



Radio Test Report

Report No.: STS2512395W01

Issued for

Curv Group LLC

860 Bonnie Ln, Elk Grove Village, IL 60007, USA

Product Name: SmartCharge power bank

Brand Name: STATIK

Model Name: PUP-0430-V2

Series Model(s): PUP-0430-V2-BLK, PUP-0430-V2-WHT,
PUP-0430-V2-ORG, PUP-0430-V2-CLR

FCC ID: 2AMNT-PUP-0430

Test Standards: FCC Part 15 Subpart C

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.

**TEST REPORT**

Applicant's Name.....: Curv Group LLC
Address.....: 860 Bonnie Ln, Elk Grove Village, IL 60007, USA
Manufacturer's Name.....: Curv Group LLC
Address.....: 860 Bonnie Ln, Elk Grove Village, IL 60007, USA

Product Description

Product Name.....: SmartCharge power bank
Brand.....: STATIK
Model Number.....: PUP-0430-V2
Series Model(s).....: PUP-0430-V2-BLK, PUP-0430-V2-WHT, PUP-0430-V2-ORG,
PUP-0430-V2-CLR

Test Standards.....: FCC Part 15 Subpart C

Test Procedure.....: ANSI C63.10-2020

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test.....:

Date of receipt of test item.....: 18 Dec. 2025
Date (s) of performance of tests.: 18 Dec. 2025 to 22 Dec. 2025
Date of Issue.....: 22 Dec. 2025
Test Result.....: **Pass**

Testing Engineer :

Aaron Bu

(Aaron Bu)

Technical Manager :

Skylar Li

(Skylar Li)

Authorized Signatory :

Bovey Yang

(Bovey Yang)





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Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	22 Dec. 2025	STS2512395W01	ALL	Initial Issue



1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 , Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.209(a)	Radiated emission, Spurious Emission	PASS	
2.1049	20 dB Bandwidth	PASS	
15.203	Antenna Requirement	PASS	

1.1 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD

Add. : 101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95** %.

No.	Item	Uncertainty
1	RF output power, conducted	$\pm 0.755\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.874\text{dB}$
3	All emissions, radiated 9K-30MHz	$\pm 3.80\text{dB}$
4	All emissions, radiated 30M-1GHz	$\pm 4.18\text{dB}$
5	All emissions, radiated 1G-6GHz	$\pm 4.90\text{dB}$
6	All emissions, radiated >6G	$\pm 5.24\text{dB}$
7	Conducted Emission (9KHz-150KHz)	$\pm 2.19\text{dB}$
8	Conducted Emission (150KHz-30MHz)	$\pm 2.53\text{dB}$
9	Occupied Channel Bandwidth	$\pm 3.5\%$
10	Power Spectral Density, conducted	$\pm 1.245\text{dB}$
11	Duty Cycle	$\pm 3.2\%$



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	SmartCharge power bank
Brand	STATIK
Model Number	PUP-0430-V2
Series Model(s)	PUP-0430-V2-BLK, PUP-0430-V2-WHT, PUP-0430-V2-ORG, PUP-0430-V2-CLR
Model Difference	All models are identical except for the model names and appearance of the color, the test model is PUP-0430-V2.
Equipemnt Category	Non-ISM frequency
Antenna Type	loop coil antenna
Operating frequency	115-205kHz; 300-350kHz
Modulation Type	ASK
Power Rating	AC Input: 100~240V AC 50Hz/60Hz 0.3A(Max) TYPE-C Input: DC 5V/3A, 9V/2A, 12V/1.5 PD 18W Max TYPE-C output: DC5V/3A, 9V/2.22A, 12V/1.67A, Max 20W USB output: DC5V/3A, 9V/2A, 10V/2.25A, 12V/1.5A, Max 22.5W TYPE-C cable output: DC5V/3A, 9V/2.22A, 12V/1.67A, MAX 20W Type-C Cable 2 Output: DC5V/2A In charging AC, the product outputs 5V/2A at a maximum of 10W. In charging TYPE-C, the product output 5V/2A at a maximum of 10W. Multiple simultaneously outputs: 5V/3A Max
Adapter	N/A
Battery	10000mAh, @3.85V, 38.5Wh
Wireless charging power	15W Max(2.5W Max For Apple watch)
Hardware version number	N/A
Software version number	N/A
Connecting I/O Port(s)	Please refer to the Note 1.

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
2. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	NOTE
1	N/A	N/A	Coil	N/A	Antenna



2.2 DESCRIPTION OF THE TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	AC Plug in+10W(115-205kHz)
Mode 2	Type C in+10W(115-205kHz)
Mode 3	AC Plug in+2.5W(300-350kHz)
Mode 4	Type C in+2.5W(300-350kHz)
Mode 5	15W(115-205kHz)
Mode 6	2.5W(300-350kHz)

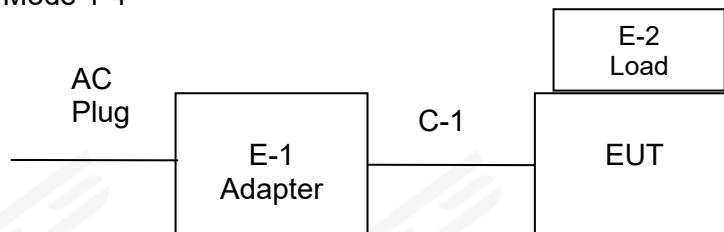
For Conducted Emission	
Final Test Mode	Description
Mode 1	AC Plug in+10W(115-205kHz)
Mode 2	Type C in+10W(115-205kHz)
Mode 3	AC Plug in+2.5W(300-350kHz)
Mode 4	Type C in+2.5W(300-350kHz)

For Radiated Emission	
Final Test Mode	Description
Mode 1	AC Plug in+10W(115-205kHz)
Mode 2	Type C in+10W(115-205kHz)
Mode 3	AC Plug in+2.5W(300-350kHz)
Mode 4	Type C in+2.5W(300-350kHz)
Mode 5	15W(115-205kHz)
Mode 6	2.5W(300-350kHz)

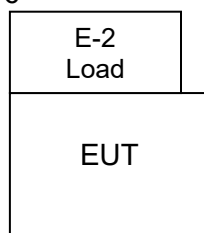
2.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters

Radiated Emission Test Mode 1-4

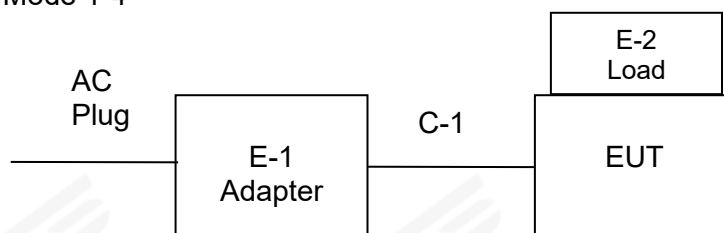


Mode 5-6



Conducted Emission Test

Mode 1-4





2.4 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Note
E-1	Adapter	ZTC	NB-A515A	N/A
E-2	Load	N/A	N/A	N/A
C-1	DC cable	N/A	N/A	N/A

Item	Shielded Type	Ferrite Core	Length	Note
C-1	N/A	N/A	0.8m	N/A

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (2) “YES” is means “with core”; “NO” is means “without core”.



2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2025.09.25	2026.09.24
Signal Analyzer	R&S	FSV 40-N	101823	2025.09.26	2026.09.25
Active loop Antenna	ZHINAN	ZN30900C	16035	2025.02.25	2026.02.24
Bilog Antenna	TESEQ	CBL6111D	34678	2025.09.27	2027.09.26
Pre-Amplifier(0.1M-3GHz)	EM	EM330	060665	2025.02.22	2026.02.21
Temperature & Humidity	SW-108	SuWei	N/A	2025.02.24	2026.02.23

Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Test Receiver	R&S	ESCI	101427	2025.09.25	2026.09.24
Limtter	CYBERTEK	EM5010	N/A	2025.09.25	2026.09.24
LISN	R&S	ENV216	101242	2025.09.25	2026.09.24
LISN	EMCO	3810/2NM	23625	2025.09.25	2026.09.24
Temperature & Humidity	SW-108	SuWei	N/A	2025.02.24	2026.02.23

RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
Signal Analyzer	Agilent	N9020A	MY51510623	2025.02.22	2026.02.21
Power detector group	Keysight	NW2021031	N/A	2025.09.23	2026.09.22
Switch control box	MW	MW100-RFCB	N/A	N/A	N/A
Temperature& Humidity test chamber	Safety test	AG80L	171200018	2025.02.22	2026.02.21
Temperature & Humidity	SW-108	SuWei	N/A	2025.02.24	2026.02.23
Test SW	MW	MTS 8310_2.0.0.0			



3. CONDUCTED EMISSION TEST RESULT (SECTION 15.207)

3.1 POWER LINE CONDUCTED EMISSION LIMITS

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.

FREQUENCY (MHz)	Class B (dBuV)	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of “*” marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

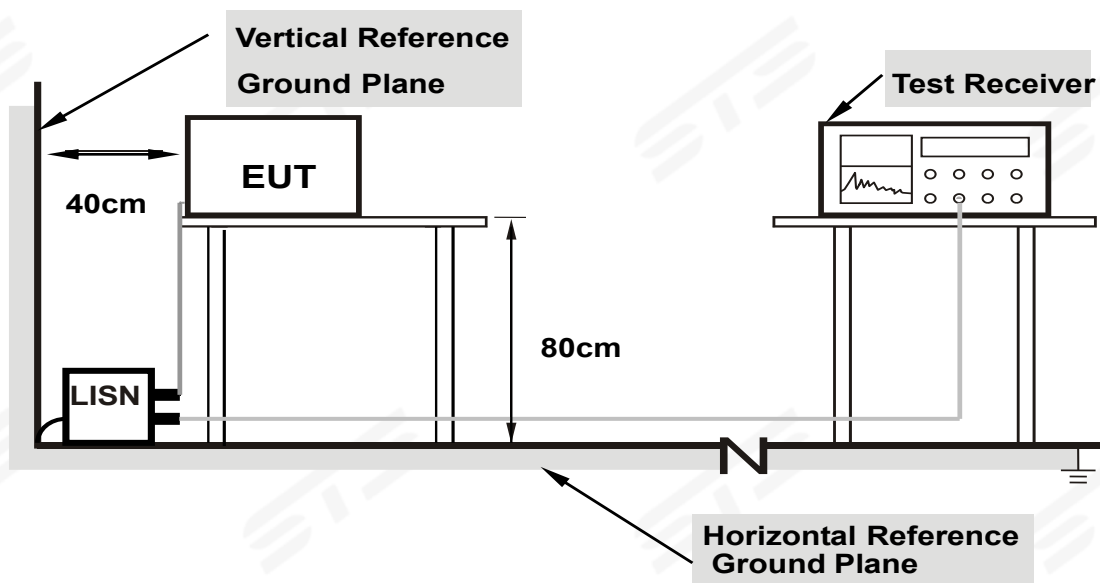
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.2 TEST PROCEDURE

- The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN is at least 80 cm from the nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.3 TEST SETUP



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.

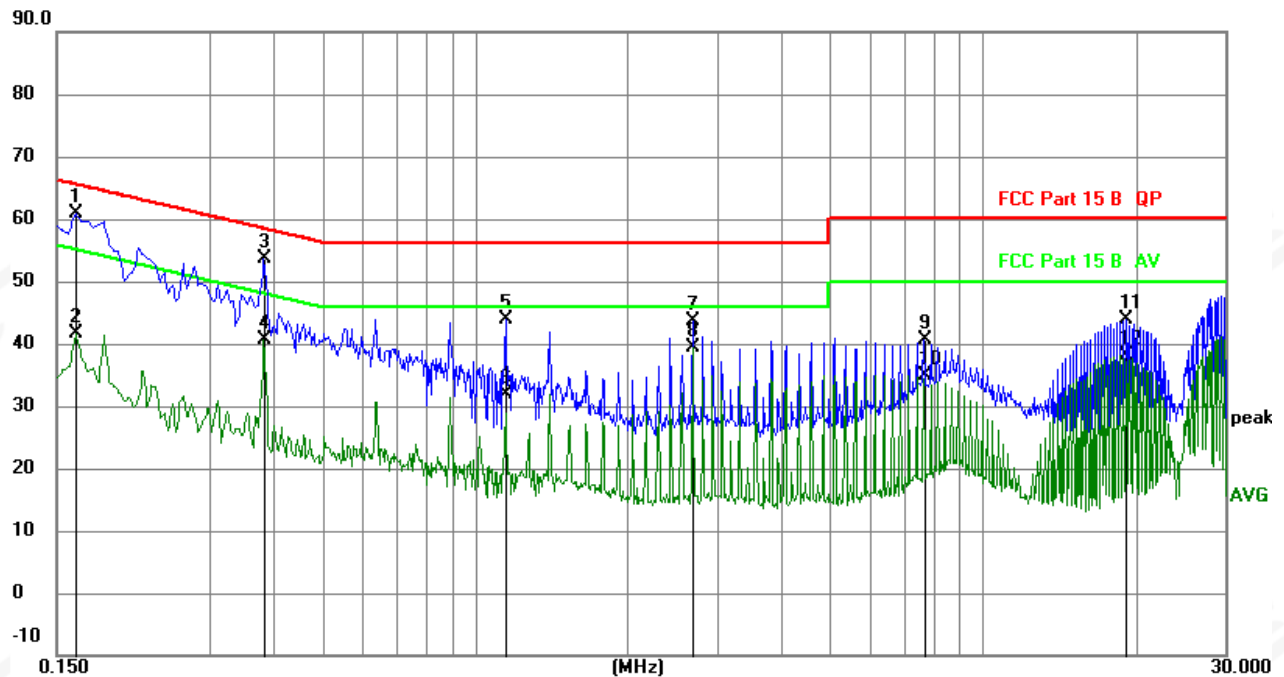
3.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



3.5 TEST RESULTS

Temperature:	26°C	Relative Humidity:	54%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 1		



