



FCC RADIO TEST REPORT

Applicant	: Ubiquiti Inc.
Address	: 685 Third Avenue, New York, New York 10017, USA
Equipment	: G3 Touch Wall
Model No.	: UTP-G3-Touch-Wall
Trade Name	: UBIQUITI
FCC ID	: SWX-UG3W

I HEREBY CERTIFY THAT :

The sample was received on Aug. 09, 2023 and the testing was completed on Sep. 09, 2023 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	4
1.1 Applicable Standards	4
2. Test Configuration of Equipment under Test	5
2.1 Feature of Equipment under Test.....	5
2.2 Test Mode and Test Software	6
2.3 Description of Test System.....	7
2.4 General Information of Test	8
2.5 Measurement Uncertainty	9
3. Test Equipment and Ancillaries Used for Tests	10
4. Test of AC Power Line Conducted Emission	11
4.1 Test Limit	11
4.2 Test Procedures	11
4.3 Typical Test Setup	12
4.4 Test Result and Data	13
4.5 Test Photographs	17
5. Test of Spurious Emission (Radiated)	18
5.1 Test Limit	18
5.2 Test Procedures	19
5.3 Typical Test Setup	19
5.4 Test Result and Data (9kHz ~ 30MHz).....	21
5.5 Test Result and Data (30MHz ~ 1GHz)	21
5.6 Test Result and Data (1GHz ~ 40GHz).....	25
5.7 Restricted Bands of Operation	29
5.8 Test Photographs (30MHz ~ 1GHz)	30
5.9 Test Photographs (1GHz ~ 40GHz)	31



History of this test report

Report No.	Issued Date	Description
23070289-TRFCC03	Sep. 13, 2023	Original



1. Summary of Test Procedure and Test Results

1.1 Applicable Standards

ANSI C63.10:2013

Description of Test	Result
CO-LOCATION	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, measurement uncertainty evaluation is not considered.

*This EUT has been also tested and compiled with the requirement of FCC Part 15, Subpart B, recorded in a separate test report(23070289-TEFV01).



2. Test Configuration of Equipment under Test

2.1 Feature of Equipment under Test

Operation Frequency Range	802.11b/g/n: 2400-2483.5MHz 802.11a/n/ac:5150-5250MHz, 5250-5350MHz, 5470-5725MHz, 5725-5850MHz
Center Frequency Range	802.11b/g/n: 2412MHz~2462MHz 802.11a/n/ac:5180-5240MHz, 5260-5320MHz, 5500-5720MHz, 5745-5825MHz
Modulation Type	WLAN: 2.4GHz: 802.11b: CCK, DQPSK, DBPSK 802.11g/n: BPSK, QPSK, 16QAM, 64QAM 5GHz: 802.11n/a: BPSK, QPSK, 16QAM, 64QAM 802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM
Modulation Technology	DSSS, OFDM
Data Rate	WLAN: 2.4GHz: 802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS7, HT20/40 5GHz: 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS7, HT20/40 802.11ac: MCS0 – MCS9, VHT20/40/80
Antenna Type	ANT C:Chip Antenna
Antenna Gain	2400-2483.5MHz: ANT C: 2.70dBi 5150-5250MHz: ANT C: 3.80dBi 5250-5350MHz: ANT C: 3.80dBi 5470-5725MHz: ANT C: 2.40dBi 5725-5850MHz: ANT C: 0.90dBi

Note:

1. EUT support TPC Function.
2. BT and WLAN can simultaneously transmission.
3. EUT support Client Mode without radar detection.
4. For more details, please refer to the User's manual of the EUT.



2.2 Test Mode and Test Software

- During testing, the interface cables and equipment positions were varied according to ANSI C63.4.
- The complete test system included Notebook and EUT for RF test.
- An executive program, "Direct Test Mode ver. 2.0.3" under Windows OS system was executed to transmit and receive data via Bluetooth.
- An executive program, "QRCT ver. 4.0.00201.0" under Windows OS system was executed to transmit and receive data via WLAN.
- The following test modes were performed for the test:

Conducted Emissions from the AC mains power ports	
Test Mode	Operating Description
1	BLE GFSK CH00 (Nordic) + 2.4G 11g CH01(WCN3680),From POE, AC 120V / 60Hz
2	BLE GFSK CH00 (Nordic) + 2.4G 11g CH01(WCN3680),From POE, AC 240V / 60Hz
3	BLE GFSK CH00 (Nordic)+ 5G 11ac CH157(WCN3680),From POE, AC 120V / 60Hz
4	BLE GFSK CH00 (Nordic)+ 5G 11ac CH157(WCN3680),From POE, AC 240V / 60Hz
caused "Test Mode 1,3" generated the worst case, it was reported as the final data.	
Radiation Emissions (BELOW 1GHz)	
Test Mode	Operating Description
1	BLE GFSK CH00 (Nordic) + 2.4G 11g CH01(WCN3680),From POE, AC 120V / 60Hz
2	BLE GFSK CH00 (Nordic) + 2.4G 11g CH01(WCN3680),From POE, AC 240V / 60Hz
3	BLE GFSK CH00 (Nordic)+ 5G 11ac CH157(WCN3680),From POE, AC 120V / 60Hz
4	BLE GFSK CH00 (Nordic)+ 5G 11ac CH157(WCN3680),From POE, AC 240V / 60Hz
caused "Test Mode 2,3" generated the worst case, it was reported as the final data.	
Radiation Emissions (1GHz ~ 25GHz)	
Test Mode	Operating Description
1	BLE GFSK CH00 (Nordic) + 2.4G 11g CH01(WCN3680),From POE, AC 120V / 60Hz
2	BLE GFSK CH00 (Nordic) + 2.4G 11g CH01(WCN3680),From POE, AC 240V / 60Hz
3	BLE GFSK CH00 (Nordic)+ 5G 11ac CH157(WCN3680),From POE, AC 120V / 60Hz
4	BLE GFSK CH00 (Nordic)+ 5G 11ac CH157(WCN3680),From POE, AC 240V / 60Hz
caused "Test Mode 1,3" generated the worst case, it was reported as the final data.	



2.3 Description of Test System

RF Conducted				
Equipment	Brand	Model	Length/Type	Power cord/Length/Type
Notebook	lenovo	S1GL2W	N/A	Adapter / 1.8m / NS
Adapter	UI	GP-M015-QC	1.2m / NS	N/A
RJ45 Cable	TE CONNECTIVITY	CAT5E	1.2m / NS	N/A
Type-C USB Cable (Blue)*2	kolin	KEX-DLCP08	1m / NS	N/A
Testfixture	UI	11-02820-07	N/A	N/A
AC Power Line Conducted Emission				
Equipment	Brand	Model	Length/Type	Power cord/Length/Type
Notebook	lenovo	S1GL2W	N/A	Adapter / 1.8m / NS
POE	UBIQUITI	GP-H480-050G	N/A	0.6m / NS
RJ45 Cable	TE CONNECTIVITY	CAT5E	1.2m / NS	N/A
Type-C USB Cable (Blue)*2	kolin	KEX-DLCP08	1m / NS	N/A
Testfixture	UI	11-02820-07	N/A	N/A



