



RF TEST REPORT

Applicant Xiaomi Communications Co., Ltd.
FCC ID 2AFZZ1119DG
Product Mobile Phone
Brand Redmi
Model 21061119DG
Report No. R2106A0482-R6
Issue Date July 21, 2021

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 15E (2020)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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Approved by: Kai Xu

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Summary of measurement results

Number	Test Case	Clause in FCC rules	Verdict
1	Average output power	15.407(a)	PASS
2	Occupied bandwidth	15.407(e)	PASS
3	Frequency stability	15.407(g)	PASS
4	Power spectral density	15.407(a)	PASS
5	Unwanted Emissions	15.407(b)	PASS
6	Conducted Emissions	15.207	PASS

Date of Testing: July 7, 2021 ~ July 12, 2021
Date of Sample Received: June 22, 2021

Note: PASS: The EUT complies with the essential requirements in the standard.
FAIL: The EUT does not comply with the essential requirements in the standard.
All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.



1. Test Laboratory

1.1. Notes of the test report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2. Test facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

1.3. Testing Location

Company: TA Technology (Shanghai) Co., Ltd.
Address: No.145, Jintang Rd, Tangzhen Industry Park, Pudong
City: Shanghai
Post code: 201201
Country: P. R. China
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Website: <http://www.ta-shanghai.com>
E-mail: xukai@ta-shanghai.com

2. General Description of Equipment under Test

2.1. Applicant and Manufacturer Information

Applicant	Xiaomi Communications Co., Ltd.
Applicant address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Manufacturer	Xiaomi Communications Co., Ltd.
Manufacturer address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

2.2. General information

EUT Description		
Model	21061119DG	
IMEI	IMEI 1: 868393050030303 IMEI 2: 868393050030311	
Hardware Version	P1.1	
Software Version	MIUI12.5	
Power Supply	AC adapter	
Antenna Type	PIFA Antenna	
Memory	4G+64G; 6G+128G; 4G+128G	
Antenna Gain	Frequency	Gain
	5.15GHz~5.25 GHz	0.2dBi
	5.25GHz ~5.35 GHz	0.2dBi
	5.47GHz ~5.725 GHz	0dBi
	5.725GHz ~5.85 GHz	0.2dBi
Directional Gain	NA	
Test Band	U-NII-1(5150MHz-5250MHz) U-NII-2A(5250MHz-5350MHz) U-NII-2C(5470MHz-5725MHz) U-NII-3(5725MHz-5850MHz)	
Modulation Type	802.11a/n (HT20/HT40) : OFDM 802.11ac (VHT20/VHT40/VHT80): OFDM	
Max. Conducted Power	14.94 dBm	
Operating Frequency Range(s)	U-NII-1: 5150MHz-5250MHz U-NII-2A:5250MHz -5350MHz U-NII-2C:5470MHz-5725MHz U-NII-3: 5725MHz -5850MHz	



Extreme temperature range:	-20 ° C to 50° C
Operating temperature range:	0° C to 40° C
Operating voltage range:	3.6 V to 4.45 V
State DC voltage:	3.87V
Note:1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.	



3. Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standards:

FCC CFR47 Part 15E (2020) Unlicensed National Information Infrastructure Devices

ANSI C63.10 (2013)

Reference standard:

KDB 789033 D02 General UNII Test Procedures New Rules v02r01

4. Test Configuration

Test Mode

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in stand-up position (Z axis) and the worst case was recorded.

In order to find the worst case condition, Pre-tests are needed at the presence of different data rate. Preliminary tests have been done on all the configuration for confirming worst case. Data rate below means worst-case rate of each test item.

Worst-case data rates are shown as following table.

Mode	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0

Wireless Technology and Frequency Range

Wireless Technology		Bandwidth	Channel	Frequency	
Wi-Fi	U-NII-1	20 MHz	36	5180MHz	
			40	5200MHz	
			44	5220MHz	
			48	5240MHz	
		40 MHz	38	5190MHz	
			46	5230MHz	
		80 MHz	42	5210MHz	
		U-NII-2A	20 MHz	52	5260MHz
				56	5280MHz
	60			5300MHz	
	64			5320MHz	
	40 MHz		54	5270MHz	
			62	5310MHz	
	80 MHz		58	5290MHz	
	U-NII-2C		20 MHz	100	5500MHz
				104	5520MHz
		108		5540MHz	
		112		5560MHz	
		116		5580MHz	
		120		5600MHz	
		124		5620MHz	
		128		5640MHz	
		132		5660MHz	
		136		5680MHz	
		140		5700MHz	
		40 MHz		102	5510MHz
			110	5550MHz	
			118	5590MHz	
			126	5630MHz	
			134	5670MHz	
		80 MHz	142	5710MHz	
			106	5530MHz	
138			5690MHz		
149			5745MHz		
U-NII-3		20 MHz	153	5765MHz	
	157		5785MHz		
	161		5805MHz		



			165	5825MHz
		40 MHz	151	5755MHz
			159	5795MHz
		80 MHz	155	5775MHz
Does this device support TPC Function? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Does this device support TDWR Band? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				

5. Test Case Results

5.1. Occupied Bandwidth

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable.

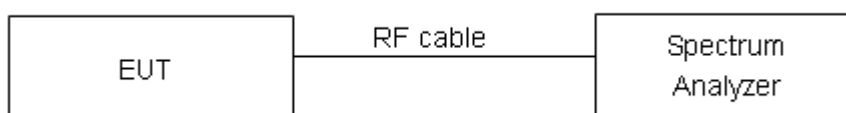
For U-NII-1/U-NII-2A/U-NII-2C, set RBW \approx 1% OCB kHz, VBW \geq 3 \times RBW, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum level measured in the fundamental emission.

For U-NII-3, Set RBW = 100 kHz, VBW \geq 3 \times RBW, 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.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

Use the 99 % power bandwidth function of the instrument

Test Setup



Limits

Rule FCC Part §15.407(e)

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 936$ Hz.

**Test Results:****U-NII-1**

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5180	16.38	19.66	PASS
	5200	16.37	19.39	PASS
	5240	16.40	19.81	PASS
802.11n HT20	5180	17.51	19.91	PASS
	5200	17.55	20.13	PASS
	5240	17.52	19.99	PASS
802.11n HT40	5190	35.97	40.30	PASS
	5230	35.88	40.06	PASS
802.11ac VHT20	5180	17.53	19.89	PASS
	5200	17.54	20.15	PASS
	5240	17.53	19.92	PASS
802.11ac VHT40	5190	35.98	40.58	PASS
	5230	35.84	40.00	PASS
802.11ac VHT80	5210	75.23	80.53	PASS

U-NII-2A

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5260	16.42	19.87	PASS
	5300	16.39	19.57	PASS
	5320	16.37	19.48	PASS
802.11n HT20	5260	17.55	19.89	PASS
	5300	17.54	19.87	PASS
	5320	17.53	20.22	PASS
802.11n HT40	5270	36.01	40.28	PASS
	5310	35.93	40.50	PASS
802.11ac VHT20	5260	17.50	20.00	PASS
	5300	17.53	20.16	PASS
	5320	17.53	19.83	PASS
802.11ac VHT40	5270	35.97	40.16	PASS
	5310	35.94	40.07	PASS
802.11ac VHT80	5290	75.22	80.26	PASS



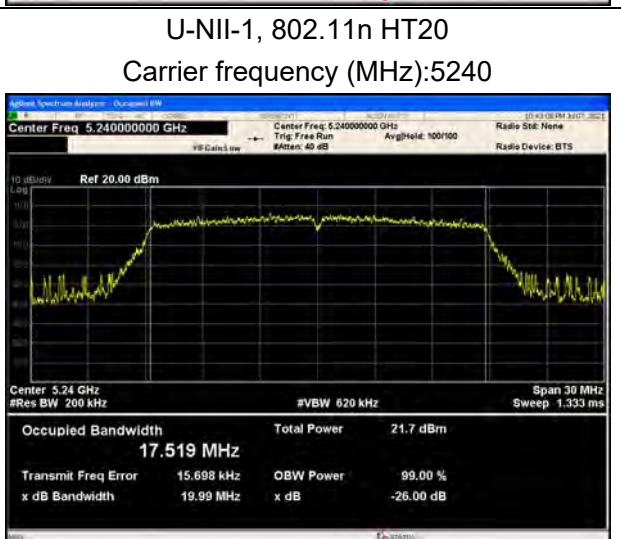
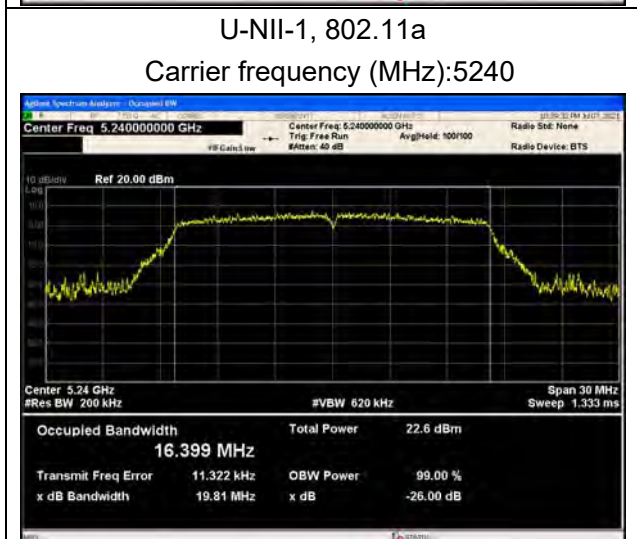
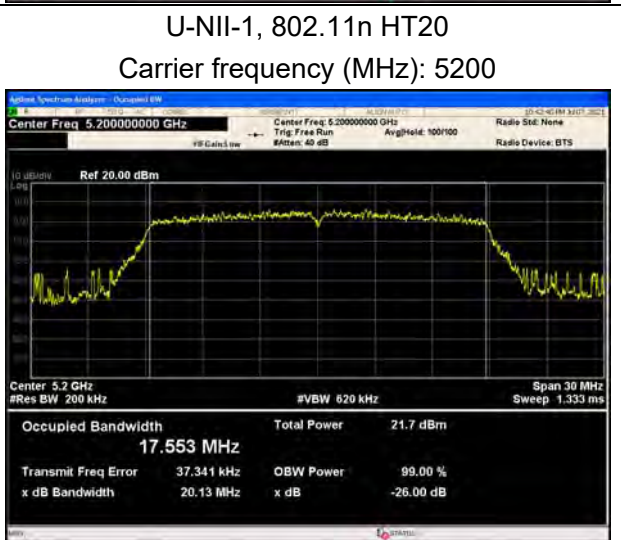
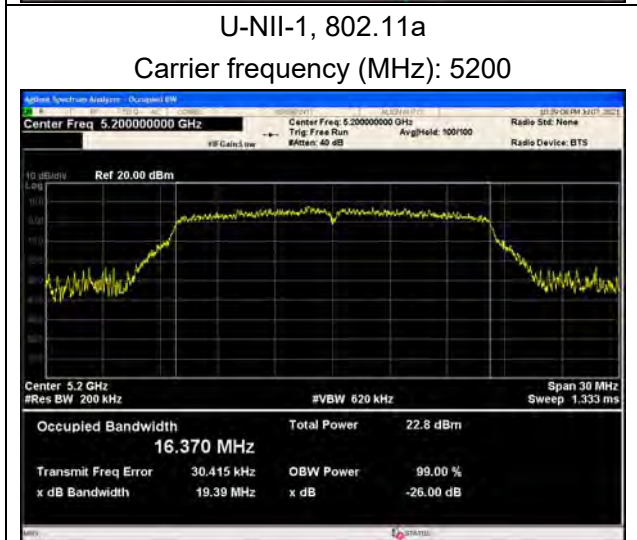
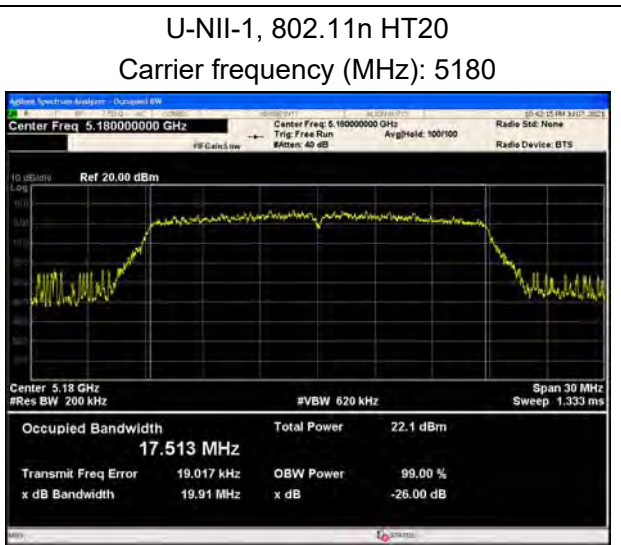
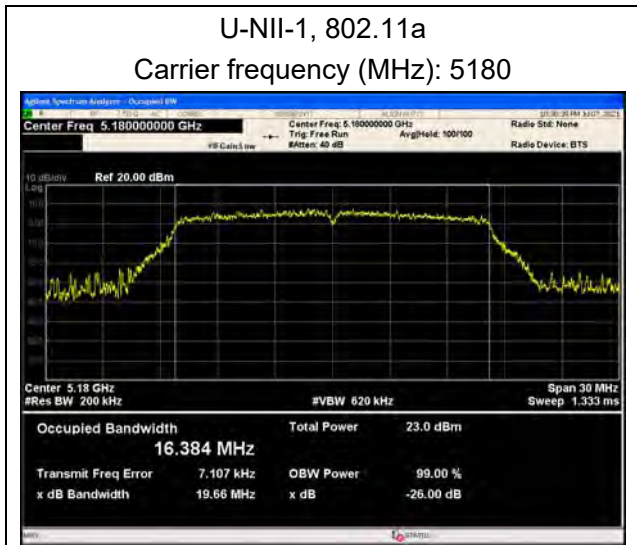
U-NII-2C

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 26 dB bandwidth (MHz)	Conclusion
802.11a	5500	16.39	19.79	PASS
	5580	16.36	19.59	PASS
	5700	16.41	19.46	PASS
	5720	16.39	19.70	PASS
802.11n HT20	5500	17.56	19.83	PASS
	5580	17.57	20.30	PASS
	5700	17.54	20.05	PASS
	5720	17.52	19.82	PASS
802.11n HT40	5510	36.00	40.70	PASS
	5550	35.89	40.14	PASS
	5670	36.01	40.08	PASS
	5710	35.83	39.96	PASS
802.11ac VHT20	5500	17.53	20.23	PASS
	5580	17.53	20.05	PASS
	5700	17.54	20.39	PASS
	5720	17.51	19.91	PASS
802.11ac VHT40	5510	35.98	40.17	PASS
	5550	35.90	40.42	PASS
	5670	35.98	40.03	PASS
	5710	35.86	40.23	PASS
802.11ac VHT80	5530	75.13	80.17	PASS
	5690	75.11	80.40	PASS

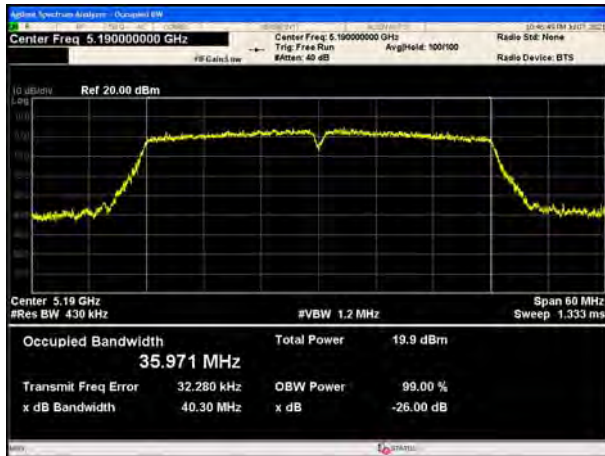


U-NII-3

Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11a	5745	16.39	14.428	500	PASS
	5785	16.35	15.068	500	PASS
	5825	16.38	14.671	500	PASS
802.11n HT20	5745	17.54	15.088	500	PASS
	5785	17.52	15.097	500	PASS
	5825	17.54	14.667	500	PASS
802.11n HT40	5755	35.96	35.007	500	PASS
	5795	35.94	35.048	500	PASS
802.11ac VHT20	5745	17.55	14.969	500	PASS
	5785	17.53	15.326	500	PASS
	5825	17.52	15.024	500	PASS
802.11ac VHT40	5755	35.96	35.115	500	PASS
	5795	35.87	35.100	500	PASS
802.11ac VHT80	5775	75.03	75.032	500	PASS



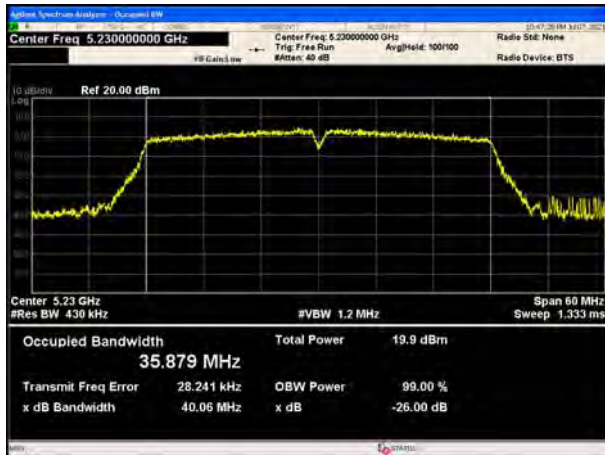
U-NII-1, 802.11n HT40
Carrier frequency (MHz): 5190



U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5180



U-NII-1, 802.11n HT40
Carrier frequency (MHz): 5230



U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5200



U-NII-1, 802.11ac VHT40
Carrier frequency (MHz): 5190



U-NII-1, 802.11ac VHT20
Carrier frequency (MHz): 5240

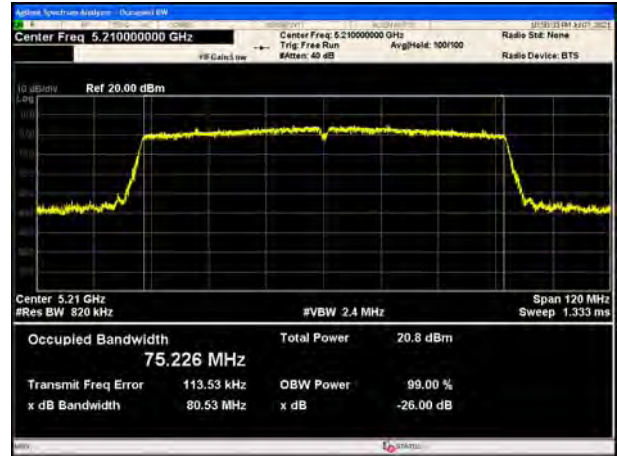




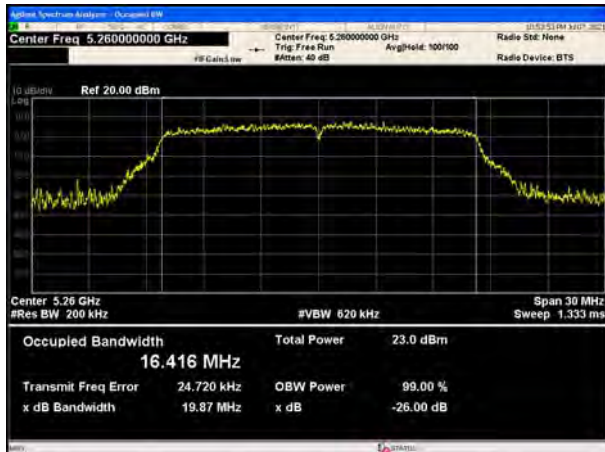
U-NII-1, 802.11ac VHT40
Carrier frequency (MHz): 5230



U-NII-1, 802.11ac VHT80
Carrier frequency (MHz): 5210



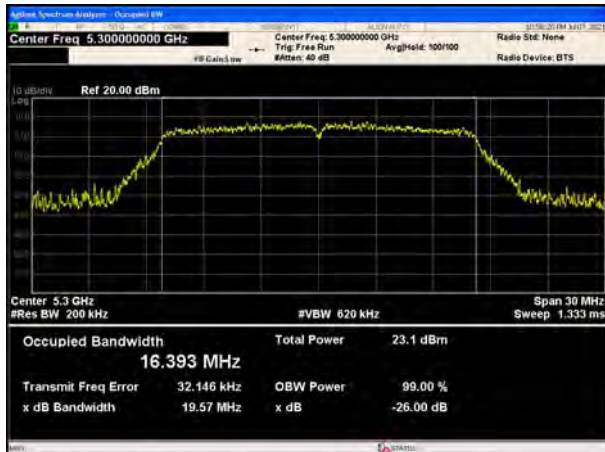
U-NII-2A, 802.11a
Carrier frequency (MHz): 5260



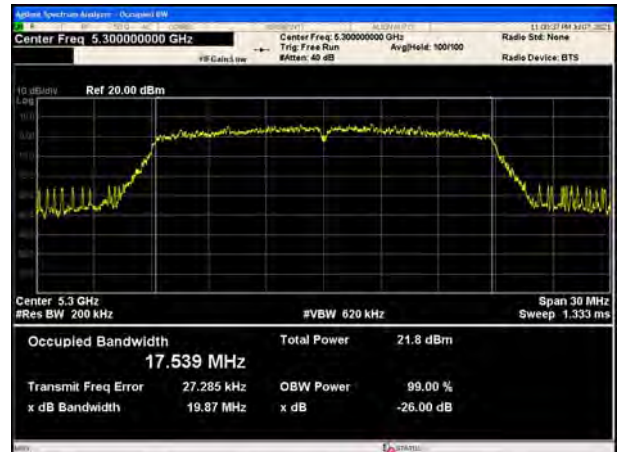
U-NII-2A, 802.11n HT20
Carrier frequency (MHz): 5260



U-NII-2A, 802.11a
Carrier frequency (MHz): 5300



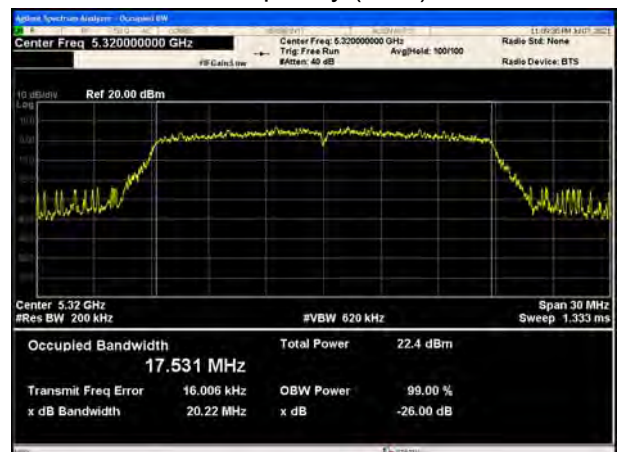
U-NII-2A, 802.11n HT20
Carrier frequency (MHz): 5300



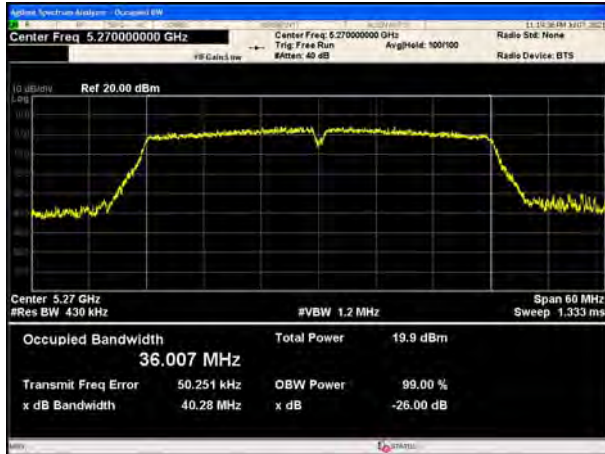
U-NII-2A, 802.11a
Carrier frequency (MHz):5320



U-NII-2A, 802.11n HT20
Carrier frequency (MHz):5320



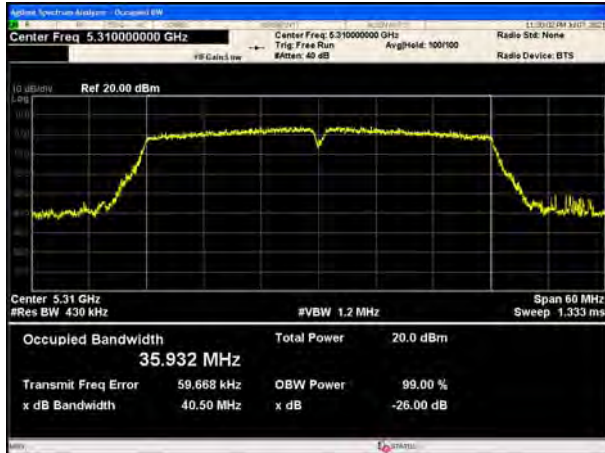
U-NII-2A, 802.11n HT40
Carrier frequency (MHz): 5270



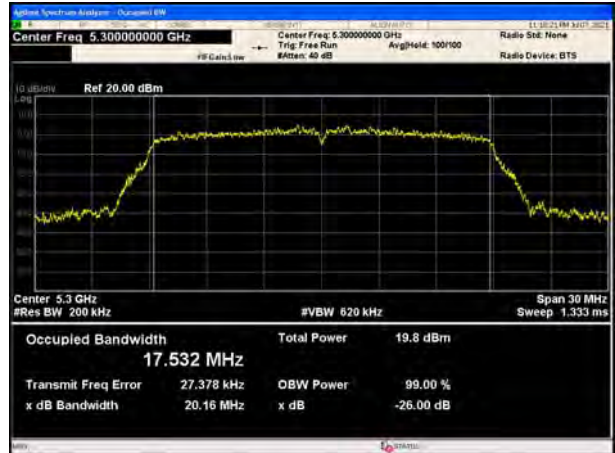
U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5260



U-NII-2A, 802.11n HT40
Carrier frequency (MHz): 5310



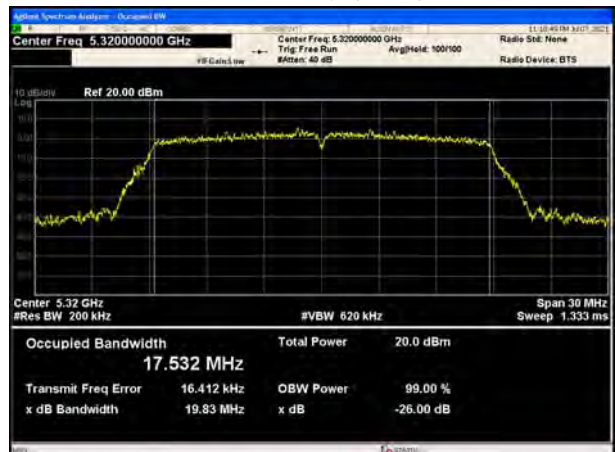
U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5300



U-NII-2A, 802.11ac VHT40
Carrier frequency (MHz): 5270

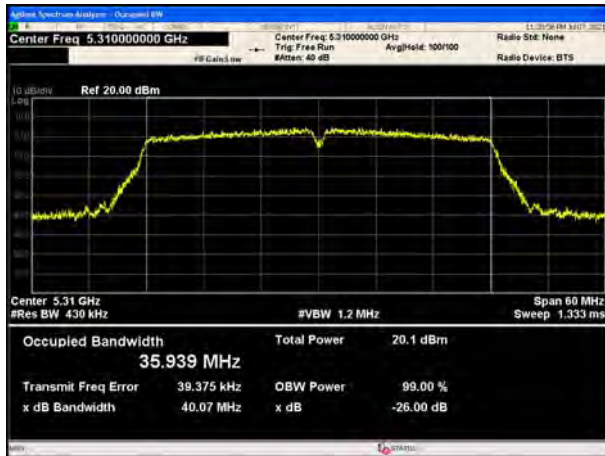


U-NII-2A, 802.11ac VHT20
Carrier frequency (MHz): 5320





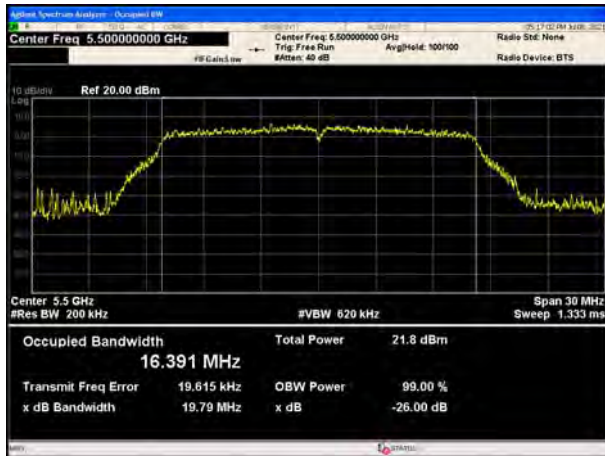
U-NII-2A, 802.11ac VHT40
Carrier frequency (MHz): 5310



U-NII-2A, 802.11ac VHT80
Carrier frequency (MHz): 5290



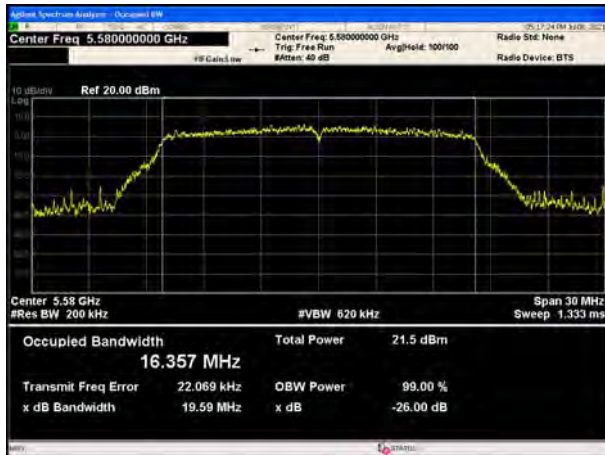
U-NII-2C, 802.11a
Carrier frequency (MHz): 5500



U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5500



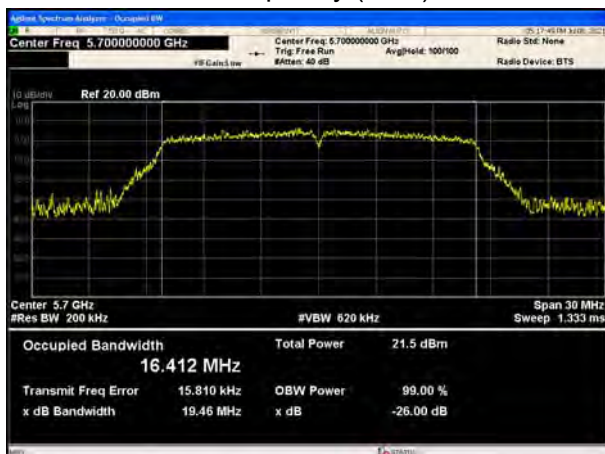
U-NII-2C, 802.11a
Carrier frequency (MHz): 5580



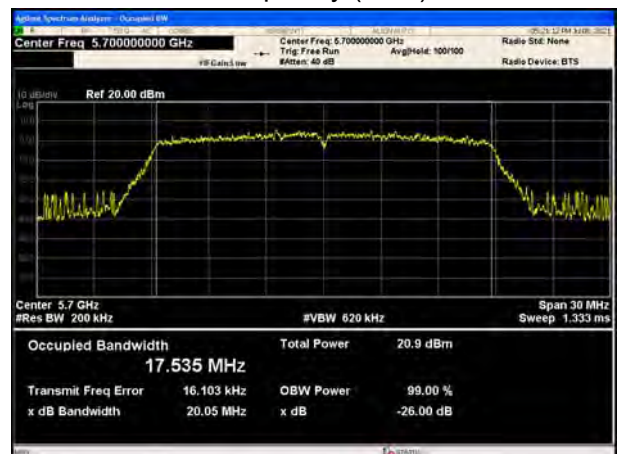
U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5580

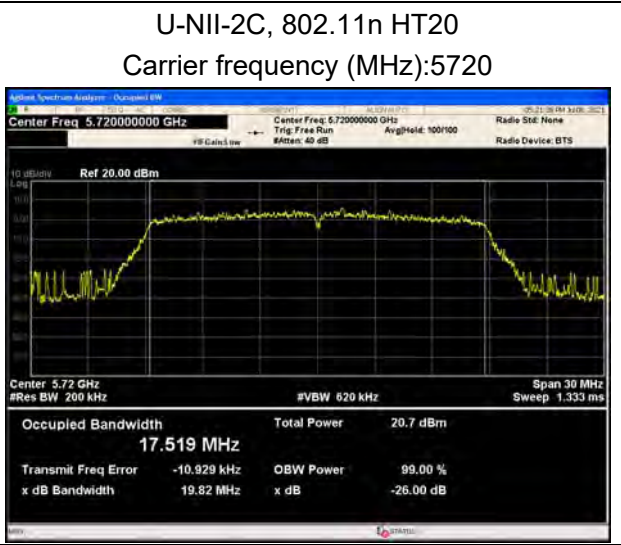
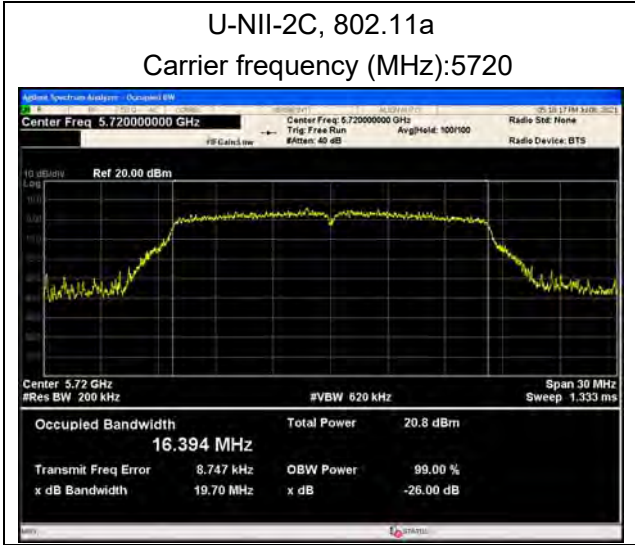


U-NII-2C, 802.11a
Carrier frequency (MHz): 5700

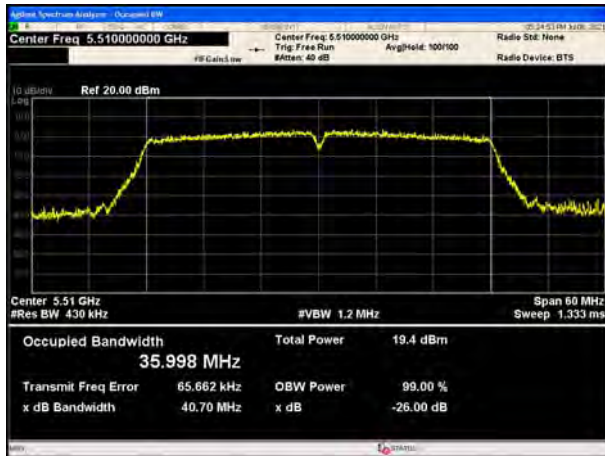


U-NII-2C, 802.11n HT20
Carrier frequency (MHz): 5700





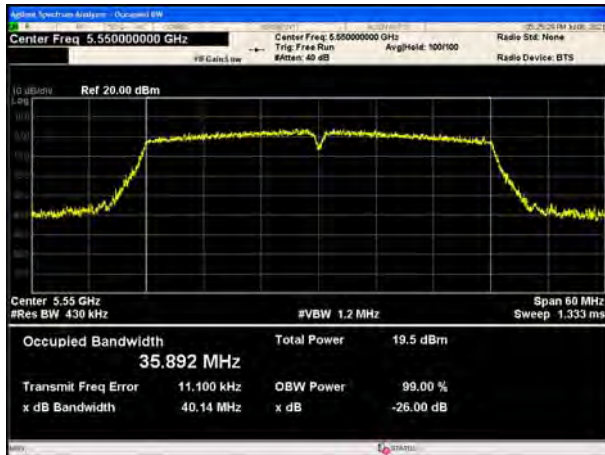
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5510



U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5500



U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5550



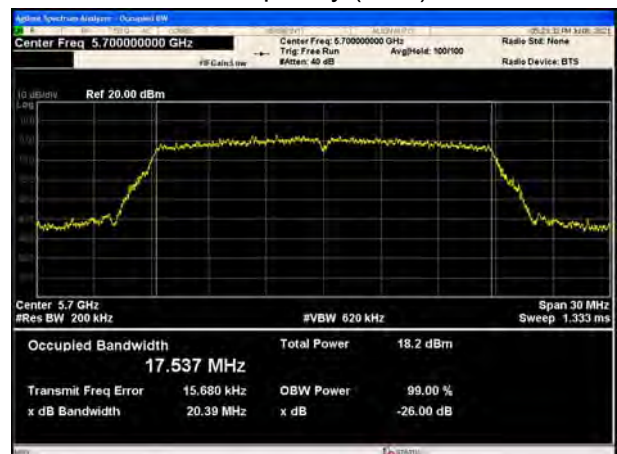
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5580



U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5670

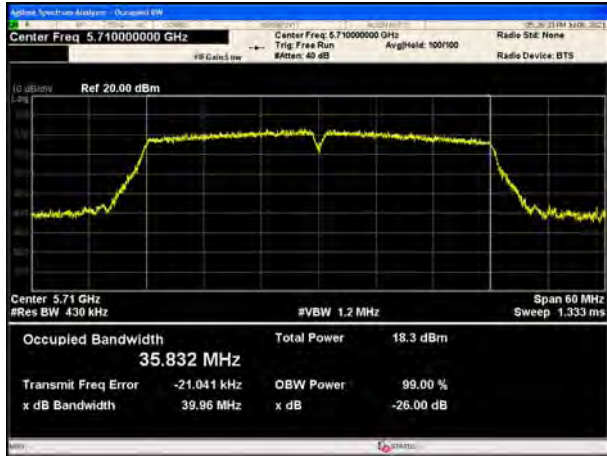


U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5700





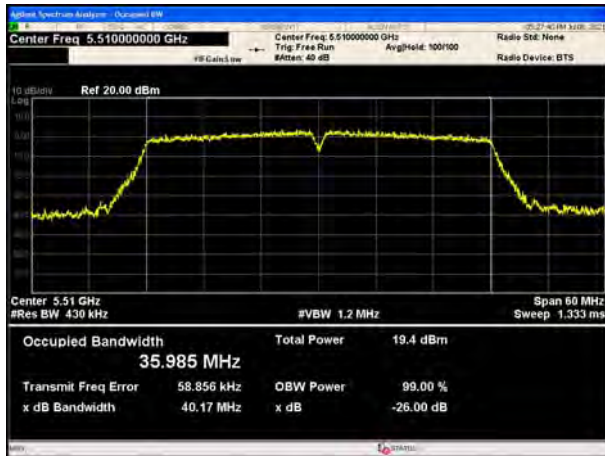
U-NII-2C, 802.11n HT40
Carrier frequency (MHz): 5710



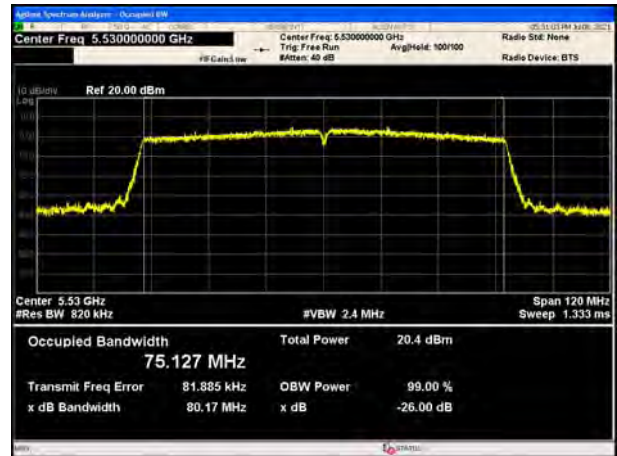
U-NII-2C, 802.11ac VHT20
Carrier frequency (MHz): 5720



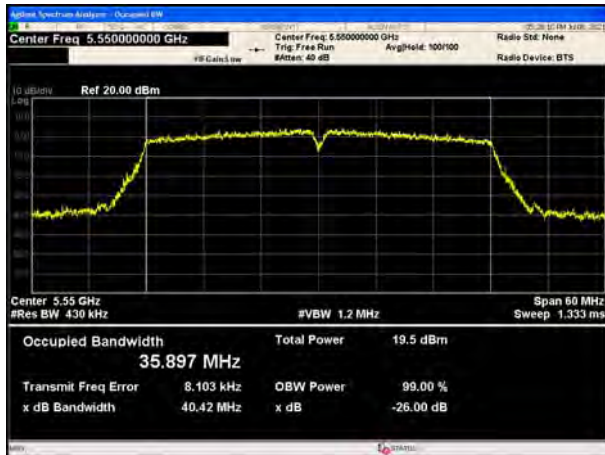
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5510



U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5530



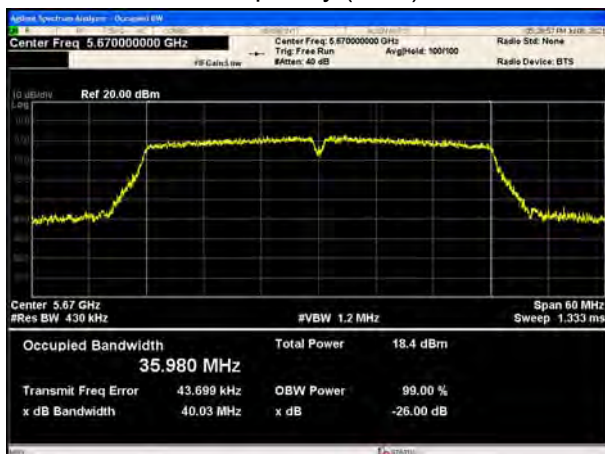
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5550



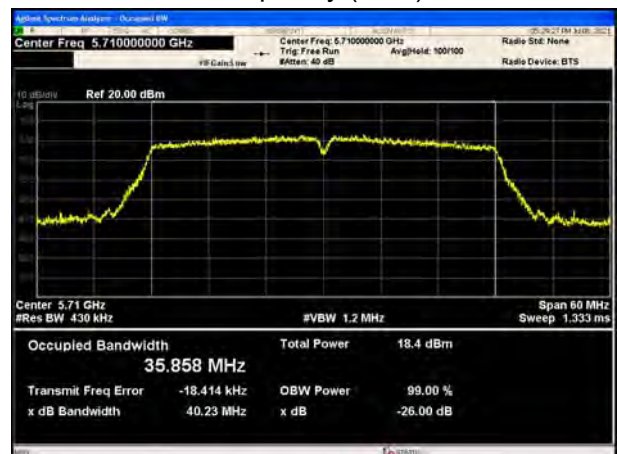
U-NII-2C, 802.11ac VHT80
Carrier frequency (MHz): 5690



