

EMC Test Report

Applicant : Plasma Cloud Limited
Product Type : WiFi Access Point
Trade Name : Plasma Cloud
Model Number : PA1200
Applicable Standard : FCC 47 CFR PART 15 SUBPART B
ANSI C63.4: 2014
Receive Date : Aug. 29, 2017
Test Period : Mar. 19, 2018 ~ Aug. 05, 2019
Issue Date : Aug. 05, 2019

Issue by

A Test Lab Techno Corp.
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Taiwan Accreditation Foundation accreditation number: 1330
Test Firm MRA designation number: TW1062

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Revision History

Rev.	Issue Date	Revisions	Revised By
00	Jun. 04, 2019	Initial Issue.	Serene Yang
01	Aug. 05, 2019	Page 1 Revised test period. Page 7 Revised EUT modify description. Page 9 Revised configuration of test system Details. Page 10 Revised conducted emission certificate date of equipment. Page 19 & 20 Add conducted emission data.	Serene Yang

Verification of Compliance

Issued Date: Aug. 05, 2019

Applicant : Plasma Cloud Limited

Product Type : WiFi Access Point

Trade Name : Plasma Cloud

Model Number : PA1200

EUT Rated Voltage : DC 12 V - 24 V, 1 A (DC Power Adapter)
DC 48 V - 54 V, 0.5 A (PoE injector (802.3af/at))

Test Voltage : 120 Vac / 60 Hz

Applicable Standard : FCC 47 CFR PART 15 SUBPART B
ANSI C63.4: 2014

Test Result : Complied

Performing Lab. : A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade District,
Taoyuan City 33465, Taiwan (R.O.C.)
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Taiwan Accreditation Foundation accreditation number: 1330
<http://www.atl-lab.com.tw/e-index.htm>

The above equipment has been tested by A Test Lab Techno Corp., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved By : Terry Liao Reviewed By : Misty Wu
(Manager) (Terry Liao) (Testing Engineer) (Misty Wu)

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1 General Information

1.1. Summary of Test Result

Emission			
Standard	Item	Verdict	Remark
FCC 47 CFR PART 15 SUBPART B ANSI C63.4	Conducted Emission	PASS	Meet Class B limit
FCC 47 CFR PART 15 SUBPART B ANSI C63.4	Radiated Emission	PASS	Meet Class B limit

The test results of this report was related only to the tested sample(s) identified in this report. Manufacturer or whom it may concern should recognize the pass or fail of the test result.

1.2. Testing Location

Site Name: A Test Lab Techno Corp.

<http://www.atl-lab.com.tw/e-index.htm>

Site Address: No. 140-1, Changan Street, Bade District, Taoyuan City 33465, Taiwan (R.O.C.)

Tel : +886-3-2710188

Fax : +886-3-2710190

1.3. Measurement Uncertainty

Test Item		Frequency Range	Uncertainty (dB)
Conducted Emission	AC Power Port	9 kHz ~ 150 kHz	2.7
		150 kHz ~ 30 MHz	2.7

Test Item	Test Site	Frequency Range		Uncertainty (dB)
Radiated Emission	TE06	30 MHz ~ 1000 MHz	Horizontal	5.6
			Vertical	6.0
	TE01	1000 MHz ~ 6000 MHz		5.2
		6000 MHz ~ 18000 MHz		5.5
		18000 MHz ~ 26500 MHz		4.8
		26500 MHz ~ 40000 MHz		4.8
	TE09	1000 MHz ~ 6000 MHz		4.9
		6000 MHz ~ 18000 MHz		5.3
		18000 MHz ~ 26500 MHz		4.5
		26500 MHz ~ 40000 MHz		4.8

Note: The Vertical and Horizontal measurement uncertainty of 1 GHz to 40 GHz is evaluated and choose which polarity is worst value.

1.4. Test Site Environment

Test Item	Items	Required (IEC 60068-1)	Actual
Conducted Emission	Temperature (°C)	15-35	26
	Humidity (%RH)	25-75	60
	Barometric pressure (mbar)	860-1060	990
Radiated Emission	Temperature (°C)	15-35	26
	Humidity (%RH)	25-75	60
	Barometric pressure (mbar)	860-1060	990

2 EUT Description

Applicant	Plasma Cloud Limited 5/F, Yat Chau Building 262 Des Voeux Road Central Hong Kong
Manufacturer	Emplus Technologies, Inc. Bldg. B, 10F., No.209, Sec. 1, Nangang Rd., Nangang Dist., Taipei City 11568, Taiwan
Product Type	WiFi Access Point
Trade Name	Plasma Cloud
Model Number	PA1200
I/O Ports	Refer to User Manual
Highest Operating Frequency	5825 MHz

EUT Modify Description :

Modify Description:

- (1)Change the applicant, applicant address, manufacturer address, product type, trade name, model number, FCC ID and the appearance.
- (2)Change accessories to configuration of test adapter.
(Adapter Models: PA1015-120HUB125, DSA-12PFT-12 FUS 120100, PS1012-120HUB100)
- (3)Add a configuration of test adapter(Adapter Model: PA1024-3HU)

After our evaluation, AC Power Conducted Emission need to test AC adapter: PA1024-3HU and its results are in the modify report. The others refer to the Original Report.

Original Report : 1803FE23-01

Modify: 1905FE24 Rev.01

3 Test Methodology

3.1. Decision of Test Mode

3.1.1. The following test mode(s) were scanned during the preliminary test:

Pre-Test Mode
Mode 1: Wi-Fi 2.4 G + Wi-Fi 5 G + LAN link with AC Adapter mode Mode 2: Wi-Fi 2.4 G + Wi-Fi 5 G + LAN link with POE Adapter mode

3.1.2. After the preliminary scan, the following test mode was final mode and found to produce the highest emission level.

Final Test Mode			
Emission	Conducted Emission		Mode 1
	Radiated Emission	Below 1 GHz	Mode 1
		Above 1 GHz	Mode 1

