



TEST REPORT

Application No.: GZCR2201000133AT
Applicant: DT Research, Inc.
Address of Applicant: 3RD FL NO 36 WUQUAN 7TH RD WUGU DISTRICT, NEW TAIPEI, Taiwan
Manufacturer: DT Research, Inc.
Address of Manufacturer: 2000 Concourse Drive, San Jose, CA 95131, USA
Factory: DT Research, Inc. Taiwan Branch
Address of Factory: 6F., No.36 Wuquan 7th Rd., Wugu Dist. New Taipei City 248 Taiwan
Equipment Under Test (EUT):
EUT Name: Rugged Tablet
Model No.: 340Qxxx(x= 0-9, A-Z, - or null) ♣
♣ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Trade Mark: 
Standard(s) : 47 CFR Part 15, Subpart C 15.247
Date of Receipt: 2022-01-05
Date of Test: 2022-01-06 to 2022-01-27
Date of Issue: 2022-02-09

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

Kobe Jian
EMC Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2022-02-09		Original

Authorized for issue by:				
				
		Curry Wu/Project Engineer		
				
		Ricky Liu/Reviewer		

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
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
Radiated Emissions which fall in the restricted bands		ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions (Below 1GHz)		ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions (Above 1GHz)		ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass

Note:

E.U.T./EUT means Equipment Under Test.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.

Declaration of EUT Family Grouping:

Model No.: 340Qxxxx (x= 0-9, A-Z, - or null)

Only the model 340Q was tested, since according to the declaration from the applicant, the electrical circuit design, layout, components used, internal wiring and functions were identical for the above models, with only difference on model No..

This report is prepared for FCC class II permissive change.

The modular approval by TCB, FCC ID:YE3600-SC600TA, Granted on 05/18/2020.

The module installed into host platform mentioned above is electronically and mechanically identical to the original certified module. The Original FCC testing on module under FCC ID:YE3600-SC600TA was performed with an antenna of higher gain, and the antenna was connected to the module in an open environment. The current host platform under application uses a new antenna of the different type, higher gain and is installed outside the host platform enclosure.

Therefore in this report Conducted Emissions at AC Power Line (150kHz-30MHz), Radiated Emissions which fall in the restricted bands and Radiated Spurious Emissions were fully retested on model 340Q and shown the data in this report.



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4 General Information

4.1 Details of E.U.T.

	AC Adapter
	Model: A11-065N1A
	Input: AC 100-240V, 50/60Hz, 1.7A
	Output: DC 19V, 3.42A, 65W
Power supply:	Rechargeable lithium-Ion polymer battery
	Model: ACC-006-90K(3ICP7/36/115-2)
	Rated Capacity: 8000mAh
	Voltage: DC 11.4V
	Watt-Hour: 91.2Wh
	Max Charge Voltage: 13.05V
	AC 120V, 60Hz or AC 240V, 50Hz
Test voltage:	Note: Both nominal AC 120V, 60Hz and AC 240 V, 50Hz are required for testing in accordance with FCC KDB174176, this report only shows the results of the worst test result(AC 120V, 60Hz);
Cable(s):	DC cable:175cm with a ferrite core
Internal Source:	More than 108MHz
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:	PIFA Antenna
Antenna Gain:	2.8dBi

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
Conducted Emissions at AC Power Line (150kHz-30MHz)	$\pm 2.76\text{dB}$
Radiated Emissions which fall in the restricted bands	$\pm 5.00\text{dB}$ (30MHz-1GHz; 3m); $\pm 4.38\text{dB}$ (30MHz-1GHz; 10m); $\pm 4.52\text{dB}$ (1GHz-6GHz); $\pm 4.54\text{dB}$ (above 6GHz)
Radiated Spurious Emissions (Below 1GHz)	$\pm 5.00\text{dB}$ (30MHz-1GHz; 3m); $\pm 4.38\text{dB}$ (30MHz-1GHz; 10m)
Radiated Spurious Emissions (Above 1GHz)	$\pm 4.52\text{dB}$ (1GHz-6GHz); $\pm 4.54\text{dB}$ (above 6GHz)

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,
 198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District,
 Guangzhou, China 510663

Tel: +86 20 82155555

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No tests were sub-contracted.



4.5 Test Facility

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

- **NVLAP (Lab Code: 200611-0)**

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

- **ACMA**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian/New Zealand Regulatory Compliance Mark (RCM).

- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

- **CNAS (Lab Code: L0167)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2018 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2017 General Requirements) for the Competence of Testing Laboratories.

- **FCC Recognized Accredited Test Firm(Registration No.: 486818)**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818.

- **ISED (Registration No.: 4620B, CAB identifier: CN0052)**

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

- **VCCI (Registration No.: R-12460, C-12584, G-20107 and T-11179)**

The 10m Semi-anechoic chamber, 966 Anechoic Chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-12460, C-12584, G-20107 and T-11179 respectively.

- **CBTL (Lab Code: TL129)**

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2017, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



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5 Equipment List

Conducted Emissions at AC Power Line (150kHz-30MHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Shielding Room	ChangZhou ZhongYu	8m x 3m x 3.8m	EMC0306	N/A	N/A
Two-Line V-Network	Rohde & Schwarz	ENV216	EMC0118	2021-12-23	2022-12-22
Two-Line V-Network-GZ	Rohde & Schwarz	ENV216	EMC2135	2021-09-24	2022-09-23
Coaxial Cable	HangTianXing	2m	EMC0107	2020-09-09	2022-09-08
Test Software E3c	Audix	Ver. 5.4.1221b	GZE100-62	N/A	N/A
EMI Test Receiver(9kHz-3.6GHz)	Rohde & Schwarz	ESR3	EMC2221	2021-06-01	2022-05-31

Radiated Spurious Emissions Below 1GHz					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver (10Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-01-08	2022-01-07
				2022-01-06	2023-01-05
Chamber cable	HangTianXing	N/A	EMC0542	2021-06-28	2024-06-27
Trilog Broadband Antenna (25MHz-1GHz)- Lab	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Amplifier(9kHz-1.3GHz)	HP	8447F	EMC2065	2021-05-19	2022-05-18
High Pass Filter (915MHz)	FSY MICROWAVE	HM1465-9SS	EMC2079	2021-01-08	2022-01-07
				2022-01-06	2023-01-05
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

Radiated Emissions which fall in the restricted bands					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver(20Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-12-17	2022-12-16
Chamber cable(Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020-09-09	2022-09-08
Horn Antenna(1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-12-17	2022-12-16
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2021-12-17	2022-12-16
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
MXE EMI Receiver(10Hz-8.4GHz)	Keysight	N9038A	EMC2139	2021-11-01	2022-10-31



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EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-16	2022-09-15
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2021-07-29	2022-07-28
Horn Antenna(14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2021-08-30	2022-08-29

Radiated Spurious Emissions (Above 1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver(20Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-12-17	2022-12-16
Chamber cable(Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020-09-09	2022-09-08
Horn Antenna(1GHz-18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2021-12-17	2022-12-16
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2021-12-17	2022-12-16
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19
MXE EMI Receiver(10Hz-8.4GHz)	Keysight	N9038A	EMC2139	2021-11-01	2022-10-31
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-16	2022-09-15
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2021-07-29	2022-07-28
Horn Antenna(14-40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2021-08-30	2022-08-29

General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
DMM	Fluke	73	EMC0006	2021-07-05	2022-07-05
DMM	Fluke	73	EMC0007	2021-07-05	2022-07-05



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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

15.203 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 shall be considered sufficient to comply with the provisions of this section. 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. This requirement does not apply to carrier current devices or to devices operated under the provisions of 15.211, 15.213, 15.217, 15.219, 15.221, or 15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

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 2.8 dBi.

Antenna location: Refer to internal photo.

7 Radio Spectrum Matter Test Results

7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207

Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Frequency of emission(MHz)	Conducted limit(dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency.		
Detector: Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz		

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 23.1 °C

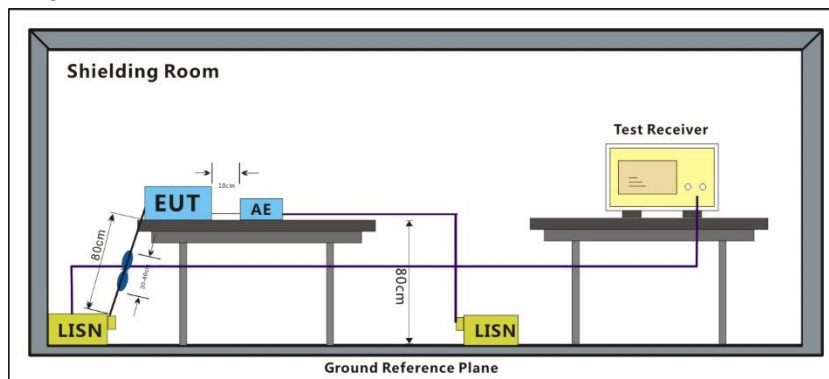
Humidity: 46.5 % RH

Atmospheric Pressure: 1015 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	12	Charge + TX mode_Keep the EUT in charging and 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). Only the data of worst case is recorded in the report.

7.1.3 Test Setup Diagram

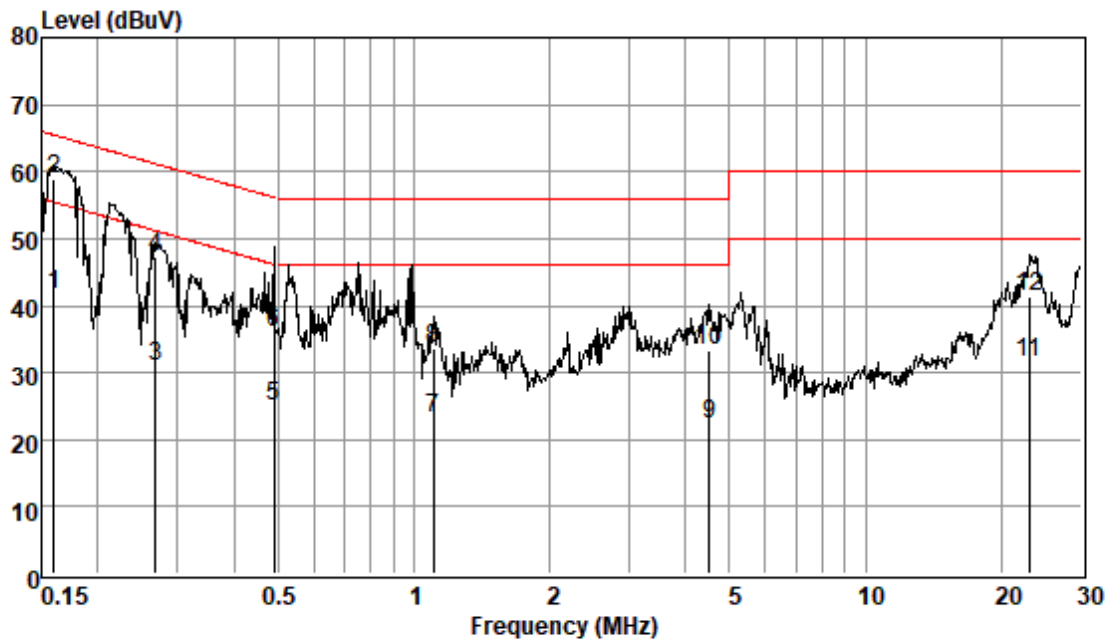


7.1.4 Measurement Procedure and Data

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50μH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane.
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: LISN=Read Level+ Cable Loss+ LISN Factor

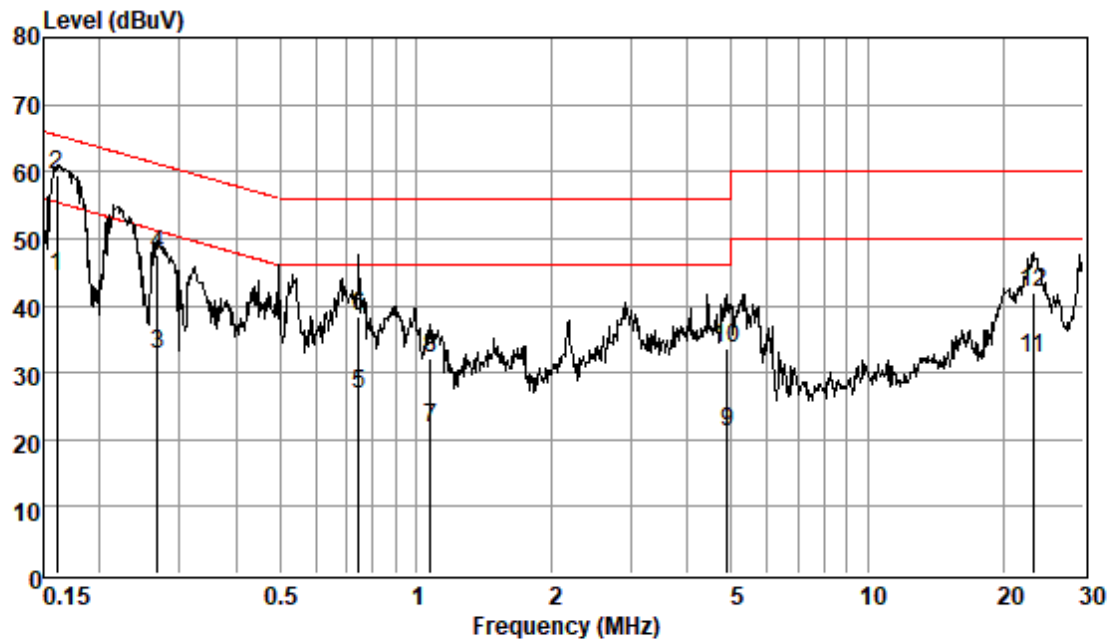
Test Mode: 12; Line: Live line



Pol : LINE
Mode :
Model :

Frequency MHz	Read Level dBuV	Cable Loss dB	LISN Factor dB	Measured Level dBuV	Limit Line dBuV	Over Limit dB	Remark
0.16	32.02	0.06	9.62	41.70	55.47	-13.77	Average
0.16	49.31	0.06	9.62	58.99	65.47	-6.48	QP
0.27	21.14	0.06	9.62	30.82	51.16	-20.34	Average
0.27	37.56	0.06	9.62	47.24	61.16	-13.92	QP
0.49	15.31	0.07	9.63	25.01	46.14	-21.13	Average
0.49	26.36	0.07	9.63	36.06	56.14	-20.08	QP
1.11	13.37	0.08	9.61	23.06	46.00	-22.94	Average
1.11	23.83	0.08	9.61	33.52	56.00	-22.48	QP
4.50	12.64	0.17	9.64	22.45	46.00	-23.55	Average
4.50	23.52	0.17	9.64	33.33	56.00	-22.67	QP
23.02	21.19	0.39	9.84	31.42	50.00	-18.58	Average
23.02	30.99	0.39	9.84	41.22	60.00	-18.78	QP

Test Mode: 12; Line: Neutral Line



Pol : NEUTRAL
Mode :
Model :

Frequency MHz	Read Level dBuV	Cable Loss dB	LISN Factor dB	Measured Level dBuV	Limit Line dBuV	Over Limit dB	Remark
0.16	34.58	0.06	9.55	44.19	55.43	-11.24	Average
0.16	49.81	0.06	9.55	59.42	65.43	-6.01	QP
0.27	23.20	0.06	9.55	32.81	51.16	-18.35	Average
0.27	38.02	0.06	9.55	47.63	61.16	-13.53	QP
0.75	17.23	0.07	9.55	26.85	46.00	-19.15	Average
0.75	28.82	0.07	9.55	38.44	56.00	-17.56	QP
1.08	12.18	0.08	9.55	21.81	46.00	-24.19	Average
1.08	22.44	0.08	9.55	32.07	56.00	-23.93	QP
4.90	11.48	0.18	9.56	21.22	46.00	-24.78	Average
4.90	24.01	0.18	9.56	33.75	56.00	-22.25	QP
23.26	21.98	0.39	9.77	32.14	50.00	-17.86	Average
23.26	31.77	0.39	9.77	41.93	60.00	-18.07	QP

7.2 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.10.5

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
Above 960	500	3

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

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C

Humidity: 56.3 % RH

Atmospheric Pressure: 1015 mbar

7.2.2 Test Mode Description

Pre-scan / Mode
Final test Code Description

Pre-scan 11 TX mode_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). Only the data of worst case is recorded in the report.

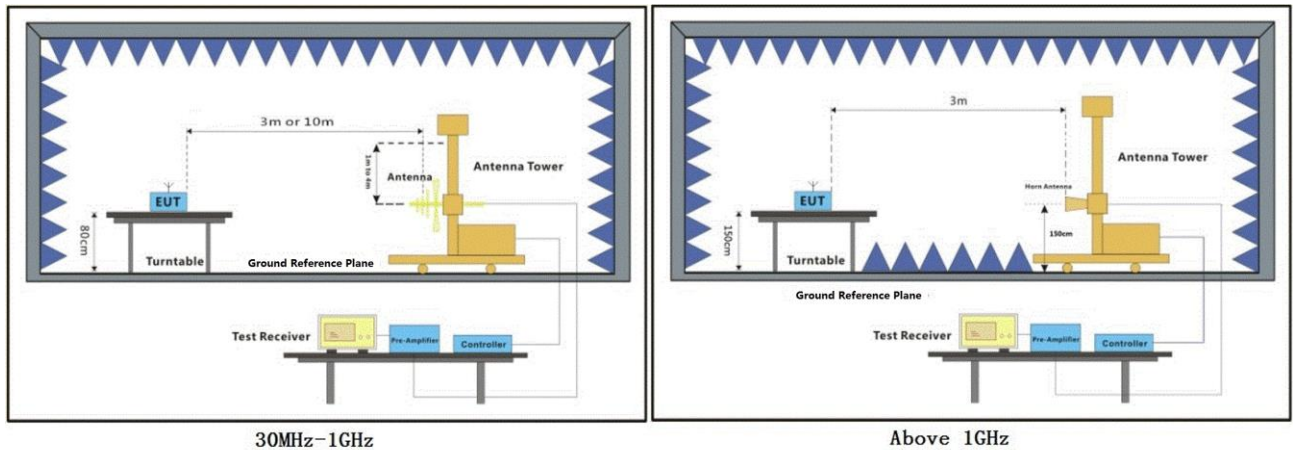
Final test 12 Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.



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Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

7.2.3 Test Setup Diagram



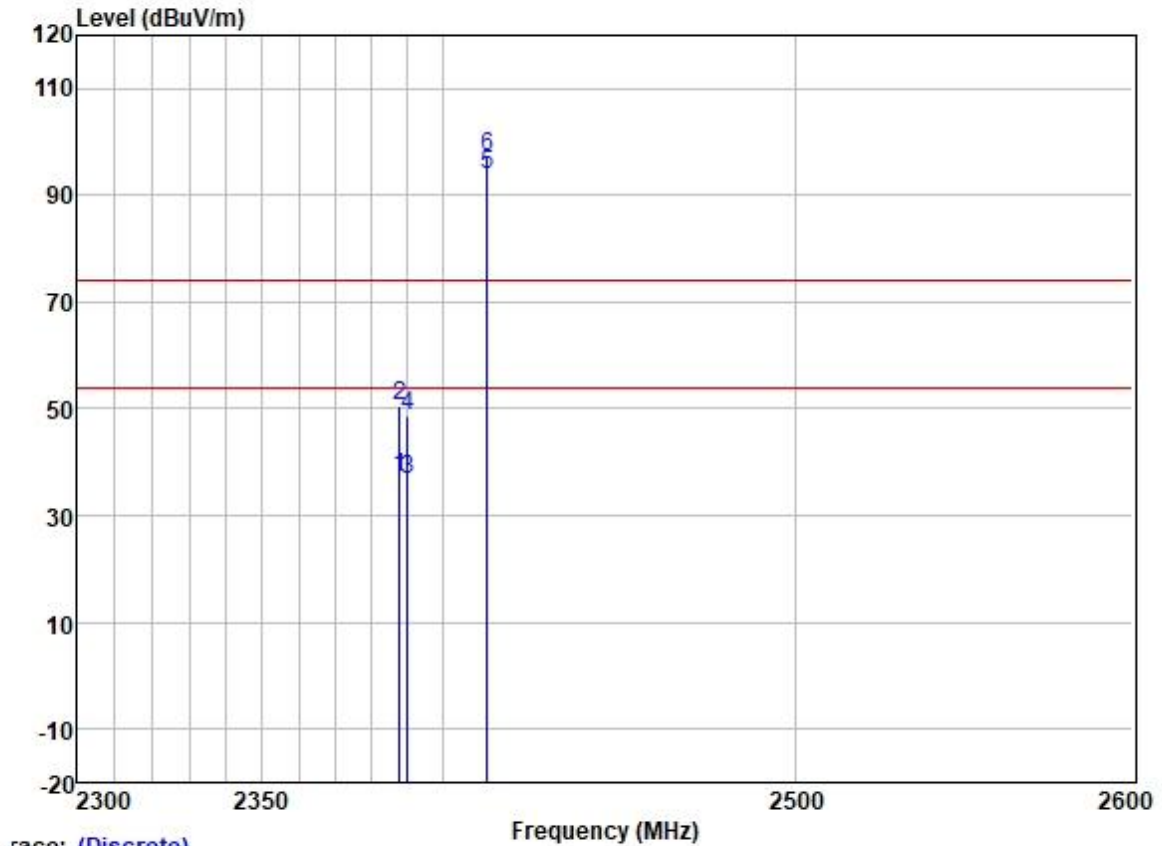
7.2.4 Measurement Procedure and Data

- For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- 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.
- The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 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.
- 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.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- 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, quasi-peak or average method as specified and then reported in a data sheet.
- Test the EUT in the lowest channel, the Highest channel.
- 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.
- Repeat above procedures until all frequencies measured was complete.

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 2: 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.

