

FCC Part 15.247

TEST REPORT

For

Hangzhou Meari Technology Co., Ltd.

Room 604-605, Building 1, No. 768 Jianghong Road, Changhe street, Binjiang District,
Hangzhou, Zhejiang, China

FCC ID: 2AG7C-BELL5

Report Type:

Class II Permissive Change
Report

Product Type:

Wireless DoorBell

Report Producer : Jane Chen

Report Number : RXZ211227004RF01

Report Date : 2022-03-18

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Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
0.0	RXZ211227004	RXZ211227004RF01	2022-3-18	Original Report	Jane Chen

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1 General Information

1.1 Product Description for Equipment under Test (EUT)

Applicant	Hangzhou Meari Technology Co., Ltd.
	Room 604-605, Building 1, No. 768 Jianghong Road, Changhe street, Binjiang District, Hangzhou, Zhejiang, China
Manufacturer	Hangzhou Meari Technology Co., Ltd.
	Room 604-605, Building 1, No. 768 Jianghong Road, Changhe street, Binjiang District, Hangzhou, Zhejiang, China
Brand(Trade) Name	N/A
Product (Equipment)	Wireless DoorBell
Main Model Name	Bell 5S
Series Model Name	Bell 5X, Bell 5T, Bell 8S, Bell 8X, Bell 8T
Model Discrepancy	Please see the declaration letter
Frequency Range	IEEE 802.11b/g / IEEE 802.11n HT20 Mode: 2412 ~ 2462 MHz IEEE 802.11n HT40 Mode: 2422 ~ 2452 MHz
Transmit Power	IEEE 802.11b Mode: 18.54 dBm IEEE 802.11g Mode: 25.87 dBm IEEE 802.11n HT20 Mode: 25.83 dBm IEEE 802.11n HT40 Mode: 24.29 dBm
Modulation Technique	IEEE 802.11b Mode: DSSS IEEE 802.11g Mode: OFDM IEEE 802.11n HT20 Mode: OFDM IEEE 802.11n HT40 Mode: OFDM
Power Operation (Voltage Range)	☒ AC Type ☒ Adapter1 Brand Name: GPO Model: GTA92-0501000US I/P: 100-240Vac, 50/60Hz, 0.3A O/P: 5Vdc, 1.0A, 5.0W Adapter2 Brand Name: SZTY Model: TPA-46B050100UU I/P: 100-240Vac, 50/60Hz, 0.2A O/P: 5Vdc, 1000mA ☐ By AC Power Cord ☐ PoE
	☒ DC Type 12-24V ☐ Battery ☐ DC Power Supply ☒ External from USB Cable ☐ External DC Adapter
	☐ Host System
Received Date	Dec. 28, 2021

Date of Test	Jan. 20, 2022 ~ Mar. 14, 2022
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*All measurement and test data in this report was gathered from production sample serial number: RXZ211227004-01 , RXZ211227004-02 (Assigned by BACL, New Taipei Laboratory).

1.2 Objective

This report is prepared on behalf of *Hangzhou Meiri Technology Co., Ltd.* in accordance with Part 2, Subpart J, Part 15, Subparts A and C of the Federal Communication Commission's rules.

This is a CIIPC report base on the original report RSHA210513002-00B with FCC ID: 2AG7C-BELL5 which was granted on 2021-08-23, the differences between the original device and the current one are as follows:

1. Change the MCU (non-RF part).

Model: Bell 5S, Bell 5X, Bell 5T, Bell 8S, Bell 8X, Bell 8T

2. Replacement antenna, same antenna type, same antenna gain value.

Model: Bell 8S, Bell 8X, Bell 8T

The above differences will affect part of tests, "AC Line Conducted Emissions", "Radiated Emissions" and "Output Power" were presented in this report, and other data were referred to the original report.

1.3 Related Submittal(s)/Grant(s)

FCC Part 15.249 DXX submission with FCC ID: 2AG7C-BELL5

1.4 Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices 558074 D01 15.247 Meas Guidance v05r02

1.5 Statement of Compliance

Decision Rule: No, (The test results do not include MU judgment)

It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (New Taipei Laboratory).

Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

The determination of the test results does not require consideration of the uncertainty of the measurement, unless the assessment is required by customer agreement, regulation or standard document specification.

Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) is not responsible for the authenticity of the information provided by the applicant that affects the test results.

1.6 Measurement Uncertainty

Parameter	Uncertainty
AC Mains	+/- 2.36 dB
RF output power, conducted	+/- 0.93 dB
Emissions, radiated	+/- 5.22 dB
Temperature	+/- 1.27 °C
Humidity	+/- 3 %

1.7 Environmental Conditions

Test Site	Test Data	Temperature (°C)	Relative Humidity (%)	ATM Pressure (hPa)	Test Engineer
AC Line Conducted Emissions	2022/1/25	22.6	63	1010	Boris Kao
Radiation Spurious Emissions	2022/1/20~2022/3/14	19.4~23.9	55~74	1010	Howard
Maximum Output Power	2022/3/3	23.6	51	1010	Boris Kao

1.8 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) to collect test data is located on

☒ 70, Lane 169, Sec. 2, Datong Road, Xizhi Dist., New Taipei City 22183, Taiwan, R.O.C.

Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3732) and the FCC designation No.TW3732 under the Mutual Recognition Agreement (MRA) in FCC Test.

2 System Test Configuration

2.1 Description of Test Configuration

For WIFI mode, there are totally 11 channels.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437	/	/

For 802.11 b/g/n20 Modes were tested with channel 1, 6 and 11.

For 802.11n40 Mode were tested with channel 3, 6 and 9.

The system was configured for testing in engineering mode, which was provided by manufacturer.

2.2 Equipment Modifications

No modification was made to the EUT.

2.3 EUT Exercise Software

The test software was used “SecureCRT v7.2.5.550”

The power level setting was declared by the applicant

Test Frequency		Low	Mid	High
Power Level Setting	B Mode	Default	Default	Default
	G Mode	Default	Default	Default
	N20 Mode	Default	Default	Default
	N40 Mode	Default	Default	Default

The worst-case data rates:

802.11b: 1Mbps

802.11g: 6Mbps

802.11n HT20: MCS0

802.11n HT40: MCS0

2.4 Test Mode

Mode 1	Bell 5S+Adapter: GTA92-0501000US
Mode 2	Bell 5S+Adapter: TPA-46B050100UU
Mode 3	Bell 8S+Adapter: GTA92-0501000US
Mode 4	Bell 8S+Adapter: TPA-46B050100UU
Mode 5	Bell 5S+12V DC Power Supply
Mode 6	Bell 8S+12V DC Power Supply
Mode 7	Bell 5S+Adapter: GTA92-0501000US (co-location)
Mode 8	Bell 5S+Adapter: TPA-46B050100UU (co-location)

Bell 5S (Sample serial number: RXZ211227004-01)

Bell 8S (Sample serial number: RXZ211227004-02) for test Above 1GHz Radiated Spurious Emissions.

2.5 Support Equipment List and Details

Description	Manufacturer	Model Number	S/N
DC Power Source	KIKUSUI	PMC35-2	MK002127

2.6 External Cable List and Details

Cable Description	Length (m)	From	To
Micro USB Cable	1	adapter	EUT

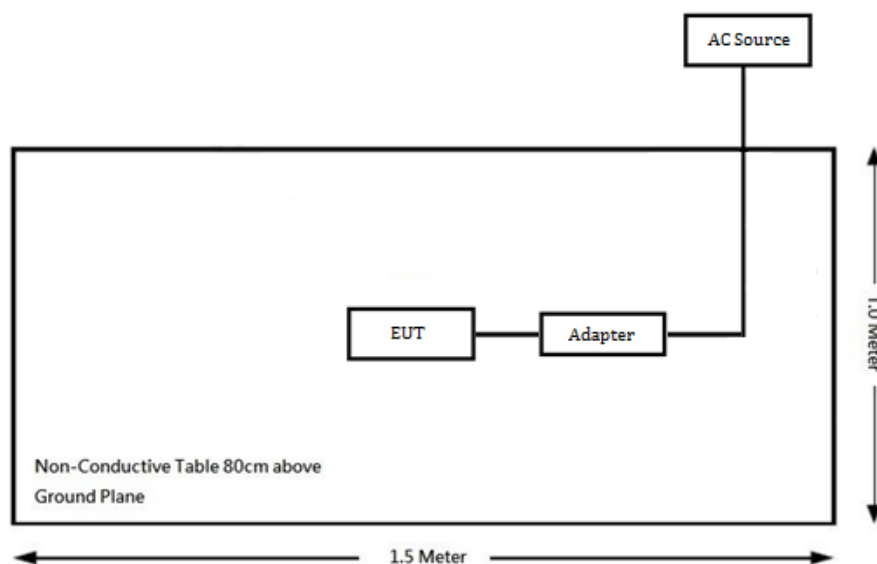
2.7 Block Diagram of Test Setup

See test photographs attached in setup photos for the actual connections between EUT and support equipment.

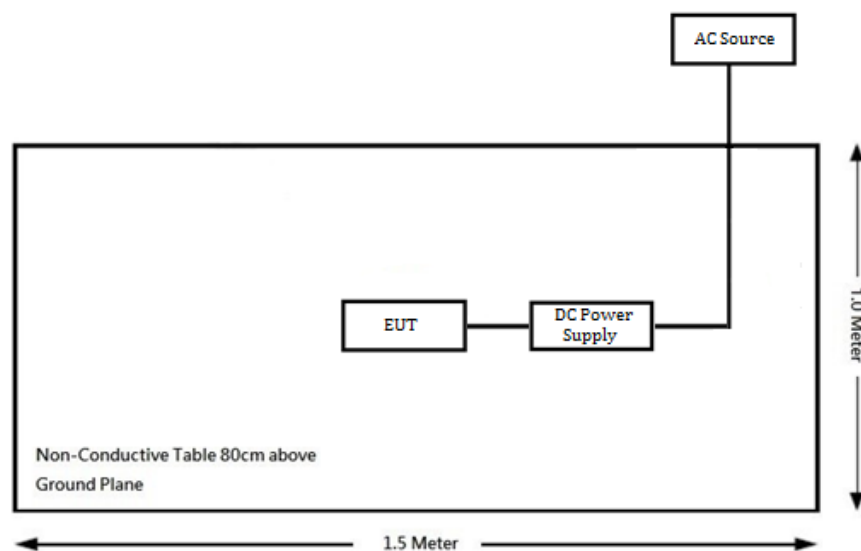
Radiation:

Below 1GHz:

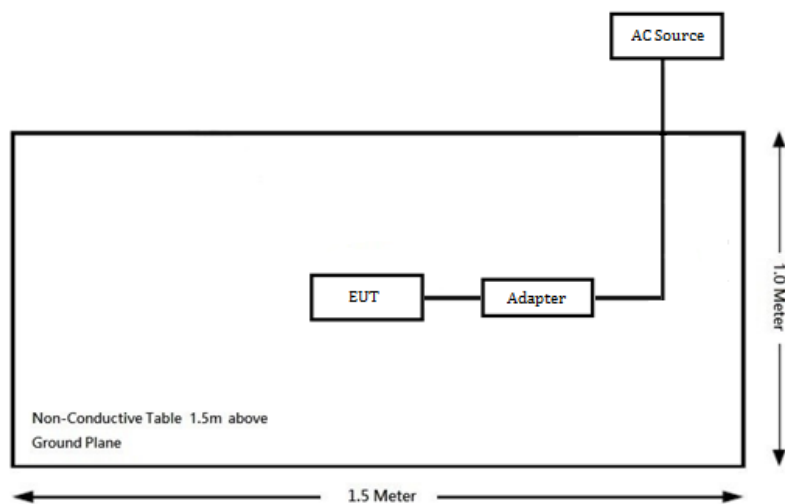
For Adapter



For DC Power Supply

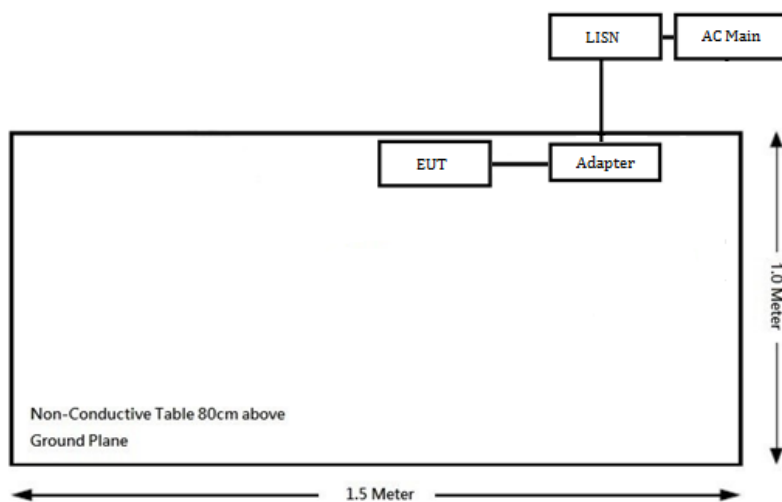


Above 1GHz:

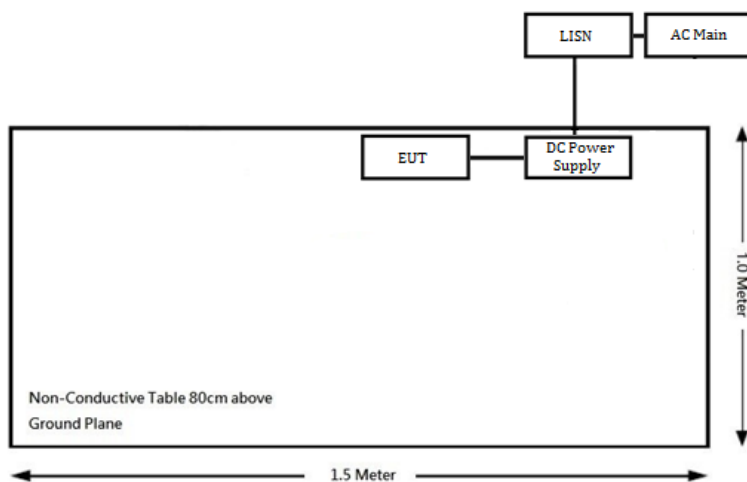


Conduction:

For Adapter



For DC Power Supply



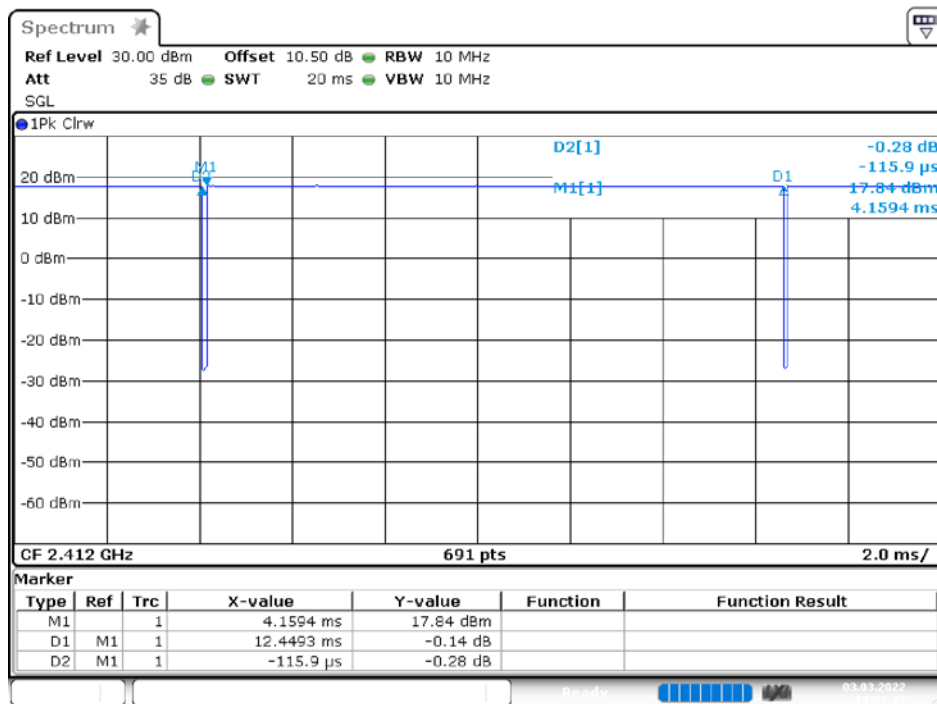
2.8 Duty Cycle

The duty cycle as below:

Radio Mode	T _{on} (ms)	T _{on} +T _{off} (ms)	Duty Cycle (%)
802.11b	12.449	12.565	99
802.11g	2.058	2.102	98
802.11n20	1.928	1.972	98
802.11n40	0.942	1.000	94

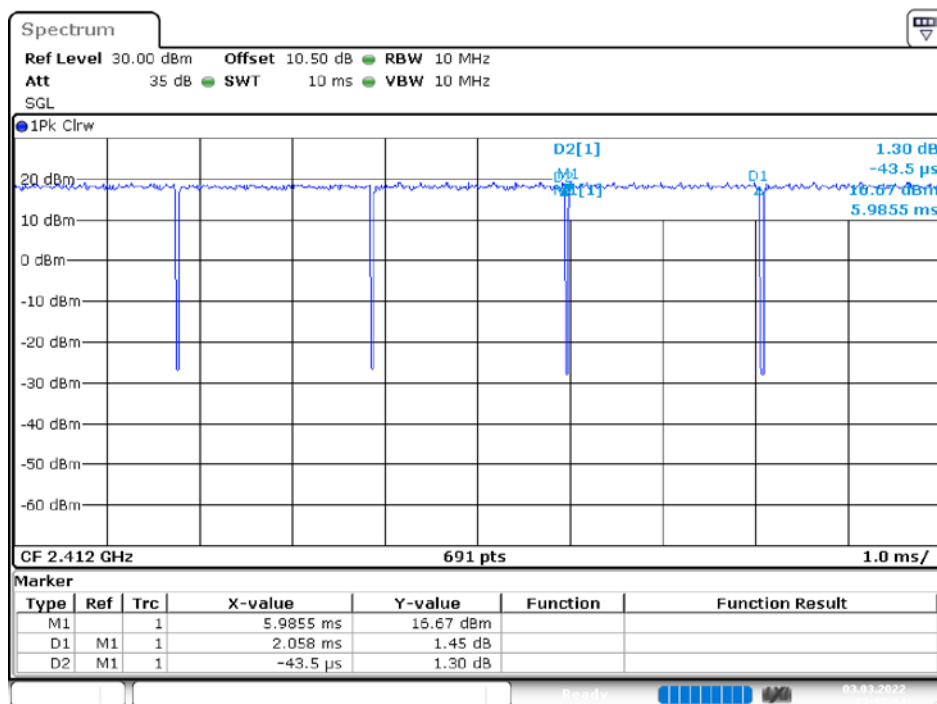
Please refer to the following plots.

