

FCC Radio Test Report

FCC ID: KA2AP1530A1

This report concerns (check one): Original Grant Class I Change Class II Change

Project No. : 1708C079C
Equipment : DAP-1530: AC750 Plus WiFi Range Extender
DAP-1610: AC1200 WiFi Range Extender
Test Model : DAP-1530
Series Model : DAP-1610
Applicant : D-LINK Corporation
Address : 17595 Mt. Herrmann, Fountain Valley, California,
United States 92708

Date of Receipt : Feb. 24, 2019
Date of Test : Feb. 25, 2019 ~ May 21, 2020
Issued Date : May 29, 2020
Tested by : BTL Inc.

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Certificate #5123.02

Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

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BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	<p>Original Issue. This is a supplementary report which referencing test data are provided from test report (BTL-FCCP-4-1708C079).</p> <ol style="list-style-type: none"> 1. Updated the factory information. 2. A power board was added, and the model name is MT-SPS1206O-A. The radiated emissions below 1GHz and conducted emission have been re-evaluated and recorded in the test report, the rest are kept the same. 	Jul. 25, 2019
R01	Added the 240V of the AC power line conducted emissions data	May 27, 2020
R02	In this report only record the radiated emissions below 1GHz and conducted emission test data, the original test data please refer to the previous report.	May 29, 2020

1. GENERAL SUMMARY

Equipment : DAP-1530: AC750 Plus WiFi Range Extender
DAP-1610: AC1200 WiFi Range Extender

Brand Name : D-Link

Test Model : DAP-1530

Series Model : DAP-1610

Applicant : D-LINK Corporation

Manufacturer: D-LINK Corporation

Address : 17595 Mt. Herrmann, Fountain Valley, California, United States 92708

Factory : Huizhou MTN WEIYE Technology Development Co., Ltd.

Address : No.2 Huitai Road, Huinan High-tech Industrial Park, Huiao Avenue, Huizhou City, Guangdong Province, China.

Date of Test : Aug. 04, 2017 ~ Sep. 13, 2017
Feb. 25, 2019 ~ Mar. 13, 2019

Test Sample : Engineering Sample No.: D171209890, D190201653, D190201654

Standard(s) : FCC Part15, Subpart E(15.407)
ANSI C63.10-2013

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-4-1708C079C) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of A2LA according to the ISO/IEC 17025 quality assessment standard and technical standard(s).

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart E(15.407)				
Standard(s) Section	Test Item	Test Result	Judgement	Remark
15.207 15.407(b)	AC Power Line Conducted Emissions	APPENDIX A	PASS	-----
15.205(a) 15.407(b)	Radiated Emissions	APPENDIX B APPENDIX C	PASS	-----

Note:

(1) "N/A" denotes test is not applicable in this test report.

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

BTL's Test Firm Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

2.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

The BTL measurement uncertainty as below table:

A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150 KHz ~ 30MHz	1.94

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
DG-CB03	CISPR	9kHz~30MHz	V	3.79
		9kHz~30MHz	H	3.57
		30MHz ~ 200MHz	V	3.82
		30MHz ~ 200MHz	H	3.60
		200MHz ~ 1,000MHz	V	3.86
		200MHz ~ 1,000MHz	H	3.94

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	DAP-1530: AC750 Plus WiFi Range Extender DAP-1610: AC1200 WiFi Range Extender	
Brand Name	D-Link	
Test Model	DAP-1530	
Series Model	DAP-1610	
Model Difference	Only different as below:	
	Model Name	Product name
	DAP-1530	AC750 Plus WiFi Range Extender
	DAP-1610	AC1200 WiFi Range Extender
Product Description	Operation Frequency	UNII-1: 5150-5250MHz UNII-3: 5725-5850MHz
	Modulation Type	OFDM
	Bit Rate of Transmitter	866Mbps
	Output Power (Max.)for UNII-1	802.11a: 17.92dBm 802.11n (20M): 15.51dBm 802.11n (40M): 15.24dBm 802.11ac (20M): 13.57dBm 802.11ac (40M): 15.64dBm 802.11ac (80M): 15.72dBm
	Output Power (Max.)for UNII-3	802.11a: 17.88dBm 802.11n (20M): 15.61dBm 802.11n (40M): 15.26dBm 802.11ac (20M): 13.65dBm 802.11ac (40M): 15.61dBm 802.11ac (80M): 15.71dBm
Power Source	AC Mains	
Power Rating	I/P: AC 100-240V 0.3A Max	O/P: DC 12V 0.6A

Note:

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

2. Channel List:

IEEE 802.11a IEEE 802.11n (HT20) IEEE 802.11ac (VHT20)		IEEE 802.11n (HT40) IEEE 802.11ac (VHT40)		IEEE 802.11ac (VHT80)	
UNII-1		UNII-1		UNII-1	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230		
44	5220				
48	5240				

IEEE 802.11a IEEE 802.11n (HT20) IEEE 802.11ac (VHT20)		IEEE 802.11n (HT40) IEEE 802.11ac (VHT40)		IEEE 802.11ac (VHT80)	
UNII-3		UNII-3		UNII-3	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795		
157	5785				
161	5805				
165	5825				

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	3
2	N/A	N/A	Dipole	N/A	3

Note:

The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and receivers (2T2R).

4. The worst case for 2TX as follow:

Operating Mode	2TX
802.11a	V (Ant. 1+ Ant. 2)
802.11n (20MHz)	V (Ant. 1+ Ant. 2)
802.11n (40MHz)	V (Ant. 1+ Ant. 2)
802.11ac (20MHz)	V (Ant. 1+ Ant. 2)
802.11ac (40MHz)	V (Ant. 1+ Ant. 2)
802.11ac (80MHz)	V (Ant. 1+ Ant. 2)

3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible 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	TX A Mode / CH36, CH40, CH48 (UNII-1)
Mode 2	TX N20 Mode / CH36, CH40, CH48 (UNII-1)
Mode 3	TX N40 Mode / CH38, CH46 (UNII-1)
Mode 4	TX AC20 Mode / CH36, CH40, CH48 (UNII-1)
Mode 5	TX AC40 Mode / CH38, CH46 (UNII-1)
Mode 6	TX AC80 Mode / CH42 (UNII-1)
Mode 7	TX A Mode / CH149,CH157,CH165 (UNII-3)
Mode 8	TX N20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 9	TX N40 Mode / CH151,CH159 (UNII-3)
Mode 10	TX AC20 Mode / CH149,CH157,CH165 (UNII-3)
Mode 11	TX AC40 Mode / CH151,CH159 (UNII-3)
Mode 12	TX AC80 Mode / CH155 (UNII-3)
Mode 13	TX Mode

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

For Conducted Test	
Final Test Mode	Description
Mode 13	TX Mode

For Radiated Test	
Final Test Mode	Description
Mode 1	TX A Mode / CH36, CH40, CH48 (UNII-1)
Mode 7	TX A Mode / CH149,CH157,CH165 (UNII-3)

Note:

(1) For radiated below 1GHz test, the 802.11a mode is found to be the worst case and recorded.

3.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

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

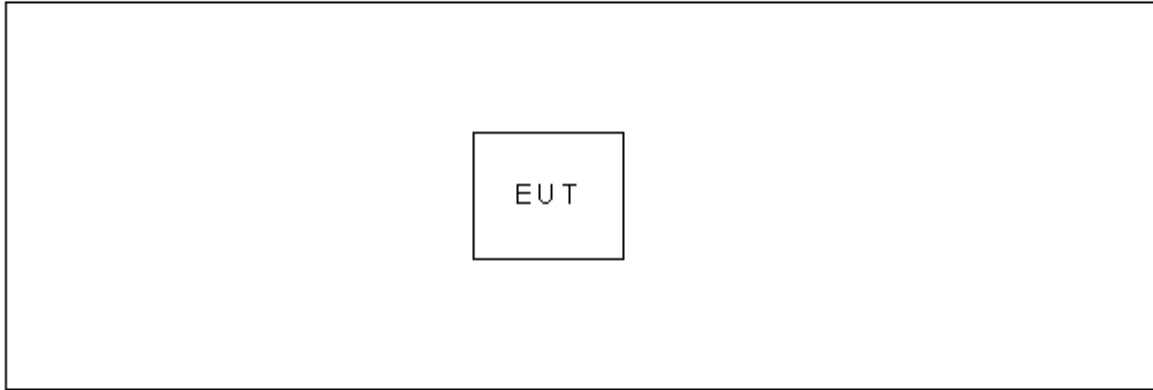
UNII-1			
Test Software Version	MT76xxE_AP		
Frequency (MHz)	5180	5200	5240
A Mode	10	12	0C
Frequency (MHz)	5180	5200	5240
N20 Mode	10	10	0F
Frequency (MHz)	5190	5230	
N40 Mode	0F	0E	

UNII-1			
Test Software Version	MT76xxE_AP		
Frequency (MHz)	5180	5200	5240
AC20 Mode	13	13	13
Frequency (MHz)	5190	5230	
AC40 Mode	14	13	
Frequency (MHz)	5210		
AC80 Mode	15		

UNII-3			
Test Software Version	MT76xxE_AP		
Frequency (MHz)	5745	5785	5825
A Mode	18	19	1A
Frequency (MHz)	5745	5785	5825
N20 Mode	16	17	18
Frequency (MHz)	5755	5795	
N40 Mode	14	15	