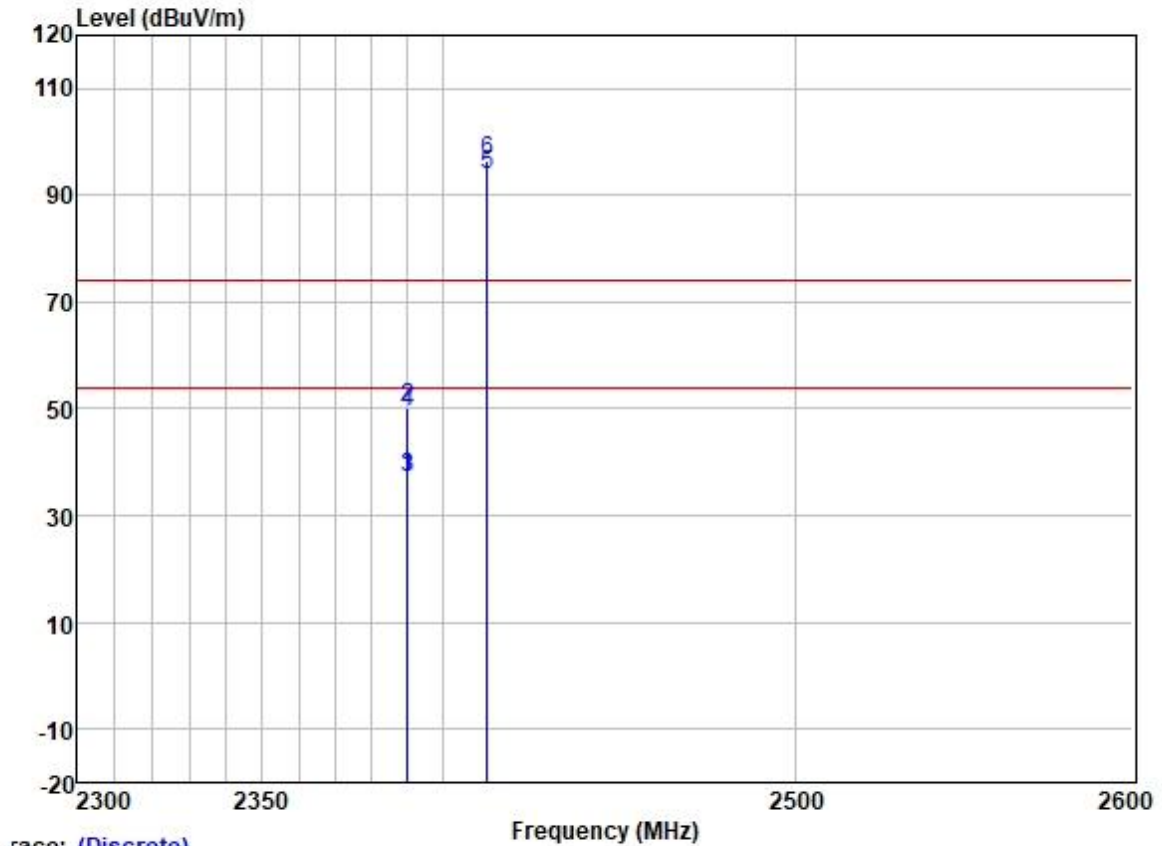
Test Mode: 12; Polarity: Horizontal; Modulation: 802.11b; Bandwidth: 20MHz; Channel: Low



Trace: (Discrete)

	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2387.791	43.91	27.33	3.48	37.59	37.13	54.00	-16.87	HORIZONTAL Average
2	2387.791	57.19	27.33	3.48	37.59	50.41	74.00	-23.59	HORIZONTAL Peak
3	2390.000	43.70	27.33	3.48	37.59	36.92	54.00	-17.08	HORIZONTAL Average
4	2390.000	55.56	27.33	3.48	37.59	48.78	74.00	-25.22	HORIZONTAL Peak
5 *	2412.000	100.58	27.38	3.47	37.59	93.84	54.00	39.84	HORIZONTAL Average
6 *	2412.000	103.86	27.38	3.47	37.59	97.12	74.00	23.12	HORIZONTAL Peak

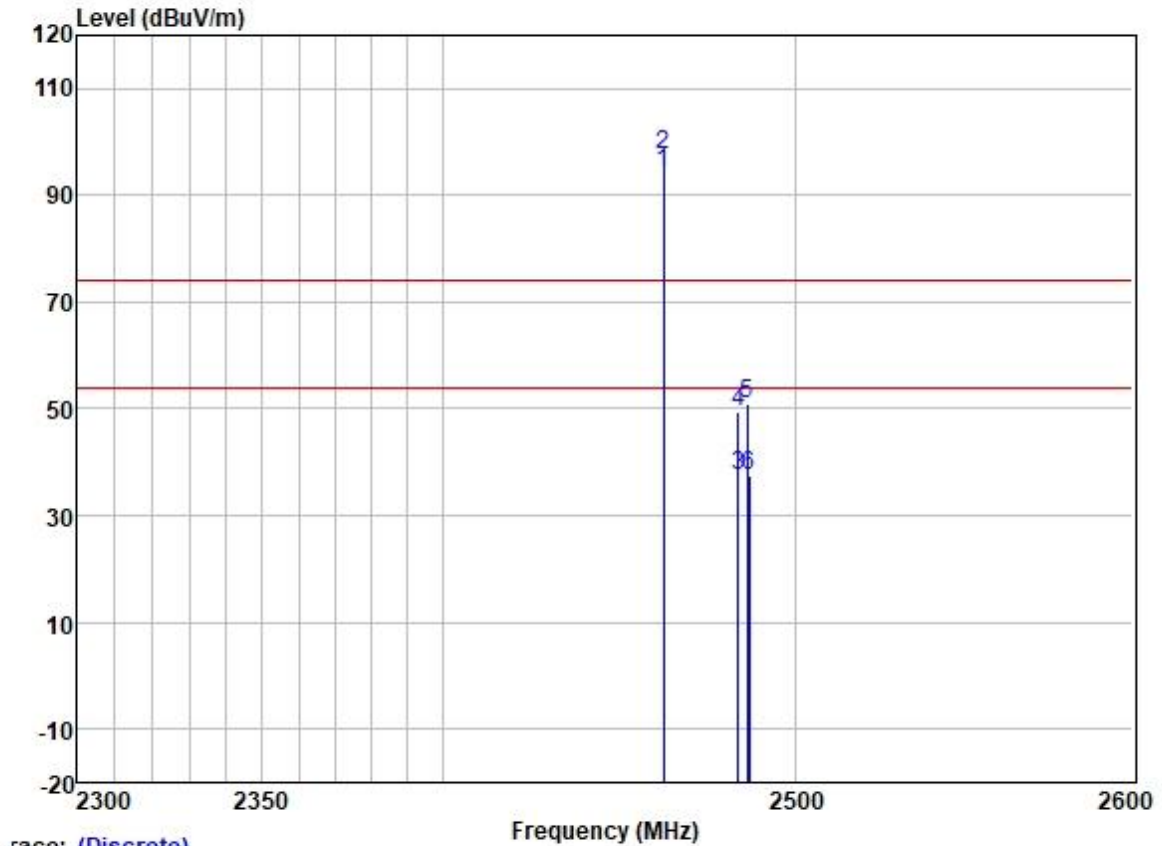
Test Mode: 12; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:Low



race: (Discrete)

	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2389.847	43.88	27.33	3.48	37.59	37.10	54.00	-16.90	VERTICAL
2	2389.847	57.02	27.33	3.48	37.59	50.24	74.00	-23.76	VERTICAL
3	2390.000	43.88	27.33	3.48	37.59	37.10	54.00	-16.90	VERTICAL
4	2390.000	56.18	27.33	3.48	37.59	49.40	74.00	-24.60	VERTICAL
5 *	2412.000	100.55	27.38	3.47	37.59	93.81	54.00	39.81	VERTICAL
6 *	2412.000	103.19	27.38	3.47	37.59	96.45	74.00	22.45	VERTICAL

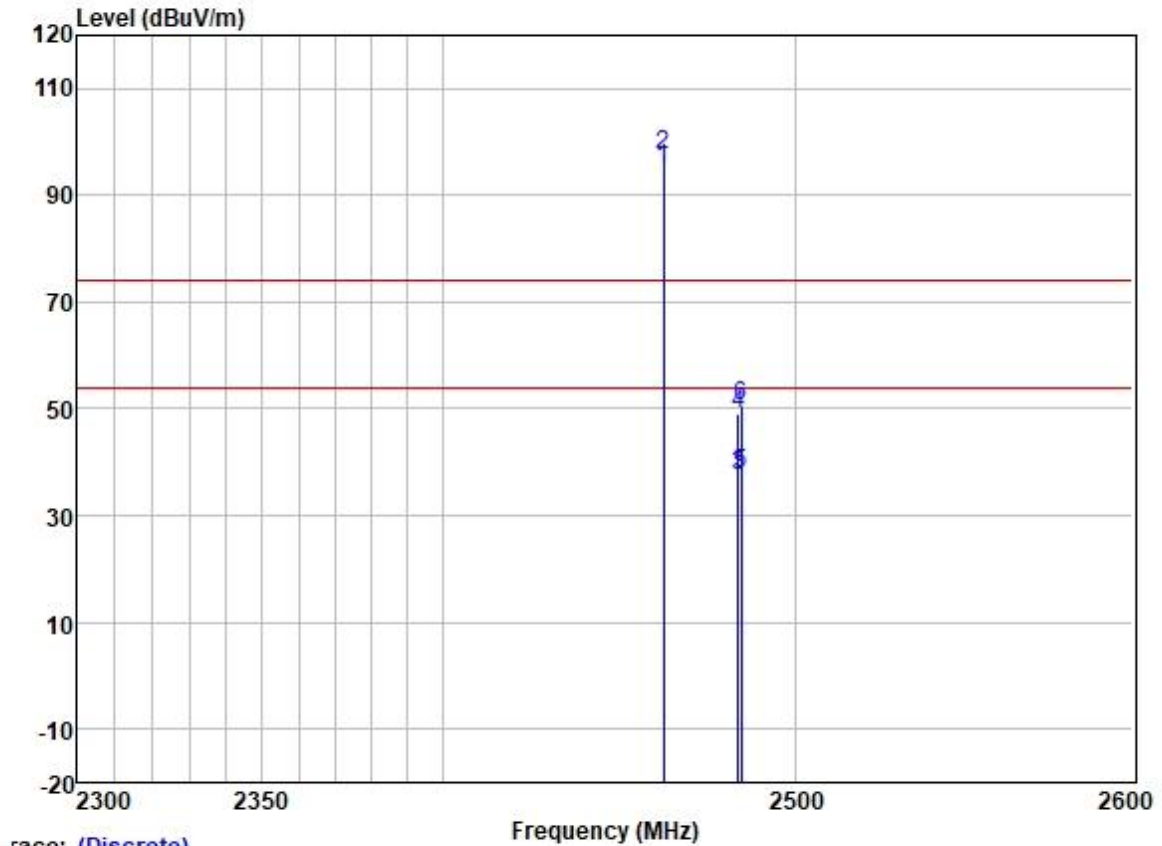
Test Mode: 12; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 *	2462.000	100.91	27.45	3.50	37.58	94.28	54.00	40.28	HORIZONTAL	Average
2 *	2462.000	104.30	27.45	3.50	37.58	97.67	74.00	23.67	HORIZONTAL	Peak
3	2483.500	43.90	27.48	3.53	37.57	37.34	54.00	-16.66	HORIZONTAL	Average
4	2483.500	56.09	27.48	3.53	37.57	49.53	74.00	-24.47	HORIZONTAL	Peak
5	2486.149	57.33	27.48	3.53	37.57	50.77	74.00	-23.23	HORIZONTAL	Peak
6	2486.551	44.10	27.48	3.53	37.57	37.54	54.00	-16.46	HORIZONTAL	Average

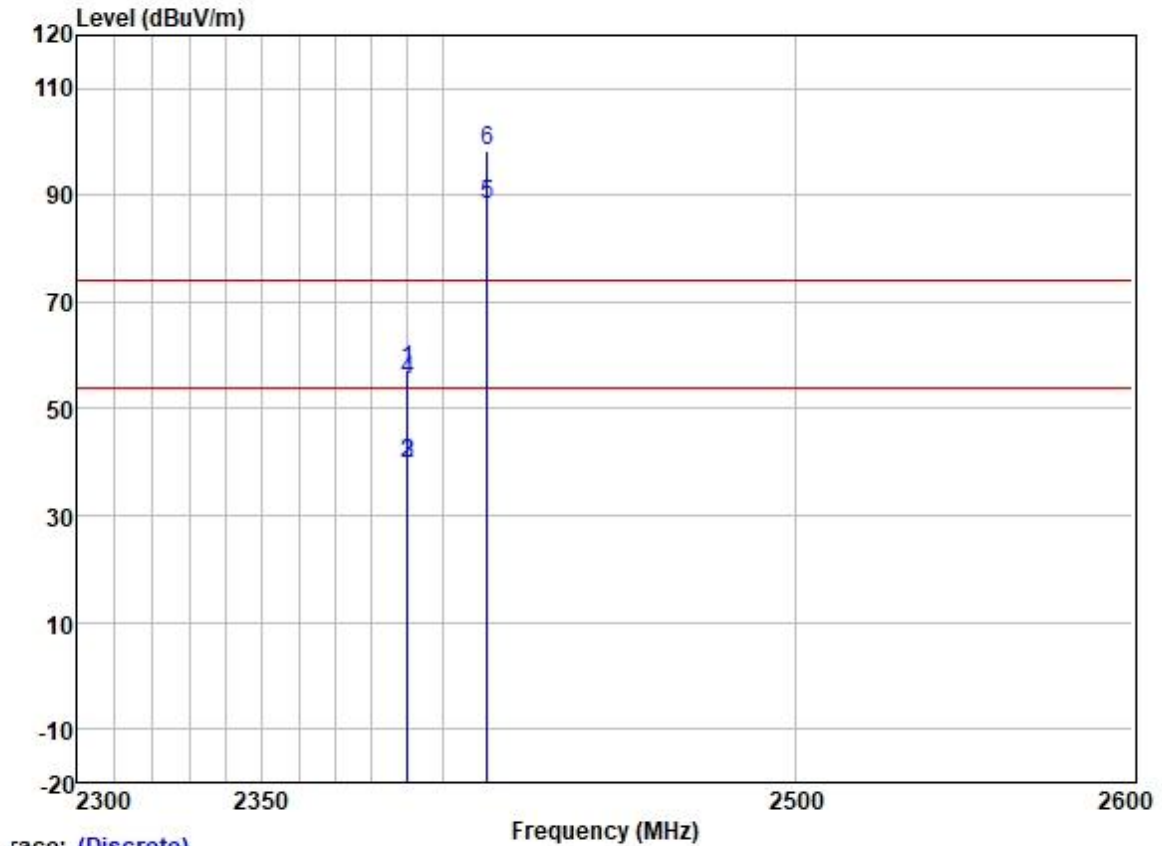
Test Mode: 12; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:High



race: (Discrete)

		Freq	ReadAntenna Level Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark	
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	*	2462.000	101.66	27.45	3.50	37.58	95.03	54.00	41.03	VERTICAL	Average
2	*	2462.000	104.27	27.45	3.50	37.58	97.64	74.00	23.64	VERTICAL	Peak
3		2483.500	44.23	27.48	3.53	37.57	37.67	54.00	-16.33	VERTICAL	Average
4		2483.500	55.54	27.48	3.53	37.57	48.98	74.00	-25.02	VERTICAL	Peak
5		2484.292	44.35	27.48	3.53	37.57	37.79	54.00	-16.21	VERTICAL	Average
6		2484.292	57.30	27.48	3.53	37.57	50.74	74.00	-23.26	VERTICAL	Peak

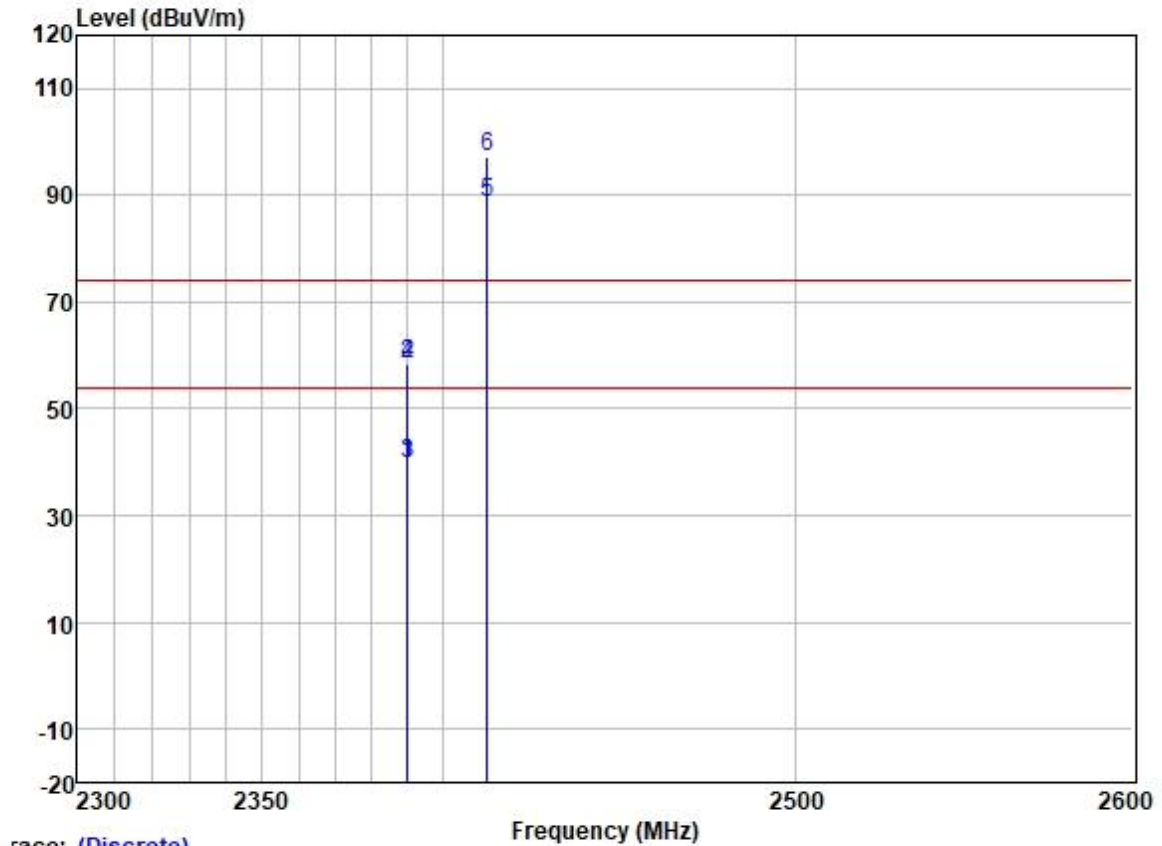
Test Mode: 12; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2389.847	63.88	27.33	3.48	37.59	57.10	74.00	-16.90	HORIZONTAL Peak
2	2389.968	46.65	27.33	3.48	37.59	39.87	54.00	-14.13	HORIZONTAL Average
3	2390.000	46.65	27.33	3.48	37.59	39.87	54.00	-14.13	HORIZONTAL Average
4	2390.000	62.36	27.33	3.48	37.59	55.58	74.00	-18.42	HORIZONTAL Peak
5 *	2412.000	94.88	27.38	3.47	37.59	88.14	54.00	34.14	HORIZONTAL Average
6 *	2412.000	105.09	27.38	3.47	37.59	98.35	74.00	24.35	HORIZONTAL Peak

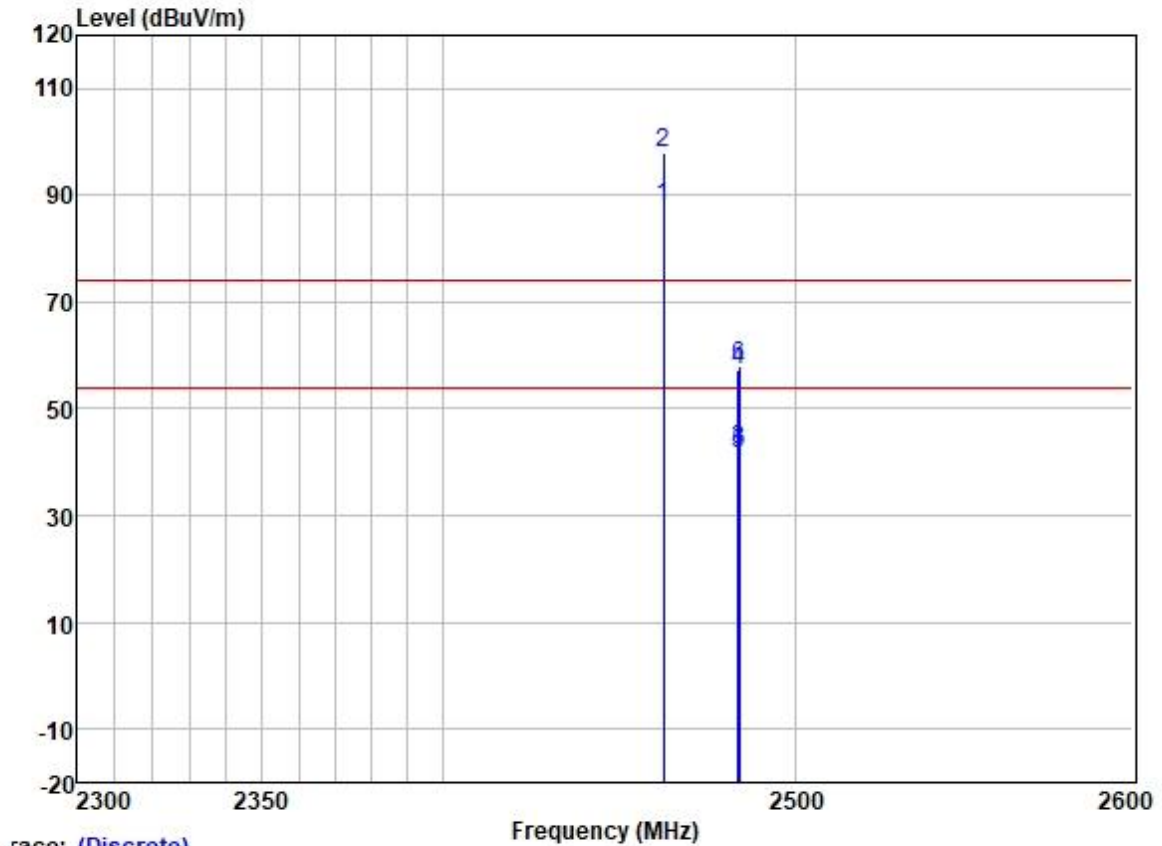
Test Mode: 12; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

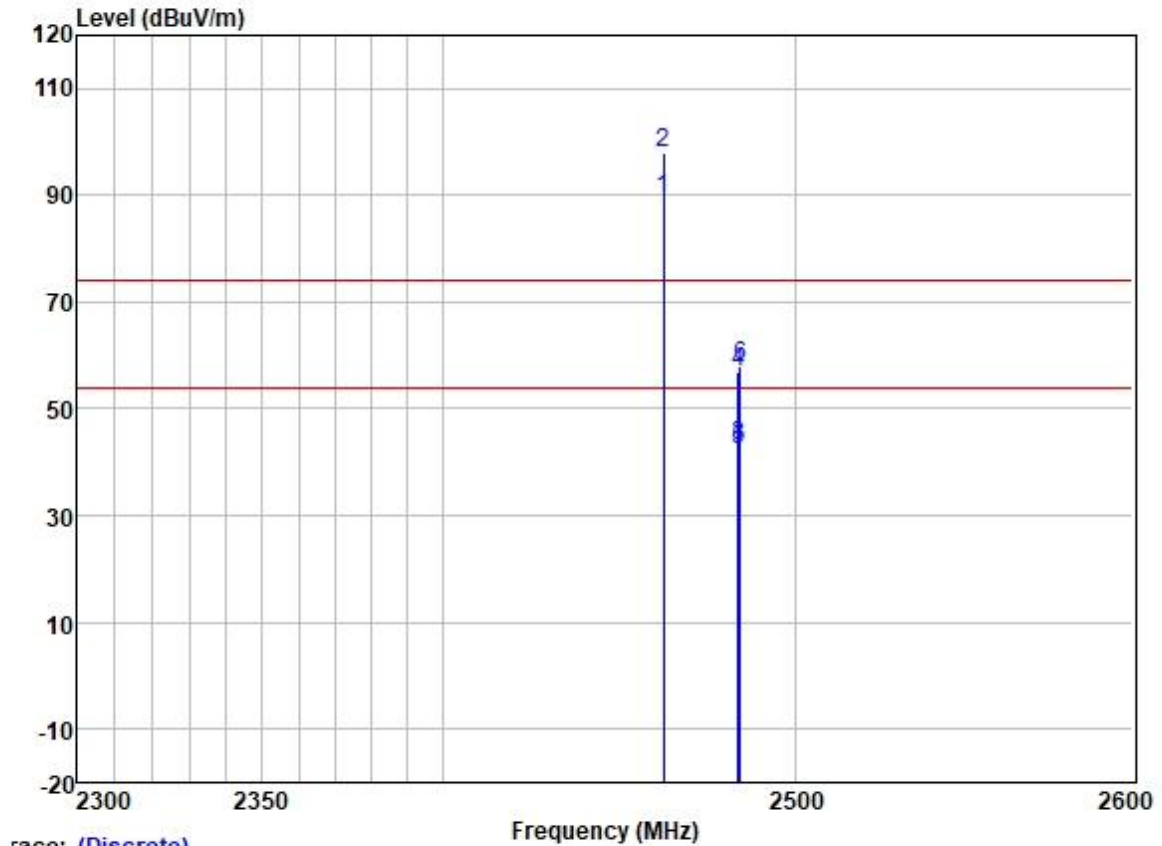
		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2389.968	46.46	27.33	3.48	37.59	39.68	54.00	-14.32	VERTICAL	Average
2	2389.968	65.20	27.33	3.48	37.59	58.42	74.00	-15.58	VERTICAL	Peak
3	2390.000	46.46	27.33	3.48	37.59	39.68	54.00	-14.32	VERTICAL	Average
4	2390.000	65.20	27.33	3.48	37.59	58.42	74.00	-15.58	VERTICAL	Peak
5 *	2412.000	95.23	27.38	3.47	37.59	88.49	54.00	34.49	VERTICAL	Average
6 *	2412.000	103.95	27.38	3.47	37.59	97.21	74.00	23.21	VERTICAL	Peak

