



FCC RADIO TEST REPORT

Applicant : Nonet Inc.

Address : 3 F., No. 59-1, Sec. 1, Xinsheng N. Rd., Zhongshan
Dist., Taipei City 10457, Taiwan (R.O.C.)

Equipment : Tenon Control Box

Model No. : TNCT01

Trade Name : beflo

FCC ID : 2A8FY-BEFLO-ATN

I HEREBY CERTIFY THAT :

The sample was received on Aug. 01, 2022 and the testing was completed on Aug. 25, 2022 at Cerpass Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of Cerpass Technology Corp., the test report shall not be reproduced except in full.

Approved by:

Mark Liao / Supervisor

Laboratory Accreditation:

Cerpass Technology Corporation Test Laboratory





Contents

1. Summary of Test Procedure and Test Results	5
1.1 Applicable Standards	5
2. Test Configuration of Equipment under Test.....	6
2.1 Feature of Equipment under Test.....	6
2.2 Carrier Frequency of Channels.....	7
2.3 Test Mode and Test Software.....	8
2.4 Description of Test System.....	10
2.5 General Information of Test.....	11
2.6 Measurement Uncertainty	12
3. Test Equipment and Ancillaries Used for Tests.....	13
4. Antenna Requirements.....	15
4.1 Standard Applicable	15
4.2 Antenna Construction and Directional Gain.....	15
5. Test of AC Power Line Conducted Emission	16
5.1 Test Limit	16
5.2 Test Procedures	16
5.3 Typical Test Setup	17
5.4 Test Result and Data.....	18
5.5 Test Photographs	20
6. Test of Radiated Spurious Emission.....	21
6.1 Test Limit	21
6.2 Test Procedures	22
6.3 Typical Test Setup	23
6.4 Test Result and Data (9KHz ~ 30MHz)	24
6.5 Test Result and Data (30MHz ~ 1GHz)	24
6.6 Test Result and Data (1GHz ~ 25GHz).....	26
6.7 Restricted Bands of Operation	44
6.8 Test Photographs (30MHz ~ 1GHz)	45
6.9 Test Photographs (1GHz ~ 25GHz)	46
7. Test of Conducted Spurious Emission	48
7.1 Test Limit	48
7.2 Test Procedure	48
7.3 Test Setup Layout	48
7.4 Test Result and Data.....	48
8. On Time, Duty Cycle and Measurement methods	55
8.1 Test Limit	55
8.2 Test Procedure	55
8.3 Test Setup Layout	55
8.4 Test Result and Data.....	55
9. 6dB Bandwidth Measurement Data.....	57
9.1 Test Limit	57
9.2 Test Procedures	57



9.3	Test Setup Layout	57
9.4	Test Result and Data.....	58
10.	Maximum Average Output Power.....	61
10.1	Test Limit	61
10.2	Test Procedures	61
10.3	Test Setup Layout	61
10.4	Test Result and Data.....	62
11.	Power Spectral Density	63
11.1	Test Limit	63
11.2	Test Procedures	63
11.3	Test Setup Layout	63
11.4	Test Result and Data.....	64
12.	Radio Frequency Exposure	67
12.1	Applicable Standards	67
12.2	EUT Specification.....	68
12.3	Result	68



History of this test report

Report No.	Issued Date	Description
22080005-TRFCC02	Sep. 22, 2022	Original



1. Summary of Test Procedure and Test Results

1.1 Applicable Standards

ANSI C63.10:2013

FCC Rules and Regulations Part 15 Subpart C §15.247

FCC Rule	Description of Test	Result
15.203	. Antenna Requirement	PASS
15.207	. AC Power Line Conducted Emission	PASS
15.209 15.205	. Radiated Spurious Emission	PASS
15.247(d)	. Conducted Spurious Emission	PASS
15.247(a)(2)	. 6dB Bandwidth	PASS
15.247(b)	. Output Power	PASS
15.247(e)	. Power Spectral Density	PASS
2.1091	. Radio Frequency Exposure	PASS

*The lab has reduced the uncertainty risk factor from test equipment, environment and staff technicians which according to the standard on contract. Therefore, the test result will only be determined by standard requirement.



2. Test Configuration of Equipment under Test

2.1 Feature of Equipment under Test

Operation Frequency Range	BLE: 2400-2483.5MHz 802.11b/g/n(TurboQAM)/ax: 2400-2483.5MHz 802.11a/n/ac/ax: 5150-5250MHz, 5250-5350MHz, 5470-5725MHz, 5725-5850MHz
Center Frequency Range	BLE: 2402MHz-2480MHz 802.11b/g/n(TurboQAM)/ax: 2412MHz-2462MHz 802.11a/n/ac/ax: 5180-5240MHz, 5260-5320MHz, 5500-5700MHz, 5745-5825MHz
Modulation Type	BLE: GFSK WLAN: 2.4GHz: 802.11b: CCK, DQPSK, DBPSK 802.11g/n: BPSK, QPSK, 16QAM, 64QAM, 256QAM(TurboQAM) 802.11ax: BPSK, QPSK, 16QAM, 64QAM, 256QAM 5GHz: 802.11a/n: BPSK, QPSK, 16QAM, 64QAM 802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM 802.11ax: BPSK, QPSK, 16QAM, 64QAM, 256QAM
Modulation Technology	DSSS, OFDM, DTS, OFDMA
Data Rate	BLE: GFSK: 1Mbps ,2Mbps ,125Kbps ,500Kbps WLAN: 2.4GHz: 802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS7, HT20 MCS0 – MCS8, VHT20(TurboQAM) 802.11ax: MCS0 – MCS8, HE20 5GHz: 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS7, HT20 802.11ac: MCS0 – MCS8, VHT20 802.11ax: MCS0 – MCS8, HE20
Antenna Type	Patch Antenna
Antenna Gain	For BLE: 2400-2500MHz: 2.935dBi For WLAN: 2400-2500MHz: 2.935dBi 5150-5250MHz: 6.199dBi 5250-5350MHz: 6.326dBi 5470-5725MHz: 6.050dBi 5725-5850MHz: 6.243dBi
Adapter	Brand: SAGE Model: SK06T-1200500W2
Firmware Number	0.0.0.1
Serial Number	8c1f642a5018

- Note:
1. EUT supports DFS Client Mode, without radar detection.
 2. EUT support TPC.
 3. For more details, please refer to the User's manual of the EUT.



2.2 Carrier Frequency of Channels

802.11b, 802.11g, 802.11n HT20, VHT20, 802.11ax HE20 (2412MHz-2462MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	*11	2462
*06	2437	---	---

Note: Channels remarked * are selected to perform test.



2.3 Test Mode and Test Software

- a. During testing, the interface cables and equipment positions were varied according to ANSI C63.10.
- b. The complete test system included remote workstation and EUT for RF test. The remote workstation included Notebook.
- c. An executive program, "wifitest command" under Windows OS system was executed to transmit and receive data via WLAN.
- d. The following test modes were performed for the test:

Conducted Emissions from the AC mains power ports	
Test Mode	Operating Description
1	802.11b (1Mbps) , From Adapter (120V/60Hz)
2	802.11b (1Mbps) , From Adapter (240V/60Hz)
3	802.11g (6Mbps) , From Adapter (120V/60Hz)
4	802.11g (6Mbps) , From Adapter (240V/60Hz)
5	802.11n HT20 (6.5Mbps) , From Adapter (120V/60Hz)
6	802.11n HT20 (6.5Mbps) , From Adapter (240V/60Hz)
7	802.11ax HE20 (13.5Mbps) , From Adapter (120V/60Hz)
8	802.11ax HE20 (13.5Mbps) , From Adapter (240V/60Hz)

caused "Test Mode 1" generated the worst case, it was reported as the final data.

Radiation Emissions (Below 1GHz)	
Test Mode	Operating Description
1	802.11b (1Mbps) , From Adapter (120V/60Hz)
2	802.11b (1Mbps) , From Adapter (240V/60Hz)
3	802.11g (6Mbps) , From Adapter (120V/60Hz)
4	802.11g (6Mbps) , From Adapter (240V/60Hz)
5	802.11n HT20 (6.5Mbps) , From Adapter (120V/60Hz)
6	802.11n HT20 (6.5Mbps) , From Adapter (240V/60Hz)
7	802.11ax HE20 (13.5Mbps) , From Adapter (120V/60Hz)
8	802.11ax HE20 (13.5Mbps) , From Adapter (240V/60Hz)

caused "Test Mode 1" generated the worst case, it was reported as the final data.

Radiation Emissions (1GHz ~ 25GHz)	
Test Mode	Operating Description
1	802.11b (1Mbps), Power from Adapter
2	802.11g (6Mbps), Power from Adapter
3	802.11n HT20 (6.5Mbps), Power from Adapter
4	802.11ax HE20 (13.5Mbps), Power from Adapter

caused "Test Mode 1,2,4" generated the worst case, they were reported as the final data.



Modulation Type	TX CONFIGURATION
802.11b	1TX
802.11g	1TX
802.11n HT20	1TX
802.11ax HE20	1TX



2.4 Description of Test System

RF Conducted				
Equipment	Brand	Model	Length/Type	Power cord/Length/Type
Notebook	lenovo	S1GL2W	N/A	N/A
testfixture	Mercury Electronics TECH.	MCS-73LV	N/A	N/A
USB Cable (A to B)	iMAX	BUSB3100AMA	1.5m / NS	N/A

Radiated Emissions				
Equipment	Brand	Model	Length/Type	Power cord/Length/Type
Notebook	ASUS	P2430U	N/A	Adapter / 1.8m / NS
testfixture	Mercury Electronics TECH.	MCS-73LV	N/A	N/A
USB Cable (A to B)	iMAX	BUSB3100AMA	1.5m / NS	N/A

AC Power Line Conducted Emission				
Equipment	Brand	Model	Length/Type	Power cord/Length/Type
Notebook	ASUS	P2430U	N/A	Adapter / 1.8m / NS
testfixture	Mercury Electronics TECH.	MCS-73LV	N/A	N/A
USB Cable (A to B)	iMAX	BUSB3100AMA	1.5m / NS	N/A



2.5 General Information of Test

Test Site	Cerpass Technology Corporation Test Laboratory Address: No.10, Ln. 2, Lianfu St., Luzhu Dist., Taoyuan City 33848, Taiwan (R.O.C.) Tel:+886-3-3226-888 Fax:+886-3-3226-881				
	FCC	TW1439, TW1079			
	IC	4934E-1, 4934E-2			
	VCCI	T-2205 for Telecommunication test C-4663 for Conducted emission test R-4218 for Radiated emission test G-10812, G-10813 for radiated disturbance above 1GHz			
Frequency Range Investigated:	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 25,000MHz				
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.				

Test Item	Test Site	Test period	Environmental Conditions	Tested By
RF Conducted	RFCON01-NK	2022/8/15~2022/08/23	24.8~27.4°C / 45~50%	Leon Huang
Radiated Emissions	3M03-NK	2022/08/18~2022/08/23	21~22°C / 43~44%	Dian Chen
AC Power Line Conducted Emission	CON01-NK	2022/08/25	24°C / 48%	Dian Chen



2.6 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Measurement Item	Uncertainty
AC Power Line Conduction(150K~30MHz)	±3.12dB
Radiated Spurious Emission(9KHz~30MHz)	±3.4dB
Radiated Spurious Emission(30MHz~1GHz)	±5.7dB
Radiated Spurious Emission(1GHz~25GHz)	±6.8dB
Conducted Spurious Emission	±1.8dB
6dB Bandwidth	±4.4%
20dB Bandwidth	±4.4%
Occupied Bandwidth	±4.4%
Peak Output Power(Conducted Power Meter)	±1.1dB
Dwell Time / Deactivation Time	±1.2%
Power Spectral Density	±1.8dB
Duty Cycle	±1.2%



3. Test Equipment and Ancillaries Used for Tests

Test Item	Radiated Emissions				
Test Site	Semi Anechoic Room(3M03-NK)				
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
Bilog Antenna	Sunol	JB1	A051717	2022/7/22	2023/7/21
Active Loop Antenna	EMCO	6507	40855	2022/5/25	2023/5/24
Horn Antenna	EMCO	3115	31589	2022/04/08	2023/04/07
Horn Antenna	EMCO	3116	31974	2021/10/4	2022/10/3
EMI Receiver	ROHDE & SCHWARZ	ESCI	100821	2021/9/17	2022/9/16
Spectrum Analyzer	ROHDE & SCHWARZ	FSP 40	100219	2022/8/16	2023/8/15
Preamplifier	Agilent	8449B	3008A01954	2022/03/17	2023/03/16
Preamplifier	EMC INSTRUMENTS	EMC184045	980065	2021/11/16	2022/11/15
Preamplifier	EM Electronics corp.	EM01M06G	60686	2021/10/28	2022/10/27
Cable-6m(9k~300M)	NA	EMC5D-BM-BM-6	130606	2022/3/21	2023/3/20
Cable-10m(30M-1G)	HUBER SUHNER	RG-214	01126M	2022/4/22	2023/4/21
Cable-1.5m(30M-1G)	HUBER SUHNER	RG-214	00420M	2022/6/21	2023/6/20
Cable-1m(30M-1G)	HUBER SUHNER	RG-214	01099M	2022/4/22	2023/4/21
Cable-6m(1G-26.5G)	HUBER SUHNER	SUCOFLEX 102	28417/2	2022/3/17	2023/3/16
Cable-0.5m(1G-18G)	EMEC	EM104-SMSM-0.5M	CCE1354	2022/5/26	2023/5/25
Cable-3m(1G-18G)	EMEC	EM104-SMSM-3M	CCE1355	2022/5/26	2023/5/25
Cable-0.5m(1G-40G)	HUBER SUHNER	SUCOFLEX 102	MY4569/2	2021/9/3	2022/9/2
Cable-1m(1G-40G)	HUBER SUHNER	SUCOFLEX 102	MY5739/2	2021/9/3	2022/9/2
Cable-6m(1G-40G)	HUBER SUHNER	SUCOFLEX 102	MY5740/2	2021/9/3	2022/9/2
E3	AUDIX	v8.2014-8-6	RK-000529	NA	NA

Test Item	RF Conducted				
Test Site	RFCON01-NK				
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
Spectrum Analyzer	ROHDE & SCHWARZ	FSP 40	100047	2022/03/04	2023/03/03
Attenuator	KEYSIGHT	8491B	MY39250703	2022/04/12	2023/04/11
Cable-0.5m(1G-26.5G)	HUBER SUHNER	SUCOFLEX 102	28422/2	2022/04/09	2023/04/08
Power Meter	Anritsu	ML2495A	1224005	2022/04/12	2023/04/11
Power Sensor	Anritsu	MA2411B	1207295	2022/04/12	2023/04/11
Switch Box	Theda	1-4	TW5451159	NA	NA



Test Item	AC Power Line Conducted Emission				
Test Site	CON01-NK				
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
EMI Receiver	ROHDE & SCHWARZ	ESCI	100821	2021/11/15	2022/11/14
Line Impedance Stabilization Network	Schwarzbeck	NSLK 8127	8127-516	2021/10/05	2022/10/04
Pulse Limiter	ROHDE & SCHWARZ	ESH3-Z2	101934	2022/03/21	2023/03/20
Cable-6m(9k~300M)	NA	EMC5D-BM-BM-6	130606	2022/03/21	2023/03/20
E3	AUDIX	v8.2014-8-6	RK-000531	NA	NA



4. Antenna Requirements

4.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.2 Antenna Construction and Directional Gain

Antenna Type	Patch Antenna
Antenna Gain	2400-2500MHz:2.935dBi



5. Test of AC Power Line Conducted Emission

5.1 Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz, according to the methods defined in ANSI C63.10-2013. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

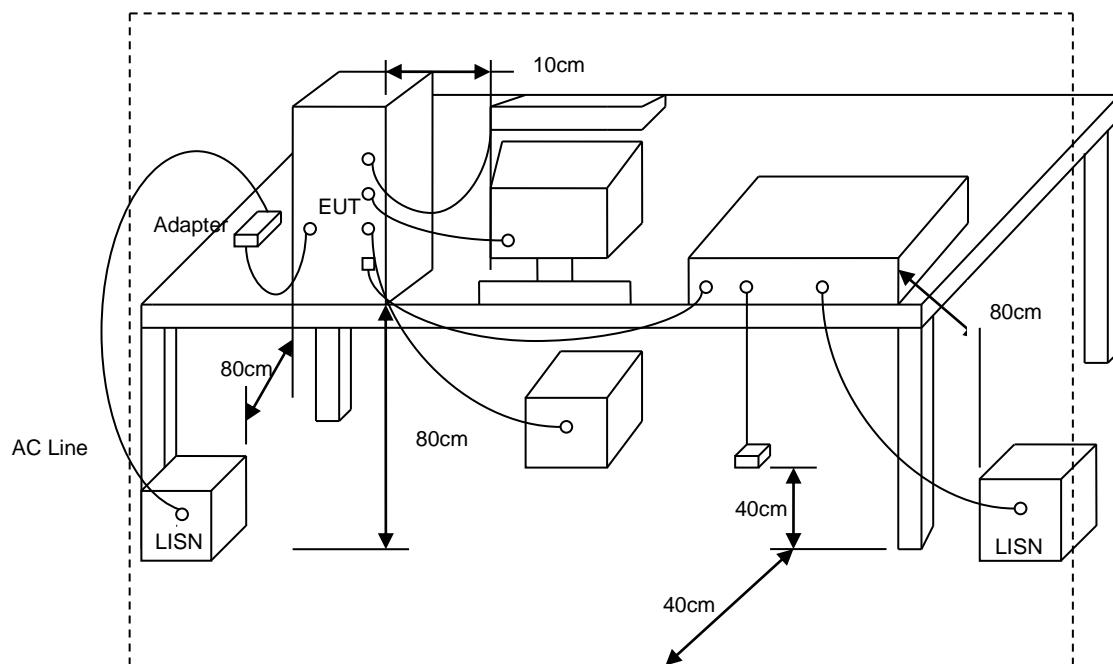
*Decreases with the logarithm of the frequency.

