TEST REPORT

Application No.:	SZCR2411004486AT
Applicant:	AltoBeam Inc.
Address of Applicant:	B808, Tsinghua Tongfang Hi-Tech Plaza, Haidian Beijing China
Manufacturer:	AltoBeam Inc.
Address of Manufacturer:	B808, Tsinghua Tongfang Hi-Tech Plaza, Haidian Beijing China
Factory:	AltoBeam Inc.
Address of Factory:	C234, Research Institute of Tsinghua University, Shenzhen High-Tech Industrial Park, China
Equipment Under Test (EUT):	
EUT Name:	AB6031X-44PE Wi-Fi and BLE module
Model No.:	AB6031X-44PE
Trade Mark:	AltoBeam
FCC ID:	2BAVS-AB6031X-44PE
Standard(s) :	47 CFR Part 15, Subpart C 15.247
Date of Receipt:	2024-11-28
Date of Test:	2024-12-04 to 2025-01-02
Date of Issue:	2025-01-09
Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

Keny Xu
EMC Laboratory Manager

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Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2025-01-09		Original

Authorized for issue by:				
		Bill Chen **Bill Chen/Project Engineer**		
		Eric Fu **Eric Fu/Reviewer**		

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2 Test Summary

Radio Spectrum Technical Requirement				
Item	**Standard**	**Method**	**Requirement**	**Result**
Antenna Requirement	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)	Pass

Radio Spectrum Matter Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Radiated Spurious Emissions Below 1GHz	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.4,6.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions Above 1GHz		ANSI C63.10 (2013) Section 6.6	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass

Remark:

Model No.: AB6031X-44PE

This test report (Ref. No.: SZCR241100448602) is only valid with the original test report

(Ref. No.: SZCR230900307802).

According to the declaration from the applicant, the models in this report and models in original report were identical, only difference on the antenna.

Considering to the difference, pre-scan were performed on the sample in this report to find the items which can be influential to the result in the original test report for fully retest.

Therefore in this report of section 2 were fully retested on model and shown the data in this report, other tests please refer to original report SZCR230900307802.

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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 5V
RF cable loss(Provided by the SGS):	0.5dB
Operation Frequency:	802.11b/g/n(HT20): 2412MHz to 2462MHz;802.11n(HT40): 2422MHz to 2452MHz
Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK);802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Number of Channels:	802.11b/g/n(HT20):11;802.11n(HT40):7
Channel Spacing:	5MHz
Antenna Type:	Dipole
Antenna Gain:	C10 Antenna:3.3dBi C20 Antenna:1.41dBi T2351 Antenna:4.93dBi T2352 Antenna:3.52dBi

Remark:The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
--	--	--	--
The EUT has been tested as an independent unit.			

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Radiated Spurious Emissions Below 1GHz	± 6.0dB for 3m; ± 5.0dB for 10m
Radiated Spurious Emissions Above 1GHz	± 4.6dB (1-18GHz);± 4.8dB (18-40GHz)
Remark: The U_{lab} (lab Uncertainty) is less than $U_{cispr/ETSI}$ (CISPR/ETSI Uncertainty), so the test results – compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit; – non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.	

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4.4 Test Location

All tests were performed at:

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No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI (Member No. 1937)

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1336

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

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5 Equipment List

Radiated Spurious Emissions Below 1GHz					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2023-11-20	2025-11-19
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2023-06-19	2026-06-18
MXE EMI Receiver	Agilent Technologies	N9038A	SEM004-15	2024-08-14	2025-08-13
BiConiLog Antenna	ETS-LINDGREN	3142C	SEM003-01	2023-09-16	2025-09-15
Pre-Amplifier	Agilent Technologies	8447D	SEM005-01	2024-03-14	2025-03-13
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM025-01	2024-07-06	2025-07-05

Radiated Spurious Emissions Above 1GHz					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Signal & Spectrum Analyzer	Rohde & Schwarz	FSV	SZ-WRG-M-048	2024-01-30	2025-01-29
Low Noise Amplifier 1G-18GHz	Tonscend	TAP01018050	SZ-WRG-M-051	2024-01-30	2025-01-29
Low Noise Amplifier 18G-40GHz	Tonscend	TAP18040048	SZ-WRG-M-052	2024-01-30	2025-01-29
Double Ridge Horn Antenna 1GHz-18GHz	SCHWARZBECK	BBHA 9120 D	SZ-WRG-M-055	2023-12-21	2025-12-20
SHF-EHF Horn 15GHz-40GHz	SCHWARZBECK	BBHA 9170	SZ-WRG-M-056	2023-12-25	2025-12-24
RSE Test Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Chamber	CRTSGSSAC966	N/A	SZ-WRG-C-063	2022-01-05	2025-01-04
Humidity and Temperature Indicator	deli	8838	SEM002-46	2024-07-24	2025-07-23

General used equipment					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Humidity/ Temperature Indicator	deli	8838	SEM002-32	2024-07-24	2025-07-23
Humidity/ Temperature Indicator	deli	8838	SEM002-33	2024-07-24	2025-07-23
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2024-03-18	2025-03-17

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6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)

6.1.2 Conclusion

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is C10 Antenna:3.3dBi C20 Antenna:1.41dBi T2351 Antenna:4.93dBi T2352 Antenna:3.52dBi.

Antenna location: Refer to External photo.

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7 Radio Spectrum Matter Test Results

7.1 Radiated Spurious Emissions Below 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209
Test Method: ANSI C63.10 (2013) Section 6.4,6.5
Measurement Distance: 3m
Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
960-1000	500	3

7.1.1 E.U.T. Operation

Operating Environment:
Temperature: 21.2 °C Humidity: 46.6 % RH Atmospheric Pressure: 1020 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	08	TX mode(C10)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Pre-scan	09	TX mode(C20)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	10	TX mode(T2351)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE

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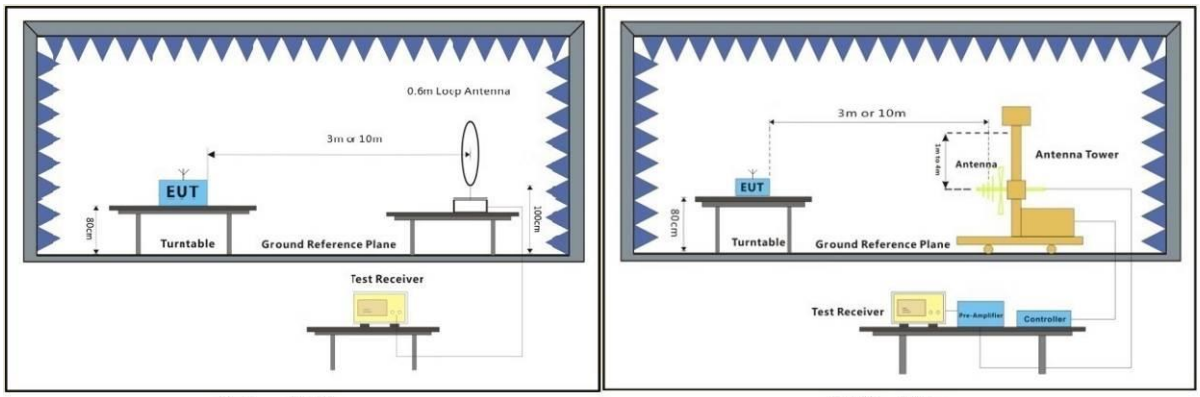
		802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Pre-scan	11	TX mode(T2352)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

7.1.3 Test Setup Diagram



Below 30MHz　　30MHz-1GHz

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7.1.4 Measurement Procedure and Data

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.

g. Test the EUT in the lowest channel, the middle channel, the Highest channel.

h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

2. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

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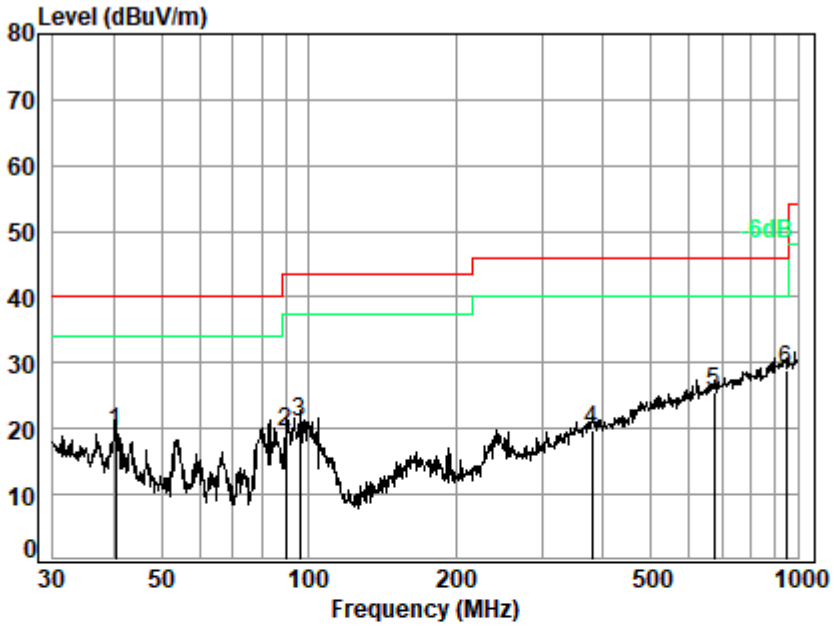
Test Mode: 10; Polarity: Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No. : 04486AT/04487AT
Test Mode: 10

	Freq	Ant Factor	Cable Loss	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	40.276	16.28	0.78	27.76	30.13	19.43	40.00	-20.57	QP
2	89.590	11.69	1.16	27.62	34.22	19.45	43.50	-24.05	QP
3	95.762	12.16	1.20	27.60	35.12	20.88	43.50	-22.62	QP
4	379.914	20.91	2.51	27.07	23.47	19.82	46.00	-26.18	QP
5	675.208	25.71	3.47	27.79	24.09	25.48	46.00	-20.52	QP
6 q	945.440	28.26	4.24	26.44	22.73	28.79	46.00	-17.21	QP

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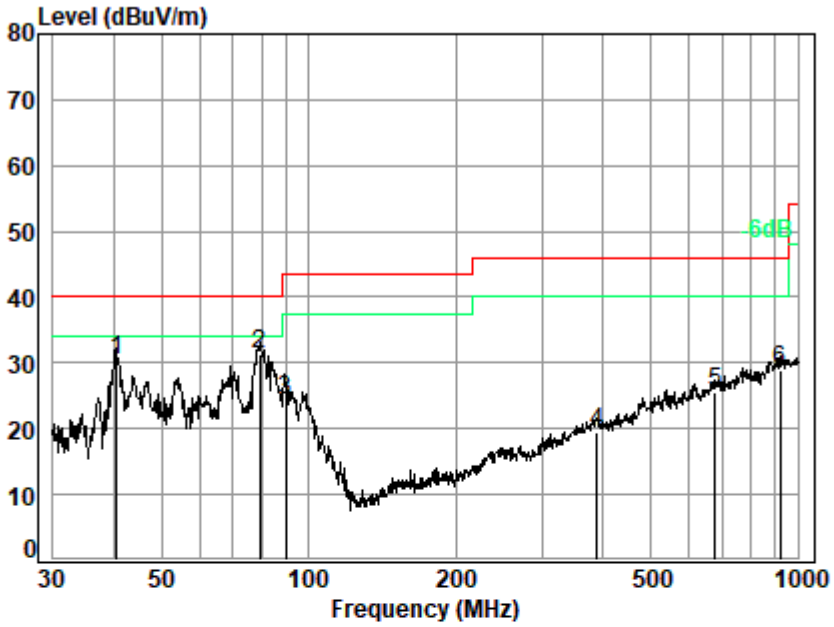
Test Mode: 10; Polarity: Vertical



Site : chamber
Condition: 3m VERTICAL
Job No. : 04486AT/04487AT
Test Mode: 10

	Freq	Ant Factor	Cable Loss	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	40.417	16.20	0.78	27.76	41.12	30.34	40.00	-9.66	QP
2 q	79.243	10.42	1.09	27.65	47.42	31.28	40.00	-8.72	QP
3	89.905	11.72	1.16	27.62	38.98	24.24	43.50	-19.26	QP
4	389.355	20.78	2.54	27.11	23.33	19.54	46.00	-26.46	QP
5	677.580	25.78	3.48	27.78	23.95	25.43	46.00	-20.57	QP
6	919.287	28.17	4.17	26.63	23.19	28.90	46.00	-17.10	QP

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7.2 Radiated Spurious Emissions Above 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209
Test Method: ANSI C63.10 (2013) Section 6.6
Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1000	500	3

7.2.1 E.U.T. Operation

Operating Environment:
Temperature: 23.5 °C Humidity: 58.9 % RH Atmospheric Pressure: 1020 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	08	TX mode(C10)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	09	TX mode(C20)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	10	TX mode(T2351)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	11	TX mode(T2352)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

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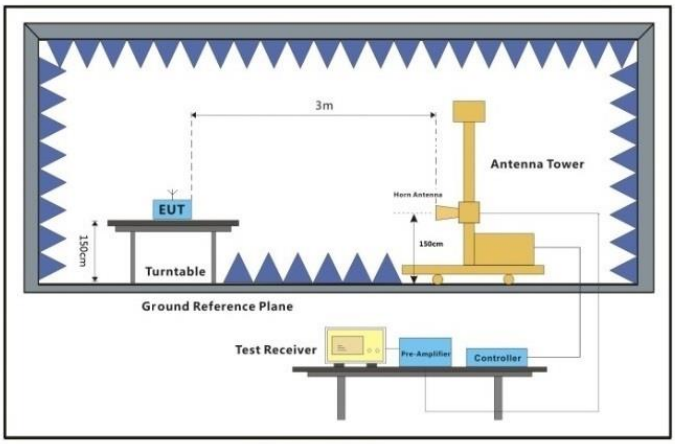
7.2.3 Test Setup Diagram



Above 1GHz

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7.2.4 Measurement Procedure and Data

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

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.

g. Test the EUT in the lowest channel, the middle channel, the Highest channel.

h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

2. Scan from 1GHz to 25GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

4: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for Peak detection (PK) and Average detection (AV) at frequency above 1GHz.

5:For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥1/T (Duty cycle＜98%) or 10Hz (Duty cycle≥98%) for Average detection (AV) at frequency above 1GHz.

