

FCC EMC Test Report

FCC ID: 2ATEYWS7200

Project No. : 2006C031C
Equipment : 3000Mbps Wi-Fi 6 Router
Brand Name : HUAWEI
Test Model : WS7200
Series Model : N/A
Applicant : Huawei Device Co., Ltd.
Address : No.2 of Xincheng Road, Songshan Lake Zone, Dongguan, Guangdong
523808, People's Republic of China
Manufacturer : Huawei Device Co., Ltd.
Address : No.2 of Xincheng Road, Songshan Lake Zone, Dongguan, Guangdong
523808, People's Republic of China
Date of Receipt : Jun. 08, 2020
Sep. 02, 2020
May 17, 2021
Date of Test : Jun. 11, 2020 ~ Jun. 20, 2020
Issued Date : May 21, 2021
Report Version : R00
Test Sample : Engineering Sample No.: DG2020060844
Standard(s) : FCC CFR Title 47, Part 15, Subpart B

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

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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.

Table of Contents	Page
REPORT ISSUED HISTORY	4
1 . SUMMARY OF TEST RESULTS	5
1.1 TEST FACILITY	6
1.2 MEASUREMENT UNCERTAINTY	6
1.3 TEST ENVIRONMENT CONDITIONS	6
2 . GENERAL INFORMATION	7
2.1 GENERAL DESCRIPTION OF EUT	7
2.2 DESCRIPTION OF TEST MODES	8
2.3 EUT OPERATING CONDITIONS	9
2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	9
2.5 DESCRIPTION OF SUPPORT UNITS	9
3 . EMC EMISSION TEST	10
3.1 AC POWER LINE CONDUCTED EMISSIONS TEST	10
3.1.1 LIMIT	10
3.1.2 MEASUREMENT INSTRUMENTS LIST	10
3.1.3 TEST PROCEDURE	11
3.1.4 DEVIATION FROM TEST STANDARD	11
3.1.5 TEST SETUP	11
3.1.6 TEST RESULTS	11
3.2 RADIATED EMISSIONS 30 MHZ TO 1 GHZ	14
3.2.1 LIMIT	14
3.2.2 MEASUREMENT INSTRUMENTS LIST	14
3.2.3 TEST PROCEDURE	15
3.2.4 DEVIATION FROM TEST STANDARD	15
3.2.5 TEST SETUP	15
3.2.6 TEST RESULTS	15
3.3 RADIATED EMISSIONS ABOVE 1 GHZ	18
3.3.1 LIMIT	18
3.3.2 MEASUREMENT INSTRUMENTS LIST	18
3.3.3 TEST PROCEDURE	19
3.3.4 DEVIATION FROM TEST STANDARD	19
3.3.5 TEST SETUP	20
3.3.6 TEST RESULTS	21

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	May 21, 2021

1. SUMMARY OF TEST RESULTS

Emission		
Standard(s)	Test Item	Result
FCC CFR Title 47, Part 15, Subpart B ANSI C63.4-2014	AC Power Line Conducted Emissions	PASS
	Radiated Emissions 30 MHz to 1 GHz	PASS
	Radiated Emissions Above 1 GHz	PASS

Note:

- (1) According to client's specification, removed the description of operation frequency bands UNII-2A and UNII-2C, so all test data are kept the same with report No.: BTL-FCCE-1-2006C031A.

1.1 TEST FACILITY

The test facilities used to collect the test data in this report 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

1.2 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. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-C02	CISPR	150kHz ~ 30MHz	2.60

B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)
DG-CB02 (3m)	CISPR	30MHz ~ 200MHz	V	4.56
		30MHz ~ 200MHz	H	3.60
		200MHz ~ 1,000MHz	V	4.16
		200MHz ~ 1,000MHz	H	4.00

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB02 (3m)	CISPR	1GHz ~ 6GHz	4.38
		6GHz ~ 18GHz	5.36

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB02 (1m)	CISPR	18 ~ 26.5 GHz	3.62
		26.5 ~ 40 GHz	4.00

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

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Tested By
AC Power Line Conducted Emissions	25°C	55%	Gatsby Wang
Radiated emissions 30 MHz to 1 GHz	24°C	60%	Lea Lu
Radiated emissions above 1 GHz	24°C	60%	Lea Lu

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	3000Mbps Wi-Fi 6 Router
Brand Name	HUAWEI
Test Model	WS7200
Series Model	N/A
Model Difference(s)	N/A
Hardware Version	AM1WS7200M
Software Version	10.0.5.28
Power Source	DC voltage supplied from AC adapter. Brand: FUHUA, HONOR Model: HW-120200E01, HW-120200B01, HW-120200U01
Power Rating	I/P: 100-240V ~50/60Hz, 0.8A O/P: 12V  2A
Connecting I/O Port(s)	1* WAN port 3* LAN port 1* POWER port
Classification of EUT	Class B
Work Frequency	2.4G WIFI: 2400-2483.5MHz 5G WIFI: 5150-5250MHz, 5725-5850MHz
Highest Internal Frequency(Fx)	5850MHz

Note:

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

2.2 DESCRIPTION OF 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	FULL SYSTEM(2.4G WIFI+5G WIFI)

AC Power Line Conducted Emissions test	
Final Test Mode	Description
Mode 1	FULL SYSTEM(2.4G WIFI+5G WIFI)

Radiated Emissions 30 MHz to 1 GHz test	
Final Test Mode	Description
Mode 1	FULL SYSTEM(2.4G WIFI+5G WIFI)

Radiated emissions above 1 GHz test	
Final Test Mode	Description
Mode 1	FULL SYSTEM(2.4G WIFI+5G WIFI)

Note:

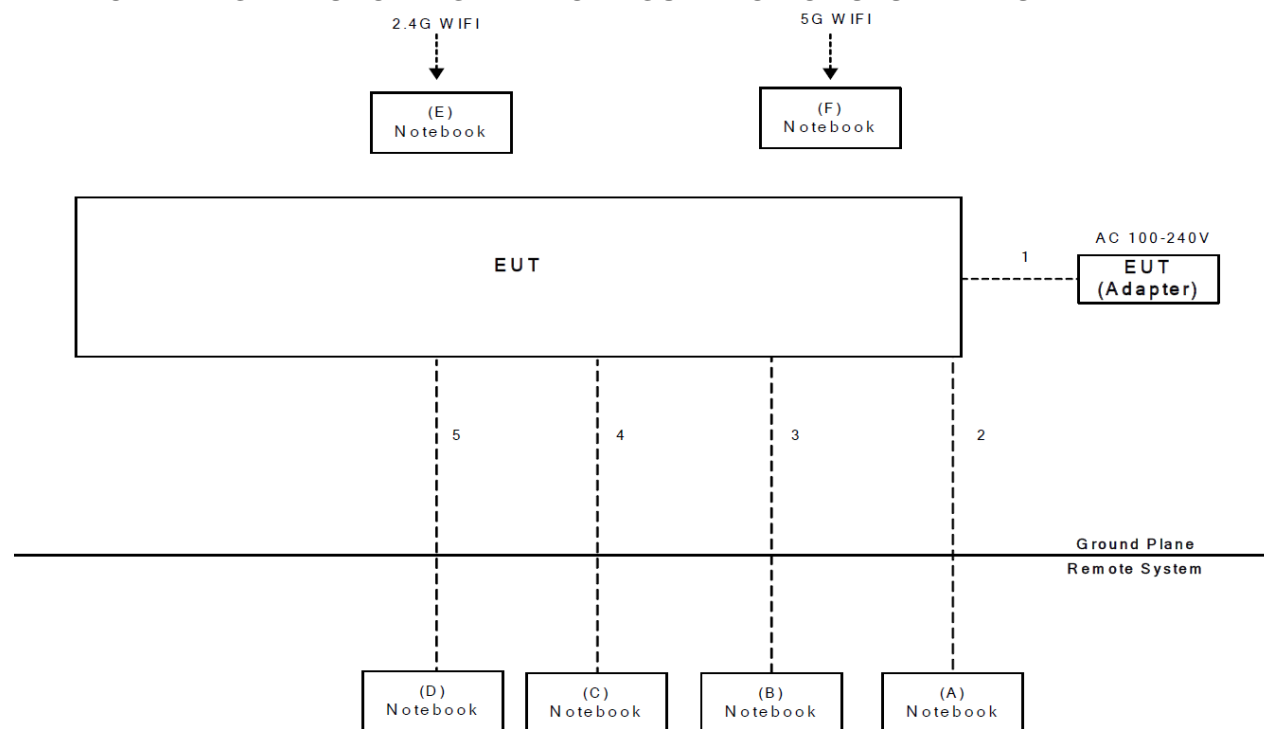
1. FUHUA and HONOR adapter are tested, the worst case is FUHUA and recorded.
2. The product supports 2.4G&5G WIFI function.
The frequency exemption are 2400-2483.5MHz, 5150-5250MHz, 5725-5850MHz.
3. Radiated emission above 1GHz tested with 2.4G&5G filter.

2.3 EUT OPERATING CONDITIONS

The EUT exercise program used during radiated and/or conducted emission measurement was designed to exercise the various system components in a manner similar to a typical use. The standard test signals and output signal as following:

1. EUT connected to Notebook (E) via 2.4G WIFI.
2. EUT connected to Notebook (F) via 5G WIFI.
3. EUT connected to Notebook (A&B&C&D) via RJ45 Cable.
4. EUT connected to Adapter via DC Cable.