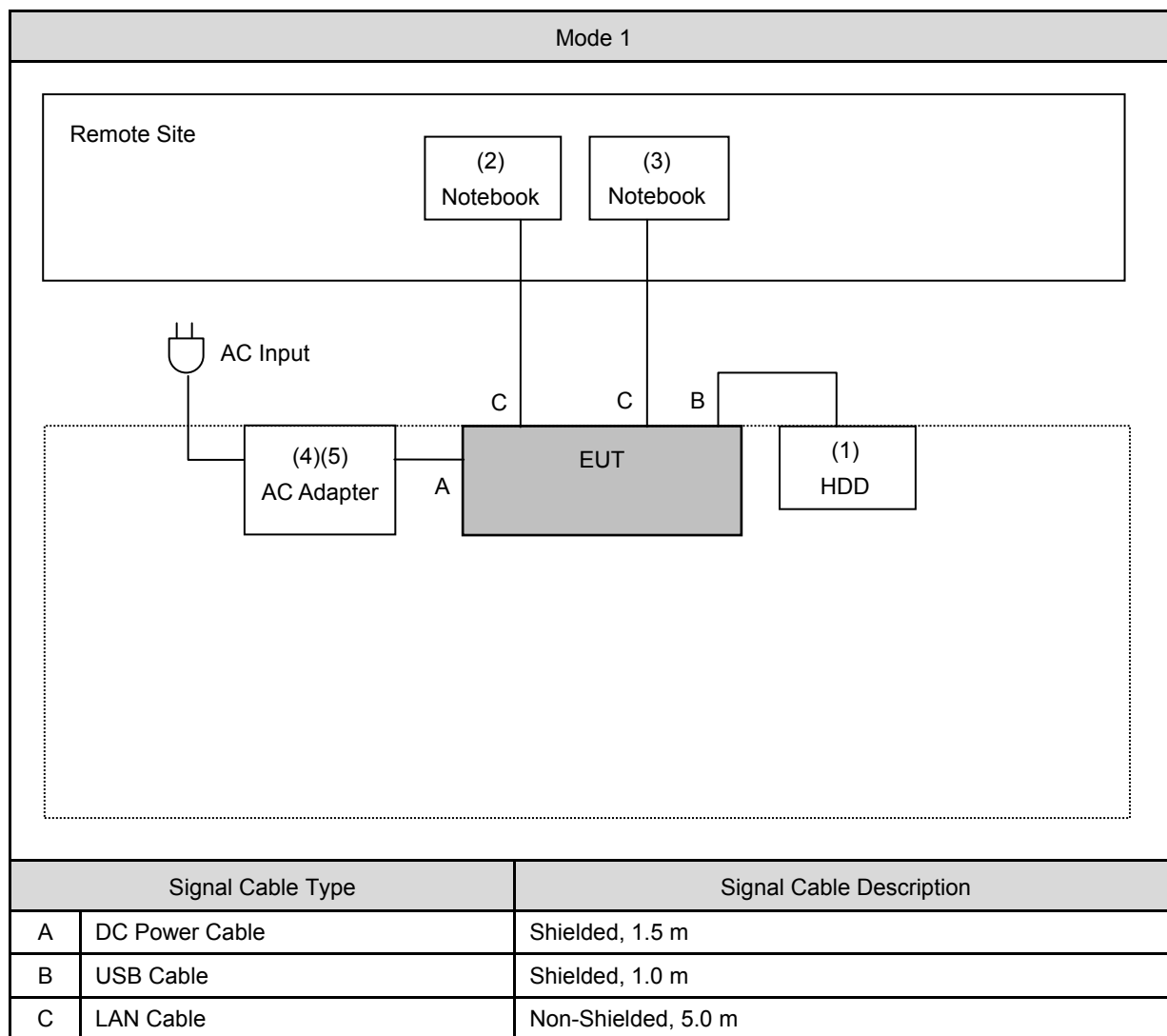
The above highest emission mode of the configuration of the EUT and cable was chosen for all final test items.

3.2. EUT Exercise Software

1	Setup the EUT and simulators as shown on 3.3.
2	Turn on the power of all equipment.
3	Notebook link to EUT by LAN.
4	Notebook link to EUT by Wi-Fi.
5	Data will be communicated between Notebook and Notebook through EUT that is connected to LAN port.
6	Start to test get the worst reading.

Measurement Software			
No.	Description	Software	Version
1	Conducted Emission	EZ EMC	1.1.4.3
2	Radiated Emission _ Below 1 GHz	EZ EMC	1.1.4.2
3	Radiated Emission _ Above 1 GHz	EZ EMC	1.1.4.4

3.3. Configuration of Test System Details



Devices Description					
	Product	Manufacturer/ Trade	Model Number	Serial Number	Power Cord
(1)	HDD	WD	My Passport	WX71AA3L2366	Power by EUT
(2)	Notebook	DELL	LAPTITU E5440	6699565657	Non-Shielded, 1.8 m
(3)	Notebook	DELL	LATITUDE 7370	10811202626	Non-Shielded, 1.8 m
(4)	AC Adapter	Powertron Electronics Corp.	PS1012-120HUB100	N/A	Non-Shielded, 1.5 m with one core
(5)	AC Adapter	Powertron Electronics Corp.	PA1024-3HU	N/A	Non-Shielded, 1.5 m with one core

3.4. Test Instruments

Test Period : Mar. 20, 2018, Aug. 05, 2019

Conducted Emission test site					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Test Receiver	R&S	ESCI	100367	05/18/2017 05/23/2019	1 year
LISN	R&S	ENV216	101040	04/01/2017 04/03/2019	1 year
Test Site	ATL	TE02	TE02	N.C.R.	-----

Test Period : Mar. 19, 2018

Radiated Emission - 10 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Amplifier	EMCI	EMC9135	980298	02/09/2018	1 year
Amplifier	EMCI	EMC9135	980299	02/17/2018	1 year
Test Receiver	R&S	ESCI	100722	11/01/2017	1 year
Test Receiver	R&S	ESCI	101000	12/19/2017	1 year
Broadband Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	670	02/13/2018	1 year
Broadband Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	671	03/01/2018	1 year
Test Site	ATL	TE06	TE06	10/30/2017	1 year