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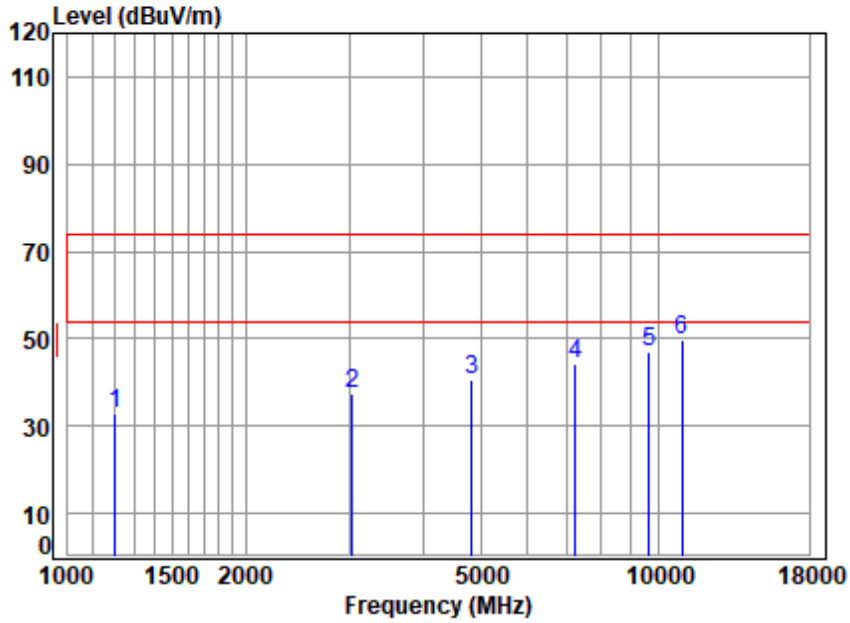
Test Mode: 08; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1203.199	7.19	25.30	54.70	54.84	32.63	74.00	-41.37	peak
2	3034.063	8.03	29.14	55.02	55.31	37.46	74.00	-36.54	Peak
3	4824.000	8.92	32.00	56.18	55.85	40.59	74.00	-33.41	peak
4	7236.000	11.10	36.60	56.51	52.96	44.15	74.00	-29.85	peak
5	9648.000	12.49	38.70	54.42	50.39	47.16	74.00	-26.84	peak
6	pp10980.470	14.10	39.38	53.51	49.61	49.58	74.00	-24.42	Peak

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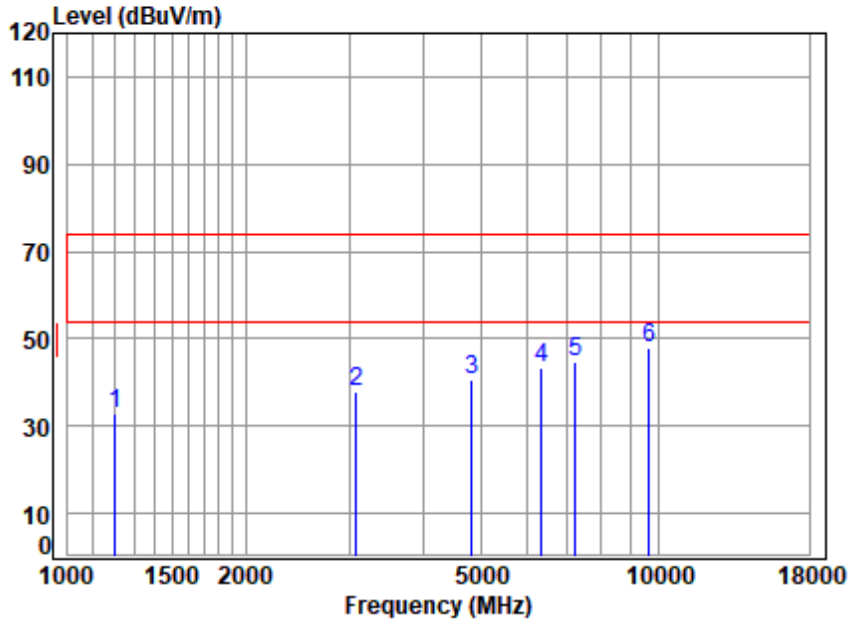
Test Mode: 08; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1203.199	7.19	25.30	54.70	54.84	32.63	74.00	-41.37	peak
2	3078.229	7.81	29.14	55.05	55.83	37.73	74.00	-36.27	Peak
3	4824.000	8.92	32.00	56.18	55.85	40.59	74.00	-33.41	peak
4	6340.436	10.55	34.68	56.83	54.87	43.27	74.00	-30.73	Peak
5	7236.000	11.10	36.60	56.51	53.71	44.90	74.00	-29.10	peak
6 pp	9648.000	12.49	38.70	54.42	51.04	47.81	74.00	-26.19	peak

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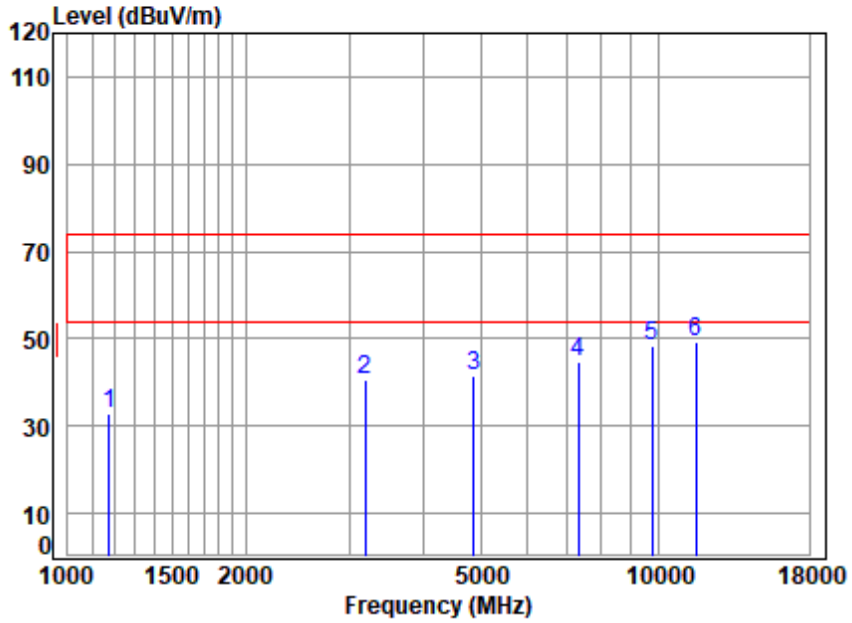
Test Mode: 08; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1175.697	7.17	25.35	54.70	54.96	32.78	74.00	-41.22	peak
2	3186.869	7.70	29.20	55.11	59.03	40.82	74.00	-33.18	peak
3	4874.000	8.97	32.15	56.21	56.54	41.45	74.00	-32.55	peak
4	7311.000	11.11	36.72	56.45	53.31	44.69	74.00	-29.31	peak
5	9748.000	12.80	38.60	54.33	51.27	48.34	74.00	-25.66	peak
6	pp11600.350	14.48	39.60	53.68	49.09	49.49	74.00	-24.51	peak

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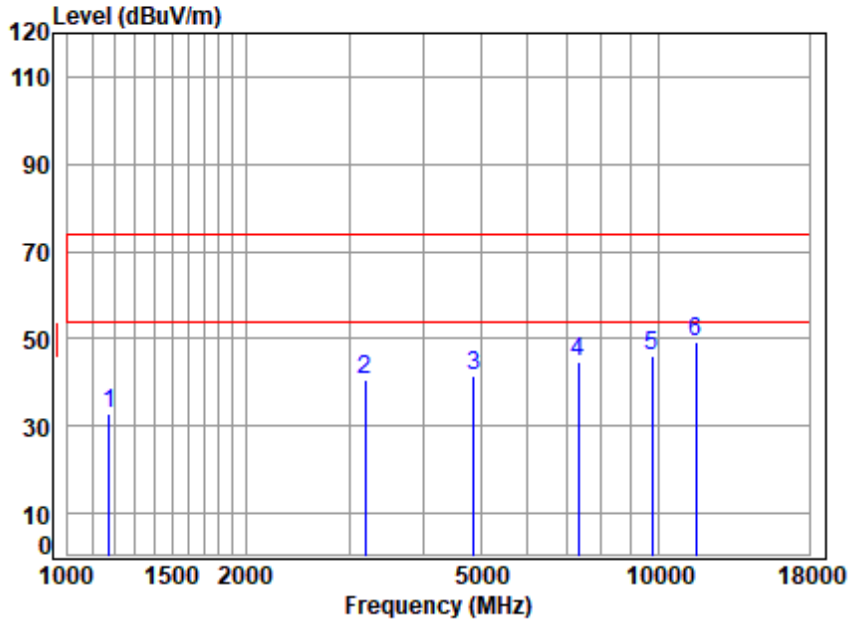
Test Mode: 08; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1175.697	7.17	25.35	54.70	54.96	32.78	74.00	-41.22	peak
2	3186.869	7.70	29.20	55.11	59.03	40.82	74.00	-33.18	peak
3	4874.000	8.97	32.15	56.21	56.54	41.45	74.00	-32.55	peak
4	7311.000	11.11	36.72	56.45	53.31	44.69	74.00	-29.31	peak
5	9748.000	12.80	38.60	54.33	49.22	46.29	74.00	-27.71	peak
6	pp11600.350	14.48	39.60	53.68	49.09	49.49	74.00	-24.51	peak

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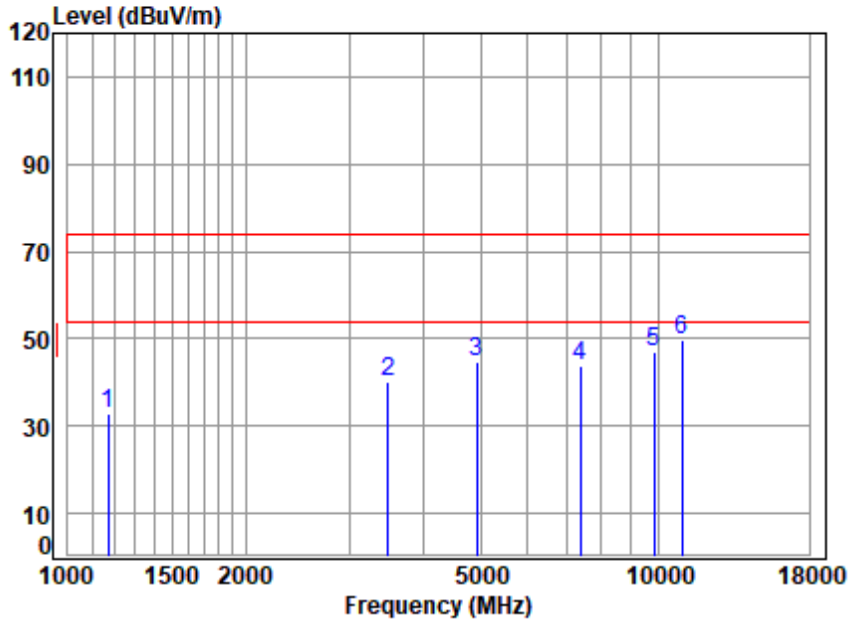
Test Mode: 08; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1168.920	7.16	25.36	54.70	55.08	32.90	74.00	-41.10	peak
2	3485.601	7.72	29.54	55.29	58.12	40.09	74.00	-33.91	peak
3	4924.000	9.03	32.20	56.25	59.68	44.66	74.00	-29.34	peak
4	7386.000	11.19	36.73	56.39	52.48	44.01	74.00	-29.99	peak
5	9848.000	12.84	37.83	54.24	50.69	47.12	74.00	-26.88	peak
6	pp10980.470	14.10	39.38	53.51	49.86	49.83	74.00	-24.17	peak

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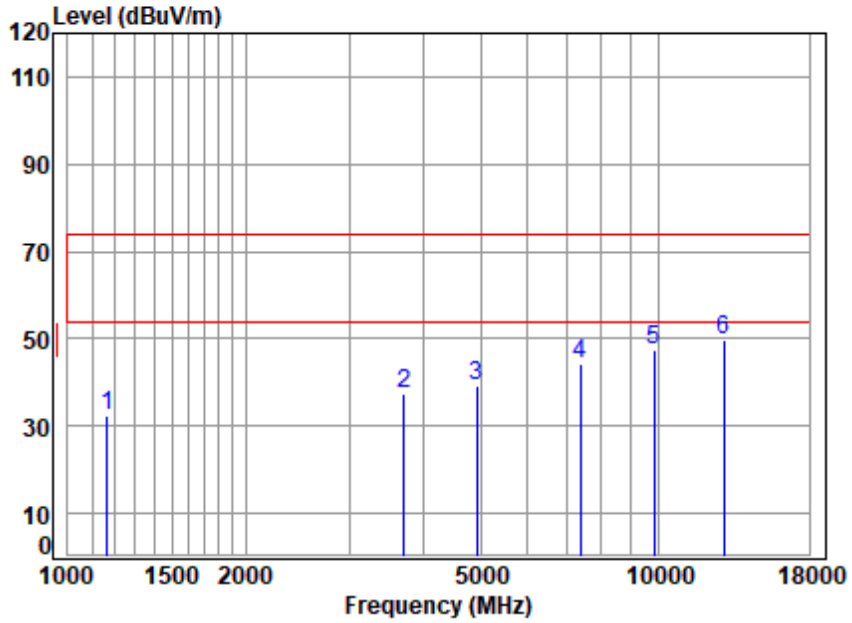
Test Mode: 08; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1165.546	7.16	25.37	54.70	54.44	32.27	74.00	-41.73	peak
2	3703.723	7.89	29.81	55.42	55.35	37.63	74.00	-36.37	peak
3	4924.000	9.03	32.20	56.25	54.36	39.34	74.00	-34.66	peak
4	7386.000	11.19	36.73	56.39	52.83	44.36	74.00	-29.64	peak
5	9848.000	12.84	37.83	54.24	50.99	47.42	74.00	-26.58	peak
6	pp12909.700	15.24	40.39	54.44	48.50	49.69	74.00	-24.31	peak

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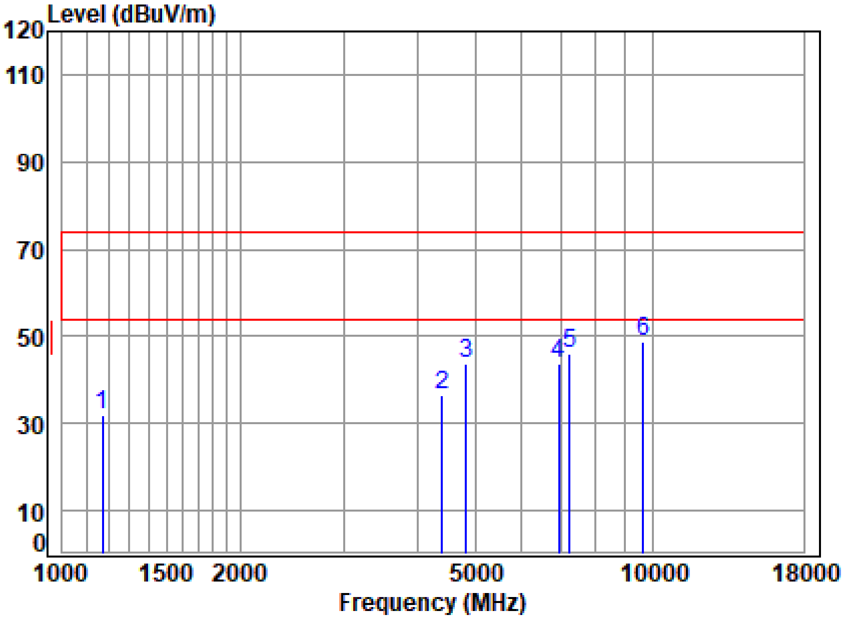
Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1168.920	7.16	25.36	54.70	54.30	32.12	74.00	-41.88	peak
2	4405.090	8.54	31.22	55.88	52.83	36.71	74.00	-37.29	peak
3	4824.000	8.92	32.00	56.18	58.90	43.64	74.00	-30.36	peak
4	6934.778	10.95	36.13	56.71	53.52	43.89	74.00	-30.11	peak
5	7236.000	11.10	36.60	56.51	55.07	46.26	74.00	-27.74	peak
6 pp	9648.000	12.49	38.70	54.42	52.14	48.91	74.00	-25.09	peak