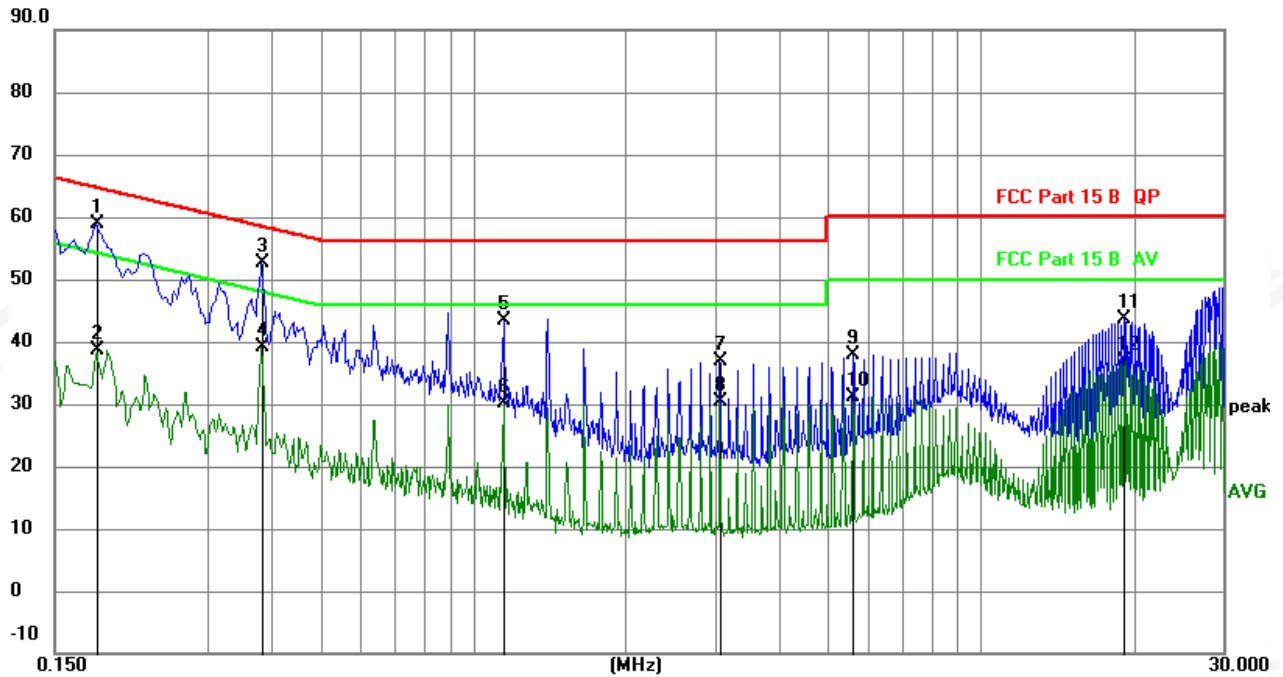
Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz		dB	dBuV	dBuV	dB	Detector
1	*	0.1633	40.74	20.04	60.78	65.29	-4.51	QP
2		0.1633	21.57	20.04	41.61	55.29	-13.68	AVG
3		0.3832	33.47	20.05	53.52	58.21	-4.69	QP
4		0.3832	20.48	20.05	40.53	48.21	-7.68	AVG
5		1.1473	23.69	20.26	43.95	56.00	-12.05	QP
6		1.1473	11.59	20.26	31.85	46.00	-14.15	AVG
7		2.6783	23.19	20.33	43.52	56.00	-12.48	QP
8		2.6783	19.15	20.33	39.48	46.00	-6.52	AVG
9		7.6464	19.61	21.02	40.63	60.00	-19.37	QP
10		7.6464	13.83	21.02	34.85	50.00	-15.15	AVG
11		19.1220	20.36	23.40	43.76	60.00	-16.24	QP
12		19.1220	14.66	23.40	38.06	50.00	-11.94	AVG



Temperature:	26°C	Relative Humidity:	54%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 1		



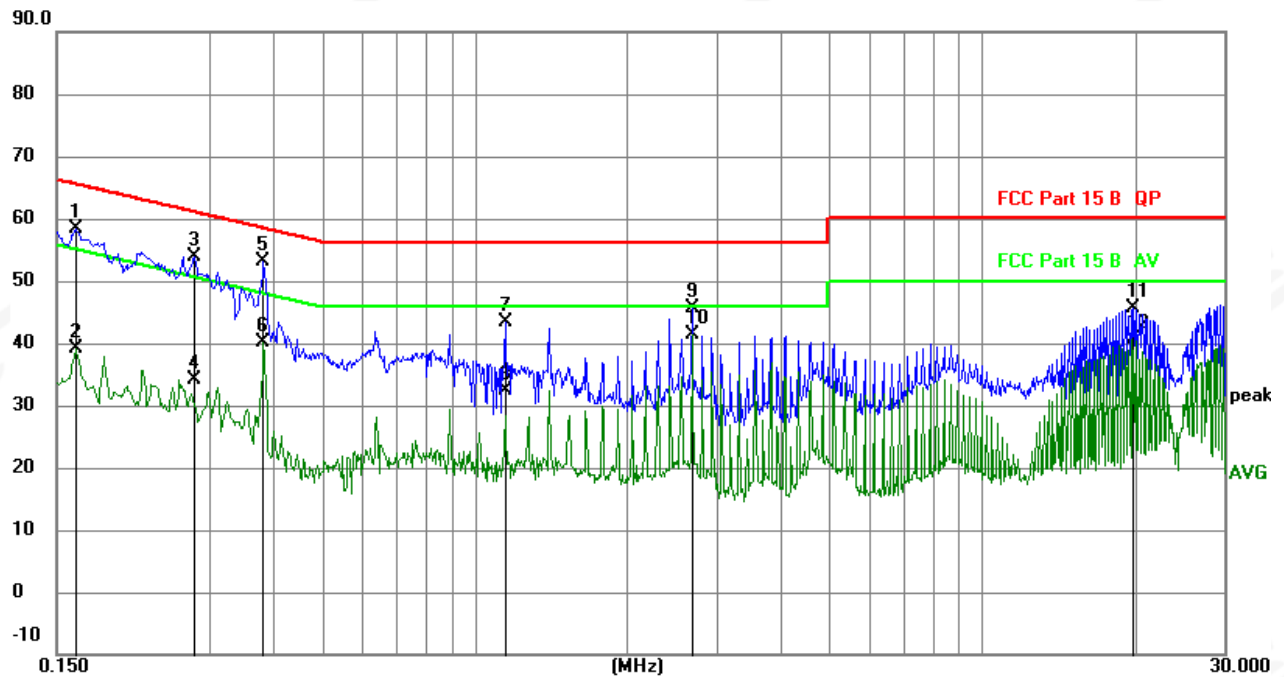
Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz		dB	dBuV	dBuV	dB	Detector
1		0.1806	38.75	20.04	58.79	64.46	-5.67	QP
2		0.1806	18.50	20.04	38.54	54.46	-15.92	AVG
3	*	0.3832	32.61	20.05	52.66	58.21	-5.55	QP
4		0.3832	19.15	20.05	39.20	48.21	-9.01	AVG
5		1.1473	23.06	20.26	43.32	56.00	-12.68	QP
6		1.1473	9.79	20.26	30.05	46.00	-15.95	AVG
7		3.0576	16.46	20.41	36.87	56.00	-19.13	QP
8		3.0576	9.96	20.41	30.37	46.00	-15.63	AVG
9		5.5936	17.05	20.78	37.83	60.00	-22.17	QP
10		5.5936	10.34	20.78	31.12	50.00	-18.88	AVG
11		19.1220	20.25	23.40	43.65	60.00	-16.35	QP
12		19.1220	13.37	23.40	36.77	50.00	-13.23	AVG



Temperature:	26°C	Relative Humidity:	54%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 2		



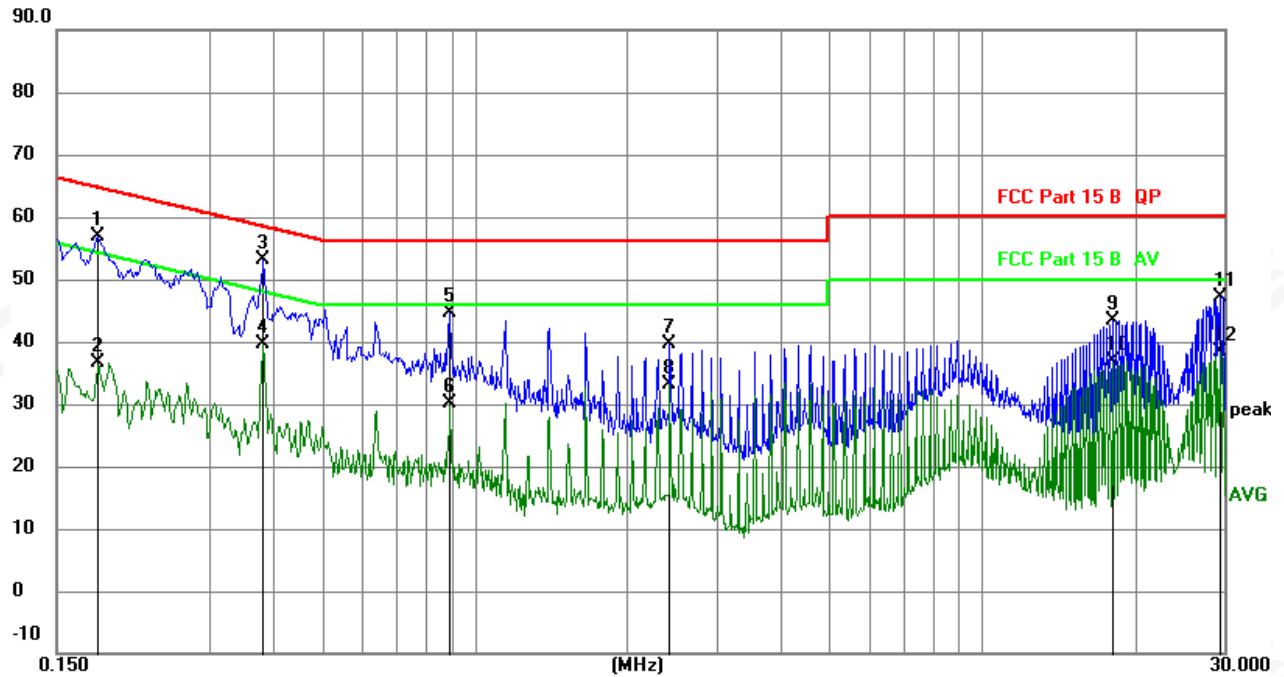
Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq. MHz	Reading Level dB	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.1632	38.24	20.04	58.28	65.30	-7.02	QP
2		0.1632	19.07	20.04	39.11	55.30	-16.19	AVG
3		0.2802	33.92	20.05	53.97	60.81	-6.84	QP
4		0.2802	14.16	20.05	34.21	50.81	-16.60	AVG
5		0.3831	32.97	20.05	53.02	58.21	-5.19	QP
6		0.3831	19.98	20.05	40.03	48.21	-8.18	AVG
7		1.1473	23.19	20.26	43.45	56.00	-12.55	QP
8		1.1473	12.09	20.26	32.35	46.00	-13.65	AVG
9		2.6781	25.19	20.33	45.52	56.00	-10.48	QP
10	*	2.6781	21.15	20.33	41.48	46.00	-4.52	AVG
11		19.8445	21.95	23.56	45.51	60.00	-14.49	QP
12		19.8445	16.96	23.56	40.52	50.00	-9.48	AVG



Temperature:	26°C	Relative Humidity:	54%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 2		



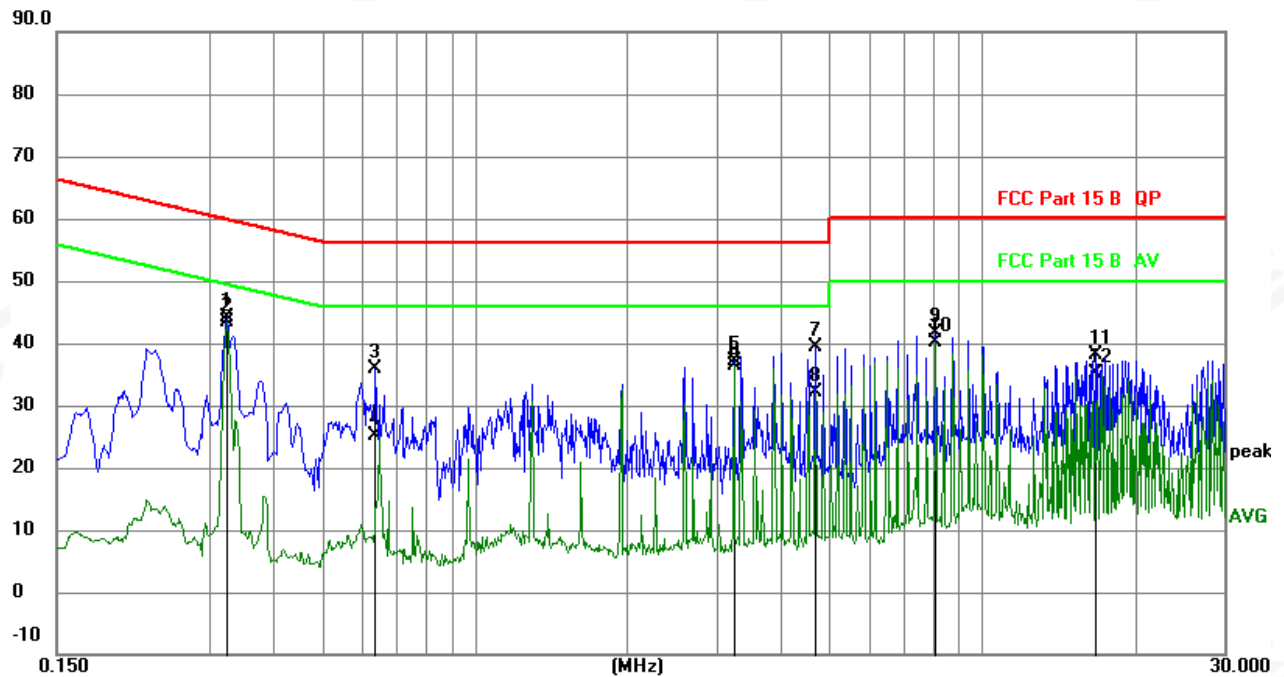
Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq. MHz	Reading Level dB	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.1805	36.75	20.04	56.79	64.46	-7.67	QP
2		0.1805	16.50	20.04	36.54	54.46	-17.92	AVG
3	*	0.3831	33.11	20.05	53.16	58.21	-5.05	QP
4		0.3831	19.65	20.05	39.70	48.21	-8.51	AVG
5		0.8896	24.46	20.27	44.73	56.00	-11.27	QP
6		0.8896	9.78	20.27	30.05	46.00	-15.95	AVG
7		2.4217	19.24	20.27	39.51	56.00	-16.49	QP
8		2.4217	12.75	20.27	33.02	46.00	-12.98	AVG
9		18.1352	20.32	23.18	43.50	60.00	-16.50	QP
10		18.1352	13.59	23.18	36.77	50.00	-13.23	AVG
11		29.5269	22.50	24.74	47.24	60.00	-12.76	QP
12		29.5269	13.74	24.74	38.48	50.00	-11.52	AVG



