FCC TEST REPORT

For

Shenzhen Chengrui Technology Co., LTD

Three-in-one wireless charger

Test Model: CR-025

Prepared for	:	Shenzhen Chengrui Technology Co., LTD
Address	:	201, Building 82, 4th Industrial Zone, Mashantou Community, Matan Street, Guangming District, Shenzhen,China
Prepared by	:	Shenzhen LCS Compliance Testing Laboratory Ltd.
Address	:	101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Shajing Street, Baoan District, Shenzhen, China
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Web	:	www.LCS-cert.com
Mail	:	webmaster@LCS-cert.com
Date of receipt of test sample	:	February 15, 2022
Number of tested samples	:	2
Serial number	:	220211036A-1(Engineer sample), 220211036A-2(Normal sample)
Date of Test	:	February 15, 2022 ~ April 16, 2022
Date of Report	:	April 16, 2022

FCC TEST REPORT
FCC CFR 47 PART 15C

Report Reference No.	**:**	**LCS220211036AEA**
Date Of Issue	:	April 16, 2022
Testing Laboratory Name.....	**:**	**Shenzhen LCS Compliance Testing Laboratory Ltd.**
Address.....	:	101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Shajing Street, Baoan District, Shenzhen, China
Testing Location/ Procedure.....	:	Full application of Harmonised standards ■ Partial application of Harmonised standards □ Other standard testing method □
Applicant's Name	**:**	**Shenzhen Chengrui Technology Co., LTD**
Address.....	:	201, Building 82, 4th Industrial Zone, Mashantou Community, Matan Street, Guangming District, Shenzhen,China
Test Specification		
Standard.....	:	FCC CFR 47 PART 15C
Test Report Form No.....	:	LCSEMC-1.0
TRF Originator	:	Shenzhen LCS Compliance Testing Laboratory Ltd.
Master TRF.....	:	Dated 2011-03

Test Item Description.	**:**	**Three-in-one wireless charger**
Trade Mark.....	:	GOTODO
Test Model.....	:	CR-025
Power Supply	:	Input:cellphone:9V/3A 12V/2.5A earphone:5V/2A Apple watch:5V/1A Output:cellphone:5W/7.5W/10W/15W earphone:5W Apple watch:3W
**Result ..... **	**:**	**Positive**

Compiled by:	**Supervised by:**	**Approved by:**
Vera Deng	Jin Wang	Gavin Liang
Vera Deng/ Administrator	Jin Wang/ Technique principal	Gavin Liang/ Manager

FCC TEST REPORT

Test Report No. : **LCS220211036AEA**	April 16, 2022 Date of issue

Test Model.....	:	CR-025
EUT.....	:	Three-in-one wireless charger
Applicant.....	**:**	**Shenzhen Chengrui Technology Co., LTD**
Address.....	:	201, Building 82, 4th Industrial Zone, Mashantou Community, Matan Street, Guangming District, Shenzhen,China
Telephone.....	:	/
Fax.....	:	/
Manufacturer.....	**:**	**Shenzhen Chengrui Technology Co., LTD**
Address.....	:	201, Building 82, 4th Industrial Zone, Mashantou Community, Matan Street, Guangming District, Shenzhen,China
Telephone.....	:	/
Fax.....	:	/
Factory.....	**:**	**Shenzhen Chengrui Technology Co., LTD**
Address.....	:	201, Building 82, 4th Industrial Zone, Mashantou Community, Matan Street, Guangming District, Shenzhen,China
Telephone.....	:	/
Fax.....	:	/

Test Result	**Positive**

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Revision History

Revision	Issue Date	Revisions	Revised By
000	April 16, 2022	Initial Issue	Gavin Liang

TABLE OF CONTENTS

1. GENERAL INFORMATION

1.1 Description of Device (EUT)

EUT	:	Three-in-one wireless charger
Test Model	:	CR-025
Power Supply	:	Input:cellphone:9V/3A 12V/2.5A earphone:5V/2A Apple watch:5V/1A Output:cellphone:5W/7.5W/10W/15W earphone:5W Apple watch:3W
Hardware Version	:	/
Software Version	:	/
Wireless Charging	:	
Operating Frequency	:	110.0~205.0KHz
Modulation Type	:	Continuous Wave
Antenna Type	:	Coil Antenna

1.2 Support equipment List

Manufacturer	Description	Model	Serial Number	Certificate
--	ADAPTER	THX-120050KB	--	FCC
HONOR	Mobile phone	V30Pro	66B0219C25014679	FCC
Apple	Earphone	A1602	--	FCC
--	Watch	E8	--	FCC

Note: Auxiliary equipment is provided by the laboratory.

1.3 External I/O Cable

I/O Port Description	Quantity	Cable
Type-C Port	3	USB Cable: 0.5m, unshielded

1.4 Description of Test Facility

NVLAP Accreditation Code is 600167-0.
FCC Designation Number is CN5024
CAB identifier is CN0071.
CNAS Registration Number is L4595.
Test Firm Registration Number: 254912.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.4:2014 and CISPR 16-1-4:2010 SVSWR requirement for radiated emission above 1GHz.

1.5 Statement of the Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the LCS quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

1.6 Measurement Uncertainty

Test Item		Frequency Range	Uncertainty	Note
Radiation Uncertainty	:	9KHz~30MHz	3.10dB	(1)
		30MHz~200MHz	2.96dB	(1)
		200MHz~1000MHz	3.10dB	(1)
		1GHz~26.5GHz	3.80dB	(1)
		26.5GHz~40GHz	3.90dB	(1)
Conduction Uncertainty	:	150kHz~30MHz	1.63dB	(1)
Power disturbance	:	30MHz~300MHz	1.60dB	(1)

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1.7 Description of Test Modes

Equipment under test was operated during the measurement under the following conditions:

☒ Charging and communication mode

Modulation Type: CW (Continuous Wave)

Test Modes		
Mode 1	AC/DC Adapter1 (12V/2.5A) + AC/DC Adapter2 (5V/2A) + AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <1%)	Record
Mode 2	AC/DC Adapter1 (12V/2.5A) + AC/DC Adapter2 (5V/2A) + AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <50%)	Pre-tested
Mode 3	AC/DC Adapter1 (12V/2.5A) + AC/DC Adapter2 (5V/2A) + AC/DC Adapter3 (5V/1A)+ EUT + Mobile Phone +Earphone + Watch (Battery Status: 100%)	Pre-tested
Mode 4	AC/DC Adapter1 (9V/3A) + AC/DC Adapter2 (5V/2A) + AC/DC Adapter3 (5V/1A)+ EUT + Mobile Phone +Earphone + Watch (Battery Status: <1%)	Pre-tested
Mode 5	AC/DC Adapter1 (9V/3A) + AC/DC Adapter2 (5V/2A) + AC/DC Adapter3 (5V/1A)+ EUT + Mobile Phone +Earphone + Watch (Battery Status: <50%)	Pre-tested
Mode 6	AC/DC Adapter 1(9V/3A) + AC/DC Adapter2 (5V/2A) + AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: 100%)	Pre-tested
Mode 7	AC/DC Adapter1 (12V/2.5A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <1%)	Record
Mode 8	AC/DC Adapter1 (12V/2.5A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <50%)	Pre-tested
Mode 9	AC/DC Adapter1 (9V/3A)+ EUT + Mobile Phone +Earphone + Watch (Battery Status: <100%)	Pre-tested

Mode 10	AC/DC Adapter1(9V/3A)+ EUT + Mobile Phone +Earphone + Watch (Battery Status: <1%)	Pre-tested
Mode 11	AC/DC Adapter1 (9V/3A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <50%)	Pre-tested
Mode 12	AC/DC Adapter1 (9V/3A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <100%)	Pre-tested
Mode 13	AC/DC Adapter2 (5V/2A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <1%)	Record
Mode 14	AC/DC Adapter2 (5V/2A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <50%)	Pre-tested
Mode 15	AC/DC Adapter2 (5V/2A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: 100%)	Pre-tested
Mode 16	AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <1%)	Record
Mode 17	AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <50%)	Pre-tested
Mode 18	AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: 100%)	Pre-tested
Mode 19	AC/DC Adapter1 (12V/2.5A) + AC/DC Adapter2 (5V/2A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <1%)	Record
Mode 20	AC/DC Adapter1 (12V/2.5A) + AC/DC Adapter2 (5V/2A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <50%)	Pre-tested
Mode 21	AC/DC Adapter1 (12V/2.5A) + AC/DC Adapter2 (5V/2A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: 100%)	Pre-tested
Mode 22	AC/DC Adapter1 (9V/3A) + AC/DC Adapter2 (5V/2A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <1%)	Pre-tested
Mode 23	AC/DC Adapter1 (9V/3A) + AC/DC Adapter2 (5V/2A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <50%)	Pre-tested
Mode 24	AC/DC Adapter1 (9V/3A)+ AC/DC Adapter2 (5V/2A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: 100%)	Pre-tested
Mode 25	AC/DC Adapter1 (12V/2.5A) + AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <1%)	Record
Mode 26	AC/DC Adapter1 (12V/2.5A) + AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <50%)	Pre-tested
Mode 27	AC/DC Adapter1 (12V/2.5A) + AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: 100%)	Pre-tested
Mode 28	AC/DC Adapter1 (9V/3A) + AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <1%)	Pre-tested
Mode 29	AC/DC Adapter1 (9V/3A) + AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <50%)	Pre-tested
Mode 30	AC/DC Adapter1 (9V/3A)+ AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: 100%)	Pre-tested
Mode 31	AC/DC Adapter2 (5V/2A) + AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <1%)	Record
Mode 32	AC/DC Adapter2 (5V/2A) + AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <50%)	Pre-tested
Mode 33	AC/DC Adapter2 (5V/2A) + AC/DC Adapter3 (5V/1A) + EUT + Mobile Phone +Earphone + Watch (Battery Status: <100%)	Pre-tested
Note: All test modes were pre-tested, but we only recorded the worst case in this report.		

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2013, FCC CFR PART 15C 15.207 and DA 00-705.

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

The EUT was operated in the normal operating mode for Hopping Numbers and Dwell Time test and a continuous transmits mode for other tests.

According to its specifications, the EUT must comply with the requirements of the Section 15.207 under the FCC Rules Part 15 Subpart C.

2.3 General Test Procedures

2.3.1 Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 6.2.1 of ANSI C63.10-2013 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using Quasi-peak and average detector modes.

2.3.2 Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane below 1GHz and 1.5 m above ground plane above 1GHz. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 6.3 of ANSI C63.10-2013

2.4. Test Sample

The application provides 2 samples to meet requirement;

Sample Number	Description
Sample 1(220211036A-1)	Engineer sample – continuous transmit
Sample 2(220211036A-2)	Normal sample – Intermittent transmit

3. SYSTEM TEST CONFIGURATION

3.1 Justification

The system was configured for testing in a normal condition.

3.2 EUT Exercise Software

N/A.

3.3 Special Accessories

No.	Equipment	Manufacturer	Model No.	Serial No.	Length	shielded/ unshielded	Notes
/	/	/	/	/	/	/	/

3.4 Block Diagram/Schematics

Please refer to the related document.

3.5 Equipment Modifications

Shenzhen LCS Compliance Testing Laboratory Ltd. has not done any modification on the EUT.

3.6 Test Setup

Please refer to the test setup photo.

