



REPORT No.: SZ21090310W01

TEST REPORT

APPLICANT : Anker Innovations Limited

PRODUCT NAME : eufyCam 2

MODEL NAME : T8114S

BRAND NAME : eufy SECURITY

FCC ID : 2AOKB-T8114S

STANDARD(S) : 47 CFR Part 15 Subpart C

RECEIPT DATE : 2021-09-30

TEST DATE : 2021-10-19 to 2021-11-26

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DIRECTORY

1. Technical Information	3
1.1. Applicant and Manufacturer Information	3
1.2. Equipment Under Test (EUT) Description	3
1.3. Modulation Type and Data Rate of EUT	4
1.4. The Channel Number and Frequency	5
1.5. Test Standards and Results	6
1.6. Environmental Conditions	7
2. 47 CFR Part 15C Requirements	8
2.1. Antenna Requirement	8
2.2. Duty Cycle of Test Signal	9
2.3. Maximum Peak and Average Conducted Output Power	12
2.4. Bandwidth	15
2.5. Conducted Spurious Emissions and Band Edge	22
2.6. Power Spectral Density	32
2.7. Conducted Emission	39
2.8. Restricted Frequency Bands	43
2.9. Radiated Emission	53
Annex A Test Uncertainty	66
Annex B Testing Laboratory Information	67

Change History		
Version	Date	Reason for change
1.0	2021-12-14	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Anker Innovations Limited
Applicant Address:	Room 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, Hong Kong
Manufacturer:	Anker Innovations Limited
Manufacturer Address:	Room 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, Hong Kong

1.2. Equipment Under Test (EUT) Description

Product Name:	eufyCam 2	
Sample No.:	2#	
Hardware Version:	T8140-S SC3335 V01	
Software Version:	V4.0.6	
Modulation Technology:	DSSS, OFDM	
Modulation Mode:	802.11b, 802.11g, 802.11n (HT20)	
Operating Frequency Range:	802.11b/g/n (HT20): 2412MHz–2462MHz	
Antenna Type:	FPC Antenna	
Antenna Gain:	2.62dBi	
Accessory Information:	Battery 1	
	Brand Name:	N/A
	Model No.:	INR18650F1L(1INR19/66-4)
	Serial No.:	N/A
	Capacity:	13000mAh
	Rated Voltage:	3.63V
	Charge Limit:	4.2V
	Manufacturer:	Anker Innovations Limited

Accessory Information:	Battery 2	
	Brand Name:	N/A
	Model No.:	18650(11NR19/66-4)
	Serial No.:	N/A
	Capacity:	13000mAh
	Rated Voltage:	3.60V
	Charge Limit:	4.2V
	Manufacturer:	Anker Innovations Limited

Note 1: We use the dedicated software to control the EUT continuous transmission.

Note 2: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

1.3. Modulation Type and Data Rate of EUT

Modulation Technology	Modulation Type	Data Rate (Mbps) ^{Note1}
DSSS (802.11b)	DBPSK	1
	DQPSK	2
	CCK	5.5/ 11
OFDM (802.11g)	BPSK	6 / 9
	QPSK	12 / 18
	16QAM	24 / 36
	64QAM	48 / 54
OFDM (802.11n (HT20))	BPSK	6.5
	QPSK	13/19.5
	16QAM	26/39
	64QAM	52/58.5/65

Note1: The worst-case mode (bold face) in all data rates has been determined during the pre-scan, only the test data of the worst-case were recorded in this report.



1.4. The Channel Number and Frequency

Test Mode	Channel	Frequency (MHz)	Channel	Frequency (MHz)
802.11b/g/n (HT20)	1	2412	8	2447
	2	2417	9	2452
	3	2422	10	2457
	4	2427	11	2462
	5	2432		
	6	2437		
	7	2442		

Note 1: The black bold channels were selected for test.



1.5. Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart C for the EUT FCC ID Certification:

No.	Identity	Document Title
1	47 CFR Part 15	Radio Frequency Devices

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Test Date	Test Engineer	Result	Method Determination /Remark
1	15.203	Antenna Requirement	N/A	N/A	PASS	No deviation
2	N/A	Duty Cycle Of Test Signal	Oct 20, 2021	Su Xiaoxian	PASS	No deviation
3	15.247(b)	Maximum Peak and Average Conducted Output Power	Oct 28, 2021	Su Xiaoxian	PASS	No deviation
4	15.247(a)	Bandwidth	Oct 28, 2021	Su Xiaoxian	PASS	No deviation
5	15.247(d)	Conducted Spurious Emission and Band Edge	Oct 28, 2021	Su Xiaoxian	PASS	No deviation
6	15.247(e)	Power Spectral Density	Oct 28, 2021	Su Xiaoxian	PASS	No deviation
7	15.207	Conducted Emission	Nov 04, 2021	Yang Lian	PASS	No deviation
8	15.247(d)	Restricted Frequency Bands	Nov 14, 2021	Gao Jianrou	PASS	No deviation
9	15.209, 15.247(d)	Radiated Emission	Nov 14&26, 2021	Gao Jianrou	PASS	No deviation

Note 1: The tests were performed according to the method of measurements prescribed in ANSIC63.10-2013, KDB558074 D01 v05r02.

Note 2: The path loss during the RF test is calibrated to correct the results by the offset setting



in the test equipments. The ref offset 11.0dB contains two parts that cable loss 1.0dB and Attenuator 10dB.

Note 3: Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.

Note 4: When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.

1.6. Environmental Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15-35
Relative Humidity (%):	30-60
Atmospheric Pressure (kPa):	86-106



2. 47 CFR Part 15C Requirements

2.1. Antenna Requirement

2.1.1. Applicable Standard

According to FCC 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

2.1.2. Test Result: Compliant

Inside of the EUT has a FPC antenna coupled with the metal shrapnel. Please refer to the EUT internal photos.

2.2. Duty Cycle of Test Signal

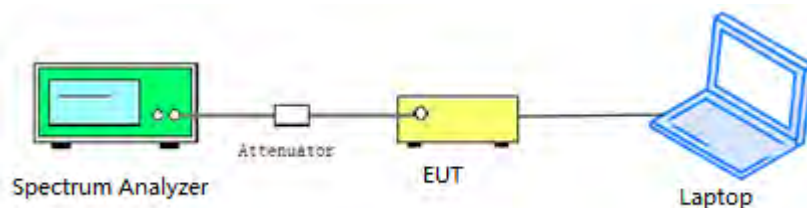
2.2.1. Requirement

Preferably, all measurements of maximum conducted (average) output power will be performed with the EUT transmitting continuously (i.e., with a duty cycle of greater than or equal to 98%). When continuous operation cannot be realized, then the use of sweep triggering/signal gating techniques can be used to ensure that measurements are made only during transmissions at the maximum power control level. Such sweep triggering/signal gating techniques will require knowledge of the minimum transmission duration (T) over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation. Sweep triggering/signal gating techniques can then be used if the measurement/sweep time of the analyzer can be set such that it does not exceed T at any time that data are being acquired (i.e., no transmitter OFF-time is to be considered).

When continuous transmission cannot be achieved and sweep triggering/signal gating cannot be implemented, alternative procedures are provided that can be used to measure the average power; however, they will require an additional measurement of the transmitter duty cycle (D). Within this subclause, the duty cycle refers to the fraction of time over which the transmitter is ON and is transmitting at its maximum power control level. The duty cycle is considered to be constant if variations are less than $\pm 2\%$; otherwise, the duty cycle is considered to be nonconstant.

2.2.2. Test Description

Test Setup:



ANSI C63.10 2013 Clause 11.6 was used in order to prove compliance.

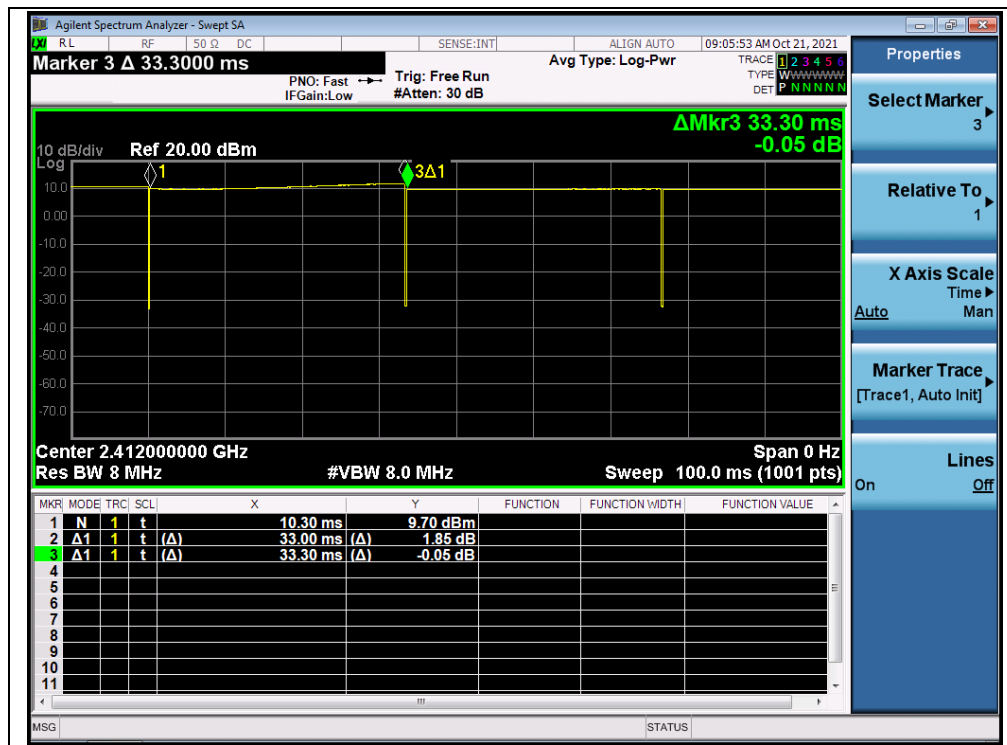


2.2.3. Test Result

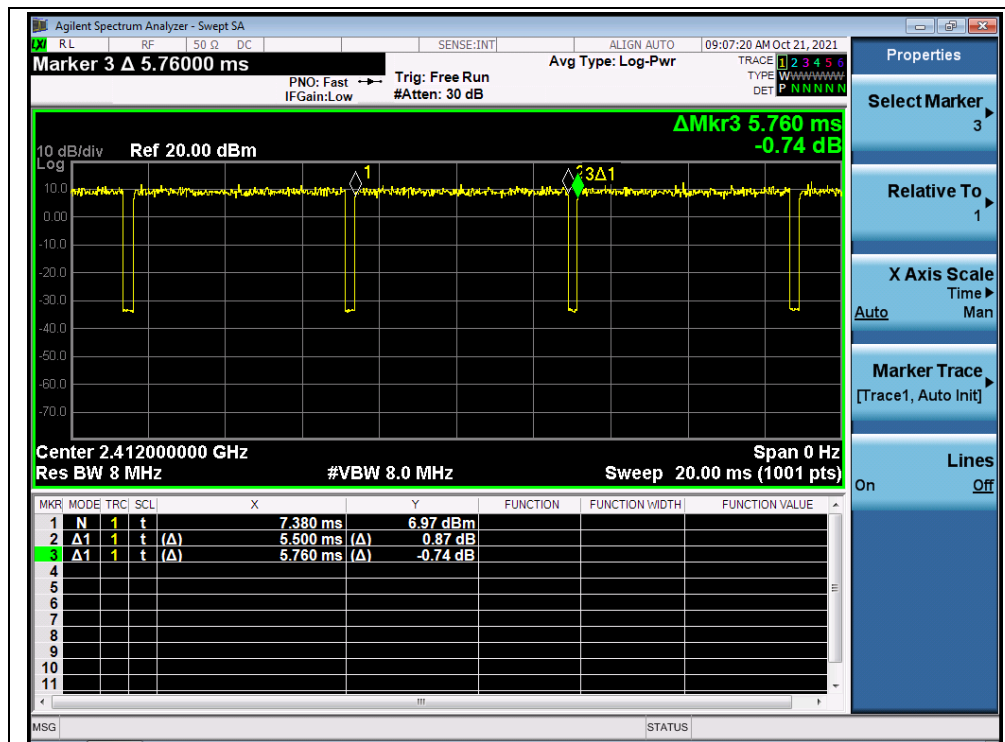
A. Test Verdict:

Test Mode	Duty Cycle (%) (D)	Duty Factor ($10 \cdot \lg[1/D]$)
802.11b	100.00	0.00
802.11g	95.49	0.20
802.11n (HT20)	94.40	0.25

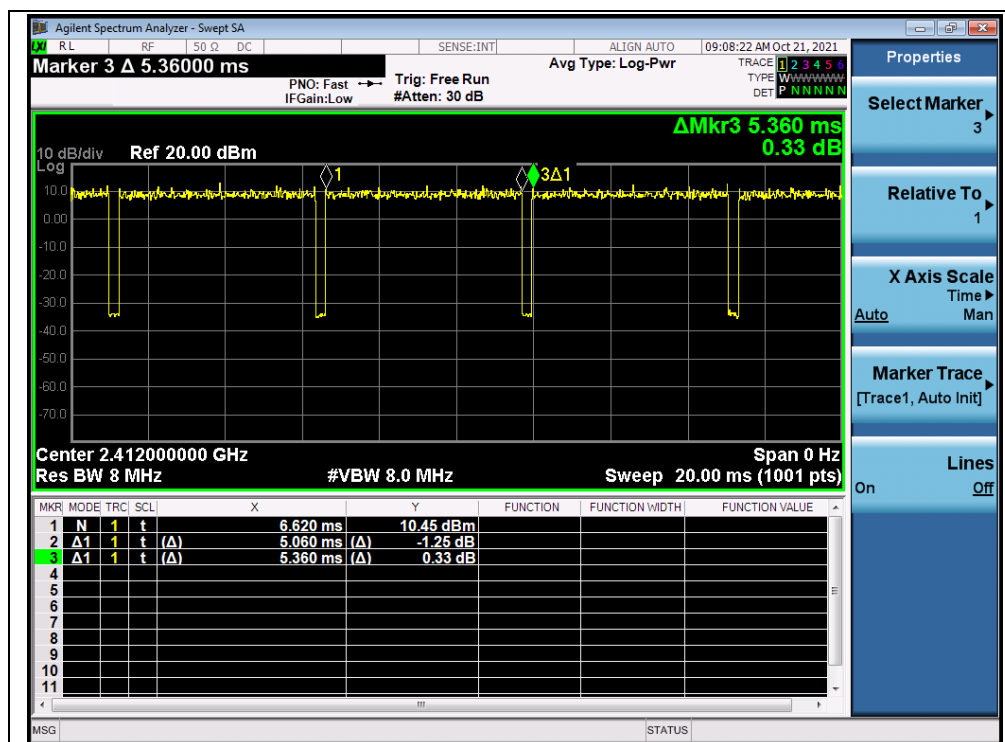
B. Test Plot:



(Channel 1, 802.11b)



(Channel 1, 802.11g)



(Channel 1, 802.11n (HT20))

2.3. Maximum Peak and Average Conducted Output Power

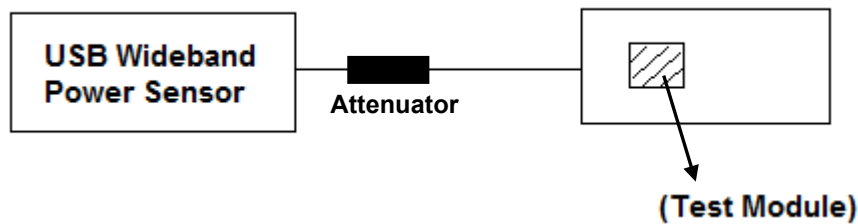
2.3.1. Requirement

According to FCC section 15.247(b)(3), For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: The maximum peak conducted output power of the intentional radiator shall not exceed 1 Watt.