Test Period : Mar. 21, 2018

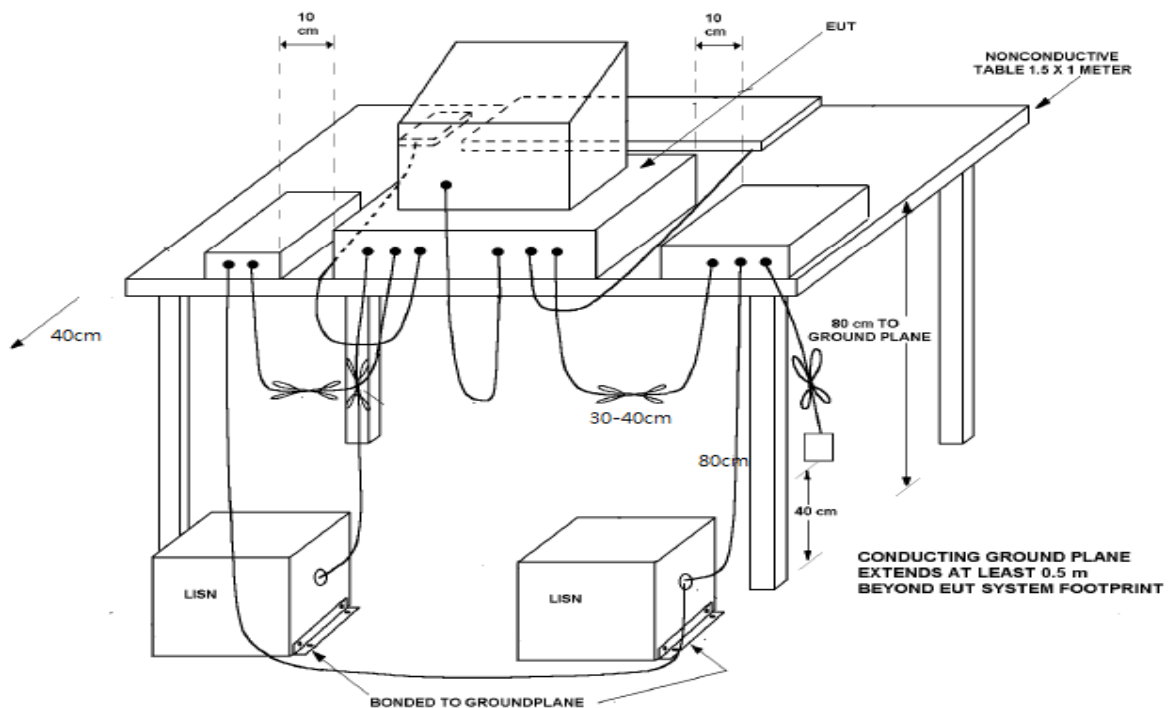
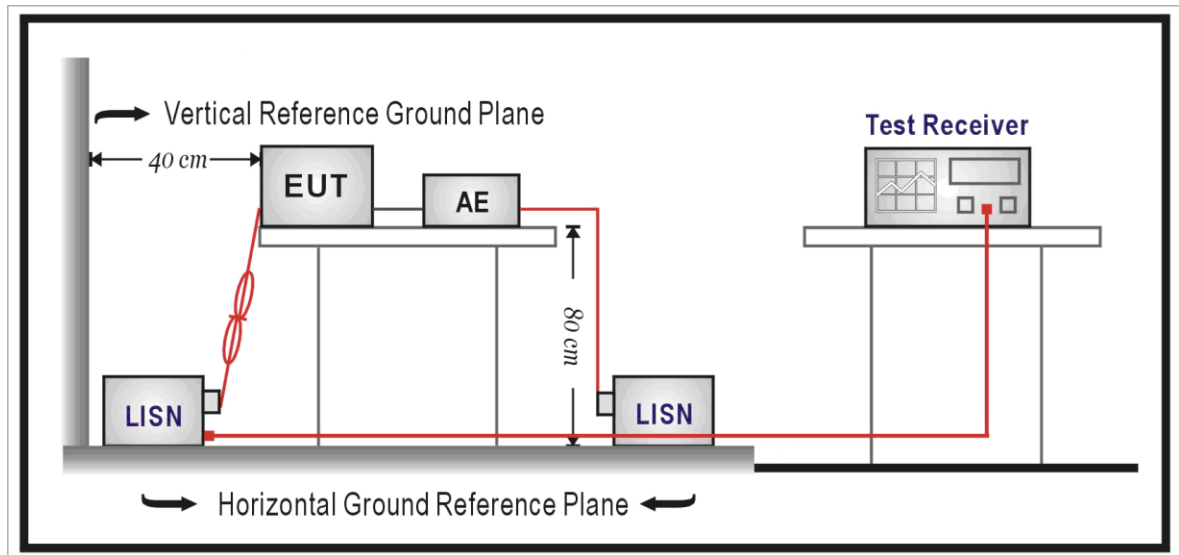
Radiated Emission - 3 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
EXA Spectrum Analyzer	Agilent	N9010A	MY48030518	11/04/2017	1 year
Amplifier	Agilent	8449B	3008A02237	10/16/2017	1 year
Preamplifier	EMCI	EMC2654045	980028	08/21/2017	1 year
Horn Antenna (1~18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	06/20/2017	1 year
Horn Antenna (18~40GHz)	ETS	3116	00086467	09/18/2017	1 year
Test Site	ATL	TE09	TE09	04/21/2017	1 year

Note: N.C.R. = No Calibration Request.

4 Measurement Procedure

4.1. Conducted Emission

■ Test Setup



■ Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a $50\ \Omega // 50\ \mu\text{H}$ coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a $50\ \Omega // 50\ \mu\text{H}$ coupling impedance with 50ohm termination.

Tabletop device shall be placed on a non-conducting platform, of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The wall of screened room shall be located 40cm to the rear of the EUT. Other surfaces of tabletop or floor standing EUT shall be at least 80 cm from any other ground conducting surface including one or more LISNs. For floor-standing device shall be placed under the EUT with a 12 mm insulating material.

Conducted emissions were investigated over the frequency range from 0.15 MHz to 30 MHz using a resolution bandwidth of 9 kHz. The equipment under test (EUT) shall be meet the limits in section 4.1.1, as applicable, including the average limit and the quasi-peak limit when using respectively, an average detector and quasi-peak detector measured in accordance with the methods described of related standard. When all of peak value were complied with quasi-peak and average limit from 150 kHz to 30 MHz then quasi-peak and average measurement was unnecessary.

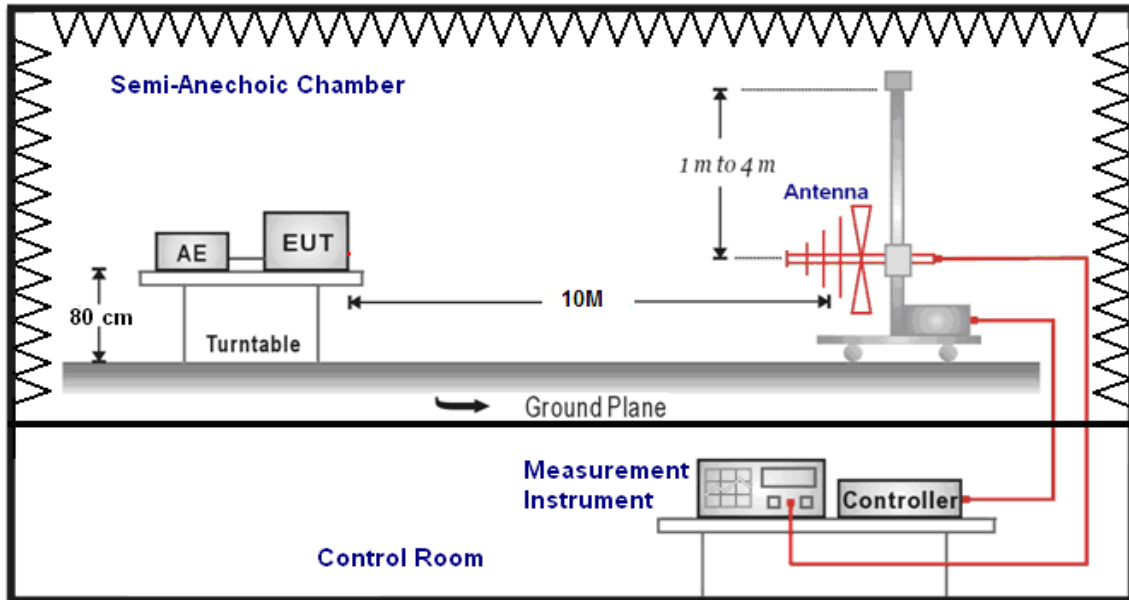
The AMN shall be placed 0,8 m from the boundary of the unit under test and bonded to a ground reference plane for AMNs mounted on top of the ground reference plane. This distance is between the closest points of the AMN and the EUT. All other units of the EUT and associated equipment shall be at least 0,8 m from the AMN. If the mains power cable is longer than 1m then the cable shall be folded back and forth at the centre of the lead to form a bundle no longer than 0.4 m. All of interconnecting cables that hang closer than 40cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long. All of EUT and AE shall be separate place more than 0.1 m. All $50\ \Omega$ ports of the LISN shall be resistively terminated into $50\ \Omega$ loads when not connected to the measuring instrument.

If the reading of the measuring receiver shows fluctuations close to the limit, the reading shall be observed for at least 15 s at each measurement frequency; the higher reading shall be recorded with the exception of any brief isolated high reading which shall be ignored.