4. SUMMARY OF TEST EQUIPMENT

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	MXA Signal Analyzer	Agilent	N9020A	MY49100040	2021-06-21	2022-06-20
2	SPECTRUM ANALYZER	R&S	FSP40	100503	2021-11-16	2022-11-15
3	3m Full Anechoic Chamber	MRDIANZI	FAC-3M	MR009	2021-09-25	2022-09-24
4	Positioning Controller	MF	MF7082	MF78020803	2021-06-21	2022-06-20
5	EMI Test Software	AUDIX	E3	/	N/A	N/A
6	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	2021-06-21	2022-06-20
7	Active Loop Antenna	SCHWARZBECK	FMZB 1519B	00005	2021-07-25	2024-07-24
8	By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2021-07-25	2024-07-24
9	Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1925	2021-07-01	2024-06-30
10	EMI Test Receiver	R&S	ESPI	101840	2021-06-21	2022-06-20
11	Artificial Mains	R&S	ENV216	101288	2021-06-21	2022-06-20
12	10dB Attenuator	SCHWARZBECK	MTS-IMP-136	261115-001-0032	2021-06-21	2022-06-20
13	EMI Test Software	Farad	EZ	/	N/A	N/A

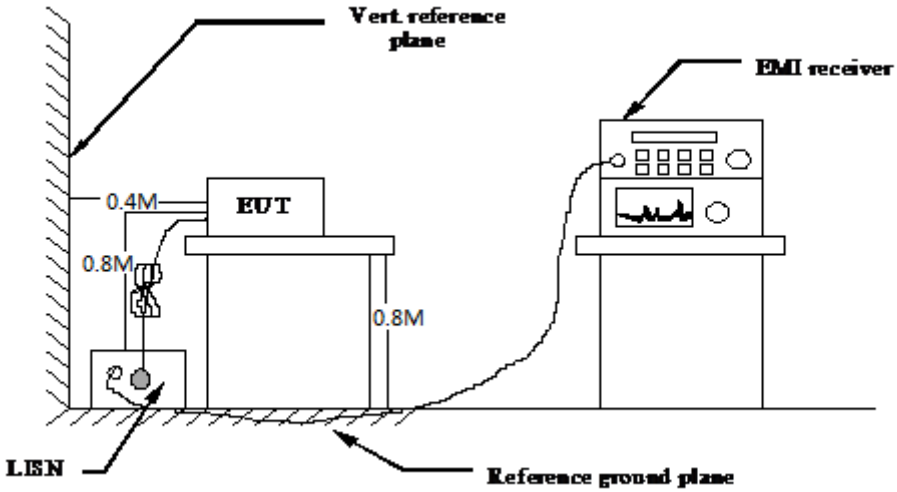
5. SUMMARY OF TEST RESULT

FCC Rules	Description of Test	Test Sample	Result
§15.209	*Radiated Spurious Emissions*	*Sample 1*	*Compliant*
§15.207(a)	*AC Conducted Emissions*	*Sample 1*	*Compliant*

Remark: The measurement uncertainty is not included in the test result.
N/A – Not Applicable!!!

6. POWER LINE CONDUCTED MEASUREMENT

6.1. Block Diagram of Test Setup



6.2. Standard Applicable

According to §15.207: For all the consumer devices which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range are listed as follows:

Frequency Range (MHz)	Limits (dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

* Decreasing linearly with the logarithm of the frequency

6.3 Test Results

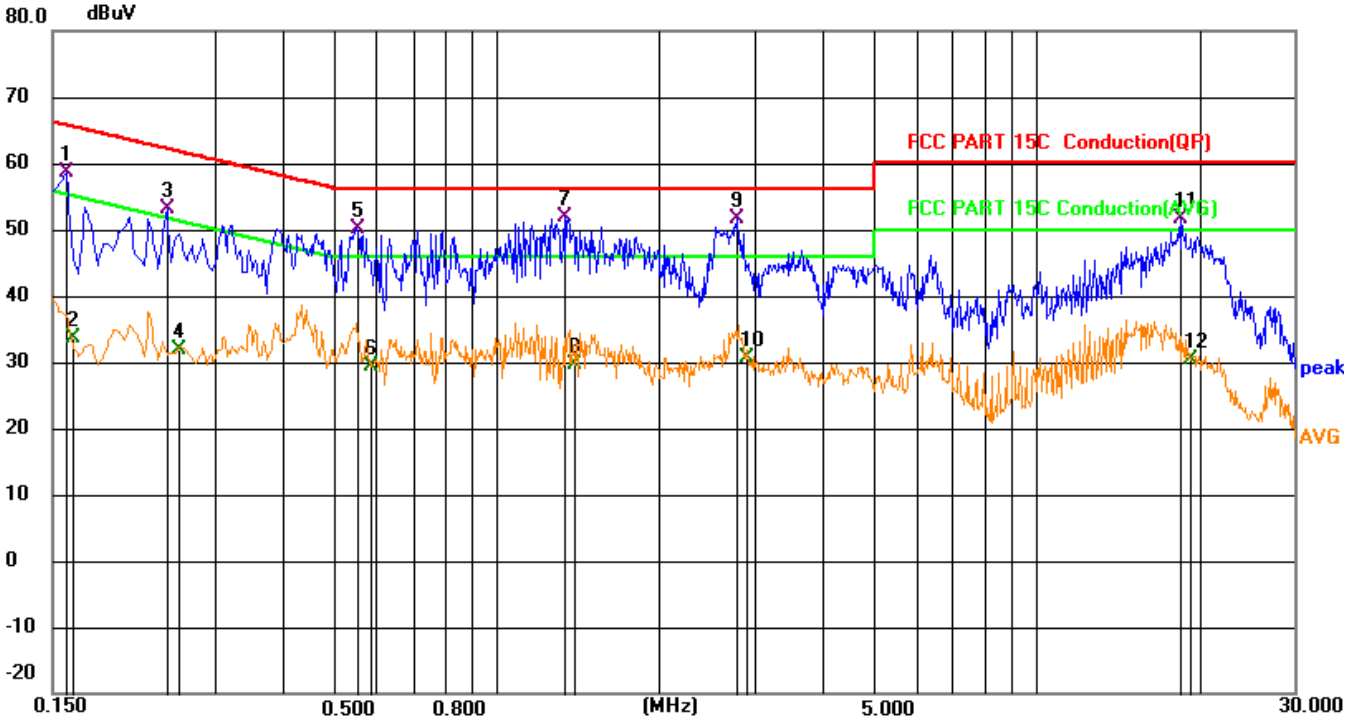
PASS

The test data please refer to following page.

Temperature	22.5℃	Humidity	53.7%
Test Engineer	Mark Chen	Configurations	Transmit

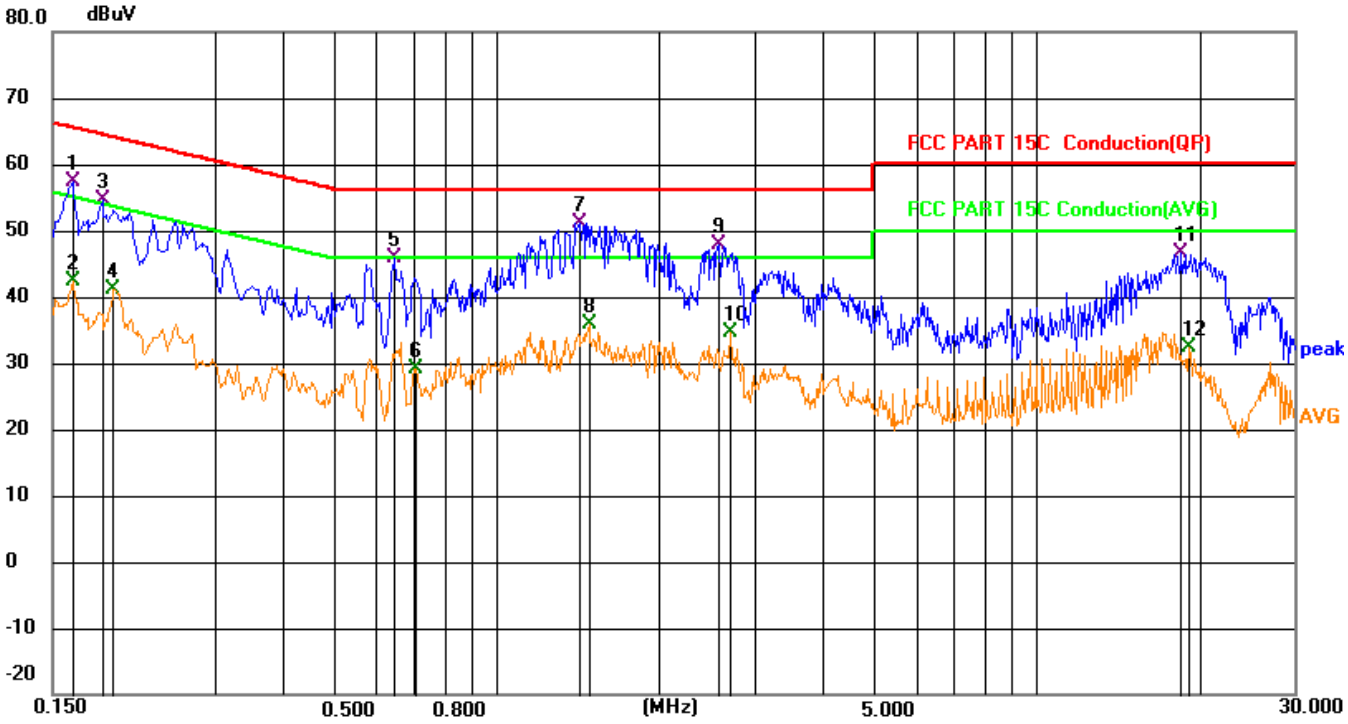
AC Power Line Conducted Emission @ AC 120V/60Hz (Worst Case)(TM1)

Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1590	38.97	19.63	58.60	65.52	-6.92	QP	
2		0.1624	14.01	19.63	33.64	55.34	-21.70	AVG	
3		0.2446	33.60	19.63	53.23	61.94	-8.71	QP	
4		0.2561	12.28	19.63	31.91	51.56	-19.65	AVG	
5		0.5505	30.40	19.65	50.05	56.00	-5.95	QP	
6		0.5865	9.63	19.66	29.29	46.00	-16.71	AVG	
7	*	1.3335	32.22	19.66	51.88	56.00	-4.12	QP	
8		1.3965	9.88	19.66	29.54	46.00	-16.46	AVG	
9		2.7871	31.97	19.68	51.65	56.00	-4.35	QP	
10		2.8951	10.95	19.68	30.63	46.00	-15.37	AVG	
11		18.5821	31.34	20.17	51.51	60.00	-8.49	QP	
12		19.3246	10.20	20.19	30.39	50.00	-19.61	AVG	

