



RF TEST REPORT

Applicant	TP-LINK TECHNOLOGIES CO., LTD.
FCC ID	TE7C5MAXV1
Brand	TP-LINK
Product	NEFFOS C5 MAX FDD-LTE SMART PHONE
Model	TP702C
Report No.	RXA1602-0019RF05R1
Issue Date	May 18, 2016

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 15C (2015)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Handwritten signature of Lingling Kang in black ink.

Reviewed by: Lingling Kang

Handwritten signature of Kai Xu in black ink.

Approved by: Kai Xu



TA Technology (Shanghai) Co., Ltd.

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TABLE OF CONTENT

- 1. Test Laboratory 4
 - 1.1. Notes of the test report..... 4
 - 1.2. Test facility 4
 - 1.3. Testing Location..... 5
- 2. General Description of Equipment under Test..... 6
- 3. Applied Standards 7
- 4. Test Configuration 8
- 5. Test Case Results 9
 - 5.1. Peak Power Output –Conducted 9
 - 5.2. 6dB Bandwidth 11
 - 5.3. Band Edge 16
 - 5.4. Power Spectral Density 19
 - 5.5. Spurious RF Conducted Emissions..... 24
 - 5.6. Radiated Emissions in the Restricted Band 32
 - 5.7. Radiates Emission 37
 - 5.8. Conducted Emission 100
- 6. Main Test Instruments 111



Summary of measurement results

Number	Summary of measurements of results	Clause in FCC rules	Verdict
1	Maximum peak conducted output power	15.247(b)(3)	PASS
2	6 dB bandwidth	15.247(a)(2)	PASS
3	Maximum power spectral density	15.247(e)	PASS
4	Band Edge	15.247(d)	PASS
5	Spurious RF Conducted Emissions	15.247(d)	PASS
6	Radiated Emissions in restricted frequency bands	15.247(d),15.205,15.209	PASS
7	Radiated Emissions	15.247(d),15.205,15.209	PASS
8	Conducted Emissions	15.207	PASS
Date of Testing: February 15, 2016~ March 23, 2016			

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. This report must not be used by the client to claim product certification, approval, or endorsement by CNAS or any government agencies.

1.2. Test facility

CNAS (accreditation number:L2264)

TA Technology (Shanghai) Co., Ltd. has obtained the accreditation of China National Accreditation Service for Conformity Assessment (CNAS).

FCC (recognition number is 428261)

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

IC (recognition number is 8510A)

TA Technology (Shanghai) Co., Ltd. has been listed by industry Canada to perform electromagnetic emission measurement.

VCCI (recognition number is C-4595, T-2154, R-4113, G-766)

TA Technology (Shanghai) Co., Ltd. has been listed by industry Japan to perform electromagnetic emission measurement.

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
Contact: Xu Kai
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Fax: +86-021-50791141/2/3-8000
Website: <http://www.ta-shanghai.com>
E-mail: xukai@ta-shanghai.com

2. General Description of Equipment under Test

Client Information

Applicant	TP-LINK TECHNOLOGIES CO., LTD.
Applicant address	Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Manufacturer	TP-LINK TECHNOLOGIES CO., LTD.
Manufacturer address	Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China

General information

Model:	TP702C
IMEI:	SIM 1: 868983020043343 SIM 2: 868983020044358
Hardware Version:	AL1520_MB_PCB_V2.0
Software Version:	H10S100D03B20160128R1004
Power Supply:	Battery/AC adapter
Antenna Type:	Internal Antenna
Test Mode:	Bluetooth(Low Energy) 802.11b 802.11g, 802.11n(HT20), 802.11n(HT40);
Modulation Type:	BLE :GFSK 802.11b: DSSS; 802.11g/n(HT20/ HT40): OFDM
Max. Conducted Power	Wi-Fi 2.4G :18.33dBm BLE : -1.512 dBm
Operating Frequency Range(s)	2400 MHz ~ 2483.5 MHz
EUT Accessory	
Battery	Manufacturer: DongGuan Amperex Technology Co., Ltd Model: NBL-44A3045 Power Rating: DC 3.8V, 3045mAh, Li-ion
<p>Note: The information of the EUT is declared by the manufacturer. Please refer to the specifications or user manual for details.</p>	



3. Applied Standards

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

FCC CFR47 Part 15C (2015) Radio Frequency Devices

ANSI C63.10 (2013)

KDB 558074 D01 DTS Meas Guidance v03r04

4. Test Configuration

Test Mode

The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

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.

Band	Data Rate
Bluetooth(Low Energy)	1 Mbps
802.11b	1 Mbps
802.11g	54 Mbps
802.11n HT20	MCS 7
802.11n HT40	MCS 0

5. Test Case Results

5.1. Peak Power Output –Conducted

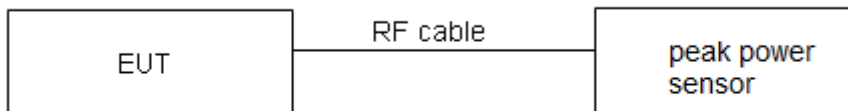
Ambient condition

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 peak power sensor with a known loss. The EUT is max power transmission with proper modulation. We use Maximum Peak Conducted Output Power Level Method in KDB 558074 D01 for this test.

Test Setup



Limits

Rule Part 15.247 (b) (3) specifies that " For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz: 1 Watt."

Peak Output Power	$\leq 1W$ (30dBm)
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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**

Network Standards	Carrier frequency (MHz)	Peak Output Power (dBm)	Limit (dBm)	Conclusion
802.11b	2412	18.33	30	PASS
	2437	16.96	30	PASS
	2462	17.66	30	PASS
802.11g	2412	15.34	30	PASS
	2437	17.54	30	PASS
	2462	17.36	30	PASS
802.11n HT20	2412	15.41	30	PASS
	2437	17.22	30	PASS
	2462	17.43	30	PASS
802.11n HT40	2422	15.95	30	PASS
	2437	17.18	30	PASS
	2452	18.01	30	PASS
Bluetooth (Low Energy)	2402	-5.381	30	PASS
	2440	-1.512	30	PASS
	2480	-2.488	30	PASS

5.2. 6dB Bandwidth

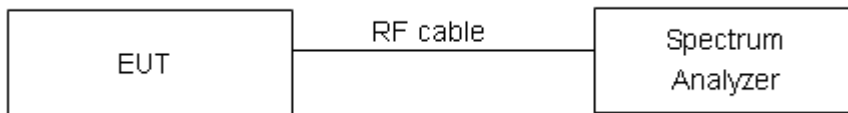
Ambient condition

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. RBW is set to 100 kHz; VBW is set to 300 kHz on spectrum analyzer.

Test Setup



Limits

Rule Part 15.247 (a) (2) specifies that “Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.”

minimum 6 dB bandwidth	≥ 500 kHz
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Measurement Uncertainty

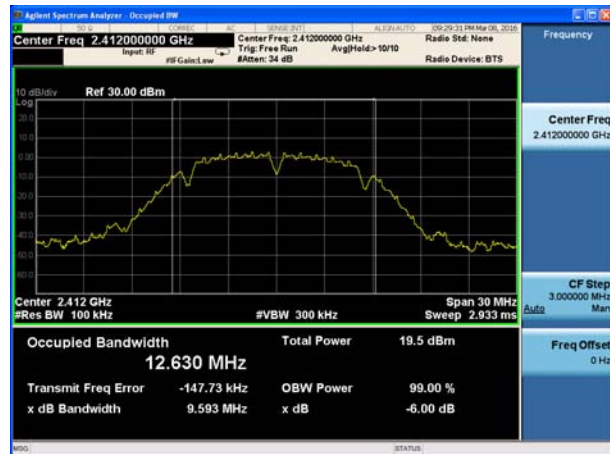
The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 936$ Hz.

**Test Results:**

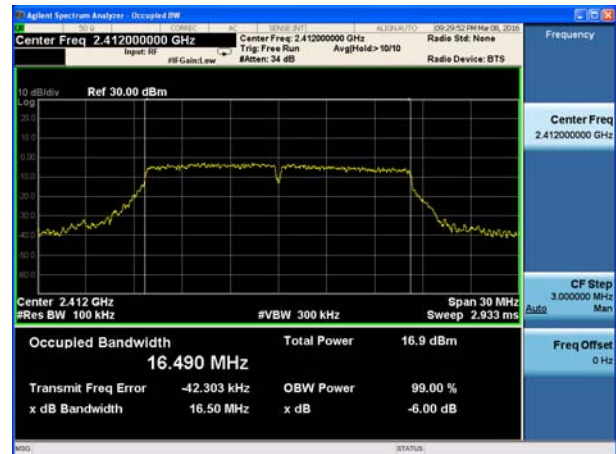
Network Standards	Carrier frequency (MHz)	Minimum 6 dB bandwidth (MHz)	Limit(kHz)	Conclusion
802.11b	2412	9.593	500	PASS
	2437	8.573	500	PASS
	2462	9.107	500	PASS
802.11g	2412	16.50	500	PASS
	2437	16.15	500	PASS
	2462	15.79	500	PASS
802.11n HT20	2412	17.67	500	PASS
	2437	15.36	500	PASS
	2462	16.27	500	PASS
802.11n HT40	2422	35.10	500	PASS
	2437	32.21	500	PASS
	2452	36.15	500	PASS
Bluetooth (Low Energy)	2402	684.7	500	PASS
	2440	680.7	500	PASS
	2480	679.8	500	PASS



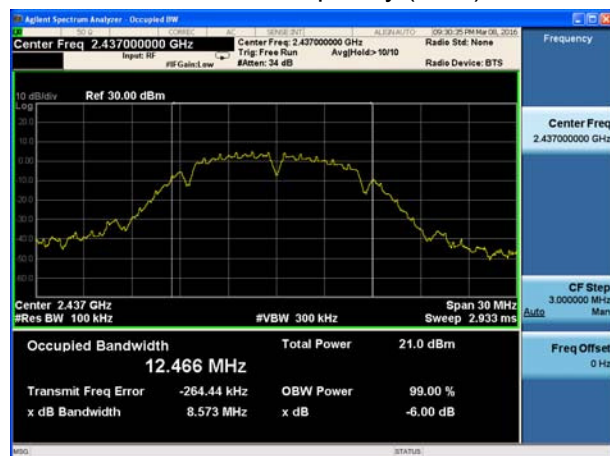
802.11b, Carrier frequency (MHz): 2412



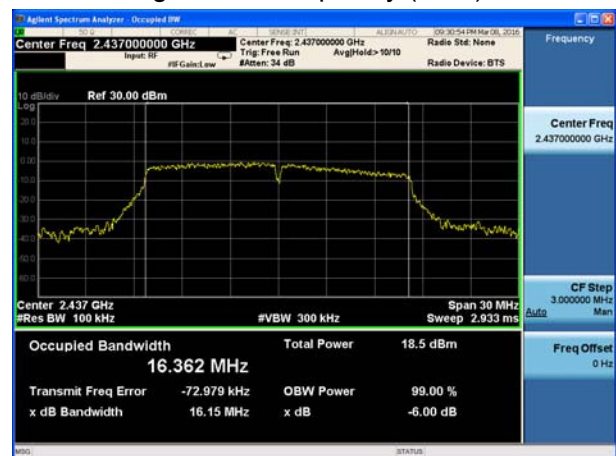
802.11g, Carrier frequency (MHz): 2412



802.11b, Carrier frequency (MHz): 2437



802.11g, Carrier frequency (MHz): 2437



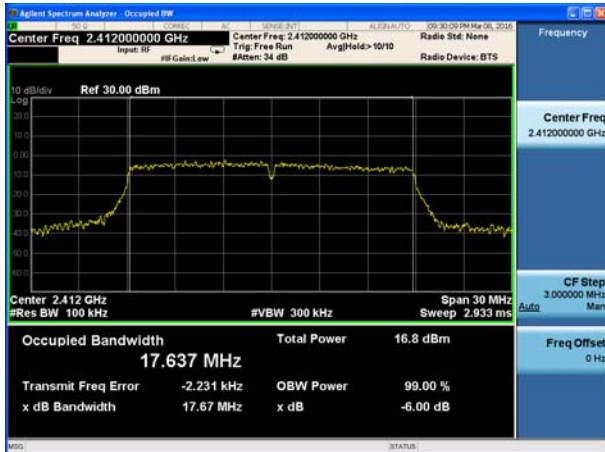
802.11b, Carrier frequency (MHz): 2462



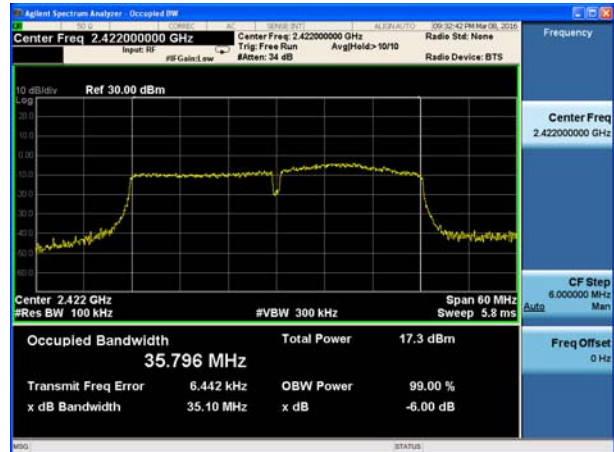
802.11g, Carrier frequency (MHz): 2462



802.11n(HT20), Carrier frequency (MHz): 2412



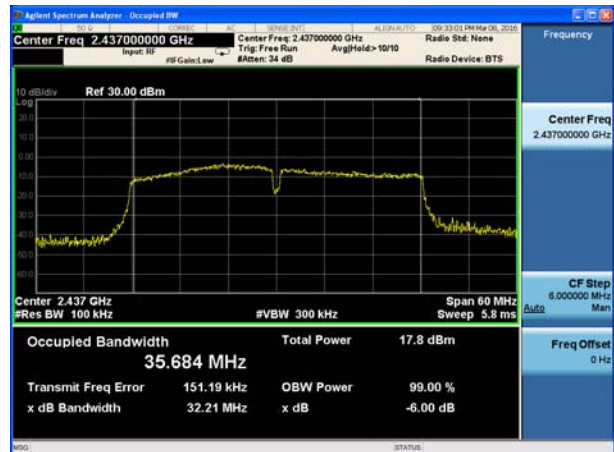
802.11n(HT40), Carrier frequency (MHz): 2422



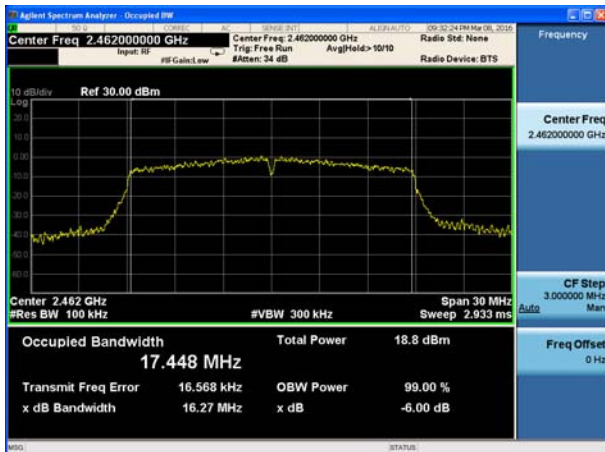
802.11n(HT20), Carrier frequency (MHz): 2437



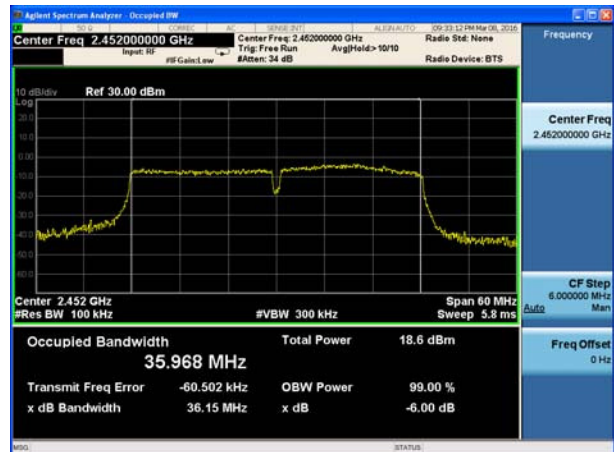
802.11n(HT40), Carrier frequency (MHz): 2437



802.11n(HT20), Carrier frequency (MHz):2462



802.11n(HT40), Carrier frequency (MHz):2452





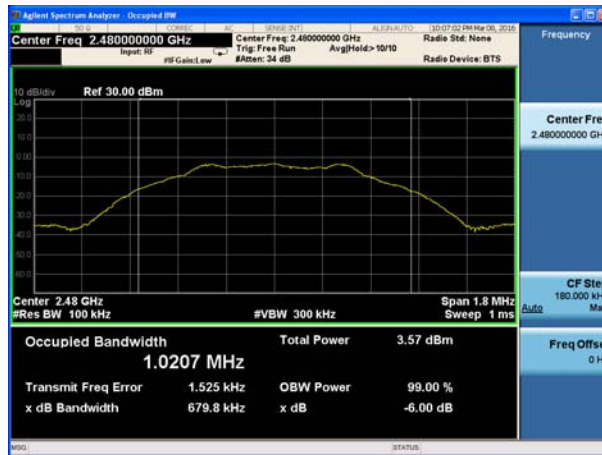
BLE Carrier frequency (MHz): 2402



BLE Carrier frequency (MHz): 2440



BLE Carrier frequency (MHz): 2480



5.3. Band Edge Compliance

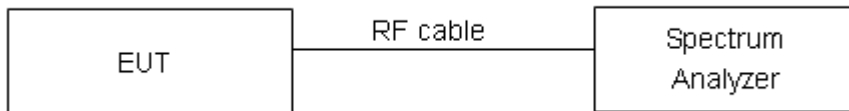
Ambient condition

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 the band edge of the lowest and highest channels were measured. The peak detector is used and RBW is set to 100 kHz and VBW is set to 300 kHz on spectrum analyzer. Spectrum analyzer plots are included on the following pages.