2.4 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
Frequency Range Investigated	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 40,000MHz	
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
Radiated Emissions	3M02-NK	2023/09/08	27.9℃ / 38%	Leon Huang
AC Power Line Conducted Emission	CON01-NK	2023/09/09	27℃ / 52%	Leon Huang



2.5 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))

For 2.4G

Measurement Item	Uncertainty
AC Power Line Conduction	$\pm 3.28\text{dB}$
Radiated Spurious Emission(9KHz~30MHz)	$\pm 3.5\text{dB}$
Radiated Spurious Emission(30MHz~1GHz)	$\pm 5.1\text{dB}$
Radiated Spurious Emission(1GHz~40GHz)	$\pm 5.2\text{dB}$
Conducted Spurious Emission	$\pm 2.1\text{dB}$
6dB Bandwidth	$\pm 5.4\%$
20dB Bandwidth	$\pm 4.4\%$
Occupied Bandwidth	$\pm 4.5\%$
Peak Output Power(Conducted Power Meter)	$\pm 1.1\text{dB}$
Dwell Time / Deactivation Time	$\pm 7.6\%$
Power Spectral Density	$\pm 2.0\text{dB}$
Duty Cycle	$\pm 3.5\%$
Radiated Spurious Emission(9KHz~30MHz)	$\pm 3.5\text{dB}$

For 5G

Measurement Item	Uncertainty
AC Power Line Conduction(150K~30MHz)	$\pm 3.28\text{dB}$
Radiated Spurious Emission(9KHz~30MHz)	$\pm 3.5\text{dB}$
Radiated Spurious Emission(30MHz~1GHz)	$\pm 5.1\text{dB}$
Radiated Spurious Emission(1GHz~40GHz)	$\pm 5.2\text{dB}$
6dB Bandwidth	$\pm 5.4\%$
26dB Bandwidth	$\pm 4.4\%$
Occupied Bandwidth	$\pm 4.5\%$
Peak Output Power(Conducted Power Meter)	$\pm 1.1\text{dB}$
Power Spectral Density	$\pm 2.0\text{dB}$
Duty Cycle	$\pm 3.5\%$
Frequency Stability	$\pm 0.23\text{KHz}$



3. Test Equipment and Ancillaries Used for Tests

Test Item	Radiated Emissions				
Test Site	Semi Anechoic Room(3M02-NK)				
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
Bilog Antenna	Schwarzbeck	VULB9168	275	2022/11/18	2023/11/17
Active Loop Antenna	Schwarzbeck	FMZB 1513	414	2023/02/03	2024/02/02
Horn Antenna	EMCO	3115	31589	2023/03/23	2024/03/22
Horn Antenna	EMCO	3116	31970	2023/03/03	2024/03/02
EMI Receiver	ROHDE & SCHWARZ	ESCI	101423	2023/07/05	2024/07/04
Spectrum Analyzer	ROHDE & SCHWARZ	FSP 40	100047	2023/02/24	2024/02/23
Preamplifier	Agilent	8449B	3008A01954	2023/03/08	2024/03/07
Preamplifier	EMC INSTRUMENTS	EMC184045	980065	2022/11/11	2023/11/10
Preamplifier	EM Electronics corp.	EM330	60658	2022/10/04	2023/10/03
Cable-6m(9k~300M)	NA	EMC5D-BM-BM-6	130606	2023/03/13	2024/03/12
Cable-3in1(30M-1G)	HARBOUR INDUSTRIES	LL142	CCE1315	2023/02/25	2024/02/24
Cable-0.5m(1G-40G)	HUBER SUHNER	SUCOFLEX 104	805443/4	2023/03/07	2024/03/06
Cable-3m(1G-40G)	HUBER SUHNER	SUCOFLEX 104	805796/4	2023/03/07	2024/03/06
Cable-8m(1G-26.5G)	WOKEN	WCBA-WCA203SM	CCE1374	2023/03/07	2024/03/06
Cable-0.5m(30M-40G)	HUBER SUHNER	SUCOFLEX 102	28420/2	2023/03/07	2024/03/06
Cable-3m(10M-40G)	HUBER SUHNER	SF102	804619/2	2022/10/11	2023/10/10
E3	AUDIX	v8.2014-8-6	RK-000529	NA	NA
Hipass Filter	Warison	WFIL-H7500-18000F	WRQ4BFWC2J1	2023/03/13	2024/03/12
High Pass Filter	Warison	WFIL-H3000-18000F-03	WRJ5CFWC2J1	2023/07/03	2024/07/02

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	101200	2022/12/09	2023/12/08
Line Impedance Stabilization Network	Schwarzbeck	NSLK 8127	8127-568	2023/05/10	2024/05/09
Pulse Limiter	ROHDE & SCHWARZ	ESH3-Z2	101933	2022/09/29	2023/09/28
Cable-3m(9k-3G)	EMEC	RG-223	18268M	2023/07/31	2024/07/30
E3	AUDIX	v8.2014-8-6	RK-000531	NA	NA



4. Test of AC Power Line Conducted Emission

4.1 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

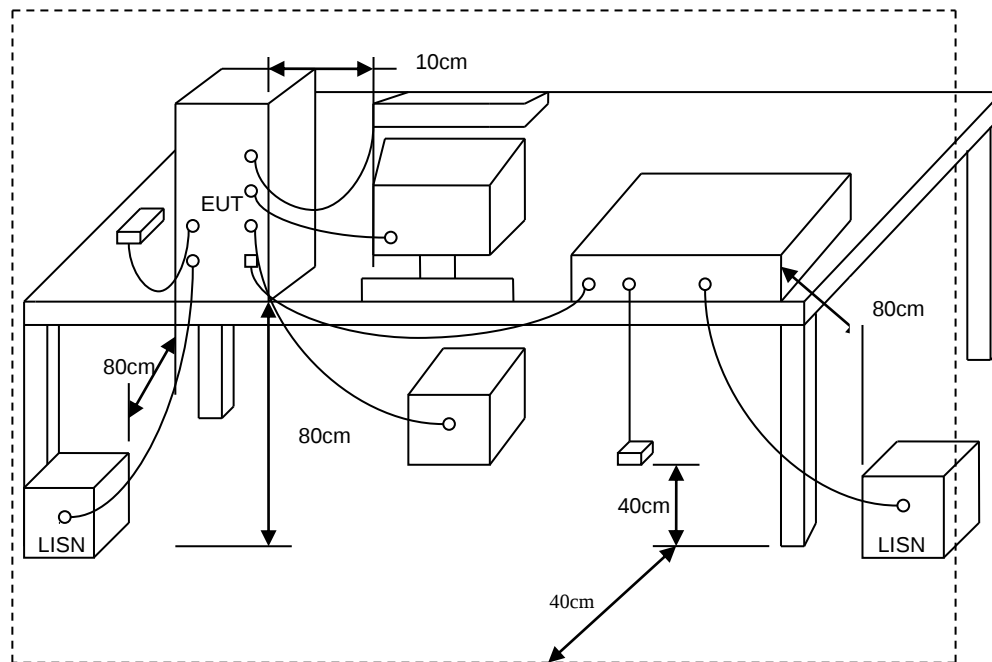
*Decreases with the logarithm of the frequency.