Test Mode: 12; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:High



		Freq	ReadAntenna Level Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	*	2462.000	94.47	27.45	3.50	37.58	87.84	54.00	33.84	HORIZONTAL Average
2	*	2462.000	104.65	27.45	3.50	37.58	98.02	74.00	24.02	HORIZONTAL Peak
3		2483.500	48.75	27.48	3.53	37.57	42.19	54.00	-11.81	HORIZONTAL Average
4		2483.500	63.92	27.48	3.53	37.57	57.36	74.00	-16.64	HORIZONTAL Peak
5		2483.790	48.21	27.48	3.53	37.57	41.65	54.00	-12.35	HORIZONTAL Average
6		2483.840	64.41	27.48	3.53	37.57	57.85	74.00	-16.15	HORIZONTAL Peak

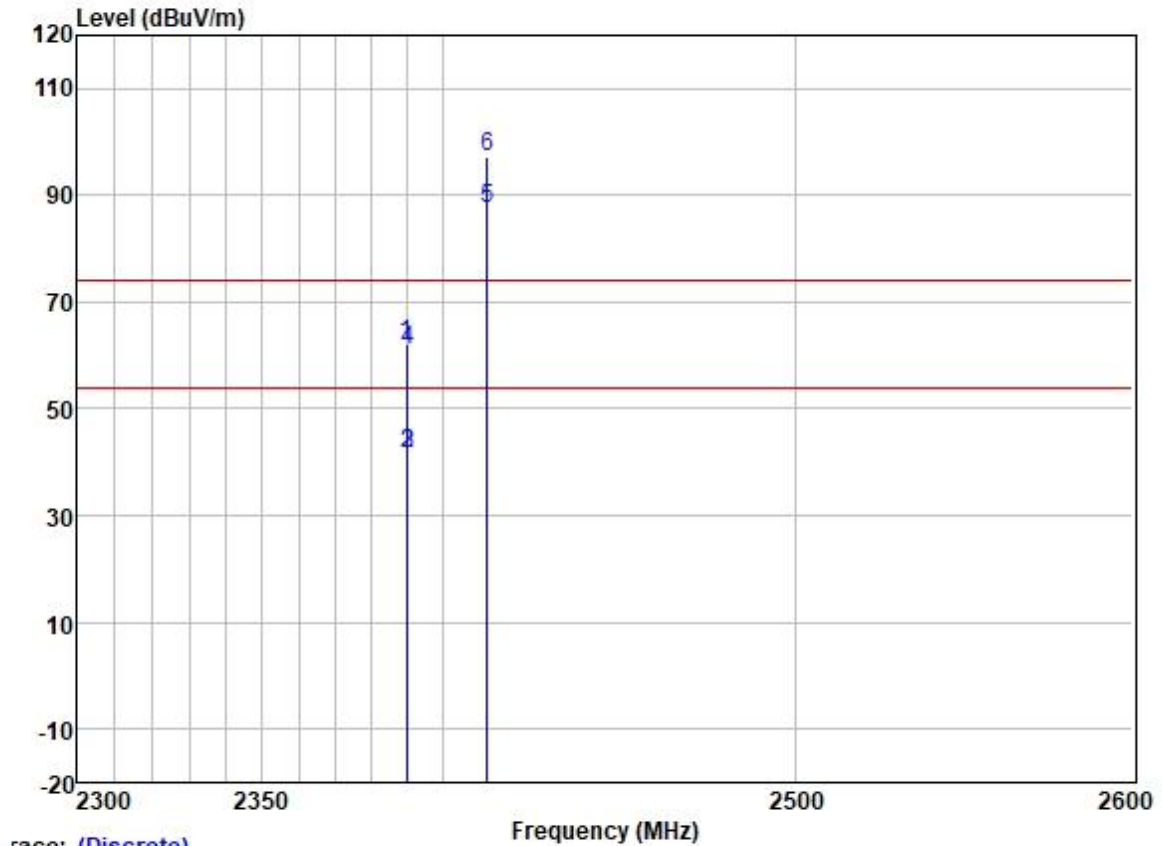
Test Mode: 12; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

		Freq	ReadAntenna Level Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark	
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	*	2462.000	95.95	27.45	3.50	37.58	89.32	54.00	35.32	VERTICAL	Average
2	*	2462.000	104.64	27.45	3.50	37.58	98.01	74.00	24.01	VERTICAL	Peak
3		2483.500	49.84	27.48	3.53	37.57	43.28	54.00	-10.72	VERTICAL	Average
4		2483.500	63.58	27.48	3.53	37.57	57.02	74.00	-16.98	VERTICAL	Peak
5		2483.790	48.99	27.48	3.53	37.57	42.43	54.00	-11.57	VERTICAL	Average
6		2483.990	64.67	27.48	3.53	37.57	58.11	74.00	-15.89	VERTICAL	Peak

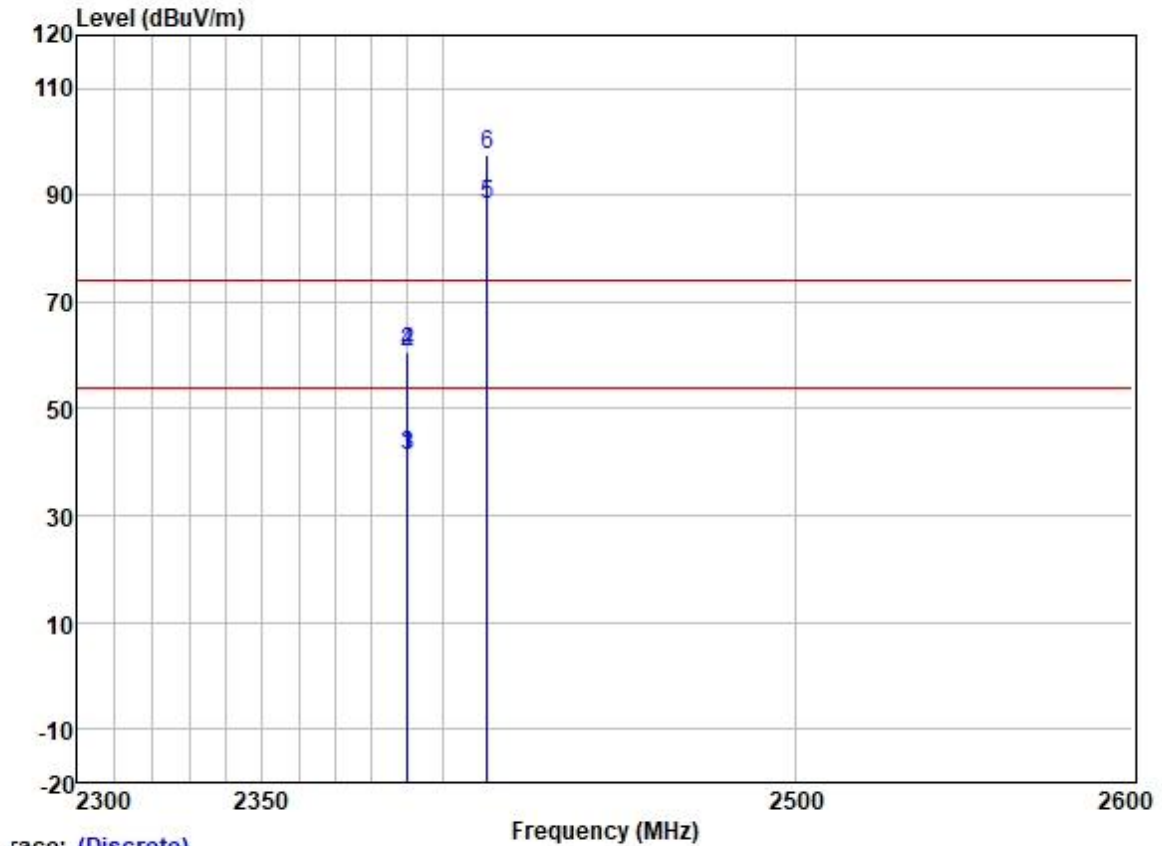
Test Mode: 12; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2389.484	68.95	27.33	3.48	37.59	62.17	74.00	-11.83	HORIZONTAL	Peak
2	2389.968	48.22	27.33	3.48	37.59	41.44	54.00	-12.56	HORIZONTAL	Average
3	2390.000	48.22	27.33	3.48	37.59	41.44	54.00	-12.56	HORIZONTAL	Average
4	2390.000	67.94	27.33	3.48	37.59	61.16	74.00	-12.84	HORIZONTAL	Peak
5 *	2412.000	94.42	27.38	3.47	37.59	87.68	54.00	33.68	HORIZONTAL	Average
6 *	2412.000	104.00	27.38	3.47	37.59	97.26	74.00	23.26	HORIZONTAL	Peak

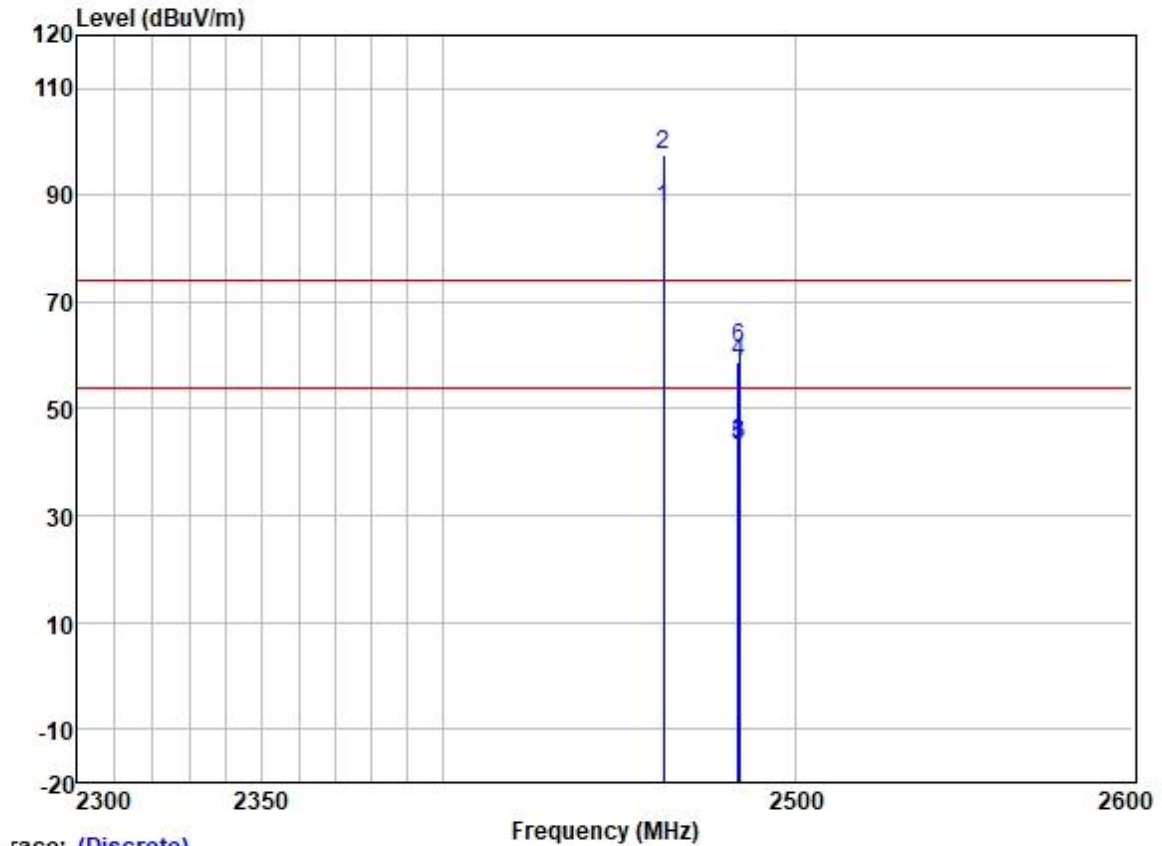
Test Mode: 12; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2389.968	48.16	27.33	3.48	37.59	41.38	54.00	-12.62	VERTICAL	Average
2	2389.968	67.25	27.33	3.48	37.59	60.47	74.00	-13.53	VERTICAL	Peak
3	2390.000	48.16	27.33	3.48	37.59	41.38	54.00	-12.62	VERTICAL	Average
4	2390.000	67.25	27.33	3.48	37.59	60.47	74.00	-13.53	VERTICAL	Peak
5 *	2412.000	94.86	27.38	3.47	37.59	88.12	54.00	34.12	VERTICAL	Average
6 *	2412.000	104.41	27.38	3.47	37.59	97.67	74.00	23.67	VERTICAL	Peak

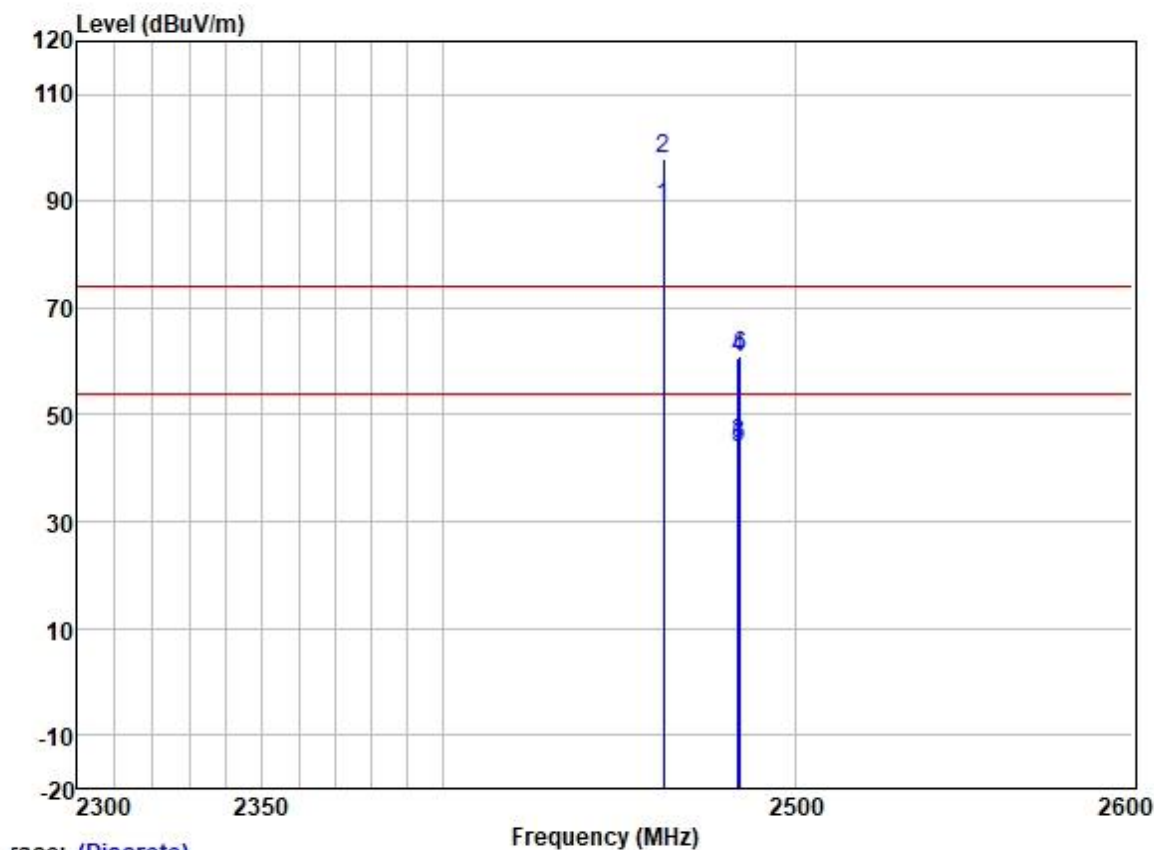
Test Mode: 12; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 *	2462.000	94.12	27.45	3.50	37.58	87.49	54.00	33.49	HORIZONTAL	Average
2 *	2462.000	104.40	27.45	3.50	37.58	97.77	74.00	23.77	HORIZONTAL	Peak
3	2483.500	49.87	27.48	3.53	37.57	43.31	54.00	-10.69	HORIZONTAL	Average
4	2483.500	65.46	27.48	3.53	37.57	58.90	74.00	-15.10	HORIZONTAL	Peak
5	2483.790	49.71	27.48	3.53	37.57	43.15	54.00	-10.85	HORIZONTAL	Average
6	2483.840	68.09	27.48	3.53	37.57	61.53	74.00	-12.47	HORIZONTAL	Peak

Test Mode: 12; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



race: (Discrete)

	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 *	2462.000	95.51	27.45	3.50	37.58	88.88	54.00	34.88	VERTICAL	Average
2 *	2462.000	104.62	27.45	3.50	37.58	97.99	74.00	23.99	VERTICAL	Peak
3	2483.500	50.98	27.48	3.53	37.57	44.42	54.00	-9.58	VERTICAL	Average
4	2483.500	67.02	27.48	3.53	37.57	60.46	74.00	-13.54	VERTICAL	Peak
5	2483.790	50.46	27.48	3.53	37.57	43.90	54.00	-10.10	VERTICAL	Average
6	2484.141	67.58	27.48	3.53	37.57	61.02	74.00	-12.98	VERTICAL	Peak

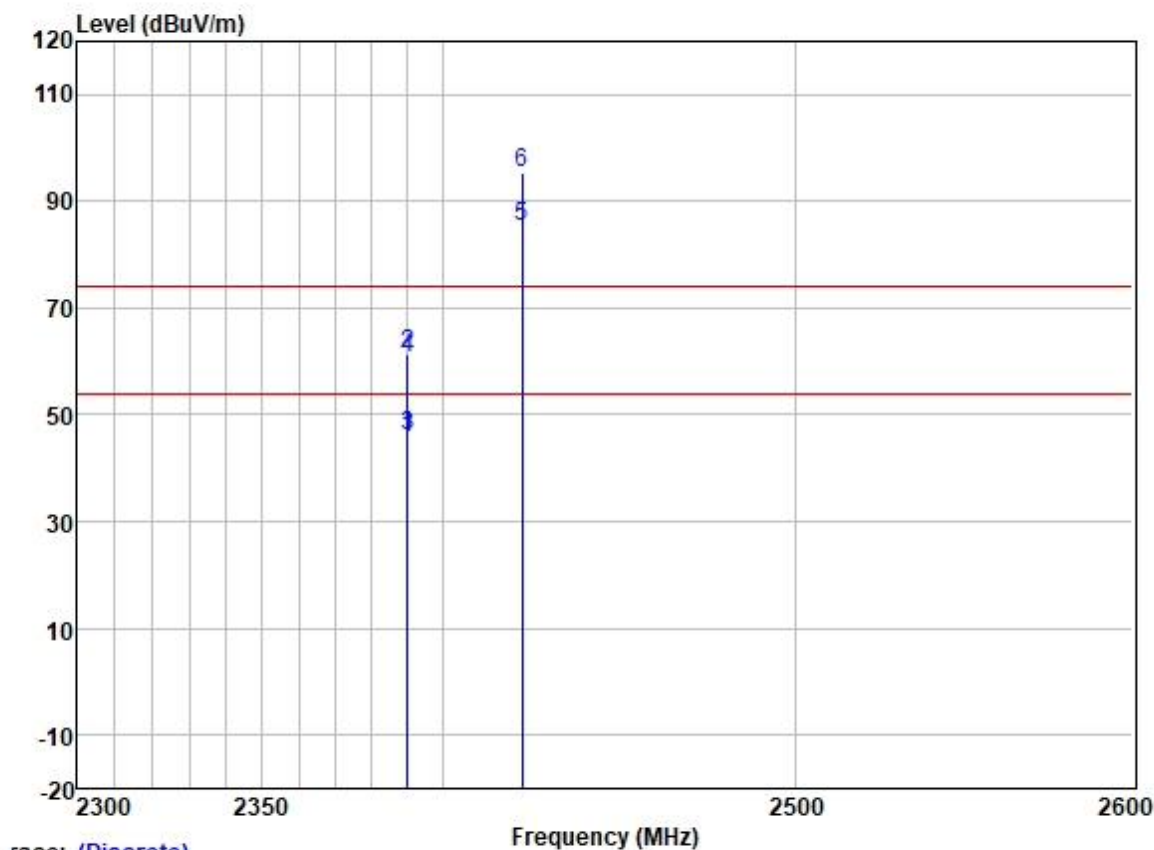


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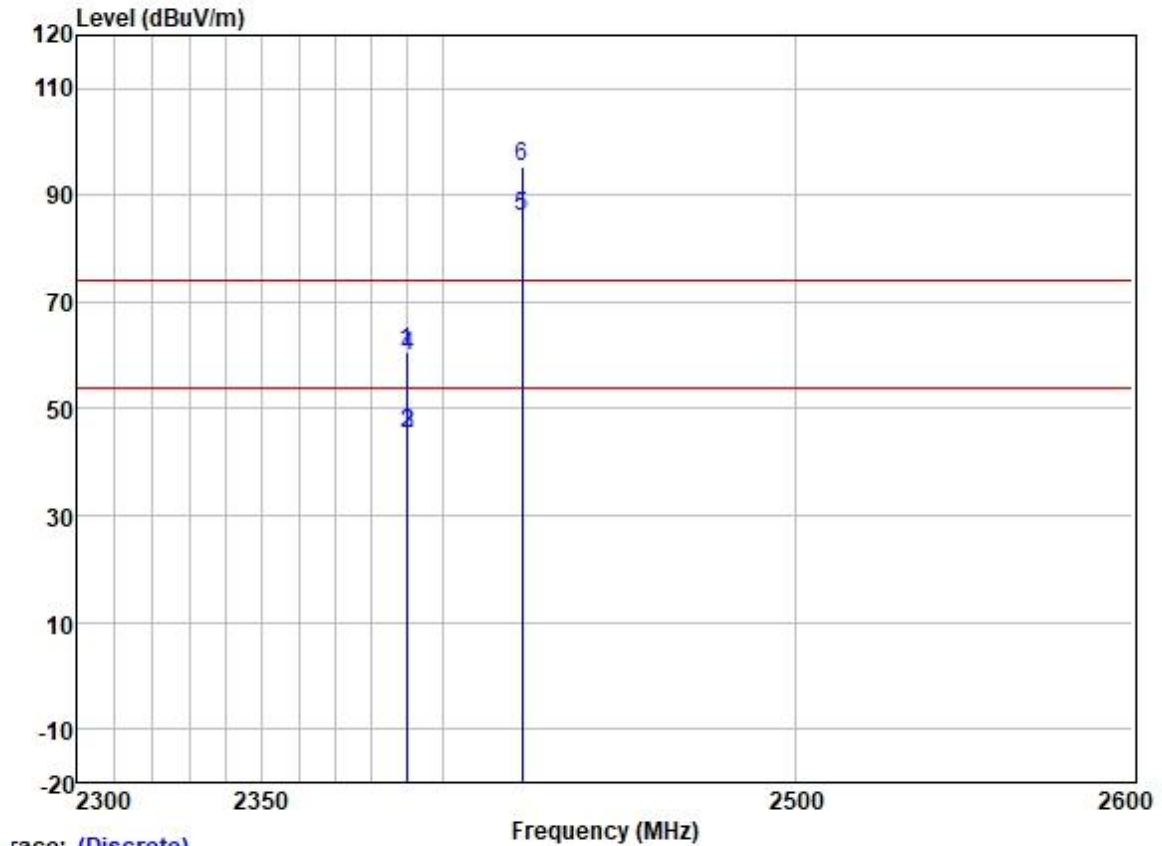
Test Mode: 12; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2389.827	52.37	27.33	3.48	37.59	45.59	54.00	-8.41	HORIZONTAL	Average
2	2389.827	68.11	27.33	3.48	37.59	61.33	74.00	-12.67	HORIZONTAL	Peak
3	2390.000	52.70	27.33	3.48	37.59	45.92	54.00	-8.08	HORIZONTAL	Average
4	2390.000	67.35	27.33	3.48	37.59	60.57	74.00	-13.43	HORIZONTAL	Peak
5 *	2422.000	92.02	27.39	3.45	37.58	85.28	54.00	31.28	HORIZONTAL	Average
6 *	2422.000	101.97	27.39	3.45	37.58	95.23	74.00	21.23	HORIZONTAL	Peak