Test Setup



Limits

Rule Part 15.247(d) specifies that “In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.”

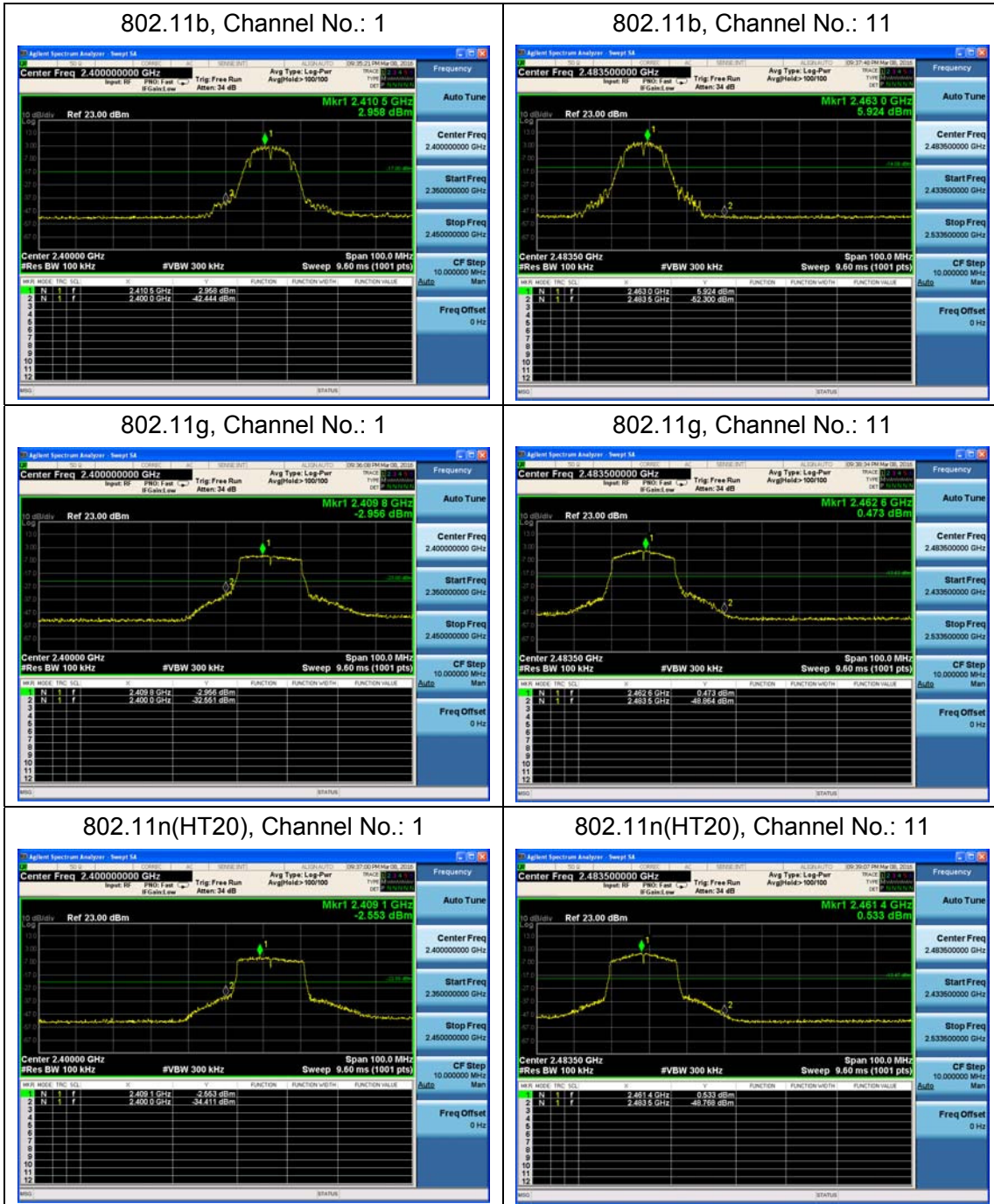
Measurement Uncertainty

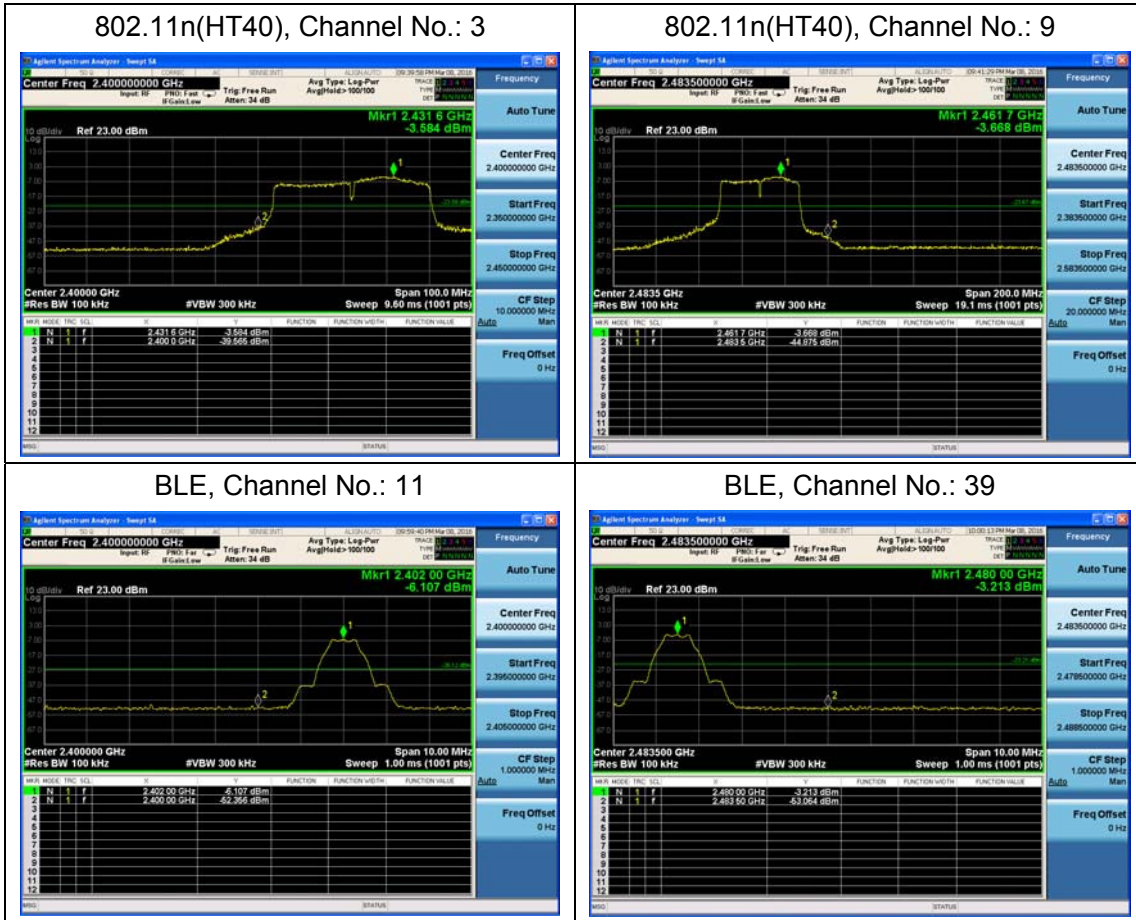
The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$.

Frequency	Uncertainty
2GHz-3GHz	1.407 dB



Test Results: PASS





5.4. Power Spectral Density

Ambient condition

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

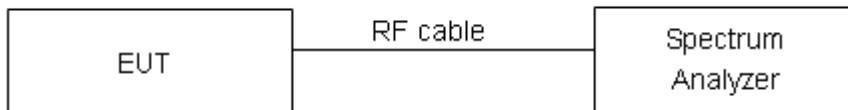
Method of Measurement

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

RBW is set to 3 kHz and VBW is set to 10 kHz for BLE/ Wi-Fi 2.4G on spectrum analyzer.

Set the span to 1.5 times the DTS channel bandwidth. Sweep time = auto couple. Trace mode = max hold. The peak power spectral density is recorded.

Test setup



Limits

Rule Part 15.247(e) specifies that” For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. ”

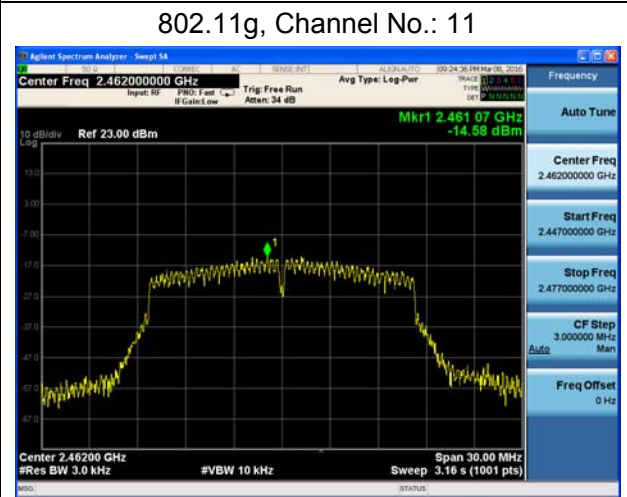
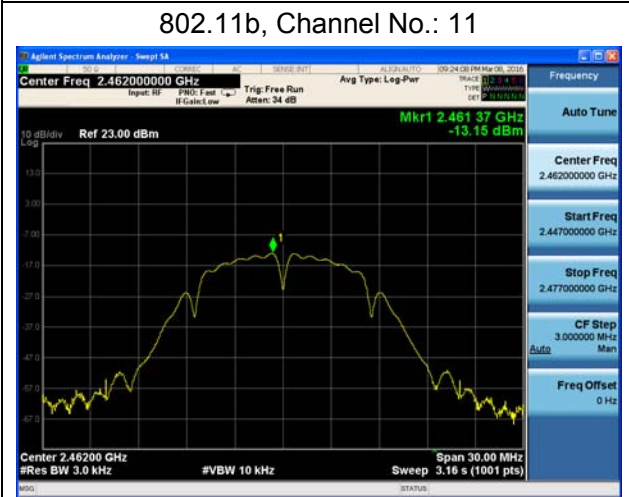
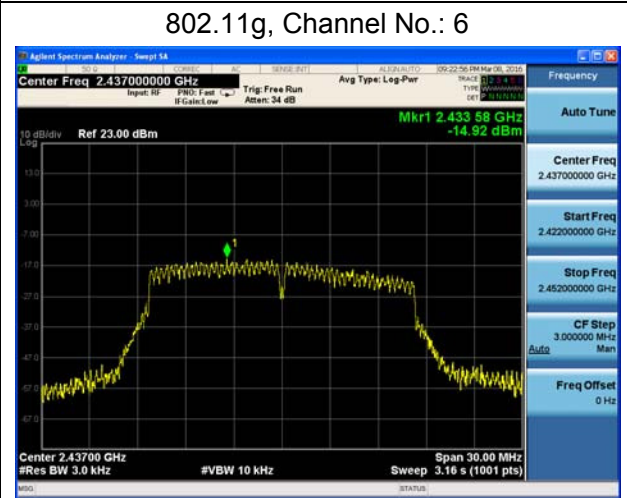
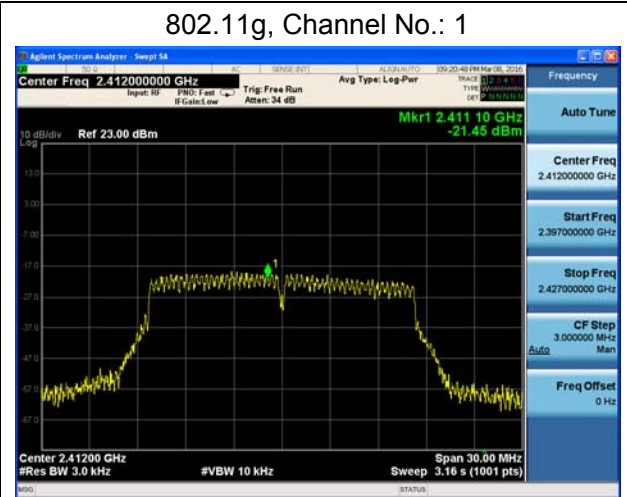
Limits	≤ 8 dBm / 3kHz
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Measurement Uncertainty

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

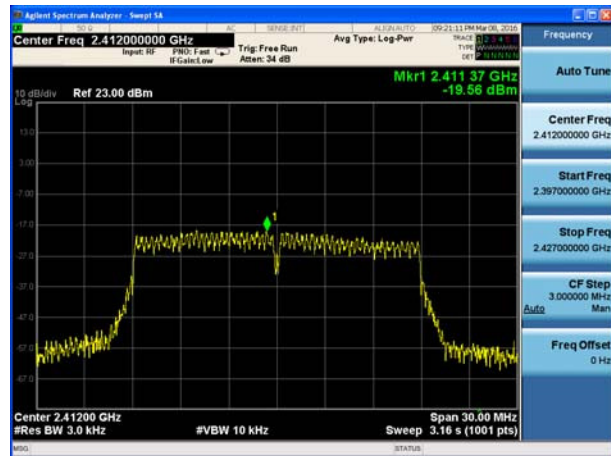
**Test Results:**

Network Standards	Channel Number	Power Spectral Density (dBm / 3kHz)	Limit (dBm / 3kHz)	Conclusion
802.11b	1	-16.70	8	PASS
	6	-14.88	8	PASS
	11	-13.15	8	PASS
802.11g	1	-21.45	8	PASS
	6	-14.92	8	PASS
	11	-14.58	8	PASS
802.11n HT20	1	-19.56	8	PASS
	6	-15.37	8	PASS
	11	-14.01	8	PASS
802.11n HT40	3	-17.71	8	PASS
	6	-16.80	8	PASS
	9	-16.41	8	PASS
Bluetooth (Low Energy)	0	-20.86	8	PASS
	19	-16.92	8	PASS
	39	-17.85	8	PASS