4.2 Test Procedures

- 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.
- Connect EUT to the power mains through a line impedance stabilization network (LISN).
- All the support units are connecting to the other LISN.
- The LISN provides 50 ohm coupling impedance for the measuring instrument.
- The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- Both sides of AC line were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched.
- Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



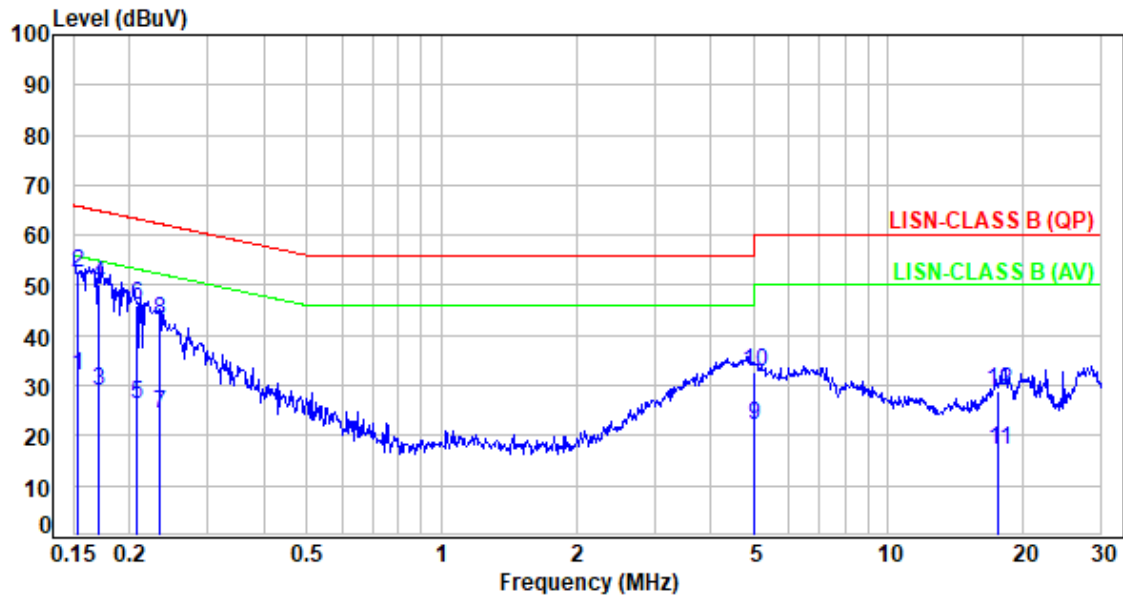
4.3 Typical Test Setup





4.4 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	9.97	21.96	31.93	55.79	-23.86	Average	P
2	0.15	9.97	42.64	52.61	65.79	-13.18	QP	P
3	0.17	9.97	18.95	28.92	54.89	-25.97	Average	P
4	0.17	9.97	40.05	50.02	64.89	-14.87	QP	P
5	0.21	9.97	16.40	26.37	53.30	-26.93	Average	P
6	0.21	9.97	35.86	45.83	63.30	-17.47	QP	P
7	0.23	9.97	14.22	24.19	52.33	-28.14	Average	P
8	0.23	9.97	32.95	42.92	62.33	-19.41	QP	P
9	4.99	10.19	12.00	22.19	46.00	-23.81	Average	P
10	4.99	10.19	22.46	32.65	56.00	-23.35	QP	P
11	17.66	10.57	6.57	17.14	50.00	-32.86	Average	P
12	17.66	10.57	18.36	28.93	60.00	-31.07	QP	P

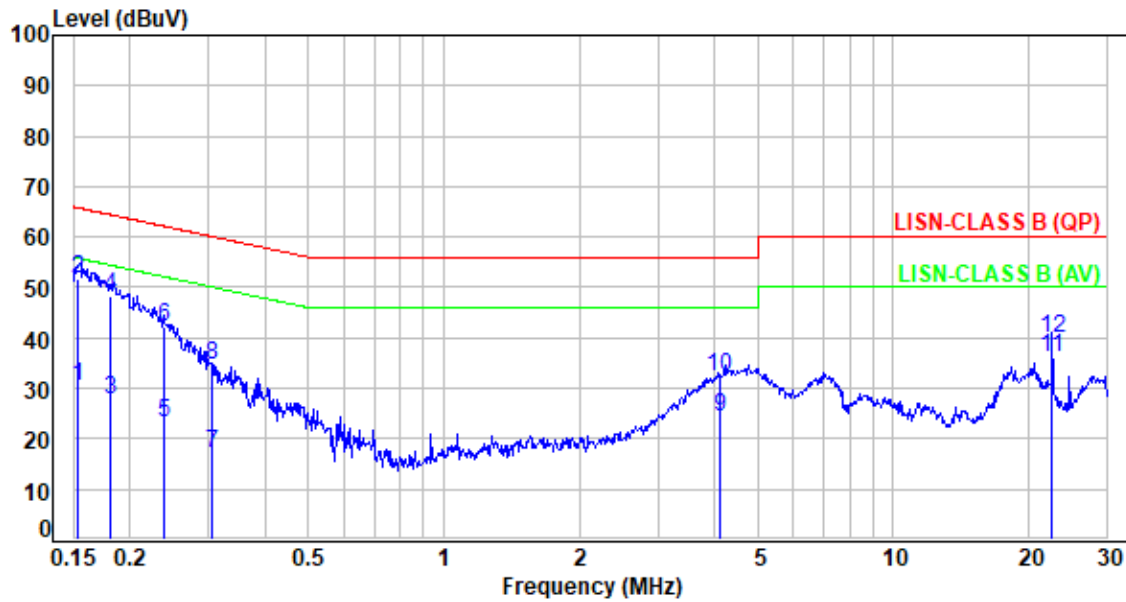
Note: Level=Reading+Factor

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	9.97	20.61	30.58	55.81	-25.23	Average	P
2	0.15	9.97	41.92	51.89	65.81	-13.92	QP	P
3	0.18	9.96	17.87	27.83	54.42	-26.59	Average	P
4	0.18	9.96	38.28	48.24	64.42	-16.18	QP	P
5	0.24	9.96	13.16	23.12	52.16	-29.04	Average	P
6	0.24	9.96	32.20	42.16	62.16	-20.00	QP	P
7	0.30	9.96	7.15	17.11	50.14	-33.03	Average	P
8	0.30	9.96	24.78	34.74	60.14	-25.40	QP	P
9	4.10	10.08	14.33	24.41	46.00	-21.59	Average	P
10	4.10	10.08	22.05	32.13	56.00	-23.87	QP	P
11	22.53	10.65	25.29	35.94	50.00	-14.06	Average	P
12	22.53	10.65	29.25	39.90	60.00	-20.10	QP	P