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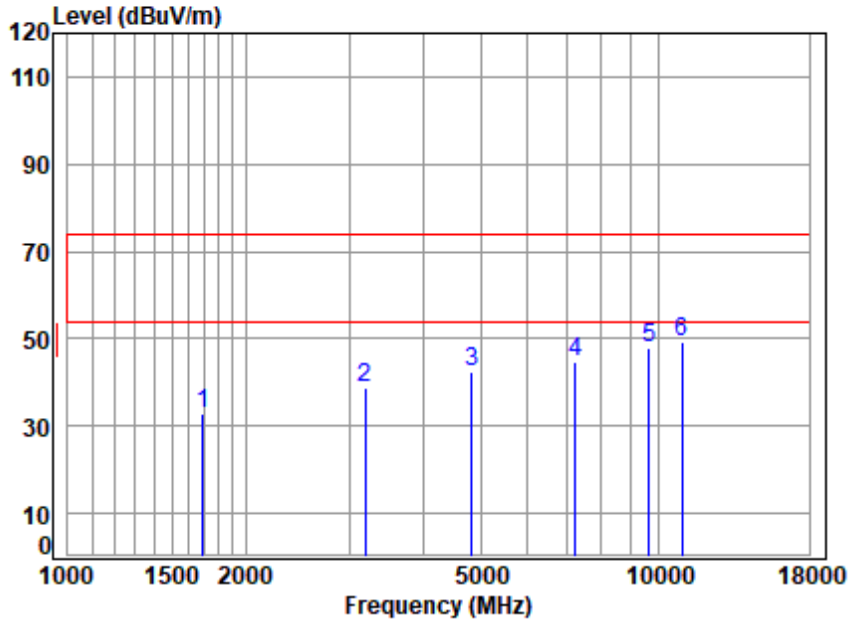
Test Mode: 08; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1692.231	7.19	25.08	54.70	55.08	32.65	74.00	-41.35	peak
2	3186.869	7.70	29.20	55.11	56.94	38.73	74.00	-35.27	Peak
3	4824.000	8.92	32.00	56.18	57.59	42.33	74.00	-31.67	peak
4	7236.000	11.10	36.60	56.51	53.31	44.50	74.00	-29.50	peak
5	9648.000	12.49	38.70	54.42	51.28	48.05	74.00	-25.95	peak
6	pp10980.470	14.10	39.38	53.51	49.45	49.42	74.00	-24.58	Peak

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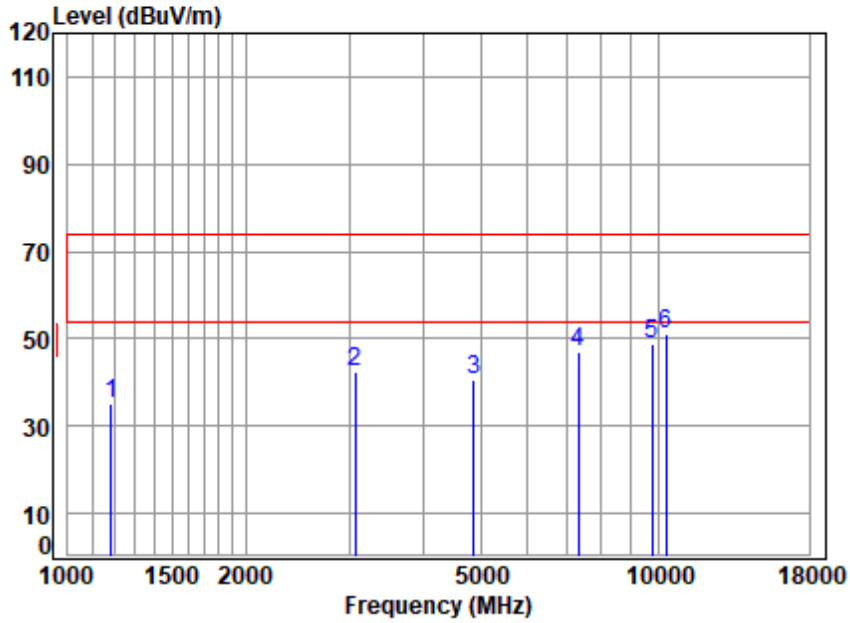
Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1185.936	7.18	25.33	54.70	57.26	35.07	74.00	-38.93	peak
2	3069.345	7.86	29.16	55.04	60.57	42.55	74.00	-31.45	peak
3	4874.000	8.97	32.15	56.21	55.60	40.51	74.00	-33.49	peak
4	7311.000	11.11	36.72	56.45	55.44	46.82	74.00	-27.18	peak
5	9748.000	12.80	38.60	54.33	51.54	48.61	74.00	-25.39	peak
6	pp10303.980	13.52	39.00	53.92	52.68	51.28	74.00	-22.72	peak

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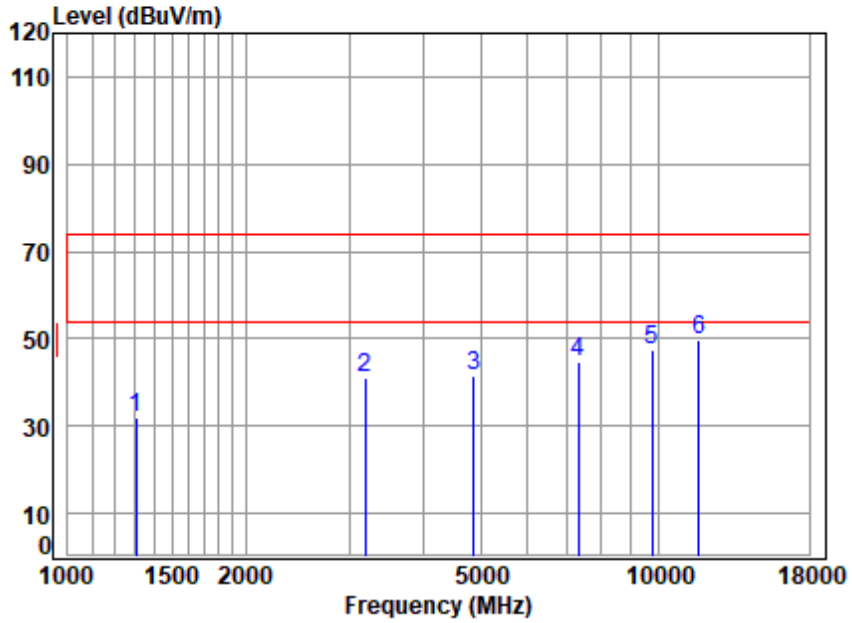
Test Mode: 08; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1304.623	7.15	25.19	54.70	54.45	32.09	74.00	-41.91	peak
2	3186.869	7.70	29.20	55.11	59.48	41.27	74.00	-32.73	peak
3	4874.000	8.97	32.15	56.21	56.42	41.33	74.00	-32.67	peak
4	7311.000	11.11	36.72	56.45	53.29	44.67	74.00	-29.33	peak
5	9748.000	12.80	38.60	54.33	50.43	47.50	74.00	-26.50	peak
6	pp11735.250	14.46	39.54	53.72	49.41	49.69	74.00	-24.31	peak

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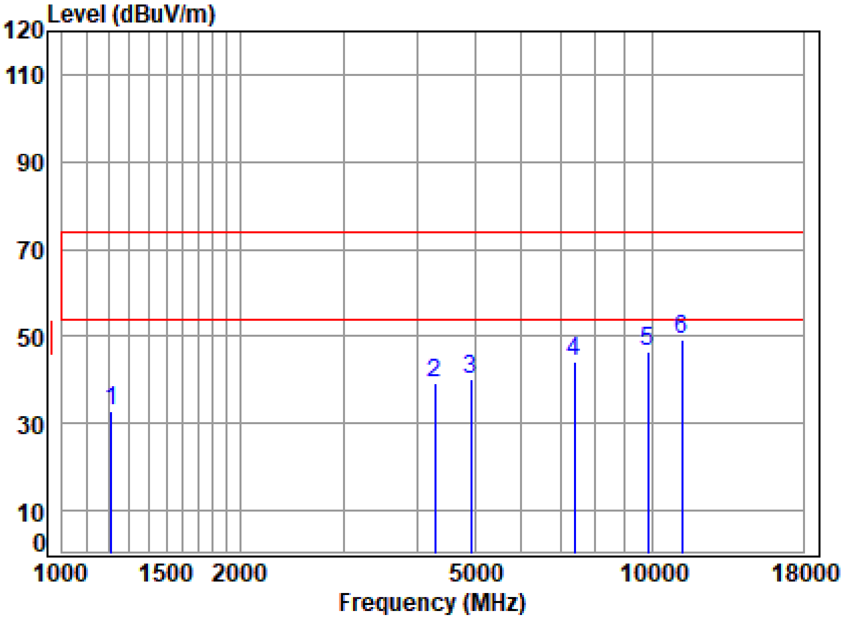
Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1213.677	7.18	25.30	54.70	55.01	32.79	74.00	-41.21	peak
2	4279.589	8.46	31.22	55.80	55.45	39.33	74.00	-34.67	peak
3	4924.000	9.03	32.20	56.25	55.08	40.06	74.00	-33.94	peak
4	7386.000	11.19	36.73	56.39	52.54	44.07	74.00	-29.93	peak
5	9848.000	12.84	37.83	54.24	50.04	46.47	74.00	-27.53	peak
6	pp11204.900	14.25	39.60	53.56	49.13	49.42	74.00	-24.58	peak

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中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编：518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

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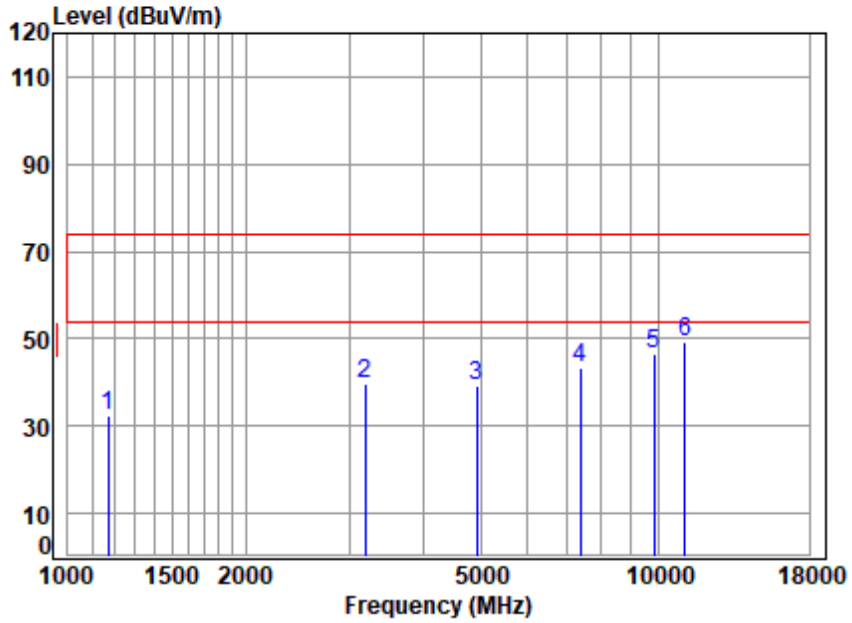
Test Mode: 08; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1172.303	7.17	25.36	54.70	54.69	32.52	74.00	-41.48	peak
2	3186.869	7.70	29.20	55.11	57.99	39.78	74.00	-34.22	peak
3	4924.000	9.03	32.20	56.25	54.17	39.15	74.00	-34.85	peak
4	7386.000	11.19	36.73	56.39	51.62	43.15	74.00	-30.85	peak
5	9848.000	12.84	37.83	54.24	50.02	46.45	74.00	-27.55	peak
6	pp11108.160	14.13	39.51	53.53	49.24	49.35	74.00	-24.65	peak

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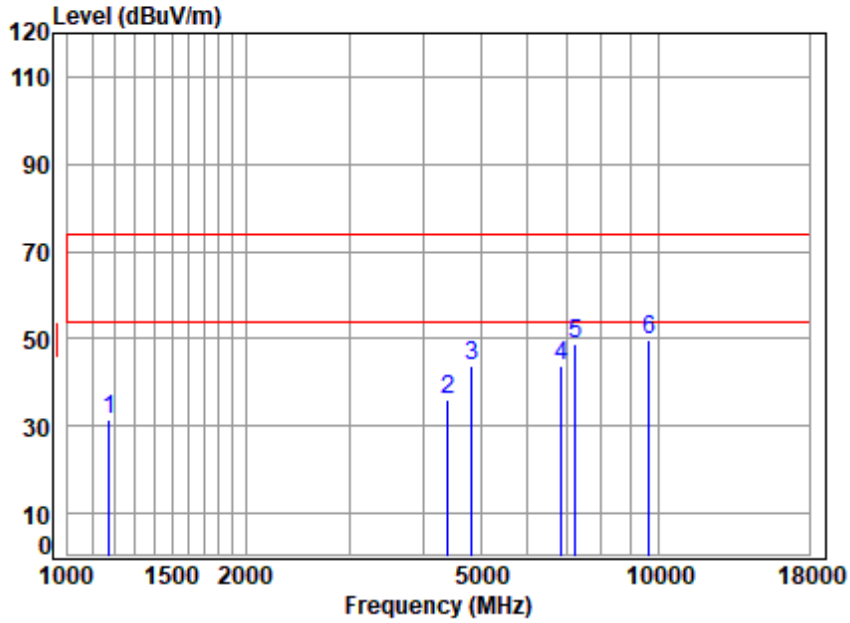
Test Mode: 09; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1175.697	7.17	25.35	54.70	53.73	31.55	74.00	-42.45	peak
2	4405.090	8.54	31.22	55.88	52.18	36.06	74.00	-37.94	peak
3	4824.000	8.92	32.00	56.18	59.26	44.00	74.00	-30.00	peak
4	6855.063	10.96	36.02	56.73	53.66	43.91	74.00	-30.09	peak
5	7236.000	11.10	36.60	56.51	57.52	48.71	74.00	-25.29	peak
6 pp	9648.000	12.49	38.70	54.42	53.18	49.95	74.00	-24.05	peak

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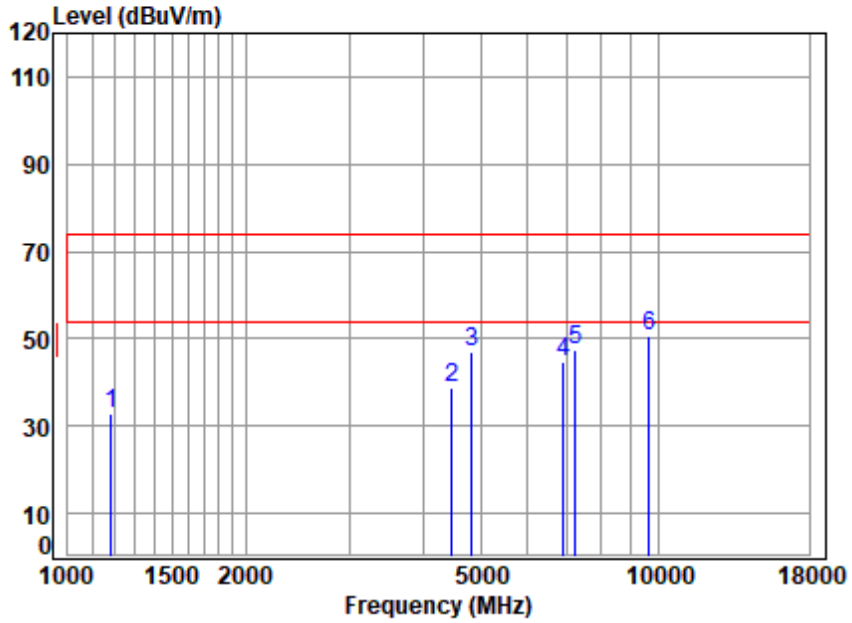
Test Mode: 09; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1182.513	7.17	25.33	54.70	55.18	32.98	74.00	-41.02	peak
2	4469.214	8.55	31.48	55.93	54.58	38.68	74.00	-35.32	peak
3	4824.000	8.92	32.00	56.18	62.42	47.16	74.00	-26.84	peak
4	6894.806	10.94	36.18	56.72	54.50	44.90	74.00	-29.10	peak
5	7236.000	11.10	36.60	56.51	56.28	47.47	74.00	-26.53	peak
6 pp	9648.000	12.49	38.70	54.42	53.81	50.58	74.00	-23.42	peak

