



**FCC Part15, Subpart B
ICES-003**

TEST REPORT

For

Smart Plug

MODEL NUMBER: 7A-PL-W-A1

**FCC ID: 2AB2Q-7APLWA1
IC: 10256A-7APLWA1**

REPORT NUMBER: 4788899177.1-2

ISSUE DATE: March 22, 2019

Prepared for

**LEEDARSON LIGHTING CO., LTD.
Xingtai Industrial Zone, Economic Development Zone, Changtai County,
Zhangzhou City, Fujian Province, P.R.China**

Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	03/22/2019	Initial Issue	



Summary of Test Results				
Standard	Test Item	Limit	Result	Remark
FCC Part15, Subpart B ICES-003 Issue 6 ANSI C63.4-2014	Conducted Disturbance	Class B	PASS	
	Radiated Disturbance below 1 GHz	Class B	PASS	
	Radiated Disturbance above 1 GHz	Class B	PASS	NOTE (2)
<p>Note:</p> <p>(1) "N/A" denotes test is not applicable in this Test Report</p> <p>(2) If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2 GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz, measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 40 GHz, whichever is less.</p>				



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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: LEEDARSON LIGHTING CO., LTD.
Address: Xingtai Industrial Zone, Economic Development Zone, Changtai County, Zhangzhou City, Fujian Province, P.R.China

Manufacturer Information

Company Name: LEEDARSON LIGHTING CO., LTD.
Address: Xingtai Industrial Zone, Economic Development Zone, Changtai County, Zhangzhou City, Fujian Province, P.R.China

EUT Information

EUT Name: Smart Plug
Model: 7A-PL-W-A1
Sample Status: Normal
Sample ID: 2138483
Brand: LEEDARSON
Sample Received Date: March 12, 2019
Date of Tested: March 12, 2019 ~ March 22, 2019

APPLICABLE STANDARDS	
STANDARDS	TEST RESULTS
FCC Part15, Subpart B ICES-003 Issue 6 ANSI C63.4-2014	PASS

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2. TEST METHODOLOGY

All tests were performed in accordance with the standard FCC Part15 Subpart B, ANSI C63.4-2014, and ICES-003 Issue 6

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p>A2LA (Certificate No.: 4102.01) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.</p> <p>FCC (FCC Designation No.: CN1187) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules</p> <p>IC(Company No.: 21320) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with Industry Canada. The Company Number is 21320.</p> <p>VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011</p>
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Note: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China

4. CALIBRATION AND UNCERTAINTY

4.1. Measuring Instrument Calibration

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Measurement Frequency Range	K	U(dB)
Conducted emissions from the AC mains power ports	0.009MHz ~ 0.15MHz	2	4.00
Conducted emissions from the AC mains power ports	0.15MHz ~ 30MHz	2	3.62
Radiated emissions	30MHz ~ 1GHz	2	4.00
Radiated emissions	1GHz ~ 18GHz	2	5.78

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.



5. EQUIPMENT UNDER TEST

5.1. Description of EUT

EUT Name	Smart Plug
Model	7A-PL-W-A1
Supply Voltage	AC 120V 60Hz

5.2. Test Mode

Test Mode	Description
Mode 1	Normal working

Note, there are four different samples were tested

Test Construction	Description
Construction 1	AZ9481 Relay with power analyzer chip
Construction 2	AZ9481 Relay without power analyzer chip
Construction 3	HF7520 Relay with power analyzer chip
Construction 4	HF7520 Relay without power analyzer chip

5.3. EUT Accessory

Item	Accessory	Brand Name	Model Name	Description
/	/	/	/	/

Note: no accessory



5.4. Support Units or Accessories for System Test

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.	Specification	Series No.
1	Lamp	/	/	500W	/

The following cables were used to form a representative test configuration during the tests.

Item	Type of cable	Shielded Type	Ferrite Core	Specification
1	AC cable	no	no	1m



6. MEASURING EQUIPMENT AND SOFTWARE USED

Conducted Emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
EMI Test Receiver	R&S	ESR3	101961	Dec. 10, 2018	Dec. 10, 2019
Two-Line V-Network	R&S	ENV216	101983	Dec. 10, 2018	Dec. 10, 2019
Software					
Description		Manufacturer		Name	Version
Test Software for Conducted Emissions		Farad		EZ-EMC	Ver. UL-3A1
Radiated Emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Dec. 10, 2018	Dec. 10, 2019
Hybrid Log Periodic Antenna	TDK	HLP-3003C	130960	Sept. 17, 2018	Sept. 17, 2021
Preamplifier	HP	8447D	2944A09099	Dec. 10, 2018	Dec. 10, 2019
EMI Measurement Receiver	R&S	ESR26	101377	Dec. 10, 2018	Dec. 10, 2019
Horn Antenna	TDK	HRN-0118	130939	Sept. 17, 2018	Sept. 17, 2021
Preamplifier	TDK	PA-02-0118	TRS-305-00067	Apr. 8, 2018	Apr. 8, 2019
Software					
Description		Manufacturer		Name	Version
Test Software for Radiated Emissions		Farad		EZ-EMC	Ver. UL-3A1

7. EMISSION TEST

7.1. Conducted Disturbance Measurement

7.1.1. Limits of conducted disturbance voltage

FREQUENCY (MHz)	Class A (dB μ V)		Class B (dB μ V)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46*
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	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.

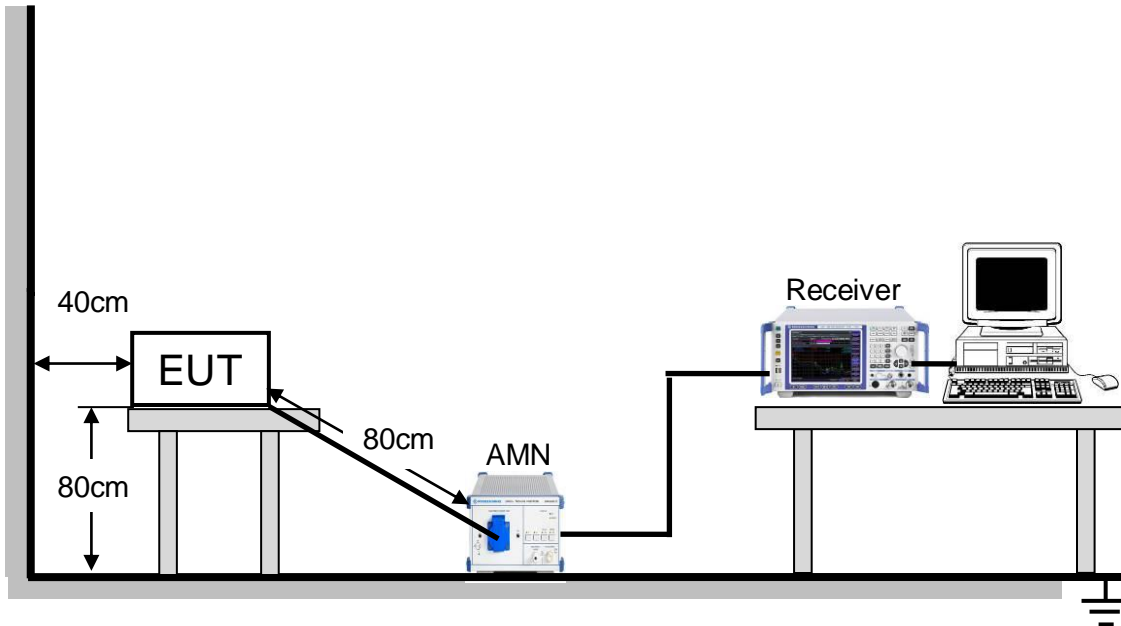
The following table is the setting of the receiver

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

7.1.2. Test Procedure

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. 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.
- c. 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.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item: Photographs of Test Configuration.