B Mode



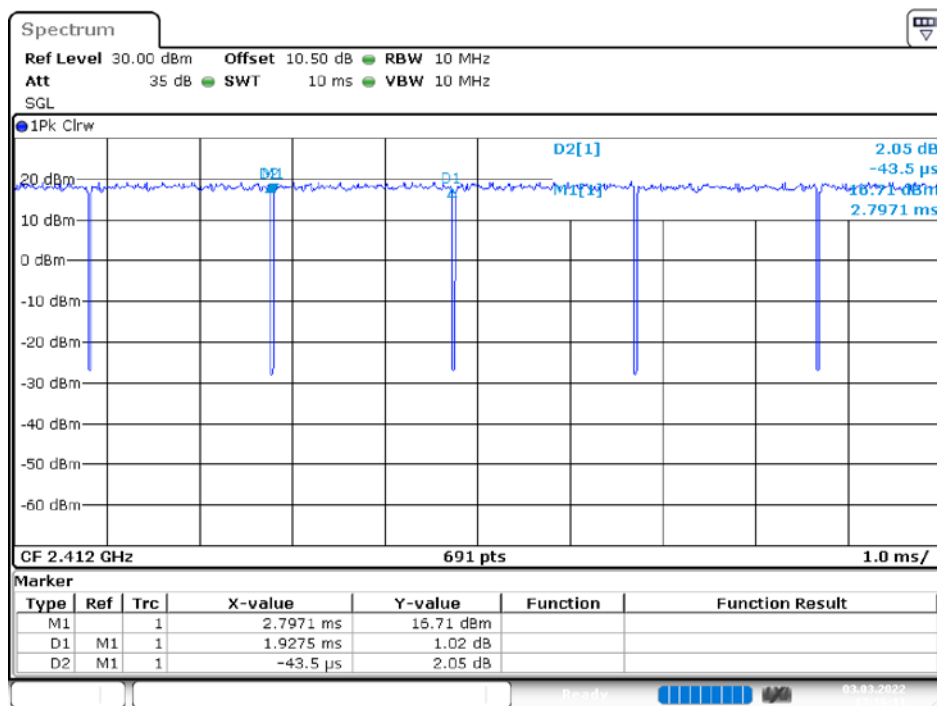
Date: 3.MAR.2022 13:32:12

G Mode



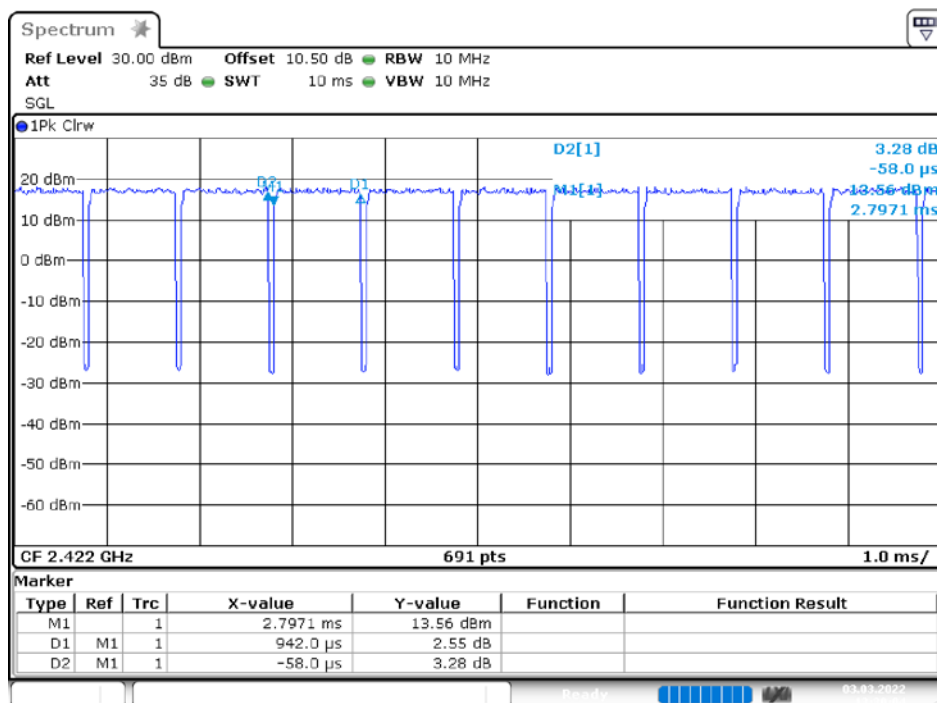
Date: 3.MAR.2022 13:12:03

N20 Mode



Date: 3.MAR.2022 13:16:10

N40 Mode



Date: 3.MAR.2022 13:30:03

3 Summary of Test Results

FCC Rules	Description of Test	Results
§15.247(i), §1.1310, §2.1091	Maximum Permissible Exposure (MPE)	Compliance
§15.203	Antenna Requirement	Compliance
§15.207(a)	AC Line Conducted Emissions	Compliance
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliance
§15.247(a)(2)	6 dB Emission Bandwidth	Compliance*
§15.247(b)(3)	Maximum Peak Output Power	Compliance
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliance*
§15.247(e)	Power Spectral Density	Compliance*

Compliance*: Please referred to FCC ID: 2AG7C-BELL5 granted on 2021-08-23. Report No.:

RSHA210513002-00B, which was tested by Bay Area Compliance Laboratories Corp. (Kunshan).

4 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
AC Line Conduction Room (CON-A)					
LISN	Rohde & Schwarz	ENV216	101612	2022/1/14	2023/1/13
EMI Test Receiver	Rohde & Schwarz	ESW8	100947	2021/7/23	2022/7/22
Pulse Limiter	Rohde & Schwarz	ESH3Z2	TXZEM104	2021/7/29	2022/7/28
RF Cable	EMEC	EM-CB5D	1	2021/6/11	2022/6/10
Software	AUDIX	E3	V9.150826k	N.C.R	N.C.R
Radiated Room (966-A)					
Bilog Antenna with 6 dB Attenuator	SUNOL SCIENCES & EMEC	JB6 / UNAT-6+	A061204/ATT-09-012	2022/1/5	2023/1/4
Horn Antenna	EMCO	SAS-571	1020	2021/4/23	2022/4/22
Horn Antenna	ETS-Lindgren	3116	62638	2021/8/11	2022/8/10
Preamplifier	Sonoma	310N	130602	2021/6/8	2022/6/7
Preamplifier	A.H. system Inc.	PAM-0118P	470	2021/3/15	2022/3/14
Microwave Preamplifier	EM Electronics Corporation	EM18G40G	60656	2021/12/22	2022/12/21
Spectrum Analyzer	Rohde & Schwarz	FSV40	101435	2022/1/13	2023/1/12
EMI Test Receiver	Rohde & Schwarz	ESR7	101419	2021/11/9	2022/11/8
Micro flex Cable	UTIFLEX	UFB197C-1-2362-70U-70U	225757-001	2021/2/1	2022/1/31
				2022/1/24	2023/1/23
Coaxial Cable	COMMATE	PEWC	8Dr	2021/12/24	2022/12/23
Coaxial Cable	UTIFLEX	UFB311A-Q-1440-300300	220490-006	2021/2/1	2022/1/31
				2022/1/24	2023/1/23
Coaxial Cable	JUNFLON	J12J102248-00-B-5	AUG-07-15-044	2021/12/24	2022/12/23
Cable	EMC	EMC105-SM-SM-10000	201003	2021/2/3	2022/2/2
				2022/1/24	2023/1/23
Coaxial Cable	ROSNOL	K1K50-UP0264-K1K50-450CM	160309-1	2022/1/24	2023/1/23

Coaxial Cable	ROSNOL	K1K50-UP0264- K1K50-50CM	15120-1	2022/1/18	2023/1/17
Software	Farad	EZ_EMC	BACL-03A1	N.C.R	N.C.R
Conducted Room					
Power Sensor	KEYSIGHT	U2021XA	MY54080018	2022/1/24	2023/1/23
Spectrum Analyzer	Rohde & Schwarz	FSV40	101204	2021/6/10	2022/6/9

***Statement of Traceability:** BACL Corp. attests that all of the calibrations on the equipment items listed above were traceable to the SI System of Units via the R.O.C. Center for Measurement Standards of the Electronics Testing Center, Taiwan (ETC) or to another internationally recognized National Metrology Institute (NMI), and were compliant with the current Taiwan Accreditation Foundation (TAF) requirements

5 FCC §15.247(i), §1.1310, §2.1091 – Maximum Permissible Exposure (MPE)

5.1 Applicable Standard

According to subpart 15.247(i) and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm²)	Averaging Time (minutes)
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary:

Predication of MPE limit at a given distance

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

5.2 Applicable Standard

MPE evaluation:

Mode	Frequency Range (MHz)	Antenna Gain		Target Power		Evaluation Distance (cm)	Power Density (mW/cm²)	MPE Limit (mW/cm²)
		(dBi)	(numeric)	(dBm)	(mW)			
WIFI 2.4G	2412-2462	3	1.995	26	398.107	20	0.1580	1

Result: MPE evaluation meets the requirements of the **20cm** standard.

6 FCC §15.203 – Antenna Requirements

6.1 Applicable Standard

According to § 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited.

And according to FCC 47 CFR section 15.247 (b), if the 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 does not exceed 6dBi.

6.2 Antenna List and Details

Manufacturer	Antenna Type	Antenna Gain
N/A	FPC Antenna	3 dBi

Result: Compliance

7 FCC §15.207(a) – AC Line Conducted Emissions

7.1 Applicable Standard

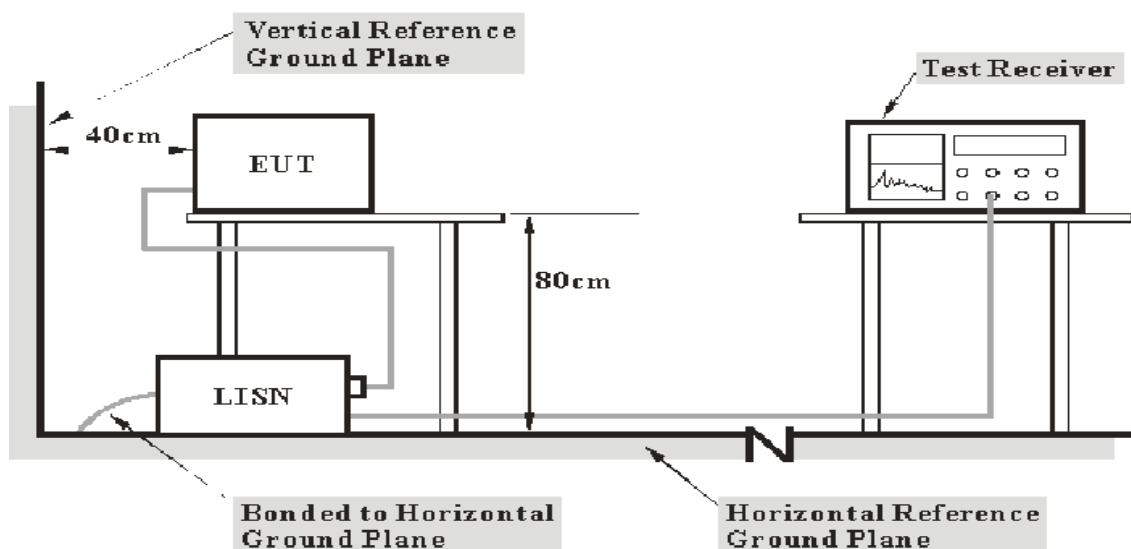
According to §15.207

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequencies ranges.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56 ^{Note}	56 to 46 ^{Note}
0.5-5	56	46
5-30	60	50

Note: Decreases with the logarithm of the frequency.

7.2 EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

7.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150kHz to 30MHz.

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (New Taipei Laboratory)

During the conducted emission test, the EMI test receiver was set with the following configurations

Frequency Range	IF B/W
150kHz – 30MHz	9kHz

7.4 Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

7.5 Corrected Factor & Margin Calculation

The factor is calculated by adding LISN/ISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation. The basic equation is as follows:

$$\text{Factor} = \text{LISN VDF} + \text{Cable Loss} + \text{Transient Limiter Attenuation}$$

The “Over Limit” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit of -7 dB means the emission is 7 dB below the limit. The equation for Over Limit calculation is as follows:

$$\text{Over Limit} = \text{Level} - \text{Limit Line}$$

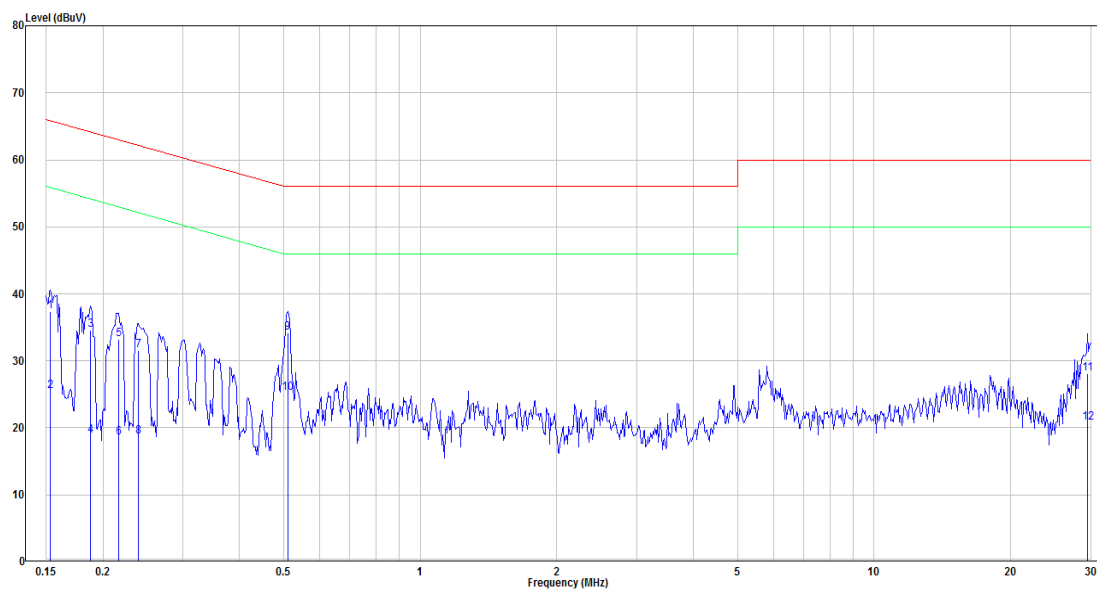
7.6 Test Results

Test Mode: Transmitting

Worst case is 802.11b mode low channel.

Mode 1

Main: AC120 V, 60 Hz, Line



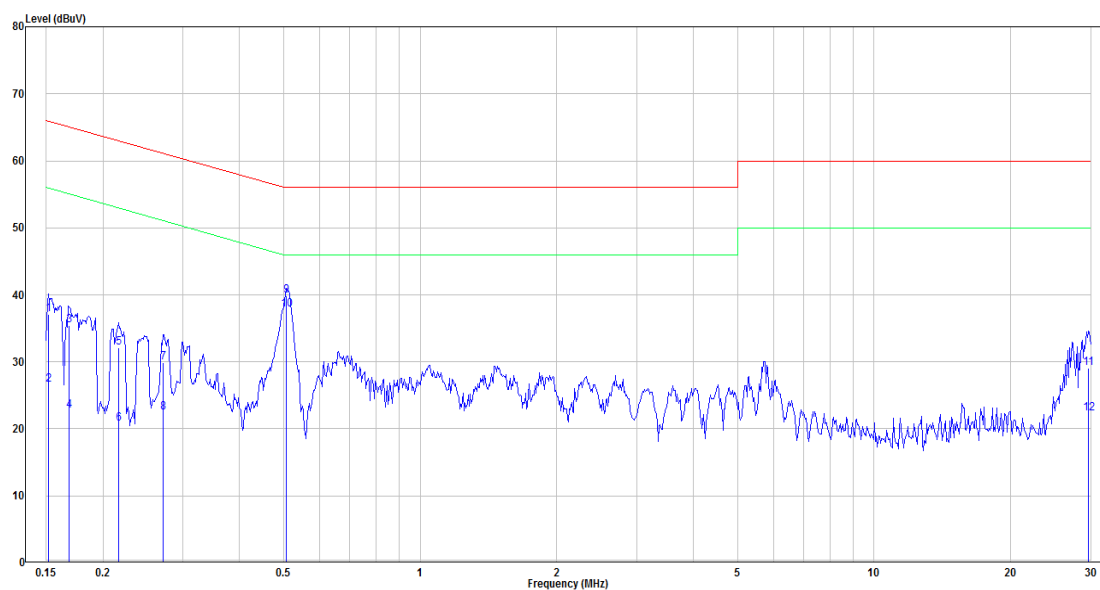
No.	Frequency (MHz)	Reading (dBμV)	Correct Factor(dB)	Result (dBμV)	Limit (dBμV)	Over limit (dB)	Remark
1	0.153	17.91	19.50	37.41	65.82	-28.41	QP
2	0.153	5.91	19.50	25.41	55.82	-30.41	Average
3	0.187	15.04	19.50	34.54	64.15	-29.61	QP
4	0.187	-0.65	19.50	18.85	54.15	-35.30	Average
5	0.216	13.76	19.50	33.26	62.96	-29.70	QP
6	0.216	-1.01	19.50	18.49	52.96	-34.47	Average
7	0.239	12.12	19.50	31.62	62.13	-30.51	QP
8	0.239	-0.79	19.50	18.71	52.13	-33.42	Average
9	0.510	14.67	19.52	34.19	56.00	-21.81	QP
10	0.510	5.69	19.52	25.21	46.00	-20.79	Average
11	29.527	8.18	19.96	28.14	60.00	-31.86	QP
12	29.527	0.82	19.96	20.78	50.00	-29.22	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Main: AC120 V, 60 Hz, Neutral