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.5 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.
A	Notebook	Lenovo	E445	MP-05Y3X6
B	Notebook	Lenovo	V310-14ISK	LR07GZHC
C	Notebook	Lenovo	E46L	EB22953770
D	Notebook	Lenovo	E445	MP-05Y56S
E	Notebook	Lenovo	E46L	EB21809870
F	Notebook	Lenovo	V310-14ISK	LR07GZML

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	DC Cable	NO	NO	1.5m
2-5	RJ45 Cable	NO	NO	10m

3. EMC EMISSION TEST

3.1 AC POWER LINE CONDUCTED EMISSIONS TEST

3.1.1 LIMIT

Frequency of Emission (MHz)	Class B (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56 *	56 - 46 *
0.5 - 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.
- (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

3.1.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	50Ω Terminator	SHX	TF2-3G-A	8122901	Feb. 28, 2021
2	TWO-LINE V-NETWORK	R&S	ENV216	100526	Mar. 01, 2021
3	EMI Test Receiver	R&S	ESR3	101862	Aug. 03, 2020
4	Artificial-Mains Network	SCHWARZBECK	NSLK 8127	8127685	Mar. 01, 2021
5	TRANSIENT LIMITER	EM	EM-7600	772	Mar. 01, 2021
6	Cable	N/A	RG223	12m	Mar. 10, 2021

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

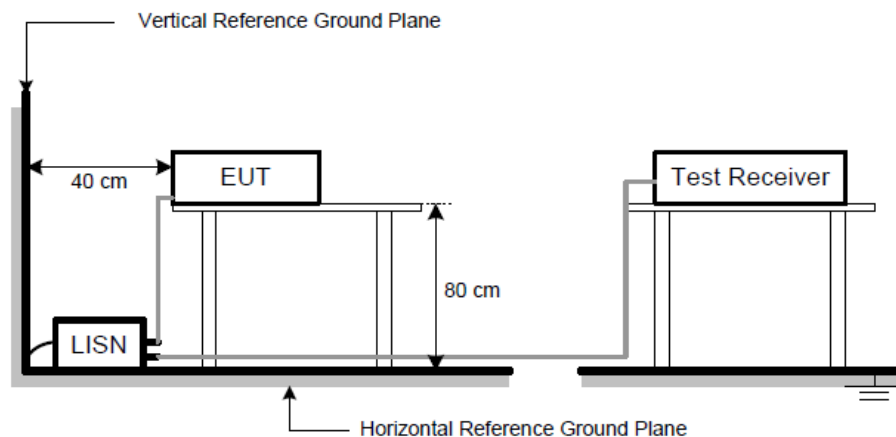
3.1.3 TEST PROCEDURE

- 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.
- 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 at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.
- Measuring frequency range from 150KHz to 30MHz.

3.1.4 DEVIATION FROM TEST STANDARD

No deviation

3.1.5 TEST SETUP

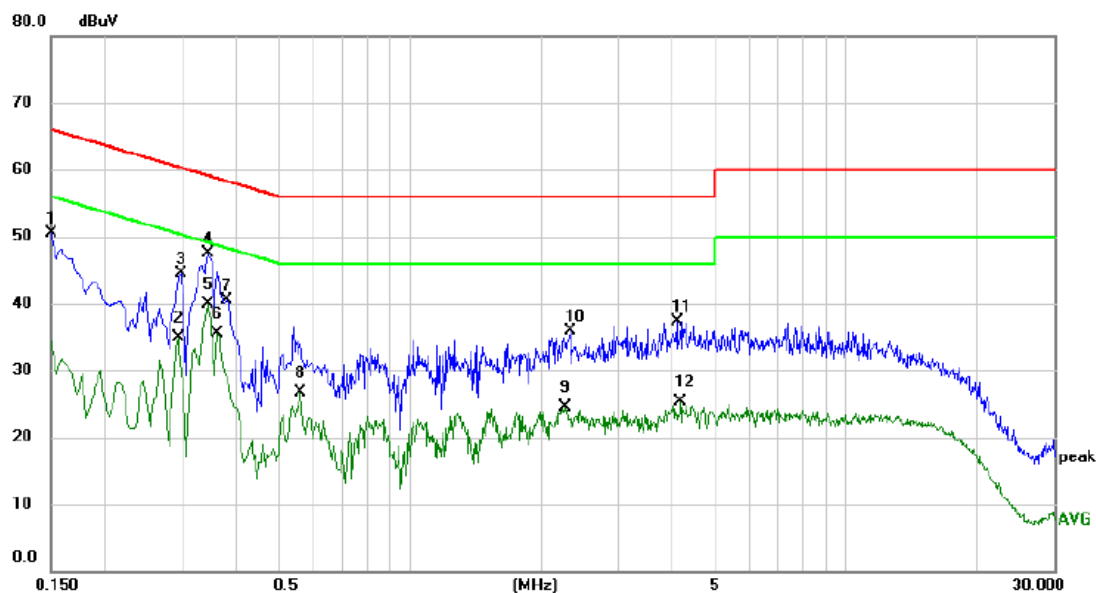


3.1.6 TEST RESULTS

Remark:

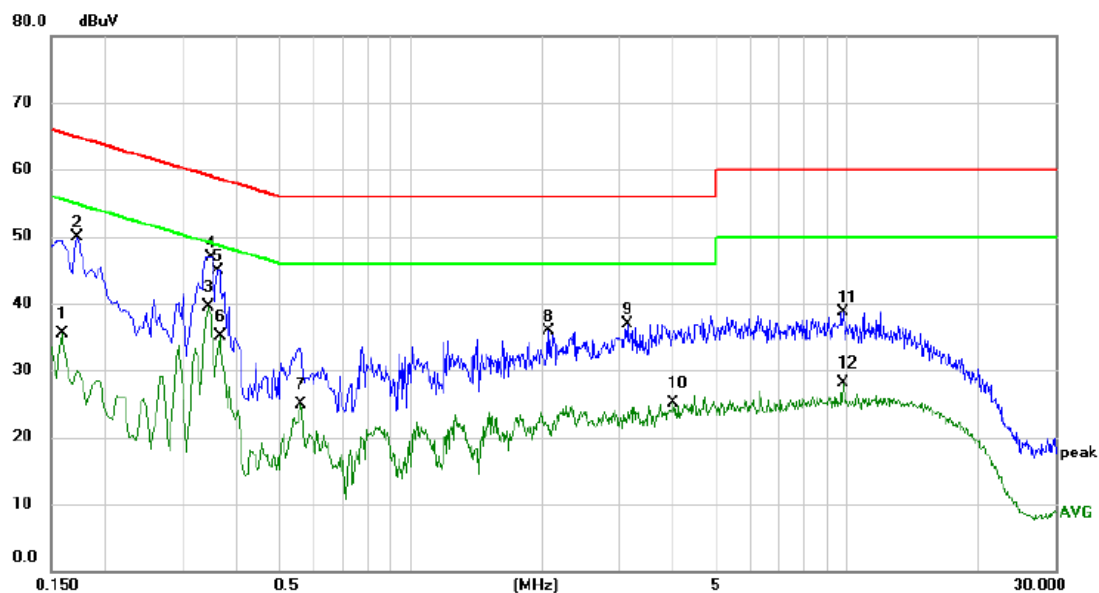
- Reading in which marked as QP means measurements by using are Quasi-Peak Mode with Detector BW=9 kHz; SPA setting in RBW=10 kHz, VBW =10 kHz, Swp. Time = 0.3 sec./MHz. Reading in which marked as AV means measurements by using are Average Mode with instrument setting in RBW=10 kHz, VBW=10 kHz, Swp. Time =0.3 sec./MHz.
- All readings are QP Mode value unless otherwise stated AVG in column of 『Note』 . If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a “ * ” marked in AVG Mode column of Interference Voltage Measured.

Test Voltage	AC 120V/60Hz	Phase	Line
Test Mode	Mode 1		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1500	40.91	9.67	50.58	66.00	-15.42	QP	
2		0.2940	25.01	9.89	34.90	50.41	-15.51	AVG	
3		0.2985	34.64	9.89	44.53	60.28	-15.75	QP	
4		0.3435	37.60	9.91	47.51	59.12	-11.61	QP	
5	*	0.3435	30.06	9.91	39.97	49.12	-9.15	AVG	
6		0.3615	25.62	9.91	35.53	48.69	-13.16	AVG	
7		0.3795	30.55	9.92	40.47	58.29	-17.82	QP	
8		0.5595	16.67	9.96	26.63	46.00	-19.37	AVG	
9		2.2650	14.36	10.12	24.48	46.00	-21.52	AVG	
10		2.3325	25.81	10.12	35.93	56.00	-20.07	QP	
11		4.1010	26.98	10.25	37.23	56.00	-18.77	QP	
12		4.1774	15.09	10.27	25.36	46.00	-20.64	AVG	

Test Voltage	AC 120V/60Hz	Phase	Neutral
Test Mode	Mode 1		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1590	25.72	9.81	35.53	55.52	-19.99	AVG	
2		0.1725	40.07	9.91	49.98	64.84	-14.86	QP	
3	*	0.3435	29.41	10.05	39.46	49.12	-9.66	AVG	
4		0.3480	36.86	10.05	46.91	59.01	-12.10	QP	
5		0.3615	34.93	10.06	44.99	58.69	-13.70	QP	
6		0.3660	24.98	10.06	35.04	48.59	-13.55	AVG	
7		0.5595	14.65	10.17	24.82	46.00	-21.18	AVG	
8		2.0625	25.52	10.42	35.94	56.00	-20.06	QP	
9		3.1470	26.38	10.53	36.91	56.00	-19.09	QP	
10		3.9975	14.53	10.59	25.12	46.00	-20.88	AVG	
11		9.7620	27.62	11.05	38.67	60.00	-21.33	QP	
12		9.7620	17.12	11.05	28.17	50.00	-21.83	AVG	