U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5670



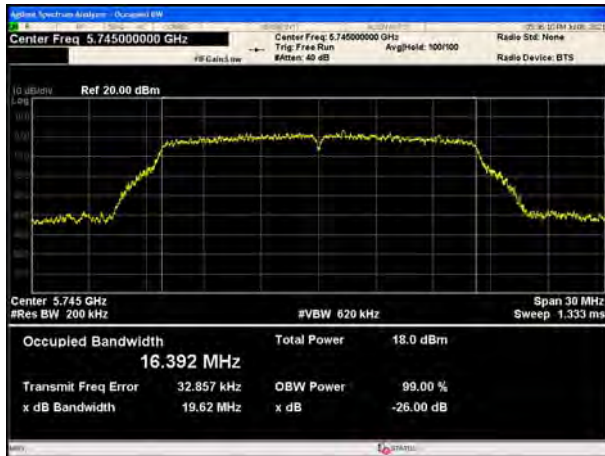
U-NII-2C, 802.11ac VHT40
Carrier frequency (MHz): 5710





99% bandwidth

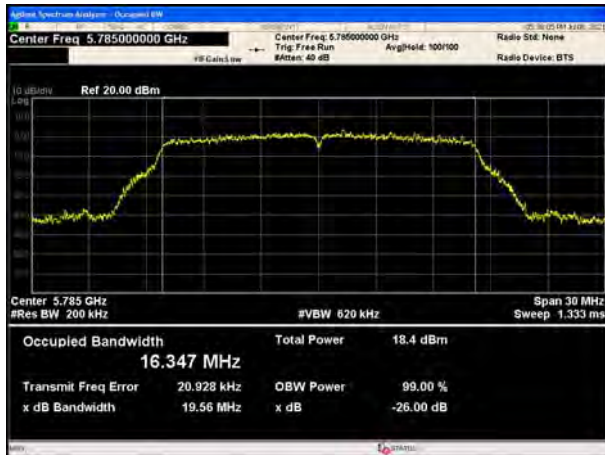
U-NII-3, 802.11a
Carrier frequency (MHz): 5745



U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5745



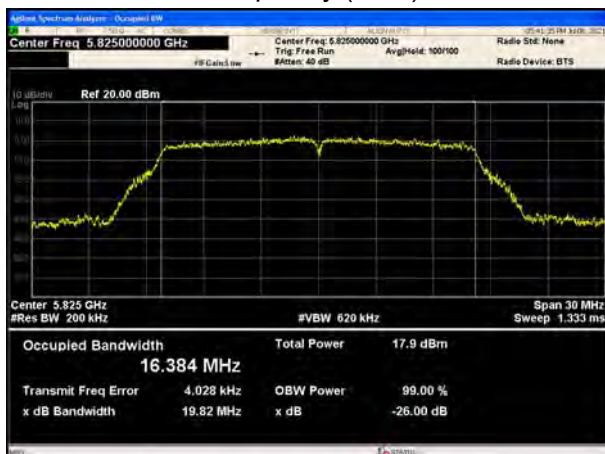
U-NII-3, 802.11a
Carrier frequency (MHz): 5785



U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5785



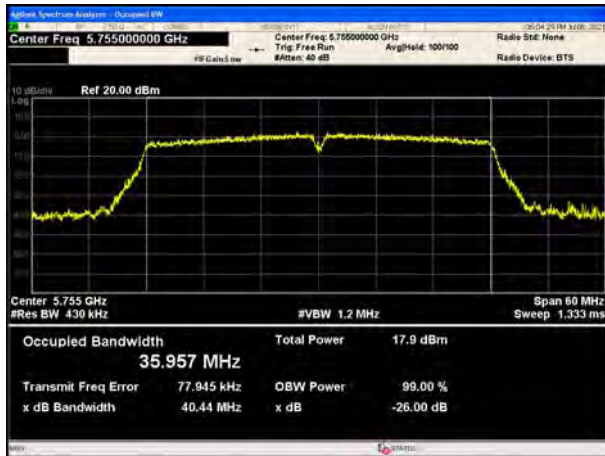
U-NII-3, 802.11a
Carrier frequency (MHz): 5825



U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5825



U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5755



U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5745



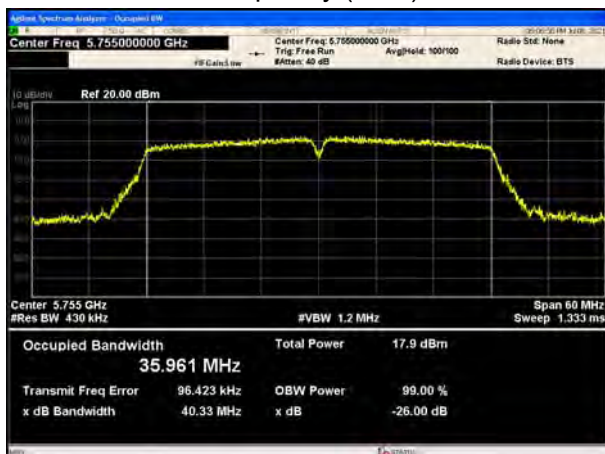
U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5795



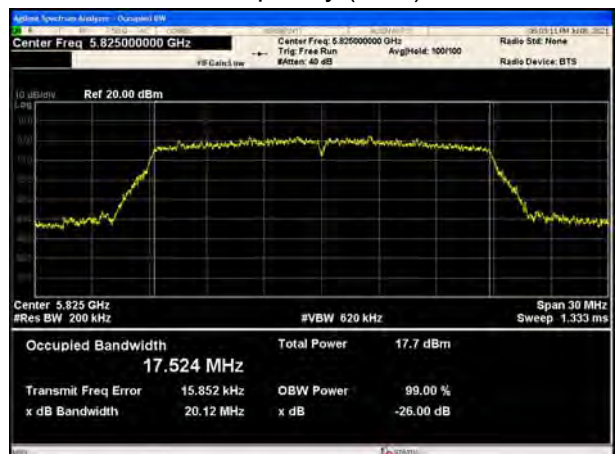
U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5785

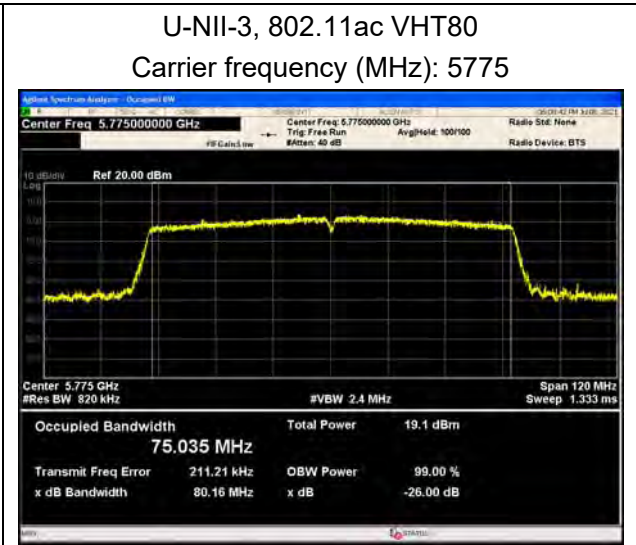
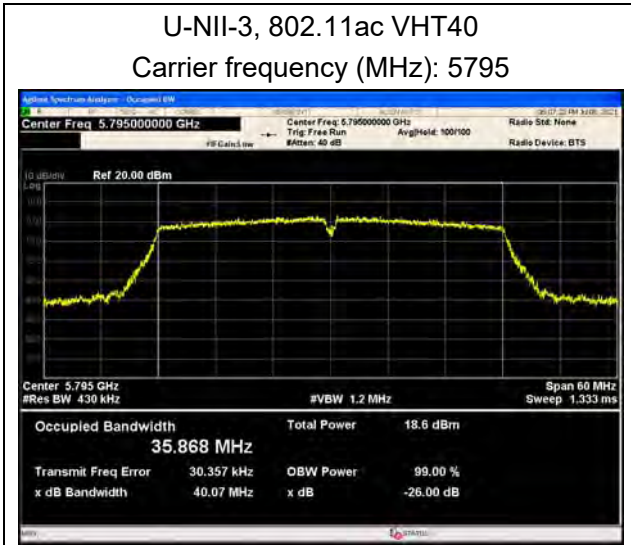


U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5755

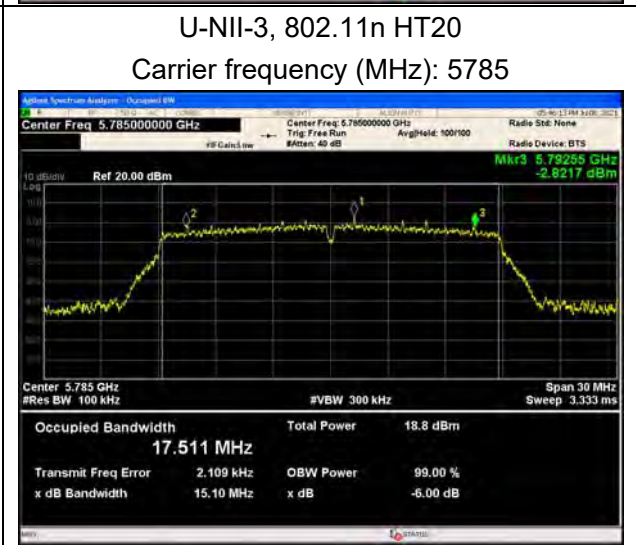
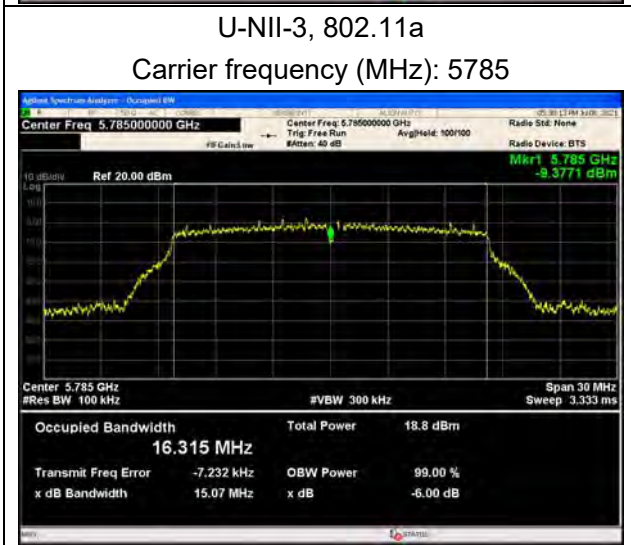
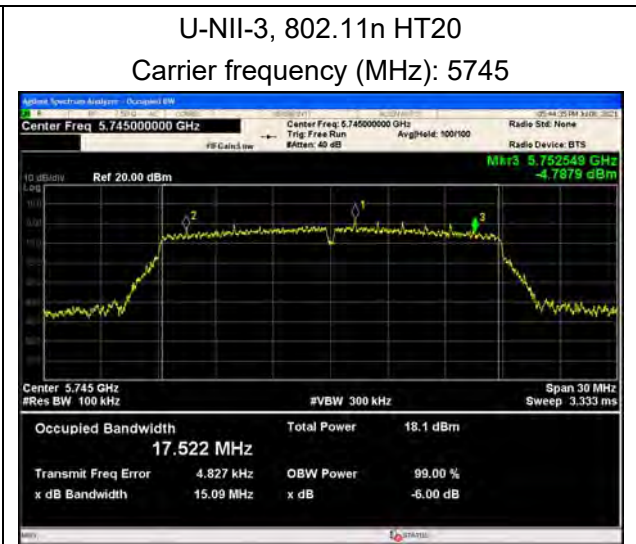
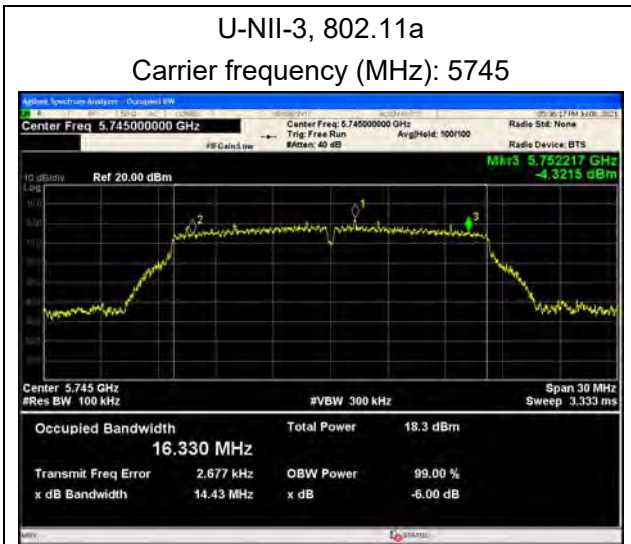


U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5825





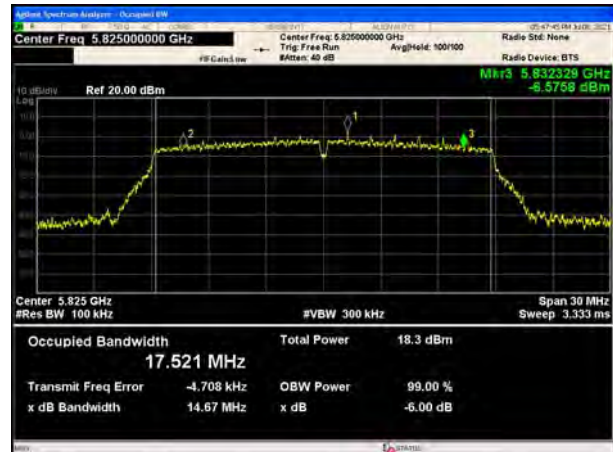
Minimum 6 dB bandwidth



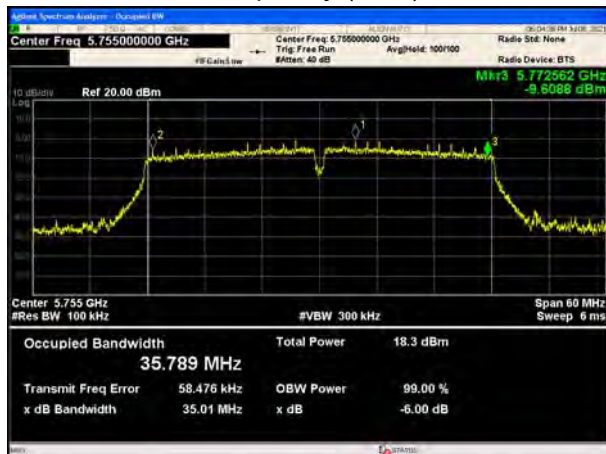
U-NII-3, 802.11a
Carrier frequency (MHz): 5825



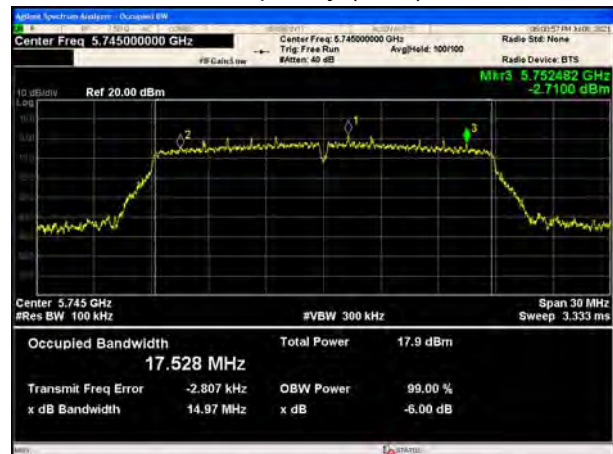
U-NII-3, 802.11n HT20
Carrier frequency (MHz): 5825



U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5755



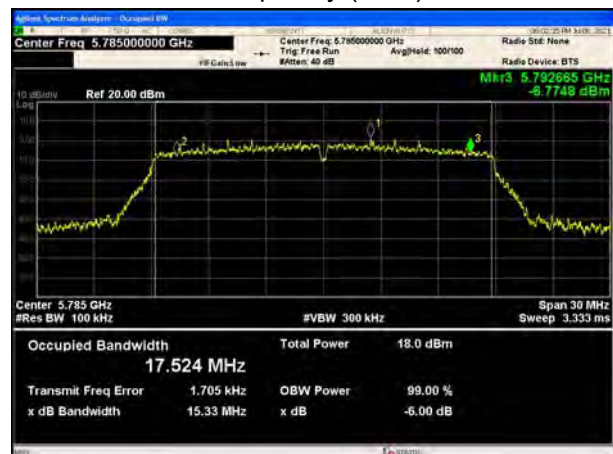
U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5745



U-NII-3, 802.11n HT40
Carrier frequency (MHz): 5795

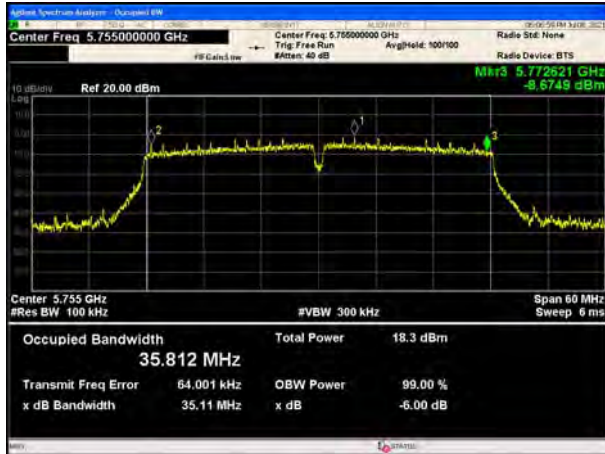


U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5785

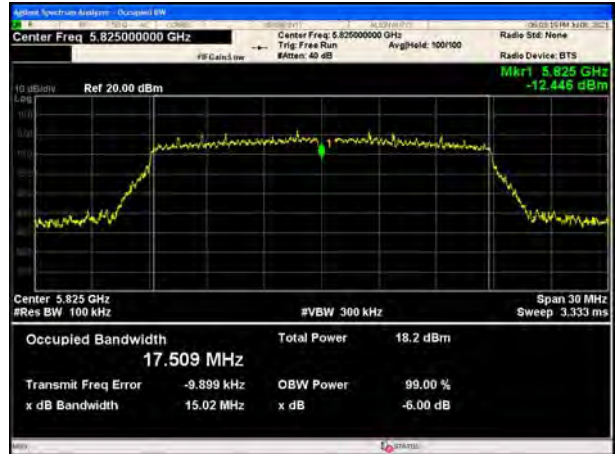




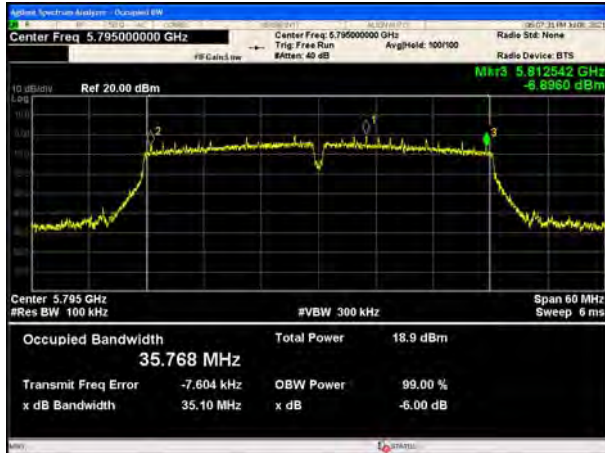
U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5755



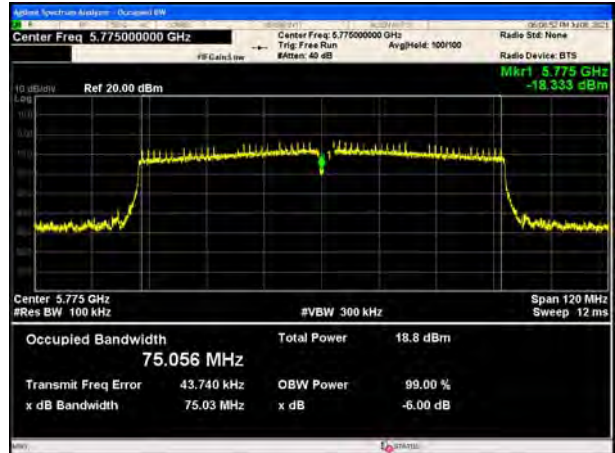
U-NII-3, 802.11ac VHT20
Carrier frequency (MHz): 5825



U-NII-3, 802.11ac VHT40
Carrier frequency (MHz): 5795



U-NII-3, 802.11ac VHT80
Carrier frequency (MHz): 5775



5.2. Average Power Output

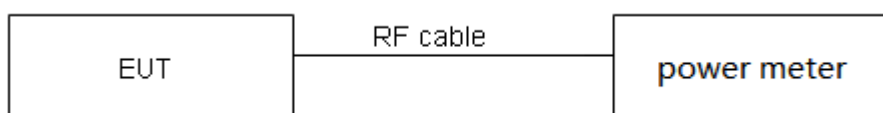
Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

During the process of the testing, The EUT was connected to the average power meter through an external attenuator and a known loss cable. The EUT is max power transmission with proper modulation. We use Maximum average Conducted Output Power Level Method in KDB789033 for this test

Test Setup



Limits

Rule FCC Part 15.407(a)(1)(2)(3)

(1) For the band 5.15-5.25 GHz.

(i) 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. In addition, 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, both the maximum conducted output power and the maximum power spectral density 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).

(ii) 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. In addition, 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, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) 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. In addition, 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 conducted output power or 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 conducted output power and 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, 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.

(iv) 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. In addition, 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, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) 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. In addition, 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, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, 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, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.44$ dB.

Test Results

Mode	T _{on} (ms)	T _(on+off) (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11a	1.39	1.44	0.97	0.15
802.11n HT20	1.30	1.34	0.96	0.16
802.11n HT40	0.65	0.69	0.94	0.29
802.11ac VHT20	1.31	1.35	0.97	0.13
802.11ac VHT40	0.65	0.70	0.94	0.28
802.11ac VHT80	0.32	0.37	0.88	0.55

Note: when Duty cycle ≥ 0.98 , Duty cycle correction Factor not required.

Power Index								
Channel	802.11a	802.11n HT20	802.11ac VHT20	Channel	802.11n HT40	802.11ac VHT40	Channel	802.11ac VHT80
CH36	15	14	14	CH38	14	14	CH42	14
CH40	15	14	14	CH46	14	14	/	/
CH48	15	14	14	/	/	/	/	/
CH52	15	14	14	CH54	14	14	CH58	14
CH60	15	14	14	CH62	14	14	/	/
CH64	15	14	14	/	/	/	/	/
CH100	15	14	14	CH102	14	14	CH106	14
CH116	15	14	14	CH110	14	14	CH138	14
CH140	15	14	14	CH134	14	14	/	/
CH144	15	14	14	CH142	14	14	/	/
CH149	14	14	14	CH151	14	14	CH155	14
CH157	14	14	14	CH159	14	14	/	/
CH165	14	14	14	/	/	/	/	/



Test Mode		Channel/Frequency (MHz)	B=26 dB bandwidth (MHz)	Limit 11 dBm + 10 log B (dBm)	Final Limit(dBm)
U-NII-2A	802.11a	52/5260	19.87	23.98 <24	23.98
		60/5300	19.57	23.92 <24	23.92
		64/5320	19.48	23.90 <24	23.90
	802.11n HT20	52/5260	19.89	23.99 <24	23.99
		60/5300	19.87	23.98 <24	23.98
		64/5320	20.22	24.06 >24	24
	802.11n HT40	54/5270	40.28	27.05 >24	24
		62/5310	40.50	27.07 >24	24
	802.11ac VHT20	52/5260	20.00	24.01 >24	24
		60/5300	20.16	24.04 >24	24
		64/5320	19.83	23.97 <24	23.97
	802.11ac VHT40	54/5270	40.16	27.04 >24	24
62/5310		40.07	27.03 >24	24	
802.11ac VHT80	58/5290	80.26	30.04 >24	24	
U-NII-2C	802.11a	100/5500	19.79	23.96 <24	23.96
		116/5580	19.59	23.92 <24	23.92
		140/5700	19.46	23.89 <24	23.89
		144/5720	19.70	23.94 <24	23.94
	802.11n HT20	100/5500	19.83	23.97 <24	23.97
		116/5580	20.30	24.07 >24	24
		140/5700	20.05	24.02 >24	24
		144/5720	19.82	23.97 <24	23.97
	802.11n HT40	102/5510	40.70	27.10 >24	24
		110/5550	40.14	27.04 >24	24
		134/5670	40.08	27.03 >24	24
		142/5710	39.96	27.02 >24	24
	802.11ac VHT20	100/5500	20.23	24.06 >24	24
		116/5580	20.05	24.02 >24	24
		140/5700	20.39	24.09 >24	24
		144/5720	19.91	23.99 <24	23.99
	802.11ac VHT40	102/5510	40.17	27.04 >24	24
		110/5550	40.42	27.07 >24	24
		134/5670	40.03	27.02 >24	24
		142/5710	40.23	27.05 >24	24
	802.11ac VHT80	106/5530	80.17	30.04 >24	24
		138/5690	80.40	30.05 >24	24

Note: 250mW=24dBm



U-NII-1

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	36/5180	14.79	14.94	24	PASS
	40/5200	14.71	14.86	24	PASS
	48/5240	14.38	14.53	24	PASS
802.11n HT20	36/5180	13.34	13.50	24	PASS
	40/5200	13.08	13.24	24	PASS
	48/5240	12.97	13.13	24	PASS
802.11n HT40	38/5190	13.34	13.63	24	PASS
	46/5230	13.37	13.66	24	PASS
802.11ac VHT20	36/5180	13.53	13.66	24	PASS
	40/5200	13.36	13.49	24	PASS
	48/5240	13.24	13.37	24	PASS
802.11ac VHT40	38/5190	13.39	13.67	24	PASS
	46/5230	13.33	13.61	24	PASS
802.11ac VHT80	42/5210	13.28	13.83	24	PASS

Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor



U-NII-2A

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	52/5260	14.35	14.50	23.98	PASS
	60/5300	14.43	14.58	23.92	PASS
	64/5320	14.36	14.51	23.90	PASS
802.11n HT20	52/5260	13.39	13.55	23.99	PASS
	60/5300	13.12	13.28	23.98	PASS
	64/5320	13.07	13.23	24.00	PASS
802.11n HT40	54/5270	13.38	13.67	24.00	PASS
	62/5310	13.35	13.64	24.00	PASS
802.11ac VHT20	52/5260	13.33	13.46	24.00	PASS
	60/5300	13.27	13.40	24.00	PASS
	64/5320	13.21	13.34	23.97	PASS
802.11ac VHT40	54/5270	13.14	13.42	24.00	PASS
	62/5310	13.22	13.50	24.00	PASS
802.11ac VHT80	58/5290	13.19	13.74	24.00	PASS

Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor



U-NII-2C

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	100/5500	14.29	14.44	23.96	PASS
	116/5580	14.42	14.57	23.92	PASS
	140/5700	14.33	14.48	23.89	PASS
	144/5720	14.28	14.43	23.94	PASS
802.11n HT20	100/5500	13.38	13.54	23.97	PASS
	116/5580	13.21	13.37	24.00	PASS
	140/5700	13.17	13.33	24.00	PASS
	144/5720	13.28	13.44	23.97	PASS
802.11n HT40	102/5510	12.85	13.14	24.00	PASS
	110/5550	13.10	13.39	24.00	PASS
	134/5670	12.93	13.22	24.00	PASS
	142/5710	12.78	13.07	24.00	PASS
802.11ac VHT20	100/5500	13.01	13.14	24.00	PASS
	116/5580	13.04	13.17	24.00	PASS
	140/5700	13.17	13.30	24.00	PASS
	144/5720	13.03	13.16	23.99	PASS
802.11ac VHT40	102/5510	13.77	14.05	24.00	PASS
	110/5550	13.23	13.51	24.00	PASS
	134/5670	13.41	13.69	24.00	PASS
	142/5710	13.45	13.73	24.00	PASS
802.11ac VHT80	106/5530	13.19	13.74	24.00	PASS
	138/5690	13.21	13.76	24.00	PASS

Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor



U-NII-3

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	149/5745	13.36	13.51	30	PASS
	157/5785	12.95	13.10	30	PASS
	165/5825	13.04	13.19	30	PASS
802.11n HT20	149/5745	13.09	13.25	30	PASS
	157/5785	12.96	13.12	30	PASS
	165/5825	13.06	13.22	30	PASS
802.11n HT40	151/5755	13.06	13.35	30	PASS
	159/5795	12.92	13.21	30	PASS
802.11ac VHT20	149/5745	13.06	13.19	30	PASS
	157/5785	12.78	12.91	30	PASS
	165/5825	12.93	13.06	30	PASS
802.11ac VHT40	151/5755	12.18	12.46	30	PASS
	159/5795	12.09	12.37	30	PASS
802.11ac VHT80	155/5775	12.23	12.78	30	PASS

Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor

5.3. Frequency Stability

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

1. Frequency stability with respect to ambient temperature

a) Supply the EUT with a nominal ac voltage or install a new or fully charged battery in the EUT. If possible, a dummy load shall be connected to the EUT because an antenna near the metallic walls of an environmental test chamber could affect the output frequency of the EUT. If the EUT is equipped with a permanently attached, adjustable-length antenna, then the EUT shall be placed in the center of the chamber with the antenna adjusted to the shortest length possible. Turn ON the EUT and tune it to one of the number of frequencies shown in 5.6.

b) Couple the unlicensed wireless device output to the measuring instrument by connecting an antenna to the measuring instrument with a suitable length of coaxial cable and placing the measuring antenna near the EUT (e.g., 15 cm away), or by connecting a dummy load to the measuring instrument, through an attenuator if necessary.

c) Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).

d) Turn the EUT OFF and place it inside the environmental temperature chamber. For devices that have oscillator heaters, energize only the heater circuit.

e) Set the temperature control on the chamber to the highest specified in the regulatory requirements for the type of device and allow the oscillator heater and the chamber temperature to stabilize.

f) While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.

g) Measure the frequency at each of frequencies specified in 5.6.

h) Switch OFF the EUT but do not switch OFF the oscillator heater.

i) Lower the chamber temperature by not more than 10°C, and allow the temperature inside the chamber to stabilize.

j) Repeat step f) through step i) down to the lowest specified temperature.

2. Frequency stability when varying supply voltage

Unless otherwise specified, these tests shall be made at ambient room temperature (+15°C to +25 °C). An antenna shall be connected to the antenna output terminals of the EUT if possible. If the EUT is equipped with or uses an adjustable-length antenna, then it shall be fully extended.

a) Supply the EUT with nominal voltage or install a new or fully charged battery in the EUT. Turn ON the EUT and couple its output to a frequency counter or other frequency-measuring instrument.



- b) Tune the EUT to one of the number of frequencies required in 5.6. Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).
- c) Measure the frequency at each of the frequencies specified in 5.6.
- d) Repeat the above procedure at 85% and 115% of the nominal supply voltage.

Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 936\text{Hz}$

**Test Results**

Voltage (V)	Temperature (°C)	U-NII-1 Test Results			
		5200MHz			
		1min	2min	5min	10min
3.87V	-20	5199.999608	5199.998359	5199.991997	5199.982082
3.87V	-10	5199.994350	5199.988524	5199.989019	5199.976704
3.87V	0	5199.987239	5199.986785	5199.988421	5199.974708
3.87V	10	5199.981232	5199.982508	5199.986213	5199.973132
3.87V	20	5199.978069	5199.975785	5199.976333	5199.972667
3.87V	30	5199.974244	5199.974854	5199.973539	5199.971322
3.87V	40	5199.970494	5199.966104	5199.966771	5199.962824
3.87V	50	5199.967414	5199.964404	5199.964052	5199.959387
3.6V	20	5199.964993	5199.958371	5199.960798	5199.951395
4.45V	20	5199.961883	5199.954871	5199.959721	5199.944036
MHz		-0.038117	-0.045129	-0.040279	-0.055964
PPM		-7.330189	-8.678748	-7.745927	-10.762379

Voltage (V)	Temperature (°C)	U-NII-2A Test Results			
		5300MHz			
		1min	2min	5min	10min
3.87V	-20	5300.005528	5300.001066	5299.993109	5299.985430
3.87V	-10	5299.998245	5299.998599	5299.991044	5299.979780
3.87V	0	5299.993169	5299.990416	5299.983263	5299.972157
3.87V	10	5299.989416	5299.989659	5299.973938	5299.970296
3.87V	20	5299.981853	5299.987983	5299.969351	5299.968524
3.87V	30	5299.972837	5299.979442	5299.968714	5299.964388
3.87V	40	5299.969438	5299.970151	5299.960507	5299.955066
3.87V	50	5299.968103	5299.968988	5299.960458	5299.953144
3.6V	20	5299.959184	5299.962417	5299.959929	5299.949898
4.45V	20	5299.957753	5299.956719	5299.954350	5299.944521
MHz		-0.042247	-0.043281	-0.045650	-0.055479
PPM		-7.971225	-8.166313	-8.613224	-10.467726



Voltage (V)	Temperature (°C)	U-NII-2C Test Results			
		5580MHz			
		1min	2min	5min	10min
3.87V	-20	5579.994174	5579.991160	5579.987525	5579.985034
3.87V	-10	5579.988919	5579.989715	5579.980028	5579.976080
3.87V	0	5579.980021	5579.983725	5579.971607	5579.969058
3.87V	10	5579.973935	5579.979547	5579.967380	5579.959174
3.87V	20	5579.966324	5579.970973	5579.964667	5579.957895
3.87V	30	5579.961561	5579.962824	5579.955144	5579.951873
3.87V	40	5579.960372	5579.957437	5579.954161	5579.950911
3.87V	50	5579.953290	5579.948626	5579.953708	5579.950758
3.6V	20	5579.945960	5579.943173	5579.953323	5579.945695
4.45V	20	5579.944167	5579.936789	5579.951763	5579.940166
MHz		-0.055833	-0.063211	-0.048237	-0.059834
PPM		-10.005977	-11.328102	-8.644644	-10.722948

Voltage (V)	Temperature (°C)	U-NII-3 Test Results			
		5785MHz			
		1min	2min	5min	10min
3.87V	-20	5785.001136	5784.995646	5784.993388	5784.986098
3.87V	-10	5784.996647	5784.993407	5784.984513	5784.985819
3.87V	0	5784.990321	5784.984743	5784.982231	5784.982469
3.87V	10	5784.988400	5784.982570	5784.976121	5784.977261
3.87V	20	5784.981307	5784.979339	5784.966531	5784.975868
3.87V	30	5784.973058	5784.977449	5784.964963	5784.970030
3.87V	40	5784.964006	5784.971544	5784.956125	5784.968788
3.87V	50	5784.963344	5784.965301	5784.954178	5784.962837
3.6V	20	5784.953963	5784.957906	5784.944319	5784.955298
4.45V	20	5784.946289	5784.951486	5784.938457	5784.948963
MHz		-0.053711	-0.048514	-0.061543	-0.051037
PPM		-9.284604	-8.386094	-10.638435	-8.822275

5.4. Power Spectral Density

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

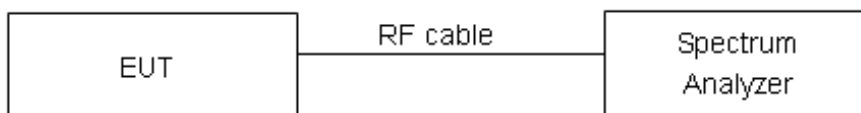
Method of Measurement

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable.

Set RBW = 1MHz, VBW =3MHz for the band 5.150-5.250GHz, 5.250-5.350GHz, 5.470-5.725GHz.
 Set RBW = 470kHz, VBW =1.5MHz for the band 5.725-5.850GHz

The conducted PSD is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically.

Test setup



Limits

Rule FCC Part 15.407(a)(1)/ Part 15.407(a)(2) / Part 15.407(a)(3)

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, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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. In addition, 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, both the maximum conducted output power and 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, both the maximum conducted output power and 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 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the



amount in dB that the directional gain of the antenna exceeds 6 dBi.

Frequency Bands/MHz	Limits
5150-5250	11dBm/MHz
5.25-5.35 GHz and 5.47-5.725 GHz	11dBm/MHz
5725-5850	30dBm/500kHz

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.75\text{dB}$.

**Test Results:**

Note: Power Spectral Density =Read Value+Duty cycle correction factor

U-NII-1

Mode	Channel Number	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	36	7.814	7.96	11	PASS
	40	7.469	7.62	11	PASS
	48	7.642	7.79	11	PASS
802.11n HT20	36	6.394	6.55	11	PASS
	40	6.092	6.25	11	PASS
	48	6.177	6.33	11	PASS
802.11n HT40	38	1.495	1.78	11	PASS
	46	1.442	1.73	11	PASS
802.11ac VHT20	36	4.463	4.59	11	PASS
	40	4.234	4.36	11	PASS
	48	4.208	4.34	11	PASS
802.11ac VHT40	38	1.335	1.62	11	PASS
	46	1.482	1.77	11	PASS
802.11ac VHT80	42	-1.894	-1.34	11	PASS



U-NII-2A

Mode	Channel Number	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	52	7.762	7.91	11	PASS
	60	7.901	8.05	11	PASS
	64	7.795	7.94	11	PASS
802.11n HT20	52	6.313	6.47	11	PASS
	60	6.597	6.75	11	PASS
	64	6.742	6.90	11	PASS
802.11n HT40	54	1.126	1.41	11	PASS
	62	1.536	1.82	11	PASS
802.11ac VHT20	52	4.014	4.14	11	PASS
	60	4.565	4.70	11	PASS
	64	4.444	4.57	11	PASS
802.11ac VHT40	54	1.341	1.62	11	PASS
	62	1.447	1.73	11	PASS
802.11ac VHT80	58	-1.866	-1.31	11	PASS



U-NII-2C

Mode	Channel Number	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	100	6.423	6.57	11	PASS
	116	5.913	6.06	11	PASS
	140	6.54	6.69	11	PASS
	144	5.568	5.72	11	PASS
802.11n HT20	100	5.314	5.47	11	PASS
	116	6.216	6.37	11	PASS
	140	5.327	5.48	11	PASS
	144	5.384	5.54	11	PASS
802.11n HT40	102	0.643	0.93	11	PASS
	110	0.975	1.26	11	PASS
	134	-0.333	-0.05	11	PASS
	142	-0.004	0.28	11	PASS
802.11ac VHT20	100	3.842	3.97	11	PASS
	116	3.565	3.70	11	PASS
	140	2.743	2.87	11	PASS
	144	2.463	2.59	11	PASS
802.11ac VHT40	102	0.776	1.06	11	PASS
	110	0.964	1.25	11	PASS
	134	-0.371	-0.09	11	PASS
	142	0.082	0.37	11	PASS
802.11ac VHT80	106	-1.972	-1.42	11	PASS
	138	-3.193	-2.64	11	PASS



U-NII-3

Mode	Channel Number	Read Value (dBm/470kHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Conclusion
802.11a	149	-0.617	-0.20	30	PASS
	157	0.349	0.77	30	PASS
	165	-0.315	0.10	30	PASS
802.11n HT20	149	-0.884	-0.46	30	PASS
	157	-0.394	0.03	30	PASS
	165	-0.813	-0.39	30	PASS
802.11n HT40	151	-3.971	-3.42	30	PASS
	159	-3.441	-2.89	30	PASS
802.11ac VHT20	149	-1.066	-0.67	30	PASS
	157	-0.991	-0.59	30	PASS
	165	-0.772	-0.37	30	PASS
802.11ac VHT40	151	-3.982	-3.43	30	PASS
	159	-3.492	-2.94	30	PASS
802.11ac VHT80	155	-7.302	-6.48	30	PASS

Note: PSD=Read Value+Duty cycle+10*LOG(500/470) correction factor



U-NII-1, 802.11a, Channel No.: 36



U-NII-1, 802.11n HT20, Channel No.: 36



U-NII-1, 802.11a, Channel No.: 40



U-NII-1, 802.11n HT20, Channel No.: 40



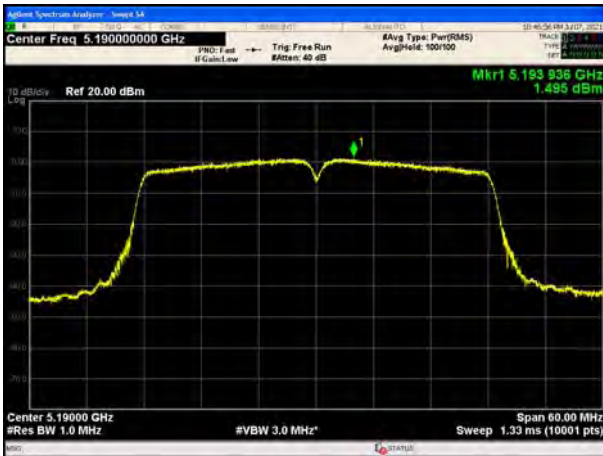
U-NII-1, 802.11a, Channel No.: 48



U-NII-1, 802.11n HT20, Channel No.: 48



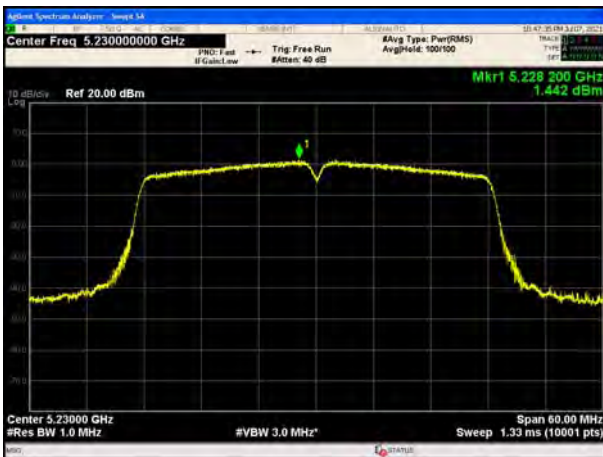
U-NII-1, 802.11n HT40, Channel No.: 38



U-NII-1, 802.11ac VHT20, Channel No.: 36



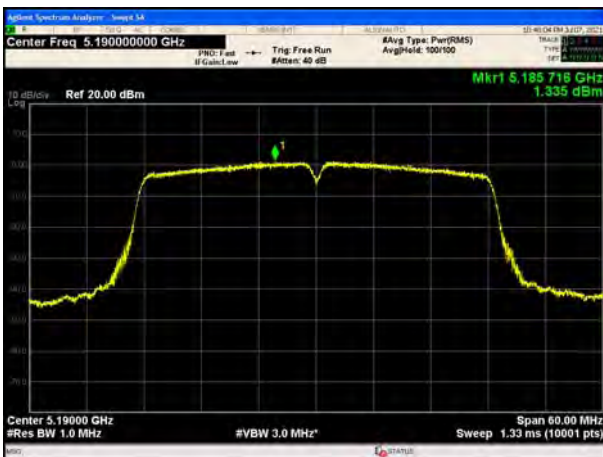
U-NII-1, 802.11n HT40, Channel No.: 46



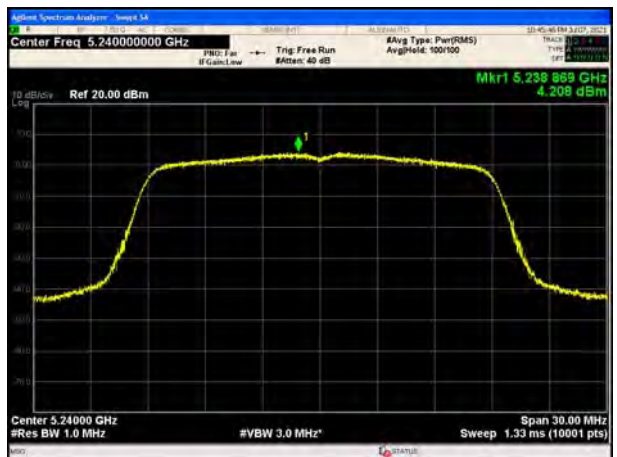
U-NII-1, 802.11ac VHT20, Channel No.: 40