7.1.3. Test Setup



Note : For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

7.1.4. Test Environment

Temperature:	20°C
Humidity:	60%
ATM pressure:	101kPa

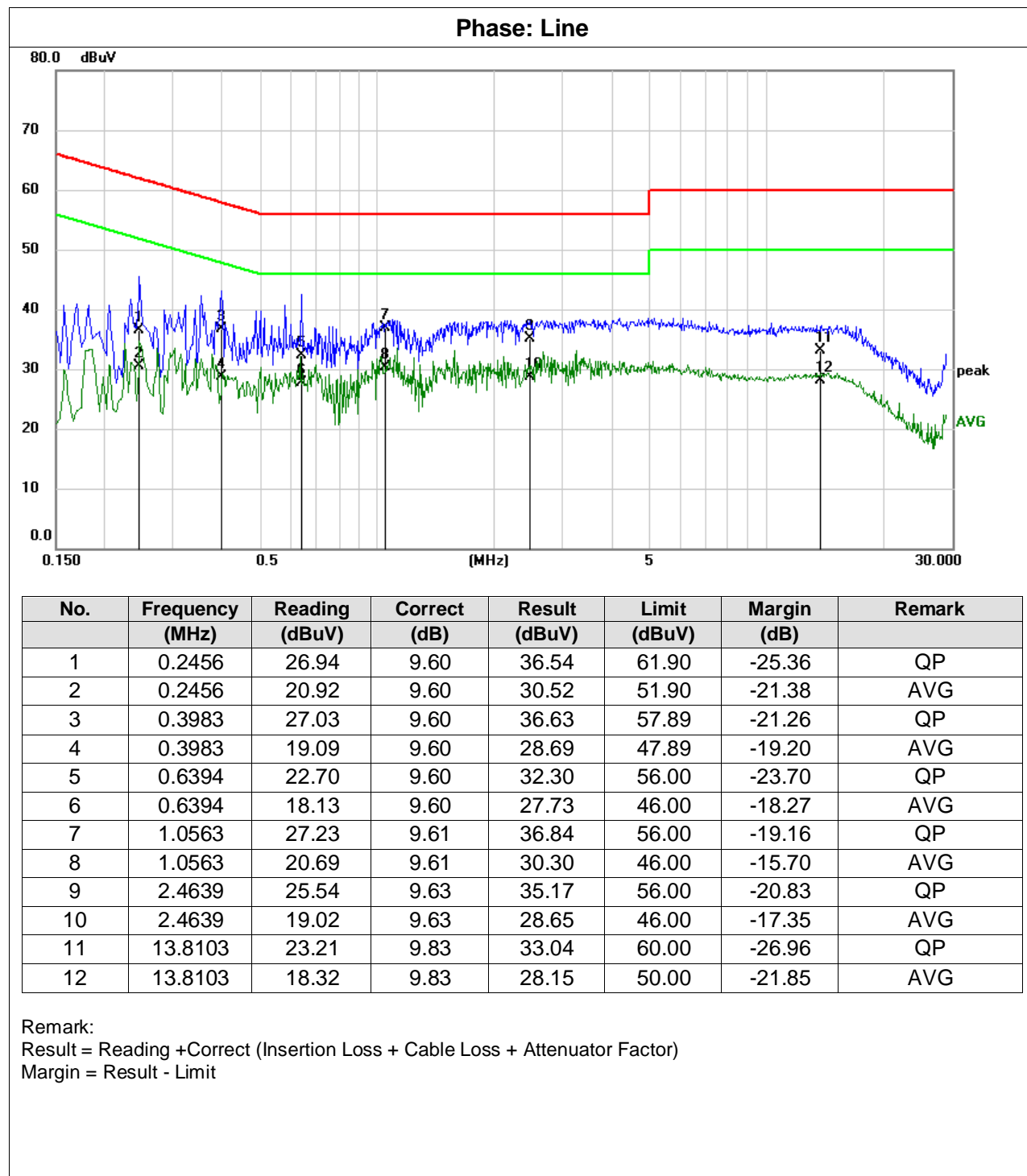
7.1.5. Test Mode

Pre-test Mode:	Mode 1
Final Test Mode:	Mode 1



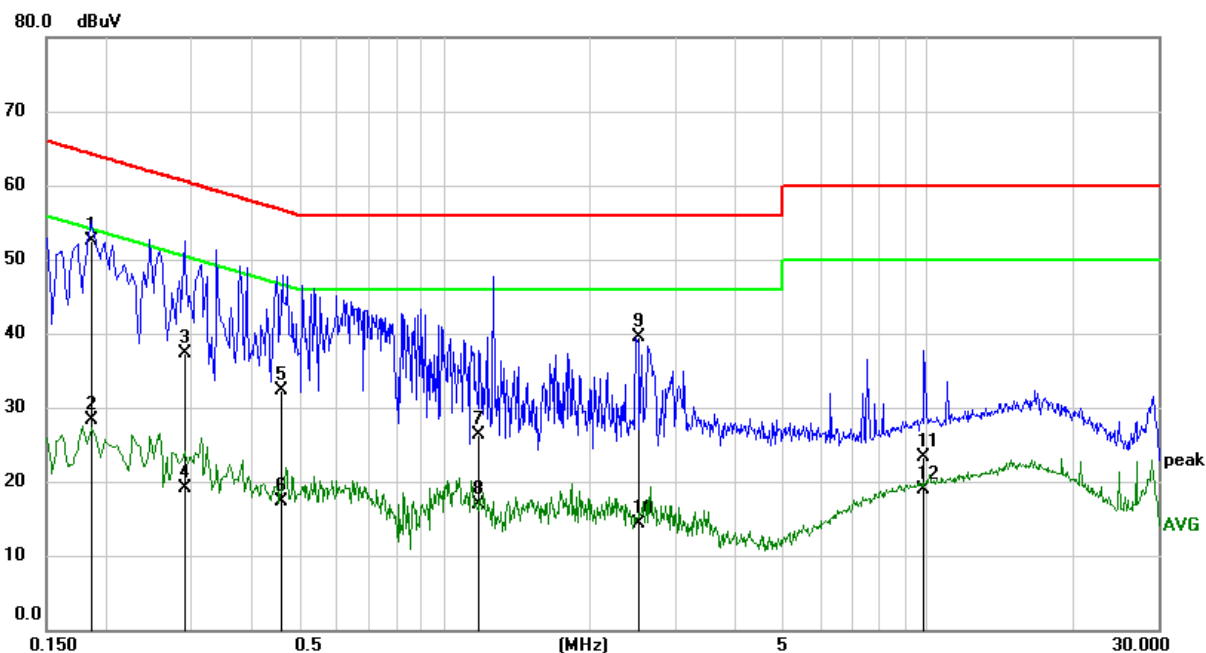
7.1.6. Test Results

Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	AZ9481 Relay with power analyzer chip





Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	AZ9481 Relay with power analyzer chip

Phase: Neutral

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1853	42.86	9.60	52.46	64.24	-11.78	QP
2	0.1853	18.62	9.60	28.22	54.24	-26.02	AVG
3	0.2887	27.76	9.60	37.36	60.56	-23.20	QP
4	0.2887	9.54	9.60	19.14	50.56	-31.42	AVG
5	0.4583	22.80	9.60	32.40	56.72	-24.32	QP
6	0.4583	7.73	9.60	17.33	46.72	-29.39	AVG
7	1.1780	16.71	9.61	26.32	56.00	-29.68	QP
8	1.1780	7.21	9.61	16.82	46.00	-29.18	AVG
9	2.5309	29.85	9.64	39.49	56.00	-16.51	QP
10	2.5309	4.68	9.64	14.32	46.00	-31.68	AVG
11	9.8450	13.60	9.76	23.36	60.00	-36.64	QP
12	9.8450	9.16	9.76	18.92	50.00	-31.08	AVG

Remark:

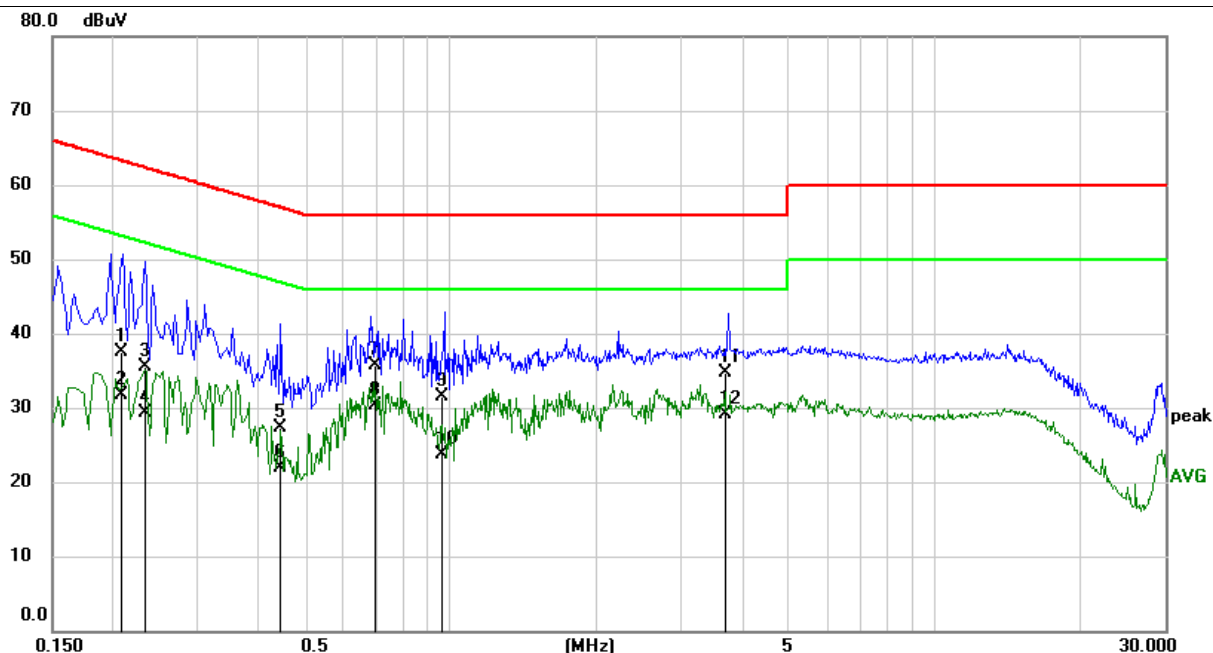
Result = Reading +Correct (Insertion Loss + Cable Loss + Attenuator Factor)

Margin = Result - Limit



Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	AZ9481 Relay without power analyzer chip

Phase: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2075	27.96	9.60	37.56	63.30	-25.74	QP
2	0.2075	22.06	9.60	31.66	53.30	-21.64	AVG
3	0.2340	25.89	9.60	35.49	62.31	-26.82	QP
4	0.2340	19.76	9.60	29.36	52.31	-22.95	AVG
5	0.4443	17.70	9.60	27.30	56.98	-29.68	QP
6	0.4443	12.36	9.60	21.96	46.98	-25.02	AVG
7	0.6945	26.02	9.60	35.62	56.00	-20.38	QP
8	0.6945	20.71	9.60	30.31	46.00	-15.69	AVG
9	0.9588	21.92	9.61	31.53	56.00	-24.47	QP
10	0.9588	14.04	9.61	23.65	46.00	-22.35	AVG
11	3.7075	25.01	9.65	34.66	56.00	-21.34	QP
12	3.7075	19.48	9.65	29.13	46.00	-16.87	AVG