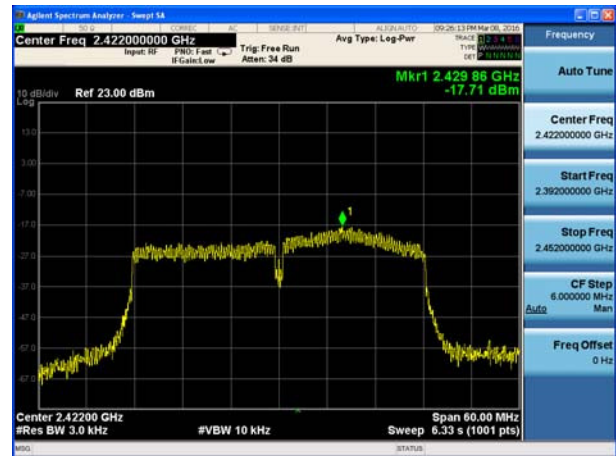




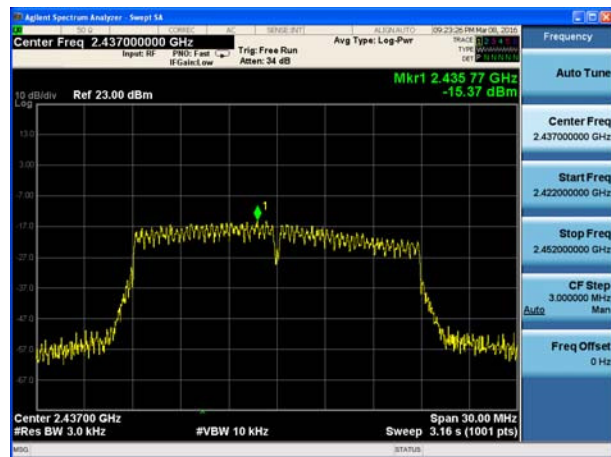
802.11n(HT20), Channel No. 1



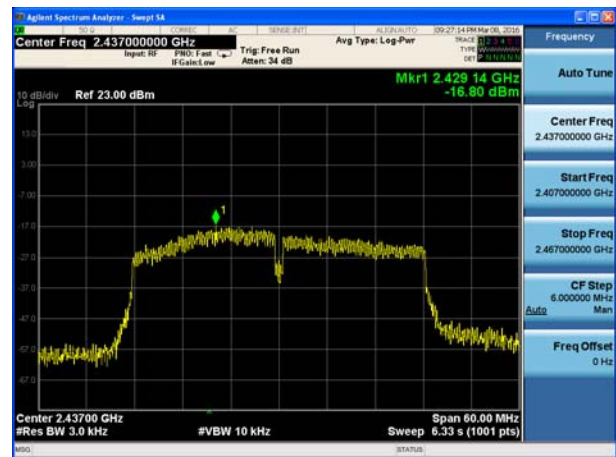
802.11n(HT40), Channel No. 3



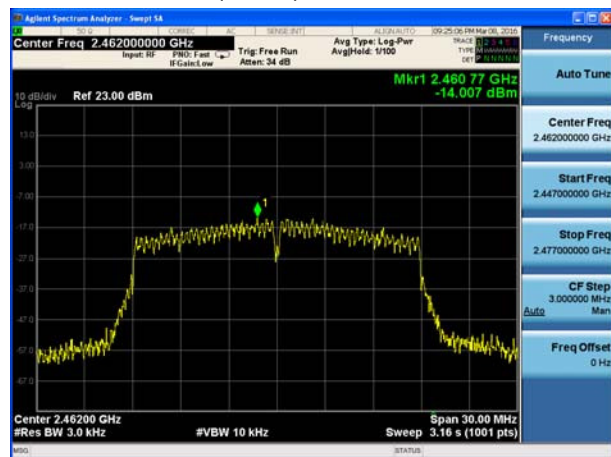
802.11n(HT20), Channel No. 6



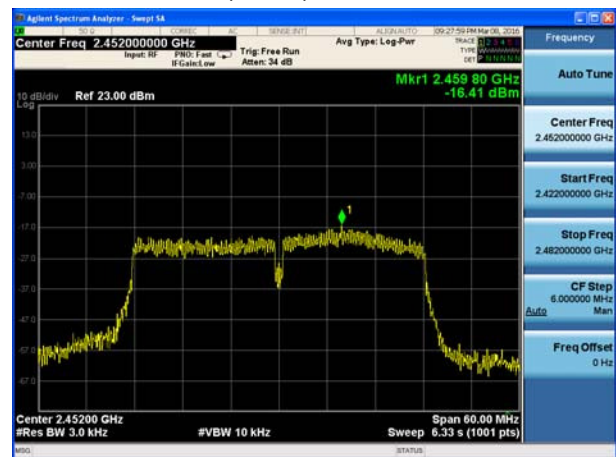
802.11n(HT40), Channel No. 6



802.11n(HT20), Channel No. 11



802.11n(HT40), Channel No. 9

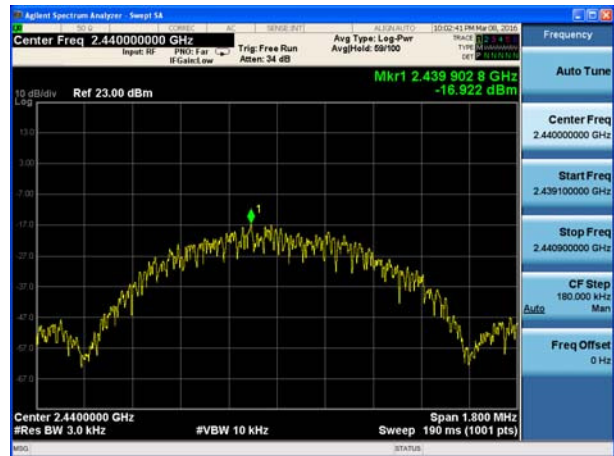




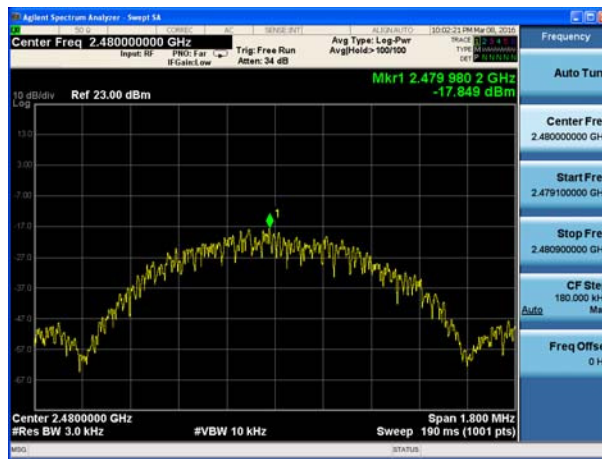
BLE, Channel No.: 0



BLE, Channel No.: 19



BLE, Channel No.: 39



5.5. Spurious RF Conducted Emissions

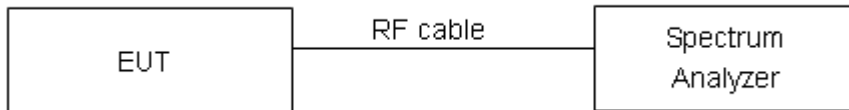
Ambient condition

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

Method of Measurement

The EUT was connected to the spectrum analyzer with a known loss. The spectrum analyzer scans from 30MHz to the 10th harmonic of the carrier. The peak detector is used. RBW and VBW are set to 100 kHz, Sweep is set to ATUO.

The test is in transmitting mode.



Limits

Rule Part 15.247(d) pacifies that “In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.”

Network Standards	Carrier frequency (MHz)	Reference value (dBm)	Limit
802.11b	2412	8.473	-11.527
	2437	2.715	-17.285
	2462	7.718	-12.282
802.11g	2412	2.74	-17.26
	2437	1.361	-18.639
	2462	2.741	-17.259
802.11n HT20	2412	1.129	-18.871
	2437	1.453	-18.547
	2462	1.399	-18.601
802.11n HT40	2432	-4.115	-24.115
	2437	0.793	-19.207
	2452	-2.848	-22.848
Bluetooth (Low Energy)	2402	-16.949	-36.949
	2440	-16.16	-36.16
	2480	-15.666	-35.666



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
100kHz-2GHz	0.684 dB
2GHz-26GHz	1.407 dB

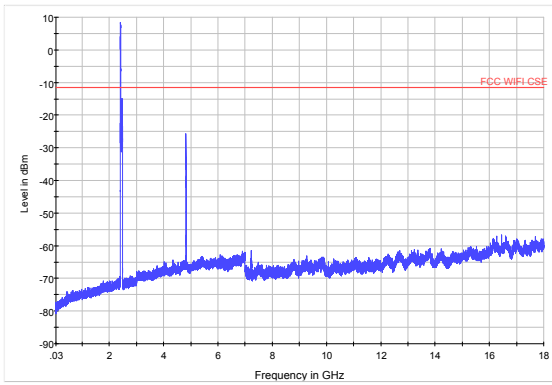
**Test Results:**

If disturbances were found more than 20dB below limit line, the mark is not required for the EUT.
The signal beyond the limit is carrier.

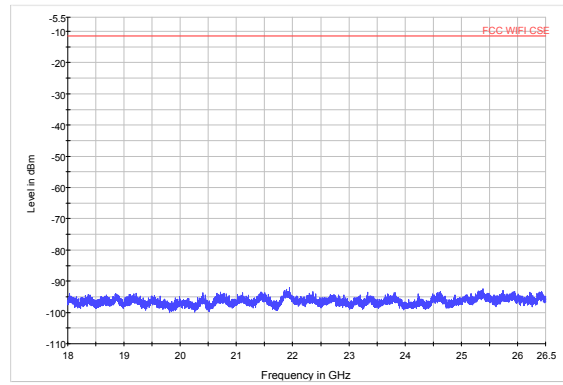
Mode	Frequency	Peak (dBm)	Limit (dBm)	Margin (dB)
CSE_WIFI b_CH1_0.03-18GHz	4824.0	-25.71	-11.527	14.18
CSE_WIFI n(20M)_CH1_0.03-18GHz	4814.3	-38.67	-18.871	19.80
CSE_BT4.0_CH0_0.03-18GHz	4804.5	-52.73	-36.949	15.78