2.3.2. Test Description

The measured output power was calculated by the reading of the USB Wideband Power Sensor and calibration.

Test Setup:



The EUT (Equipment under the test) which is coupled to the USB Wideband Power Sensor; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.



2.3.3. Test Result

Maximum Peak Conducted Output Power

802.11b Mode

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
1	2412	22.09	0.162	30	1	PASS
6	2437	21.98	0.158			PASS
11	2462	21.83	0.152			PASS

802.11g Mode

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
1	2412	22.72	0.187	30	1	PASS
6	2437	22.59	0.182			PASS
11	2462	22.52	0.179			PASS

802.11n (HT20) Mode

Channel	Frequency (MHz)	Measured Output Peak Power		Limit		Verdict
		dBm	W	dBm	W	
1	2412	22.10	0.162	30	1	PASS
6	2437	21.92	0.156			PASS
11	2462	21.87	0.154			PASS

**Maximum Average Conducted Output Power****802.11b Mode**

Channel	Frequency (MHz)	Average Power				Limit		Verdict
		Measured	Duty Factor	Duty Factor Calculated				
		dBm		dBm	W	dBm	W	
1	2412	19.63	0.00	19.63	0.092	30	1	PASS
6	2437	19.53		19.53	0.090			PASS
11	2462	19.43		19.43	0.088			PASS

802.11g Mode

Channel	Frequency (MHz)	Average Power				Limit		Verdict
		Measured	Duty Factor	Duty Factor Calculated				
		dBm		dBm	W	dBm	W	
1	2412	14.73	0.20	14.93	0.031	30	1	PASS
6	2437	14.47		14.67	0.029			PASS
11	2462	14.34		14.54	0.028			PASS

802.11n (HT20) Mode

Channel	Frequency (MHz)	Average Power				Limit		Verdict
		Measured	Duty Factor	Duty Factor Calculated				
		dBm		dBm	W	dBm	W	
1	2412	13.42	0.25	13.67	0.023	30	1	PASS
6	2437	13.21		13.46	0.022			PASS
11	2462	13.03		13.28	0.021			PASS

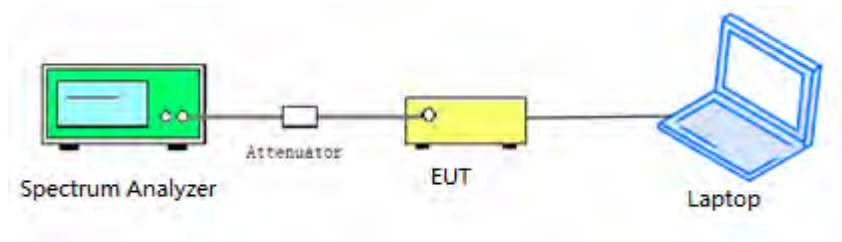
2.4. Bandwidth

2.4.1. Requirement

According to FCC section 15.247(a) (2), Systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

2.4.2. Test Description

Test Setup:



The EUT is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50 Ohm; the path loss as the factor is calibrated to correct the reading.

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

2.4.3. Test Procedure

KDB 558074 Section 8.2 was used in order to prove compliance.



2.4.4. Test Result

802.11b Mode

A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits(kHz)	Result
1	2412	8.520	≥500	PASS
6	2437	9.076	≥500	PASS
11	2462	9.034	≥500	PASS

B. Test Plot:



(Channel 1, 802.11b)



(Channel 6, 802.11b)



(Channel 11, 802.11b)



802.11g Mode

A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits(kHz)	Result
1	2412	16.39	≥500	PASS
6	2437	16.38	≥500	PASS
11	2462	16.37	≥500	PASS

B. Test Plot:



(Channel 1, 802.11g)



(Channel 6, 802.11g)



(Channel 11, 802.11g)



802.11n (HT20) Mode

A. Test Verdict:

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Limits(kHz)	Result
1	2412	17.59	≥500	PASS
6	2437	17.58	≥500	PASS
11	2462	17.58	≥500	PASS

B. Test Plot:



(Channel 1, 802.11n (HT20))



(Channel 6, 802.11n (HT20))



(Channel 11, 802.11n (HT20))

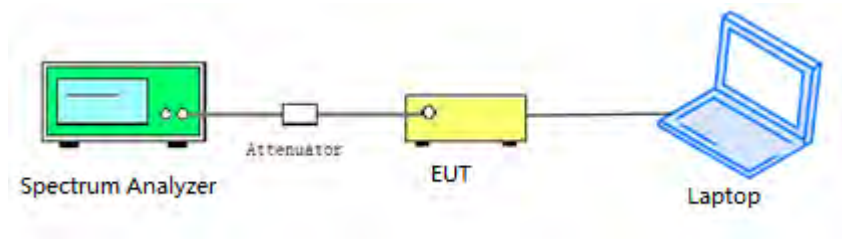
2.5. Conducted Spurious Emissions and Band Edge

2.5.1. Requirement

According to FCC section 15.247(c), in any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

2.5.2. Test Description

Test Setup:



The EUT is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

2.5.3. Test Procedure

KDB 558074 Section 8.5 and 8.7 was used in order to prove compliance.



2.5.4. Test Result

802.11b Mode

A. Test Verdict:

Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated -20dBc Limit	
1	2412	-42.45	11.73	-8.27	PASS
		-27.26@edge	13.38	-6.62	PASS
6	2437	-42.77	10.65	-9.35	PASS
11	2462	-43.05	11.44	-8.56	PASS
		-35.09@edge	12.70	-7.30	PASS

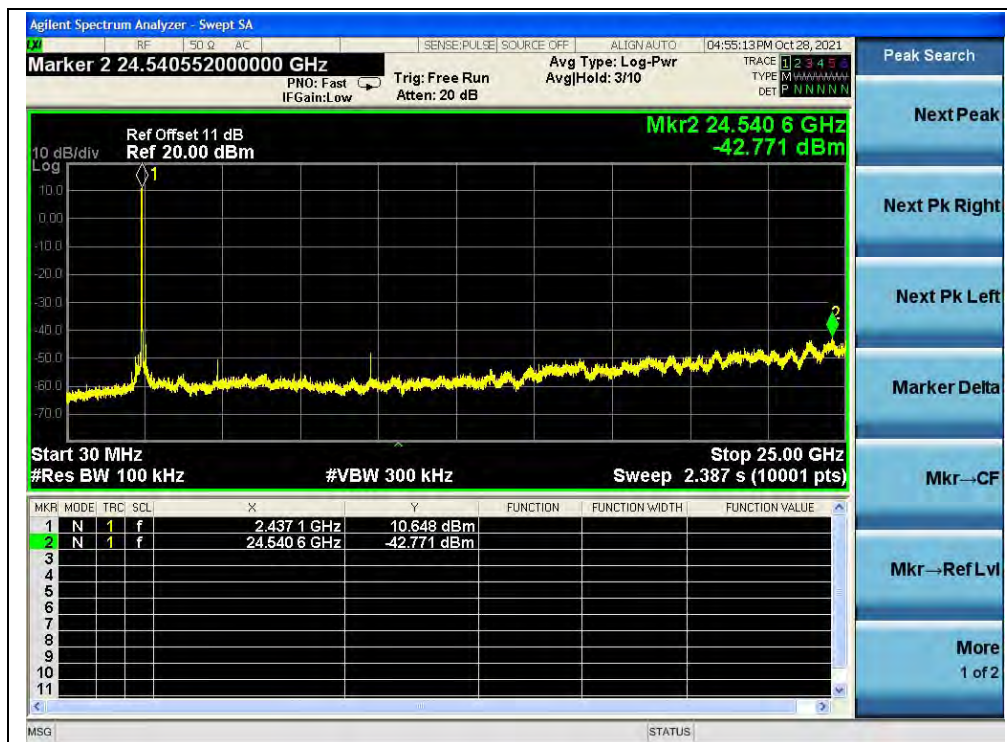
B. Test Plot:



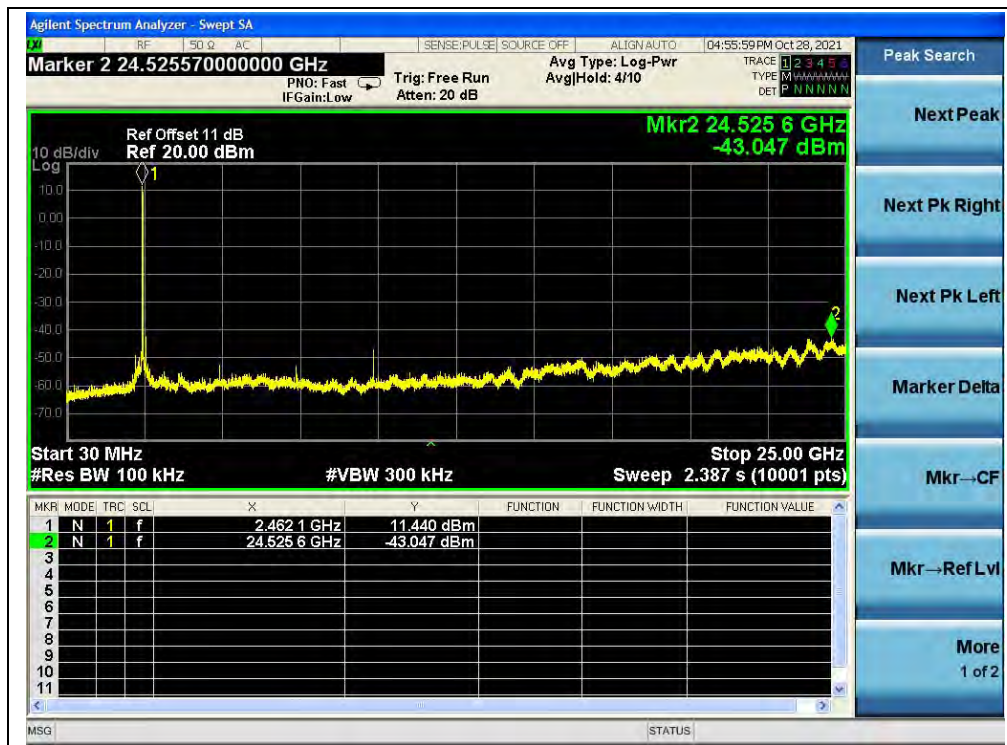
(30MHz to 25GHz, Channel 1, 802.11b)



(Band Edge, Channel 1, 802.11b)



(30MHz to 25GHz, Channel 6, 802.11b)



(30MHz to 25GHz, Channel 11, 802.11b)



(Band Edge, Channel 11, 802.11b)

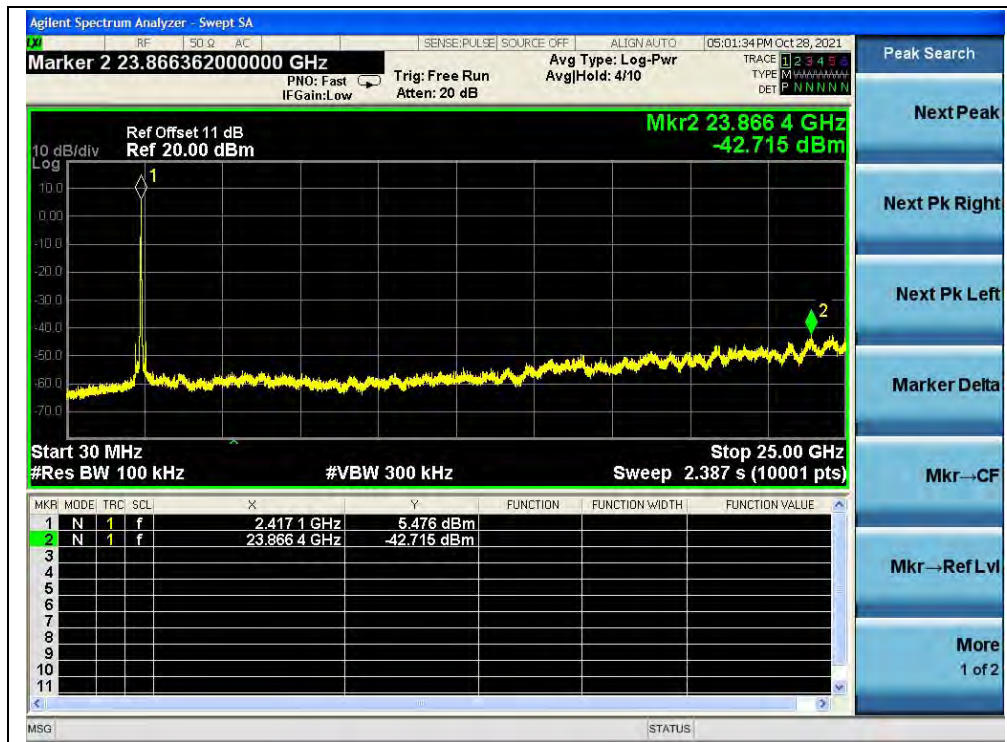


802.11g Mode

A. Test Verdict:

Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated -20dBc Limit	
1	2412	-42.72	5.48	-14.52	PASS
		-13.05@edge	8.61	-11.39	PASS
6	2437	-42.17	5.07	-14.93	PASS
11	2462	-43.31	4.33	-15.67	PASS
		-22.93@edge	8.56	-11.43	PASS