Temperature:	26°C	Relative Humidity:	54%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 3		



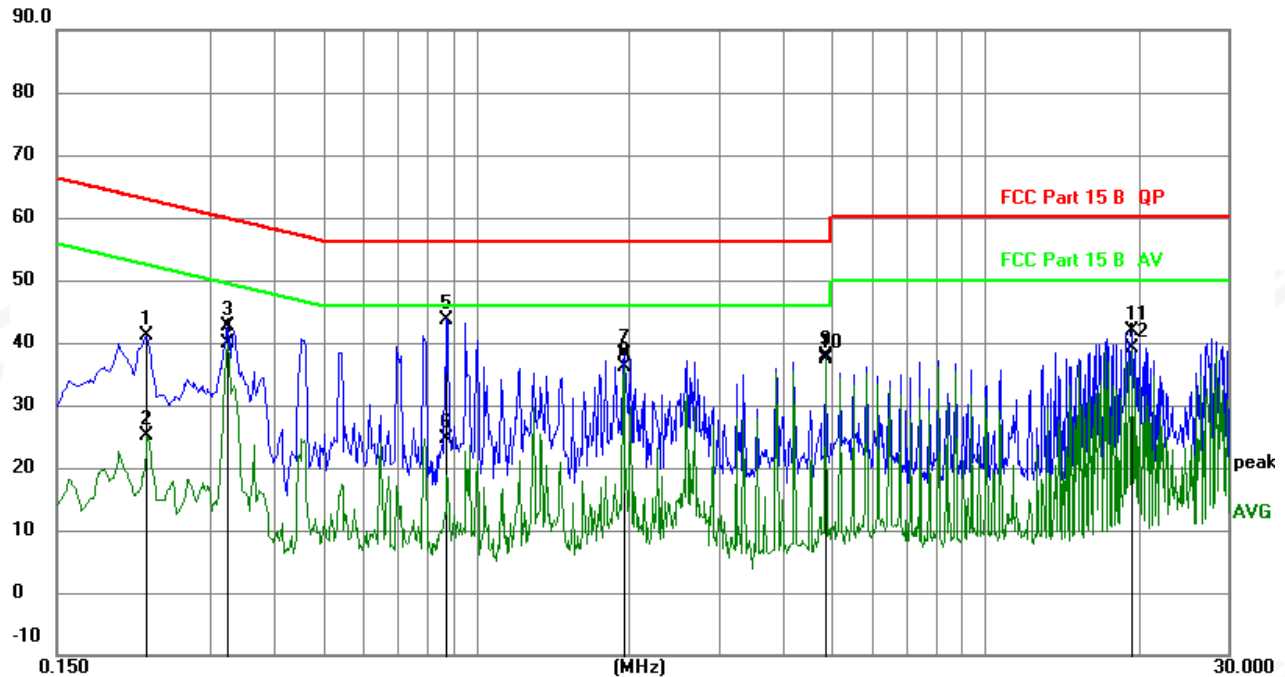
Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector
		MHz		dB	dBuV	dBuV	dB	
1		0.3251	24.11	20.05	44.16	59.58	-15.42	QP
2	*	0.3251	23.22	20.05	43.27	49.58	-6.31	AVG
3		0.6371	15.67	20.20	35.87	56.00	-20.13	QP
4		0.6371	4.92	20.20	25.12	46.00	-20.88	AVG
5		3.2410	16.72	20.45	37.17	56.00	-18.83	QP
6		3.2410	15.82	20.45	36.27	46.00	-9.73	AVG
7		4.6963	18.74	20.68	39.42	56.00	-16.58	QP
8		4.6963	11.37	20.68	32.05	46.00	-13.95	AVG
9		8.1052	20.60	21.08	41.68	60.00	-18.32	QP
10		8.1052	19.06	21.08	40.14	50.00	-9.86	AVG
11		16.7497	15.32	22.87	38.19	60.00	-21.81	QP
12		16.7497	12.22	22.87	35.09	50.00	-14.91	AVG



Temperature:	26°C	Relative Humidity:	54%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 3		



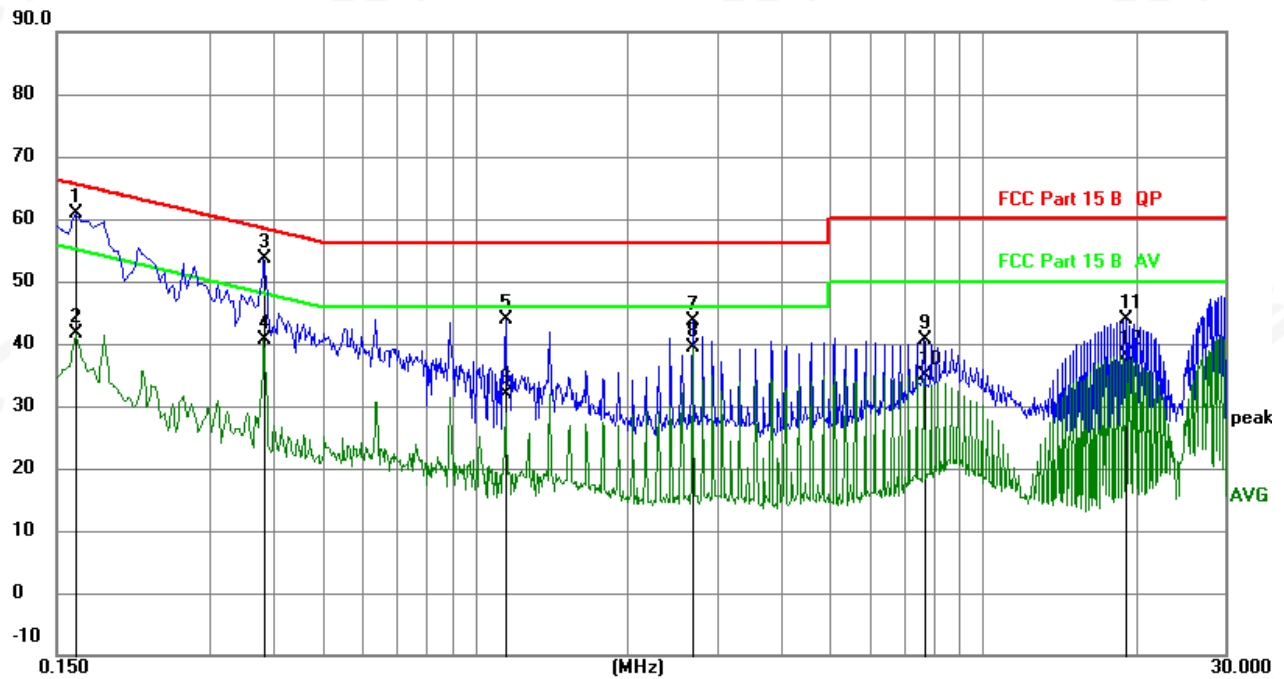
Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq. MHz	Reading Level dB	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.2255	21.14	20.04	41.18	62.61	-21.43	QP
2		0.2255	5.11	20.04	25.15	52.61	-27.46	AVG
3		0.3251	22.56	20.05	42.61	59.58	-16.97	QP
4		0.3251	19.83	20.05	39.88	49.58	-9.70	AVG
5		0.8756	23.48	20.27	43.75	56.00	-12.25	QP
6		0.8756	4.42	20.27	24.69	46.00	-21.31	AVG
7		1.9489	17.84	20.18	38.02	56.00	-17.98	QP
8		1.9489	16.01	20.18	36.19	46.00	-9.81	AVG
9		4.8480	17.23	20.70	37.93	56.00	-18.07	QP
10	*	4.8480	16.68	20.70	37.38	46.00	-8.62	AVG
11		19.4283	18.45	23.46	41.91	60.00	-18.09	QP
12		19.4283	15.64	23.46	39.10	50.00	-10.90	AVG



Temperature:	26°C	Relative Humidity:	54%
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	Mode 4		



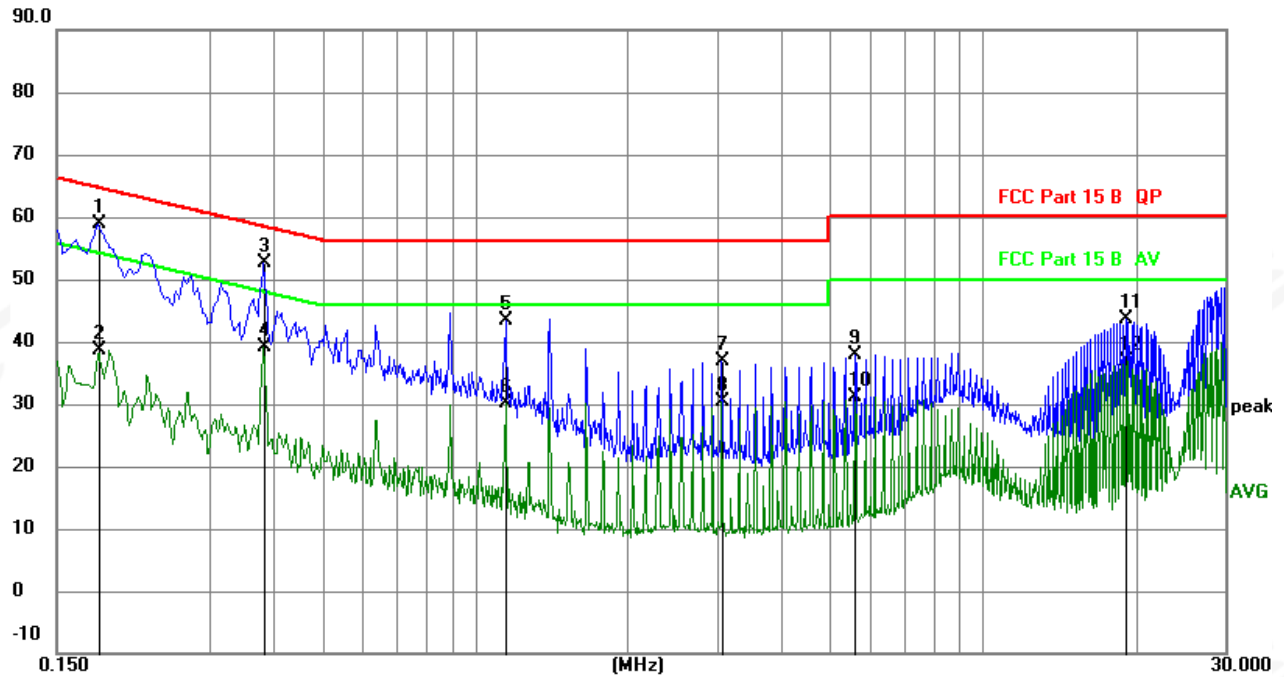
Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz		dB	dBuV	dBuV	dB	Detector
1	*	0.1633	40.74	20.04	60.78	65.29	-4.51	QP
2		0.1633	21.57	20.04	41.61	55.29	-13.68	AVG
3		0.3832	33.47	20.05	53.52	58.21	-4.69	QP
4		0.3832	20.48	20.05	40.53	48.21	-7.68	AVG
5		1.1473	23.69	20.26	43.95	56.00	-12.05	QP
6		1.1473	11.59	20.26	31.85	46.00	-14.15	AVG
7		2.6783	23.19	20.33	43.52	56.00	-12.48	QP
8		2.6783	19.15	20.33	39.48	46.00	-6.52	AVG
9		7.6464	19.61	21.02	40.63	60.00	-19.37	QP
10		7.6464	13.83	21.02	34.85	50.00	-15.15	AVG
11		19.1220	20.36	23.40	43.76	60.00	-16.24	QP
12		19.1220	14.66	23.40	38.06	50.00	-11.94	AVG



Temperature:	26°C	Relative Humidity:	54%
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	Mode 4		



Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz		dB	dBuV	dBuV	dB	Detector
1		0.1806	38.75	20.04	58.79	64.46	-5.67	QP
2		0.1806	18.50	20.04	38.54	54.46	-15.92	AVG
3	*	0.3832	32.61	20.05	52.66	58.21	-5.55	QP
4		0.3832	19.15	20.05	39.20	48.21	-9.01	AVG
5		1.1473	23.06	20.26	43.32	56.00	-12.68	QP
6		1.1473	9.79	20.26	30.05	46.00	-15.95	AVG
7		3.0576	16.46	20.41	36.87	56.00	-19.13	QP
8		3.0576	9.96	20.41	30.37	46.00	-15.63	AVG
9		5.5936	17.05	20.78	37.83	60.00	-22.17	QP
10		5.5936	10.34	20.78	31.12	50.00	-18.88	AVG
11		19.1220	20.25	23.40	43.65	60.00	-16.35	QP
12		19.1220	13.37	23.40	36.77	50.00	-13.23	AVG



4. RADIATED& FIELD EMISSION TEST RESULT (SECTION 15.209)

4.1 LIMIT

Frequency [MHz]	Field Strength [uV/m]	Measurement Distance [Meters]
0.009 ~ 0.490	2400/F (kHz)	300
0.490 ~ 1.705	24000/F (kHz)	30
1.705 ~ 30	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Note:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

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

4.2 TEST PROCEDURE

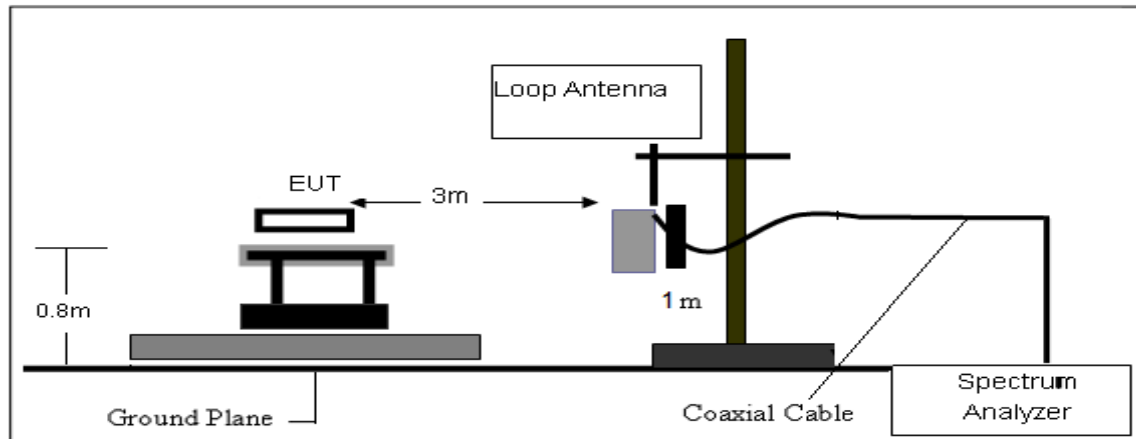
- a. The measuring distance of at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz.
- b. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- d. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