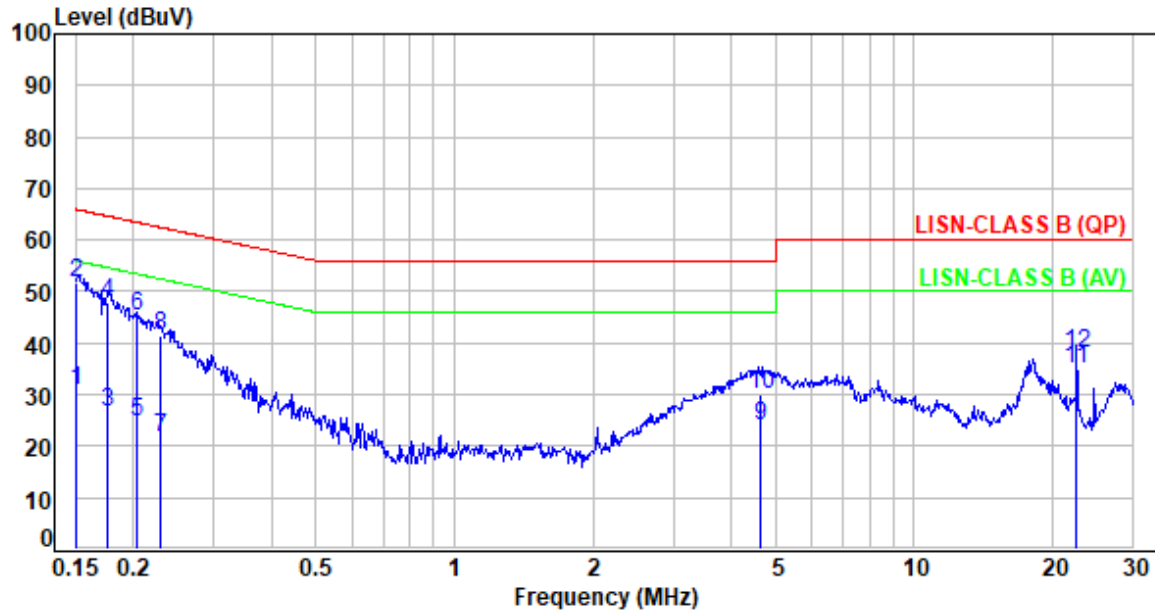
Note: Level=Reading+Factor

Margin=Level-Limit

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



Power	: AC 120V / 60Hz	Pol/Phase	: LINE
Test Mode	: Mode 3		:



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.15	9.97	20.87	30.84	55.98	-25.14	Average	P
2	0.15	9.97	41.85	51.82	65.98	-14.16	QP	P
3	0.18	9.97	16.62	26.59	54.70	-28.11	Average	P
4	0.18	9.97	37.79	47.76	64.70	-16.94	QP	P
5	0.20	9.97	14.59	24.56	53.49	-28.93	Average	P
6	0.20	9.97	35.15	45.12	63.49	-18.37	QP	P
7	0.23	9.97	11.56	21.53	52.50	-30.97	Average	P
8	0.23	9.97	31.60	41.57	62.50	-20.93	QP	P
9	4.62	10.17	13.79	23.96	46.00	-22.04	Average	P
10	4.62	10.17	19.85	30.02	56.00	-25.98	QP	P
11	22.53	10.68	24.39	35.07	50.00	-14.93	Average	P
12	22.53	10.68	27.44	38.12	60.00	-21.88	QP	P

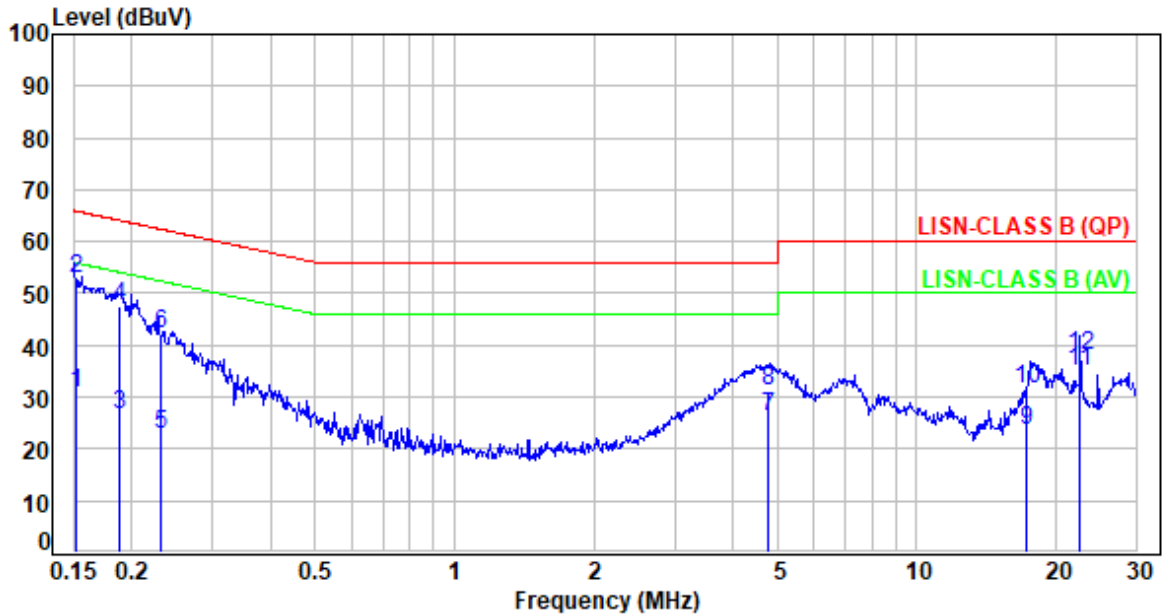
Note: Level=Reading+Factor

Margin=Level-Limit

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



Power	: AC 120V / 60Hz	Pol/Phase	: NEUTRAL
Test Mode	: Mode 3		:



No.	Frequency (MHz)	Factor (dB)	Reading (dBUV)	Level (dBUV)	Limit (dBUV)	Margin (dB)	Detector	P/F
1	0.15	9.97	20.85	30.82	55.89	-25.07	Average	P
2	0.15	9.97	42.74	52.71	65.89	-13.18	QP	P
3	0.19	9.96	16.82	26.78	54.11	-27.33	Average	P
4	0.19	9.96	37.50	47.46	64.11	-16.65	QP	P
5	0.23	9.96	12.94	22.90	52.40	-29.50	Average	P
6	0.23	9.96	32.27	42.23	62.40	-20.17	QP	P
7	4.79	10.11	16.08	26.19	46.00	-19.81	Average	P
8	4.79	10.11	21.14	31.25	56.00	-24.75	QP	P
9	17.27	10.51	12.89	23.40	50.00	-26.60	Average	P
10	17.27	10.51	20.92	31.43	60.00	-28.57	QP	P
11	22.53	10.65	24.45	35.10	50.00	-14.90	Average	P
12	22.53	10.65	27.34	37.99	60.00	-22.01	QP	P