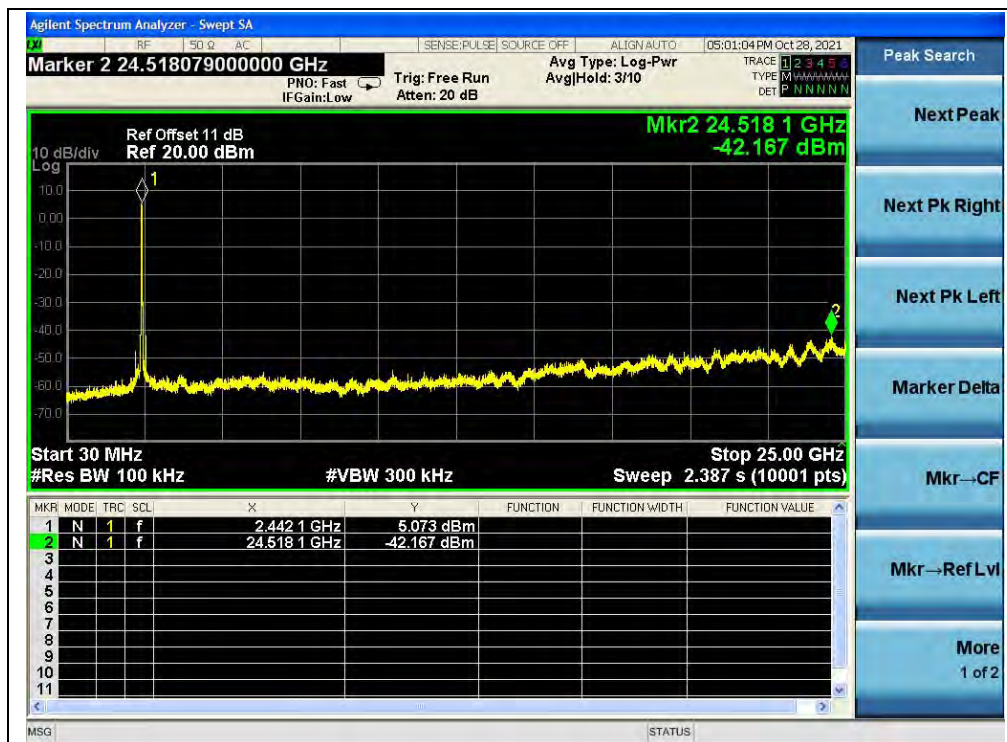
B. Test Plot:



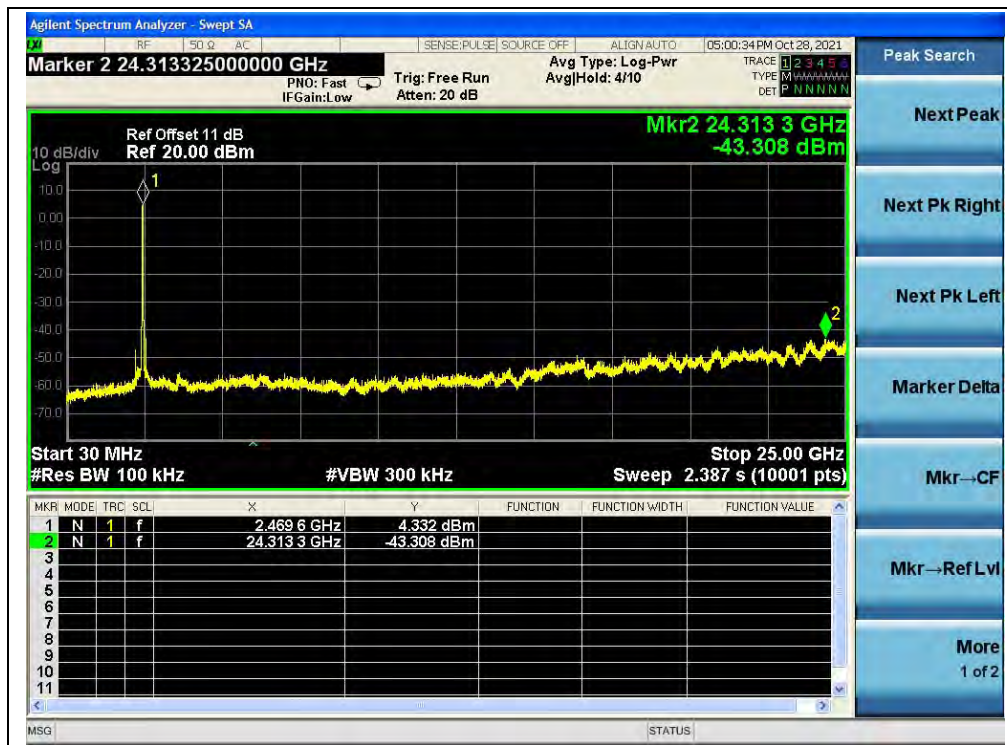
(30MHz to 25GHz, Channel 1, 802.11g)



(Band Edge, Channel 1, 802.11g)



(30MHz to 25GHz, Channel 6, 802.11g)



(30MHz to 25GHz, Channel 11, 802.11g)



(Band Edge, Channel 11, 802.11g)

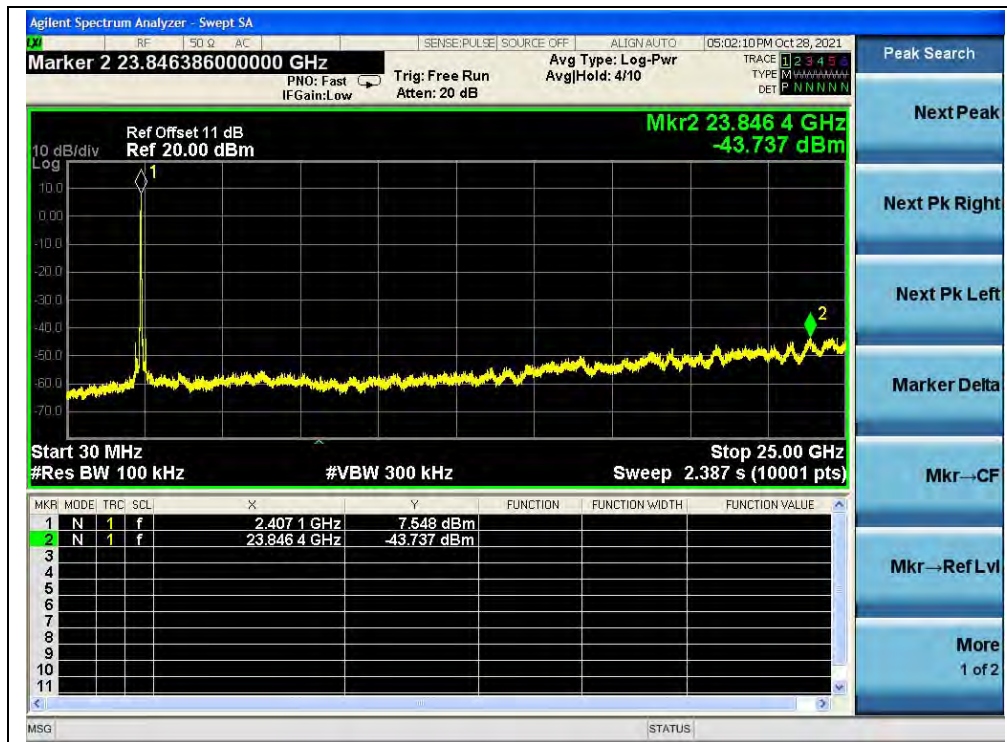


802.11n (HT20) Mode

A. Test Verdict:

Channel	Frequency (MHz)	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
			Carrier Level	Calculated -20dBc Limit	
1	2412	-43.74	7.55	-12.45	PASS
		-10.69@edge	9.95	-10.05	PASS
6	2437	-42.48	5.58	-14.42	PASS
11	2462	-43.08	4.62	-15.38	PASS
		-20.39@edge	8.20	-12.8	PASS

B. Test Plot:



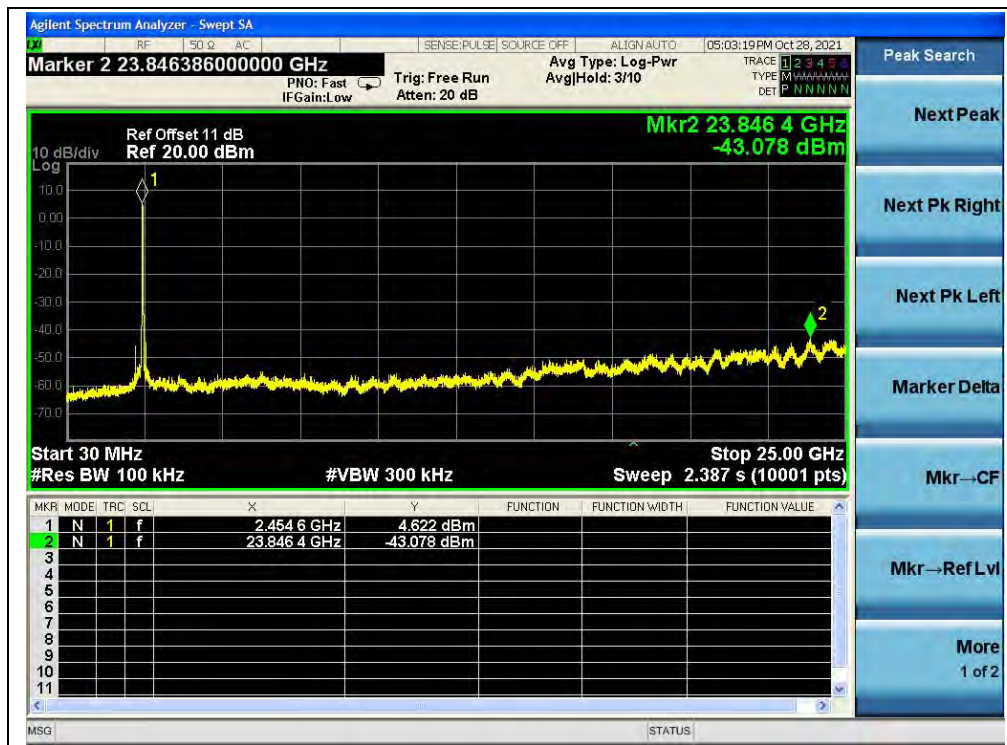
(30MHz to 25GHz, Channel 1, 802.11n (HT20))



(Band Edge, Channel 1, 802.11n (HT20))



(30MHz to 25GHz, Channel 6, 802.11n (HT20))



(30MHz to 25GHz, Channel 11, 802.11n (HT20))



(Band Edge, Channel 11, 802.11n (HT20))

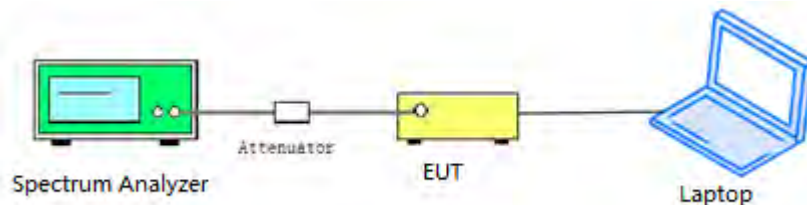
2.6. Power Spectral Density

2.6.1. Requirement

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

2.6.2. Test Description

Test Setup:



The EUT is coupled to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

2.6.3. Test Procedure

KDB 558074 Section 8.4 was used in order to prove compliance.



2.6.4. Test Result

802.11b Mode

A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
1	2412	-0.14	8	PASS
6	2437	-0.79	8	PASS
11	2462	-0.77	8	PASS

B. Test Plot:



(Channel 1, 802.11b)



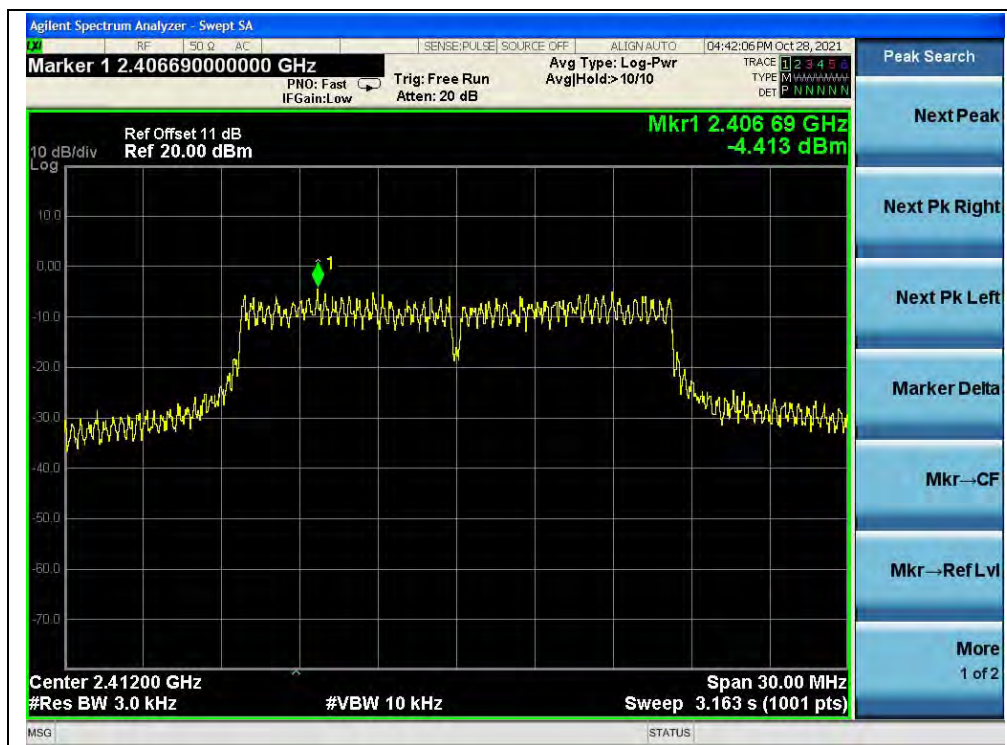
(Channel 6, 802.11b)



(Channel 11, 802.11b)

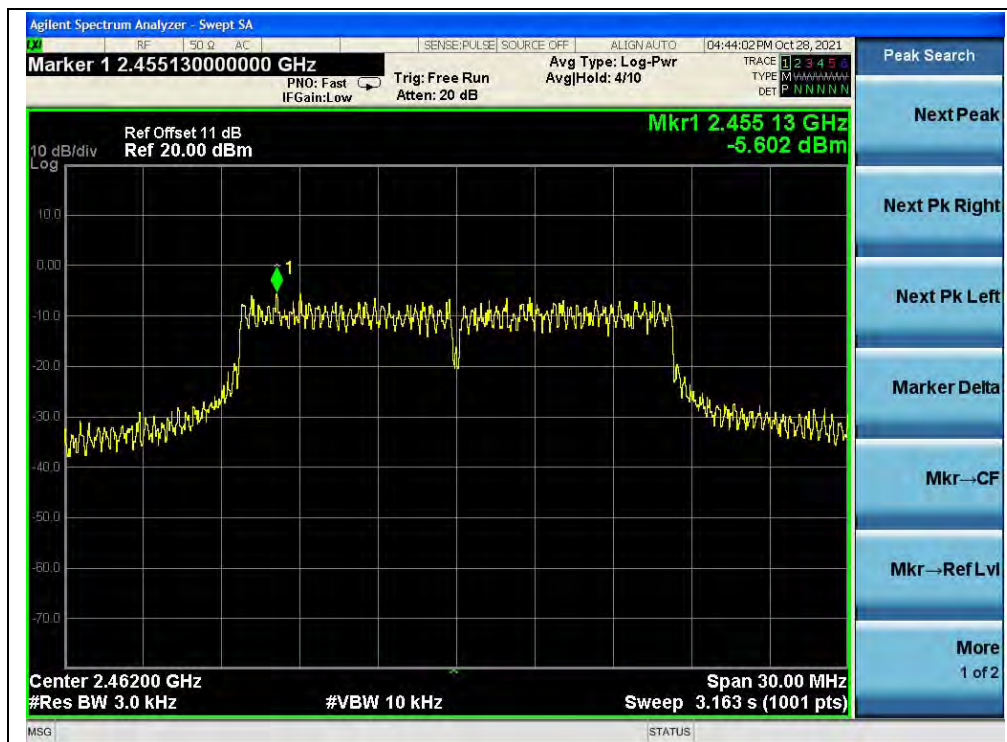
**802.11g Mode****A. Test Verdict:**

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
1	2412	-4.41	8	PASS
6	2437	-4.36	8	PASS
11	2462	-5.60	8	PASS