UNII-3			
Test Software Version	MT76xxE_AP		
Frequency (MHz)	5745	5785	5825
AC20 Mode	19	1A	1B
Frequency (MHz)	5755	5795	
AC40 Mode	1B	1C	
Frequency (MHz)	5775		
AC80 Mode	1D		

3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.5 DESCRIPTION OF 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.	Series No.
-	-	-	-	-

Item	Shielded Type	Ferrite Core	Length	Note
-	-	-	-	-

4. AC POWER LINE CONDUCTED EMISSIONS TEST

4.1 LIMIT

Frequency (MHz)	Limit (dB μ V)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 - 46*
0.50 - 5.0	56	46
5.0 - 30.0	60	50

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.
- (3) The test result calculated as following:
 Measurement Value = Reading Level + Correct Factor
 Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor (if use)
 Margin Level = Measurement Value – Limit Value

The following table is the setting of the receiver

Receiver Parameter	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 KHz

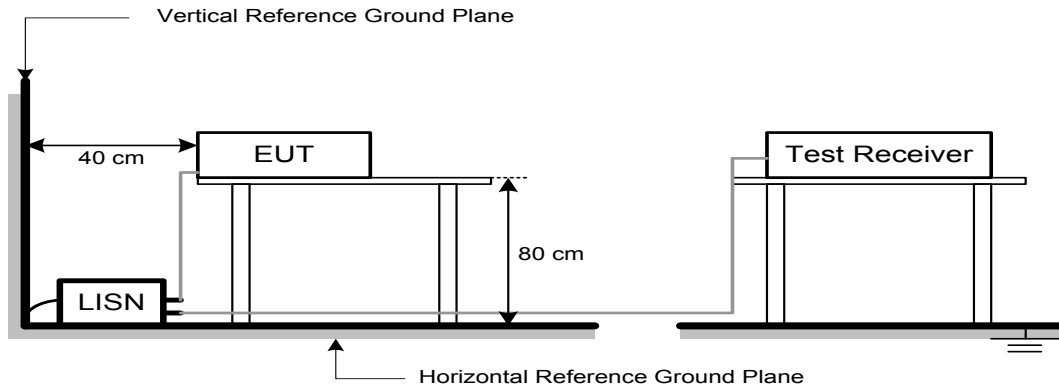
4.2 TEST PROCEDURE

- 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 equipment 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 -EUT Test Photos.

4.3 DEVIATION FROM TEST STANDARD

No deviation

4.4 TEST SETUP



4.5 EUT OPERATION 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.

The EUT was programmed to be in continuously transmitting/TX mode.

4.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 53% Test Voltage: AC 120V/60Hz

4.7 TEST RESULTS

Please refer to the APPENDIX A.

5. RADIATED EMISSIONS TEST

5.1 LIMIT

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSIONS MEASUREMENT (9 kHz to 1000 MHz)

Frequency (MHz)	Field Strength (microvolts/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

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Frequency (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength at 3m (dBμV/m)
5150-5250	-27	68.3
5250-5350	-27	68.3
5470-5725	-27	68.3
5725-5850	-27 NOTE (2)	68.3
	10 NOTE (2)	105.3
	15.6 NOTE (2)	110.9
	27 NOTE (2)	122.3

NOTE:

- The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength: $E = \frac{1000000\sqrt{30P}}{3}$ μV/m, where P is the eirp (Watts)
- According to FCC 16-24, all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

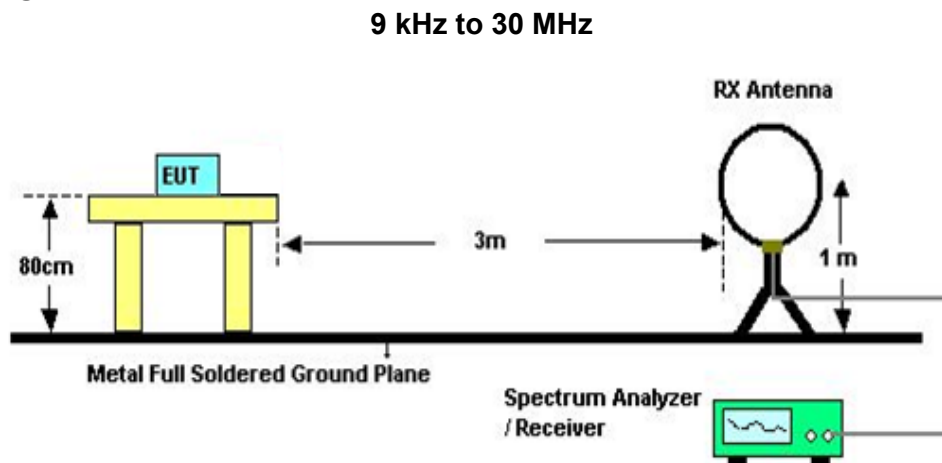
5.2 TEST PROCEDURE

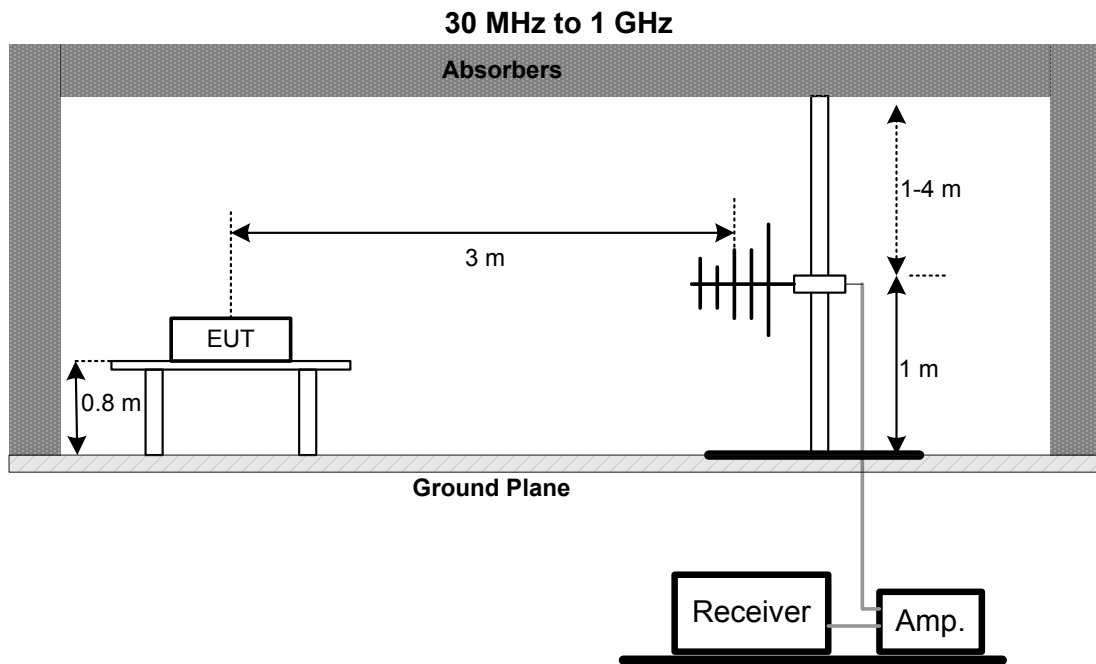
- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; 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.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1 GHz)
- h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1 GHz)
- i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

5.3 DEVIATION FROM TEST STANDARD

No deviation

5.4 TEST SETUP





5.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 unless otherwise a special operating condition is specified in the follows during the testing.

5.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 61% Test Voltage: AC 120V/60Hz

5.7 TEST RESULTS - 9 KHZ to 30 MHZ

Please refer to the APPENDIX B

Remark:

- (1) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
- (2) Distance extrapolation factor = $40 \log(\text{specific distance} / \text{test distance})$ (dB).
- (3) Limit line = specific limits (dBuV) + distance extrapolation factor.

5.8 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

Remark:

- (1) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

6. MEASUREMENT INSTRUMENTS LIST

AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Feb. 28, 2021
2	LISN	EMCO	3816/2	52765	Mar. 01, 2021
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	Feb. 28, 2021
4	50Ω Terminator	SHX	TF5-3	15041305	Mar. 01, 2021
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Mar. 10, 2021

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Loop Antenna	EM	EM-6876-1	230	Apr. 16, 2021
2	Cable	N/A	RG 213/U(9kHz~1GHz)	N/A	May 31, 2020
3	EMI Test Receiver	R&S	ESCI	100895	Feb. 28, 2021
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - 30 MHz to 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 09, 2021
2	Amplifier	HP	8447D	2944A08742	Mar. 01, 2021
3	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020
4	Cable	emci	LMR-400(30MHz-1GHz)(8m+5m)	N/A	May 25, 2020
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Remark: "N/A" denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

