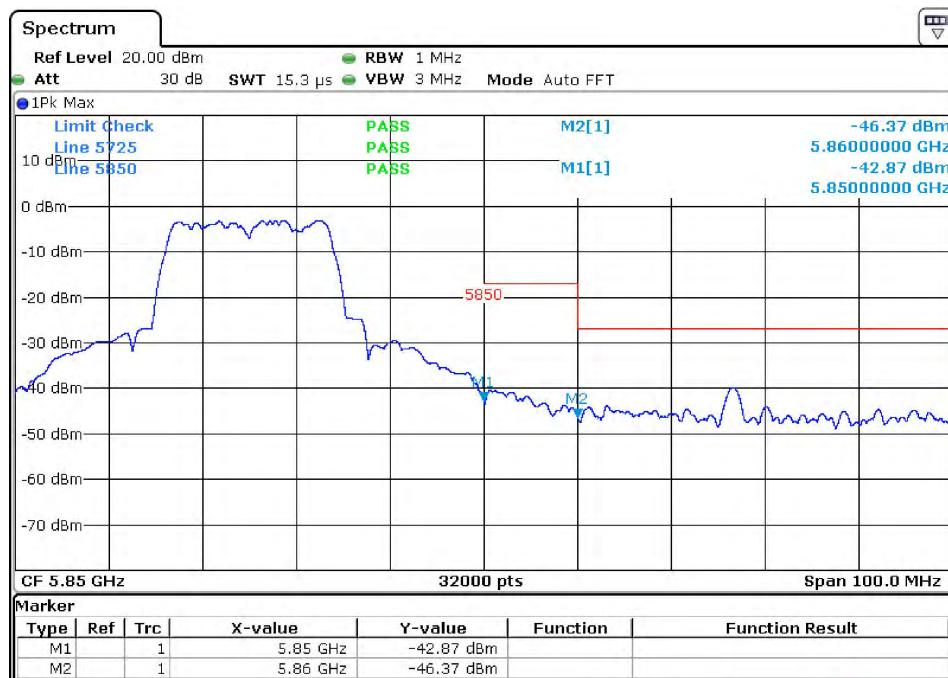
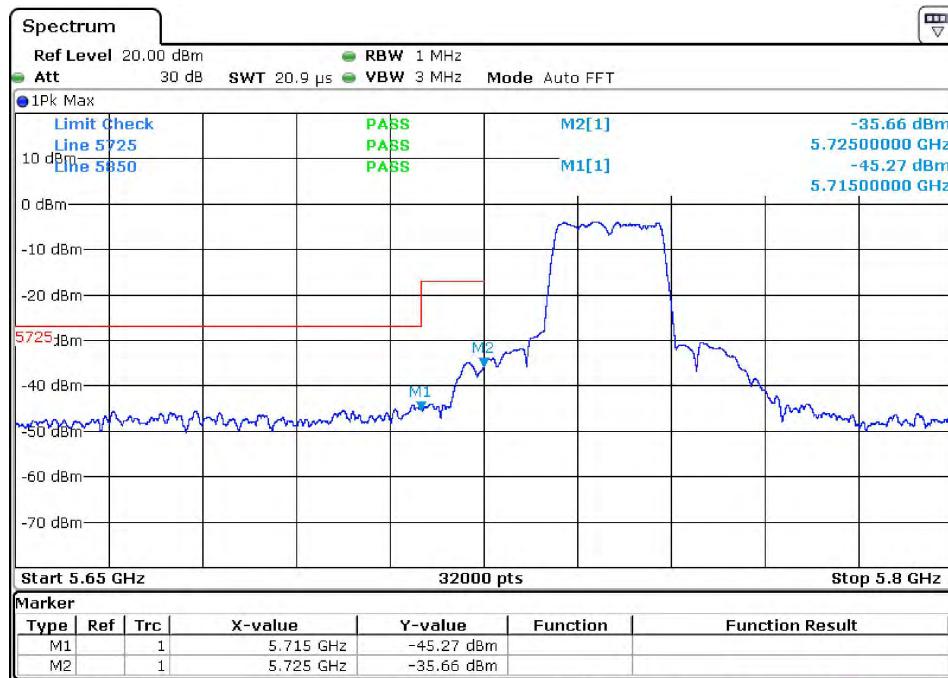
5.3.3 Deviation from standard

No deviation.

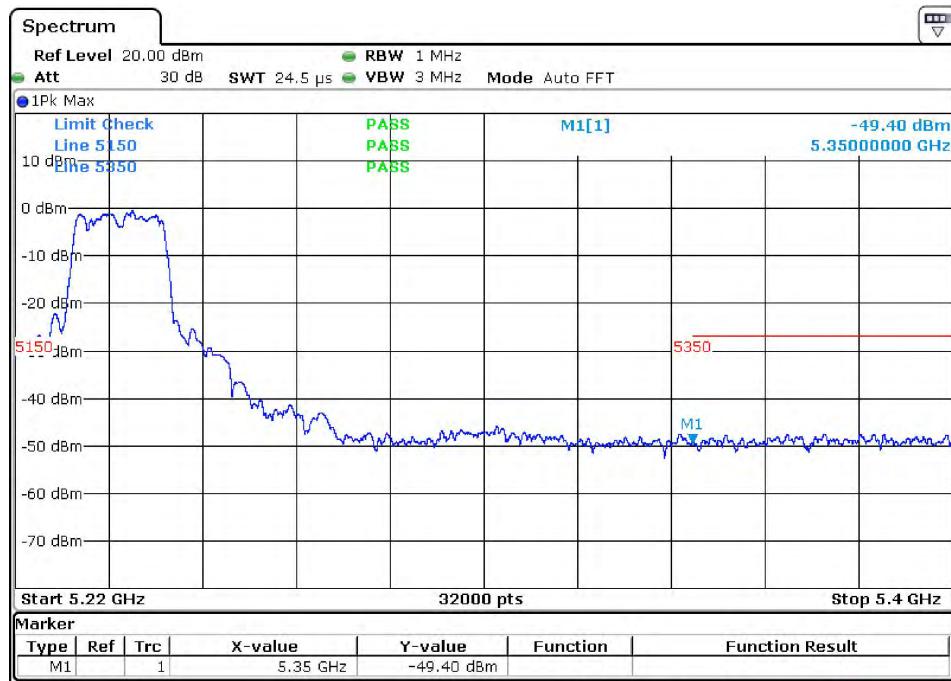
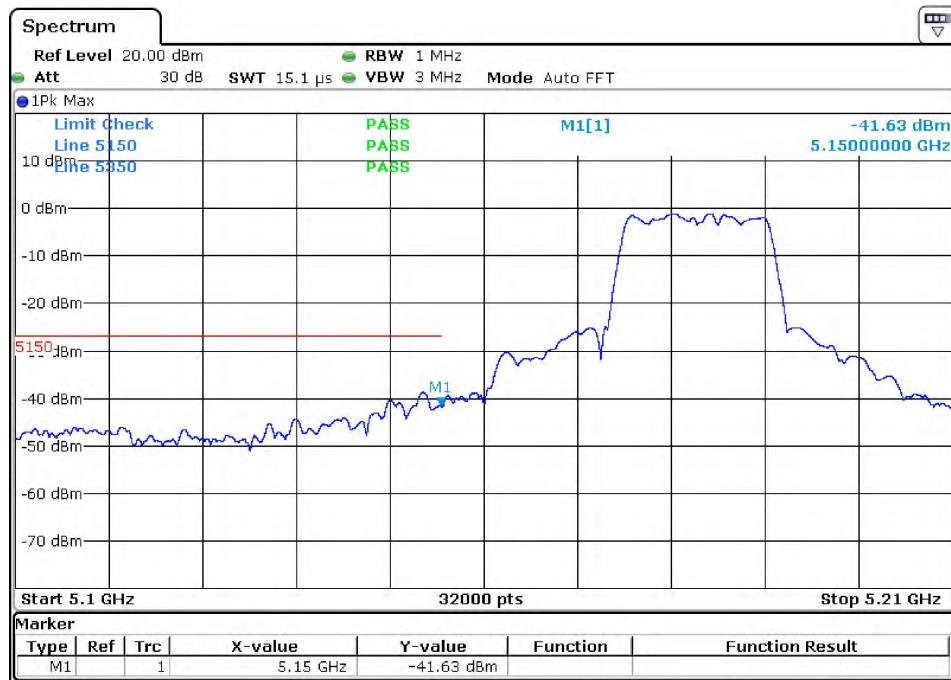
5.3.4 Test results