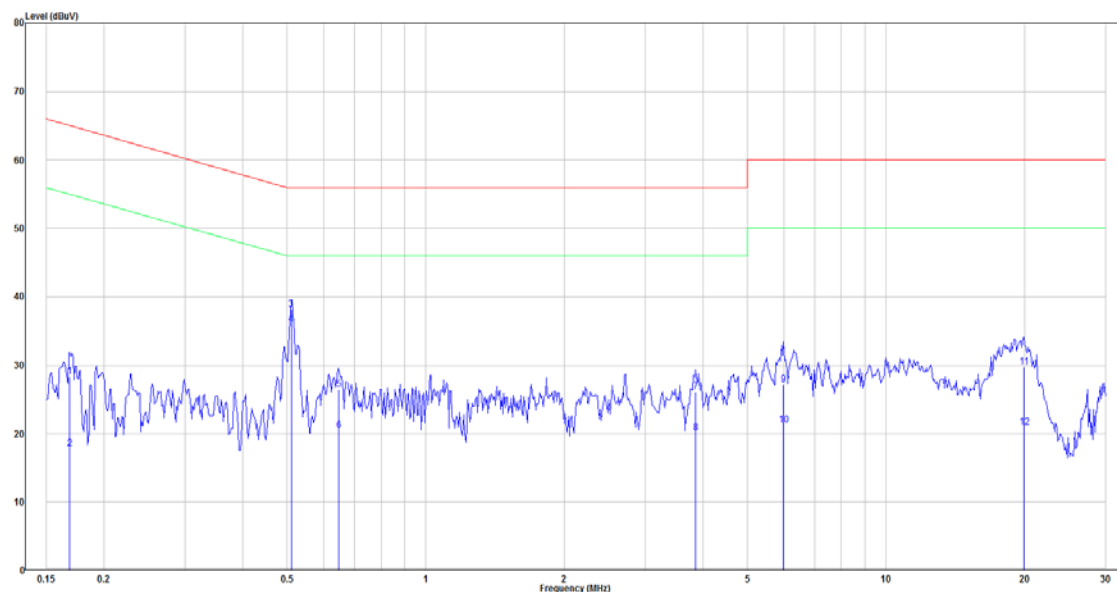
No.	Frequency	Reading	Correct	Result	Limit	Over limit	Remark
	(MHz)	(dBμV)	Factor(dB)	(dBμV)	(dBμV)	(dB)	
1	0.152	17.62	19.50	37.12	65.91	-28.79	QP
2	0.152	7.01	19.50	26.51	55.91	-29.40	Average
3	0.169	15.92	19.50	35.42	65.03	-29.61	QP
4	0.169	3.16	19.50	22.66	55.03	-32.37	Average
5	0.216	12.65	19.49	32.14	62.96	-30.82	QP
6	0.216	1.27	19.49	20.76	52.96	-32.20	Average
7	0.272	10.42	19.50	29.92	61.07	-31.15	QP
8	0.272	2.86	19.50	22.36	51.07	-28.71	Average
9	0.507	20.27	19.52	39.79	56.00	-16.21	QP
10	0.507	18.27	19.52	37.79	46.00	-8.21	Average
11	29.684	9.06	20.02	29.08	60.00	-30.92	QP
12	29.684	2.32	20.02	22.34	50.00	-27.66	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Mode 2**Main: AC120 V, 60 Hz, Line**

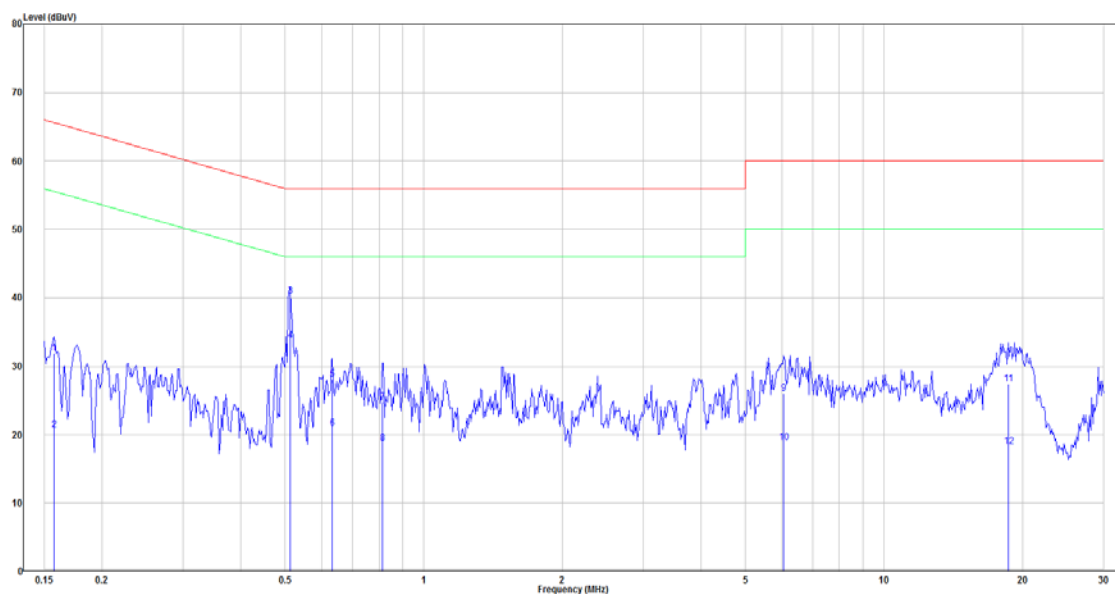
No.	Frequency (MHz)	Reading (dBμV)	Correct Factor(dB)	Result (dBμV)	Limit (dBμV)	Over limit (dB)	Remark
1	0.169	8.83	19.50	28.33	65.03	-36.70	QP
2	0.169	-1.72	19.50	17.78	55.03	-37.25	Average
3	0.510	18.63	19.52	38.15	56.00	-17.85	QP
4	0.510	16.42	19.52	35.94	46.00	-10.06	Average
5	0.647	6.99	19.53	26.52	56.00	-29.48	QP
6	0.647	0.96	19.53	20.49	46.00	-25.51	Average
7	3.860	6.49	19.63	26.12	56.00	-29.88	QP
8	3.860	0.46	19.63	20.09	46.00	-25.91	Average
9	5.993	7.45	19.68	27.13	60.00	-32.87	QP
10	5.993	1.63	19.68	21.31	50.00	-28.69	Average
11	19.950	9.85	19.82	29.67	60.00	-30.33	QP
12	19.950	1.12	19.82	20.94	50.00	-29.06	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Main: AC120 V, 60 Hz, Neutral

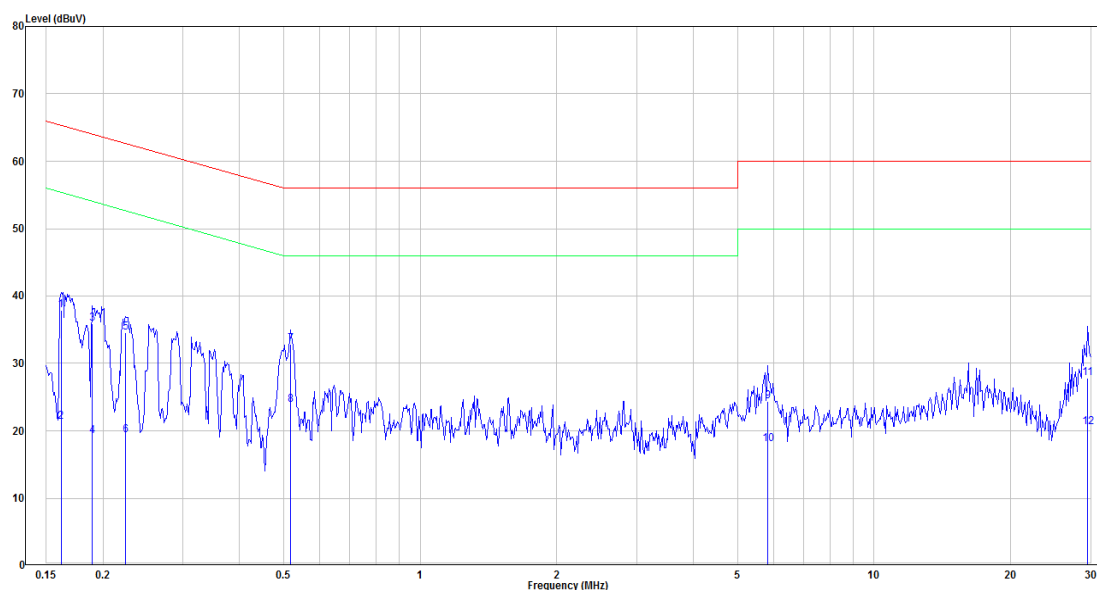
No.	Frequency	Reading	Correct	Result	Limit	Over limit	Remark
	(MHz)	(dBμV)	Factor(dB)	(dBμV)	(dBμV)	(dB)	
1	0.157	12.39	19.50	31.89	65.60	-33.71	QP
2	0.157	1.14	19.50	20.64	55.60	-34.96	Average
3	0.513	20.69	19.52	40.21	56.00	-15.79	QP
4	0.513	14.26	19.52	33.78	46.00	-12.22	Average
5	0.634	8.61	19.52	28.13	56.00	-27.87	QP
6	0.634	1.36	19.52	20.88	46.00	-25.12	Average
7	0.813	5.25	19.53	24.78	56.00	-31.22	QP
8	0.813	-0.78	19.53	18.75	46.00	-27.25	Average
9	6.056	6.29	19.68	25.97	60.00	-34.03	QP
10	6.056	-0.89	19.68	18.79	50.00	-31.21	Average
11	18.622	7.47	19.87	27.34	60.00	-32.66	QP
12	18.622	-1.60	19.87	18.27	50.00	-31.73	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Mode 3**Main: AC120 V, 60 Hz, Line**

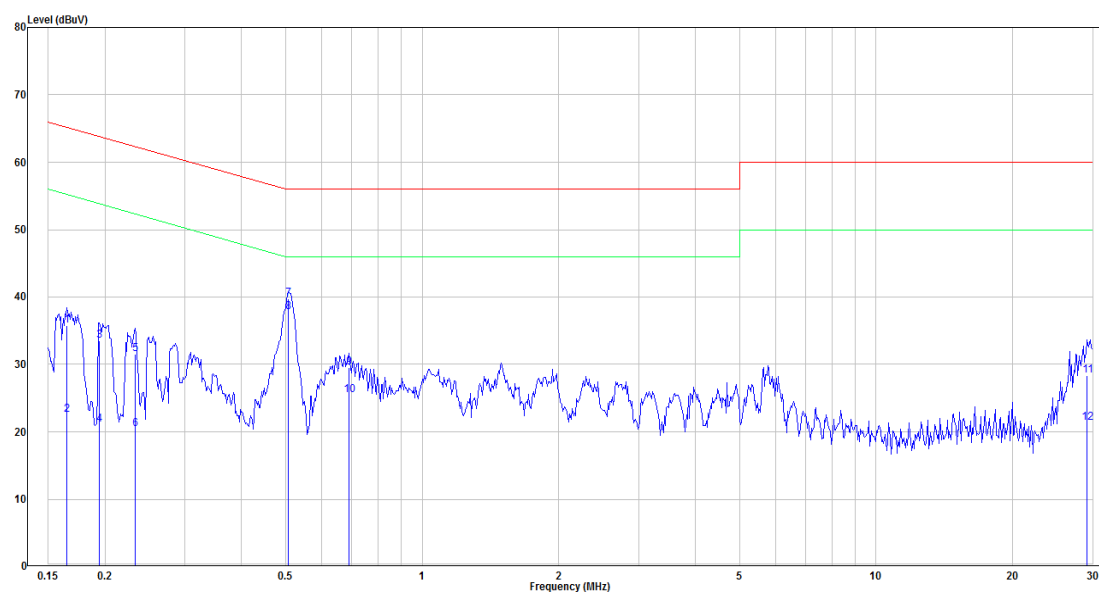
No.	Frequency (MHz)	Reading (dBμV)	Correct Factor(dB)	Result (dBμV)	Limit (dBμV)	Over limit (dB)	Remark
1	0.162	18.32	19.50	37.82	65.38	-27.56	QP
2	0.162	1.87	19.50	21.37	55.38	-34.01	Average
3	0.189	16.33	19.50	35.83	64.06	-28.23	QP
4	0.189	-0.31	19.50	19.19	54.06	-34.87	Average
5	0.224	15.10	19.50	34.60	62.66	-28.06	QP
6	0.224	-0.16	19.50	19.34	52.66	-33.32	Average
7	0.518	13.39	19.52	32.91	56.00	-23.09	QP
8	0.518	4.32	19.52	23.84	46.00	-22.16	Average
9	5.836	4.76	19.67	24.43	60.00	-35.57	QP
10	5.836	-1.72	19.67	17.95	50.00	-32.05	Average
11	29.527	7.87	19.96	27.83	60.00	-32.17	QP
12	29.527	0.61	19.96	20.57	50.00	-29.43	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Main: AC120 V, 60 Hz, Neutral

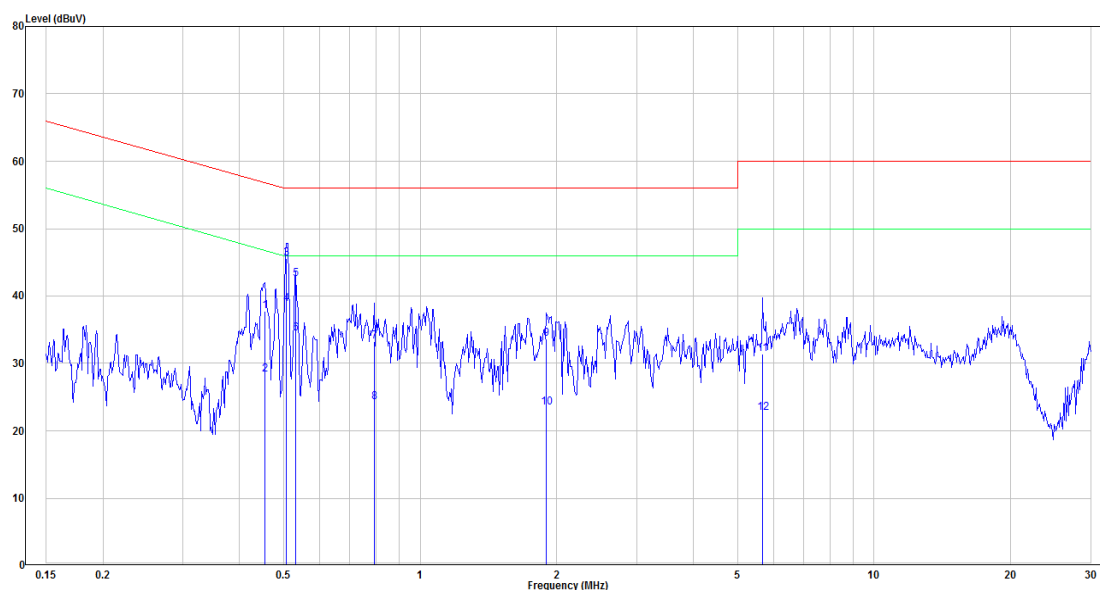
No.	Frequency	Reading	Correct	Result	Limit	Over limit	Remark
	(MHz)	(dBμV)	Factor(dB)	(dBμV)	(dBμV)	(dB)	
1	0.165	16.29	19.50	35.79	65.21	-29.42	QP
2	0.165	3.05	19.50	22.55	55.21	-32.66	Average
3	0.194	13.95	19.49	33.44	63.84	-30.40	QP
4	0.194	1.56	19.49	21.05	53.84	-32.79	Average
5	0.233	12.07	19.49	31.56	62.35	-30.79	QP
6	0.233	0.96	19.49	20.45	52.35	-31.90	Average
7	0.507	20.26	19.52	39.78	56.00	-16.22	QP
8	0.507	18.24	19.52	37.76	46.00	-8.24	Average
9	0.690	9.95	19.52	29.47	56.00	-26.53	QP
10	0.690	5.95	19.52	25.47	46.00	-20.53	Average
11	29.216	8.38	20.01	28.39	60.00	-31.61	QP
12	29.216	1.25	20.01	21.26	50.00	-28.74	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Mode 4**Main: AC120 V, 60 Hz, Line**

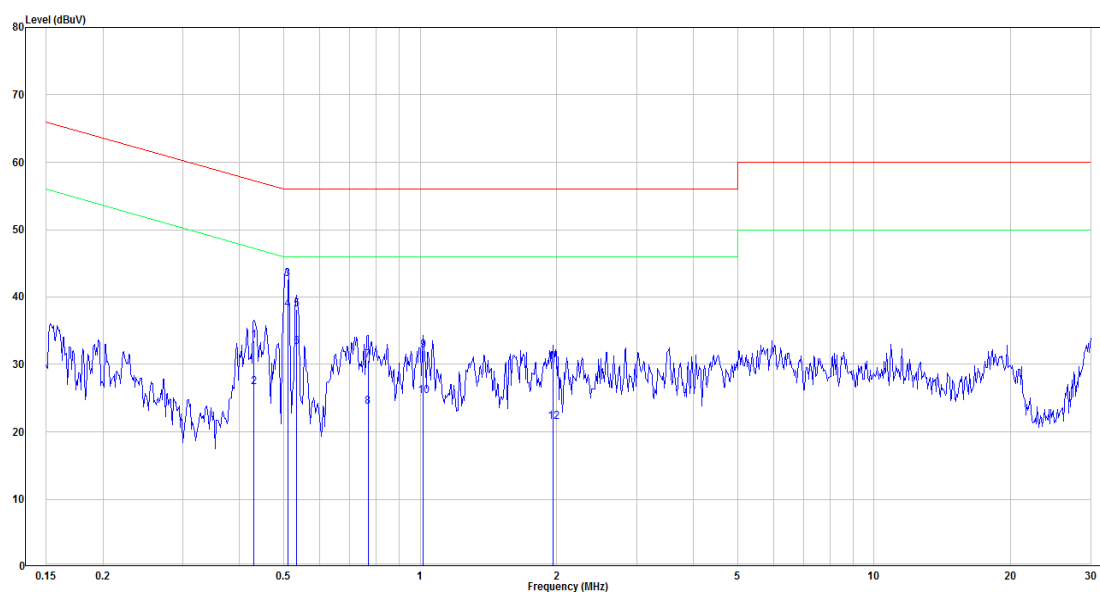
No.	Frequency (MHz)	Reading (dBμV)	Correct Factor(dB)	Result (dBμV)	Limit (dBμV)	Over limit (dB)	Remark
1	0.454	18.20	19.52	37.72	56.80	-19.08	QP
2	0.454	8.89	19.52	28.41	46.80	-18.39	Average
3	0.507	26.08	19.52	45.60	56.00	-10.40	QP
4	0.507	19.30	19.52	38.82	46.00	-7.18	Average
5	0.532	23.02	19.52	42.54	56.00	-13.46	QP
6	0.532	14.95	19.52	34.47	46.00	-11.53	Average
7	0.792	13.74	19.53	33.27	56.00	-22.73	QP
8	0.792	4.65	19.53	24.18	46.00	-21.82	Average
9	1.898	14.09	19.58	33.67	56.00	-22.33	QP
10	1.898	3.93	19.58	23.51	46.00	-22.49	Average
11	5.683	11.66	19.67	31.33	60.00	-28.67	QP
12	5.683	3.02	19.67	22.69	50.00	-27.31	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Main: AC120 V, 60 Hz, Neutral