7. EUT TEST PHOTOS

Conducted Measurement Photos



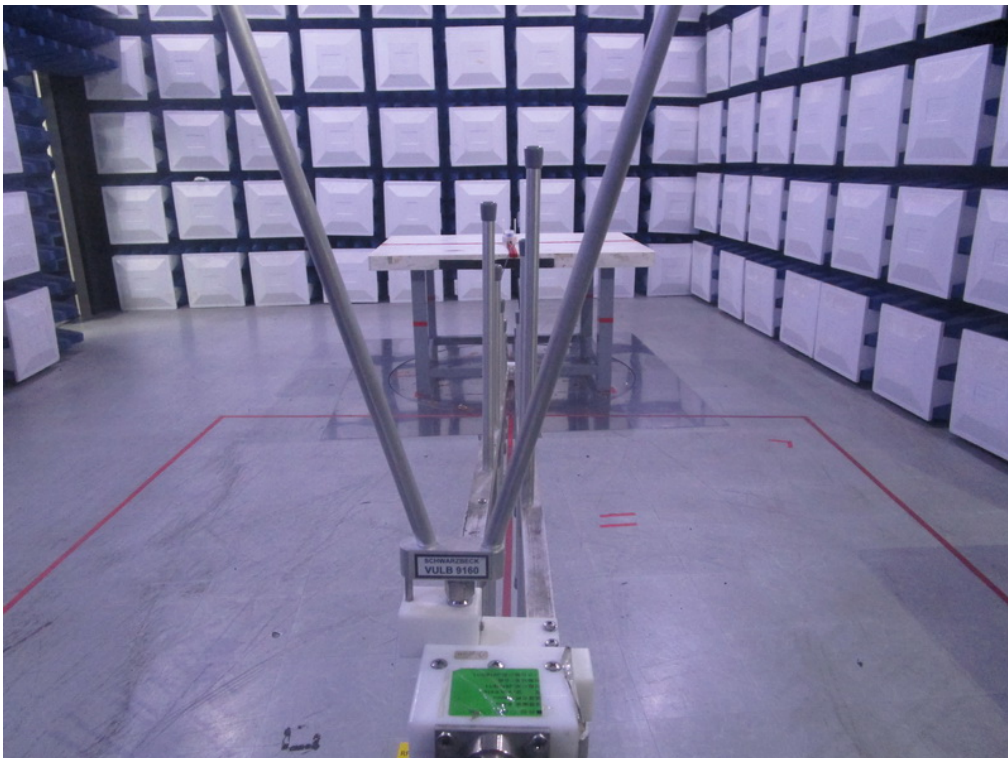
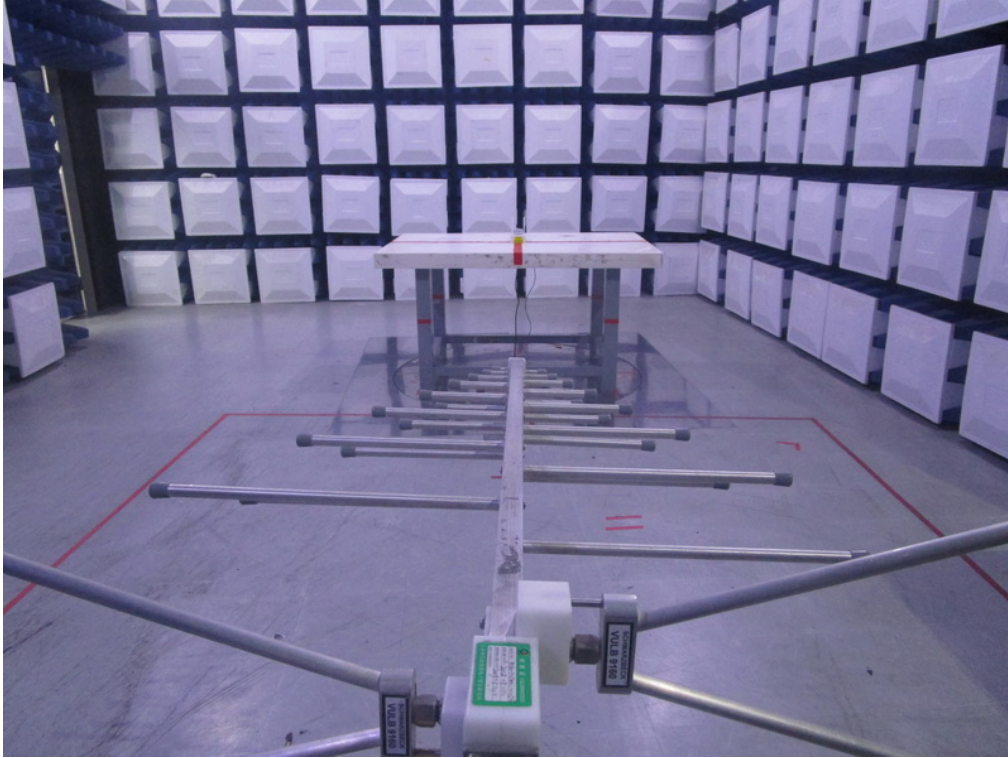
Radiated Measurement Photos

9kHz to 30MHz



Radiated Measurement Photos

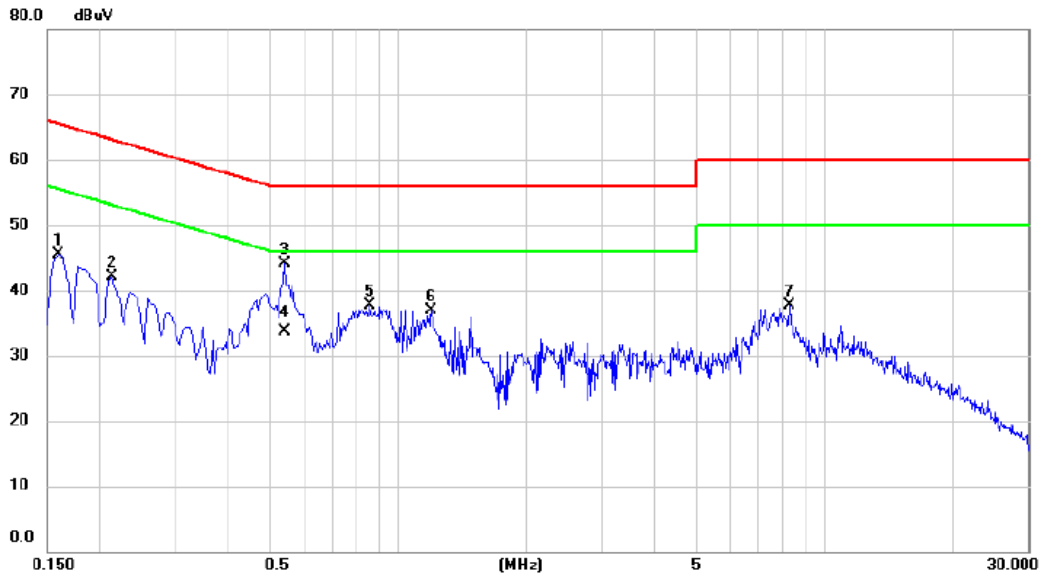
30MHz to 1000MHz



APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode:	TX Mode_power borad: MT-SPS1206O-A
Test Voltage:	AC 120V/60Hz

Line



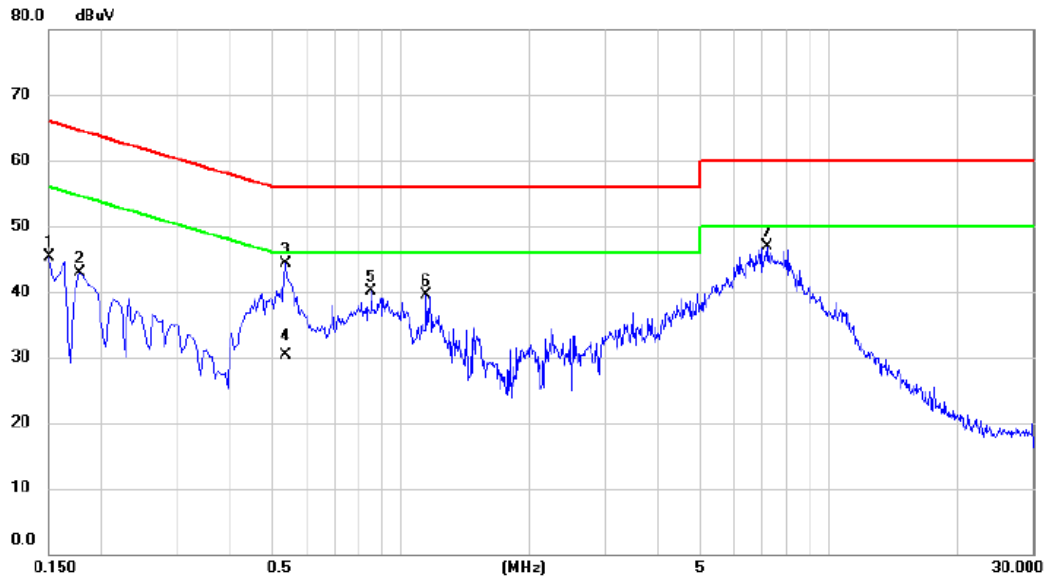
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1590	35.76	9.82	45.58	65.52	-19.94	peak	
2		0.2130	32.38	9.82	42.20	63.09	-20.89	peak	
3	*	0.5415	34.31	9.81	44.12	56.00	-11.88	peak	
4		0.5415	23.80	9.81	33.61	46.00	-12.39	AVG	
5		0.8565	27.73	9.91	37.64	56.00	-18.36	peak	
6		1.1940	27.00	9.93	36.93	56.00	-19.07	peak	
7		8.2680	27.23	10.40	37.63	60.00	-22.37	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode :	TX Mode_power borad: MT-SPS1206O-A
Test Voltage:	AC 120V/60Hz