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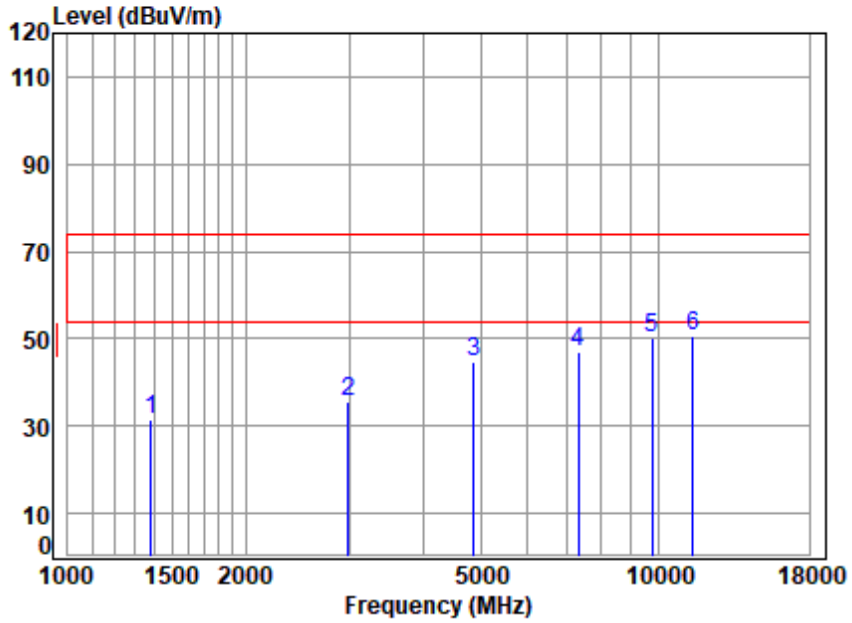
Test Mode: 09; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1386.264	7.20	25.03	54.70	53.75	31.28	74.00	-42.72	peak
2	2981.899	8.03	28.96	54.99	53.72	35.72	74.00	-38.28	peak
3	4874.000	8.97	32.15	56.21	59.60	44.51	74.00	-29.49	peak
4	7311.000	11.11	36.72	56.45	55.52	46.90	74.00	-27.10	peak
5	9748.000	12.80	38.60	54.33	53.01	50.08	74.00	-23.92	peak
6	pp11433.910	14.14	39.67	53.63	50.44	50.62	74.00	-23.38	peak

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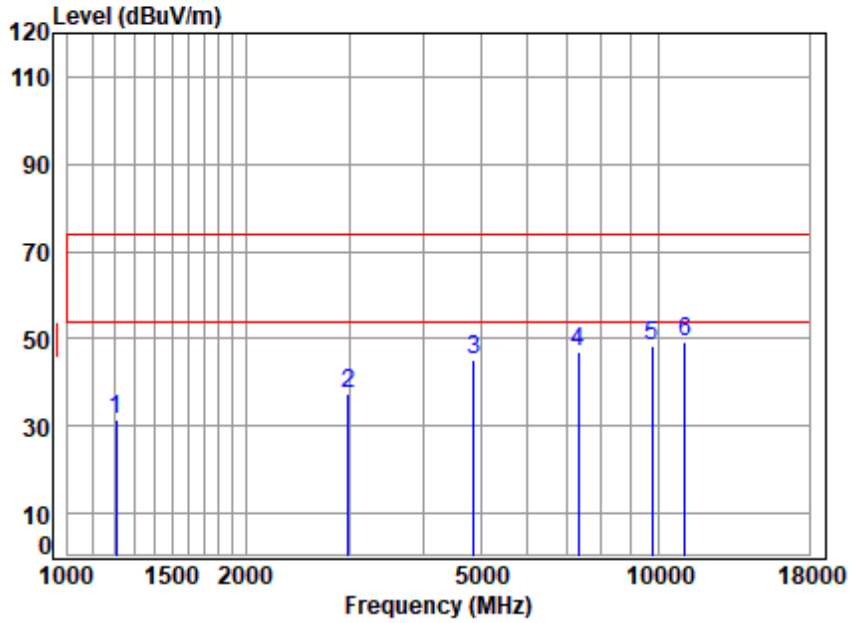
Test Mode: 09; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1206.682	7.19	25.30	54.70	53.68	31.47	74.00	-42.53	peak
2	2990.531	8.11	28.98	55.00	55.14	37.23	74.00	-36.77	peak
3	4874.000	8.97	32.15	56.21	60.35	45.26	74.00	-28.74	peak
4	7311.000	11.11	36.72	56.45	55.59	46.97	74.00	-27.03	peak
5	9748.000	12.80	38.60	54.33	51.15	48.22	74.00	-25.78	peak
6	pp11108.160	14.13	39.51	53.53	49.03	49.14	74.00	-24.86	peak

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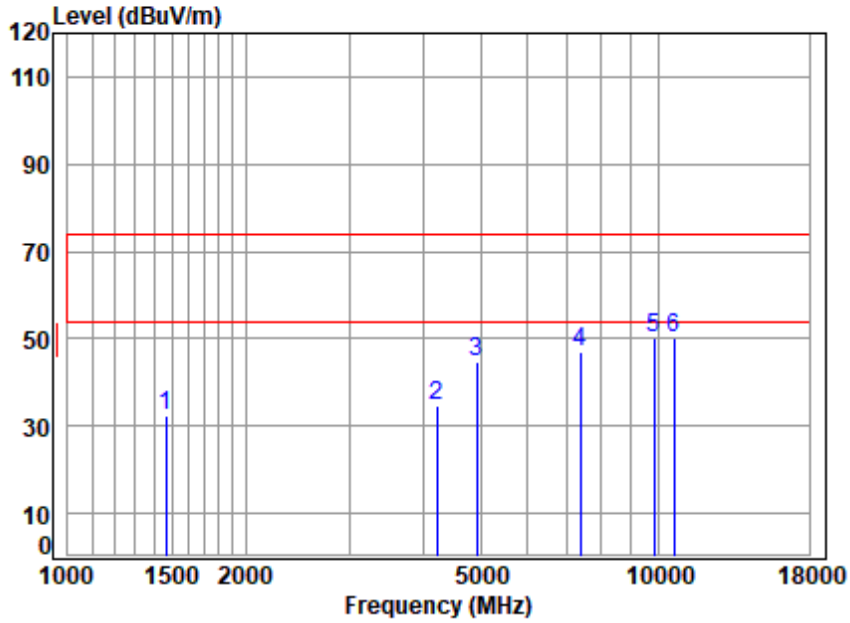
Test Mode: 09; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1464.522	7.22	25.04	54.70	54.63	32.19	74.00	-41.81	peak
2	4218.186	8.50	30.91	55.75	50.99	34.65	74.00	-39.35	peak
3	4924.000	9.03	32.20	56.25	59.81	44.79	74.00	-29.21	peak
4	7386.000	11.19	36.73	56.39	55.38	46.91	74.00	-27.09	peak
5	9848.000	12.84	37.83	54.24	53.56	49.99	74.00	-24.01	peak
6	pp10636.850	13.44	39.34	53.72	50.96	50.02	74.00	-23.98	peak

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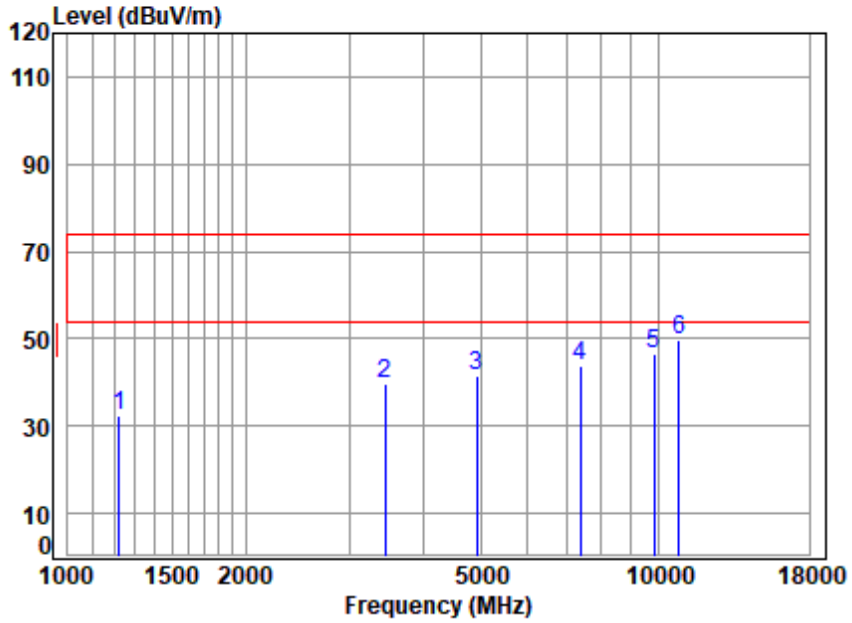
Test Mode: 09; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1220.714	7.18	25.30	54.70	54.49	32.27	74.00	-41.73	peak
2	3445.535	7.69	29.39	55.27	57.70	39.51	74.00	-34.49	peak
3	4924.000	9.03	32.20	56.25	56.49	41.47	74.00	-32.53	peak
4	7386.000	11.19	36.73	56.39	52.41	43.94	74.00	-30.06	peak
5	9848.000	12.84	37.83	54.24	50.11	46.54	74.00	-27.46	peak
6	pp10854.250	13.55	39.30	53.59	50.37	49.63	74.00	-24.37	peak

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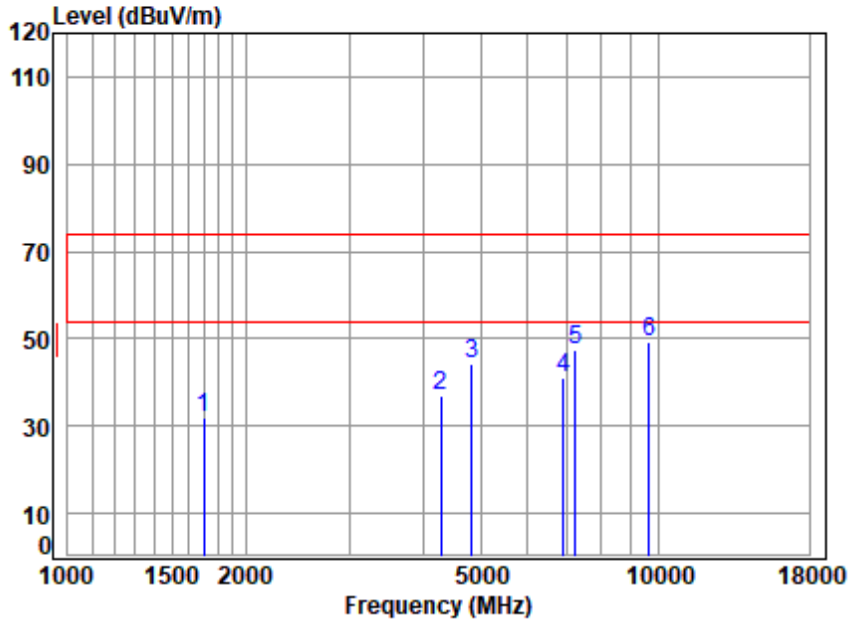

Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1702.042	7.20	25.11	54.70	54.54	32.15	74.00	-41.85	peak
2	4279.589	8.46	31.22	55.80	53.22	37.10	74.00	-36.90	peak
3	4824.000	8.92	32.00	56.18	59.45	44.19	74.00	-29.81	peak
4	6894.806	10.94	36.18	56.72	50.81	41.21	74.00	-32.79	peak
5	7236.000	11.10	36.60	56.51	56.33	47.52	74.00	-26.48	peak
6 pp	9648.000	12.49	38.70	54.42	52.47	49.24	74.00	-24.76	peak

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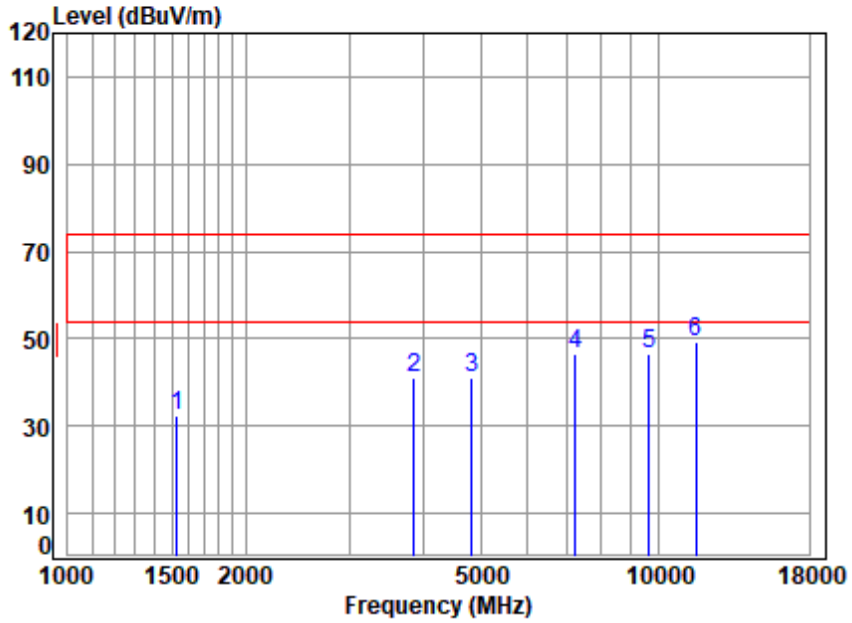

Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1529.414	7.18	24.96	54.70	55.02	32.46	74.00	-41.54	peak
2	3856.668	8.04	29.81	55.51	58.74	41.08	74.00	-32.92	peak
3	4824.000	8.92	32.00	56.18	56.37	41.11	74.00	-32.89	peak
4	7236.000	11.10	36.60	56.51	55.21	46.40	74.00	-27.60	peak
5	9648.000	12.49	38.70	54.42	49.57	46.34	74.00	-27.66	peak
6	pp11566.870	14.40	39.60	53.67	48.94	49.27	74.00	-24.73	Peak

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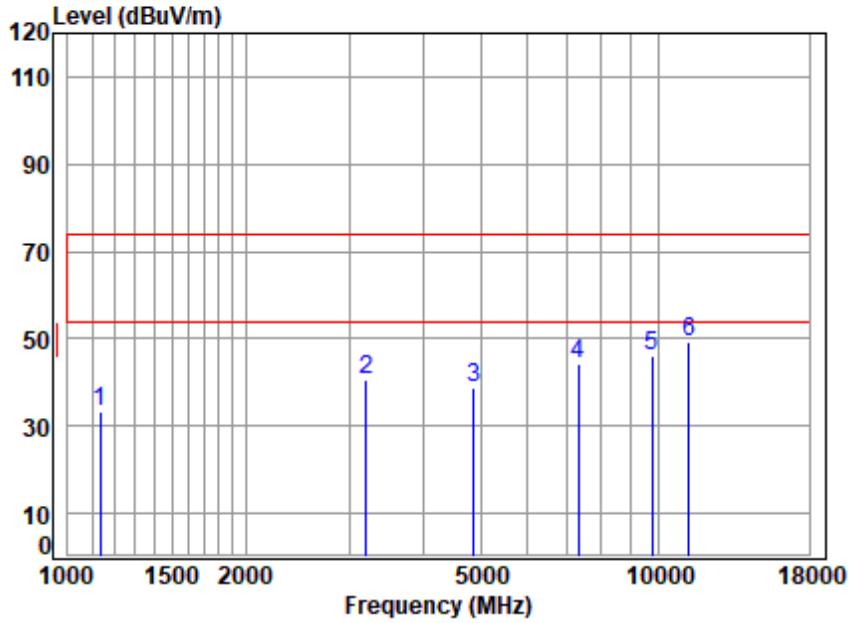
Test Mode: 09; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1135.617	7.13	25.46	54.70	55.38	33.27	74.00	-40.73	peak
2	3196.094	7.70	29.20	55.12	59.01	40.79	74.00	-33.21	peak
3	4874.000	8.97	32.15	56.21	54.01	38.92	74.00	-35.08	peak
4	7311.000	11.11	36.72	56.45	52.97	44.35	74.00	-29.65	peak
5	9748.000	12.80	38.60	54.33	49.17	46.24	74.00	-27.76	peak
6	pp11269.860	14.35	39.67	53.58	48.67	49.11	74.00	-24.89	peak