3.2 RADIATED EMISSIONS 30 MHZ TO 1 GHZ

3.2.1 LIMIT

Frequency (MHz)	Class B (at 3m)	
	(uV/m) Field strength	(dBuV/m) Field strength
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

NOTE:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dBuV/m) = $20\log$ Emission level (uV/m).
3m Emission level = 10m Emission level + $20\log(10\text{m}/3\text{m})$.
- (3) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)
Margin Level = Measurement Value - Limit Value

3.2.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB9168	9168-806	Aug. 27, 2020
2	Cable	emci	LMR-400(30MHz-1GHz)(10m+2.5m)	N/A	Jun. 03, 2021
3	FSV Signal Analyzer	R&S	FSV40	101423	Aug. 22, 2020
4	Pre-Amplifier	EMC INSTRUMENT	EMC 9135	980284	Mar. 01, 2021
5	EMI Test Receiver	R&S	ESCI	100895	Feb. 28, 2021

Remark: "N/A" denotes no model name, no serial no. or no calibration specified.

All calibration period of equipment list is one year.

3.2.3 TEST PROCEDURE

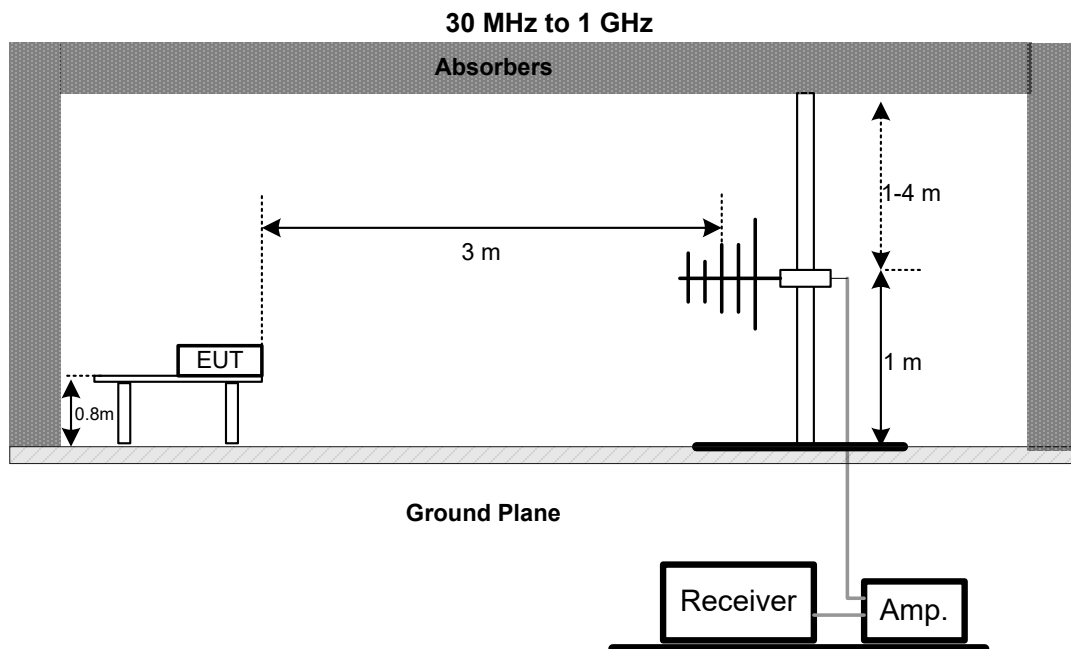
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The height of the equipment or of the 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 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).
- 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.
- 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.
- For the actual test configuration, please refer to the related Item - Block Diagram of system tested.

Spectrum Parameters	Setting
RBW	100 kHz
VBW	300 kHz
ATT	10 dB
Sweep	200 ms

3.2.4 DEVIATION FROM TEST STANDARD

No deviation

3.2.5 TEST SETUP

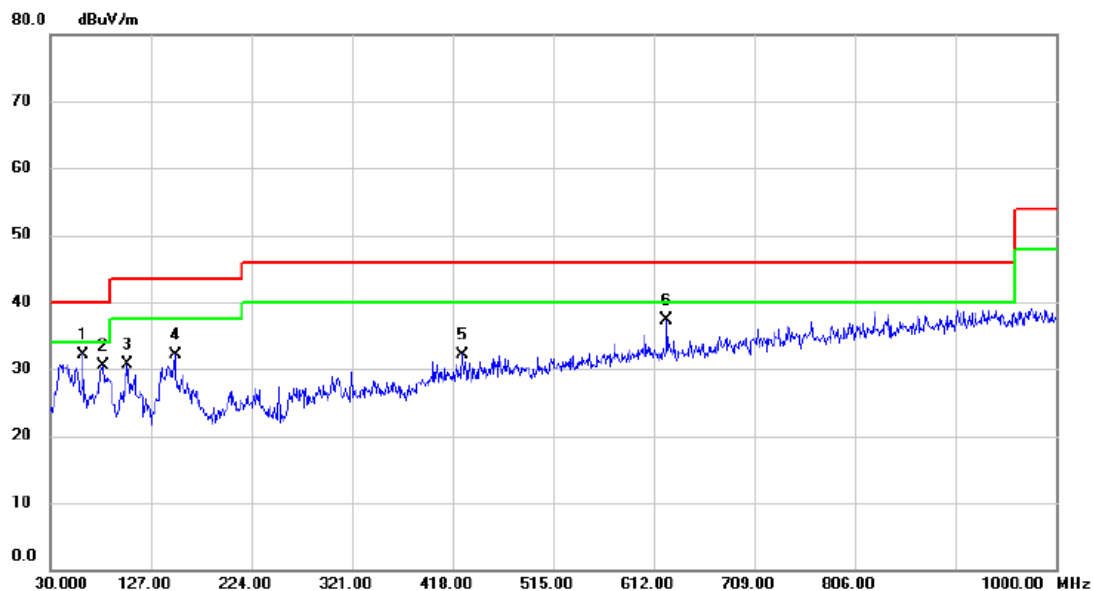


3.2.6 TEST RESULTS

Remark:

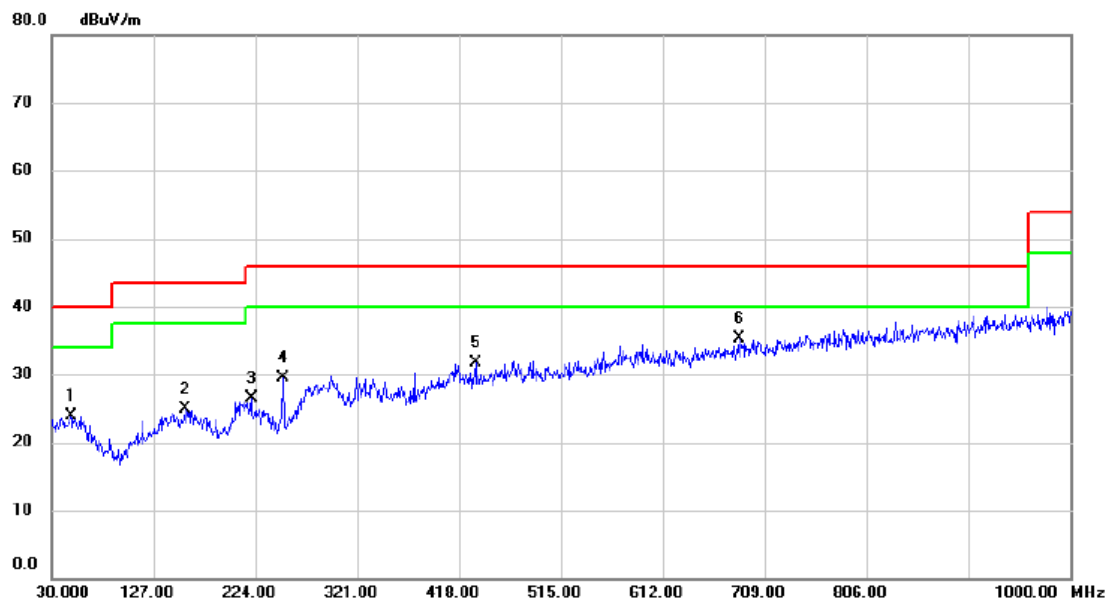
- (1) Measuring frequency range from 30 MHz to 1000 MHz
- (2) If the peak scan value lower limit more than 20 dB, then this signal data does not show in table.