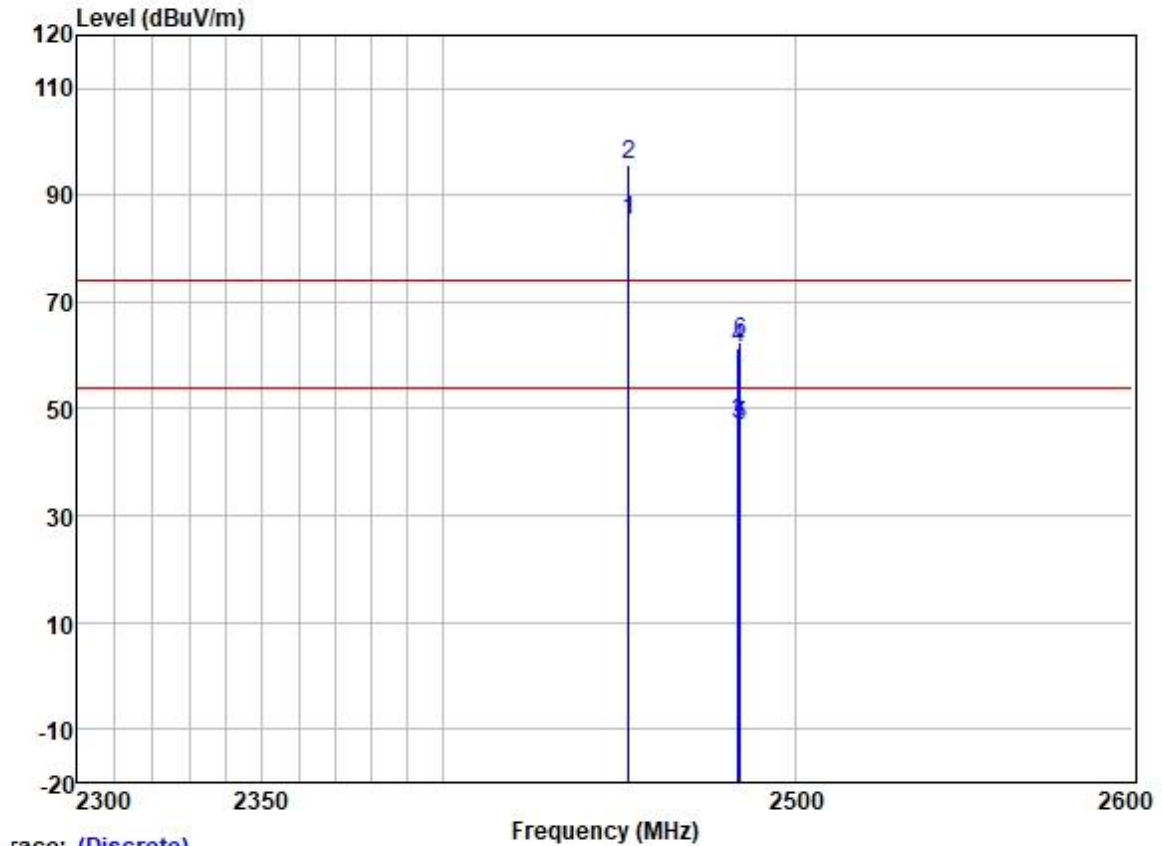
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Trace: (Discrete)

	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	2389.677	67.53	27.33	3.48	37.59	60.75	74.00	-13.25	VERTICAL Peak
2	2389.827	51.99	27.33	3.48	37.59	45.21	54.00	-8.79	VERTICAL Average
3	2390.000	52.13	27.33	3.48	37.59	45.35	54.00	-8.65	VERTICAL Average
4	2390.000	66.72	27.33	3.48	37.59	59.94	74.00	-14.06	VERTICAL Peak
5 *	2422.000	92.87	27.39	3.45	37.58	86.13	54.00	32.13	VERTICAL Average
6 *	2422.000	102.02	27.39	3.45	37.58	95.28	74.00	21.28	VERTICAL Peak

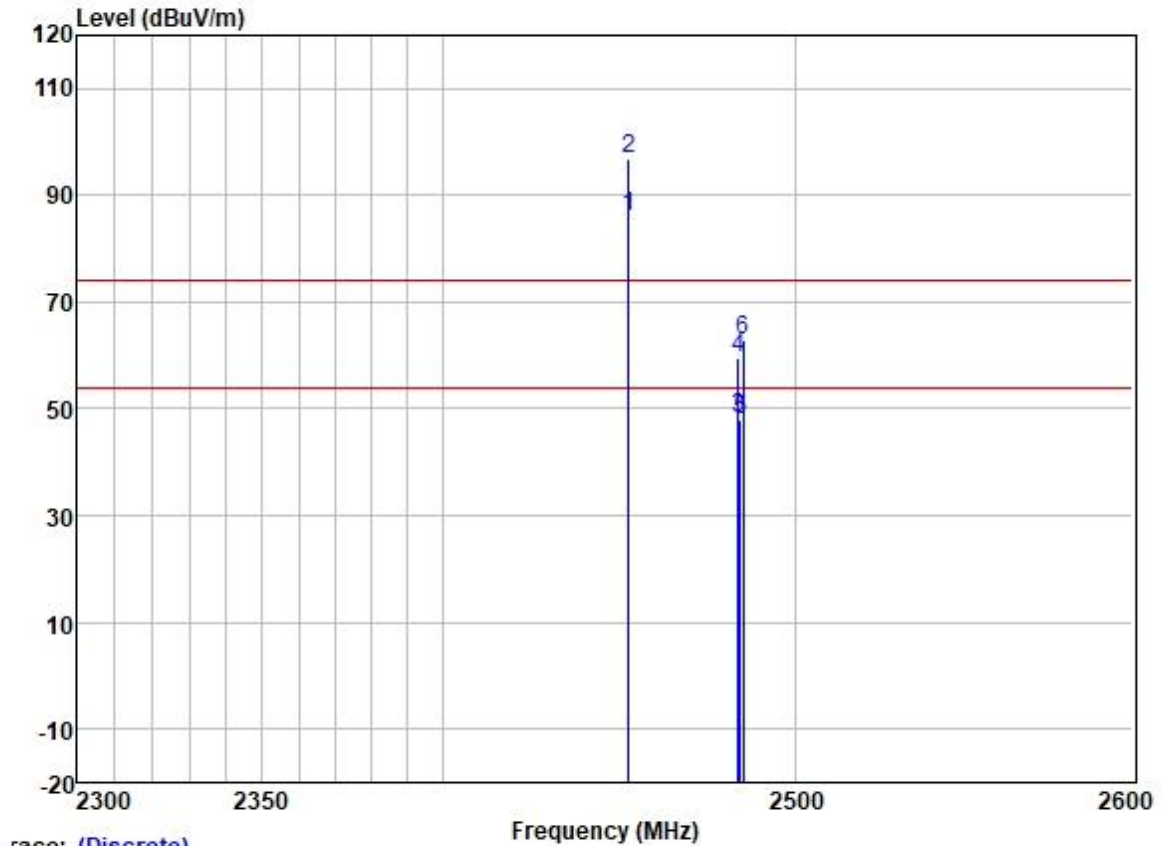
Test Mode: 12; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 *	2452.000	91.85	27.43	3.40	37.58	85.10	54.00	31.10	HORIZONTAL Average
2 *	2452.000	102.59	27.43	3.40	37.58	95.84	74.00	21.84	HORIZONTAL Peak
3	2483.500	53.63	27.48	3.53	37.57	47.07	54.00	-6.93	HORIZONTAL Average
4	2483.500	68.12	27.48	3.53	37.57	61.56	74.00	-12.44	HORIZONTAL Peak
5	2484.076	53.57	27.48	3.53	37.57	47.01	54.00	-6.99	HORIZONTAL Average
6	2484.147	68.99	27.48	3.53	37.57	62.43	74.00	-11.57	HORIZONTAL Peak

Test Mode: 12; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

		Freq	ReadAntenna Level Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark	
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	*	2452.000	92.90	27.43	3.40	37.58	86.15	54.00	32.15	VERTICAL	Average
2	*	2452.000	103.63	27.43	3.40	37.58	96.88	74.00	22.88	VERTICAL	Peak
3		2483.500	54.84	27.48	3.53	37.57	48.28	54.00	-5.72	VERTICAL	Average
4		2483.500	66.00	27.48	3.53	37.57	59.44	74.00	-14.56	VERTICAL	Peak
5		2483.935	54.47	27.48	3.53	37.57	47.91	54.00	-6.09	VERTICAL	Average
6		2484.782	69.55	27.48	3.53	37.57	62.99	74.00	-11.01	VERTICAL	Peak

7.3 Radiated Spurious Emissions (Below 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.4,6.5,6.6

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
Above 960	500	3

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

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 22.4 °C

Humidity: 55.4 % RH

Atmospheric Pressure: 1015 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
--------------------------	--------------	-------------

Pre-scan 11

TX mode_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). Only the data of worst case is recorded in the report.

Final test 12

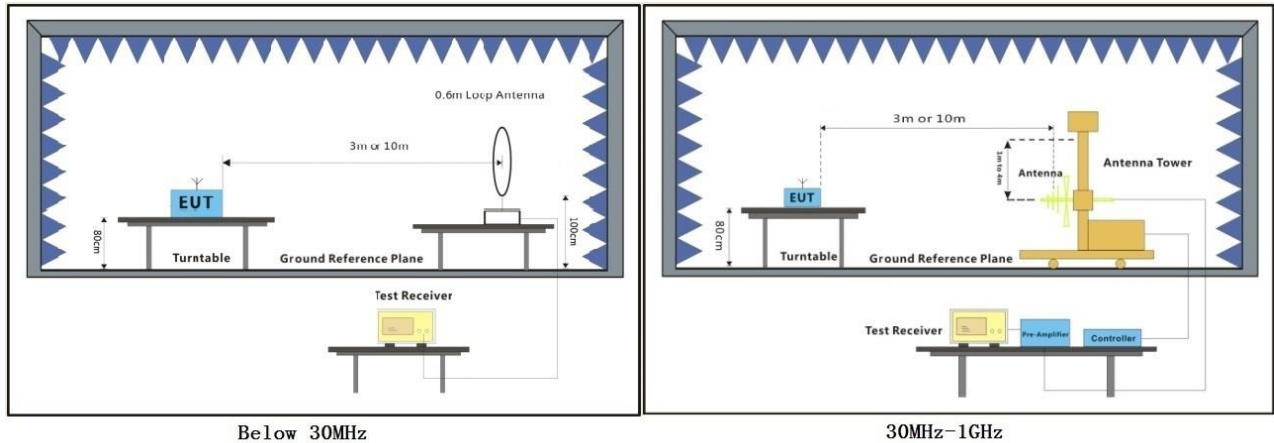
Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.



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7.3.3 Test Setup Diagram



7.3.4 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 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 or 10 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, quasi-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) Through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report.

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

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

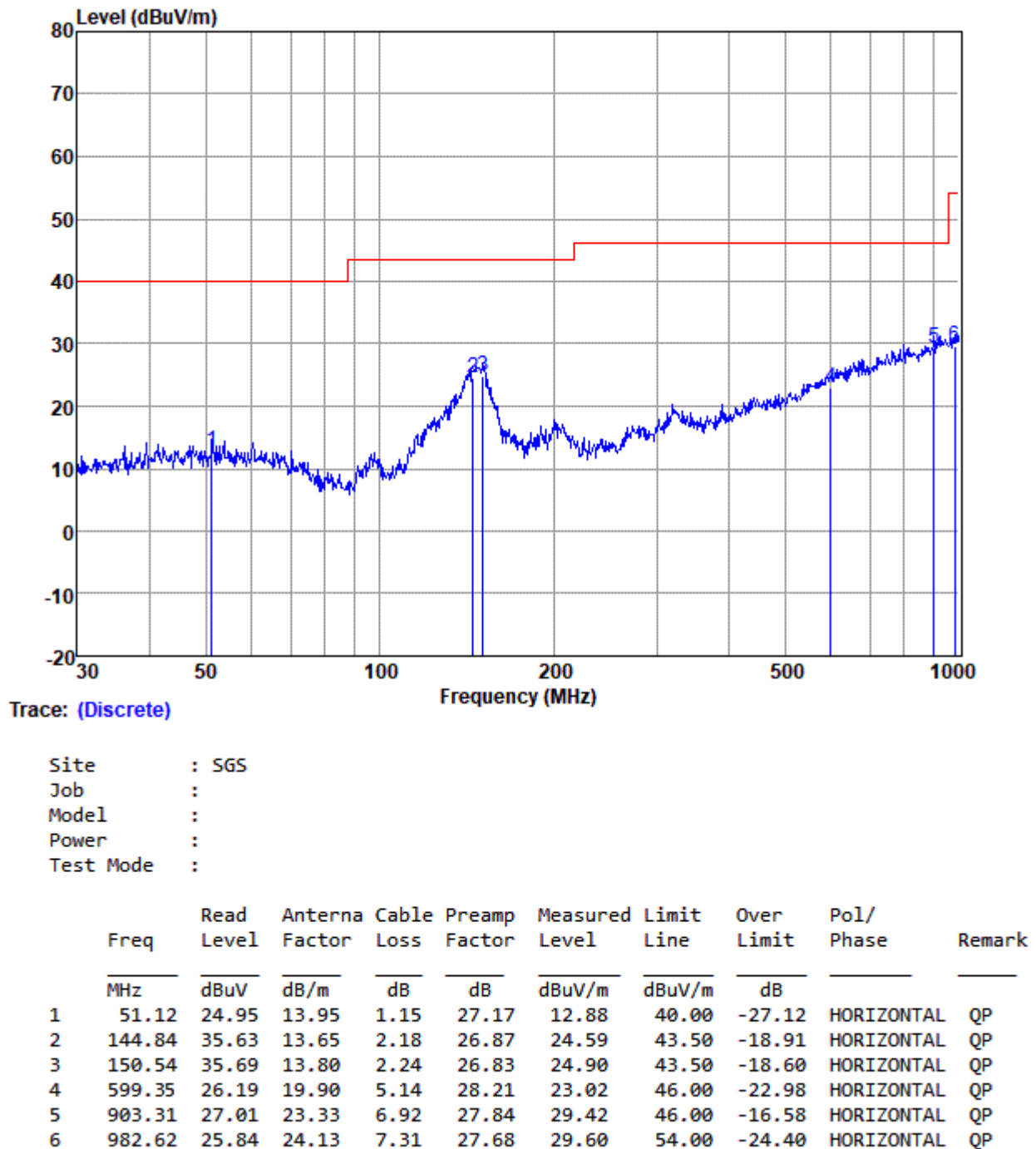
3) Scan from 9kHz to 1 GHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.



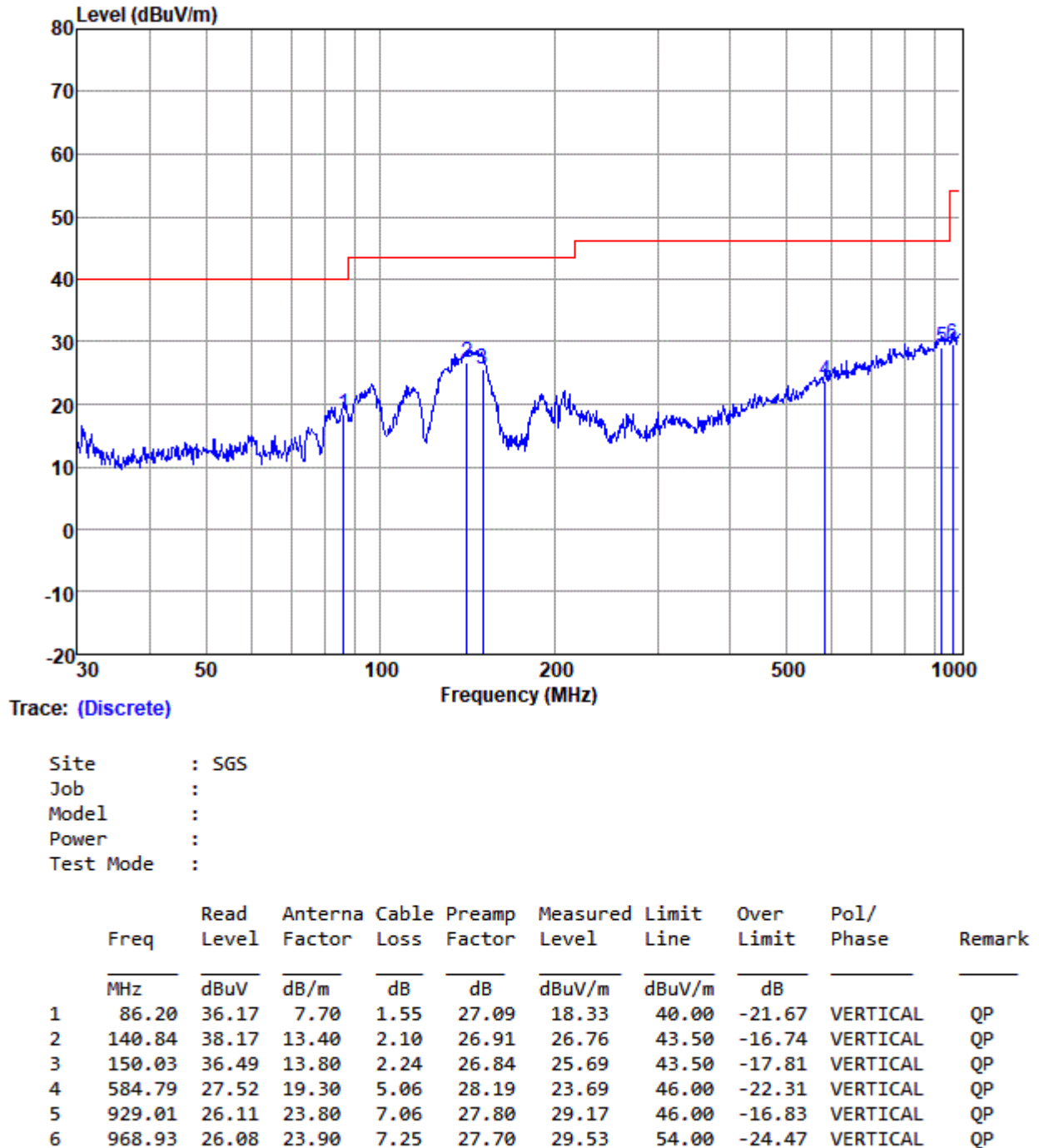
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Test Mode: 12; Polarity: Horizontal



Test Mode: 12; Polarity: Vertical



7.4 Radiated Spurious Emissions (Above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.4,6.5,6.6

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
Above 960	500	3

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

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C

Humidity: 56.3 % RH

Atmospheric Pressure: 1015 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
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Pre-scan 11

TX mode_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). Only the data of worst case is recorded in the report.

Final test 12

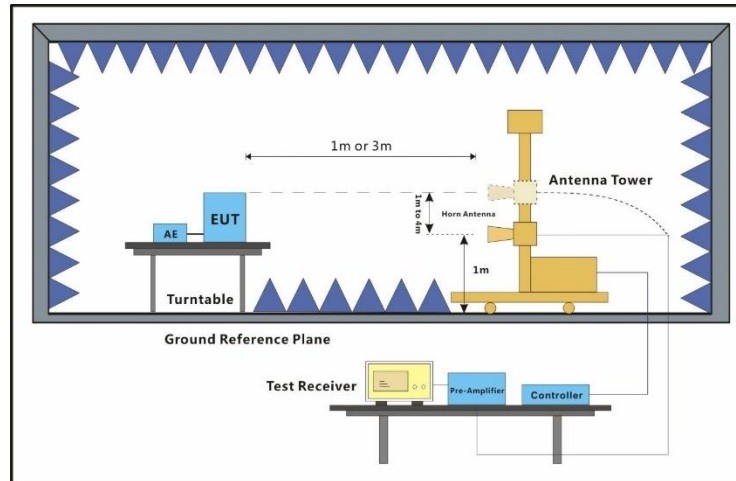
Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.



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7.4.3 Test Setup Diagram



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

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

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) 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.