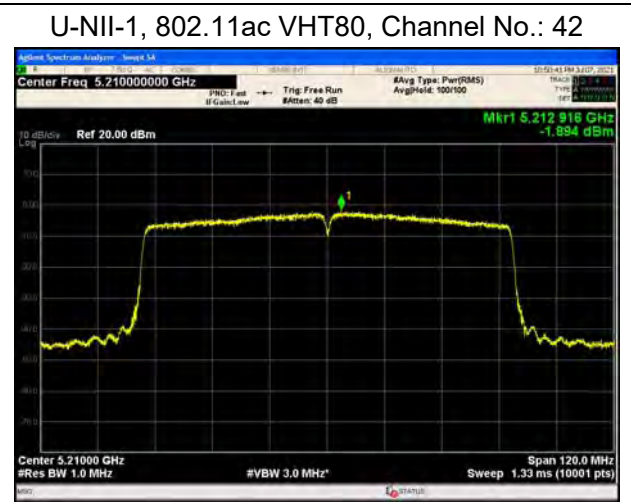


U-NII-1, 802.11ac VHT40, Channel No.: 38



U-NII-1, 802.11ac VHT20, Channel No.: 48







U-NII-2A, 802.11a, Channel No.: 52



U-NII-2A, 802.11n HT20, Channel No.: 52



U-NII-2A, 802.11a, Channel No.: 60



U-NII-2A, 802.11n HT20, Channel No.: 60



U-NII-2A, 802.11a, Channel No.: 64

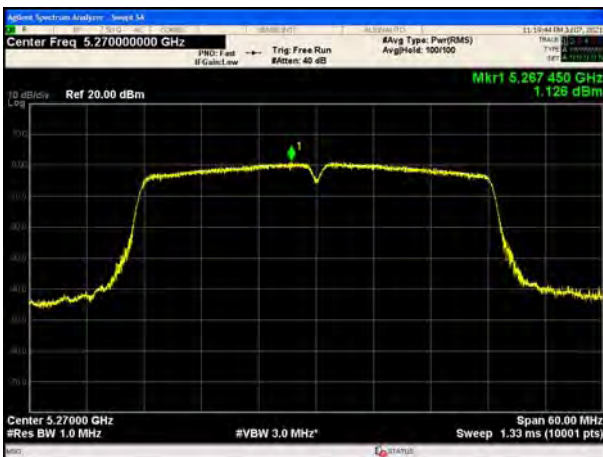


U-NII-2A, 802.11n HT20, Channel No.: 64

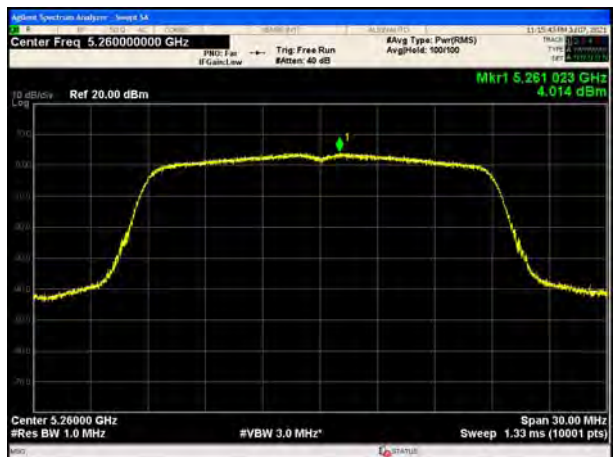




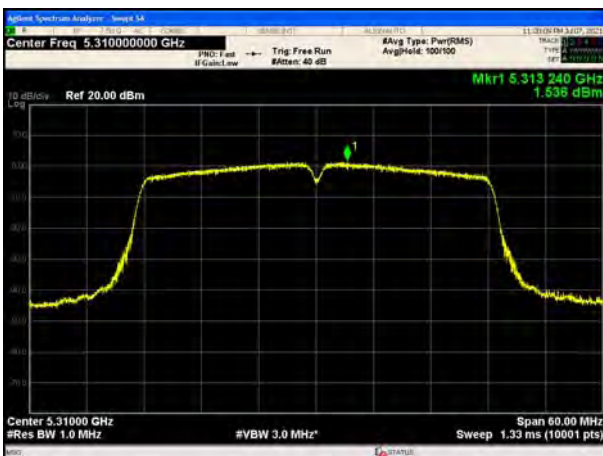
U-NII-2A, 802.11n HT40, Channel No.: 54



U-NII-2A, 802.11ac VHT20, Channel No.:52



U-NII-2A, 802.11n HT40, Channel No.: 62



U-NII-2A, 802.11ac VHT20, Channel No.: 60

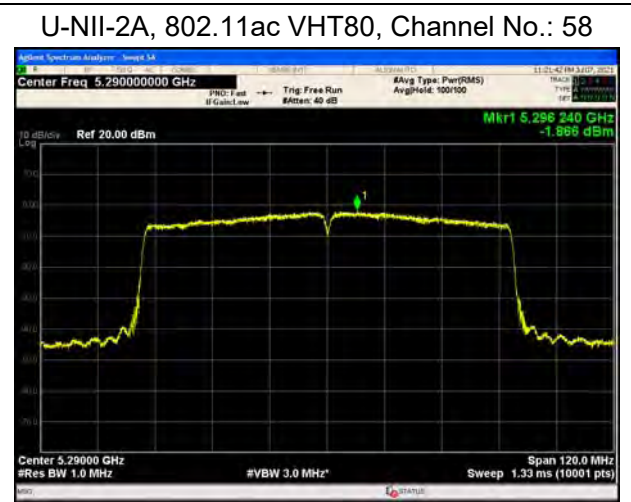


U-NII-2A, 802.11ac VHT40, Channel No.: 54



U-NII-2A, 802.11ac VHT20, Channel No.: 64







U-NII-2C, 802.11a, Channel No.: 100



U-NII-2C, 802.11n HT20, Channel No.: 100



U-NII-2C, 802.11a, Channel No.: 116



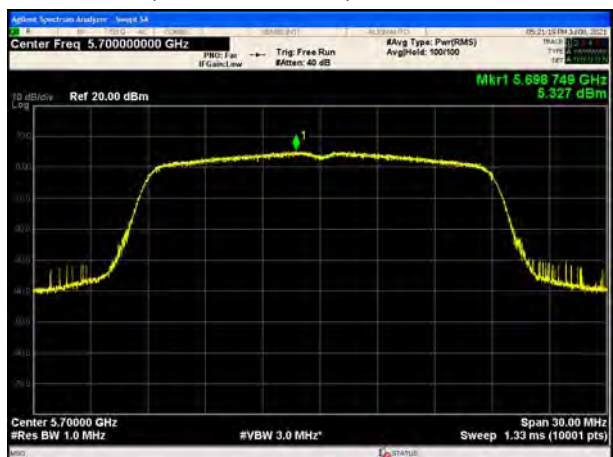
U-NII-2C, 802.11n HT20, Channel No.: 116



U-NII-2C, 802.11a, Channel No.: 140



U-NII-2C, 802.11n HT20, Channel No.: 140



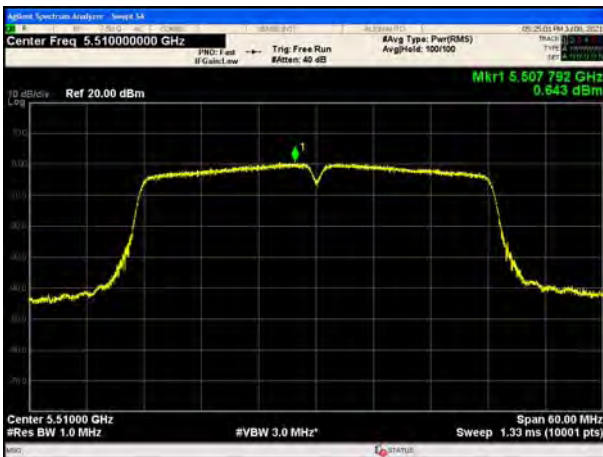
U-NII-2C, 802.11a, Channel No.: 144



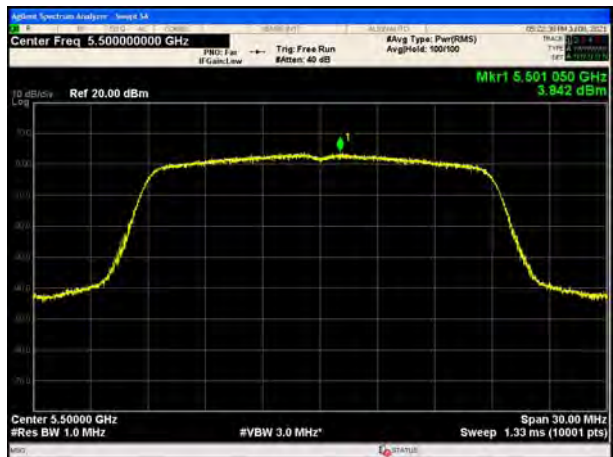
U-NII-2C, 802.11n HT20, Channel No.: 144



U-NII-2C, 802.11n HT40, Channel No.: 102



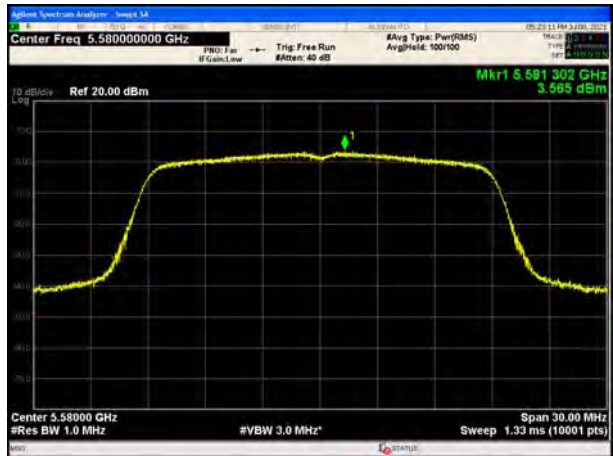
U-NII-2C, 802.11ac VHT20, Channel No.: 100



U-NII-2C, 802.11n HT40, Channel No.: 110



U-NII-2C, 802.11ac VHT20, Channel No.: 116

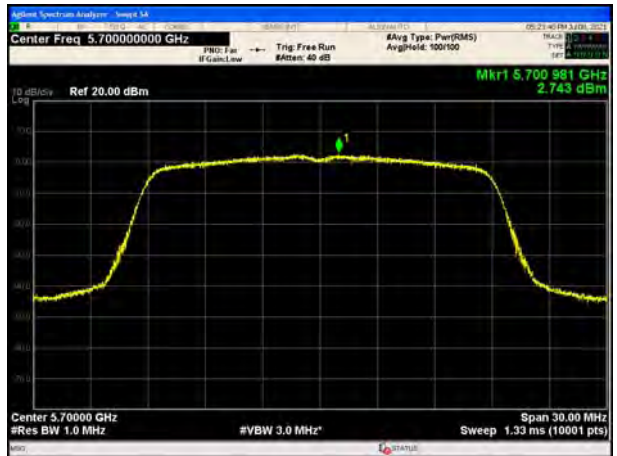




U-NII-2C, 802.11n HT40, Channel No.: 134



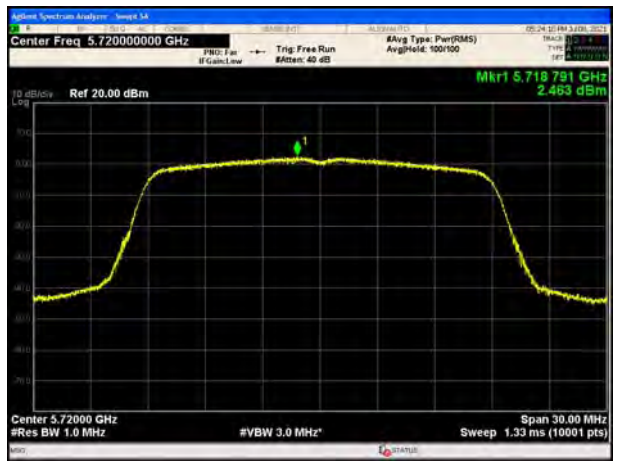
U-NII-2C, 802.11ac VHT20, Channel No.: 140



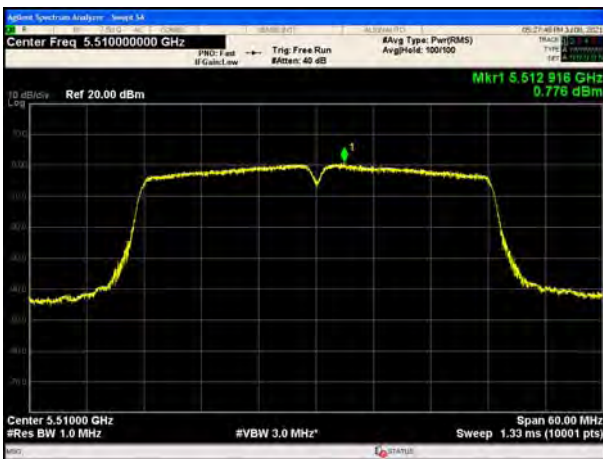
U-NII-2C, 802.11n HT40, Channel No.: 142



U-NII-2C, 802.11ac VHT20, Channel No.: 144

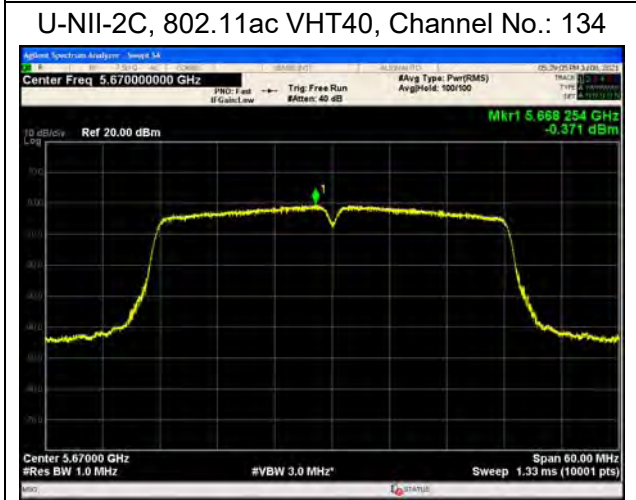
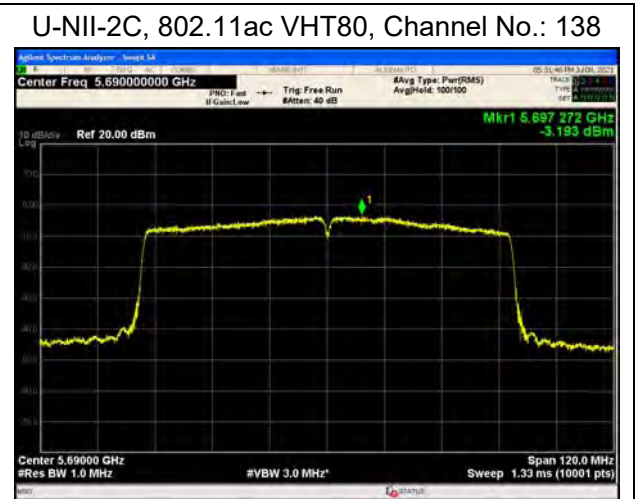


U-NII-2C, 802.11ac VHT40, Channel No.: 102



U-NII-2C, 802.11ac VHT80, Channel No.: 106





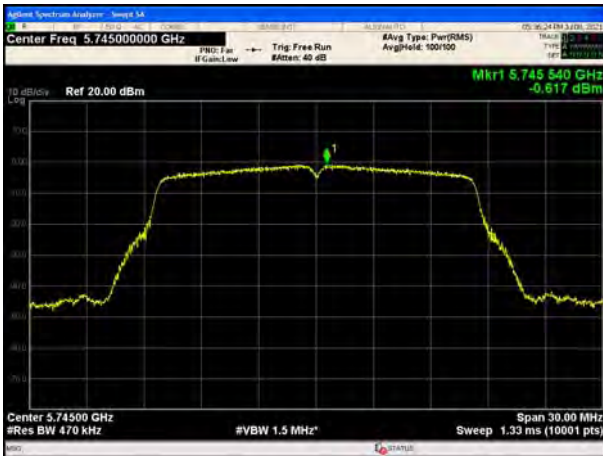
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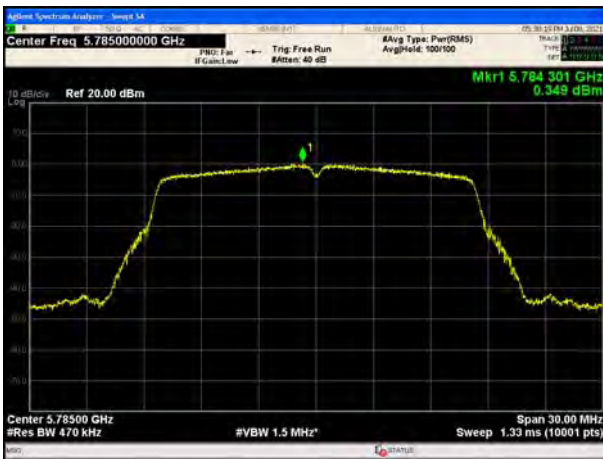
U-NII-3, 802.11a, Channel No.: 149



U-NII-3, 802.11n HT20, Channel No.: 149



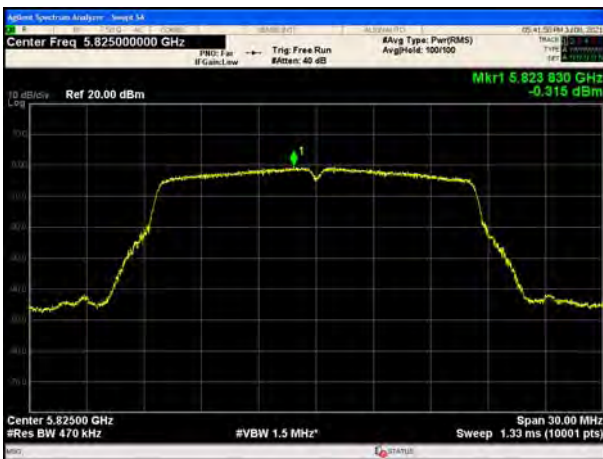
U-NII-3, 802.11a, Channel No.: 157



U-NII-3, 802.11n HT20, Channel No.: 157



U-NII-3, 802.11a, Channel No.: 165



U-NII-3, 802.11n HT20, Channel No.: 165



U-NII-3, 802.11n HT40, Channel No.: 151



U-NII-3, 802.11ac VHT20, Channel No.: 149



U-NII-3, 802.11n HT40, Channel No.: 159



U-NII-3, 802.11ac VHT20, Channel No.: 157



U-NII-3, 802.11ac VHT40, Channel No.: 151



U-NII-3, 802.11ac VHT20, Channel No.: 165





5.5. Unwanted Emission

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The test set-up was made in accordance to the general provisions of ANSI C63.10. The Equipment Under Test (EUT) was set up on a non-conductive table in the semi-anechoic chamber. The test was performed at the distance of 3 m between the EUT and the receiving antenna. The radiated emissions measurements were made in a typical installation configuration.

Sweep the whole frequency band range from 9kHz to the 10th harmonic of the carrier, and the emissions less than 20 dB below the permissible value are reported.

During the test, the height of receive antenna shall be moved from 1 to 4 meters, and the antenna shall be performed under horizontal and vertical polarization. The turntable shall be rotated from 0 to 360 degrees for detecting the maximum of radiated spurious signal level. The measurements shall be repeated with orthogonal polarization of the test antenna. The data of cable loss and antenna factor has been calibrated in full testing frequency range before the testing.

Set the spectrum analyzer in the following:

9kHz~150 kHz

RBW=200Hz, VBW=1kHz/ Sweep=AUTO

150 kHz~30MHz

RBW=9KHz, VBW=30KHz,/ Sweep=AUTO

Below 1GHz

RBW=100kHz / VBW=300kHz / Sweep=AUTO

a) Peak emission levels are measured by setting the instrument as follows:

Above 1GHz

PEAK: RBW=1MHz VBW=3MHz/ Sweep=AUTO

b) Average emission levels are measured by setting the instrument as follows:

Above 1GHz

AVERAGE: RBW=1MHz / VBW=3MHz / Sweep=AUTO

c) Detector: The measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

d) Averaging type = power (i.e., rms) (As an alternative, the detector and averaging type may be set for linear voltage averaging. Some instruments require linear display mode to use linear voltage averaging. Log or dB averaging shall not be used.)

e) Sweep time = auto.

f) Perform a trace average of at least 100 traces if the transmission is continuous. If the transmission is not continuous, then the number of traces shall be increased by a factor of $1 / D$, where D is the duty cycle. For example, with 50% duty cycle, at least 200 traces shall be averaged. (If a specific



emission is demonstrated to be continuous—i.e., 100% duty cycle—then rather than turning ON and OFF with the transmit cycle, at least 100 traces shall be averaged.)

g) If tests are performed with the EUT transmitting at a duty cycle less than 98%, then a correction factor shall be added to the measurement results prior to comparing with the emission limit, to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:

1) If power averaging (rms) mode was used in the preceding step e), then the correction factor is $[10 \log (1 / D)]$, where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB shall be added to the measured emission levels.

2) If linear voltage averaging mode was used in the preceding step e), then the correction factor is $[20 \log (1 / D)]$, where D is the duty cycle. For example, if the transmit duty cycle was 50%, then 6 dB shall be added to the measured emission levels.

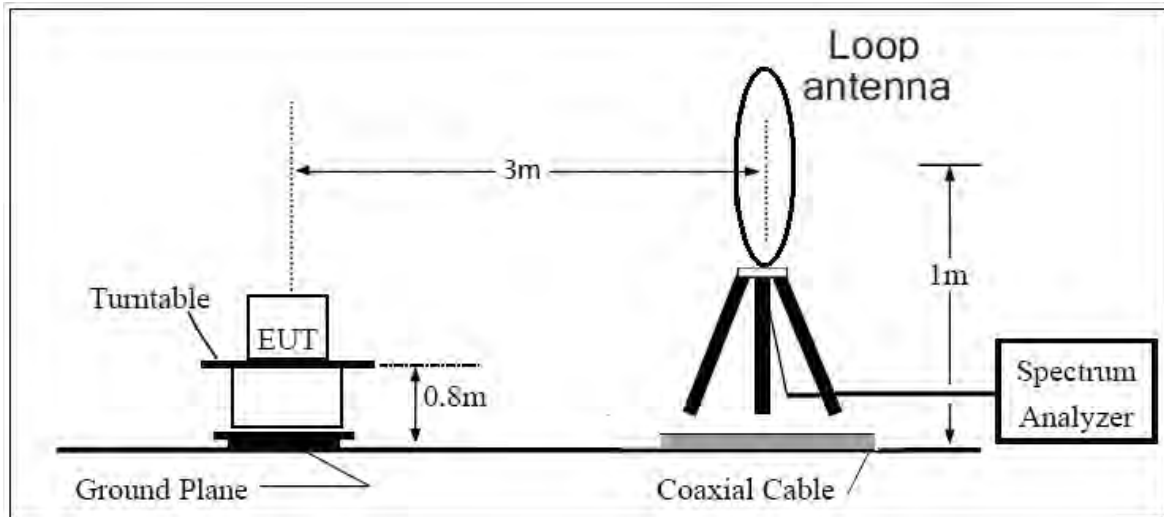
3) If a specific emission is demonstrated to be continuous (100% duty cycle) rather than turning ON and OFF with the transmit cycle, then no duty cycle correction is required for that emission.

Reduce the video bandwidth until no significant variations in the displayed signal are observed in subsequent traces, provided the video bandwidth is no less than 1 Hz. For regulatory requirements that specify averaging only over the transmit duration (e.g., digital transmission system [DTS] and Unlicensed National Information Infrastructure [U-NII]), the video bandwidth shall be greater than $[1 / (\text{minimum transmitter on time})]$ and no less than 1 Hz.

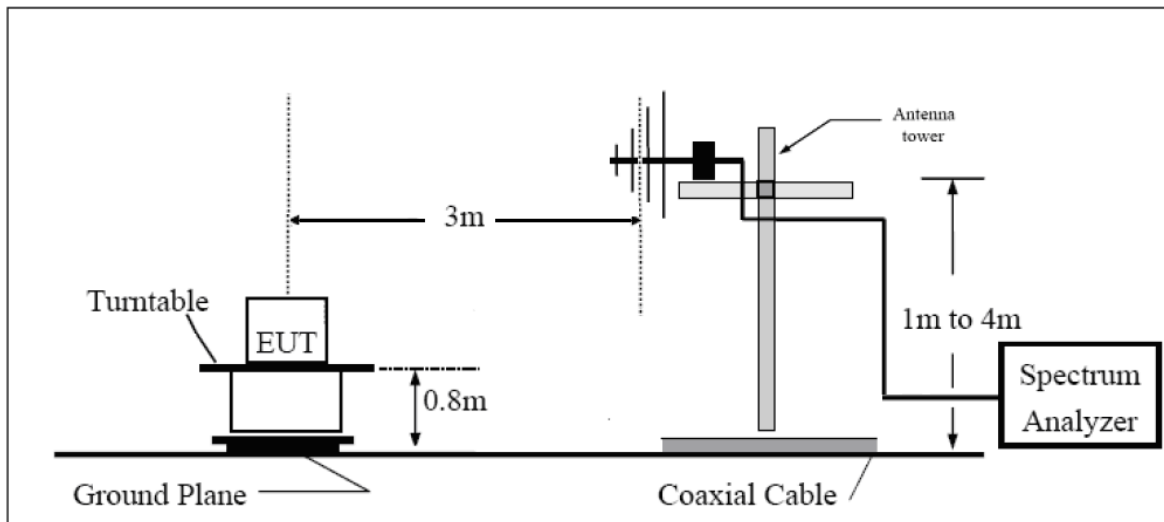
The field strength of spurious emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in stand-up position (Z axis) and the loop antenna is vertical, others antenna are vertical and horizontal.

The test is in transmitting mode.

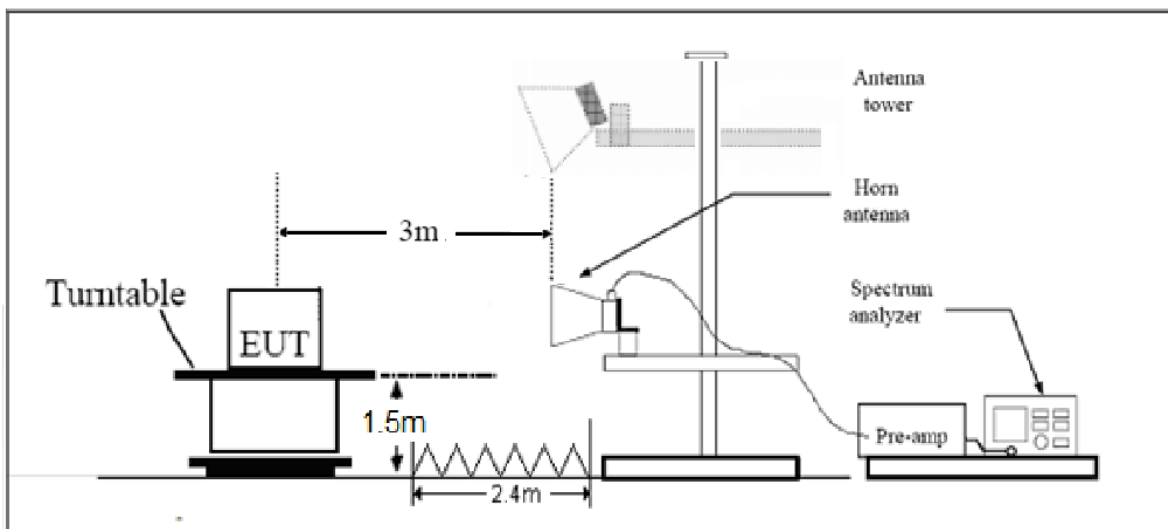
9KHz~~~30MHz



30MHz~~~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m

**Limits**

- (1) For transmitters operating in the 5725-5850 MHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
- (2) 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(68.2dBμV/m).
- (3) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz(68.2dBμV/m).
- (4) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz(68.2dBμV/m).

Note: the following formula is used to convert the EIRP to field strength

§1、 $E[\text{dB}\mu\text{V}/\text{m}] = \text{EIRP}[\text{dBm}] - 20 \log(d[\text{meters}]) + 104.77$, where E = field strength and

d = distance at which field strength limit is specified in the rules;

§2、 $E[\text{dB}\mu\text{V}/\text{m}] = \text{EIRP}[\text{dBm}] + 95.2$, for d = 3 meters

- (5) Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table.

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
0.009–0.490	2400/F(kHz)	/
0.490–1.705	24000/F(kHz)	/
1.705–30.0	30	/
30-88	100	40
88-216	150	43.5
216-960	200	46
Above960	500	54



MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	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 - 1646.5	9.3 - 9.5
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
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 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)
13.36 - 13.41			

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$.

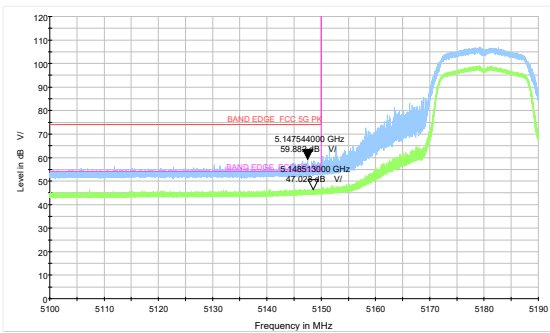
Frequency	Uncertainty
9KHz-30MHz	3.55 dB
30MHz-200MHz	4.17 dB
200MHz-1GHz	4.84 dB
1-18GHz	4.35 dB
18-26.5GHz	5.90 dB
26.5GHz~40GHz	5.92 dB



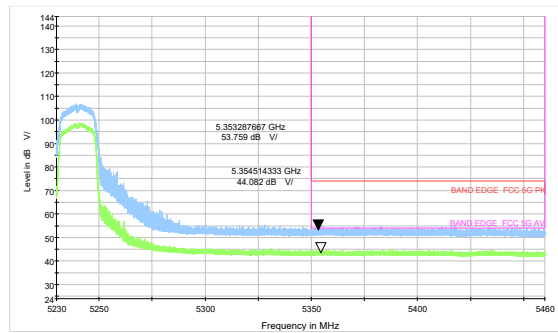
Test Results:

The signal beyond the limit is carrier.

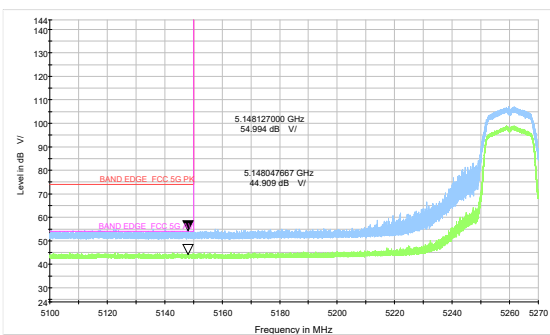
802.11a-Channel 36: Peak+ Average



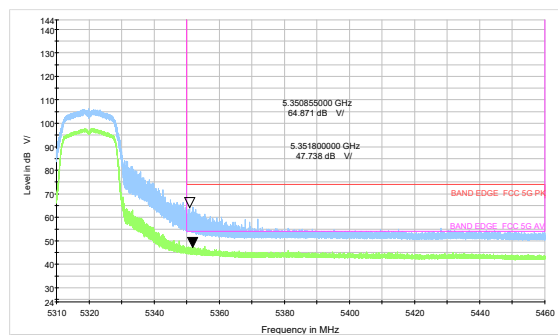
802.11a-Channel 48: Peak+ Average



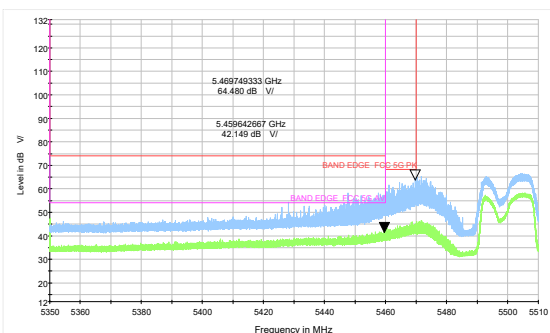
802.11a-Channel 52: Peak+ Average



802.11a-Channel 64: Peak+ Average

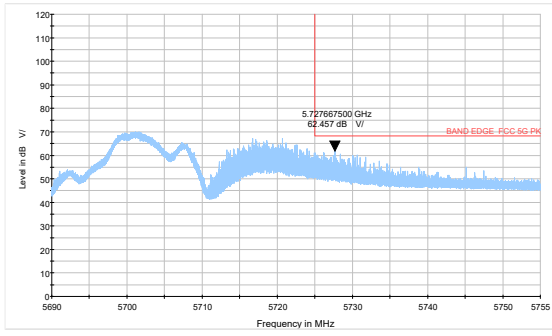


802.11a-Channel 100: Peak+ Average

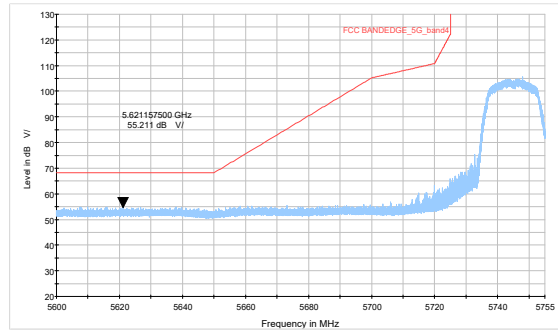




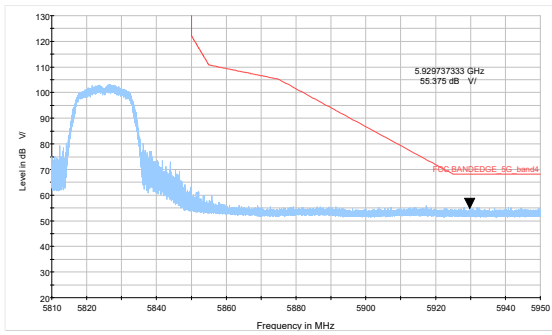
802.11a-Channel 140: Peak



802.11a-Channel 149: Peak

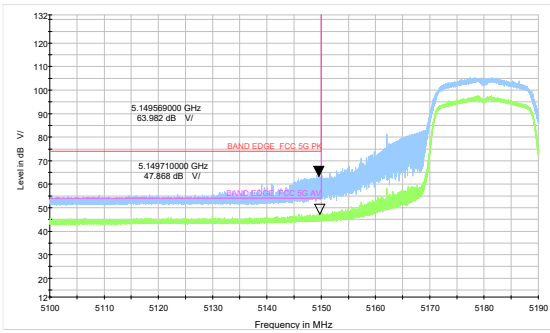


802.11a-Channel 165: Peak

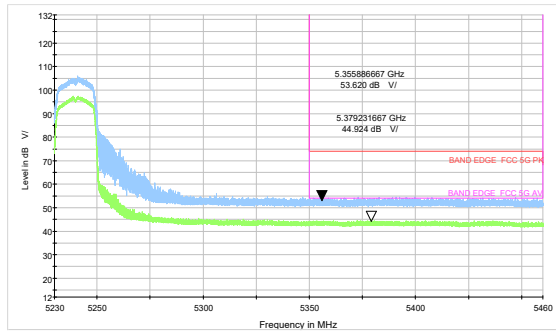




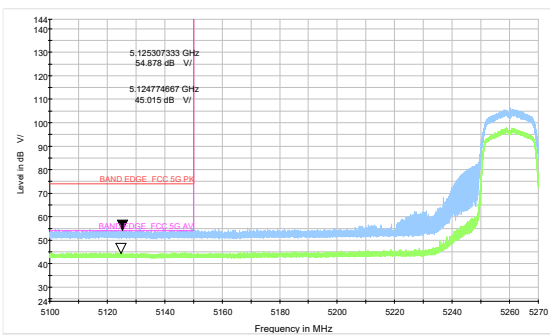
802.11n HT20-Channel 36: Peak+ Average



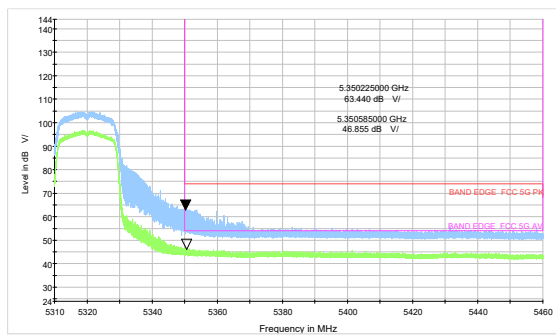
802.11n HT20-Channel 48: Peak+ Average



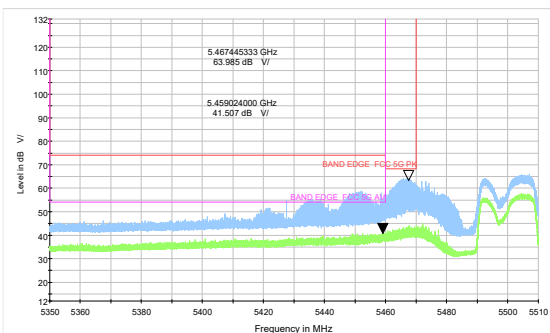
802.11n HT20-Channel 52: Peak+ Average



802.11n HT20-Channel 64: Peak+ Average

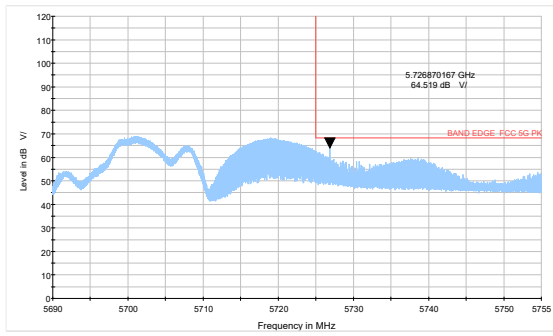


802.11n HT20-Channel 100: Peak+ Average

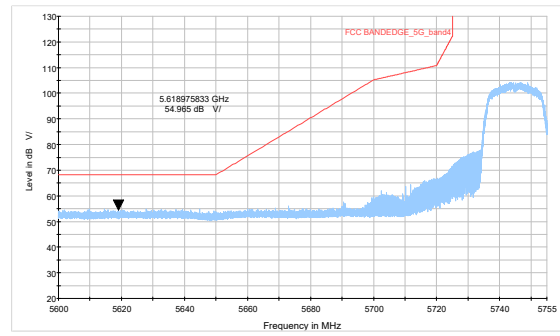




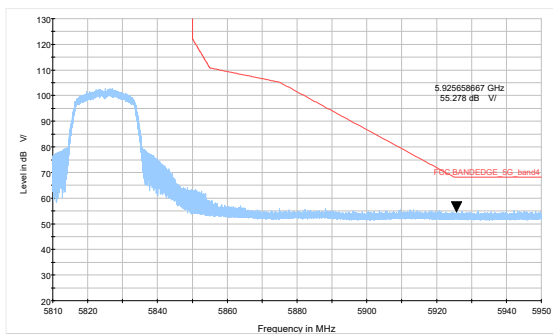
802.11n HT20-Channel 140: Peak



802.11n HT20-Channel 149: Peak

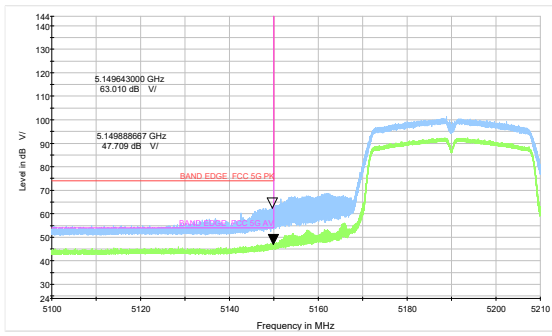


802.11n HT20-Channel 165: Peak

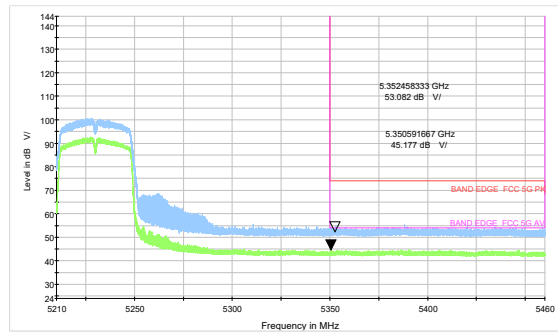




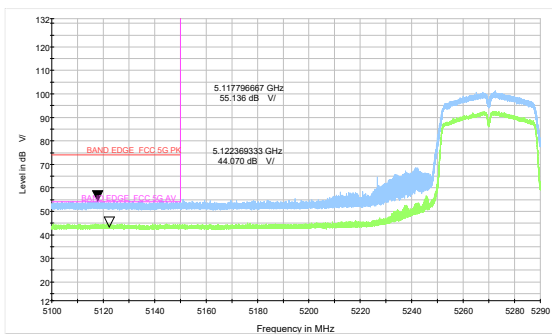
802.11n HT40-Channel 38: Peak+ Average



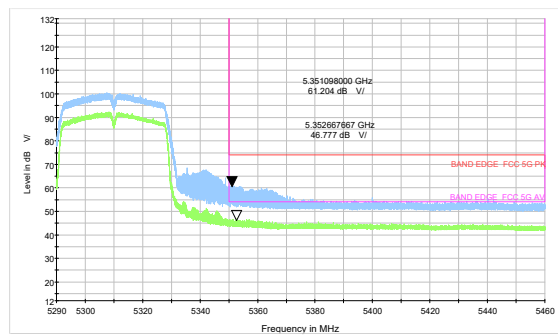
802.11n HT40-Channel 46: Peak+ Average



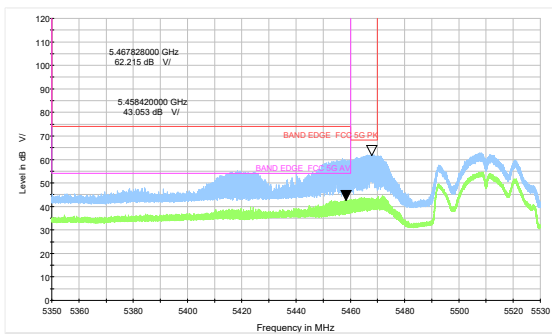
802.11n HT40-Channel 54: Peak+ Average



802.11n HT40-Channel 62: Peak+ Average

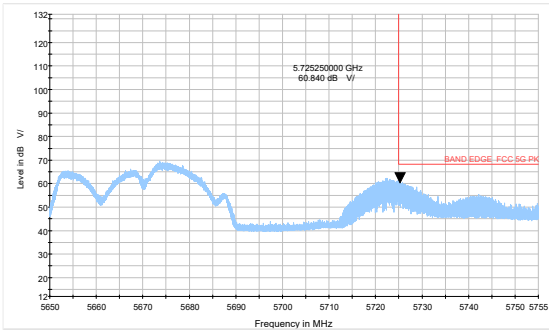


802.11n HT40-Channel 102: Peak+ Average

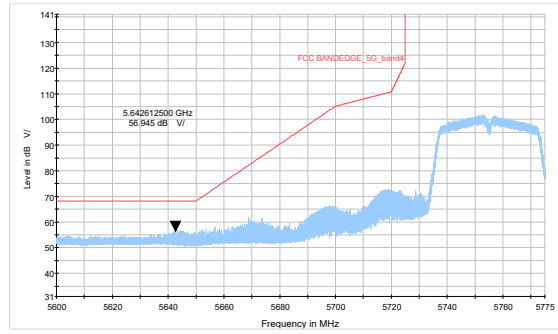




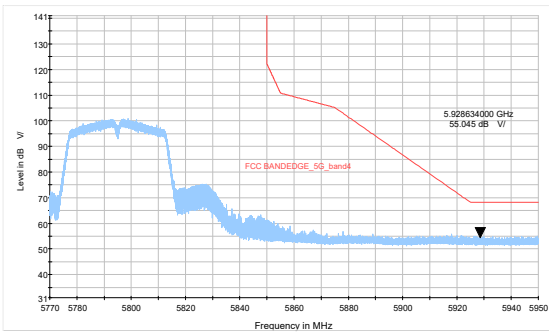
802.11n HT40-Channel 134: Peak



802.11n HT40-Channel 151: Peak

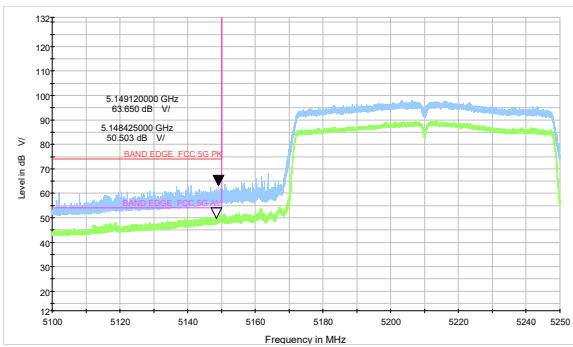


802.11n HT40-Channel 159: Peak

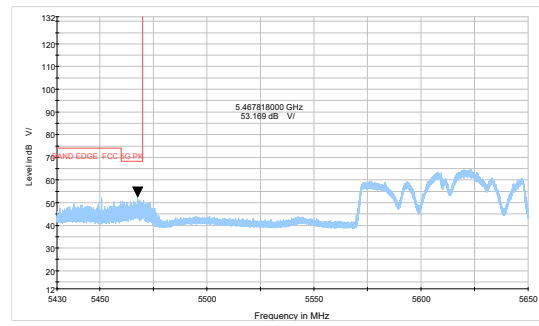




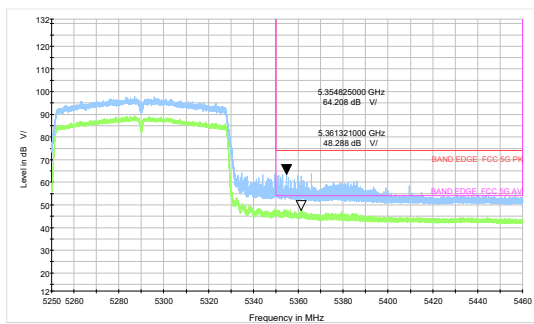
802.11ac VHT80 –Channel 42: Peak+ Average