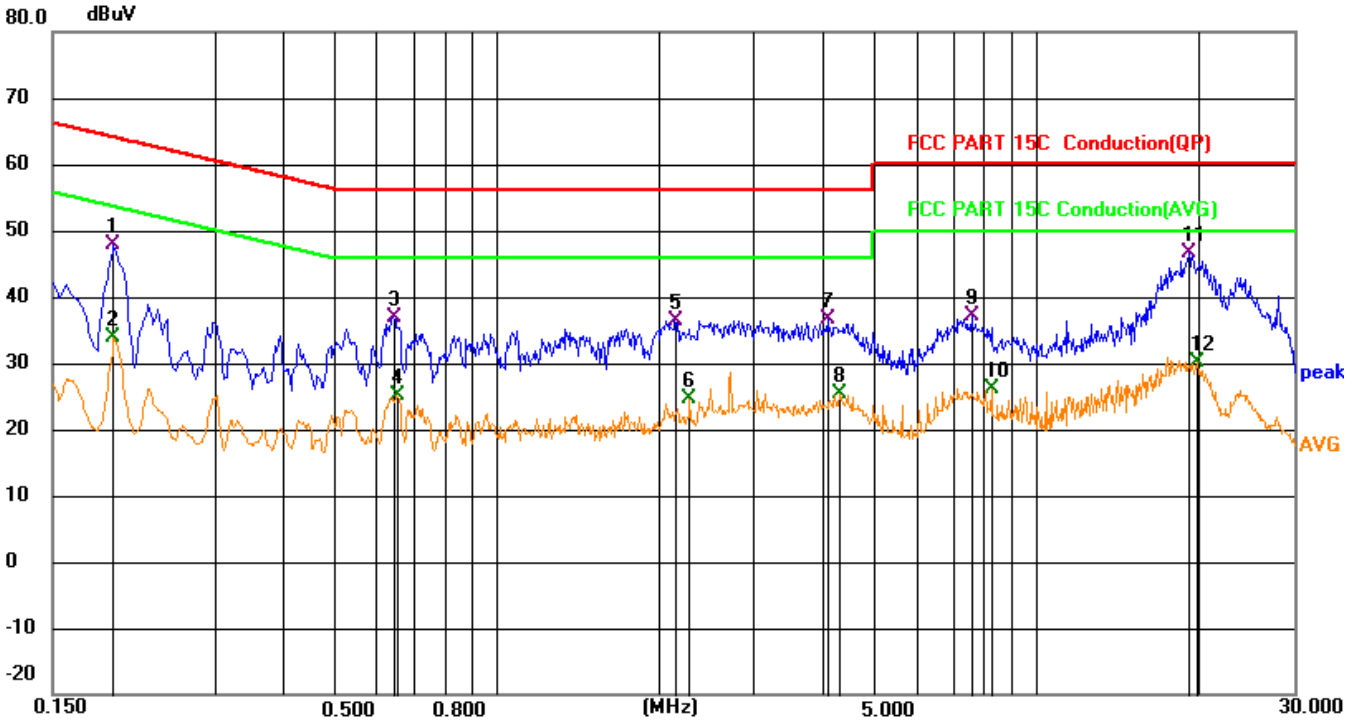
Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1636	37.69	19.63	57.32	65.28	-7.96	QP	
2		0.1636	22.66	19.63	42.29	55.28	-12.99	AVG	
3		0.1861	34.94	19.63	54.57	64.21	-9.64	QP	
4		0.1951	21.55	19.63	41.18	53.82	-12.64	AVG	
5		0.6450	26.30	19.66	45.96	56.00	-10.04	QP	
6		0.7036	9.52	19.65	29.17	46.00	-16.83	AVG	
7	*	1.4236	31.55	19.66	51.21	56.00	-4.79	QP	
8		1.4821	16.33	19.66	35.99	46.00	-10.01	AVG	
9		2.5711	28.20	19.71	47.91	56.00	-8.09	QP	
10		2.7106	15.01	19.72	34.73	46.00	-11.27	AVG	
11		18.5505	26.38	20.17	46.55	60.00	-13.45	QP	
12		19.1356	12.15	20.19	32.34	50.00	-17.66	AVG	

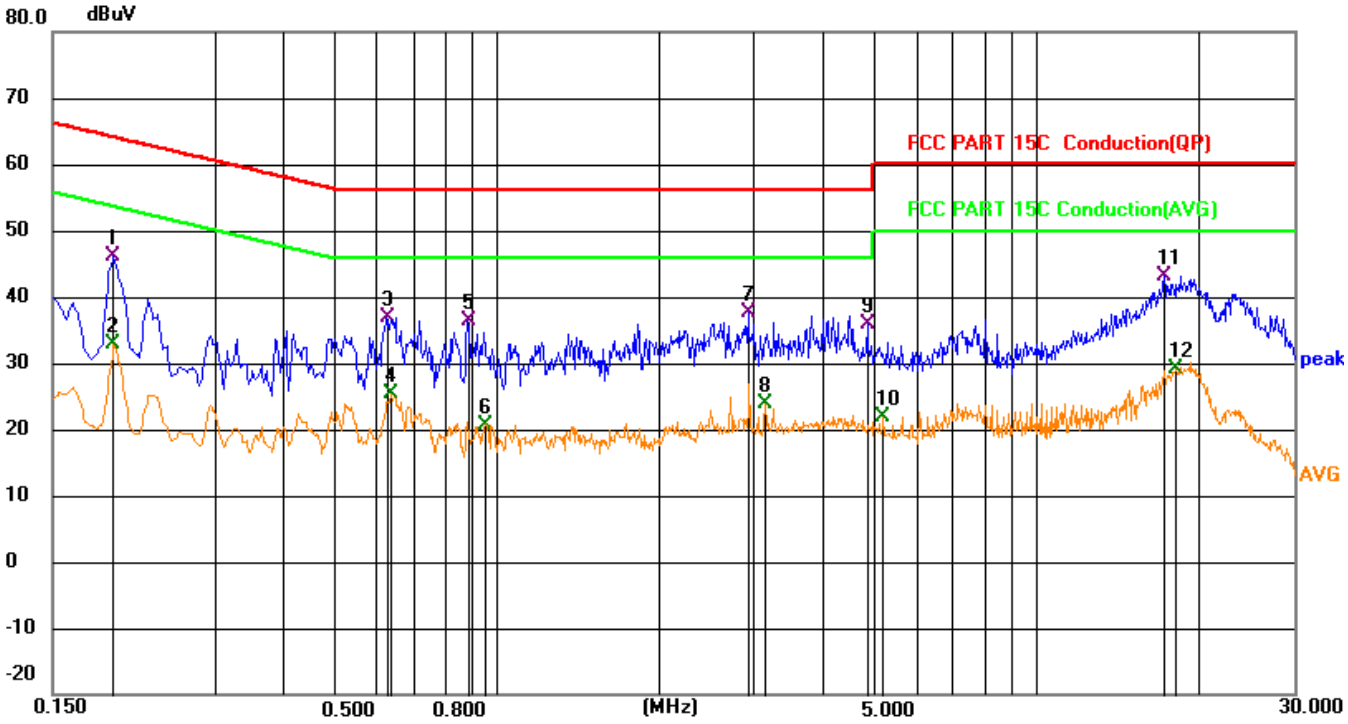
AC Power Line Conducted Emission @ AC 120V/60Hz (Worst Case)(TM7)

Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1951	28.32	19.63	47.95	63.82	-15.87	QP	
2		0.1951	14.14	19.63	33.77	53.82	-20.05	AVG	
3		0.6406	17.14	19.66	36.80	56.00	-19.20	QP	
4		0.6541	5.37	19.65	25.02	46.00	-20.98	AVG	
5		2.1346	16.73	19.68	36.41	56.00	-19.59	QP	
6		2.2740	5.01	19.68	24.69	46.00	-21.31	AVG	
7		4.0921	16.87	19.70	36.57	56.00	-19.43	QP	
8		4.3306	5.60	19.70	25.30	46.00	-20.70	AVG	
9		7.5931	17.34	19.75	37.09	60.00	-22.91	QP	
10		8.2411	6.25	19.78	26.03	50.00	-23.97	AVG	
11	*	19.2121	26.34	20.19	46.53	60.00	-13.47	QP	
12		19.8690	9.81	20.21	30.02	50.00	-19.98	AVG	

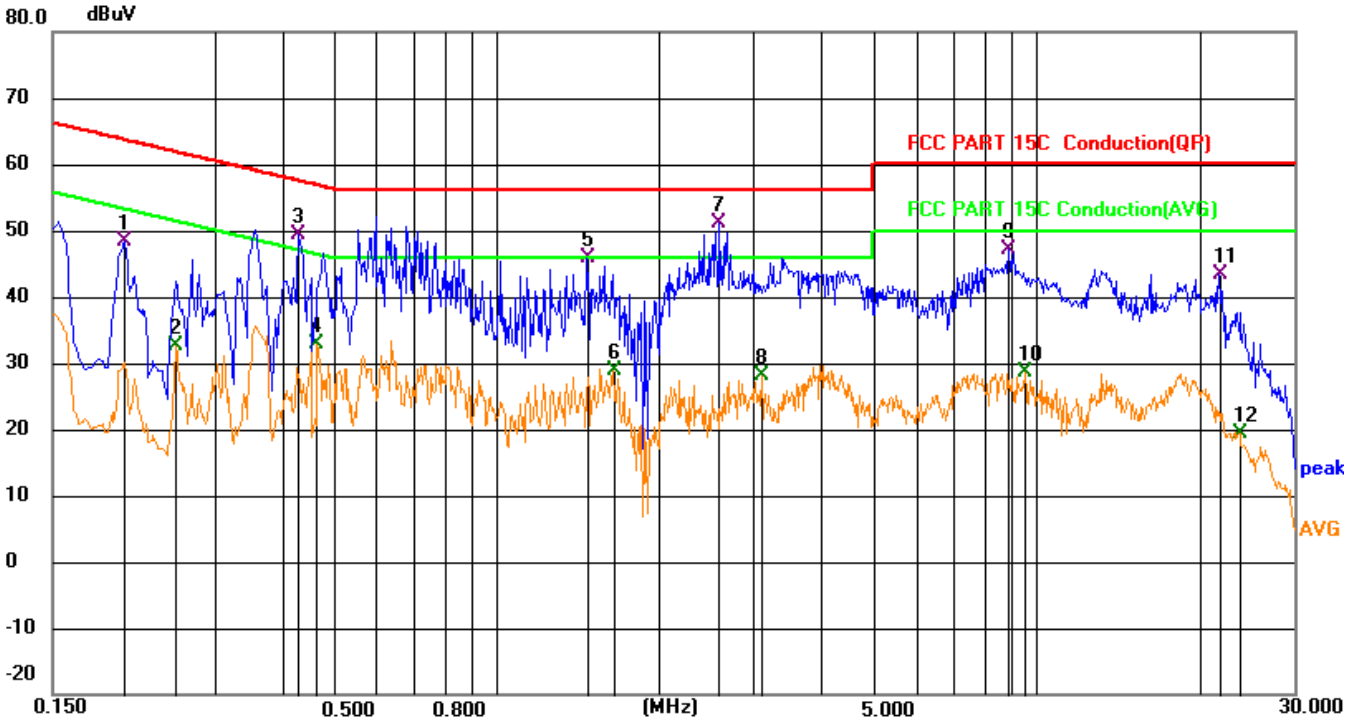
Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1951	26.38	19.63	46.01	63.82	-17.81	QP	
2		0.1951	13.19	19.63	32.82	53.82	-21.00	AVG	
3		0.6271	17.33	19.66	36.99	56.00	-19.01	QP	
4		0.6361	5.60	19.66	25.26	46.00	-20.74	AVG	
5		0.8836	16.81	19.64	36.45	56.00	-19.55	QP	
6		0.9511	1.06	19.65	20.71	46.00	-25.29	AVG	
7		2.9266	17.82	19.73	37.55	56.00	-18.45	QP	
8		3.1471	4.17	19.76	23.93	46.00	-22.07	AVG	
9		4.8571	16.20	19.80	36.00	56.00	-20.00	QP	
10		5.2126	1.96	19.80	21.76	50.00	-28.24	AVG	
11	*	17.2816	23.01	20.07	43.08	60.00	-16.92	QP	
12		18.1546	8.90	20.16	29.06	50.00	-20.94	AVG	