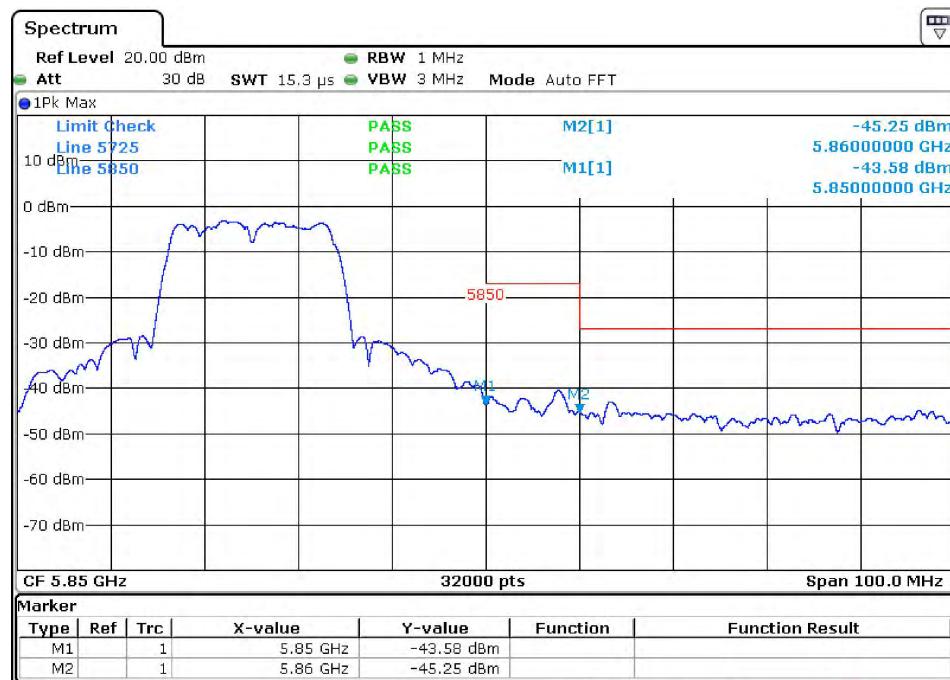
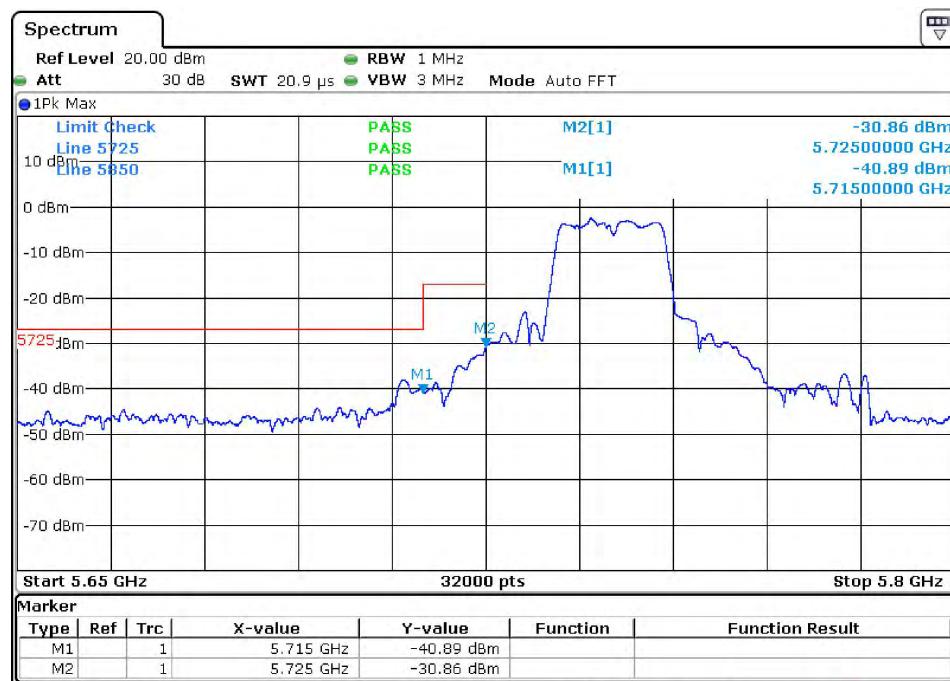
Ant 802.11 a