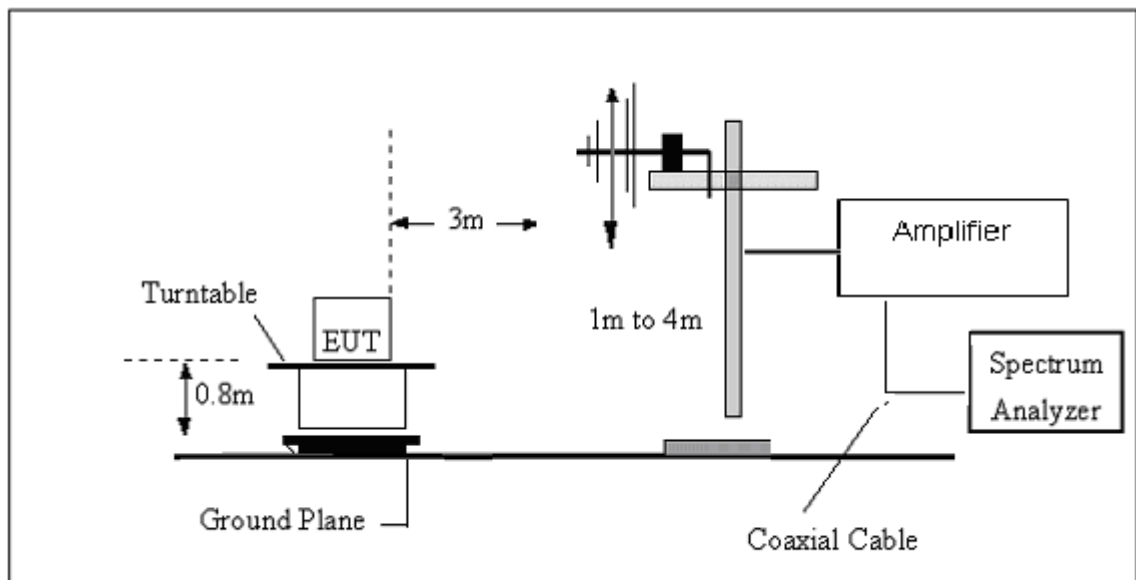
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

4.3 TEST SETUP

(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



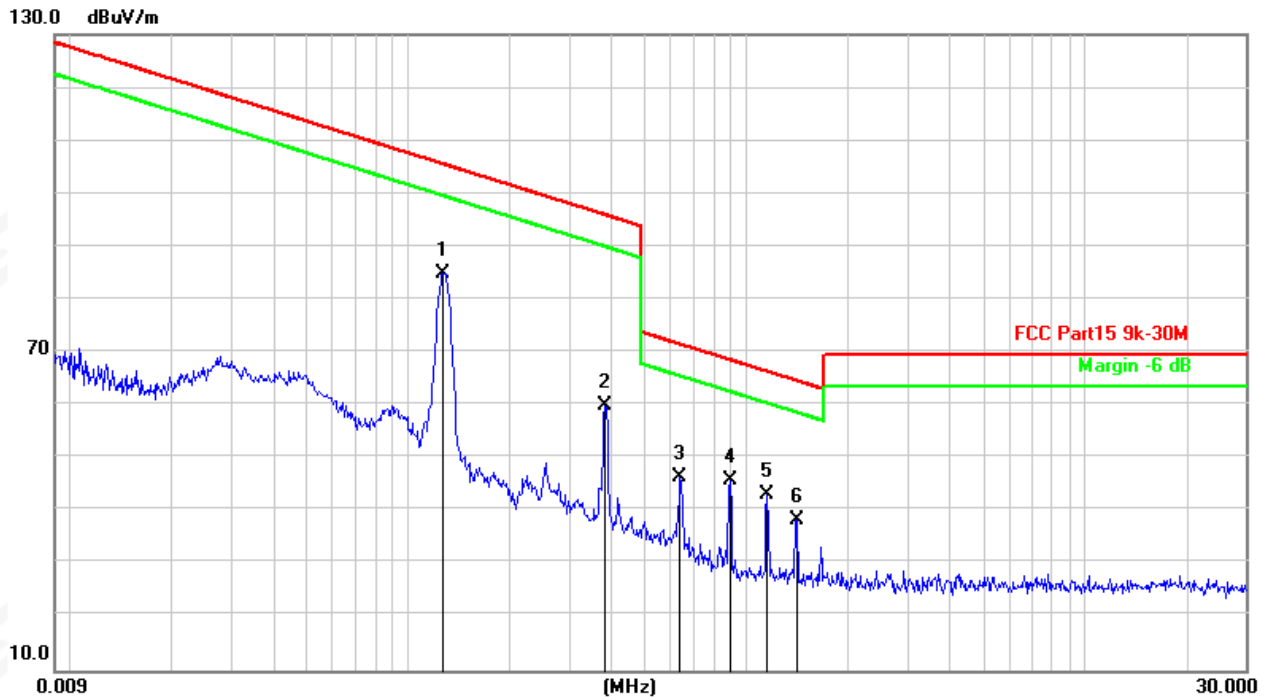


4.4 TEST RESULTS

4.4.1 SPURIOUS RADIATED EMISSION BELOW 30 MHZ

Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 1
Polarization:	Coplanar(the worst mode)		

9KHz- 30MHz

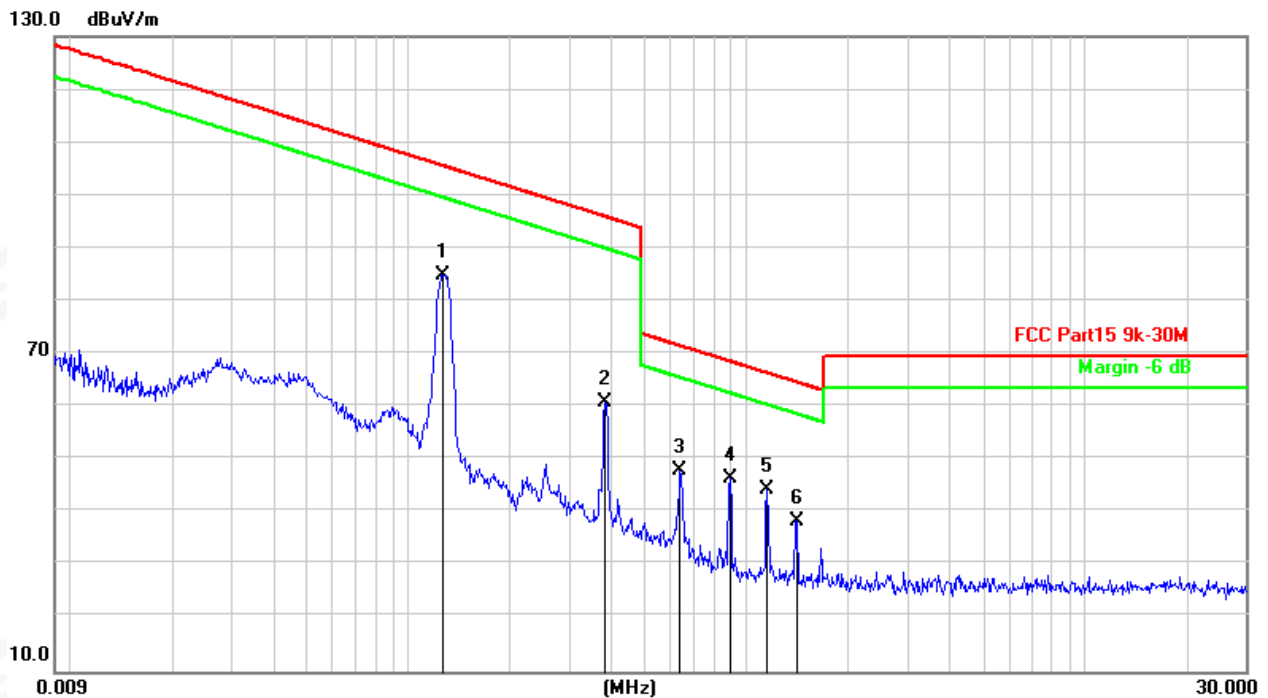


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Detector
1	*	0.1267	92.52	-7.54	84.98	105.5	-20.57	peak
2		0.3818	67.47	-7.65	59.82	95.97	-36.15	peak
3		0.6364	53.76	-7.43	46.33	71.54	-25.21	peak
4		0.8948	53.23	-7.36	45.87	68.58	-22.71	peak
5		1.1506	50.63	-7.35	43.28	66.41	-23.13	peak
6		1.4093	45.71	-7.34	38.37	64.65	-26.28	peak



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 2
Polarization:	Coplanar(the worst mode)		

9KHz- 30MHz

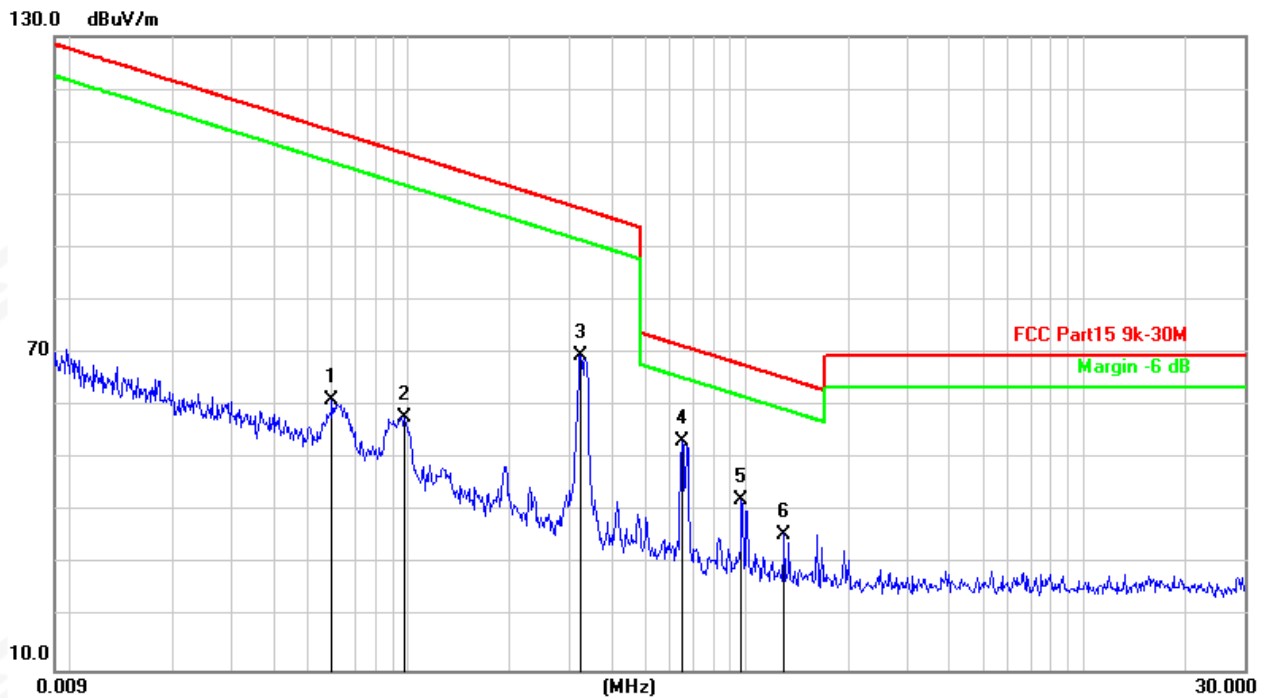


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	*	0.1269	91.51	-7.54	83.97	105.5	-19.56	QP
2		0.3817	68.47	-7.65	60.82	95.97	-35.15	QP
3		0.6363	55.26	-7.43	47.83	71.54	-23.71	QP
4		0.8948	53.73	-7.36	46.37	68.58	-22.21	QP
5		1.1506	51.63	-7.35	44.28	66.41	-22.13	QP
6		1.4092	45.71	-7.34	38.37	64.65	-26.28	QP



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 3
Polarization:	Coplanar(the worst mode)		

9KHz- 30MHz

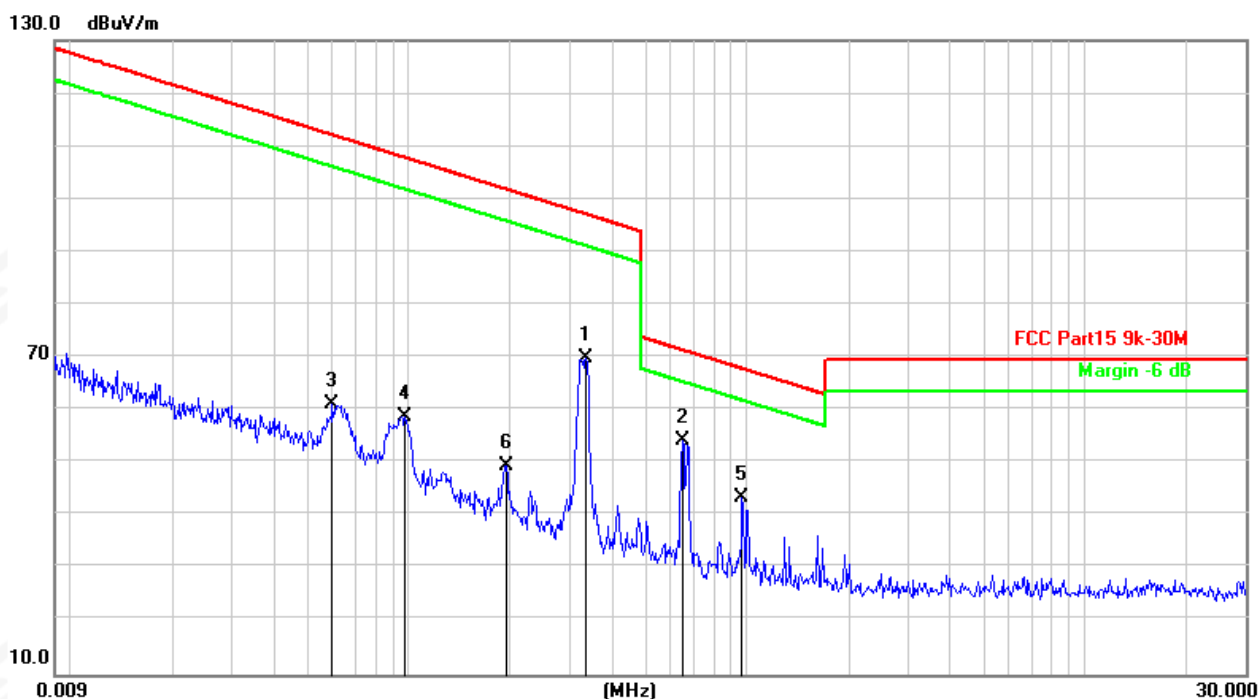


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		0.0596	68.53	-7.48	61.05	112.1	-51.05	peak
2		0.0977	65.29	-7.51	57.78	107.8	-50.03	peak
3		0.3246	77.29	-7.69	69.60	97.38	-27.78	peak
4	*	0.6468	60.75	-7.42	53.33	71.40	-18.07	peak
5		0.9704	49.71	-7.36	42.35	67.88	-25.53	peak
6		1.2994	43.15	-7.35	35.80	65.35	-29.55	peak