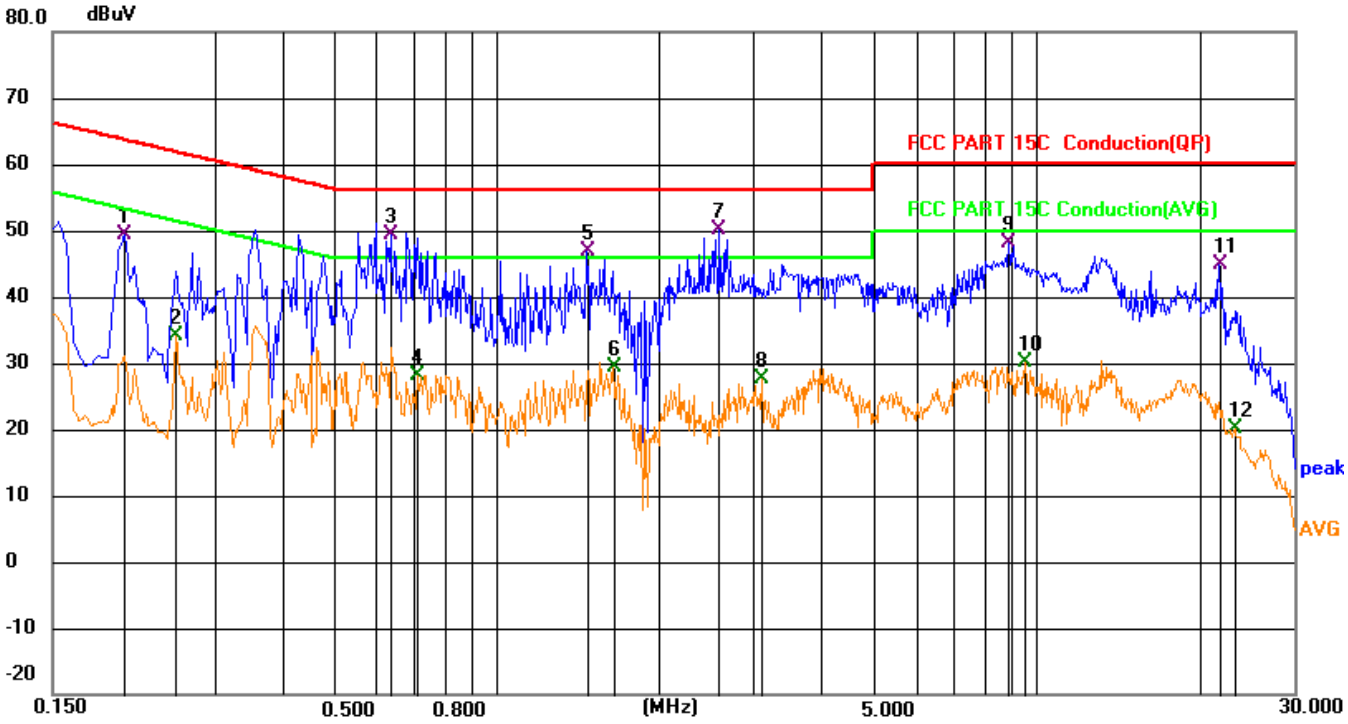
AC Power Line Conducted Emission @ AC 120V/60Hz (Worst Case)(TM13)

Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2041	28.65	19.75	48.40	63.44	-15.04	QP	
2		0.2535	12.79	19.75	32.54	51.64	-19.10	AVG	
3		0.4289	29.58	19.77	49.35	57.27	-7.92	QP	
4		0.4651	13.02	19.78	32.80	46.60	-13.80	AVG	
5		1.4638	26.11	19.81	45.92	56.00	-10.08	QP	
6		1.6393	8.98	19.83	28.81	46.00	-17.19	AVG	
7	*	2.5846	31.23	19.86	51.09	56.00	-4.91	QP	
8		3.0975	8.17	19.88	28.05	46.00	-17.95	AVG	
9		8.9024	27.02	20.06	47.08	60.00	-12.92	QP	
10		9.5325	8.61	20.08	28.69	50.00	-21.31	AVG	
11		21.7364	22.56	20.91	43.47	60.00	-16.53	QP	
12		23.7749	-1.38	20.79	19.41	50.00	-30.59	AVG	

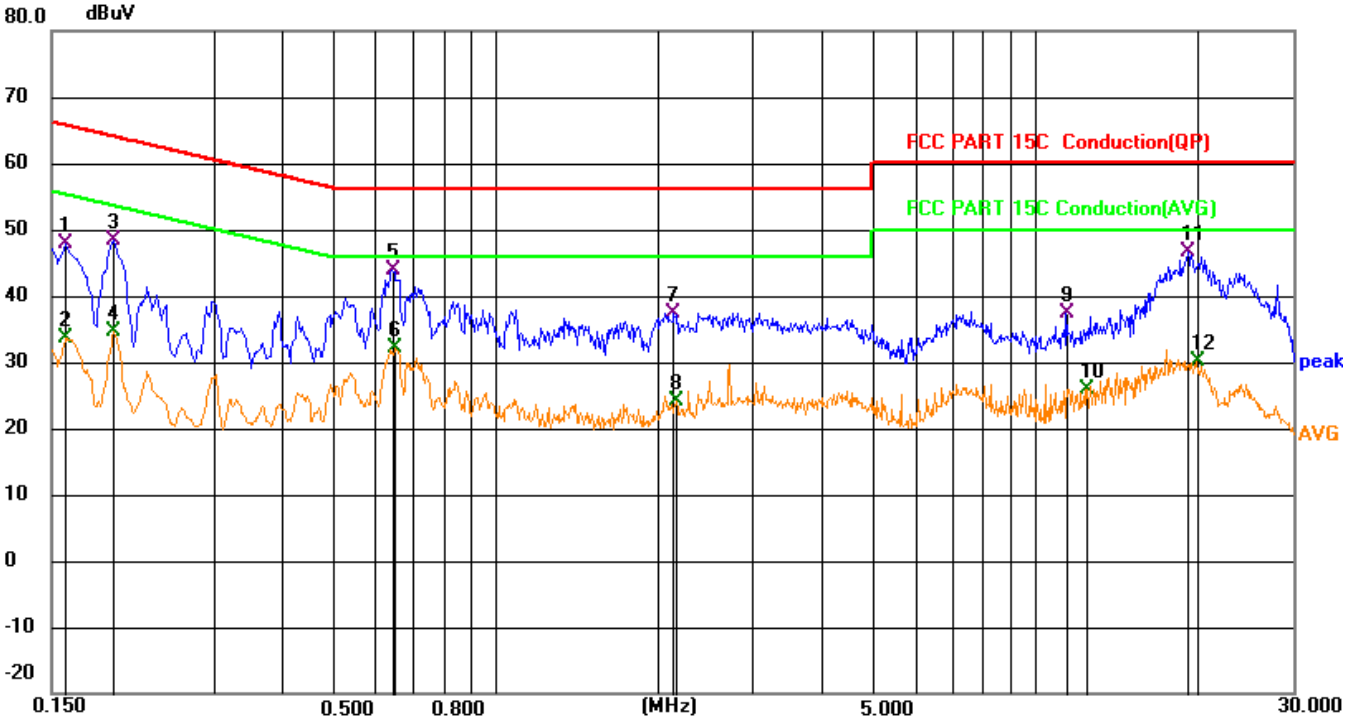
Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2041	29.65	19.75	49.40	63.44	-14.04	QP	
2		0.2535	14.29	19.75	34.04	51.64	-17.60	AVG	
3		0.6360	29.68	19.81	49.49	56.00	-6.51	QP	
4		0.7125	8.42	19.81	28.23	46.00	-17.77	AVG	
5		1.4638	27.11	19.81	46.92	56.00	-9.08	QP	
6		1.6393	9.48	19.83	29.31	46.00	-16.69	AVG	
7	*	2.5846	30.23	19.86	50.09	56.00	-5.91	QP	
8		3.0975	7.67	19.88	27.55	46.00	-18.45	AVG	
9		8.9024	28.02	20.06	48.08	60.00	-11.92	QP	
10		9.5325	10.11	20.08	30.19	50.00	-19.81	AVG	
11		21.7364	24.06	20.91	44.97	60.00	-15.03	QP	
12		23.3025	-0.77	20.81	20.04	50.00	-29.96	AVG	

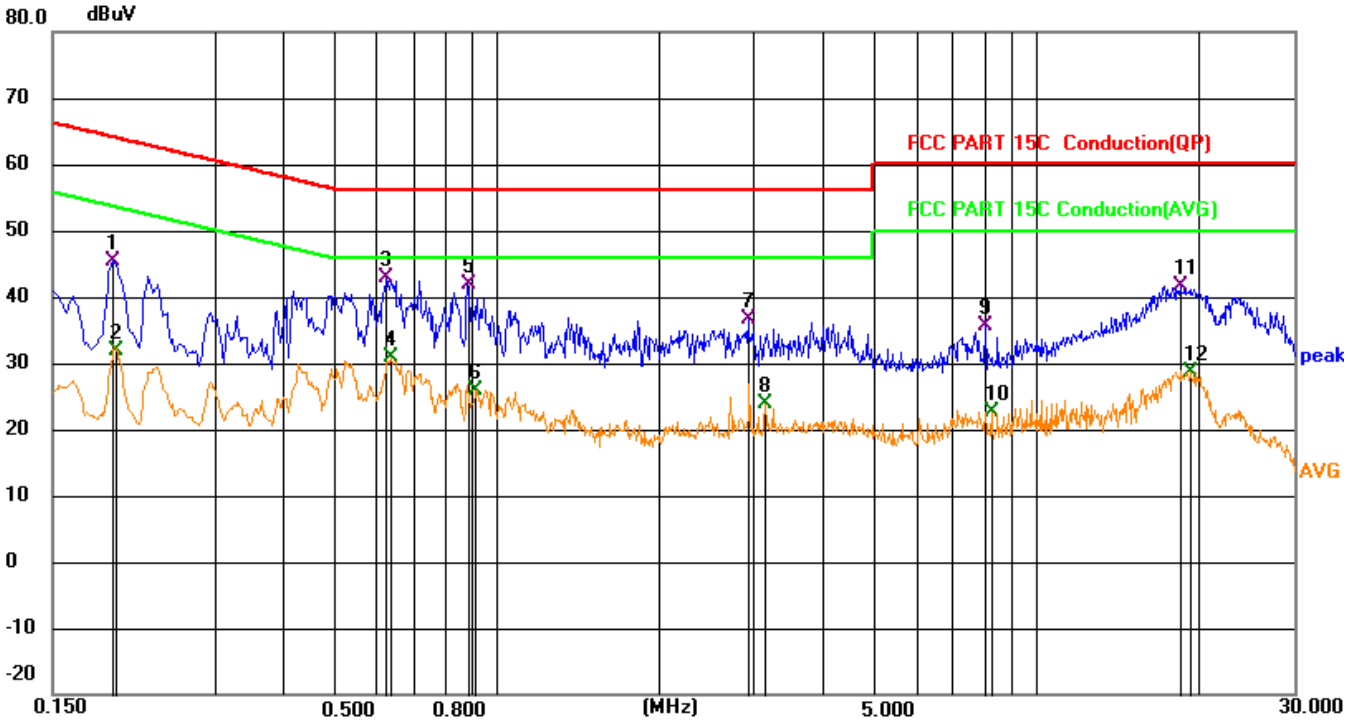
AC Power Line Conducted Emission @ AC 120V/60Hz (Worst Case)(TM16)

Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1590	28.17	19.63	47.80	65.52	-17.72	QP	
2		0.1590	13.90	19.63	33.53	55.52	-21.99	AVG	
3		0.1952	28.70	19.63	48.33	63.81	-15.48	QP	
4		0.1952	14.97	19.63	34.60	53.81	-19.21	AVG	
5	*	0.6404	24.14	19.66	43.80	56.00	-12.20	QP	
6		0.6540	12.37	19.65	32.02	46.00	-13.98	AVG	
7		2.1345	17.73	19.68	37.41	56.00	-18.59	QP	
8		2.1659	4.39	19.68	24.07	46.00	-21.93	AVG	
9		11.3865	17.55	19.85	37.40	60.00	-22.60	QP	
10		12.4846	6.08	19.84	25.92	50.00	-24.08	AVG	
11		19.2119	26.34	20.19	46.53	60.00	-13.47	QP	
12		19.8690	9.81	20.21	30.02	50.00	-19.98	AVG	