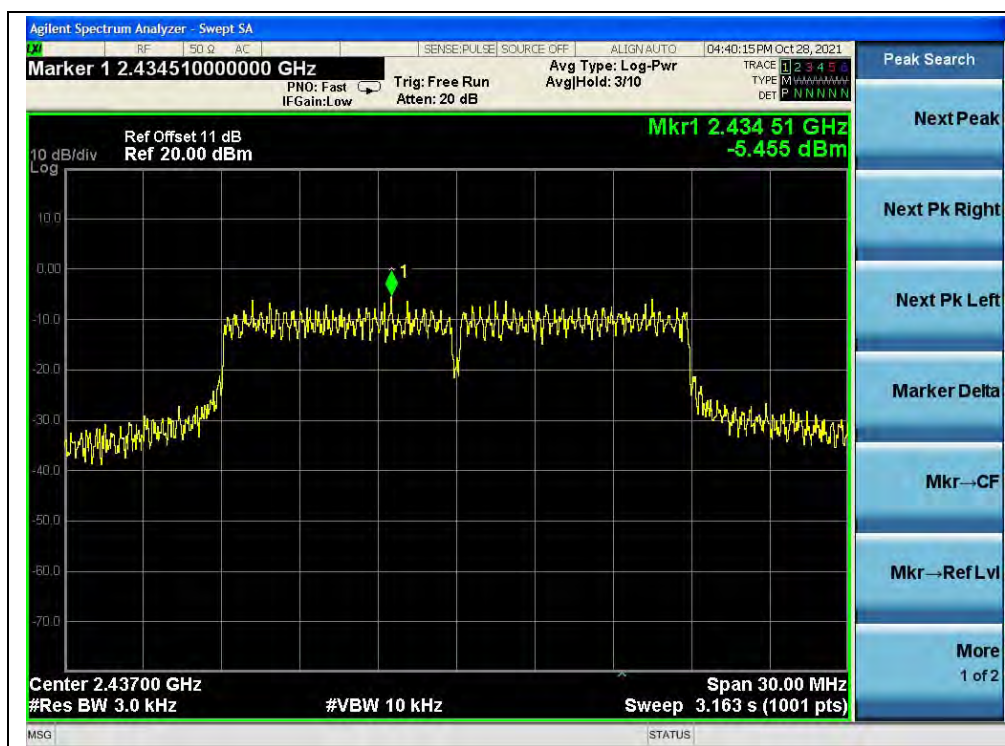
B. Test Plot:



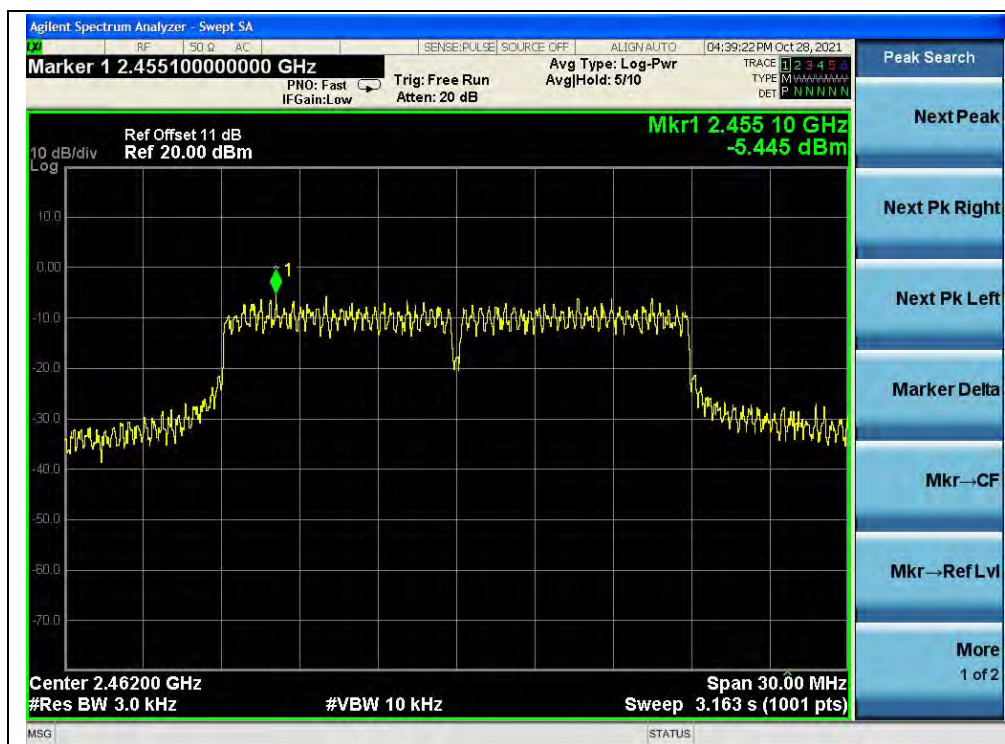
(Channel 6, 802.11g)



(Channel 11, 802.11g)



(Channel 6, 802.11n (HT20))



(Channel 11, 802.11n (HT20))

2.7. Conducted Emission

2.7.1. Requirement

According to FCC section 15.207, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

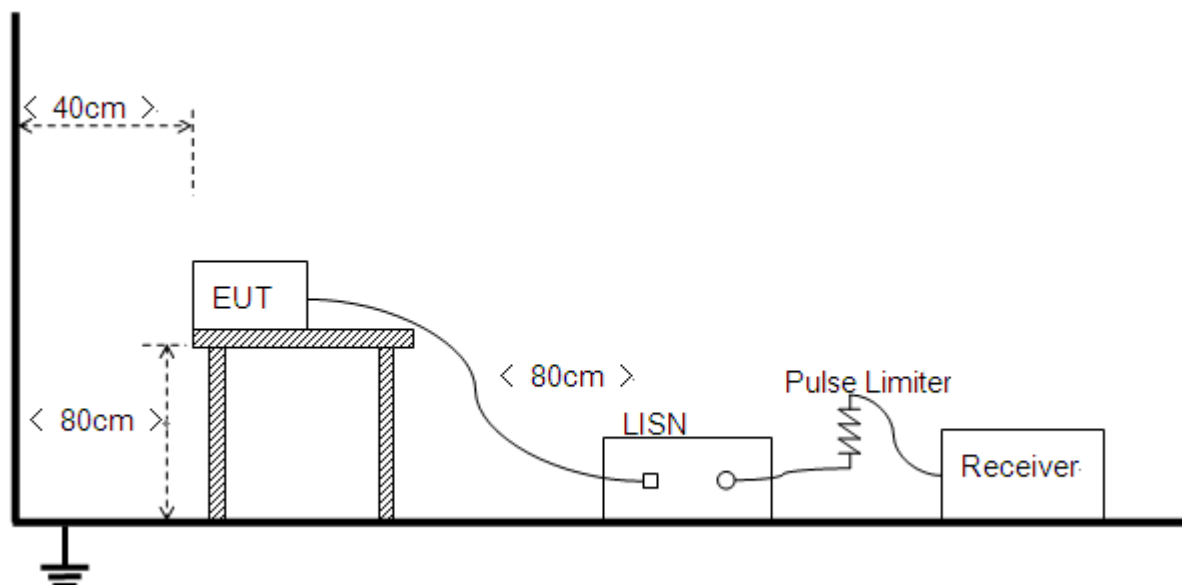
Frequency Range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

NOTE:

- The lower limit shall apply at the band edges.
- The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

2.7.2. Test Description

Test Setup:



The Table-top EUT was placed upon a non-metallic table 0.8m above the horizontal metal reference ground plane. EUT was connected to LISN and LISN was connected to reference Ground Plane. EUT was 80cm from LISN. The set-up and test methods were according to ANSI C63.10 2013.



2.7.3. Test Result

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Set RBW=9kHz, VBW=30kHz. Refer to recorded points and plots below.

Note: Both of the test voltage AC 120V/60Hz and AC 230V/50Hz were considered and tested respectively, only the results of the worst case AC 120V/60Hz were recorded in this report.

A. Test Setup:

Test Mode: EUT+Adaptor+ WIFI TX

Test Voltage: AC 120V/60Hz

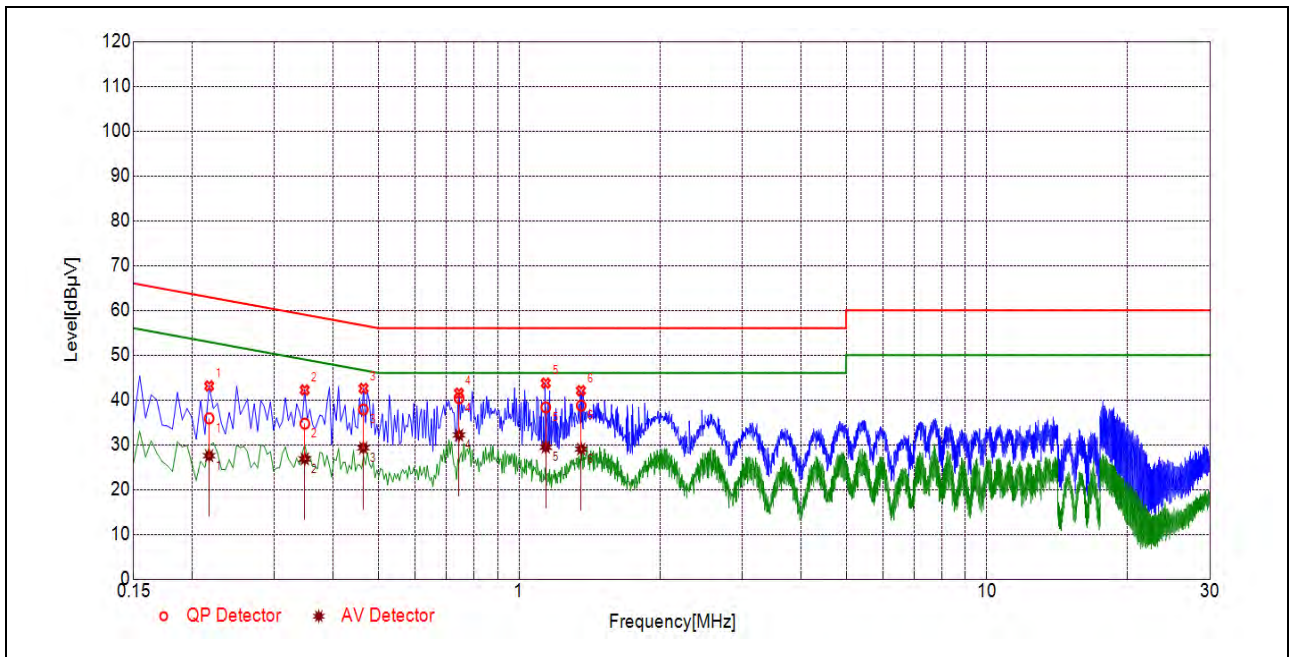
The measurement results are obtained as below:

$$E \text{ [dB}\mu\text{V]} = U_R + L_{\text{Cable loss}} \text{ [dB]} + A_{\text{Factor}}$$

U_R : Receiver Reading

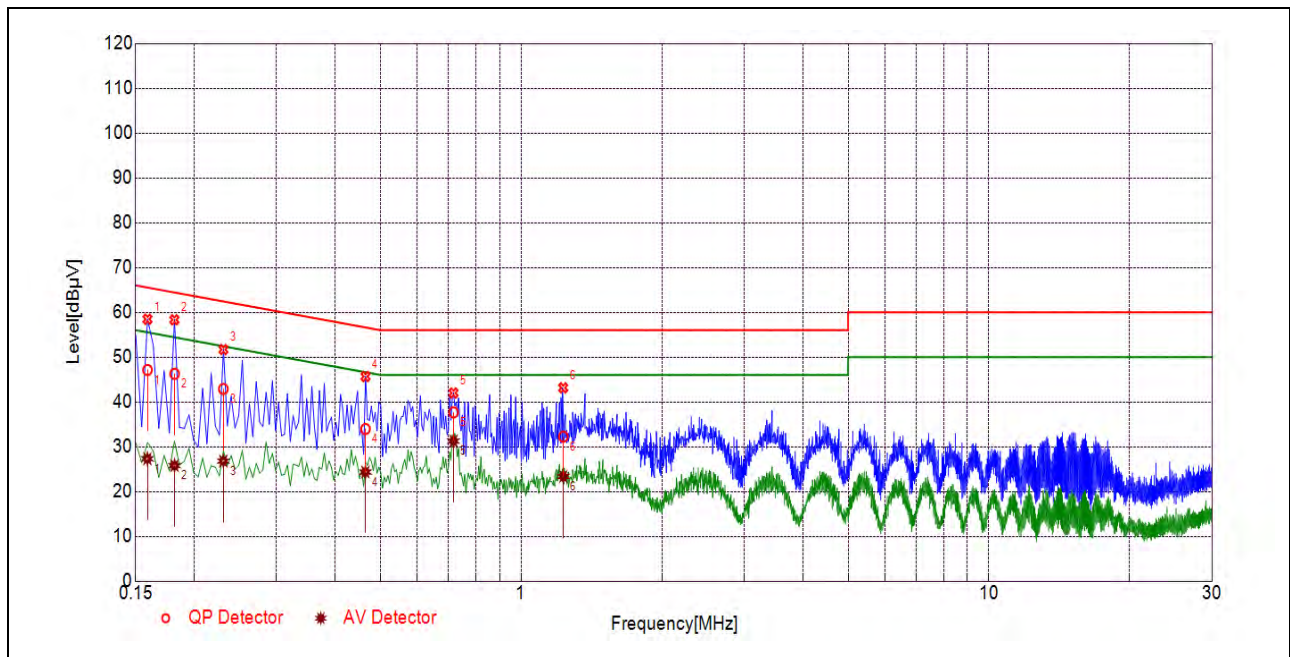
A_{Factor} : Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.2174	35.88	27.54	62.92	52.92	Line	PASS
2	0.3482	34.69	26.82	59.01	49.01		PASS
3	0.4645	37.85	29.30	56.61	46.61		PASS
4	0.7441	40.37	32.14	56.00	46.00		PASS
5	1.1402	38.34	29.45	56.00	46.00		PASS
6	1.3573	38.72	29.01	56.00	46.00		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1589	47.11	27.30	65.52	55.52	Neutral	PASS
2	0.1816	46.26	25.78	64.41	54.41		PASS
3	0.2309	42.88	26.80	62.42	52.42		PASS
4	0.4647	33.95	24.34	56.61	46.61		PASS
5	0.7169	37.67	31.24	56.00	46.00		PASS
6	1.2307	32.23	23.35	56.00	46.00		PASS