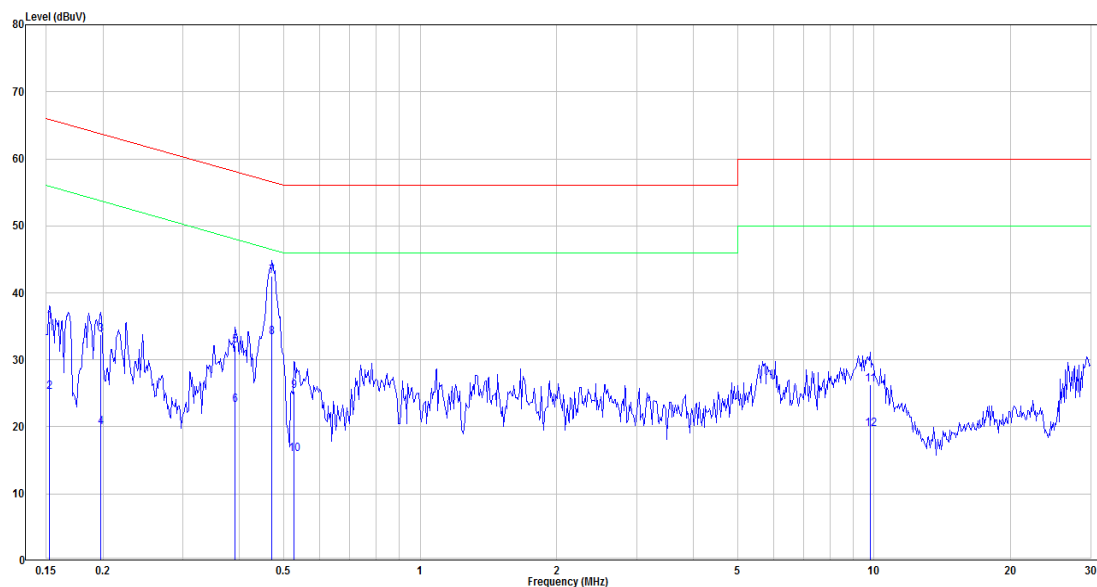
No.	Frequency (MHz)	Reading (dBμV)	Correct Factor(dB)	Result (dBμV)	Limit (dBμV)	Over limit (dB)	Remark
1	0.431	14.02	19.52	33.54	57.24	-23.70	QP
2	0.431	7.15	19.52	26.67	47.24	-20.57	Average
3	0.510	23.19	19.52	42.71	56.00	-13.29	QP
4	0.510	18.69	19.52	38.21	46.00	-7.79	Average
5	0.535	18.57	19.52	38.09	56.00	-17.91	QP
6	0.535	13.01	19.52	32.53	46.00	-13.47	Average
7	0.767	11.10	19.53	30.63	56.00	-25.37	QP
8	0.767	4.17	19.53	23.70	46.00	-22.30	Average
9	1.016	12.52	19.53	32.05	56.00	-23.95	QP
10	1.016	5.74	19.53	25.27	46.00	-20.73	Average
11	1.959	10.73	19.57	30.30	56.00	-25.70	QP
12	1.959	1.84	19.57	21.41	46.00	-24.59	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Mode 5**Main: AC120 V, 60 Hz, Line**

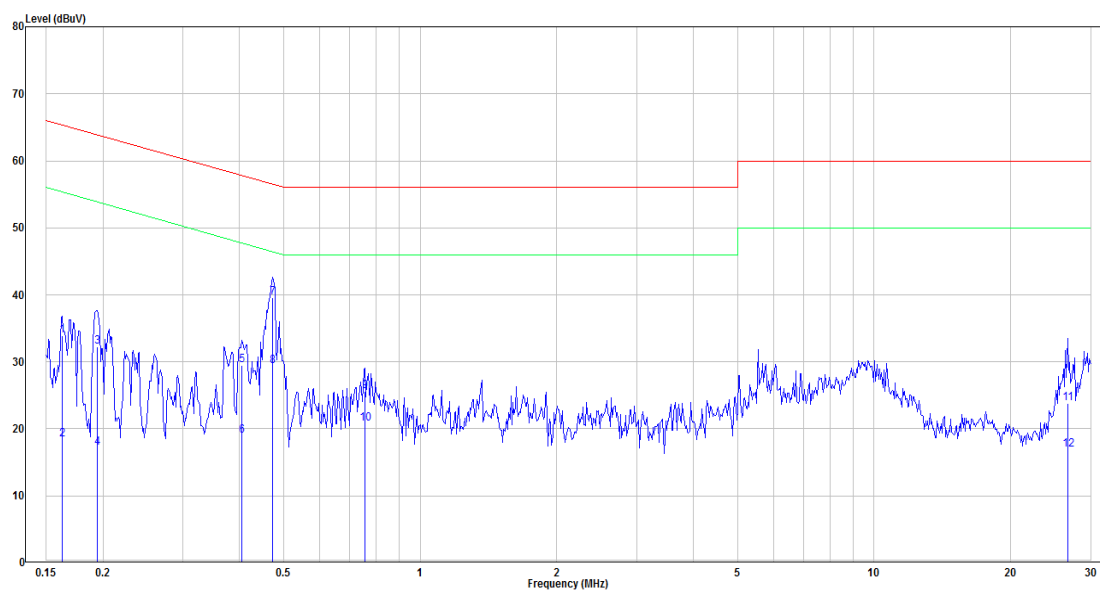
No.	Frequency (MHz)	Reading (dBμV)	Correct Factor(dB)	Result (dBμV)	Limit (dBμV)	Over limit (dB)	Remark
1	0.152	16.20	19.50	35.70	65.87	-30.17	QP
2	0.152	5.73	19.50	25.23	55.87	-30.64	Average
3	0.198	14.22	19.50	33.72	63.71	-29.99	QP
4	0.198	0.49	19.50	19.99	53.71	-33.72	Average
5	0.391	12.63	19.51	32.14	58.03	-25.89	QP
6	0.391	3.74	19.51	23.25	48.03	-24.78	Average
7	0.471	22.99	19.52	42.51	56.49	-13.98	QP
8	0.471	13.86	19.52	33.38	46.49	-13.11	Average
9	0.527	5.87	19.52	25.39	56.00	-30.61	QP
10	0.527	-3.65	19.52	15.87	46.00	-30.13	Average
11	9.809	6.52	19.75	26.27	60.00	-33.73	QP
12	9.809	-0.08	19.75	19.67	50.00	-30.33	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Main: AC120 V, 60 Hz, Neutral

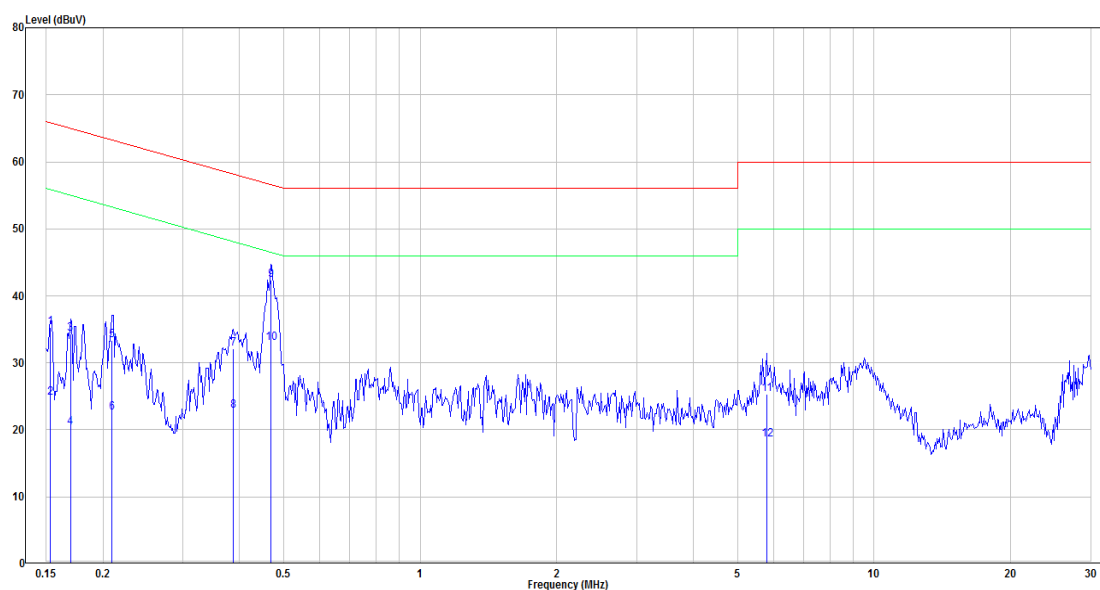
No.	Frequency	Reading	Correct	Result	Limit	Over limit	Remark
	(MHz)	(dBμV)	Factor(dB)	(dBμV)	(dBμV)	(dB)	
1	0.162	14.46	19.50	33.96	65.34	-31.38	QP
2	0.162	-1.04	19.50	18.46	55.34	-36.88	Average
3	0.194	12.82	19.49	32.31	63.84	-31.53	QP
4	0.194	-2.40	19.49	17.09	53.84	-36.75	Average
5	0.404	10.00	19.51	29.51	57.77	-28.26	QP
6	0.404	-0.52	19.51	18.99	47.77	-28.78	Average
7	0.474	20.00	19.52	39.52	56.45	-16.93	QP
8	0.474	9.87	19.52	29.39	46.45	-17.06	Average
9	0.755	6.12	19.53	25.65	56.00	-30.35	QP
10	0.755	1.29	19.53	20.82	46.00	-25.18	Average
11	26.699	3.83	19.99	23.82	60.00	-36.18	QP
12	26.699	-3.16	19.99	16.83	50.00	-33.17	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Mode 6**Main: AC120 V, 60 Hz, Line**

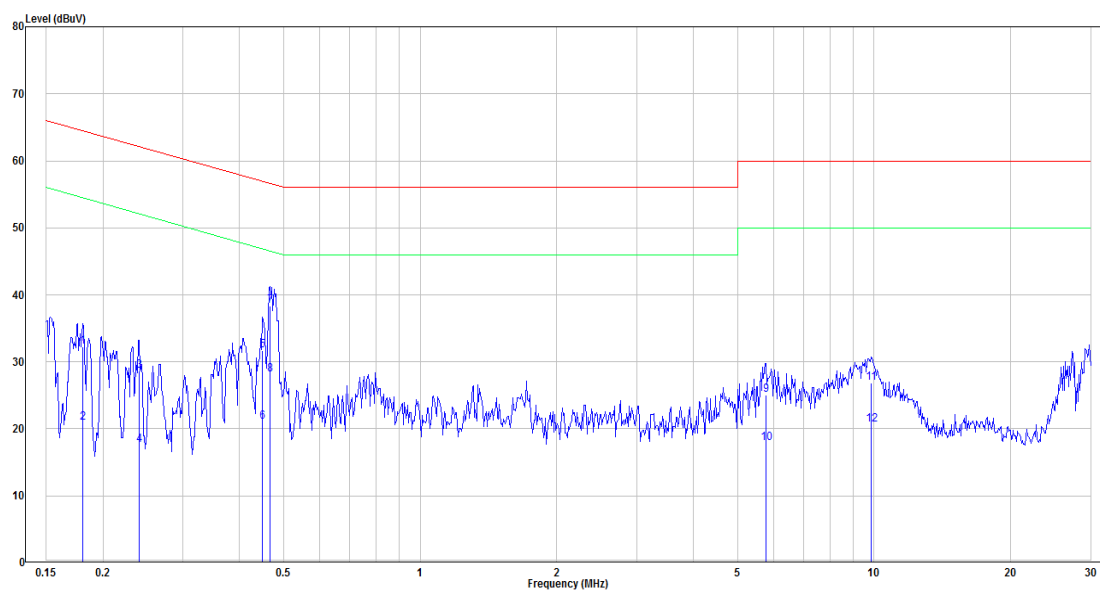
No.	Frequency (MHz)	Reading (dBμV)	Correct Factor(dB)	Result (dBμV)	Limit (dBμV)	Over limit (dB)	Remark
1	0.153	15.78	19.50	35.28	65.82	-30.54	QP
2	0.153	5.32	19.50	24.82	55.82	-31.00	Average
3	0.169	14.79	19.50	34.29	64.99	-30.70	QP
4	0.169	0.77	19.50	20.27	54.99	-34.72	Average
5	0.209	13.80	19.50	33.30	63.23	-29.93	QP
6	0.209	3.07	19.50	22.57	53.23	-30.66	Average
7	0.387	12.53	19.51	32.04	58.12	-26.08	QP
8	0.387	3.30	19.51	22.81	48.12	-25.31	Average
9	0.469	22.80	19.52	42.32	56.54	-14.22	QP
10	0.469	13.45	19.52	32.97	46.54	-13.57	Average
11	5.805	5.66	19.67	25.33	60.00	-34.67	QP
12	5.805	-1.09	19.67	18.58	50.00	-31.42	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Main: AC120 V, 60 Hz, Neutral

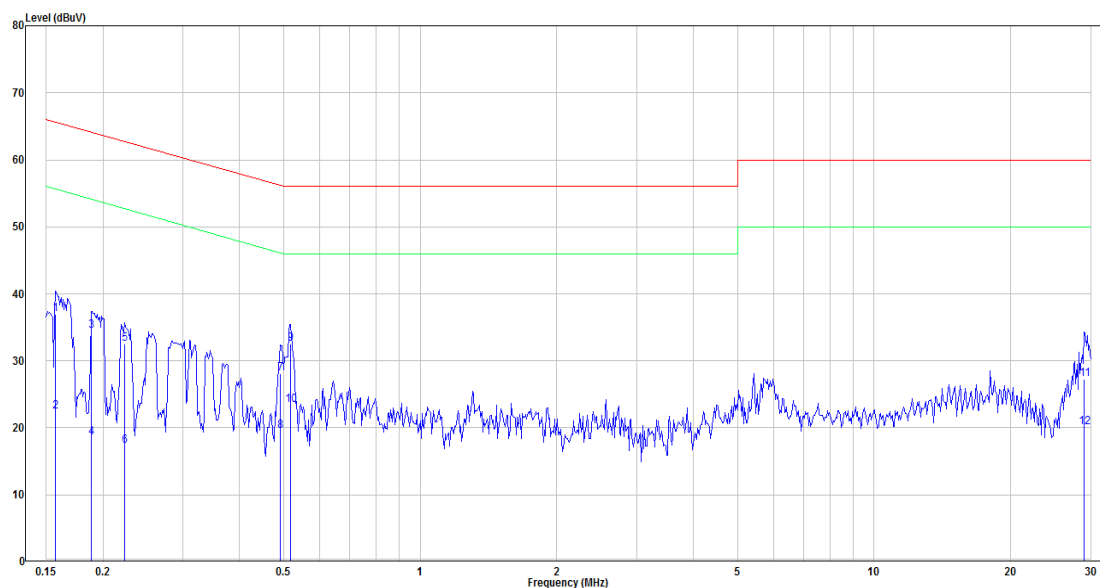
No.	Frequency	Reading	Correct	Result	Limit	Over limit	Remark
	(MHz)	(dBμV)	Factor(dB)	(dBμV)	(dBμV)	(dB)	
1	0.181	12.69	19.50	32.19	64.46	-32.27	QP
2	0.181	1.38	19.50	20.88	54.46	-33.58	Average
3	0.240	9.16	19.49	28.65	62.08	-33.43	QP
4	0.240	-1.88	19.49	17.61	52.08	-34.47	Average
5	0.449	12.16	19.52	31.68	56.89	-25.21	QP
6	0.449	1.55	19.52	21.07	46.89	-25.82	Average
7	0.466	18.88	19.52	38.40	56.58	-18.18	QP
8	0.466	8.62	19.52	28.14	46.58	-18.44	Average
9	5.774	5.40	19.68	25.08	60.00	-34.92	QP
10	5.774	-1.83	19.68	17.85	50.00	-32.15	Average
11	9.861	7.09	19.77	26.86	60.00	-33.14	QP
12	9.861	0.92	19.77	20.69	50.00	-29.31	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Transmitting simultaneously test:**Mode 7****Main: AC120 V, 60 Hz, Line**

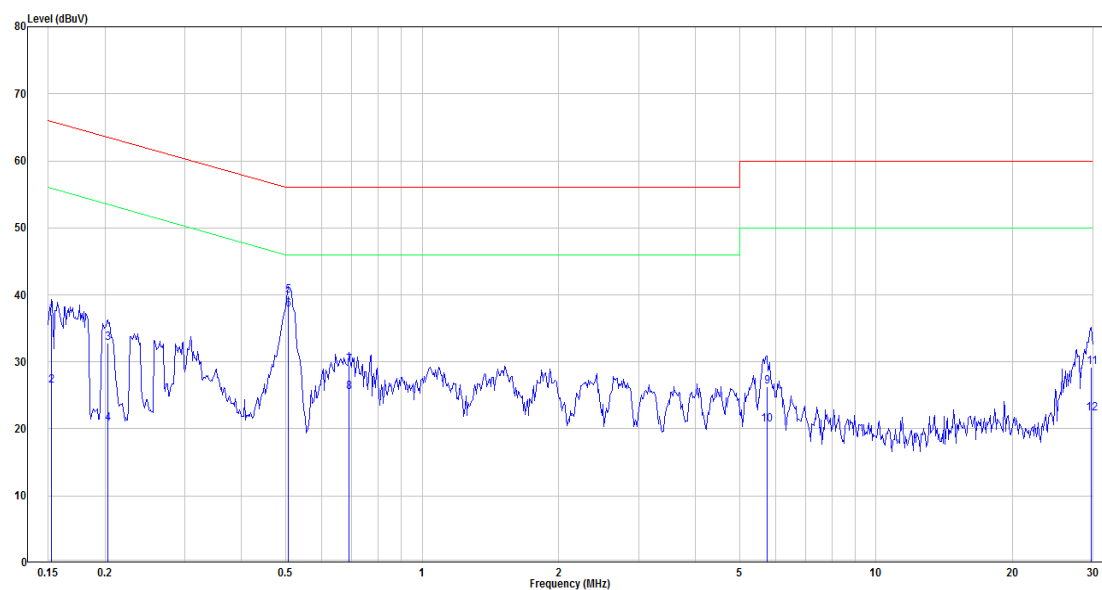
No.	Frequency (MHz)	Reading (dBμV)	Correct Factor(dB)	Result (dBμV)	Limit (dBμV)	Over limit (dB)	Remark
1	0.157	17.39	19.50	36.89	65.60	-28.71	QP
2	0.157	2.92	19.50	22.42	55.60	-33.18	Average
3	0.188	15.00	19.50	34.50	64.11	-29.61	QP
4	0.188	-0.98	19.50	18.52	54.11	-35.59	Average
5	0.223	13.09	19.50	32.59	62.70	-30.11	QP
6	0.223	-2.14	19.50	17.36	52.70	-35.34	Average
7	0.491	8.62	19.52	28.14	56.14	-28.00	QP
8	0.491	0.02	19.52	19.54	46.14	-26.60	Average
9	0.518	13.04	19.52	32.56	56.00	-23.44	QP
10	0.518	3.90	19.52	23.42	46.00	-22.58	Average
11	29.061	7.25	19.95	27.20	60.00	-32.80	QP
12	29.061	0.17	19.95	20.12	50.00	-29.88	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Main: AC120 V, 60 Hz, Neutral