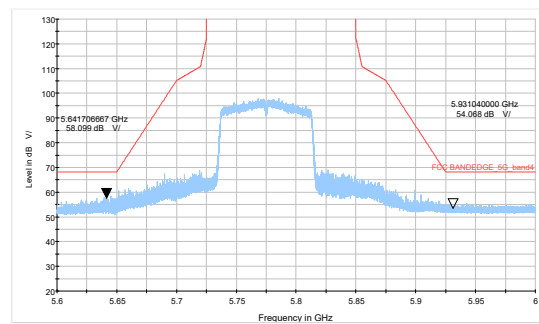
802.11ac VHT80- Channel 122: Average



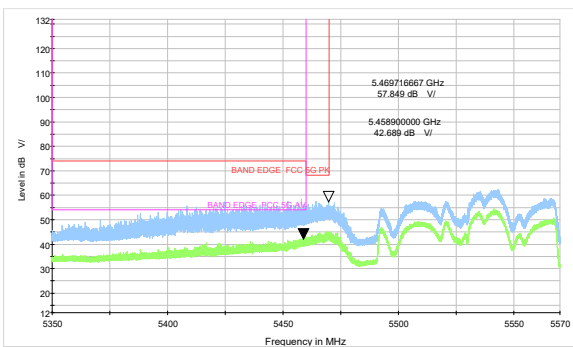
802.11ac VHT80 –Channel 58: Peak+ Average



802.11ac VHT80- Channel 155: Average



802.11ac VHT80 –Channel 106: Peak+ Average



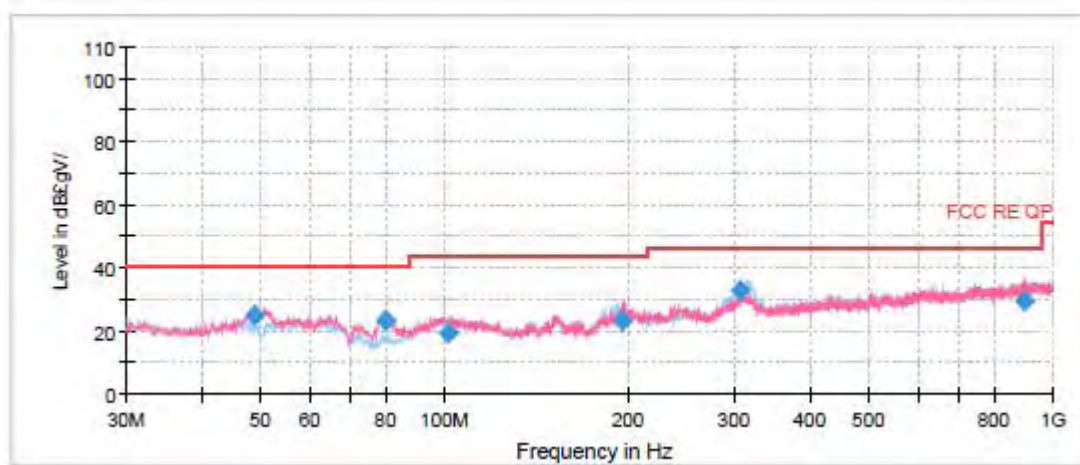
Result of RE

Test result

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the Emissions in the frequency band 9kHz-30MHz are more than 20dB below the limit are not reported.

During the test, the Radiates Emission from 30MHz to 1GHz was performed in all modes with all channels, 802.11ac VHT80, Channel 58 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

Continuous TX mode:

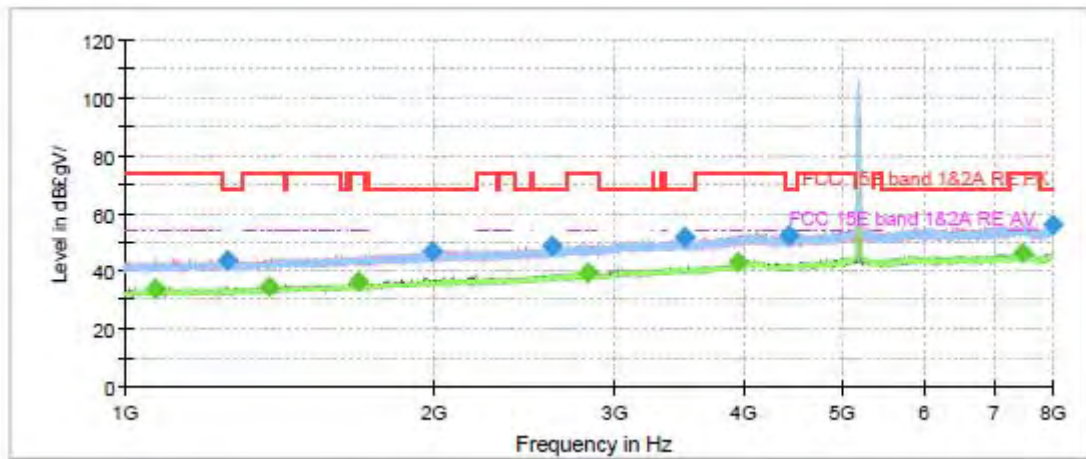


Radiates Emission from 30MHz to 1GHz

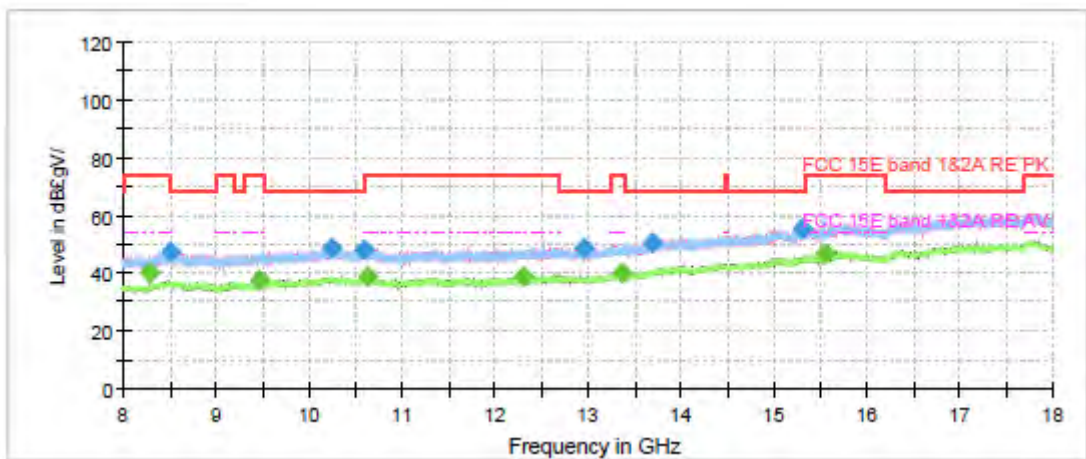
Frequency (MHz)	Quasi-Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
48.81	24.58	100.0	V	298.0	-5.0	15.42	40.00
80.05	23.41	109.0	V	128.0	-12.3	16.59	40.00
101.23	19.43	100.0	H	23.0	-5.7	24.07	43.50
196.88	23.20	100.0	V	167.0	-5.1	20.30	43.50
306.46	32.78	100.0	H	158.0	-3.7	13.22	46.00
900.02	29.53	125.0	V	228.0	5.3	16.47	46.00

**Remark: 1. Correction Factor = Antenna factor+ Insertion loss(cable loss+amplifier gain)
 2. Margin = Limit – Quasi-Peak**

802.11a CH36



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



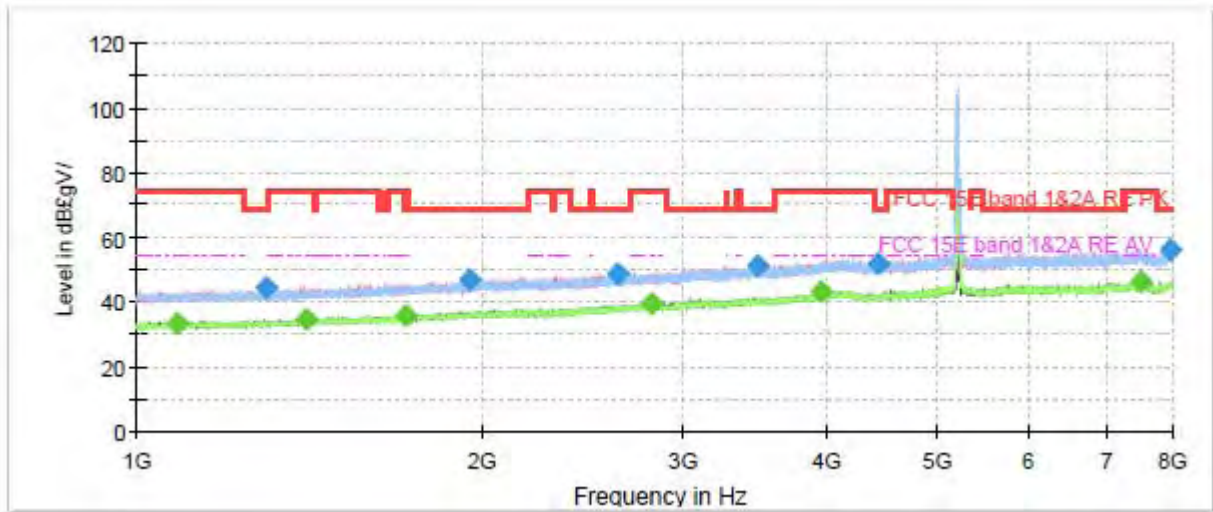
Radiates Emission from 8GHz to 18GHz



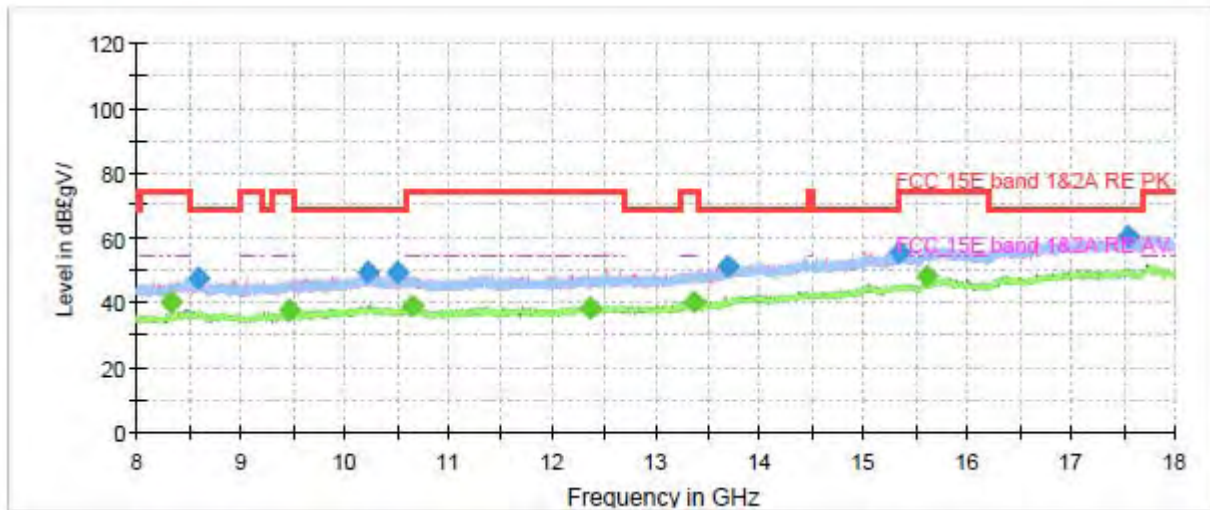
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1070.933333	---	33.69	54.00	20.31	100.0	V	237.0	-8.0
1258.300000	43.80	---	68.20	24.40	100.0	V	49.0	-7.0
1382.666667	---	34.39	54.00	19.61	100.0	H	72.0	-6.3
1689.033333	---	36.09	54.00	17.91	100.0	V	13.0	-4.6
1992.366667	46.85	---	68.20	21.35	200.0	H	138.0	-2.7
2600.900000	48.60	---	68.20	19.60	100.0	H	58.0	0.0
2816.500000	---	39.60	54.00	14.40	200.0	H	87.0	1.0
3502.966667	51.47	---	68.20	16.73	200.0	V	42.0	3.7
3955.633333	---	43.00	54.00	11.00	200.0	V	141.0	5.9
4427.900000	52.12	---	68.20	16.08	200.0	H	334.0	6.3
7485.033333	---	46.08	54.00	7.92	200.0	V	71.0	11.5
7990.666667	56.19	---	68.20	12.01	200.0	V	26.0	11.9

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11a CH40



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



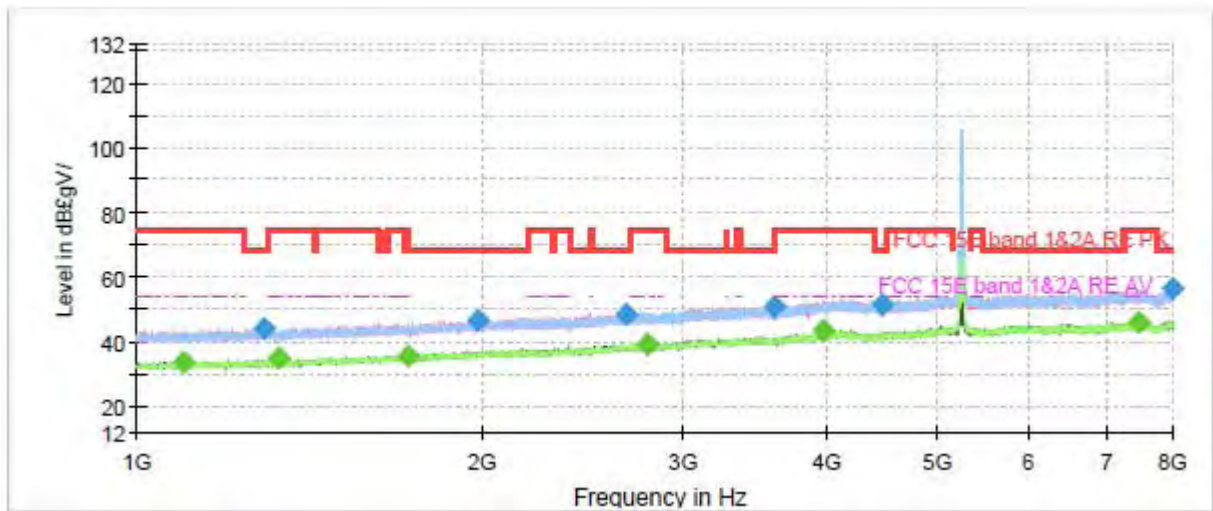
Radiates Emission from 8GHz to 18GHz



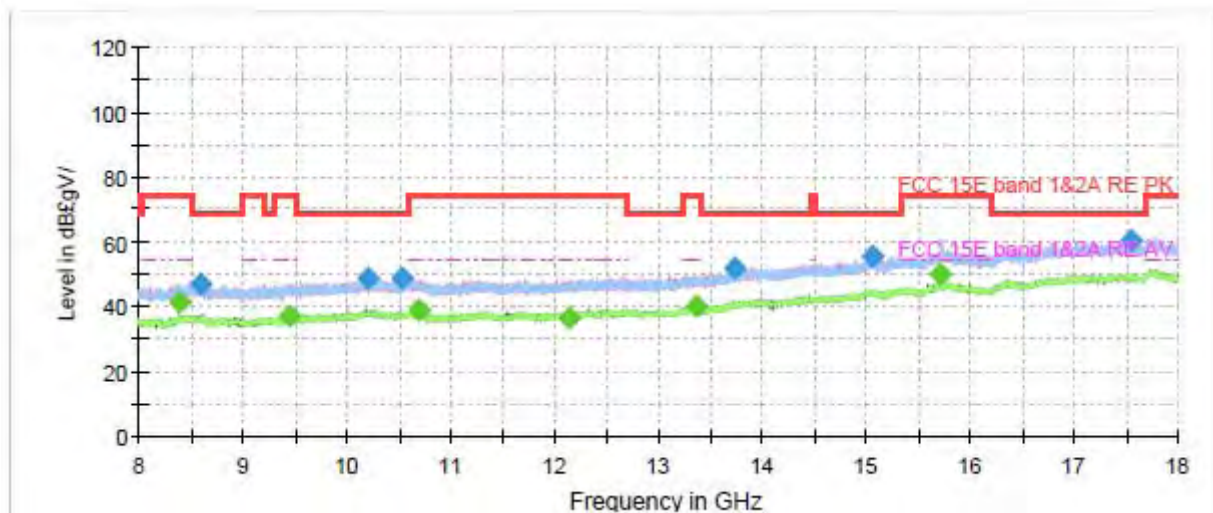
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1084.933333	---	33.23	54.00	20.77	100.0	V	110.0	-7.9
1295.166667	44.56	---	68.20	23.64	200.0	H	111.0	-6.8
1405.533333	---	34.42	54.00	19.58	200.0	V	200.0	-6.1
1719.366667	---	35.98	54.00	18.02	200.0	H	297.0	-4.4
1950.133333	46.79	---	68.20	21.41	200.0	V	28.0	-3.0
2625.633333	48.78	---	68.20	19.42	100.0	V	66.0	0.2
2804.833333	---	39.28	54.00	14.72	100.0	H	92.0	1.0
3474.500000	50.98	---	68.20	17.22	100.0	H	127.0	3.7
3941.400000	---	43.12	54.00	10.88	100.0	V	285.0	5.7
4421.833333	51.42	---	68.20	16.78	200.0	V	14.0	6.3
7495.300000	---	46.01	54.00	7.99	100.0	H	226.0	11.5
7958.233333	55.97	---	68.20	12.23	100.0	H	99.0	11.8

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11a CH48



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



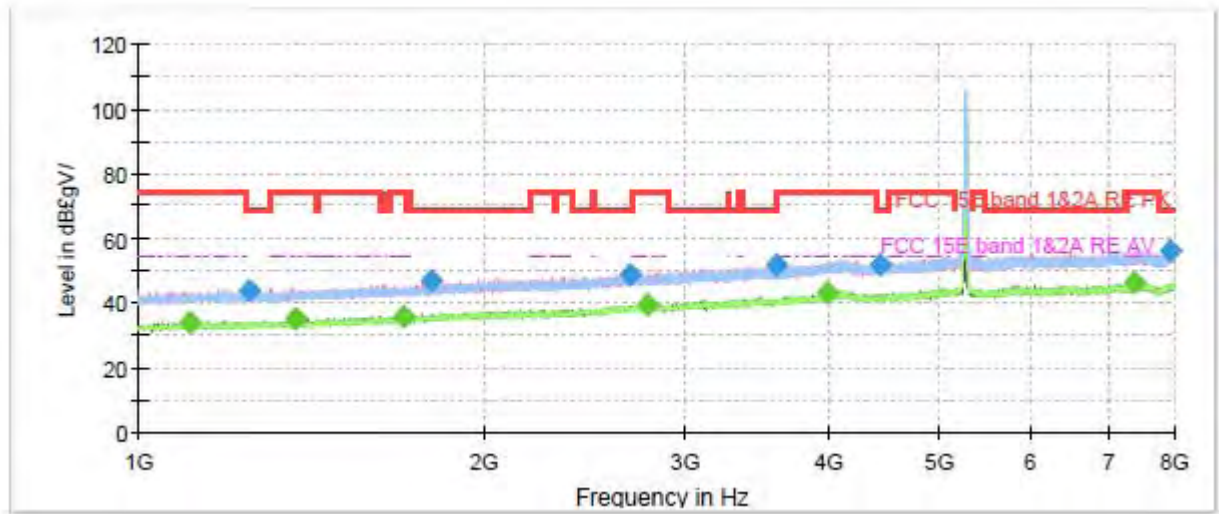
Radiates Emission from 8GHz to 18GHz



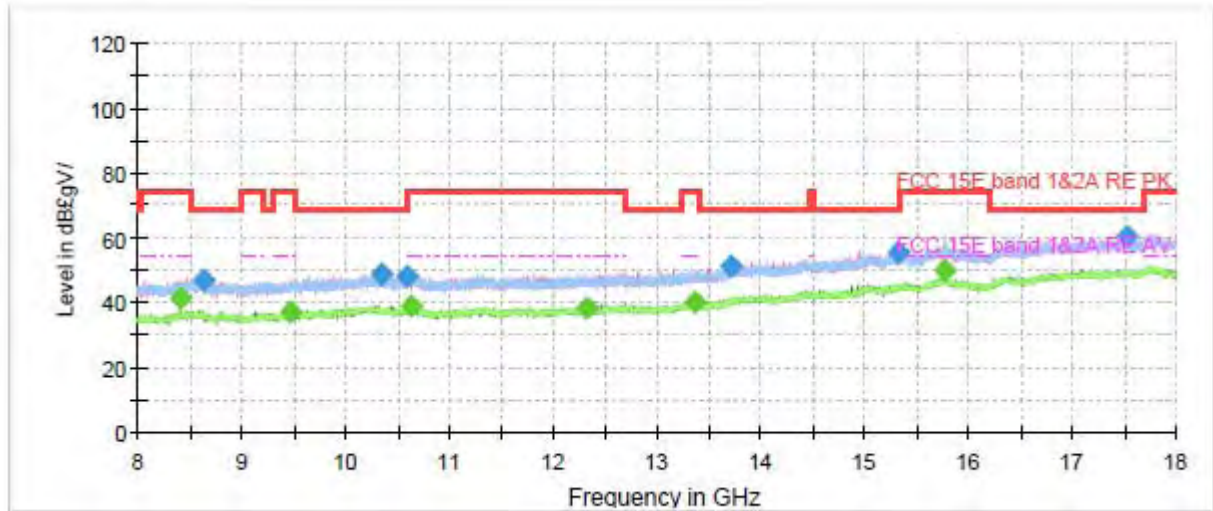
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1096.600000	---	33.43	54.00	20.57	200.0	V	220.0	-7.8
1290.033333	43.83	---	68.20	24.37	100.0	H	0.0	-6.8
1328.066667	---	34.63	54.00	19.37	200.0	H	117.0	-6.6
1721.700000	---	35.59	54.00	18.41	100.0	V	335.0	-4.4
1984.200000	46.52	---	68.20	21.68	200.0	V	133.0	-2.7
2668.800000	48.32	---	68.20	19.88	200.0	H	356.0	0.4
2782.666667	---	39.37	54.00	14.63	200.0	V	54.0	0.9
3589.300000	50.72	---	68.20	17.48	100.0	V	298.0	4.0
3960.766667	---	43.22	54.00	10.78	200.0	H	339.0	5.9
4468.266667	51.50	---	68.20	16.70	200.0	V	249.0	6.4
7461.700000	---	46.06	54.00	7.94	100.0	V	248.0	11.5
7987.400000	56.25	---	68.20	11.95	200.0	V	162.0	11.9

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11a CH52



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



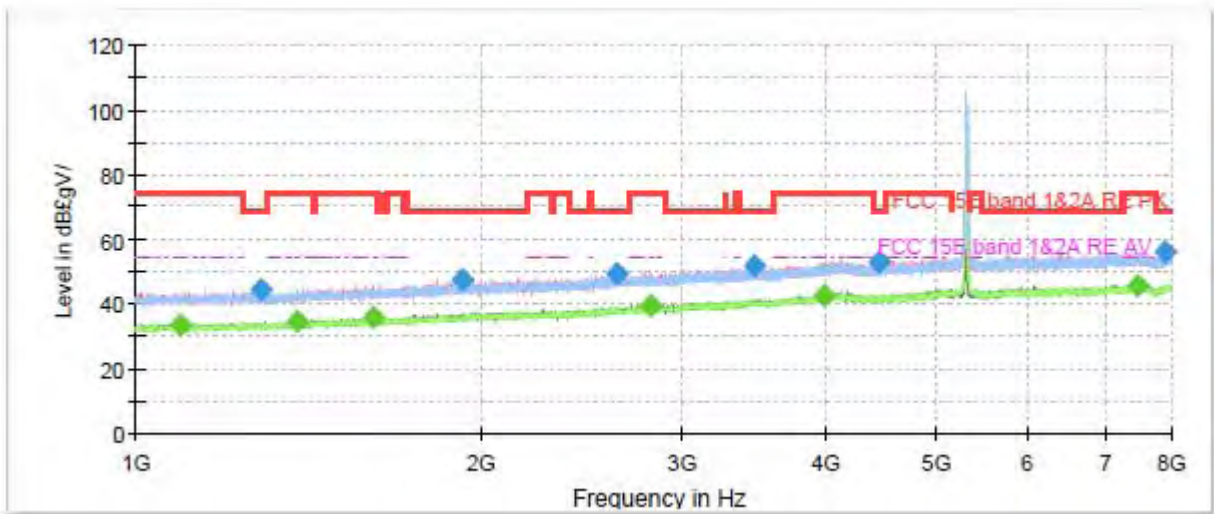
Radiates Emission from 8GHz to 18GHz



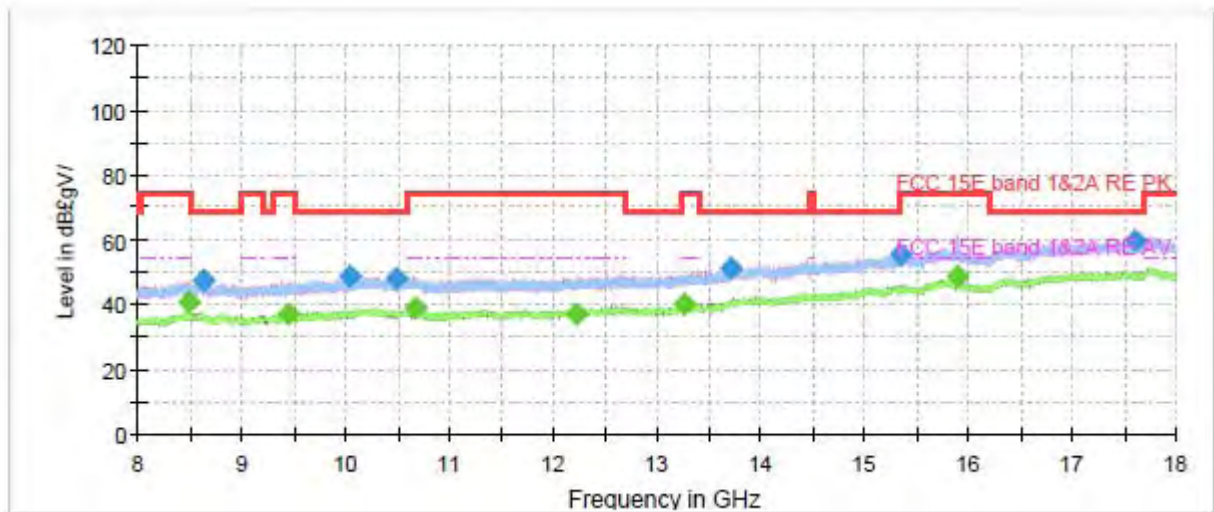
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1108.733333	---	33.55	54.00	20.45	100.0	V	325.0	-7.7
1245.466667	43.85	---	68.20	24.35	200.0	H	189.0	-7.0
1367.733333	---	34.85	54.00	19.15	200.0	V	0.0	-6.4
1700.233333	---	35.79	54.00	18.21	200.0	H	218.0	-4.5
1799.866667	46.84	---	68.20	21.37	200.0	H	15.0	-3.8
2676.500000	48.81	---	68.20	19.39	200.0	V	223.0	0.5
2769.833333	---	39.66	54.00	14.34	100.0	H	0.0	0.8
3598.633333	51.53	---	68.20	16.67	200.0	V	82.0	4.1
3982.700000	---	42.81	54.00	11.19	200.0	V	46.0	6.0
4428.833333	51.40	---	68.20	16.80	100.0	V	0.0	6.3
7394.033333	---	46.10	54.00	7.90	100.0	V	310.0	11.5
7937.466667	56.12	---	68.20	12.09	200.0	V	274.0	11.8

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11a CH60



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



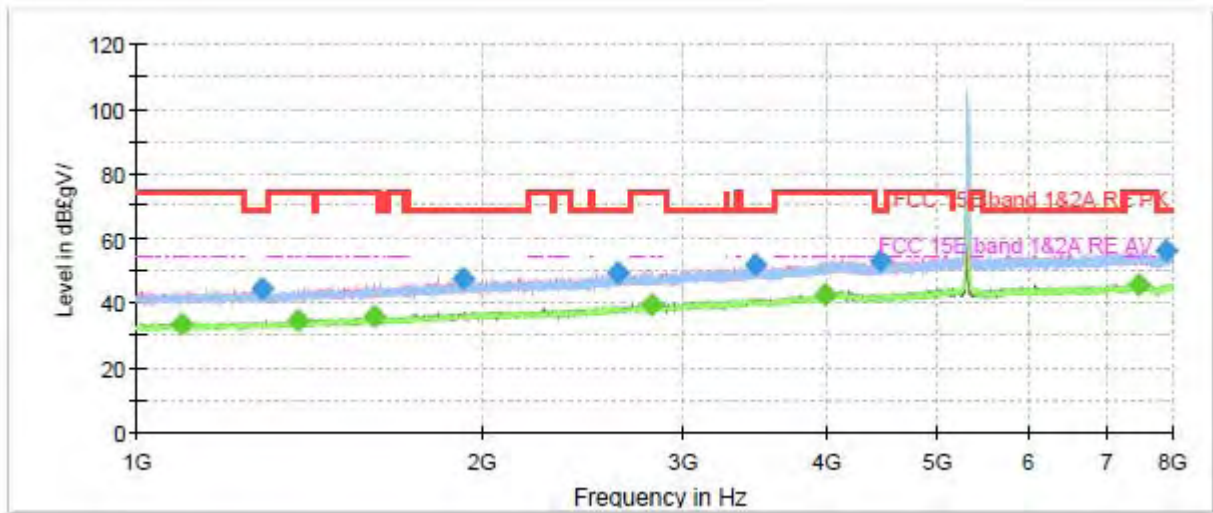
Radiates Emission from 8GHz to 18GHz



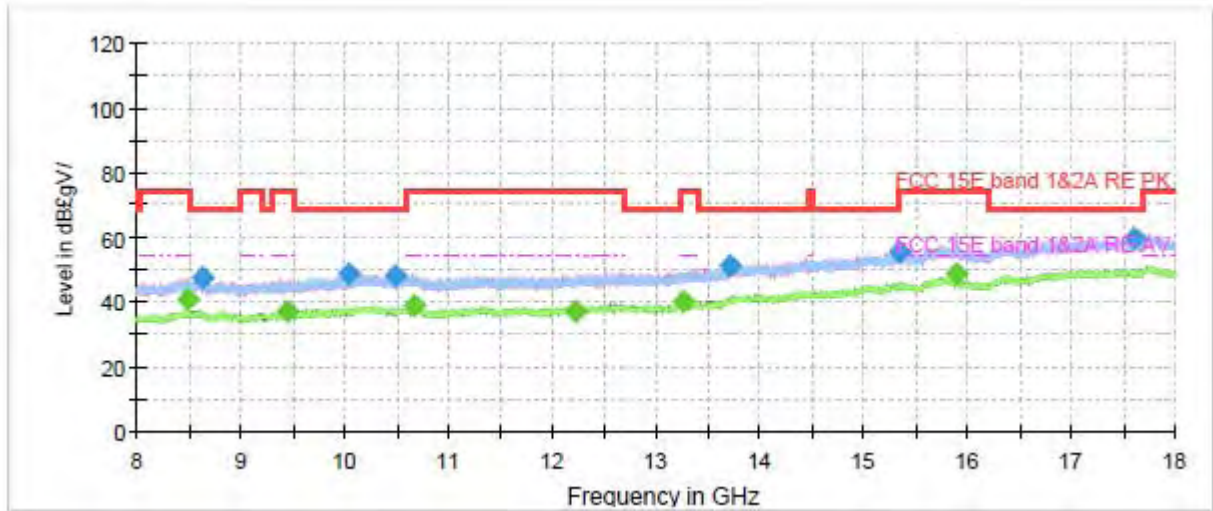
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1091.700000	---	33.12	54.00	20.88	100.0	V	220.0	-7.8
1284.666667	44.46	---	68.20	23.74	100.0	H	48.0	-6.8
1381.733333	---	34.26	54.00	19.74	200.0	H	335.0	-6.3
1609.000000	---	35.74	54.00	18.27	100.0	H	48.0	-5.0
1927.033333	47.09	---	68.20	21.11	200.0	H	137.0	-3.1
2630.533333	48.97	---	68.20	19.23	200.0	H	298.0	0.2
2807.633333	---	39.50	54.00	14.50	200.0	V	91.0	1.0
3456.766667	51.41	---	68.20	16.80	100.0	V	56.0	3.6
3990.866667	---	42.58	54.00	11.42	100.0	V	102.0	6.1
4455.200000	52.62	---	68.20	15.58	200.0	V	244.0	6.3
7481.066667	---	45.81	54.00	8.19	200.0	V	126.0	11.5
7907.366667	56.29	---	68.20	11.91	200.0	V	237.0	11.7

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11a CH64



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



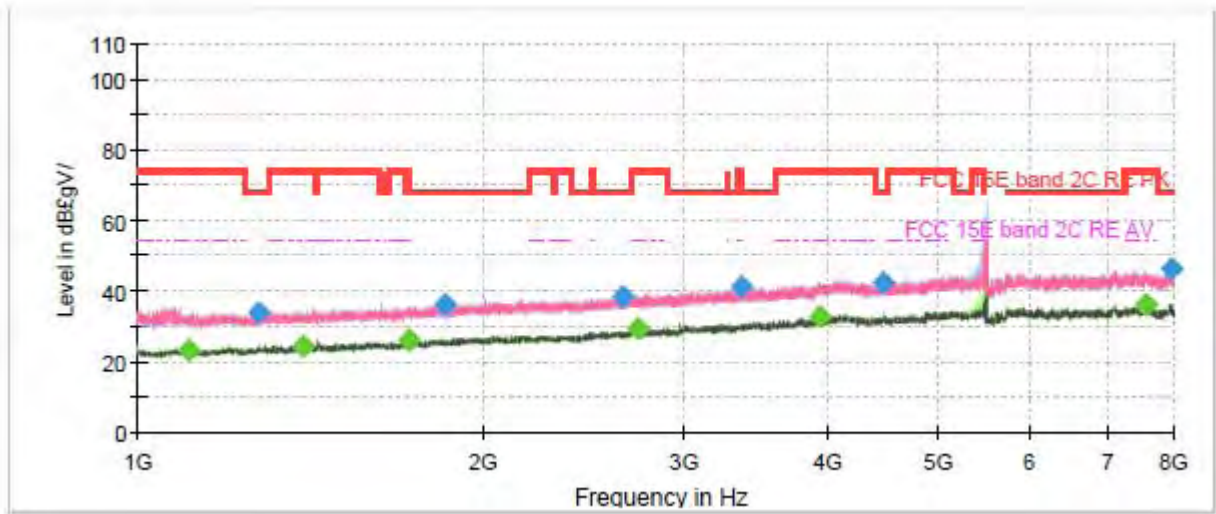
Radiates Emission from 8GHz to 18GHz



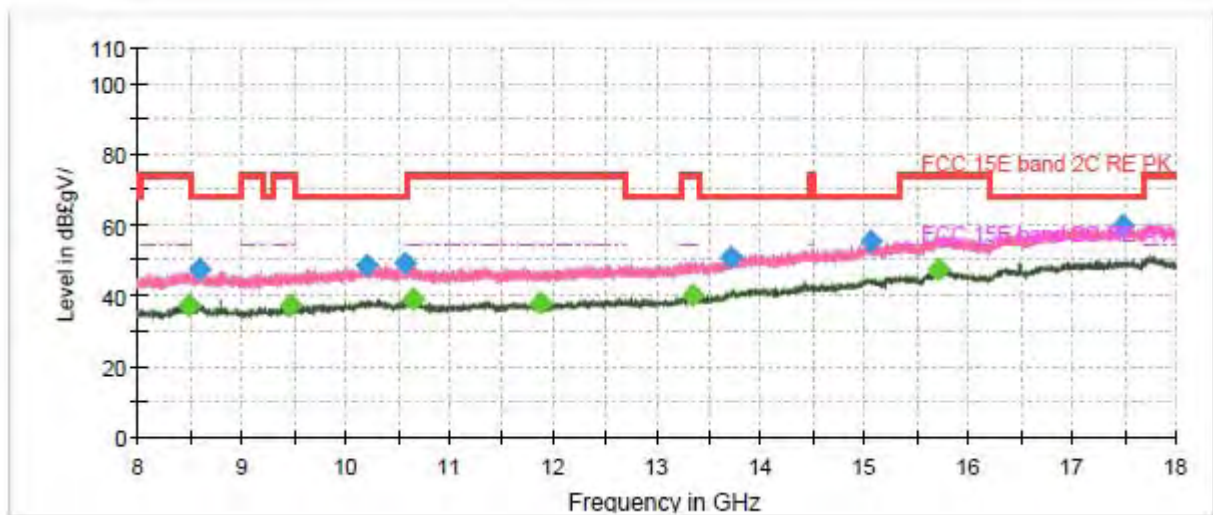
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1049.933333	---	33.44	54.00	20.56	100.0	H	196.0	-8.1
1294.933333	43.70	---	68.20	24.50	200.0	V	0.0	-6.8
1412.766667	---	34.42	54.00	19.58	100.0	H	154.0	-6.1
1684.833333	---	35.53	54.00	18.47	100.0	H	111.0	-4.6
1986.066667	47.23	---	68.20	20.97	100.0	V	226.0	-2.7
2599.500000	48.71	---	68.20	19.49	100.0	H	147.0	0.0
2820.700000	---	39.32	54.00	14.68	200.0	V	12.0	1.0
3593.733333	51.25	---	68.20	16.95	200.0	V	55.0	4.0
3933.933333	---	42.87	54.00	11.13	200.0	H	324.0	5.7
4488.566667	52.59	---	68.20	15.61	200.0	V	98.0	6.4
7494.600000	---	46.39	54.00	7.61	100.0	H	147.0	11.5
7969.900000	55.77	---	68.20	12.43	200.0	V	334.0	11.9