Neutral



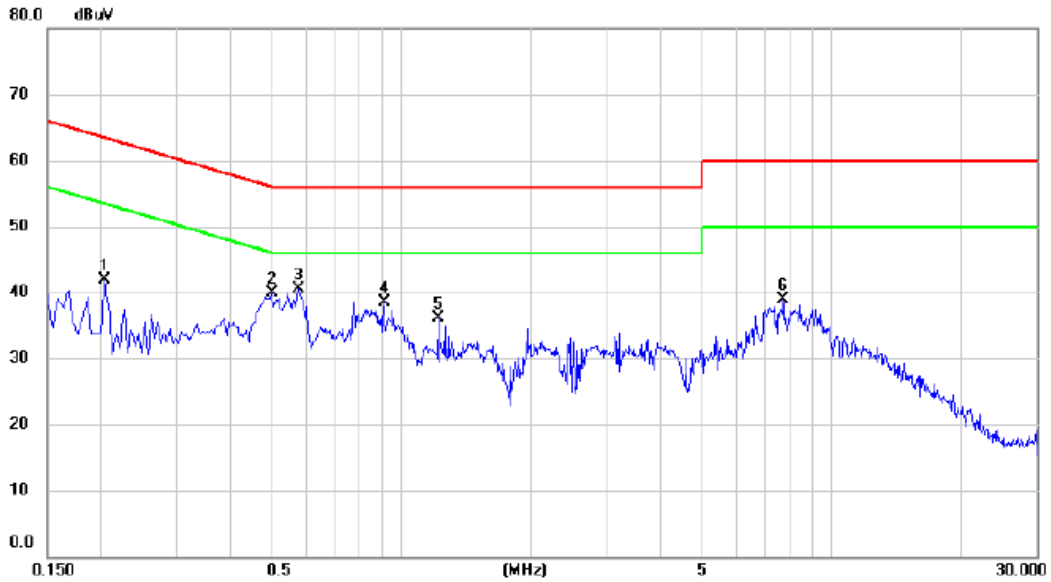
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1500	35.49	9.91	45.40	66.00	-20.60	peak	
2	0.1770	33.02	9.92	42.94	64.63	-21.69	peak	
3 *	0.5370	34.41	9.95	44.36	56.00	-11.64	peak	
4	0.5370	20.30	9.95	30.25	46.00	-15.75	AVG	
5	0.8520	30.07	10.09	40.16	56.00	-15.84	peak	
6	1.1445	29.40	10.13	39.53	56.00	-16.47	peak	
7	7.1790	36.36	10.59	46.95	60.00	-13.05	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode:	TX Mode_power borad: MT-SPS1206O-A
Test Voltage:	AC 240V/60Hz

Line



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.2040	31.91	9.91	41.82	63.45	-21.63	peak	
2		0.5010	29.91	9.95	39.86	56.00	-16.14	peak	
3	*	0.5775	30.56	9.96	40.52	56.00	-15.48	peak	
4		0.9105	28.56	10.00	38.56	56.00	-17.44	peak	
5		1.2164	25.98	10.03	36.01	56.00	-19.99	peak	
6		7.7055	28.46	10.53	38.99	60.00	-21.01	peak	

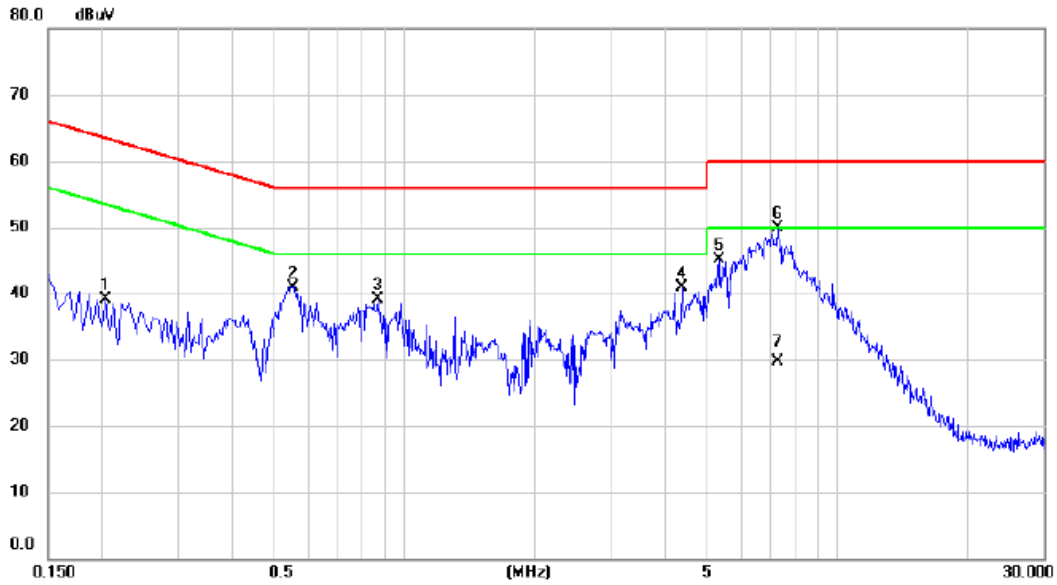
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode :	TX Mode_power borad: MT-SPS1206O-A
Test Voltage:	AC 240V/60Hz

Neutral



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.2040	29.05	10.01	39.06	63.45	-24.39	peak	
2	0.5505	30.77	10.17	40.94	56.00	-15.06	peak	
3	0.8655	28.77	10.26	39.03	56.00	-16.97	peak	
4	4.3755	30.20	10.63	40.83	56.00	-15.17	peak	
5	5.3295	34.49	10.69	45.18	60.00	-14.82	peak	
6 *	7.2600	39.10	10.84	49.94	60.00	-10.06	peak	
7	7.2600	18.90	10.84	29.74	50.00	-20.26	AVG	

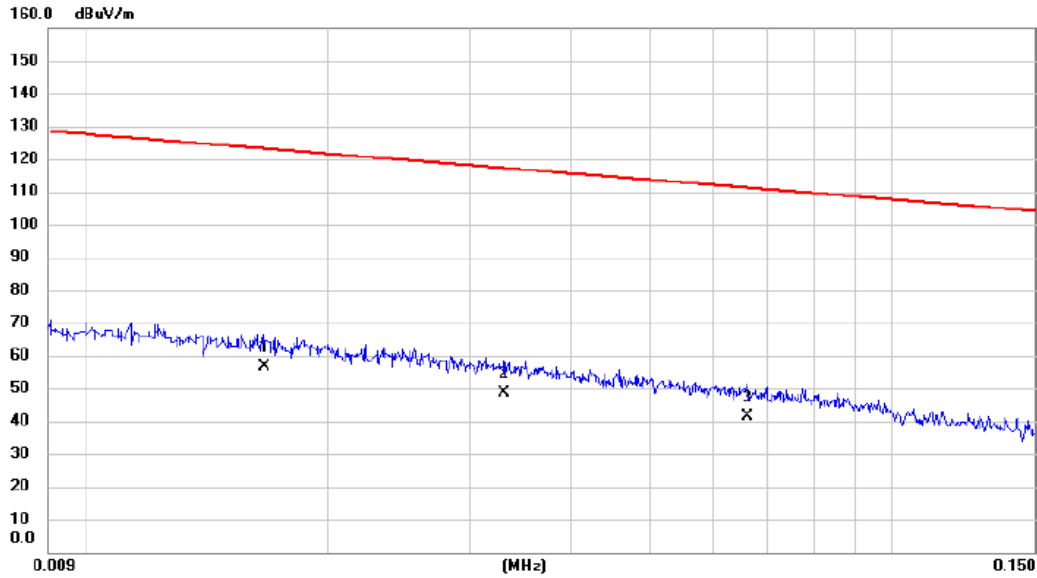
REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

Test Mode: TX B MODE CHANNEL 01_power borad: MT-SPS1206O-A

Ant 0°



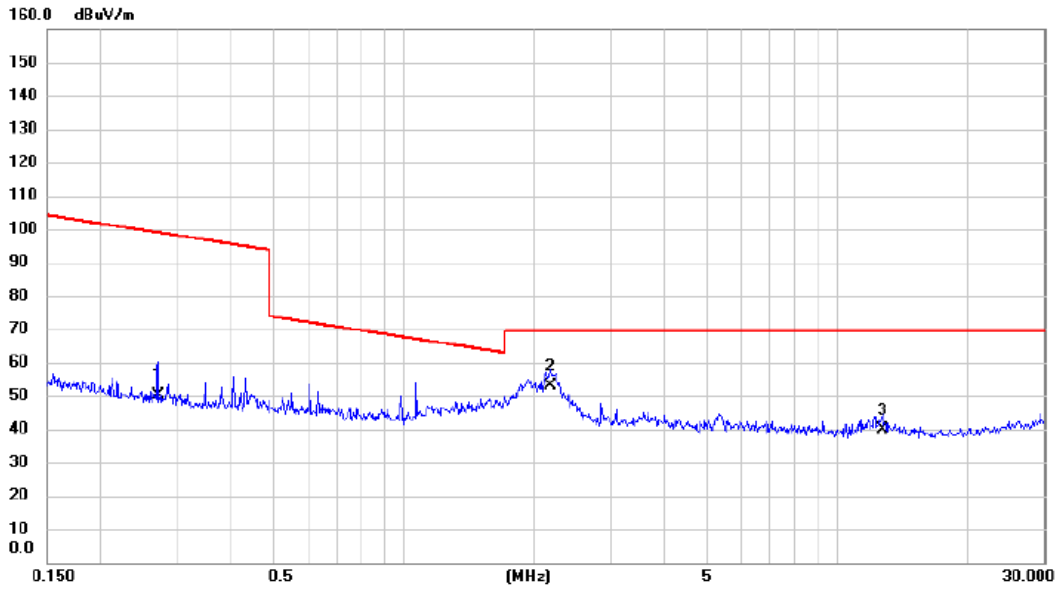
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	0.0167	36.30	20.48	56.78	123.15	-66.37	AVG	
2		0.0330	28.60	19.81	48.41	117.23	-68.82	AVG	
3		0.0660	22.20	19.21	41.41	111.21	-69.80	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX B MODE CHANNEL 01_power borad: MT-SPS1206O-A