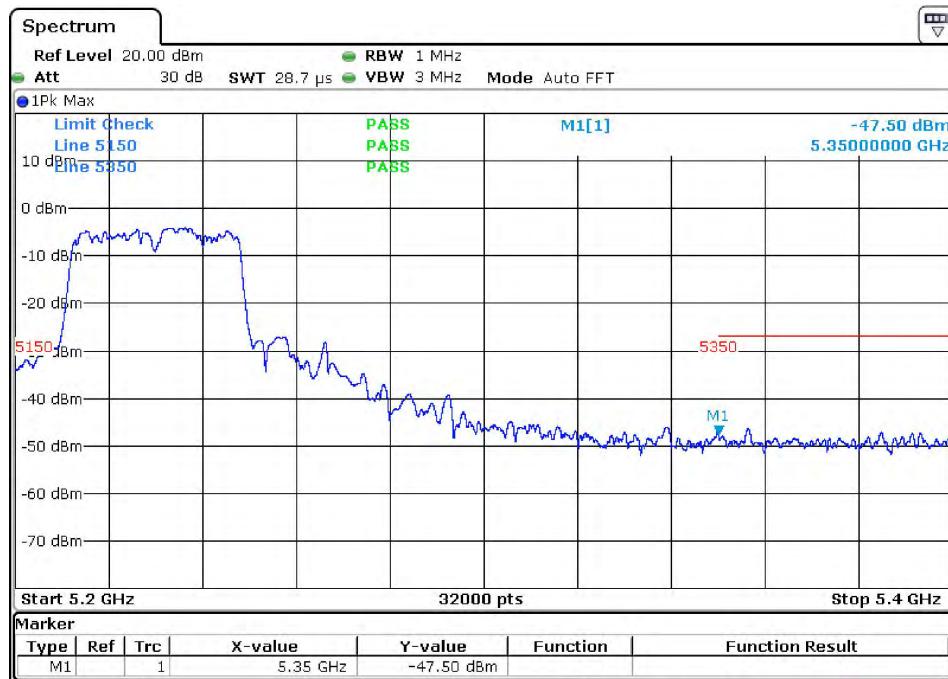
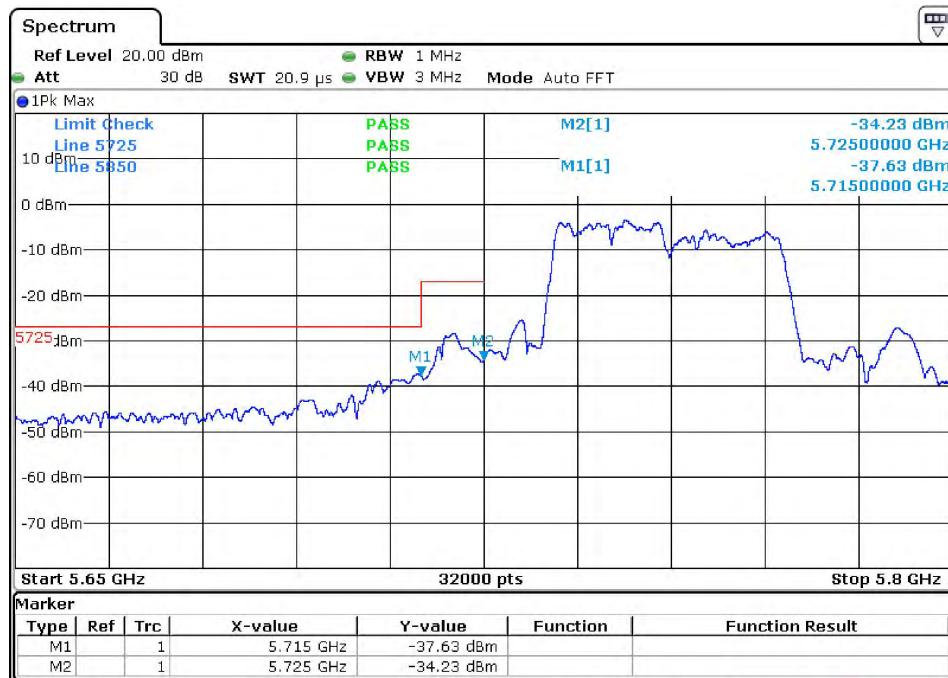


Ant 802.11 n20

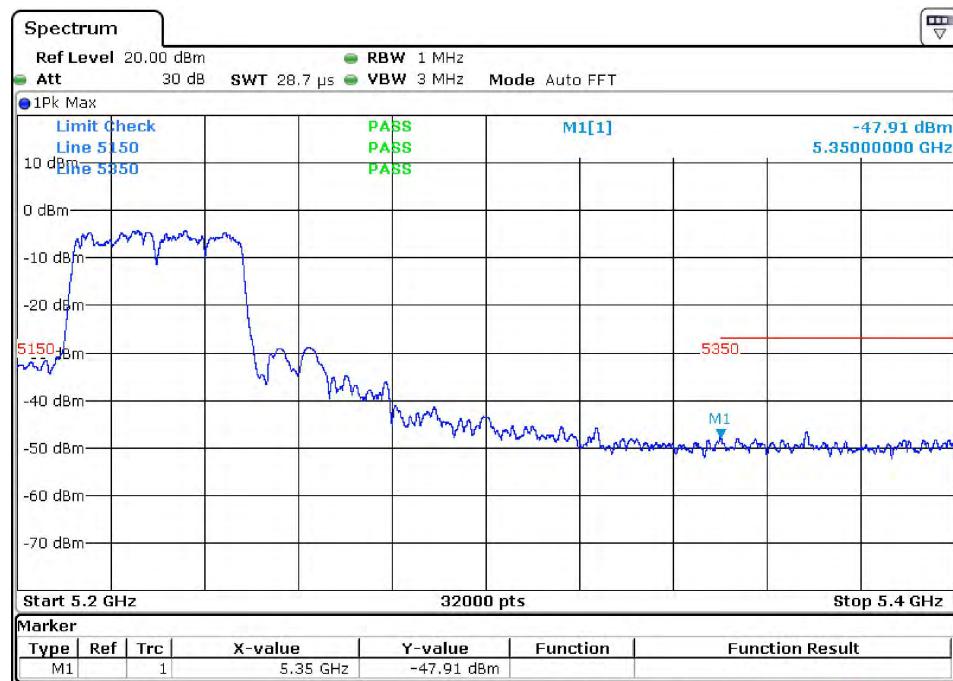
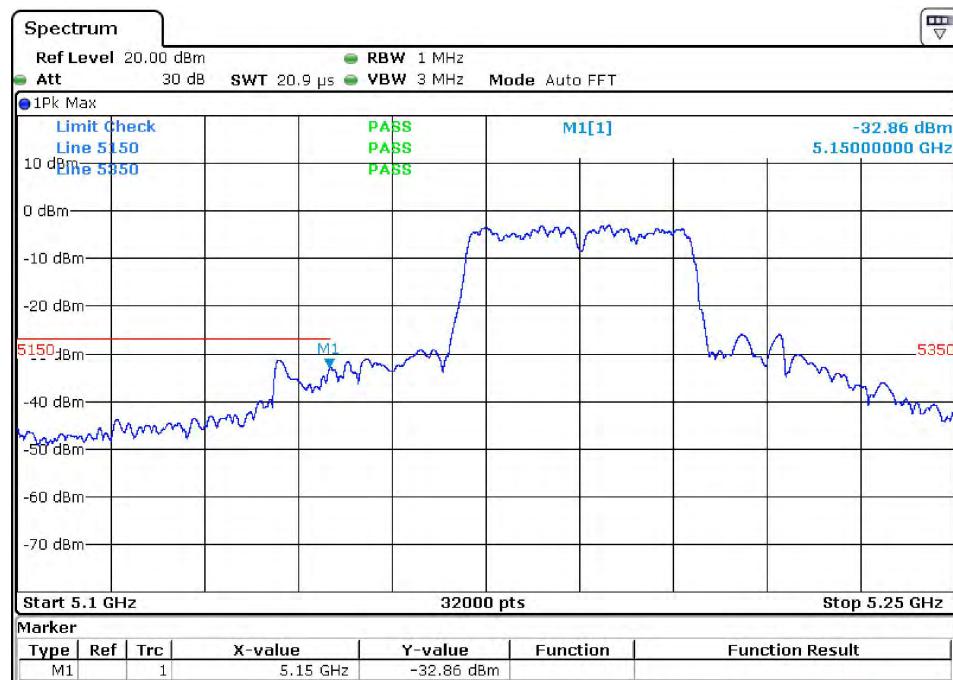