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11a CH100



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



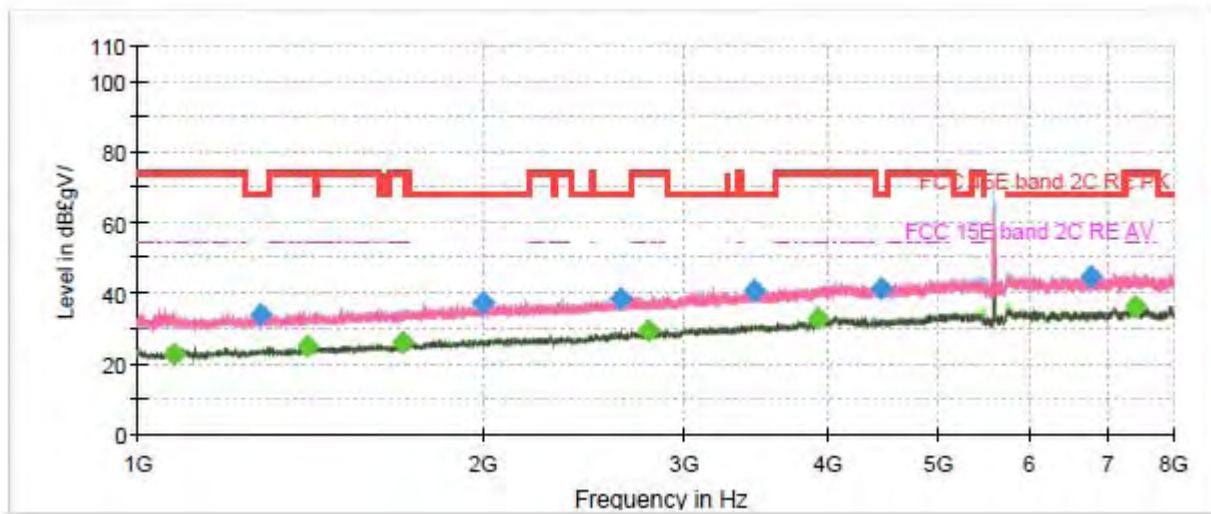
Radiates Emission from 8GHz to 18GHz



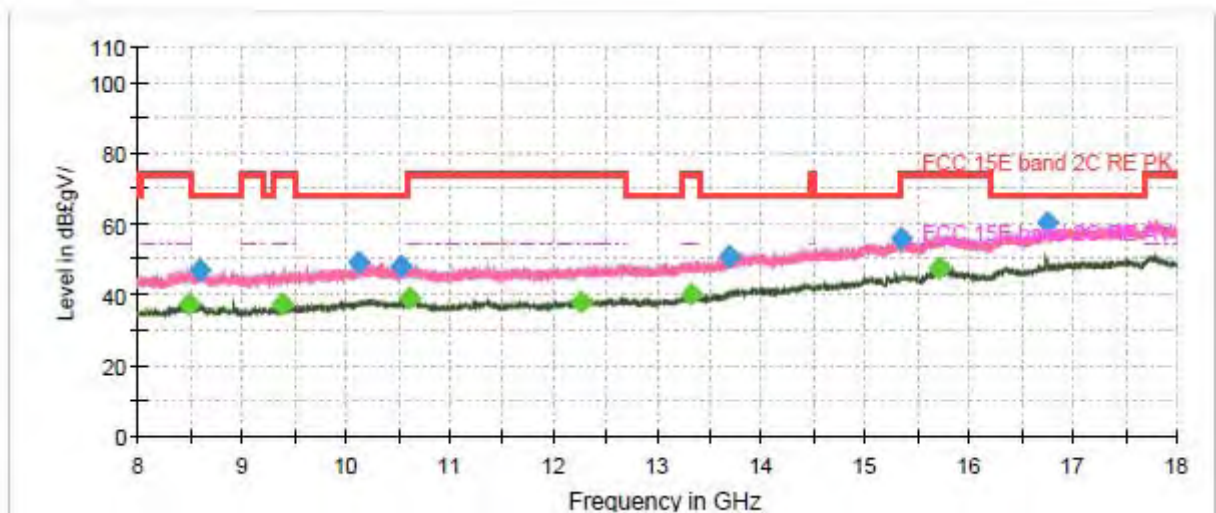
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1105.466667	---	22.87	54.00	31.13	100.0	H	290.0	-17.7
1275.100000	33.76	---	68.20	34.44	100.0	H	87.0	-16.9
1395.966667	---	24.47	54.00	29.53	100.0	V	37.0	-16.2
1721.233333	---	25.97	54.00	28.03	100.0	H	190.0	-14.4
1850.033333	36.15	---	68.20	32.05	100.0	H	0.0	-13.6
2652.700000	38.47	---	68.20	29.73	100.0	H	159.0	-9.6
2722.700000	---	29.56	54.00	24.44	200.0	V	85.0	-9.4
3359.466667	41.29	---	68.20	26.91	200.0	V	120.0	-6.7
3926.466667	---	32.75	54.00	21.25	200.0	H	8.0	-4.4
4462.900000	42.25	---	68.20	25.95	100.0	V	10.0	-3.6
7578.133333	---	36.01	54.00	17.99	100.0	H	204.0	1.4
7951.000000	46.14	---	68.20	22.06	100.0	H	108.0	1.8

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11a CH116



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



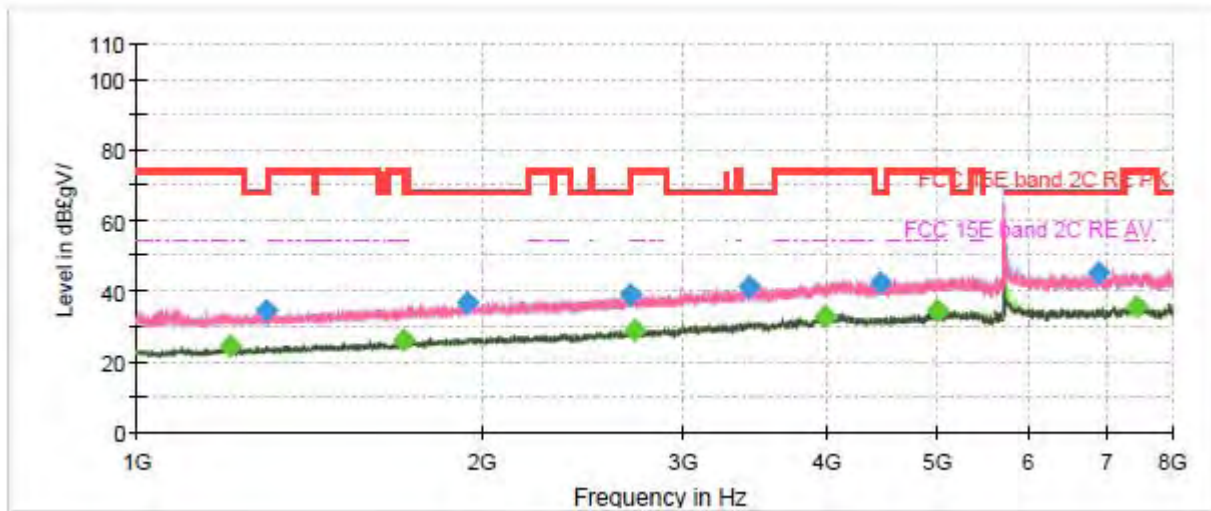
Radiates Emission from 8GHz to 18GHz



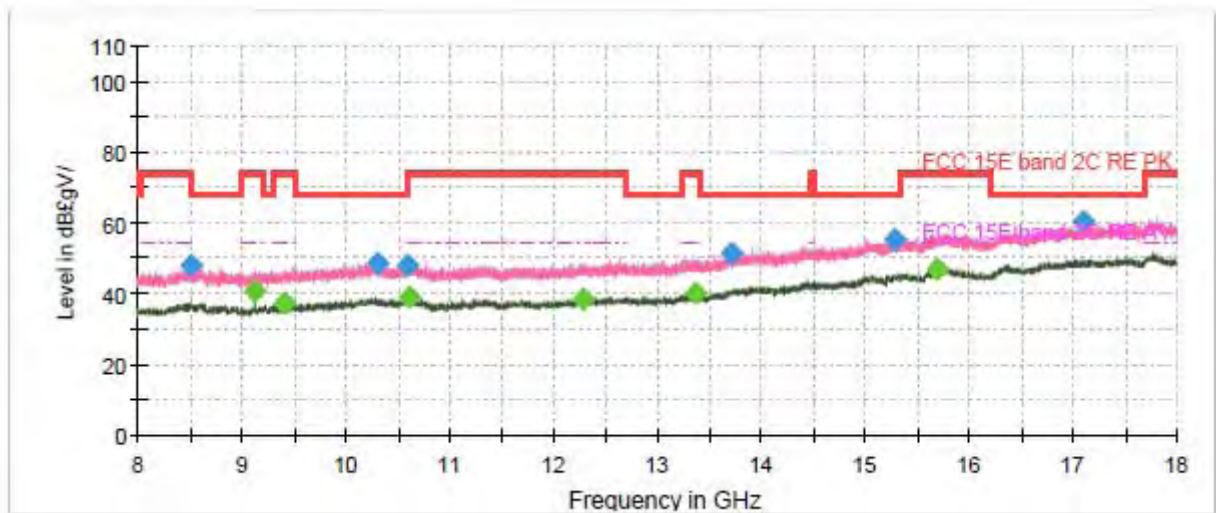
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1073.966667	---	22.64	54.00	31.36	100.0	H	131.0	-18.0
1280.933333	33.70	---	68.20	34.50	200.0	H	173.0	-16.8
1403.666667	---	24.69	54.00	29.31	100.0	H	256.0	-16.1
1701.633333	---	26.07	54.00	27.93	200.0	H	78.0	-14.5
1995.866667	36.98	---	68.20	31.22	200.0	V	166.0	-12.7
2637.066667	38.42	---	68.20	29.78	200.0	V	319.0	-9.7
2786.866667	---	29.24	54.00	24.76	200.0	H	78.0	-9.1
3447.433333	40.83	---	68.20	27.37	100.0	H	0.0	-6.4
3922.733333	---	32.87	54.00	21.13	200.0	V	101.0	-4.4
4454.733333	41.10	---	68.20	27.10	100.0	H	313.0	-3.7
6764.966667	44.52	---	68.20	23.68	200.0	V	340.0	0.5
7407.566667	---	35.83	54.00	18.17	100.0	H	0.0	1.5

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11a CH140



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



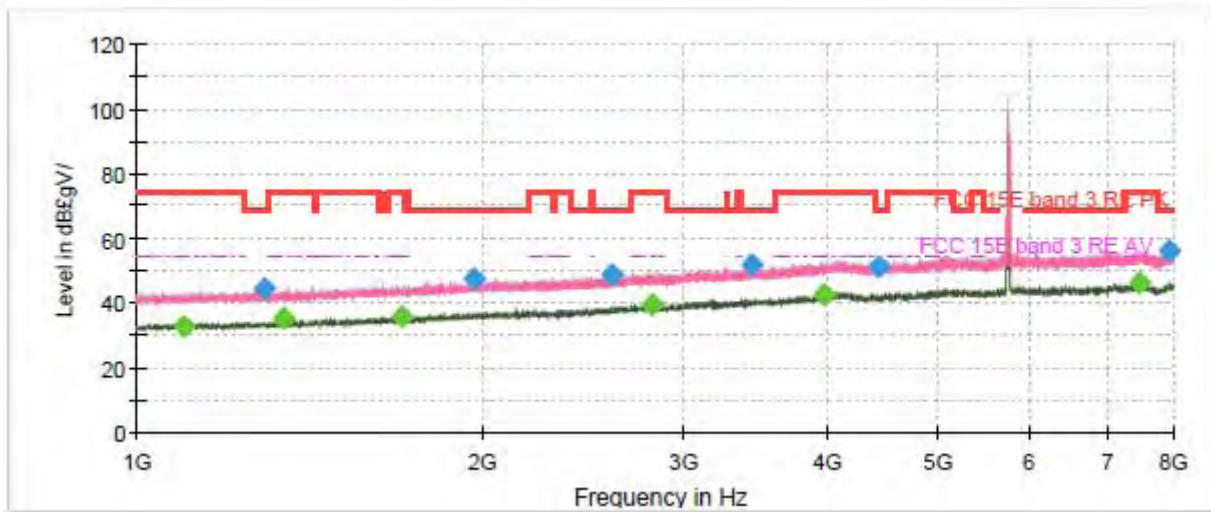
Radiates Emission from 8GHz to 18GHz



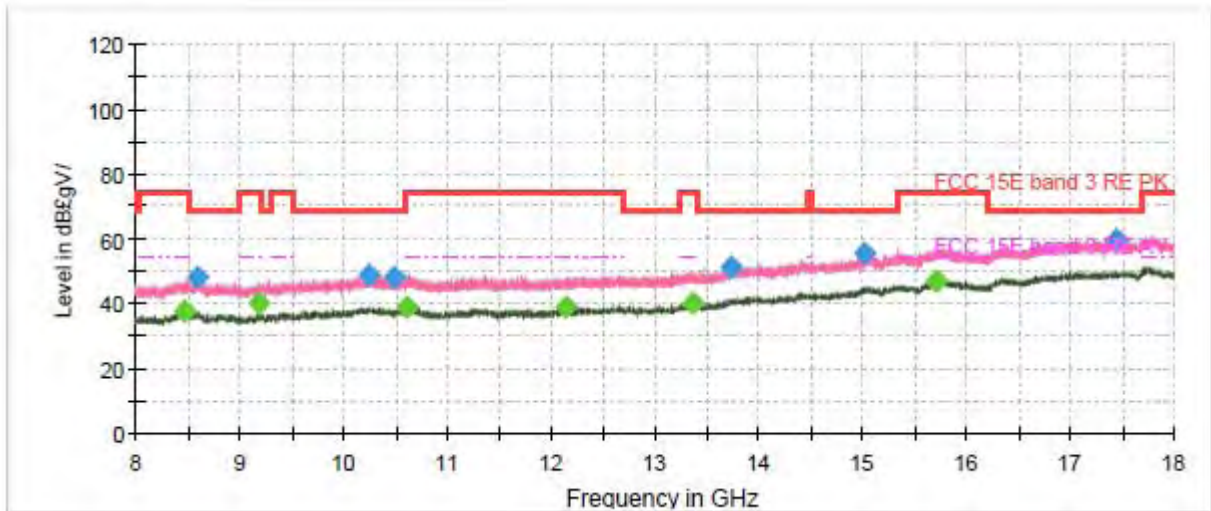
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1206.500000	---	24.54	54.00	29.46	200.0	V	19.0	-17.3
1294.466667	34.63	---	68.20	33.57	100.0	H	125.0	-16.8
1709.800000	---	25.70	54.00	28.30	100.0	V	24.0	-14.4
1937.300000	36.75	---	68.20	31.45	100.0	H	190.0	-13.1
2689.333333	38.80	---	68.20	29.40	100.0	H	41.0	-9.5
2716.400000	---	28.97	54.00	25.03	200.0	H	235.0	-9.4
3419.433333	41.25	---	68.20	26.95	100.0	H	103.0	-6.5
3988.300000	---	32.84	54.00	21.16	100.0	V	288.0	-3.9
4448.900000	42.34	---	68.20	25.86	100.0	V	209.0	-3.7
4990.933333	---	34.54	54.00	19.46	100.0	H	49.0	-1.4
6890.500000	44.88	---	68.20	23.32	100.0	V	273.0	0.7
7426.933333	---	35.76	54.00	18.24	100.0	H	103.0	1.5

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11a CH149



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



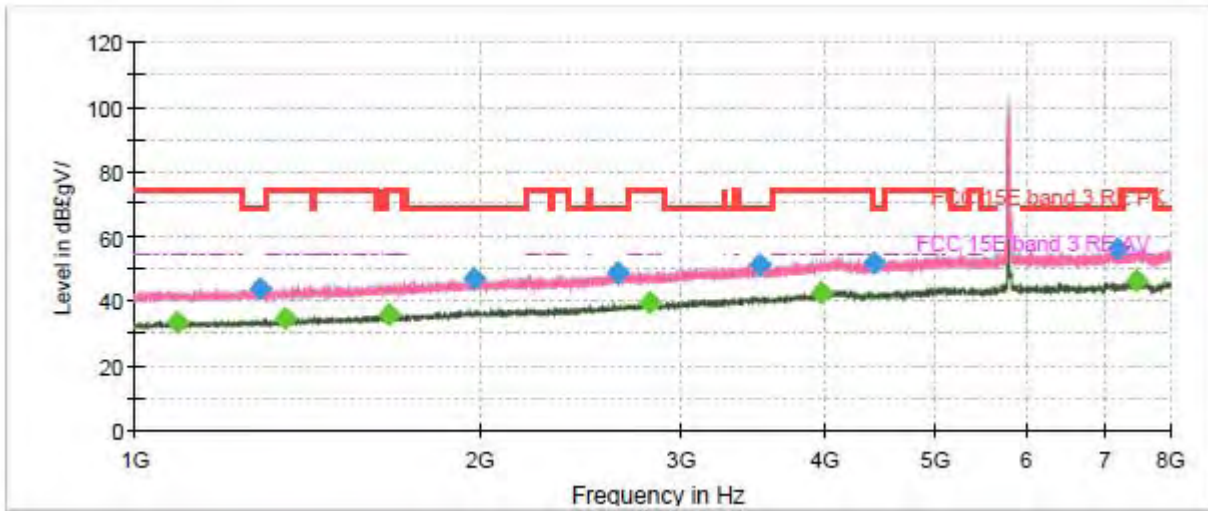
Radiates Emission from 8GHz to 18GHz



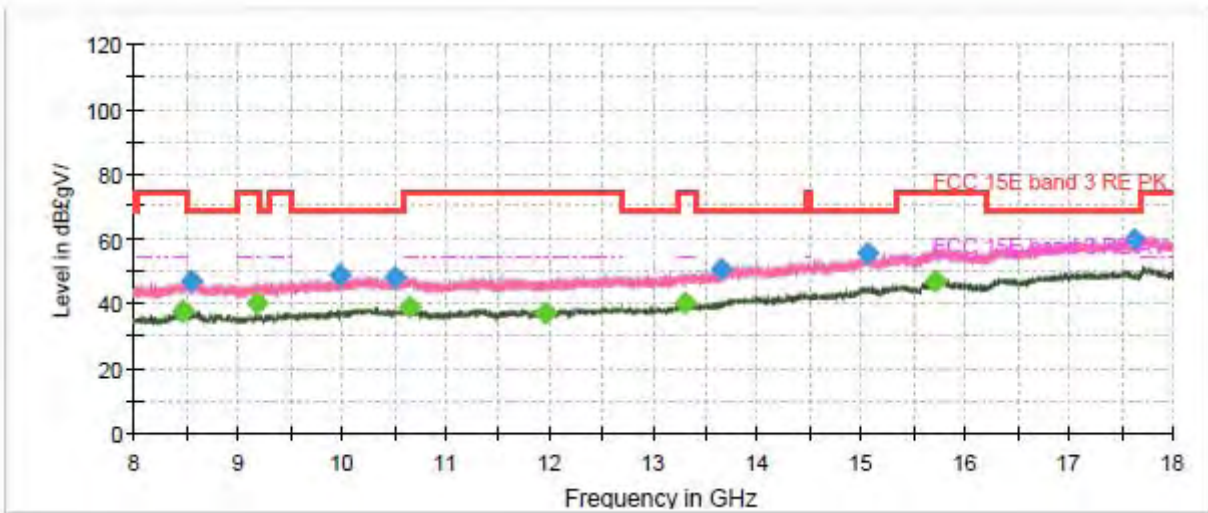
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1100.100000	---	32.90	54.00	21.10	100.0	H	72.0	-7.8
1290.966667	44.15	---	68.20	24.05	100.0	V	0.0	-6.8
1341.366667	---	34.80	54.00	19.20	200.0	H	53.0	-6.6
1703.266667	---	35.69	54.00	18.31	100.0	H	277.0	-4.5
1966.233333	47.15	---	68.20	21.05	200.0	H	249.0	-2.9
2595.533333	48.35	---	68.20	19.85	100.0	V	137.0	0.0
2813.933333	---	39.57	54.00	14.43	200.0	H	0.0	1.0
3438.566667	51.46	---	68.20	16.74	200.0	V	61.0	3.5
3966.366667	---	42.49	54.00	11.51	200.0	V	338.0	5.9
4427.900000	51.34	---	68.20	16.86	200.0	H	116.0	6.3
7484.100000	---	46.19	54.00	7.81	100.0	V	155.0	11.5
7947.500000	56.21	---	68.20	11.99	100.0	H	320.0	11.8

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11a CH157



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



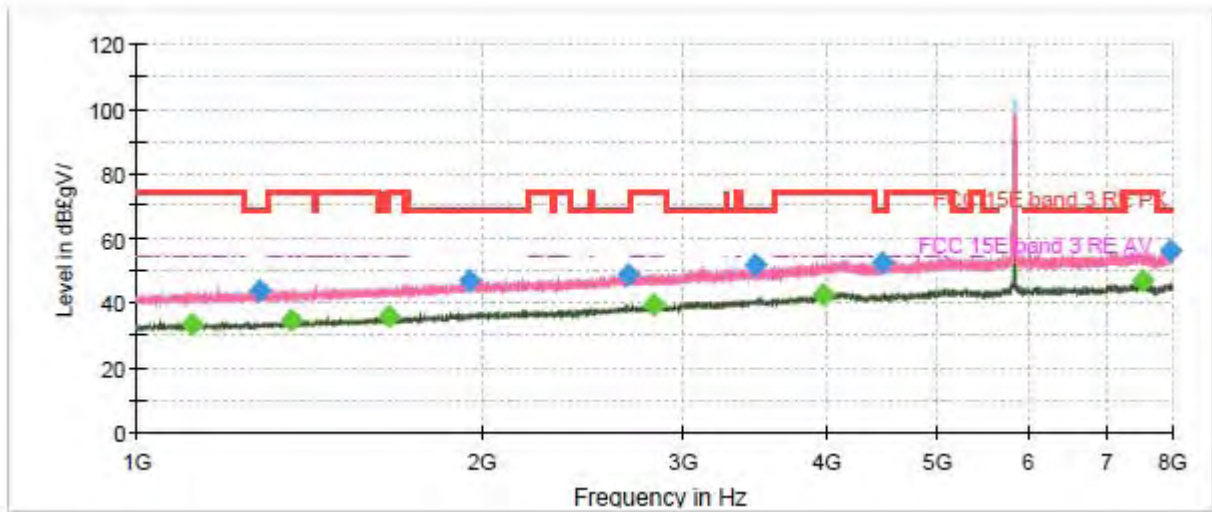
Radiates Emission from 8GHz to 18GHz



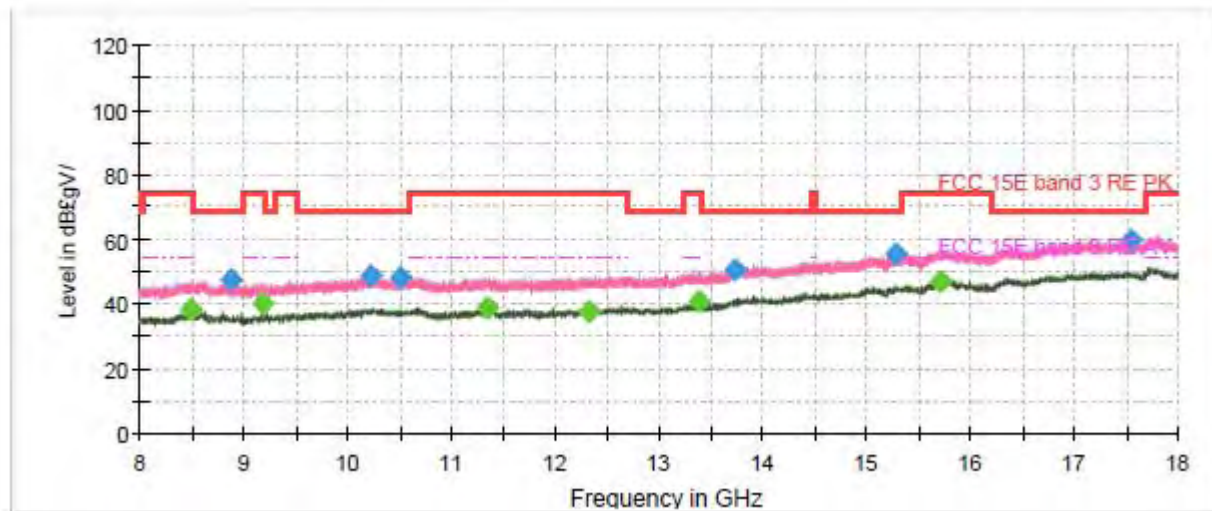
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1090.300000	---	33.20	54.00	20.80	100.0	V	177.0	-7.8
1284.666667	43.59	---	68.20	24.61	100.0	H	116.0	-6.8
1351.866667	---	34.65	54.00	19.35	200.0	V	114.0	-6.5
1665.466667	---	35.58	54.00	18.42	100.0	V	10.0	-4.7
1976.733333	46.92	---	68.20	21.28	200.0	H	173.0	-2.8
2633.100000	48.66	---	68.20	19.54	200.0	H	235.0	0.2
2809.033333	---	39.29	54.00	14.71	100.0	H	71.0	1.0
3500.866667	50.91	---	68.20	17.29	200.0	V	188.0	3.7
3964.733333	---	42.74	54.00	11.26	200.0	V	305.0	5.9
4412.033333	51.93	---	68.20	16.27	200.0	H	92.0	6.2
7191.733333	56.27	---	68.20	11.93	200.0	H	5.0	11.2
7480.366667	---	46.21	54.00	7.79	100.0	V	203.0	11.5

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11a CH165



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz

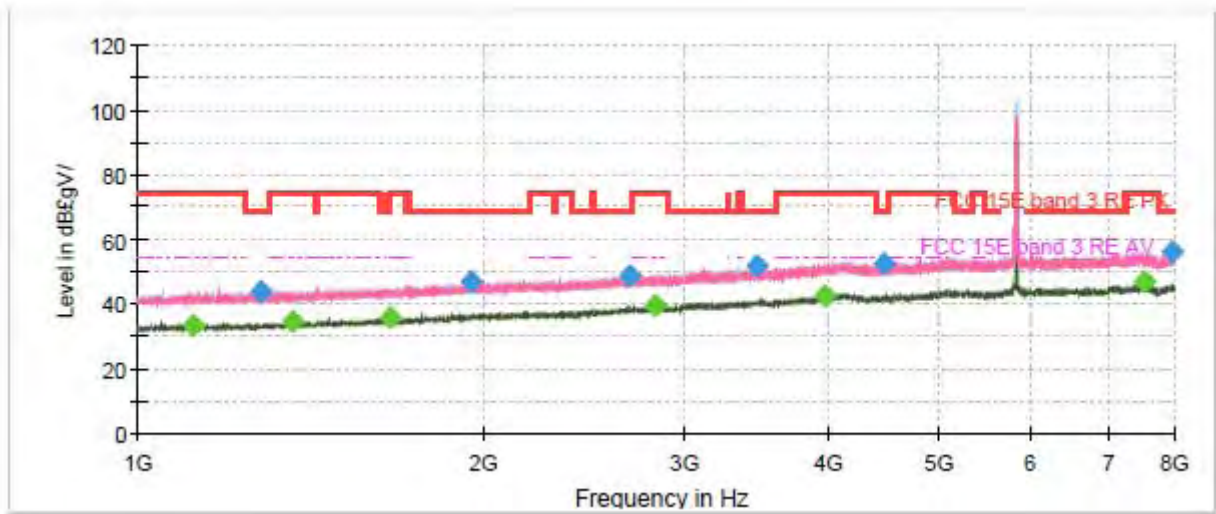


Radiates Emission from 8GHz to 18GHz

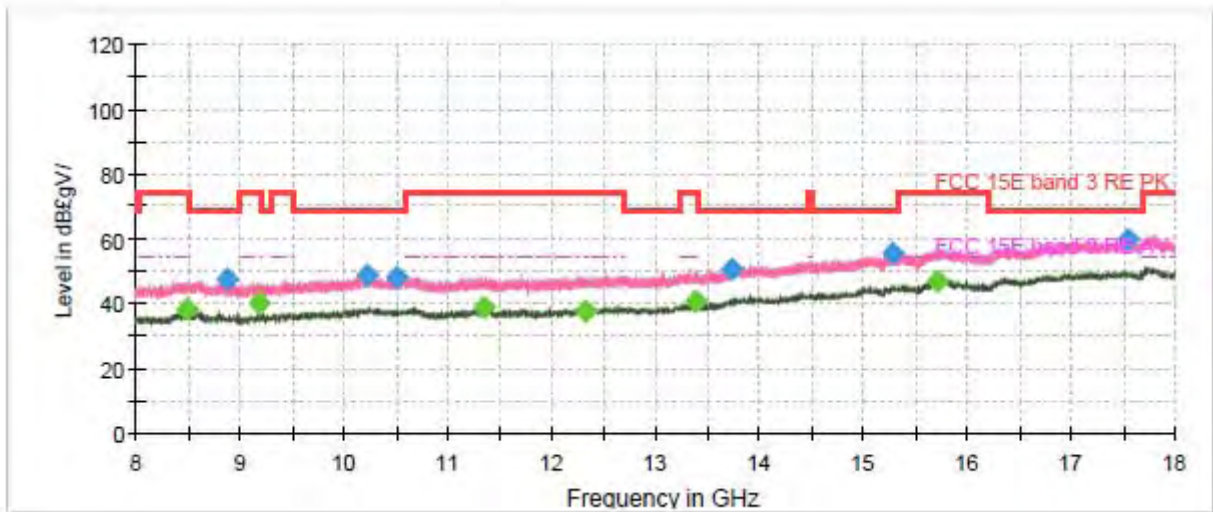


Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1117.133333	---	33.39	54.00	20.61	100.0	H	233.0	-7.7
1277.666667	43.60	---	68.20	24.60	100.0	H	0.0	-6.8
1364.700000	---	34.44	54.00	19.56	200.0	H	69.0	-6.4
1661.733333	---	35.86	54.00	18.14	200.0	H	188.0	-4.7
1946.633333	46.74	---	68.20	21.46	200.0	H	161.0	-3.0
2687.000000	48.81	---	68.20	19.39	200.0	V	299.0	0.5
2823.266667	---	39.20	54.00	14.80	100.0	H	163.0	1.0
3462.366667	51.81	---	68.20	16.39	100.0	V	288.0	3.6
3974.533333	---	42.55	54.00	11.45	200.0	V	317.0	6.0
4463.833333	52.54	---	68.20	15.66	200.0	V	145.0	6.4
7550.600000	---	46.48	54.00	7.52	200.0	H	43.0	11.5
7980.166667	55.99	---	68.20	12.21	100.0	V	159.0	11.9

802.11n (HT20) CH36



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



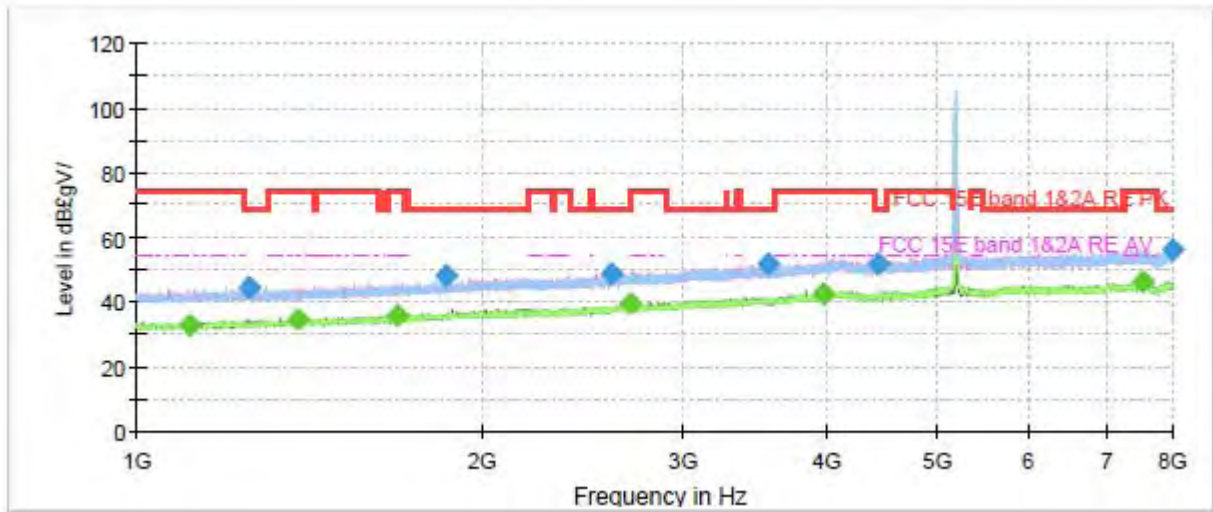
Radiates Emission from 8GHz to 18GHz



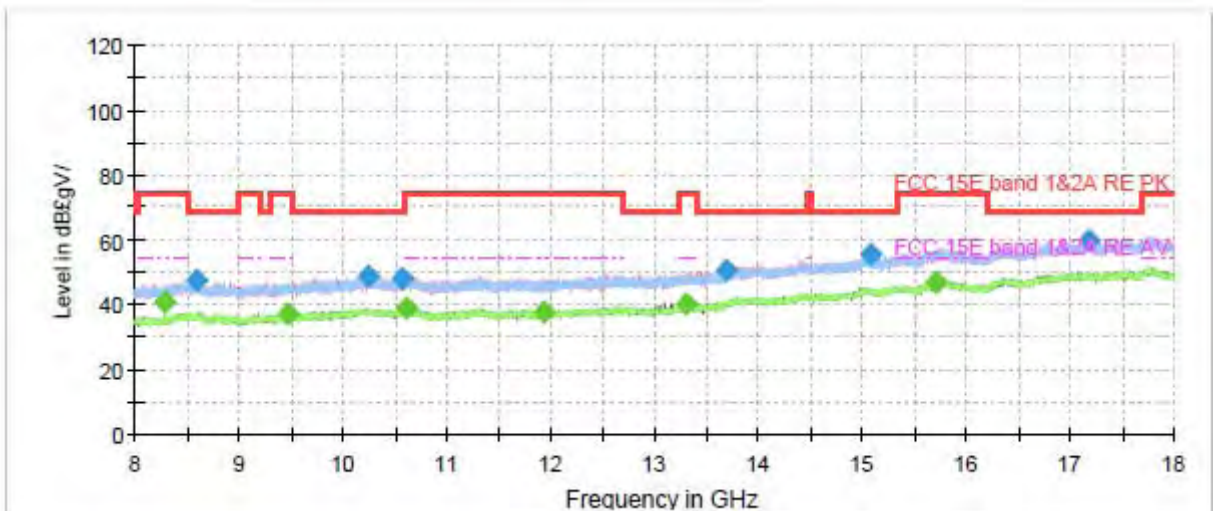
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1110.833333	---	32.75	54.00	21.25	200.0	V	346.0	-7.7
1252.233333	44.12	---	68.20	24.08	100.0	V	51.0	-7.0
1381.733333	---	34.63	54.00	19.37	100.0	V	79.0	-6.3
1683.666667	---	35.53	54.00	18.47	100.0	H	0.0	-4.6
1858.200000	48.07	---	68.20	20.13	200.0	H	223.0	-3.5
2592.266667	48.34	---	68.20	19.86	100.0	H	0.0	0.0
2697.500000	---	39.22	54.00	14.78	200.0	H	58.0	0.5
3549.633333	51.40	---	68.20	16.80	200.0	V	295.0	3.9
3972.200000	---	42.66	54.00	11.34	200.0	H	80.0	6.0
4434.900000	51.52	---	68.20	16.68	100.0	H	0.0	6.3
7552.933333	---	46.09	54.00	7.91	100.0	V	185.0	11.5
7988.800000	56.17	---	68.20	12.03	200.0	V	35.0	11.9

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT20) CH40



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



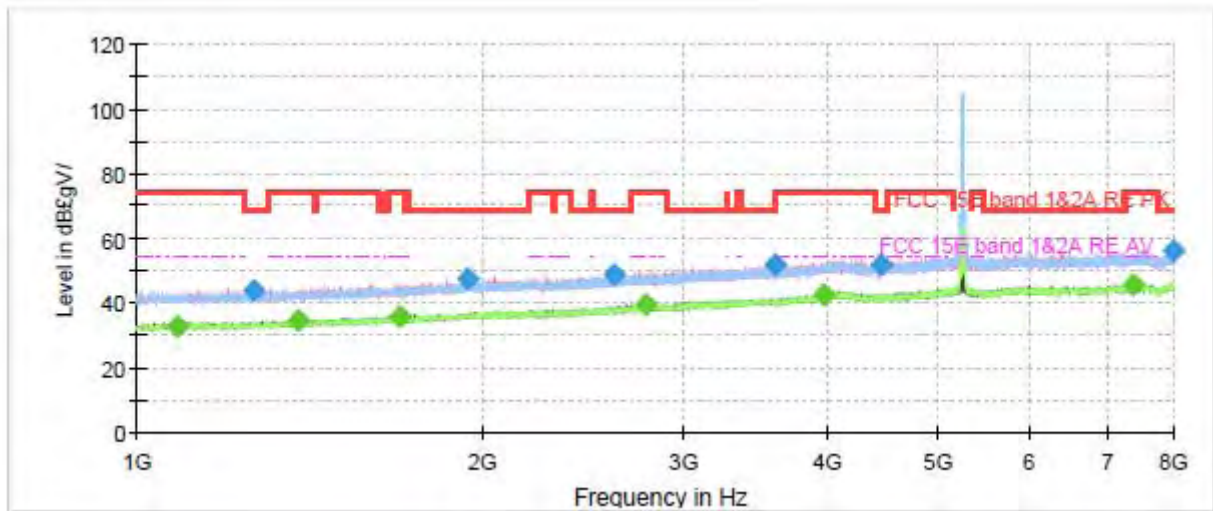
Radiates Emission from 8GHz to 18GHz



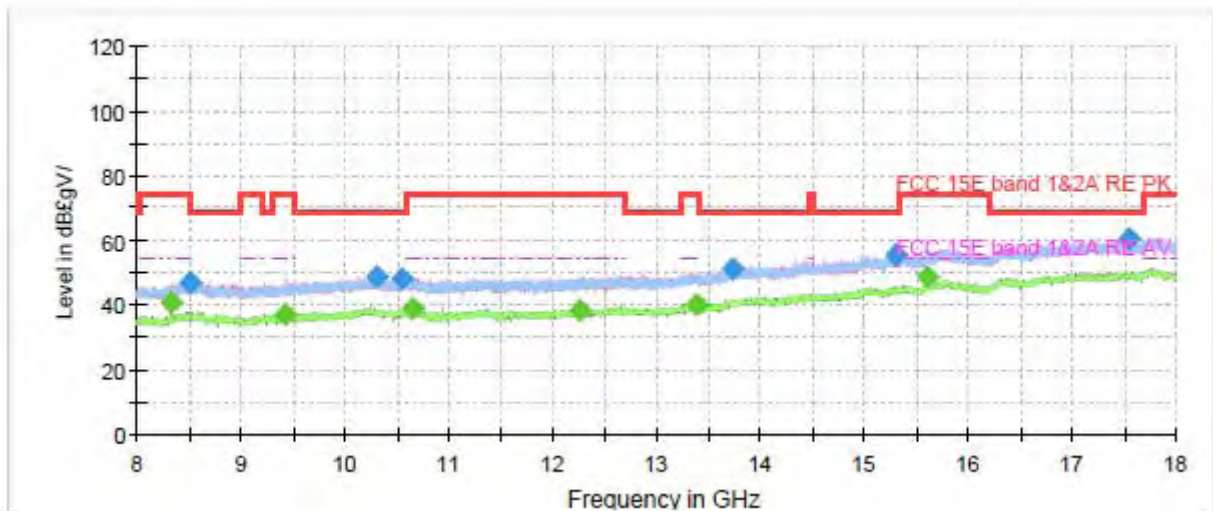
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1055.300000	---	32.85	54.00	21.15	200.0	V	26.0	-8.1
1277.200000	44.67	---	68.20	23.53	200.0	H	3.0	-6.8
1390.600000	---	34.61	54.00	19.39	200.0	H	0.0	-6.2
1681.566667	---	35.77	54.00	18.23	100.0	V	95.0	-4.6
1923.300000	47.04	---	68.20	21.16	200.0	V	310.0	-3.2
2592.733333	49.54	---	68.20	18.66	200.0	V	66.0	0.0
2809.033333	---	39.15	54.00	14.85	100.0	V	262.0	1.0
3508.333333	51.23	---	68.20	16.97	100.0	V	15.0	3.7
3982.466667	---	42.49	54.00	11.51	200.0	V	332.0	6.0
4427.200000	51.38	---	68.20	16.82	100.0	H	133.0	6.3
7473.600000	---	45.94	54.00	8.06	100.0	H	308.0	11.5
7939.333333	55.75	---	68.20	12.45	200.0	V	354.0	11.8

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT20) CH48



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



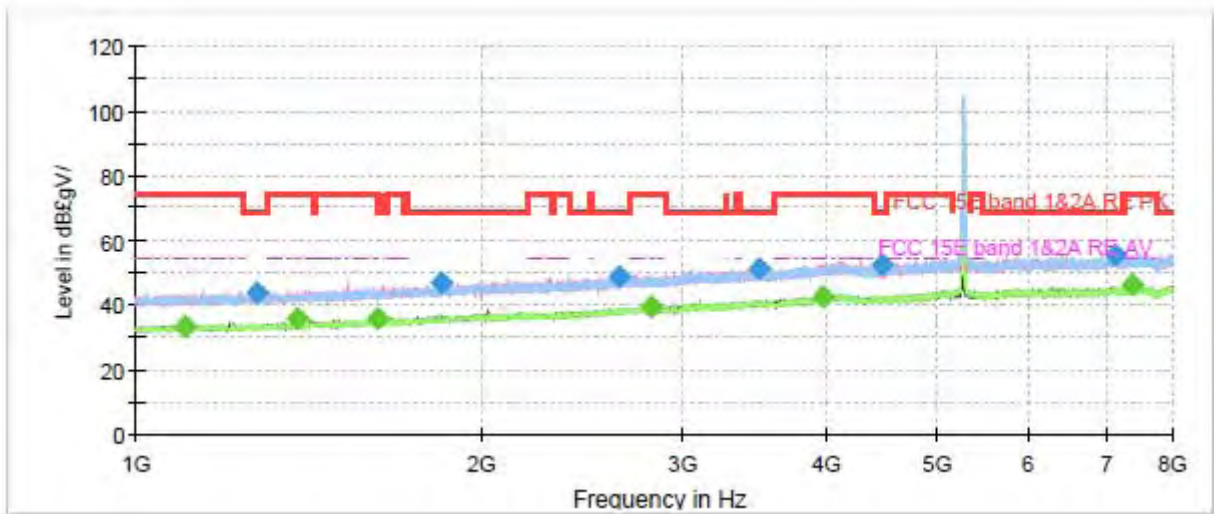
Radiates Emission from 8GHz to 18GHz



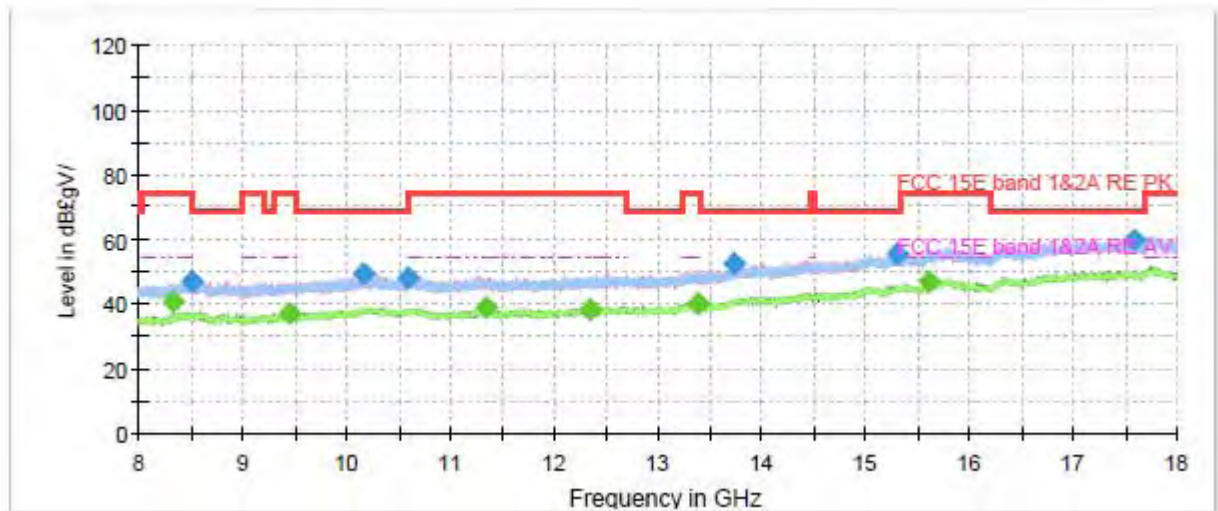
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1086.333333	---	32.79	54.00	21.21	200.0	V	353.0	-7.9
1261.800000	43.51	---	68.20	24.69	200.0	V	218.0	-6.9
1382.433333	---	34.33	54.00	19.67	200.0	V	246.0	-6.3
1697.433333	---	35.96	54.00	18.04	200.0	V	232.0	-4.5
1938.000000	47.69	---	68.20	20.51	200.0	H	154.0	-3.1
2608.600000	48.90	---	68.20	19.30	200.0	H	120.0	0.1
2774.033333	---	39.33	54.00	14.67	100.0	V	14.0	0.8
3596.066667	51.66	---	68.20	16.54	200.0	H	98.0	4.0
3962.166667	---	42.70	54.00	11.30	200.0	V	282.0	5.9
4441.433333	51.94	---	68.20	16.26	100.0	V	163.0	6.3
7385.866667	---	45.85	54.00	8.15	100.0	V	156.0	11.5
7985.533333	55.71	---	68.20	12.49	200.0	V	0.0	11.9