Ant 0°



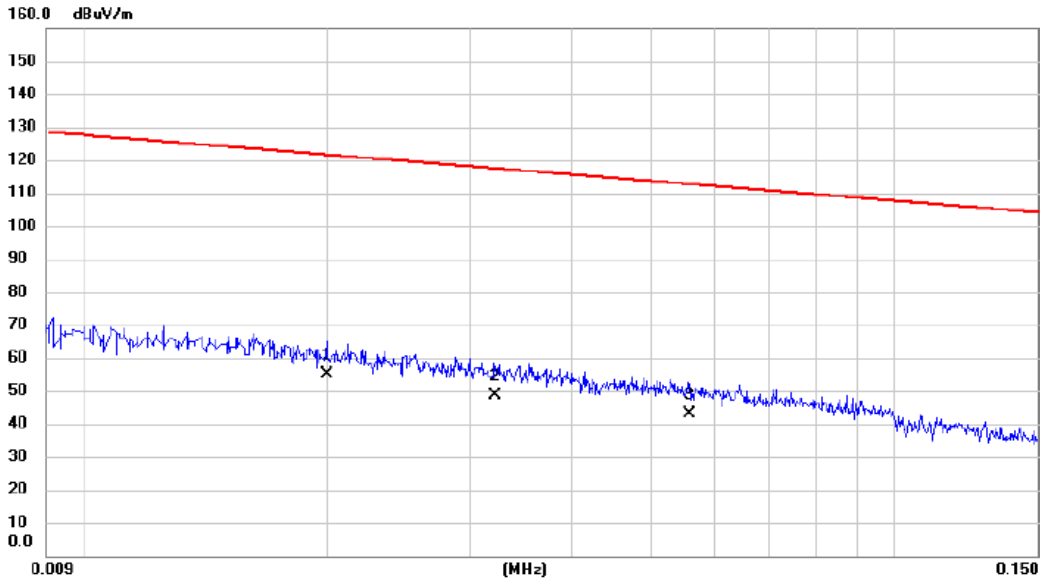
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	0.2701	33.20	17.05	50.25	98.97	-48.72	AVG	
2 *	2.1724	35.80	17.02	52.82	69.54	-16.72	QP	
3	12.6825	25.20	14.56	39.76	69.54	-29.78	QP	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX B MODE CHANNEL 01_power borad: MT-SPS1206O-A

Ant 90°



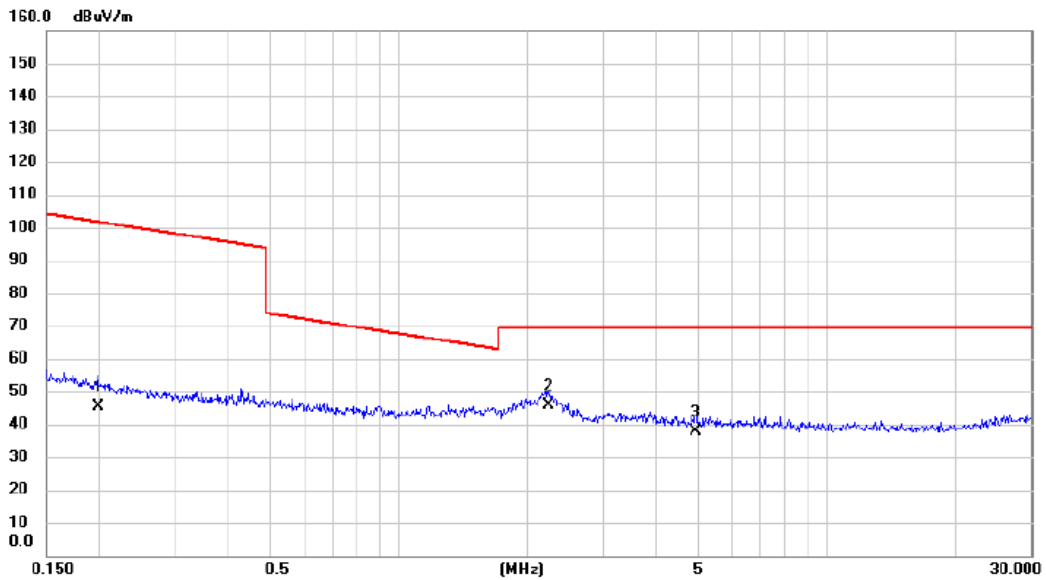
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	0.0200	34.80	20.02	54.82	121.58	-66.76	AVG	
2		0.0322	28.70	19.83	48.53	117.45	-68.92	AVG	
3		0.0558	23.50	19.41	42.91	112.67	-69.76	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX B MODE CHANNEL 01_power borad: MT-SPS1206O-A

Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.1976	28.10	17.16	45.26	101.69	-56.43	AVG	
2	*	2.2308	28.80	16.98	45.78	69.54	-23.76	QP	
3		4.9257	22.50	15.20	37.70	69.54	-31.84	QP	

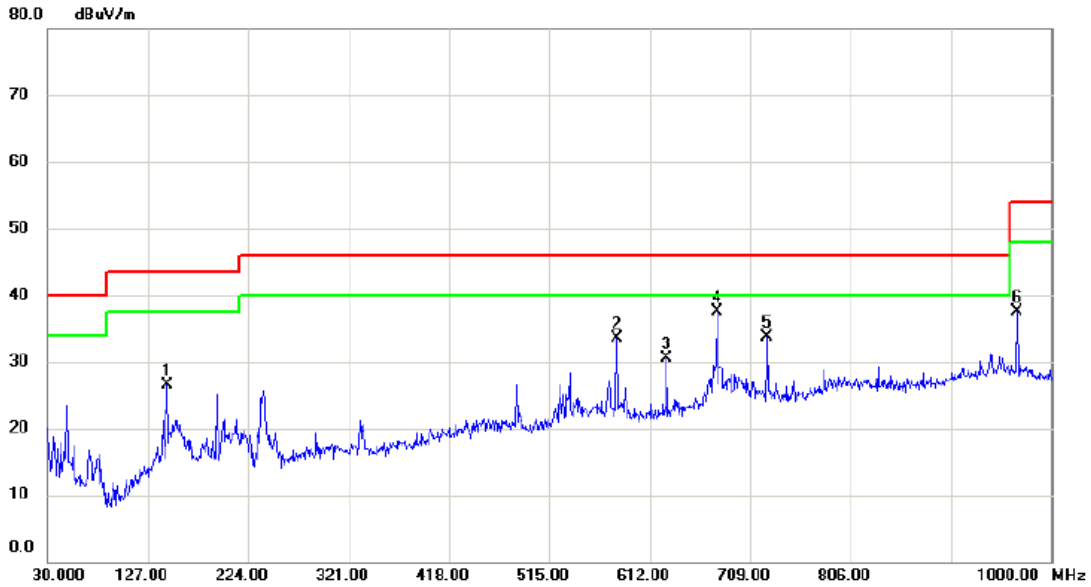
REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode: UNII-1/TX A Mode 5180MHz _power borad: MT-SPS1206O-A

Vertical



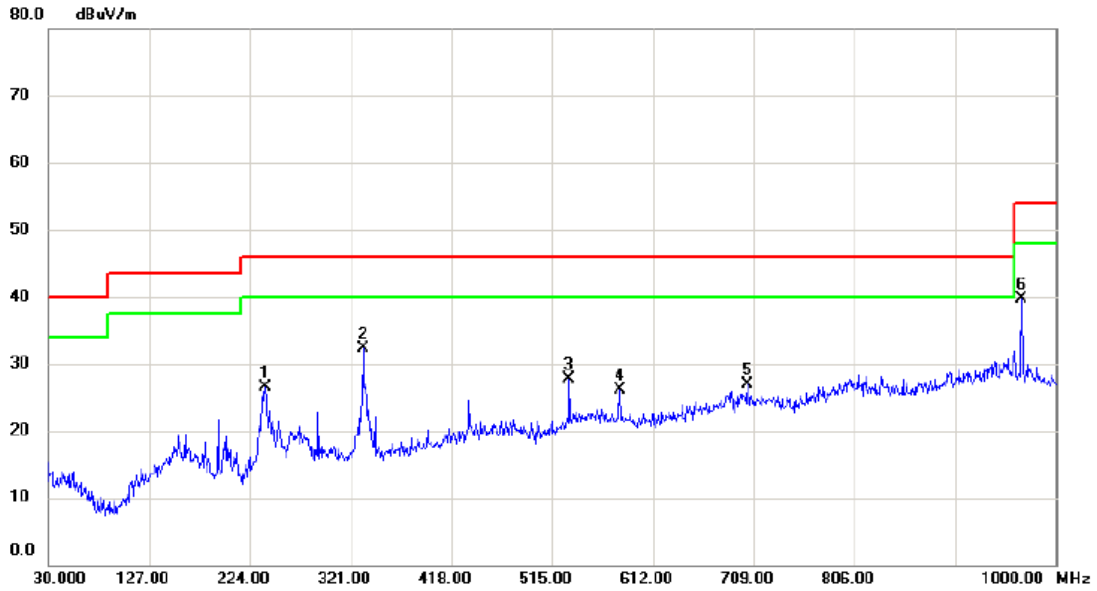
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	145.430	38.35	-11.77	26.58	43.50	-16.92	peak	
2	579.990	39.56	-5.96	33.60	46.00	-12.40	peak	
3	628.490	36.14	-5.66	30.48	46.00	-15.52	peak	
4 *	676.990	41.29	-3.86	37.43	46.00	-8.57	peak	
5	725.490	37.02	-3.41	33.61	46.00	-12.39	peak	
6	967.020	36.51	1.01	37.52	54.00	-16.48	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode: UNII-1/TX A Mode 5180MHz _power borad: MT-SPS1206O-A