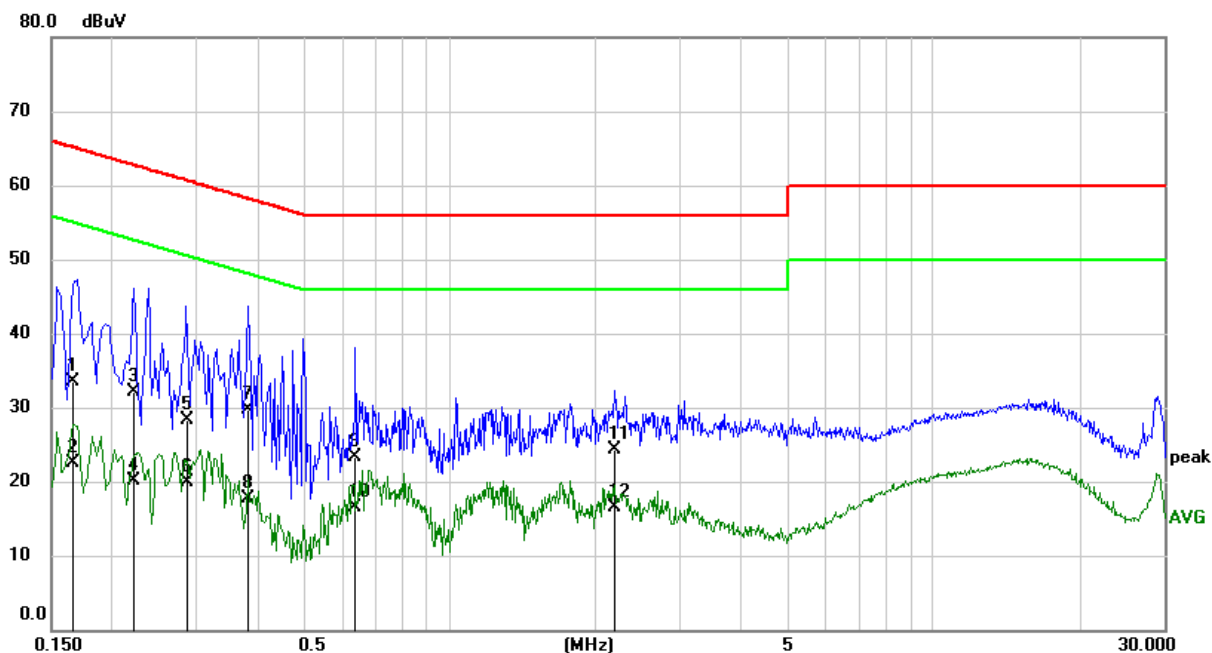
Remark:

Result = Reading +Correct (Insertion Loss + Cable Loss + Attenuator Factor)

Margin = Result - Limit



Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	AZ9481 Relay without power analyzer chip

Phase: Neutral

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1652	23.82	9.60	33.42	65.20	-31.78	QP
2	0.1652	12.83	9.60	22.43	55.20	-32.77	AVG
3	0.2222	22.58	9.60	32.18	62.74	-30.56	QP
4	0.2222	10.57	9.60	20.17	52.74	-32.57	AVG
5	0.2869	18.80	9.60	28.40	60.61	-32.21	QP
6	0.2869	10.34	9.60	19.94	50.61	-30.67	AVG
7	0.3834	20.14	9.60	29.74	58.21	-28.47	QP
8	0.3834	8.09	9.60	17.69	48.21	-30.52	AVG
9	0.6413	13.71	9.60	23.31	56.00	-32.69	QP
10	0.6413	6.92	9.60	16.52	46.00	-29.48	AVG
11	2.1929	14.77	9.63	24.40	56.00	-31.60	QP
12	2.1929	6.93	9.63	16.56	46.00	-29.44	AVG

Remark:

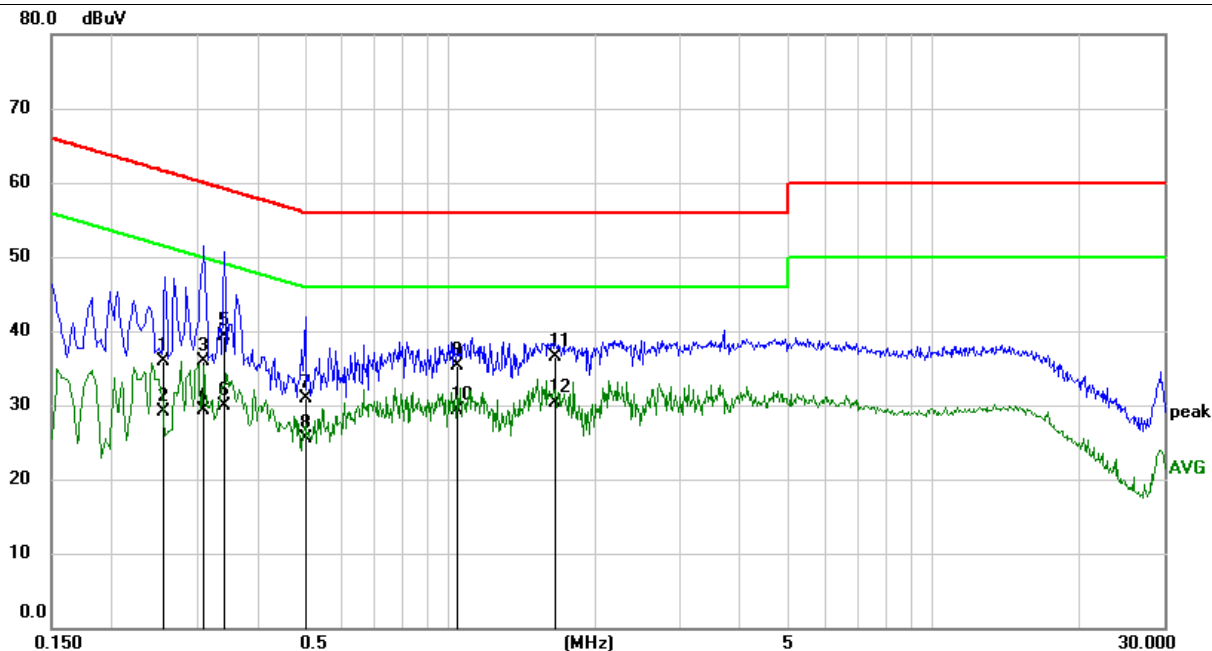
Result = Reading + Correct (Insertion Loss + Cable Loss + Attenuator Factor)

Margin = Result - Limit



Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	HF7520 Relay with power analyzer chip

Phase: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2559	26.33	9.60	35.93	61.56	-25.63	QP
2	0.2559	19.59	9.60	29.19	51.56	-22.37	AVG
3	0.3079	26.28	9.60	35.88	60.03	-24.15	QP
4	0.3079	19.65	9.60	29.25	50.03	-20.78	AVG
5	0.3410	29.73	9.60	39.33	59.18	-19.85	QP
6	0.3410	20.39	9.60	29.99	49.18	-19.19	AVG
7	0.5000	21.29	9.60	30.89	56.00	-25.11	QP
8	0.5000	15.92	9.60	25.52	46.00	-20.48	AVG
9	1.0333	25.66	9.61	35.27	56.00	-20.73	QP
10	1.0333	19.79	9.61	29.40	46.00	-16.60	AVG
11	1.6396	26.81	9.62	36.43	56.00	-19.57	QP
12	1.6396	20.78	9.62	30.40	46.00	-15.60	AVG

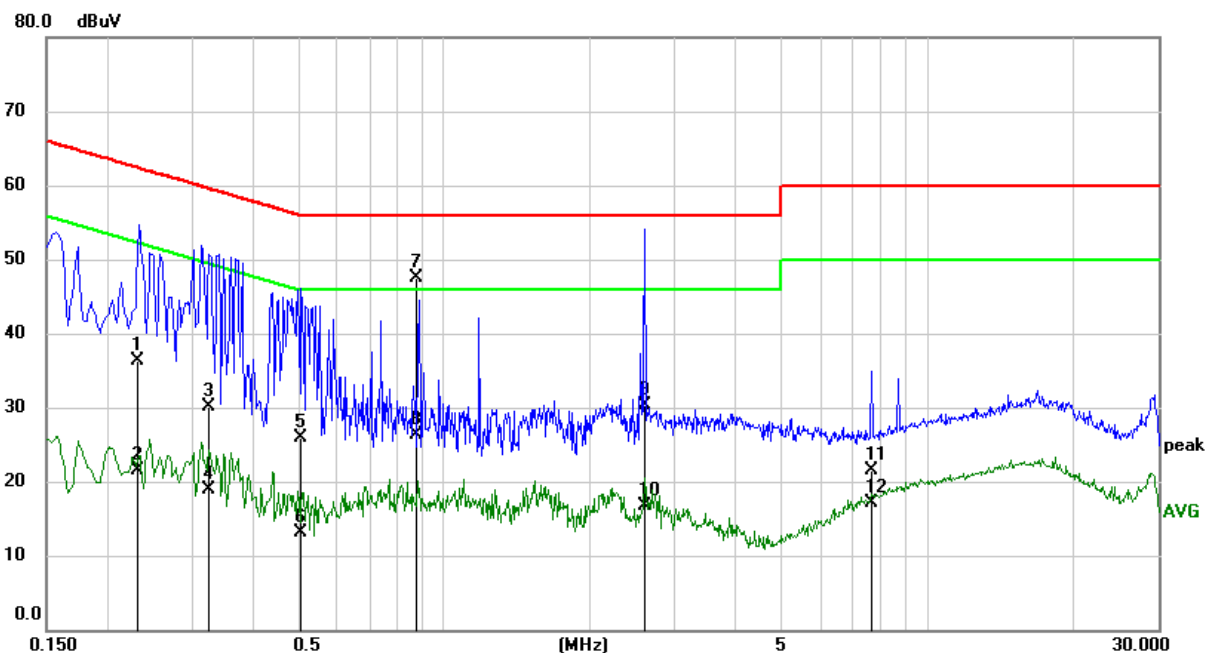
Remark:

Result = Reading +Correct (Insertion Loss + Cable Loss + Attenuator Factor)

Margin = Result - Limit



Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	HF7520 Relay with power analyzer chip