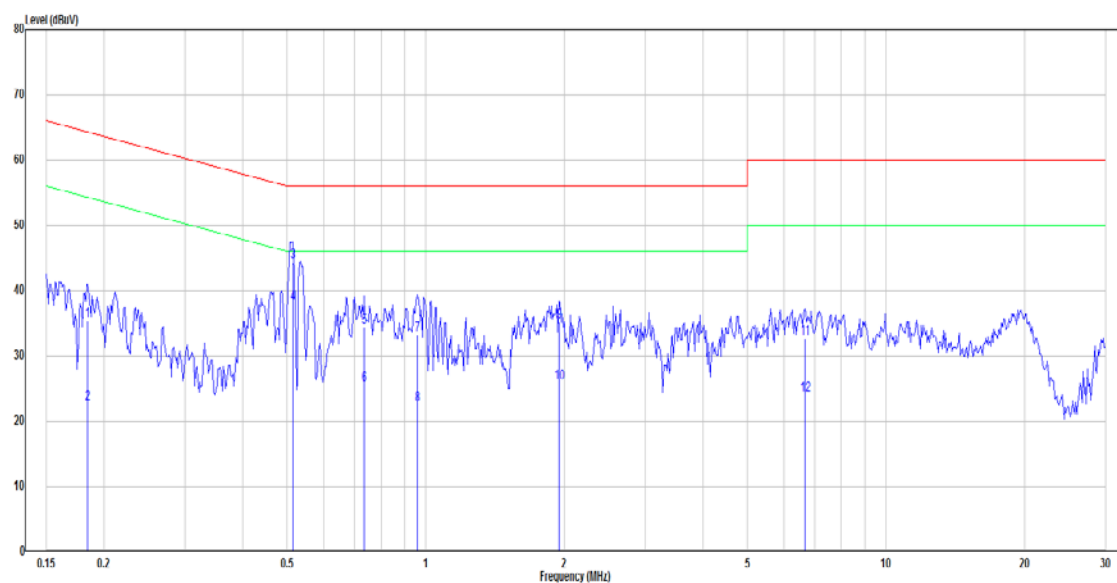
No.	Frequency	Reading	Correct	Result	Limit	Over limit	Remark
	(MHz)	(dBμV)	Factor(dB)	(dBμV)	(dBμV)	(dB)	
1	0.152	17.63	19.50	37.13	65.87	-28.74	QP
2	0.152	6.90	19.50	26.40	55.87	-29.47	Average
3	0.203	13.25	19.49	32.74	63.49	-30.75	QP
4	0.203	1.27	19.49	20.76	53.49	-32.73	Average
5	0.507	20.28	19.52	39.80	56.00	-16.20	QP
6	0.507	18.32	19.52	37.84	46.00	-8.16	Average
7	0.690	10.02	19.52	29.54	56.00	-26.46	QP
8	0.690	5.88	19.52	25.40	46.00	-20.60	Average
9	5.744	6.57	19.68	26.25	60.00	-33.75	QP
10	5.744	0.95	19.68	20.63	50.00	-29.37	Average
11	29.841	9.16	20.02	29.18	60.00	-30.82	QP
12	29.841	2.22	20.02	22.24	50.00	-27.76	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Mode 8**Main: AC120 V, 60 Hz, Line**

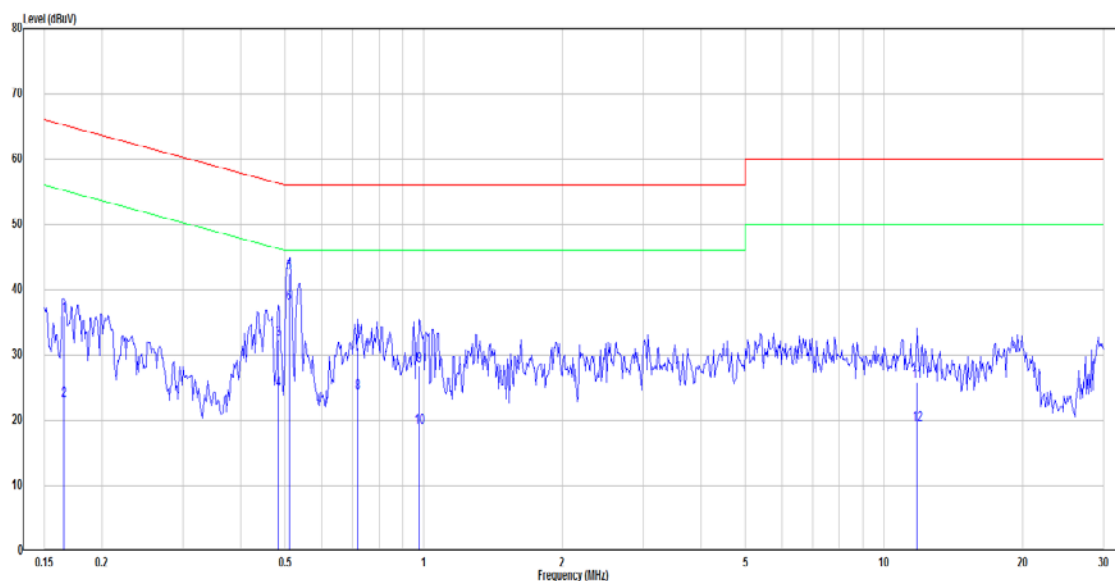
No.	Frequency (MHz)	Reading (dBμV)	Correct Factor(dB)	Result (dBμV)	Limit (dBμV)	Over limit (dB)	Remark
1	0.184	15.88	19.50	35.38	64.28	-28.90	QP
2	0.184	3.22	19.50	22.72	54.28	-31.56	Average
3	0.516	24.86	19.52	44.38	56.00	-11.62	QP
4	0.516	18.51	19.52	38.03	46.00	-7.97	Average
5	0.735	14.84	19.53	34.37	56.00	-21.63	QP
6	0.735	6.04	19.53	25.57	46.00	-20.43	Average
7	0.958	13.66	19.54	33.20	56.00	-22.80	QP
8	0.958	3.02	19.54	22.56	46.00	-23.44	Average
9	1.949	15.61	19.58	35.19	56.00	-20.81	QP
10	1.949	6.27	19.58	25.85	46.00	-20.15	Average
11	6.662	12.92	19.69	32.61	60.00	-27.39	QP
12	6.662	4.23	19.69	23.92	50.00	-26.08	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

Main: AC120 V, 60 Hz, Neutral

No.	Frequency (MHz)	Reading (dBμV)	Correct Factor(dB)	Result (dBμV)	Limit (dBμV)	Over limit (dB)	Remark
1	0.165	16.58	19.50	36.08	65.21	-29.13	QP
2	0.165	3.46	19.50	22.96	55.21	-32.25	Average
3	0.484	12.76	19.52	32.28	56.27	-23.99	QP
4	0.484	5.10	19.52	24.62	46.27	-21.65	Average
5	0.510	22.98	19.52	42.50	56.00	-13.50	QP
6	0.510	18.38	19.52	37.90	46.00	-8.10	Average
7	0.720	11.71	19.52	31.23	56.00	-24.77	QP
8	0.720	4.69	19.52	24.21	46.00	-21.79	Average
9	0.979	8.73	19.53	28.26	56.00	-27.74	QP
10	0.979	-0.69	19.53	18.84	46.00	-27.16	Average
11	11.807	6.03	19.79	25.82	60.00	-34.18	QP
12	11.807	-0.43	19.79	19.36	50.00	-30.64	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

8 FCC §15.209, §15.205 , §15.247(d) – Spurious Emissions

8.1 Applicable Standard

As per FCC §15.35(d): Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1MHz.

As Per FCC §15.205(a) except as show in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 – 0.110	16.42 – 16.423	608 – 614	4. 5 – 5. 15
0.495 – 0.505	16.69475 – 16.69525	960 – 1240	5. 35 – 5. 46
2.1735 – 2.1905	16.80425 – 16.80475	1300 – 1427	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1435 – 1626.5	8.025 – 8.5
4.17725 – 4.17775	37.5 – 38.25	1645.5 – 1646.5	9.0 – 9.2
4.20725 – 4.20775	73 – 74.6	1660 – 1710	9.3 – 9.5
6.215 – 6.218	74.8 – 75.2	1718.8 – 1722.2	10.6 – 12.7
6.26775 – 6.26825	108 – 121.94	2200 – 2300	13.25 – 13.4
6.31175 – 6.31225	123 – 138	2310 – 2390	14.47 – 14.5
8.291 – 8.294	149.9 – 150.05	2483.5 – 2500	15.35 – 16.2
8.362 – 8.366	156.52475 – 156.52525	2690 – 2900	17.7 – 21.4
8.37625 – 8.38675	156.7 – 156.9	3260 – 3267	22.01 – 23.12
8.41425 – 8.41475	162.0125 – 167.17	3.332 – 3.339	23.6 – 24.0
12.29 – 12.293	167.72 – 173.2	3 3458 – 3 358	31.2 – 31.8
12.51975 – 12.52025	240 – 285	3.600 – 4.400	36.43 – 36.5
12.57675 – 12.57725	322 – 335.4		Above 38.6
13.36 – 13.41	399.9 – 410		

As per FCC §15.209(a): Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (micro volts/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

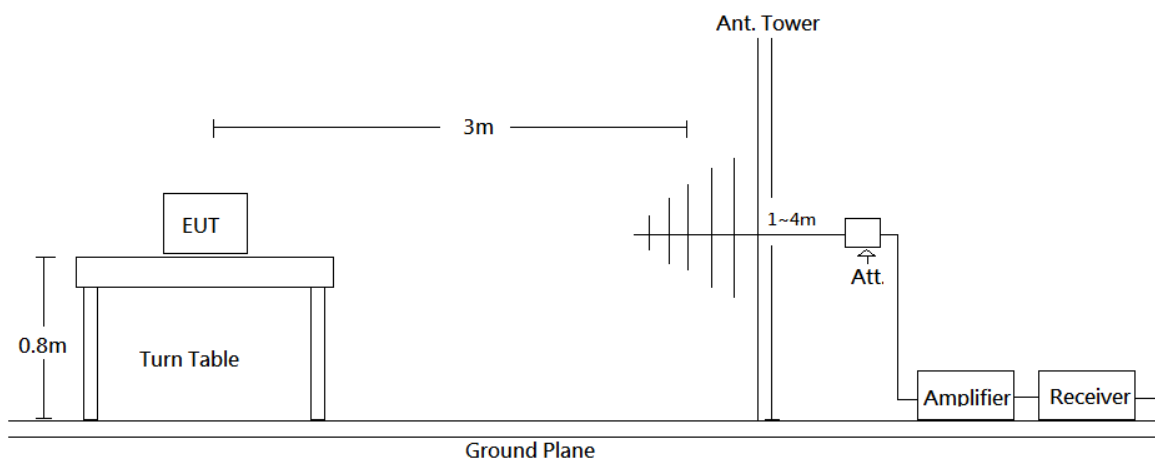
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

As per FCC §15.247 (d) In any 100 kHz 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 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c).

8.2 EUT Setup

Below 1 GHz:



Radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC Part 15.209 and FCC 15.247 Limits.

8.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 1 GHz. During the radiated emission test, the EMI test receiver was set with the following configurations measurement method 6.3 in ANSI C63.10.

Frequency Range	RBW	VBW	Duty cycle	Measurement method
30-1000 MHz	120 kHz	/	/	QP
Above 1 GHz	1 MHz	3 MHz	/	PK
	1 MHz	10 Hz	>98%	Ave
	1 MHz	1/T	<98%	Ave

Note: T is minimum transmission duration

8.4 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All data was recorded in the Quasi-peak detector mode from 30 MHz to 1 GHz.

8.5 Corrected Factor & Margin Calculation

The Correct Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Correct Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Result} - \text{Limit}$$

8.6 Test Results

Test Mode: Transmitting

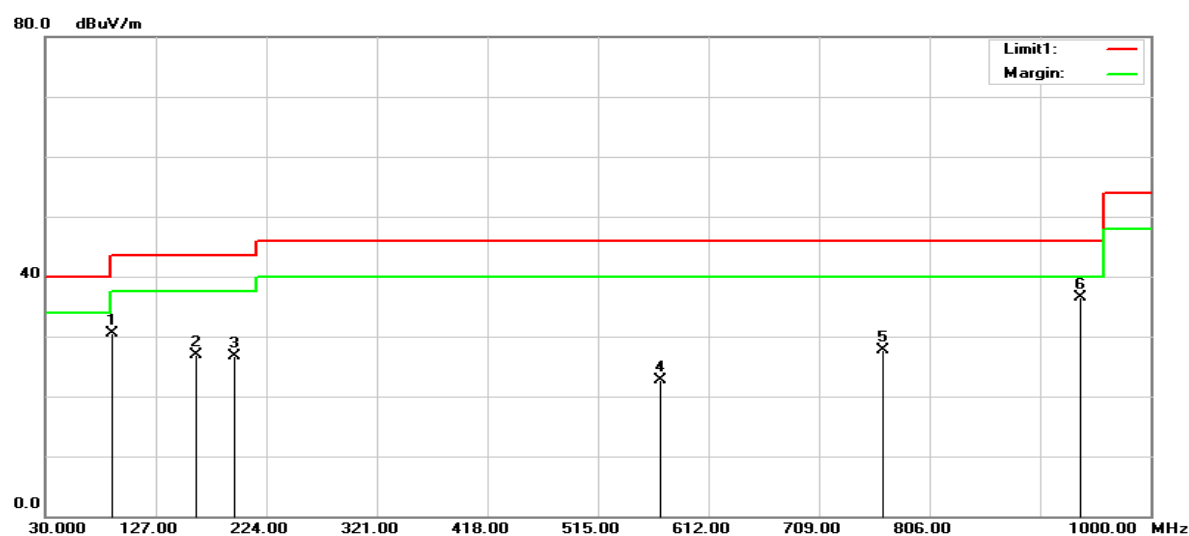
(Pre-scan with three orthogonal axis, and worse case as Y axis.)

(Worst case is 802.11b mode low channel.)

30MHz-1GHz:

Mode 1

Horizontal



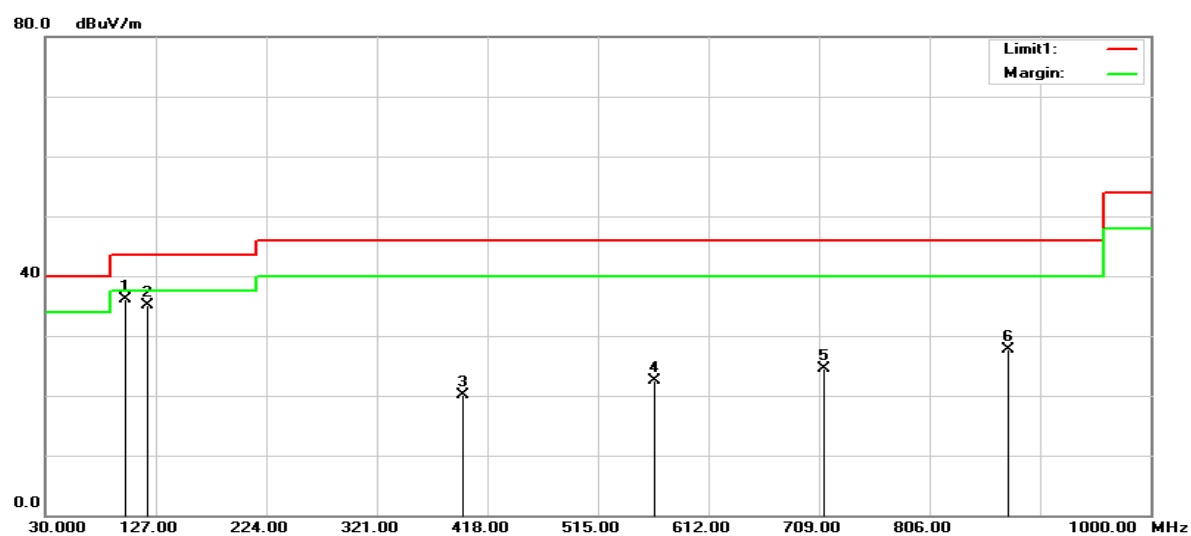
Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
89.1700	47.15	-16.70	30.45	43.50	-13.05	100	311	peak
162.8900	38.34	-11.43	26.91	43.50	-16.59	100	245	peak
195.8700	38.41	-11.70	26.71	43.50	-16.79	100	138	peak
570.2900	28.22	-5.51	22.71	46.00	-23.29	100	85	peak
765.2600	29.80	-2.06	27.74	46.00	-18.26	100	119	peak
938.8900	34.46	2.02	36.48	46.00	-9.52	100	68	peak

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Vertical

Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
99.8400	50.08	-14.06	36.02	43.50	-7.48	100	321	peak
120.2100	45.35	-10.27	35.08	43.50	-8.42	100	255	peak
396.6600	27.90	-7.87	20.03	46.00	-25.97	100	85	peak
564.4700	28.21	-5.61	22.60	46.00	-23.40	100	46	peak
713.8500	27.18	-2.64	24.54	46.00	-21.46	100	113	peak
874.8700	27.31	0.44	27.75	46.00	-18.25	100	64	peak