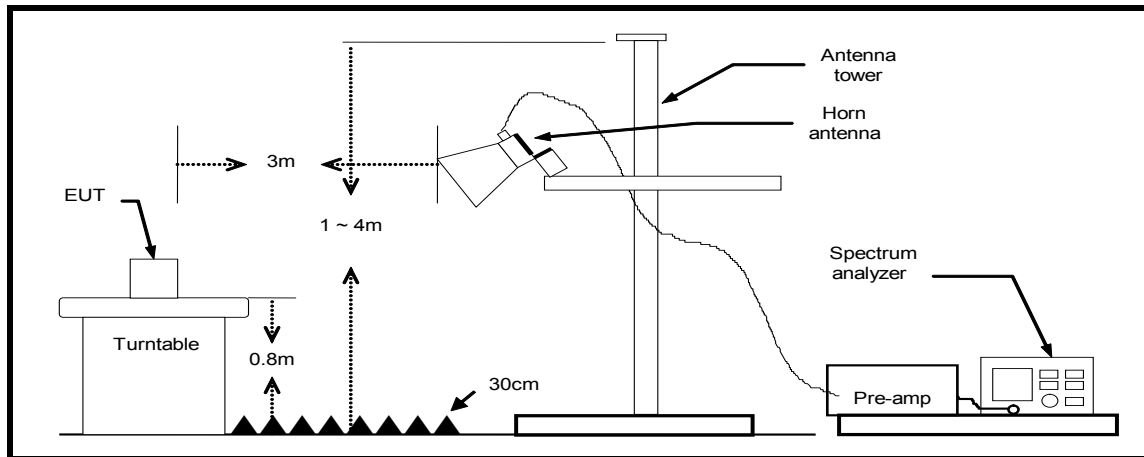
4.2. Radiated Emission

■ Test Setup

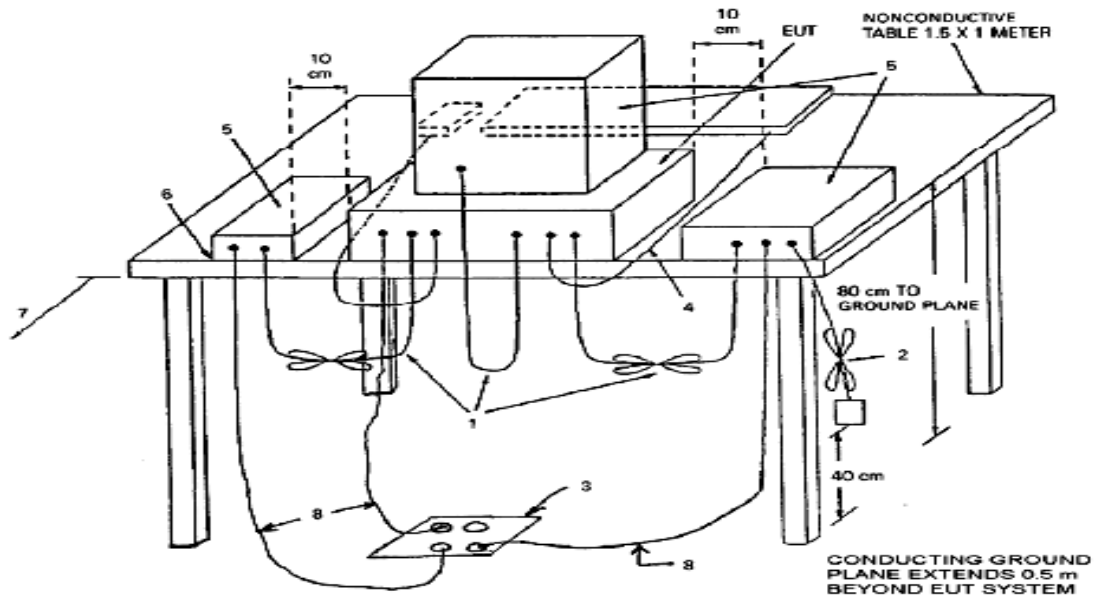
Below 1 GHz



Above 1 GHz



Test arrangement for radiated emissions of tabletop equipment.



■ Test Procedure

Below 1 GHz

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. When the EUT is floor-standing equipment, it is placed on the ground plane which has a 12 mm non-conductive covering to insulate the EUT from the ground plane.

The turn table is 0.8 m height and 2.0 m wide x 1.0 m deep size. It can rotate 360 degrees to determine the position of the maximum emission level. The spacing between the each equipment was 10cm. The mains cables are dropped to floor and are round to receptacle. Interconnecting cables of table top equipment that hang closer than 0.4 m to the ground plane are folded back and forth forming a bundle 0.3 m to 0.4 m long, hanging approximately in the middle between ground plane and table. The EUT was positioned such that the distance from antenna to the EUT was 10 meters and the receive antenna was moved from 1 m to 4 m to investigate maximum highest emission at least 6 points over the frequency range from 30 MHz to 1 GHz using a resolution bandwidth of 120 kHz and measured by the quasi-peak detector.

According to this standard paragraph 15.109, as an alternative to the radiated emission limits, digital devices may be shown to comply with the standards contained in Third Edition of the International Special Committee on Radio Interference (CISPR), Pub. 22, "Information Technology Equipment - Radio Disturbance Characteristics - Limits and Methods of Measurement".

Above 1 GHz

The Setup is same as Below 1 GHz placement. The turn table is 0.8 m height and 1.8 m wide x 1.0 m deep size. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meter for above 1 GHz, the highest frequency performed according to internal source frequency of the EUT, the specification was below:

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705 - 108	1000
108 - 500	2000
500 - 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

Absorber shall be spread between floor of a turn table and a receive antenna shown in 4.2.3. The antenna used boresight antenna master from 1 meter and 4 meters to find out the maximum emission level and find the highest emission at least 6 points. Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated on radiated measurement.

Radiated emissions were applied to above 1 GHz using a resolution bandwidth of 1 MHz and measured by the peak and average detector which antenna to the EUT distance was 3meters. If the EUT was meet both limits and measurement with the average detector receiver is unnecessary.

5 Test Results

5.1. Conducted Emission

■ Limit

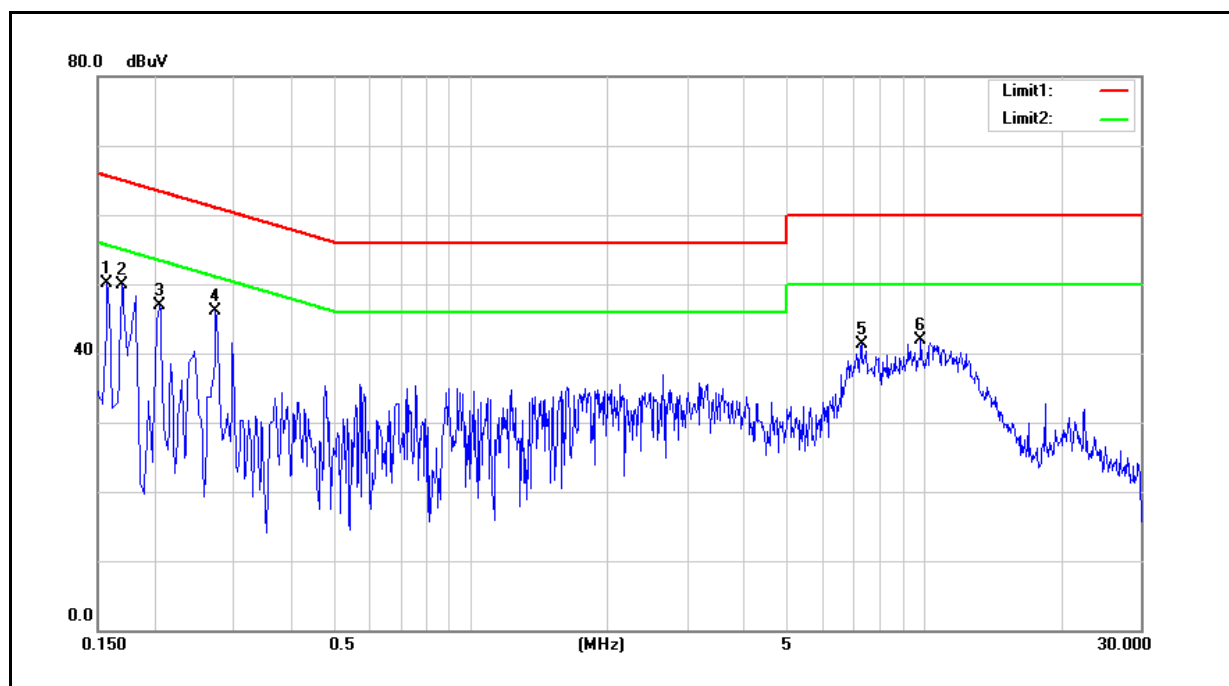
Frequency (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

Note: (1) The lower limit shall apply at the transition frequencies.