Note: Level=Reading+Factor

Margin=Level-Limit

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



5. Test of Spurious Emission (Radiated)

5.1 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



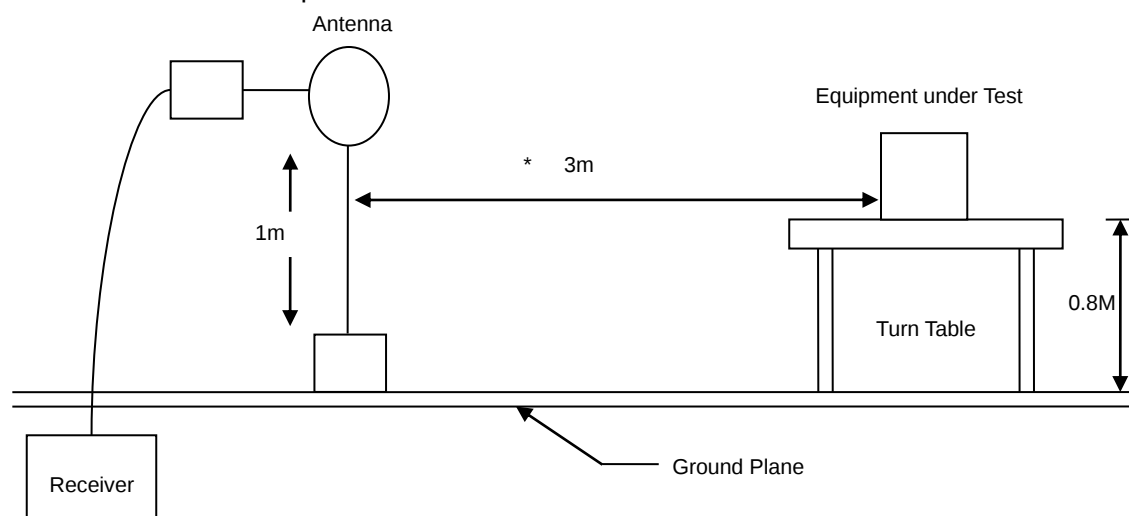
5.2 Test Procedures

- The EUT was placed on a rotatable table top 0.8 meter above ground.
- The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- The table was rotated 360 degrees to determine the position of the highest radiation.
- 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.
- 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.
- Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- 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.
- 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.
- "Cone of radiation" has been considered to be 3dB bandwidth of the measurement antenna.

Note: The supporting fixture shall permit orientation of the EUT in each of three orthogonal axis positions such that emissions from the EUT are maximized.
(Y-AXIS is the worst.)