Result = Reading + Correct Factor

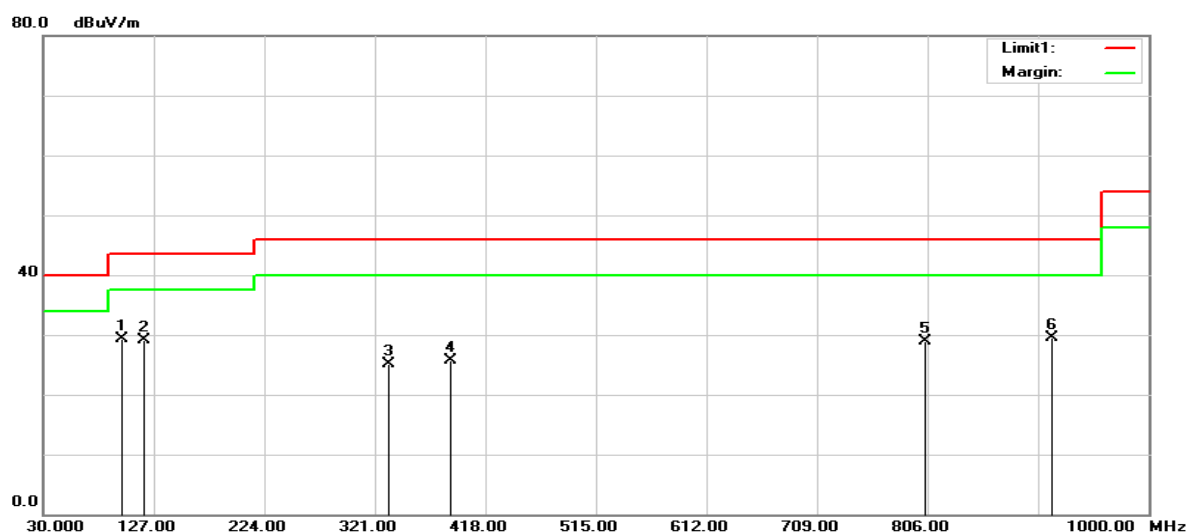
Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Mode 2

Horizontal



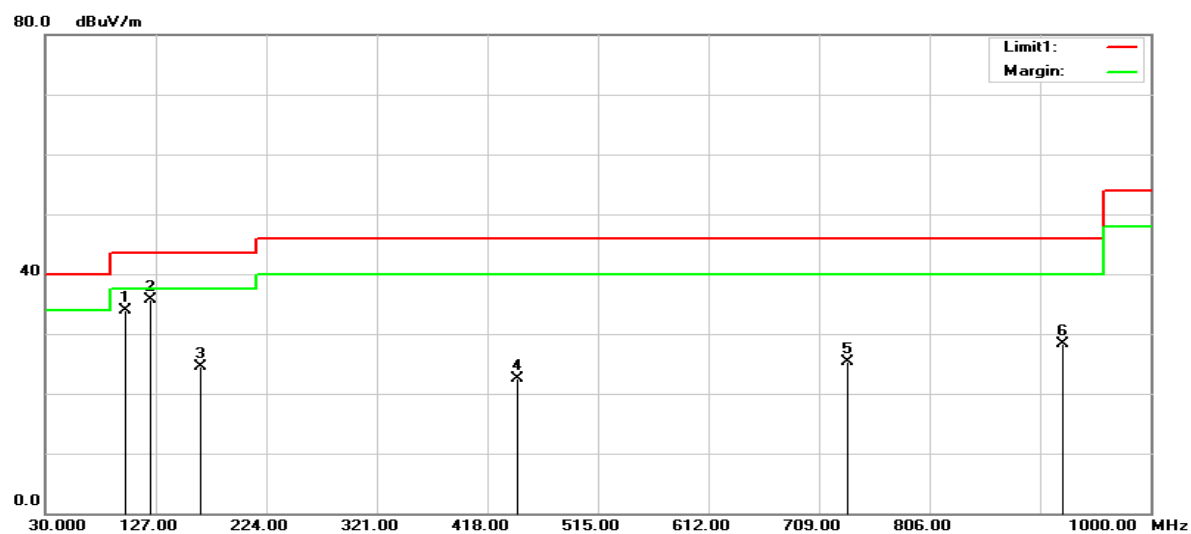
Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
98.8700	43.97	-14.59	29.38	43.50	-14.12	100	86	peak
118.2700	39.83	-10.69	29.14	43.50	-14.36	100	75	peak
332.6400	34.65	-9.46	25.19	46.00	-20.81	100	138	peak
386.9600	33.93	-8.19	25.74	46.00	-20.26	100	247	peak
804.0600	29.79	-0.93	28.86	46.00	-17.14	100	324	peak
914.6400	27.86	1.56	29.42	46.00	-16.58	100	125	peak

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Vertical

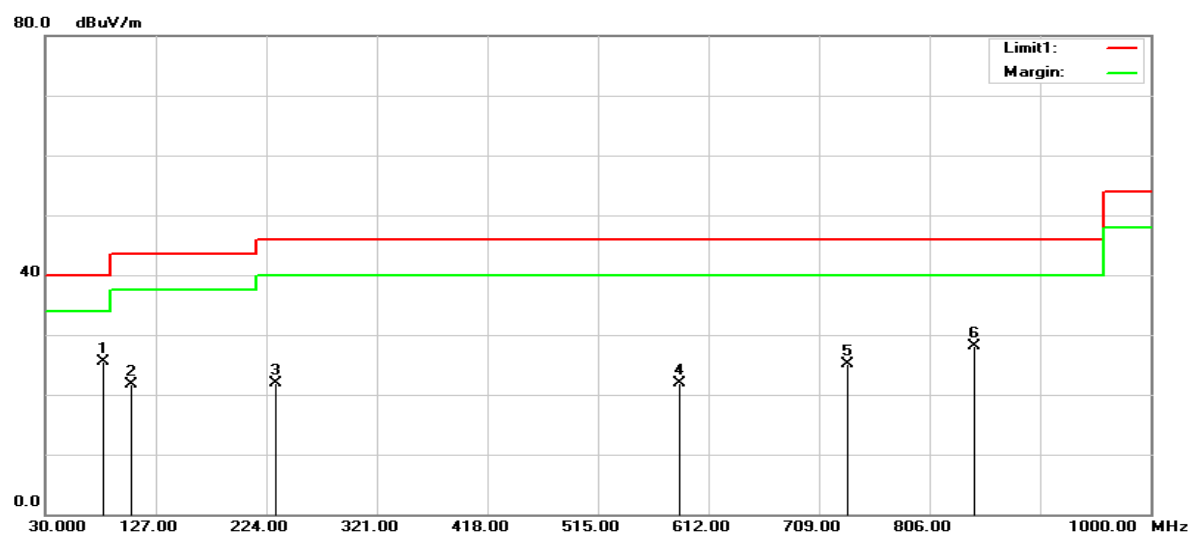
Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
99.8400	48.06	-14.06	34.00	43.50	-9.50	100	243	peak
122.1500	46.33	-10.72	35.61	43.50	-7.89	100	123	peak
165.8000	36.20	-11.71	24.49	43.50	-19.01	100	65	peak
444.1900	29.15	-6.61	22.54	46.00	-23.46	100	85	peak
734.2200	27.72	-2.44	25.28	46.00	-20.72	100	45	peak
923.3700	26.66	1.70	28.36	46.00	-17.64	100	254	peak

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Mode 3**Horizontal**

Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
81.4100	42.15	-16.62	25.53	40.00	-14.47	100	135	peak
105.6600	34.24	-12.56	21.68	43.50	-21.82	100	147	peak
231.7600	34.53	-12.58	21.95	46.00	-24.05	100	58	peak
586.7800	27.14	-5.16	21.98	46.00	-24.02	100	67	peak
734.2200	27.52	-2.44	25.08	46.00	-20.92	100	312	peak
844.8000	28.14	-0.08	28.06	46.00	-17.94	100	256	peak

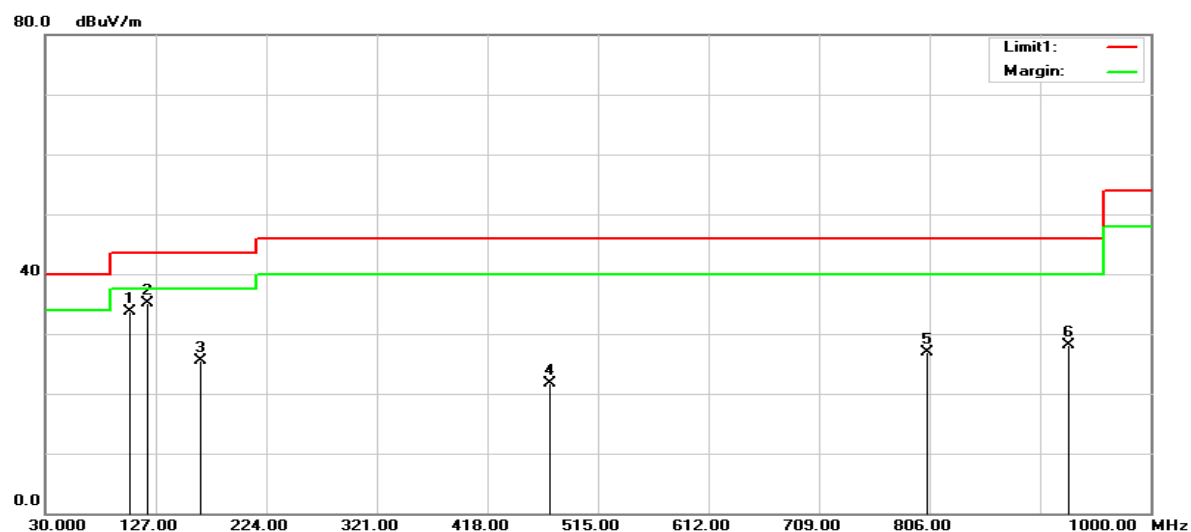
Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Vertical



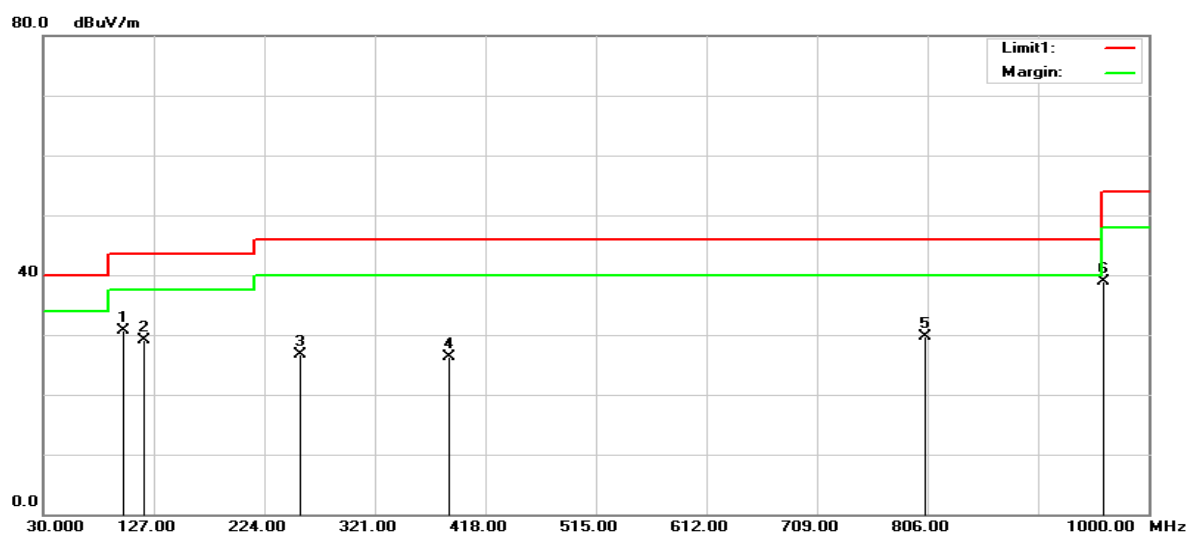
Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
104.6900	46.55	-12.78	33.77	43.50	-9.73	100	312	peak
119.2400	45.73	-10.54	35.19	43.50	-8.31	100	255	peak
165.8000	37.13	-11.71	25.42	43.50	-18.08	100	58	peak
473.2900	27.99	-6.22	21.77	46.00	-24.23	100	86	peak
804.0600	27.81	-0.93	26.88	46.00	-19.12	100	133	peak
928.2200	26.40	1.80	28.20	46.00	-17.80	100	124	peak

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Mode 4**Horizontal**

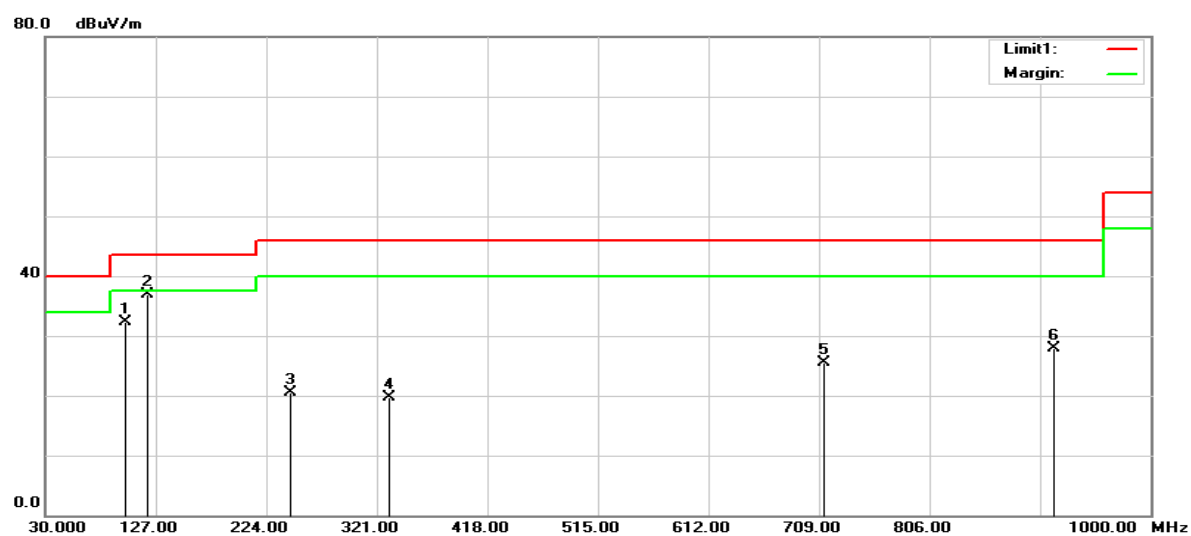
Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
99.8400	44.85	-14.06	30.79	43.50	-12.71	100	128	peak
118.2700	39.78	-10.69	29.09	43.50	-14.41	100	322	peak
255.0400	39.01	-12.21	26.80	46.00	-19.20	100	56	peak
385.9900	34.51	-8.24	26.27	46.00	-19.73	100	67	peak
804.0600	30.70	-0.93	29.77	46.00	-16.23	100	189	peak
960.2300	36.62	2.35	38.97	54.00	-15.03	100	245	peak

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Vertical

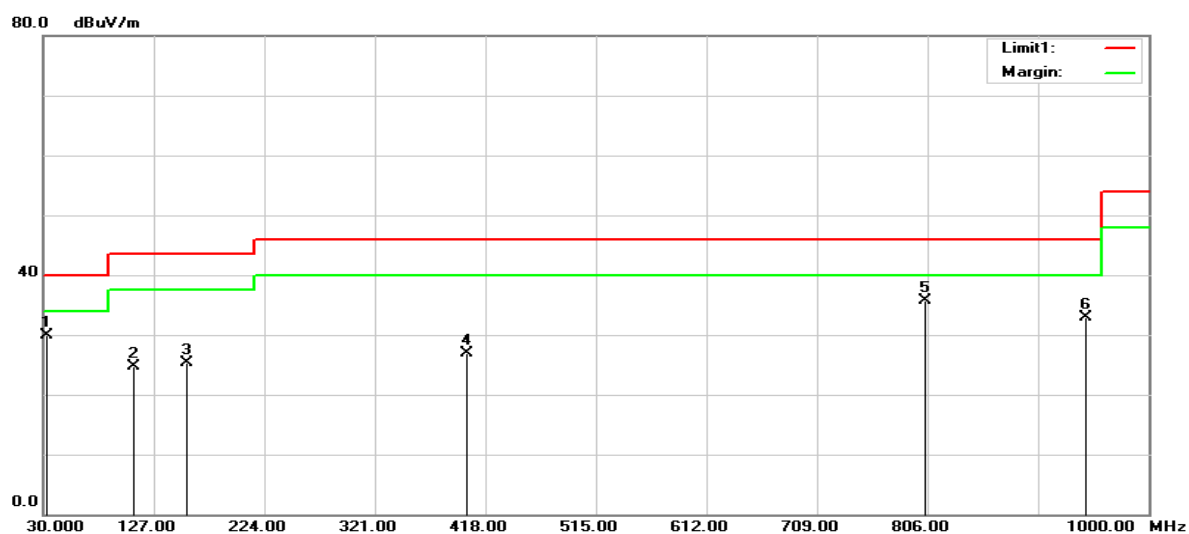
Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
99.8400	46.36	-14.06	32.30	43.50	-11.20	100	125	peak
120.2100	47.27	-10.27	37.00	43.50	-6.50	100	32	peak
245.3400	32.67	-12.24	20.43	46.00	-25.57	100	85	peak
331.6700	29.19	-9.44	19.75	46.00	-26.25	100	116	peak
712.8800	28.06	-2.65	25.41	46.00	-20.59	100	138	peak
914.6400	26.41	1.56	27.97	46.00	-18.03	100	228	peak

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Mode 5**Horizontal**

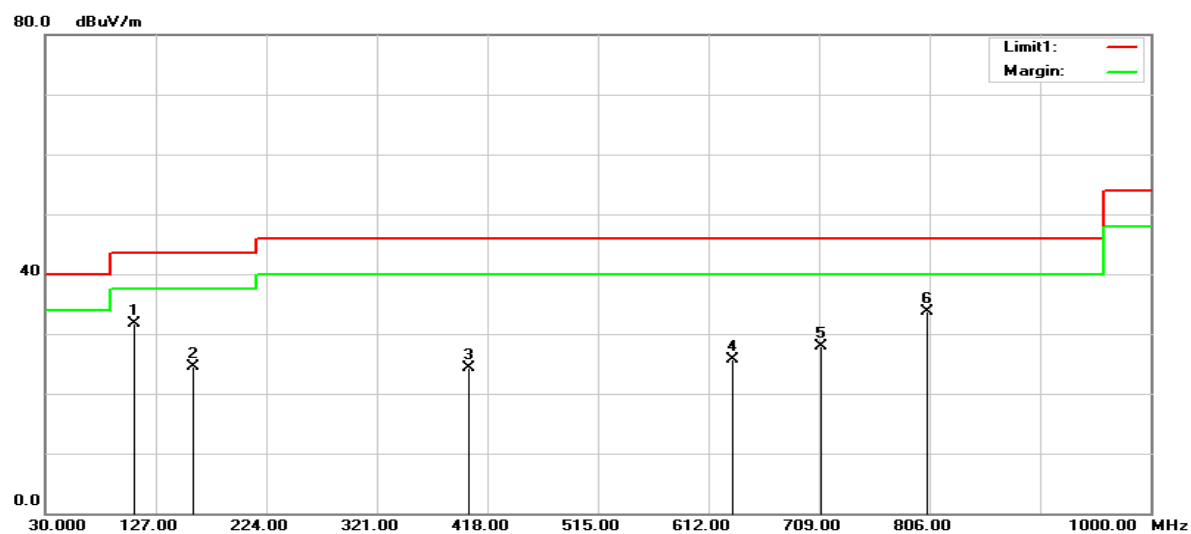
Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
32.9100	36.05	-6.11	29.94	40.00	-10.06	100	192	peak
109.5400	36.52	-11.89	24.63	43.50	-18.87	100	315	peak
156.1000	36.45	-11.06	25.39	43.50	-18.11	100	63	peak
401.5100	34.75	-7.86	26.89	46.00	-19.11	100	128	peak
804.0600	36.66	-0.93	35.73	46.00	-10.27	100	272	peak
944.7100	30.86	2.12	32.98	46.00	-13.02	100	17	peak