(2) The limit decreases in line with the logarithm of the frequency in the range 0.15 to 0.50 MHz.

■ Test Result

Test Standard:	FCC Part 15B	Power Line:	L1
Test Mode:	Mode 1	Test Power:	AC 120 V/60 Hz
Description:	AC adapter: PS1012-120HUB100		

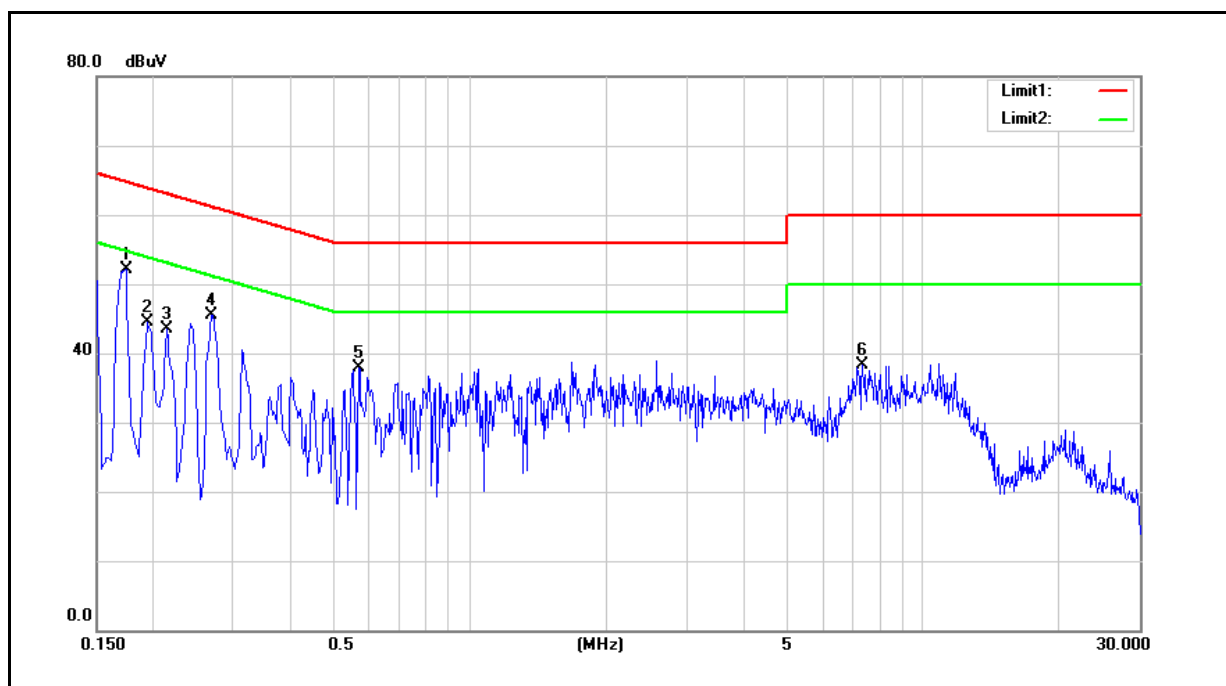


No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1580	37.93	19.52	9.68	47.61	29.20	65.57	55.57	-17.96	-26.37	Pass
2	0.1700	40.25	25.48	9.68	49.93	35.16	64.96	54.96	-15.03	-19.80	Pass
3	0.2060	36.32	22.08	9.67	45.99	31.75	63.37	53.37	-17.38	-21.62	Pass
4	0.2740	34.61	24.67	9.67	44.28	34.34	61.00	51.00	-16.72	-16.66	Pass
5	7.2700	26.12	15.64	9.87	35.99	25.51	60.00	50.00	-24.01	-24.49	Pass
6	9.8140	23.08	14.69	9.92	33.00	24.61	60.00	50.00	-27.00	-25.39	Pass

Note: 1. Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Test Standard:	FCC Part 15B	Power Line:	N
Test Mode:	Mode 1	Test Power:	AC 120 V/60 Hz
Description:	AC adapter: PS1012-120HUB100		

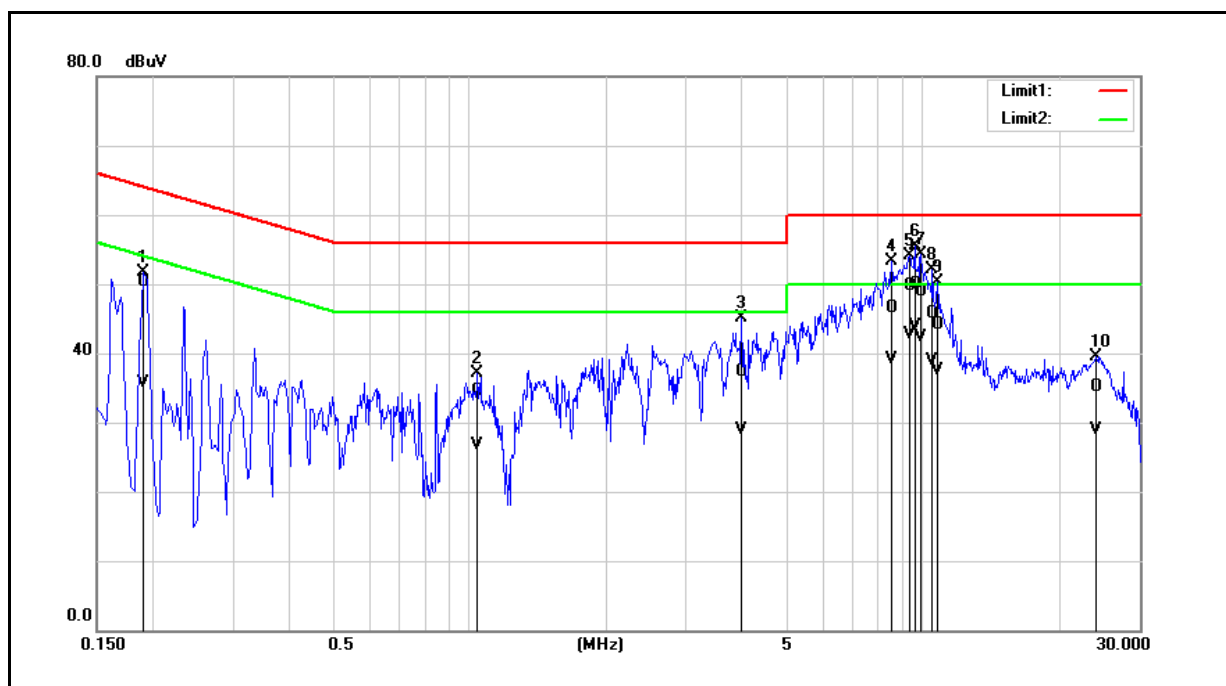


No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1740	40.59	26.99	9.68	50.27	36.67	64.77	54.77	-14.50	-18.10	Pass
2	0.1940	30.16	12.80	9.68	39.84	22.48	63.86	53.86	-24.02	-31.38	Pass
3	0.2140	29.92	17.10	9.68	39.60	26.78	63.05	53.05	-23.45	-26.27	Pass
4	0.2700	34.31	25.00	9.68	43.99	34.68	61.12	51.12	-17.13	-16.44	Pass
5	0.5700	26.65	13.84	9.68	36.33	23.52	56.00	46.00	-19.67	-22.48	Pass
6	7.3540	25.75	15.76	9.89	35.64	25.65	60.00	50.00	-24.36	-24.35	Pass