Test Voltage	AC 120V/60Hz	Polarization	Vertical
Test Mode	Mode 1		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	62.0100	38.20	-6.02	32.18	40.00	-7.82	QP	
2		81.4100	40.33	-9.77	30.56	40.00	-9.44	QP	
3		104.6900	39.87	-9.08	30.79	43.50	-12.71	QP	
4		150.2800	37.14	-4.94	32.20	43.50	-11.30	QP	
5		427.7000	31.56	0.54	32.10	46.00	-13.90	QP	
6		624.6100	32.31	5.04	37.35	46.00	-8.65	QP	

Test Voltage	AC 120V/60Hz	Polarization	Horizontal
Test Mode	Mode 1		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		48.4300	28.91	-4.93	23.98	40.00	-16.02	QP	
2		157.0700	29.63	-4.78	24.85	43.50	-18.65	QP	
3		220.1200	33.50	-6.95	26.55	46.00	-19.45	QP	
4		250.1900	35.08	-5.50	29.58	46.00	-16.42	QP	
5		433.5200	31.01	0.66	31.67	46.00	-14.33	QP	
6	*	684.7500	29.09	6.15	35.24	46.00	-10.76	QP	

3.3 RADIATED EMISSIONS ABOVE 1 GHZ

3.3.1 LIMIT

Frequency (MHz)	Class B	
	(dBuV/m) (at 3m)	
	Peak	Average
Above 1000	74	54

Frequency (MHz)	Class B	
	(dBuV/m) (at 1m)	
	Peak	Average
Above 18000	83.5	63.5

FREQUENCY RANGE OF RADIATED MEASUREMENT (FOR UNINTENTIONAL RADIATORS)

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 tighter limit applies at the band edges.
- (2) Emission level (dBuV/m) = 20log Emission level (uV/m).
1m Emission level = 3m Emission level + 20log(3m/1m).
- (3) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)
Margin Level = Measurement Value - Limit Value

3.3.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-1787	Apr. 13, 2021
2	Cable	mitron	RWLP50-4.0A-KJ-SMSM-12M	N/A	Nov. 25, 2020
3	Pre-Amplifier	emci	EMC012645SE	980421	May 11, 2021
4	EMI Test Receiver	R&S	ESCI	100895	Feb. 28, 2021
5	FSV Signal Analyzer	R&S	FSV40	101423	Aug. 22, 2020

Remark: "N/A" denotes no model name, no serial no. or no calibration specified.

All calibration period of equipment list is one year.

3.3.3 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.
Note:
For measurement of frequency 1GHz -18GHz, the EUT was set 3 meters away from the receiver antenna. For 18G – 40GHz, the EUT was set 1 meter.
Emission level (dBuV/m)=20log Emission level (uV/m).
The limits above 18GHz shall be extrapolated to the specified distance using an extrapolation factor of 20dB/decade from 3m to 1m
Distance extrapolation factor = 20 log (3m/1m) dB ;
Limit line = specific limits (dBuV) + 9.5 dB.
- b. 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.
- c. 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).
- d. 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.
- 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. 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.
- g. For the actual test configuration, please refer to the related Item - Block Diagram of system tested.

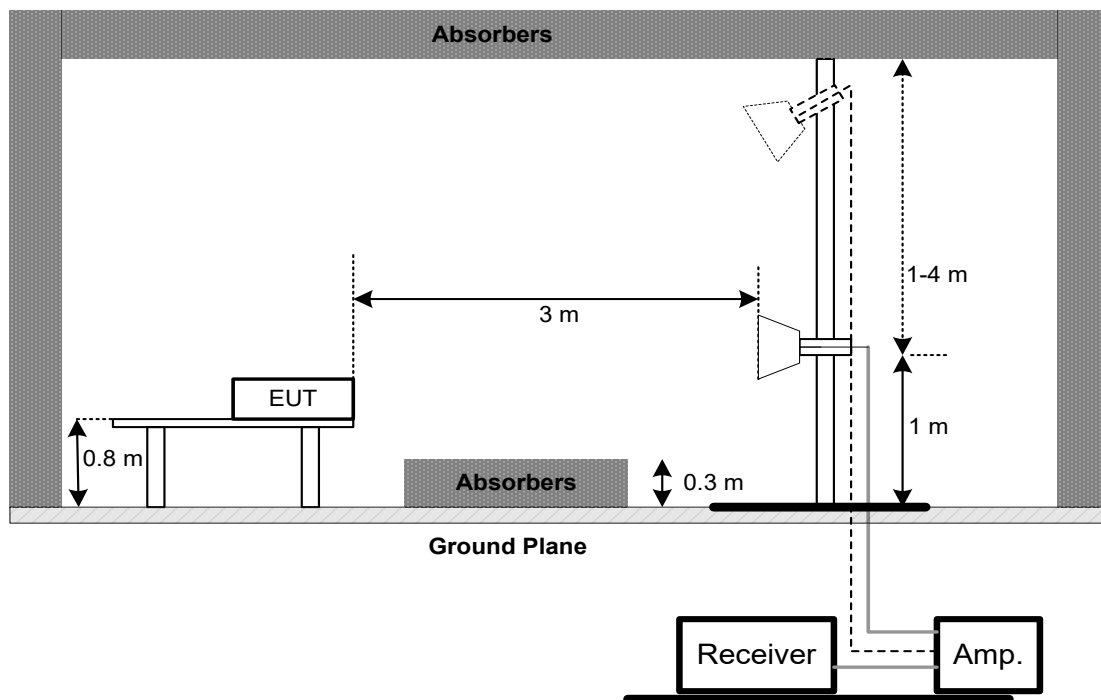
Spectrum Parameters	Setting
RBW	1000 kHz
VBW	1000 kHz
ATT	0 dB
Sweep	200 ms

3.3.4 DEVIATION FROM TEST STANDARD

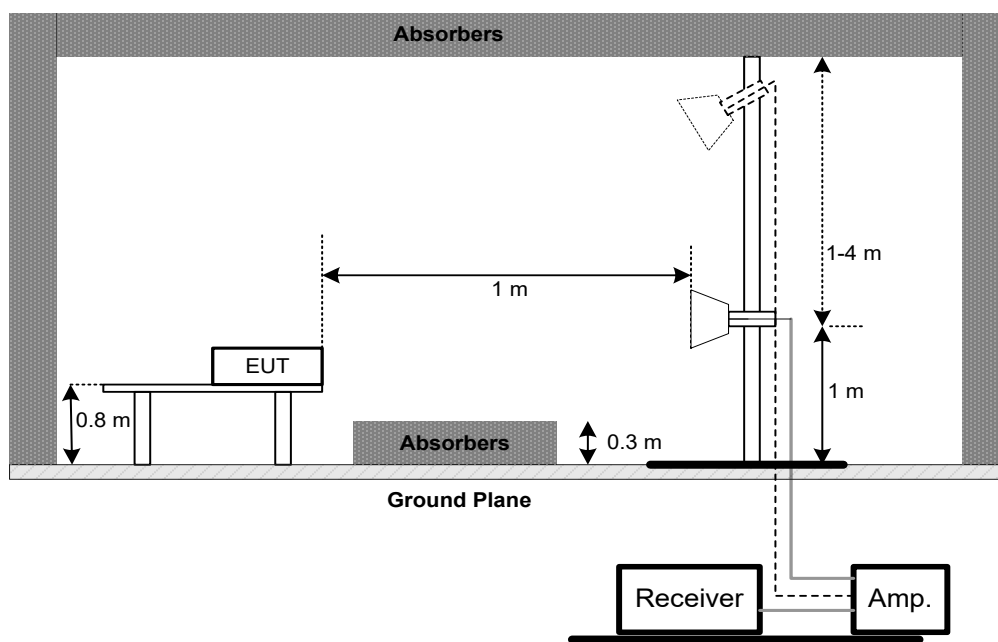
No deviation

3.3.5 TEST SETUP

1 GHz-18 GHz



18 GHz-40 GHz

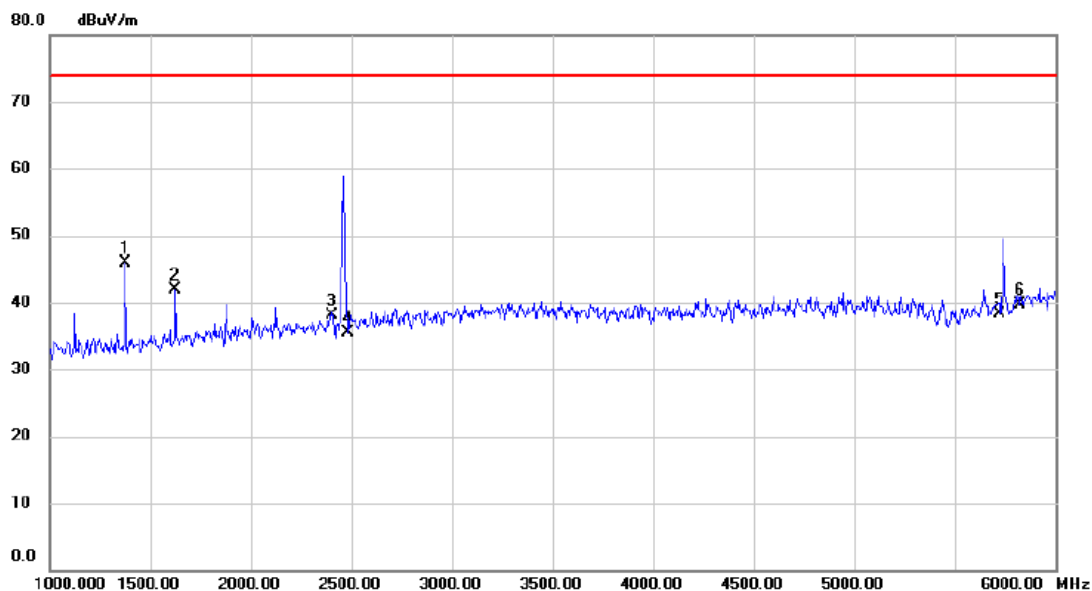


3.3.6 TEST RESULTS

Remark:

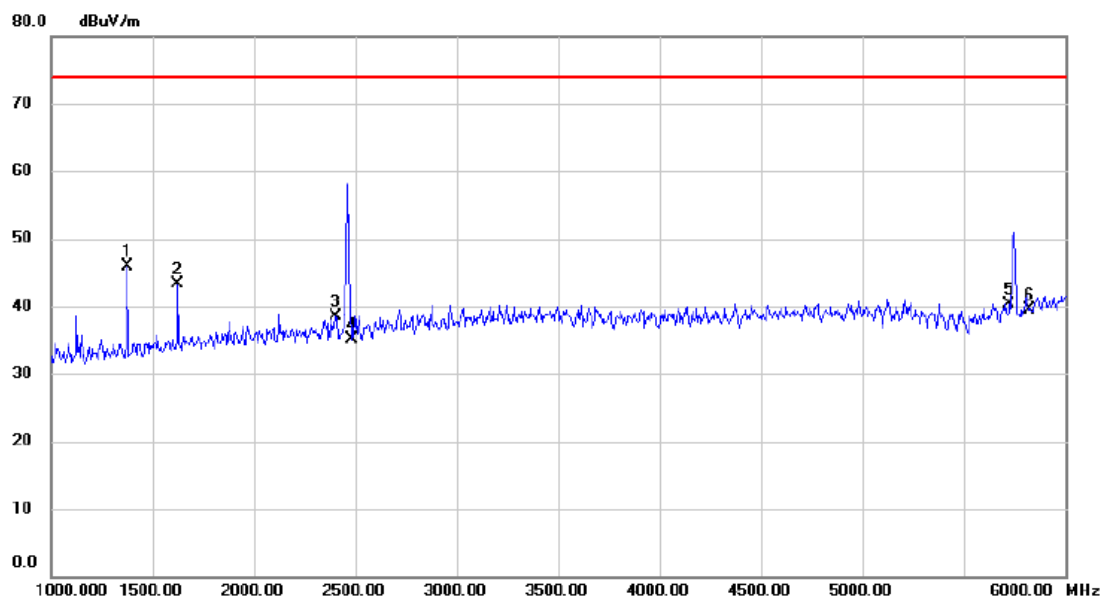
- (1) Radiated emissions measured in frequency range above 1000 MHz were made with an instrument using Peak detector mode and AV detector mode of the emission.
- (2) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
- (3) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

Test Voltage	AC 120V/60Hz	Polarization	Vertical (Peak)
Test Mode	Mode 1		



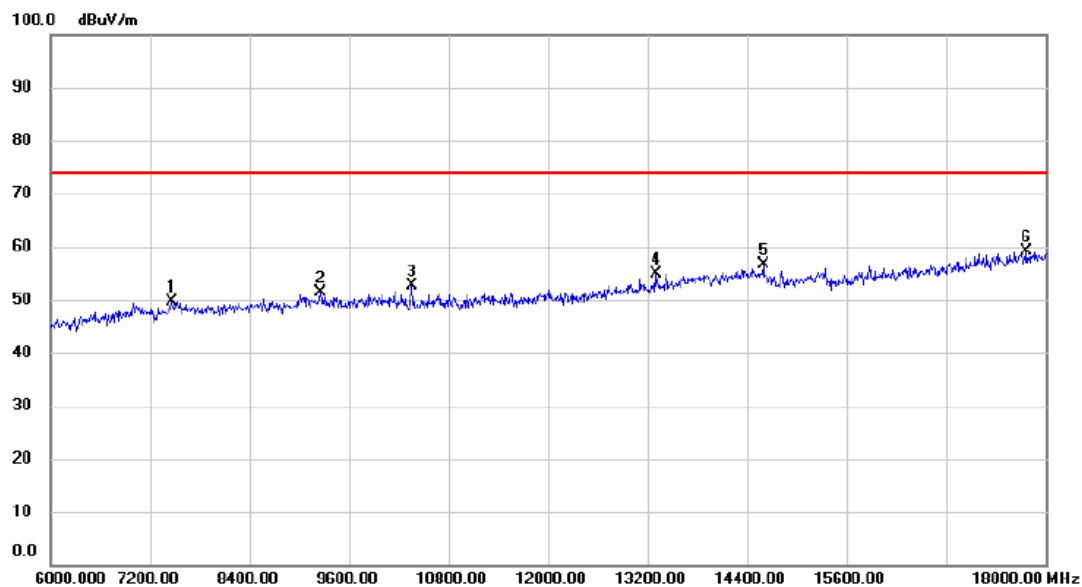
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	1375.000	50.14	-4.27	45.87	74.00	-28.13	peak	
2		1625.000	44.69	-2.88	41.81	74.00	-32.19	peak	
3		2400.000	37.65	0.52	38.17	74.00	-35.83	peak	
4		2483.500	34.83	0.76	35.59	74.00	-38.41	peak	
5		5725.000	29.63	8.69	38.32	74.00	-35.68	peak	
6		5825.000	30.63	9.01	39.64	74.00	-34.36	peak	

Test Voltage	AC 120V/60Hz	Polarization	Horizontal (Peak)
Test Mode	Mode 1		



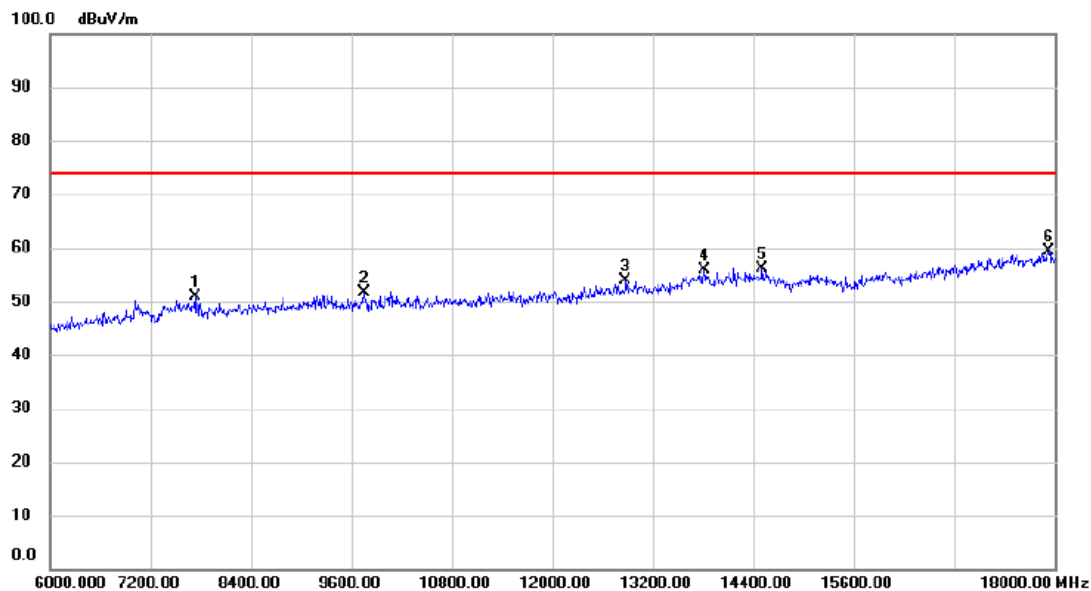
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	1375.000	50.26	-4.27	45.99	74.00	-28.01	peak	
2		1625.000	46.13	-2.88	43.25	74.00	-30.75	peak	
3		2400.000	38.00	0.52	38.52	74.00	-35.48	peak	
4		2483.500	34.31	0.76	35.07	74.00	-38.93	peak	
5		5725.000	31.65	8.69	40.34	74.00	-33.66	peak	
6		5825.000	30.47	9.01	39.48	74.00	-34.52	peak	

Test Voltage	AC 120V/60Hz	Polarization	Vertical (Peak)
Test Mode	Mode 1		



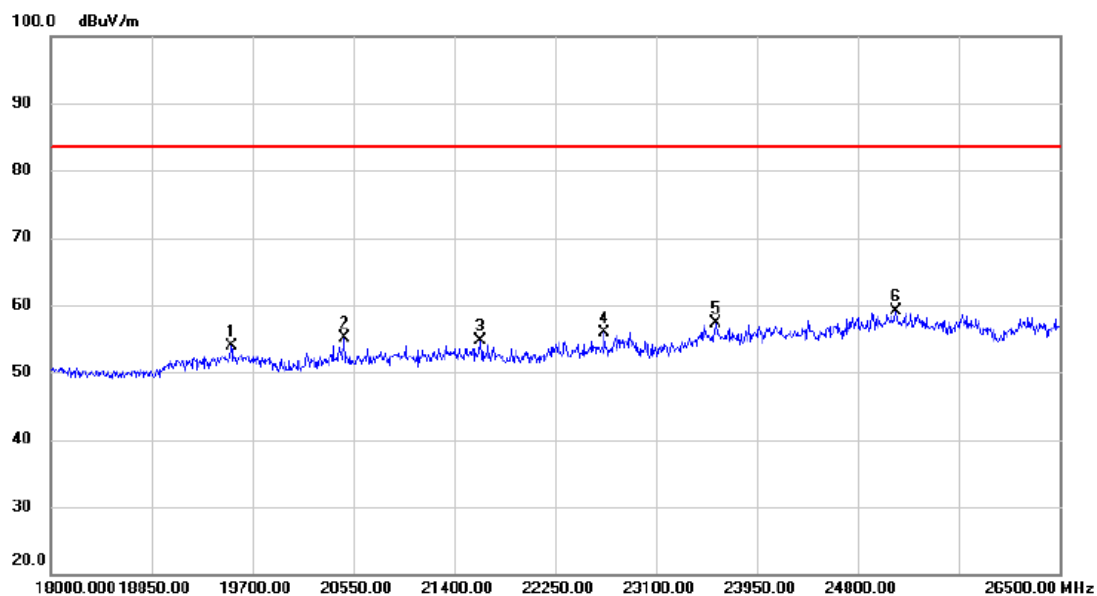
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		7464.000	38.19	11.44	49.63	74.00	-24.37	peak	
2		9252.000	38.61	12.78	51.39	74.00	-22.61	peak	
3		10356.000	39.23	13.50	52.73	74.00	-21.27	peak	
4		13296.000	37.64	17.32	54.96	74.00	-19.04	peak	
5		14592.000	37.86	18.83	56.69	74.00	-17.31	peak	
6	*	17772.000	37.04	22.16	59.20	74.00	-14.80	peak	