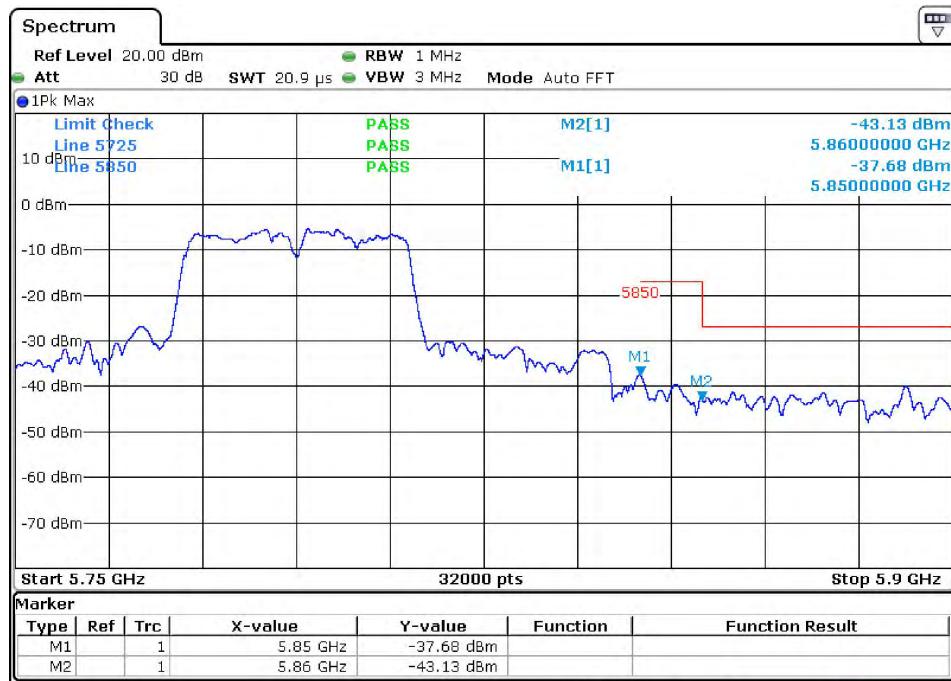
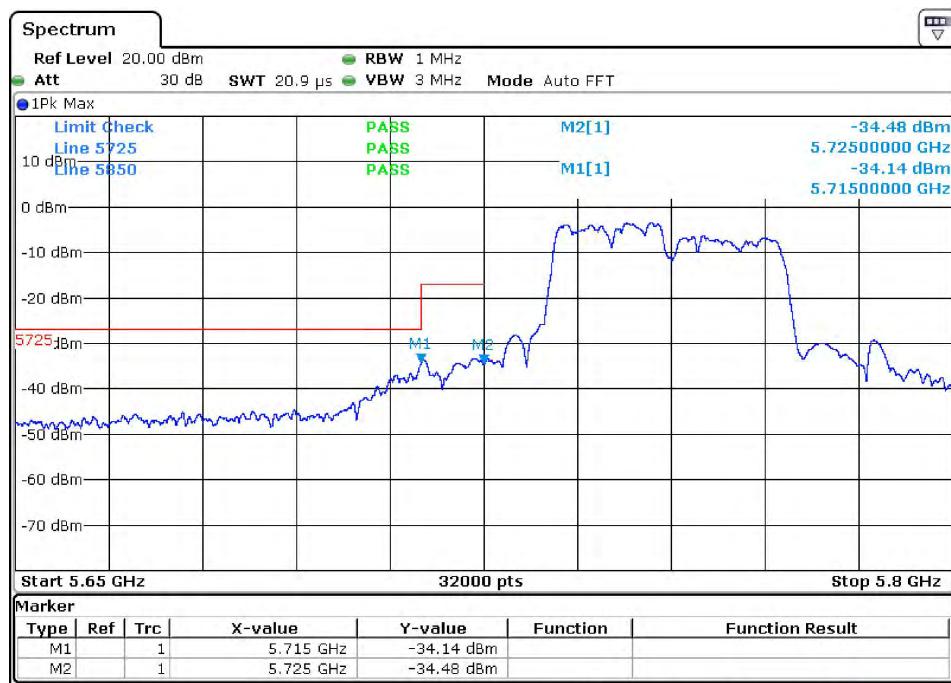


Ant 802.11 n40

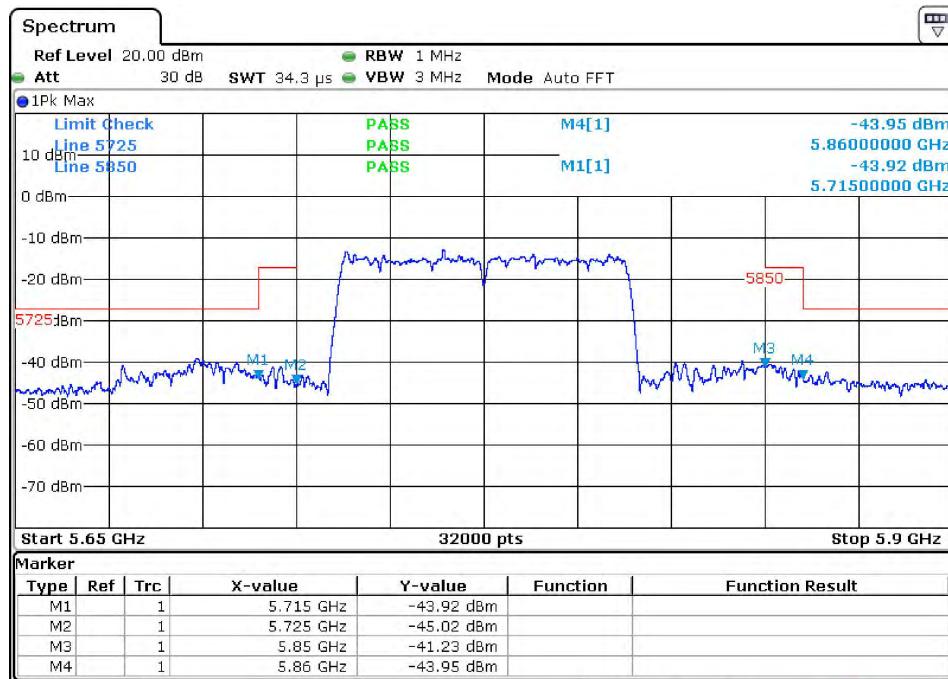
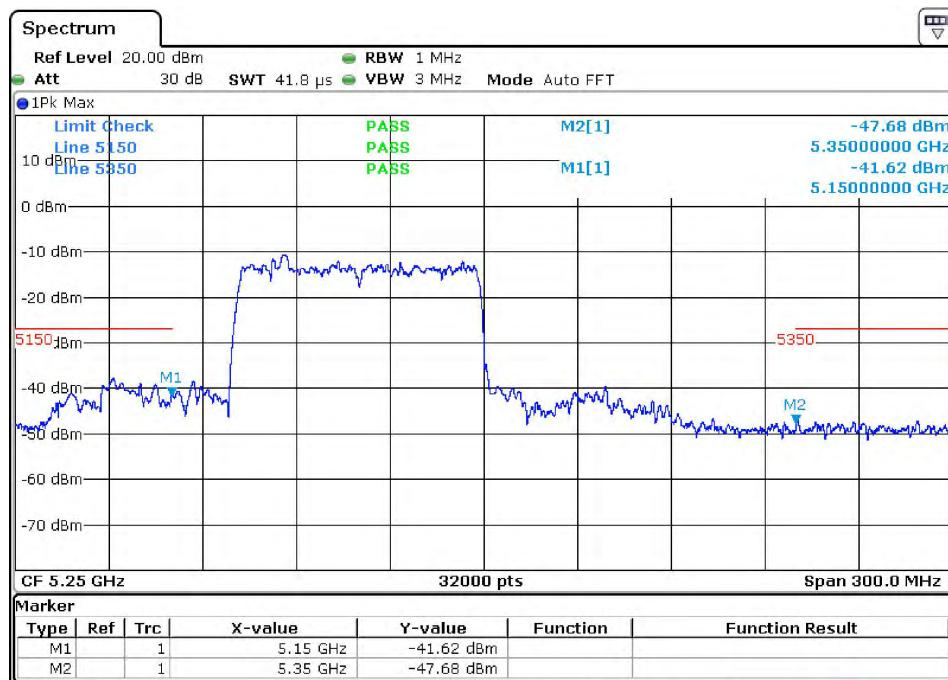