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 4
Polarization:	Coplanar(the worst mode)		

9KHz- 30MHz

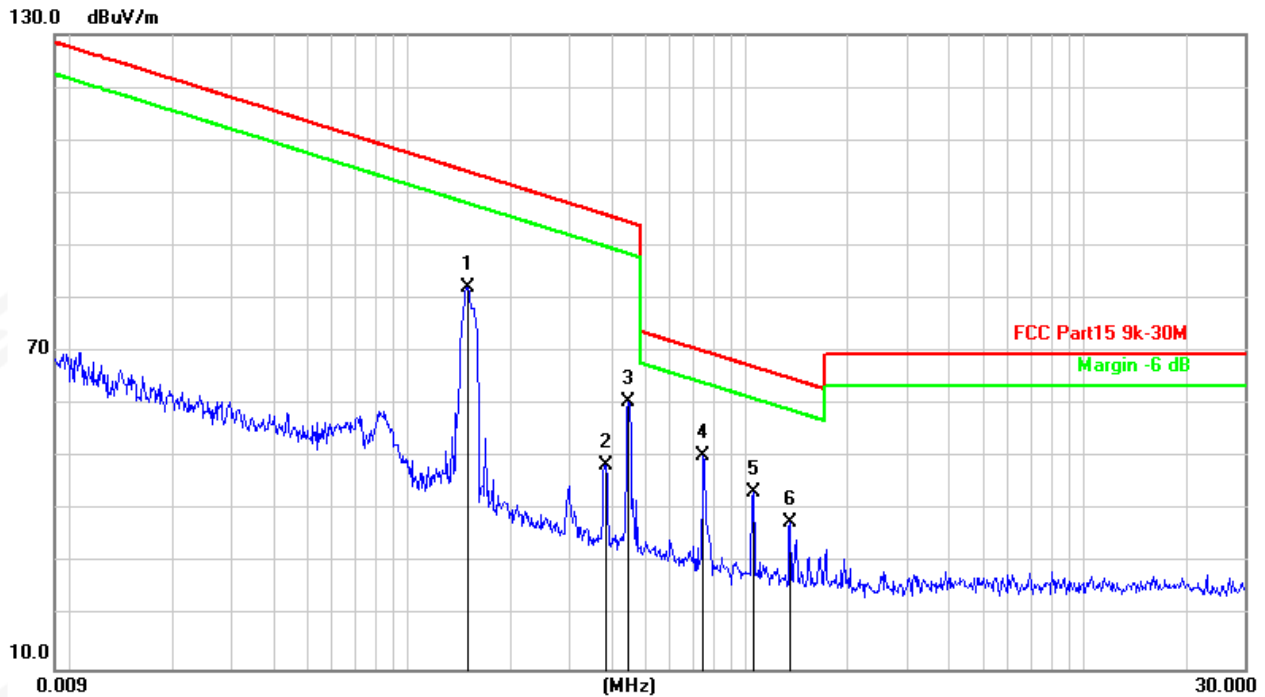


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
		MHz	Level	Factor	ment			Detector
			dBuV	dB	dBuV/m	dB/m	dB	
1		0.3352	77.50	-7.69	69.81	97.10	-27.29	QP
2	*	0.6468	61.75	-7.42	54.33	71.40	-17.07	QP
3		0.0596	68.53	-7.48	61.05	112.1	-51.05	QP
4		0.0976	66.29	-7.51	58.78	107.8	-49.04	QP
5		0.9704	50.71	-7.36	43.35	67.88	-24.53	QP
6		0.1947	57.35	-7.76	49.59	101.8	-52.23	QP



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	DC 3.85V	Test Mode :	Mode 5
Polarization:	Coplanar(the worst mode)		

9KHz- 30MHz

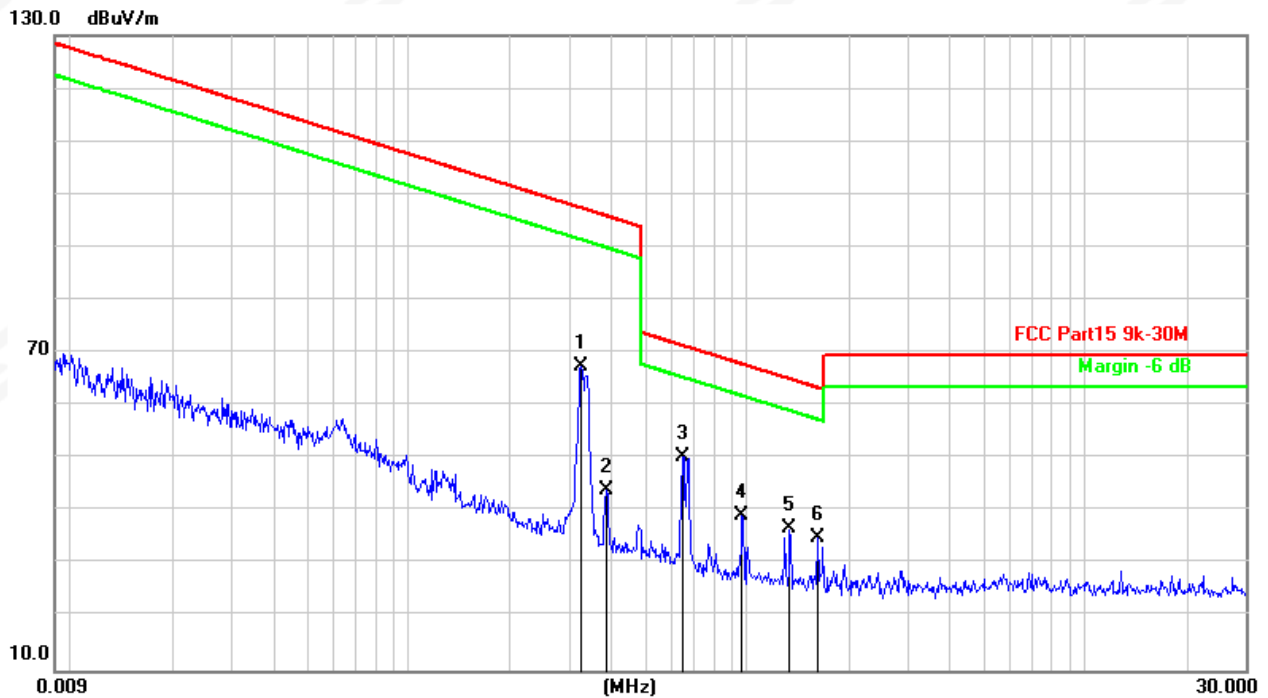


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Detector
1		0.1502	89.76	-7.58	82.18	104.0	-21.89	peak
2		0.3849	56.17	-7.65	48.52	95.90	-47.38	peak
3		0.4490	68.09	-7.61	60.48	94.56	-34.08	peak
4	*	0.7485	57.75	-7.36	50.39	70.13	-19.74	peak
5		1.0524	50.73	-7.36	43.37	67.18	-23.81	peak
6		1.3533	45.02	-7.35	37.67	65.00	-27.33	peak



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	DC 3.85V	Test Mode :	Mode 6
Polarization:	Coplanar(the worst mode)		

9KHz- 30MHz



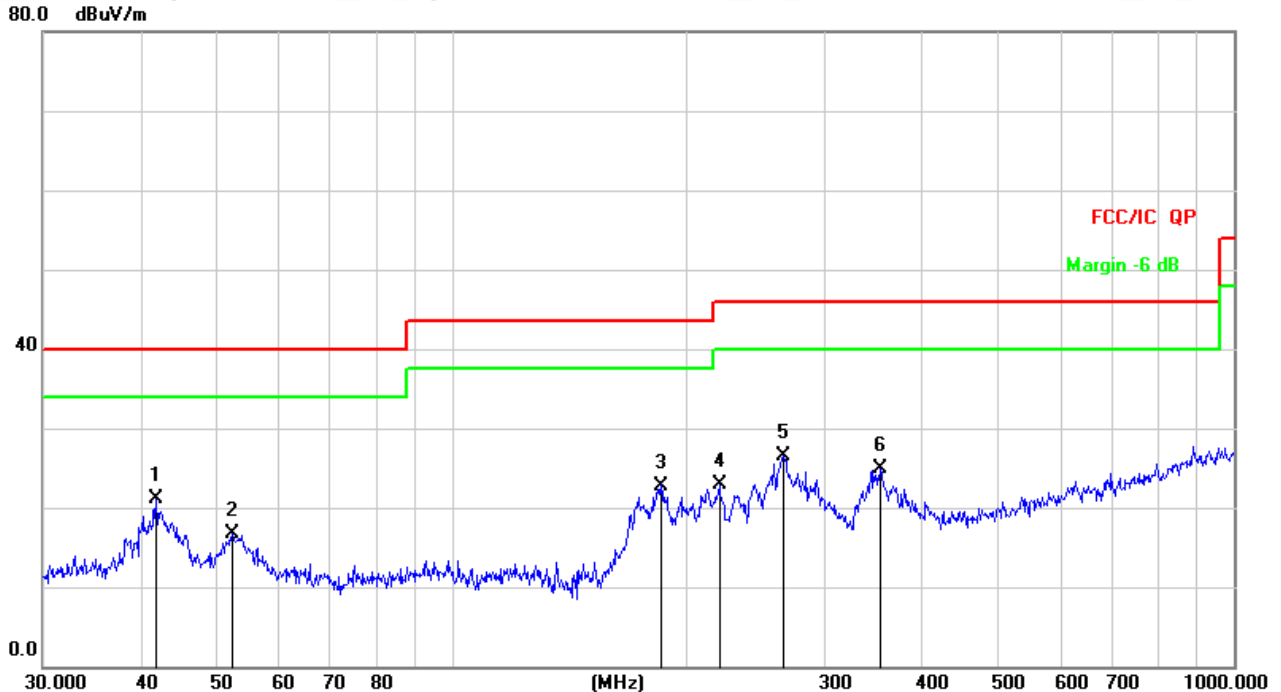
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		0.3246	75.09	-7.69	67.40	97.38	-29.98	peak
2		0.3849	51.59	-7.65	43.94	95.90	-51.96	peak
3	*	0.6468	57.89	-7.42	50.47	71.40	-20.93	peak
4		0.9704	46.60	-7.36	39.24	67.88	-28.64	peak
5		1.3423	44.05	-7.35	36.70	65.07	-28.37	peak
6		1.6308	42.28	-7.33	34.95	63.39	-28.44	peak



4.4.2 Spurious Radiated Emission below 1 GHz

Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 1

The following table shows the highest levels of radiated emissions on polarizations of horizontal



Remark:

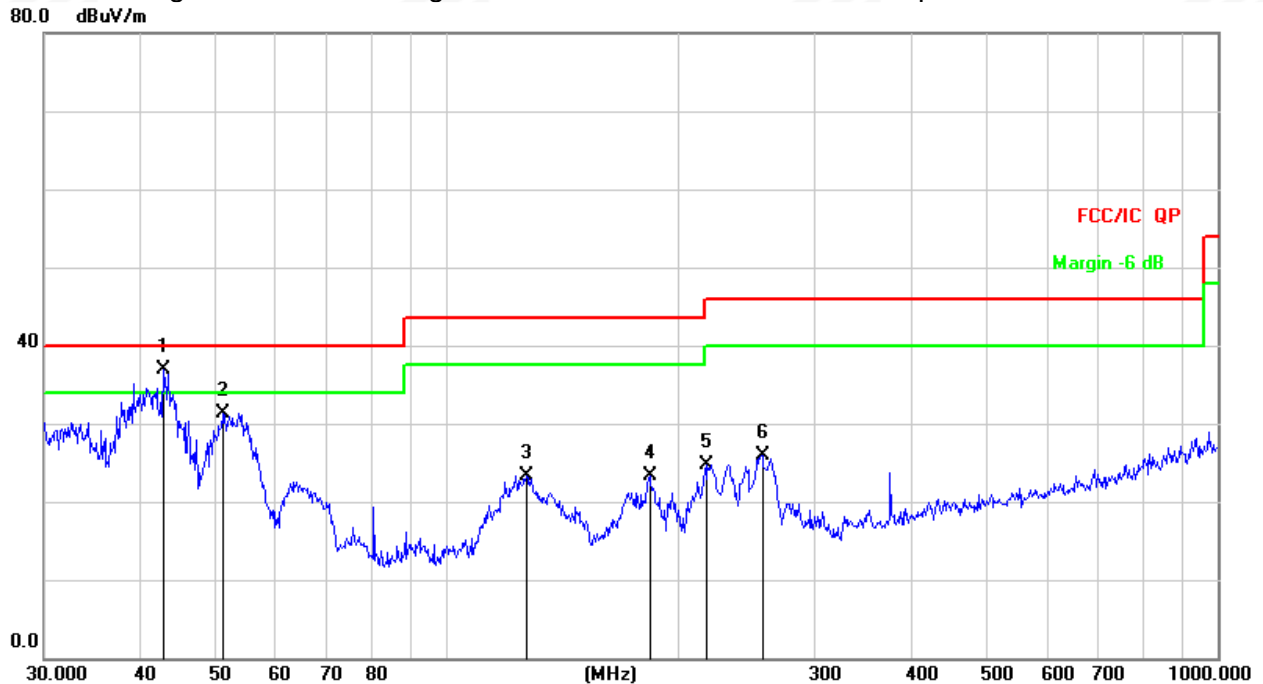
1. Margin = Result (Result = Reading + Factor) - Limit
2. Factor = Antenna factor + Cable attenuation factor (cable loss) - Amplifier gain