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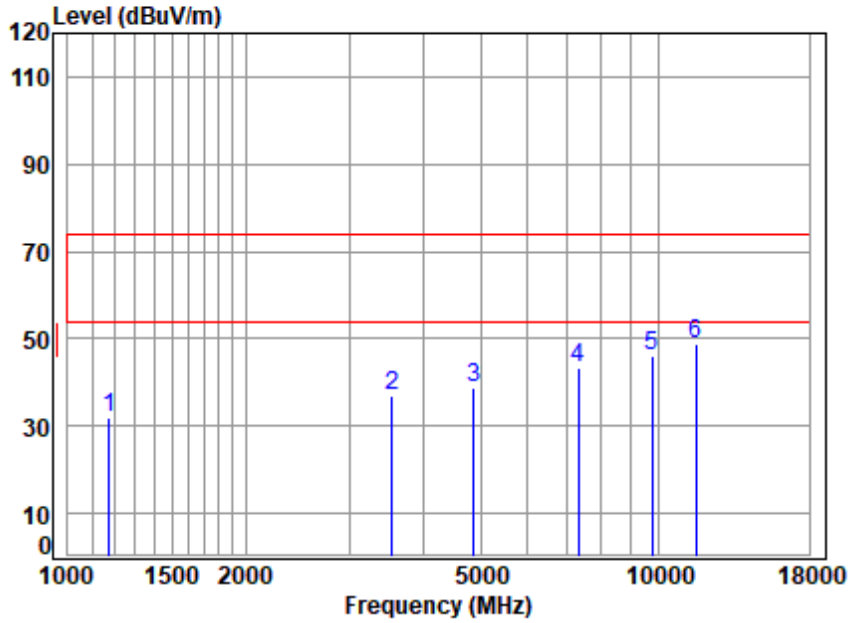
Test Mode: 09; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1175.697	7.17	25.35	54.70	53.91	31.73	74.00	-42.27	peak
2	3546.577	7.74	29.79	55.33	54.67	36.87	74.00	-37.13	peak
3	4874.000	8.97	32.15	56.21	54.01	38.92	74.00	-35.08	peak
4	7311.000	11.11	36.72	56.45	52.08	43.46	74.00	-30.54	peak
5	9748.000	12.80	38.60	54.33	49.17	46.24	74.00	-27.76	peak
6	pp11566.870	14.40	39.60	53.67	48.61	48.94	74.00	-25.06	peak

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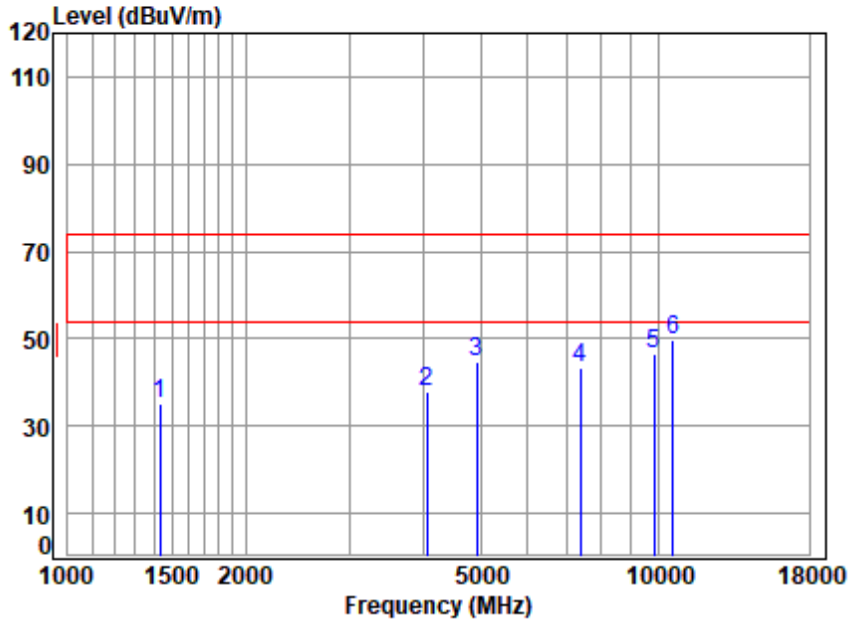
Test Mode: 09; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1431.047	7.21	25.06	54.70	57.45	35.02	74.00	-38.98	peak
2	4062.629	8.27	30.33	55.64	55.14	38.10	74.00	-35.90	peak
3	4924.000	9.03	32.20	56.25	59.72	44.70	74.00	-29.30	peak
4	7386.000	11.19	36.73	56.39	51.80	43.33	74.00	-30.67	peak
5	9848.000	12.84	37.83	54.24	50.28	46.71	74.00	-27.29	peak
6	pp10606.150	13.38	39.31	53.74	50.79	49.74	74.00	-24.26	peak

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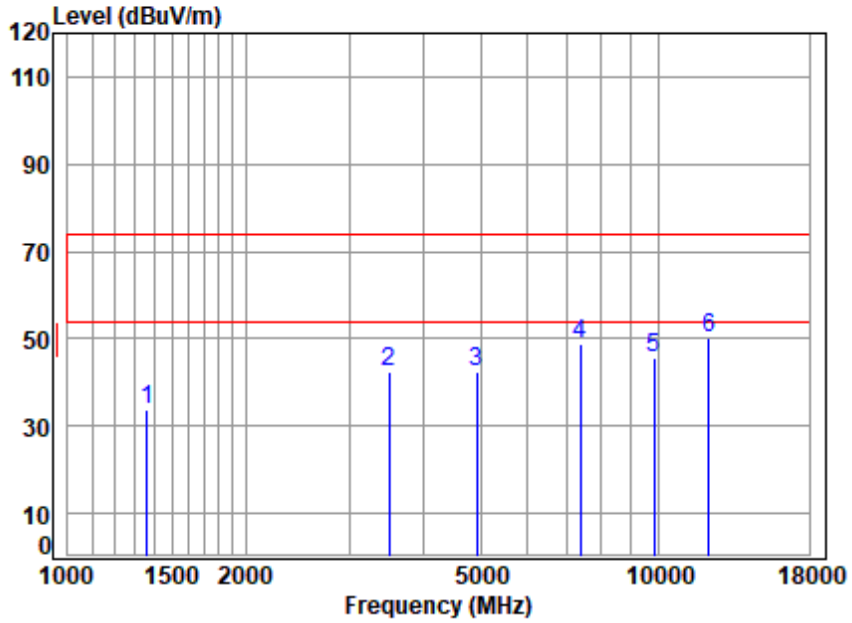
Test Mode: 09; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1362.430	7.19	25.08	54.70	56.11	33.68	74.00	-40.32	peak
2	3505.809	7.73	29.62	55.30	60.37	42.42	74.00	-31.58	peak
3	4924.000	9.03	32.20	56.25	57.32	42.30	74.00	-31.70	peak
4	7386.000	11.19	36.73	56.39	57.17	48.70	74.00	-25.30	peak
5	9848.000	12.84	37.83	54.24	49.24	45.67	74.00	-28.33	peak
6	pp12184.580	14.48	39.87	53.93	49.84	50.26	74.00	-23.74	peak

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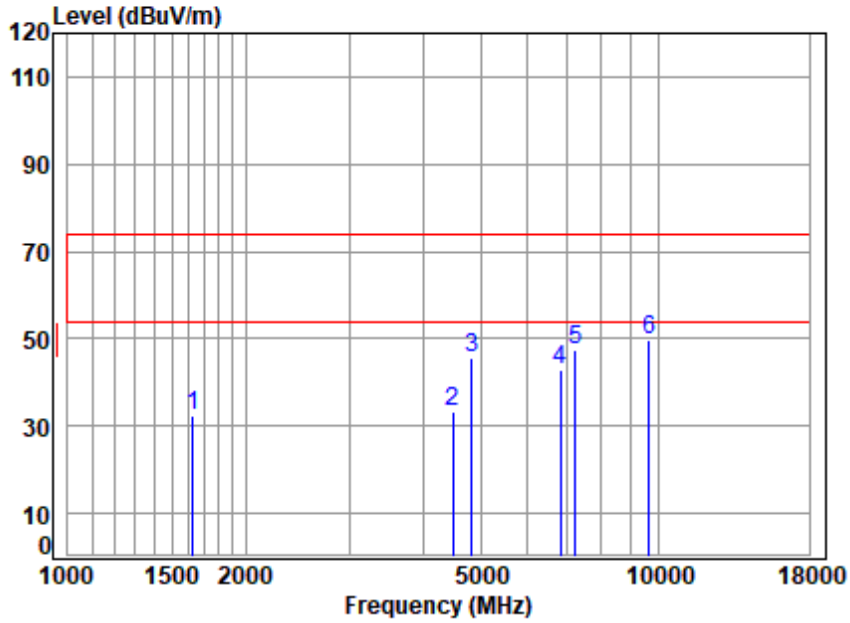

Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1629.825	7.13	25.04	54.70	54.97	32.44	74.00	-41.56	peak
2	4495.125	8.56	31.58	55.95	49.08	33.27	74.00	-40.73	peak
3	4824.000	8.92	32.00	56.18	60.93	45.67	74.00	-28.33	peak
4	6815.551	10.97	35.93	56.74	52.61	42.77	74.00	-31.23	peak
5	7236.000	11.10	36.60	56.51	56.34	47.53	74.00	-26.47	peak
6 pp	9648.000	12.49	38.70	54.42	52.92	49.69	74.00	-24.31	peak

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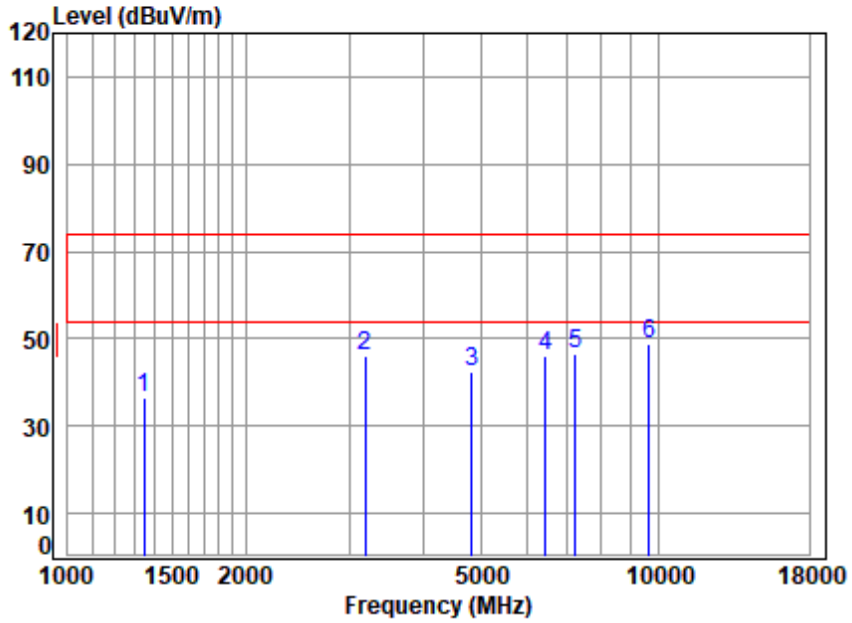

Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1346.769	7.18	25.11	54.70	58.89	36.48	74.00	-37.52	peak
2	3186.869	7.70	29.20	55.11	64.10	45.89	74.00	-28.11	peak
3	4824.000	8.92	32.00	56.18	57.90	42.64	74.00	-31.36	peak
4	6451.353	10.59	34.80	56.81	57.35	45.93	74.00	-28.07	Peak
5	7236.000	11.10	36.60	56.51	55.32	46.51	74.00	-27.49	peak
6 pp	9648.000	12.49	38.70	54.42	51.83	48.60	74.00	-25.40	peak

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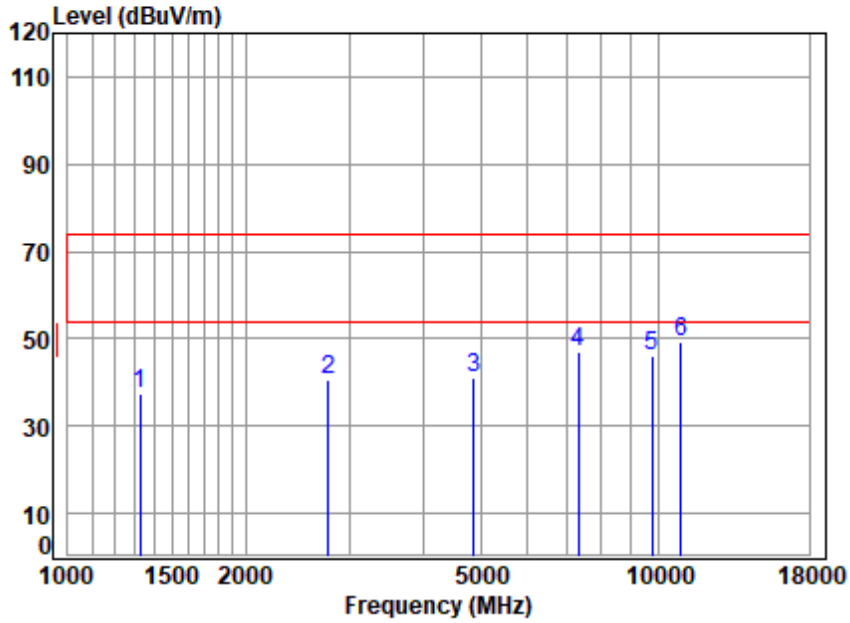
Test Mode: 10; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1323.614	7.16	25.15	54.70	59.72	37.33	74.00	-36.67	peak
2	2758.041	7.32	28.68	54.93	59.63	40.70	74.00	-33.30	peak
3	4874.000	8.97	32.15	56.21	55.97	40.88	74.00	-33.12	peak
4	7311.000	11.11	36.72	56.45	55.46	46.84	74.00	-27.16	peak
5	9748.000	12.80	38.60	54.33	49.11	46.18	74.00	-27.82	peak
6	pp10917.180	13.71	39.32	53.55	49.84	49.32	74.00	-24.68	peak

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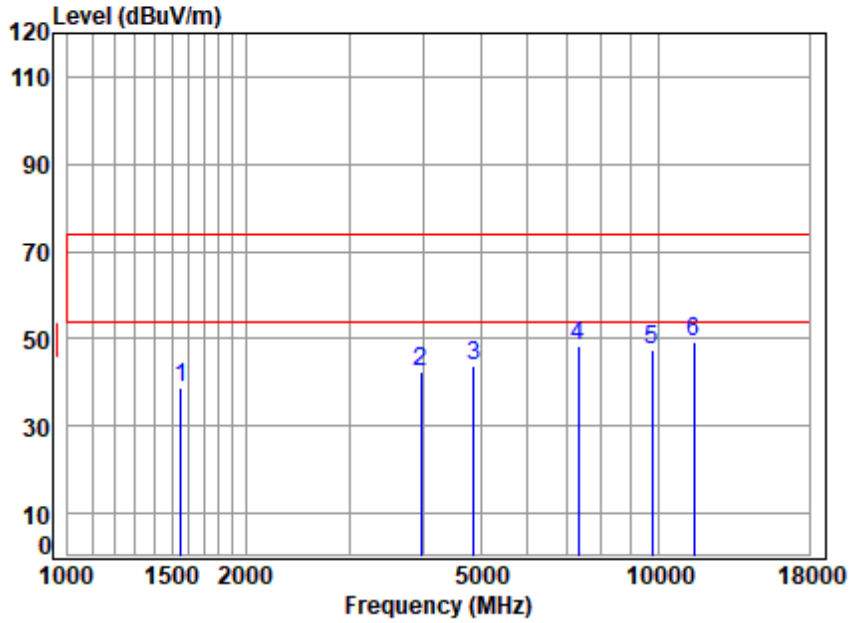
Test Mode: 10; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1556.169	7.15	25.01	54.70	61.44	38.90	74.00	-35.10	peak
2	3969.767	8.10	30.14	55.58	59.97	42.63	74.00	-31.37	peak
3	4874.000	8.97	32.15	56.21	58.87	43.78	74.00	-30.22	peak
4	7311.000	11.11	36.72	56.45	57.00	48.38	74.00	-25.62	peak
5	9748.000	12.80	38.60	54.33	50.26	47.33	74.00	-26.67	peak
6	pp11500.200	14.23	39.60	53.65	49.12	49.30	74.00	-24.70	peak