Test Voltage	AC 120V/60Hz	Polarization	Horizontal (Peak)
Test Mode	Mode 1		



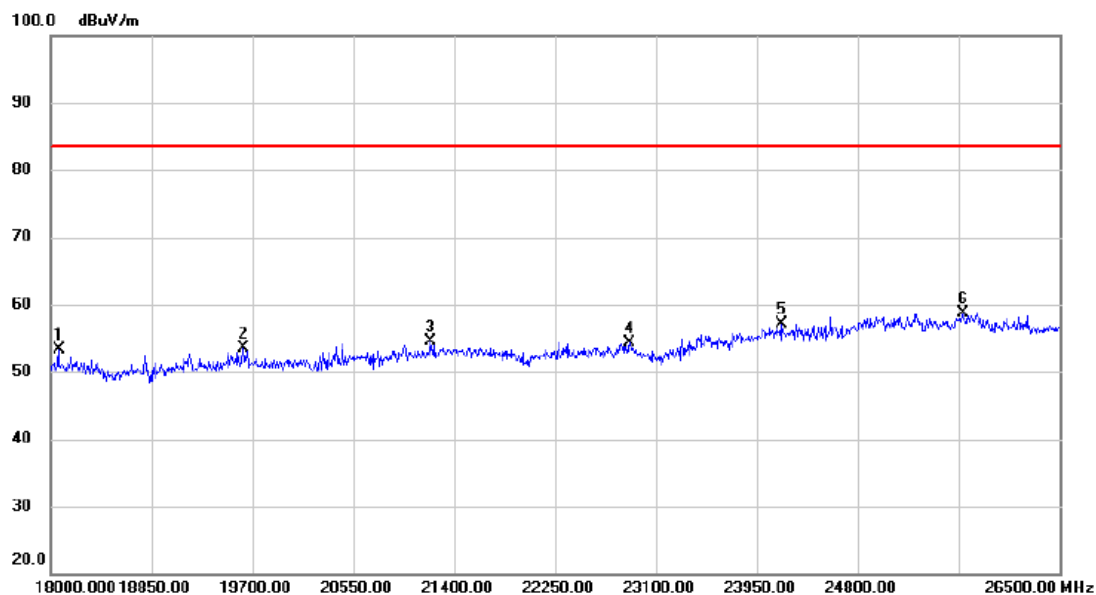
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		7728.000	39.39	11.41	50.80	74.00	-23.20	peak	
2		9744.000	38.75	12.96	51.71	74.00	-22.29	peak	
3		12876.00	37.62	16.29	53.91	74.00	-20.09	peak	
4		13812.00	37.24	18.69	55.93	74.00	-18.07	peak	
5		14508.00	37.04	19.08	56.12	74.00	-17.88	peak	
6	*	17928.00	37.18	22.26	59.44	74.00	-14.56	peak	

Test Voltage	AC 120V/60Hz	Polarization	Vertical (Peak)
Test Mode	Mode 1		



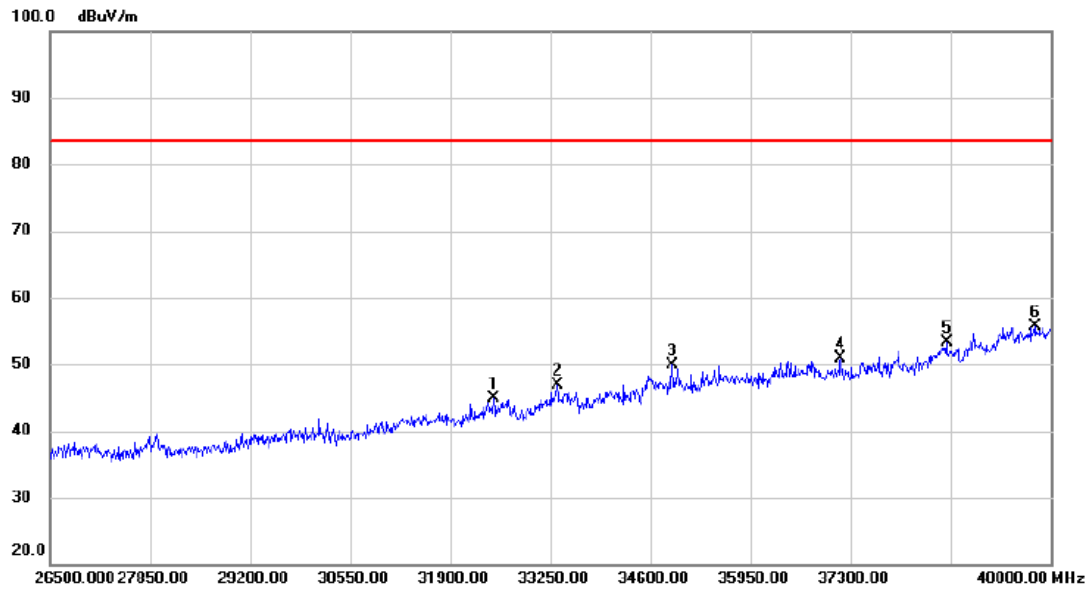
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		19521.50	36.36	17.62	53.98	83.50	-29.52	peak	
2		20473.50	38.18	16.88	55.06	83.50	-28.44	peak	
3		21621.00	37.44	17.26	54.70	83.50	-28.80	peak	
4		22666.50	37.40	18.48	55.88	83.50	-27.62	peak	
5		23601.50	37.04	20.18	57.22	83.50	-26.28	peak	
6	*	25123.00	36.41	22.60	59.01	83.50	-24.49	peak	

Test Voltage	AC 120V/60Hz	Polarization	Horizontal (Peak)
Test Mode	Mode 1		



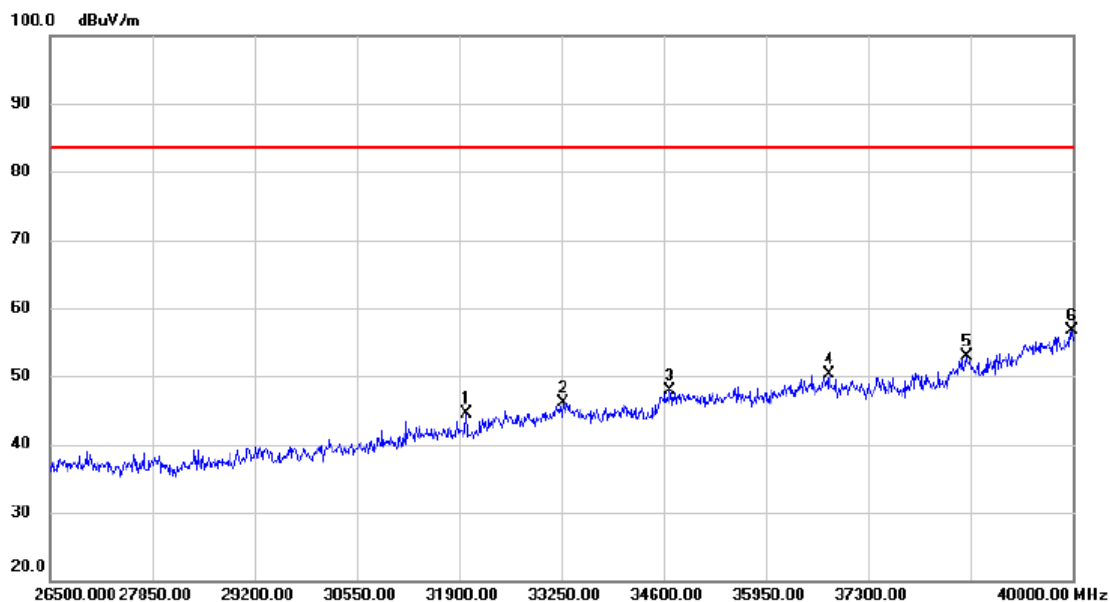
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		18068.00	37.08	16.19	53.27	83.50	-30.23	peak	
2		19623.50	36.36	17.24	53.60	83.50	-29.90	peak	
3		21196.00	37.31	17.23	54.54	83.50	-28.96	peak	
4		22879.00	36.22	18.17	54.39	83.50	-29.11	peak	
5		24162.50	35.91	21.29	57.20	83.50	-26.30	peak	
6	*	25684.00	37.26	21.51	58.77	83.50	-24.73	peak	