Horizontal

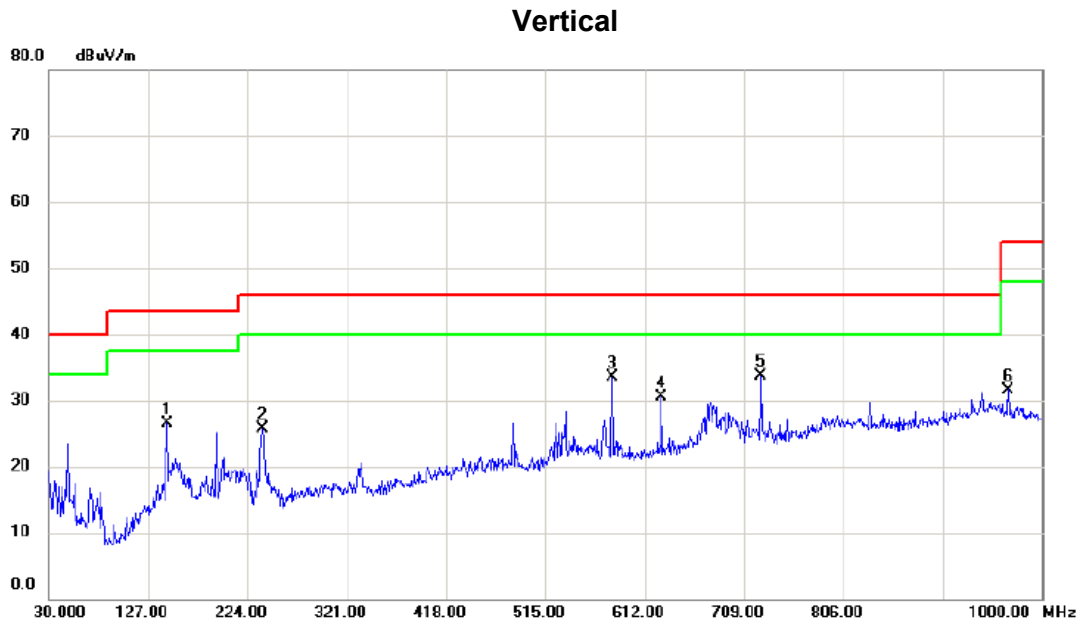


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		238.550	41.14	-14.71	26.43	46.00	-19.57	peak	
2	*	332.640	43.19	-10.83	32.36	46.00	-13.64	peak	
3		531.490	34.28	-6.60	27.68	46.00	-18.32	peak	
4		579.990	32.12	-5.96	26.16	46.00	-19.84	peak	
5		703.180	29.83	-2.83	27.00	46.00	-19.00	peak	
6		967.020	38.75	1.01	39.76	54.00	-14.24	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode: UNII-1/TX A Mode 5200MHz _power borad: MT-SPS1206O-A



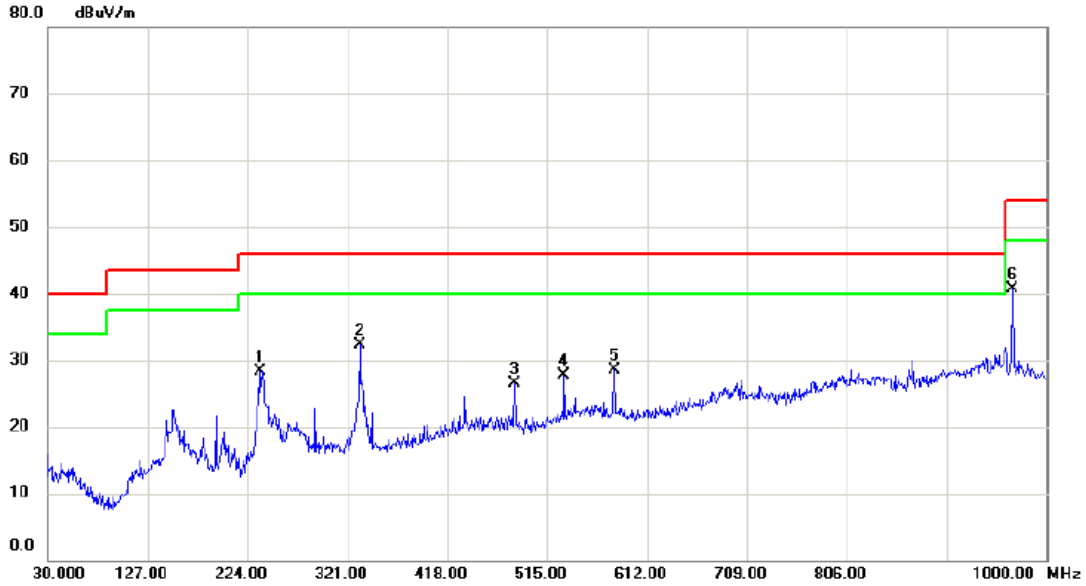
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		145.430	38.35	-11.77	26.58	43.50	-16.92	peak	
2		238.550	40.44	-14.71	25.73	46.00	-20.27	peak	
3		579.990	39.56	-5.96	33.60	46.00	-12.40	peak	
4		628.490	36.14	-5.66	30.48	46.00	-15.52	peak	
5	*	725.490	37.02	-3.41	33.61	46.00	-12.39	peak	
6		967.020	30.59	1.01	31.60	54.00	-22.40	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode: UNII-1/TX A Mode 5200MHz _power borad: MT-SPS1206O-A

Horizontal

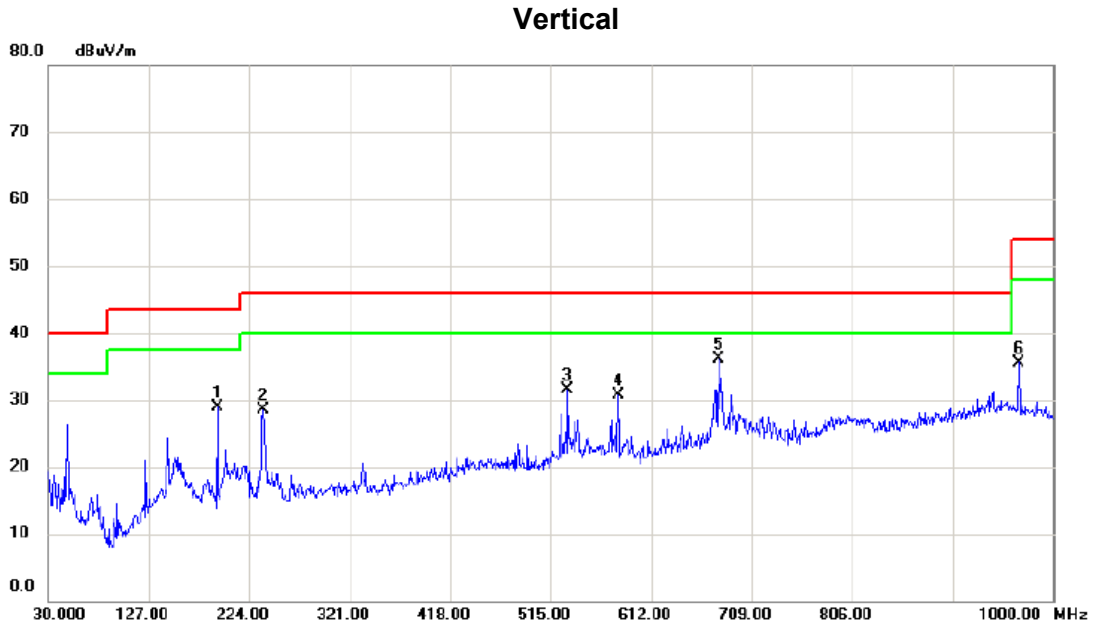


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		235.640	43.16	-14.80	28.36	46.00	-17.64	peak	
2		332.640	43.19	-10.83	32.36	46.00	-13.64	peak	
3		482.990	34.60	-8.15	26.45	46.00	-19.55	peak	
4		531.490	34.28	-6.60	27.68	46.00	-18.32	peak	
5		579.990	34.37	-5.96	28.41	46.00	-17.59	peak	
6	*	967.020	39.64	1.01	40.65	54.00	-13.35	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode: UNII-1/TX A Mode 5240MHz _power borad: MT-SPS1206O-A