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT20) CH52



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



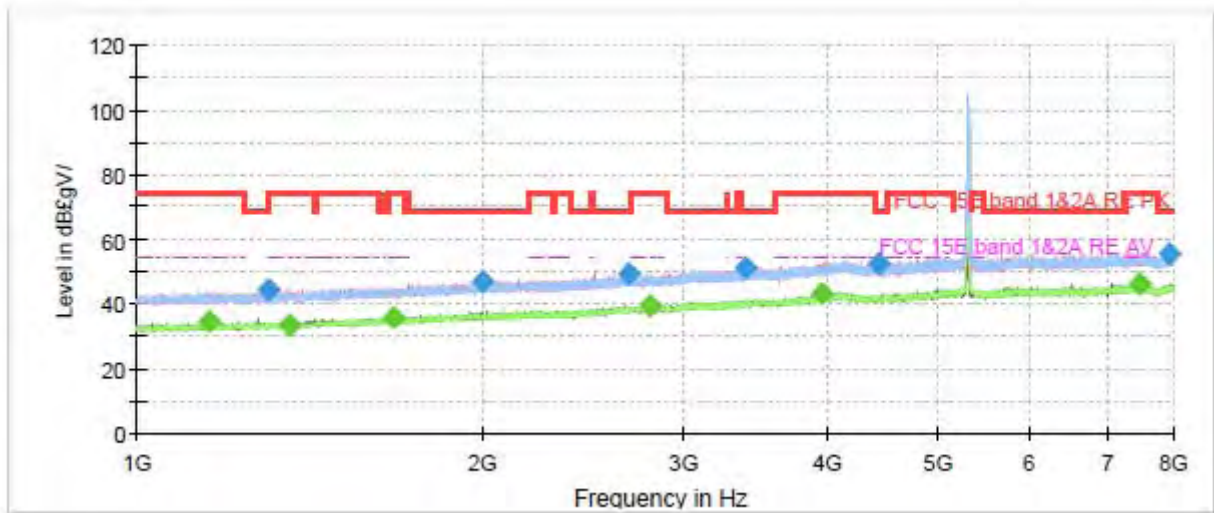
Radiates Emission from 8GHz to 18GHz



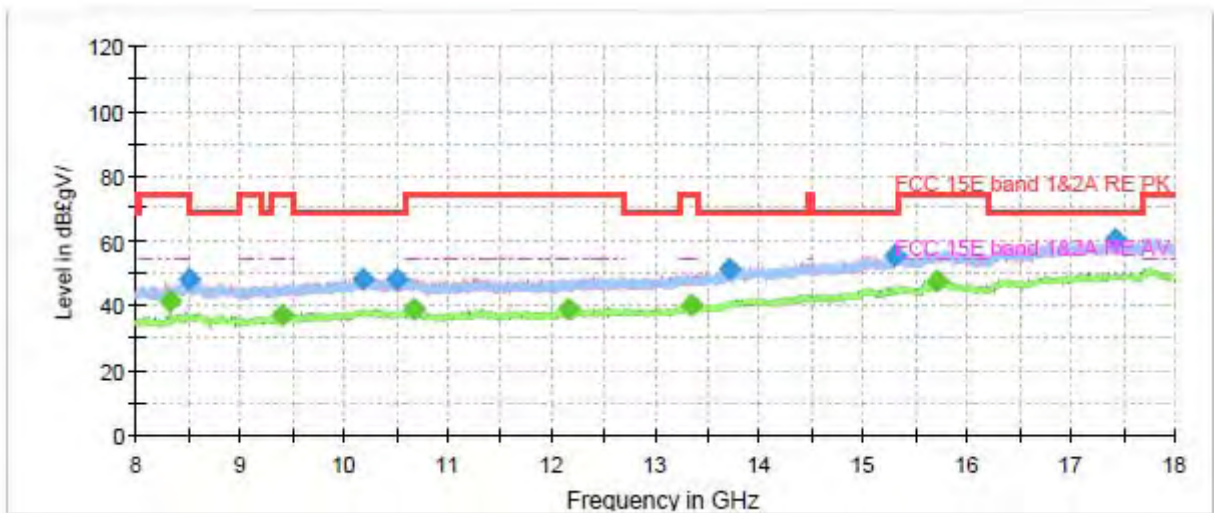
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1104.533333	---	33.41	54.00	20.59	100.0	V	32.0	-7.8
1272.066667	43.58	---	68.20	24.62	200.0	H	75.0	-6.9
1380.100000	---	35.47	54.00	18.53	200.0	V	241.0	-6.3
1624.866667	---	35.85	54.00	18.15	200.0	H	154.0	-4.9
1847.466667	46.54	---	68.20	21.66	200.0	H	75.0	-3.6
2639.400000	48.55	---	68.20	19.65	100.0	V	220.0	0.3
2813.233333	---	39.23	54.00	14.77	100.0	H	234.0	1.0
3490.133333	51.30	---	68.20	16.90	200.0	H	334.0	3.7
3961.933333	---	42.72	54.00	11.28	100.0	H	59.0	5.9
4465.233333	52.23	---	68.20	15.97	200.0	V	284.0	6.4
7129.900000	55.50	---	68.20	12.70	200.0	H	154.0	11.1
7372.800000	---	45.99	54.00	8.01	100.0	V	0.0	11.5

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT20) CH60



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



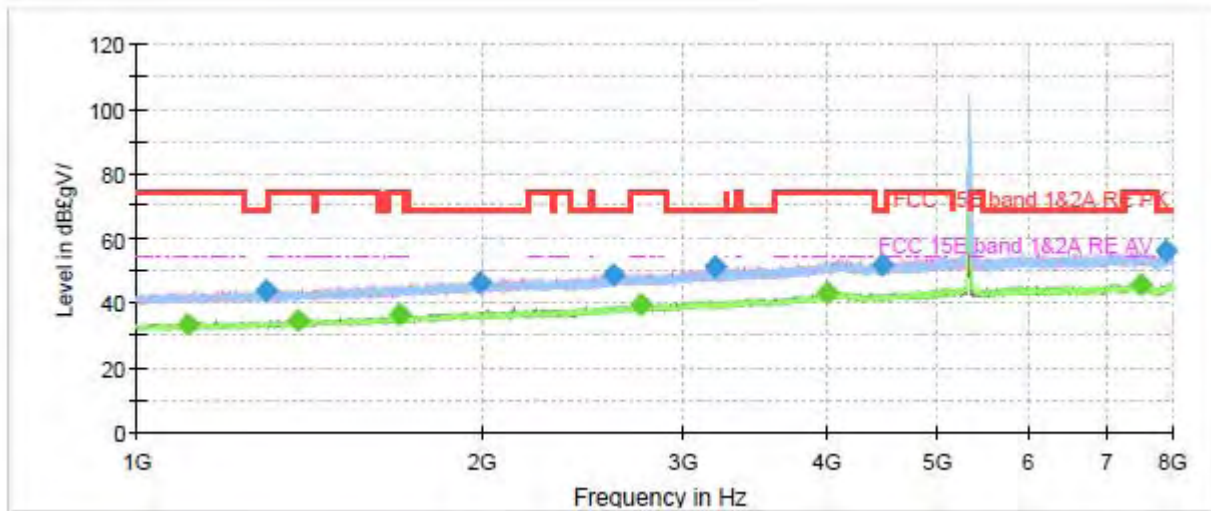
Radiates Emission from 8GHz to 18GHz



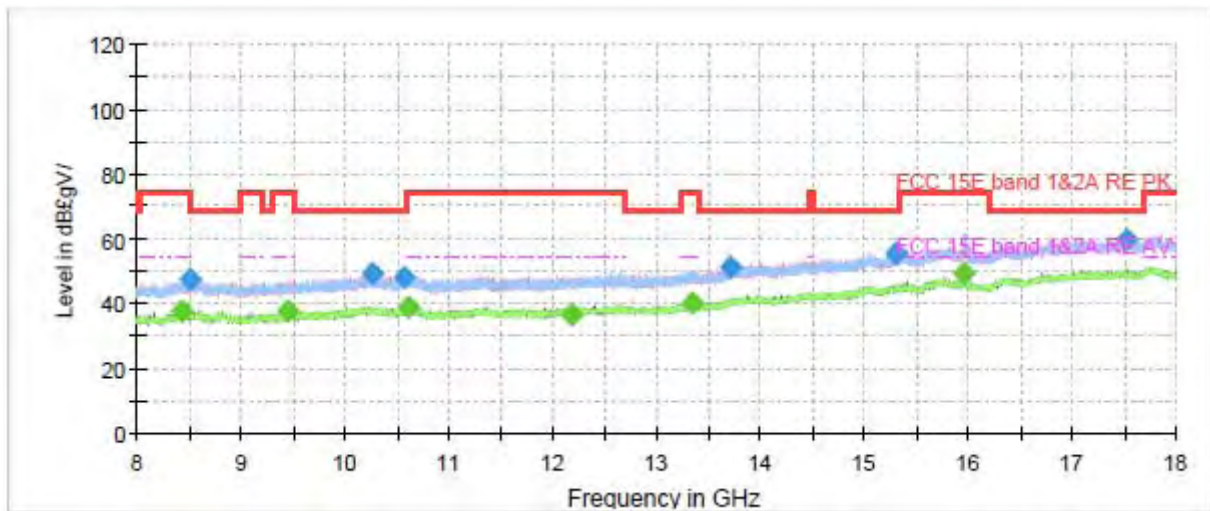
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1156.566667	---	34.70	54.00	19.30	200.0	H	231.0	-7.5
1299.600000	44.12	---	68.20	24.08	100.0	H	261.0	-6.7
1355.833333	---	33.14	54.00	20.86	100.0	V	7.0	-6.5
1675.500000	---	35.90	54.00	18.10	100.0	V	115.0	-4.6
1999.133333	47.06	---	68.20	21.14	200.0	V	0.0	-2.7
2680.233333	49.49	---	68.20	18.71	100.0	V	58.0	0.5
2793.633333	---	39.45	54.00	14.55	100.0	V	58.0	0.9
3390.033333	51.32	---	68.20	16.88	200.0	H	238.0	3.4
3948.633333	---	42.85	54.00	11.15	200.0	V	116.0	5.8
4422.766667	52.57	---	68.20	15.63	200.0	V	251.0	6.3
7475.233333	---	45.97	54.00	8.03	100.0	H	246.0	11.5
7939.566667	55.66	---	68.20	12.54	200.0	V	217.0	11.8

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT20) CH64



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



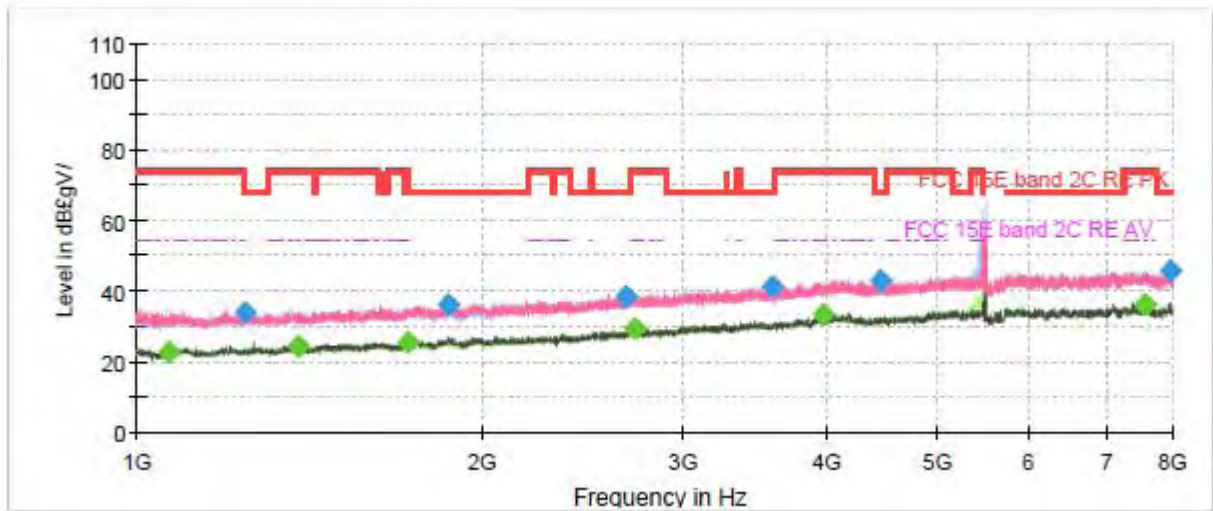
Radiates Emission from 8GHz to 18GHz



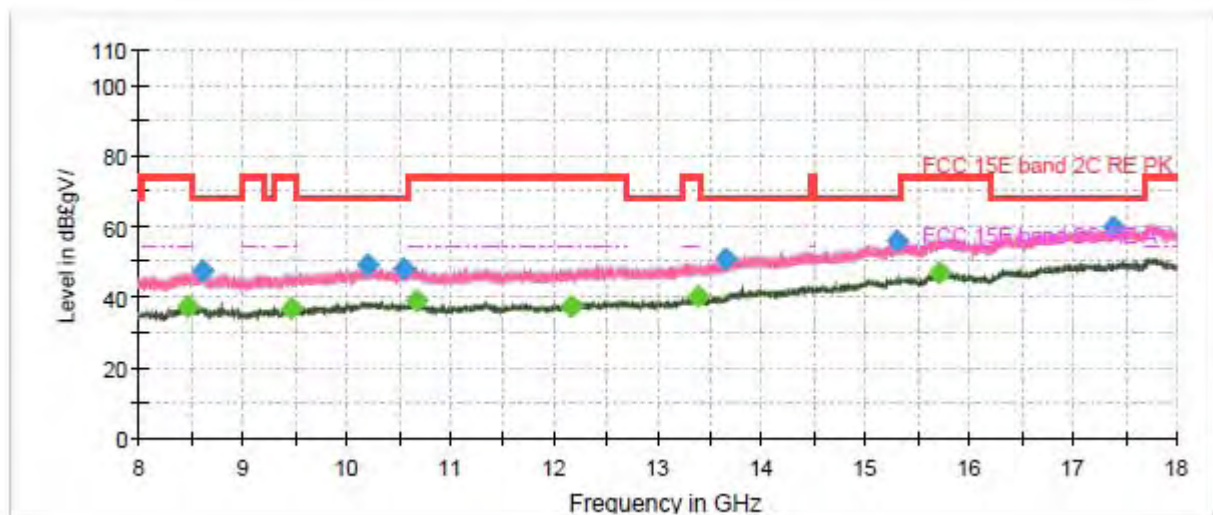
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1109.666667	---	33.34	54.00	20.66	100.0	V	60.0	-7.7
1297.500000	43.99	---	68.20	24.21	100.0	H	316.0	-6.8
1382.433333	---	34.54	54.00	19.46	100.0	V	162.0	-6.3
1693.933333	---	36.10	54.00	17.90	100.0	V	46.0	-4.5
1992.833333	46.38	---	68.20	21.82	200.0	V	287.0	-2.7
2601.133333	48.54	---	68.20	19.66	200.0	V	114.0	0.0
2755.366667	---	39.28	54.00	14.72	100.0	V	162.0	0.8
3193.333333	51.13	---	68.20	17.07	100.0	H	73.0	2.6
3992.266667	---	42.80	54.00	11.20	200.0	V	294.0	6.1
4461.966667	51.39	---	68.20	16.81	100.0	V	32.0	6.4
7513.733333	---	45.70	54.00	8.30	200.0	H	235.0	11.5
7896.166667	55.95	---	68.20	12.25	100.0	V	84.0	11.7

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT20) CH100



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



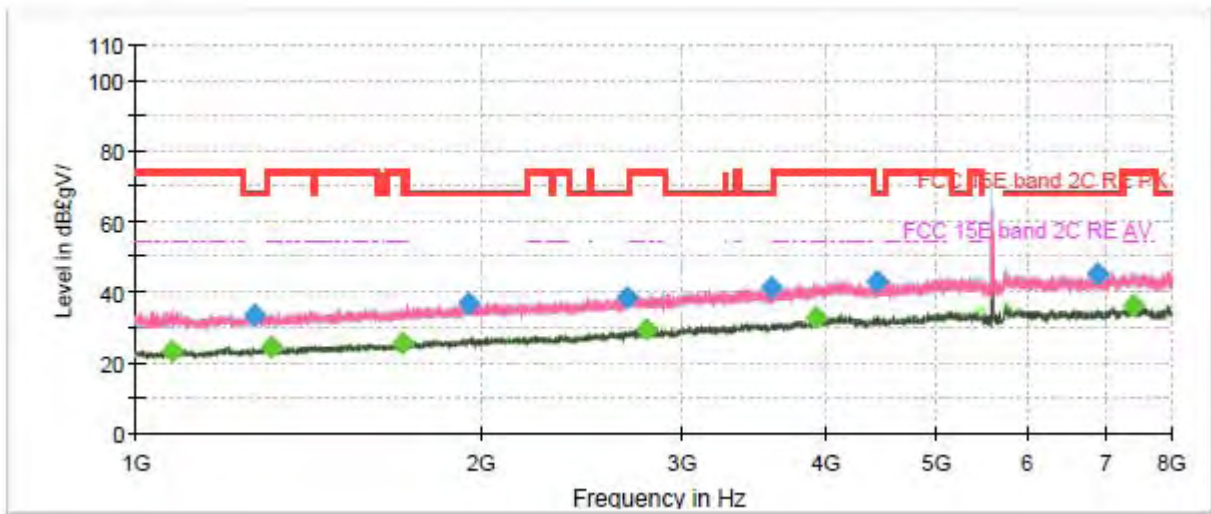
Radiates Emission from 8GHz to 18GHz



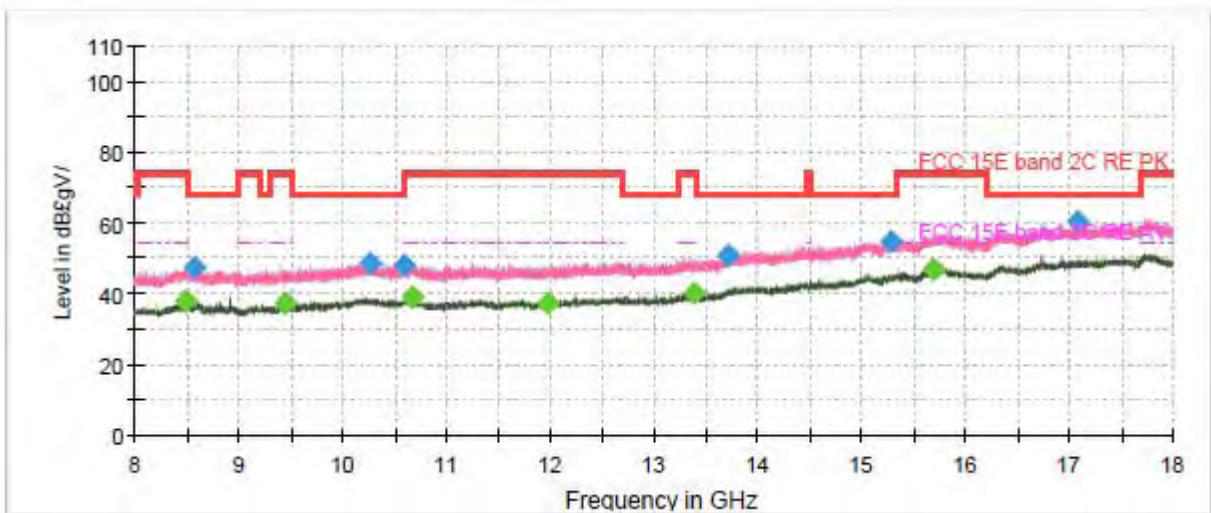
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1066.733333	---	22.72	54.00	31.28	200.0	V	7.0	-18.0
1240.800000	33.66	---	68.20	34.54	200.0	H	333.0	-17.1
1380.333333	---	24.28	54.00	29.72	100.0	V	8.0	-16.3
1720.300000	---	25.56	54.00	28.44	200.0	H	117.0	-14.4
1864.733333	36.27	---	68.20	31.93	100.0	V	194.0	-13.5
2675.566667	38.42	---	68.20	29.78	200.0	V	341.0	-9.5
2715.933333	---	29.09	54.00	24.91	200.0	V	233.0	-9.4
3575.300000	41.12	---	68.20	27.08	100.0	H	39.0	-6.0
3960.066667	---	33.24	54.00	20.76	100.0	H	268.0	-4.1
4456.366667	42.68	---	68.20	25.52	100.0	H	11.0	-3.6
7579.766667	---	35.98	54.00	18.02	100.0	V	13.0	1.4
7954.266667	45.77	---	68.20	22.43	100.0	H	276.0	1.8

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT20) CH116



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



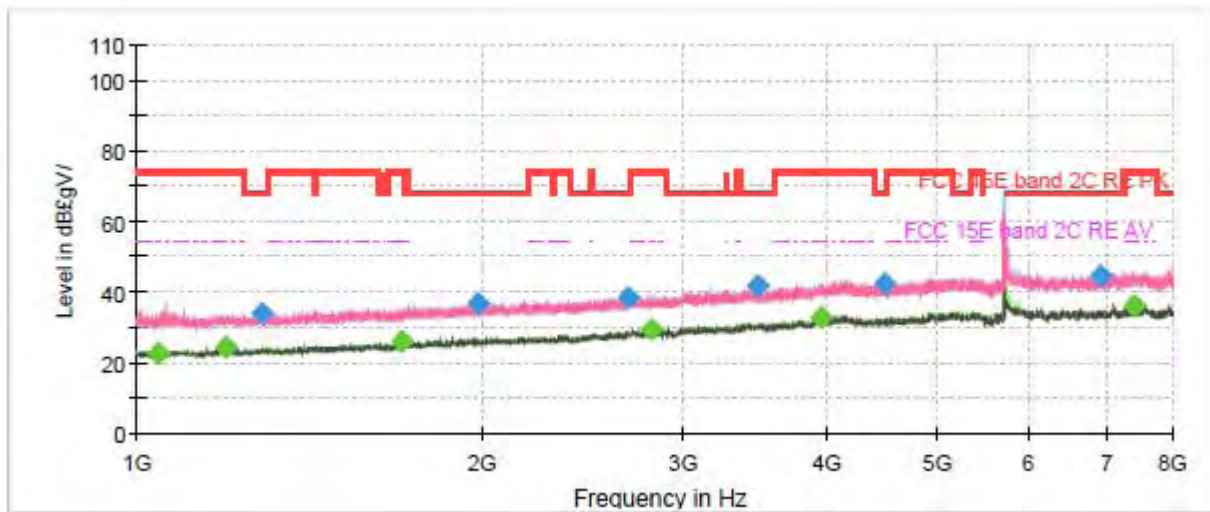
Radiates Emission from 8GHz to 18GHz



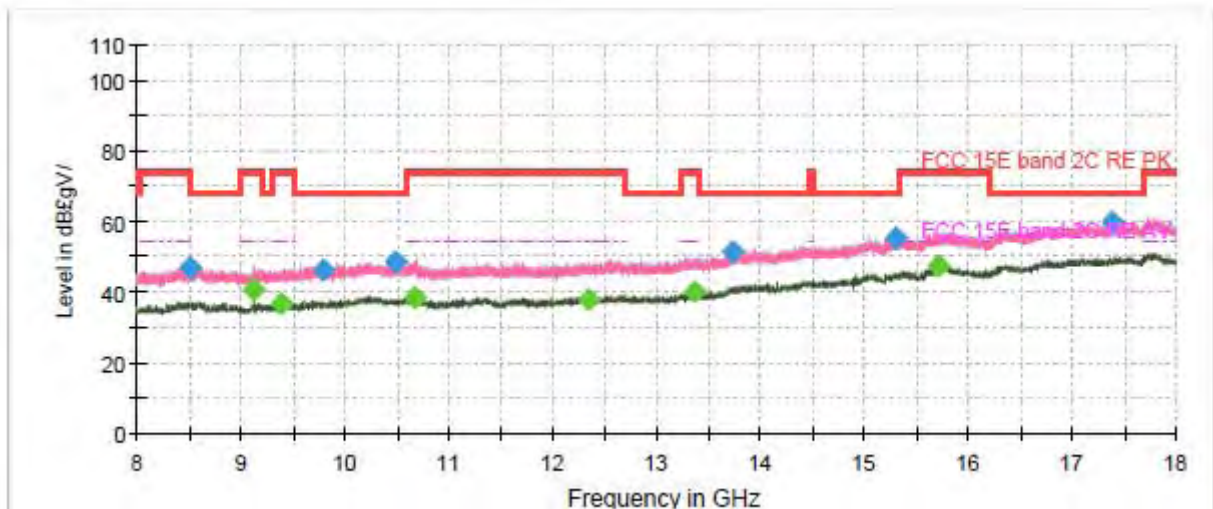
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1077.233333	---	22.93	54.00	31.07	200.0	V	346.0	-17.9
1269.266667	33.55	---	68.20	34.65	100.0	H	0.0	-16.9
1311.500000	---	24.51	54.00	29.49	200.0	V	181.0	-16.7
1709.100000	---	25.53	54.00	28.47	100.0	V	246.0	-14.4
1951.766667	36.79	---	68.20	31.41	200.0	V	0.0	-13.0
2686.533333	38.25	---	68.20	29.95	100.0	H	218.0	-9.5
2784.066667	---	29.23	54.00	24.77	100.0	V	137.0	-9.1
3576.466667	41.15	---	68.20	27.05	100.0	H	262.0	-6.0
3908.500000	---	32.45	54.00	21.55	100.0	H	333.0	-4.5
4424.400000	42.92	---	68.20	25.28	200.0	H	50.0	-3.7
6885.133333	44.86	---	68.20	23.34	100.0	H	268.0	0.7
7415.266667	---	35.99	54.00	18.01	200.0	V	260.0	1.5

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT20) CH140



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



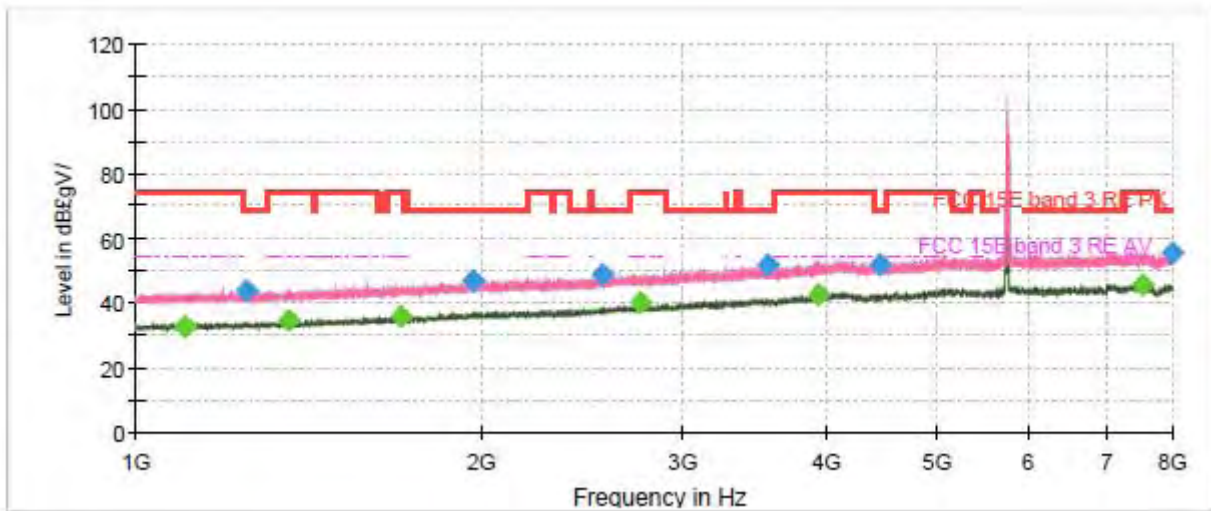
Radiates Emission from 8GHz to 18GHz



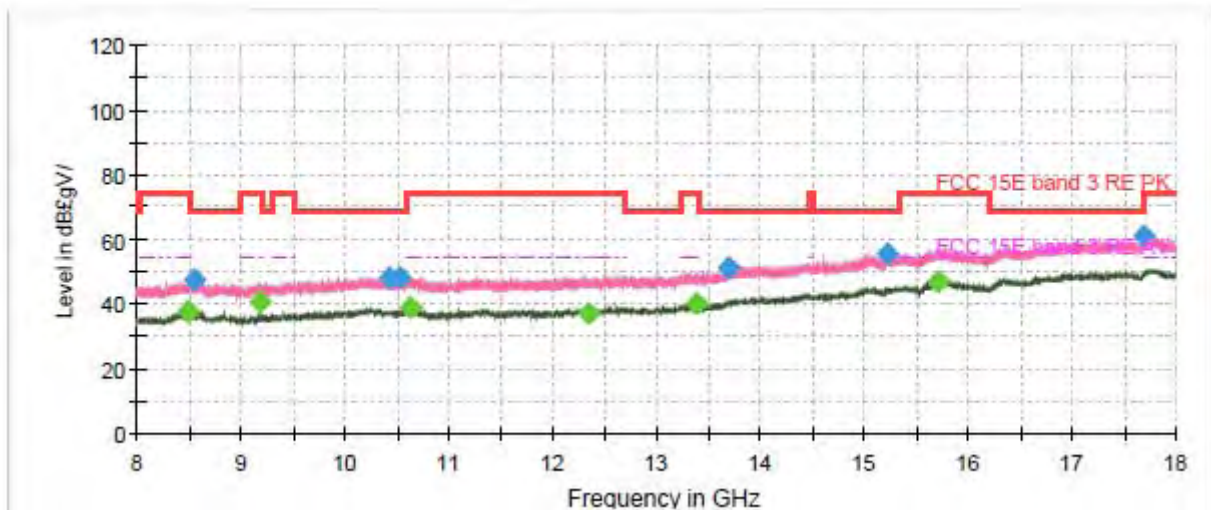
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1045.266667	---	22.33	54.00	31.67	100.0	H	344.0	-18.2
1197.400000	---	24.43	54.00	29.57	200.0	V	328.0	-17.3
1283.033333	33.65	---	68.20	34.55	100.0	H	216.0	-16.8
1703.033333	---	25.82	54.00	28.18	200.0	H	32.0	-14.5
1985.366667	36.57	---	68.20	31.63	100.0	V	51.0	-12.7
2679.300000	38.32	---	68.20	29.88	200.0	V	55.0	-9.5
2810.433333	---	29.23	54.00	24.77	100.0	V	205.0	-9.0
3481.500000	41.65	---	68.20	26.55	200.0	H	246.0	-6.3
3941.400000	---	32.57	54.00	21.43	200.0	V	271.0	-4.3
4482.500000	42.15	---	68.20	26.05	100.0	H	13.0	-3.6
6916.633333	44.32	---	68.20	23.88	200.0	V	166.0	0.7
7411.766667	---	35.99	54.00	18.01	200.0	H	181.0	1.5

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT20) CH149



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



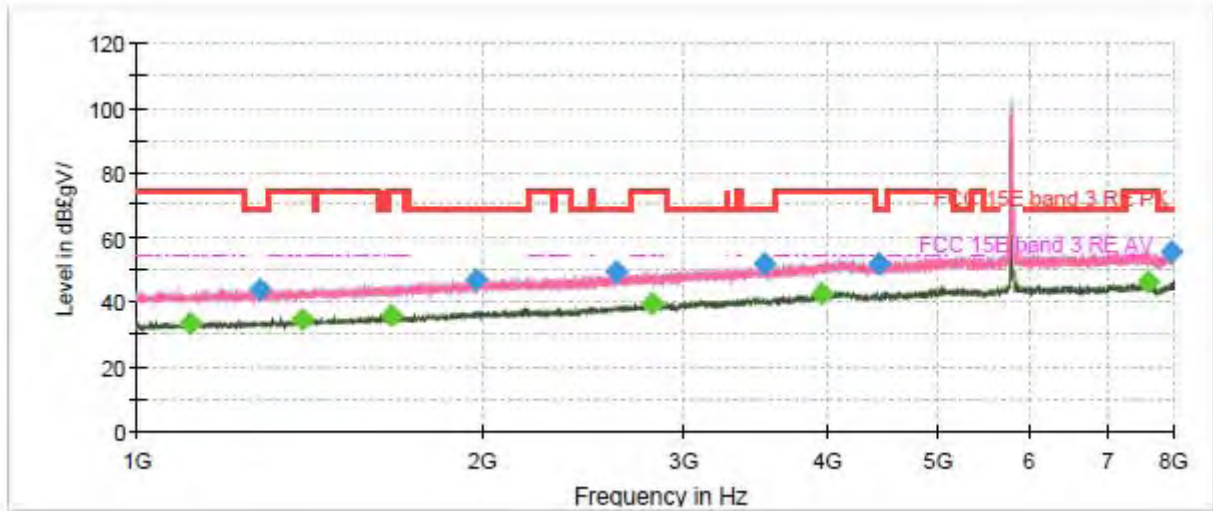
Radiates Emission from 8GHz to 18GHz



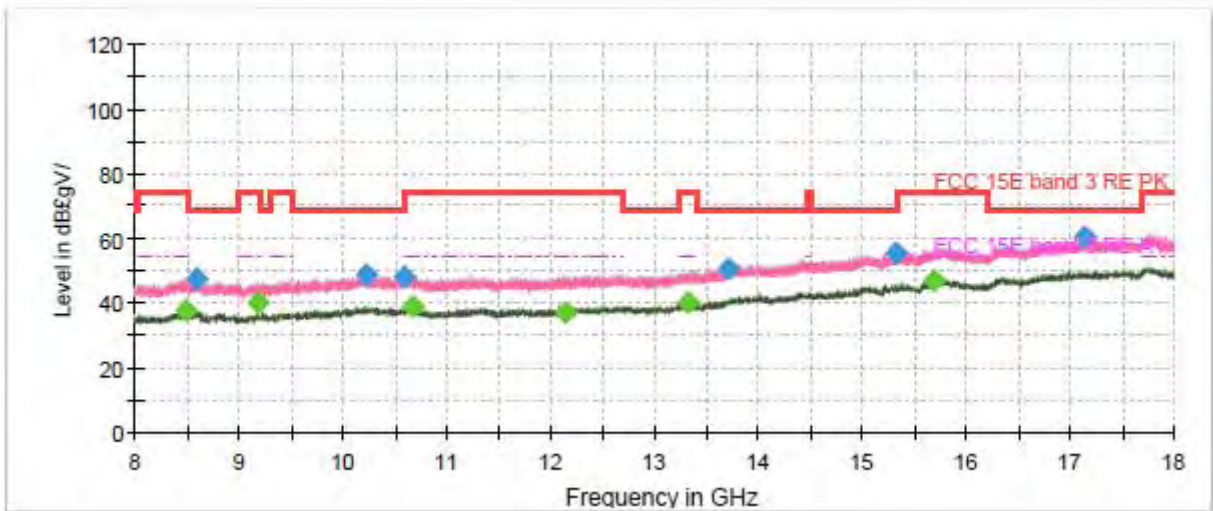
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1102.666667	---	32.82	54.00	21.18	200.0	V	0.0	-7.8
1249.433333	43.61	---	68.20	24.59	200.0	V	91.0	-7.0
1358.166667	---	34.61	54.00	19.39	200.0	V	271.0	-6.4
1700.233333	---	35.83	54.00	18.17	200.0	V	38.0	-4.5
1969.733333	46.68	---	68.20	21.52	200.0	H	294.0	-2.8
2544.433333	48.65	---	68.20	19.55	100.0	H	90.0	-0.3
2751.633333	---	39.81	54.00	14.19	200.0	V	0.0	0.8
3555.700000	51.68	---	68.20	16.52	200.0	V	82.0	3.9
3926.933333	---	42.67	54.00	11.33	200.0	V	56.0	5.6
4447.266667	51.95	---	68.20	16.25	100.0	H	90.0	6.3
7551.066667	---	45.56	54.00	8.44	200.0	H	142.0	11.5
7990.900000	55.40	---	68.20	12.80	100.0	V	206.0	11.9

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT20) CH157



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



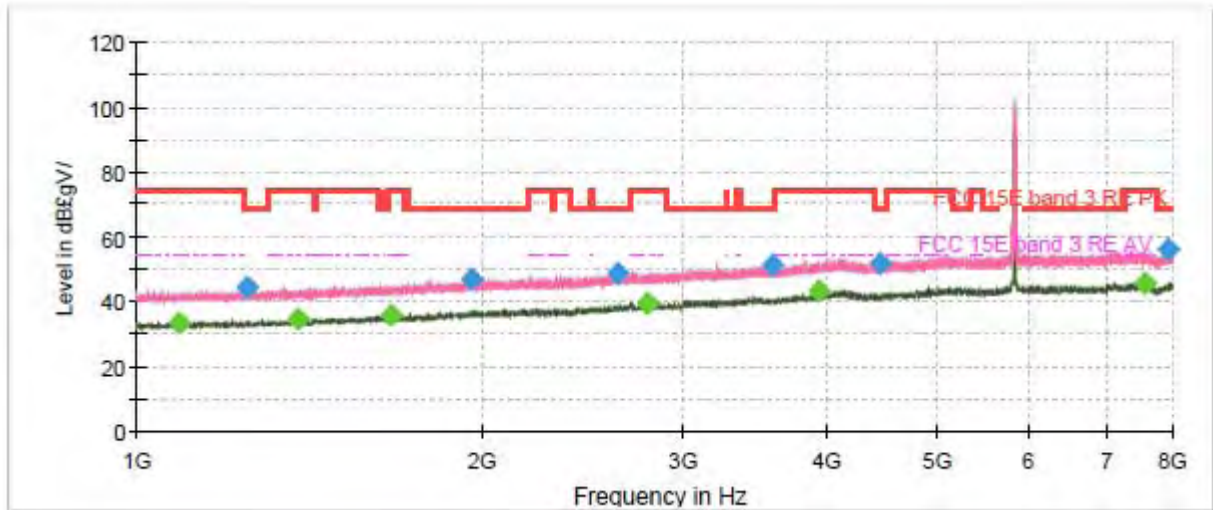
Radiates Emission from 8GHz to 18GHz



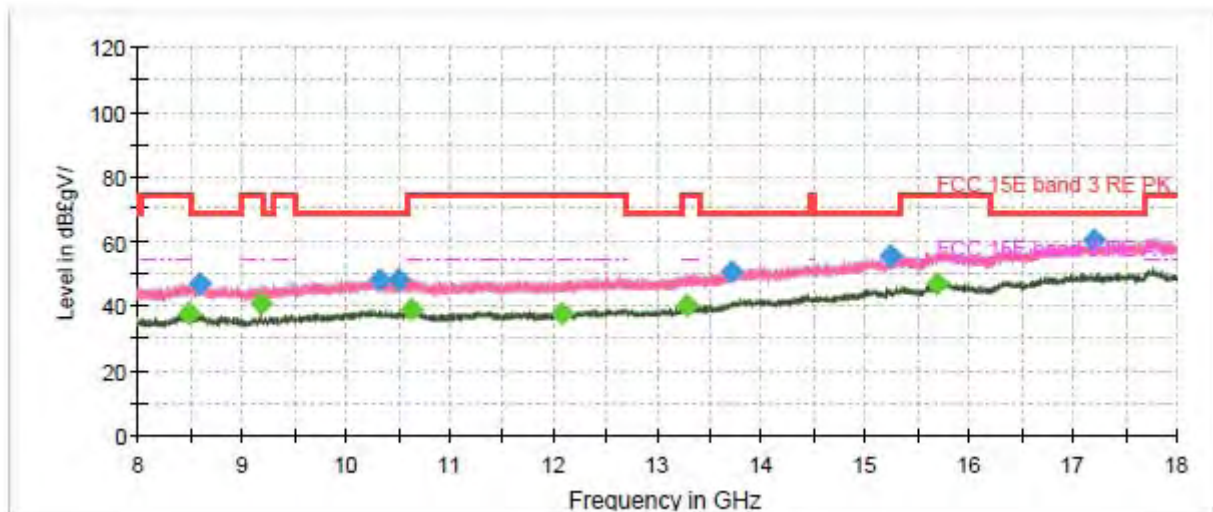
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1114.100000	---	33.39	54.00	20.61	200.0	H	0.0	-7.7
1279.066667	43.89	---	68.20	24.31	200.0	H	1.0	-6.8
1392.233333	---	34.67	54.00	19.33	100.0	V	315.0	-6.2
1666.400000	---	35.40	54.00	18.60	100.0	H	164.0	-4.7
1977.433333	46.64	---	68.20	21.56	100.0	V	8.0	-2.8
2610.933333	49.17	---	68.20	19.03	100.0	V	61.0	0.1
2810.433333	---	39.23	54.00	14.77	100.0	H	58.0	1.0
3515.800000	51.82	---	68.20	16.38	200.0	H	226.0	3.8
3955.400000	---	42.69	54.00	11.31	200.0	H	172.0	5.8
4427.666667	51.65	---	68.20	16.55	100.0	V	244.0	6.3
7603.566667	---	45.87	54.00	8.13	100.0	H	12.0	11.4
7963.600000	55.52	---	68.20	12.68	100.0	H	235.0	11.8