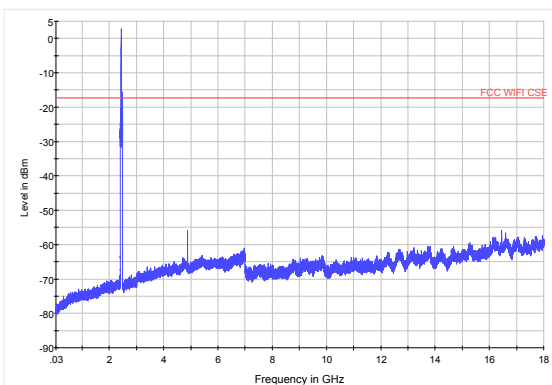
802.11b CH1 30MHz to 18GHz



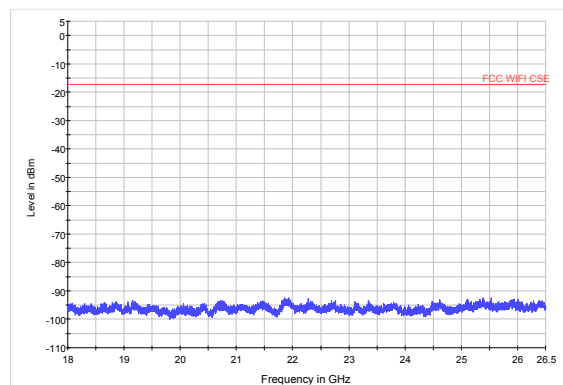
802.11b CH1 18GHz to 26.5GHz



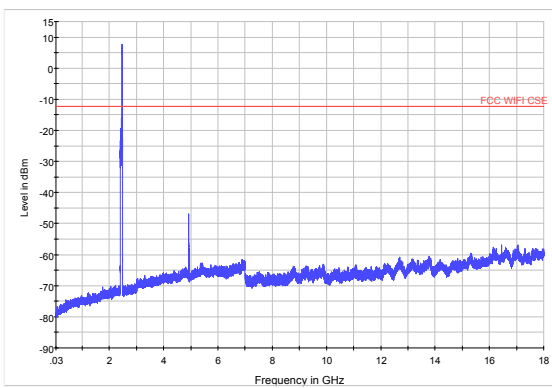
802.11b CH6 30MHz to 18GHz



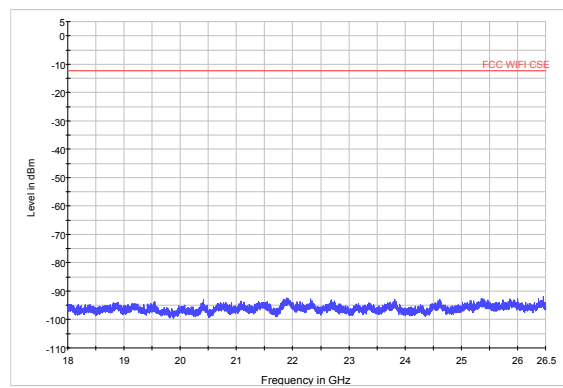
802.11b CH6 18GHz to 26.5GHz



802.11b CH11 30MHz to 18GHz

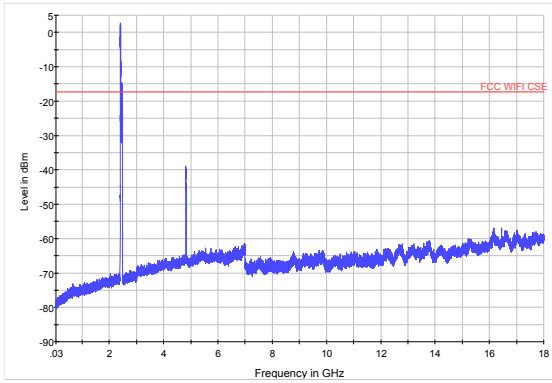


802.11b CH11 18GHz to 26.5GHz

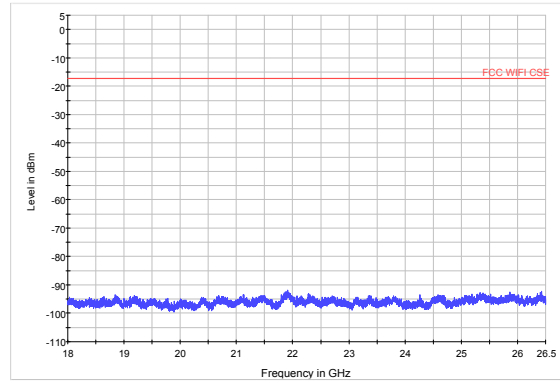




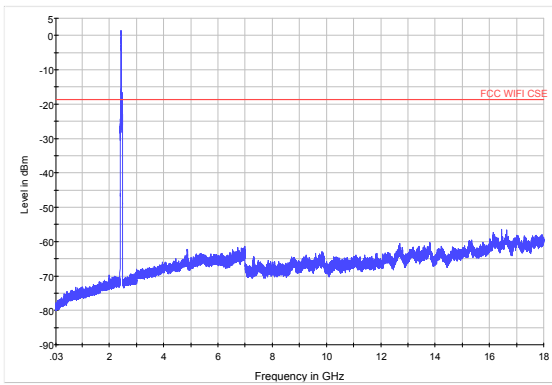
802.11g CH1 30MHz to 18GHz



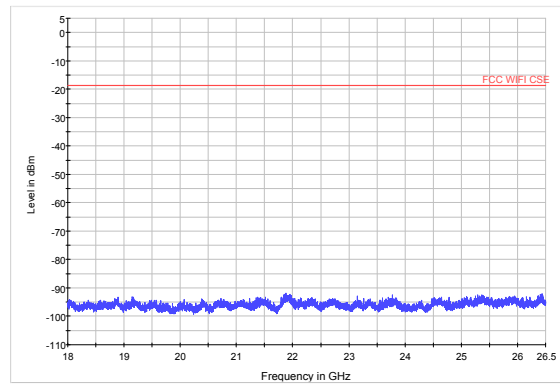
802.11g CH1 18GHz to 26.5GHz



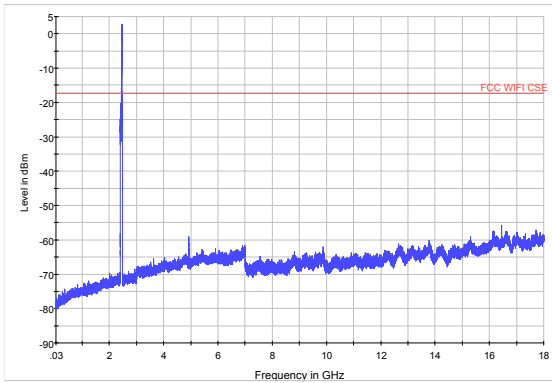
802.11g CH6 30MHz to 18GHz



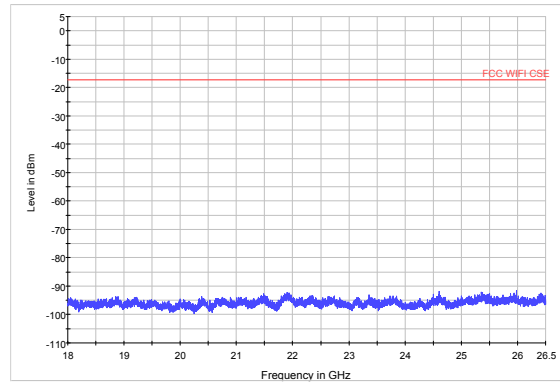
802.11g CH6 18GHz to 26.5GHz



802.11g CH11 30MHz to 18GHz

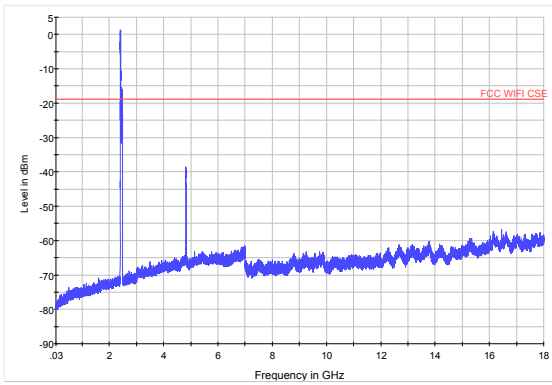


802.11g CH11 18GHz to 26.5GHz

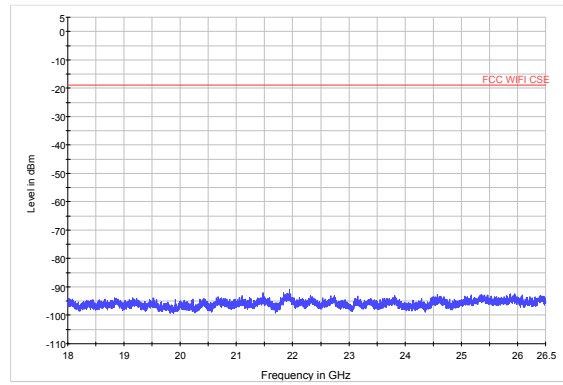




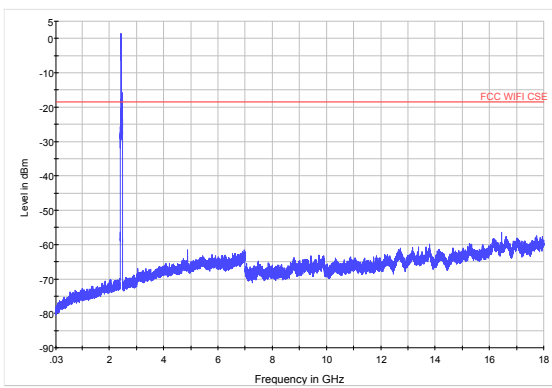
802.11n (HT20) CH1 30MHz to 18GHz



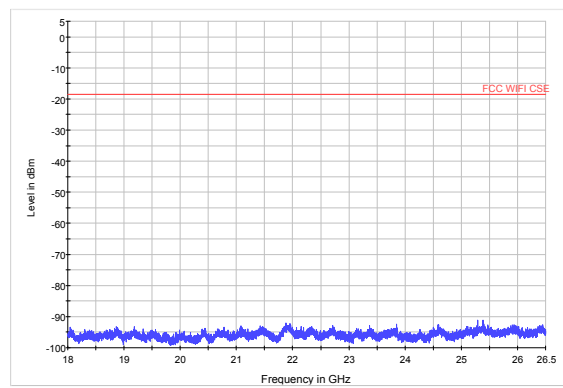
802.11n (HT20) CH1 18GHz to 26.5GHz



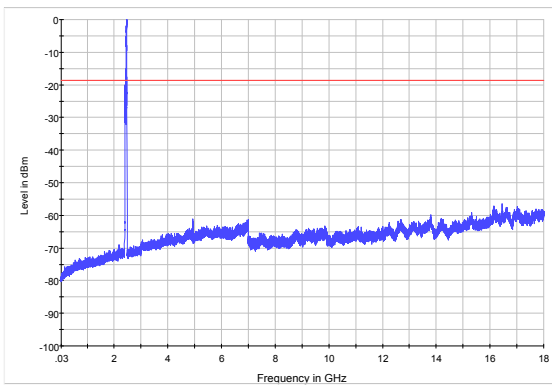
802.11n (HT20) CH6 30MHz to 18GHz



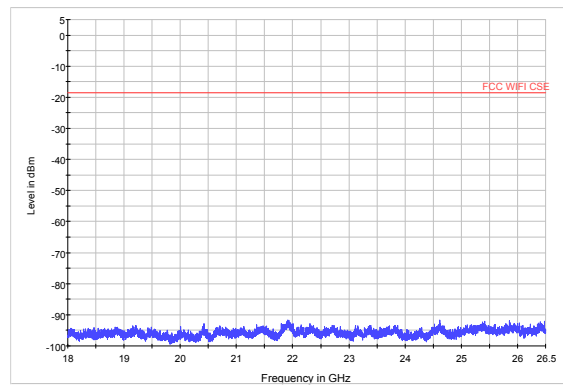
802.11n (HT20) CH6 18GHz to 26.5GHz



802.11n (HT20) CH11 30MHz to 18GHz

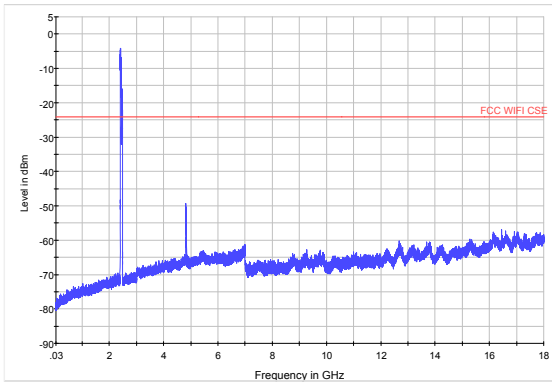


802.11n (HT20) CH11 18GHz to 26.5GHz

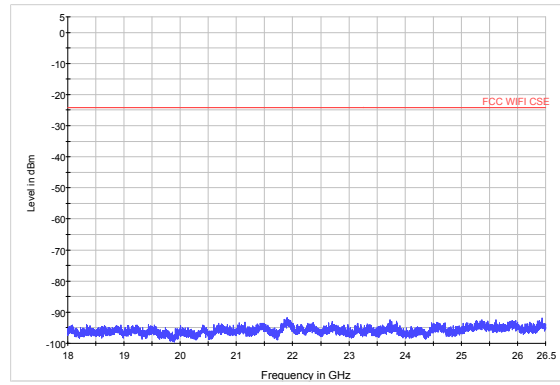




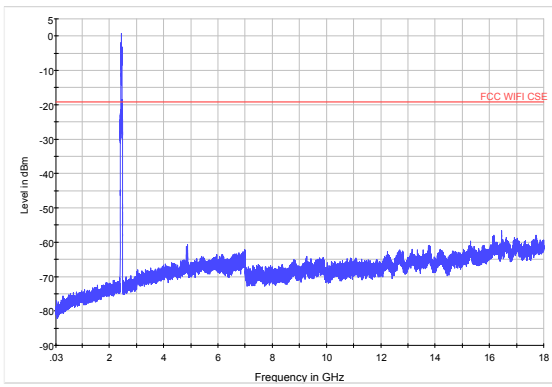
802.11n (HT40) CH3 30MHz to 18GHz



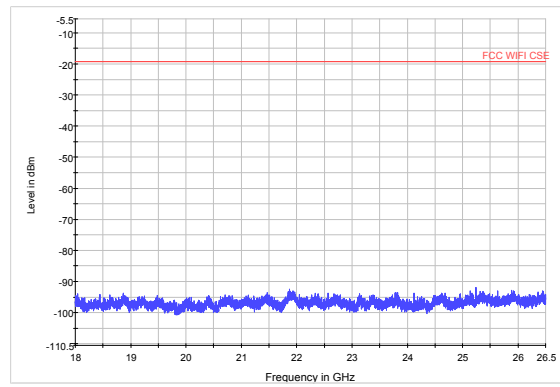
802.11n (HT40) CH3 18GHz to 26.5GHz



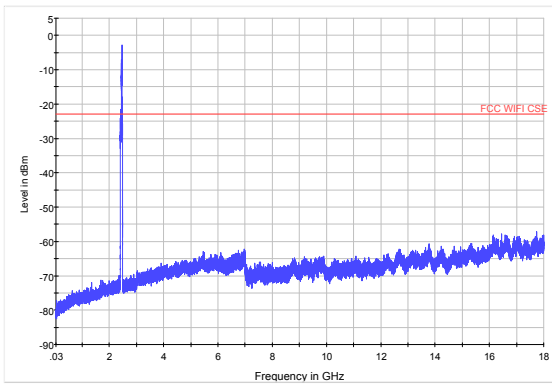
802.11n (HT40) CH6 30MHz to 18GHz



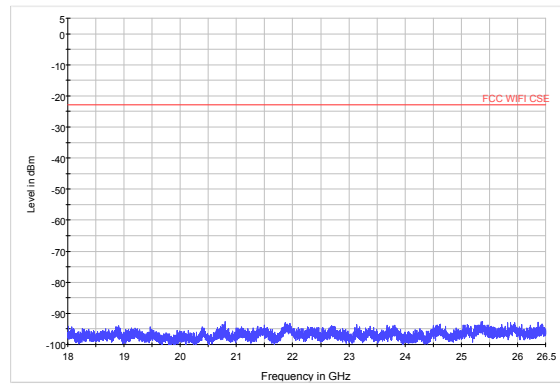
802.11n (HT40) CH6 18GHz to 26.5GHz



802.11n (HT40) CH9 30MHz to 18GHz

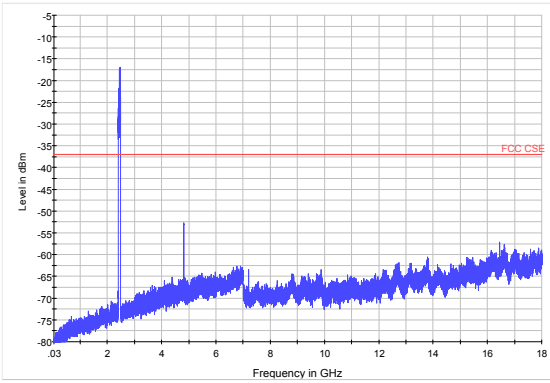


802.11n (HT40) CH9 18GHz to 26.5GHz

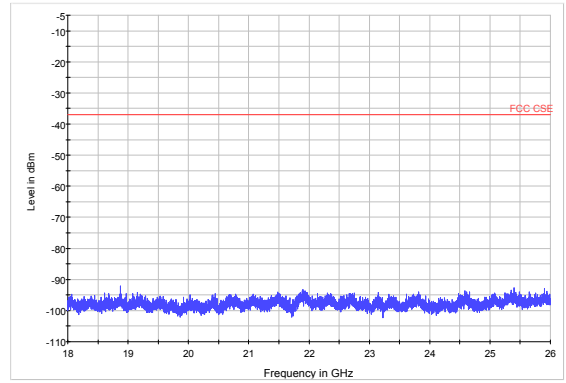




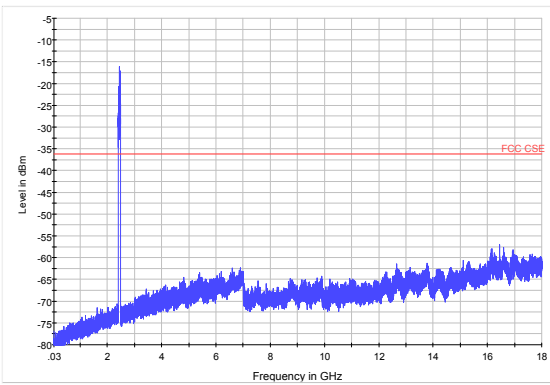
BLE CH0 30MHz to 18GHz



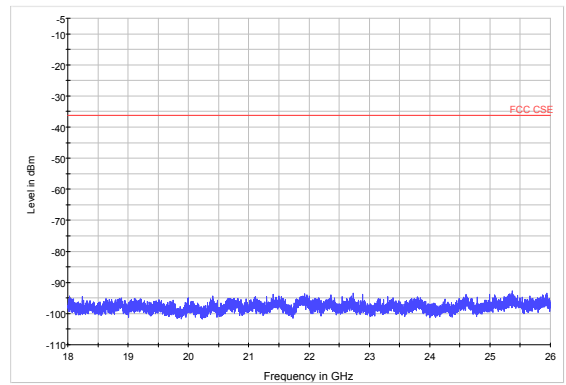
BLE CH0 18GHz to 26.5GHz



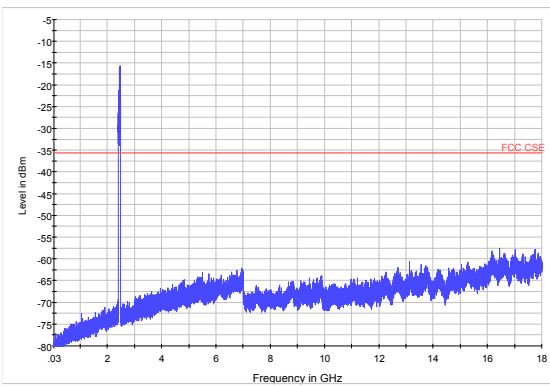
BLE CH19 30MHz to 18GHz



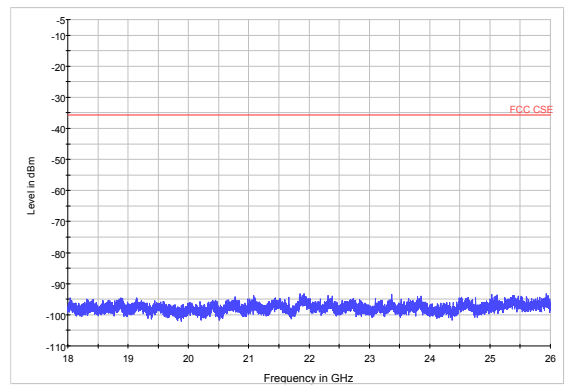
BLE CH19 18GHz to 26.5GHz



BLE CH39 30MHz to 18GHz



BLE CH0 18GHz to 26.5GHz



5.6. Radiated Emissions in the Restricted Band

Ambient condition

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

Method of Measurement

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 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. RBW is set to 100kHz. The data of cable loss and antenna factor has been calibrated in full testing frequency range before the testing. Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, and the emissions less than 20 dB below the permissible value are reported.

Set the spectrum analyzer in the following:

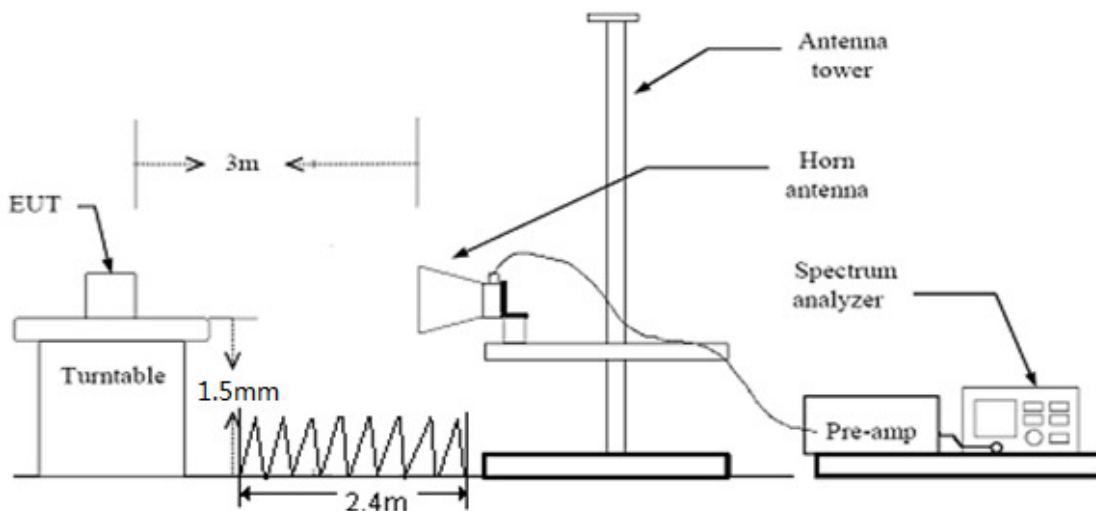
- (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
- (b) AVERAGE: RBW=1MHz / VBW=3MHz / Sweep=AUTO

This setting method can refer to **KDB 558074**.

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 (Y axis) and the antenna is vertical.

The test is in transmitting mode.

Test setup



Note: Area side: 2.4mX3.6m

Limits

Spurious Radiated Emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 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			

Limit in restricted band

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

§15.35(b)

There is also a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.

Peak Limit=74 dBuV/m

Average Limit=54 dBuV/m

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U = 3.55$ dB.



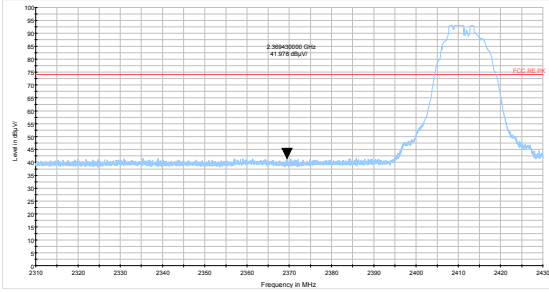
Test Results:

PASS

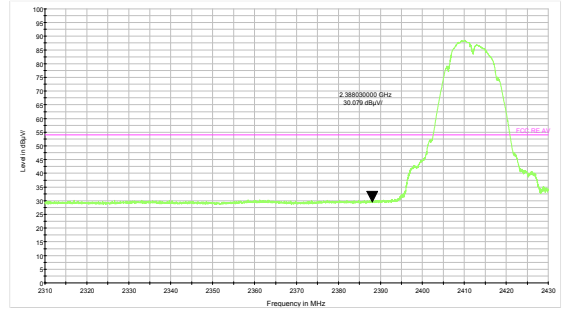
The messy code (dB μ m) including in the following plots mean dBuV/m.

The signal beyond the limit is carrier.