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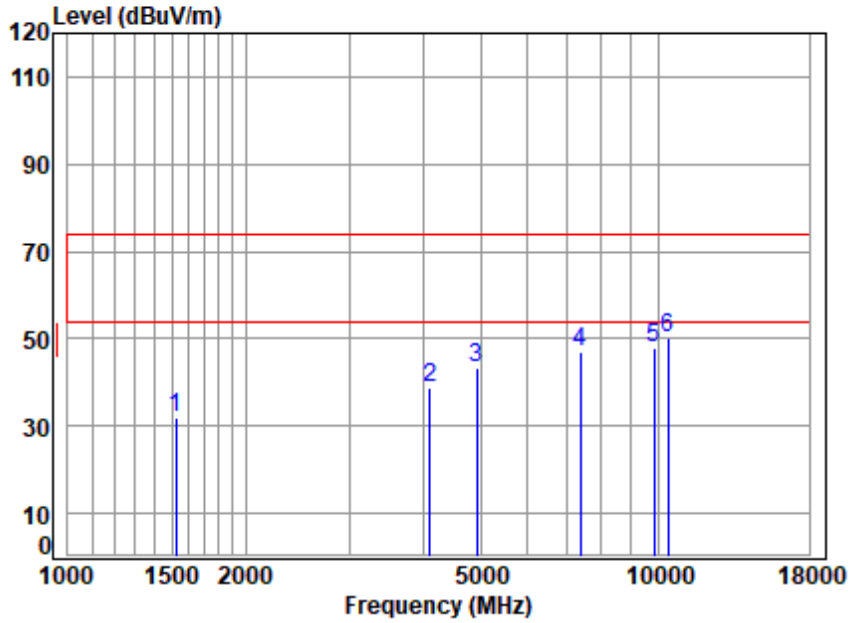
Test Mode: 10; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1525.000	7.19	24.95	54.70	54.33	31.77	74.00	-42.23	peak
2	4098.010	8.36	30.40	55.67	55.48	38.57	74.00	-35.43	peak
3	4924.000	9.03	32.20	56.25	58.36	43.34	74.00	-30.66	peak
4	7386.000	11.19	36.73	56.39	55.51	47.04	74.00	-26.96	peak
5	9848.000	12.84	37.83	54.24	51.39	47.82	74.00	-26.18	peak
6	pp10393.710	13.50	39.00	53.86	51.40	50.04	74.00	-23.96	peak

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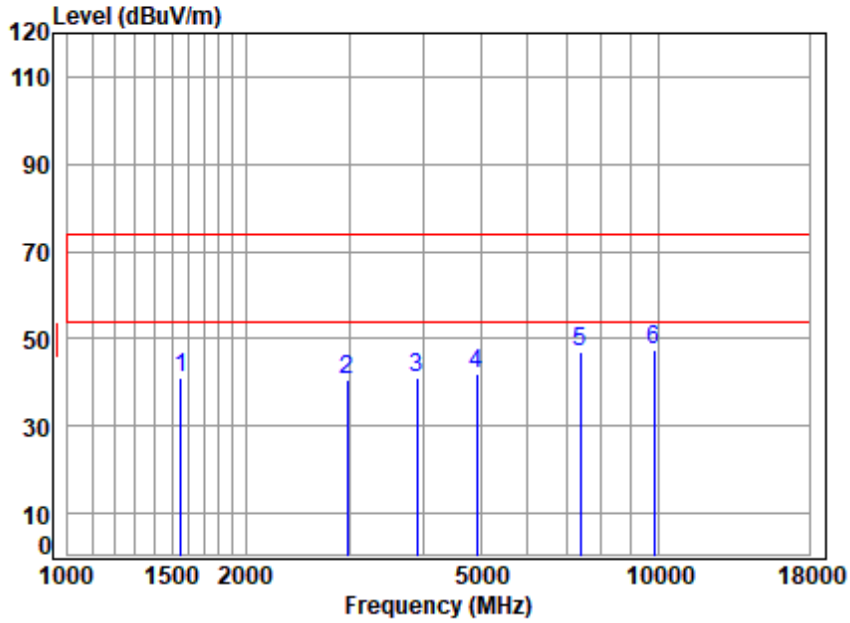
Test Mode: 10; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1556.169	7.15	25.01	54.70	63.44	40.90	74.00	-33.10	peak
2	2973.293	7.96	28.95	54.99	58.65	40.57	74.00	-33.43	Peak
3	3901.516	8.07	29.91	55.54	58.60	41.04	74.00	-32.96	peak
4	4924.000	9.03	32.20	56.25	56.87	41.85	74.00	-32.15	peak
5	7386.000	11.19	36.73	56.39	55.38	46.91	74.00	-27.09	peak
6 pp	9848.000	12.84	37.83	54.24	51.09	47.52	74.00	-26.48	peak

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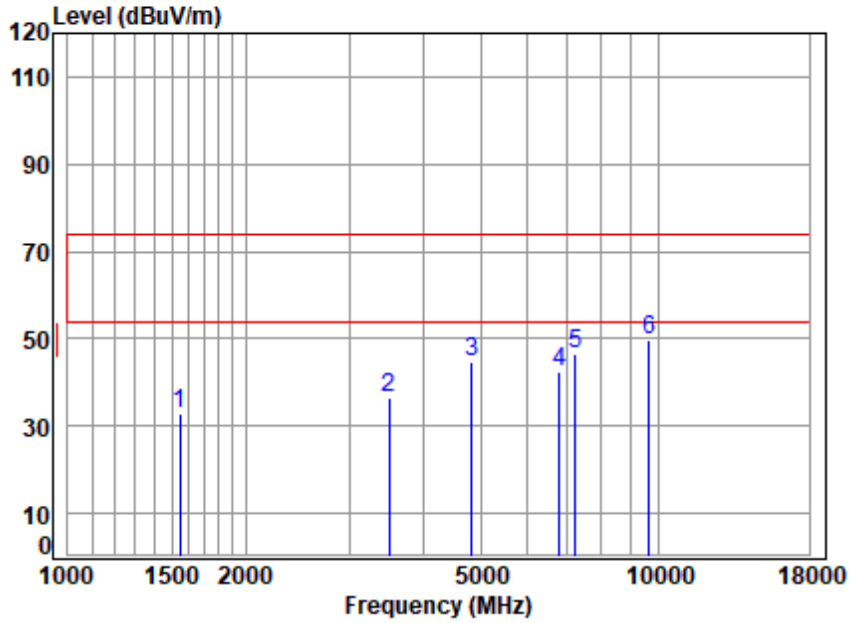
Test Mode: 10; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1547.199	7.16	24.99	54.70	55.26	32.71	74.00	-41.29	peak
2	3505.809	7.73	29.62	55.30	54.60	36.65	74.00	-37.35	peak
3	4824.000	8.92	32.00	56.18	59.95	44.69	74.00	-29.31	peak
4	6795.879	10.97	35.88	56.74	52.20	42.31	74.00	-31.69	peak
5	7236.000	11.10	36.60	56.51	55.27	46.46	74.00	-27.54	peak
6 pp	9648.000	12.49	38.70	54.42	53.01	49.78	74.00	-24.22	peak

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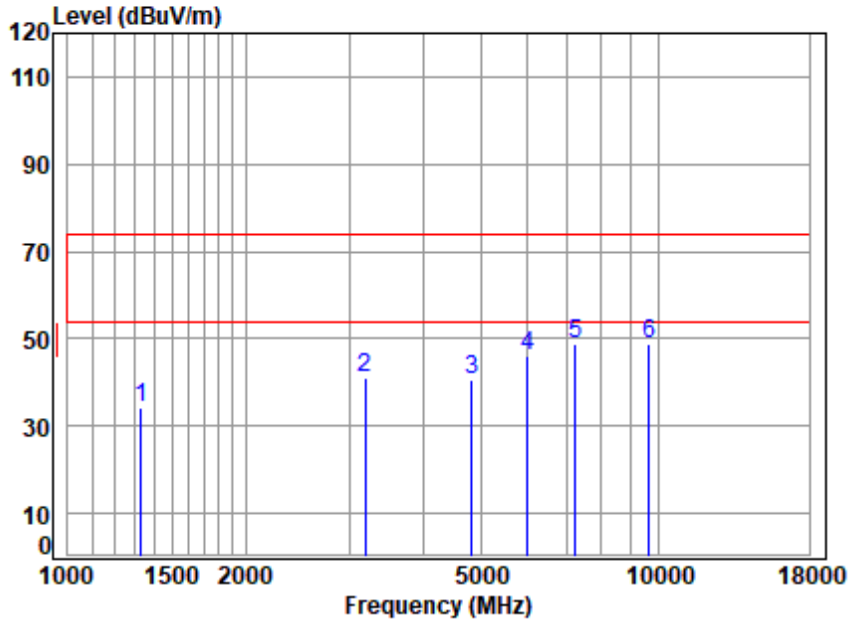
Test Mode: 10; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1331.288	7.17	25.14	54.70	56.47	34.08	74.00	-39.92	peak
2	3186.869	7.70	29.20	55.11	59.10	40.89	74.00	-33.11	peak
3	4824.000	8.92	32.00	56.18	55.99	40.73	74.00	-33.27	peak
4	6001.626	10.05	33.80	56.90	59.26	46.21	74.00	-27.79	Peak
5 pp	7236.000	11.10	36.60	56.51	57.64	48.83	74.00	-25.17	peak
6	9648.000	12.49	38.70	54.42	51.84	48.61	74.00	-25.39	peak

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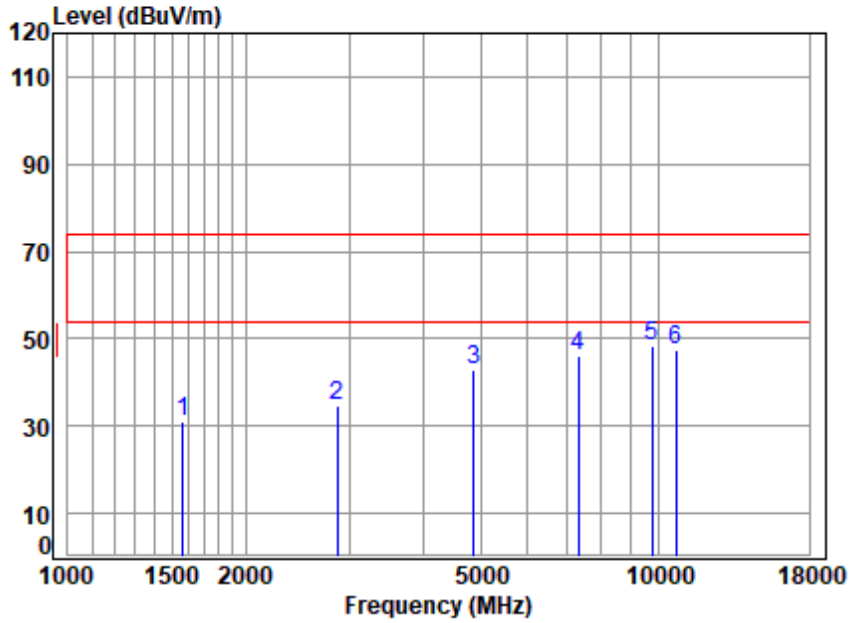
Test Mode: 10; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1565.191	7.14	25.03	54.70	53.71	31.18	74.00	-42.82	peak
2	2855.380	7.32	28.88	54.96	53.30	34.54	74.00	-39.46	peak
3	4874.000	8.97	32.15	56.21	57.82	42.73	74.00	-31.27	peak
4	7311.000	11.11	36.72	56.45	54.81	46.19	74.00	-27.81	peak
5 pp	9748.000	12.80	38.60	54.33	51.29	48.36	74.00	-25.64	peak
6	10698.510	13.55	39.40	53.68	48.33	47.60	74.00	-26.40	peak

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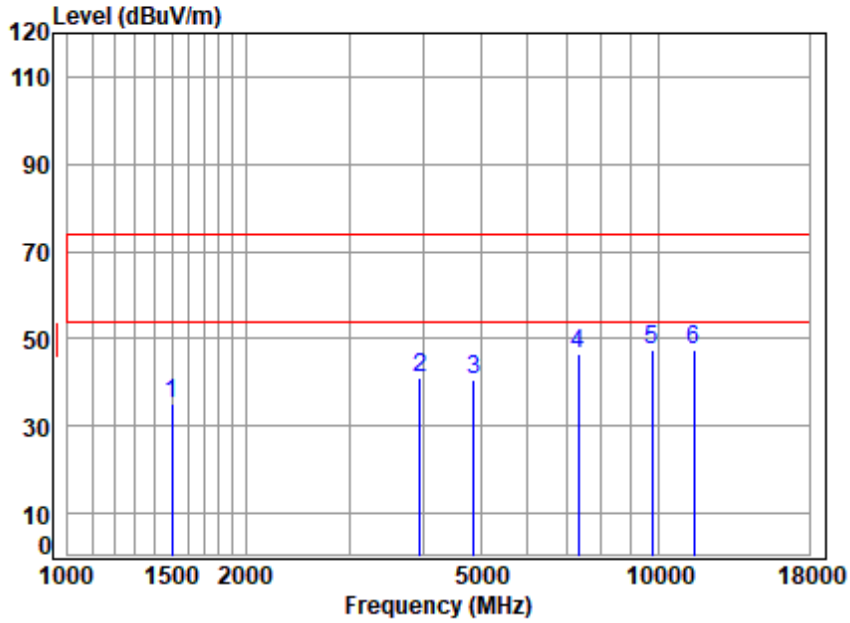
Test Mode: 10; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1498.781	7.22	24.90	54.70	57.67	35.09	74.00	-38.91	peak
2	3946.885	8.09	30.09	55.57	58.27	40.88	74.00	-33.12	peak
3	4874.000	8.97	32.15	56.21	55.66	40.57	74.00	-33.43	peak
4	7311.000	11.11	36.72	56.45	54.94	46.32	74.00	-27.68	peak
5	9748.000	12.80	38.60	54.33	50.41	47.48	74.00	-26.52	peak
6	pp11467.000	14.19	39.63	53.64	47.36	47.54	74.00	-26.46	peak

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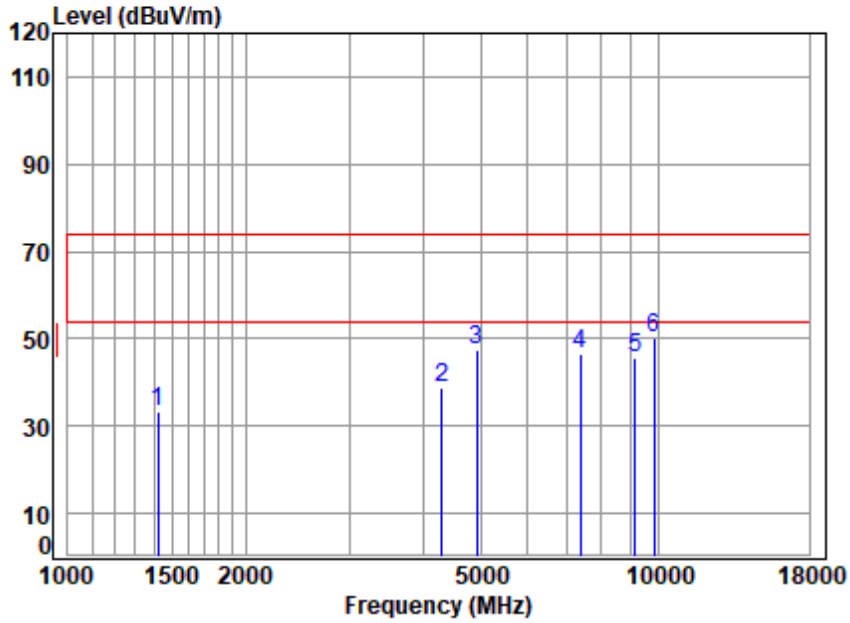
Test Mode: 10; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1422.798	7.21	25.05	54.70	55.71	33.27	74.00	-40.73	peak
2	4304.400	8.45	31.30	55.81	54.86	38.80	74.00	-35.20	peak
3	4924.000	9.03	32.20	56.25	62.36	47.34	74.00	-26.66	peak
4	7386.000	11.19	36.73	56.39	55.01	46.54	74.00	-27.46	peak
5	9126.063	12.09	38.65	54.89	49.90	45.75	74.00	-28.25	peak
6 pp	9848.000	12.84	37.83	54.24	53.84	50.27	74.00	-23.73	peak