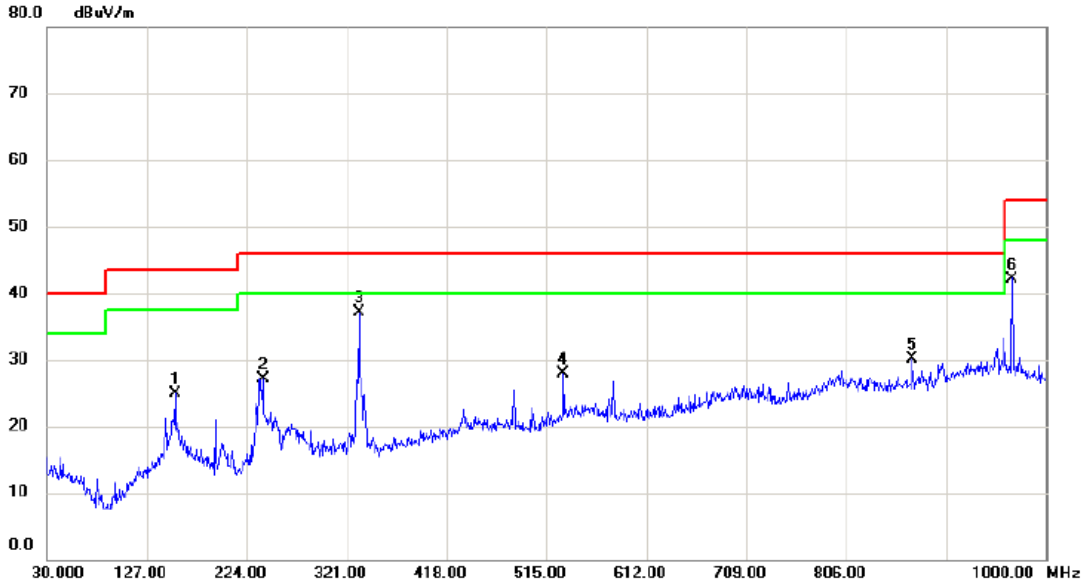
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		192.960	43.56	-14.58	28.98	43.50	-14.52	peak	
2		237.580	43.30	-14.75	28.55	46.00	-17.45	peak	
3		531.490	38.19	-6.60	31.59	46.00	-14.41	peak	
4		579.990	36.75	-5.96	30.79	46.00	-15.21	peak	
5	*	676.990	39.91	-3.86	36.05	46.00	-9.95	peak	
6		967.020	34.59	1.01	35.60	54.00	-18.40	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode: UNII-1/TX A Mode 5240MHz _power borad: MT-SPS1206O-A

Horizontal

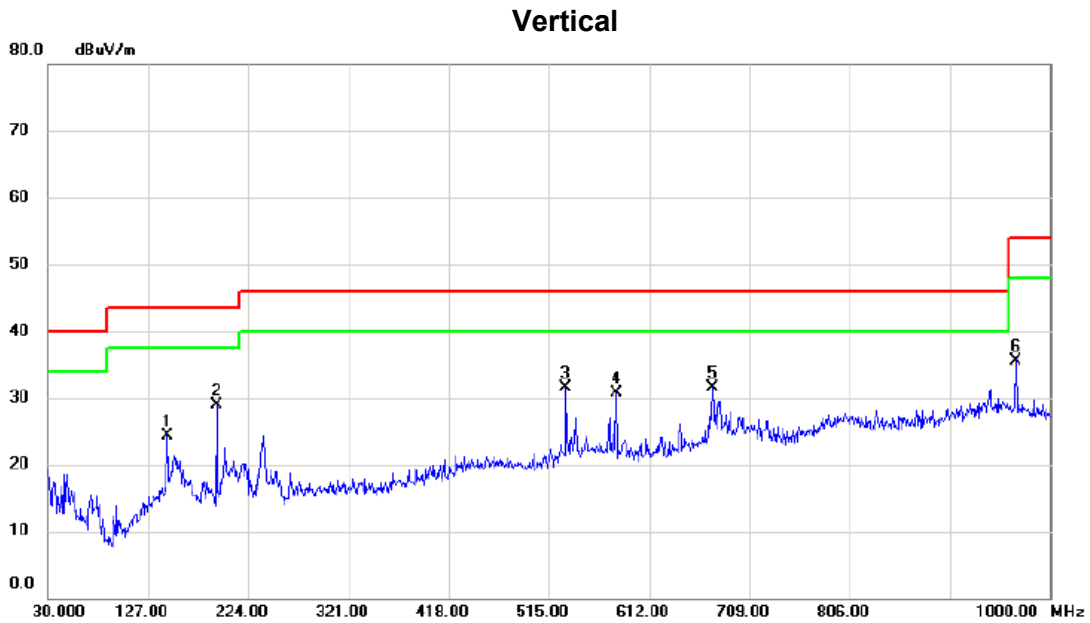


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		154.160	35.96	-11.13	24.83	43.50	-18.67	peak	
2		239.520	41.88	-14.69	27.19	46.00	-18.81	peak	
3	*	332.640	47.89	-10.83	37.06	46.00	-8.94	peak	
4		531.490	34.44	-6.60	27.84	46.00	-18.16	peak	
5		870.020	31.45	-1.33	30.12	46.00	-15.88	peak	
6		967.020	41.19	1.01	42.20	54.00	-11.80	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode: UNII-3/TX A Mode 5745MHz _power borad: MT-SPS1206O-A



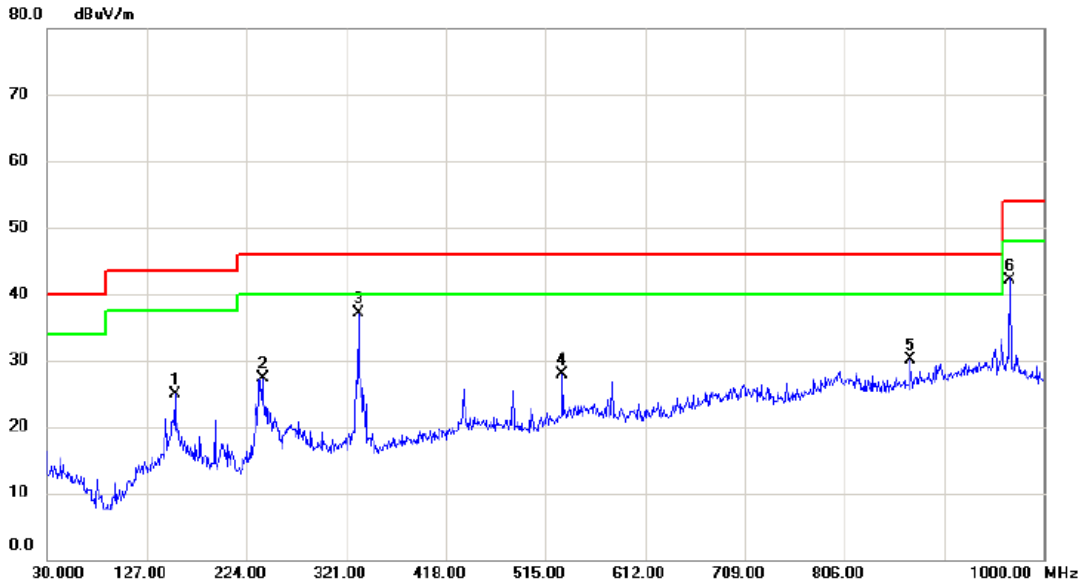
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		145.430	36.15	-11.77	24.38	43.50	-19.12	peak	
2		192.960	43.56	-14.58	28.98	43.50	-14.52	peak	
3	*	531.490	38.19	-6.60	31.59	46.00	-14.41	peak	
4		579.990	36.67	-5.96	30.71	46.00	-15.29	peak	
5		673.110	35.48	-4.04	31.44	46.00	-14.56	peak	
6		967.020	34.59	1.01	35.60	54.00	-18.40	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode: UNII-3/TX A Mode 5745MHz _power borad: MT-SPS1206O-A

Horizontal



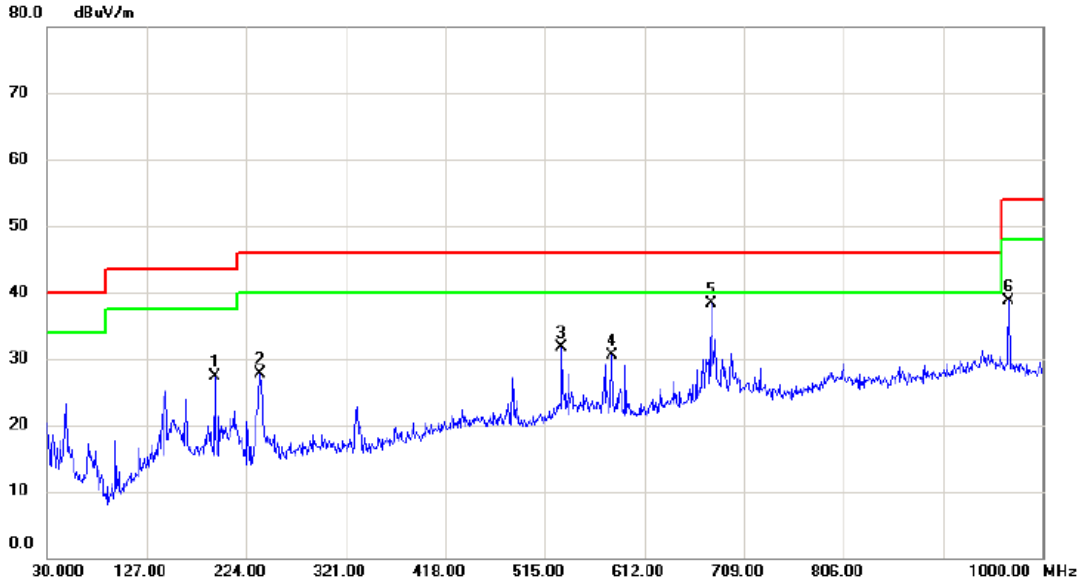
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		154.160	35.96	-11.13	24.83	43.50	-18.67	peak	
2		239.520	42.01	-14.69	27.32	46.00	-18.68	peak	
3	*	332.640	47.89	-10.83	37.06	46.00	-8.94	peak	
4		531.490	34.44	-6.60	27.84	46.00	-18.16	peak	
5		870.020	31.45	-1.33	30.12	46.00	-15.88	peak	
6		967.020	41.19	1.01	42.20	54.00	-11.80	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode: UNII-3/TX A Mode 5785MHz _power borad: MT-SPS1206O-A