Note: 1. Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Test Standard:	FCC Part 15B	Power Line:	L1
Test Mode:	Mode 1	Test Power:	AC 120 V/60 Hz
Description:	AC adapter: PA1024-3HU		

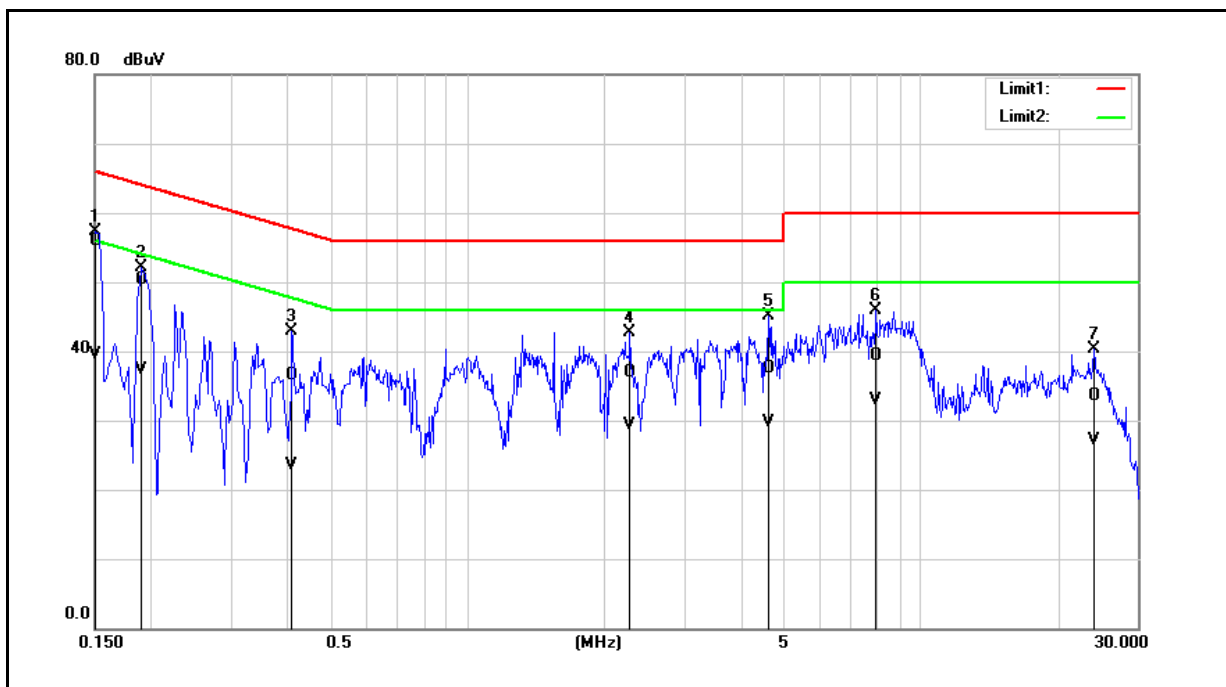


No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1900	40.73	26.01	9.64	50.37	35.65	64.04	54.04	-13.67	-18.39	Pass
2	1.0420	24.84	17.10	9.68	34.52	26.78	56.00	46.00	-21.48	-19.22	Pass
3	3.9740	27.55	19.13	9.77	37.32	28.90	56.00	46.00	-18.68	-17.10	Pass
4	8.5020	36.72	29.22	9.88	46.60	39.10	60.00	50.00	-13.40	-10.90	Pass
5	9.3420	39.81	32.75	9.88	49.69	42.63	60.00	50.00	-10.31	-7.37	Pass
6	9.5580	40.04	34.09	9.90	49.94	43.99	60.00	50.00	-10.06	-6.01	Pass
7	9.8940	39.02	32.38	9.90	48.92	42.28	60.00	50.00	-11.08	-7.72	Pass
8	10.4580	35.74	29.09	9.91	45.65	39.00	60.00	50.00	-14.35	-11.00	Pass
9	10.7420	34.25	27.53	9.91	44.16	37.44	60.00	50.00	-15.84	-12.56	Pass
10	24.1180	25.14	18.82	10.03	35.17	28.85	60.00	50.00	-24.83	-21.15	Pass

Note: 1. Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

Test Standard:	FCC Part 15B	Power Line:	N
Test Mode:	Mode 1	Test Power:	AC 120 V/60 Hz
Description:	AC adapter: PA1024-3HU		



No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1500	46.17	29.81	9.68	55.85	39.49	66.00	56.00	-10.15	-16.51	Pass
2	0.1900	40.59	27.57	9.67	50.26	37.24	64.04	54.04	-13.78	-16.80	Pass
3	0.4100	26.75	13.80	9.68	36.43	23.48	57.65	47.65	-21.22	-24.17	Pass
4	2.2780	27.21	19.62	9.75	36.96	29.37	56.00	46.00	-19.04	-16.63	Pass
5	4.6180	27.70	19.90	9.82	37.52	29.72	56.00	46.00	-18.48	-16.28	Pass
6	7.9540	29.46	22.93	9.91	39.37	32.84	60.00	50.00	-20.63	-17.16	Pass
7	24.0300	23.35	16.84	10.23	33.58	27.07	60.00	50.00	-26.42	-22.93	Pass

Note: 1. Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).

5.2. Radiated Emission

■ Limit

Under 1 GHz test shall not exceed following value

FCC 47 CFR PART 15 SUBPART B				
Frequency range (MHz)	Class A		Class B	
	Distance (m)	dBuV/m	Distance (m)	dBuV/m
30 to 88	10	39	3	40
88 to 216	10	43.5	3	43.5
216 to 960	10	46.4	3	46
Above 960	10	49.5	3	54

CISPR 22				
Frequency range (MHz)	Class A		Class B	
	Distance (m)	dBuV/m	Distance (m)	dBuV/m
30 to 230	10	40	10	30
230 to 1000	10	47	10	37

Above 1 GHz test shall not exceed following value

Frequency (MHz)	dBuV/m (Distance 3m)			
	Class A		Class B	
	Average	Peak	Average	Peak
1000 ~ 40000	60	80	54	74