5.2 Test Procedures

- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- c. All the support units are connecting to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



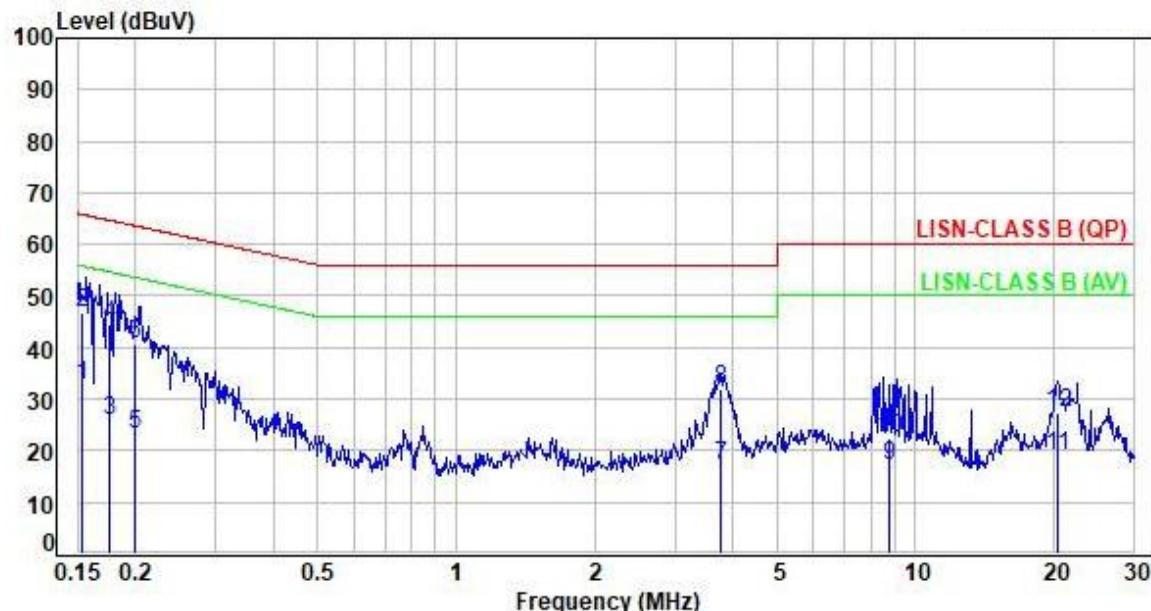
5.3 Typical Test Setup





5.4 Test Result and Data

Power :	AC 120V / 60Hz	Pol/Phase :	LINE
Test Mode :	Mode 1		



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.15	9.92	22.95	32.87	55.82	-22.95	Average	P
2	0.15	9.92	36.99	46.91	65.82	-18.91	QP	P
3	0.18	9.91	16.03	25.94	54.65	-28.71	Average	P
4	0.18	9.91	34.40	44.31	64.65	-20.34	QP	P
5	0.20	9.91	13.19	23.10	53.62	-30.52	Average	P
6	0.20	9.91	30.79	40.70	63.62	-22.92	QP	P
7	3.77	9.93	7.27	17.20	46.00	-28.80	Average	P
8	3.77	9.93	22.17	32.10	56.00	-23.90	QP	P
9	8.76	10.03	7.01	17.04	50.00	-32.96	Average	P
10	8.76	10.03	12.29	22.32	60.00	-37.68	QP	P
11	20.42	10.20	8.81	19.01	50.00	-30.99	Average	P
12	20.42	10.20	17.10	27.30	60.00	-32.70	QP	P

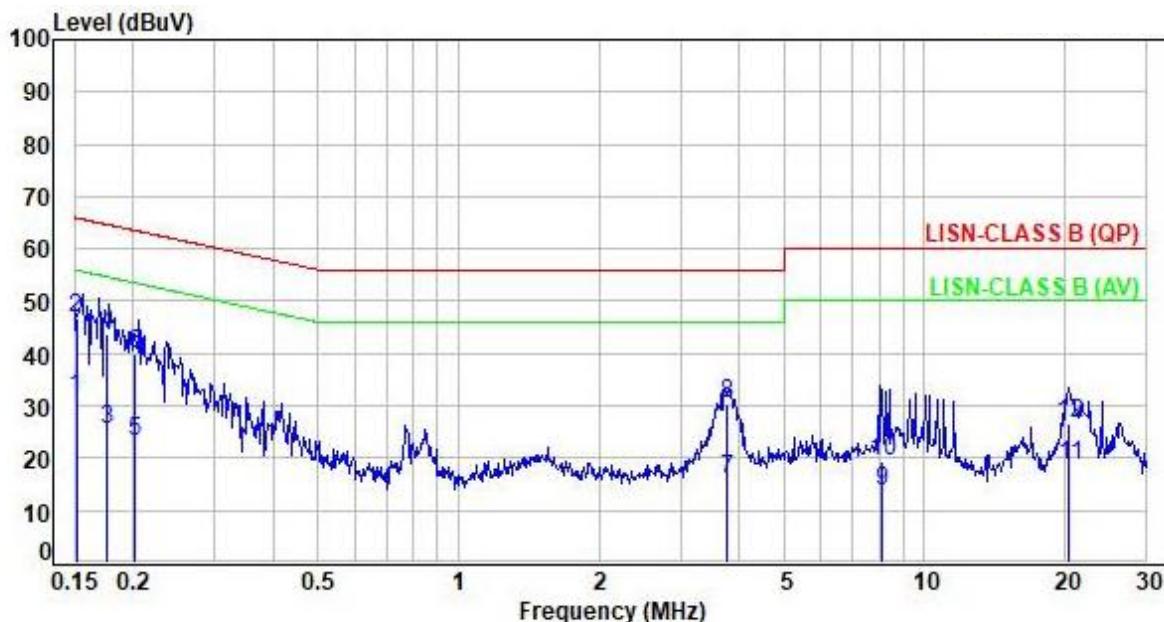
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=(LISN or ISN or Current Probe)Factor + Cable Loss



Power	:	AC 120V / 60Hz	Pol/Phase	:	NEUTRAL
Test Mode	:	Mode 1		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.15	9.90	21.69	31.59	55.94	-24.35	Average	P
2	0.15	9.90	36.75	46.65	65.94	-19.29	QP	P
3	0.18	9.89	15.65	25.54	54.70	-29.16	Average	P
4	0.18	9.89	33.94	43.83	64.70	-20.87	QP	P
5	0.20	9.89	13.37	23.26	53.52	-30.26	Average	P
6	0.20	9.89	30.01	39.90	63.52	-23.62	QP	P
7	3.77	9.85	6.11	15.96	46.00	-30.04	Average	P
8	3.77	9.85	20.65	30.50	56.00	-25.50	QP	P
9	8.11	9.90	3.92	13.82	50.00	-36.18	Average	P
10	8.11	9.90	9.38	19.28	60.00	-40.72	QP	P
11	20.51	10.09	8.67	18.76	50.00	-31.24	Average	P
12	20.51	10.09	16.52	26.61	60.00	-33.39	QP	P

Note: Level=Reading+Factor

Margin=Level-Limit

Factor=(LISN or ISN or Current Probe)Factor + Cable Loss



6. Test of Radiated Spurious Emission

6.1 Test Limit

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. If the transmitter measurement is based on the maximum conducted output power, the attenuation required under this paragraph shall be 30dB instead of 20dB. In addition, radiated emissions which fall in section 15.205(a) the restricted bands must also comply with the radiated emission limit specified in section 15.209(a).

Frequency (MHz)	Field Strength (microvolt/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



6.2 Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- i. "Cone of radiation" has been considered to be 3dB bandwidth of the measurement antenna.

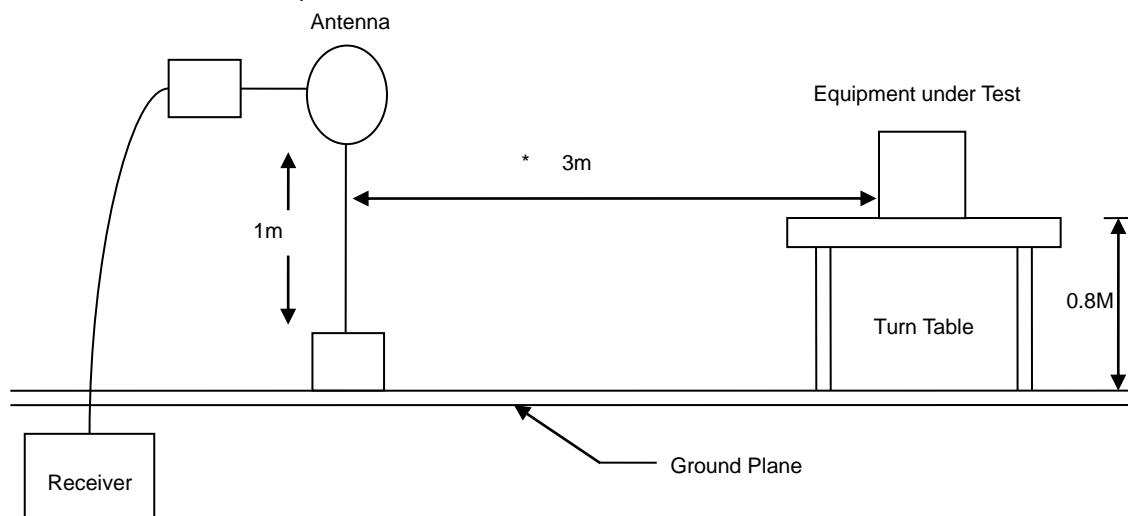
Note:

- 1.The supporting fixture shall permit orientation of the EUT in each of three orthogonal axis positions such that emissions from the EUT are maximized.
(Z-AXIS is the worst.)
- 2.Due to the test software function limit the operation band setting(200dBuV/m).
There's no corresponding limitation in the actual test item.

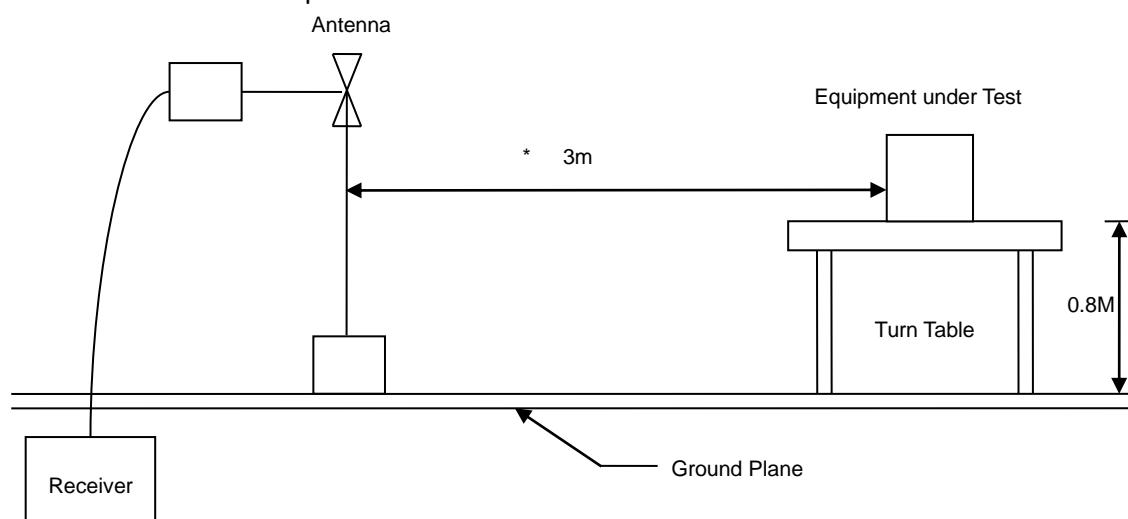


6.3 Typical Test Setup

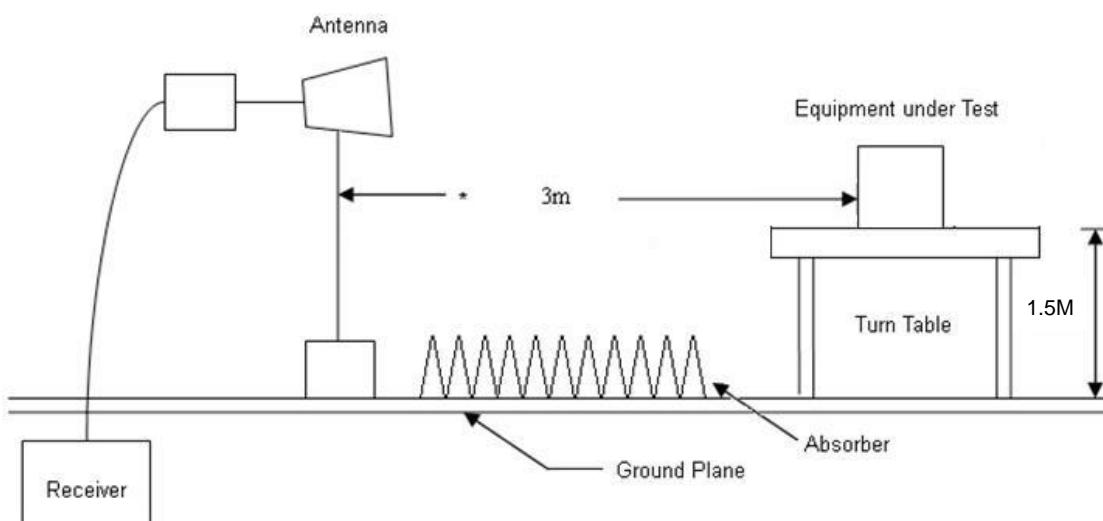
Below 30MHz test setup



30MHz- 1GHz Test Setup



Above 1GHz Test Setup



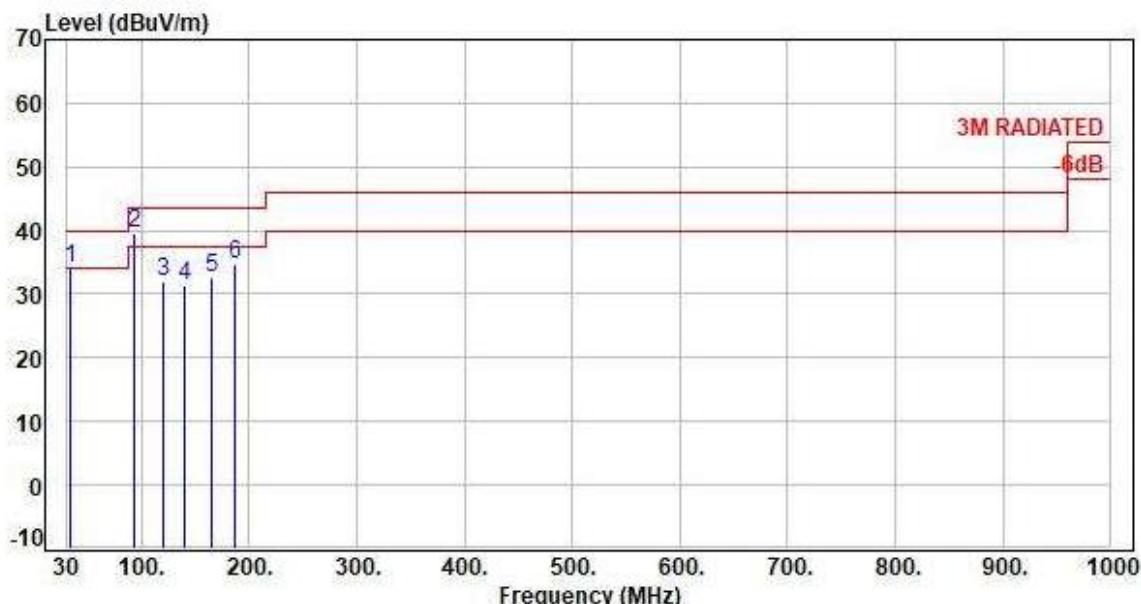


6.4 Test Result and Data (9KHz ~ 30MHz)

The 9kHz - 30MHz spurious emission is under limit 20dB more.