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	*	41.8596	32.55	-11.36	21.19	40.00	-18.81	QP
2		52.3912	27.57	-10.93	16.64	40.00	-23.36	QP
3		185.1379	35.79	-12.99	22.80	43.50	-20.70	QP
4		219.8449	34.52	-11.70	22.82	46.00	-23.18	QP
5		265.6757	37.43	-10.99	26.44	46.00	-19.56	QP
6		352.9433	33.77	-8.78	24.99	46.00	-21.01	QP



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 1

The following table shows the highest levels of radiated emissions on polarizations of vertical



Remark:

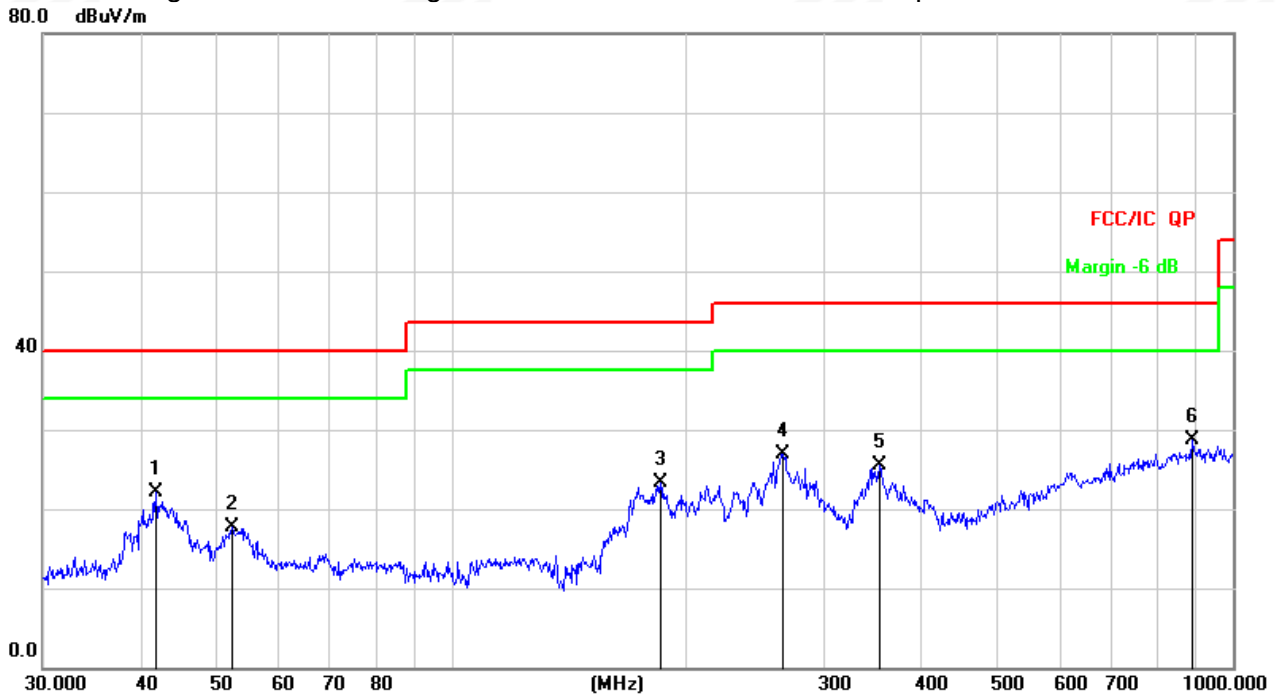
1. Margin = Result (Result = Reading + Factor) - Limit
2. Factor = Antenna factor + Cable attenuation factor (cable loss) - Amplifier gain

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
		MHz	Level	Factor	ment			Detector
			dBuV	dB	dBuV/m	dB/m	dB	
1	*	42.8998	48.12	-11.26	36.86	40.00	-3.14	QP
2		51.1209	42.00	-10.71	31.29	40.00	-8.71	QP
3		126.7723	37.34	-14.07	23.27	43.50	-20.23	QP
4		183.2005	36.39	-13.13	23.26	43.50	-20.24	QP
5		217.5443	36.47	-11.73	24.74	46.00	-21.26	QP
6		256.5211	37.15	-11.16	25.99	46.00	-20.01	QP



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 2

The following table shows the highest levels of radiated emissions on polarizations of horizontal



Remark:

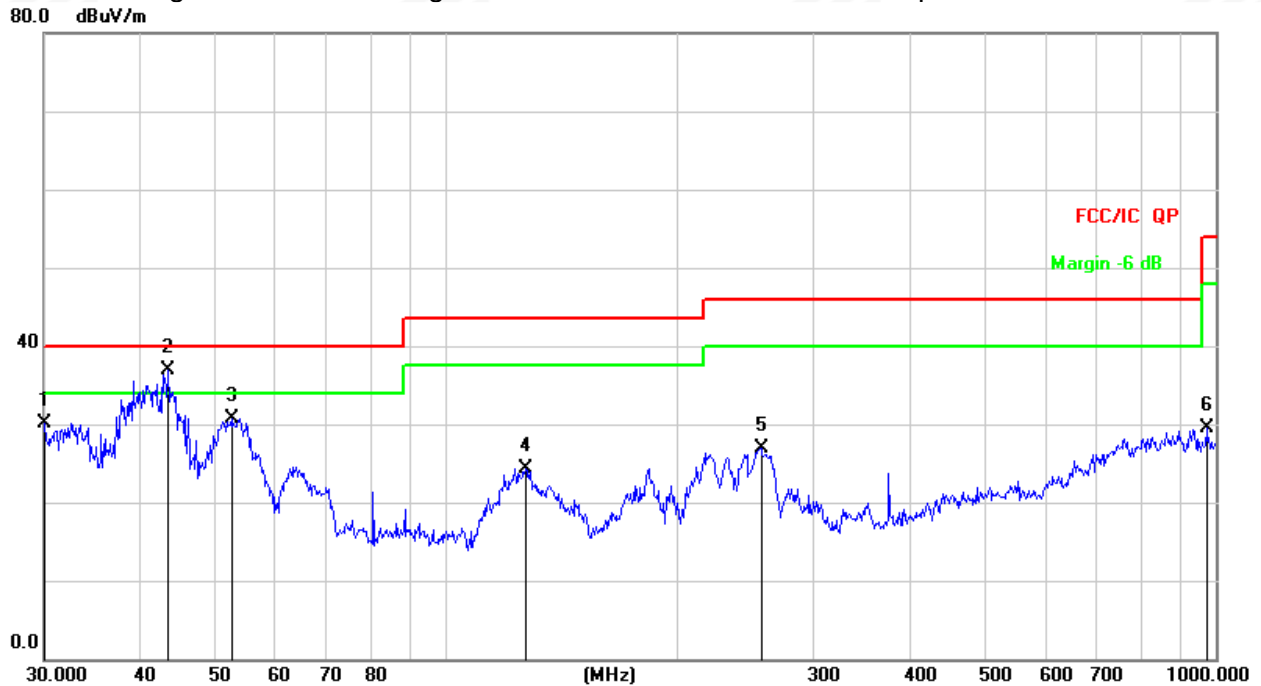
- Margin = Result (Result = Reading + Factor) - Limit
- Factor = Antenna factor + Cable attenuation factor (cable loss) - Amplifier gain

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Detector
1		41.8596	33.55	-11.36	22.19	40.00	-17.81	QP
2		52.3912	28.57	-10.93	17.64	40.00	-22.36	QP
3		185.1379	36.29	-12.99	23.30	43.50	-20.20	QP
4		265.6757	37.93	-10.99	26.94	46.00	-19.06	QP
5		352.9433	34.27	-8.78	25.49	46.00	-20.51	QP
6	*	887.6099	28.68	-0.05	28.63	46.00	-17.37	QP



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 2

The following table shows the highest levels of radiated emissions on polarizations of vertical



Remark:

3. Margin = Result (Result = Reading + Factor) - Limit

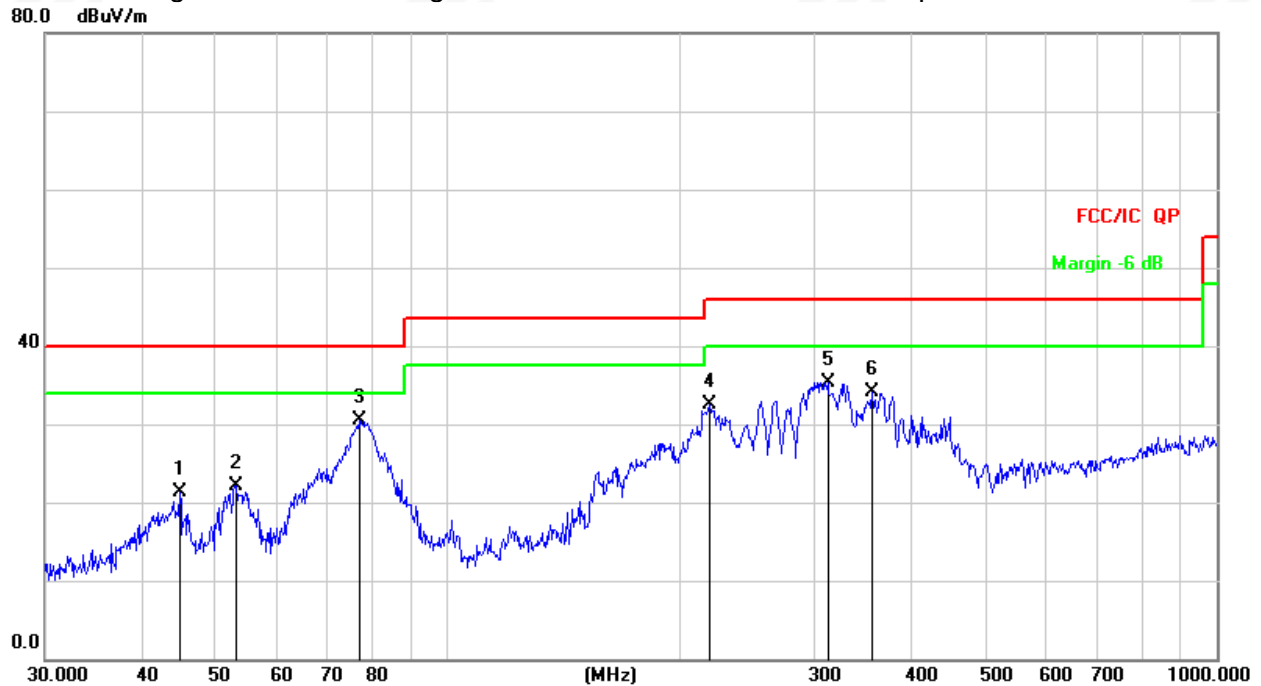
4. Factor = Antenna factor + Cable attenuation factor (cable loss) - Amplifier gain

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Detector
1		30.1052	42.66	-12.60	30.06	40.00	-9.94	QP
2	*	43.5056	48.00	-11.19	36.81	40.00	-3.19	QP
3		52.5752	41.65	-10.96	30.69	40.00	-9.31	QP
4		126.7723	38.34	-14.07	24.27	43.50	-19.23	QP
5		256.5210	38.15	-11.16	26.99	46.00	-19.01	QP
6		972.3374	28.68	0.81	29.49	54.00	-24.51	QP



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 3

The following table shows the highest levels of radiated emissions on polarizations of horizontal



Remark:

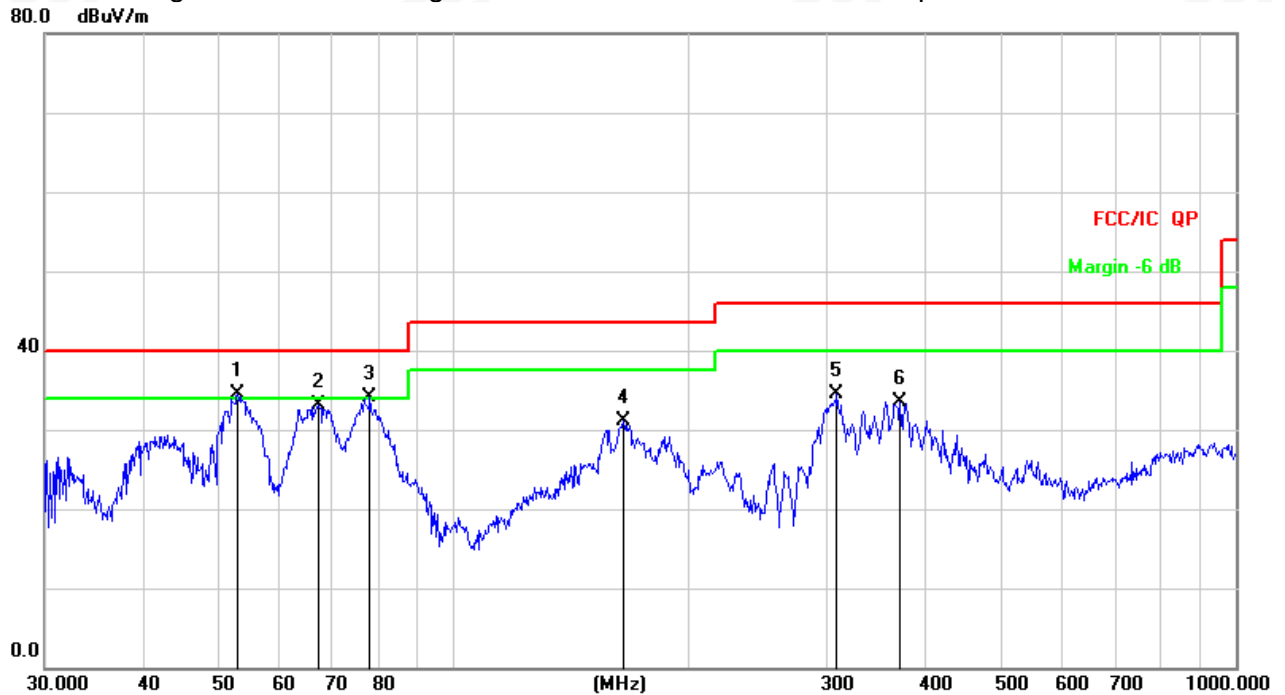
5. Margin = Result (Result = Reading + Factor) - Limit
6. Factor = Antenna factor + Cable attenuation factor (cable loss) - Amplifier gain