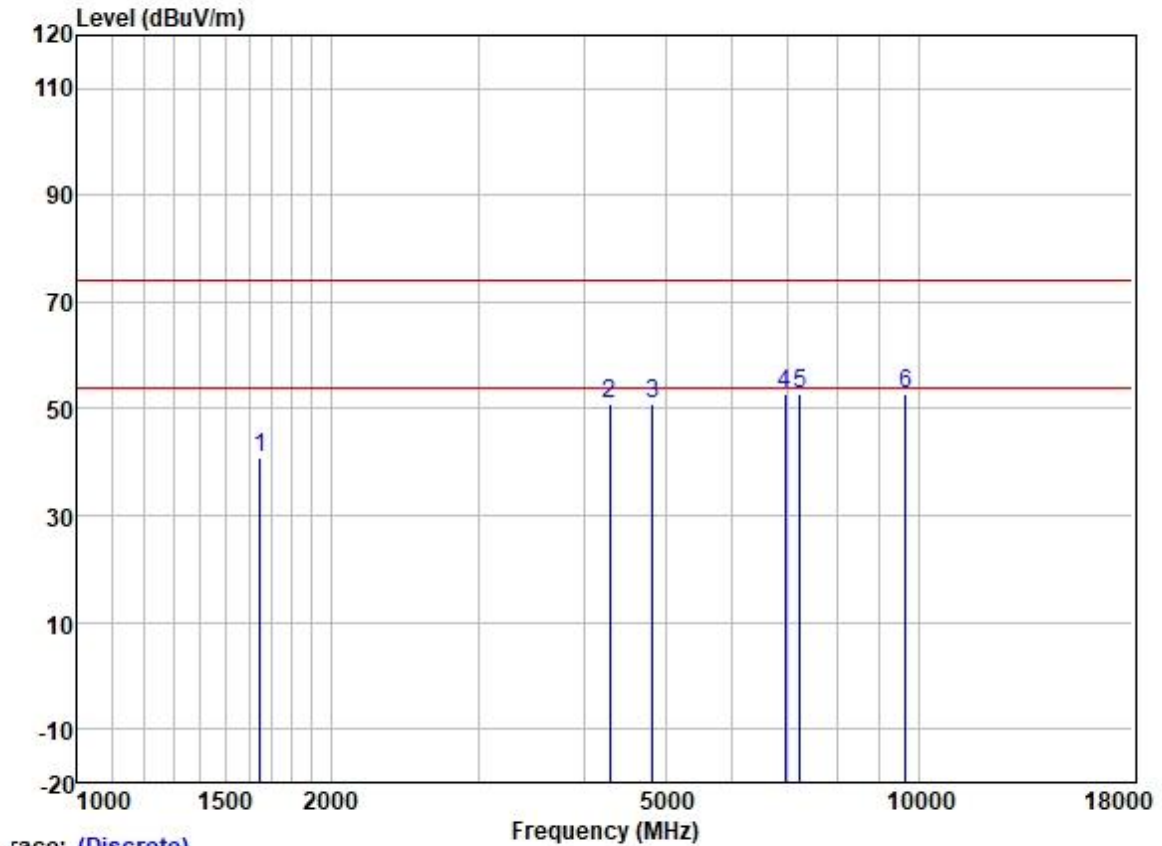
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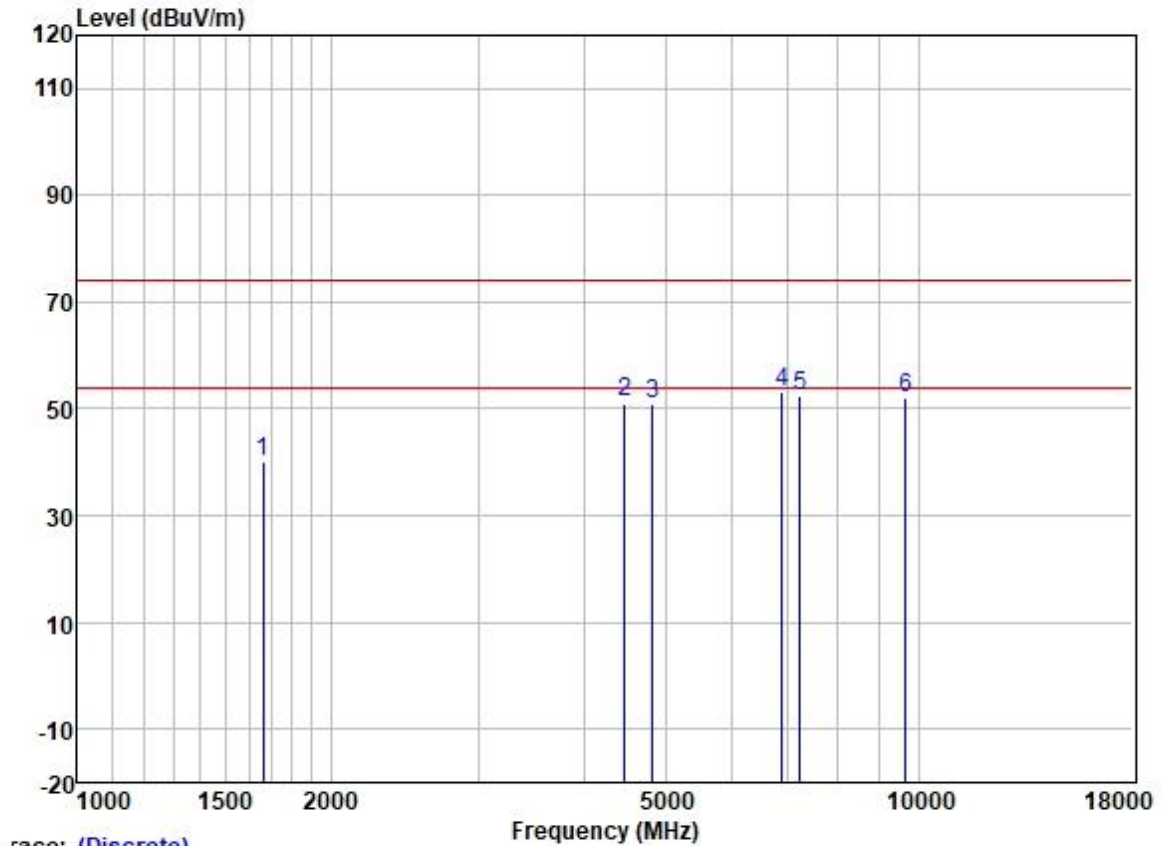
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race: (Discrete)

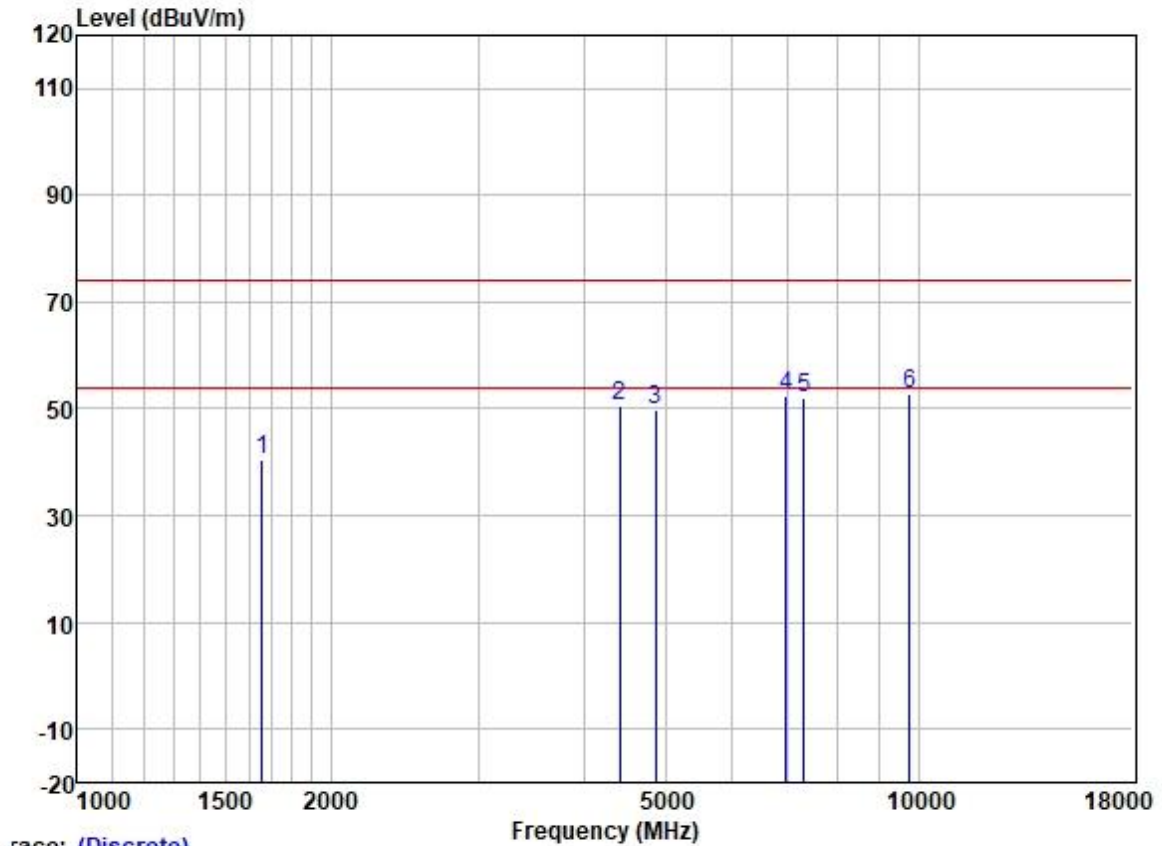
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1648.778	50.43	25.63	2.80	37.93	40.93	74.00	-33.07	HORIZONTAL	Peak
2	4291.977	52.50	30.45	4.64	36.81	50.78	74.00	-23.22	HORIZONTAL	Peak
3	4824.000	51.05	31.45	5.42	36.83	51.09	74.00	-22.91	HORIZONTAL	Peak
4	6934.778	49.15	34.92	5.81	37.19	52.69	74.00	-21.31	HORIZONTAL	Peak
5	7236.000	48.49	35.70	6.03	37.39	52.83	74.00	-21.17	HORIZONTAL	Peak
6	9648.000	44.61	38.40	7.06	37.42	52.65	74.00	-21.35	HORIZONTAL	Peak

Test Mode: 12; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:Low



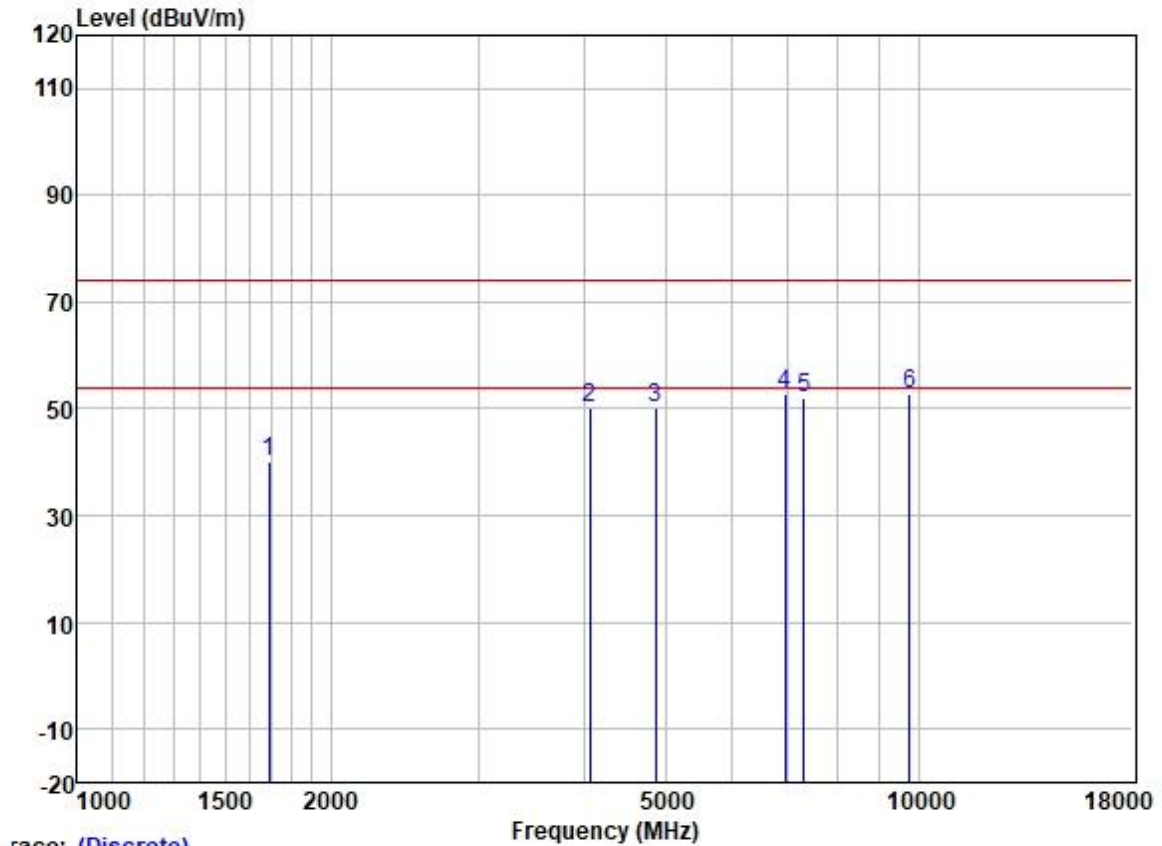
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	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1663.137	49.74	25.65	2.80	37.91	40.28	74.00	-33.72	VERTICAL	Peak
2	4469.214	52.23	30.77	4.93	36.81	51.12	74.00	-22.88	VERTICAL	Peak
3	4824.000	50.79	31.45	5.42	36.83	50.83	74.00	-23.17	VERTICAL	Peak
4	6874.906	49.51	34.82	5.82	37.16	52.99	74.00	-21.01	VERTICAL	Peak
5	7236.000	47.99	35.70	6.03	37.39	52.33	74.00	-21.67	VERTICAL	Peak
6	9648.000	44.16	38.40	7.06	37.42	52.20	74.00	-21.80	VERTICAL	Peak

Test Mode: 12; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:middle



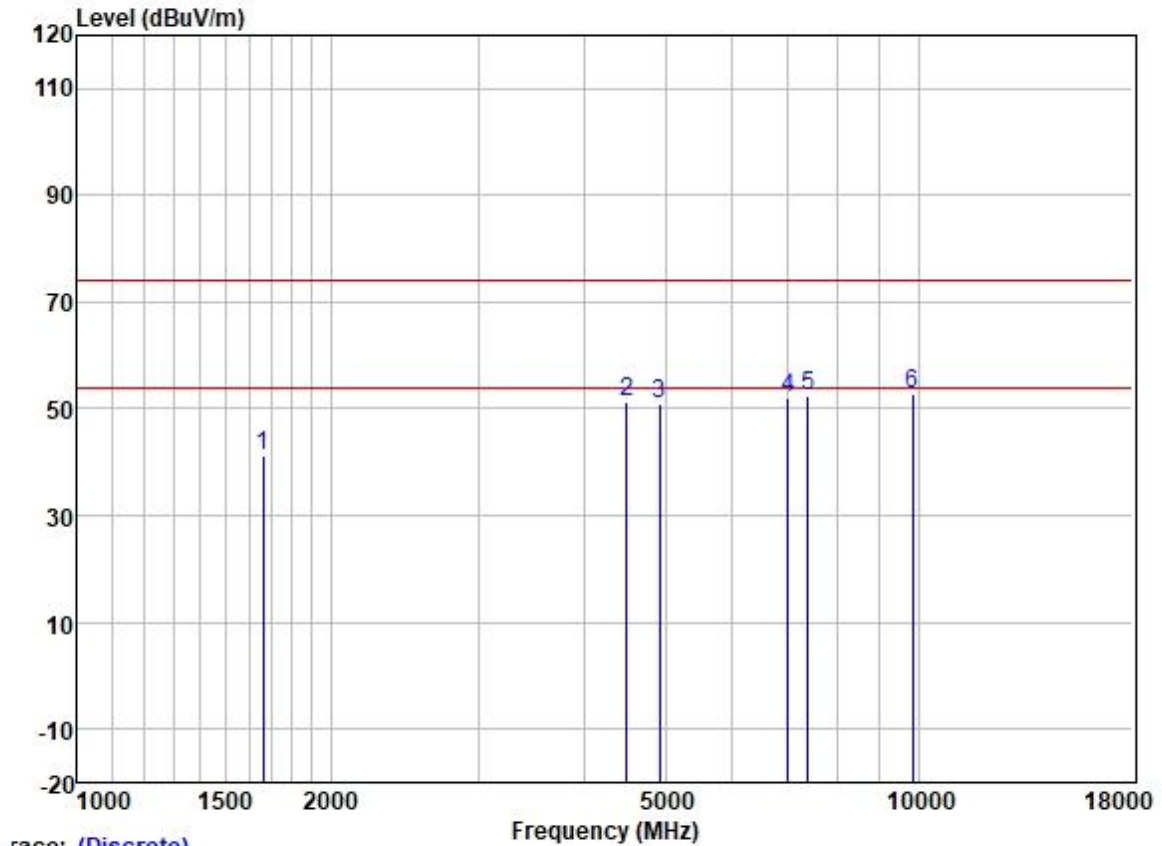
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1658.337	50.09	25.65	2.80	37.93	40.61	74.00	-33.39	HORIZONTAL Peak
2	4417.841	52.07	30.70	4.74	36.81	50.70	74.00	-23.30	HORIZONTAL Peak
3	4874.000	49.75	31.54	5.50	36.84	49.95	74.00	-24.05	HORIZONTAL Peak
4	6954.852	48.75	34.95	5.81	37.21	52.30	74.00	-21.70	HORIZONTAL Peak
5	7311.000	47.40	35.93	6.11	37.42	52.02	74.00	-21.98	HORIZONTAL Peak
6	9748.000	44.80	38.50	7.02	37.41	52.91	74.00	-21.09	HORIZONTAL Peak

Test Mode: 12; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:middle



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1692.231	49.44	25.70	2.80	37.89	40.05	74.00	-33.95	VERTICAL	Peak
2	4062.629	52.46	29.88	4.60	36.80	50.14	74.00	-23.86	VERTICAL	Peak
3	4874.000	50.01	31.54	5.50	36.84	50.21	74.00	-23.79	VERTICAL	Peak
4	6934.778	49.08	34.92	5.81	37.19	52.62	74.00	-21.38	VERTICAL	Peak
5	7311.000	47.50	35.93	6.11	37.42	52.12	74.00	-21.88	VERTICAL	Peak
6	9748.000	44.80	38.50	7.02	37.41	52.91	74.00	-21.09	VERTICAL	Peak

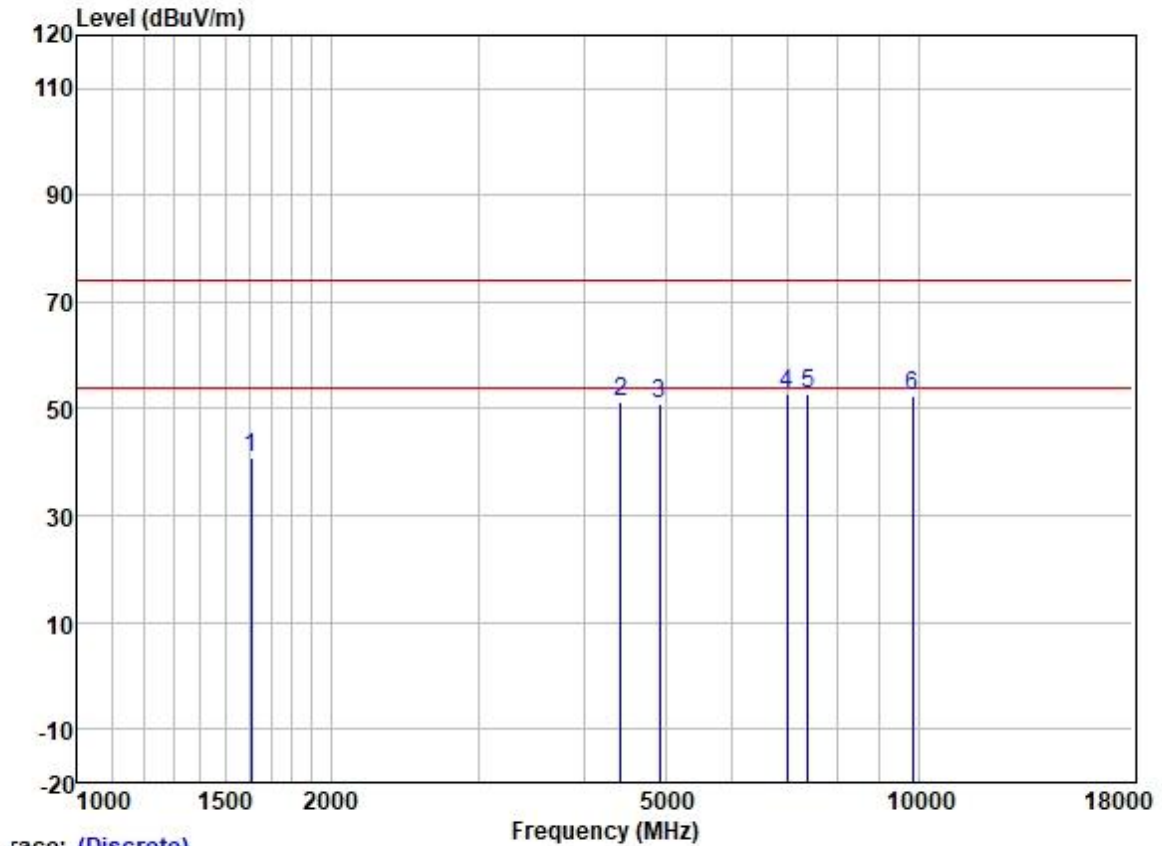
Test Mode: 12; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