Test Voltage	AC 120V/60Hz	Polarization	Vertical (Peak)
Test Mode	Mode 1		



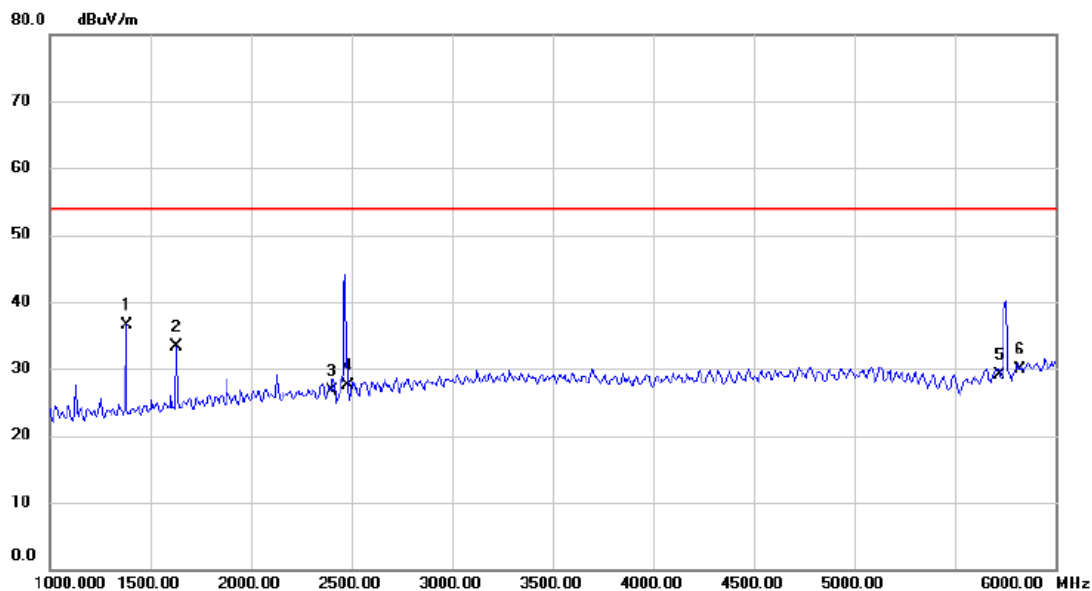
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		32480.50	32.66	12.21	44.87	83.50	-38.63	peak	
2		33344.50	33.52	13.34	46.86	83.50	-36.64	peak	
3		34897.00	35.32	14.60	49.92	83.50	-33.58	peak	
4		37165.00	36.38	14.51	50.89	83.50	-32.61	peak	
5		38596.00	36.34	16.93	53.27	83.50	-30.23	peak	
6	*	39797.50	34.70	21.10	55.80	83.50	-27.70	peak	

Test Voltage	AC 120V/60Hz	Polarization	Horizontal (Peak)
Test Mode	Mode 1		



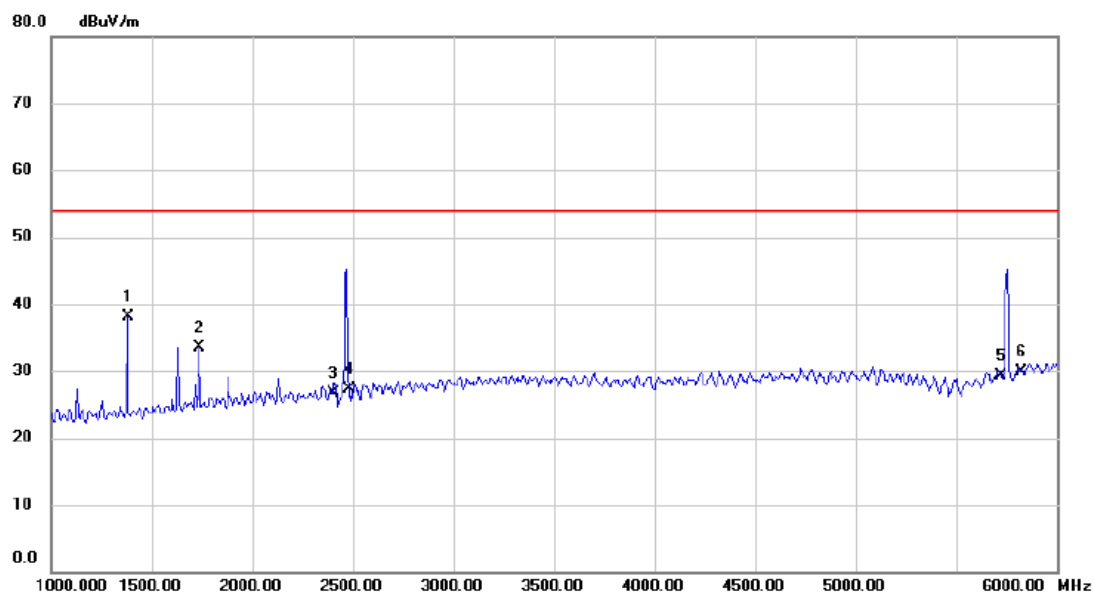
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		31994.50	33.18	11.26	44.44	83.50	-39.06	peak	
2		33277.00	32.99	13.17	46.16	83.50	-37.34	peak	
3		34681.00	33.42	14.54	47.96	83.50	-35.54	peak	
4		36787.00	35.37	14.93	50.30	83.50	-33.20	peak	
5		38596.00	35.99	16.93	52.92	83.50	-30.58	peak	
6	*	39986.50	35.36	21.35	56.71	83.50	-26.79	peak	

Test Voltage	AC 120V/60Hz	Polarization	Vertical (Average)
Test Mode	Mode 1		



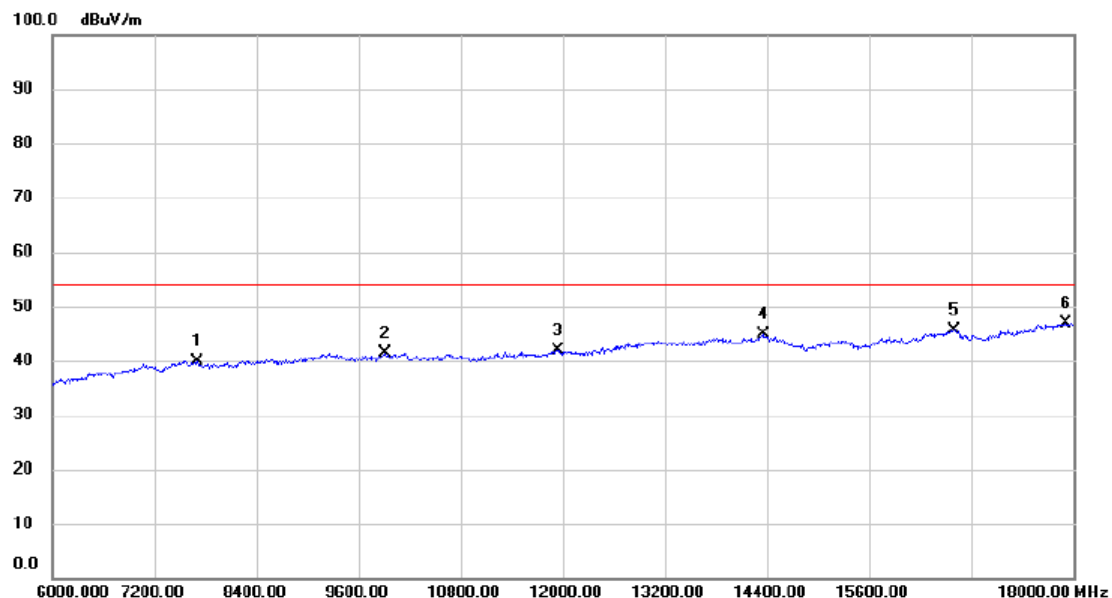
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	1380.000	40.85	-4.25	36.60	54.00	-17.40	AVG	
2		1630.000	36.07	-2.86	33.21	54.00	-20.79	AVG	
3		2400.000	26.26	0.52	26.78	54.00	-27.22	AVG	
4		2483.500	26.70	0.76	27.46	54.00	-26.54	AVG	
5		5725.000	20.37	8.69	29.06	54.00	-24.94	AVG	
6		5825.000	20.97	9.01	29.98	54.00	-24.02	AVG	