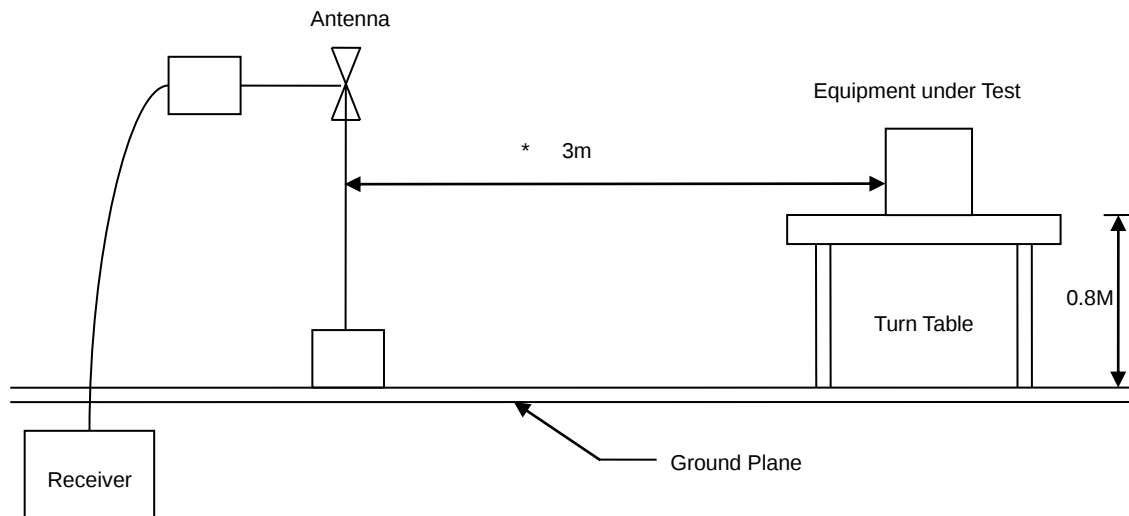
5.3 Typical Test Setup

Below 30MHz test setup

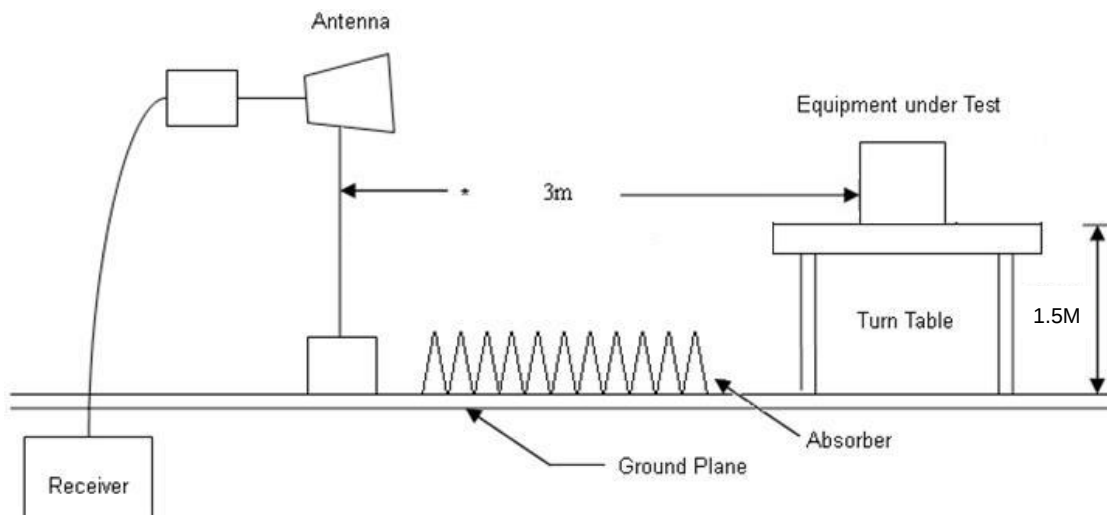




30MHz- 1GHz Test Setup



Above 1GHz Test Setup



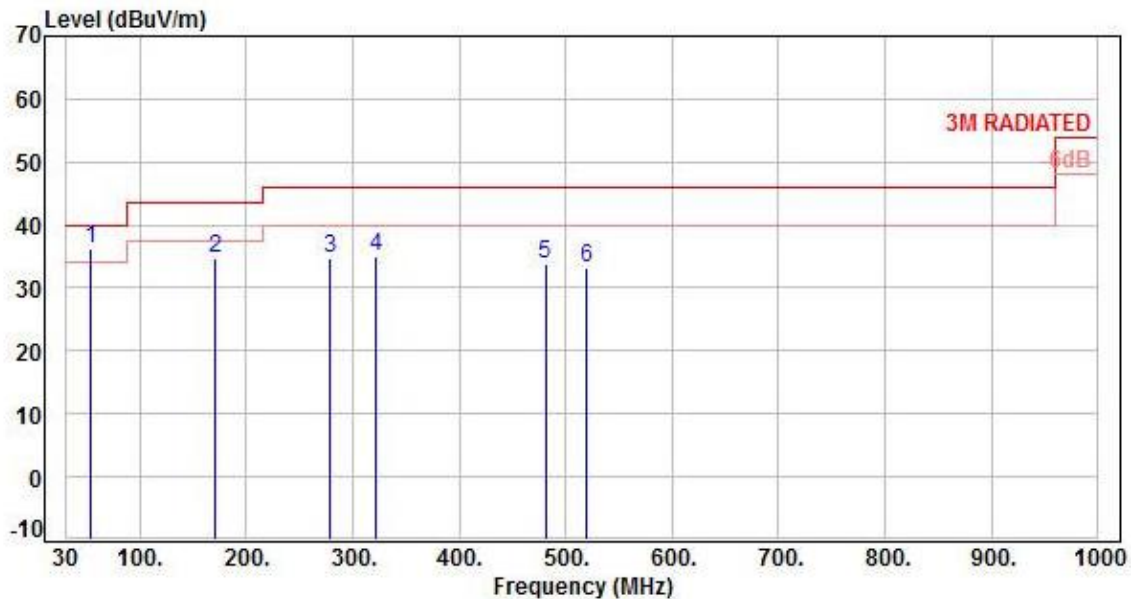


5.4 Test Result and Data (9kHz ~ 30MHz)

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

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

Power	:	AC 240V / 60Hz	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 2		:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	53.98	-10.64	47.01	36.37	40.00	-3.63	QP	100	115	P
2	171.43	-11.41	46.03	34.62	43.50	-8.88	Peak	400	0	P
3	278.46	-10.78	45.41	34.63	46.00	-11.37	Peak	400	0	P
4	321.21	-9.42	44.52	35.10	46.00	-10.90	Peak	400	0	P
5	480.88	-5.58	39.40	33.82	46.00	-12.18	Peak	400	0	P
6	518.90	-4.59	37.79	33.20	46.00	-12.80	Peak	400	0	P

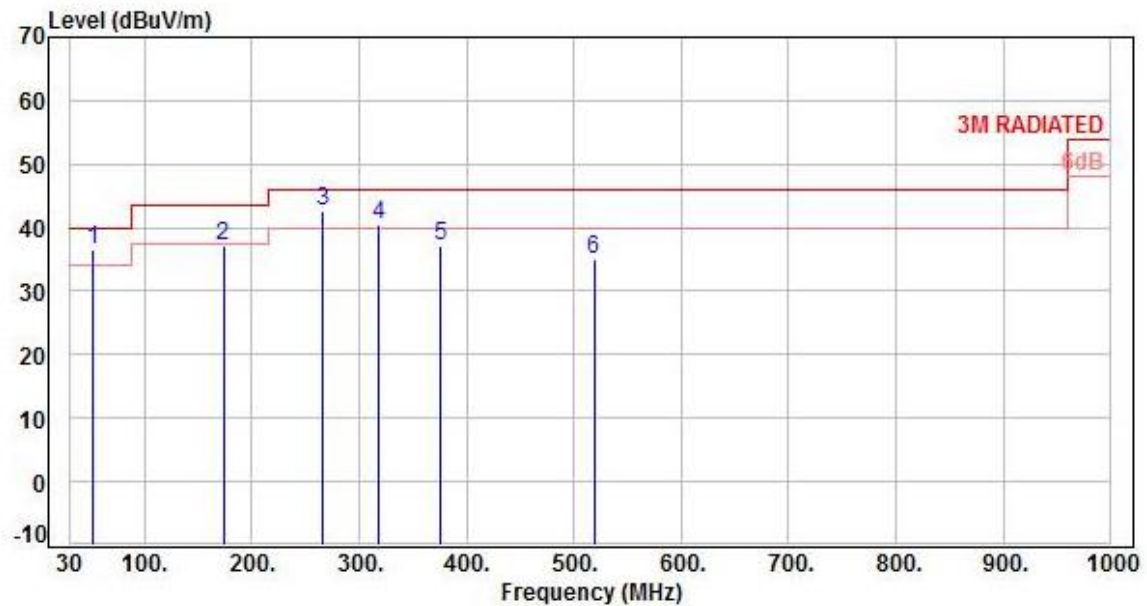
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 240V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2		:



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	51.78	-10.68	47.24	36.56	40.00	-3.44	QP	320	59	P
2	173.41	-11.67	48.84	37.17	43.50	-6.33	Peak	400	0	P
3	266.59	-11.33	53.92	42.59	46.00	-3.41	QP	100	152	P
4	317.41	-9.48	49.91	40.43	46.00	-5.57	Peak	400	0	P
5	375.75	-7.98	45.13	37.15	46.00	-8.85	Peak	400	0	P
6	518.66	-4.60	39.49	34.89	46.00	-11.11	Peak	400	0	P

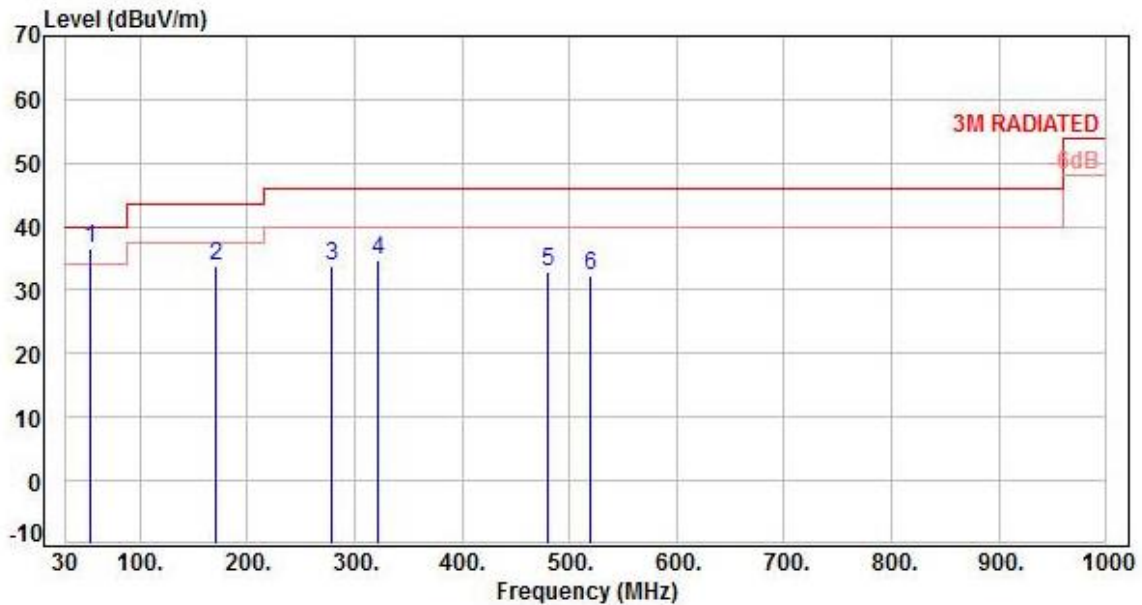
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 3		:



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	53.48	-10.67	47.07	36.40	40.00	-3.60	QP	100	115	P
2	171.33	-11.40	45.11	33.71	43.50	-9.79	Peak	400	0	P
3	278.72	-10.78	44.63	33.85	46.00	-12.15	Peak	400	0	P
4	321.61	-9.41	44.13	34.72	46.00	-11.28	Peak	400	0	P
5	480.21	-5.61	38.50	32.89	46.00	-13.11	Peak	400	0	P
6	518.87	-4.59	36.93	32.34	46.00	-13.66	Peak	400	0	P