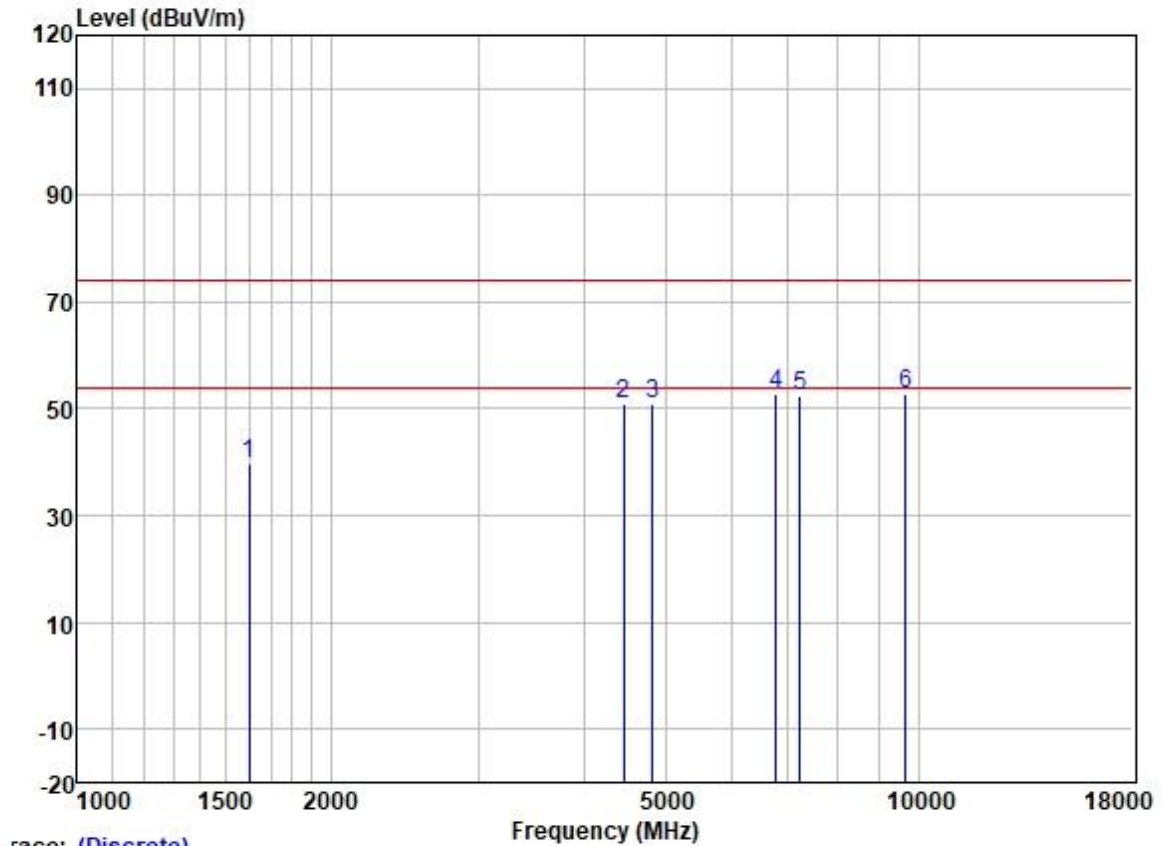
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1663.137	50.69	25.65	2.80	37.91	41.23	74.00	-32.77	HORIZONTAL Peak
2	4495.125	52.36	30.80	5.05	36.82	51.39	74.00	-22.61	HORIZONTAL Peak
3	4924.000	50.50	31.62	5.60	36.84	50.88	74.00	-23.12	HORIZONTAL Peak
4	6995.172	48.49	35.00	5.81	37.25	52.05	74.00	-21.95	HORIZONTAL Peak
5	7386.000	47.48	36.17	6.19	37.45	52.39	74.00	-21.61	HORIZONTAL Peak
6	9848.000	44.46	38.58	6.99	37.41	52.62	74.00	-21.38	HORIZONTAL Peak

Test Mode: 12; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:High



	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1611.091	50.27	25.59	2.80	37.98	40.68	74.00	-33.32	VERTICAL Peak
2	4430.628	52.51	30.72	4.78	36.81	51.20	74.00	-22.80	VERTICAL Peak
3	4924.000	50.39	31.62	5.60	36.84	50.77	74.00	-23.23	VERTICAL Peak
4	6974.982	49.37	34.97	5.81	37.23	52.92	74.00	-21.08	VERTICAL Peak
5	7386.000	47.96	36.17	6.19	37.45	52.87	74.00	-21.13	VERTICAL Peak
6	9848.000	44.44	38.58	6.99	37.41	52.60	74.00	-21.40	VERTICAL Peak

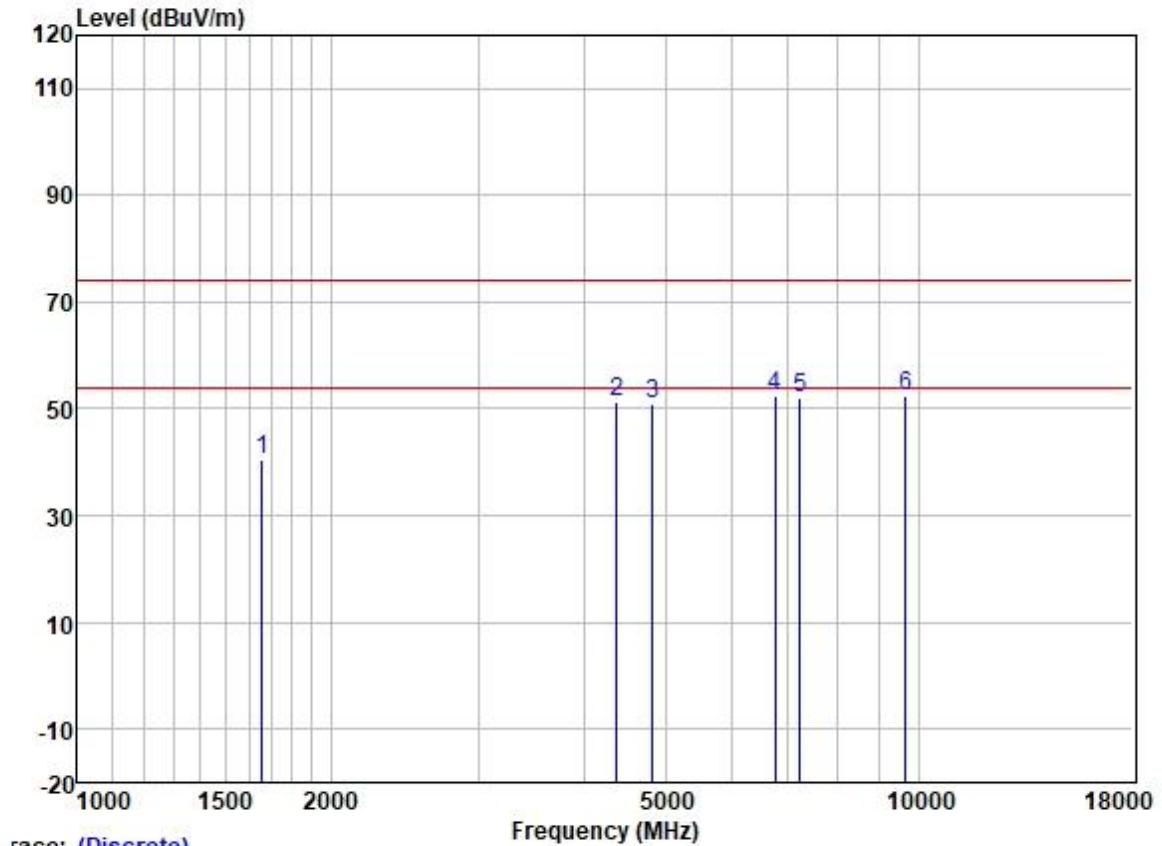
Test Mode: 12; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:Low



race: (Discrete)

	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1601.804	49.27	25.58	2.80	37.98	39.67	74.00	-34.33	HORIZONTAL	Peak
2	4456.315	52.08	30.75	4.88	36.81	50.90	74.00	-23.10	HORIZONTAL	Peak
3	4824.000	50.96	31.45	5.42	36.83	51.00	74.00	-23.00	HORIZONTAL	Peak
4	6776.265	49.45	34.61	5.82	37.11	52.77	74.00	-21.23	HORIZONTAL	Peak
5	7236.000	47.90	35.70	6.03	37.39	52.24	74.00	-21.76	HORIZONTAL	Peak
6	9648.000	44.73	38.40	7.06	37.42	52.77	74.00	-21.23	HORIZONTAL	Peak

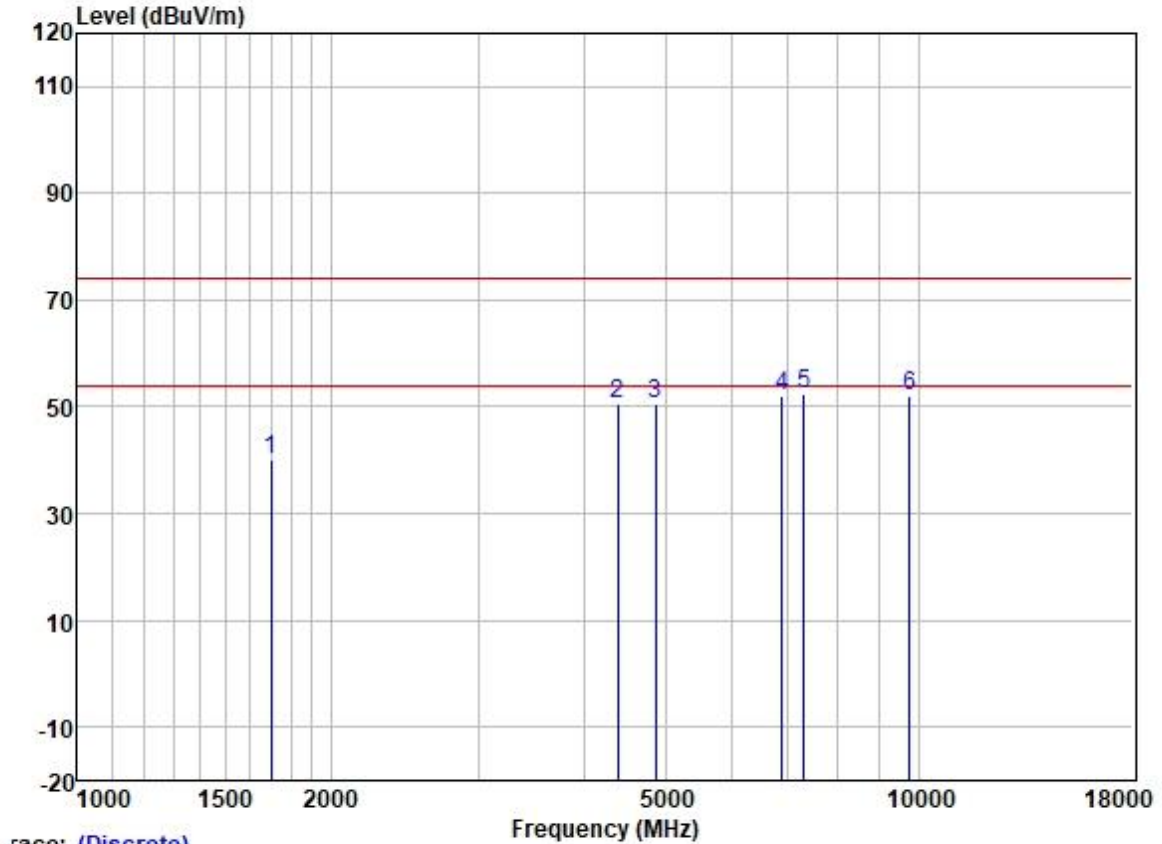
Test Mode: 12; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

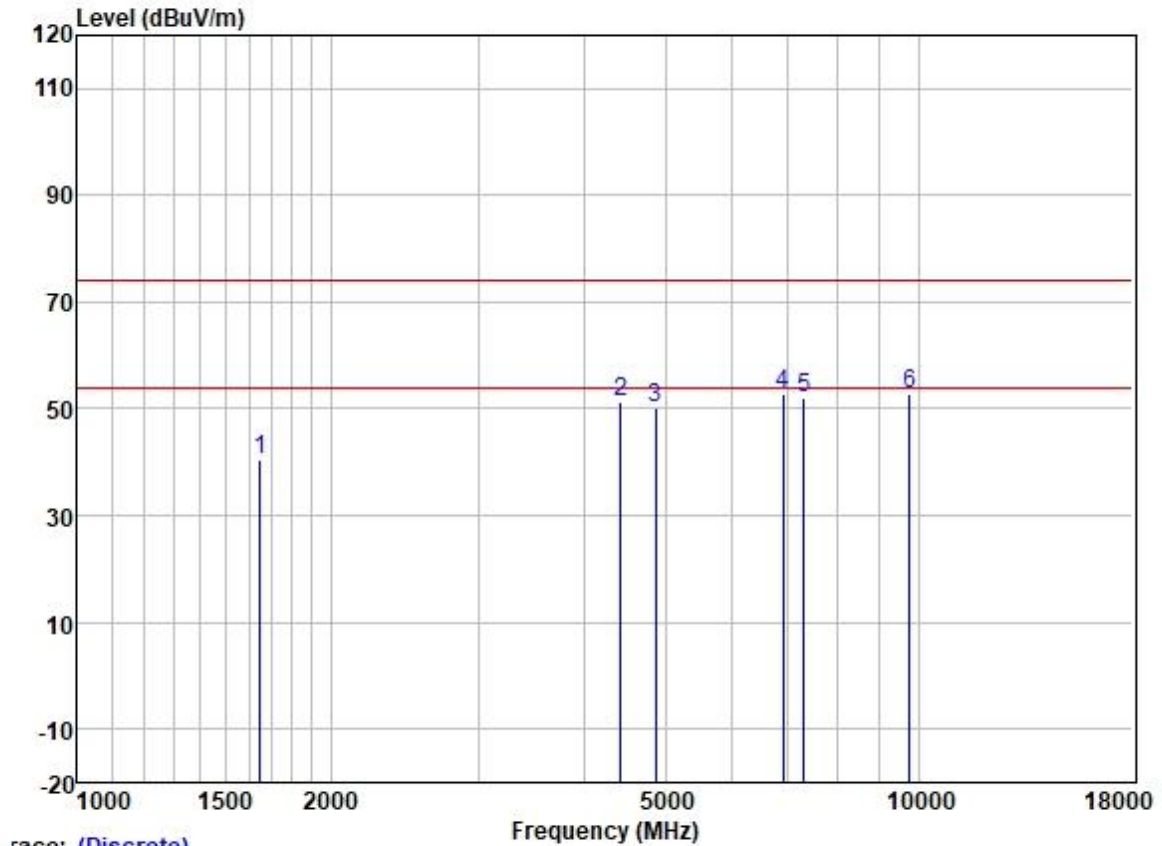
	Freq	Read	Antenna	Cable	Preamp		Limit	Over		
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1658.337	49.89	25.65	2.80	37.93	40.41	74.00	-33.59	VERTICAL	Peak
2	4379.699	52.61	30.64	4.69	36.81	51.13	74.00	-22.87	VERTICAL	Peak
3	4824.000	50.73	31.45	5.42	36.83	50.77	74.00	-23.23	VERTICAL	Peak
4	6756.708	49.27	34.56	5.82	37.10	52.55	74.00	-21.45	VERTICAL	Peak
5	7236.000	47.77	35.70	6.03	37.39	52.11	74.00	-21.89	VERTICAL	Peak
6	9648.000	44.39	38.40	7.06	37.42	52.43	74.00	-21.57	VERTICAL	Peak

Test Mode: 12; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:middle



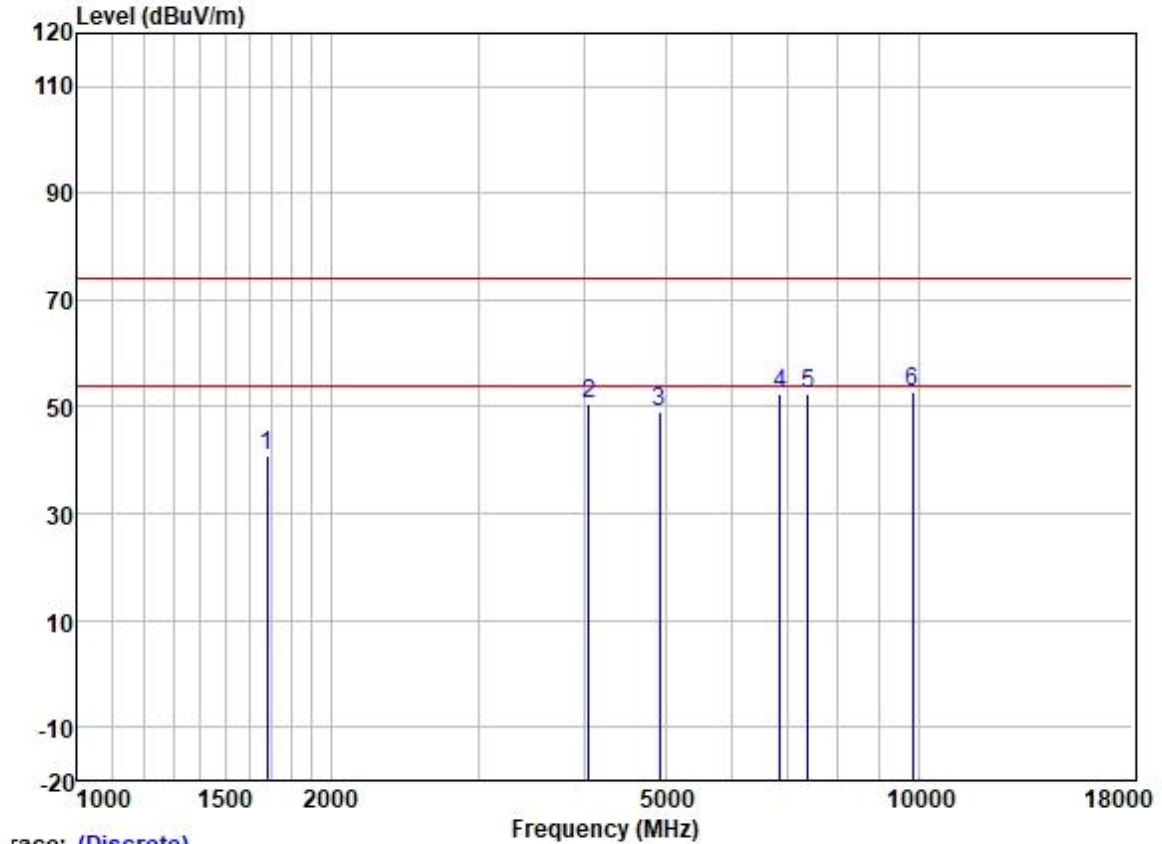
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1697.129	49.59	25.71	2.80	37.89	40.21	74.00	-33.79	HORIZONTAL	Peak
2	4392.376	52.13	30.66	4.70	36.81	50.68	74.00	-23.32	HORIZONTAL	Peak
3	4874.000	50.22	31.54	5.50	36.84	50.42	74.00	-23.58	HORIZONTAL	Peak
4	6874.906	48.56	34.82	5.82	37.16	52.04	74.00	-21.96	HORIZONTAL	Peak
5	7311.000	47.88	35.93	6.11	37.42	52.50	74.00	-21.50	HORIZONTAL	Peak
6	9748.000	44.09	38.50	7.02	37.41	52.20	74.00	-21.80	HORIZONTAL	Peak

Test Mode: 12; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:middle



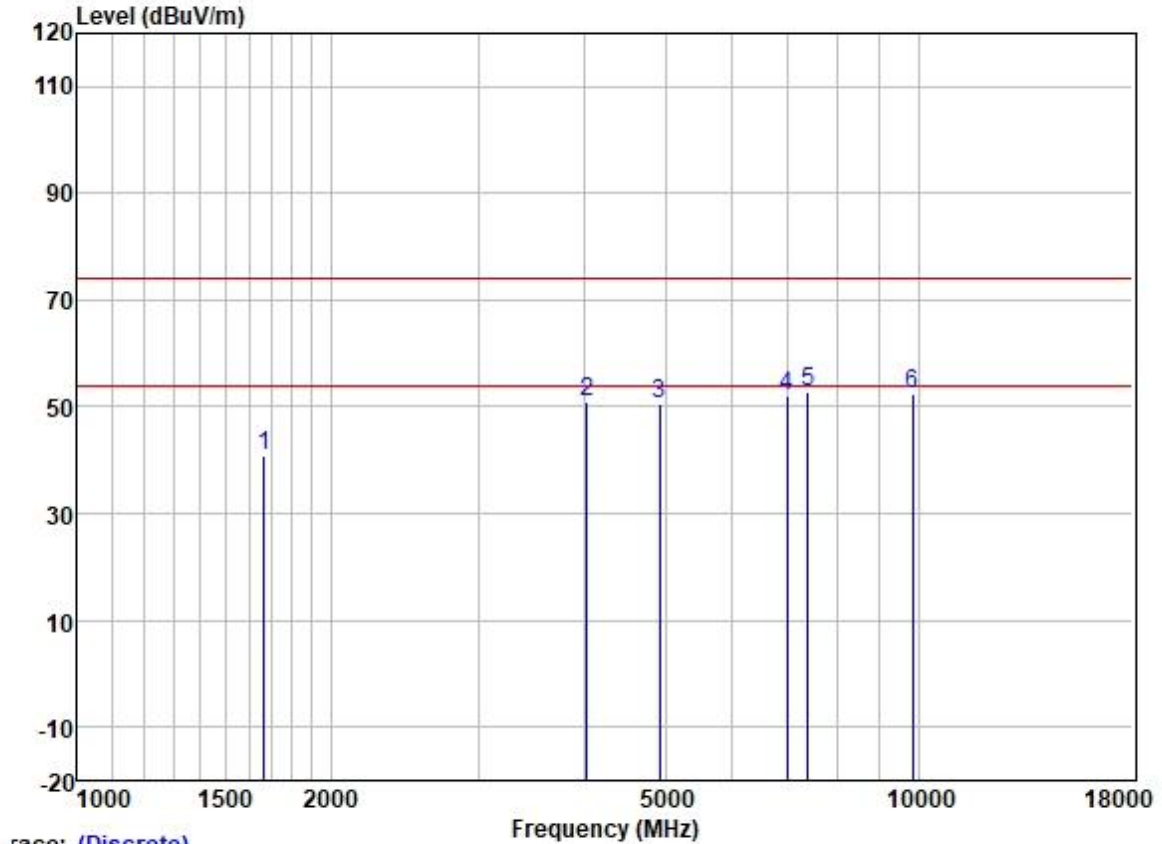
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1648.778	49.82	25.63	2.80	37.93	40.32	74.00	-33.68	VERTICAL	Peak
2	4430.628	52.65	30.72	4.78	36.81	51.34	74.00	-22.66	VERTICAL	Peak
3	4874.000	49.94	31.54	5.50	36.84	50.14	74.00	-23.86	VERTICAL	Peak
4	6894.806	49.34	34.85	5.81	37.18	52.82	74.00	-21.18	VERTICAL	Peak
5	7311.000	47.49	35.93	6.11	37.42	52.11	74.00	-21.89	VERTICAL	Peak
6	9748.000	44.67	38.50	7.02	37.41	52.78	74.00	-21.22	VERTICAL	Peak

Test Mode: 12; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1682.477	50.18	25.68	2.80	37.91	40.75	74.00	-33.25	HORIZONTAL	Peak
2	4050.904	52.77	29.87	4.60	36.80	50.44	74.00	-23.56	HORIZONTAL	Peak
3	4924.000	48.70	31.62	5.60	36.84	49.08	74.00	-24.92	HORIZONTAL	Peak
4	6855.063	49.14	34.78	5.82	37.15	52.59	74.00	-21.41	HORIZONTAL	Peak
5	7386.000	47.53	36.17	6.19	37.45	52.44	74.00	-21.56	HORIZONTAL	Peak
6	9848.000	44.79	38.58	6.99	37.41	52.95	74.00	-21.05	HORIZONTAL	Peak