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT20) CH165



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



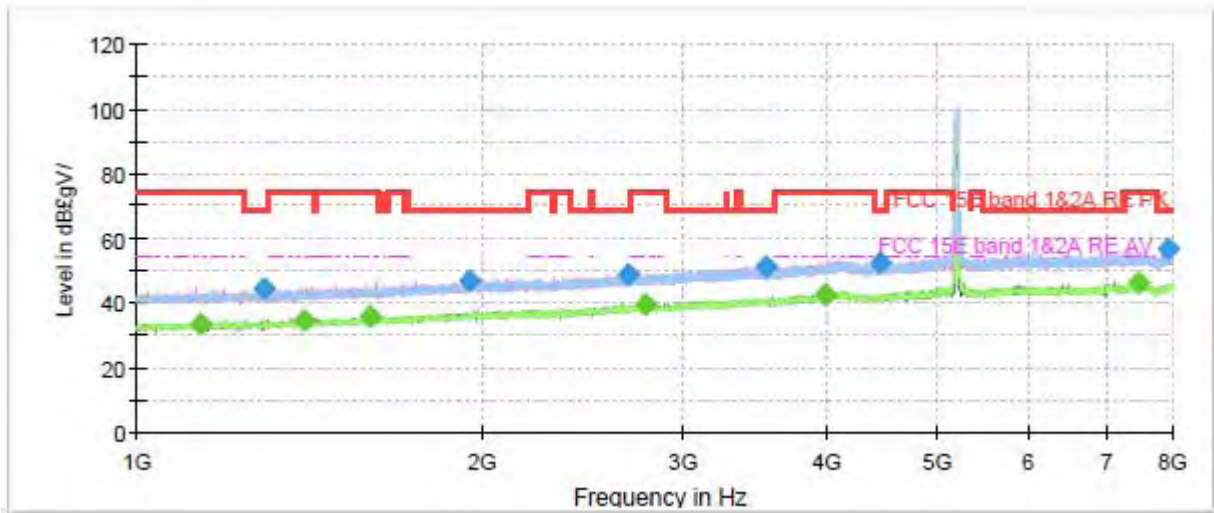
Radiates Emission from 8GHz to 18GHz



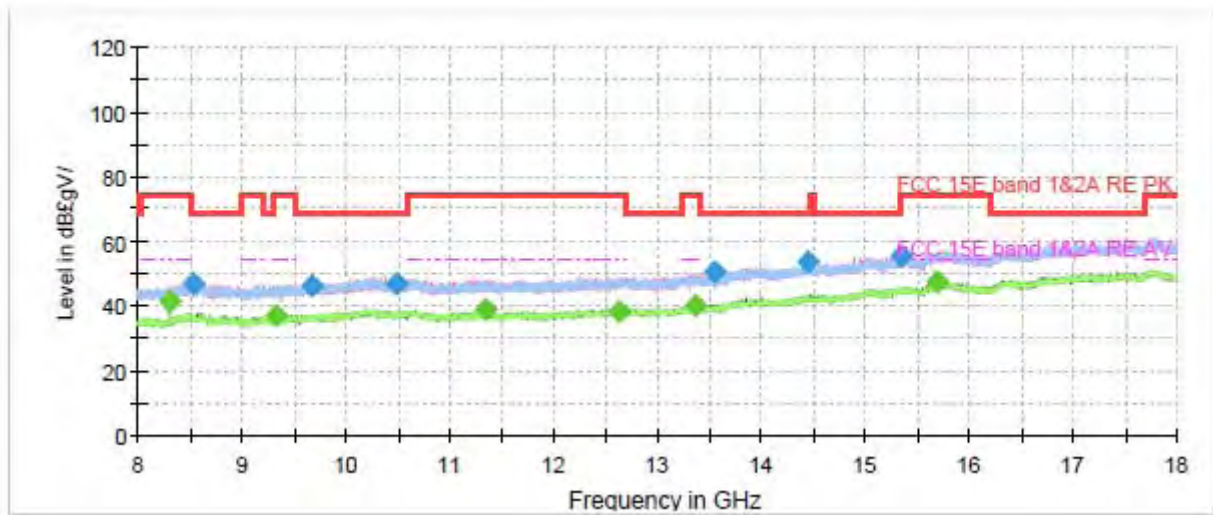
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1087.266667	---	33.44	54.00	20.56	100.0	H	15.0	-7.9
1247.800000	44.02	---	68.20	24.18	100.0	H	200.0	-7.0
1383.833333	---	34.41	54.00	19.59	100.0	V	0.0	-6.3
1666.166667	---	35.47	54.00	18.53	100.0	V	357.0	-4.7
1961.333333	46.87	---	68.20	21.33	100.0	V	296.0	-2.9
2623.533333	48.49	---	68.20	19.71	100.0	H	0.0	0.2
2787.100000	---	39.14	54.00	14.86	100.0	V	260.0	0.9
3577.400000	51.07	---	68.20	17.13	200.0	H	331.0	4.0
3928.333333	---	42.82	54.00	11.18	200.0	V	75.0	5.7
4446.800000	51.95	---	68.20	16.25	100.0	V	242.0	6.3
7558.533333	---	45.79	54.00	8.21	100.0	V	150.0	11.5
7947.033333	56.06	---	68.20	12.14	100.0	H	128.0	11.8

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT40) CH38



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



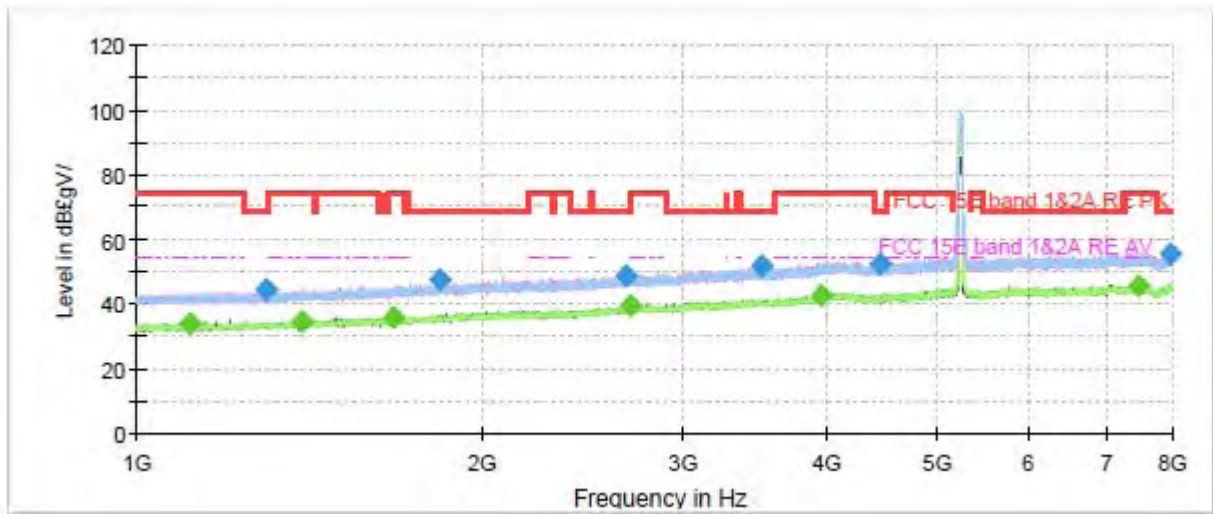
Radiates Emission from 8GHz to 18GHz



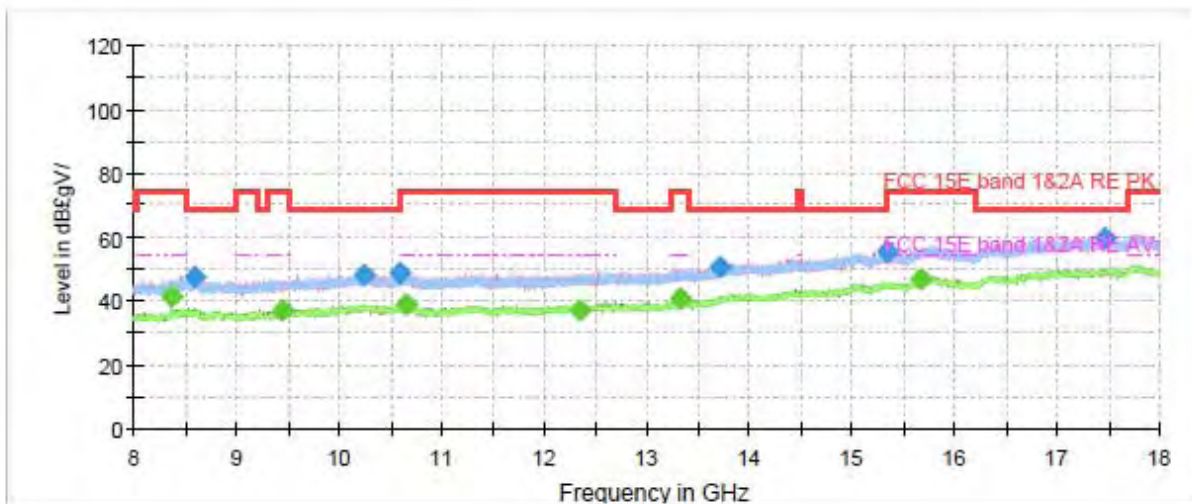
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1138.366667	---	33.41	54.00	20.59	200.0	V	351.0	-7.6
1289.800000	44.02	---	68.20	24.18	100.0	V	27.0	-6.8
1396.666667	---	34.50	54.00	19.50	100.0	V	128.0	-6.2
1598.966667	---	35.75	54.00	18.25	200.0	V	127.0	-5.0
1948.033333	46.57	---	68.20	21.63	200.0	V	278.0	-3.0
2683.266667	48.62	---	68.20	19.58	100.0	V	186.0	0.5
2773.800000	---	39.29	54.00	14.71	100.0	V	186.0	0.8
3529.566667	51.07	---	68.20	17.13	200.0	H	70.0	3.8
3984.333333	---	42.52	54.00	11.48	100.0	H	124.0	6.1
4444.233333	52.05	---	68.20	16.15	100.0	V	265.0	6.3
7484.100000	---	45.89	54.00	8.11	200.0	V	68.0	11.5
7947.266667	56.34	---	68.20	11.86	100.0	V	5.0	11.8

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT40) CH46



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



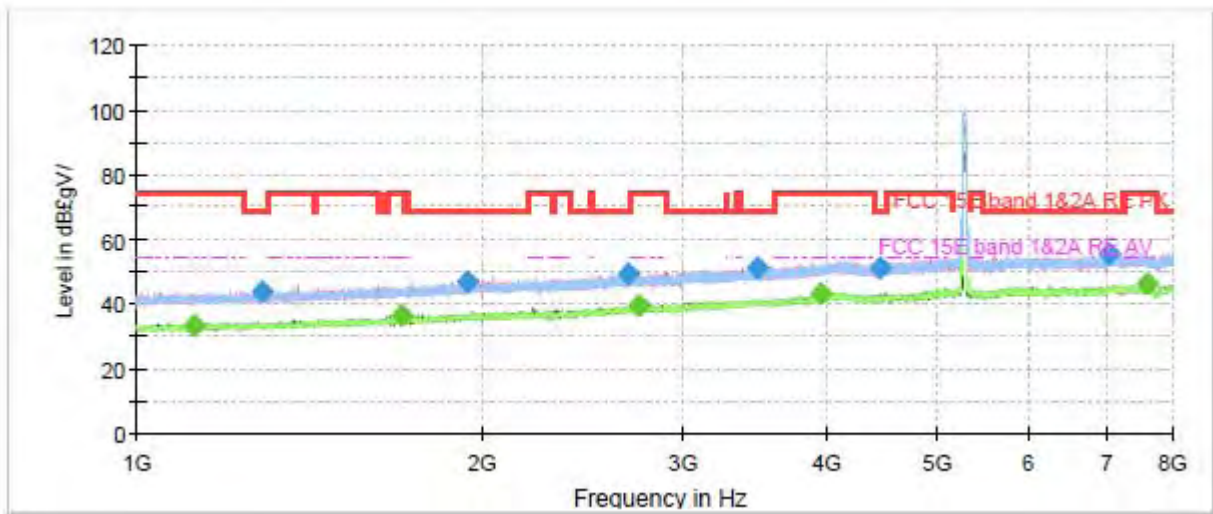
Radiates Emission from 8GHz to 18GHz



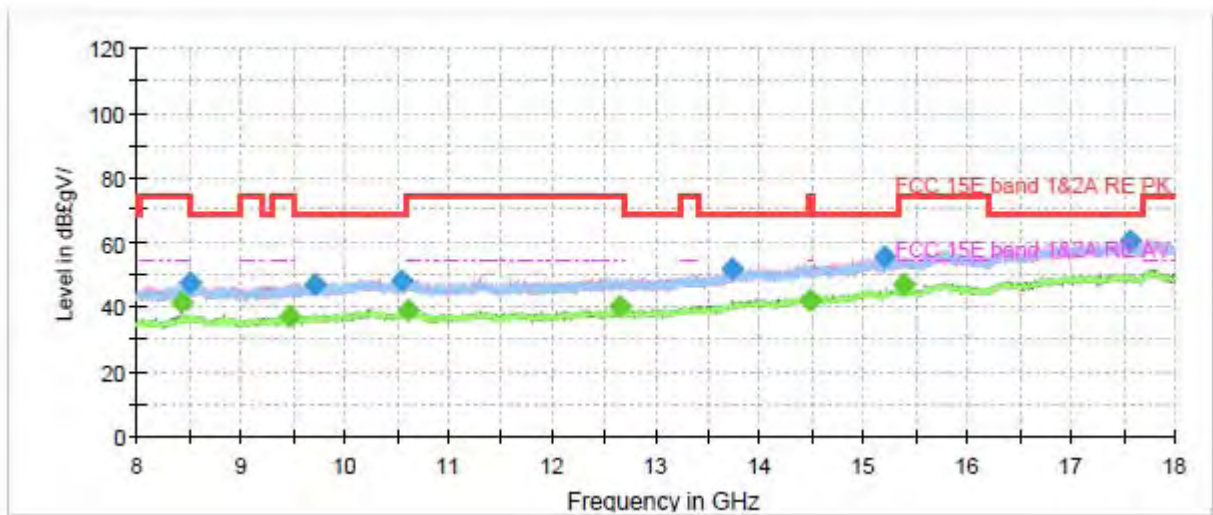
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1114.333333	---	33.54	54.00	20.46	100.0	H	140.0	-7.7
1297.966667	44.38	---	68.20	23.82	200.0	V	252.0	-6.8
1392.233333	---	34.57	54.00	19.43	100.0	V	73.0	-6.2
1674.100000	---	35.83	54.00	18.18	100.0	H	326.0	-4.6
1834.166667	47.28	---	68.20	20.92	200.0	V	294.0	-3.7
2668.800000	48.77	---	68.20	19.43	100.0	H	183.0	0.4
2697.733333	---	39.47	54.00	14.53	100.0	H	20.0	0.5
3499.233333	51.57	---	68.20	16.63	100.0	H	212.0	3.7
3947.233333	---	42.59	54.00	11.41	100.0	V	0.0	5.8
4451.466667	52.04	---	68.20	16.16	200.0	H	0.0	6.3
7483.633333	---	45.62	54.00	8.38	200.0	H	0.0	11.5
7951.233333	55.64	---	68.20	12.56	100.0	H	255.0	11.8

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT40) CH54



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



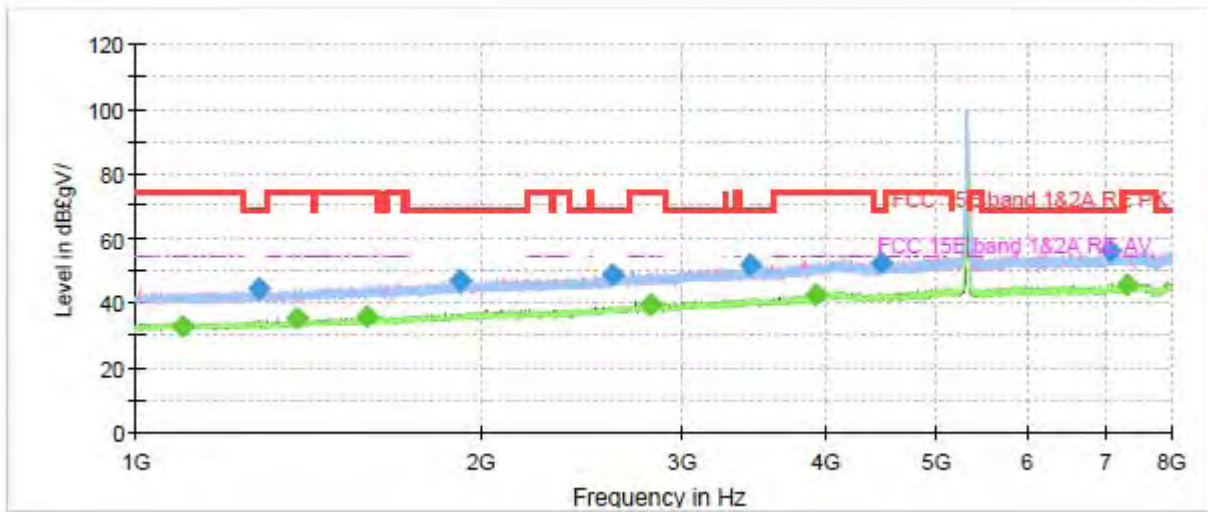
Radiates Emission from 8GHz to 18GHz



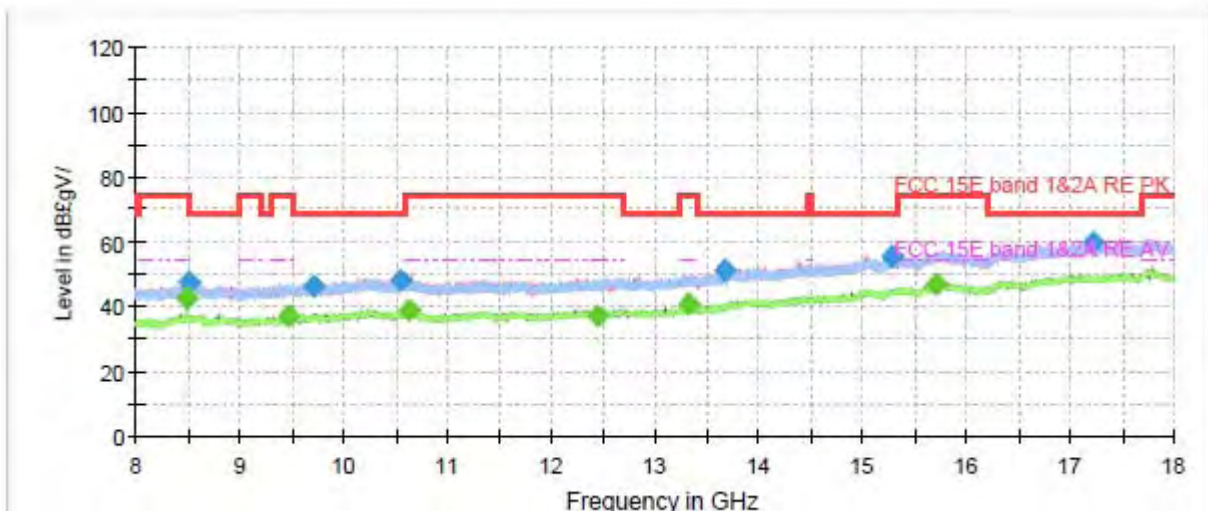
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1120.633333	---	33.30	54.00	20.70	100.0	H	157.0	-7.7
1284.200000	43.81	---	68.20	24.39	100.0	H	274.0	-6.8
1701.633333	---	36.40	54.00	17.60	100.0	H	0.0	-4.5
1939.400000	46.77	---	68.20	21.43	200.0	H	193.0	-3.0
2686.066667	49.29	---	68.20	18.91	100.0	V	104.0	0.5
2735.533333	---	39.39	54.00	14.61	200.0	V	255.0	0.7
3476.133333	51.12	---	68.20	17.08	200.0	H	15.0	3.7
3943.500000	---	42.99	54.00	11.01	100.0	V	111.0	5.8
4447.733333	51.30	---	68.20	16.90	100.0	V	12.0	6.3
7052.666667	55.48	---	68.20	12.72	100.0	H	260.0	10.9
7610.100000	---	45.99	54.00	8.01	200.0	H	51.0	11.4
1120.633333	---	33.30	54.00	20.70	100.0	H	157.0	-7.7

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT40) CH62



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



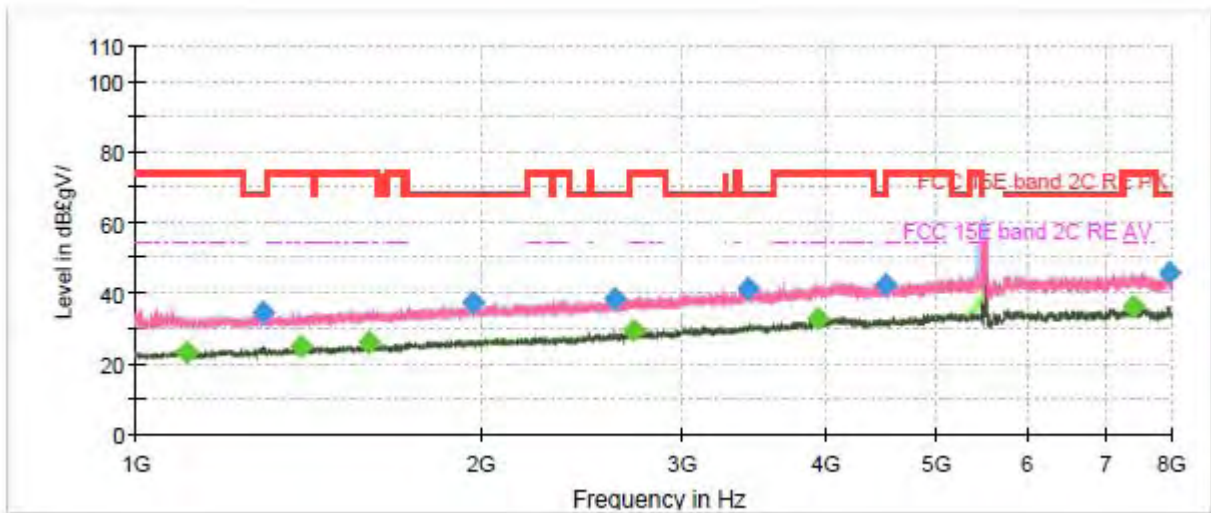
Radiates Emission from 8GHz to 18GHz



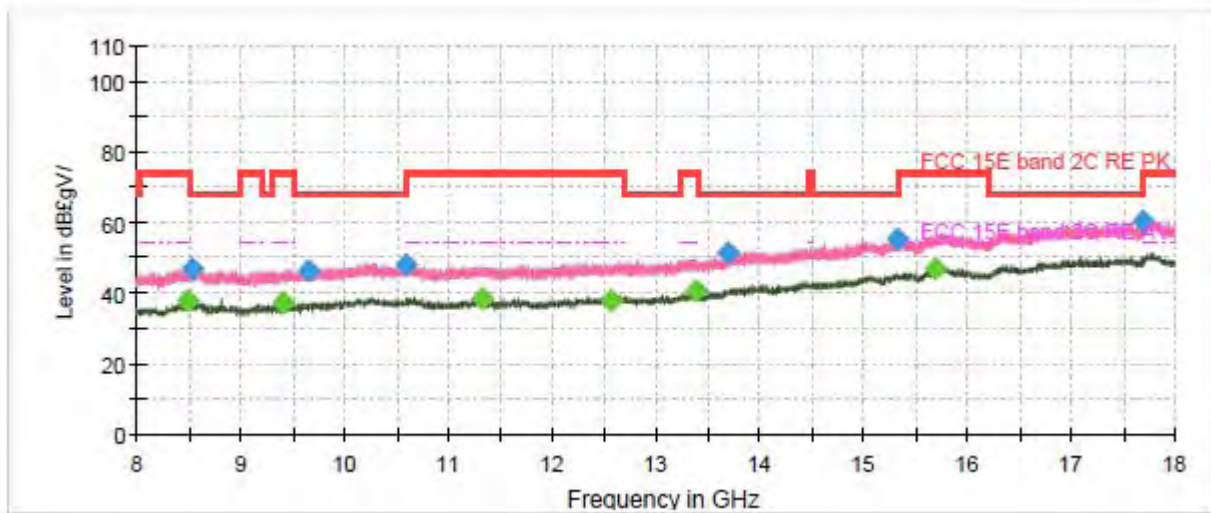
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1096.366667	---	32.58	54.00	21.42	100.0	V	187.0	-7.8
1280.233333	44.04	---	68.20	24.16	200.0	H	48.0	-6.8
1382.666667	---	34.81	54.00	19.19	200.0	V	333.0	-6.3
1587.300000	---	35.72	54.00	18.28	200.0	V	340.0	-5.1
1917.700000	46.56	---	68.20	21.64	100.0	V	304.0	-3.2
2605.100000	48.64	---	68.20	19.56	100.0	H	277.0	0.1
2811.366667	---	39.68	54.00	14.32	200.0	H	56.0	1.0
3436.700000	51.81	---	68.20	16.39	200.0	V	305.0	3.5
3917.600000	---	42.64	54.00	11.36	200.0	H	245.0	5.6
4461.500000	52.06	---	68.20	16.14	100.0	V	274.0	6.4
7083.466667	55.74	---	68.20	12.46	100.0	H	110.0	11.0
7321.933333	---	45.80	54.00	8.20	200.0	V	175.0	11.4

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT40) CH102



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



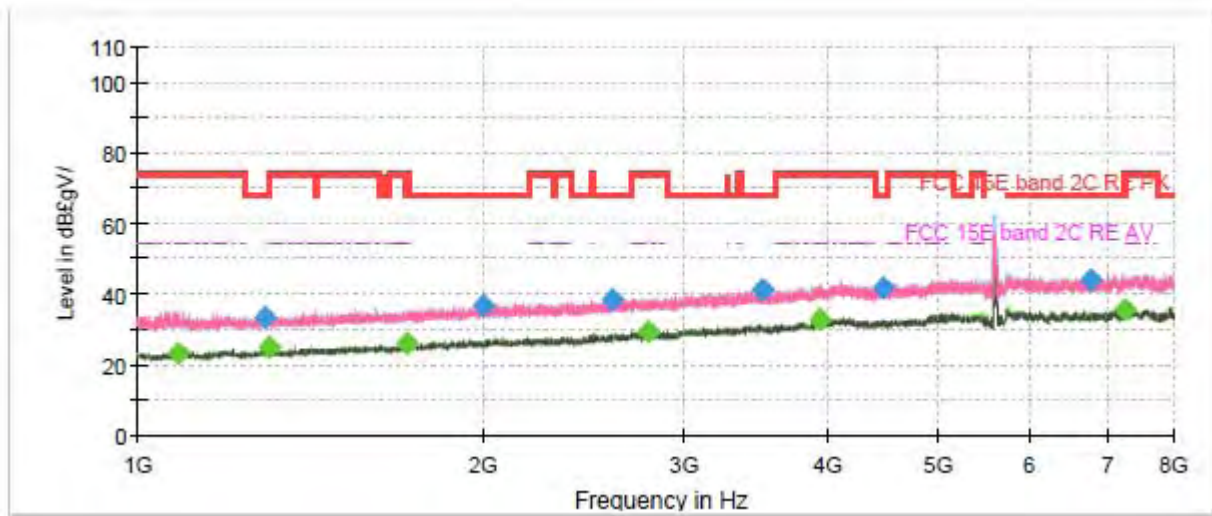
Radiates Emission from 8GHz to 18GHz



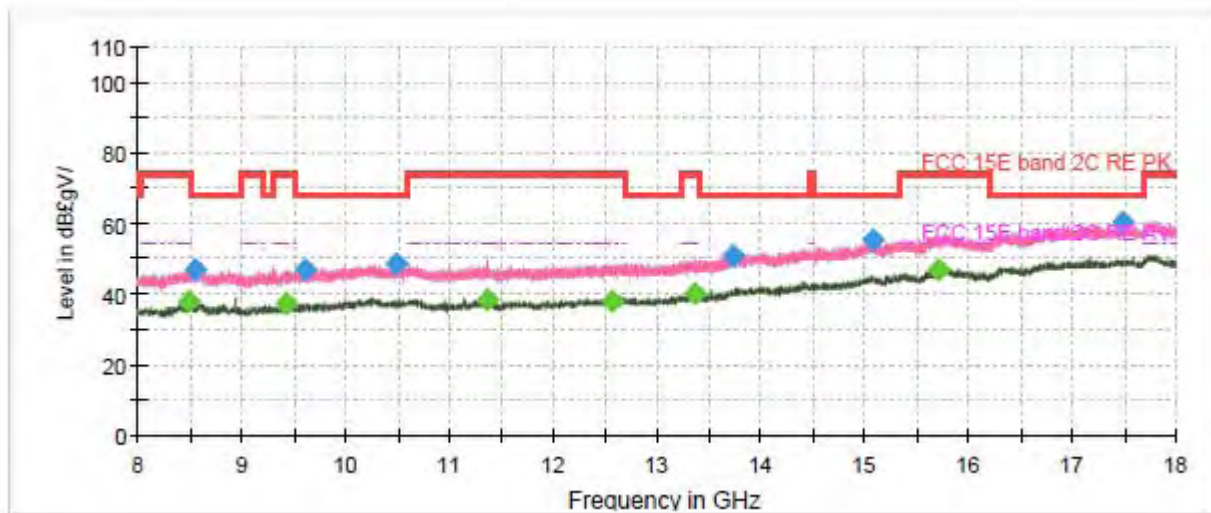
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1109.200000	---	23.08	54.00	30.92	100.0	H	17.0	-17.7
1292.600000	34.55	---	68.20	33.65	100.0	H	34.0	-16.8
1394.333333	---	24.68	54.00	29.32	100.0	V	192.0	-16.2
1599.433333	---	25.90	54.00	28.11	100.0	H	0.0	-15.0
1968.800000	37.27	---	68.20	30.93	200.0	H	354.0	-12.8
2615.833333	38.56	---	68.20	29.64	200.0	V	86.0	-9.9
2718.966667	---	29.42	54.00	24.58	200.0	H	310.0	-9.4
3421.766667	41.23	---	68.20	26.97	100.0	V	343.0	-6.5
3928.333333	---	32.87	54.00	21.13	100.0	H	0.0	-4.3
4513.300000	42.31	---	74.00	31.69	200.0	V	65.0	-3.5
7404.066667	---	35.82	54.00	18.18	100.0	H	17.0	1.5
7950.300000	45.64	---	68.20	22.56	200.0	V	50.0	1.8

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT40) CH118



Radiates Emission from 1GHz to 8GHz



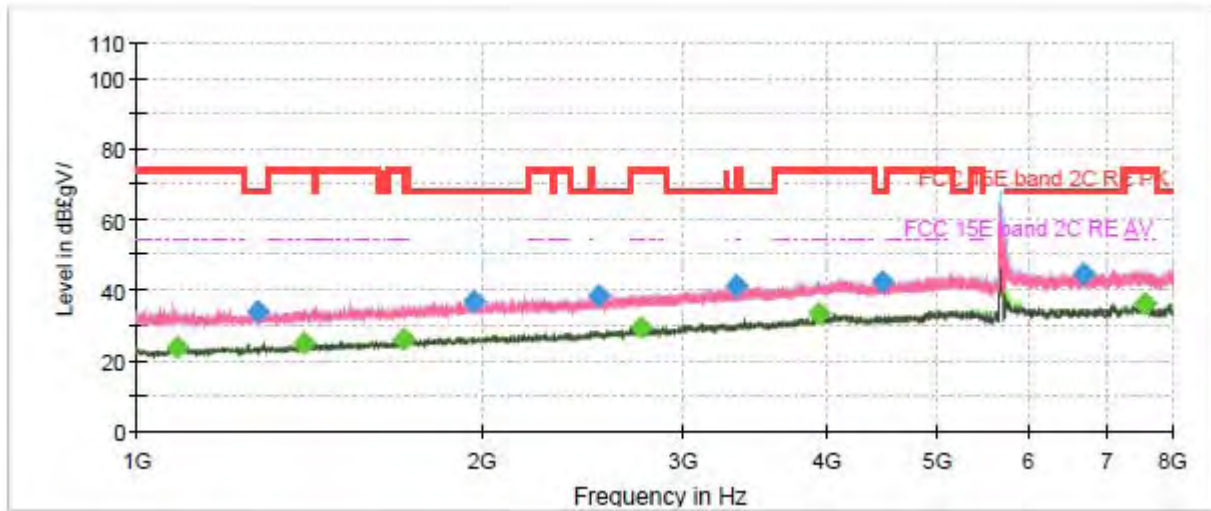
Radiates Emission from 8GHz to 18GHz



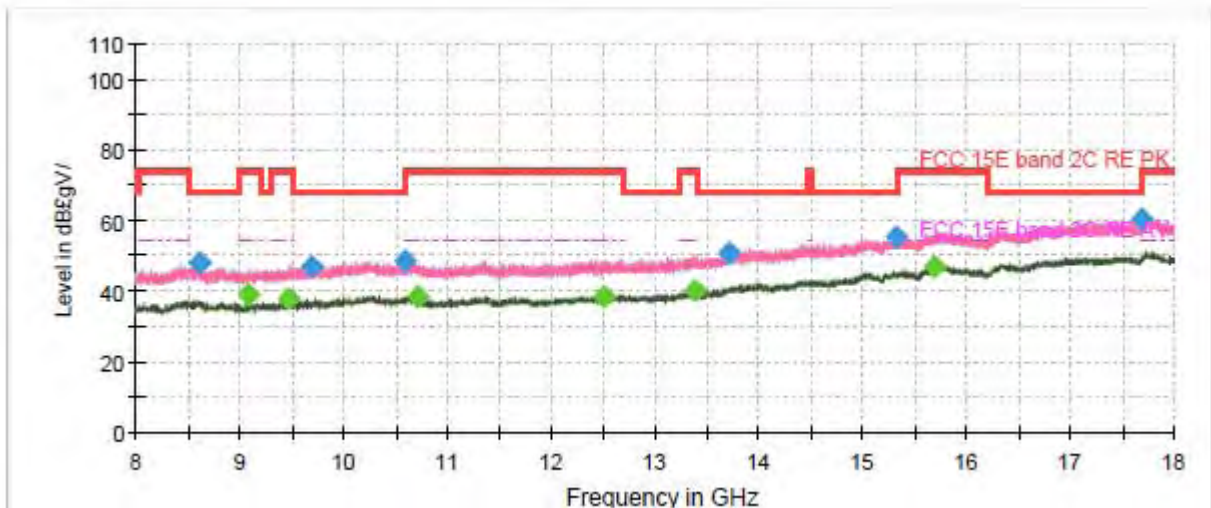
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1086.100000	---	22.85	54.00	31.15	200.0	H	333.0	-17.9
1292.133333	33.47	---	68.20	34.73	100.0	H	129.0	-16.8
1302.166667	---	24.57	54.00	29.43	200.0	H	303.0	-16.7
1719.366667	---	25.87	54.00	28.13	200.0	V	152.0	-14.4
1999.833333	36.81	---	68.20	31.39	100.0	H	65.0	-12.7
2595.766667	38.34	---	68.20	29.86	200.0	H	64.0	-10.0
2781.266667	---	29.45	54.00	24.55	100.0	H	129.0	-9.1
3509.266667	41.21	---	68.20	26.99	200.0	V	274.0	-6.3
3929.500000	---	32.74	54.00	21.26	100.0	H	143.0	-4.3
4464.533333	41.56	---	68.20	26.64	100.0	H	86.0	-3.6
6781.766667	44.20	---	68.20	24.00	100.0	H	214.0	0.5
7264.766667	---	35.79	54.00	18.21	100.0	H	164.0	1.3

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT40) CH134



Radiates Emission from 1GHz to 8GHz



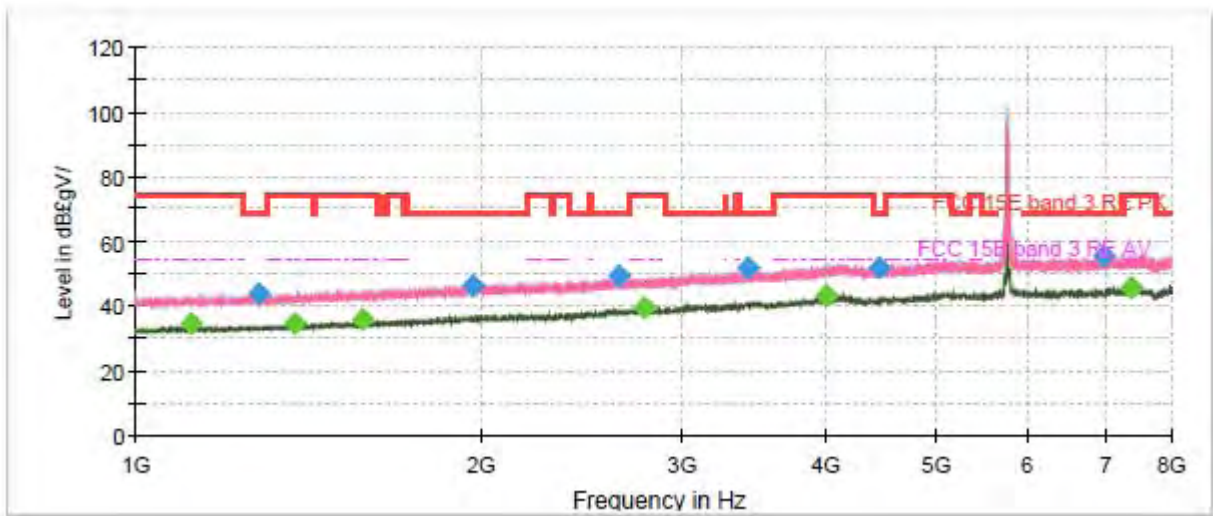
Radiates Emission from 8GHz to 18GHz



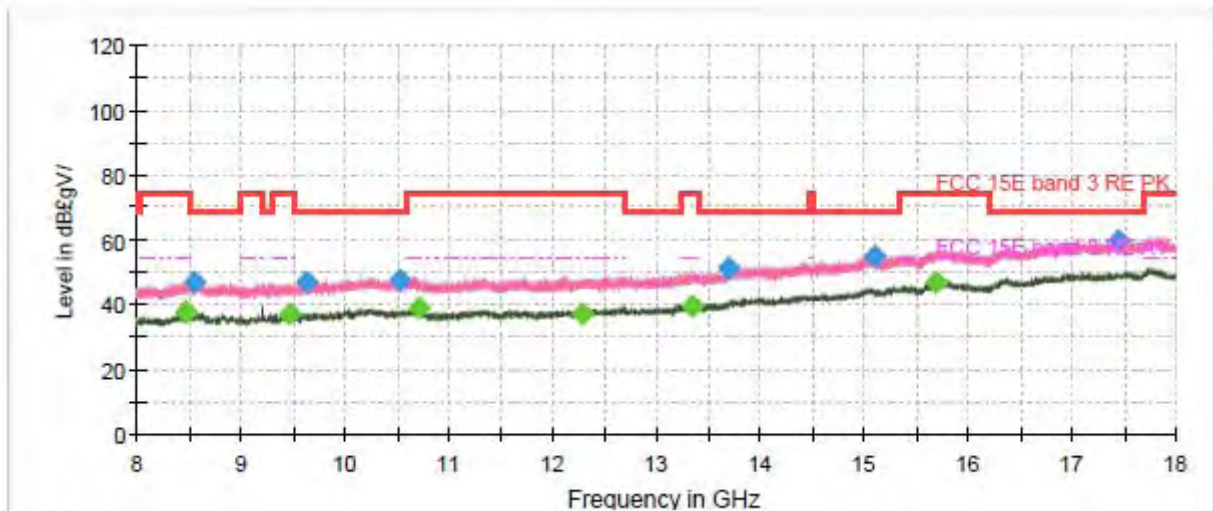
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1082.133333	---	23.89	54.00	30.11	100.0	H	304.0	-17.9
1274.166667	34.00	---	68.20	34.20	100.0	V	87.0	-16.9
1398.533333	---	24.98	54.00	29.02	100.0	H	8.0	-16.2
1708.166667	---	25.88	54.00	28.12	100.0	V	268.0	-14.4
1965.533333	36.79	---	68.20	31.41	100.0	V	196.0	-12.9
2530.666667	38.56	---	68.20	29.64	200.0	V	148.0	-10.4
2753.033333	---	29.31	54.00	24.69	100.0	H	327.0	-9.2
3330.766667	41.36	---	68.20	26.84	100.0	H	25.0	-6.9
3931.833333	---	33.08	54.00	20.92	100.0	H	8.0	-4.3
4459.166667	42.34	---	68.20	25.86	100.0	H	82.0	-3.6
6690.066667	44.55	---	68.20	23.65	100.0	V	13.0	0.4
7568.566667	---	35.89	54.00	18.11	200.0	H	142.0	1.4

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT40) CH151



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



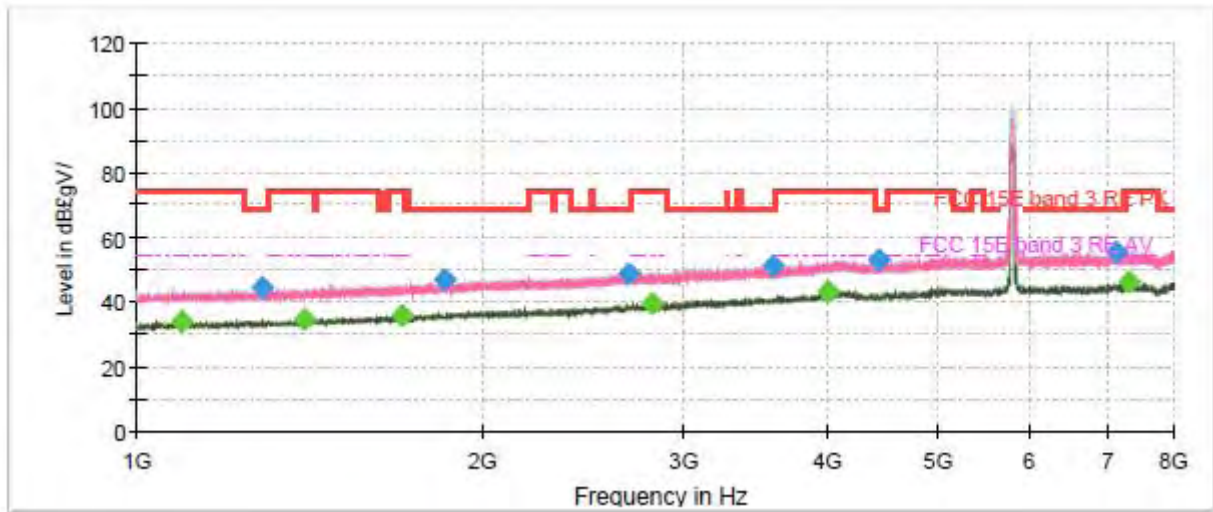
Radiates Emission from 8GHz to 18GHz



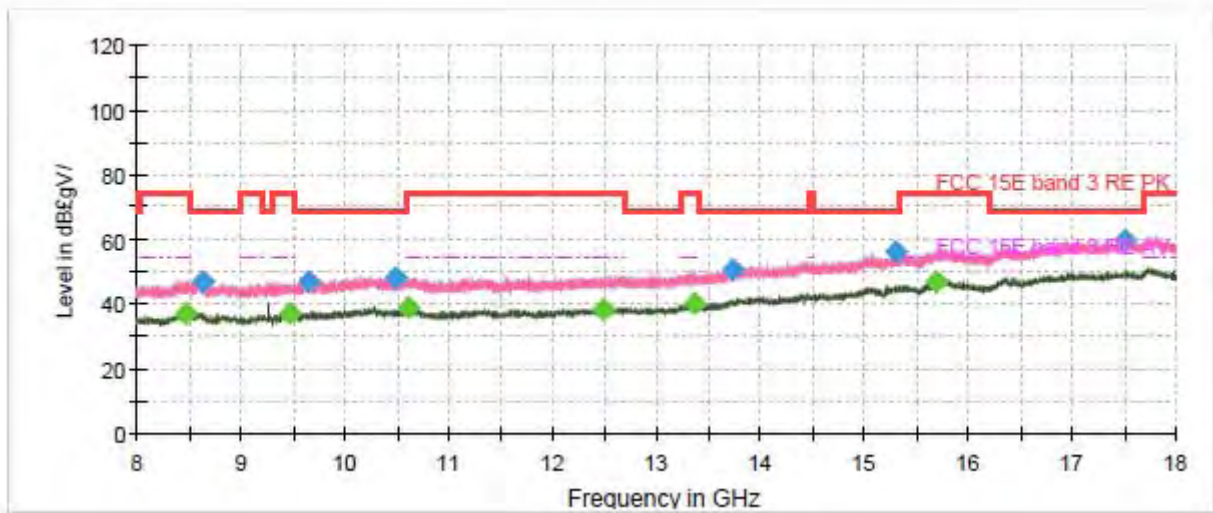
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1115.266667	---	34.28	54.00	19.72	100.0	V	0.0	-7.7
1279.066667	43.58	---	68.20	24.62	100.0	V	127.0	-6.8
1375.433333	---	34.36	54.00	19.64	200.0	V	178.0	-6.3
1573.533333	---	35.46	54.00	18.54	100.0	H	169.0	-5.2
1966.933333	46.33	---	68.20	21.87	100.0	V	305.0	-2.9
2633.333333	49.12	---	68.20	19.08	100.0	H	94.0	0.2
2780.333333	---	39.47	54.00	14.53	200.0	V	116.0	0.9
3419.200000	51.93	---	68.20	16.27	100.0	V	73.0	3.5
3997.166667	---	42.77	54.00	11.23	200.0	V	45.0	6.2
4444.933333	51.97	---	68.20	16.23	200.0	V	151.0	6.3
6974.033333	55.22	---	68.20	12.98	100.0	V	278.0	10.8
7375.366667	---	45.83	54.00	8.17	100.0	H	41.0	11.5