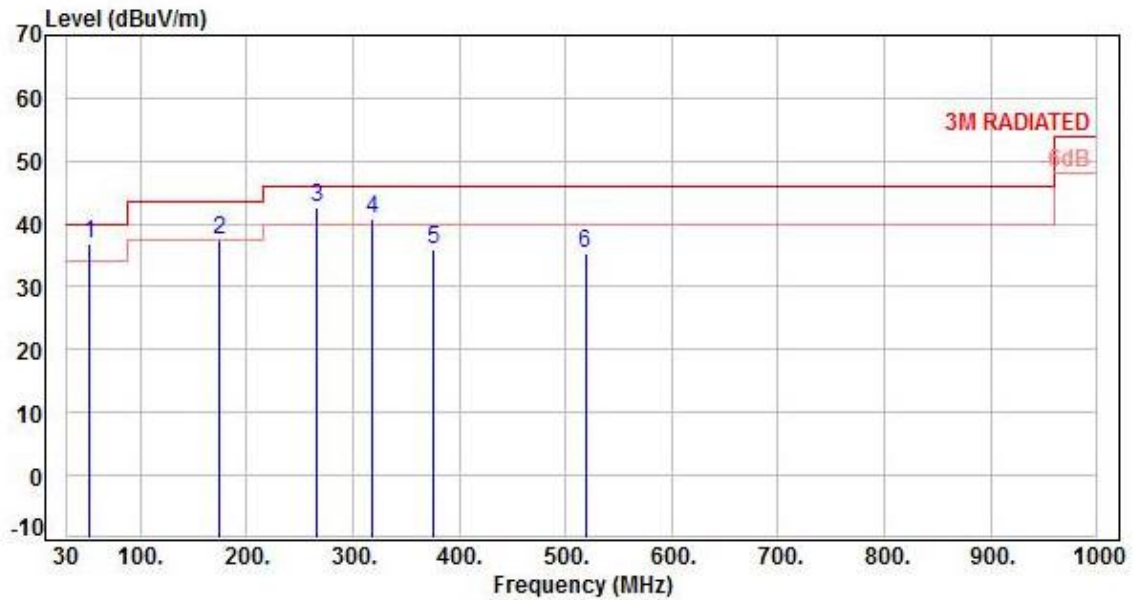
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3		:



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	51.61	-10.62	47.38	36.76	40.00	-3.24	QP	320	59	P
2	173.88	-11.67	49.04	37.37	43.50	-6.13	Peak	400	0	P
3	266.54	-11.33	53.92	42.59	46.00	-3.41	QP	100	152	P
4	317.43	-9.48	50.31	40.83	46.00	-5.17	Peak	400	0	P
5	375.12	-7.99	43.93	35.94	46.00	-10.06	Peak	400	0	P
6	518.63	-4.60	39.89	35.29	46.00	-10.71	Peak	400	0	P

Note: Level=Reading+Factor

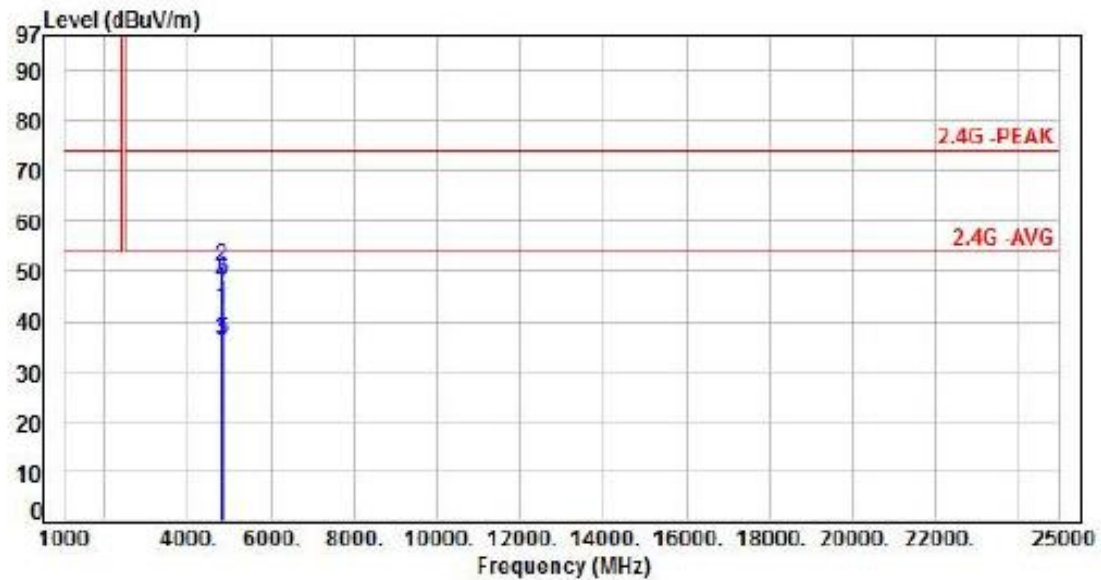
Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



5.6 Test Result and Data (1GHz ~ 40GHz)

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	4804.00	5.93	36.38	42.31	54.00	-11.69	Average	100	57	P
2	4804.00	5.93	45.14	51.07	74.00	-22.93	Peak	100	57	P
3	4814.00	6.00	30.14	36.14	54.00	-17.86	Average	100	169	P
4	4814.00	6.00	41.75	47.75	74.00	-26.25	Peak	100	169	P
5	4824.00	6.09	29.96	36.05	54.00	-17.95	Average	100	133	P
6	4824.00	6.09	42.25	48.34	74.00	-25.66	Peak	100	133	P

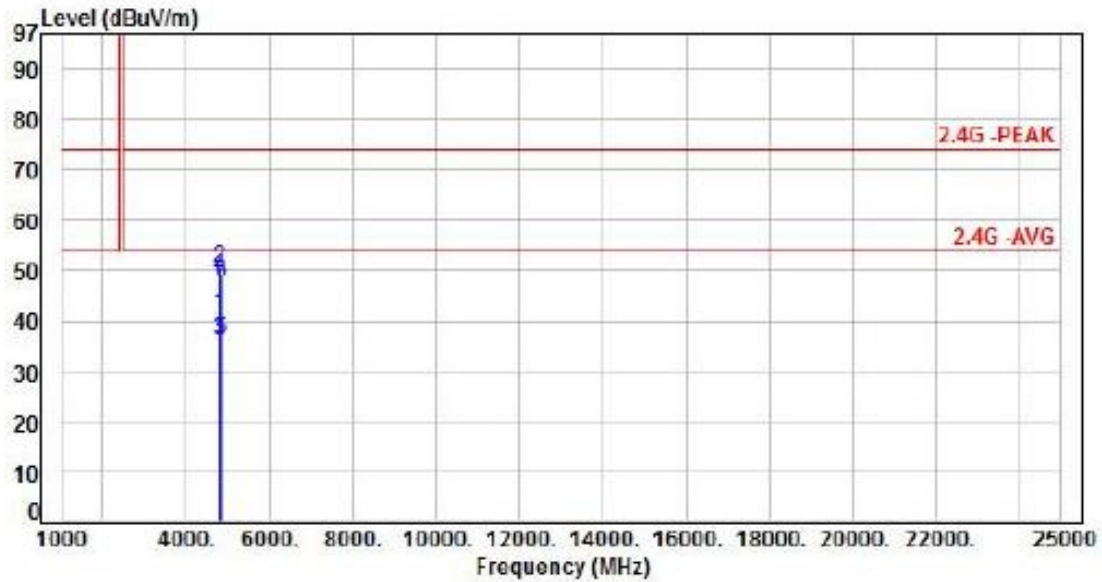
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