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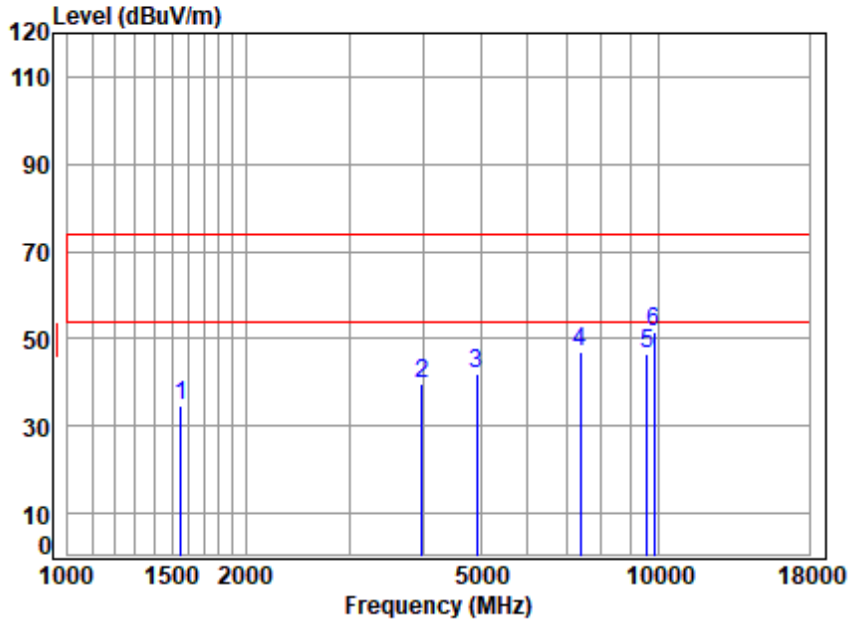
Test Mode: 10; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1556.169	7.15	25.01	54.70	57.44	34.90	74.00	-39.10	peak
2	3981.257	8.11	30.16	55.59	56.94	39.62	74.00	-34.38	peak
3	4924.000	9.03	32.20	56.25	56.87	41.85	74.00	-32.15	peak
4	7386.000	11.19	36.73	56.39	55.38	46.91	74.00	-27.09	peak
5	9585.684	12.38	38.80	54.47	49.81	46.52	74.00	-27.48	peak
6 pp	9848.000	12.84	37.83	54.24	55.09	51.52	74.00	-22.48	peak

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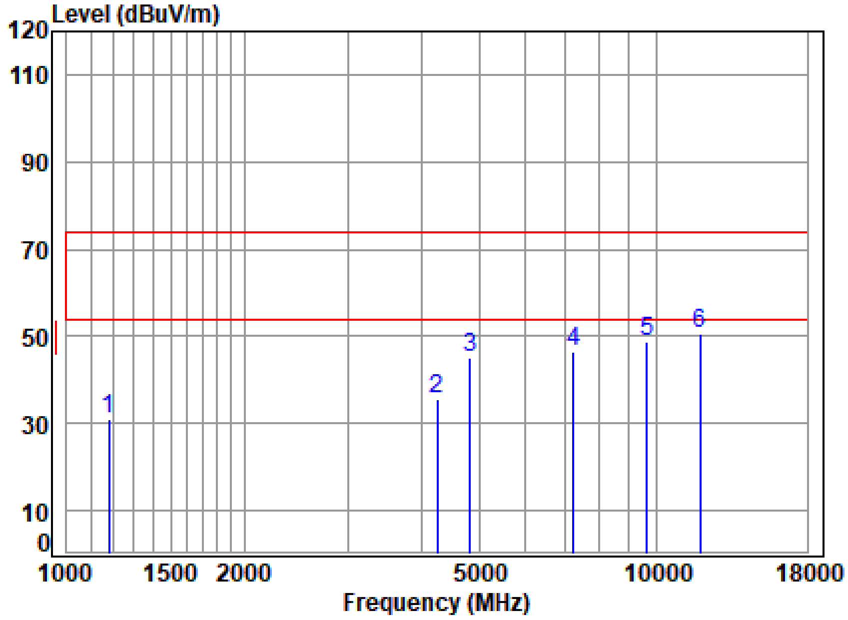
Test Mode: 11; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1179.100	7.17	25.34	54.70	53.23	31.04	74.00	-42.96	peak
2	4242.641	8.48	31.06	55.77	51.88	35.65	74.00	-38.35	peak
3	4824.000	8.92	32.00	56.18	60.46	45.20	74.00	-28.80	peak
4	7236.000	11.10	36.60	56.51	55.54	46.73	74.00	-27.27	peak
5	9648.000	12.49	38.70	54.42	52.00	48.77	74.00	-25.23	peak
6	pp11837.450	14.61	39.64	53.75	50.00	50.50	74.00	-23.50	Peak

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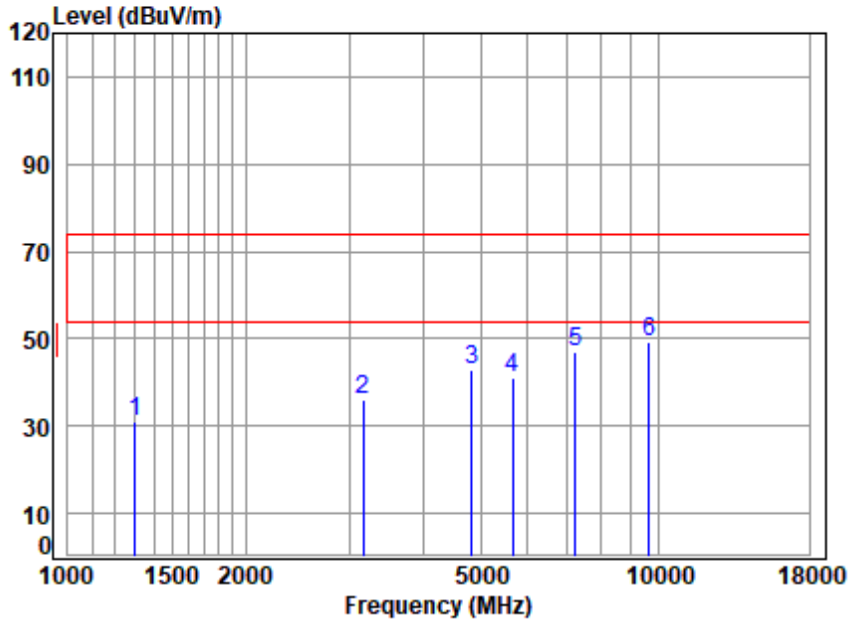
Test Mode: 11; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1300.858	7.15	25.20	54.70	53.24	30.89	74.00	-43.11	peak
2	3168.500	7.70	29.20	55.10	54.06	35.86	74.00	-38.14	peak
3	4824.000	8.92	32.00	56.18	57.92	42.66	74.00	-31.34	peak
4	5664.525	9.76	33.13	56.70	55.06	41.25	74.00	-32.75	peak
5	7236.000	11.10	36.60	56.51	55.84	47.03	74.00	-26.97	peak
6 pp	9648.000	12.49	38.70	54.42	52.29	49.06	74.00	-24.94	peak

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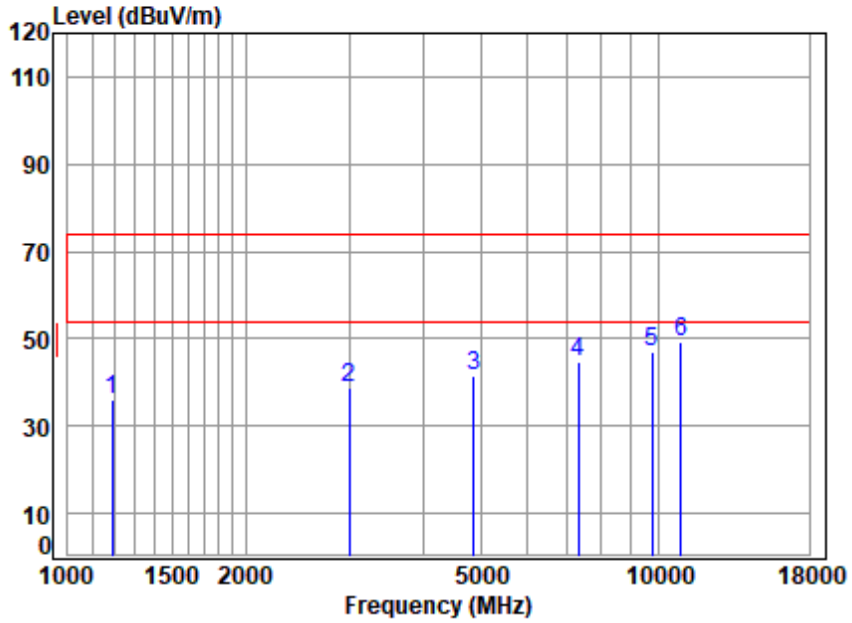
Member of the SGS Group (SGS SA)

Test Mode: 11; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1189.368	7.18	25.32	54.70	58.17	35.97	74.00	-38.03	peak
2	2999.187	8.18	29.00	55.00	56.50	38.68	74.00	-35.32	peak
3	4874.000	8.97	32.15	56.21	56.76	41.67	74.00	-32.33	peak
4	7311.000	11.11	36.72	56.45	53.12	44.50	74.00	-29.50	peak
5	9748.000	12.80	38.60	54.33	50.00	47.07	74.00	-26.93	peak
6	pp10917.180	13.71	39.32	53.55	49.92	49.40	74.00	-24.60	peak

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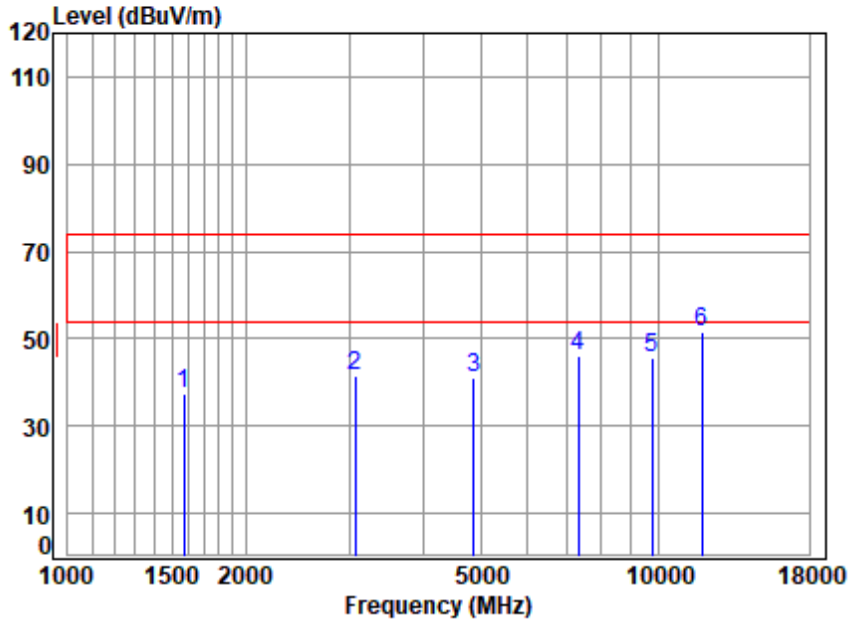
Member of the SGS Group (SGS SA)

Test Mode: 11; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1574.265	7.13	25.05	54.70	59.86	37.34	74.00	-36.66	peak
2	3069.345	7.86	29.16	55.04	59.70	41.68	74.00	-32.32	peak
3	4874.000	8.97	32.15	56.21	56.05	40.96	74.00	-33.04	peak
4	7311.000	11.11	36.72	56.45	54.83	46.21	74.00	-27.79	peak
5	9748.000	12.80	38.60	54.33	48.77	45.84	74.00	-28.16	peak
6	pp11871.710	14.63	39.67	53.76	51.06	51.60	74.00	-22.40	peak

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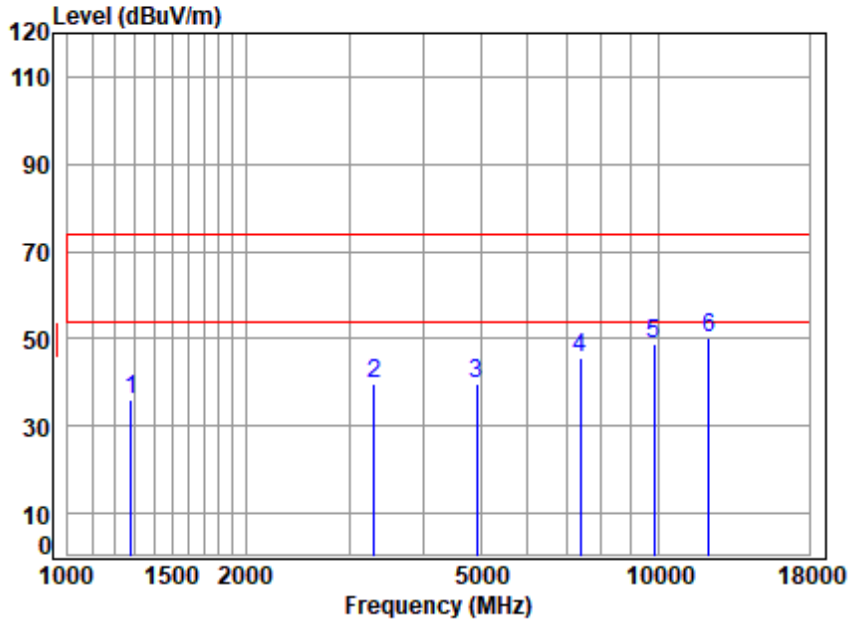
Test Mode: 11; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1278.492	7.16	25.24	54.70	58.16	35.86	74.00	-38.14	peak
2	3308.894	7.59	29.20	55.19	58.23	39.83	74.00	-34.17	peak
3	4924.000	9.03	32.20	56.25	54.71	39.69	74.00	-34.31	peak
4	7386.000	11.19	36.73	56.39	54.25	45.78	74.00	-28.22	peak
5	9848.000	12.84	37.83	54.24	52.32	48.75	74.00	-25.25	peak
6	pp12184.580	14.48	39.87	53.93	49.69	50.11	74.00	-23.89	Peak