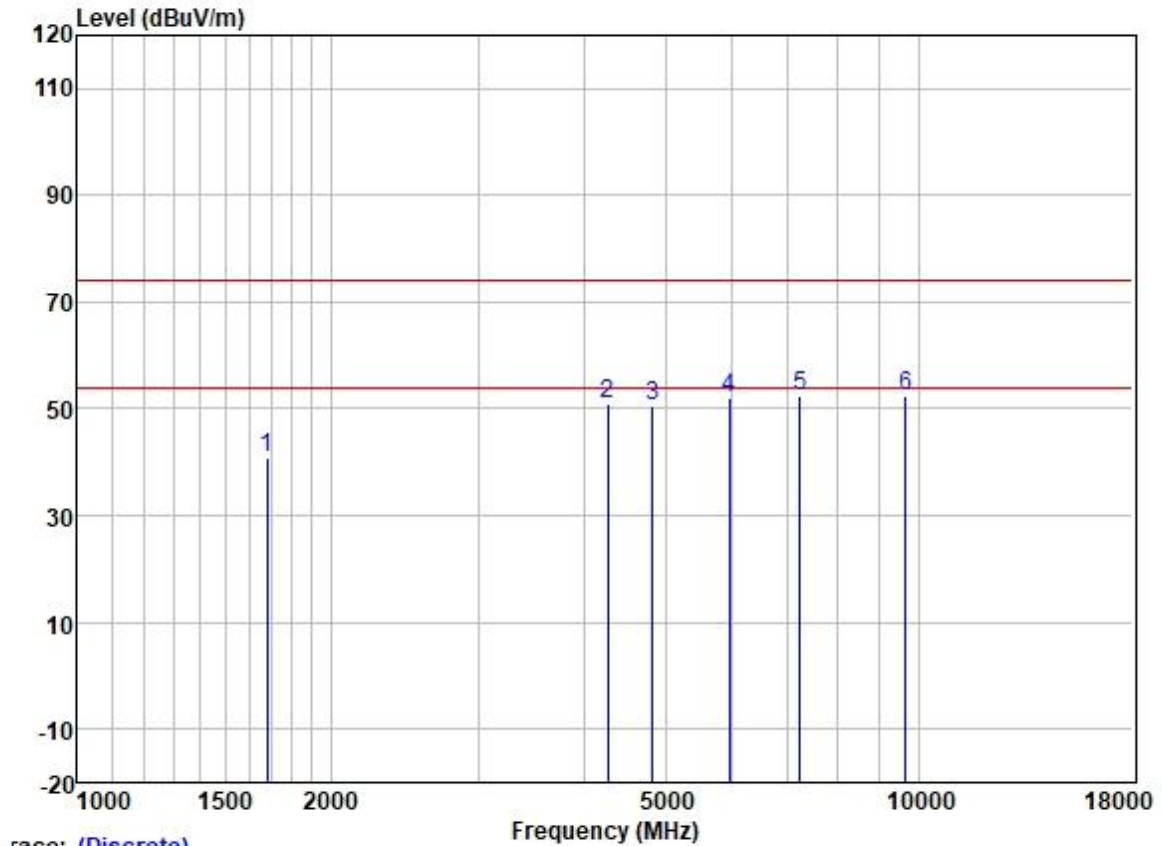
Test Mode: 12; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

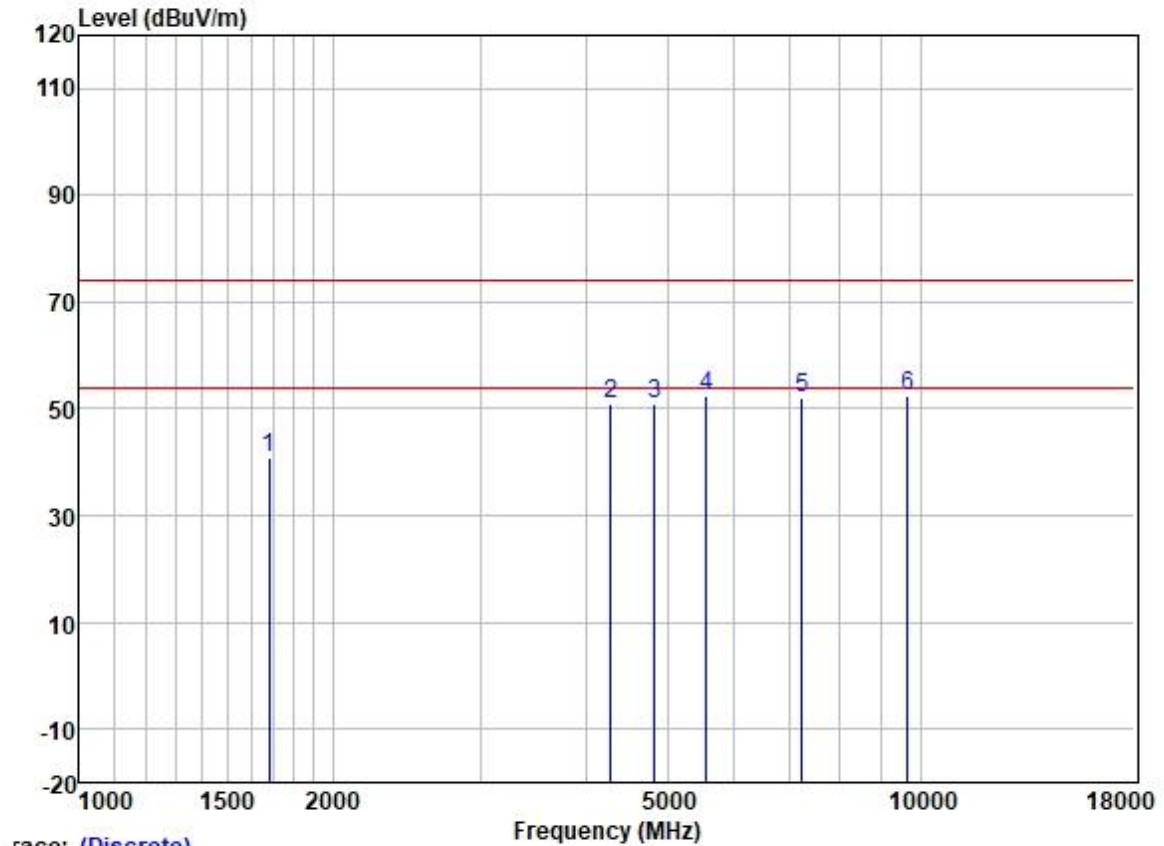
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1667.951	50.33	25.66	2.80	37.91	40.88	74.00	-33.12	VERTICAL Peak
2	4039.212	53.31	29.85	4.60	36.80	50.96	74.00	-23.04	VERTICAL Peak
3	4924.000	50.01	31.62	5.60	36.84	50.39	74.00	-23.61	VERTICAL Peak
4	6974.982	48.53	34.97	5.81	37.23	52.08	74.00	-21.92	VERTICAL Peak
5	7386.000	47.79	36.17	6.19	37.45	52.70	74.00	-21.30	VERTICAL Peak
6	9848.000	44.20	38.58	6.99	37.41	52.36	74.00	-21.64	VERTICAL Peak

Test Mode: 12; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



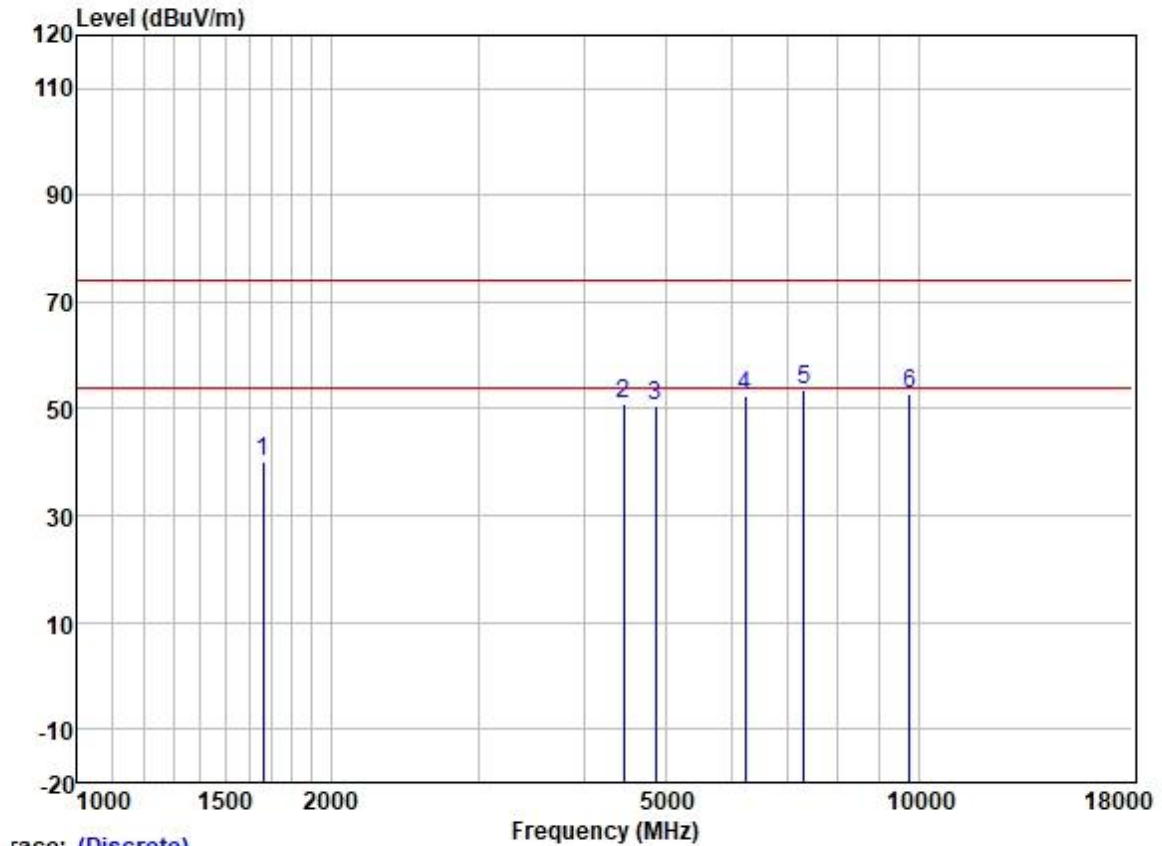
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1682.477	50.10	25.68	2.80	37.91	40.67	74.00	-33.33	HORIZONTAL Peak
2	4267.237	52.72	30.38	4.63	36.81	50.92	74.00	-23.08	HORIZONTAL Peak
3	4824.000	50.36	31.45	5.42	36.83	50.40	74.00	-23.60	HORIZONTAL Peak
4	5949.811	50.59	32.36	6.05	36.90	52.10	74.00	-21.90	HORIZONTAL Peak
5	7236.000	47.93	35.70	6.03	37.39	52.27	74.00	-21.73	HORIZONTAL Peak
6	9648.000	44.48	38.40	7.06	37.42	52.52	74.00	-21.48	HORIZONTAL Peak

Test Mode: 12; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



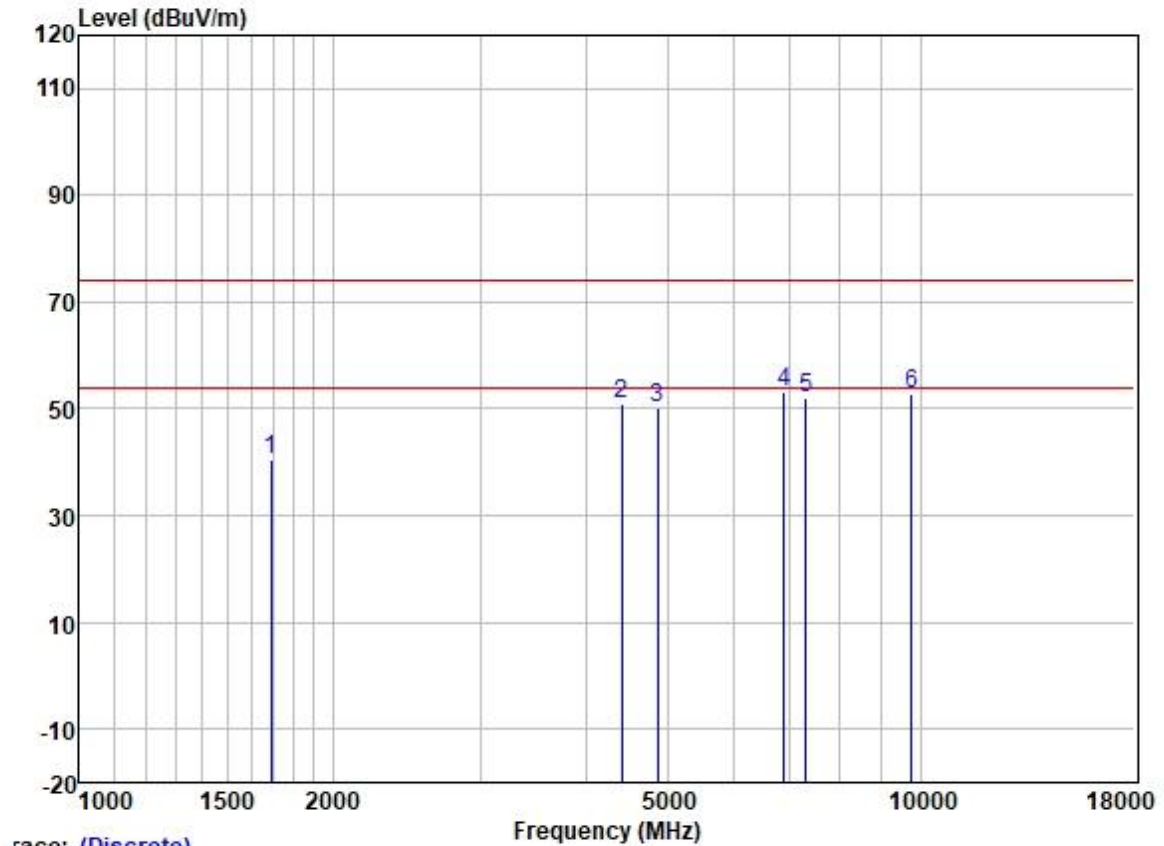
	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1682.477	50.27	25.68	2.80	37.91	40.84	74.00	-33.16	VERTICAL	Peak
2	4279.589	52.77	30.42	4.63	36.81	51.01	74.00	-22.99	VERTICAL	Peak
3	4824.000	50.94	31.45	5.42	36.83	50.98	74.00	-23.02	VERTICAL	Peak
4	5567.137	51.26	31.86	6.33	36.89	52.56	74.00	-21.44	VERTICAL	Peak
5	7236.000	47.83	35.70	6.03	37.39	52.17	74.00	-21.83	VERTICAL	Peak
6	9648.000	44.41	38.40	7.06	37.42	52.45	74.00	-21.55	VERTICAL	Peak

Test Mode: 12; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1663.137	49.40	25.65	2.80	37.91	39.94	74.00	-34.06	HORIZONTAL	Peak
2	4456.315	51.98	30.75	4.88	36.81	50.80	74.00	-23.20	HORIZONTAL	Peak
3	4874.000	50.53	31.54	5.50	36.84	50.73	74.00	-23.27	HORIZONTAL	Peak
4	6231.427	50.25	33.11	6.04	36.94	52.46	74.00	-21.54	HORIZONTAL	Peak
5	7311.000	49.04	35.93	6.11	37.42	53.66	74.00	-20.34	HORIZONTAL	Peak
6	9748.000	44.61	38.50	7.02	37.41	52.72	74.00	-21.28	HORIZONTAL	Peak

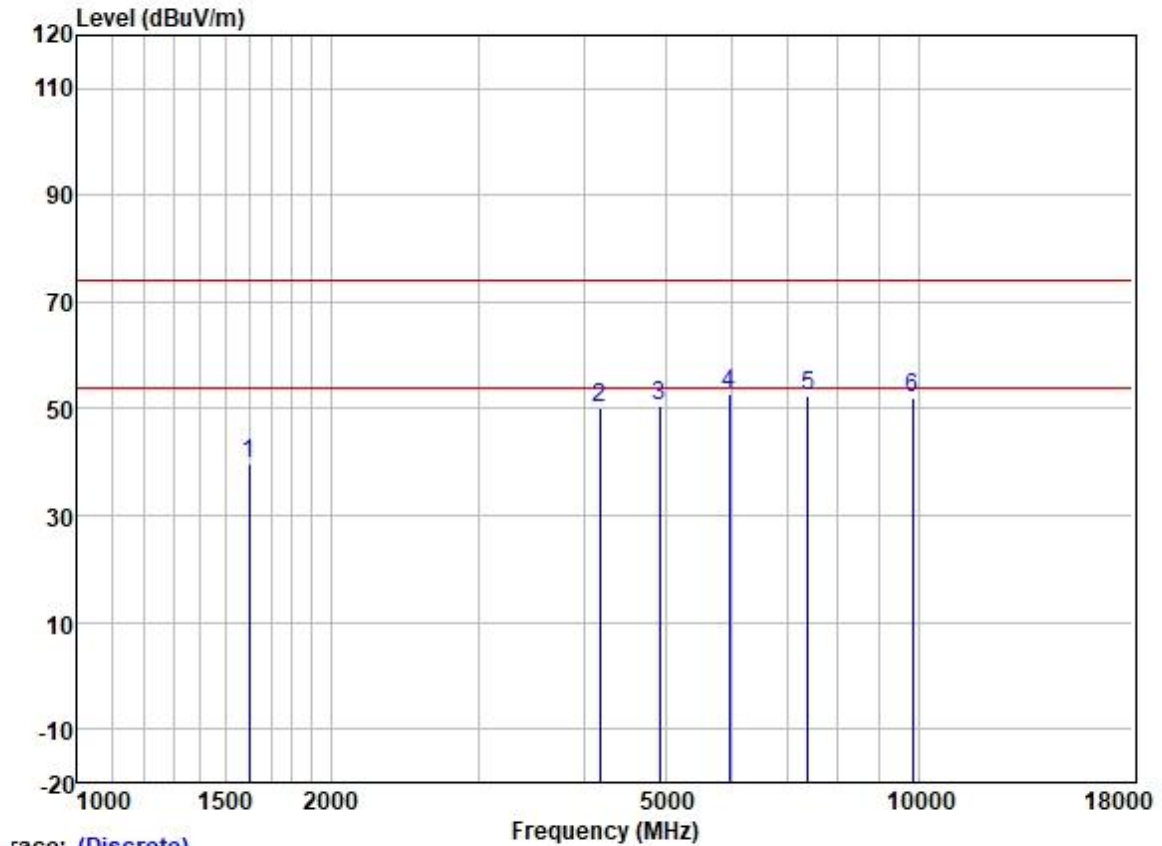
Test Mode: 12; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Trace: (Discrete)

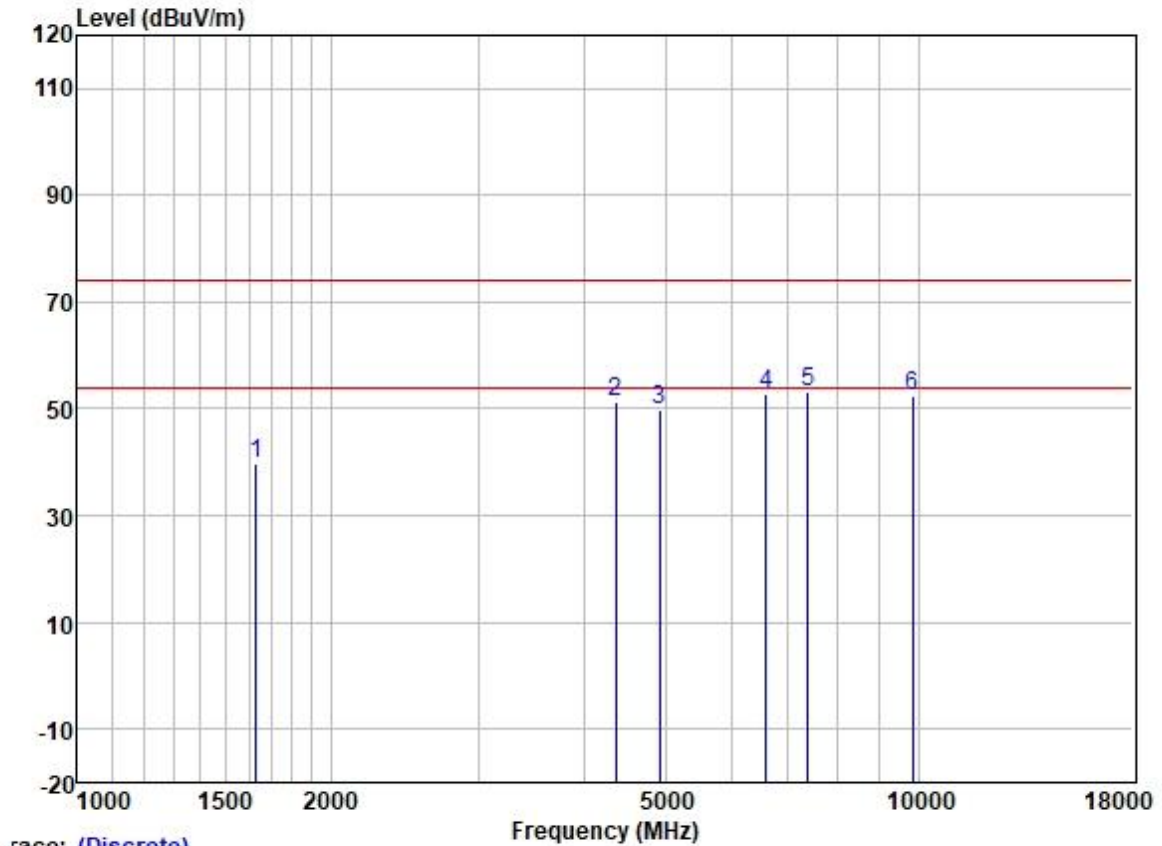
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dB		
1	1692.231	50.02	25.70	2.80	37.89	40.63	74.00	-33.37	VERTICAL
2	4417.841	52.34	30.70	4.74	36.81	50.97	74.00	-23.03	VERTICAL
3	4874.900	50.01	31.54	5.50	36.84	50.21	74.00	-23.79	VERTICAL
4	6874.906	49.53	34.82	5.82	37.16	53.01	74.00	-20.99	VERTICAL
5	7311.000	47.54	35.93	6.11	37.42	52.16	74.00	-21.84	VERTICAL
6	9748.000	44.51	38.50	7.02	37.41	52.62	74.00	-21.38	VERTICAL