6.5 Test Result and Data (30MHz ~ 1GHz)

Power :	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode :	Mode 1	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	33.88	-9.95	44.16	34.21	40.00	-5.79	Peak	400	0	P
2	93.05	-20.45	59.99	39.54	43.50	-3.96	Peak	400	0	P
3	120.21	-14.64	46.58	31.94	43.50	-11.56	Peak	400	0	P
4	139.61	-15.08	46.56	31.48	43.50	-12.02	Peak	400	0	P
5	164.83	-15.97	48.48	32.51	43.50	-10.99	Peak	400	0	P
6	186.17	-16.95	51.64	34.69	43.50	-8.81	Peak	400	0	P

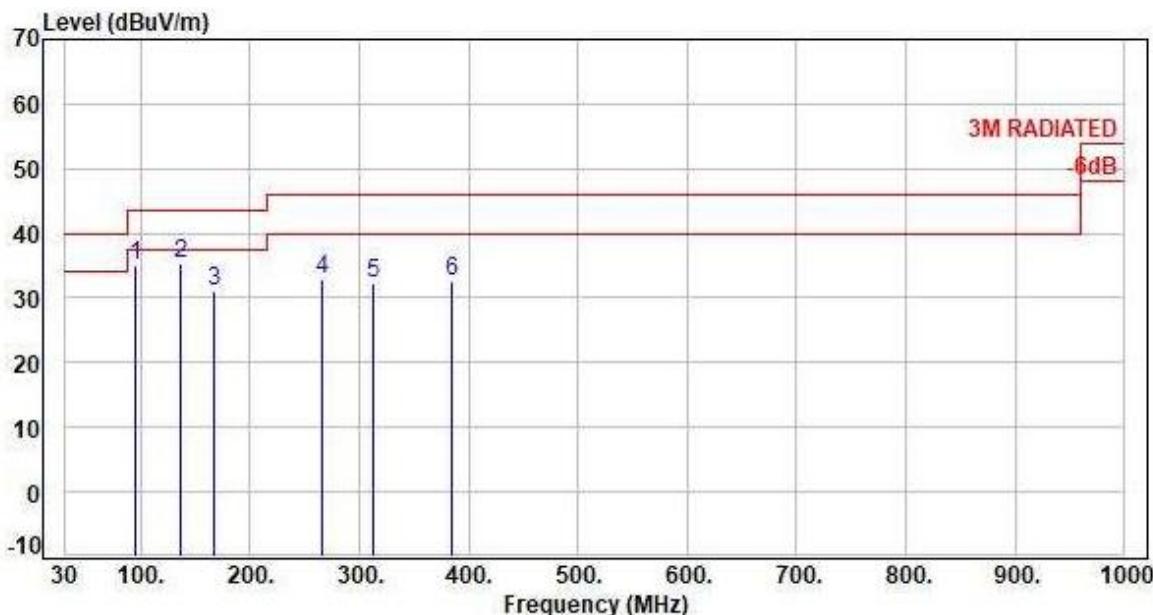
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode :	Mode 1	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	95.96	-19.66	54.57	34.91	43.50	-8.59	Peak	400	0	P
2	136.70	-14.87	50.30	35.43	43.50	-8.07	Peak	400	0	P
3	167.74	-16.07	47.19	31.12	43.50	-12.38	Peak	400	0	P
4	265.71	-14.49	47.36	32.87	46.00	-13.13	Peak	400	0	P
5	312.27	-13.44	45.66	32.22	46.00	-13.78	Peak	400	0	P
6	384.05	-11.70	44.37	32.67	46.00	-13.33	Peak	400	0	P

Note: Level=Reading+Factor

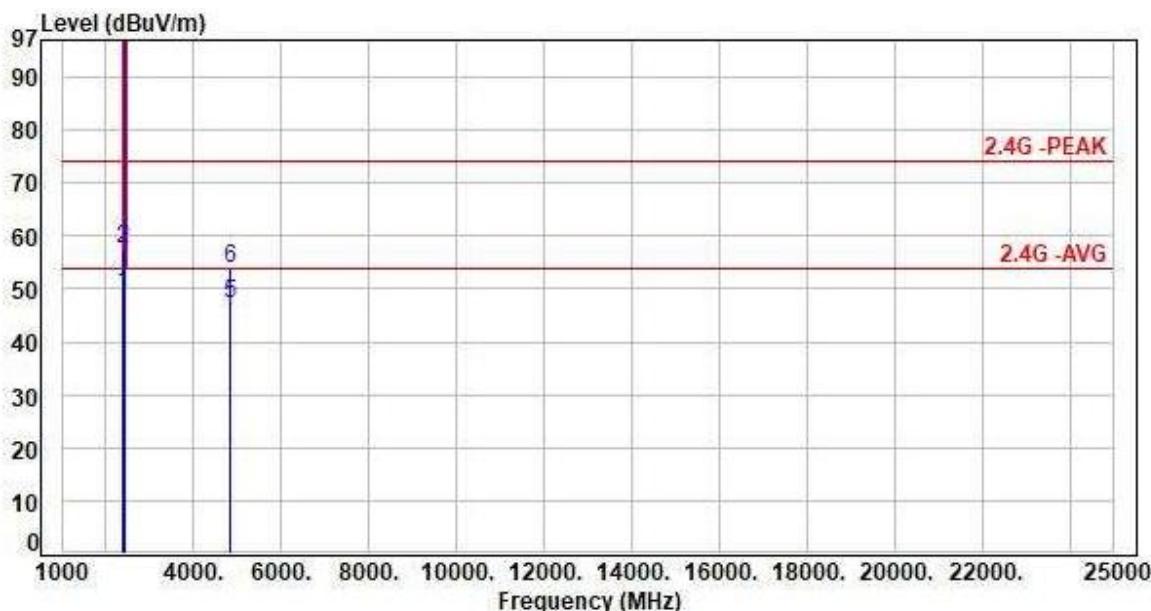
Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



6.6 Test Result and Data (1GHz ~ 25GHz)

Power :	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode :	Mode 1, CH01		



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-1.38	50.49	49.11	54.00	-4.89	Average	100	35	P
2	2390.00	-1.38	58.87	57.49	74.00	-16.51	Peak	100	35	P
3	2412.00	-1.29	110.02	108.73	200.00	-91.27	Average	100	35	P
4	2412.00	-1.29	112.79	111.50	200.00	-88.50	Peak	100	35	P
5	4824.00	7.04	39.99	47.03	54.00	-6.97	Average	100	64	P
6	4824.00	7.04	46.82	53.86	74.00	-20.14	Peak	100	64	P

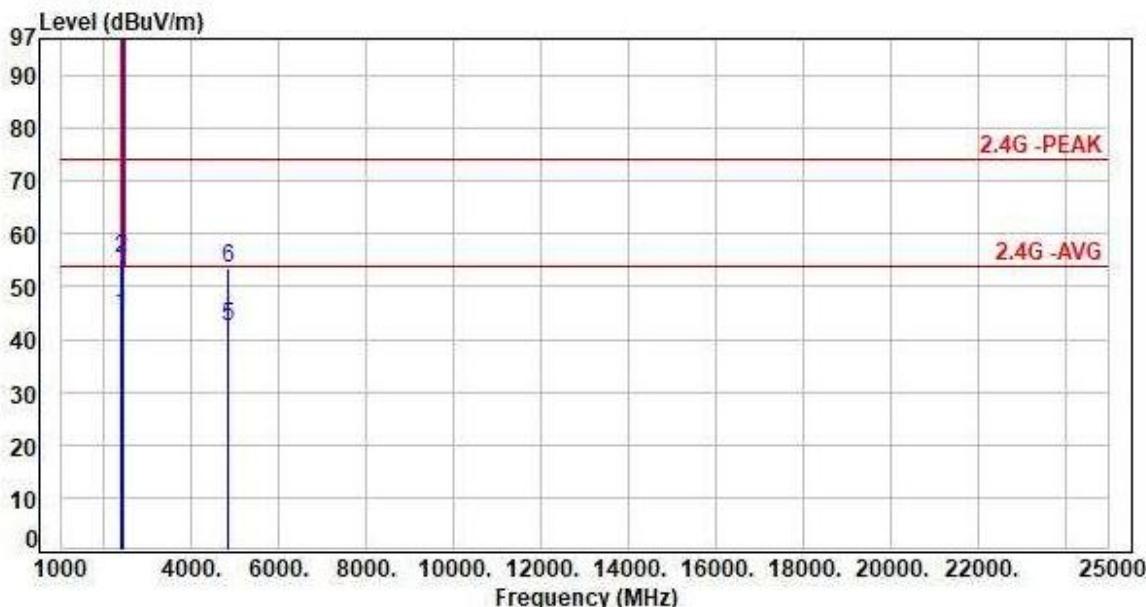
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode :	Mode 1, CH01		



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-1.38	45.99	44.61	54.00	-9.39	Average	139	52	P
2	2390.00	-1.38	56.79	55.41	74.00	-18.59	Peak	139	52	P
3	2412.00	-1.29	104.50	103.21	200.00	-96.79	Average	139	52	P
4	2412.00	-1.29	106.97	105.68	200.00	-94.32	Peak	139	52	P
5	4824.00	7.04	35.31	42.35	54.00	-11.65	Average	100	221	P
6	4824.00	7.04	46.37	53.41	74.00	-20.59	Peak	100	221	P

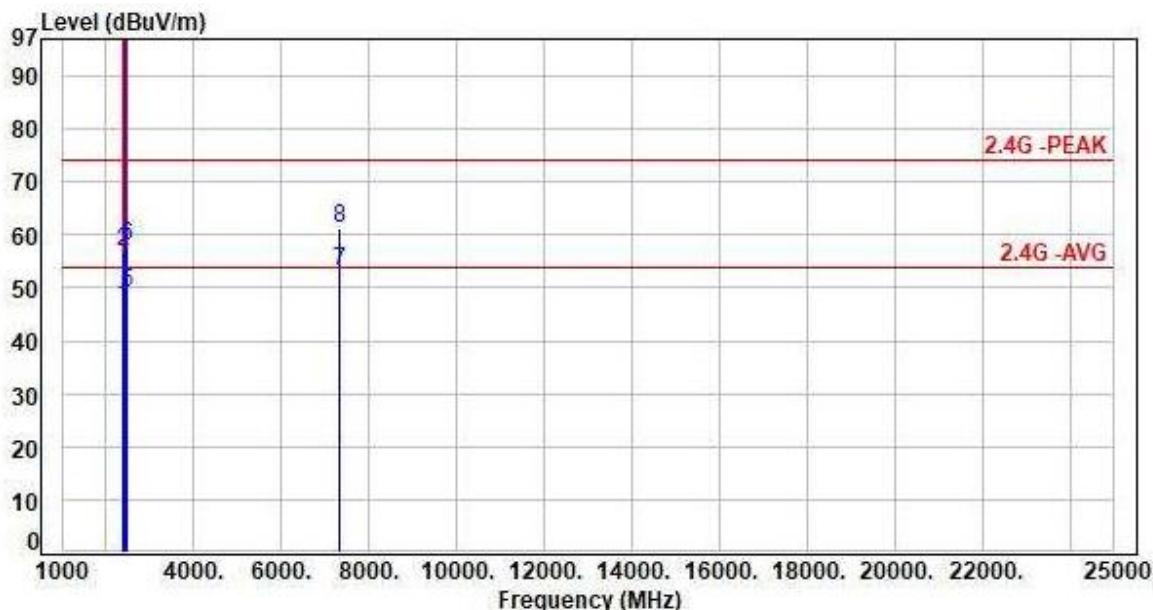
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode :	Mode 1, CH06	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-1.38	47.70	46.32	54.00	-7.68	Average	145	38	P
2	2390.00	-1.38	58.34	56.96	74.00	-17.04	Peak	145	38	P
3	2437.00	-1.15	111.85	110.70	200.00	-89.30	Average	145	38	P
4	2437.00	-1.15	114.38	113.23	200.00	-86.77	Peak	145	38	P
5	2483.50	-0.94	49.90	48.96	54.00	-5.04	Average	145	38	P
6	2483.50	-0.94	58.79	57.85	74.00	-16.15	Peak	145	38	P
7	7311.00	13.40	39.60	53.00	54.00	-1.00	Average	176	216	P
8	7311.00	13.40	47.85	61.25	74.00	-12.75	Peak	176	216	P

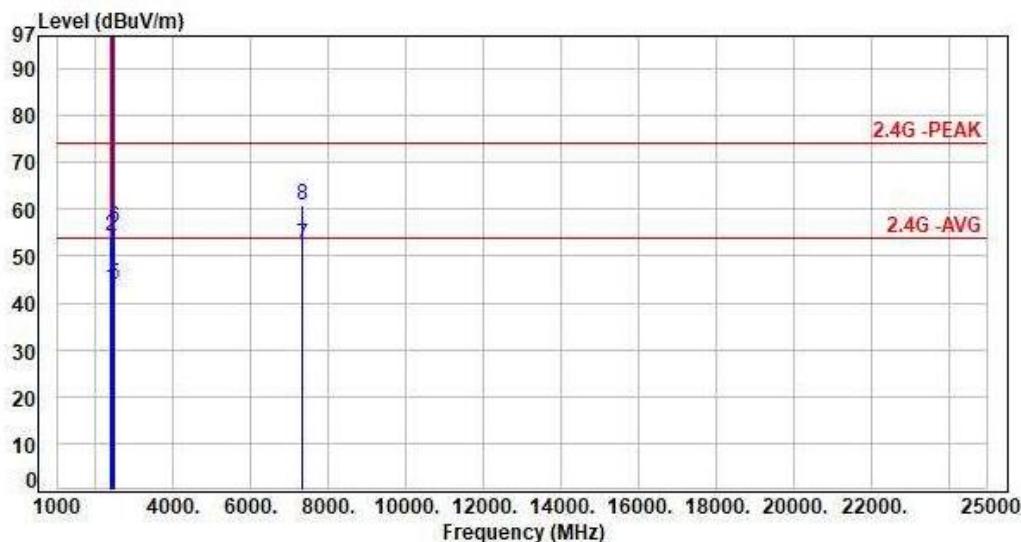
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode :	Mode 1, CH06		:



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-1.38	44.52	43.14	54.00	-10.86	Average	112	49	P
2	2390.00	-1.38	55.55	54.17	74.00	-19.83	Peak	112	49	P
3	2437.00	-1.15	105.18	104.03	200.00	-95.97	Average	112	49	P
4	2437.00	-1.15	107.80	106.65	200.00	-93.35	Peak	112	49	P
5	2483.50	-0.94	44.78	43.84	54.00	-10.16	Average	112	49	P
6	2483.50	-0.94	56.92	55.98	74.00	-18.02	Peak	112	49	P
7	7311.00	13.40	38.95	52.35	54.00	-1.65	Average	100	221	P
8	7311.00	13.40	47.36	60.76	74.00	-13.24	Peak	100	221	P

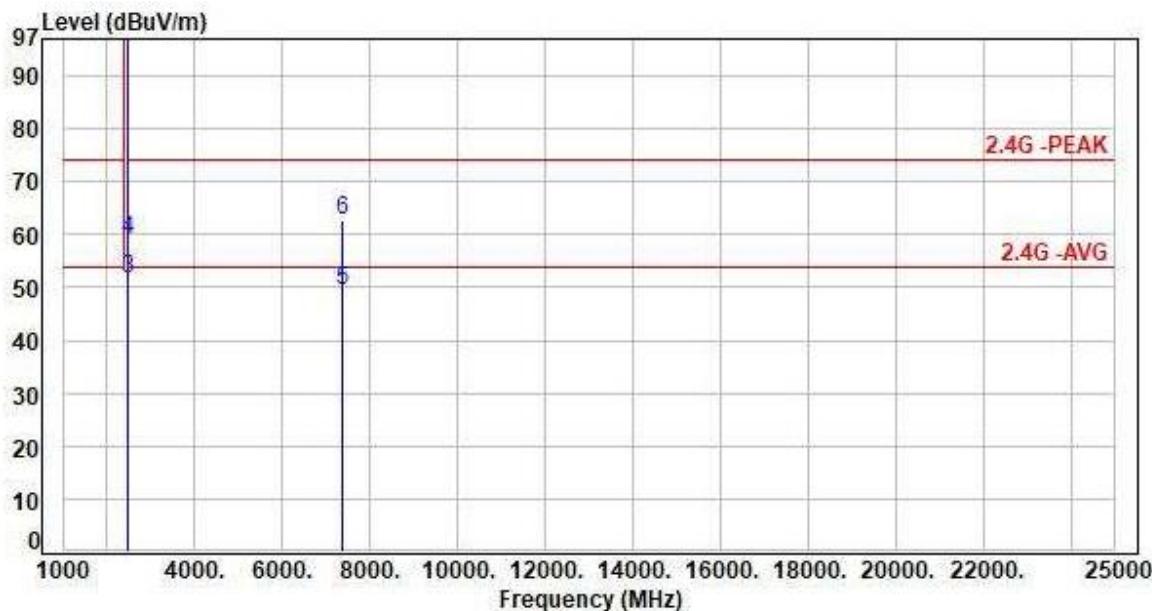
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode :	Mode 1, CH11	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2462.00	-1.03	109.71	108.68	200.00	-91.32	Average	112	39	P
2	2462.00	-1.03	112.31	111.28	200.00	-88.72	Peak	112	39	P
3	2483.50	-0.94	52.50	51.56	54.00	-2.44	Average	112	39	P
4	2483.50	-0.94	59.94	59.00	74.00	-15.00	Peak	112	39	P
5	7386.00	13.73	35.62	49.35	54.00	-4.65	Average	118	78	P
6	7386.00	13.73	48.79	62.52	74.00	-11.48	Peak	118	78	P

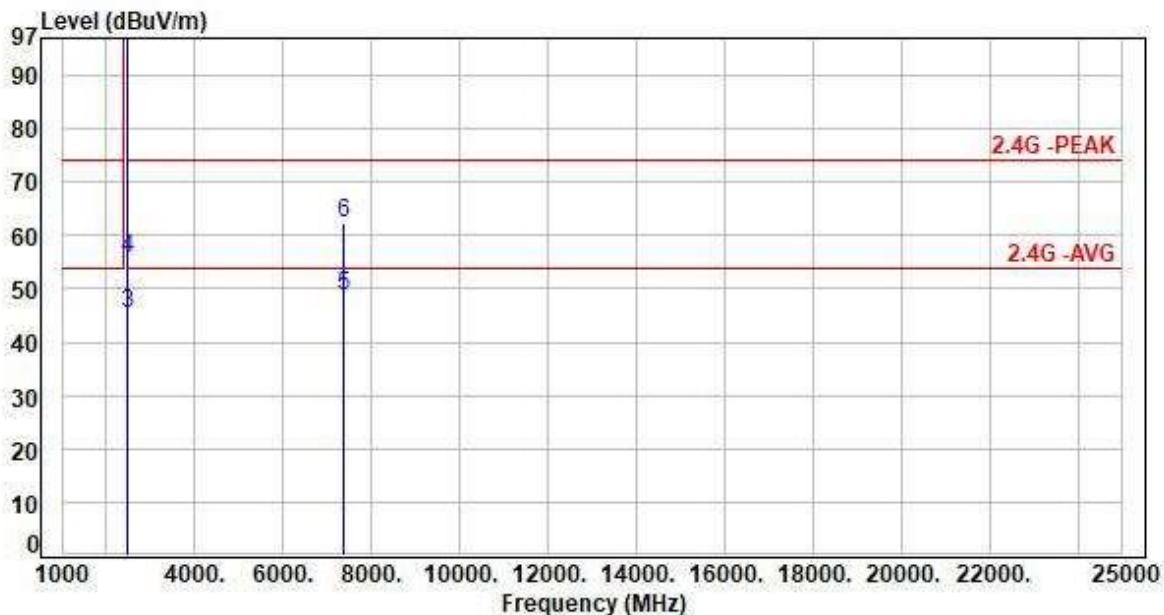
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode :	Mode 1, CH11		



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2462.00	-1.03	103.05	102.02	200.00	-97.98	Average	106	53	P
2	2462.00	-1.03	105.63	104.60	200.00	-95.40	Peak	106	53	P
3	2483.50	-0.94	46.48	45.54	54.00	-8.46	Average	106	53	P
4	2483.50	-0.94	56.59	55.65	74.00	-18.35	Peak	106	53	P
5	7386.00	13.73	35.11	48.84	54.00	-5.16	Average	106	221	P
6	7386.00	13.73	48.61	62.34	74.00	-11.66	Peak	106	221	P

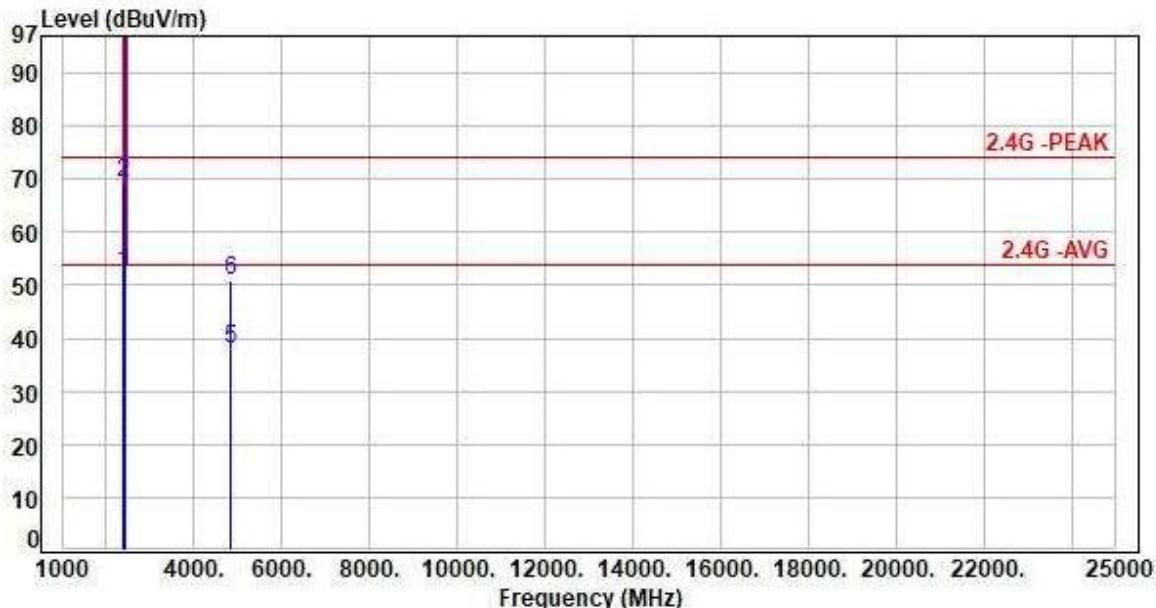
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode :	Mode 2, CH01		



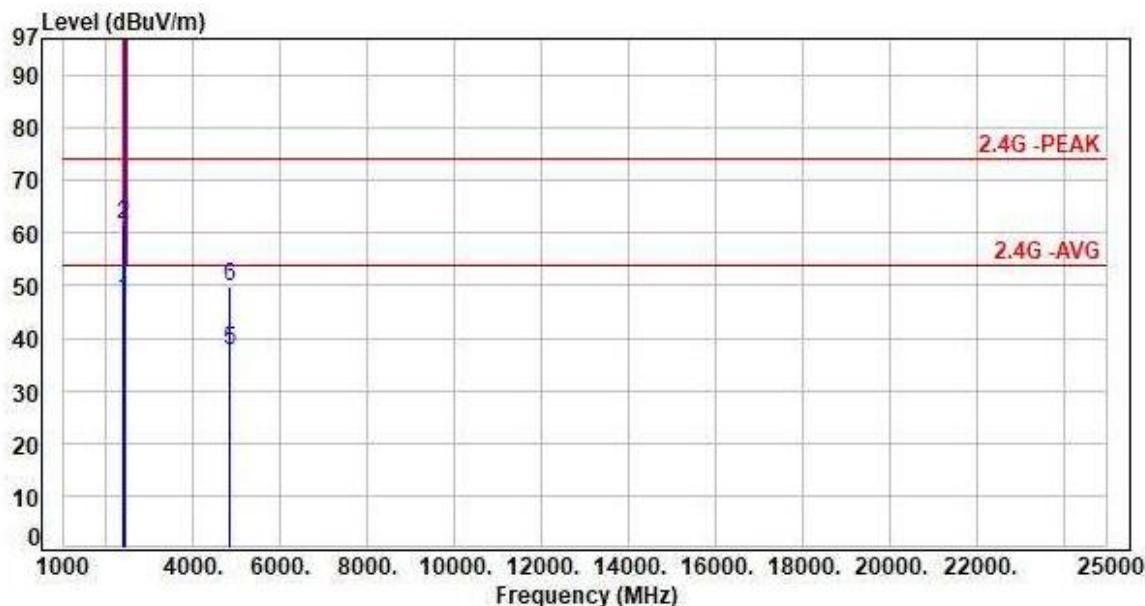
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode :	Mode 2, CH01		



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-1.38	48.65	47.27	54.00	-6.73	Average	100	50	P
2	2390.00	-1.38	63.06	61.68	74.00	-12.32	Peak	100	50	P
3	2412.00	-1.29	96.78	95.49	200.00	-104.51	Average	100	50	P
4	2412.00	-1.29	106.32	105.03	200.00	-94.97	Peak	100	50	P
5	4824.00	7.04	30.59	37.63	54.00	-16.37	Average	100	219	P
6	4824.00	7.04	42.84	49.88	74.00	-24.12	Peak	100	219	P

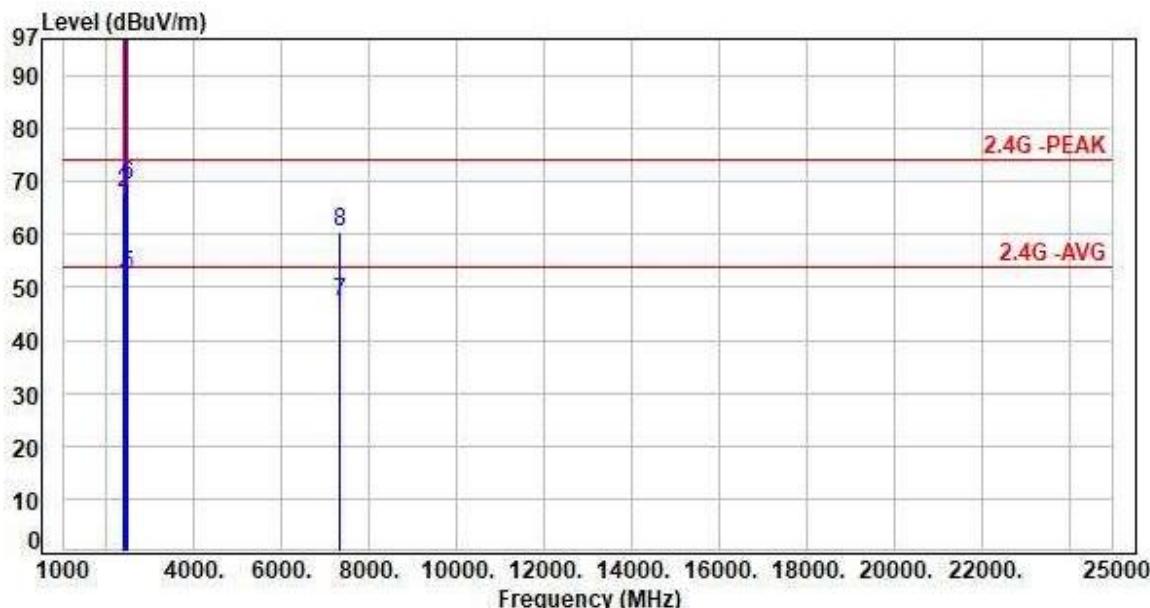
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode :	Mode 2, CH06	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-1.38	51.93	50.55	54.00	-3.45	Average	141	60	P
2	2390.00	-1.38	69.15	67.77	74.00	-6.23	Peak	141	60	P
3	2437.00	-1.15	105.82	104.67	200.00	-95.33	Average	141	60	P
4	2437.00	-1.15	115.36	114.21	200.00	-85.79	Peak	141	60	P
5	2483.50	-0.94	53.22	52.28	54.00	-1.72	Average	141	60	P
6	2483.50	-0.94	70.32	69.38	74.00	-4.62	Peak	141	60	P
7	7311.00	13.40	33.83	47.23	54.00	-6.77	Average	100	135	P
8	7311.00	13.40	47.06	60.46	74.00	-13.54	Peak	100	135	P

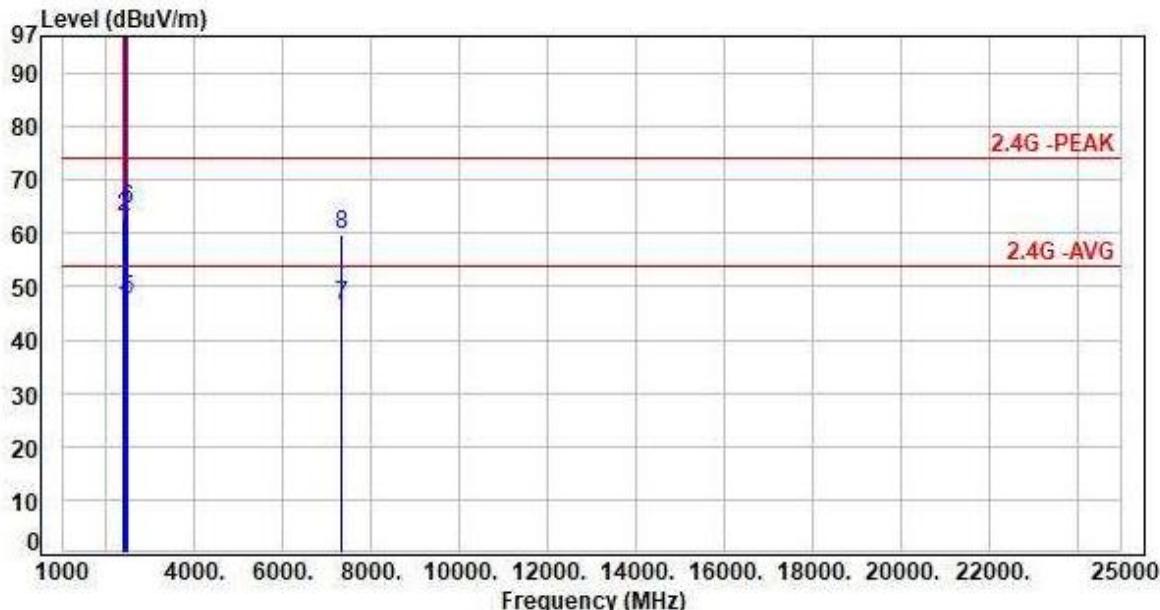
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode :	Mode 2, CH06		