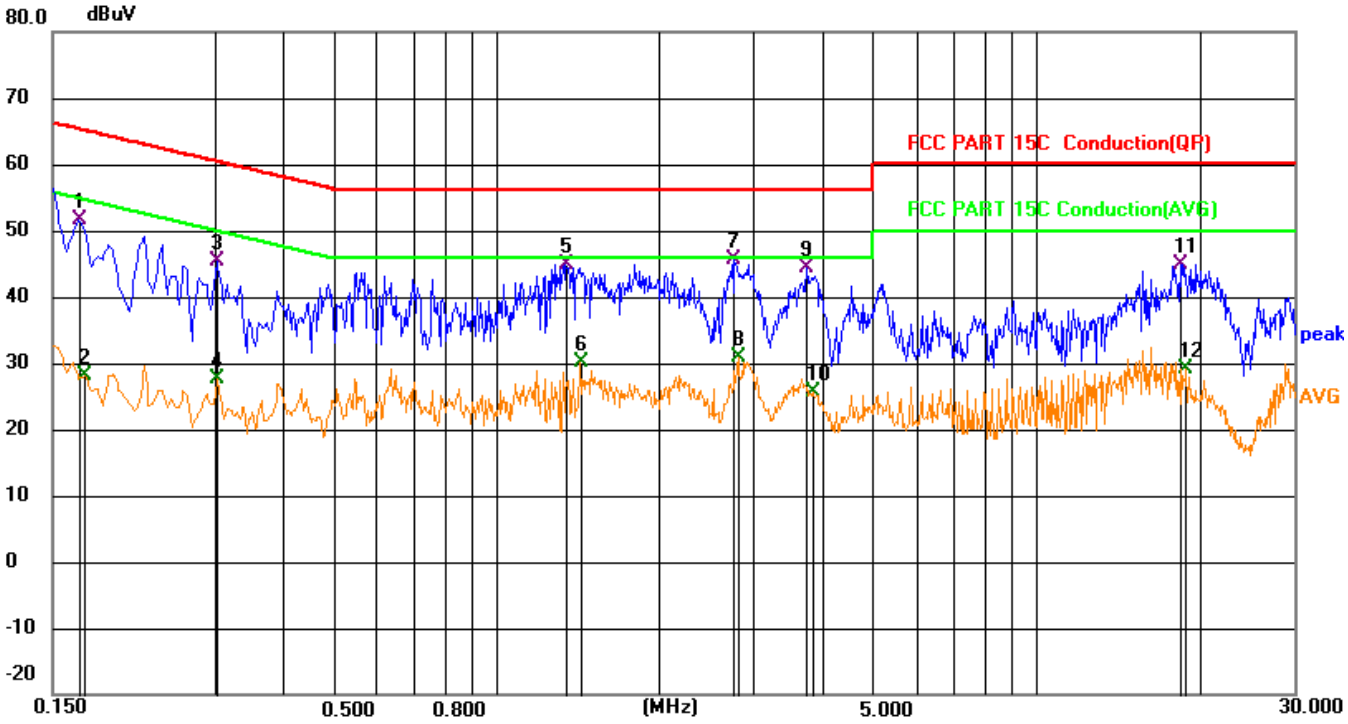
Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1932	25.77	19.63	45.40	63.90	-18.50	QP	
2		0.1965	12.34	19.63	31.97	53.76	-21.79	AVG	
3	*	0.6270	23.33	19.66	42.99	56.00	-13.01	QP	
4		0.6360	11.10	19.66	30.76	46.00	-15.24	AVG	
5		0.8834	22.31	19.64	41.95	56.00	-14.05	QP	
6		0.9150	6.31	19.65	25.96	46.00	-20.04	AVG	
7		2.9266	16.82	19.73	36.55	56.00	-19.45	QP	
8		3.1471	4.17	19.76	23.93	46.00	-22.07	AVG	
9		8.0431	15.77	19.84	35.61	60.00	-24.39	QP	
10		8.2636	2.68	19.84	22.52	50.00	-27.48	AVG	
11		18.4515	21.49	20.17	41.66	60.00	-18.34	QP	
12		19.2436	8.48	20.19	28.67	50.00	-21.33	AVG	

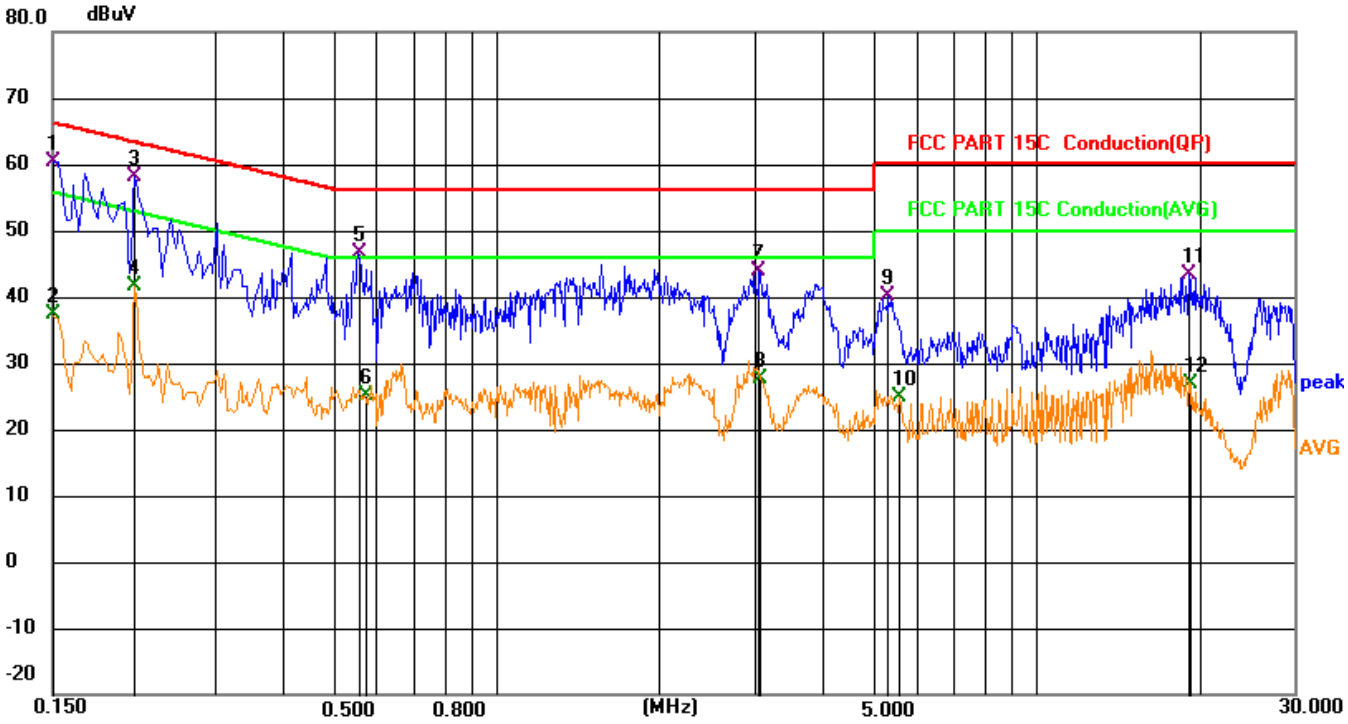
AC Power Line Conducted Emission @ AC 120V/60Hz (Worst Case)(TM19)

Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1681	32.09	19.63	51.72	65.05	-13.33	QP	
2		0.1726	8.42	19.63	28.05	54.83	-26.78	AVG	
3		0.3031	25.84	19.63	45.47	60.16	-14.69	QP	
4		0.3031	7.97	19.63	27.60	50.16	-22.56	AVG	
5		1.3426	25.33	19.66	44.99	56.00	-11.01	QP	
6		1.4281	10.44	19.66	30.10	46.00	-15.90	AVG	
7	*	2.7646	25.90	19.68	45.58	56.00	-10.42	QP	
8		2.7961	11.18	19.68	30.86	46.00	-15.14	AVG	
9		3.7411	24.62	19.70	44.32	56.00	-11.68	QP	
10		3.8491	6.00	19.70	25.70	46.00	-20.30	AVG	
11		18.4516	24.81	20.17	44.98	60.00	-15.02	QP	
12		18.9331	8.99	20.18	29.17	50.00	-20.83	AVG	

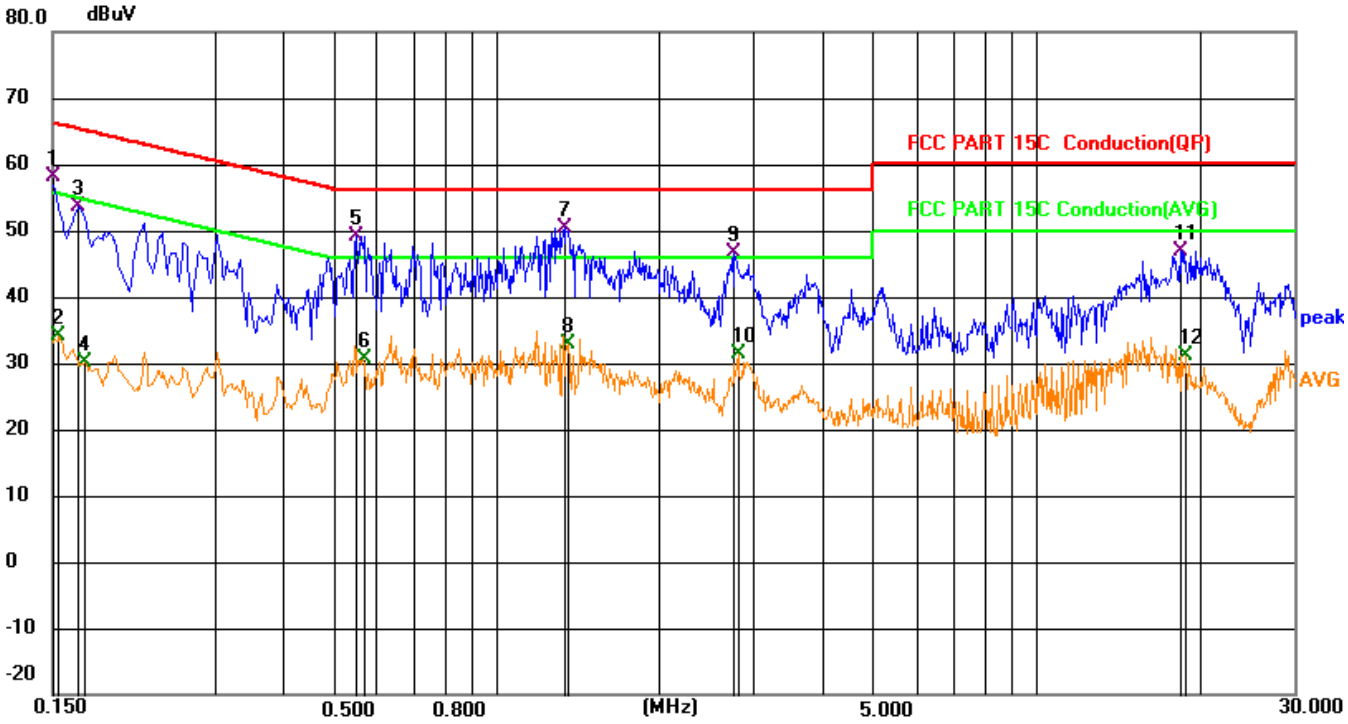
Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	40.77	19.63	60.40	66.00	-5.60	QP	
2		0.1500	17.69	19.63	37.32	56.00	-18.68	AVG	
3	*	0.2131	38.59	19.63	58.22	63.08	-4.86	QP	
4		0.2131	22.07	19.63	41.70	53.08	-11.38	AVG	
5		0.5551	26.86	19.65	46.51	56.00	-9.49	QP	
6		0.5686	5.52	19.66	25.18	46.00	-20.82	AVG	
7		3.0706	24.18	19.75	43.93	56.00	-12.07	QP	
8		3.0751	8.00	19.75	27.75	46.00	-18.25	AVG	
9		5.3161	20.32	19.80	40.12	60.00	-19.88	QP	
10		5.5861	4.99	19.80	24.79	50.00	-25.21	AVG	
11		19.1716	23.23	20.19	43.42	60.00	-16.58	QP	
12		19.4236	6.71	20.19	26.90	50.00	-23.10	AVG	