Ant 802.11 ac40





Ant 802.11 ac80





5.4 BANDWIDTH TEST

5.4.1 Applied procedures / Limit

The bandwidth at 26 dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating at its maximum power control level, as defined in KDB 789033, at the appropriate frequencies. The spectrum analyzer's bandwidth measurement function is configured to measure the 26 dB bandwidth.

The 26 dB bandwidth is used to determine the conducted power limits.

There is no limit bandwidth for U-NII-1, U-NII-2-A and U-NII-2-C.

The minimum of 6dB Bandwidth measurement is 0.5 MHz for U-NII-3

5.4.2 Test procedure

26 dB BANDWID PROCEDURES

- a. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01
- b. Set RBW = approximately 1% of the emission bandwidth.
- c. Trace mode = max hold
- d. Detector = Peak
- 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 analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%

6 dB BANDWID PROCEDURES

- a. Set resolution bandwidth (RBW) = 100 kHz
- b. Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = Peak.
- c. Trace mode = max hold.
- d. Sweep = auto couple.
- e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

99% BANDWID PROCEDURES



1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW $\geq 3 \cdot \text{RBW}$
5. 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.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. 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% occupied bandwidth is the difference between these two frequencies.

5.4.3 Deviation from standard

No deviation.

5.4.4 Test setup



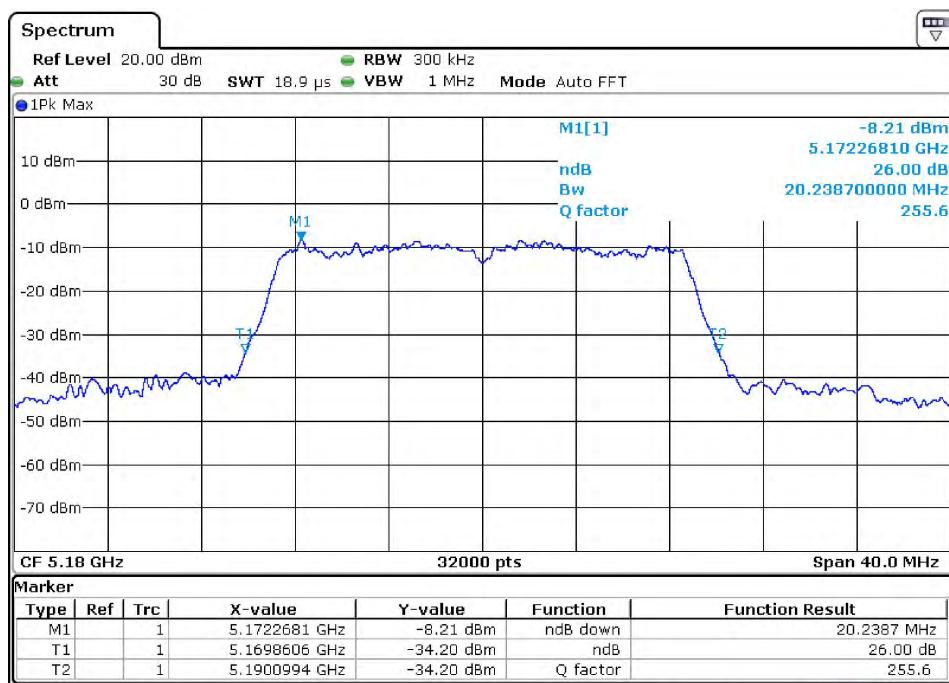


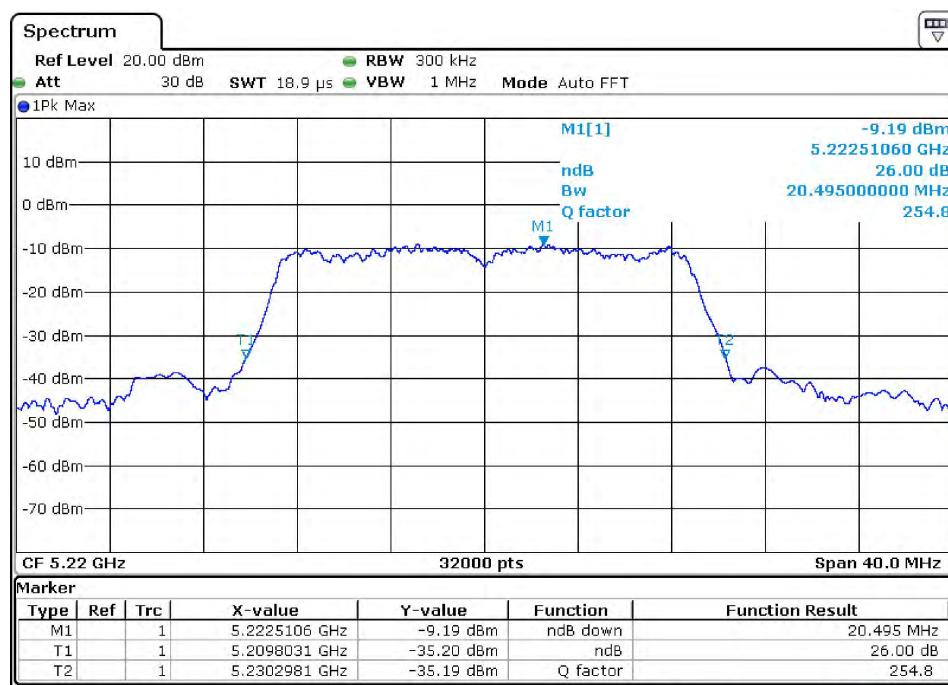
5.4.5 Test results

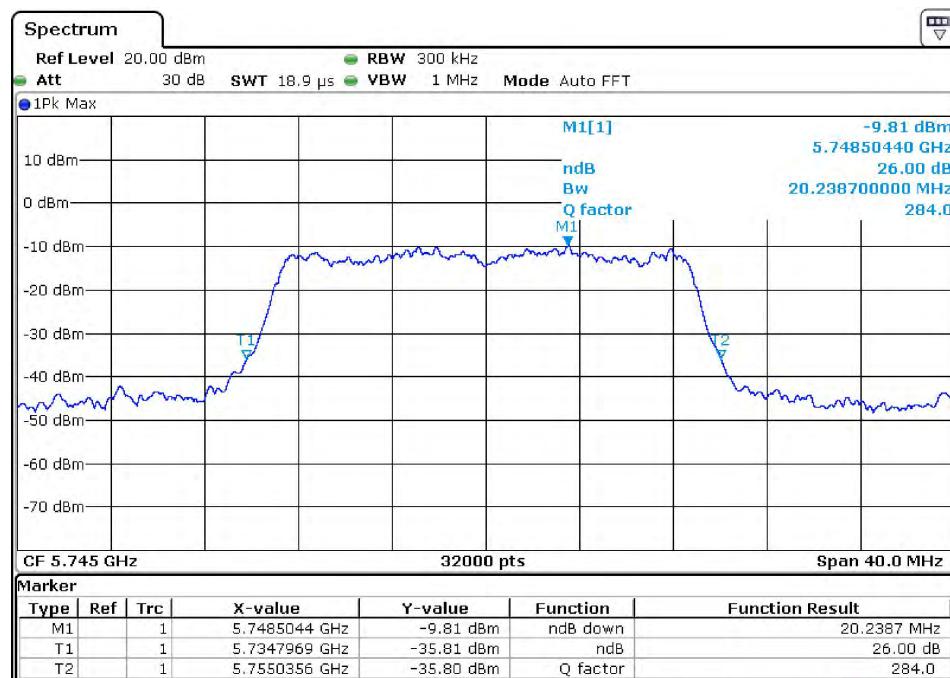
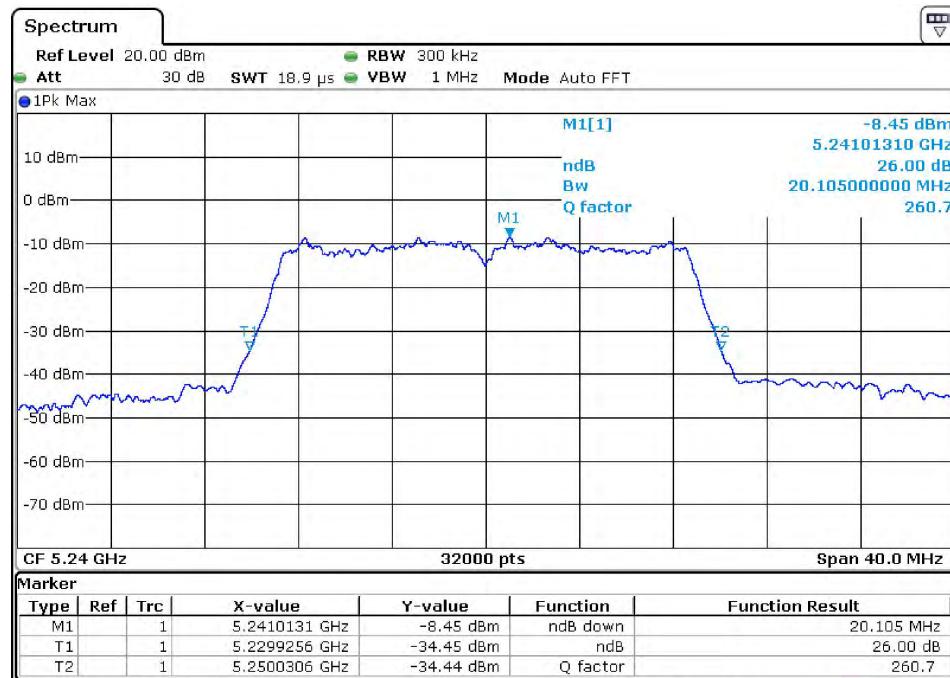
Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	6dB Bandwidth (MHz)	Result
Ant						
802.11a	6	36	5180	20.2387	17.4984	Pass
802.11a	6	44	5220	20.495	17.5062	Pass
802.11a	6	48	5240	20.105	17.5078	Pass
802.11a	6	149	5745	20.2387	17.4937	Pass
802.11a	6	157	5785	20.0037	17.5031	Pass
802.11a	6	165	5825	20.2587	17.4984	Pass
802.11n-HT20	7.2	36	5180	20.1187	17.4922	Pass
802.11n-HT20	7.2	44	5220	20.2125	17.4812	Pass
802.11n-HT20	7.2	48	5240	20.2225	17.5312	Pass
802.11n-HT20	7.2	149	5745	20.205	17.5094	Pass
802.11n-HT20	7.2	157	5785	20.125	17.5141	Pass
802.11n-HT20	7.2	165	5825	20.175	17.5016	Pass
802.11n-HT40	15	38	5190	40.44	35.625	Pass
802.11n-HT40	15	46	5230	40.6425	35.435	Pass
802.11n-HT40	15	151	5755	40.45	35.295	Pass
802.11n-HT40	15	159	5795	40.115	35.3175	Pass
802.11ac-VHT2	7.2	36	5180	20.815	17.4891	Pass
802.11ac-VHT2	7.2	44	5220	23.0862	17.4953	Pass
802.11ac-VHT2	7.2	48	5240	20.2075	17.5406	Pass
802.11ac-VHT2	7.2	149	5745	20.2012	17.5063	Pass
802.11ac-VHT2	7.2	157	5785	20.2325	17.525	Pass
802.11ac-VHT2	7.2	165	5825	20.4187	17.2437	Pass
802.11ac-VHT4	15	38	5190	40.515	35.005	Pass
802.11ac-VHT4	15	46	5230	40.1375	35.4238	Pass
802.11ac-VHT4	15	151	5755	40.4375	35.33	Pass
802.11ac-VHT4	15	159	5795	40.2075	35.455	Pass
802.11ac-VHT8	32.5	42	5210	81.625	76.1626	Pass
802.11ac-VHT8	32.5	155	5775	82.29	76.1	Pass