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1		44.9004	32.32	-11.05	21.27	40.00	-18.73	QP
2		53.1313	33.20	-11.06	22.14	40.00	-17.86	QP
3	*	76.7807	44.06	-13.62	30.44	40.00	-9.56	QP
4		219.0752	44.24	-11.71	32.53	46.00	-13.47	QP
5		312.1792	45.38	-10.00	35.38	46.00	-10.62	QP
6		356.6757	42.81	-8.67	34.14	46.00	-11.86	QP



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 3

The following table shows the highest levels of radiated emissions on polarizations of vertical



Remark:

5. Margin = Result (Result = Reading + Factor) - Limit

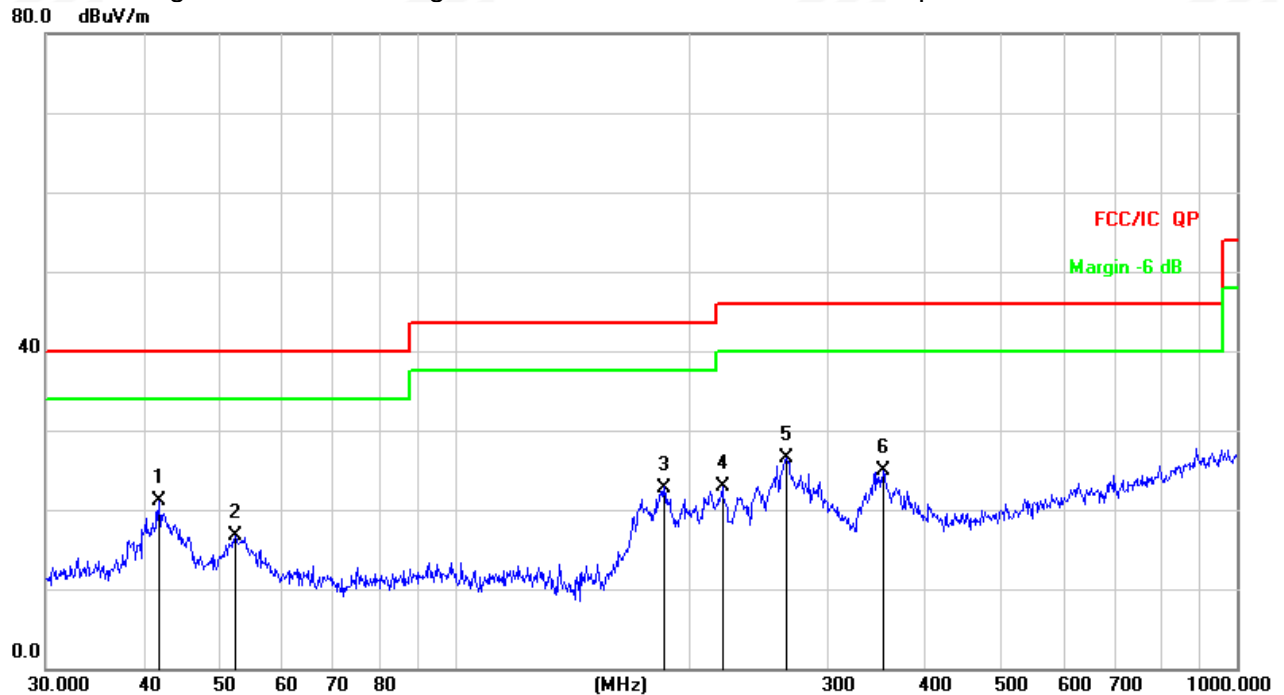
6. Factor = Antenna factor + Cable attenuation factor (cable loss) - Amplifier gain

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Detector
1	*	52.9453	45.57	-11.02	34.55	40.00	-5.45	QP
2		67.2022	46.69	-13.51	33.18	40.00	-6.82	QP
3	!	78.1389	47.57	-13.54	34.03	40.00	-5.97	QP
4		164.9074	45.48	-14.37	31.11	43.50	-12.39	QP
5		308.9125	44.68	-10.10	34.58	46.00	-11.42	QP
6		372.0045	41.73	-8.21	33.52	46.00	-12.48	QP



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 4

The following table shows the highest levels of radiated emissions on polarizations of horizontal



Remark:

7. Margin = Result (Result = Reading + Factor) - Limit

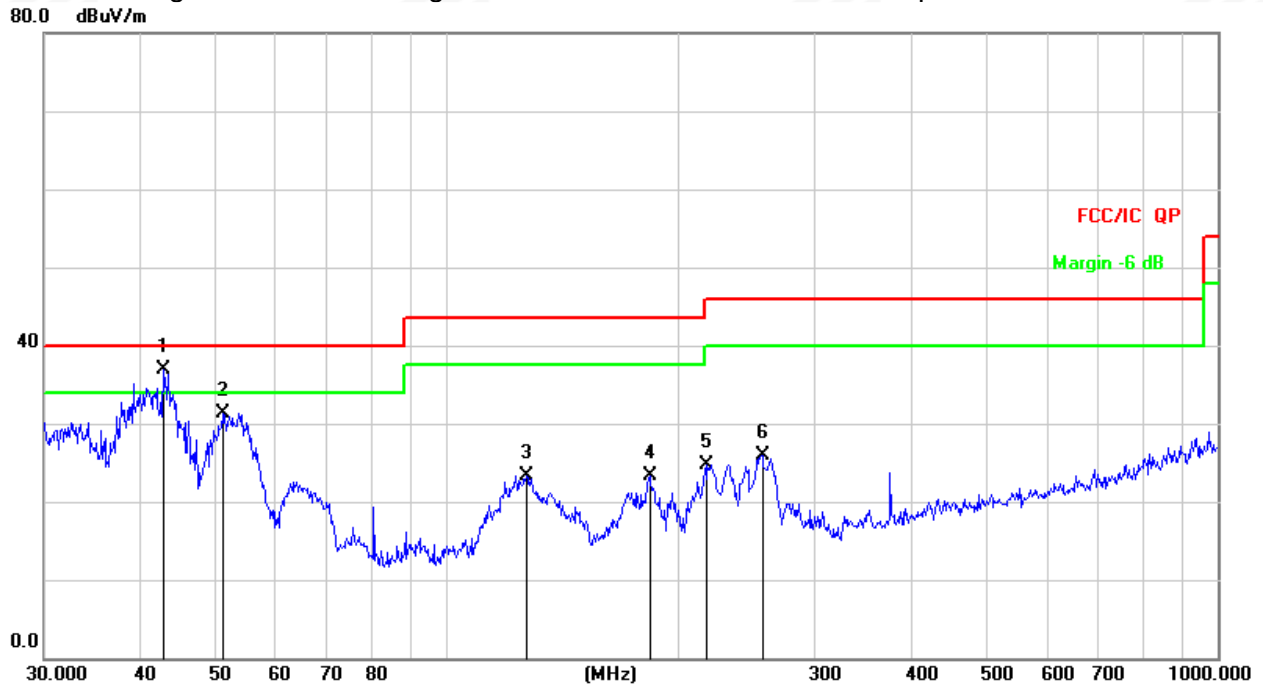
8. Factor = Antenna factor + Cable attenuation factor (cable loss) - Amplifier gain

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
		MHz	Level	Factor	ment			Detector
			dBuV	dB	dBuV/m	dB/m	dB	
1	*	41.8596	32.55	-11.36	21.19	40.00	-18.81	QP
2		52.3912	27.57	-10.93	16.64	40.00	-23.36	QP
3		185.1379	35.79	-12.99	22.80	43.50	-20.70	QP
4		219.8449	34.52	-11.70	22.82	46.00	-23.18	QP
5		265.6757	37.43	-10.99	26.44	46.00	-19.56	QP
6		352.9433	33.77	-8.78	24.99	46.00	-21.01	QP



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	AC 120V/60Hz	Test Mode :	Mode 4

The following table shows the highest levels of radiated emissions on polarizations of vertical



Remark:

7. Margin = Result (Result = Reading + Factor) - Limit

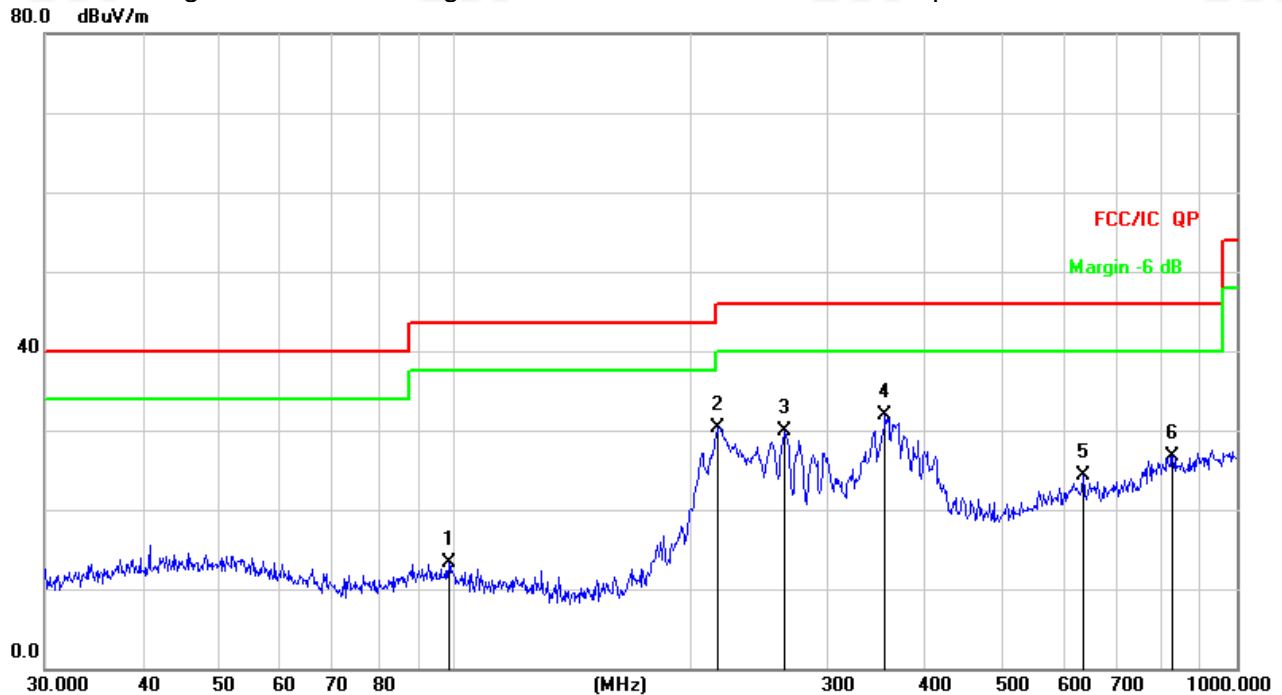
8. Factor = Antenna factor + Cable attenuation factor (cable loss) - Amplifier gain

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
		MHz	Level	Factor	ment			Detector
			dBuV	dB	dBuV/m	dB/m	dB	
1	*	42.8998	48.12	-11.26	36.86	40.00	-3.14	QP
2		51.1209	42.00	-10.71	31.29	40.00	-8.71	QP
3		126.7723	37.34	-14.07	23.27	43.50	-20.23	QP
4		183.2005	36.39	-13.13	23.26	43.50	-20.24	QP
5		217.5443	36.47	-11.73	24.74	46.00	-21.26	QP
6		256.5211	37.15	-11.16	25.99	46.00	-20.01	QP



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	DC 3.85V	Test Mode :	Mode 5

The following table shows the highest levels of radiated emissions on polarizations of horizontal



Remark:

9. Margin = Result (Result = Reading + Factor) - Limit

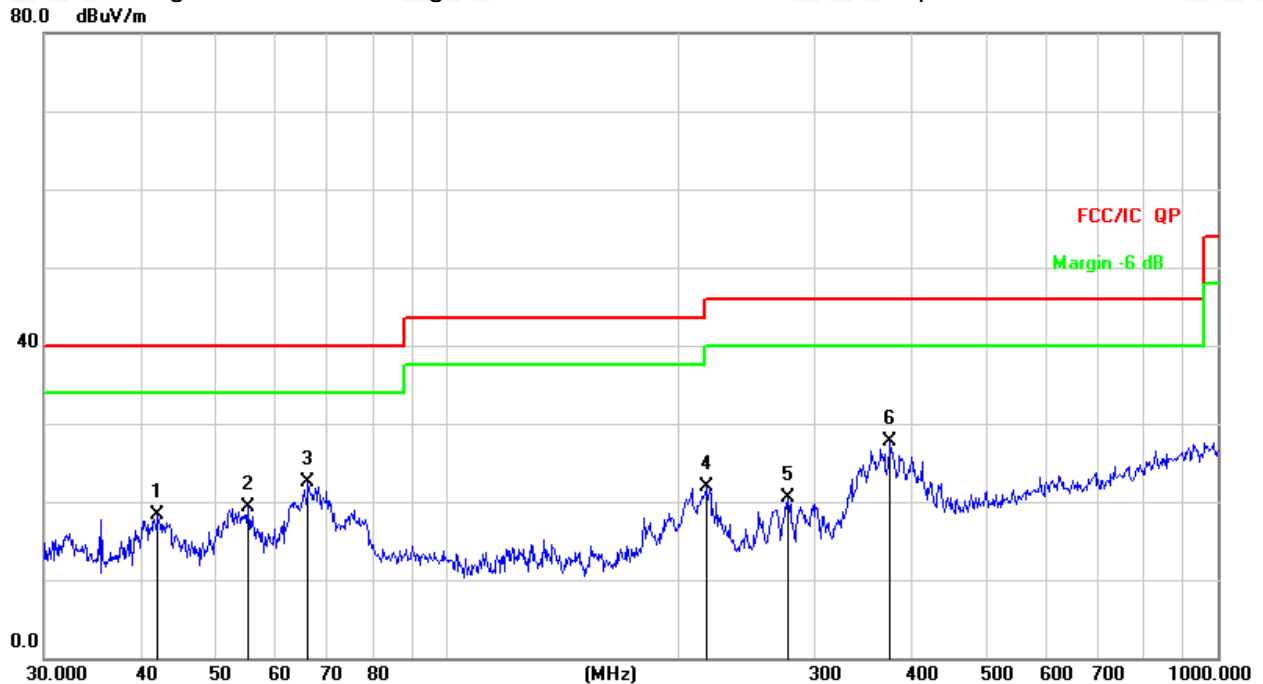
10. Factor = Antenna factor + Cable attenuation factor (cable loss) - Amplifier gain