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-1.38	47.61	46.23	54.00	-7.77	Average	116	49	P
2	2390.00	-1.38	64.58	63.20	74.00	-10.80	Peak	116	49	P
3	2437.00	-1.15	99.74	98.59	200.00	-101.41	Average	116	49	P
4	2437.00	-1.15	109.23	108.08	200.00	-91.92	Peak	116	49	P
5	2483.50	-0.94	48.67	47.73	54.00	-6.27	Average	116	49	P
6	2483.50	-0.94	65.44	64.50	74.00	-9.50	Peak	116	49	P
7	7311.00	13.40	33.22	46.62	54.00	-7.38	Average	100	222	P
8	7311.00	13.40	46.32	59.72	74.00	-14.28	Peak	100	222	P

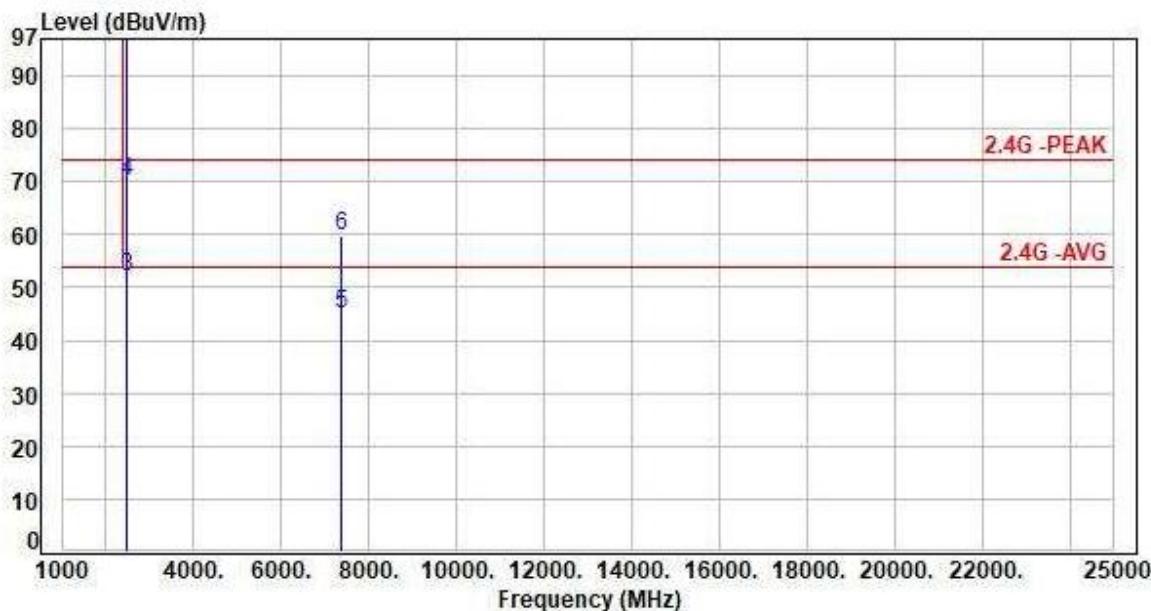
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode :	Mode 2, CH11	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2462.00	-1.03	102.07	101.04	200.00	-98.96	Average	113	40	P
2	2462.00	-1.03	111.71	110.68	200.00	-89.32	Peak	113	40	P
3	2483.50	-0.94	52.86	51.92	54.00	-2.08	Average	113	40	P
4	2483.50	-0.94	71.11	70.17	74.00	-3.83	Peak	113	40	P
5	7386.00	13.73	31.28	45.01	54.00	-8.99	Average	100	133	P
6	7386.00	13.73	46.18	59.91	74.00	-14.09	Peak	100	133	P

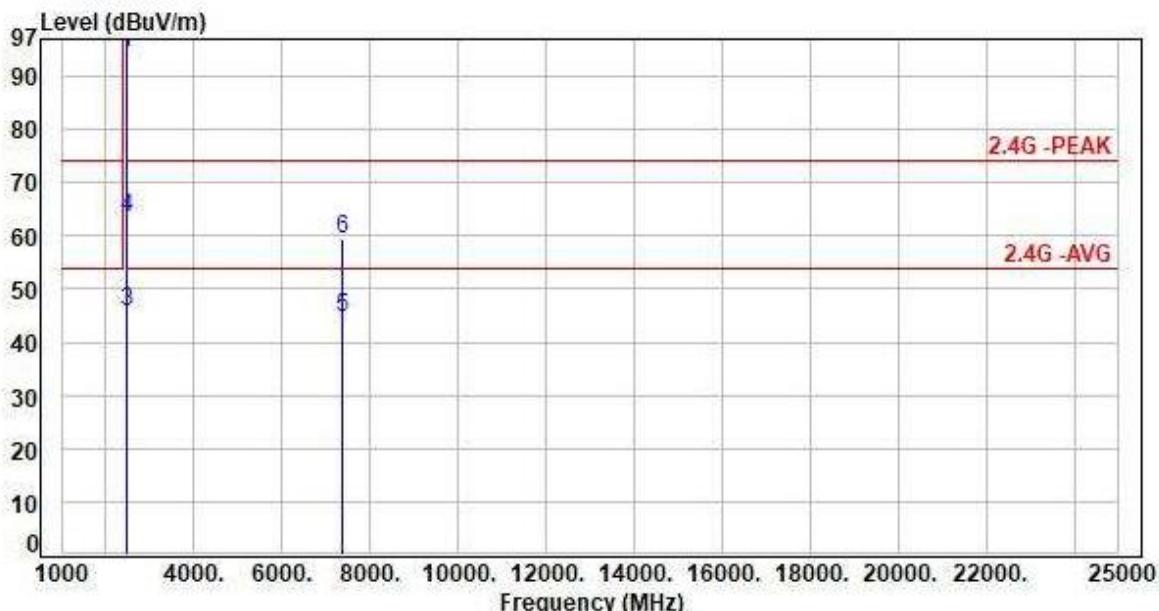
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode :	Mode 2, CH11		



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2462.00	-1.03	95.54	94.51	200.00	-105.49	Average	106	50	P
2	2462.00	-1.03	104.20	103.17	200.00	-96.83	Peak	106	50	P
3	2483.50	-0.94	46.63	45.69	54.00	-8.31	Average	106	50	P
4	2483.50	-0.94	64.24	63.30	74.00	-10.70	Peak	106	50	P
5	7386.00	13.73	31.07	44.80	54.00	-9.20	Average	100	225	P
6	7386.00	13.73	45.49	59.22	74.00	-14.78	Peak	100	225	P

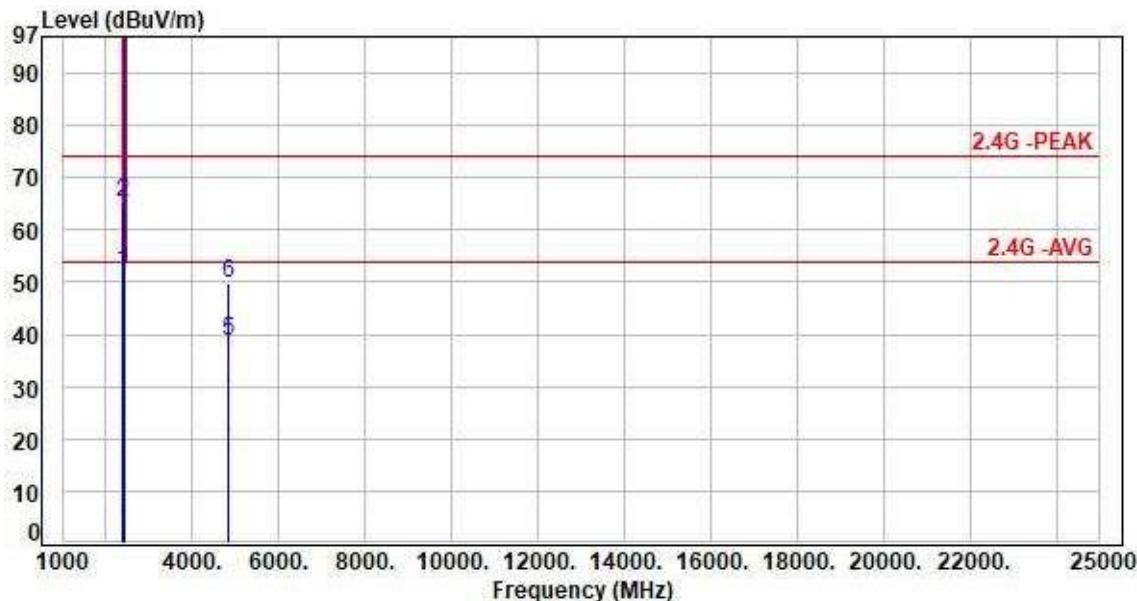
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode :	Mode 4, CH01	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-1.38	53.38	52.00	54.00	-2.00	Average	100	34	P
2	2390.00	-1.38	66.71	65.33	74.00	-8.67	Peak	100	34	P
3	2412.00	-1.29	100.31	99.02	200.00	-100.98	Average	100	34	P
4	2412.00	-1.29	113.53	112.24	200.00	-87.76	Peak	100	34	P
5	4824.00	7.04	31.55	38.59	54.00	-15.41	Average	100	68	P
6	4824.00	7.04	42.76	49.80	74.00	-24.20	Peak	100	68	P

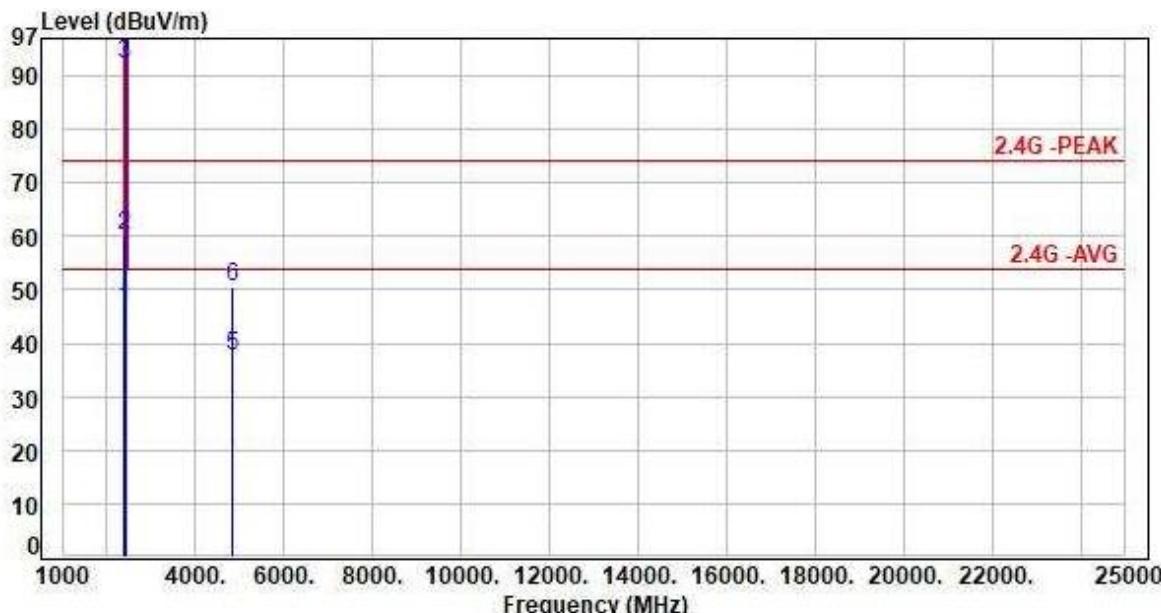
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode :	Mode 4, CH01	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-1.38	47.97	46.59	54.00	-7.41	Average	100	49	P
2	2390.00	-1.38	61.49	60.11	74.00	-13.89	Peak	100	49	P
3	2412.00	-1.29	93.52	92.23	200.00	-107.77	Average	100	49	P
4	2412.00	-1.29	106.64	105.35	200.00	-94.65	Peak	100	49	P
5	4824.00	7.04	30.61	37.65	54.00	-16.35	Average	100	220	P
6	4824.00	7.04	43.33	50.37	74.00	-23.63	Peak	100	220	P

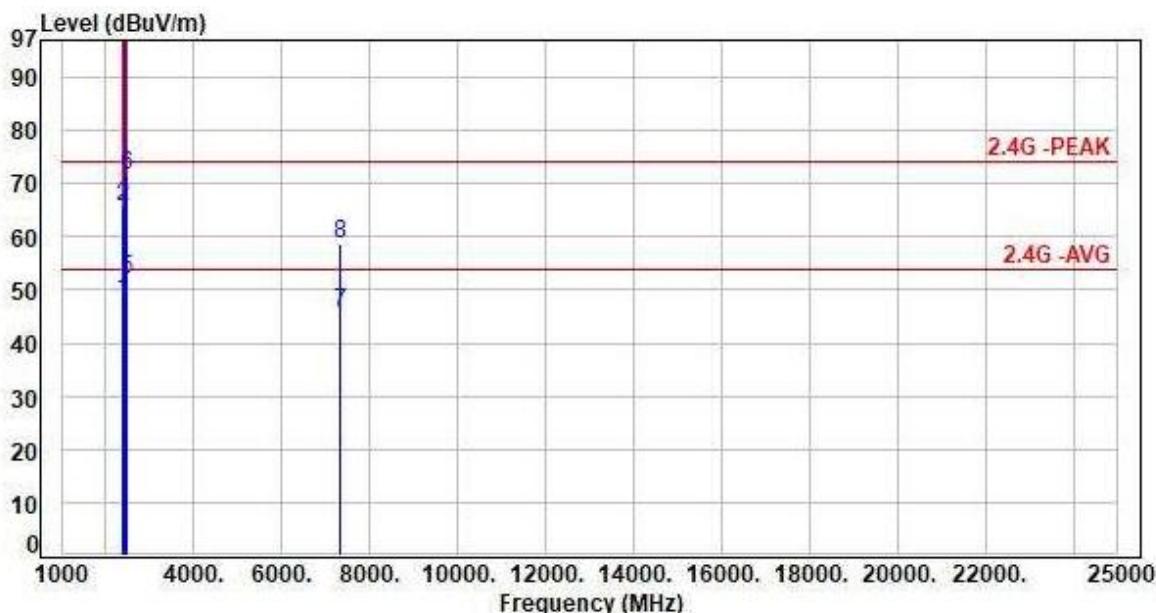
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode :	Mode 4, CH06	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-1.38	49.40	48.02	54.00	-5.98	Average	100	57	P
2	2390.00	-1.38	67.10	65.72	74.00	-8.28	Peak	100	57	P
3	2437.00	-1.15	104.14	102.99	200.00	-97.01	Average	100	57	P
4	2437.00	-1.15	117.47	116.32	200.00	-83.68	Peak	100	57	P
5	2483.50	-0.94	52.97	52.03	54.00	-1.97	Average	100	57	P
6	2483.50	-0.94	72.34	71.40	74.00	-2.60	Peak	100	57	P
7	7311.00	13.40	32.44	45.84	54.00	-8.16	Average	100	135	P
8	7311.00	13.40	45.22	58.62	74.00	-15.38	Peak	100	135	P