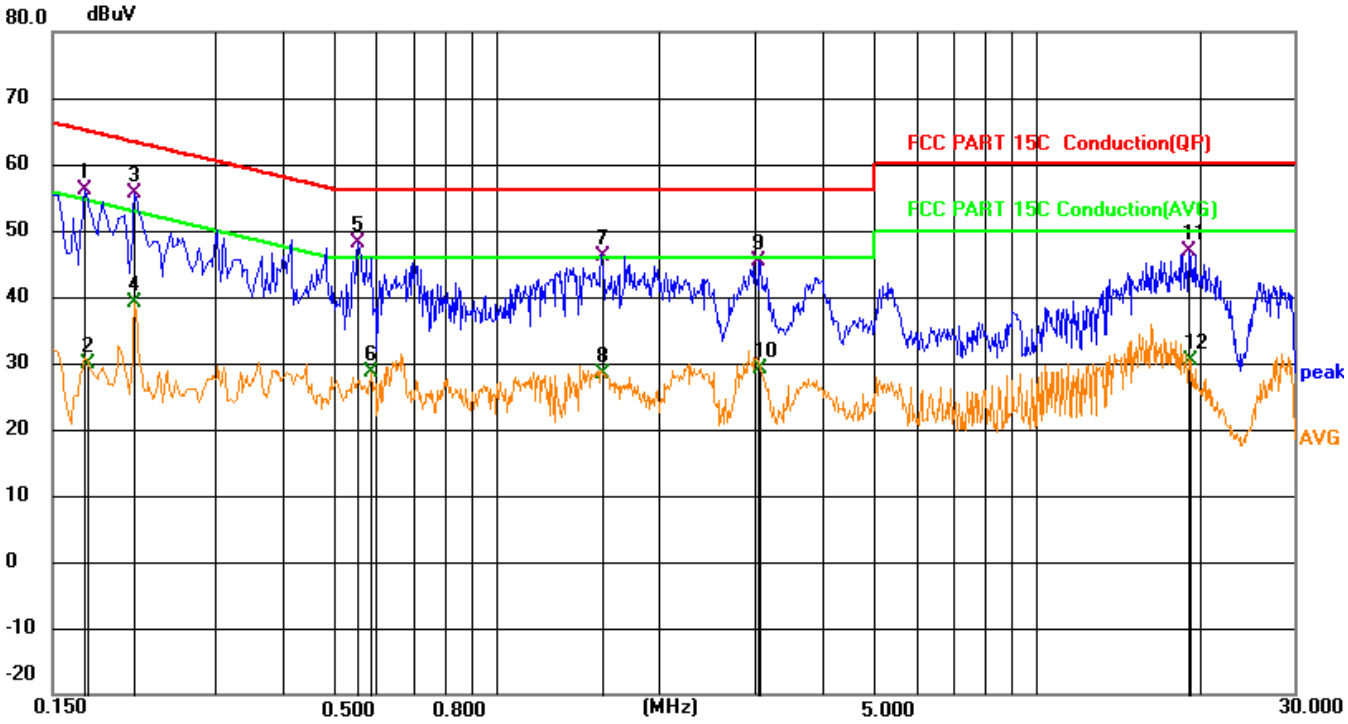
AC Power Line Conducted Emission @ AC 120V/60Hz (Worst Case)(TM25)

Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	38.47	19.63	58.10	66.00	-7.90	QP	
2		0.1544	14.45	19.63	34.08	55.76	-21.68	AVG	
3		0.1680	34.09	19.63	53.72	65.06	-11.34	QP	
4		0.1726	10.42	19.63	30.05	54.83	-24.78	AVG	
5		0.5503	29.39	19.65	49.04	56.00	-6.96	QP	
6		0.5636	10.95	19.65	30.60	46.00	-15.40	AVG	
7	*	1.3425	30.83	19.66	50.49	56.00	-5.51	QP	
8		1.3560	13.27	19.66	32.93	46.00	-13.07	AVG	
9		2.7646	26.90	19.68	46.58	56.00	-9.42	QP	
10		2.7961	11.68	19.68	31.36	46.00	-14.64	AVG	
11		18.4512	26.81	20.17	46.98	60.00	-13.02	QP	
12		18.9329	10.99	20.18	31.17	50.00	-18.83	AVG	

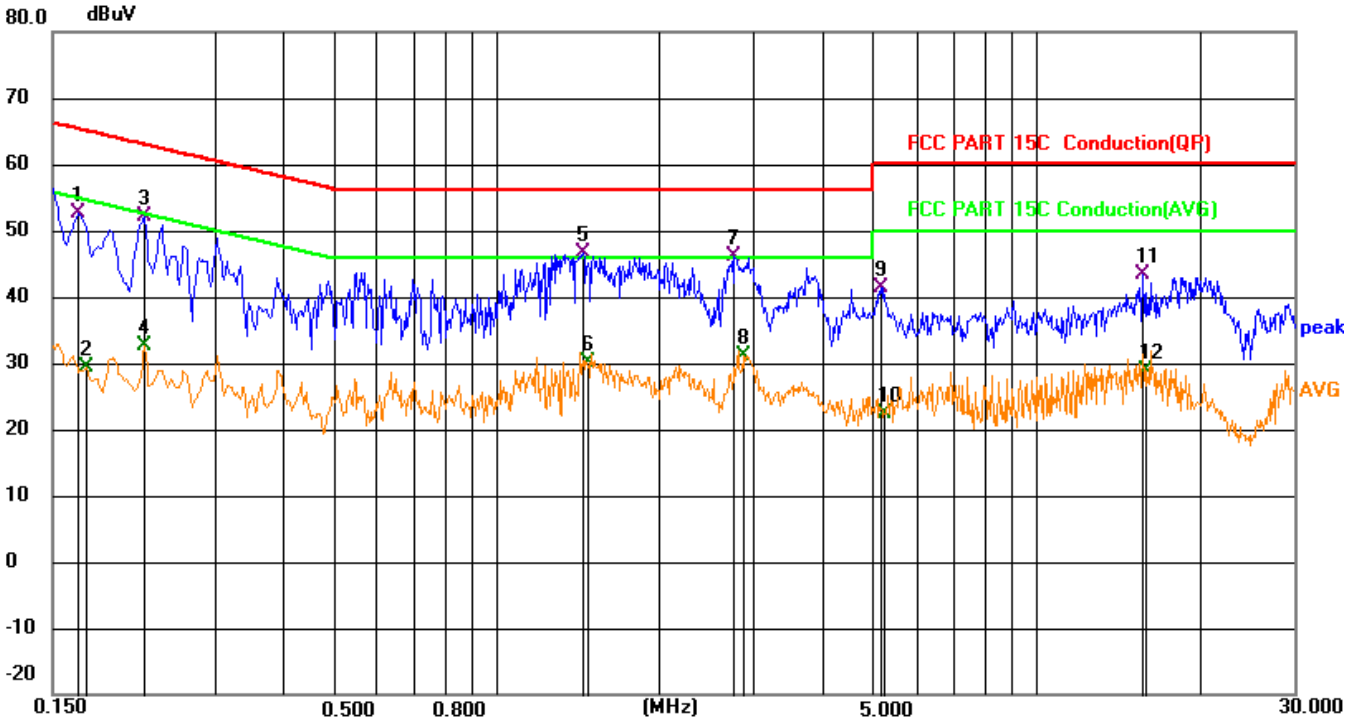
Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1726	36.39	19.63	56.02	64.83	-8.81	QP	
2		0.1748	10.26	19.63	29.89	54.73	-24.84	AVG	
3	*	0.2131	36.09	19.63	55.72	63.08	-7.36	QP	
4		0.2131	19.57	19.63	39.20	53.08	-13.88	AVG	
5		0.5550	28.36	19.65	48.01	56.00	-7.99	QP	
6		0.5865	9.06	19.66	28.72	46.00	-17.28	AVG	
7		1.5626	26.58	19.67	46.25	56.00	-9.75	QP	
8		1.5765	8.79	19.67	28.46	46.00	-17.54	AVG	
9		3.0706	25.68	19.75	45.43	56.00	-10.57	QP	
10		3.0750	9.50	19.75	29.25	46.00	-16.75	AVG	
11		19.1716	26.73	20.19	46.92	60.00	-13.08	QP	
12		19.4236	10.21	20.19	30.40	50.00	-19.60	AVG	

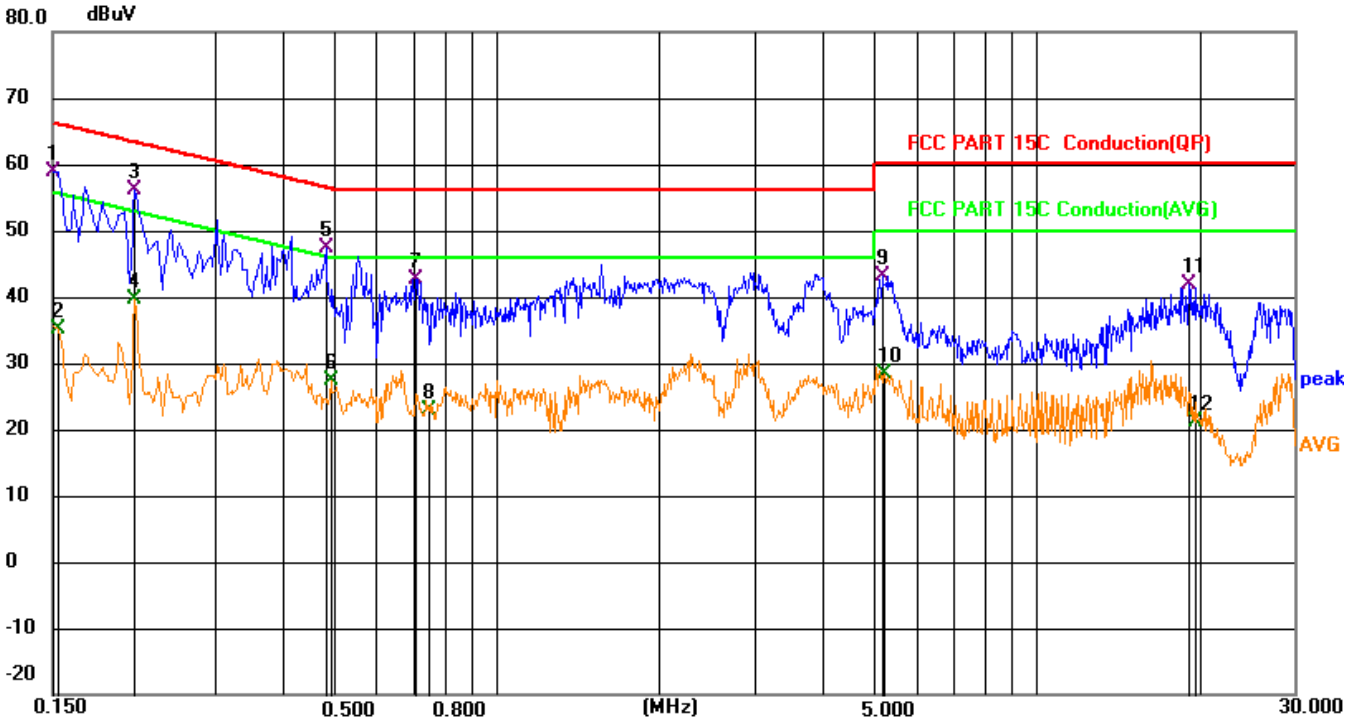
AC Power Line Conducted Emission @ AC 120V/60Hz (Worst Case)(TM31)

Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1680	33.09	19.63	52.72	65.06	-12.34	QP	
2		0.1728	9.68	19.63	29.31	54.82	-25.51	AVG	
3		0.2220	32.50	19.63	52.13	62.74	-10.61	QP	
4		0.2220	13.04	19.63	32.67	52.74	-20.07	AVG	
5	*	1.4415	27.09	19.66	46.75	56.00	-9.25	QP	
6		1.4683	10.36	19.66	30.02	46.00	-15.98	AVG	
7		2.7646	26.40	19.68	46.08	56.00	-9.92	QP	
8		2.8680	11.36	19.68	31.04	46.00	-14.96	AVG	
9		5.1450	21.65	19.70	41.35	60.00	-18.65	QP	
10		5.2441	2.80	19.70	22.50	50.00	-27.50	AVG	
11		15.7560	23.44	19.90	43.34	60.00	-16.66	QP	
12		15.9991	9.06	19.91	28.97	50.00	-21.03	AVG	