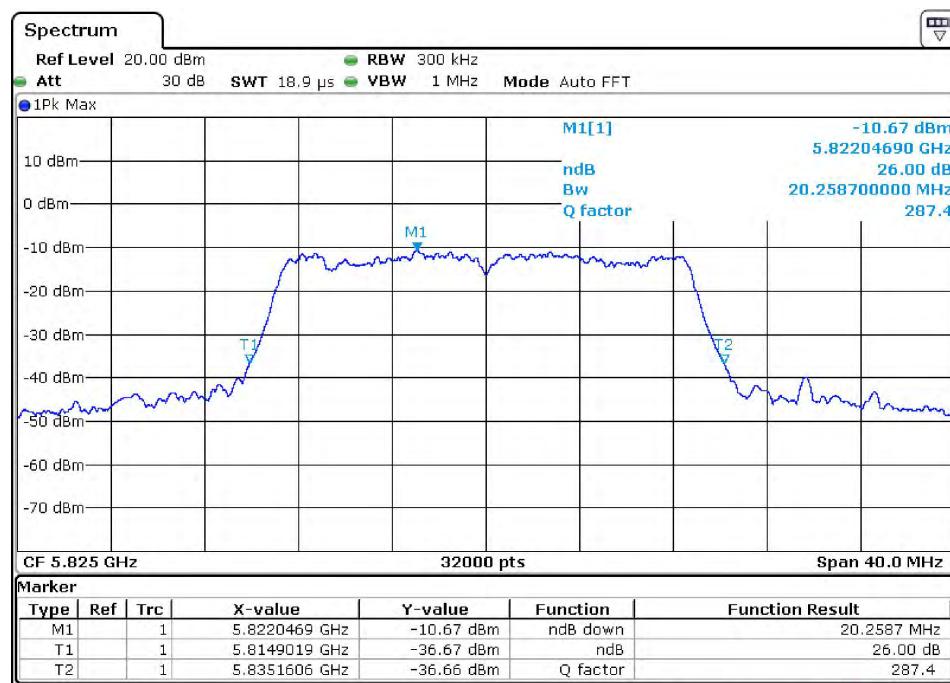
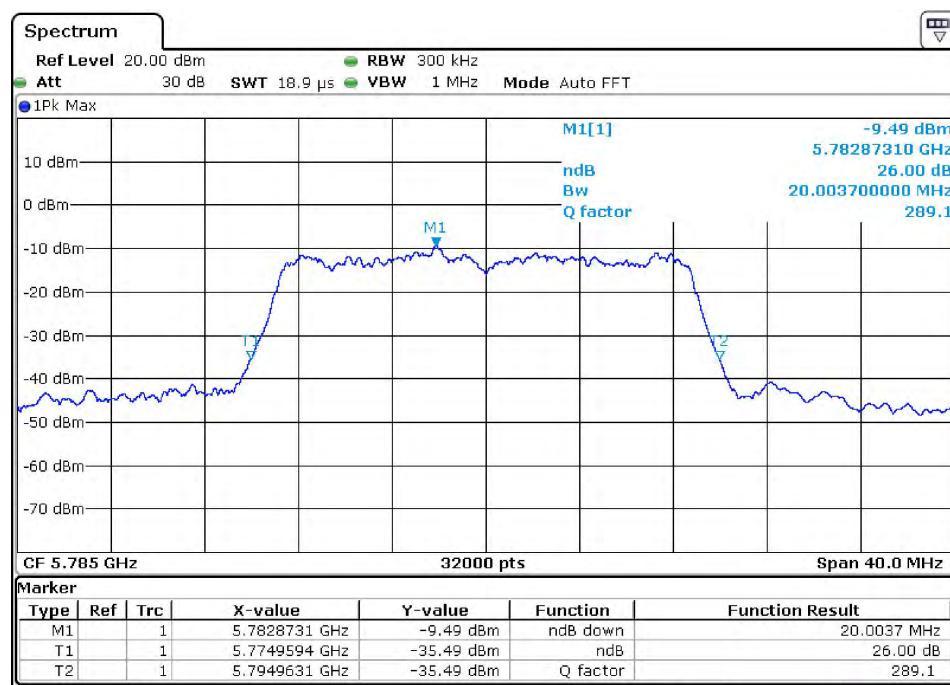
26 dBc Bandwidth plot as follows:

Ant 802.11 a

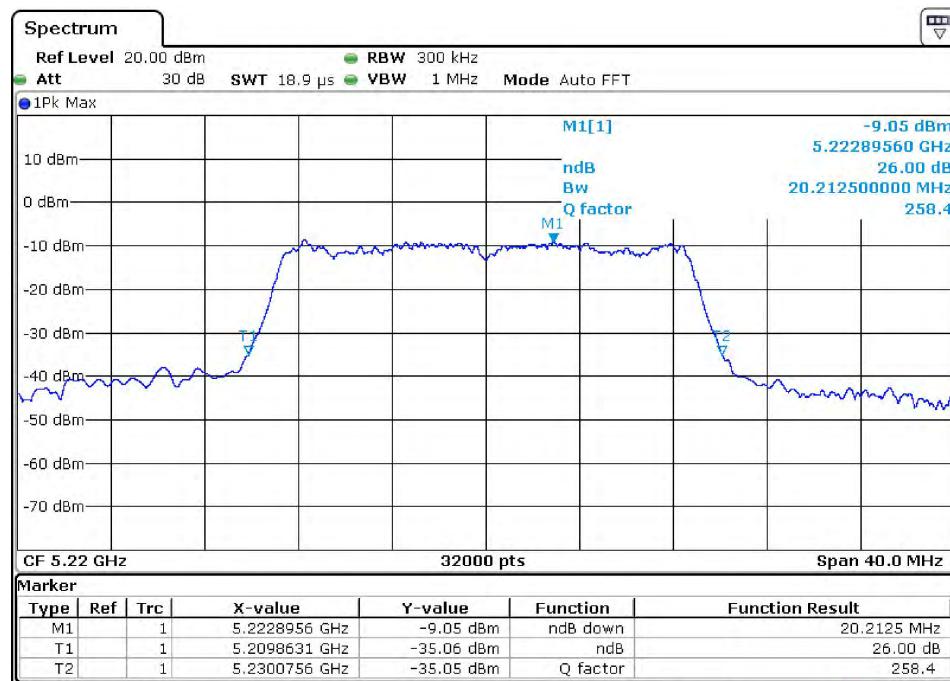
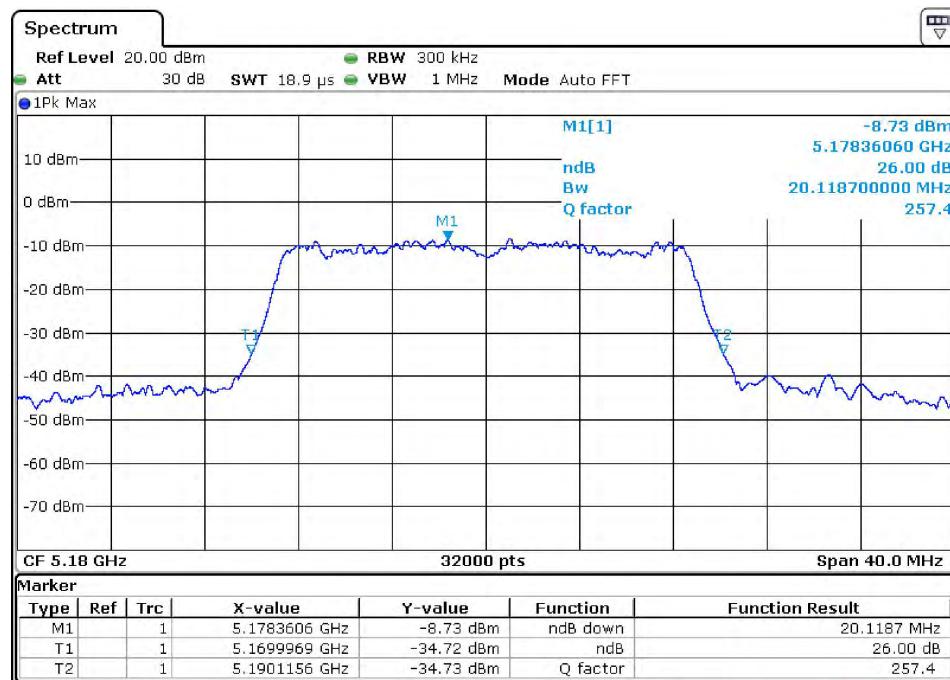