Phase: Neutral

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2307	26.66	9.60	36.26	62.42	-26.16	QP
2	0.2307	11.87	9.60	21.47	52.42	-30.95	AVG
3	0.3239	20.47	9.60	30.07	59.61	-29.54	QP
4	0.3239	9.35	9.60	18.95	49.61	-30.66	AVG
5	0.5039	16.39	9.60	25.99	56.00	-30.01	QP
6	0.5039	3.60	9.60	13.20	46.00	-32.80	AVG
7	0.8746	37.89	9.60	47.49	56.00	-8.51	QP
8	0.8746	16.75	9.60	26.35	46.00	-19.65	AVG
9	2.6108	20.58	9.64	30.22	56.00	-25.78	QP
10	2.6108	7.06	9.64	16.70	46.00	-29.30	AVG
11	7.6346	11.69	9.72	21.41	60.00	-38.59	QP
12	7.6346	7.31	9.72	17.03	50.00	-32.97	AVG

Remark:

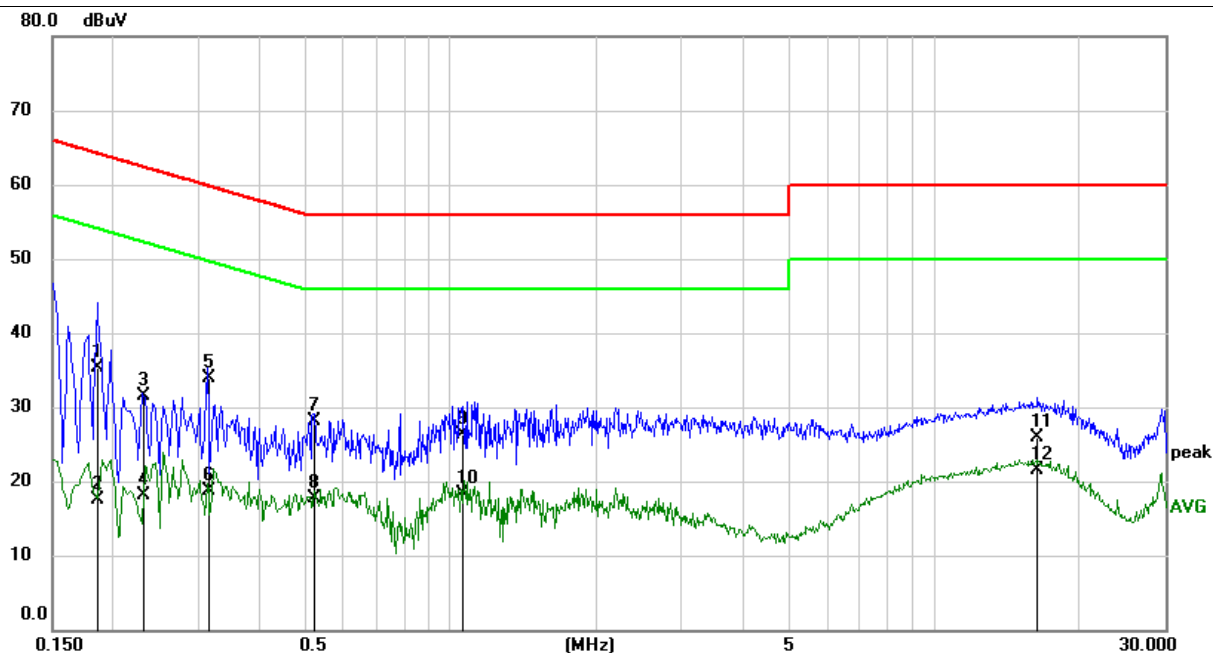
Result = Reading +Correct (Insertion Loss + Cable Loss + Attenuator Factor)

Margin = Result - Limit



Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	HF7520 Relay without power analyzer chip

Phase: Line



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1870	25.77	9.60	35.37	64.17	-28.80	QP
2	0.1870	8.00	9.60	17.60	54.17	-36.57	AVG
3	0.2322	21.92	9.60	31.52	62.37	-30.85	QP
4	0.2322	8.57	9.60	18.17	52.37	-34.20	AVG
5	0.3174	24.30	9.60	33.90	59.77	-25.87	QP
6	0.3174	9.10	9.60	18.70	49.77	-31.07	AVG
7	0.5248	18.49	9.60	28.09	56.00	-27.91	QP
8	0.5248	8.11	9.60	17.71	46.00	-28.29	AVG
9	1.0597	16.63	9.61	26.24	56.00	-29.76	QP
10	1.0597	8.62	9.61	18.23	46.00	-27.77	AVG
11	16.3758	16.01	9.92	25.93	60.00	-34.07	QP
12	16.3758	11.63	9.92	21.55	50.00	-28.45	AVG

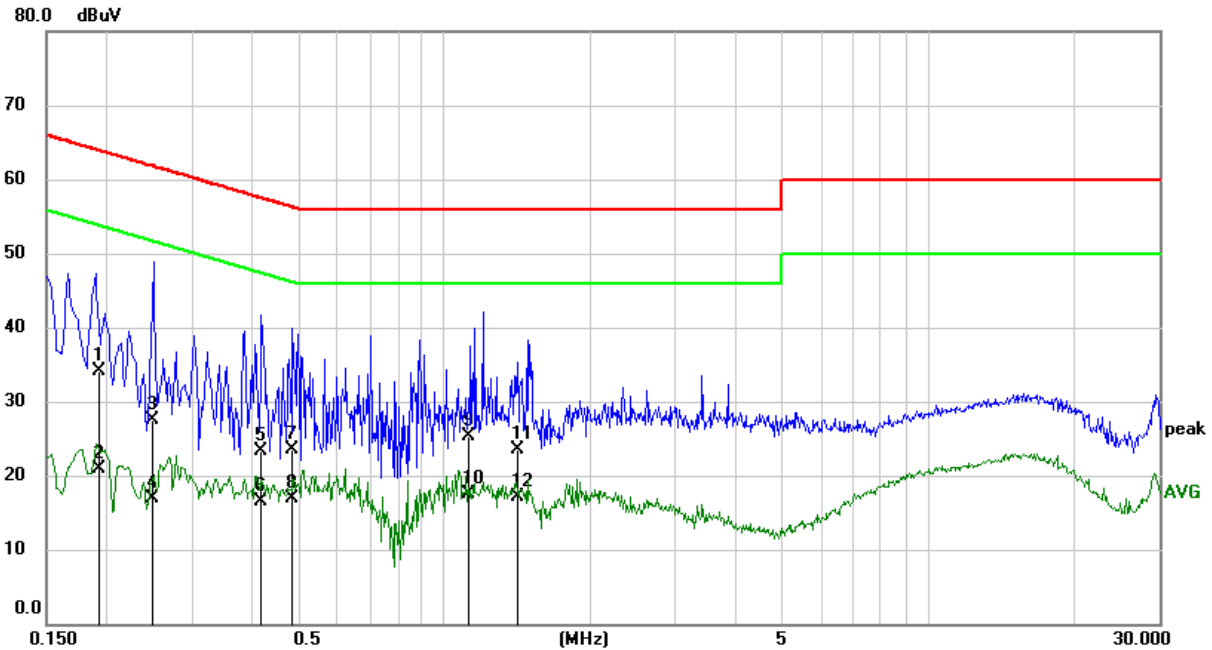
Remark:

Result = Reading + Correct (Insertion Loss + Cable Loss + Attenuator Factor)

Margin = Result - Limit



Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	HF7520 Relay without power analyzer chip

Phase: Neutral

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1924	24.49	9.60	34.09	63.93	-29.84	QP
2	0.1924	11.34	9.60	20.94	53.93	-32.99	AVG
3	0.2473	17.93	9.60	27.53	61.85	-34.32	QP
4	0.2473	7.23	9.60	16.83	51.85	-35.02	AVG
5	0.4170	13.72	9.60	23.32	57.51	-34.19	QP
6	0.4170	6.96	9.60	16.56	47.51	-30.95	AVG
7	0.4857	13.81	9.60	23.41	56.24	-32.83	QP
8	0.4857	7.21	9.60	16.81	46.24	-29.43	AVG
9	1.1167	15.76	9.61	25.37	56.00	-30.63	QP
10	1.1167	7.86	9.61	17.47	46.00	-28.53	AVG
11	1.4211	13.91	9.61	23.52	56.00	-32.48	QP
12	1.4211	7.49	9.61	17.10	46.00	-28.90	AVG

Remark:

Result = Reading + Correct (Insertion Loss + Cable Loss + Attenuator Factor)

Margin = Result - Limit

7.2. Radiated Disturbance Measurement

7.2.1. Limits of radiated disturbance measurement

Below 1 GHz

Measurement Method and Applied Limits:

ANSI C63.4:

Frequency (MHz)	Class A		Class B
	Field strength (uV/m) (at 10m)	Field strength (dBuV/m) (at 3m)	Field strength (dBuV/m) (at 3m)
30 - 88	90	49.5	40
88 - 216	150	53.9	43.5
216 - 960	210	56.9	46
Above 960	300	60	54

Above 1 GHz

Measurement Method and Applied Limits:

ANSI C63.4:

Frequency (MHz)	Class A				Class B	
	(dBuV/m) (at 3m)		(dBuV/m) (at 10m)		(dBuV/m) (at 3m)	
	Peak	Average	Peak	Average	Peak	Average
Above 1000	80	60	69.5	49.5	74	54

Frequency Range of Radiated Disturbance Measurement

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

NOTE:

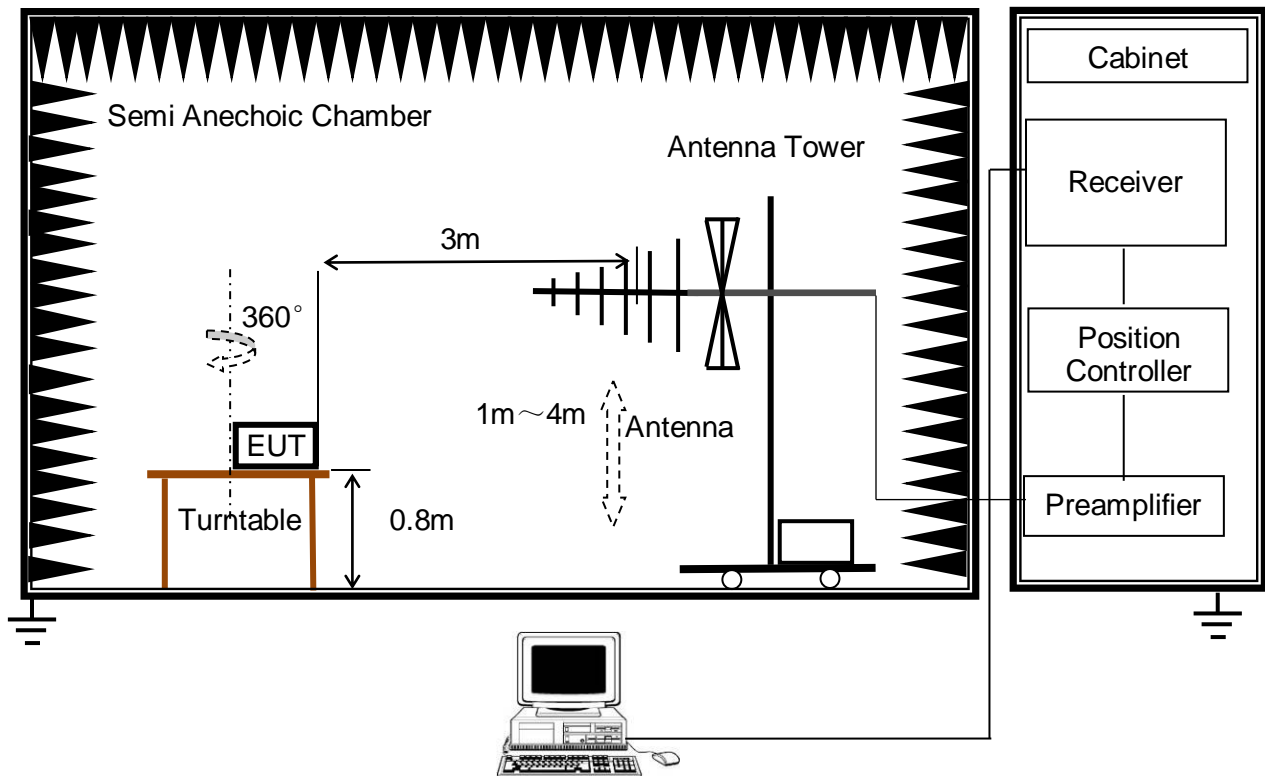
- (1) The limit for radiated test was performed according to FCC Part 15, Subpart B;
- (2) The tighter limit applies at the band edges;
- (3) Emission level (dBuV/m) = 20log Emission level (uV/m),
3m Emission level = 10m Emission level + 20log(10m/3m);

7.2.2. Test Procedure

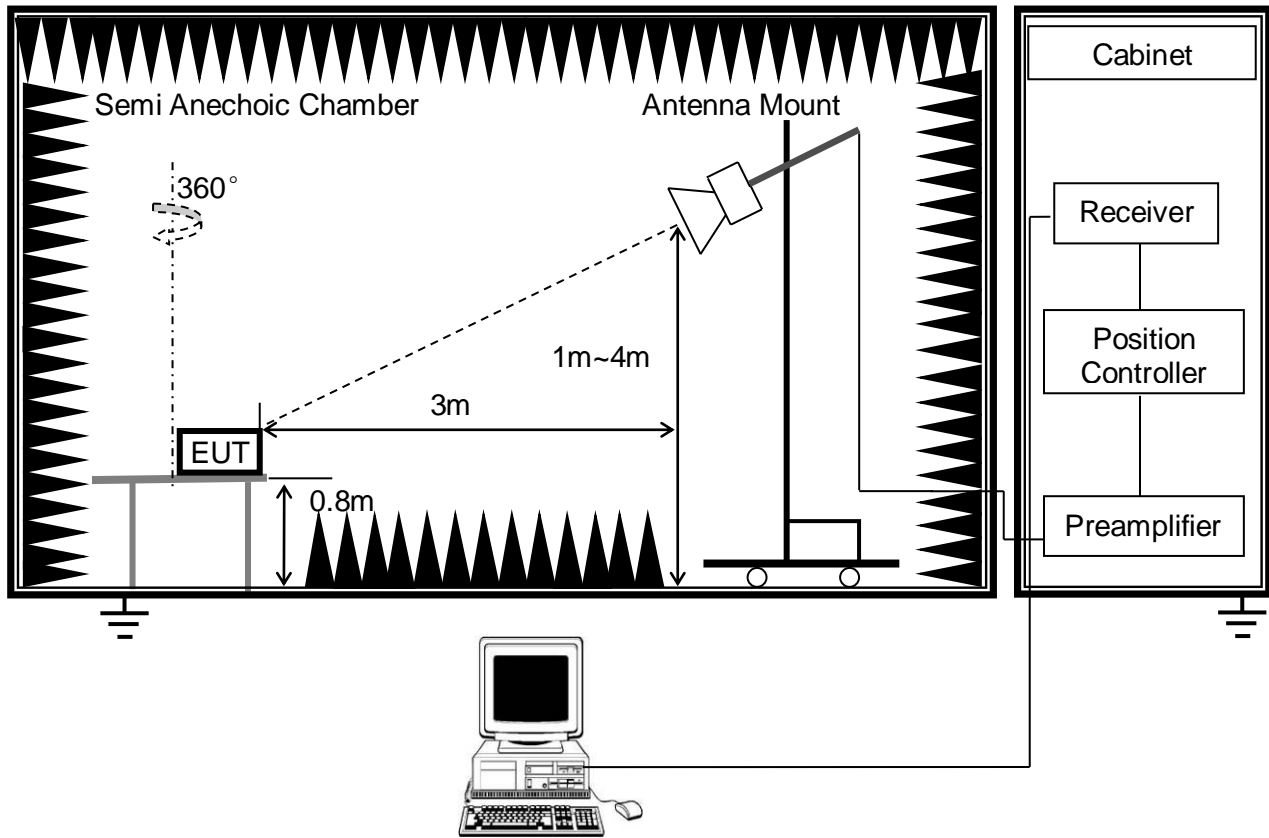
- The measuring distance of at 3m shall be used for measurements at frequency up to 1GHz.
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For the actual test configuration, please refer to the related Item:EUT Photographs of Test Configuration.

7.2.3. Test Setup

(a) Radiated Disturbance Test Set-Up Frequency 30MHz - 1GHz



(b) Radiated Disturbance Test Set-Up Frequency above 1GHz



Note : For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

7.2.4. Test Environment

Radiated Disturbance - below 1 GHz		Radiated Disturbance - above 1 GHz	
Temperature:	20°C	Temperature:	24.2°C
Humidity:	60%	Humidity:	57%
ATM pressure:	101kPa	ATM pressure:	101kPa

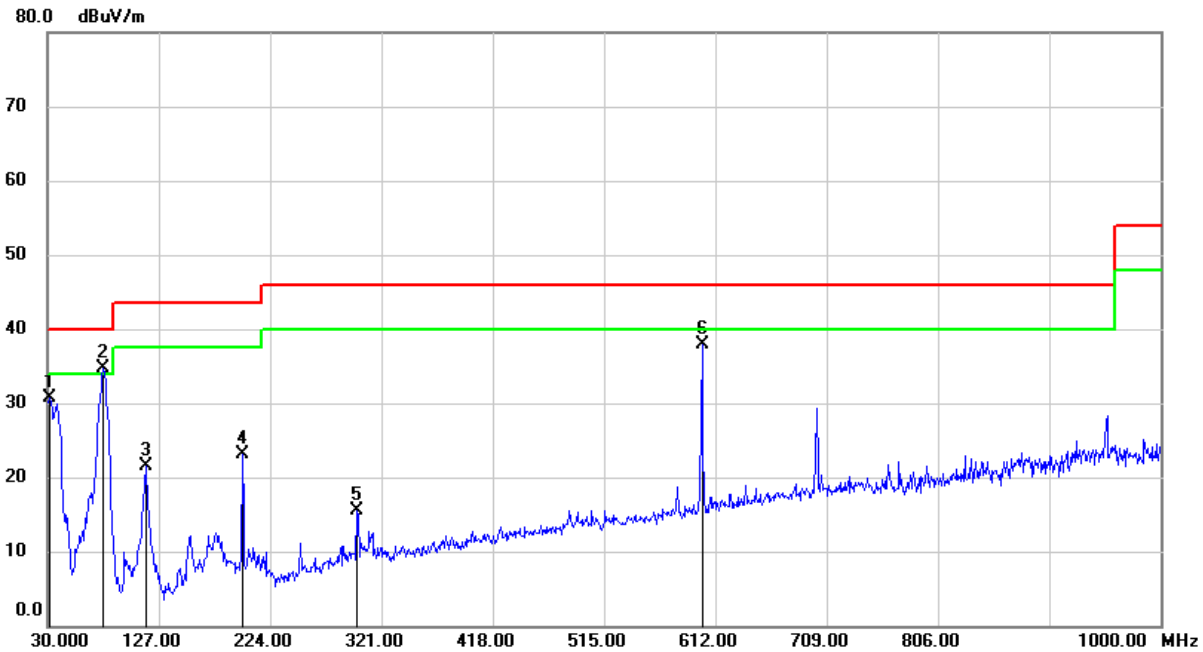
7.2.5. Test Mode

Radiated Disturbance - below 1 GHz		Radiated Disturbance - above 1 GHz	
Pre-test Mode:	Mode 1	Pre-test Mode:	Mode 1
Final Test Mode:	Mode 1	Final Test Mode:	Mode 1