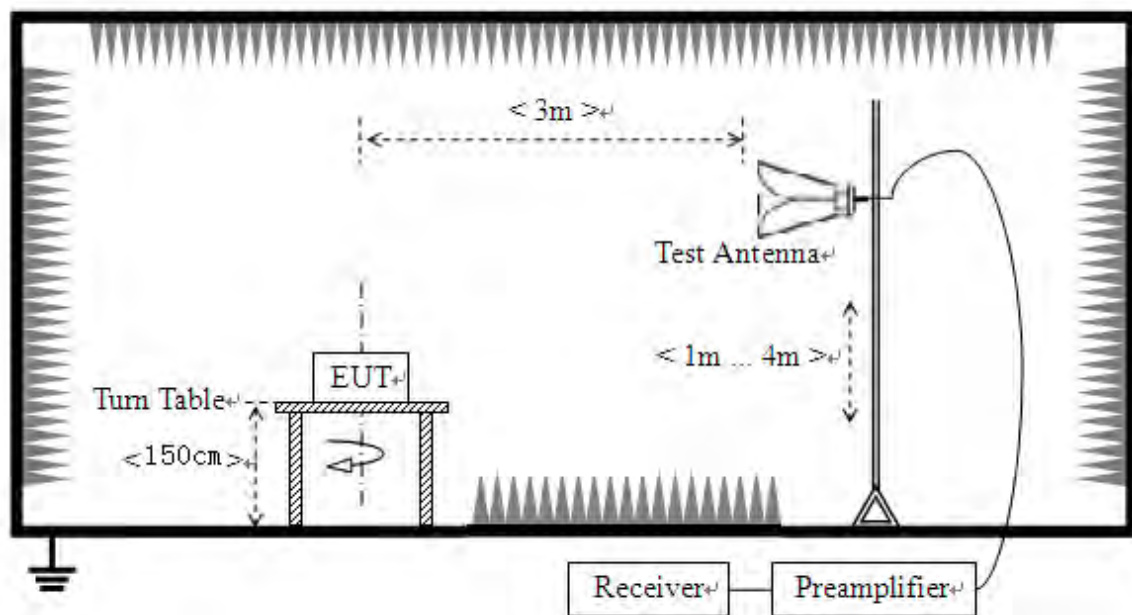
2.8. Restricted Frequency Bands

2.8.1. Requirement

According to FCC section 15.247(d), in any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power. 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).

2.8.2. Test Description

Test Setup



The EUT is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading.

For the Test Antenna:

Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength.



2.8.3. Test Procedure

Span = wide enough to fully capture the emission being measured

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

VBW = 3 MHz

Sweep = auto

Detector function = peak/average

Trace = max hold

Allow the trace to stabilize

2.8.4. Test Result

The lowest and highest channels are tested to verify Restricted Frequency Bands.

The measurement results are obtained as below:

$$E [\text{dB}\mu\text{V/m}] = U_R + A_T + A_{\text{Factor}} [\text{dB}]; A_T = L_{\text{Cable loss}} [\text{dB}] - G_{\text{preamp}} [\text{dB}]$$

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

Note: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (vertical) was recorded in this test report.

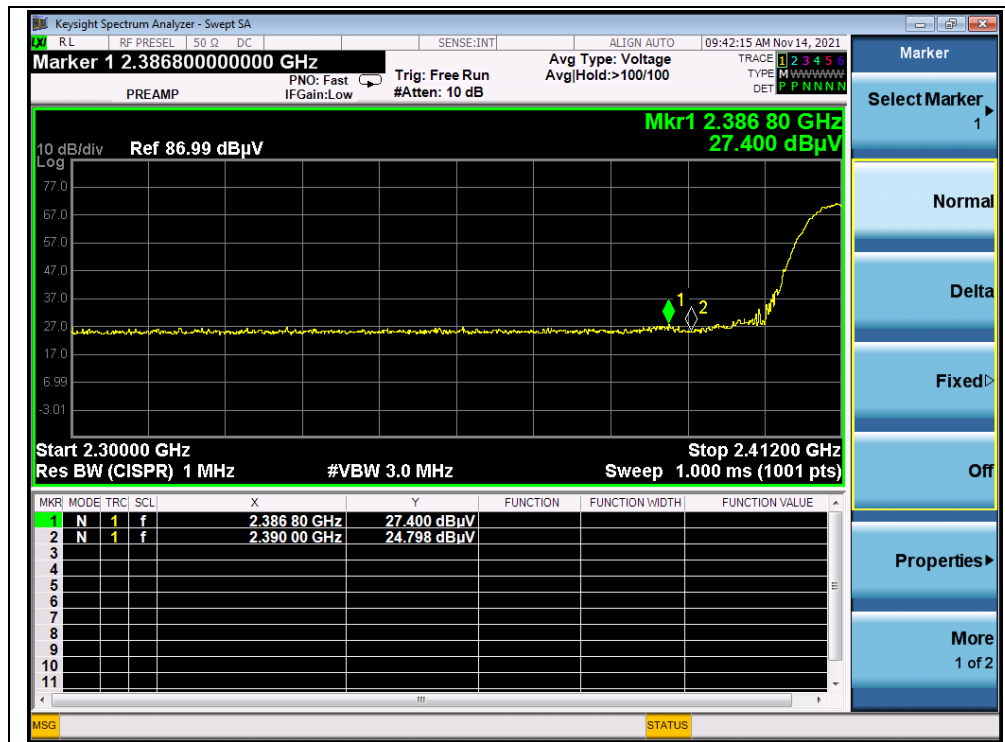
802.11b Mode

A. Test Verdict:

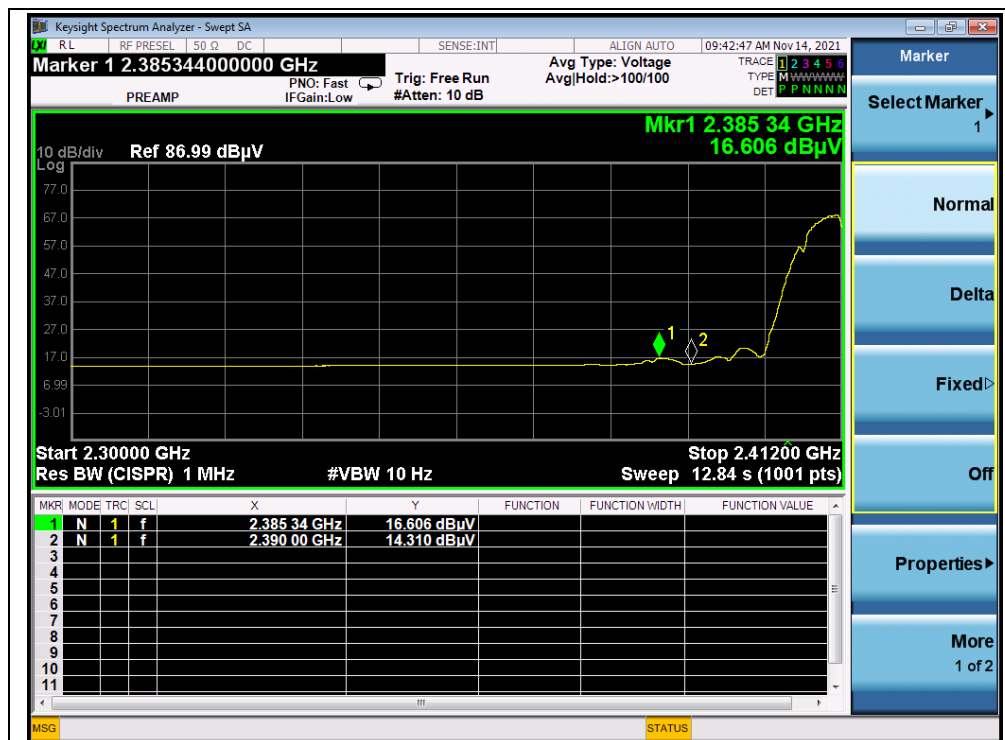
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2386.80	PK	27.40	6.74	27.20	61.34	74	PASS
1	2385.34	AV	16.61	6.74	27.20	50.55	54	PASS
11	2483.993	PK	26.24	6.74	27.20	60.18	74	PASS
11	2488.49	AV	15.17	6.74	27.20	49.11	54	PASS



B. Test Plot:



(PEAK, Channel 1, 802.11b)



(AVERAGE, Channel 1, 802.11b)



(PEAK, Channel 11, 802.11b)



(AVERAGE, Channel 11, 802.11b)

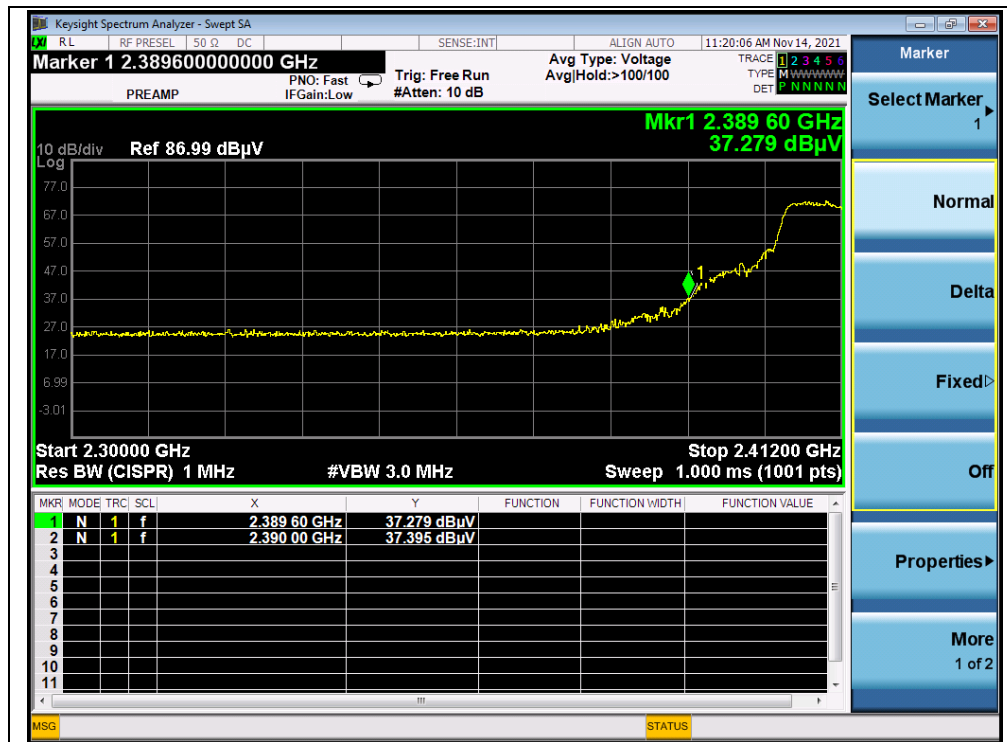


802.11g Mode

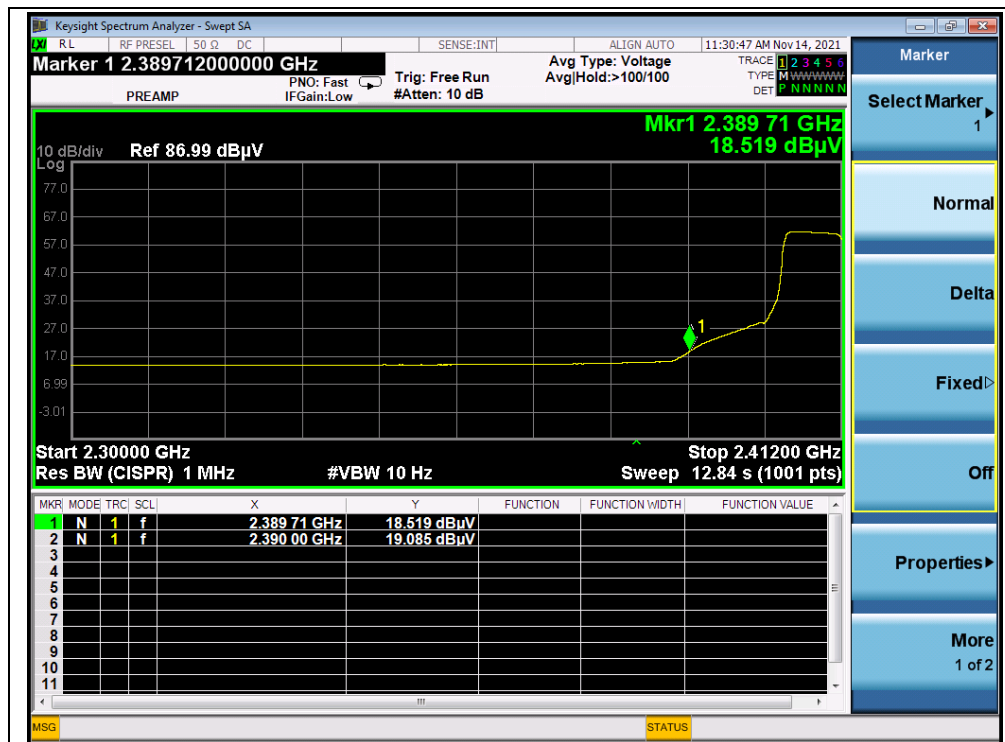
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
1	2390.00	PK	37.40	6.74	27.20	71.34	74	PASS
1	2390.00	AV	19.09	6.74	27.20	53.03	54	PASS
11	2483.50	PK	33.16	6.74	27.20	67.10	74	PASS
11	2483.50	AV	19.65	6.74	27.20	53.59	54	PASS

B. Test Plot:



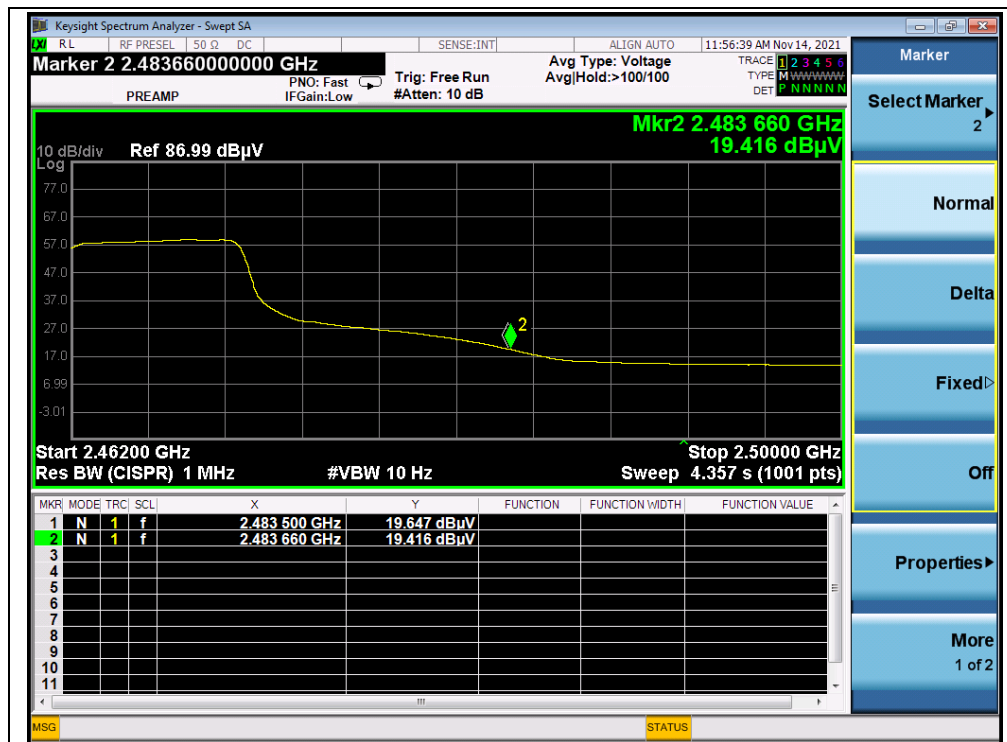
(PEAK, Channel 1, 802.11g)