Test Mode: 12; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



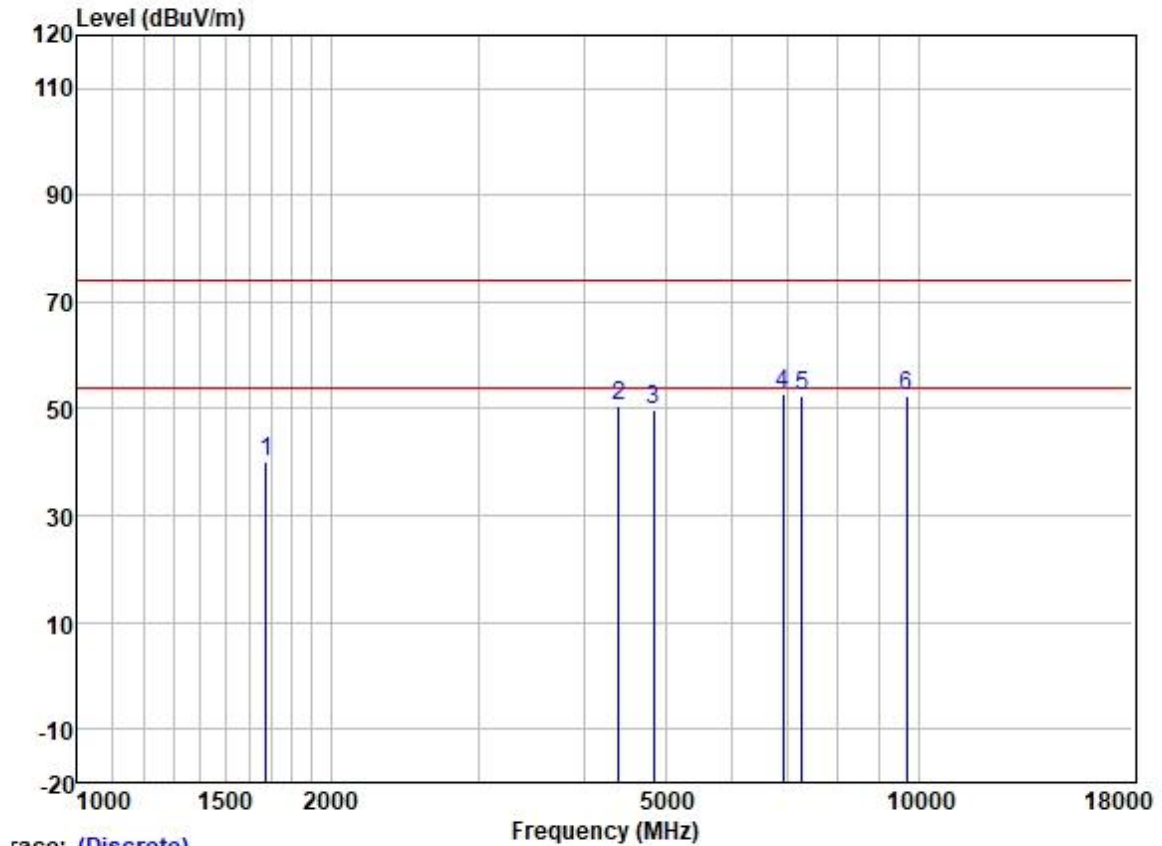
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1601.804	49.51	25.58	2.80	37.98	39.91	74.00	-34.09	HORIZONTAL	Peak
2	4181.768	52.45	30.12	4.60	36.80	50.37	74.00	-23.63	HORIZONTAL	Peak
3	4924.000	50.12	31.62	5.60	36.84	50.50	74.00	-23.50	HORIZONTAL	Peak
4	5949.811	51.14	32.36	6.05	36.90	52.65	74.00	-21.35	HORIZONTAL	Peak
5	7386.000	47.56	36.17	6.19	37.45	52.47	74.00	-21.53	HORIZONTAL	Peak
6	9848.000	44.02	38.58	6.99	37.41	52.18	74.00	-21.82	HORIZONTAL	Peak

Test Mode: 12; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



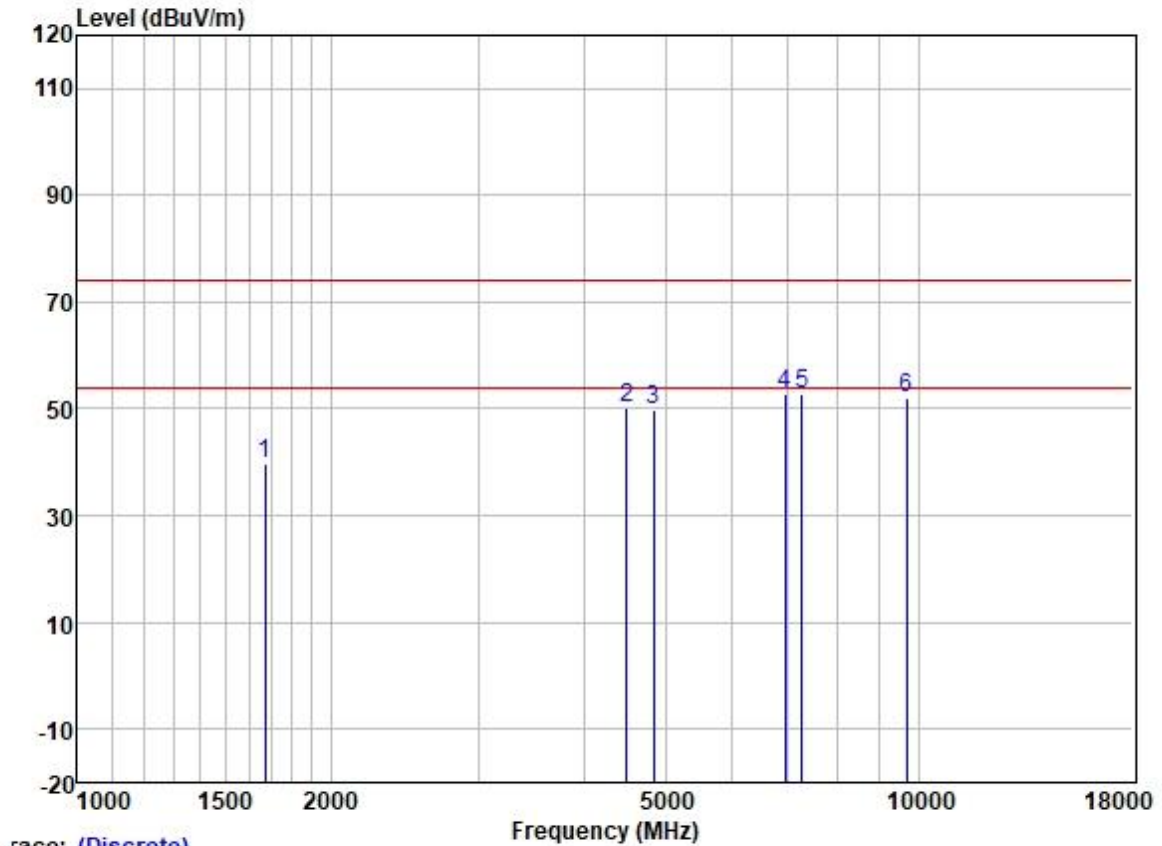
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1629.825	49.40	25.61	2.80	37.95	39.86	74.00	-34.14	VERTICAL	Peak
2	4367.058	52.78	30.62	4.68	36.81	51.27	74.00	-22.73	VERTICAL	Peak
3	4924.000	49.54	31.62	5.60	36.84	49.92	74.00	-24.08	VERTICAL	Peak
4	6583.209	49.97	34.13	5.84	37.03	52.91	74.00	-21.09	VERTICAL	Peak
5	7386.000	48.08	36.17	6.19	37.45	52.99	74.00	-21.01	VERTICAL	Peak
6	9848.000	44.37	38.58	6.99	37.41	52.53	74.00	-21.47	VERTICAL	Peak

Test Mode: 12; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



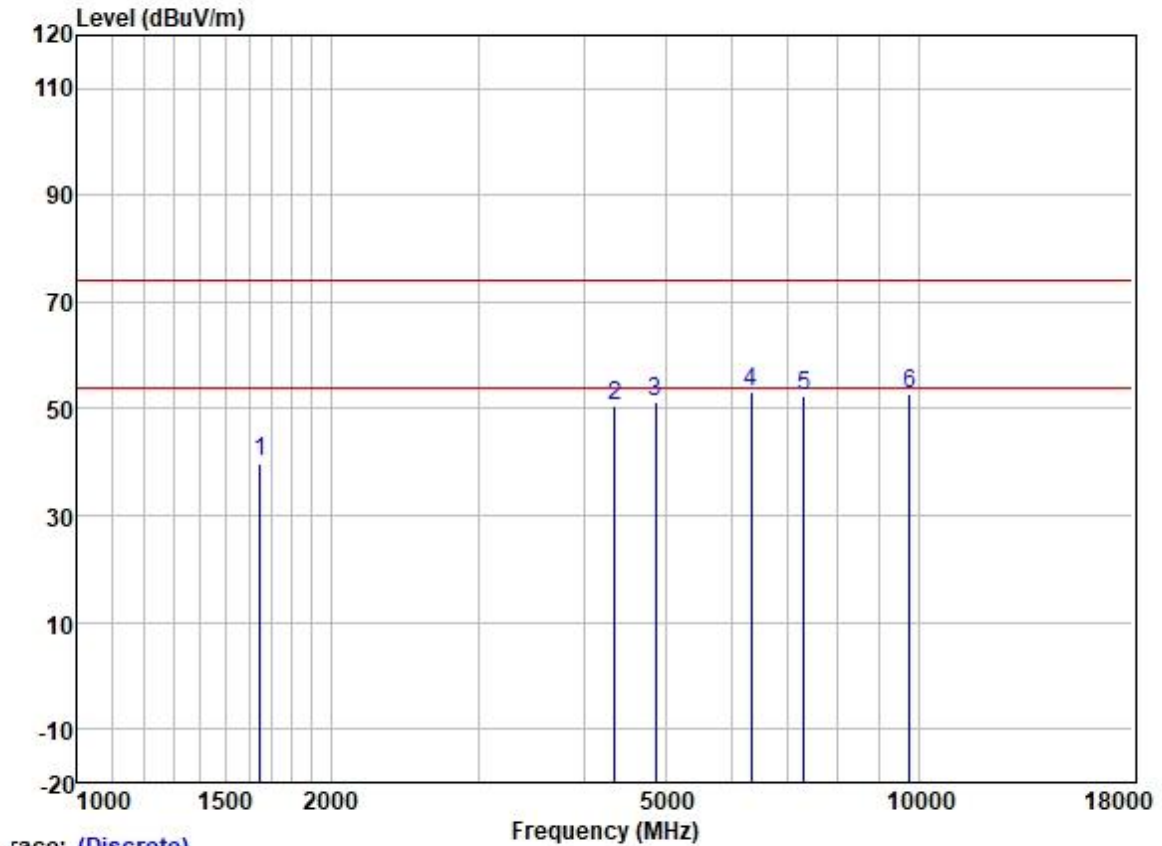
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dB		
1	1677.621	49.52	25.68	2.80	37.91	40.09	74.00	-33.91	HORIZONTAL Peak
2	4405.090	52.16	30.68	4.70	36.81	50.73	74.00	-23.27	HORIZONTAL Peak
3	4844.000	49.88	31.50	5.45	36.84	49.99	74.00	-24.01	HORIZONTAL Peak
4	6894.806	49.41	34.85	5.81	37.18	52.89	74.00	-21.11	HORIZONTAL Peak
5	7266.000	48.07	35.78	6.06	37.41	52.50	74.00	-21.50	HORIZONTAL Peak
6	9688.000	44.18	38.44	7.04	37.42	52.24	74.00	-21.76	HORIZONTAL Peak

Test Mode: 12; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



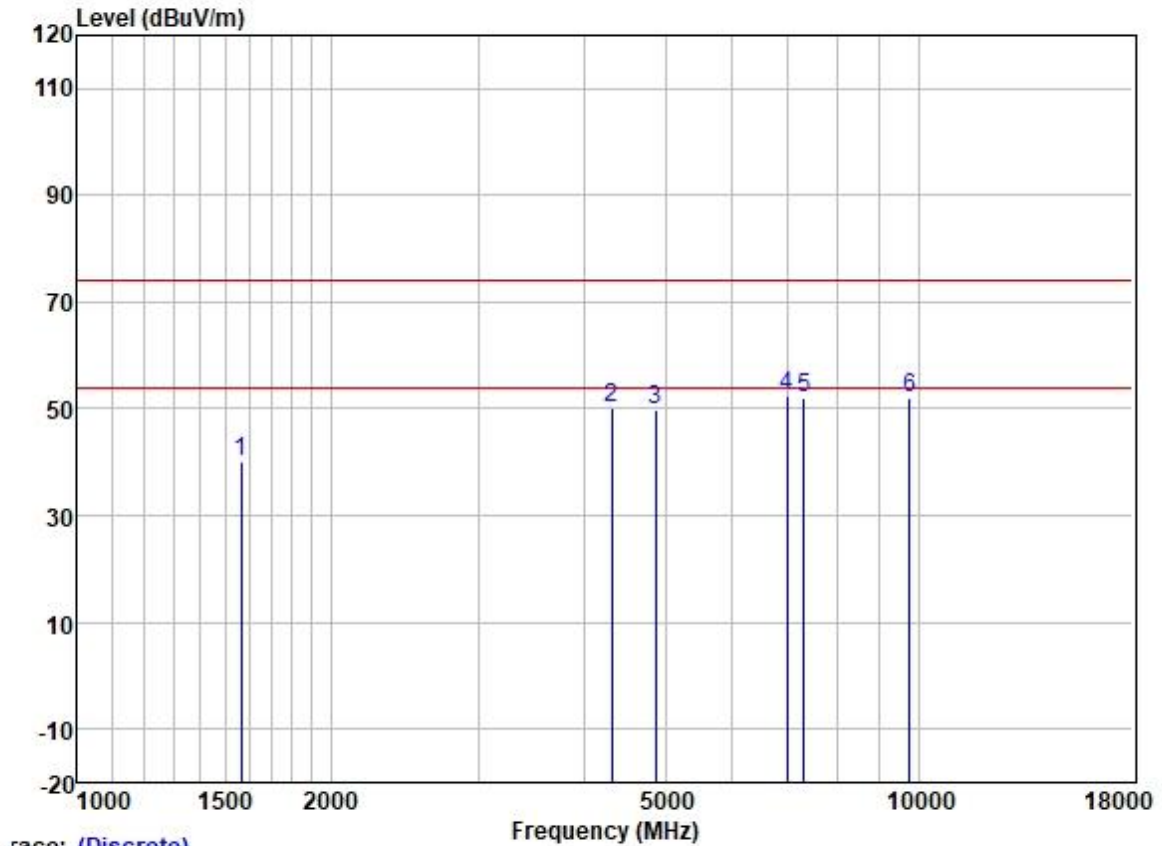
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1672.779	49.04	25.67	2.80	37.91	39.60	74.00	-34.40	VERTICAL	Peak
2	4495.125	51.25	30.80	5.05	36.82	50.28	74.00	-23.72	VERTICAL	Peak
3	4844.000	49.54	31.50	5.45	36.84	49.65	74.00	-24.35	VERTICAL	Peak
4	6934.778	49.30	34.92	5.81	37.19	52.84	74.00	-21.16	VERTICAL	Peak
5	7266.000	48.50	35.78	6.06	37.41	52.93	74.00	-21.07	VERTICAL	Peak
6	9688.000	44.09	38.44	7.04	37.42	52.15	74.00	-21.85	VERTICAL	Peak

Test Mode: 12; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:middle



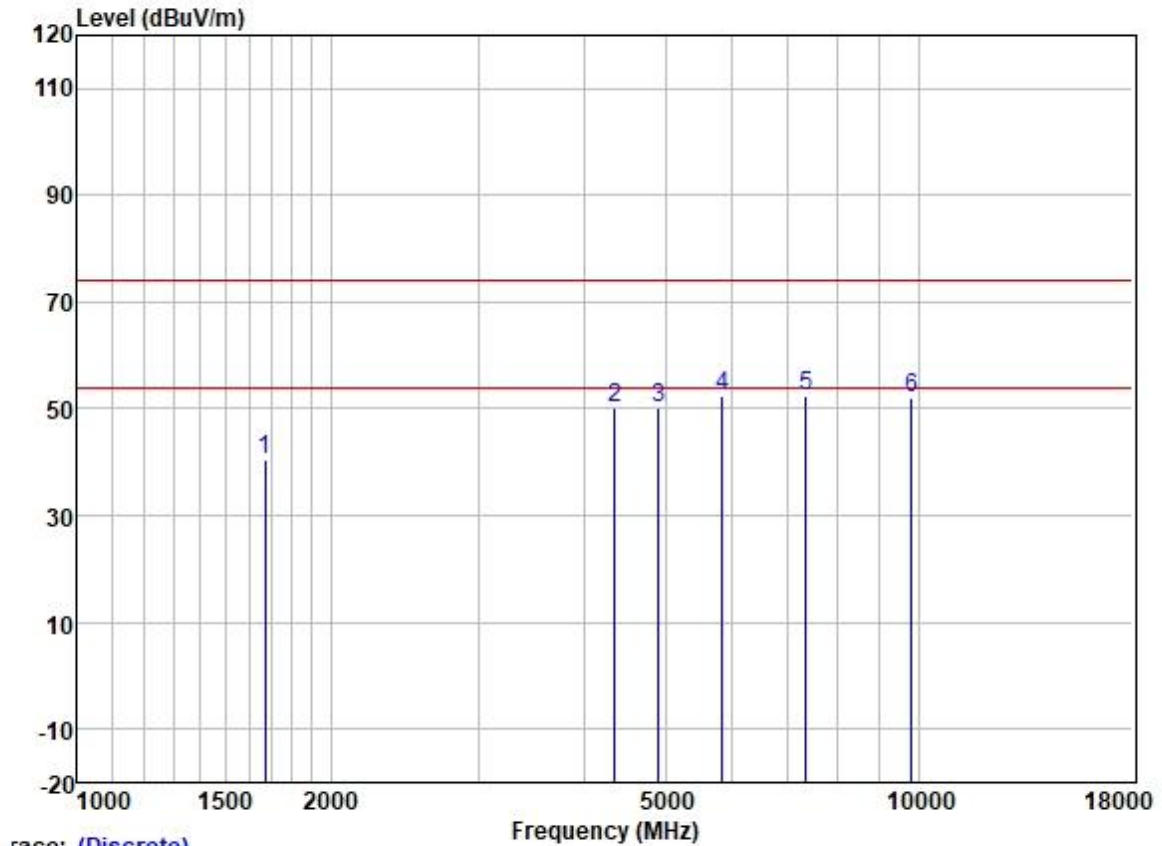
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1648.778	49.42	25.63	2.80	37.93	39.92	74.00	-34.08	HORIZONTAL	Peak
2	4354.454	52.06	30.59	4.68	36.81	50.52	74.00	-23.48	HORIZONTAL	Peak
3	4874.000	51.11	31.54	5.50	36.84	51.31	74.00	-22.69	HORIZONTAL	Peak
4	6322.136	50.50	33.51	5.95	36.97	52.99	74.00	-21.01	HORIZONTAL	Peak
5	7311.000	47.92	35.93	6.11	37.42	52.54	74.00	-21.46	HORIZONTAL	Peak
6	9748.000	44.83	38.50	7.02	37.41	52.94	74.00	-21.06	HORIZONTAL	Peak

Test Mode: 12; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:middle



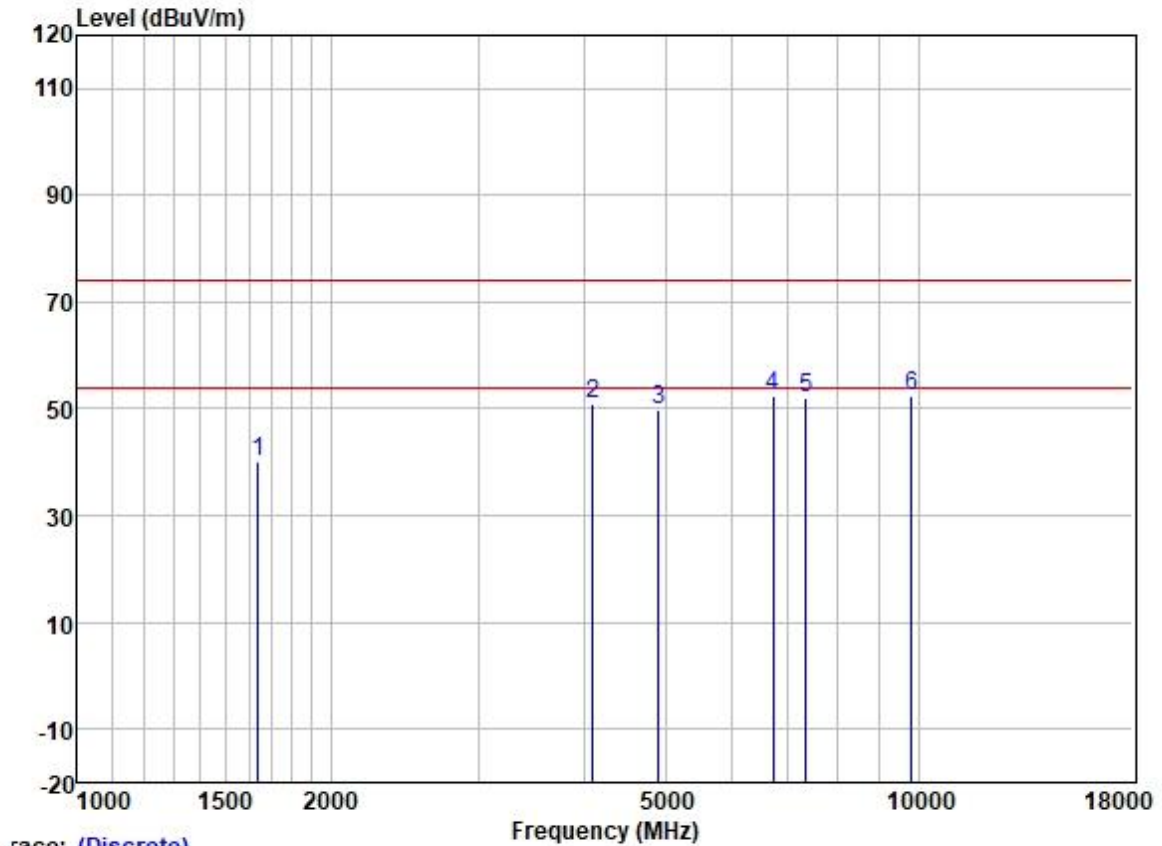
	Freq	Read	Antenna	Cable	Preamp	Limit	Over		
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1565.191	49.90	25.55	2.80	38.00	40.25	74.00	-33.75	VERTICAL Peak
2	4316.859	51.88	30.51	4.66	36.81	50.24	74.00	-23.76	VERTICAL Peak
3	4874.000	49.75	31.54	5.50	36.84	49.95	74.00	-24.05	VERTICAL Peak
4	6974.982	48.80	34.97	5.81	37.23	52.35	74.00	-21.65	VERTICAL Peak
5	7311.000	47.49	35.93	6.11	37.42	52.11	74.00	-21.89	VERTICAL Peak
6	9748.000	43.93	38.50	7.02	37.41	52.04	74.00	-21.96	VERTICAL Peak

Test Mode: 12; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1672.779	49.90	25.67	2.80	37.91	40.46	74.00	-33.54	HORIZONTAL	Peak
2	4354.454	51.85	30.59	4.68	36.81	50.31	74.00	-23.69	HORIZONTAL	Peak
3	4904.000	49.76	31.58	5.55	36.84	50.05	74.00	-23.95	HORIZONTAL	Peak
4	5847.517	51.08	32.25	6.00	36.90	52.43	74.00	-21.57	HORIZONTAL	Peak
5	7356.000	47.61	36.06	6.15	37.44	52.38	74.00	-21.62	HORIZONTAL	Peak
6	9808.000	44.01	38.56	7.00	37.41	52.16	74.00	-21.84	HORIZONTAL	Peak

Test Mode: 12; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1639.274	49.51	25.62	2.80	37.93	40.00	74.00	-34.00	VERTICAL	Peak
2	4098.010	53.02	29.94	4.60	36.80	50.76	74.00	-23.24	VERTICAL	Peak
3	4904.000	49.38	31.58	5.55	36.84	49.67	74.00	-24.33	VERTICAL	Peak
4	6717.762	49.26	34.44	5.83	37.09	52.44	74.00	-21.56	VERTICAL	Peak
5	7356.000	47.39	36.06	6.15	37.44	52.16	74.00	-21.84	VERTICAL	Peak
6	9808.000	44.09	38.56	7.00	37.41	52.24	74.00	-21.76	VERTICAL	Peak

8 Test Setup Photo

Refer to Appendix - Test Setup Photo for GZCR2201000133AT

9 EUT Constructional Details (EUT Photos)

Refer to External and Internal Photos for GZCR2201000133AT

- End of the Report -