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Vertical

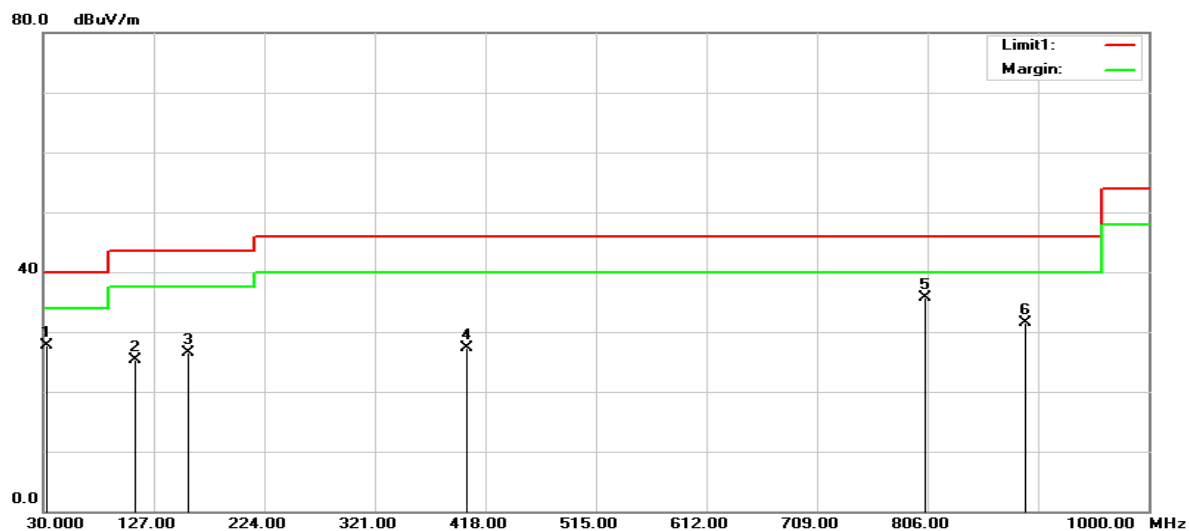
Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
108.5700	43.92	-12.16	31.76	43.50	-11.74	100	332	peak
159.9800	35.56	-11.14	24.42	43.50	-19.08	100	141	peak
401.5100	32.09	-7.86	24.23	46.00	-21.77	100	103	peak
633.3400	30.17	-4.37	25.80	46.00	-20.20	100	121	peak
710.9400	30.68	-2.68	28.00	46.00	-18.00	100	178	peak
804.0600	34.62	-0.93	33.69	46.00	-12.31	100	149	peak

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Mode 6**Horizontal**

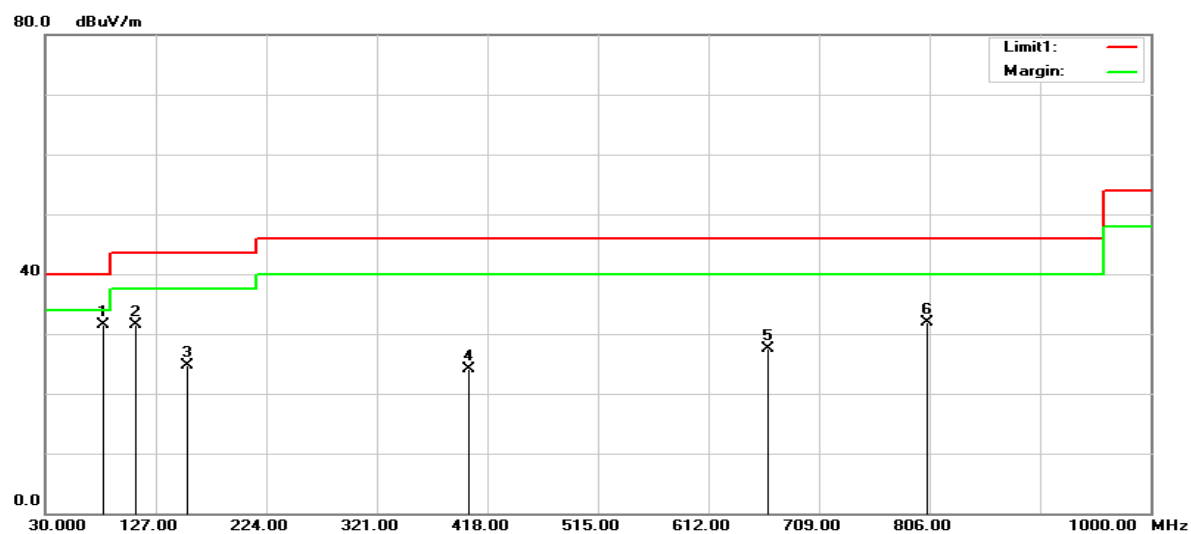
Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
32.9100	33.85	-6.11	27.74	40.00	-12.26	100	199	peak
110.5100	37.01	-11.66	25.35	43.50	-18.15	100	307	peak
157.0700	37.73	-11.15	26.58	43.50	-16.92	100	77	peak
401.5100	35.19	-7.86	27.33	46.00	-18.67	100	113	peak
804.0600	36.56	-0.93	35.63	46.00	-10.37	100	59	peak
891.3600	30.86	0.62	31.48	46.00	-14.52	100	84	peak

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Vertical

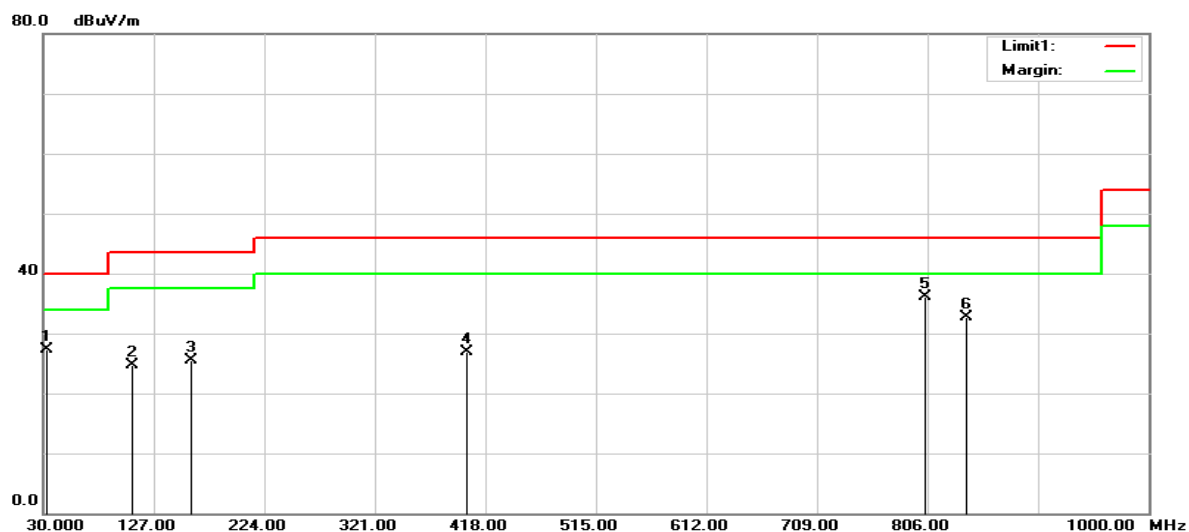
Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
81.4100	48.16	-16.62	31.54	40.00	-8.46	100	180	peak
109.5400	43.31	-11.89	31.42	43.50	-12.08	100	244	peak
154.1600	35.73	-11.12	24.61	43.50	-18.89	100	164	peak
401.5100	31.99	-7.86	24.13	46.00	-21.87	100	112	peak
664.3800	30.84	-3.43	27.41	46.00	-18.59	100	33	peak
804.0600	32.75	-0.93	31.82	46.00	-14.18	100	153	peak

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Transmitting simultaneously test:**Mode 7****Horizontal**

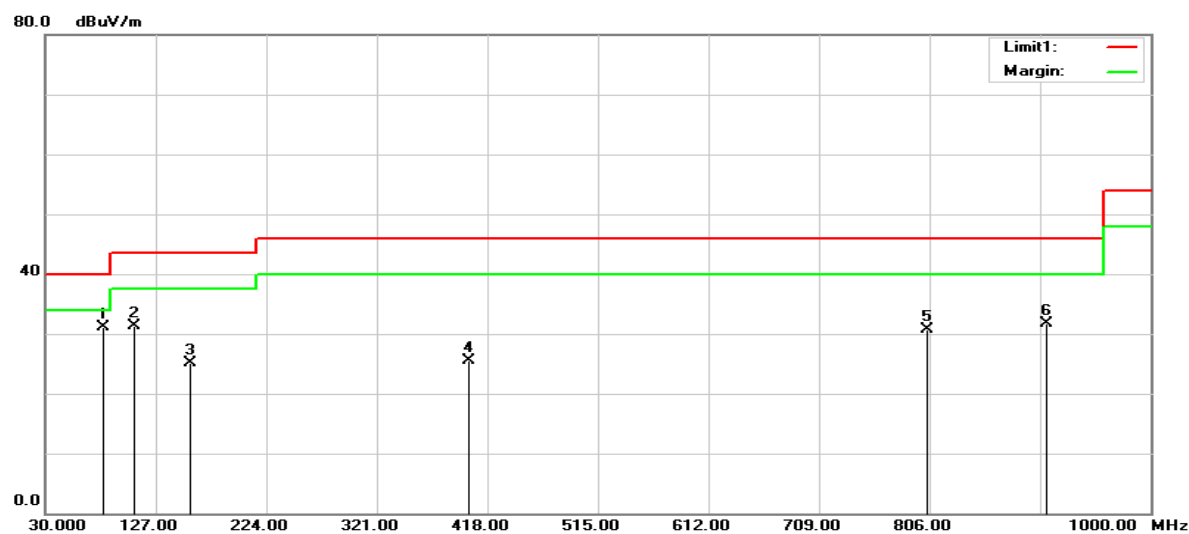
Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
32.9100	33.49	-6.11	27.38	40.00	-12.62	100	7	peak
108.5700	36.94	-12.16	24.78	43.50	-18.72	100	316	peak
159.9800	36.56	-11.14	25.42	43.50	-18.08	100	271	peak
401.5100	34.73	-7.86	26.87	46.00	-19.13	100	109	peak
804.0600	37.10	-0.93	36.17	46.00	-9.83	100	265	peak
839.9500	32.82	-0.13	32.69	46.00	-13.31	100	53	peak

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Vertical

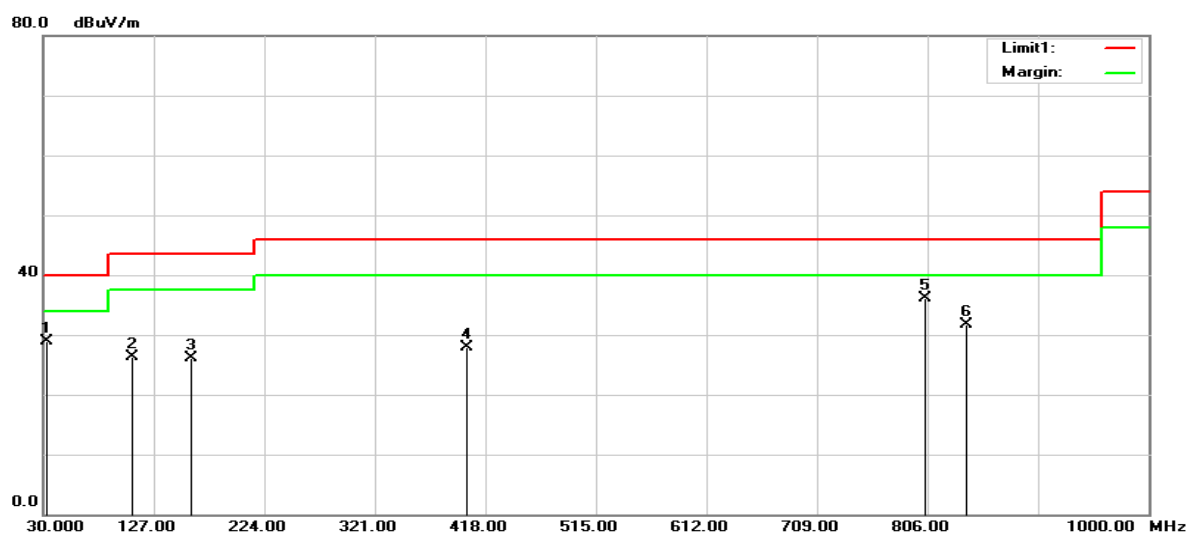
Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
81.4100	47.66	-16.62	31.04	40.00	-8.96	100	344	peak
107.6000	43.58	-12.24	31.34	43.50	-12.16	100	273	peak
157.0700	36.20	-11.15	25.05	43.50	-18.45	100	105	peak
401.5100	33.39	-7.86	25.53	46.00	-20.47	100	103	peak
804.0600	31.73	-0.93	30.80	46.00	-15.20	100	123	peak
908.8200	30.40	1.35	31.75	46.00	-14.25	100	23	peak

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Mode 8**Horizontal**

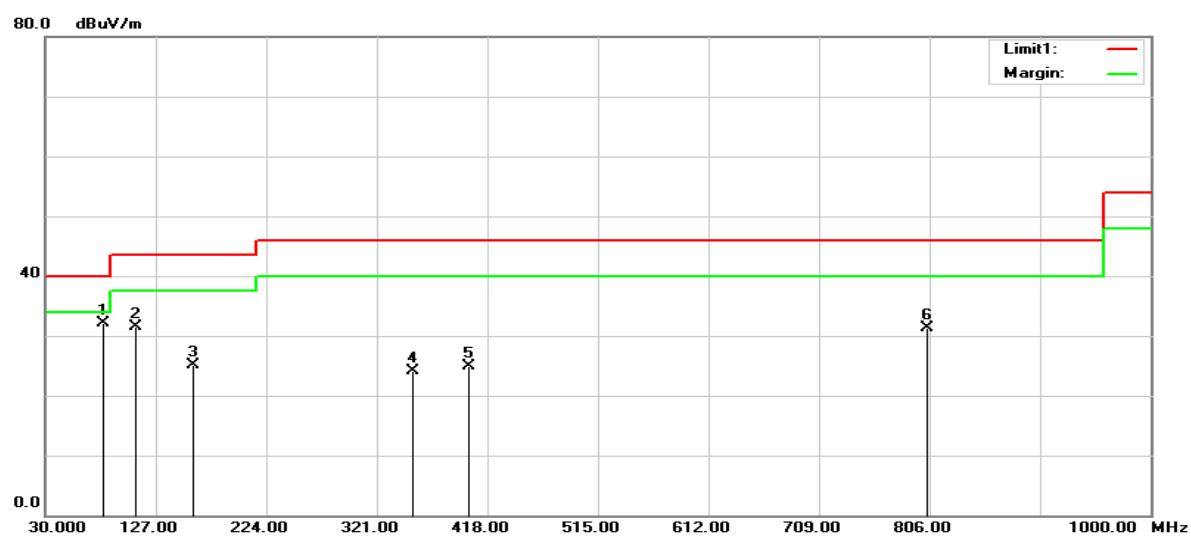
Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
32.9100	34.96	-6.11	28.85	40.00	-11.15	100	239	peak
108.5700	38.44	-12.16	26.28	43.50	-17.22	100	295	peak
159.9800	37.30	-11.14	26.16	43.50	-17.34	100	59	peak
401.5100	35.69	-7.86	27.83	46.00	-18.17	100	102	peak
804.0600	37.05	-0.93	36.12	46.00	-9.88	100	284	peak
839.9500	31.83	-0.13	31.70	46.00	-14.30	100	282	peak

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Vertical

Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
81.4100	48.63	-16.62	32.01	40.00	-7.99	100	181	peak
109.5400	43.41	-11.89	31.52	43.50	-11.98	100	38	peak
159.9800	36.30	-11.14	25.16	43.50	-18.34	100	145	peak
352.0400	33.27	-9.20	24.07	46.00	-21.93	100	139	peak
401.5100	32.77	-7.86	24.91	46.00	-21.09	100	22	peak
804.0600	32.27	-0.93	31.34	46.00	-14.66	100	145	peak

Result = Reading + Correct Factor

Margin = Result – Limit

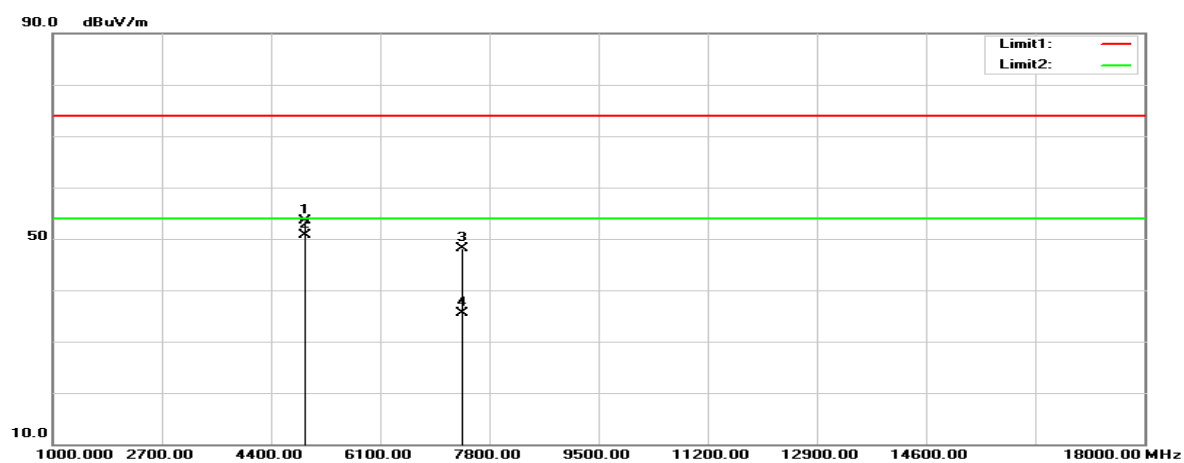
Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