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Detector
1		98.4866	25.75	-12.39	13.36	43.50	-30.14	QP
2		217.5443	42.10	-11.73	30.37	46.00	-15.63	QP
3		264.7457	40.86	-11.01	29.85	46.00	-16.15	QP
4	*	355.4273	40.56	-8.71	31.85	46.00	-14.15	QP
5		636.1340	28.05	-3.78	24.27	46.00	-21.73	QP
6		827.4934	27.80	-1.08	26.72	46.00	-19.28	QP



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	DC 3.85V	Test Mode :	Mode 5

The following table shows the highest levels of radiated emissions on polarizations of vertical



Remark:

9. Margin = Result (Result = Reading + Factor) - Limit

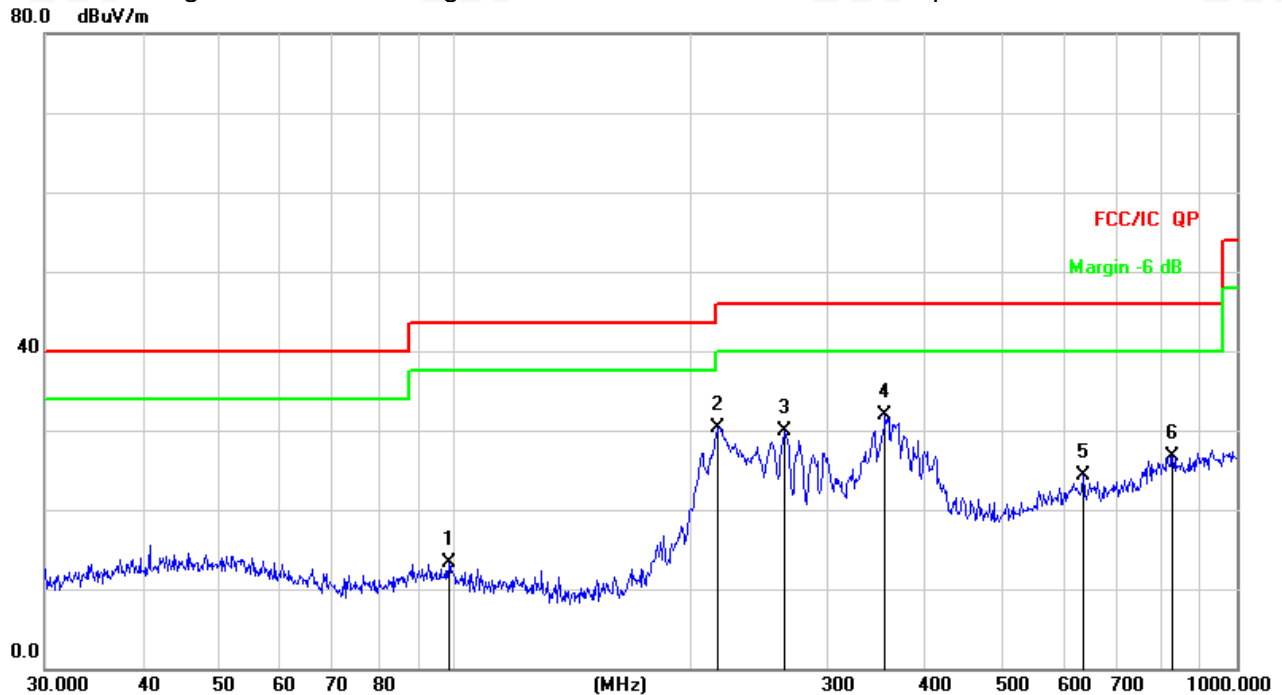
10. Factor = Antenna factor + Cable attenuation factor (cable loss) - Amplifier gain

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
		MHz	Level	Factor	ment			Detector
			dBuV	dB	dBuV/m	dB/m	dB	
1		42.1542	29.65	-11.33	18.32	40.00	-21.68	QP
2		55.2207	30.73	-11.42	19.31	40.00	-20.69	QP
3	*	66.0342	35.74	-13.31	22.43	40.00	-17.57	QP
4		216.7828	33.63	-11.75	21.88	46.00	-24.12	QP
5		277.0935	31.34	-10.79	20.55	46.00	-25.45	QP
6		375.9385	35.76	-8.09	27.67	46.00	-18.33	QP



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	DC 3.85V	Test Mode :	Mode 6

The following table shows the highest levels of radiated emissions on polarizations of horizontal



Remark:

11. Margin = Result (Result = Reading + Factor)-Limit

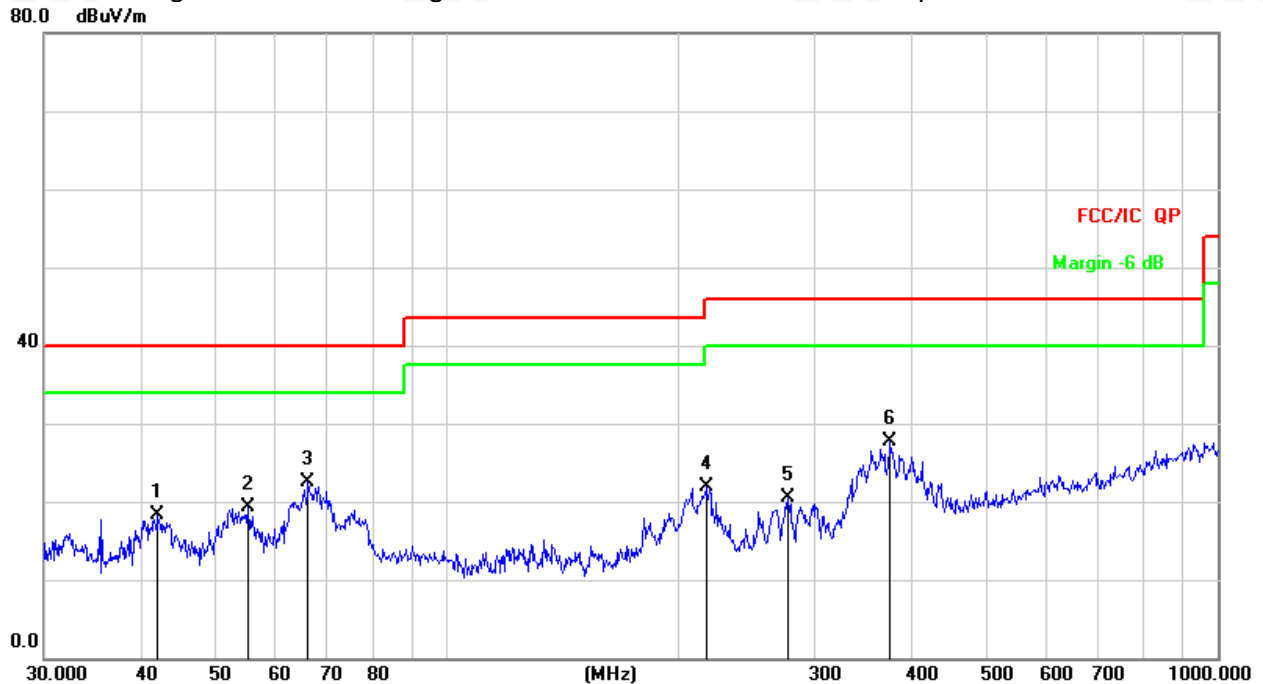
12. Factor= Antenna factor+Cable attenuation factor(cable loss)-Amplifier gain

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Detector
1		98.4866	25.75	-12.39	13.36	43.50	-30.14	QP
2		217.5443	42.10	-11.73	30.37	46.00	-15.63	QP
3		264.7457	40.86	-11.01	29.85	46.00	-16.15	QP
4	*	355.4273	40.56	-8.71	31.85	46.00	-14.15	QP
5		636.1340	28.05	-3.78	24.27	46.00	-21.73	QP
6		827.4934	27.80	-1.08	26.72	46.00	-19.28	QP



Temperature :	26°C	Relative Humidity:	54%
Test Voltage :	DC 3.85V	Test Mode :	Mode 6

The following table shows the highest levels of radiated emissions on polarizations of vertical



Remark:

11. Margin = Result (Result = Reading + Factor) – Limit

12. Factor = Antenna factor + Cable attenuation factor (cable loss) – Amplifier gain

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
		MHz	Level	Factor	ment			Detector
			dBuV	dB	dBuV/m	dB/m	dB	
1		42.1542	29.65	-11.33	18.32	40.00	-21.68	QP
2		55.2207	30.73	-11.42	19.31	40.00	-20.69	QP
3	*	66.0342	35.74	-13.31	22.43	40.00	-17.57	QP
4		216.7828	33.63	-11.75	21.88	46.00	-24.12	QP
5		277.0935	31.34	-10.79	20.55	46.00	-25.45	QP
6		375.9385	35.76	-8.09	27.67	46.00	-18.33	QP



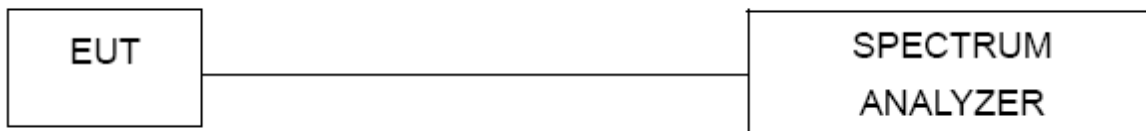
5. 20 DB BANDWIDTH TEST

5.1 Limit

FCC Part 2.1049, Only applicable to report.

5.2 TEST SETUP

1. Set RBW = 1%~5% OBW.
2. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 20 dB relative to the maximum level measured in the fundamental emission.

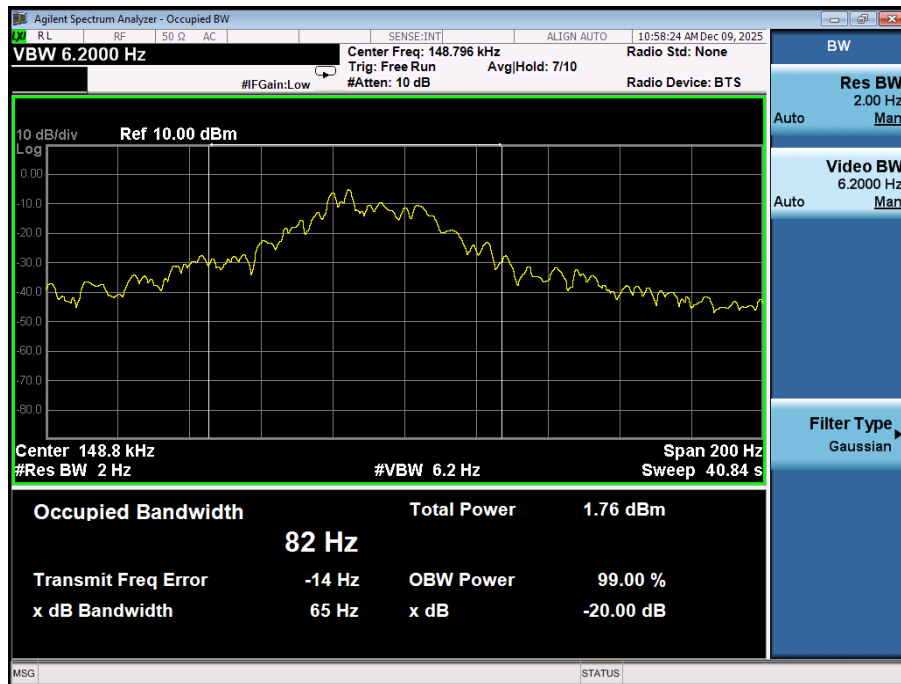




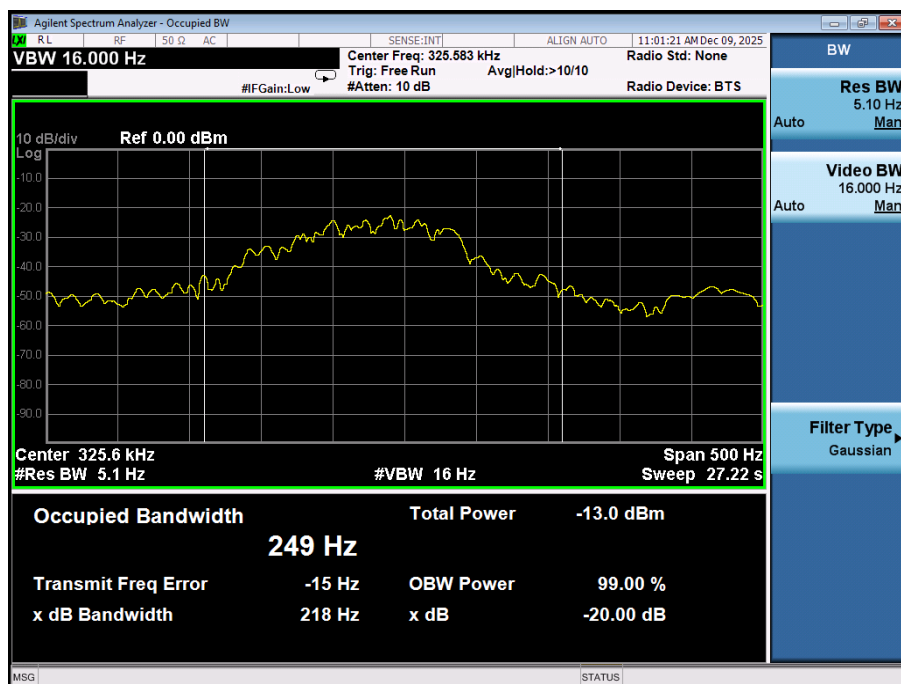
5.3 TEST RESULTS

Operating Frequency (kHz)	20 dB Bandwidth (Hz)
148.8	65
325.6	218

148.8kHz



325.6kHz





6. ANTENNA REQUIREMENTS

6.1 Limit

For intentional device, according to FCC 47 CFR Section 15.203, An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

6.2 TEST RESULTS

The antenna used for this product is Inductive Loop coil antenna.



APPENDIX-PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

※※※※※END OF THE REPORT※※※※※