Test Voltage	AC 120V/60Hz	Polarization	Horizontal (Average)
Test Mode	Mode 1		



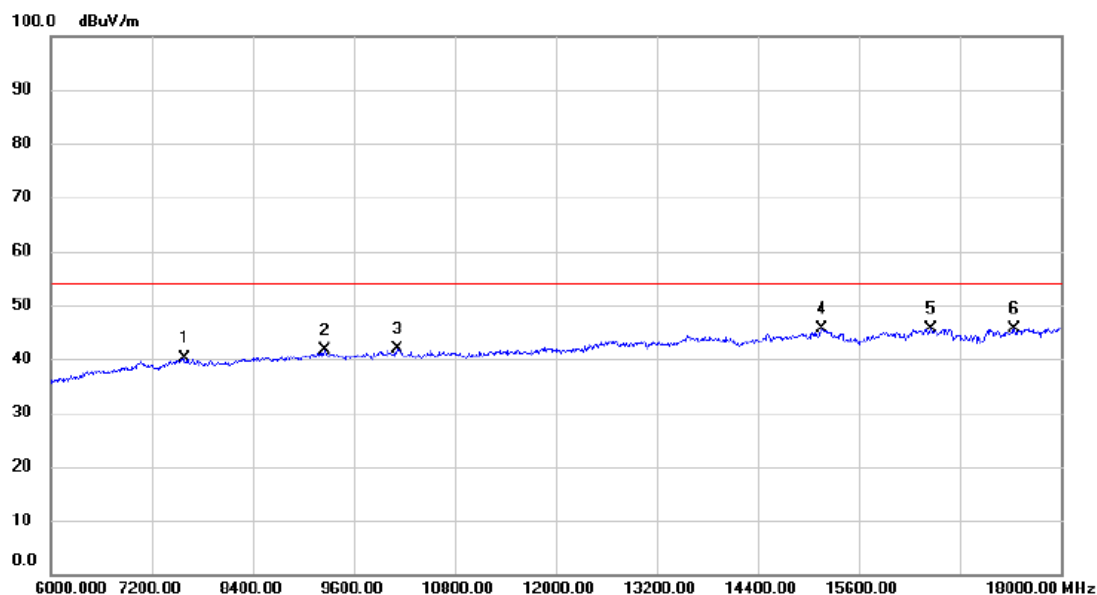
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	1380.000	42.45	-4.25	38.20	54.00	-15.80	AVG	
2		1735.000	35.65	-2.22	33.43	54.00	-20.57	AVG	
3		2400.000	26.26	0.52	26.78	54.00	-27.22	AVG	
4		2483.500	26.50	0.76	27.26	54.00	-26.74	AVG	
5		5725.000	20.71	8.69	29.40	54.00	-24.60	AVG	
6		5825.000	20.81	9.01	29.82	54.00	-24.18	AVG	

Test Voltage	AC 120V/60Hz	Polarization	Vertical (Average)
Test Mode	Mode 1		



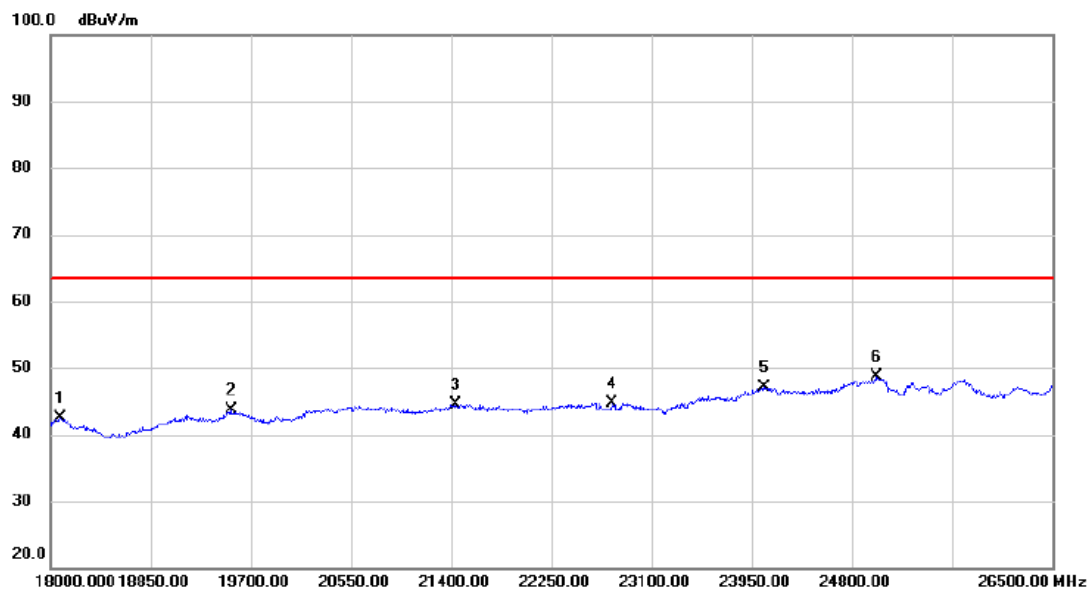
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		7704.000	28.48	11.42	39.90	54.00	-14.10	AVG	
2		9912.000	28.17	13.11	41.28	54.00	-12.72	AVG	
3		11940.00	27.40	14.58	41.98	54.00	-12.02	AVG	
4		14364.00	25.63	19.14	44.77	54.00	-9.23	AVG	
5		16596.00	26.70	18.94	45.64	54.00	-8.36	AVG	
6	*	17916.00	24.65	22.24	46.89	54.00	-7.11	AVG	

Test Voltage	AC 120V/60Hz	Polarization	Horizontal (Average)
Test Mode	Mode 1		



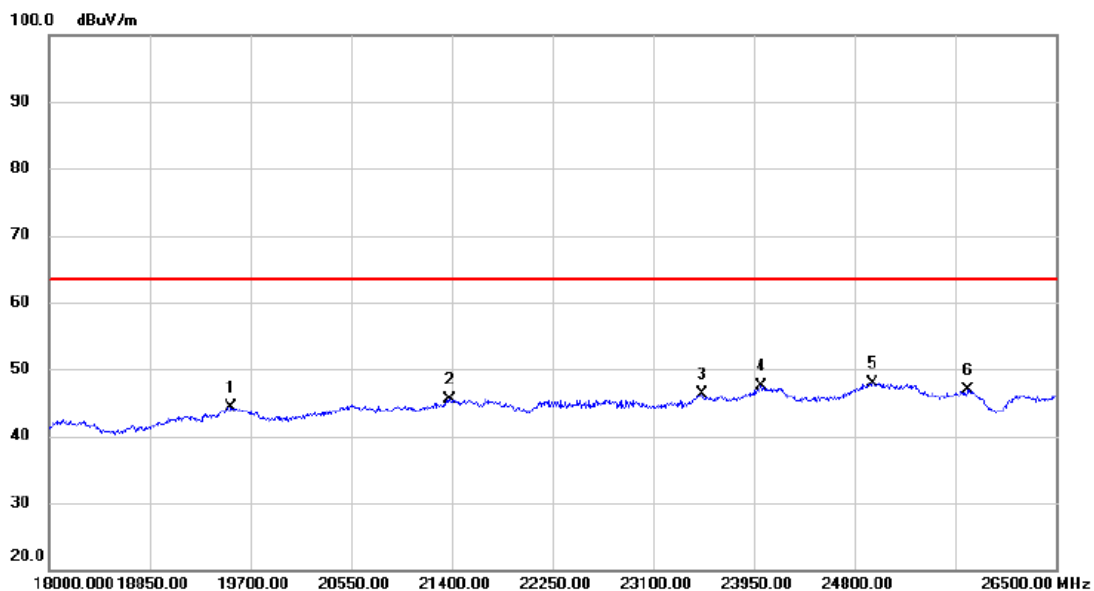
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		7584.000	28.54	11.47	40.01	54.00	-13.99	AVG	
2		9252.000	28.78	12.78	41.56	54.00	-12.44	AVG	
3		10116.00	28.53	13.29	41.82	54.00	-12.18	AVG	
4	*	15156.00	28.16	17.43	45.59	54.00	-8.41	AVG	
5		16452.00	27.06	18.53	45.59	54.00	-8.41	AVG	
6		17448.00	23.75	21.82	45.57	54.00	-8.43	AVG	

Test Voltage	AC 120V/60Hz	Polarization	Vertical (Average)
Test Mode	Mode 1		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		18085.00	26.43	16.13	42.56	63.50	-20.94	AVG	
2		19530.00	26.02	17.59	43.61	63.50	-19.89	AVG	
3		21434.00	27.19	17.35	44.54	63.50	-18.96	AVG	
4		22768.50	26.37	18.33	44.70	63.50	-18.80	AVG	
5		24052.00	25.65	21.41	47.06	63.50	-16.44	AVG	
6	*	25012.50	25.98	22.64	48.62	63.50	-14.88	AVG	

Test Voltage	AC 120V/60Hz	Polarization	Horizontal (Average)
Test Mode	Mode 1		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		19538.50	26.74	17.56	44.30	63.50	-19.20	AVG	
2		21383.00	28.12	17.33	45.45	63.50	-18.05	AVG	
3		23516.50	26.32	19.89	46.21	63.50	-17.29	AVG	
4		24009.50	26.00	21.47	47.47	63.50	-16.03	AVG	
5	*	24953.00	25.48	22.48	47.96	63.50	-15.54	AVG	
6		25760.50	25.83	21.14	46.97	63.50	-16.53	AVG	

Test Voltage	AC 120V/60Hz	Polarization	Vertical (Average)
Test Mode	Mode 1		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		32669.50	22.91	12.31	35.22	63.50	-28.28	AVG	
2		33466.00	23.54	13.67	37.21	63.50	-26.29	AVG	
3		34721.50	24.62	14.56	39.18	63.50	-24.32	AVG	
4		36746.50	26.47	15.02	41.49	63.50	-22.01	AVG	
5		38582.50	26.04	16.87	42.91	63.50	-20.59	AVG	
6	*	40000.00	25.67	21.37	47.04	63.50	-16.46	AVG	

Test Voltage	AC 120V/60Hz	Polarization	Horizontal (Average)
Test Mode	Mode 1		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		32345.50	23.65	11.94	35.59	63.50	-27.91	AVG	
2		33277.00	24.09	13.17	37.26	63.50	-26.24	AVG	
3		34586.50	24.67	14.53	39.20	63.50	-24.30	AVG	
4		36760.00	25.83	15.00	40.83	63.50	-22.67	AVG	
5		38744.50	26.26	17.49	43.75	63.50	-19.75	AVG	
6	*	39959.50	24.98	21.32	46.30	63.50	-17.20	AVG	

End of Test Report