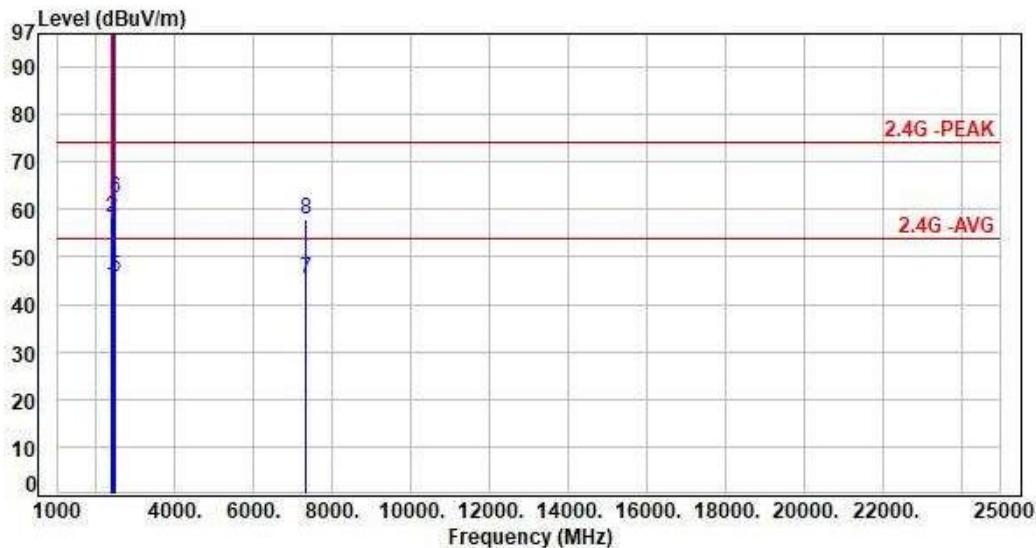
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode :	Mode 4, CH06		:



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-1.38	45.24	43.86	54.00	-10.14	Average	161	48	P
2	2390.00	-1.38	59.72	58.34	74.00	-15.66	Peak	161	48	P
3	2437.00	-1.15	98.43	97.28	200.00	-102.72	Average	161	48	P
4	2437.00	-1.15	111.86	110.71	200.00	-89.29	Peak	161	48	P
5	2483.50	-0.94	46.53	45.59	54.00	-8.41	Average	161	48	P
6	2483.50	-0.94	63.42	62.48	74.00	-11.52	Peak	161	48	P
7	7311.00	13.40	31.97	45.37	54.00	-8.63	Average	100	226	P
8	7311.00	13.40	44.59	57.99	74.00	-16.01	Peak	100	226	P

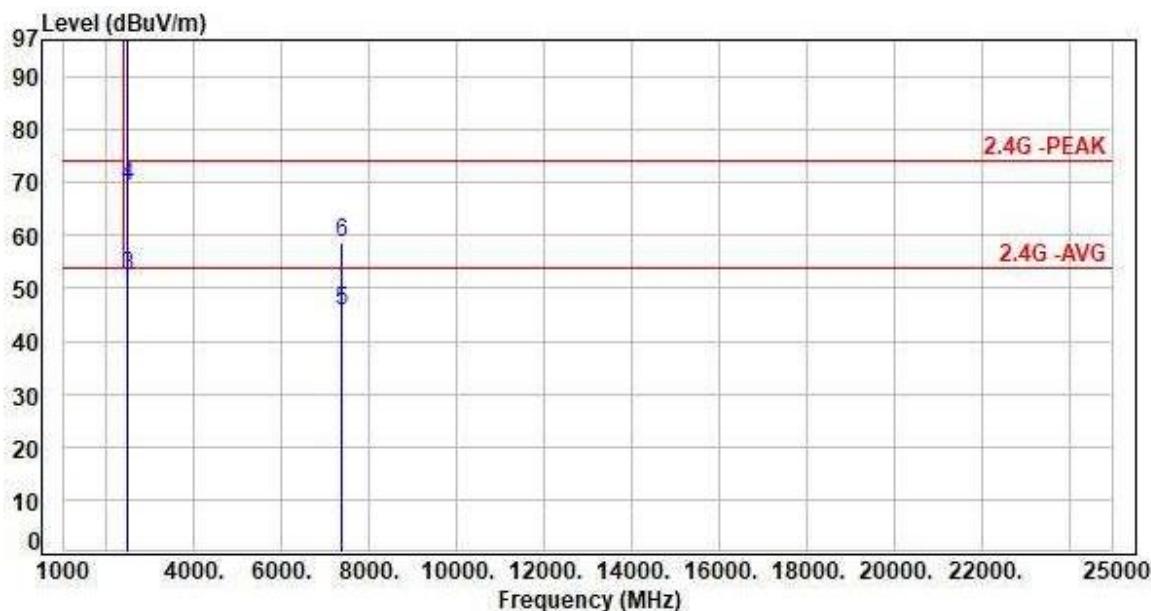
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode :	Mode 4, CH11	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2462.00	-1.03	99.28	98.25	200.00	-101.75	Average	100	62	P
2	2462.00	-1.03	112.49	111.46	200.00	-88.54	Peak	100	62	P
3	2483.50	-0.94	53.38	52.44	54.00	-1.56	Average	100	62	P
4	2483.50	-0.94	70.31	69.37	74.00	-4.63	Peak	100	62	P
5	7386.00	13.73	32.10	45.83	54.00	-8.17	Average	100	141	P
6	7386.00	13.73	44.97	58.70	74.00	-15.30	Peak	100	141	P

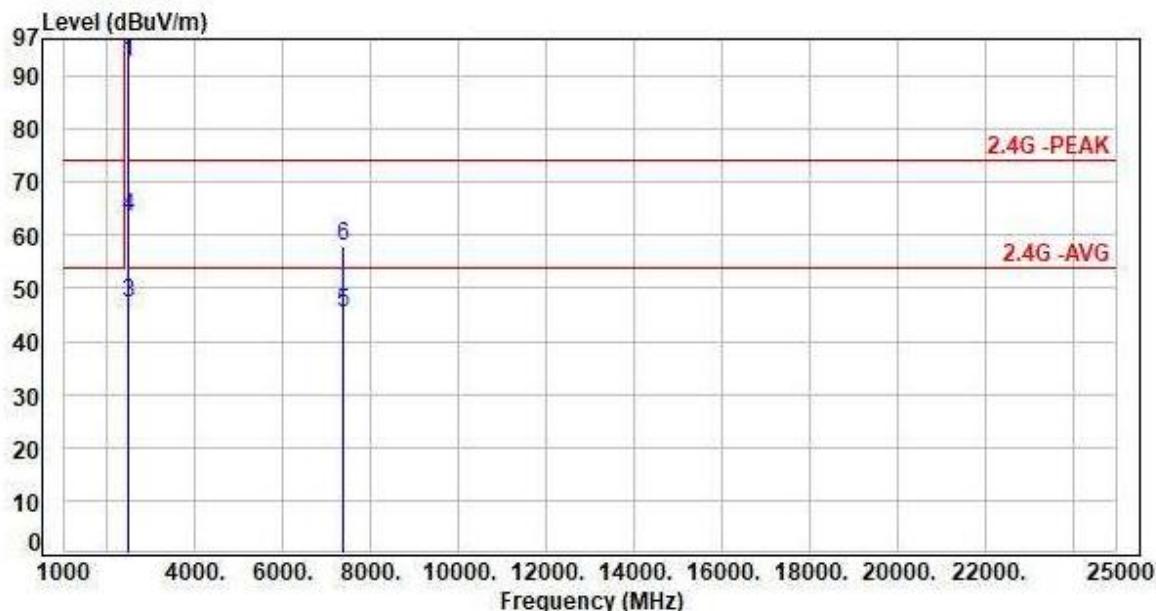
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power :	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode :	Mode 4, CH11		



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2462.00	-1.03	93.71	92.68	200.00	-107.32	Average	100	54	P
2	2462.00	-1.03	105.48	104.45	200.00	-95.55	Peak	100	54	P
3	2483.50	-0.94	48.23	47.29	54.00	-6.71	Average	100	54	P
4	2483.50	-0.94	64.36	63.42	74.00	-10.58	Peak	100	54	P
5	7386.00	13.73	31.59	45.32	54.00	-8.68	Average	100	217	P
6	7386.00	13.73	44.31	58.04	74.00	-15.96	Peak	100	217	P

Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



6.7 Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.250
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
13.36000 – 13.41000			

**: Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz



7. Test of Conducted Spurious Emission

7.1 Test Limit

According to the methods defined in ANSI C63.10-2013 Section 11.11.1

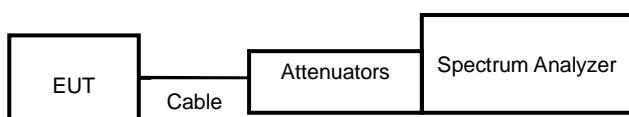
Below –30dB of the highest emission level of operating band (In 100 kHz Resolution Bandwidth)

7.2 Test Procedure

According to the methods defined in ANSI C63.10-2013 Section 11.11.2 & 11.11.3

- a. The transmitter output was connected to the spectrum analyzer via a low loss cable.
- b. Set RBW of spectrum analyzer to 100 KHz and VBW of spectrum analyzer to 300 KHz with convenient frequency span including 100 KHz bandwidth from band edge.
- c. Peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 30dB relative to the maximum measured in-band peak PSD level.
- d. The band edges was measured and recorded.

7.3 Test Setup Layout

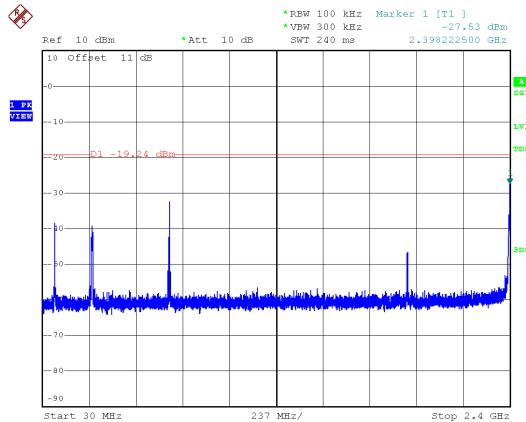


7.4 Test Result and Data

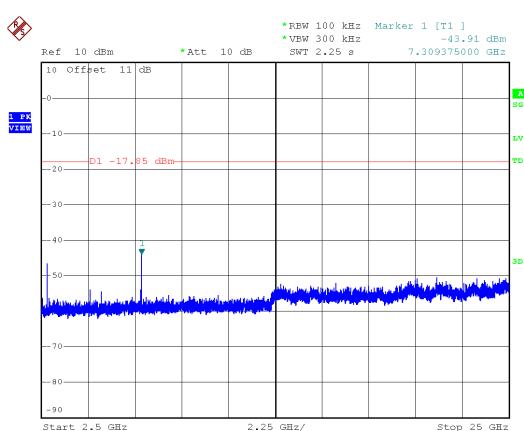
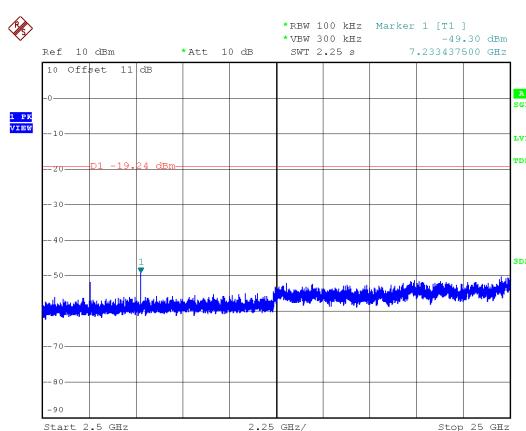
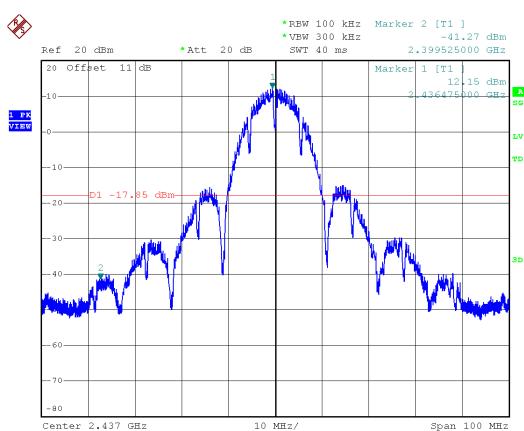
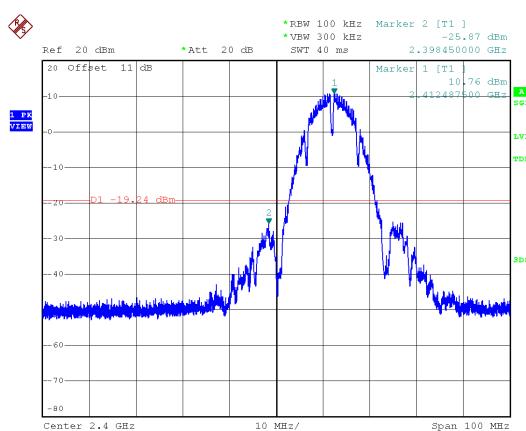
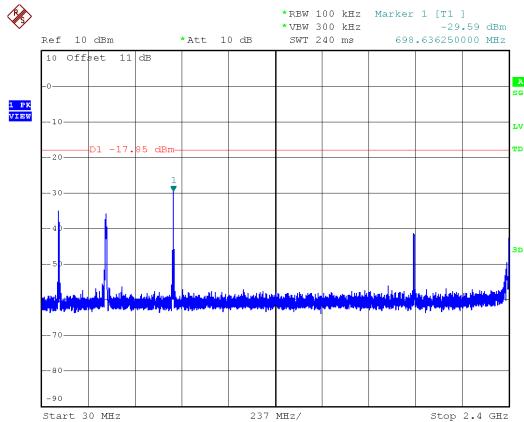
Note: Test plots refers to the following pages.