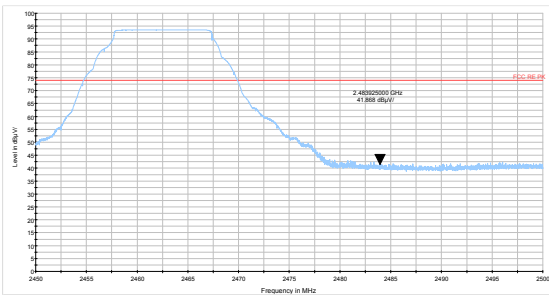
802.11b-Channel 1: Peak



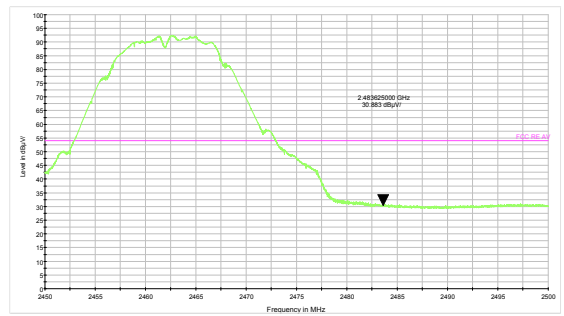
802.11b-Channel 1: Average



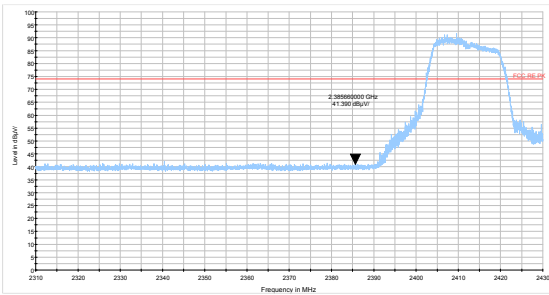
802.11b-Channel 11: Peak



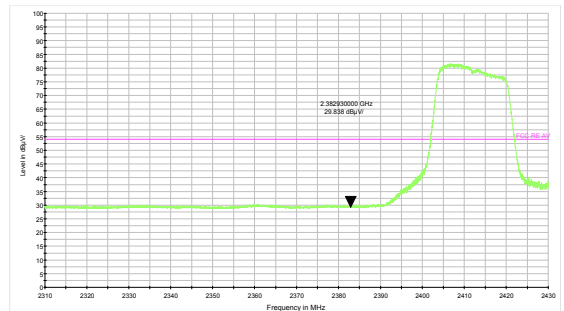
802.11b-Channel 11: Average



802.11g-Channel 1: Peak

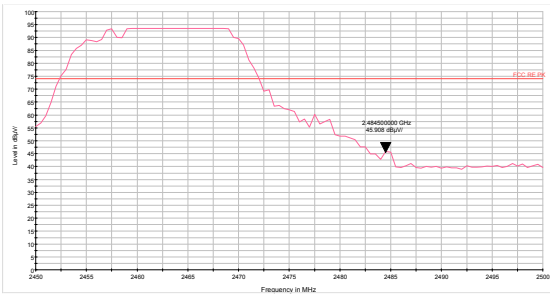


802.11g-Channel 1: Average

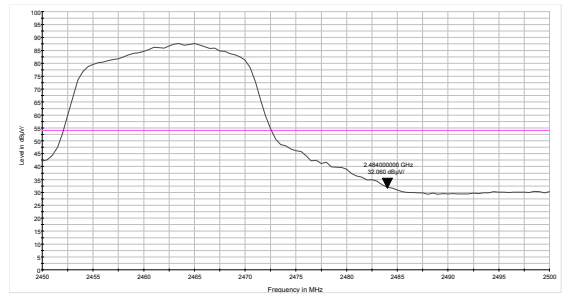




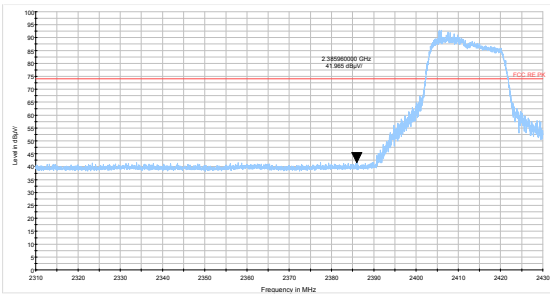
802.11g-Channel 11: Peak



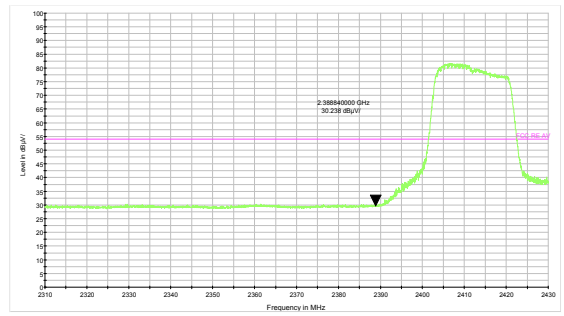
802.11g-Channel 11: Average



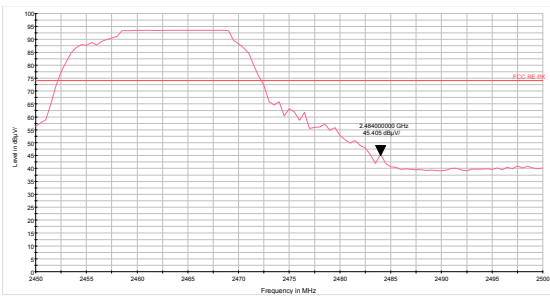
802.11n HT20 -Channel 1: Peak



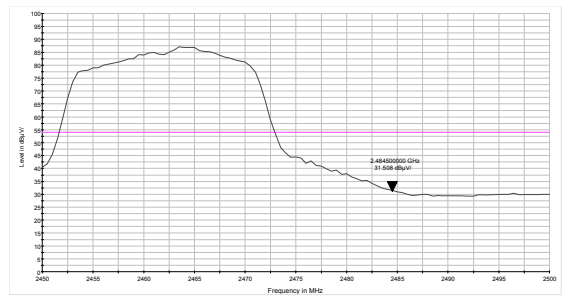
802.11n HT20-Channel 1: Average



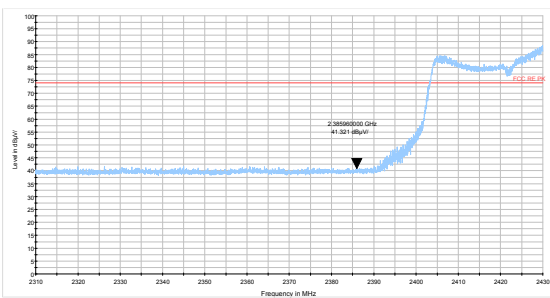
802.11n HT20-Channel 11: Peak



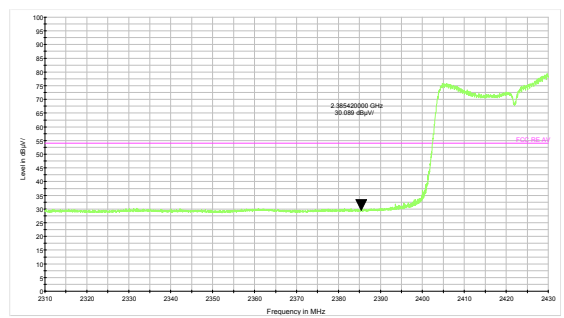
802.11n HT20-Channel 11: Average



802.11n HT40 -Channel 3: Peak

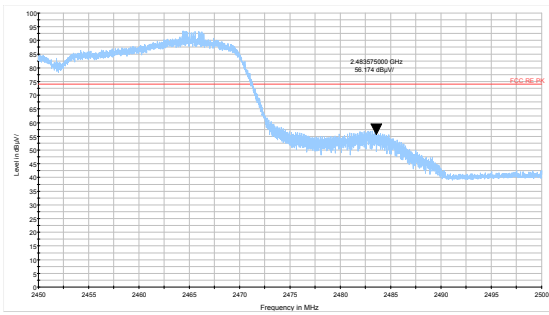


802.11n HT40-Channel 3: Average

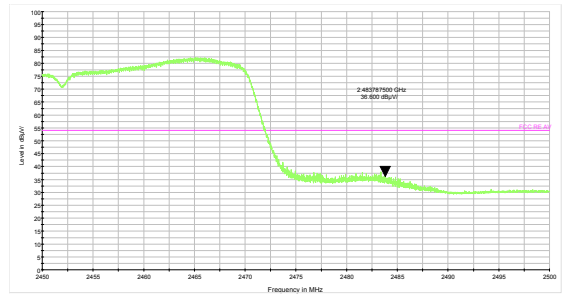




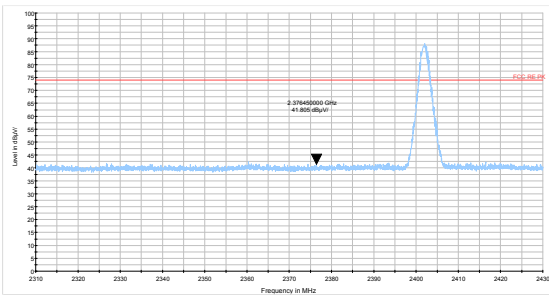
802.11n HT40-Channel 9: Peak



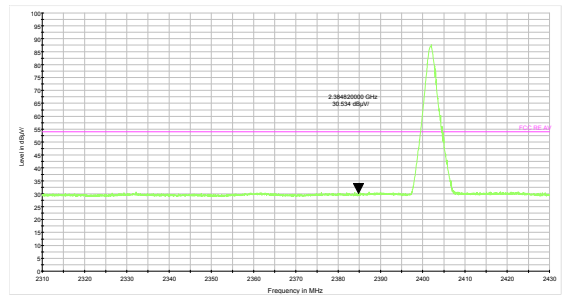
802.11n HT40-Channel 9: Average



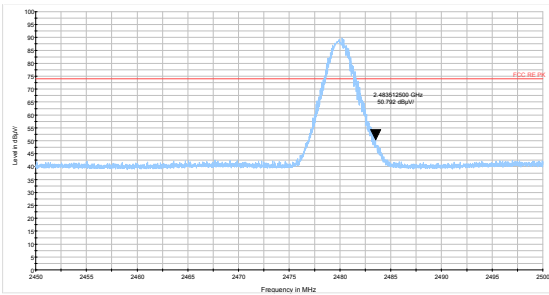
BLE -Channel 0: Peak



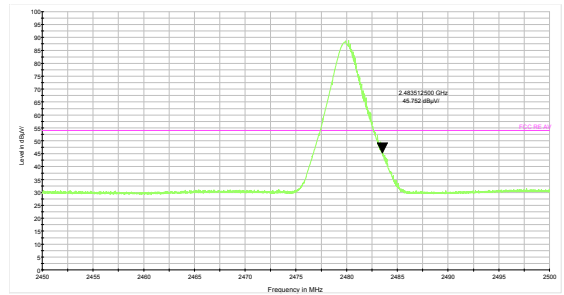
BLE -Channel 0: Average



BLE -Channel 39: Peak



BLE -Channel 39: Average



5.7. Radiates Emission

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	102.5kPa

Method of Measurement

The test set-up was made in accordance to the general provisions of ANSI C63.10-2013. 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 through the range from 9 kHz to the 10th harmonic of the carrier, and the emissions less than 20 dB below the permissible value are reported.

During the test, below 30MHz, the center of the loop shall be 1 meters; above 30MHz, 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:

Below 1GHz (detector: Peak and Quasi-Peak)

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

Above 1GHz (detector: Peak):

(a) PEAK: RBW=1MHz VBW=3MHz/ Sweep=AUTO

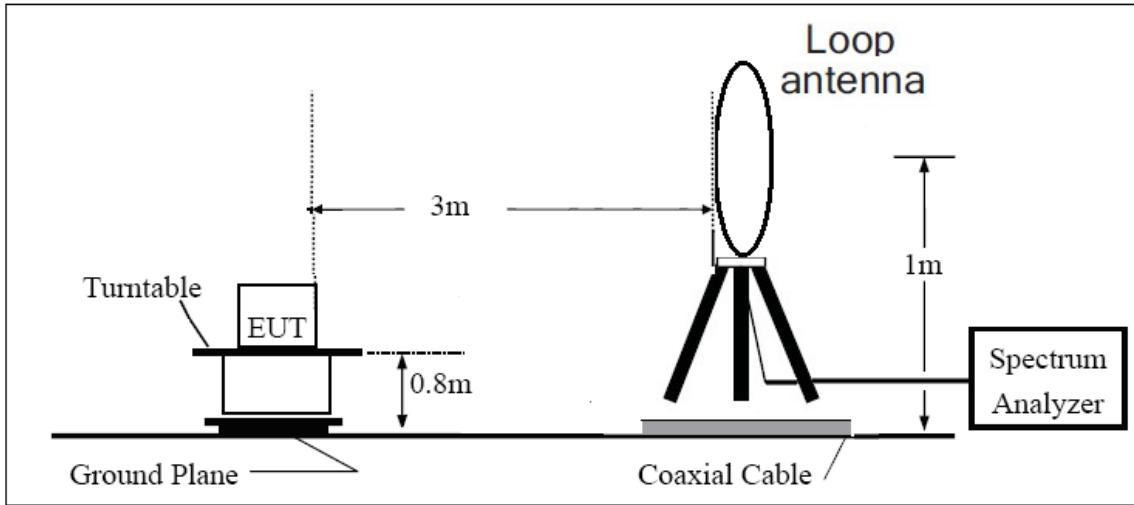
(b) AVERAGE: RBW=1MHz / VBW=3MHz / Sweep=AUTO

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.

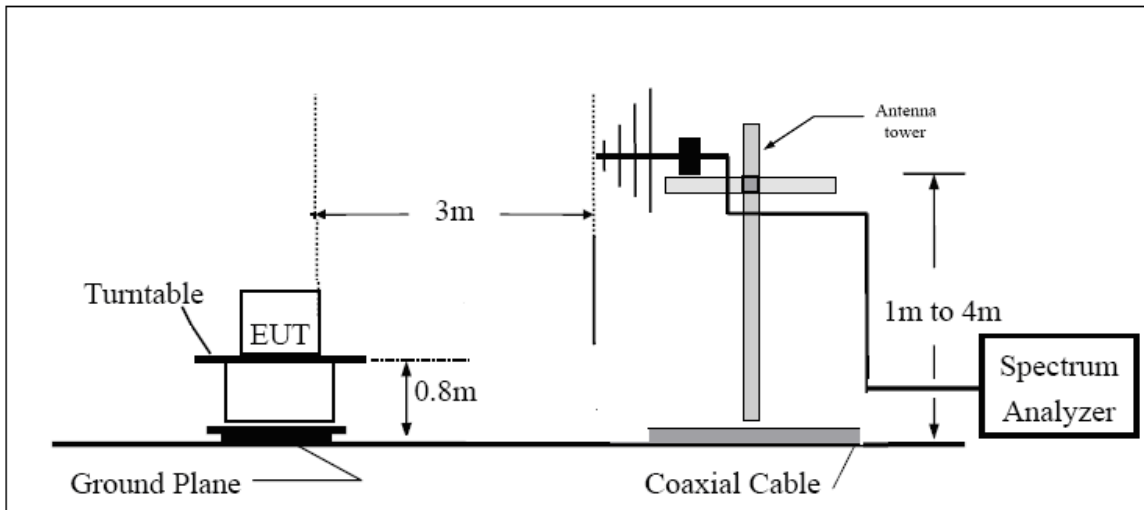
The test is in transmitting mode.

Test setup

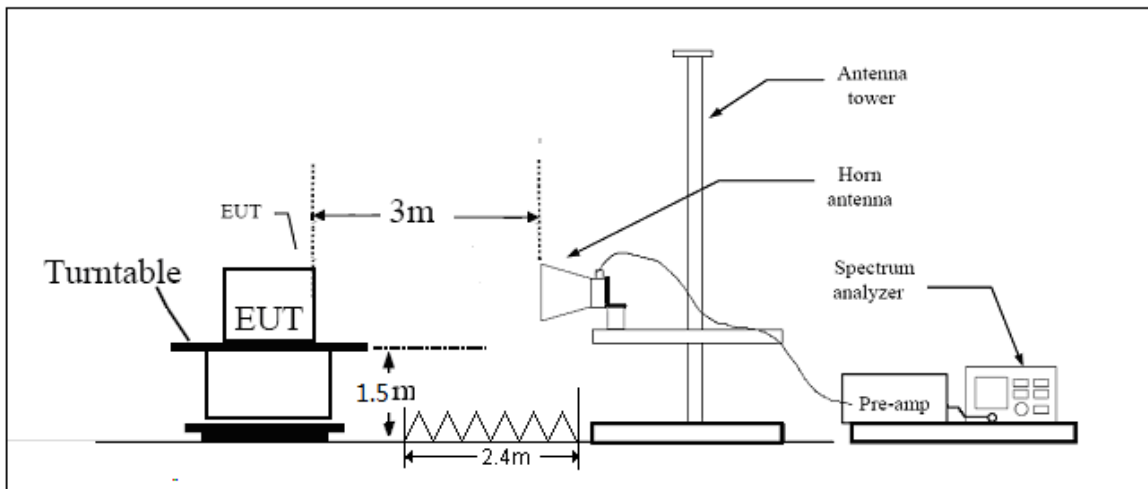
9KHz~~~ 30MHz



30MHz~~~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m

**Limits**

Rule Part 15.247(d) specifies that “In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).”

Limit in restricted band

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
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

§15.35(b)

There is also a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.

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	4.19 dB
200MHz-1GHz	3.63 dB
Above 1GHz	3.68 dB



Test result

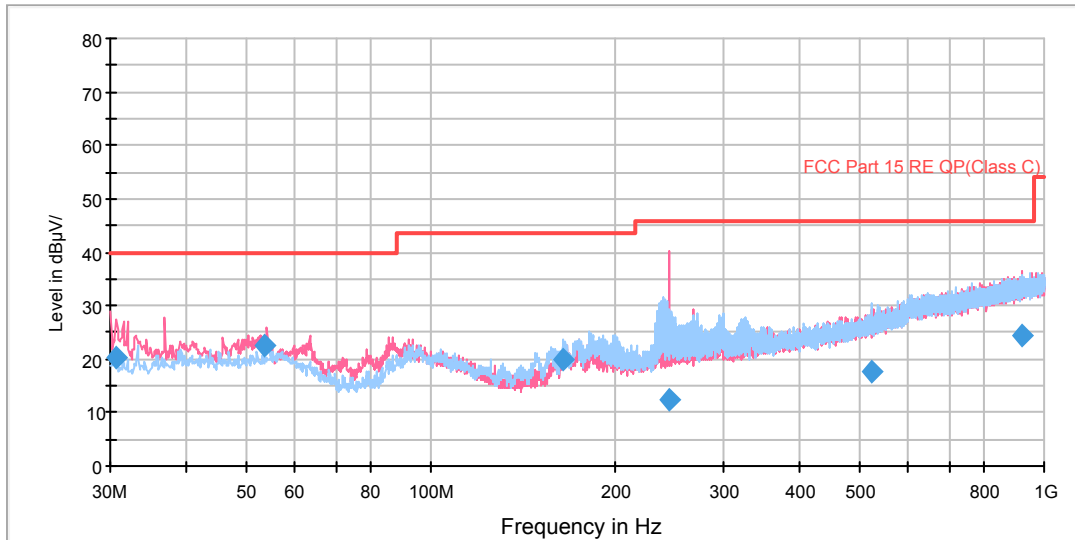
Sweep from 9 kHz to 30MHz, and the emissions more than 20 dB below the permissible value are not reported.

The following graphs display the maximum values of horizontal and vertical by software.

For above 1GHz, Blue trace uses the peak detection, Green trace uses the average detection.

802.11b CH1

RE 0.03-1GHz QP Class B



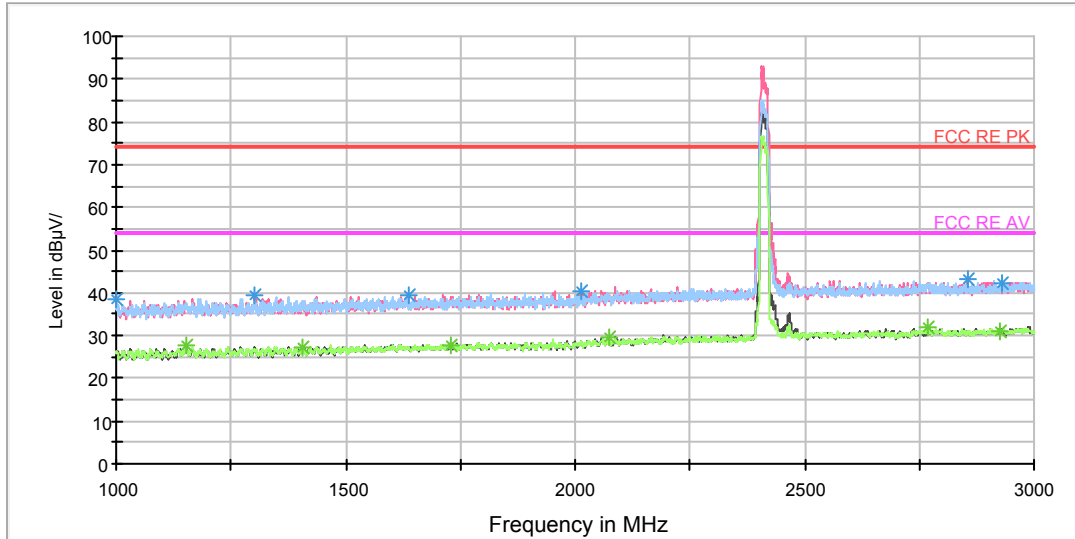
Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
30.600000	20.2	100.0	V	213.0	32.1	-11.9	19.8	40.0
53.528750	22.6	100.0	V	298.0	35.4	-12.8	17.4	40.0
164.101250	20.0	125.0	H	306.0	29.9	-9.9	23.5	43.5
244.896250	12.4	100.0	V	10.0	26.3	-13.9	33.6	46.0
524.655000	17.8	125.0	H	58.0	38.3	-20.5	28.2	46.0
919.770000	24.6	100.0	V	243.0	50.4	-25.8	21.4	46.0