(AVERAGE, Channel 1, 802.11g)



(PEAK, Channel 11, 802.11g)



(AVERAGE, Channel 11, 802.11g)

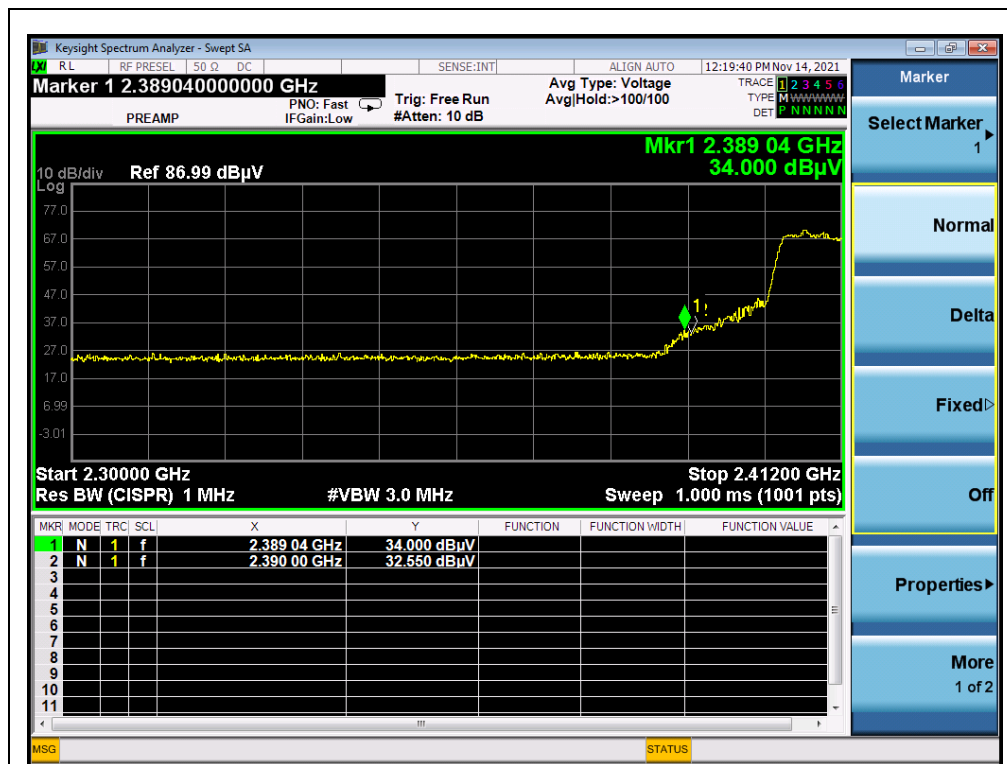


802.11n (HT20) Mode

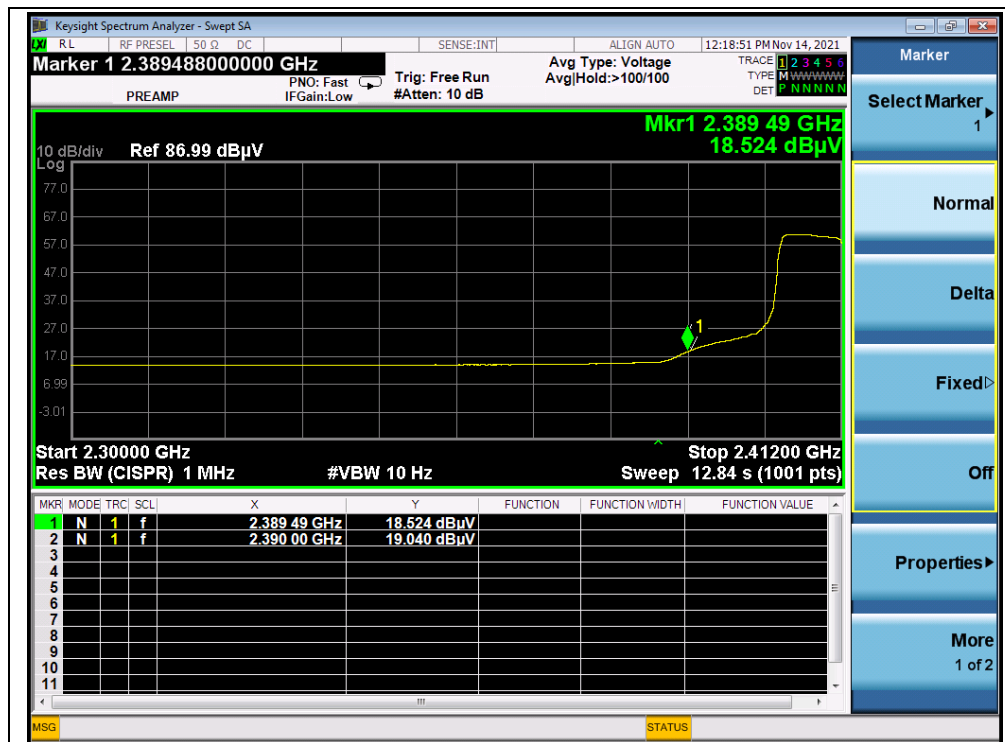
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
1	2389.04	PK	34.00	6.74	27.20	67.94	74	PASS
1	2390.00	AV	19.04	6.74	27.20	52.98	54	PASS
11	2483.50	PK	33.13	6.74	27.20	67.07	74	PASS
11	2483.50	AV	19.60	6.74	27.20	53.54	54	PASS

B. Test Plot:



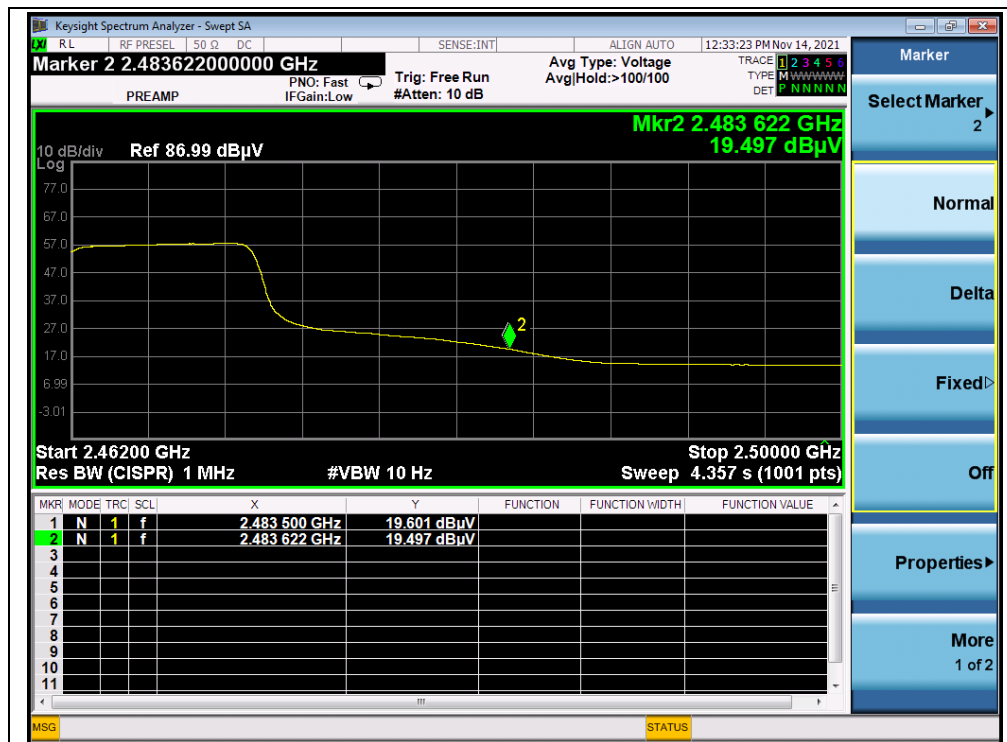
(PEAK, Channel 1, 802.11n (HT20))



(AVERAGE, Channel 1, 802.11n (HT20))



(PEAK, Channel 11, 802.11n (HT20))



(AVERAGE, Channel 11, 802.11n (HT20))

2.9. Radiated Emission

2.9.1. Requirement

According to FCC section 15.247(d), radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

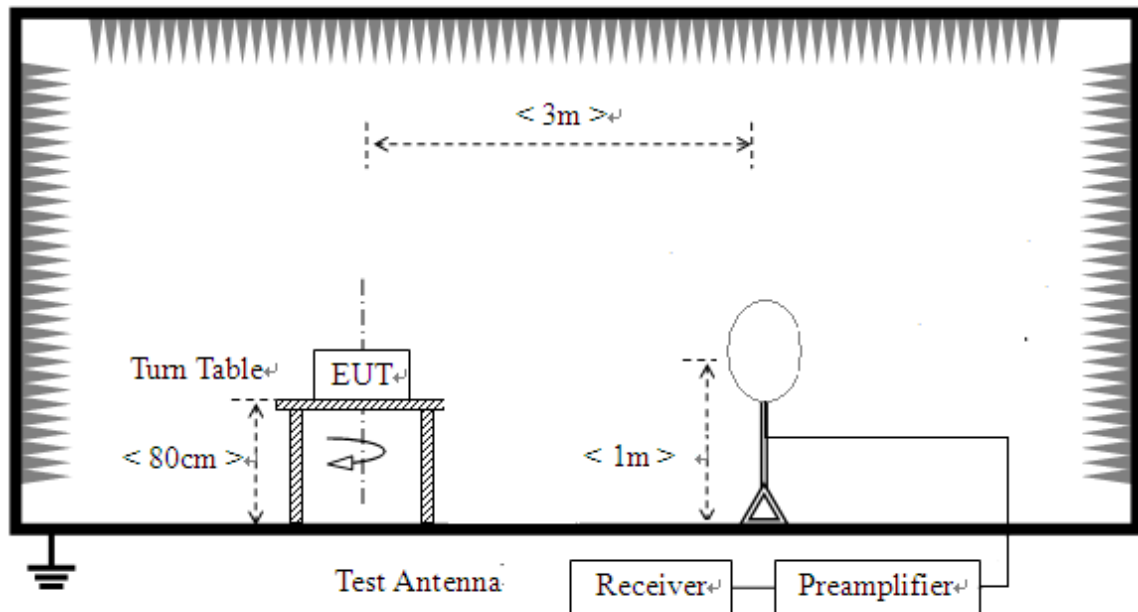
Note1: For above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.

Note2: For above 1000MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK). In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table).

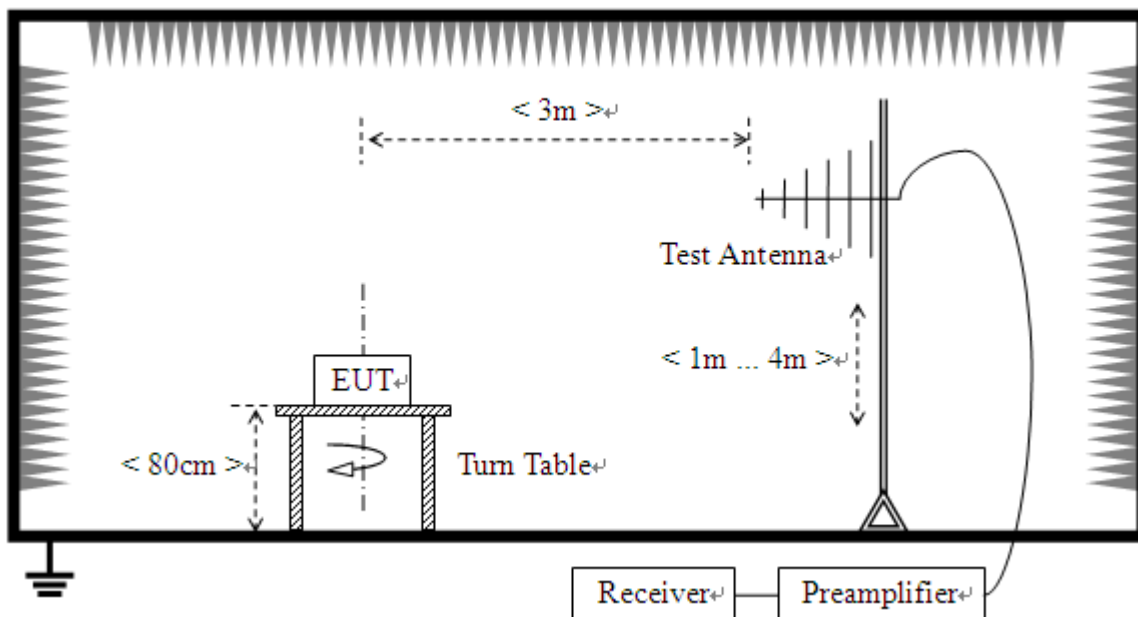
2.9.2. Test Description

Test Setup:

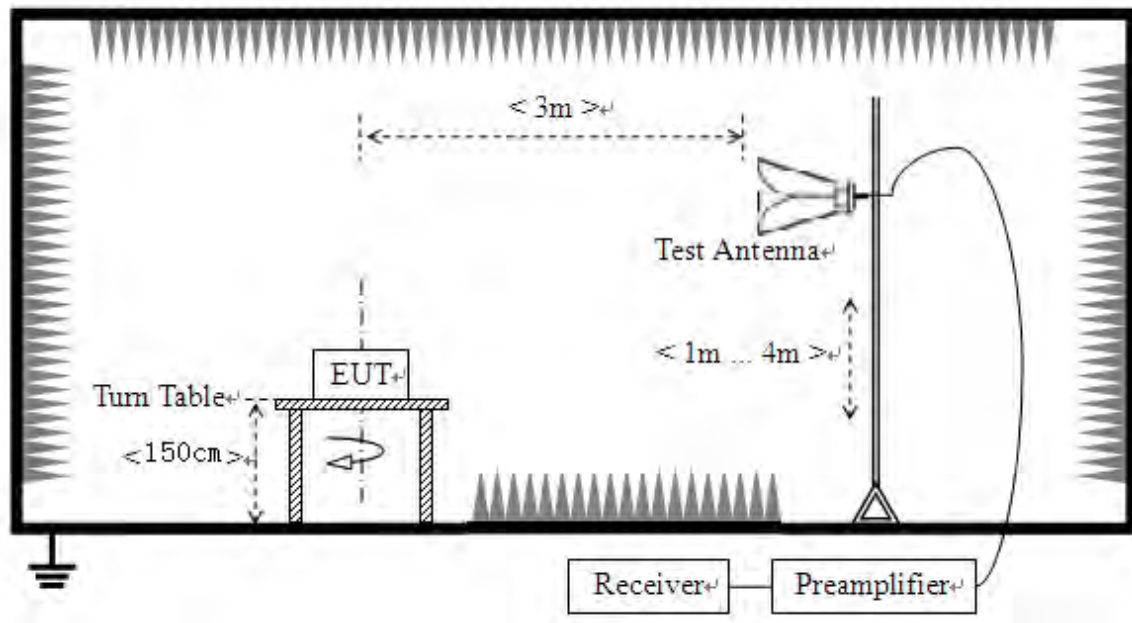
- 1) For radiated emissions from 9kHz to 30MHz



- 2) For radiated emissions from 30MHz to 1GHz



3) For radiated emissions above 1GHz



The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 30MHz, the emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9kHz-90 kHz, 110kHz-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.