Modulation Type: 802.11b, CH 01

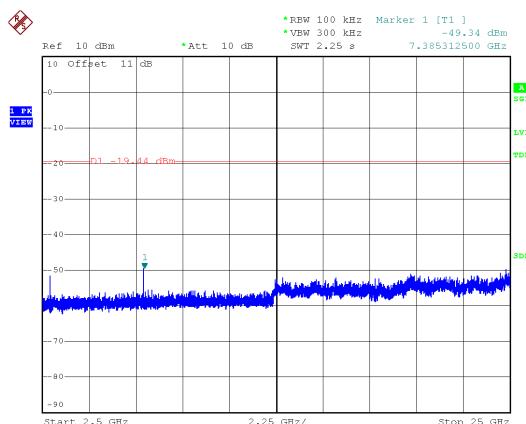
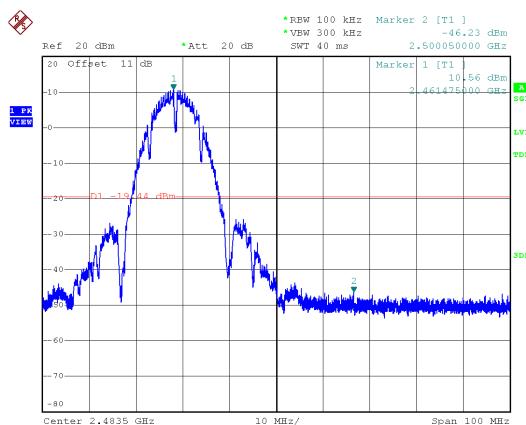
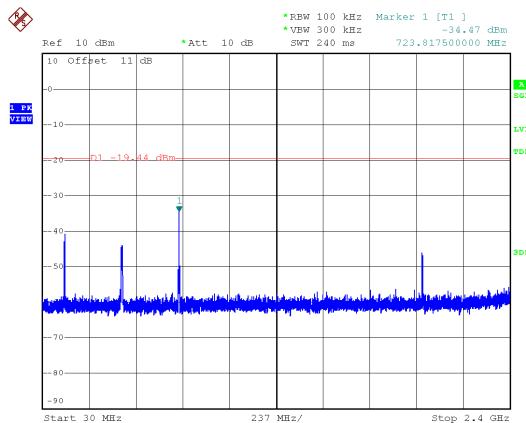


Modulation Type: 802.11b, CH 06



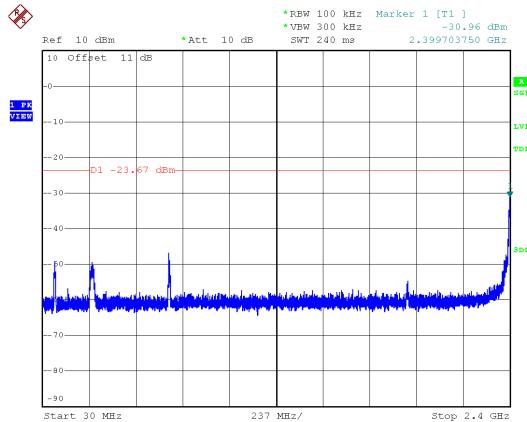


Modulation Type: 802.11b, CH 11

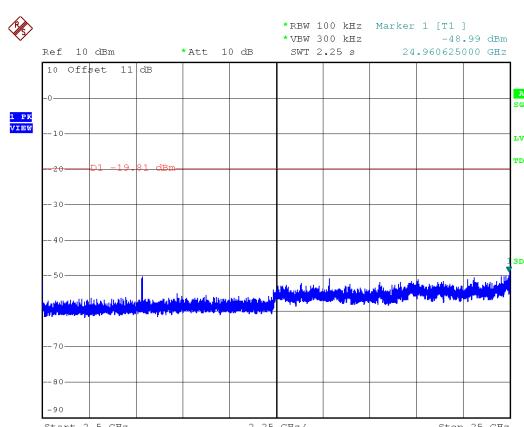
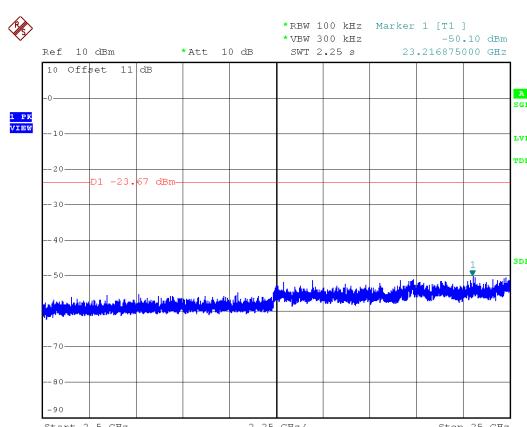
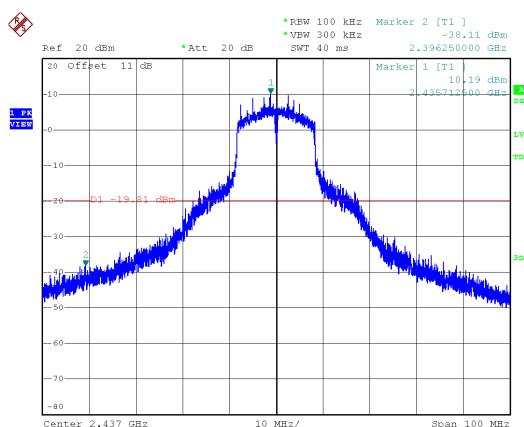
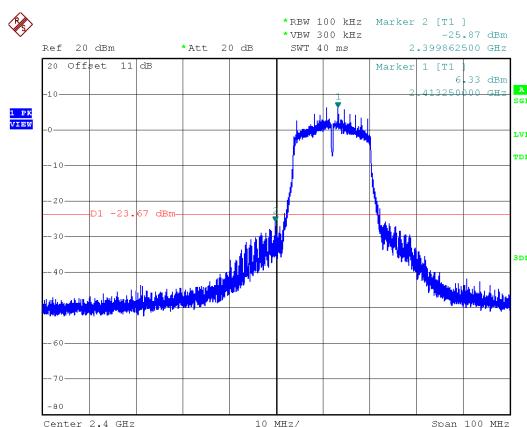
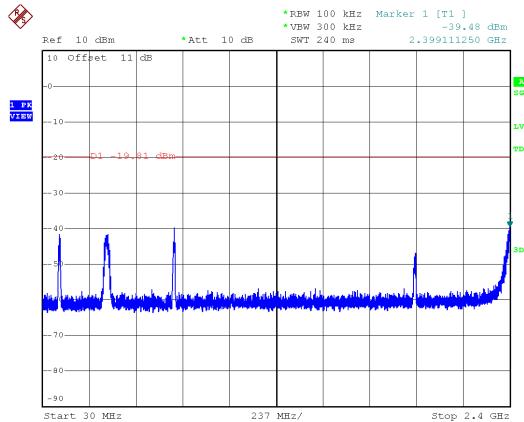




Modulation Type: 802.11g, CH 01

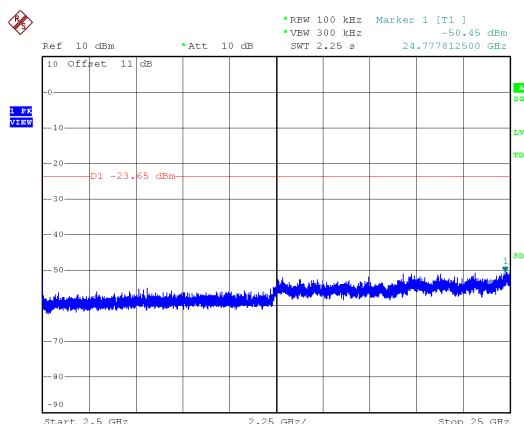
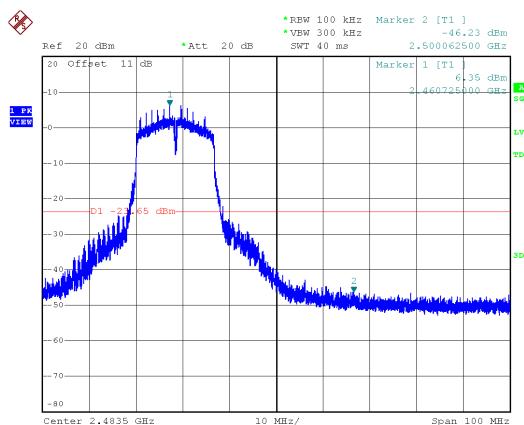
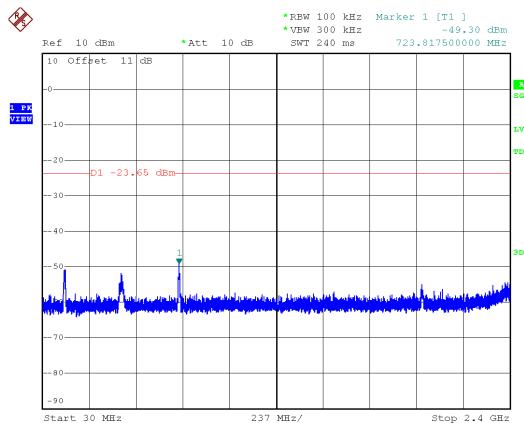


Modulation Type: 802.11g, CH 06



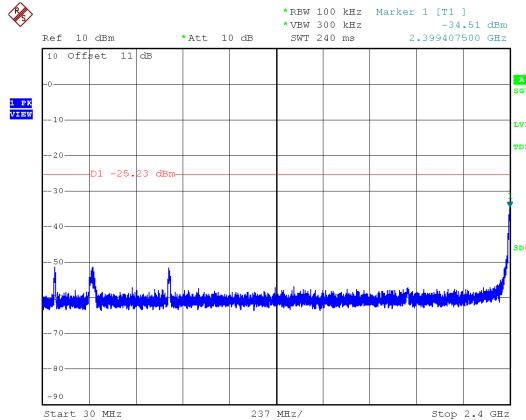


Modulation Type: 802.11g, CH 11

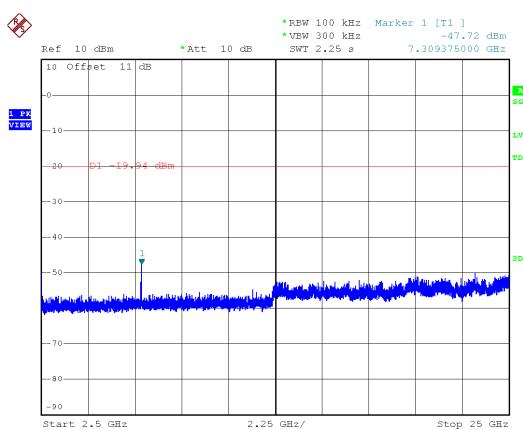
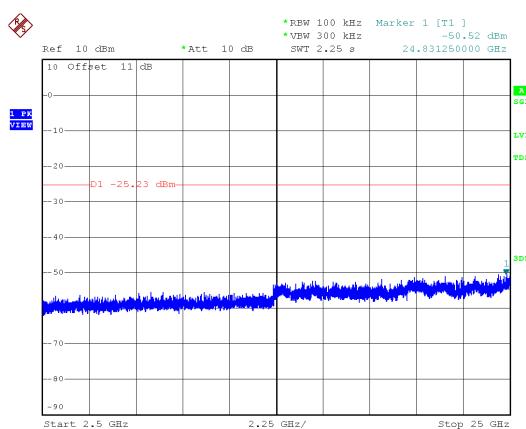
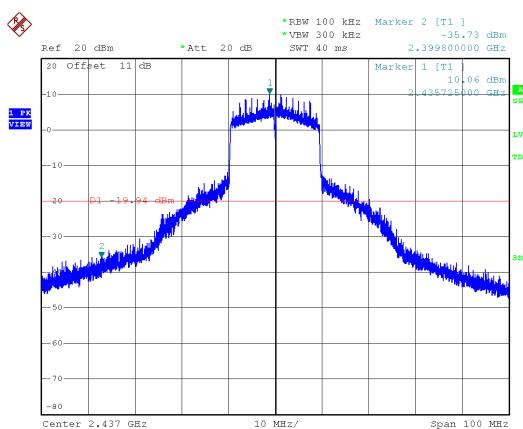
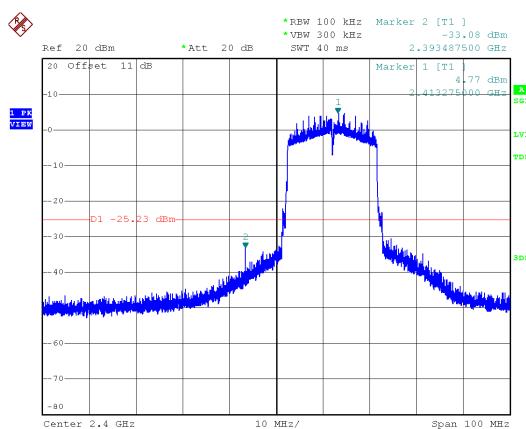
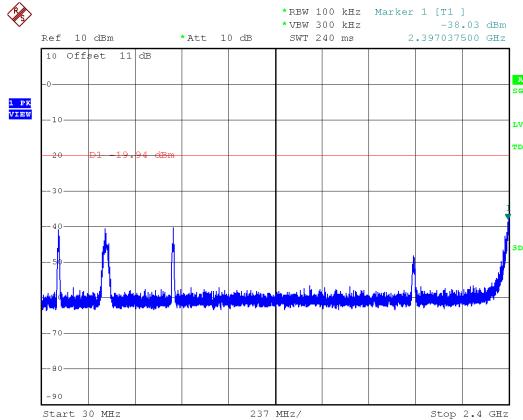




Modulation Type: 802.11ax HE20, CH01

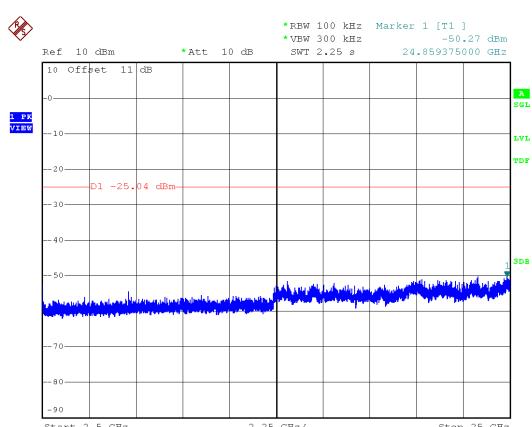
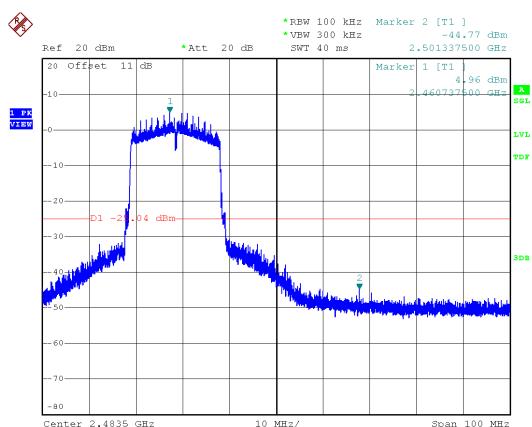
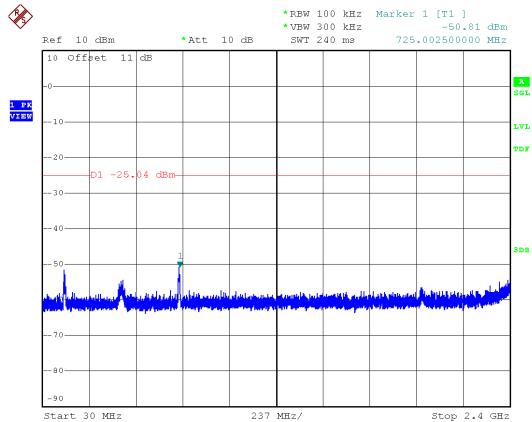


Modulation Type: 802.11ax HE20, CH06





Modulation Type: 802.11ax HE20, CH11





8. On Time, Duty Cycle and Measurement methods

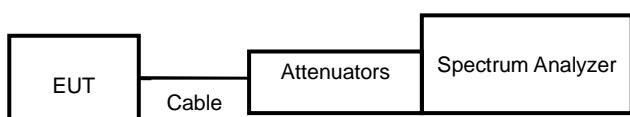
8.1 Test Limit

None; for reporting purposes only.

8.2 Test Procedure

According to the methods defined in ANSI C63.10-2013 Section 11.6
Zero-Span Spectrum Analyzer Method.