Remark: 1. Quasi-Peak = Reading value + Correction factor

2. Correction Factor = Antenna factor+ Insertion loss(cable loss+amplifier gain)

3. Margin = Limit – Quasi-Peak



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

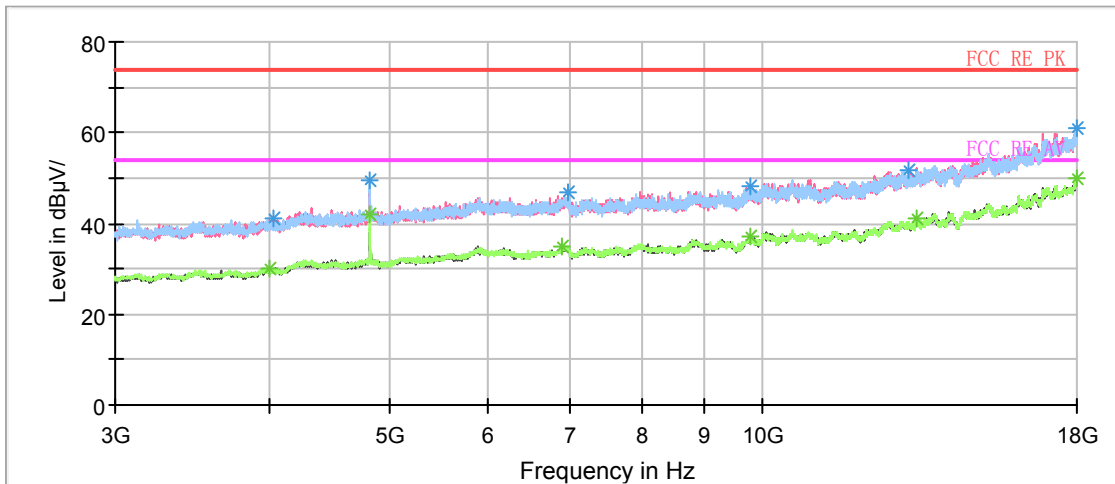
Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
1151.500000	36.9	100.0	V	352.0	47.7	-10.8	37.1	74
1407.000000	37.9	100.0	V	0.0	47.7	-9.8	36.1	74
1728.500000	37.6	100.0	H	15.0	46.2	-8.6	36.4	74
2072.500000	38.9	100.0	V	272.0	46.2	-7.3	35.1	74
2769.500000	41.1	100.0	V	123.0	45.4	-4.3	32.9	74
2925.500000	41.1	100.0	V	342.0	45.3	-4.2	32.9	74

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

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
1000.500000	26.0	100.0	V	0.0	37.4	-11.4	28.0	54
1301.000000	26.5	100.0	V	0.0	36.6	-10.1	27.5	54
1635.500000	27.1	100.0	V	262.0	36.0	-8.9	26.9	54
2015.000000	27.9	100.0	V	0.0	35.6	-7.7	26.1	54
2854.000000	31.0	100.0	V	325.0	35.2	-4.2	23.0	54
2931.000000	30.8	100.0	V	145.0	34.9	-4.1	23.2	54

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

RE 3-18GHz PK+AV



Radiates Emission from 3GHz to 18GHz

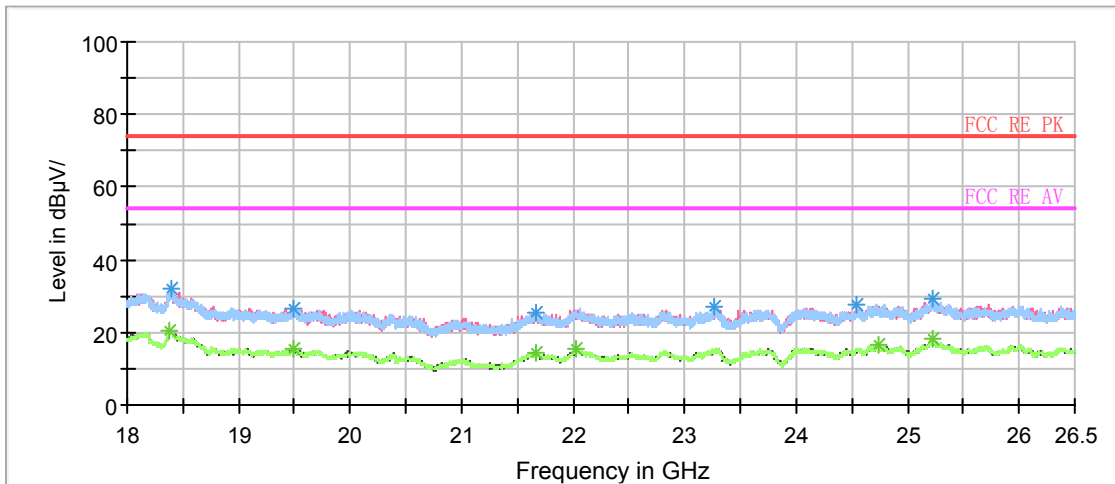
Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
4003.125000	39.3	101.0	H	164.0	39.8	-0.5	34.7	74
4822.500000	49.6	101.0	H	0.0	52.3	-2.7	24.4	74
6900.000000	43.8	101.0	H	134.0	50.8	-7.0	30.2	74
9787.500000	45.9	101.0	H	76.0	58.0	-12.1	28.1	74
13348.125000	49.0	101.0	H	32.0	64.8	-15.8	25.0	74
17996.250000	58.0	101.0	V	63.0	83.4	-25.4	16.0	74

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

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
4003.125000	30.1	101.0	H	164.0	30.6	-0.5	23.9	54
4822.500000	42.0	101.0	H	0.0	44.7	-2.7	12.0	54
6900.000000	35.0	101.0	H	134.0	42.0	-7.0	19.0	54
9787.500000	37.1	101.0	H	76.0	49.2	-12.1	16.9	54
13348.125000	40.9	101.0	H	32.0	56.7	-15.8	13.1	54
17996.250000	49.9	101.0	V	63.0	75.3	-25.4	4.1	54

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

RE 18-26.5GHz PK+AV



Radiates Emission from 18GHz to 26.5GHz

Frequency (MHz)	Peak (dBuV/m)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
18378.250000	29.7	H	0.0	34.5	-4.8	44.3	74
19488.562500	25.5	V	221.0	33.2	-7.7	48.5	74
21658.187500	24.4	V	287.0	33.6	-9.2	49.6	74
22018.375000	24.9	V	279.0	33.0	-8.1	49.1	74
24733.062500	26.8	V	246.0	33.1	-6.3	47.2	74
25218.625000	27.0	H	92.0	33.0	-6.0	47.0	74

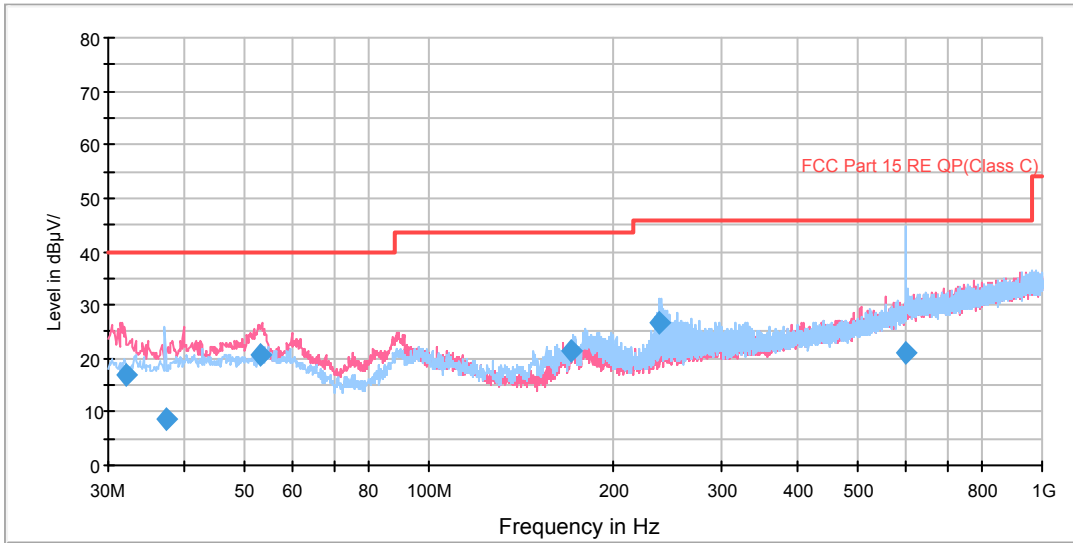
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
18378.250000	20.4	H	0.0	25.2	-4.8	33.6	54
19488.562500	15.6	V	221.0	23.3	-7.7	38.4	54
21658.187500	14.2	V	287.0	23.4	-9.2	39.8	54
22018.375000	15.6	V	279.0	23.7	-8.1	38.4	54
24733.062500	16.3	V	246.0	22.6	-6.3	37.7	54
25218.625000	18.4	H	92.0	24.4	-6.0	35.6	54

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

802.11b CH6

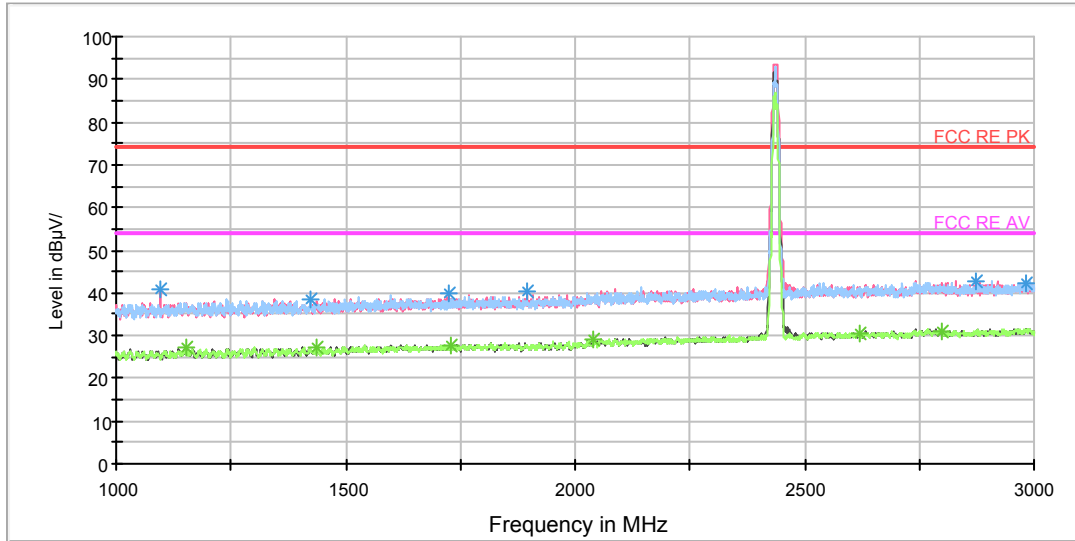
RE 0.03-1GHz QP Class B



Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
32.217500	16.8	100.0	V	0.0	28.7	-11.9	23.2	40.0
37.193750	8.6	125.0	H	0.0	21.0	-12.4	31.4	40.0
53.286250	20.8	100.0	V	292.0	33.6	-12.8	19.2	40.0
171.140000	21.3	125.0	H	291.0	31.6	-10.3	22.2	43.5
237.538750	26.5	125.0	H	101.0	40.2	-13.7	19.5	46.0
600.406250	21.1	100.0	H	10.0	43.2	-22.1	24.9	46.0

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



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

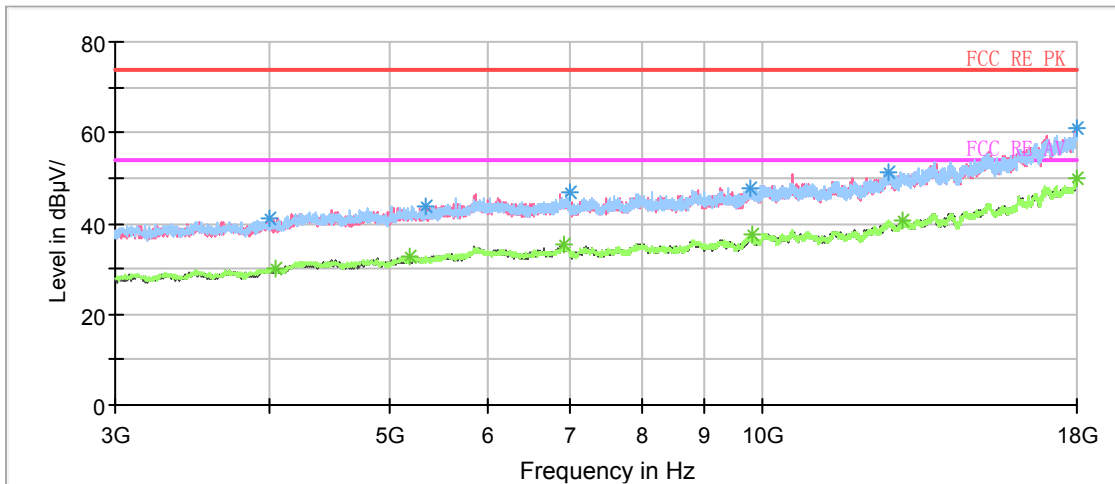
Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
1151.500000	37.2	100.0	V	123.0	48.0	-10.8	36.8	74
1437.500000	36.9	100.0	V	250.0	46.6	-9.7	37.1	74
1729.500000	38.6	100.0	V	230.0	47.2	-8.6	35.4	74
2041.000000	38.6	100.0	H	221.0	46.1	-7.5	35.4	74
2621.500000	39.2	100.0	H	114.0	43.8	-4.6	34.8	74
2798.000000	40.7	100.0	H	30.0	44.8	-4.1	33.3	74

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

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
1095.500000	24.9	100.0	V	314.0	49.8	-24.9	29.1	54
1423.500000	26.7	100.0	V	293.0	53.4	-26.7	27.3	54
1725.500000	26.9	100.0	V	134.0	53.8	-26.9	27.1	54
1895.000000	27.2	100.0	V	333.0	54.4	-27.2	26.8	54
2872.500000	30.9	100.0	H	146.0	61.8	-30.9	23.1	54
2984.500000	31.0	100.0	H	0.0	62.0	-31.0	23.0	54

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

RE 3-18GHz PK+AV



Radiates Emission from 3GHz to 18GHz

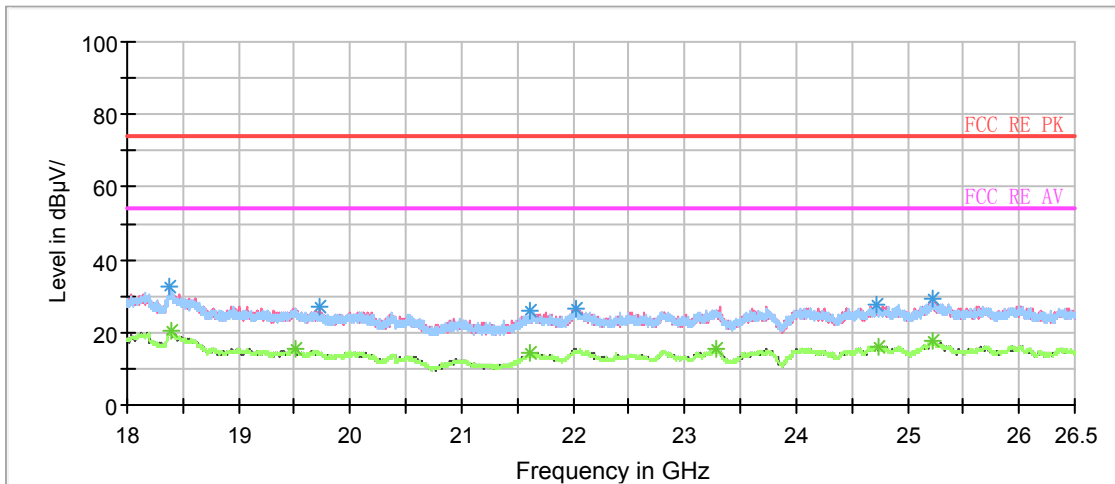
Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
4038.750000	38.8	101.0	V	345.0	39.4	-0.6	35.2	74
5197.500000	42.1	101.0	H	30.0	45.7	-3.6	31.9	74
6913.125000	44.1	101.0	H	60.0	51.0	-6.9	29.9	74
9843.750000	46.4	101.0	H	2.0	58.2	-11.8	27.6	74
12995.625000	50.0	101.0	H	87.0	66.2	-16.2	24.0	74
17994.375000	60.0	101.0	H	232.0	85.3	-25.3	14.0	74

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

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
4038.750000	30.1	101.0	V	345.0	30.7	-0.6	23.9	54
5197.500000	32.8	101.0	H	30.0	36.4	-3.6	21.2	54
6913.125000	35.2	101.0	H	60.0	42.1	-6.9	18.8	54
9843.750000	37.5	101.0	H	2.0	49.3	-11.8	16.5	54
12995.625000	40.8	101.0	H	87.0	57.0	-16.2	13.2	54
17994.375000	49.9	101.0	H	232.0	75.2	-25.3	4.1	54

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

RE 18-26.5GHz PK+AV



Radiates Emission from 18GHz to 26.5GHz

Frequency (MHz)	Peak (dBuV/m)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
18387.812500	30.5	H	49.0	35.4	-4.9	43.5	74
19507.687500	25.9	H	34.0	33.4	-7.5	48.1	74
21616.750000	23.1	H	100.0	32.0	-8.9	50.9	74
23290.187500	26.1	V	25.0	33.1	-7.0	47.9	74
24742.625000	24.7	H	0.0	31.2	-6.5	49.3	74
25231.375000	27.4	V	275.0	33.3	-5.9	46.6	74