7.2.6. Test Results – below 1GHz

Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	AZ9481 Relay with power analyzer chip

Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	31.9400	47.82	-17.09	30.73	40.00	-9.27	QP
2	78.5000	54.94	-20.27	34.67	40.00	-5.33	QP
3	116.3300	42.23	-20.81	21.42	43.50	-22.08	QP
4	199.7500	39.07	-15.89	23.18	43.50	-20.32	QP
5	299.6600	29.11	-13.51	15.60	46.00	-30.40	QP
6	600.3600	45.97	-8.06	37.91	46.00	-8.09	QP

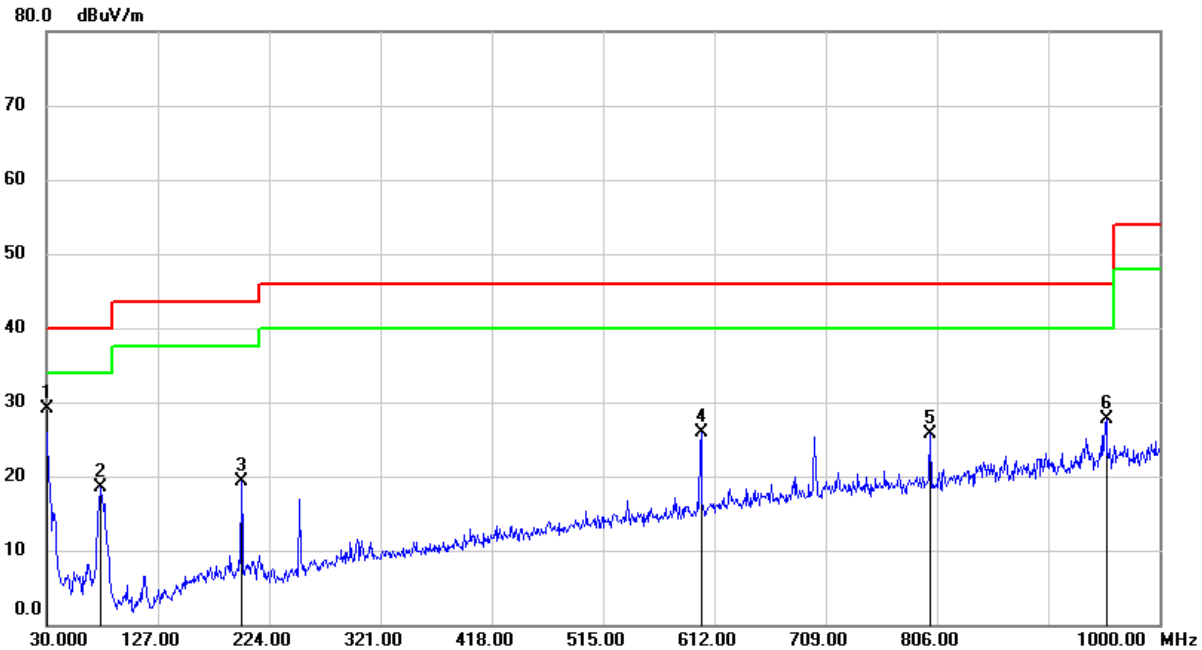
Remark:

Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)

Margin = Result - Limit



Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	AZ9481 Relay with power analyzer chip

Polarization: Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.0000	46.00	-16.80	29.20	40.00	-10.80	QP
2	76.5600	38.68	-20.23	18.45	40.00	-21.55	QP
3	199.7500	35.13	-15.89	19.24	43.50	-24.26	QP
4	600.3600	34.05	-8.06	25.99	46.00	-20.01	QP
5	800.1800	30.56	-4.87	25.69	46.00	-20.31	QP
6	953.4400	30.75	-3.01	27.74	46.00	-18.26	QP

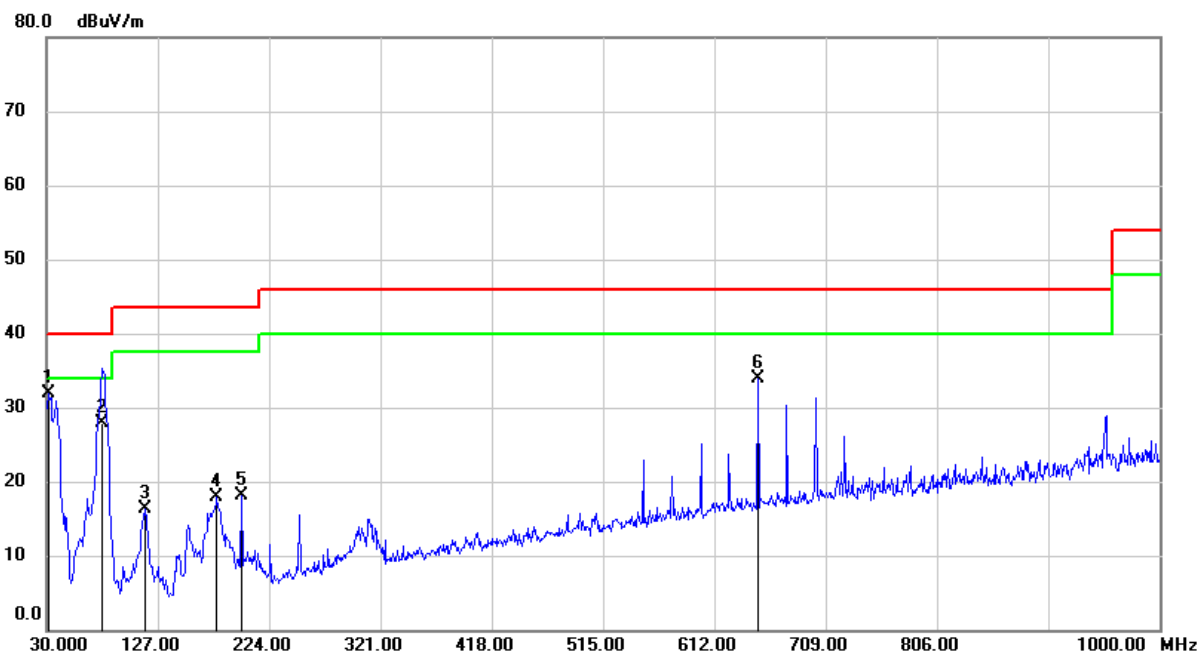
Remark:

Result = Reading + Correct (Amplifier Factor + Cable Loss + Antenna Factor)

Margin = Result - Limit



Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	AZ9481 Relay without power analyzer chip

Polarization: Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	31.9400	49.00	-17.09	31.91	40.00	-8.09	QP
2	78.5000	48.24	-20.27	27.97	40.00	-12.03	QP
3	115.3600	37.20	-20.93	16.27	43.50	-27.23	QP
4	178.4100	34.44	-16.62	17.82	43.50	-25.68	QP
5	199.7500	33.91	-15.89	18.02	43.50	-25.48	QP
6	649.8300	41.07	-7.25	33.82	46.00	-12.18	QP

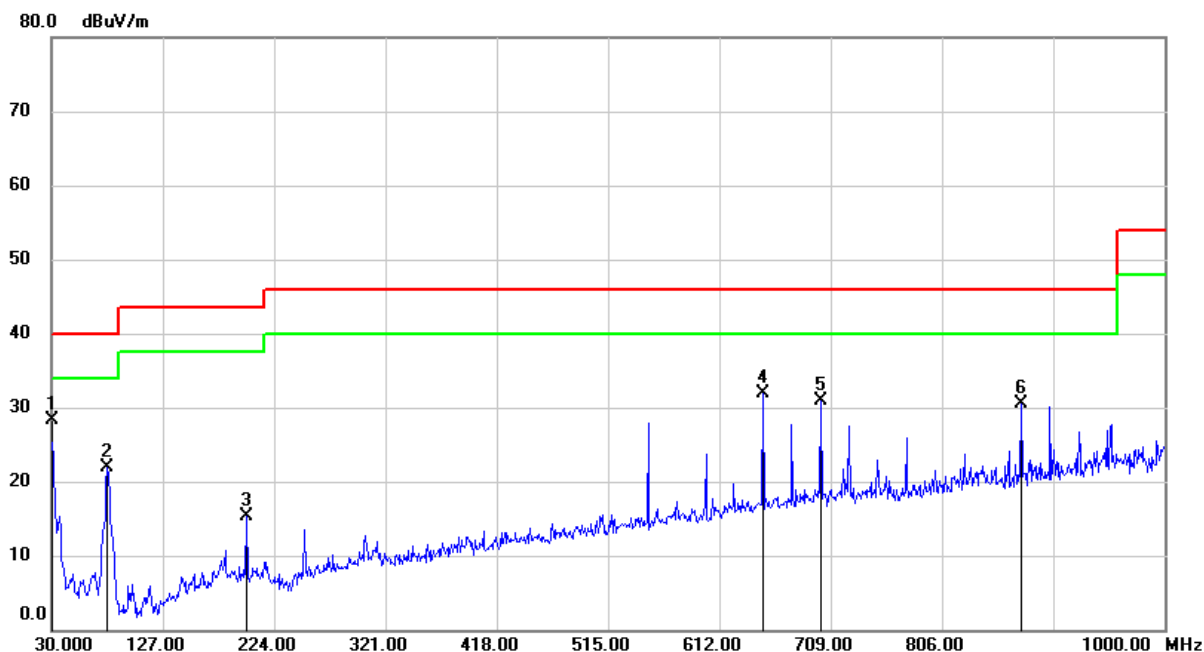
Remark:

Result = Reading + Correct (Amplifier Factor + Cable Loss + Antenna Factor)

Margin = Result - Limit



Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	AZ9481 Relay without power analyzer chip

Polarization: Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.0000	45.07	-16.80	28.27	40.00	-11.73	QP
2	78.5000	42.14	-20.27	21.87	40.00	-18.13	QP
3	199.7500	31.28	-15.89	15.39	43.50	-28.11	QP
4	649.8300	39.20	-7.25	31.95	46.00	-14.05	QP
5	700.2700	37.12	-6.16	30.96	46.00	-15.04	QP
6	874.8700	34.50	-3.98	30.52	46.00	-15.48	QP