8.3 Test Setup Layout

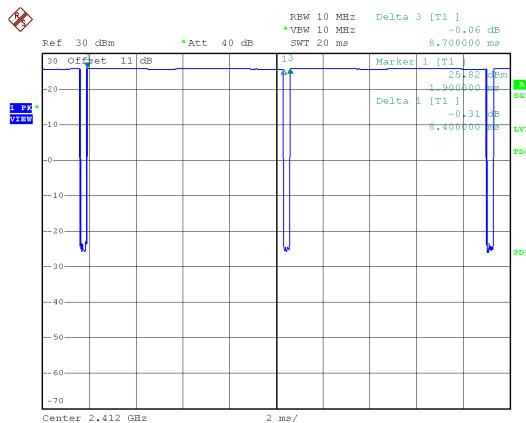


8.4 Test Result and Data

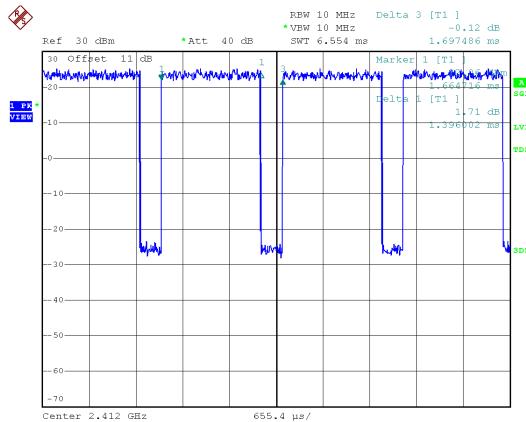
Modulation Type	On Time (msec)	Period Time (msec)	Duty Cycle (%)
11b,1M	8.40	8.70	96.55%
11g,6M	1.40	1.70	82.24%
11ax HE20	1.02	1.32	77.29%



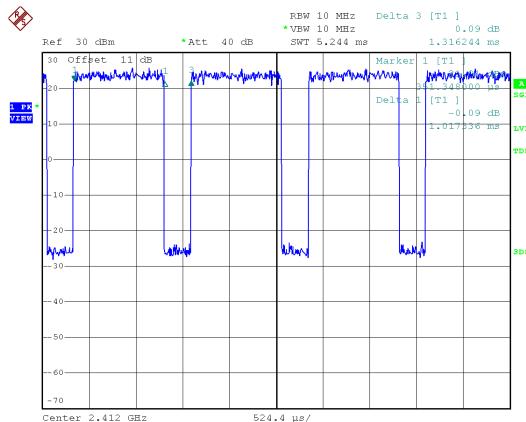
Modulation Type: 802.11b(1Mbps)



Modulation Type: 802.11g(6Mbps)



Modulation Type: 802.11ax HE20(7.3Mbps)





9. 6dB Bandwidth Measurement Data

9.1 Test Limit

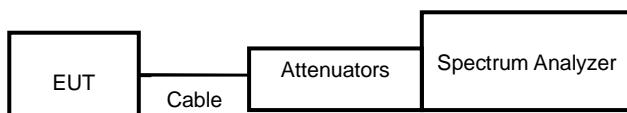
The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

9.2 Test Procedures

According to the methods defined in ANSI C63.10-2013 Section 11.8

- a. The transmitter output was connected to the spectrum analyzer.
- b. Set RBW of spectrum analyzer to 100 KHz and VBW to 300 KHz.
- c. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.
- d. The 6dB Bandwidth was measured and recorded.

9.3 Test Setup Layout





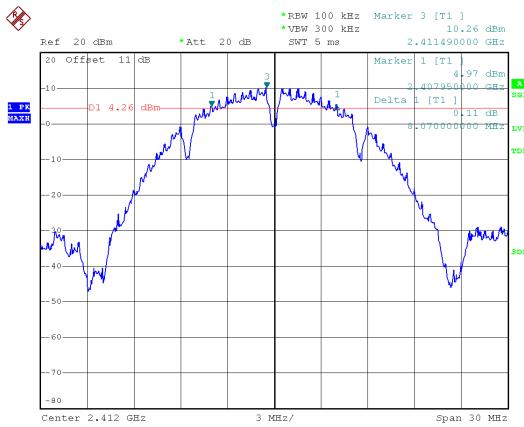
9.4 Test Result and Data

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
			ANT A	
11b	1	2412	8.07	0.5
	6	2437	8.55	0.5
	11	2462	9.06	0.5
11g	1	2412	15.09	0.5
	6	2437	15.12	0.5
	11	2462	15.12	0.5
11ax HE20	1	2412	17.88	0.5
	6	2437	17.88	0.5
	11	2462	17.97	0.5

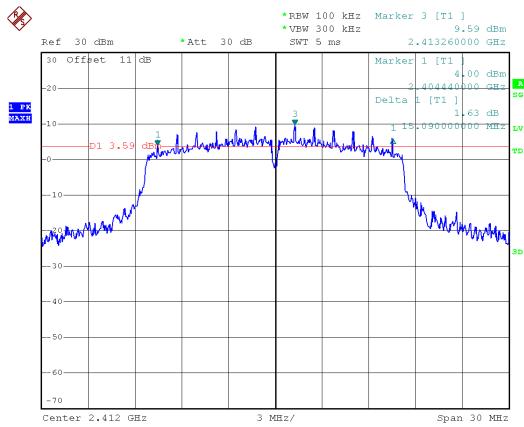


6dB Bandwidth

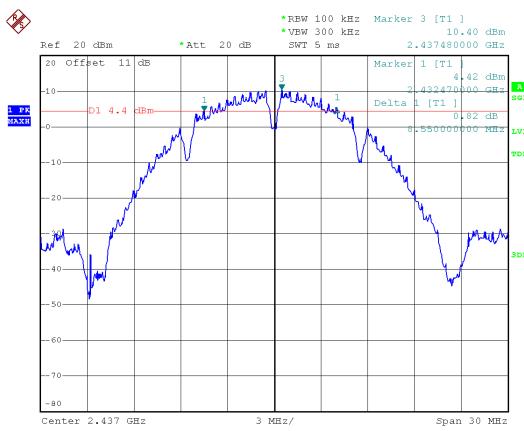
Modulation Type: 802.11b
CH01



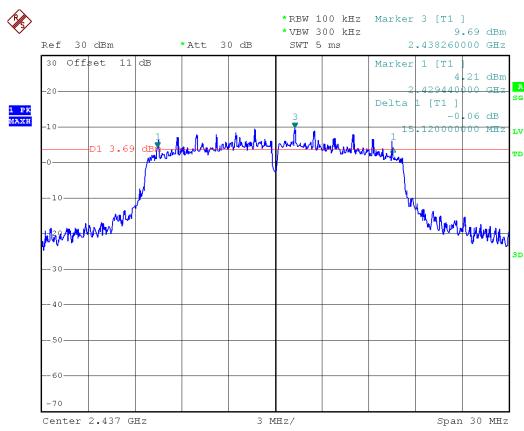
Modulation Type: 802.11g
CH01



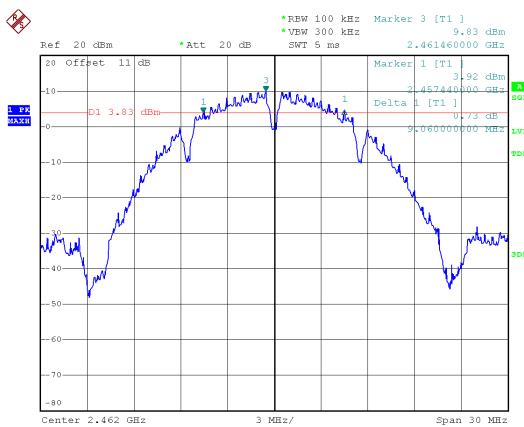
CH06



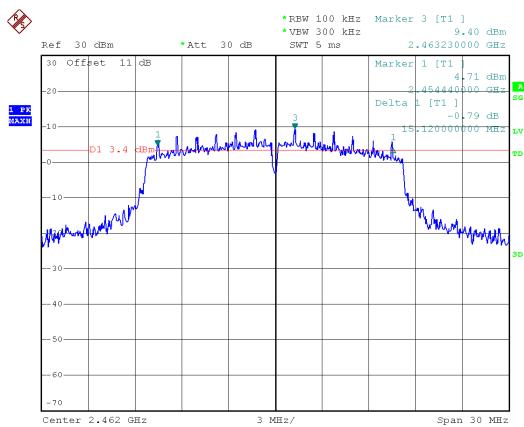
CH06



CH11

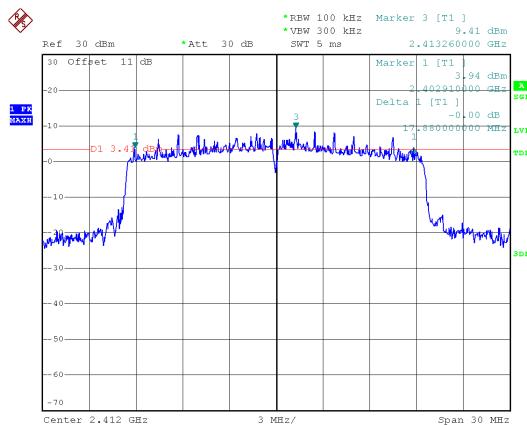


CH11

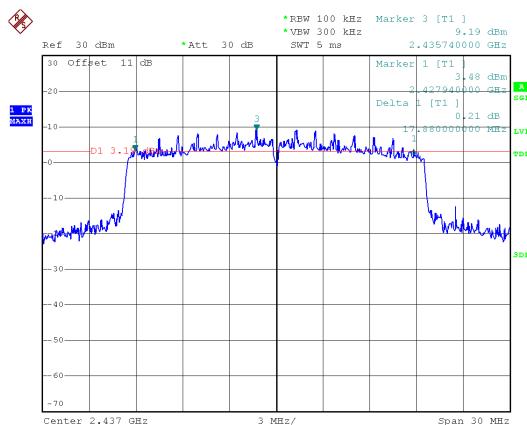




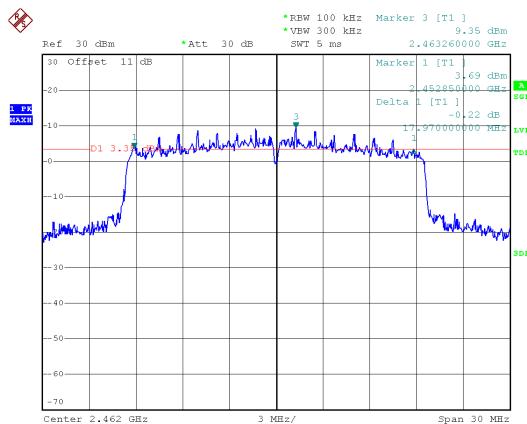
Modulation Type: 802.11ax HE20
CH01



CH06



CH11





10. Maximum Average Output Power

10.1 Test Limit

The Maximum Average Output Power Measurement is 30dBm.

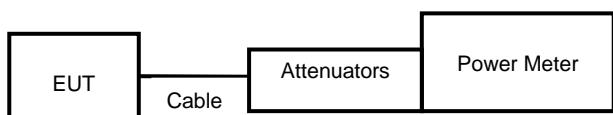
If transmitting antennas of directional gain greater than 6 dBi are used, the average output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi

10.2 Test Procedures

According to the methods defined in ANSI C63.10-2013 Section 11.9.2.3.2

The antenna port (RF output) of the EUT was connected to the input (RF input) of a power meter. Power was read directly from the meter and cable loss connection was added to the reading to obtain power at the EUT antenna terminal. The EUT Output Power was set to maximum to produce the worse case test result.

10.3 Test Setup Layout





10.4 Test Result and Data

Setting	Modulation Mode	Channel	Frequency (MHz)	Conducted(average) output power (dBm)	Total AV power (dBm)	Total AV power (mW)	Power Limit (dBm)
				ANT A			
21	11b	1	2412	20.90	20.90	123.027	30.00
23		6	2437	22.65	22.65	184.077	30.00
21		11	2462	20.74	20.74	118.577	30.00
17	11g	1	2412	16.34	16.34	43.053	30.00
22		6	2437	20.95	20.95	124.451	30.00
17		11	2462	16.68	16.68	46.559	30.00
16	11n HT20	1	2412	16.45	16.45	44.157	30.00
21		6	2437	20.20	20.20	104.713	30.00
16		11	2462	16.55	16.55	45.186	30.00
16	VHT20	1	2412	16.47	16.47	44.361	30.00
21		6	2437	20.23	20.23	105.439	30.00
16		11	2462	16.61	16.61	45.814	30.00
16	11ax HE20	1	2412	16.50	16.50	44.668	30.00
21		6	2437	20.27	20.27	106.414	30.00
16		11	2462	16.63	16.63	46.026	30.00



11. Power Spectral Density

11.1 Test Limit

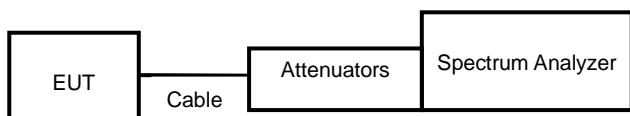
The Maximum of Power Spectral Density Measurement is 8dBm.

If transmitting antennas of directional gain greater than 6 dBi are used, the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi

11.2 Test Procedures

According to the methods defined in ANSI C63.10-2013 Section 11.10

11.3 Test Setup Layout





11.4 Test Result and Data

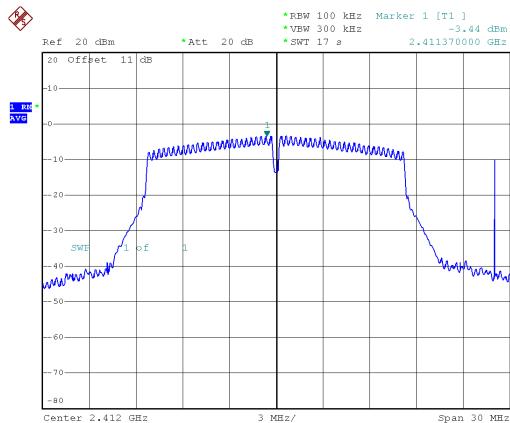
Modulation Type	Channel	Frequency (MHz)	Maximum Power Density of 100KHz Bandwidth(dBm)	Sum chain (dBm)	Duty Cycle CF(dB)	Total PSD (dBm)	Limit (dBm)
			ANT A				
11b	1	2412	4.06	4.06	0.15	4.21	8.00
	6	2437	5.71	5.71	0.15	5.86	8.00
	11	2462	3.83	3.83	0.15	3.98	8.00
11g	1	2412	-3.44	-3.44	0.85	-2.59	8.00
	6	2437	0.45	0.45	0.85	1.30	8.00
	11	2462	-3.24	-3.24	0.85	-2.39	8.00
11ax HE20	1	2412	-5.97	-5.97	1.12	-4.85	8.00
	6	2437	-1.41	-1.41	1.12	-0.29	8.00
	11	2462	-5.93	-5.93	1.12	-4.81	8.00



Modulation Type: 802.11b
CH01



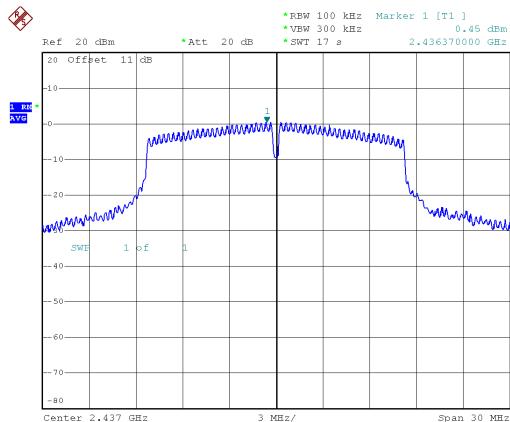
Modulation Type: 802.11g
CH01



CH06



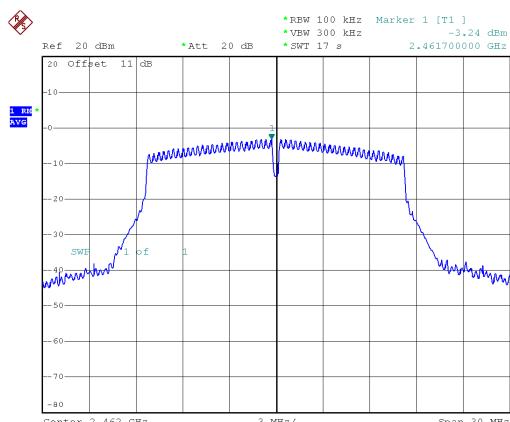
CH06



CH11



CH11

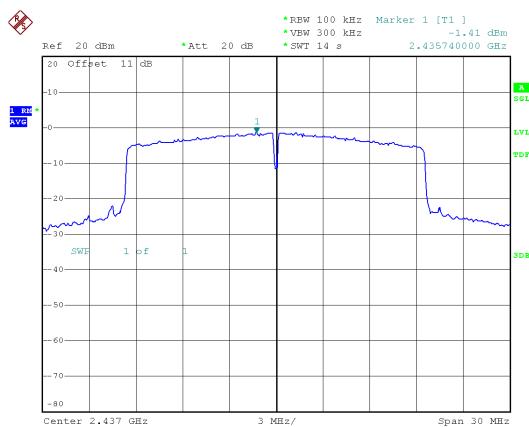




Modulation Type: 802.11ax HE20
CH01



CH06



CH11