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

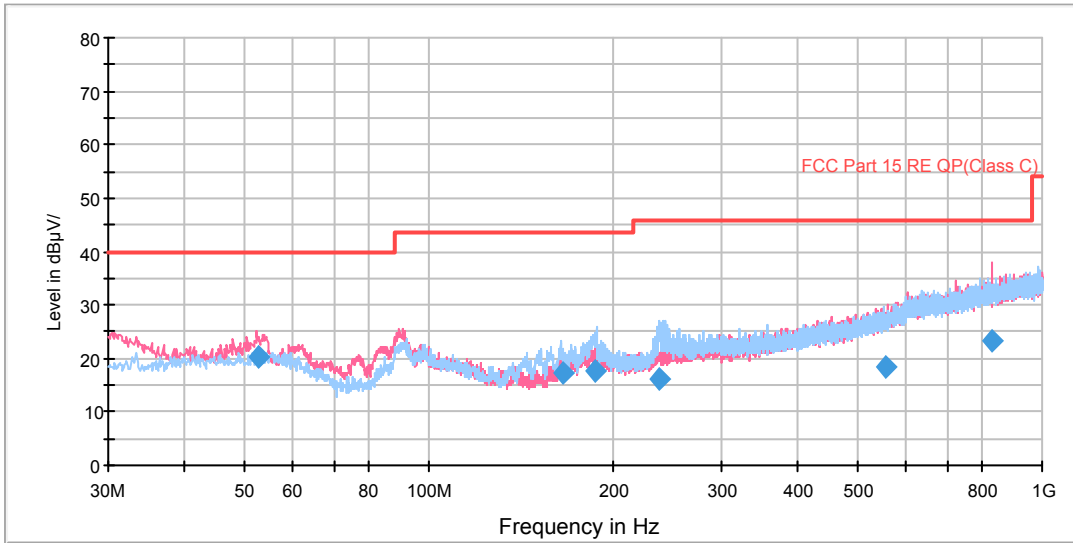
Frequency (MHz)	Average (dBuV/m)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
18387.812500	20.4	H	49.0	25.3	-4.9	33.6	54
19507.687500	15.6	H	34.0	23.1	-7.5	38.4	54
21616.750000	14.4	H	100.0	23.3	-8.9	39.6	54
23290.187500	15.4	V	25.0	22.4	-7.0	38.6	54
24742.625000	16.1	H	0.0	22.6	-6.5	37.9	54
25231.375000	17.9	V	275.0	23.8	-5.9	36.1	54

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



802.11b CH11

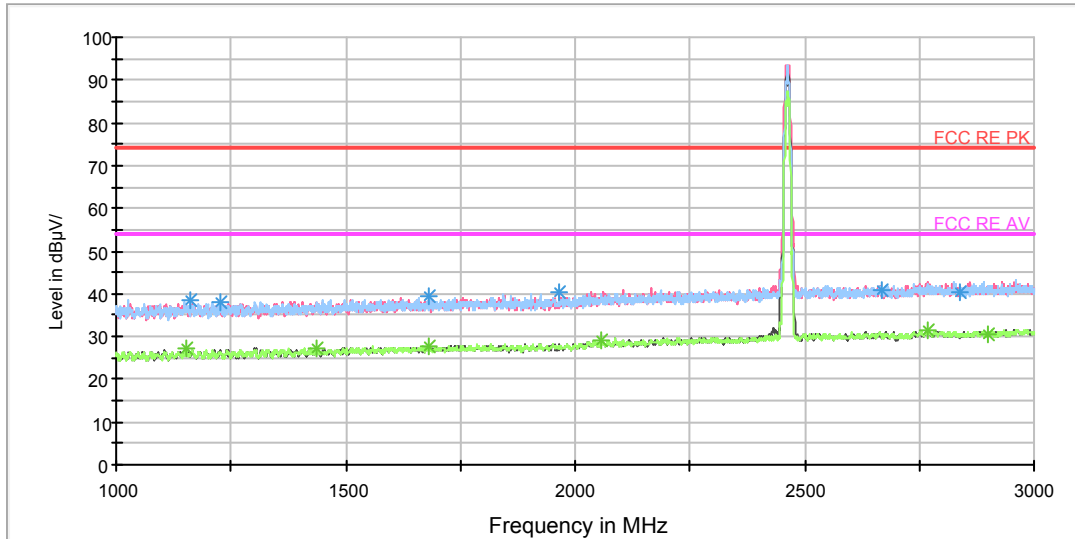
RE 0.03-1GHz QP Class B



Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
52.870000	20.2	100.0	V	311.0	33.0	-12.8	19.8	40.0
165.188750	17.4	125.0	H	304.0	27.4	-10.0	26.1	43.5
187.143750	17.6	100.0	H	301.0	28.8	-11.2	25.9	43.5
236.935000	16.2	114.0	H	90.0	29.8	-13.6	29.8	46.0
554.077500	18.5	100.0	H	274.0	39.7	-21.2	27.5	46.0
828.832500	23.5	100.0	V	28.0	48.2	-24.7	22.5	46.0

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



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

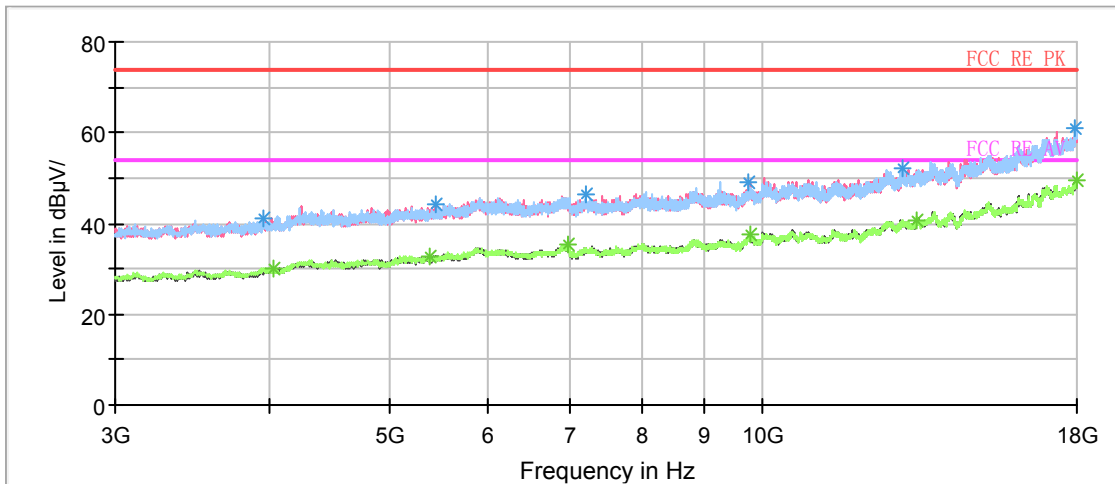
Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
1151.500000	37.1	100.0	V	359.0	47.9	-10.8	36.9	74
1437.000000	37.1	100.0	H	0.0	46.8	-9.7	36.9	74
1679.500000	37.3	100.0	V	123.0	46.1	-8.8	36.7	74
2057.000000	38.5	100.0	H	1.0	45.9	-7.4	35.5	74
2767.000000	41.4	100.0	V	0.0	45.7	-4.3	32.6	74
2901.500000	41.0	100.0	V	334.0	45.2	-4.2	33.0	74

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

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
1161.500000	25.9	100.0	H	97.0	36.7	-10.8	28.1	54
1225.000000	26.3	100.0	H	76.0	36.8	-10.5	27.7	54
1680.000000	27.2	100.0	H	12.0	36.0	-8.8	26.8	54
1966.000000	27.6	100.0	V	303.0	35.5	-7.9	26.4	54
2669.500000	29.8	100.0	H	2.0	34.4	-4.6	24.2	54
2838.500000	30.2	100.0	V	208.0	34.4	-4.2	23.8	54

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

RE 3-18GHz PK+AV



Radiates Emission from 3GHz to 18GHz

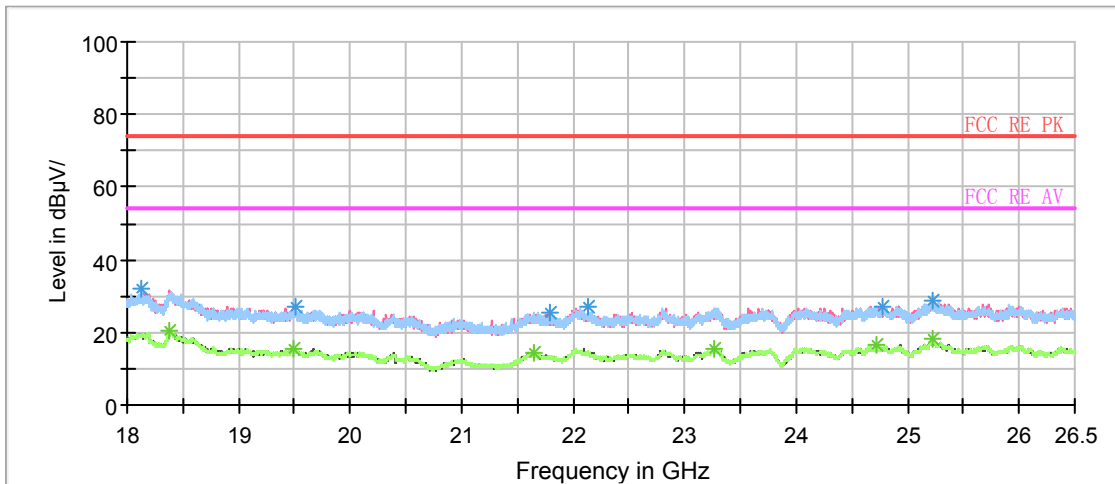
Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
4033.125000	39.2	101.0	V	335.0	39.8	0.6	34.8	74
5381.250000	41.7	101.0	V	106.0	45.4	3.7	32.3	74
6975.000000	44.2	101.0	H	0.0	50.7	6.5	29.8	74
9789.375000	45.9	101.0	V	0.0	58.0	12.1	28.1	74
13331.250000	49.8	101.0	V	293.0	65.5	15.7	24.2	74
17988.750000	58.7	101.0	V	221.0	84.0	25.3	15.3	74

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

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
4033.125000	30.1	101.0	V	335.0	30.7	-0.6	23.9	54
5381.250000	32.8	101.0	V	106.0	36.5	-3.7	21.2	54
6975.000000	35.4	101.0	H	0.0	41.9	-6.5	18.6	54
9789.375000	37.5	101.0	V	0.0	49.6	-12.1	16.5	54
13331.250000	40.6	101.0	V	293.0	56.3	-15.7	13.4	54
17988.750000	49.6	101.0	V	221.0	74.9	-25.3	4.4	54

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

RE 18-26.5GHz PK+AV



Radiates Emission from 18GHz to 26.5GHz

Frequency (MHz)	Peak (dBuV/m)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
18385.687500	29.9	V	191.0	34.7	-4.8	44.1	74
19496.000000	25.8	H	105.0	33.4	-7.6	48.2	74
21648.625000	25.0	H	38.0	34.2	-9.2	49.0	74
23264.687500	25.5	H	63.0	32.8	-7.3	48.5	74
24719.250000	25.1	H	105.0	31.4	-6.3	48.9	74
25226.062500	28.3	H	140.0	34.2	-5.9	45.7	74

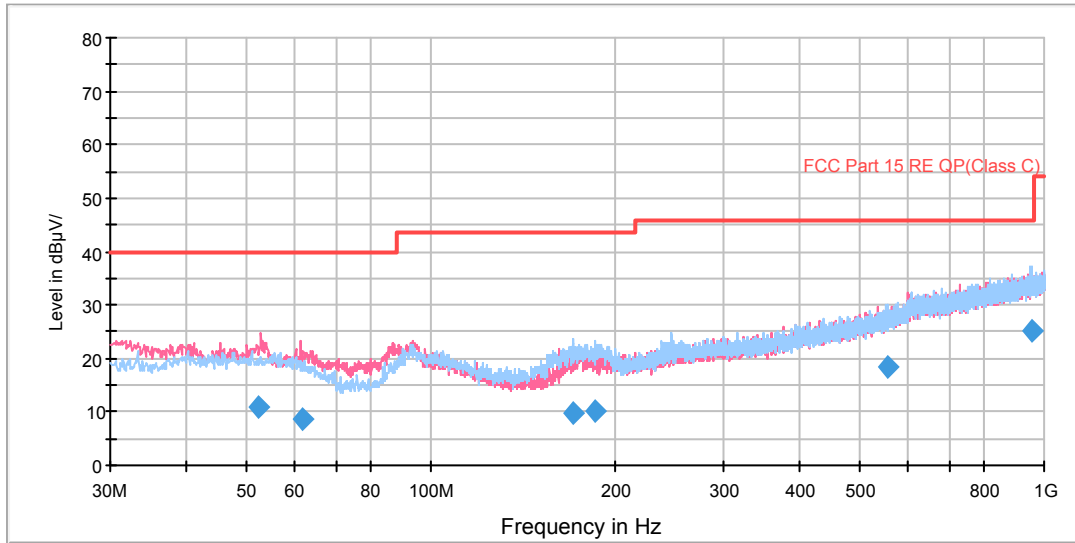
Remark: 1. Correction Factor = Antenna factor+ Insertion loss (cable loss + amplifier gain)

Frequency (MHz)	Average (dBuV/m)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
18385.687500	20.7	V	191.0	25.5	-4.8	33.3	54
19496.000000	15.6	H	105.0	23.2	-7.6	38.4	54
21648.625000	14.2	H	38.0	23.4	-9.2	39.8	54
23264.687500	15.5	H	63.0	22.8	-7.3	38.5	54
24719.250000	16.3	H	105.0	22.6	-6.3	37.7	54
25226.062500	18.0	H	140.0	23.9	-5.9	36.0	54

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

802.11g CH1

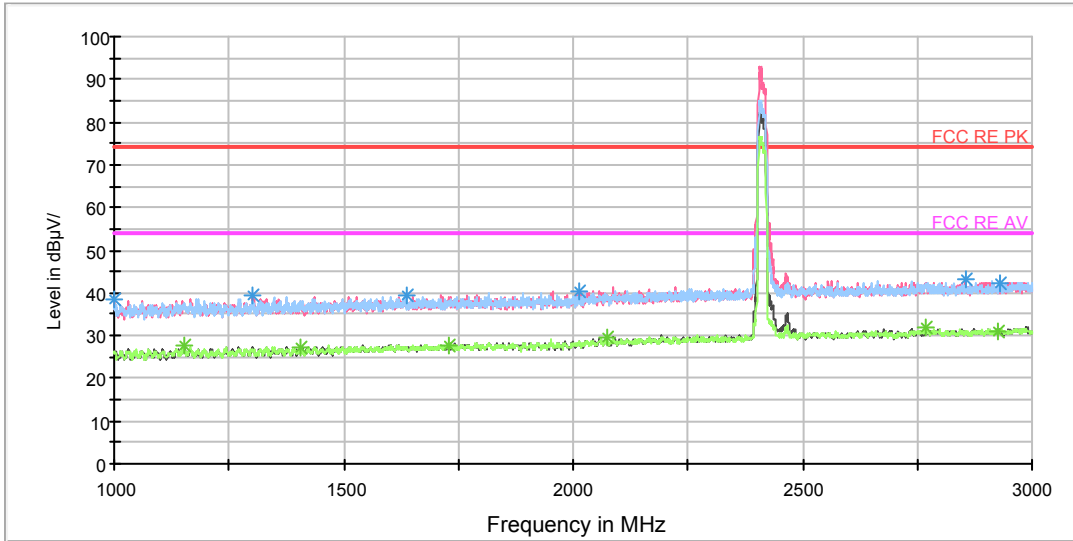
FCC RE 0.03-1GHz QP Class C



Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
52.476250	10.8	100.0	V	0.0	23.7	-12.9	29.2	40.0
61.882500	8.6	100.0	V	302.0	20.4	-11.8	31.4	40.0
170.366250	9.9	125.0	H	301.0	20.2	-10.3	33.6	43.5
184.956250	10.2	125.0	H	302.0	21.3	-11.1	33.3	43.5
555.981250	18.5	100.0	H	129.0	39.7	-21.2	27.5	46.0
955.181250	25.0	100.0	H	129.0	51.1	-26.1	21.0	46.0

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



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

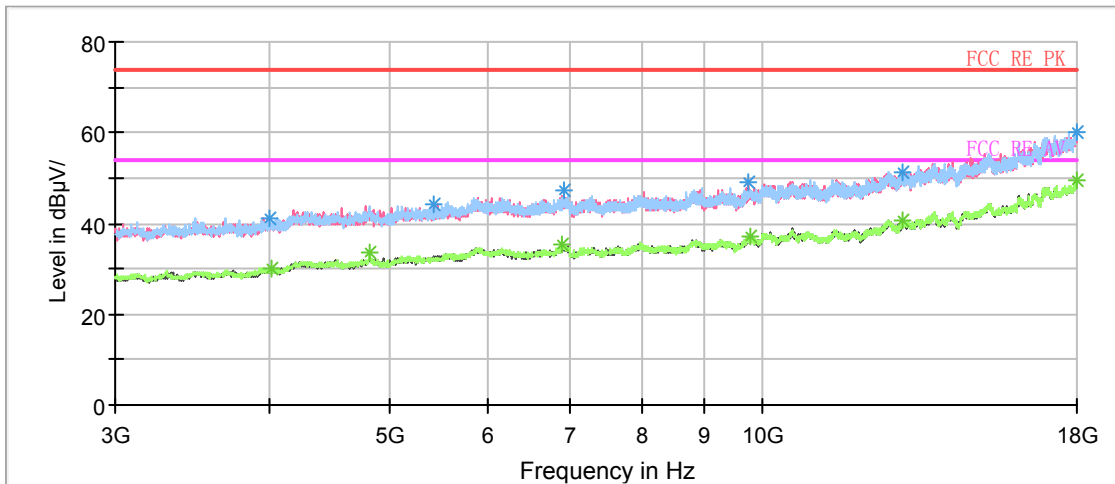
Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
1151.500000	36.9	100.0	V	352.0	47.7	-10.8	37.1	74
1407.000000	37.9	100.0	V	0.0	47.7	-9.8	36.1	74
1728.500000	37.6	100.0	H	15.0	46.2	-8.6	36.4	74
2072.500000	38.9	100.0	V	272.0	46.2	-7.3	35.1	74
2769.500000	41.1	100.0	V	123.0	45.4	-4.3	32.9	74
2925.500000	41.1	100.0	V	342.0	45.3	-4.2	32.9	74

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

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
1000.500000	26.0	100.0	V	0.0	37.4	-11.4	28.0	54
1301.000000	26.5	100.0	V	0.0	36.6	-10.1	27.5	54
1635.500000	27.1	100.0	V	262.0	36.0	-8.9	26.9	54
2015.000000	27.9	100.0	V	0.0	35.6	-7.7	26.1	54
2854.000000	31.0	100.0	V	325.0	35.2	-4.2	23.0	54
2931.000000	30.8	100.0	V	145.0	34.9	-4.1	23.2	54