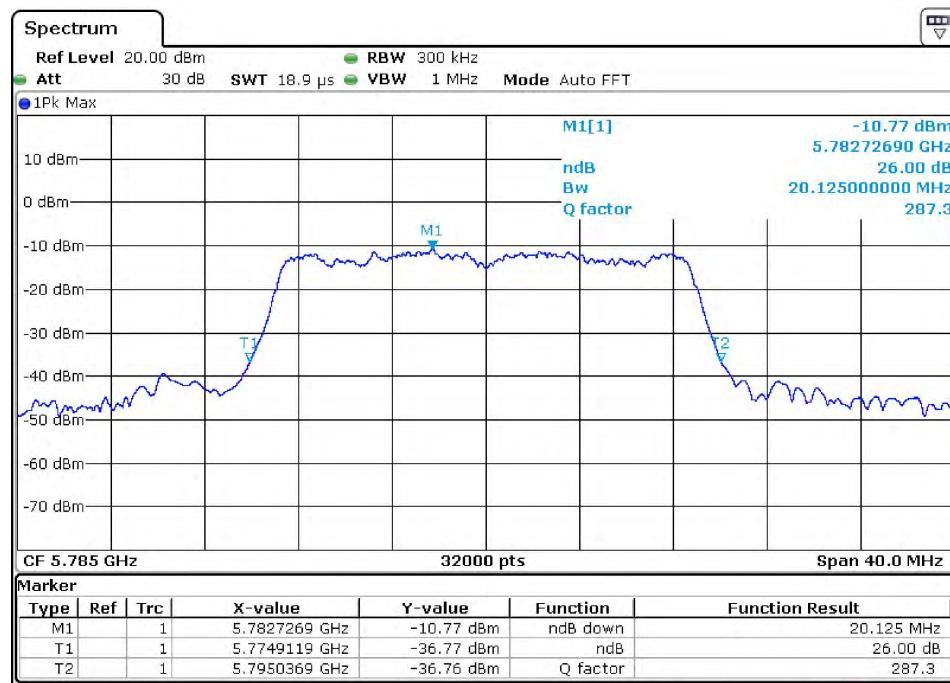
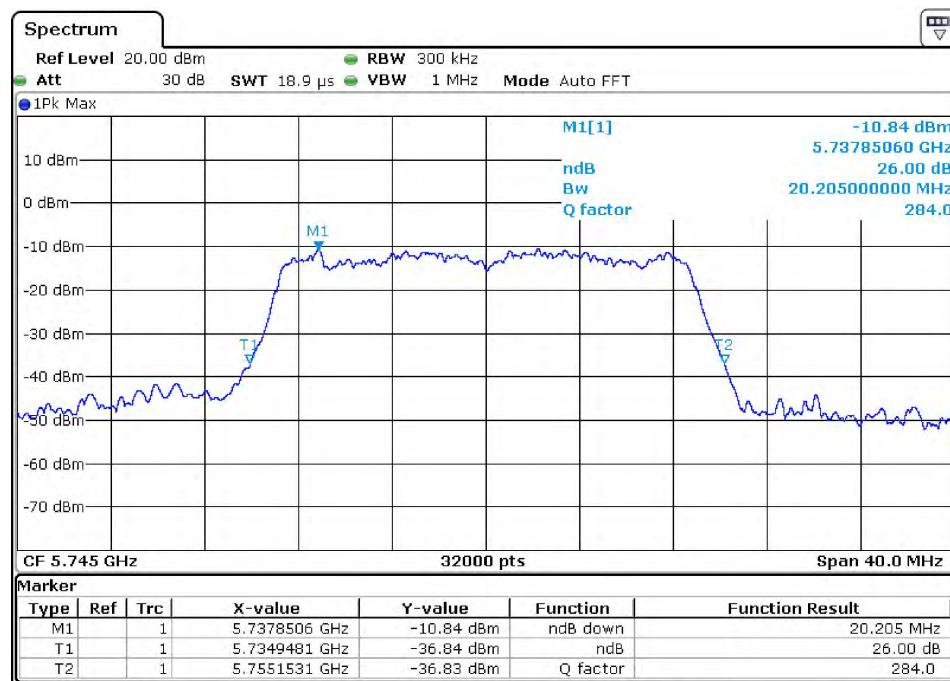


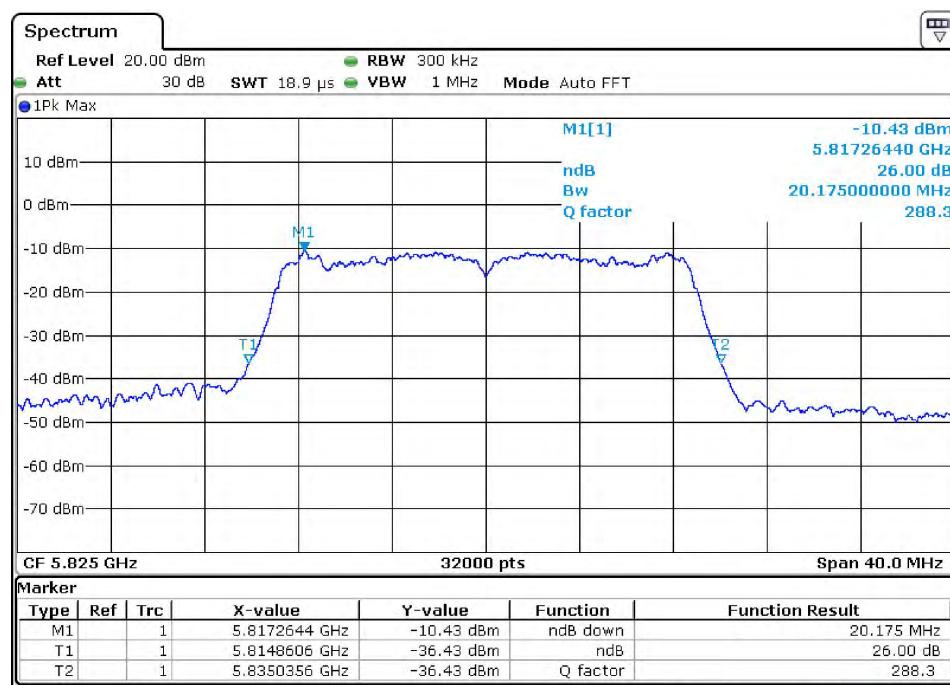




Ant 802.11 n20







Ant 802.11 n40