For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1GHz the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements and as applicable for average measurements.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.



2.9.3. Test Result

According to ANSI C63.10, because of peak detection will yield amplitudes equal to or greater than amplitudes measured with the quasi-peak (or average) detector, the measurement data from a spectrum analyzer peak detector will represent the worst-case results, if the peak measured value complies with the quasi-peak (or average) limit, it is unnecessary to perform an quasi-peak measurement (or average).

The measurement results are obtained as below:

$$E [\text{dB}\mu\text{V/m}] = U_R + A_T + A_{\text{Factor}} [\text{dB}]; A_T = L_{\text{Cable loss}} [\text{dB}] - G_{\text{preamp}} [\text{dB}]$$

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

During the test, the total correction Factor A_T and A_{Factor} were built in test software.

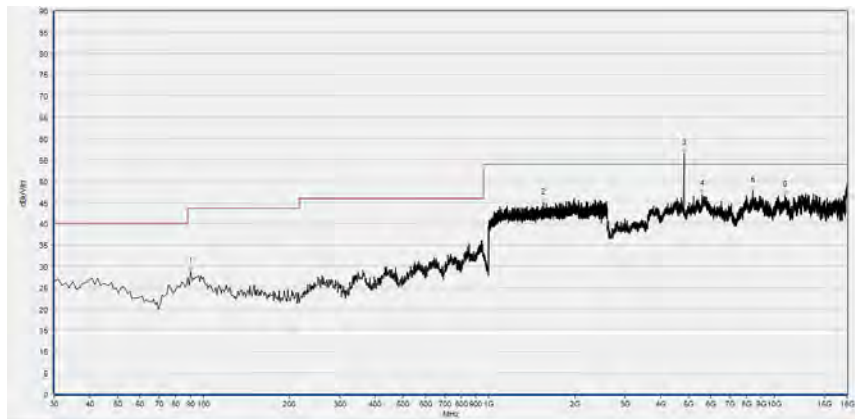
Note1: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Note2: For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

Note3: For the frequency, which started from 18GHz to 40GHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

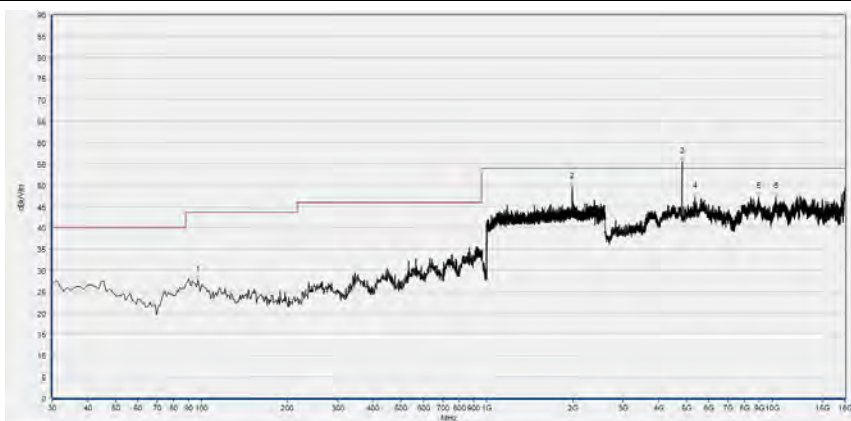
**802.11b Mode**

Plot for Channel 1



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
90.140	28.80	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1556.267	44.85	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4823.760	56.46	N/A	52.96	74.00	N/A	54.00	Horizontal	PASS
5581.440	46.94	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8390.400	47.76	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10882.120	46.74	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

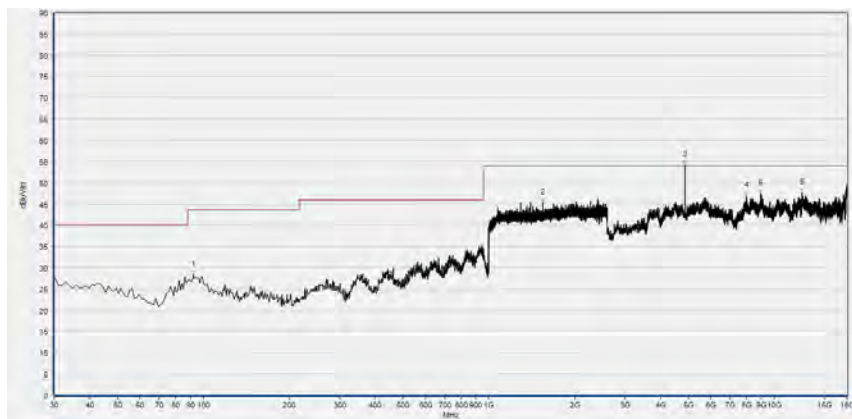


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
96.930	27.60	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1995.200	49.64	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4823.760	55.40	N/A	51.40	74.00	N/A	54.00	Vertical	PASS
5378.160	47.21	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8938.640	47.25	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10312.320	47.26	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

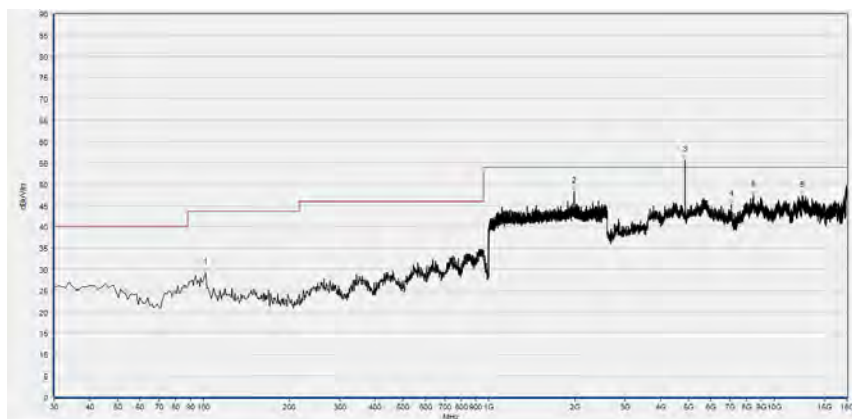


Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
92.080	28.27	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1548.267	45.24	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4873.040	54.19	N/A	50.92	74.00	N/A	54.00	Horizontal	PASS
7993.080	46.85	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8957.120	47.41	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12499.120	47.56	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

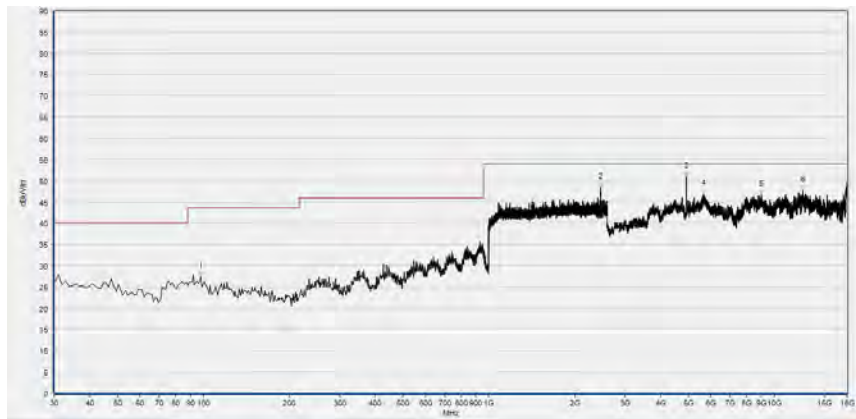


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.780	29.09	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1993.600	48.25	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4873.040	55.69	N/A	51.27	74.00	N/A	54.00	Vertical	PASS
7072.160	45.28	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8461.240	47.47	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12539.160	47.27	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

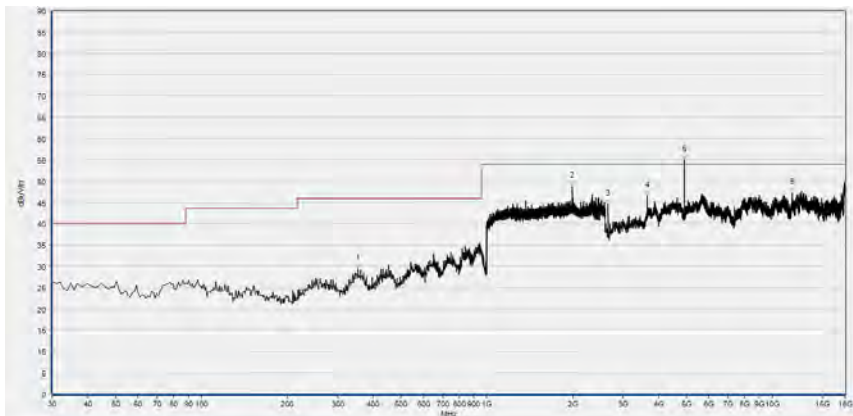


Plot for Channel 11



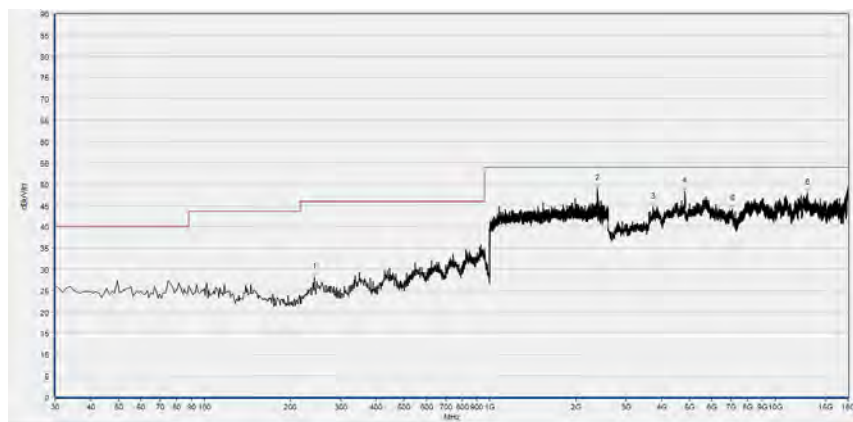
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
97.900	27.47	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2464.000	48.43	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4922.320	50.95	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5636.880	46.89	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
9006.400	46.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12576.120	47.73	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



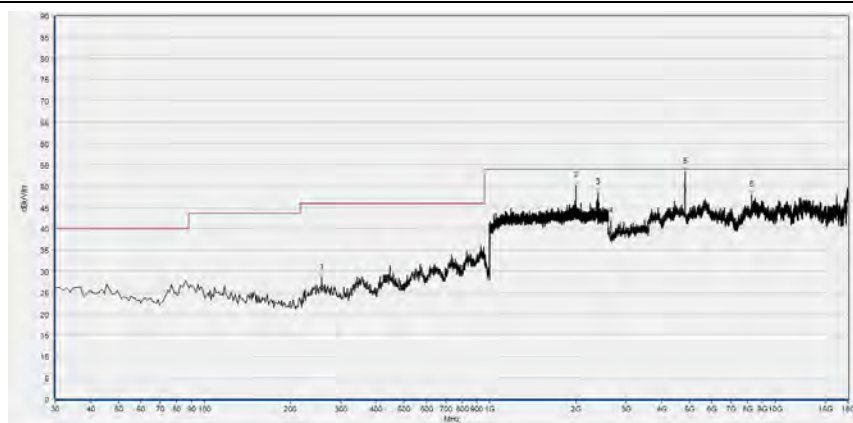
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
353.980	29.55	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1995.200	48.72	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2658.520	44.57	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3653.360	46.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4922.320	55.00	N/A	47.76	74.00	N/A	54.00	Vertical	PASS
11763.000	47.20	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

**802.11g Mode****Plot for Channel 1**

Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
242.430	28.13	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2379.733	49.01	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3730.360	44.56	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4820.680	48.28	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7072.160	44.01	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12927.240	47.87	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

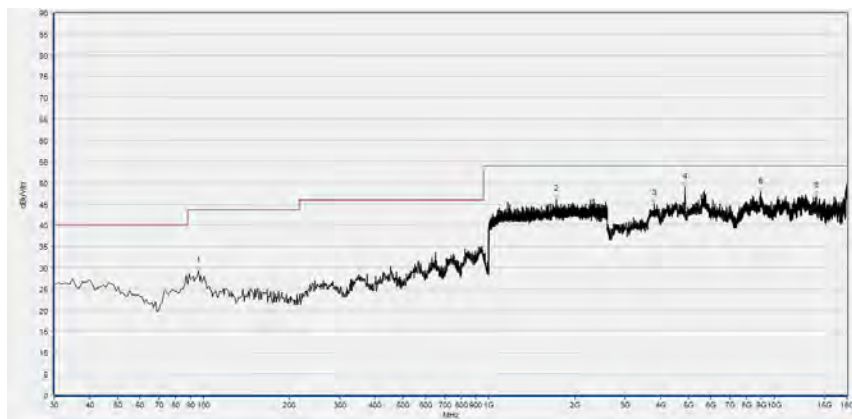


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
257.950	28.54	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1997.867	50.08	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2389.333	48.37	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2658.520	41.71	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4826.840	53.29	N/A	40.59	74.00	N/A	54.00	Vertical	PASS
8257.960	47.97	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