Vertical



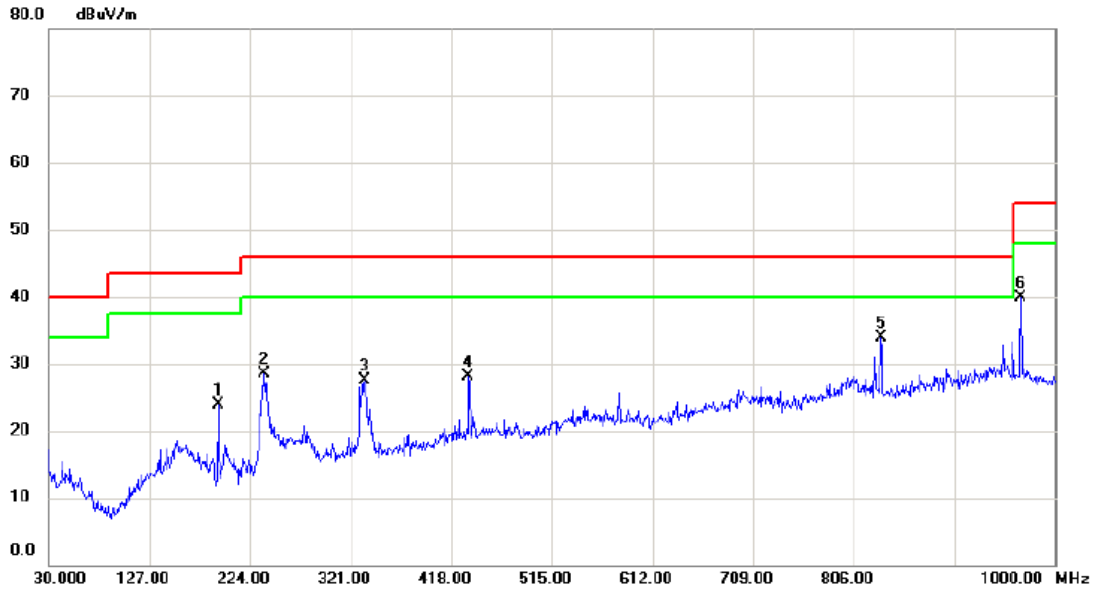
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		192.960	41.93	-14.58	27.35	43.50	-16.15	peak	
2		237.580	42.39	-14.75	27.64	46.00	-18.36	peak	
3		531.490	38.31	-6.60	31.71	46.00	-14.29	peak	
4		579.990	36.54	-5.96	30.58	46.00	-15.42	peak	
5	*	676.990	42.26	-3.86	38.40	46.00	-7.60	peak	
6		967.020	37.69	1.01	38.70	54.00	-15.30	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode: UNII-3/TX A Mode 5785MHz _power borad: MT-SPS1206O-A

Horizontal

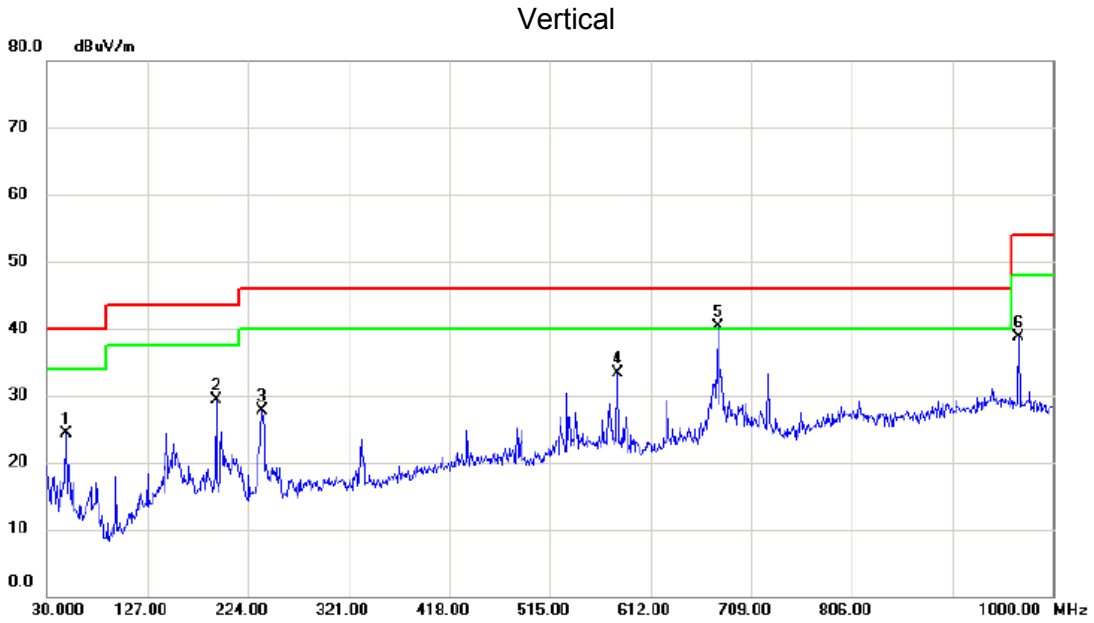


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		192.960	38.42	-14.58	23.84	43.50	-19.66	peak	
2		237.580	43.20	-14.75	28.45	46.00	-17.55	peak	
3		334.580	38.40	-10.85	27.55	46.00	-18.45	peak	
4		434.490	36.06	-8.01	28.05	46.00	-17.95	peak	
5	*	832.190	35.44	-1.54	33.90	46.00	-12.10	peak	
6		967.020	38.98	1.01	39.99	54.00	-14.01	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode: UNII-3/TX A Mode 5825MHz _power borad: MT-SPS1206O-A



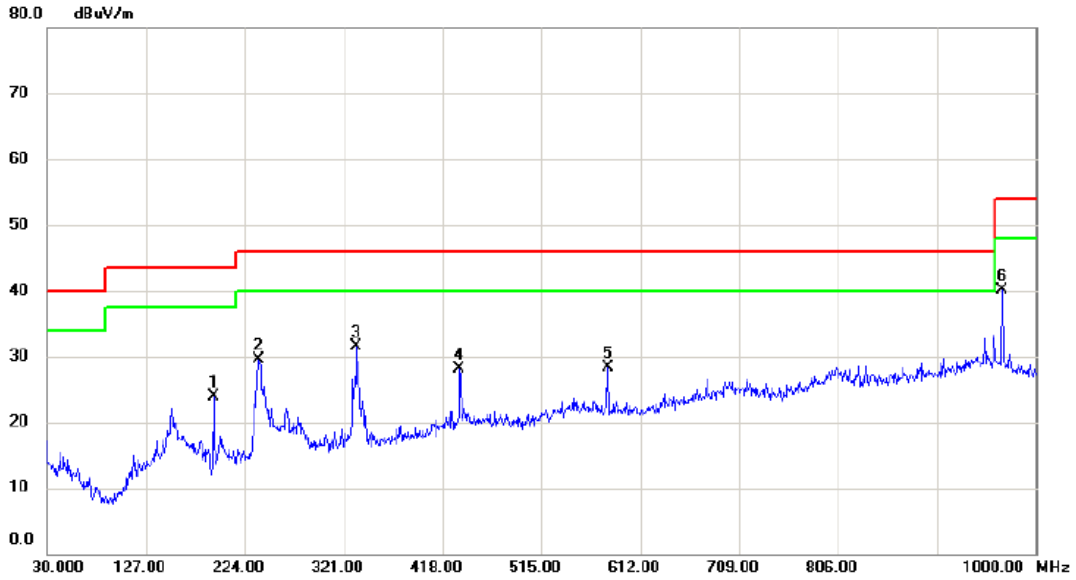
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		48.430	39.13	-14.82	24.31	40.00	-15.69	peak	
2		192.960	43.85	-14.58	29.27	43.50	-14.23	peak	
3		237.580	42.38	-14.75	27.63	46.00	-18.37	peak	
4		579.990	39.21	-5.96	33.25	46.00	-12.75	peak	
5	*	676.990	44.10	-3.86	40.24	46.00	-5.76	peak	
6		967.020	37.70	1.01	38.71	54.00	-15.29	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode: UNII-3/TX A Mode 5825MHz _power borad: MT-SPS1206O-A

Horizontal



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	192.960	38.42	-14.58	23.84	43.50	-19.66	peak	
2	237.580	44.29	-14.75	29.54	46.00	-16.46	peak	
3	333.610	42.39	-10.85	31.54	46.00	-14.46	peak	
4	434.490	36.06	-8.01	28.05	46.00	-17.95	peak	
5	579.990	34.17	-5.96	28.21	46.00	-17.79	peak	
6 *	967.020	39.10	1.01	40.11	54.00	-13.89	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

End of Test Report