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



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	4804.00	5.93	35.56	41.49	54.00	-12.51	Average	339	4	P
2	4804.00	5.93	44.64	50.57	74.00	-23.43	Peak	339	4	P
3	4814.00	6.00	30.16	36.16	54.00	-17.84	Average	100	198	P
4	4814.00	6.00	42.53	48.53	74.00	-25.47	Peak	100	198	P
5	4824.00	6.09	30.00	36.09	54.00	-17.91	Average	100	123	P
6	4824.00	6.09	41.57	47.66	74.00	-26.34	Peak	100	123	P

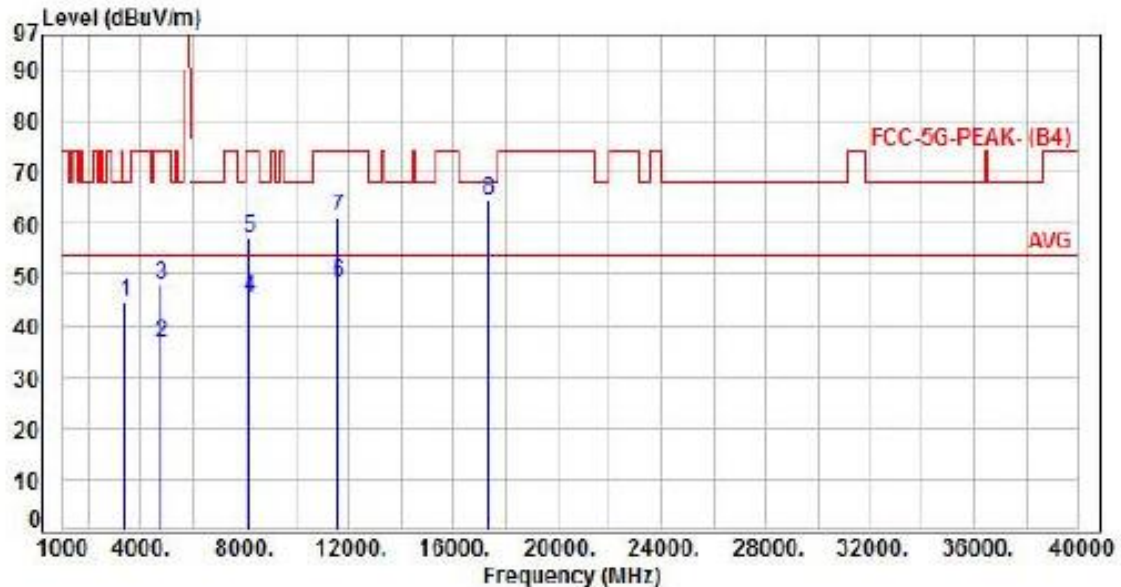
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 3		:



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	3383.00	1.97	42.79	44.76	68.20	-23.44	Peak	100	124	P
2	4804.00	5.50	30.86	36.36	54.00	-17.64	Average	100	245	P
3	4804.00	5.50	42.55	48.05	74.00	-25.95	Peak	100	245	P
4	8187.00	13.72	31.71	45.43	54.00	-8.57	Average	100	163	P
5	8187.00	13.72	43.58	57.30	74.00	-16.70	Peak	100	163	P
6	11570.00	17.42	30.73	48.15	54.00	-5.85	Average	100	253	P
7	11570.00	17.42	43.68	61.30	74.00	-12.70	Peak	100	253	P
8	17355.00	23.30	41.25	64.55	68.20	-3.65	Peak	100	199	P

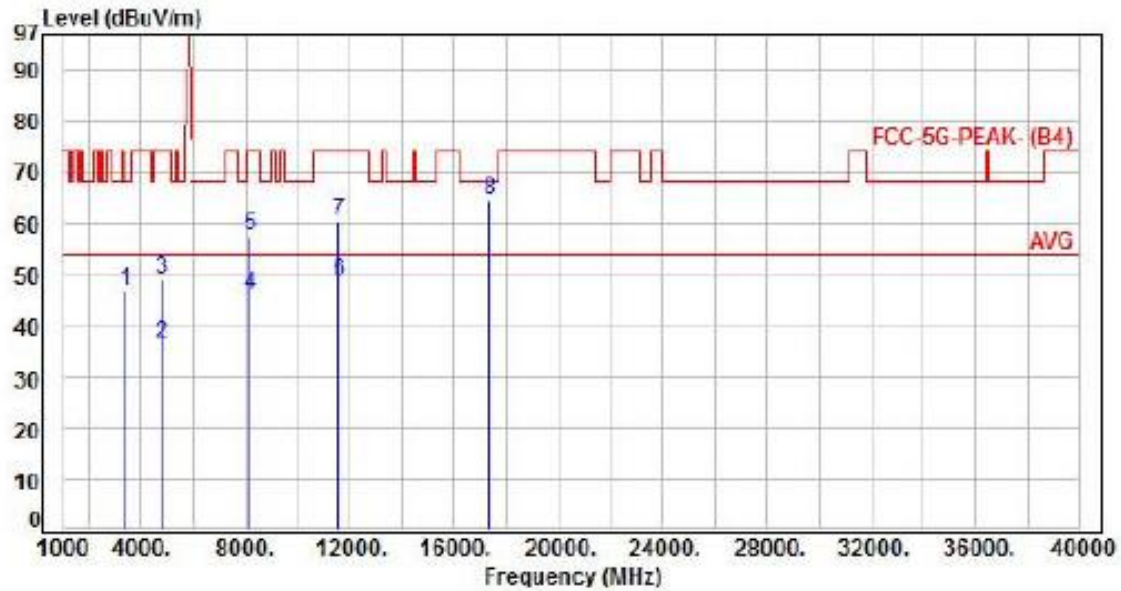
Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3		:



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	3383.00	1.97	44.70	46.67	68.20	-21.53	Peak	100	164	P
2	4804.00	5.50	31.01	36.51	54.00	-17.49	Average	100	147	P
3	4804.00	5.50	43.48	48.98	74.00	-25.02	Peak	100	147	P
4	8187.00	13.72	32.27	45.99	54.00	-8.01	Average	100	264	P
5	8187.00	13.72	43.78	57.50	74.00	-16.50	Peak	100	264	P
6	11570.00	17.42	31.20	48.62	54.00	-5.38	Average	100	167	P
7	11570.00	17.42	42.92	60.34	74.00	-13.66	Peak	100	167	P
8	17355.00	23.30	41.25	64.55	68.20	-3.65	Peak	100	234	P

Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor



5.7 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