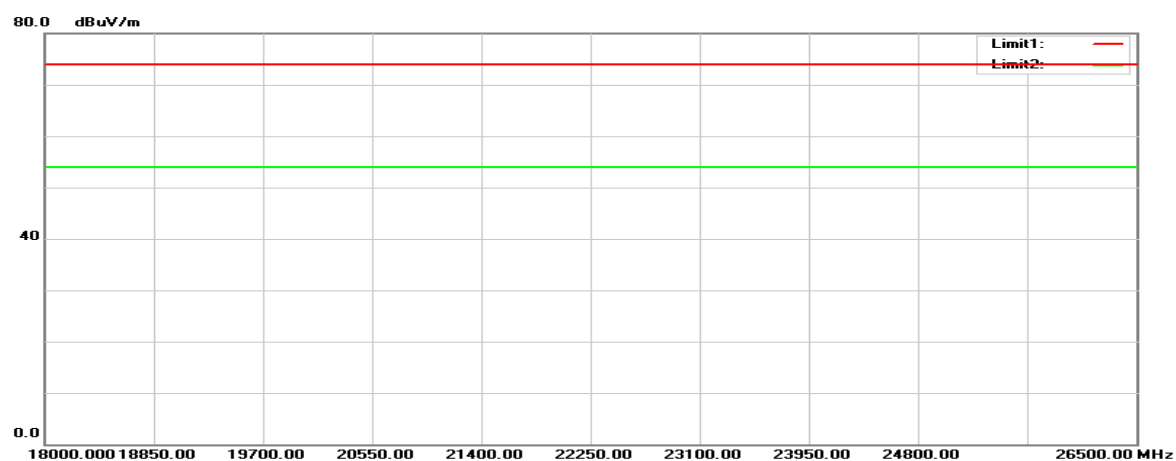
Model: Bell 8S

Horizontal (worst case is 802.11g mode High channel)

1GHz-18GHz

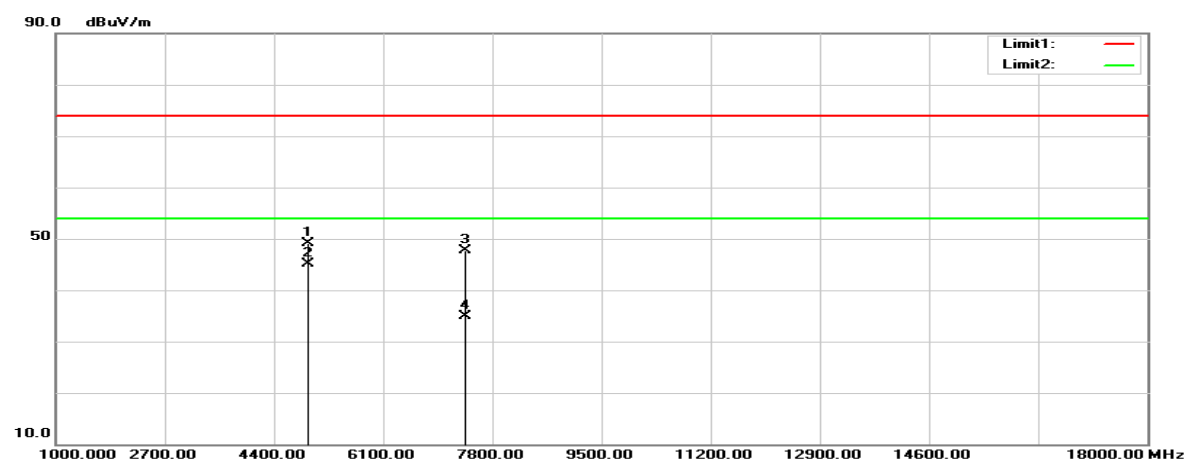


18GHz-26.5GHz

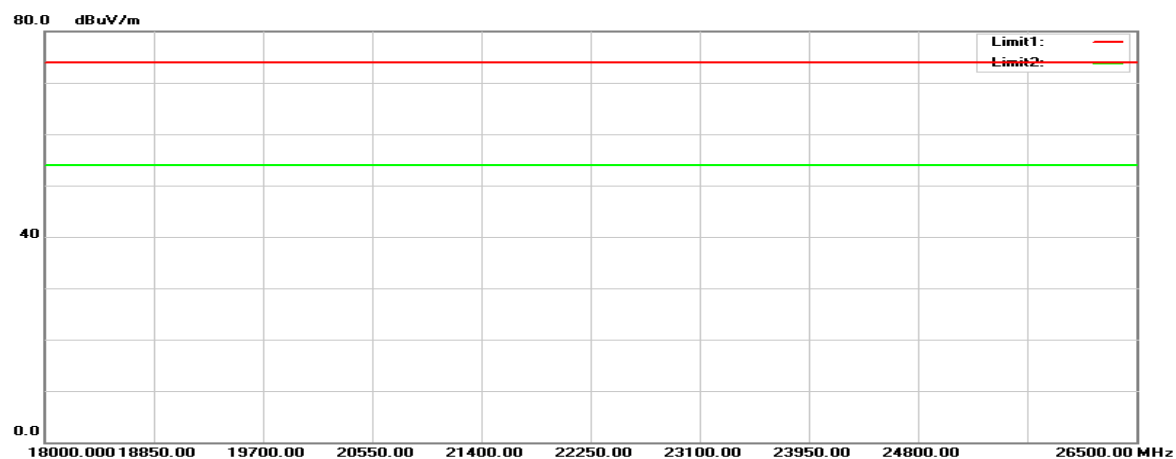


Vertical (worst case is 802.11g mode High channel)

1GHz-18GHz



18GHz-26.5GHz



Above 1GHz**Horizontal**

Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
B Mode, Low channel								
2387.952	67.47	-9.76	57.71	74.00	-16.29	153	250	peak
2387.952	48.29	-9.76	38.53	54.00	-15.47	153	250	AVG
4824.000	54.51	-2.74	51.77	74.00	-22.23	152	248	peak
4824.000	50.40	-2.74	47.66	54.00	-6.34	152	248	AVG
7236.000	44.37	2.98	47.35	74.00	-26.65	150	356	peak
7236.000	34.08	2.98	37.06	54.00	-16.94	150	356	AVG
B Mode, Middle channel								
4874.000	54.44	-2.70	51.74	74.00	-22.26	150	248	peak
4874.000	51.44	-2.70	48.74	54.00	-5.26	150	248	AVG
7311.000	43.99	3.16	47.15	74.00	-26.85	149	322	peak
7311.000	33.56	3.16	36.72	54.00	-17.28	149	322	AVG
B Mode, High channel								
2483.584	61.68	-8.89	52.79	74.00	-21.21	140	247	peak
2483.584	45.94	-8.89	37.05	54.00	-16.95	140	247	AVG
4924.000	56.08	-2.54	53.54	74.00	-20.46	140	234	peak
4924.000	53.33	-2.54	50.79	54.00	-3.21	140	234	AVG
7386.000	44.85	3.27	48.12	74.00	-25.88	138	355	peak
7386.000	32.15	3.27	35.42	54.00	-18.58	138	355	AVG

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Vertical

Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
B Mode, Low channel								
2389.520	61.47	-9.74	51.73	74.00	-22.27	191	213	peak
2389.520	44.94	-9.74	35.20	54.00	-18.80	191	213	AVG
4824.000	53.42	-2.74	50.68	74.00	-23.32	148	232	peak
4824.000	48.68	-2.74	45.94	54.00	-8.06	148	232	AVG
7236.000	44.37	2.98	47.35	74.00	-26.65	145	322	peak
7236.000	33.89	2.98	36.87	54.00	-17.13	145	322	AVG
B Mode, Middle channel								
4874.000	53.05	-2.70	50.35	74.00	-23.65	155	250	peak
4874.000	50.68	-2.70	47.98	54.00	-6.02	155	250	AVG
7311.000	44.05	3.16	47.21	74.00	-26.79	151	296	peak
7311.000	33.68	3.16	36.84	54.00	-17.16	151	269	AVG
B Mode, High channel								
2485.408	58.03	-8.86	49.17	74.00	-24.83	142	248	peak
2485.408	44.05	-8.86	35.19	54.00	-18.81	142	248	AVG
4924.000	51.61	-2.54	49.07	74.00	-24.93	141	247	peak
4924.000	47.57	-2.54	45.03	54.00	-8.97	141	247	AVG
7386.000	44.51	3.27	47.78	74.00	-26.22	150	337	peak
7386.000	31.72	3.27	34.99	54.00	-19.01	150	337	AVG

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Horizontal

Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
G Mode, Low channel								
2389.856	69.36	-9.74	59.62	74.00	-14.38	149	247	peak
2389.856	50.76	-9.74	41.02	54.00	-12.98	149	247	AVG
4824.000	51.17	-2.74	48.43	74.00	-25.57	150	248	peak
4824.000	47.82	-2.74	45.08	54.00	-8.92	150	248	AVG
7236.000	44.58	2.98	47.56	74.00	-26.44	152	329	peak
7236.000	34.18	2.98	37.16	54.00	-16.84	152	329	AVG
G Mode, Middle channel								
4874.000	52.49	-2.70	49.79	74.00	-24.21	136	249	peak
4874.000	48.64	-2.70	45.94	54.00	-8.06	136	249	AVG
7311.000	45.31	3.16	48.47	74.00	-25.53	152	335	peak
7311.000	36.11	3.16	39.27	54.00	-14.73	152	335	AVG
G Mode, High channel								
2483.728	62.26	-8.89	53.37	74.00	-20.63	145	244	peak
2483.728	46.57	-8.89	37.68	54.00	-16.32	145	244	AVG
4924.000	57.24	-2.54	54.70	74.00	-19.30	150	236	peak
4924.000	53.27	-2.54	50.73	54.00	-3.27	150	236	AVG
7386.000	44.58	3.27	47.85	74.00	-26.15	142	308	peak
7386.000	35.22	3.27	38.49	54.00	-15.51	142	308	AVG

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Vertical

Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
G Mode, Low channel								
2389.632	59.58	-9.74	49.84	74.00	-24.16	190	212	peak
2389.632	45.24	-9.74	35.50	54.00	-18.50	190	212	AVG
4824.000	49.90	-2.74	47.16	74.00	-26.84	148	245	peak
4824.000	45.48	-2.74	42.74	54.00	-11.26	148	245	AVG
7236.000	45.52	2.98	48.50	74.00	-25.50	139	226	peak
7236.000	35.57	2.98	38.55	54.00	-15.45	139	226	AVG
G Mode, Middle channel								
4874.000	52.71	-2.70	50.01	74.00	-23.99	172	232	peak
4874.000	48.37	-2.70	45.67	54.00	-8.33	172	232	AVG
7311.000	44.08	3.16	47.24	74.00	-26.76	149	288	peak
7311.000	35.22	3.16	38.38	54.00	-15.62	149	288	AVG
G Mode, High channel								
2490.064	57.23	-8.80	48.43	74.00	-25.57	141	248	peak
2490.064	43.87	-8.80	35.07	54.00	-18.93	141	248	AVG
4924.000	53.22	-2.54	50.68	74.00	-23.32	150	241	peak
4924.000	48.52	-2.54	45.98	54.00	-8.02	150	241	AVG
7386.000	44.04	3.27	47.31	74.00	-26.69	151	345	peak
7386.000	34.30	3.27	37.57	54.00	-16.43	151	345	AVG

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Horizontal

Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
N20 Mode, Low channel								
2389.520	73.72	-9.74	63.98	74.00	-10.02	150	247	peak
2389.520	52.18	-9.74	42.44	54.00	-11.56	150	247	AVG
4824.000	46.19	-2.74	43.45	74.00	-30.55	151	211	peak
4824.000	36.28	-2.74	33.54	54.00	-20.46	151	211	AVG
7236.000	44.19	2.98	47.17	74.00	-26.83	138	164	peak
7236.000	34.28	2.98	37.26	54.00	-16.74	138	164	AVG
N20 Mode, Middle channel								
4874.000	44.46	-2.70	41.76	74.00	-32.24	158	322	peak
4874.000	34.28	-2.70	31.58	54.00	-22.42	158	322	AVG
7311.000	43.82	3.16	46.98	74.00	-27.02	146	258	peak
7311.000	33.67	3.16	36.83	54.00	-17.17	146	258	AVG
N20 Mode, High channel								
2483.824	66.70	-8.88	57.82	74.00	-16.18	145	245	peak
2483.824	47.45	-8.88	38.57	54.00	-15.43	145	245	AVG
4924.000	42.69	-2.54	40.15	74.00	-33.85	154	169	peak
4924.000	32.56	-2.54	30.02	54.00	-23.98	154	169	AVG
7386.000	42.97	3.27	46.24	74.00	-27.76	162	148	peak
7386.000	32.49	3.27	35.76	54.00	-18.24	162	148	AVG

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Vertical

Frequency (MHz)	Reading (dBμV)	Correct Factor(dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Degree (°)	Remark
N20 Mode, Low channel								
2389.856	64.70	-9.74	54.96	74.00	-19.04	190	215	peak
2389.856	46.52	-9.74	36.78	54.00	-17.22	190	215	AVG
4824.000	44.51	-2.74	41.77	74.00	-32.23	158	134	peak
4824.000	34.66	-2.74	31.92	54.00	-22.08	158	134	AVG
7236.000	42.52	2.98	45.50	74.00	-28.50	163	228	peak
7236.000	32.57	2.98	35.55	54.00	-18.45	163	228	AVG
N20 Mode, Middle channel								
4874.000	44.48	-2.70	41.78	74.00	-32.22	152	133	peak
4874.000	34.29	-2.70	31.59	54.00	-22.41	152	133	AVG
7311.000	43.28	3.16	46.44	74.00	-27.56	168	248	peak
7311.000	33.66	3.16	36.82	54.00	-17.18	168	248	AVG
N20 Mode, High channel								
2485.504	57.37	-8.85	48.52	74.00	-25.48	150	249	peak
2485.504	42.97	-8.85	34.12	54.00	-19.88	150	249	AVG
4924.000	43.77	-2.54	41.23	74.00	-32.77	155	254	peak
4924.000	33.56	-2.54	31.02	54.00	-22.98	155	254	AVG
7386.000	42.72	3.27	45.99	74.00	-28.01	168	134	peak
7386.000	32.57	3.27	35.84	54.00	-18.16	168	134	AVG

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Horizontal

Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
N40 Mode, Low channel								
2387.616	77.89	-9.76	68.13	74.00	-5.87	150	247	peak
2387.616	58.62	-9.76	48.86	54.00	-5.14	150	247	AVG
4844.000	44.75	-2.78	41.97	74.00	-32.03	154	247	peak
4844.000	34.55	-2.78	31.77	54.00	-22.23	154	247	AVG
7266.000	42.49	3.09	45.58	74.00	-28.42	168	132	peak
7266.000	32.68	3.09	35.77	54.00	-18.23	168	132	AVG
N40 Mode, Middle channel								
4874.000	43.59	-2.70	40.89	74.00	-33.11	156	133	peak
4874.000	33.54	-2.70	30.84	54.00	-23.16	156	133	AVG
7311.000	43.19	3.16	46.35	74.00	-27.65	169	245	peak
7311.000	33.28	3.16	36.44	54.00	-17.56	169	245	AVG
N40 Mode, High channel								
2489.596	70.25	-8.80	61.45	74.00	-12.55	147	249	peak
2489.596	51.54	-8.80	42.74	54.00	-11.26	147	249	AVG
4904.000	42.59	-2.59	40.00	74.00	-34.00	161	248	peak
4904.000	32.66	-2.59	30.07	54.00	-23.93	161	248	AVG
7356.000	42.38	3.25	45.63	74.00	-28.37	154	134	peak
7356.000	32.45	3.25	35.70	54.00	-18.30	154	134	AVG

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

Vertical

Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
(MHz)	(dBμV)	Factor(dB/m)	(dBμV/m)	(dBμV/m)	(dB)	(cm)	(°)	
N40 Mode, Low channel								
2386.692	68.32	-9.77	58.55	74.00	-15.45	146	210	peak
2386.692	49.87	-9.77	40.10	54.00	-13.90	146	210	AVG
4844.000	44.21	-2.78	41.43	74.00	-32.57	153	247	peak
4844.000	34.28	-2.78	31.50	54.00	-22.50	153	247	AVG
7266.000	41.82	3.09	44.91	74.00	-29.09	162	149	peak
7266.000	31.66	3.09	34.75	54.00	-19.25	162	149	AVG
N40 Mode, Middle channel								
4874.000	43.43	-2.70	40.73	74.00	-33.27	161	168	peak
4874.000	33.54	-2.70	30.84	54.00	-23.16	161	168	AVG
7311.000	42.86	3.16	46.02	74.00	-27.98	152	234	peak
7311.000	32.66	3.16	35.82	54.00	-18.18	152	234	AVG
N40 Mode, High channel								
2492.044	59.58	-8.78	50.80	74.00	-23.20	156	252	peak
2492.044	44.56	-8.78	35.78	54.00	-18.22	156	252	AVG
4904.000	42.50	-2.59	39.91	74.00	-34.09	155	149	peak
4904.000	32.66	-2.59	30.07	54.00	-23.93	155	149	AVG
7356.000	42.59	3.25	45.84	74.00	-28.16	168	138	peak
7356.000	32.45	3.25	35.70	54.00	-18.30	168	138	AVG

Result = Reading + Correct Factor

Margin = Result – Limit

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

Spurious emissions more than 20 dB below the limit were not reported.

9 FCC §15.247(b)(3) – Maximum Peak Output Power

9.1 Applicable Standard

According to FCC §15.247(b) (3).

Systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

9.2 Test Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to measuring equipment.

9.3 Test Results

Conducted Peak Output Power

Channel	Frequency (MHz)	Power (dBm)	Power (W)	Limit (W)	Result
802.11b Mode					
Low	2412	18.45	0.070	1	PASS
Middle	2437	18.54	0.071	1	PASS
High	2462	18.33	0.068	1	PASS
802.11g Mode					
Low	2412	25.78	0.378	1	PASS
Middle	2437	25.87	0.386	1	PASS
High	2462	25.80	0.380	1	PASS
802.11n HT20 Mode					
Low	2412	25.83	0.383	1	PASS
Middle	2437	25.57	0.361	1	PASS
High	2462	25.60	0.363	1	PASS
802.11n HT40 Mode					
Low	2422	24.26	0.267	1	PASS
Middle	2437	24.25	0.266	1	PASS
High	2452	24.29	0.269	1	PASS

*****END OF REPORT*****