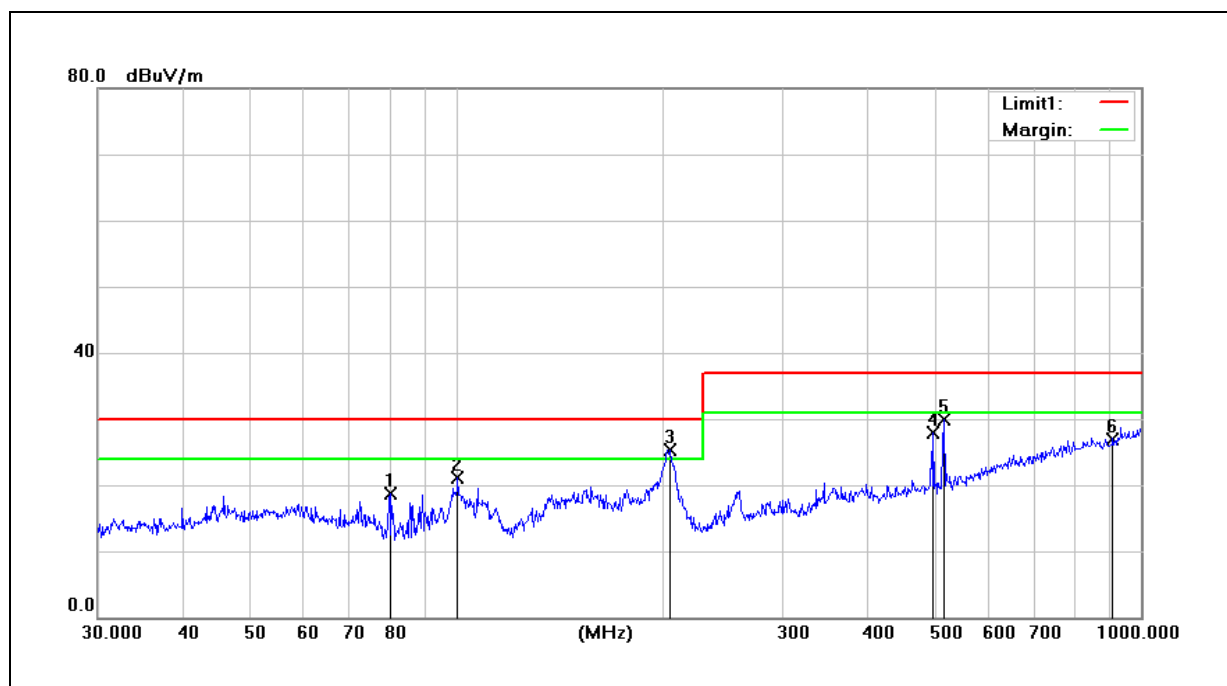
- Remark:
1. The tighter limit shall apply at the edge between two frequency bands.
 2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
 3. RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)
 4. Peak detector limit is corresponding to 20 dB above the maximum permitted average limit.

According to FCC Part 15.33 (b), for an unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table:

Highest frequency generated or used in the device or in which the device operated or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.75	30
1.75-108	1000
108-500	2000
500-1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

■ Test Result

Test Standard:	FCC Part 15B (limit use CISPR 22)	Test Distance:	10 m
Test Mode:	Mode 1	Test Power:	AC 120 V/60 Hz
Measurement Range:	30 MHz~1 GHz	Ant.Polar.:	Horizontal



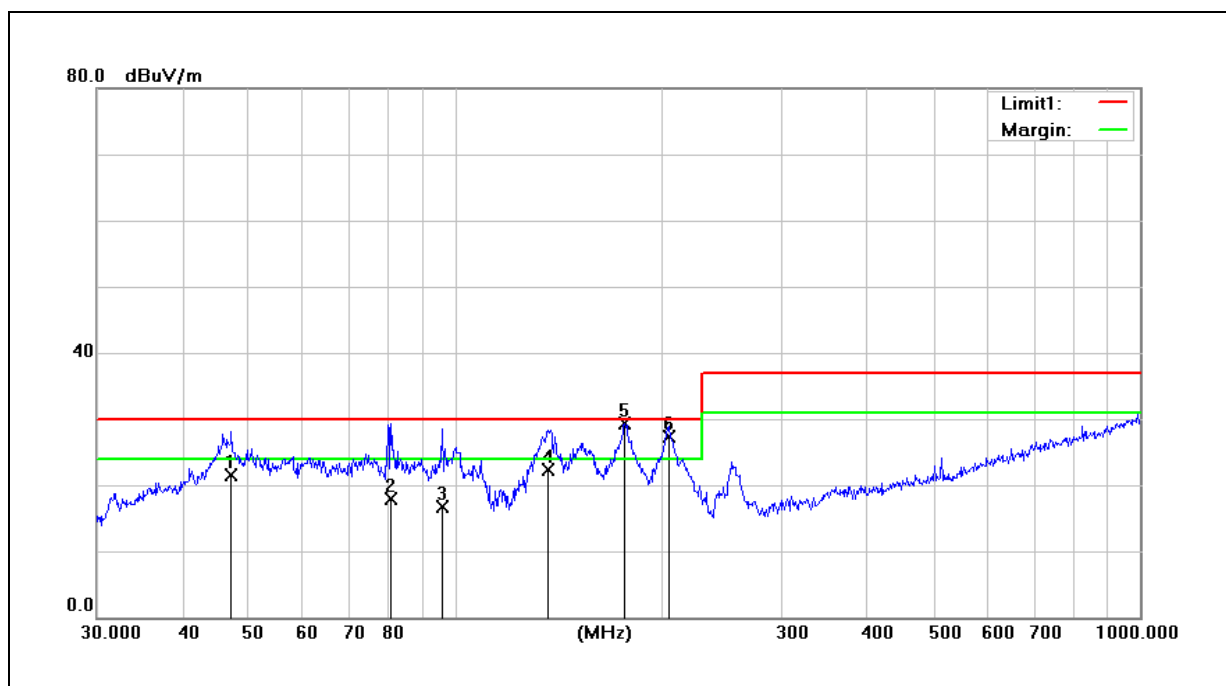
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	80.0806	39.38	-20.68	18.70	30.00	-11.30	200	260	QP
2	100.5806	42.02	-20.92	21.10	30.00	-8.90	400	359	QP
3	204.9551	44.23	-18.93	25.30	30.00	-4.70	300	133	QP
4	497.6765	38.39	-10.49	27.90	37.00	-9.10	100	360	QP
5	515.4374	40.07	-10.17	29.90	37.00	-7.10	274	360	QP
6	909.6667	31.27	-4.27	27.00	37.00	-10.00	100	213	QP

Note: 1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

Example: 18.70 = -20.68 + 39.38

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

Test Standard:	FCC Part 15B (limit use CISPR 22)	Test Distance:	10 m
Test Mode:	Mode 1	Test Power:	AC 120 V/60 Hz
Measurement Range:	30 MHz~1 GHz	Ant.Polar.:	Vertical