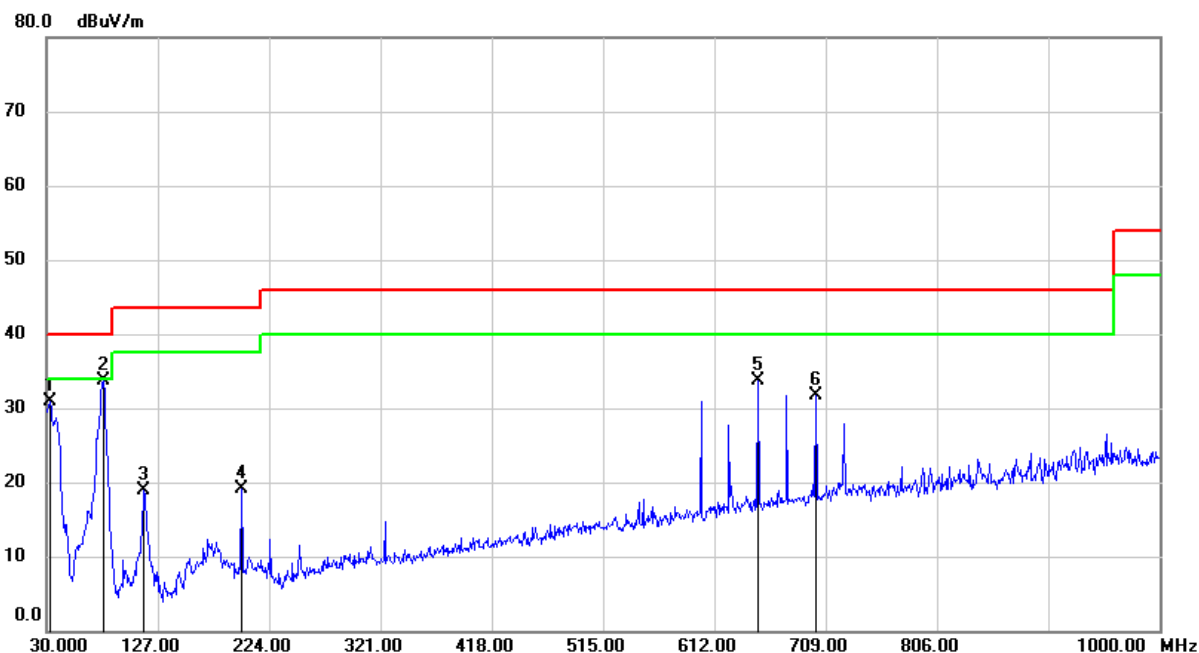
Remark:

Result = Reading + Correct (Amplifier Factor + Cable Loss + Antenna Factor)

Margin = Result - Limit



Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	HF7520 Relay with power analyzer chip

Polarization: Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	32.9100	48.00	-17.19	30.81	40.00	-9.19	QP
2	79.4700	53.96	-20.28	33.68	40.00	-6.32	QP
3	114.3900	39.98	-21.01	18.97	43.50	-24.53	QP
4	199.7500	34.93	-15.89	19.04	43.50	-24.46	QP
5	649.8300	40.88	-7.25	33.63	46.00	-12.37	QP
6	700.2700	37.95	-6.16	31.79	46.00	-14.21	QP

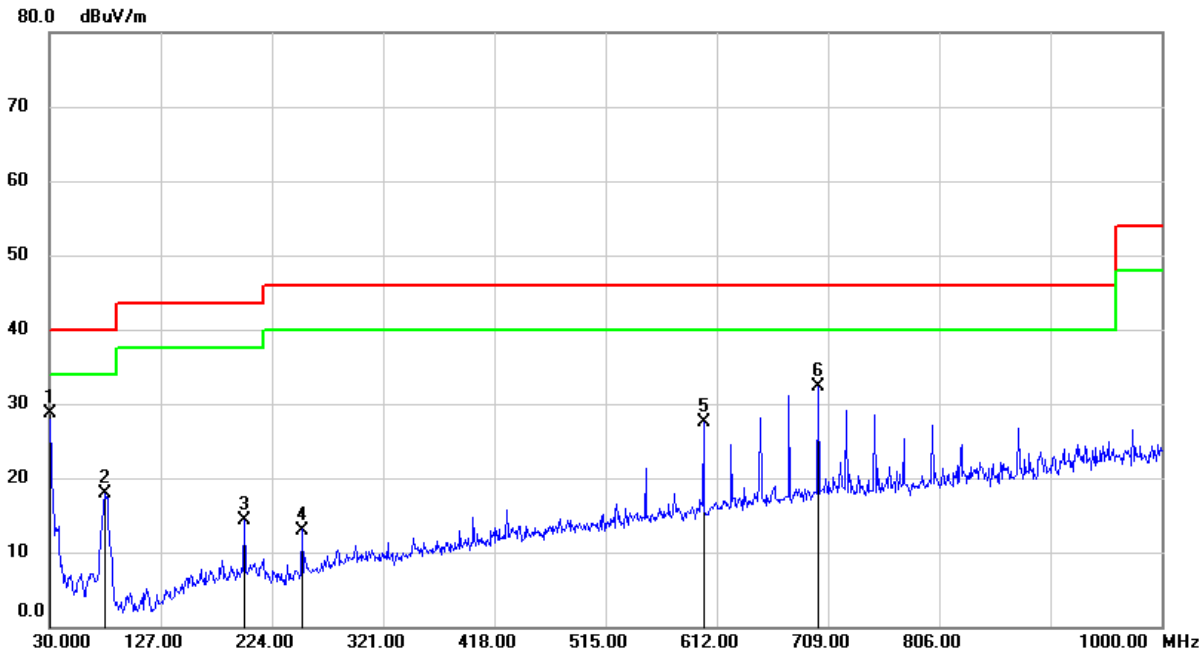
Remark:

Result = Reading + Correct (Amplifier Factor + Cable Loss + Antenna Factor)

Margin = Result - Limit



Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	HF7520 Relay with power analyzer chip

Polarization: Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.0000	45.59	-16.80	28.79	40.00	-11.21	QP
2	78.5000	38.08	-20.27	17.81	40.00	-22.19	QP
3	199.7500	30.12	-15.89	14.23	43.50	-29.27	QP
4	250.1900	28.76	-15.76	13.00	46.00	-33.00	QP
5	600.3600	35.58	-8.06	27.52	46.00	-18.48	QP
6	700.2700	38.49	-6.16	32.33	46.00	-13.67	QP

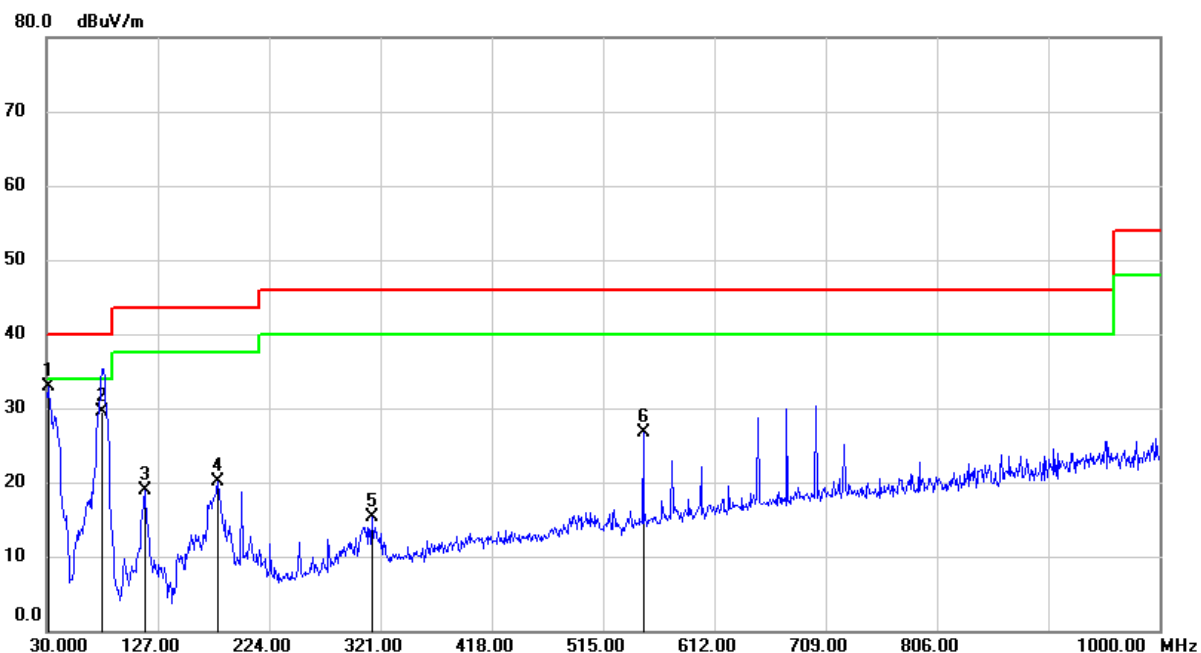
Remark:

Result = Reading + Correct (Amplifier Factor + Cable Loss + Antenna Factor)

Margin = Result - Limit



Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	HF7520 Relay without power analyzer chip

Polarization: Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	31.9400	50.01	-17.09	32.92	40.00	-7.08	QP
2	78.5000	49.75	-20.27	29.48	40.00	-10.52	QP
3	115.3600	39.75	-20.93	18.82	43.50	-24.68	QP
4	179.3800	36.71	-16.55	20.16	43.50	-23.34	QP
5	313.2400	28.71	-13.38	15.33	46.00	-30.67	QP
6	549.9200	35.71	-9.09	26.62	46.00	-19.38	QP