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

RE 3-18GHz PK+AV



Radiates Emission from 3GHz to 18GHz

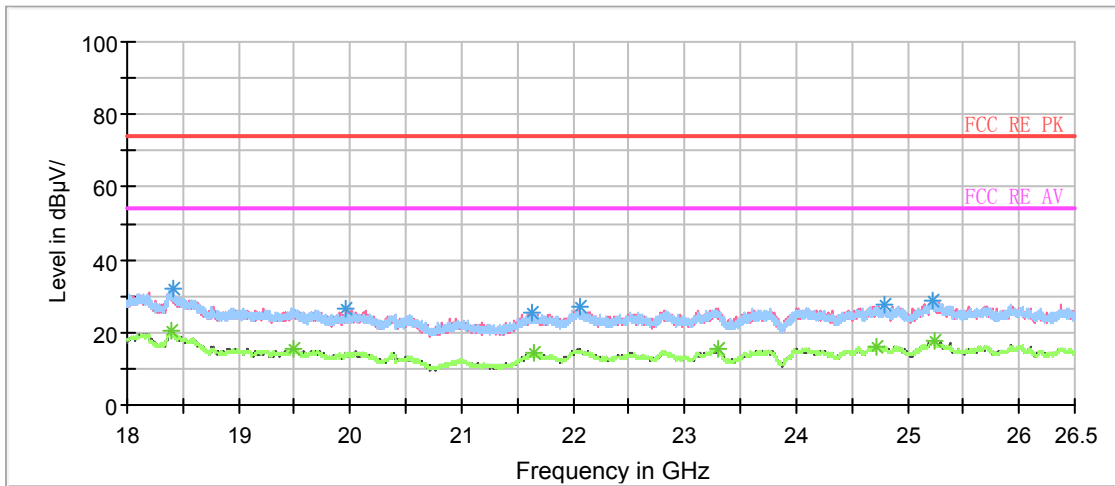
Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
4014.375000	39.2	101.0	V	212.0	39.7	-0.5	34.8	74
4820.625000	41.2	101.0	V	282.0	43.9	-2.7	32.8	74
6901.875000	44.4	101.0	H	349.0	51.4	-7.0	29.6	74
9787.500000	46.0	101.0	H	4.0	58.1	-12.1	28.0	74
13020.000000	49.4	101.0	H	0.0	65.6	-16.2	24.6	74
17986.875000	60.0	101.0	H	194.0	85.2	-25.2	14.0	74

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

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
4014.375000	30.2	101.0	V	212.0	30.7	-0.5	23.8	54
4820.625000	33.4	101.0	V	282.0	36.1	-2.7	20.6	54
6901.875000	35.2	101.0	H	349.0	42.2	-7.0	18.8	54
9787.500000	37.2	101.0	H	4.0	49.3	-12.1	16.8	54
13020.000000	40.8	101.0	H	0.0	57.0	-16.2	13.2	54
17986.875000	49.7	101.0	H	194.0	74.9	-25.2	4.3	54

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

RE 18-26.5GHz PK+AV



Radiates Emission from 18GHz to 26.5GHz

Frequency (MHz)	Peak (dBuV/m)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
18393.125000	29.8	V	172.0	34.7	-4.9	44.2	74
19492.812500	24.3	V	131.0	31.9	-7.6	49.7	74
21643.312500	23.8	H	0.0	32.9	-9.1	50.2	74
23293.375000	24.7	H	62.0	31.7	-7.0	49.3	74
24713.937500	25.8	H	221.0	32.3	-6.5	48.2	74
25236.687500	28.6	H	196.0	34.7	-6.1	45.4	74

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

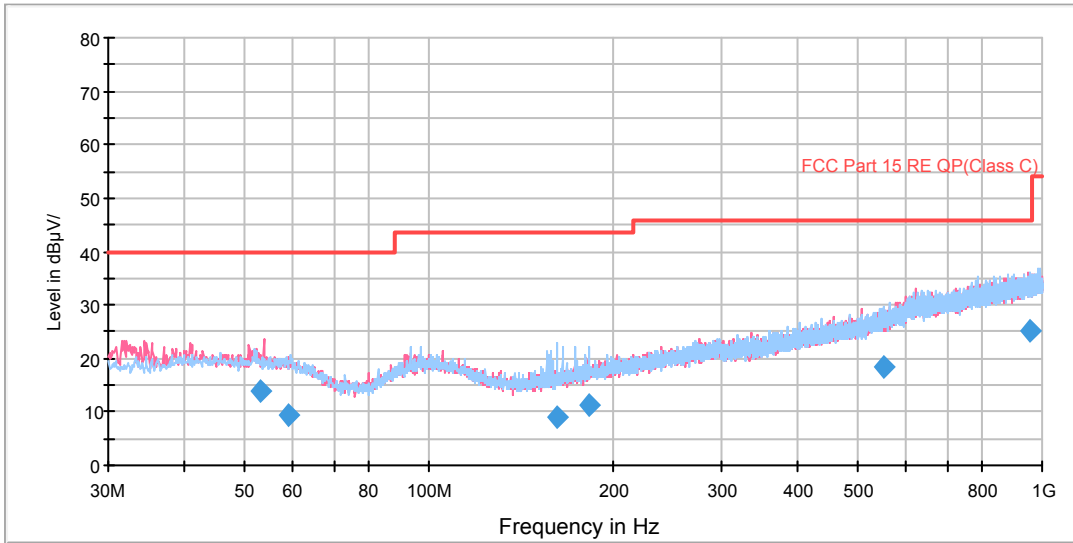
Frequency (MHz)	Average (dBuV/m)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
18393.125000	20.4	V	172.0	25.3	-4.9	33.6	54
19492.812500	15.5	V	131.0	23.1	-7.6	38.5	54
21643.312500	14.2	H	0.0	23.3	-9.1	39.8	54
23293.375000	15.4	H	62.0	22.4	-7.0	38.6	54
24713.937500	16.3	H	221.0	22.8	-6.5	37.7	54
25236.687500	17.9	H	196.0	24.0	-6.1	36.1	54

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



802.11g CH6

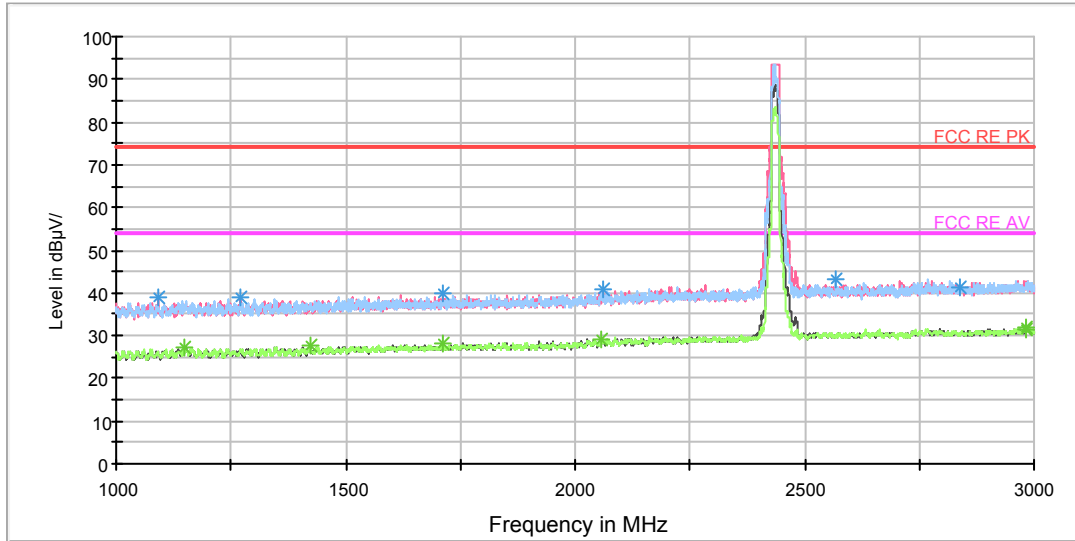
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Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
53.325000	13.9	100.0	V	216.0	26.7	12.8	26.1	40.0
58.985000	9.4	100.0	H	124.0	21.9	12.5	30.6	40.0
161.320000	8.9	125.0	H	26.0	18.7	9.8	34.6	43.5
182.010000	11.1	114.0	H	260.0	22.0	10.9	32.4	43.5
551.128750	18.4	100.0	H	175.0	39.4	21.0	27.6	46.0
957.396250	25.1	100.0	H	345.0	51.3	26.2	20.9	46.0

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



Note: The signal beyond the limit is carrier.

Radiates Emission from 1GHz to 3GHz

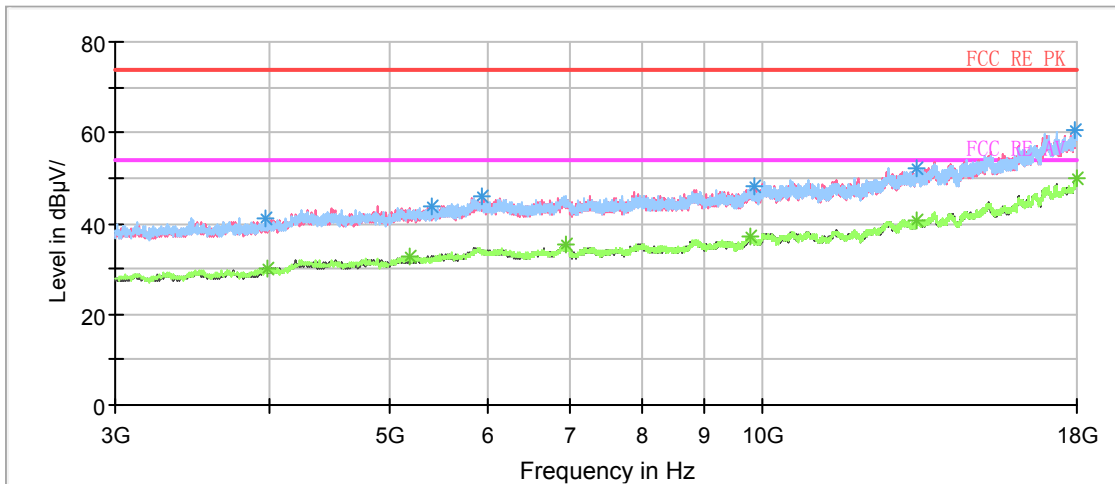
Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
1150.000000	37.2	100.0	V	347.0	48.0	-10.8	36.8	74
1421.500000	37.2	100.0	H	22.0	47.0	-9.8	36.8	74
1710.500000	39.8	100.0	V	198.0	48.5	-8.7	34.2	74
2058.000000	38.7	100.0	V	113.0	46.1	-7.4	35.3	74
2980.500000	41.0	100.0	V	351.0	45.0	-4.0	33.0	74
2982.500000	41.5	100.0	V	145.0	45.5	-4.0	32.5	74

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

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
1091.500000	26.0	100.0	V	359.0	37.0	-11.0	28.0	54
1271.000000	26.5	100.0	V	359.0	36.8	-10.3	27.5	54
1710.500000	28.0	100.0	V	198.0	36.7	-8.7	26.0	54
2059.500000	28.6	100.0	V	292.0	36.0	-7.4	25.4	54
2569.000000	29.7	100.0	H	51.0	34.5	-4.8	24.3	54
2838.500000	30.4	100.0	H	204.0	34.6	-4.2	23.6	54

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

RE 3-18GHz PK+AV



Radiates Emission from 3GHz to 18GHz

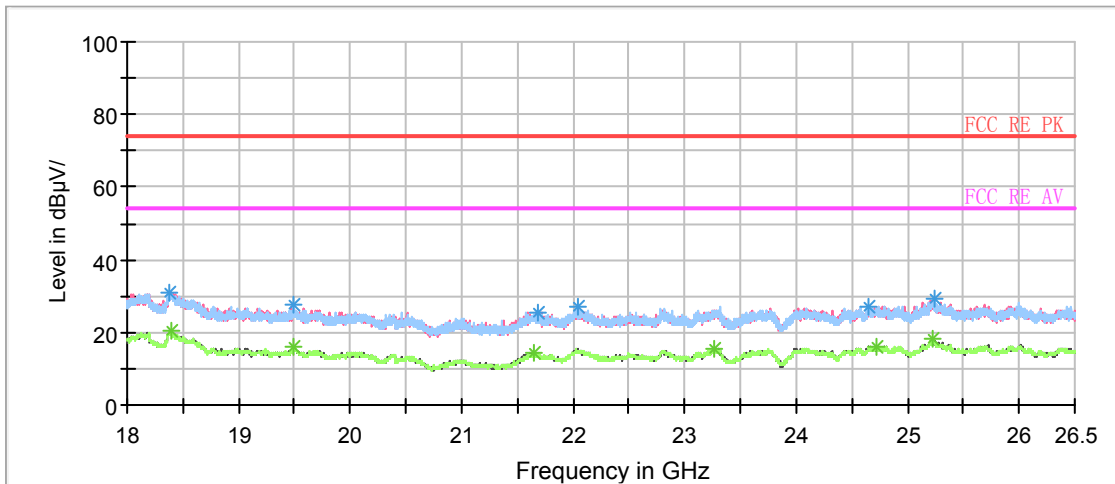
Frequency (MHz)	Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3990.000000	39.5	101.0	H	45.0	39.9	-0.4	34.5	74
5184.375000	42.2	101.0	H	175.0	45.8	-3.6	31.8	74
6958.125000	43.6	101.0	H	2.0	50.2	-6.6	30.4	74
9787.500000	46.1	101.0	H	0.0	58.2	-12.1	27.9	74
13351.875000	50.4	101.0	V	64.0	66.2	-15.8	23.6	74
17988.750000	59.4	101.0	V	359.0	84.7	-25.3	14.6	74

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

Frequency (MHz)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
3990.000000	30.1	101.0	H	45.0	30.5	-0.4	23.9	54
5184.375000	32.7	101.0	H	175.0	36.3	-3.6	21.3	54
6958.125000	35.3	101.0	H	2.0	41.9	-6.6	18.7	54
9787.500000	37.1	101.0	H	0.0	49.2	-12.1	16.9	54
13351.875000	40.7	101.0	V	64.0	56.5	-15.8	13.3	54
17988.750000	50.1	101.0	V	359.0	75.4	25.3	3.9	54

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

RE 18-26.5GHz PK+AV



Radiates Emission from 18GHz to 26.5GHz

Frequency (MHz)	Peak (dBuV/m)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
18395.250000	29.8	H	121.0	34.7	-4.9	44.2	74
19486.437500	24.6	V	218.0	32.3	-7.7	49.4	74
21653.937500	24.3	H	259.0	33.5	-9.2	49.7	74
23267.875000	24.2	H	248.0	31.5	-7.3	49.8	74
24716.062500	25.1	V	235.0	31.5	-6.4	48.9	74
25231.375000	27.1	V	285.0	33.0	-5.9	46.9	74

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

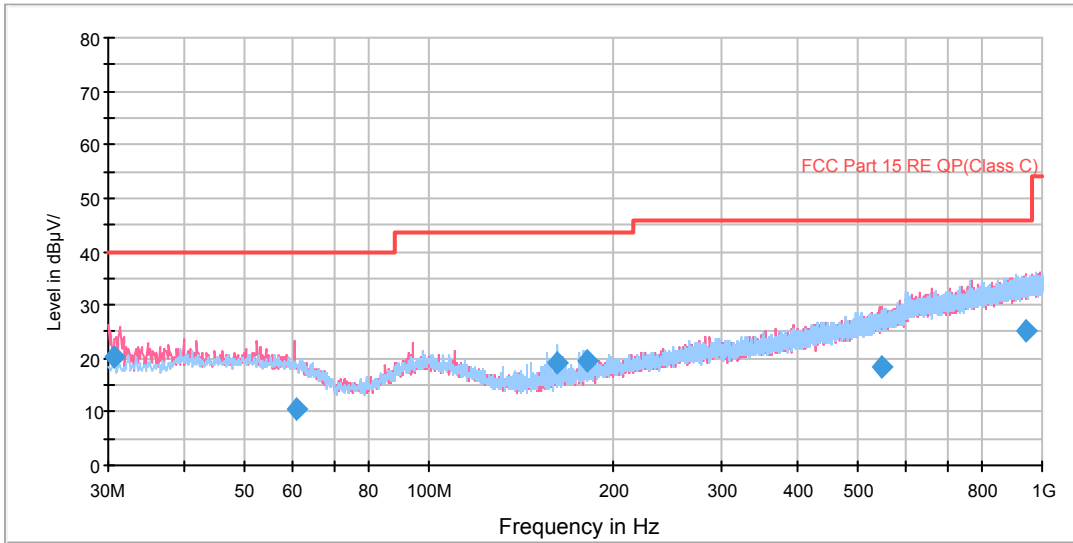
Frequency (MHz)	Average (dBuV/m)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
18395.250000	20.4	H	121.0	25.3	-4.9	33.6	54
19486.437500	15.8	V	218.0	23.5	-7.7	38.2	54
21653.937500	14.3	H	259.0	23.5	-9.2	39.7	54
23267.875000	15.6	H	248.0	22.9	-7.3	38.4	54
24716.062500	16.2	V	235.0	22.6	-6.4	37.8	54
25231.375000	18.1	V	285.0	24.0	-5.9	35.9	54

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



802.11g CH11

FCC RE 0.03-1GHz QP Class C



Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Reading value (dBuV/m)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
30.600000	20.3	100.0	V	281.0	32.2	-11.9	19.7	40.0
60.792500	10.5	100.0	V	335.0	22.7	-12.2	29.5	40.0
161.805000	19.2	125.0	H	258.0	29.0	-9.8	24.3	43.5
180.991250	19.6	114.0	H	249.0	30.5	-10.9	23.9	43.5
549.752500	18.4	117.0	V	209.0	39.4	-21.0	27.6	46.0
943.298750	25.1	114.0	V	332.0	51.1	-26.0	20.9	46.0

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