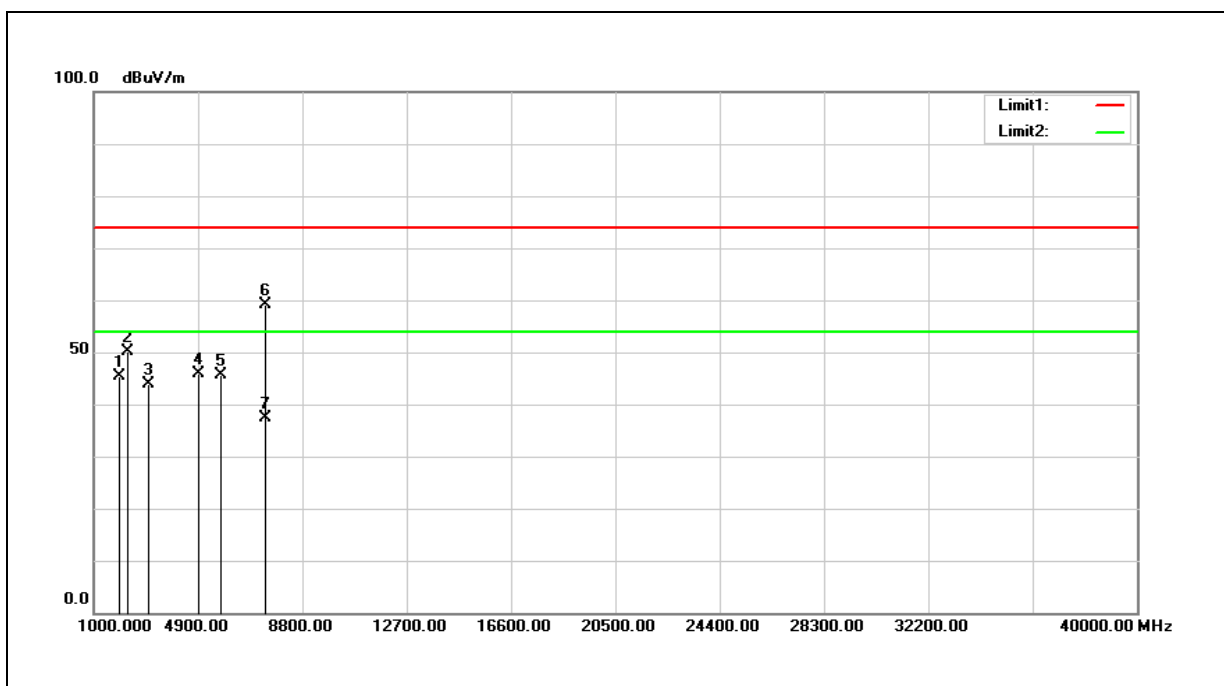
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	47.1600	37.43	-15.83	21.60	30.00	-8.40	100	0	QP
2	80.6442	38.26	-20.26	18.00	30.00	-12.00	299	206	QP
3	95.7622	37.35	-20.65	16.70	30.00	-13.30	400	351	QP
4	136.4598	38.07	-15.77	22.30	30.00	-7.70	100	0	QP
5	176.8878	44.95	-15.65	29.30	30.00	-0.70	100	89	QP
6	204.9551	44.86	-17.56	27.30	30.00	-2.70	100	311	QP

Note: 1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

Example: 21.60 = -15.83 + 37.43

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

Test Standard:	FCC Part 15B	Test Distance:	3 m
Test Mode:	Mode 1	Test Power:	AC 120 V/60 Hz
Measurement Range:	1 GHz~40 GHz	Ant.Polar.:	Horizontal



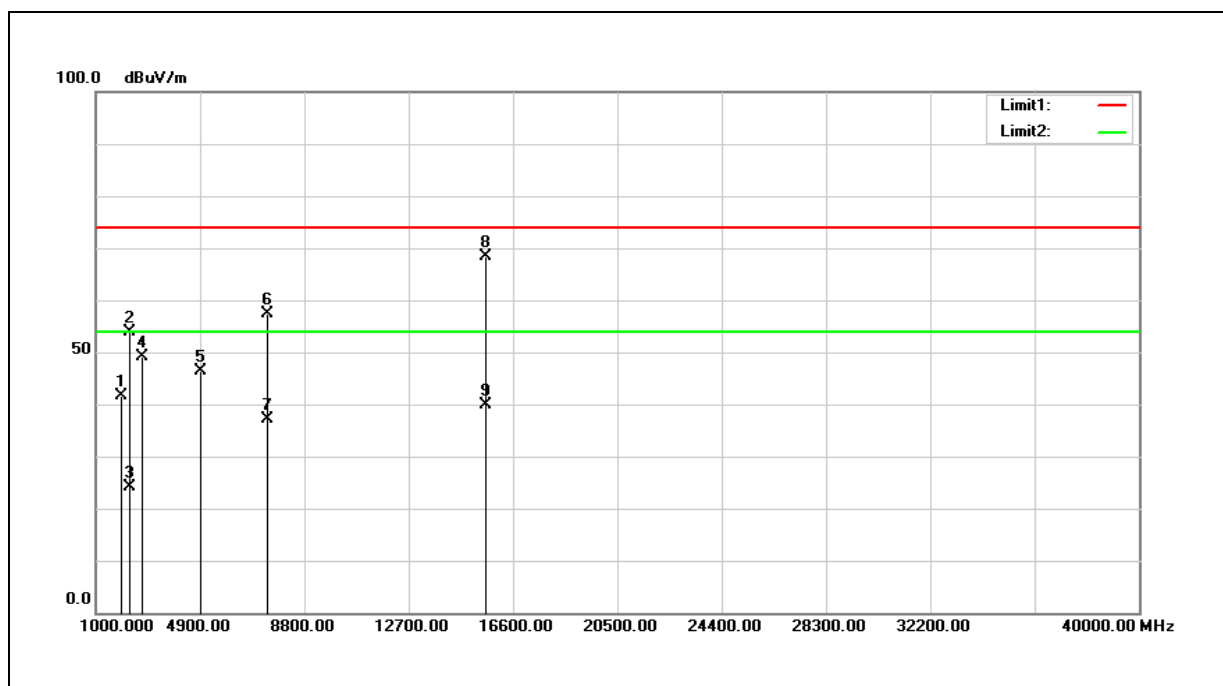
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	1969.000	48.96	-3.47	45.49	74.00	-28.51	100	45	peak
2	2224.000	52.64	-2.46	50.18	74.00	-23.82	100	102	peak
3	3006.000	43.75	0.09	43.84	74.00	-30.16	100	171	peak
4	4927.000	40.68	5.32	46.00	74.00	-28.00	100	11	peak
5	5743.000	38.88	6.81	45.69	74.00	-28.31	100	217	peak
6	7392.000	47.58	11.66	59.24	74.00	-14.76	200	212	peak
7	7392.000	25.70	11.66	37.36	54.00	-16.64	200	212	AVG

Note: 1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

Example: 45.49 = -3.47 + 48.96

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

Test Standard:	FCC Part 15B	Test Distance:	3 m
Test Mode:	Mode 1	Test Power:	AC 120 V/60 Hz
Measurement Range:	1 GHz~40 GHz	Ant.Polar.:	Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
1	1952.000	45.28	-3.56	41.72	74.00	-32.28	200	234	peak
2	2224.000	56.34	-2.46	53.88	74.00	-20.12	200	108	peak
3	2224.000	26.69	-2.46	24.23	54.00	-29.77	200	108	AVG
4	2717.000	49.95	-0.76	49.19	74.00	-24.81	100	85	peak
5	4927.000	41.11	5.32	46.43	74.00	-27.57	100	61	peak
6	7392.000	45.83	11.66	57.49	74.00	-16.51	200	240	peak
7	7392.000	25.55	11.66	37.21	54.00	-16.79	200	240	AVG
8	15552.000	50.02	18.32	68.34	74.00	-5.66	112	0	peak
9	15552.000	21.56	18.32	39.88	54.00	-14.12	112	0	AVG

Note: 1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

Example: 41.72 = -3.56 + 45.28

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).Z