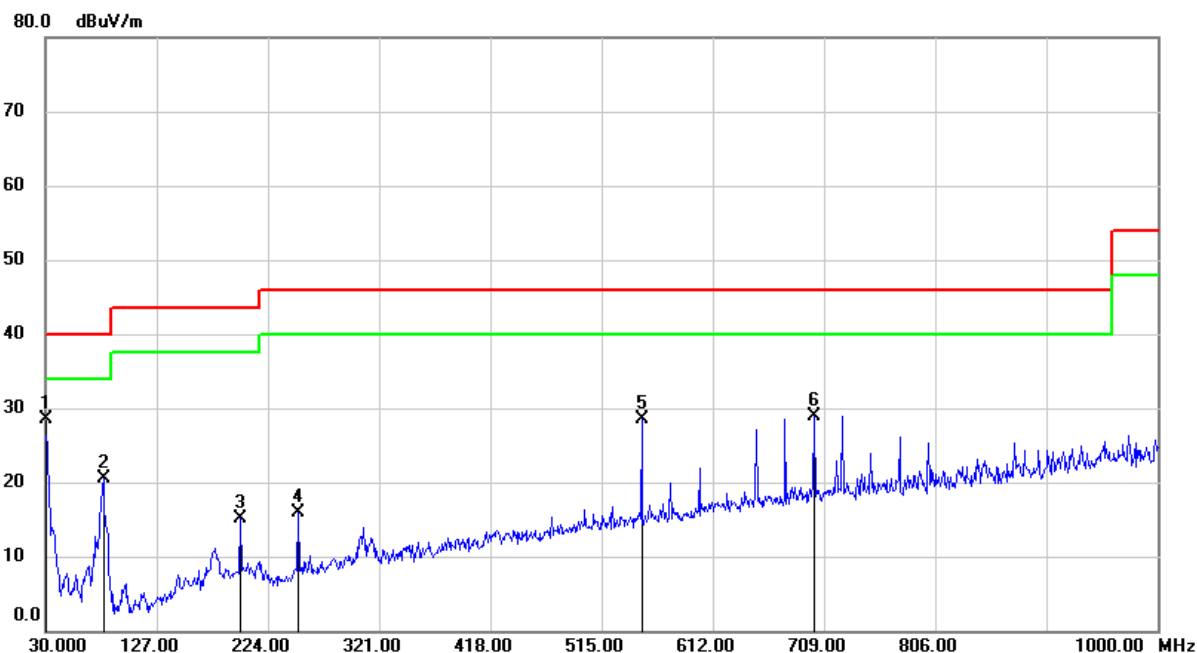
Remark:

Result = Reading + Correct (Amplifier Factor + Cable Loss + Antenna Factor)

Margin = Result - Limit



Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz
Test sample:	HF7520 Relay without power analyzer chip

Polarization: Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.0000	45.38	-16.80	28.58	40.00	-11.42	QP
2	80.4400	40.75	-20.32	20.43	40.00	-19.57	QP
3	199.7500	30.97	-15.89	15.08	43.50	-28.42	QP
4	250.1900	31.62	-15.76	15.86	46.00	-30.14	QP
5	549.9200	37.61	-9.09	28.52	46.00	-17.48	QP
6	700.2700	35.02	-6.16	28.86	46.00	-17.14	QP

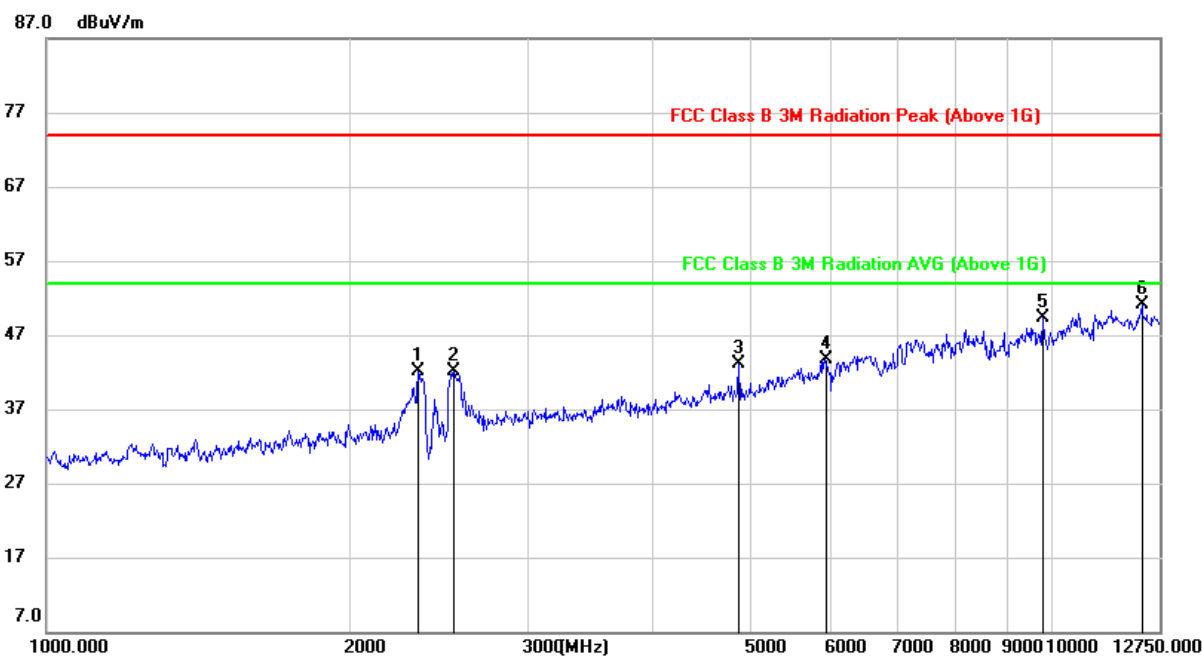
Remark:

Result = Reading + Correct (Amplifier Factor + Cable Loss + Antenna Factor)

Margin = Result - Limit

**7.2.7. Test Results – above 1GHz**

Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz

Polarization: Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2340.132	51.47	-9.32	42.15	74.00	-31.85	peak
2	2538.731	50.48	-8.33	42.15	74.00	-31.85	peak
3	4871.103	43.87	-0.85	43.02	74.00	-30.98	peak
4	5940.967	39.51	4.22	43.73	74.00	-30.27	peak
5	9759.591	39.06	10.32	49.38	74.00	-24.62	peak
6	12241.144	36.56	14.63	51.19	74.00	-22.81	peak

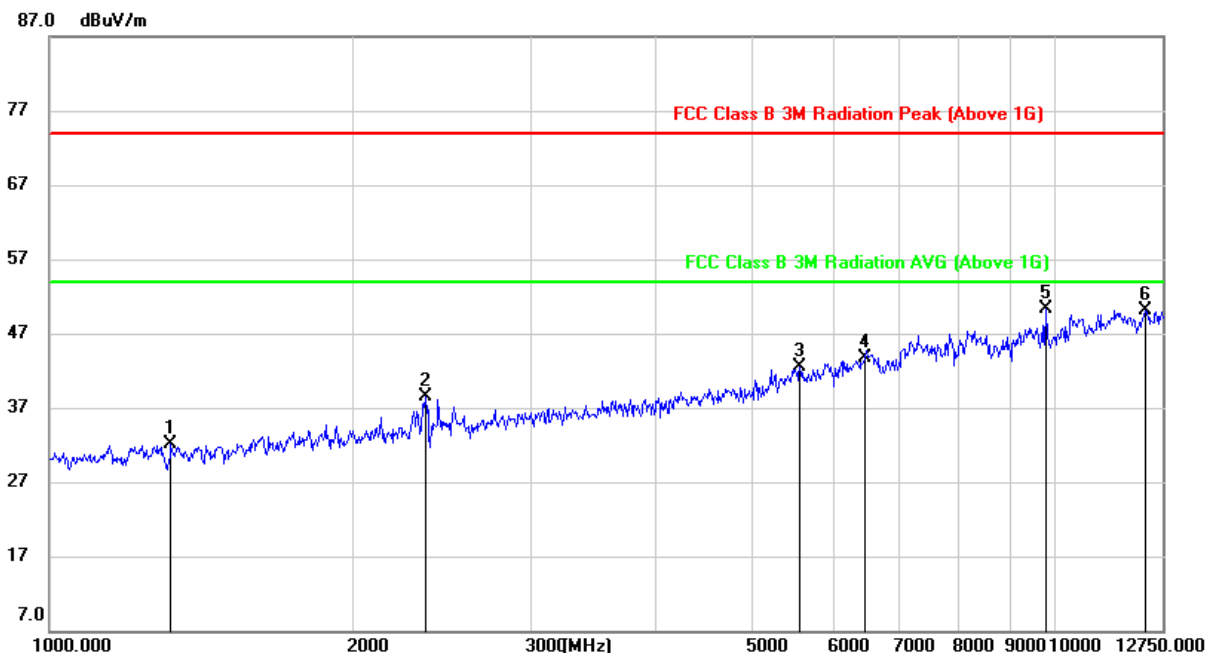
Remark:

Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)

Margin = Result - Limit



Test Mode:	Mode 1
Test Voltage:	AC 120V/60Hz

Polarization: Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1323.141	45.34	-13.17	32.17	74.00	-41.83	peak
2	2370.107	47.60	-9.18	38.42	74.00	-35.58	peak
3	5560.500	40.41	2.19	42.60	74.00	-31.40	peak
4	6445.156	38.58	5.14	43.72	74.00	-30.28	peak
5	9759.591	39.91	10.32	50.23	74.00	-23.77	peak
6	12241.144	35.54	14.63	50.17	74.00	-23.83	peak

Remark:

Result = Reading + Correct (Amplifier Factor + Cable Loss + Antenna Factor)

Margin = Result - Limit

Note: All constructions have been tested, only the worst data of test construction 1 record in the report.

END OF REPORT