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11n (HT40) CH159



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



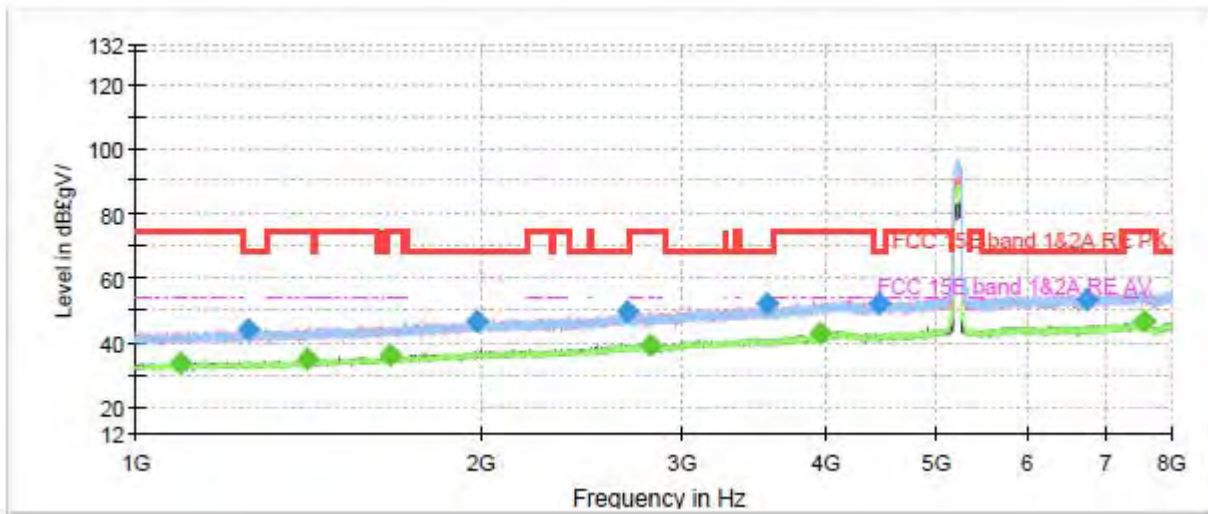
Radiates Emission from 8GHz to 18GHz



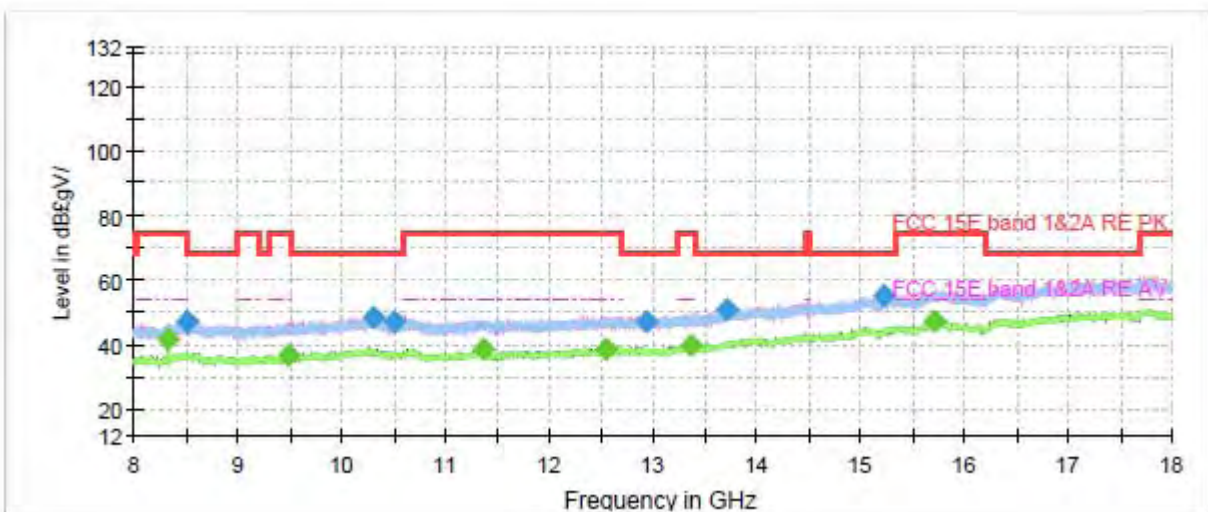
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1094.033333	---	33.95	54.00	20.05	100.0	V	221.0	-7.8
1286.533333	44.43	---	68.20	23.77	200.0	V	243.0	-6.8
1396.900000	---	34.69	54.00	19.31	100.0	V	150.0	-6.2
1698.366667	---	35.65	54.00	18.35	100.0	H	308.0	-4.5
1850.033333	46.65	---	68.20	21.55	200.0	V	233.0	-3.6
2681.166667	48.53	---	68.20	19.67	100.0	V	309.0	0.5
2809.033333	---	39.52	54.00	14.48	100.0	H	254.0	1.0
3575.066667	51.34	---	68.20	16.86	100.0	V	185.0	4.0
3992.266667	---	42.95	54.00	11.05	200.0	V	215.0	6.1
4424.400000	52.74	---	68.20	15.46	100.0	V	265.0	6.3
7118.700000	55.33	---	68.20	12.87	200.0	H	142.0	11.0
7327.766667	---	46.14	54.00	7.86	100.0	V	141.0	11.4

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11ac (VHT80) CH42



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



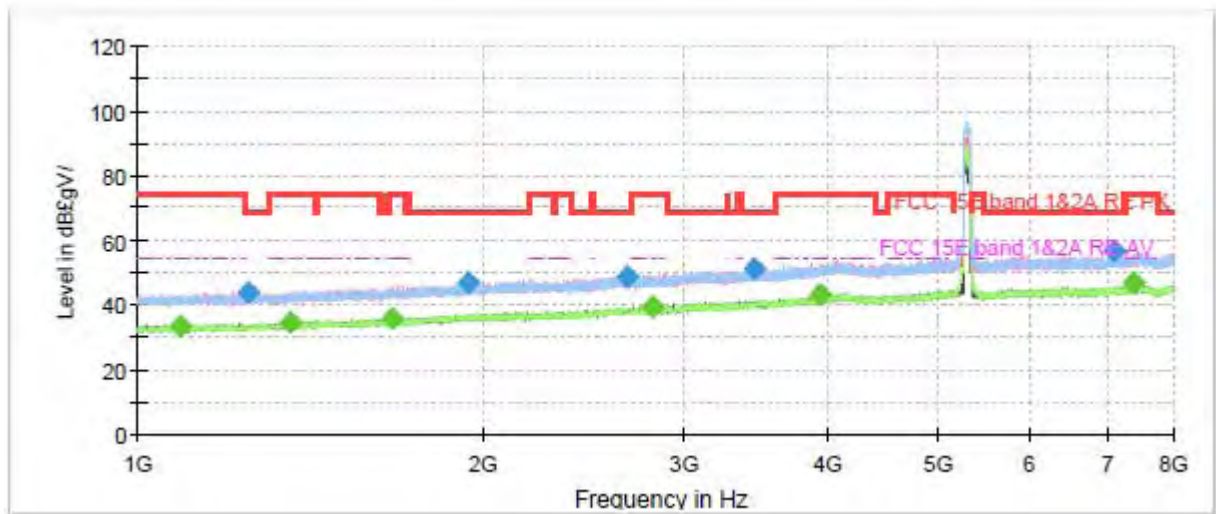
Radiates Emission from 8GHz to 18GHz



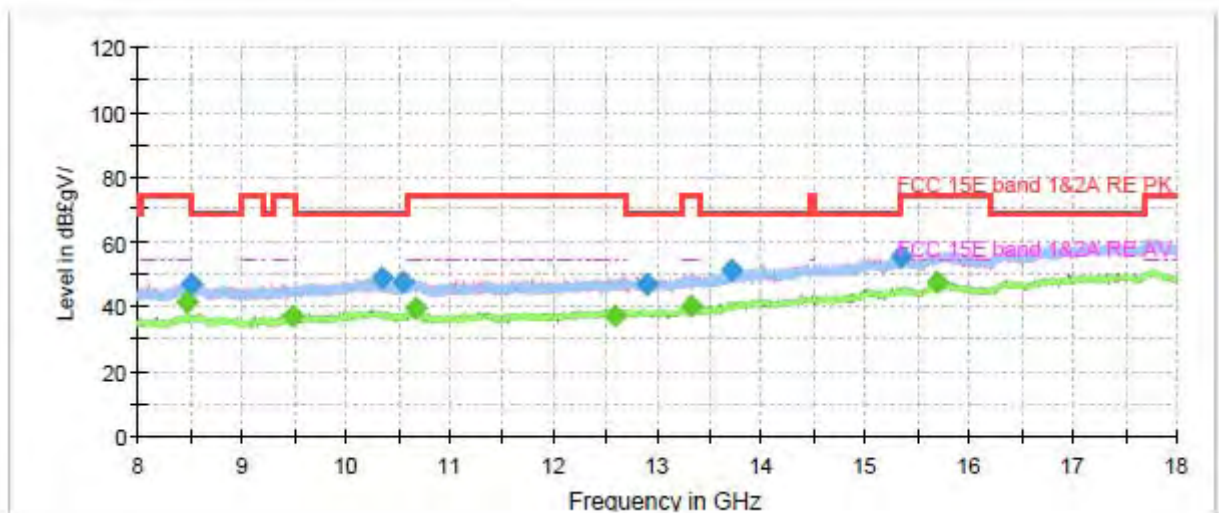
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1091.933333	---	33.23	54.00	20.77	200.0	H	321.0	-7.8
1255.266667	44.15	---	68.20	24.05	100.0	H	331.0	-7.0
1410.666667	---	34.49	54.00	19.51	200.0	H	175.0	-6.1
1668.966667	---	35.79	54.00	18.21	200.0	H	203.0	-4.7
1984.900000	46.49	---	68.20	21.71	100.0	V	262.0	-2.7
2684.200000	49.24	---	68.20	18.96	200.0	H	189.0	0.5
2808.100000	---	39.28	54.00	14.72	100.0	V	284.0	1.0
3545.900000	51.94	---	68.20	16.26	200.0	V	6.0	3.8
3948.633333	---	42.69	54.00	11.31	200.0	V	221.0	5.8
4457.300000	52.13	---	68.20	16.07	100.0	V	277.0	6.4
6752.133333	53.33	---	68.20	14.87	200.0	V	200.0	10.5
7580.700000	---	46.48	54.00	7.52	100.0	V	197.0	11.4

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11ac (VHT80) CH58



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



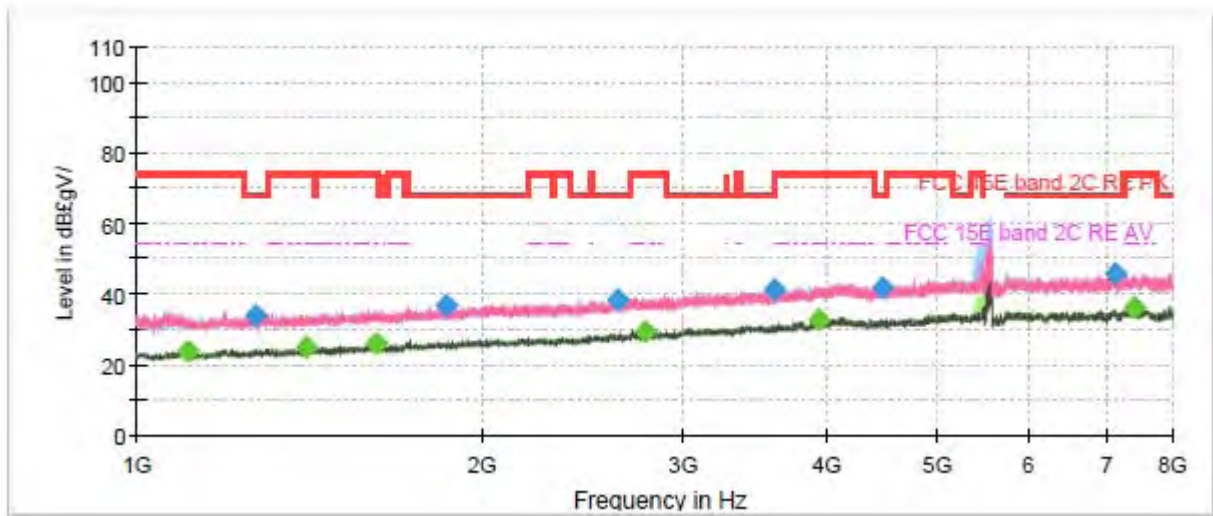
Radiates Emission from 8GHz to 18GHz



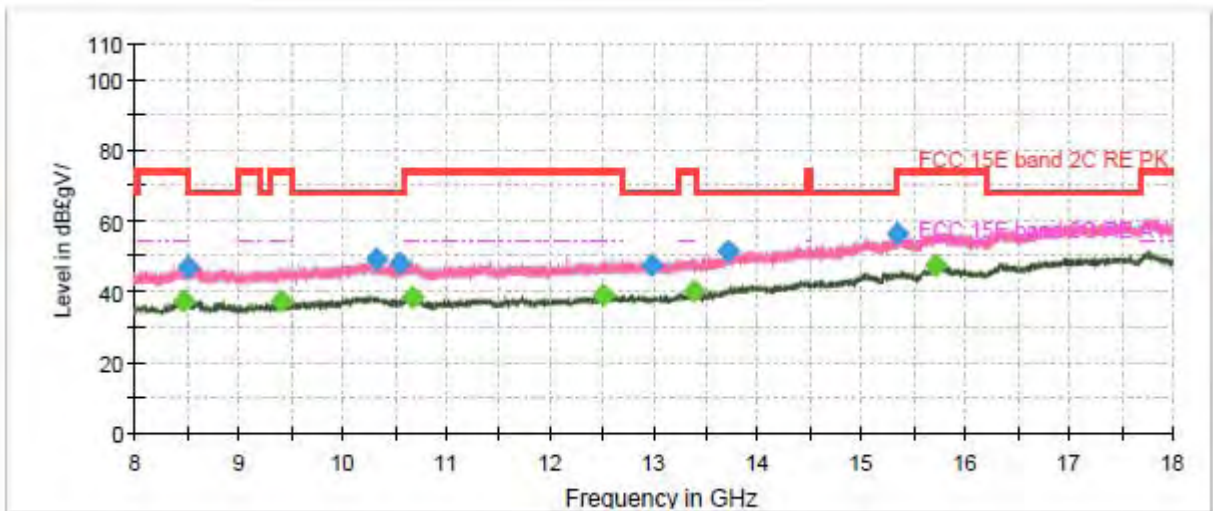
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1087.500000	---	32.95	54.00	21.05	100.0	V	233.0	-7.9
1247.566667	43.66	---	68.20	24.54	200.0	H	254.0	-7.0
1357.000000	---	34.59	54.00	19.41	200.0	H	232.0	-6.5
1663.833333	---	35.55	54.00	18.45	200.0	V	151.0	-4.7
1943.833333	46.74	---	68.20	21.46	200.0	V	35.0	-3.0
2665.300000	48.65	---	68.20	19.55	200.0	V	223.0	0.4
2807.633333	---	39.24	54.00	14.76	100.0	V	283.0	1.0
3442.766667	51.02	---	68.20	17.18	100.0	V	312.0	3.6
3938.133333	---	43.06	54.00	10.94	100.0	V	211.0	5.7
7097.000000	56.46	---	68.20	11.74	100.0	H	13.0	11.0
7377.466667	---	46.59	54.00	7.41	200.0	H	129.0	11.5
1087.500000	---	32.95	54.00	21.05	100.0	V	233.0	-7.9

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11ac (VHT80) CH106



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



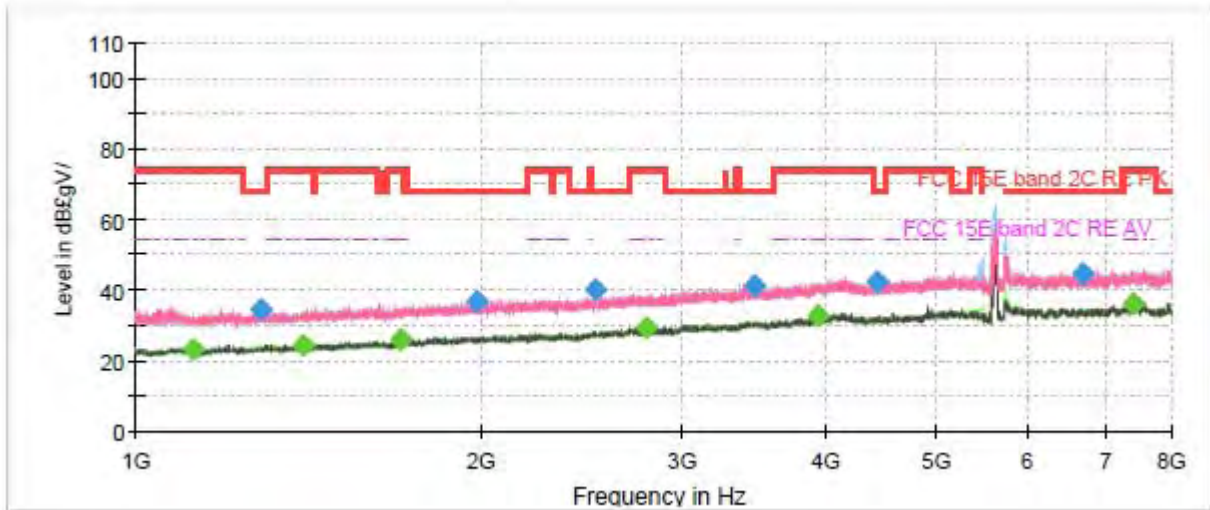
Radiates Emission from 8GHz to 18GHz



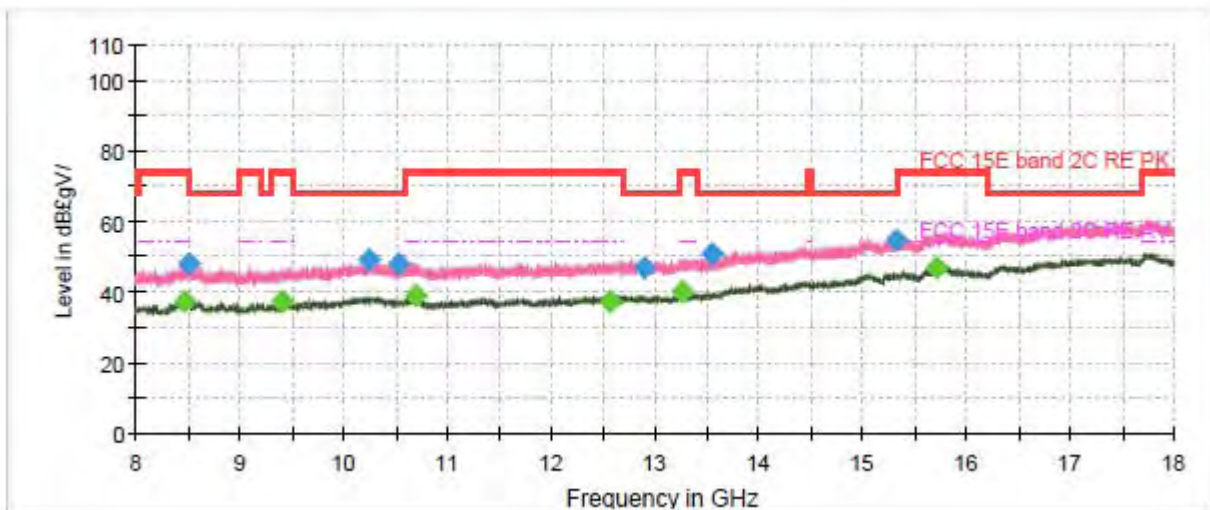
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1108.966667	---	23.48	54.00	30.52	200.0	H	333.0	-17.7
1271.366667	33.90	---	68.20	34.30	200.0	V	166.0	-16.9
1408.100000	---	24.80	54.00	29.20	100.0	H	258.0	-16.1
1616.233333	---	26.13	54.00	27.87	200.0	V	244.0	-15.0
1857.033333	36.90	---	68.20	31.30	200.0	H	305.0	-13.6
2622.133333	38.57	---	68.20	29.63	200.0	V	142.0	-9.8
2776.833333	---	29.27	54.00	24.73	100.0	H	172.0	-9.1
3591.400000	41.01	---	68.20	27.19	200.0	H	0.0	-6.0
3940.466667	---	32.72	54.00	21.28	200.0	H	0.0	-4.3
4473.400000	41.62	---	68.20	26.58	100.0	V	278.0	-3.6
7136.433333	45.78	---	68.20	22.42	200.0	H	196.0	1.1
7401.966667	---	35.92	54.00	18.08	100.0	H	222.0	1.5

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11ac (VHT80) CH122



Radiates Emission from 1GHz to 8GHz



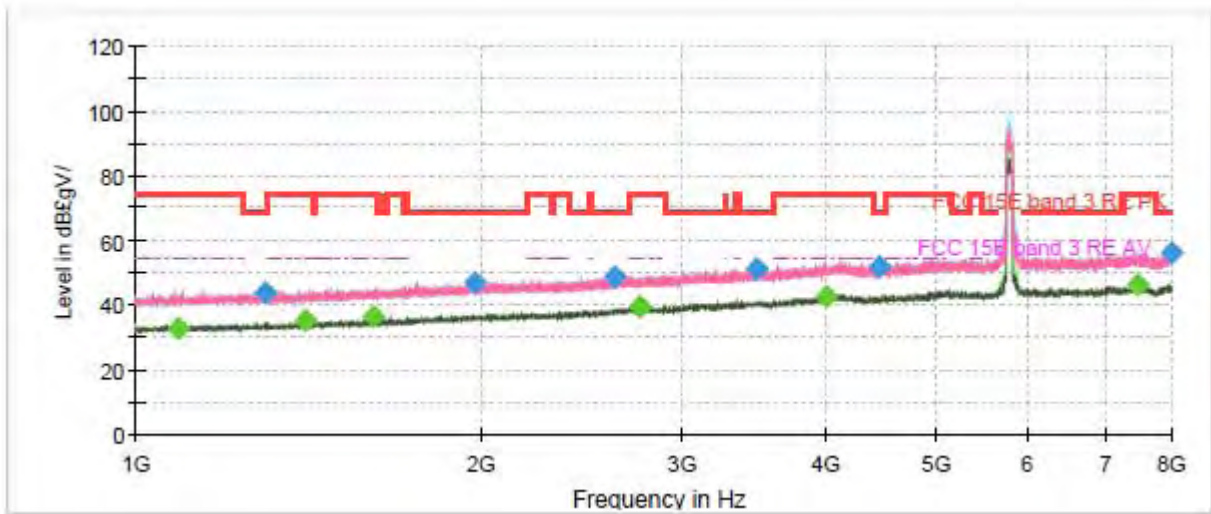
Radiates Emission from 8GHz to 18GHz



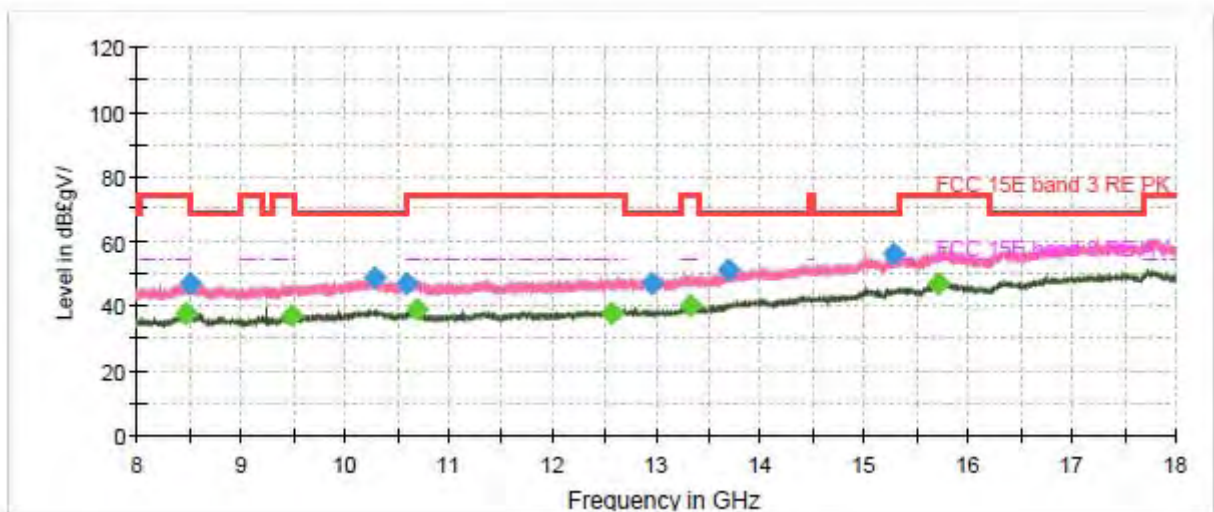
Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1120.633333	---	23.02	54.00	30.98	200.0	H	294.0	-17.7
1282.800000	34.42	---	68.20	33.78	100.0	V	0.0	-16.8
1400.866667	---	24.47	54.00	29.53	200.0	V	266.0	-16.2
1704.433333	---	25.74	54.00	28.26	200.0	H	0.0	-14.5
1983.033333	36.88	---	68.20	31.32	100.0	V	269.0	-12.8
2511.066667	39.90	---	68.20	28.30	200.0	V	0.0	-10.6
2785.233333	---	29.28	54.00	24.72	100.0	H	19.0	-9.1
3457.466667	41.07	---	68.20	27.13	100.0	H	359.0	-6.4
3927.633333	---	32.62	54.00	21.38	100.0	H	0.0	-4.4
4429.066667	42.49	---	68.20	25.71	100.0	H	149.0	-3.7
6705.233333	44.31	---	68.20	23.89	200.0	V	185.0	0.4
7419.700000	---	36.09	54.00	17.91	100.0	V	355.0	1.5

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

802.11ac (VHT80) CH155



Note: The signal beyond the limit is carrier.
Radiates Emission from 1GHz to 8GHz



Radiates Emission from 8GHz to 18GHz

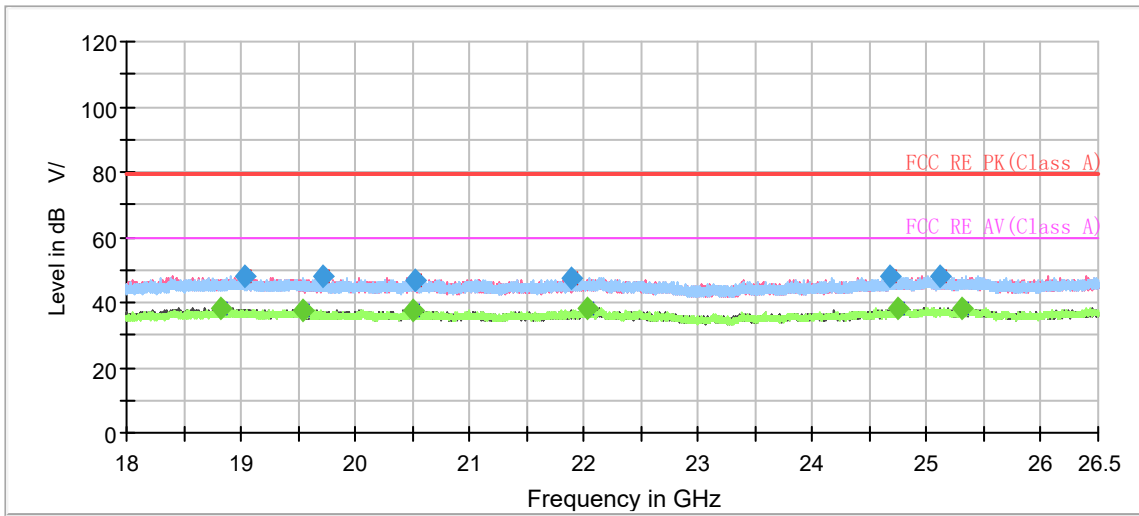


Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)
1089.833333	---	32.91	54.00	21.09	200.0	H	259.0	-7.8
1298.200000	43.80	---	68.20	24.40	200.0	V	330.0	-6.8
1407.400000	---	35.08	54.00	18.92	200.0	V	70.0	-6.1
1607.366667	---	36.37	54.00	17.63	200.0	V	0.0	-5.0
1974.633333	46.74	---	68.20	21.46	100.0	V	0.0	-2.8
2614.200000	48.84	---	68.20	19.36	200.0	H	122.0	0.1
2751.400000	---	39.33	54.00	14.67	100.0	V	9.0	0.8
3481.500000	51.38	---	68.20	16.82	200.0	H	78.0	3.7
3993.666667	---	42.70	54.00	11.30	100.0	H	152.0	6.1
4457.533333	51.96	---	68.20	16.24	200.0	V	206.0	6.4
7488.533333	---	46.06	54.00	7.94	200.0	V	52.0	11.5
7993.933333	55.70	---	68.20	12.50	100.0	H	62.0	11.9

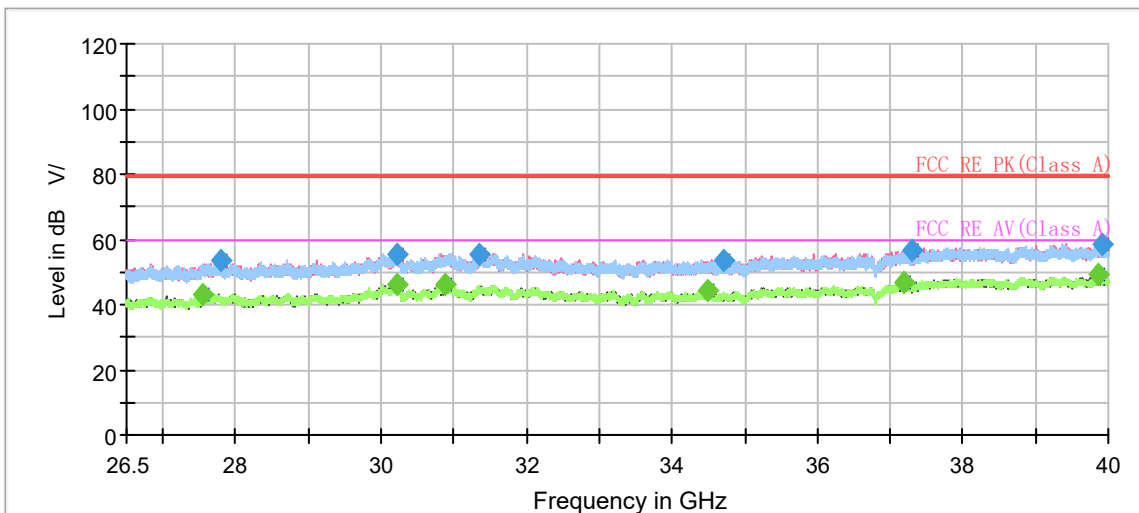
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)



During the test, the Radiates Emission from 18GHz to 40GHz was performed in all modes with all channels, 802.11ac VHT80, Channel 58 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.



Radiates Emission from 18GHz to 26.5GHz



Radiates Emission from 26.5GHz to 40GHz

Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18820.250000	---	38.22	59.50	21.28	100.0	V	0.0	-4.8
19032.183333	48.15	---	79.50	31.35	100.0	V	164.0	-4.7
19534.533333	---	37.79	59.50	21.71	100.0	H	77.0	-4.6
19720.966667	47.94	---	79.50	31.56	200.0	V	349.0	-4.5
20500.133333	---	37.80	59.50	21.70	100.0	V	178.0	-3.5



20515.716667	46.94	---	79.50	32.56	100.0	H	329.0	-3.5
21884.500000	47.67	---	79.50	31.83	100.0	H	230.0	-2.5
22026.166667	---	38.12	59.50	21.38	100.0	H	272.0	-2.3
24670.516667	47.75	---	79.50	31.75	200.0	H	78.0	-0.6
24746.450000	---	38.07	59.50	21.43	100.0	H	127.0	-0.4
25110.250000	48.07	---	79.50	31.43	200.0	V	230.0	-0.1
25301.216667	---	38.30	59.50	21.20	200.0	V	278.0	-0.2

5.6. Conducted Emission

Ambient condition

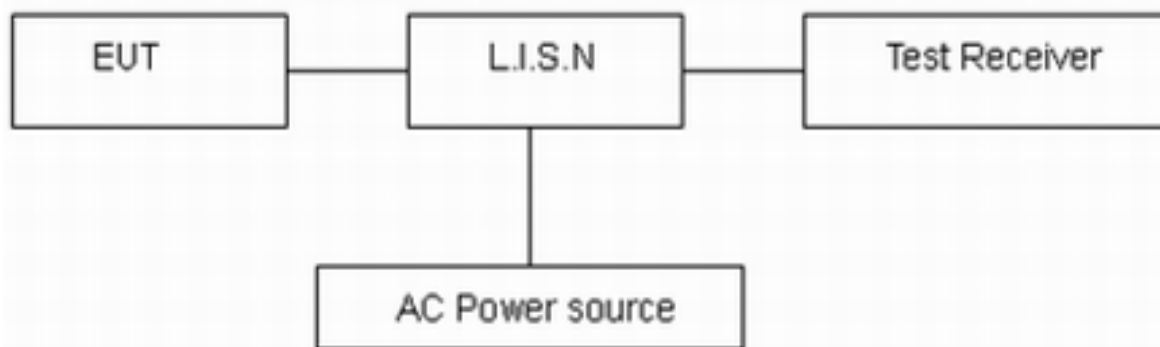
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

The EUT IS placed on a non-metallic table of 80cm height above the horizontal metal reference ground plane. During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.10. Connect the AC power line of the EUT to the LISN Use EMI receiver to detect the average and Quasi-peak value. RBW is set to 9kHz, VBW is set to 30kHz The measurement result should include both L line and N line.

The test is in transmitting mode.

Test Setup



Note: AC Power source is used to change the voltage 110V/60Hz.

Limits

Frequency (MHz)	Conducted Limits(dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56 *	56 to 46 *
0.5 - 5	56	46
5 - 30	60	50

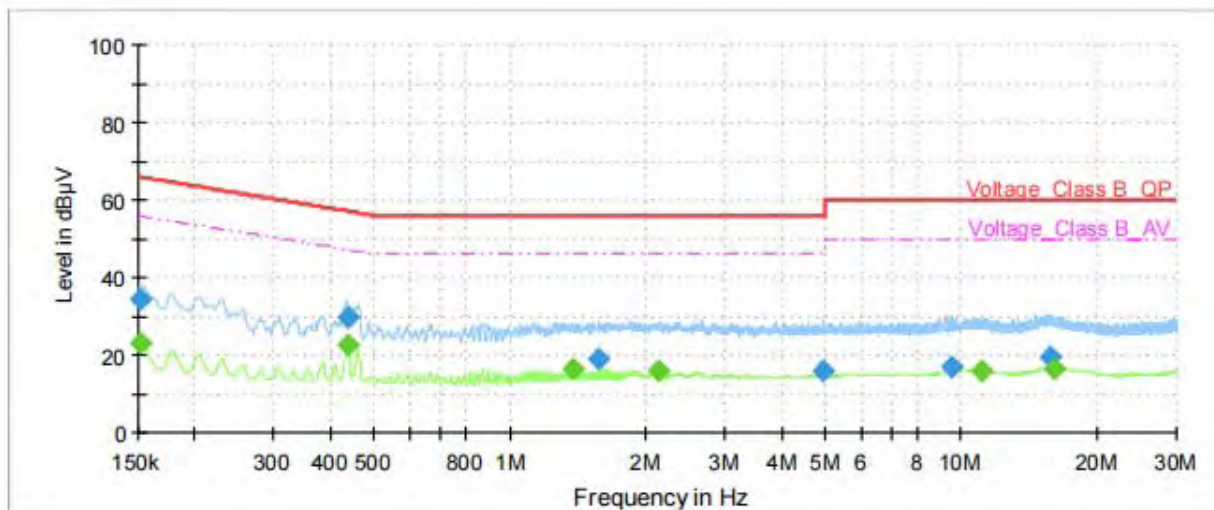
*: Decreases with the logarithm of the frequency.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U = 2.69$ dB.

Test Results:

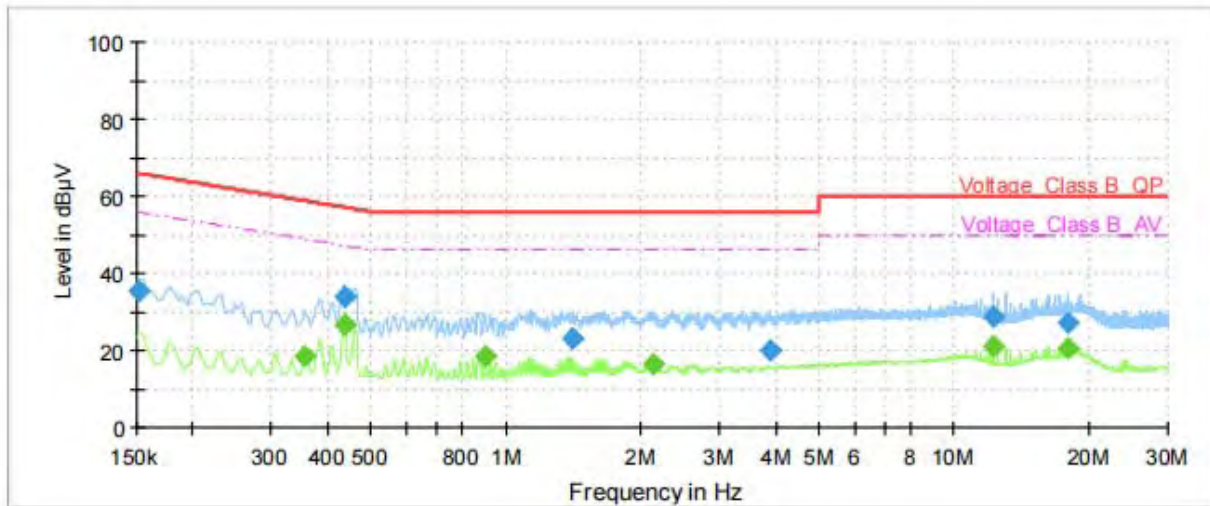
Following plots, Blue trace uses the peak detection and Green trace uses the average detection. During the test, the Conducted Emission was performed in all modes with all channels, 802.11ac VHT80, Channel 58 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.



Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.15	---	23.06	55.88	32.82	70.0	9.000	L1	ON	21
0.15	34.20	---	65.88	31.68	70.0	9.000	L1	ON	21
0.44	---	22.71	47.14	24.43	70.0	9.000	L1	ON	20
0.44	29.61	---	57.14	27.53	70.0	9.000	L1	ON	20
1.38	---	16.35	46.00	29.65	70.0	9.000	L1	ON	20
1.58	18.99	---	56.00	37.01	70.0	9.000	L1	ON	20
2.12	---	15.82	46.00	30.18	70.0	9.000	L1	ON	20
4.96	15.74	---	56.00	40.26	70.0	9.000	L1	ON	19
9.49	16.89	---	60.00	43.11	70.0	9.000	L1	ON	20
11.08	---	16.06	50.00	33.94	70.0	9.000	L1	ON	20
15.75	19.74	---	60.00	40.26	70.0	9.000	L1	ON	20
16.07	---	16.25	50.00	33.75	70.0	9.000	L1	ON	20

Remark: Correct factor=cable loss + LISN factor

L line Conducted Emission from 150 KHz to 30 MHz



Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.15	35.15	---	65.88	30.73	70.0	9.000	N	ON	21
0.36	---	18.32	48.80	30.48	70.0	9.000	N	ON	21
0.44	---	26.66	47.14	20.48	70.0	9.000	N	ON	20
0.44	34.02	---	57.14	23.12	70.0	9.000	N	ON	20
0.90	---	18.36	46.00	27.64	70.0	9.000	N	ON	20
1.41	22.87	---	56.00	33.13	70.0	9.000	N	ON	20
2.13	---	16.40	46.00	29.60	70.0	9.000	N	ON	20
3.89	20.04	---	56.00	35.96	70.0	9.000	N	ON	19
12.26	28.57	---	60.00	31.43	70.0	9.000	N	ON	20
12.26	---	21.02	50.00	28.98	70.0	9.000	N	ON	20
17.98	---	20.69	50.00	29.31	70.0	9.000	N	ON	20
17.98	27.09	---	60.00	32.91	70.0	9.000	N	ON	20

Remark: Correct factor=cable loss + LISN factor

N line Conducted Emission from 150 KHz to 30 MHz



6. Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Spectrum Analyzer	R&S	FSV40	15195-01-00	2021-05-15	2022-05-14
EMI Test Receiver	R&S	ESCI	100948	2021-05-15	2022-05-14
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2020-04-02	2023-04-01
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9163	391	2019-12-16	2022-12-15
Horn Antenna	R&S	HF907	102723	2018-08-11	2021-08-10
Horn Antenna	ETS-Lindgren	3160-09	00102643	2018-06-20	2023-06-19
Standard Gain Horn	STEATITE	QSH-SL-26-40 -K-15	16779	2019-12-24	2022-12-23
EMI Test Receiver	R&S	ESR	101667	2021-05-16	2022-05-15
LISN	R&S	ENV216	101171	2018-12-15	2021-12-14
Spectrum Analyzer	KEYSIGHT	N9020A	MY54420163	2020-12-13	2021-12-12
RF Cable	Agilent	SMA 15cm	0001	2021-06-09	2021-12-08
TEMPERATURE CHAMBER	WEISS	VT4002	582261194500 10	2020-12-13	2021-12-12
WLAN AP	Cisco	Air-AP1262N- A-K9	LDK102073 (FCC ID)	/	/
Power Sensor	R&S	NRP18S	101955	2021-05-15	2022-05-14
DC Power Supply	GWINSTEK	GPS-3030D	GEP882653	2021-05-15	2022-05-14
Software	R&S	EMC32	9.26.0	/	/

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



ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.



ANNEX B: Test Setup Photos

The Test Setup Photos are submitted separately.