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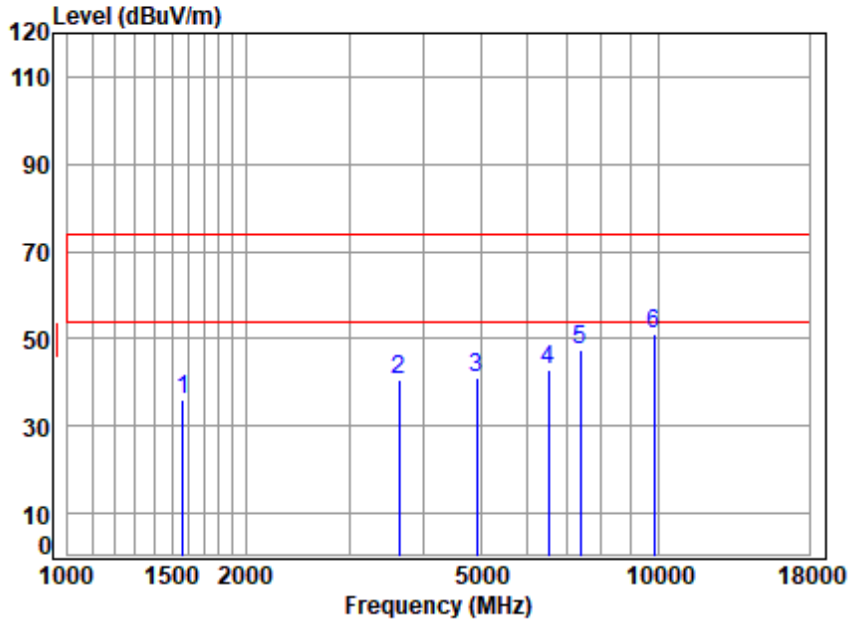
Test Mode: 11; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11B

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1569.721	7.14	25.04	54.70	58.54	36.02	74.00	-37.98	peak
2	3640.045	7.81	29.82	55.38	58.17	40.42	74.00	-33.58	peak
3	4924.000	9.03	32.20	56.25	56.10	41.08	74.00	-32.92	peak
4	6507.536	10.68	34.92	56.80	54.22	43.02	74.00	-30.98	Peak
5	7386.000	11.19	36.73	56.39	55.76	47.29	74.00	-26.71	peak
6 pp	9848.000	12.84	37.83	54.24	54.49	50.92	74.00	-23.08	peak

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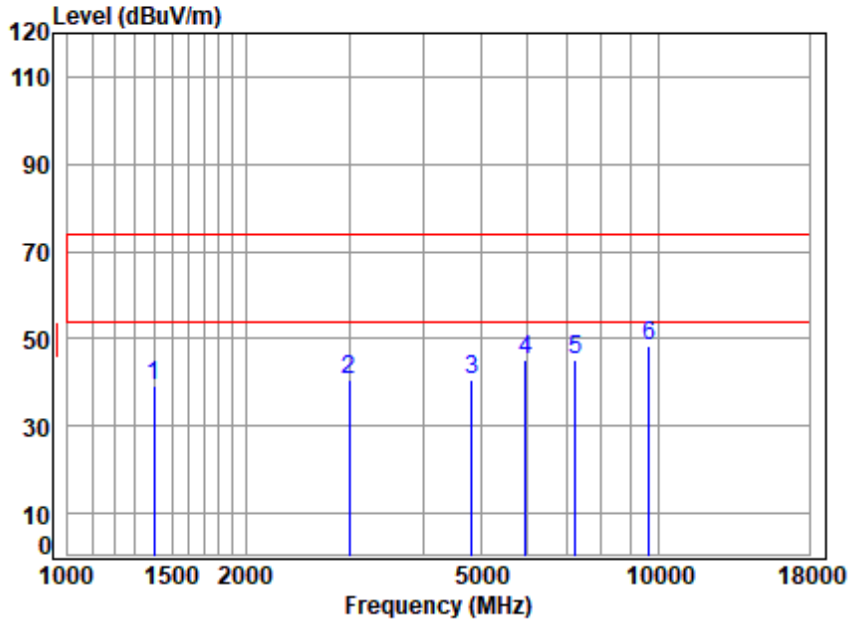
Test Mode: 11; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1402.384	7.21	25.00	54.70	61.51	39.02	74.00	-34.98	peak
2	2999.187	8.18	29.00	55.00	58.50	40.68	74.00	-33.32	Peak
3	4824.000	8.92	32.00	56.18	56.05	40.79	74.00	-33.21	peak
4	5949.811	10.01	33.60	56.87	58.41	45.15	74.00	-28.85	Peak
5	7236.000	11.10	36.60	56.51	53.82	45.01	74.00	-28.99	peak
6 pp	9648.000	12.49	38.70	54.42	51.58	48.35	74.00	-25.65	peak

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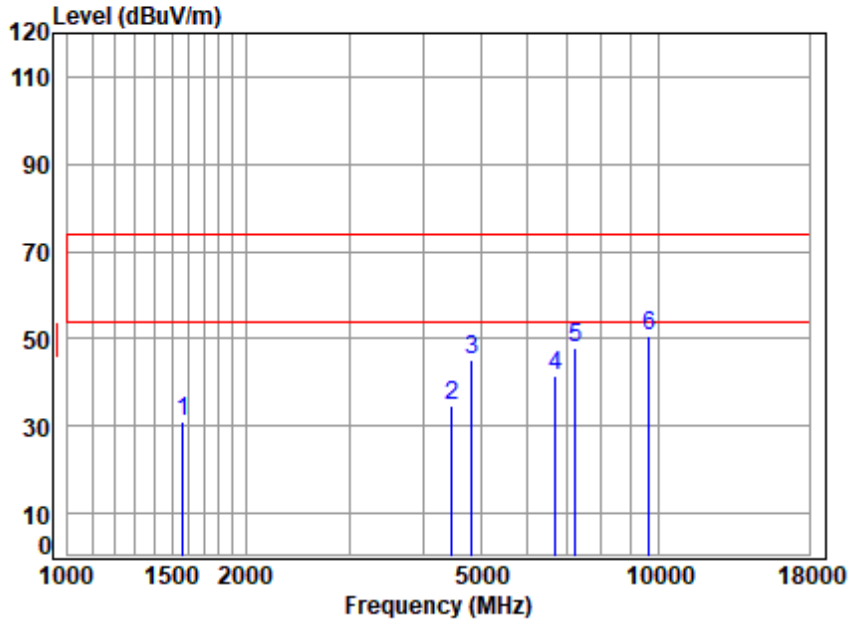

Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2412 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1565.191	7.14	25.03	54.70	53.77	31.24	74.00	-42.76	peak
2	4469.214	8.55	31.48	55.93	50.64	34.74	74.00	-39.26	peak
3	4824.000	8.92	32.00	56.18	60.25	44.99	74.00	-29.01	peak
4	6698.373	10.81	35.40	56.76	52.28	41.73	74.00	-32.27	peak
5	7236.000	11.10	36.60	56.51	56.59	47.78	74.00	-26.22	peak
6 pp	9648.000	12.49	38.70	54.42	54.07	50.84	74.00	-23.16	peak

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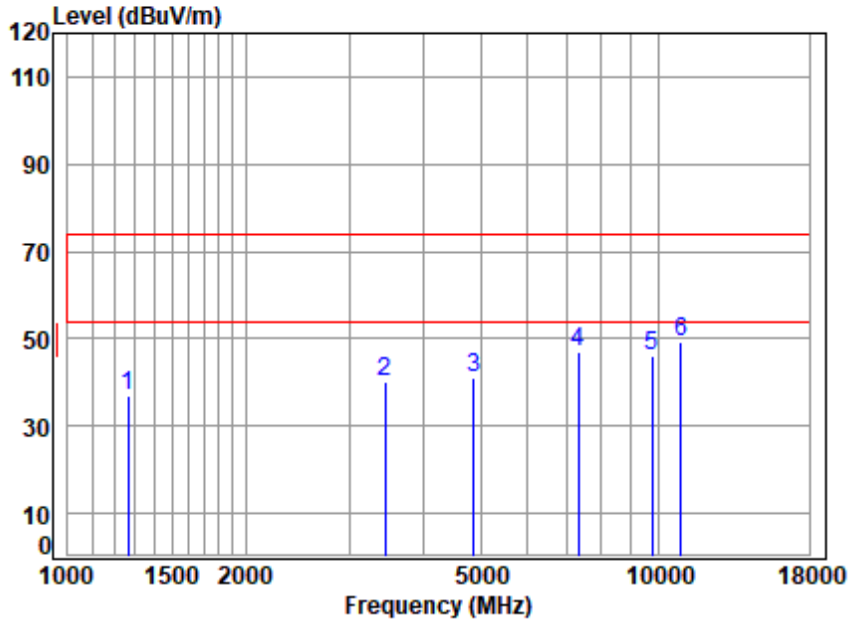
Test Mode: 11; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1263.796	7.16	25.27	54.70	59.06	36.79	74.00	-37.21	peak
2	3445.535	7.69	29.39	55.27	58.39	40.20	74.00	-33.80	peak
3	4874.000	8.97	32.15	56.21	56.35	41.26	74.00	-32.74	peak
4	7311.000	11.11	36.72	56.45	55.59	46.97	74.00	-27.03	peak
5	9748.000	12.80	38.60	54.33	49.11	46.18	74.00	-27.82	peak
6	pp10917.180	13.71	39.32	53.55	49.92	49.40	74.00	-24.60	peak

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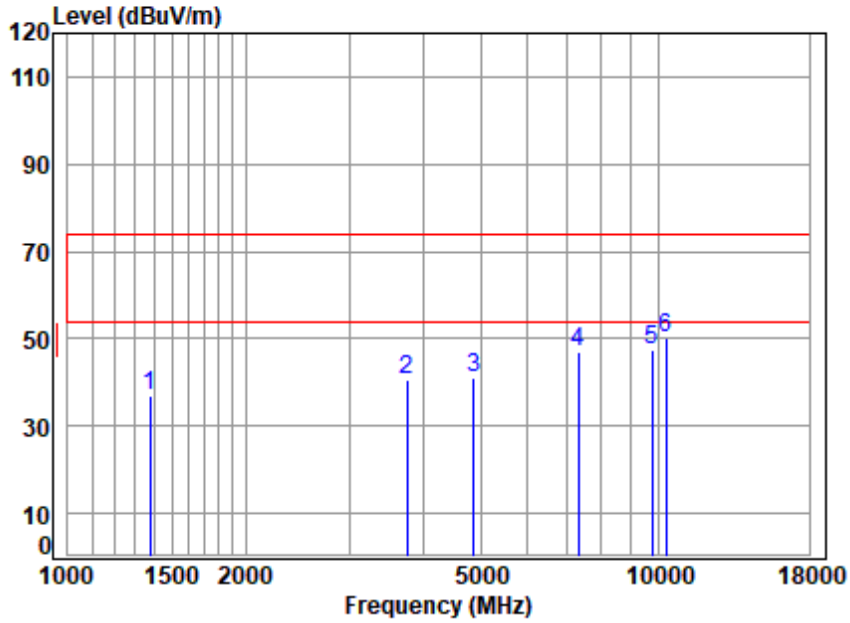
Test Mode: 11; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2437 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1378.273	7.20	25.04	54.70	59.26	36.80	74.00	-37.20	peak
2	3757.637	7.95	29.90	55.45	58.17	40.57	74.00	-33.43	peak
3	4874.000	8.97	32.15	56.21	56.05	40.96	74.00	-33.04	peak
4	7311.000	11.11	36.72	56.45	55.83	47.21	74.00	-26.79	peak
5	9748.000	12.80	38.60	54.33	50.56	47.63	74.00	-26.37	peak
6	pp10303.980	13.52	39.00	53.92	51.44	50.04	74.00	-23.96	peak

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检验检测专用章 Inspection & Testing Services

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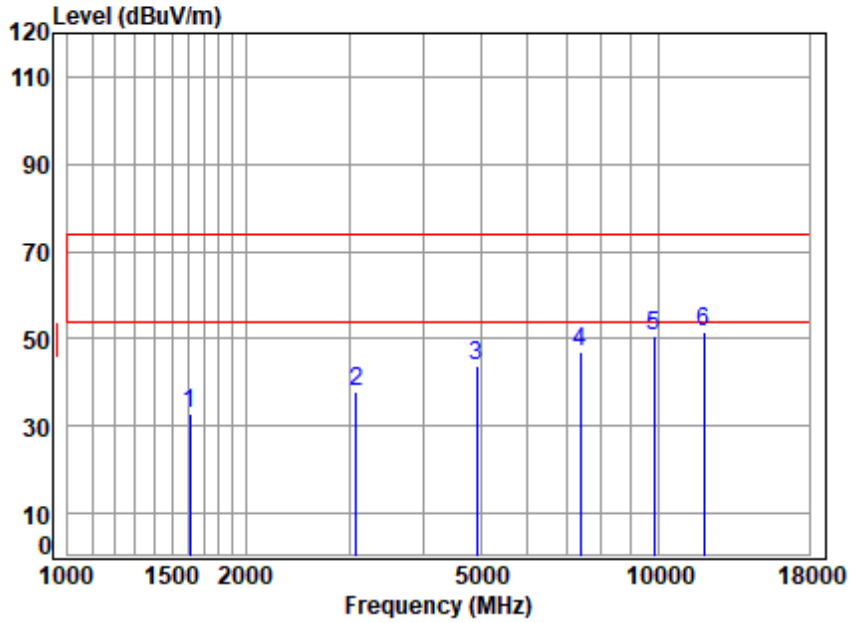
Test Mode: 11; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1611.091	7.11	25.08	54.70	55.21	32.70	74.00	-41.30	peak
2	3078.229	7.81	29.14	55.05	55.93	37.83	74.00	-36.17	peak
3	4924.000	9.03	32.20	56.25	58.76	43.74	74.00	-30.26	peak
4	7386.000	11.19	36.73	56.39	55.61	47.14	74.00	-26.86	peak
5	9848.000	12.84	37.83	54.24	54.32	50.75	74.00	-23.25	peak
6	pp11940.540	14.52	39.74	53.78	51.01	51.49	74.00	-22.51	peak

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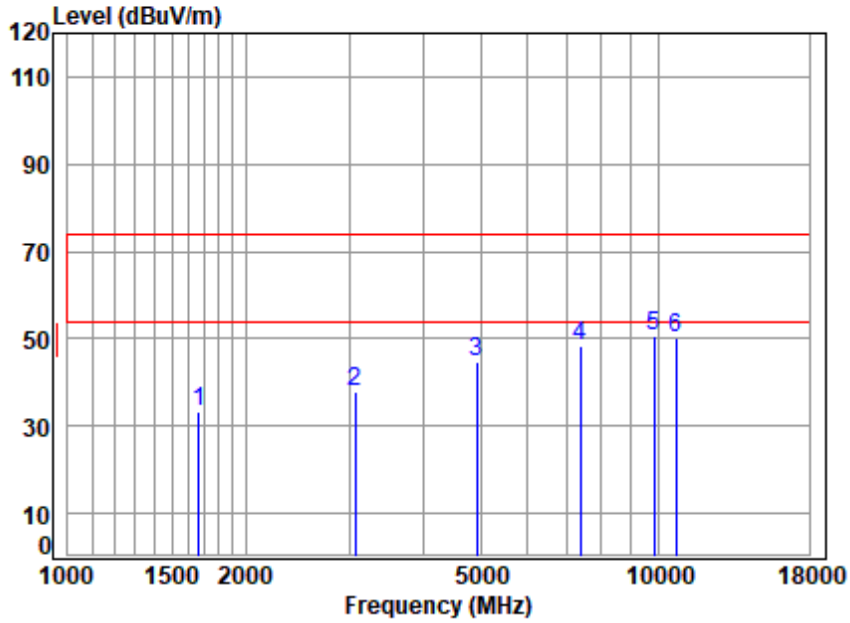
Test Mode: 11; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL
Job No : 04486AT/04487AT
Mode : 2462 TX RSE
: 2.4G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1667.951	7.17	25.04	54.70	55.67	33.18	74.00	-40.82	peak
2	3069.345	7.86	29.16	55.04	55.70	37.68	74.00	-36.32	peak
3	4924.000	9.03	32.20	56.25	59.85	44.83	74.00	-29.17	peak
4	7386.000	11.19	36.73	56.39	56.72	48.25	74.00	-25.75	peak
5 pp	9848.000	12.84	37.83	54.24	54.09	50.52	74.00	-23.48	peak
6	10729.480	13.53	39.37	53.66	50.99	50.23	74.00	-23.77	peak

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8 Test Setup Photo

Refer to Setup Photo for SZCR2411004486AT

9 EUT Constructional Details (EUT Photos)

Refer to External and Internal Photos for SZCR2411004486AT

- End of the Report -

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