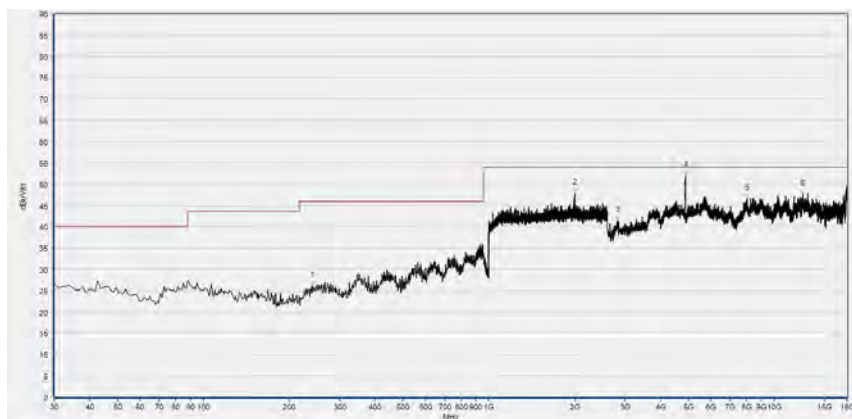


Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
95.960	29.20	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1726.400	46.16	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3791.960	45.13	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4869.960	48.97	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8984.840	47.83	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14066.840	46.92	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

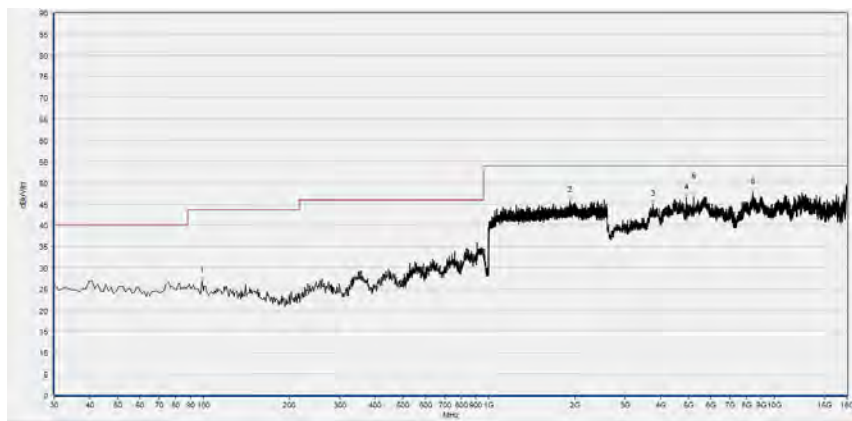
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
241.460	26.22	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1997.333	47.96	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2827.920	41.44	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4882.280	52.03	N/A	37.57	74.00	N/A	54.00	Vertical	PASS
8033.120	46.54	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12600.760	47.64	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

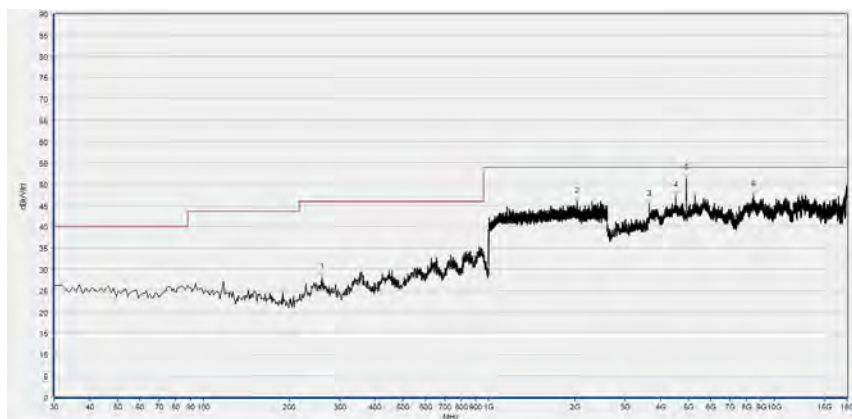
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 11



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
98.870	26.81	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1926.400	45.70	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3758.080	44.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4919.240	46.40	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5211.840	46.55	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8408.880	47.72	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

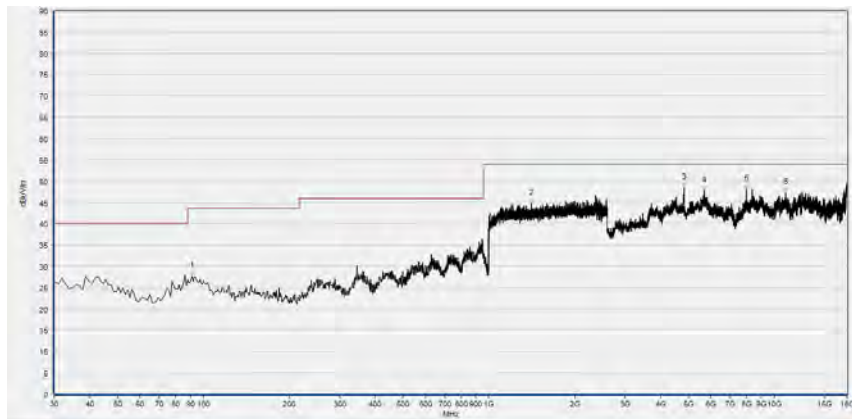


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
260.860	28.09	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2034.667	45.88	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3653.360	45.30	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4512.680	47.19	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4925.400	51.31	N/A	39.11	74.00	N/A	54.00	Vertical	PASS
8439.680	47.41	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

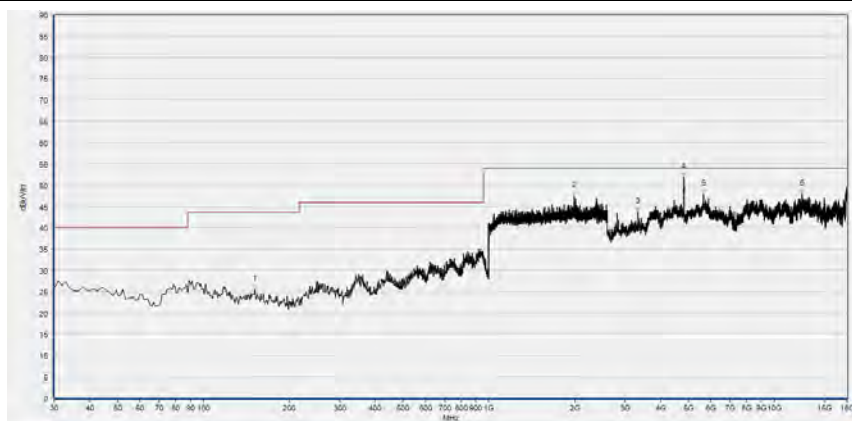
**802.11n (HT20) Mode**

Plot for Channel 1



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
91.110	27.71	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1405.867	44.70	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4823.760	48.51	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5676.920	47.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7965.360	48.04	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10974.520	47.33	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

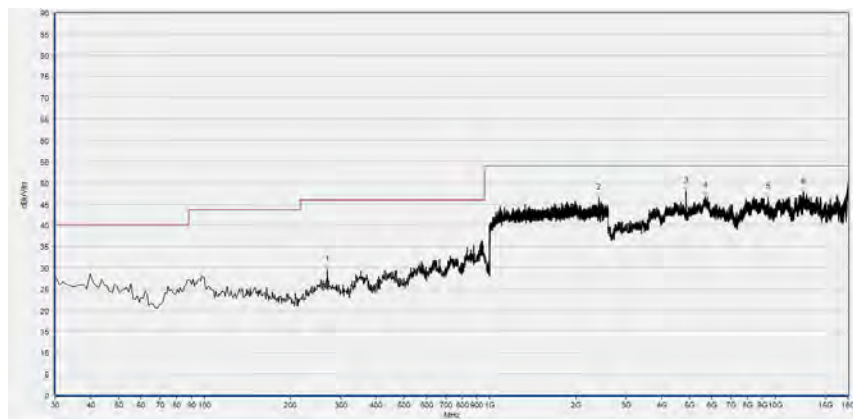
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
151.250	25.41	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1993.067	47.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3333.040	43.76	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4820.680	51.80	N/A	40.33	74.00	N/A	54.00	Vertical	PASS
5652.280	47.93	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12520.680	47.97	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

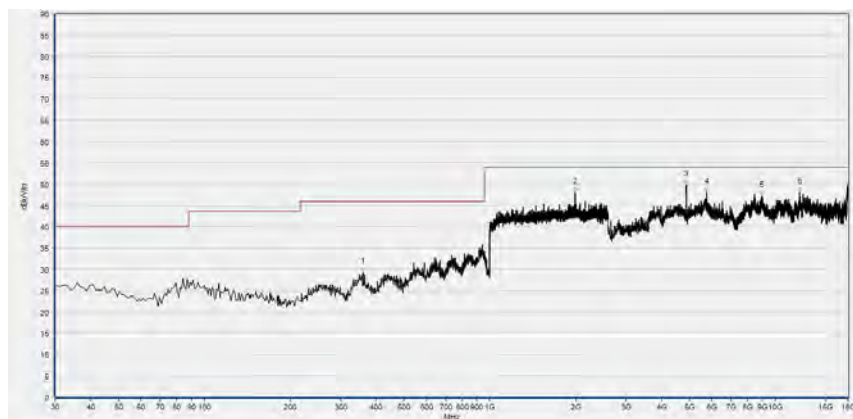
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
269.590	29.53	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2411.733	46.36	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4876.120	48.13	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5689.240	46.74	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
9416.040	46.63	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12523.760	47.77	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

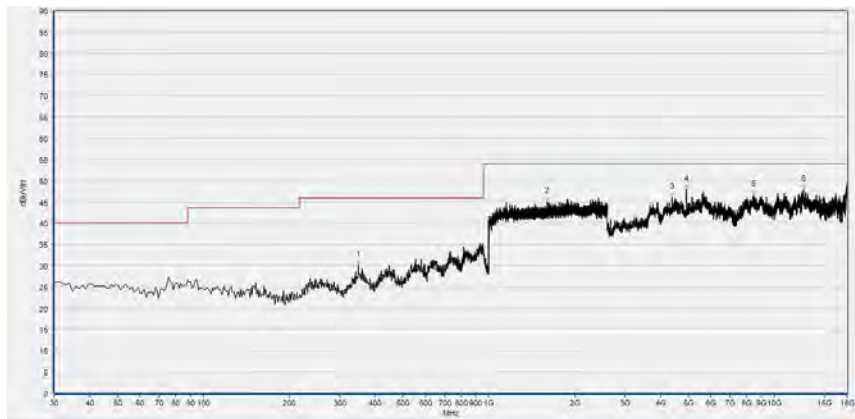
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
359.800	29.33	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1990.400	48.15	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4866.880	49.69	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5738.520	48.18	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8972.520	47.19	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12178.800	48.03	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

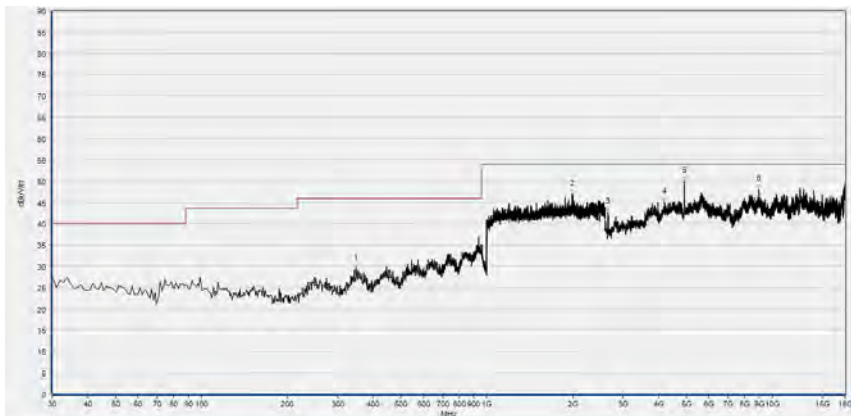
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 11



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
349.130	30.15	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1604.267	45.07	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4386.400	46.07	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4916.160	48.01	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8467.400	46.68	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12680.840	47.89	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
348.160	29.44	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1990.933	47.01	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2655.440	42.74	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4195.440	45.09	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4919.240	49.88	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8987.920	48.10	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Annex A Test Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for test performed on the EUT as specified in CISPR 16-1-2:

Test Items	Uncertainty
Peak Output Power	$\pm 2.22\text{dB}$
Power Spectral Density	$\pm 2.22\text{dB}$
Bandwidth	$\pm 5\%$
Conducted Spurious Emission	$\pm 2.77\text{dB}$
Restricted Frequency Bands	$\pm 5\%$
Radiated Emission	$\pm 2.95\text{dB}$
Conducted Emission	$\pm 2.44\text{dB}$

This uncertainty represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.



Annex B Testing Laboratory Information

1. Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

3. Facilities and Accreditations

All measurement facilities used to collect the measurement data are located at FL.3, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10-2013 and CISPR Publication 22; the FCC designation number is CN1192, the test firm registration number is 226174.



4. Test Equipments Utilized

4.1 Conducted Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Attenuator 1	(N/A.)	10dB	Resent	N/A	N/A
EXA Signal Analyzer	MY53470836	N9010A	Agilent	2021.03.25	2022.03.24
USB Wideband Power Sensor	MY54180008	U2021XA	Agilent	2020.10.23	2021.10.22
RF Cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
Coaxial Cable	CB02	RF02	Morlab	N/A	N/A
SMA Connector	CN01	RF03	HUBER-SUHNER	N/A	N/A
Computer	T430i	Think Pad	Lenovo	N/A	N/A

4.2 Conducted Emission Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY56400093	N9038A	KEYSIGHT	2021.03.09	2022.03.08
LISN	812744	NSLK 8127	Schwarzbeck	2021.03.09	2022.03.08
Pulse Limiter (10dB)	VTSD 9561 F-B #206	VTSD 9561-F	Schwarzbeck	2021.07.21	2022.07.20
Coaxial Cable(BNC) (30MHz-26GHz)	CB01	EMC01	Morlab	N/A	N/A
ADAPTOR	N/A	KA 2401A-12 02000US	KEYU	N/A	N/A

4.3 List of Software Used

Description	Manufacturer	Software Version
Test System	Tonscend	V2.5.77.0418
Morlab EMCR V1.2	Morlab	V1.0
TS+ -[JS32-CE]	Tonscend	V2.5.0.0

**4.4 Radiated Test Equipments**

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY54130016	N9038A	Agilent	2021.07.16	2022.07.15
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2019.05.24	2022.05.23
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2019.02.14	2022.02.13
Test Antenna – Horn	01774	BBHA 9120D	Schwarzbeck	2019.07.26	2022.07.25
Test Antenna – Horn	BBHA9170 #774	BBHA9170	Schwarzbeck	2019.07.26	2022.07.25
Coaxial Cable (N male) (9KHz-30MHz)	CB04	EMC04	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-26GHz)	CB02	EMC02	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-26GHz)	CB03	EMC03	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-40GHz)	CB05	EMC05	Morlab	N/A	N/A
1-18GHz pre-Amplifier	61171/61172	S020180L32 03	Tonscend	2021.07.16	2022.07.15
18-26.5GHz pre-Amplifier	46732	S10M100L38 02	Tonscend	2021.07.16	2022.07.15
26-40GHz pre-Amplifier	56774	S40M400L40 02	Tonscend	2021.07.16	2022.07.15
Notch Filter	N/A	WRCG-2400-2483.5-60SS	Wainwright	2021.07.16	2022.07.15
Anechoic Chamber	N/A	9m*6m*6m	CRT	2020.01.06	2023.01.05

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