Neutral

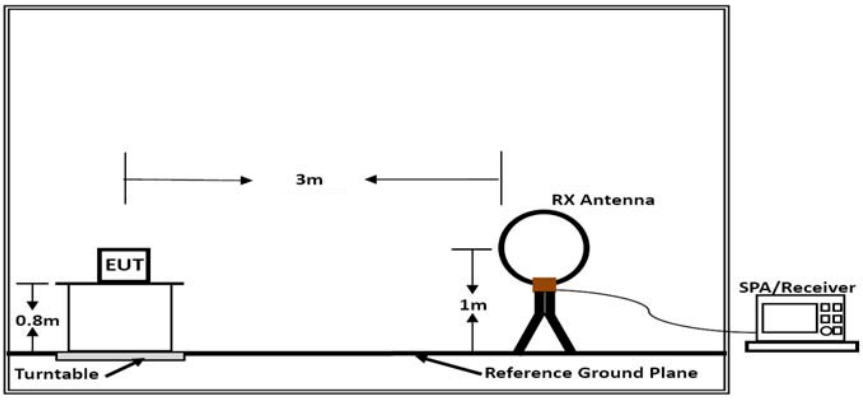


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	39.27	19.63	58.90	66.00	-7.10	QP	
2		0.1532	15.52	19.63	35.15	55.82	-20.67	AVG	
3	*	0.2131	36.59	19.63	56.22	63.08	-6.86	QP	
4		0.2131	20.07	19.63	39.70	53.08	-13.38	AVG	
5		0.4829	27.76	19.64	47.40	56.29	-8.89	QP	
6		0.4919	7.84	19.64	27.48	46.14	-18.66	AVG	
7		0.7078	23.08	19.65	42.73	56.00	-13.27	QP	
8		0.7485	3.35	19.65	23.00	46.00	-23.00	AVG	
9		5.1721	23.44	19.80	43.24	60.00	-16.76	QP	
10		5.2441	8.57	19.80	28.37	50.00	-21.63	AVG	
11		19.1716	21.73	20.19	41.92	60.00	-18.08	QP	
12		19.8331	0.85	20.21	21.06	50.00	-28.94	AVG	

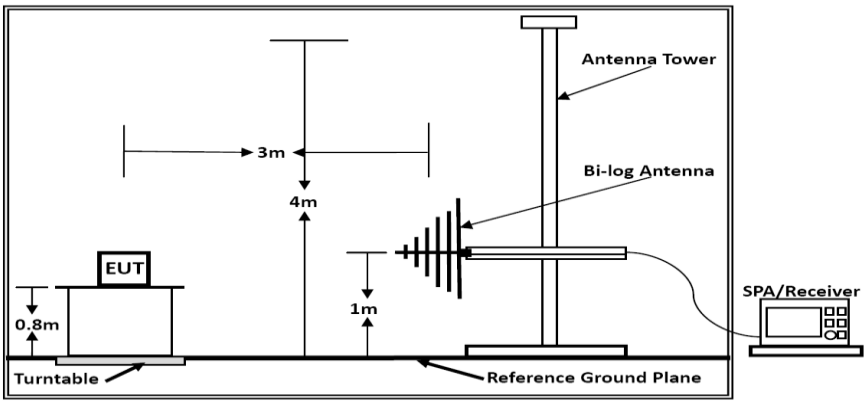
****Note: Pre-scan all modes and recorded the worst case results in this report.*
Margin=Reading level + Correct - Limit

7. RADIATED EMISSION MEASUREMENT

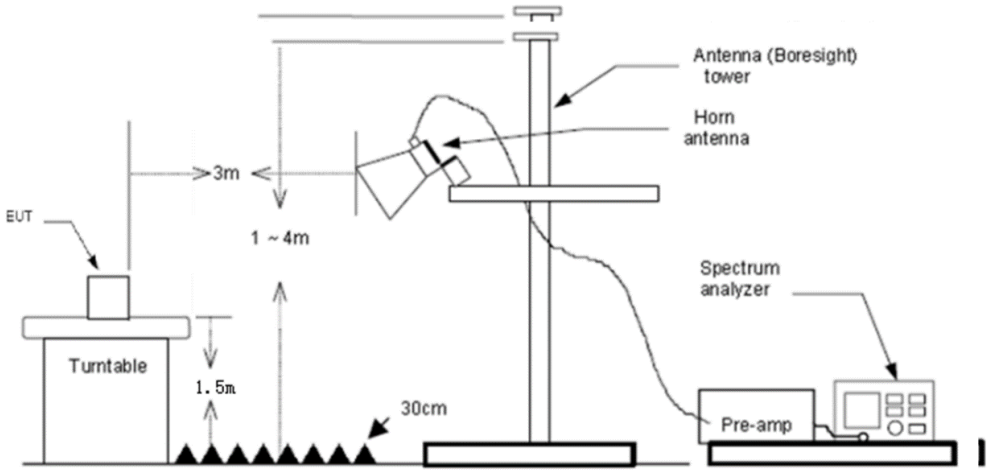
7.1. Block Diagram of Test Setup



Below 30MHz



Below 1GHz



7.2. Radiated Emission Limit

15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
\1\ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293.	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(\2\)
13.36-13.41			

\1\ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

\2\ Above 38.6

According to §15.247 (d): 20dBc in any 100 kHz bandwidth outside the operating frequency band. 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.

Frequencies (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

7.3. EUT Configuration on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.4. Operating Condition of EUT

(1) Setup the EUT as shown in Section 7.1.

7.5. Measuring Setting

The following table is the setting of spectrum analyzer and receiver.

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP/Average
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP/Average
Start ~ Stop Frequency	30MHz~1000MHz / RB 100kHz for QP

7.6. Test Procedure

1) Sequence of testing 9 kHz to 30 MHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.

--- If the EUT is a floor standing device, it is placed on the ground.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions.

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Premeasurement:

--- The turntable rotates from 0 °to 315 °using 45 °steps.

--- The antenna height is 1.0 meter.

--- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

Final measurement:

--- Identified emissions during the premeasurement the software maximizes by rotating the turntable position (0 ° to 360 °) and by rotating the elevation axes (0 °to 360 °).

--- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QPK detector.

--- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

2) Sequence of testing 30 MHz to 1 GHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Premeasurement:

--- The turntable rotates from 0 °to 315 °using 45 °steps.

--- The antenna is polarized vertical and horizontal.

--- The antenna height changes from 1 to 3 meter.

--- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement:

--- The final measurement will be performed with minimum the six highest peaks.

--- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position (±45 °) and antenna movement between 1 and 4 meter.

--- The final measurement will be done with QP detector with an EMI receiver.

--- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

7.7. Test Results

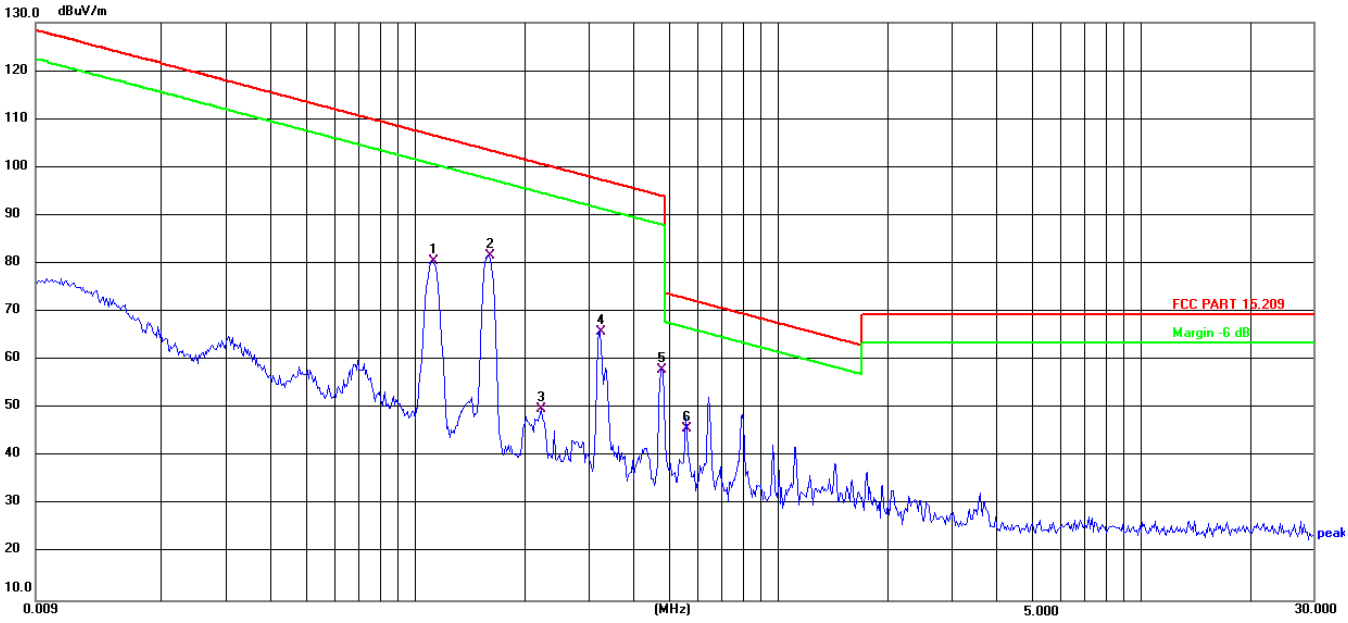
PASS.

report the worst test data (TM1) in test report;

The test data please refer to following page:

Temperature	23.6℃	Humidity	52.2%
Test Engineer	Mark Chen	Configurations	Transmit

0.009 MHz – 30 MHz



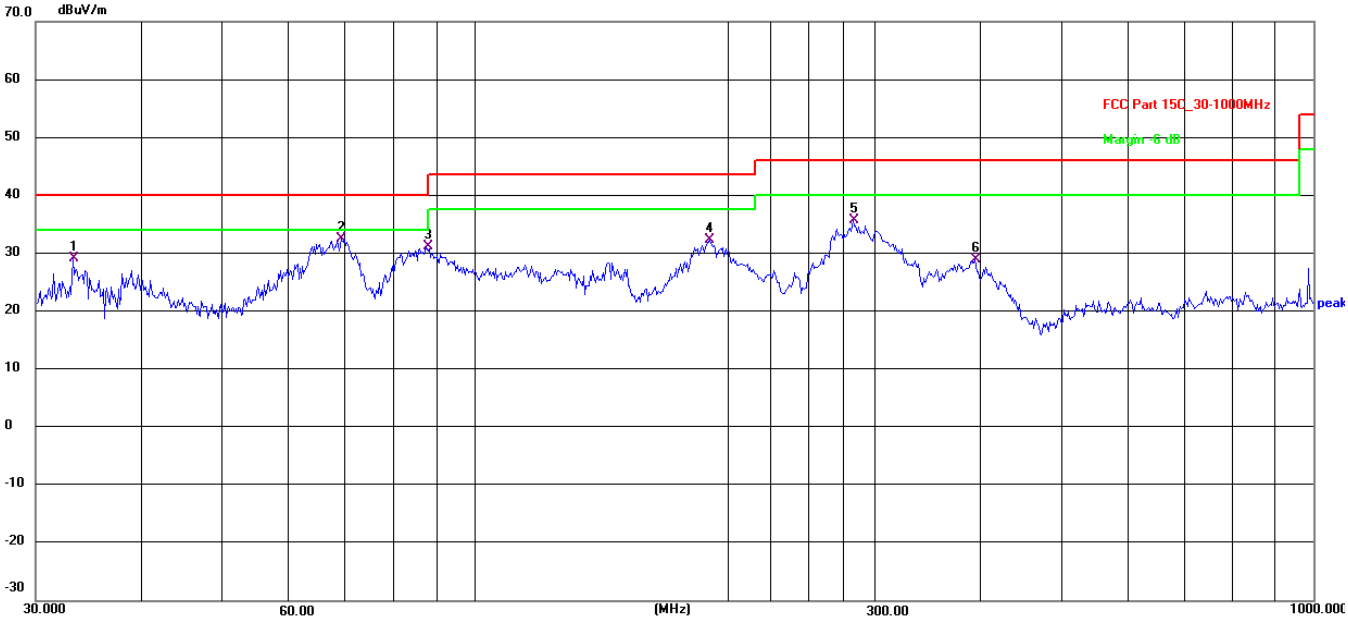
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	0.1122	89.98	-9.41	80.57	106.53	-25.96	QP
2 *	0.1603	91.13	-9.49	81.64	103.45	-21.81	QP
3	0.2235	58.86	-9.06	49.80	100.58	-50.78	QP
4	0.3246	74.79	-8.87	65.92	97.36	-31.44	QP
5	0.4753	66.42	-8.57	57.85	94.06	-36.21	QP
6	0.5635	54.16	-8.37	45.79	72.59	-26.80	QP

Remark: 1). Measured at antenna position 0 degree and 90 degree, recorded worst case at 0 degree.

2). Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

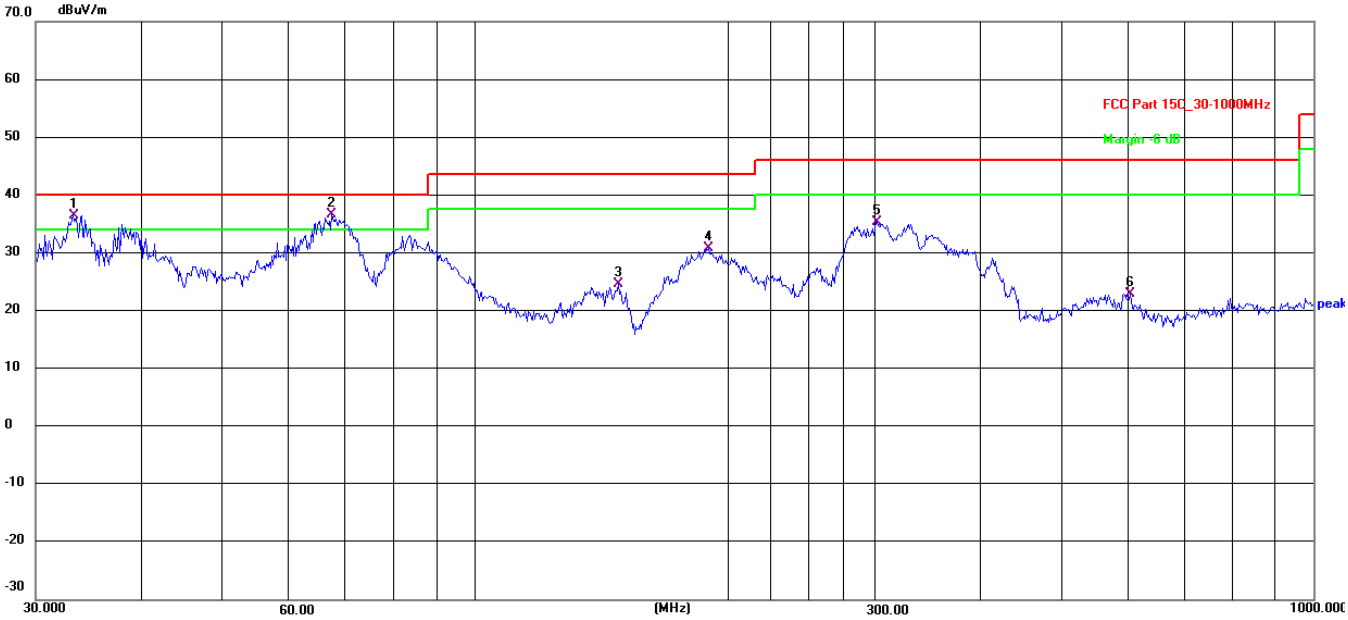
Below 1GHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	33.2112	47.17	-18.02	29.15	40.00	-10.85	QP
2 *	69.3568	51.95	-19.42	32.53	40.00	-7.47	QP
3	87.7248	50.22	-19.11	31.11	40.00	-8.89	QP
4	191.0738	49.71	-17.35	32.36	43.50	-11.14	QP
5	282.9852	51.09	-15.44	35.65	46.00	-10.35	QP
6	394.8545	43.45	-14.48	28.97	46.00	-17.03	QP

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1 !	33.2112	54.54	-18.02	36.52	40.00	-3.48	QP
2 *	67.6751	55.90	-19.32	36.58	40.00	-3.42	QP
3	148.4410	44.68	-19.99	24.69	43.50	-18.81	QP
4	190.4050	49.06	-18.30	30.76	43.50	-12.74	QP
5	301.4224	50.85	-15.54	35.31	46.00	-10.69	QP
6	605.6592	33.55	-10.59	22.96	46.00	-23.04	QP

1). Emission level (dBuV/m) = 20 log Emission level (uV/m).

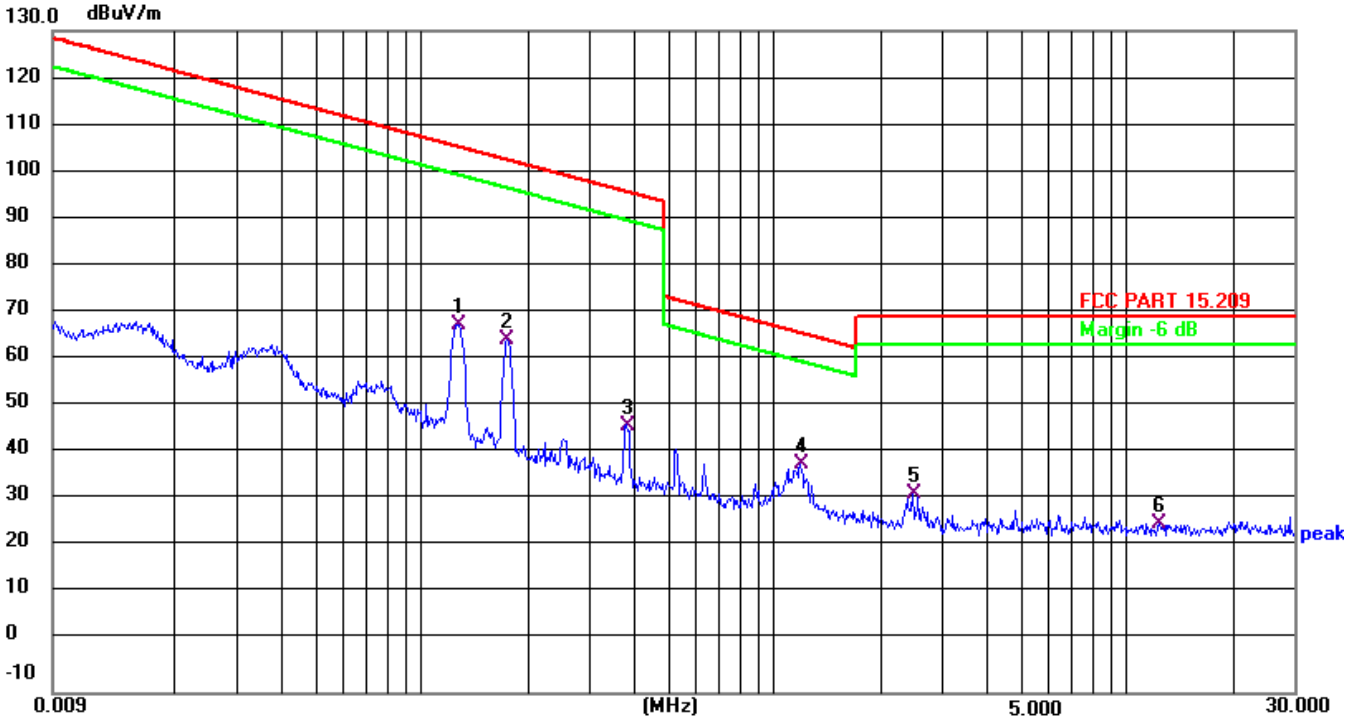
2). Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

report the worst test data (TM7) in test report;

The test data please refer to following page:

Temperature	23.8℃	Humidity	52.5%
Test Engineer	Mark Chen	Configurations	Transmit

0.009 MHz – 30 MHz



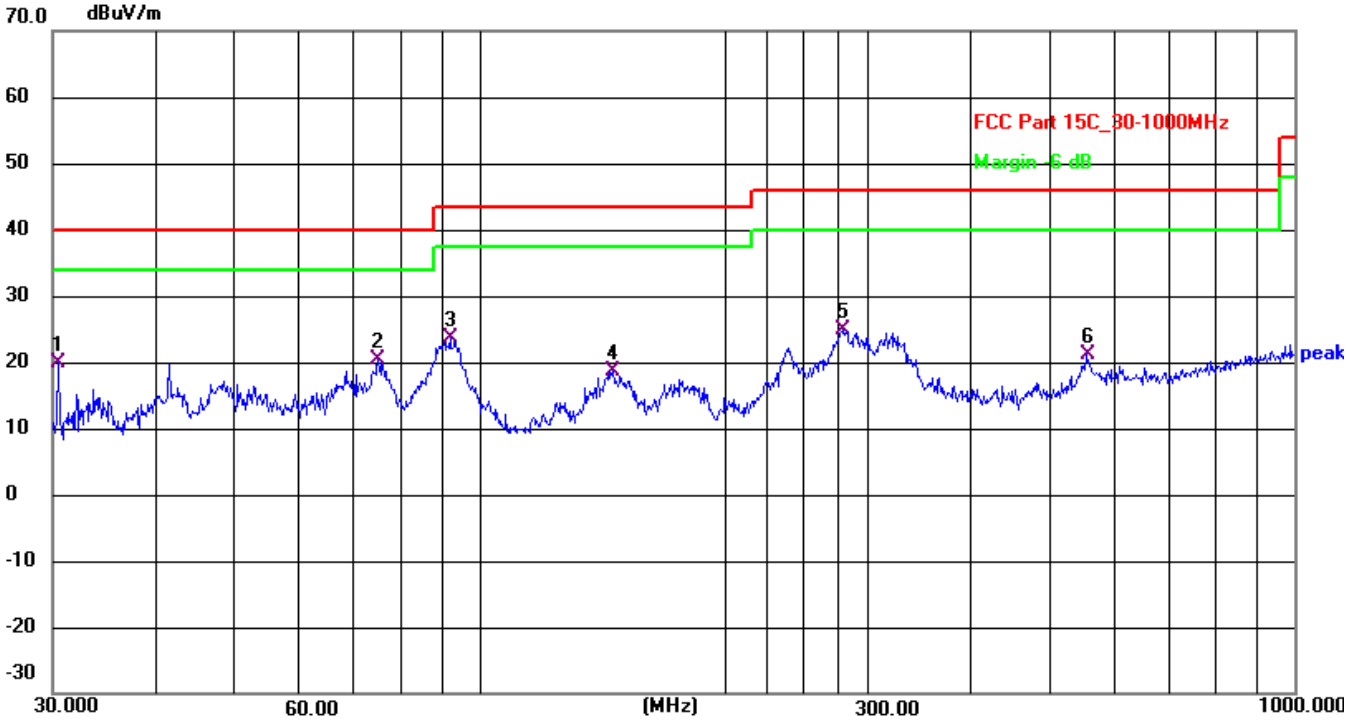
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1276	77.47	-9.49	67.98	105.42	-37.44	QP
2	0.1751	74.13	-9.50	64.63	102.69	-38.06	QP
3	0.3817	55.46	-8.76	46.70	95.96	-49.26	QP
4	1.1885	45.36	-6.90	38.46	66.10	-27.64	QP
5	2.4865	36.75	-4.44	32.31	69.54	-37.23	QP
6	12.3916	35.92	-9.96	25.96	69.54	-43.58	QP

Remark: 1). Measured at antenna position 0 degree and 90 degree, recorded worst case at 0 degree.

2). Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

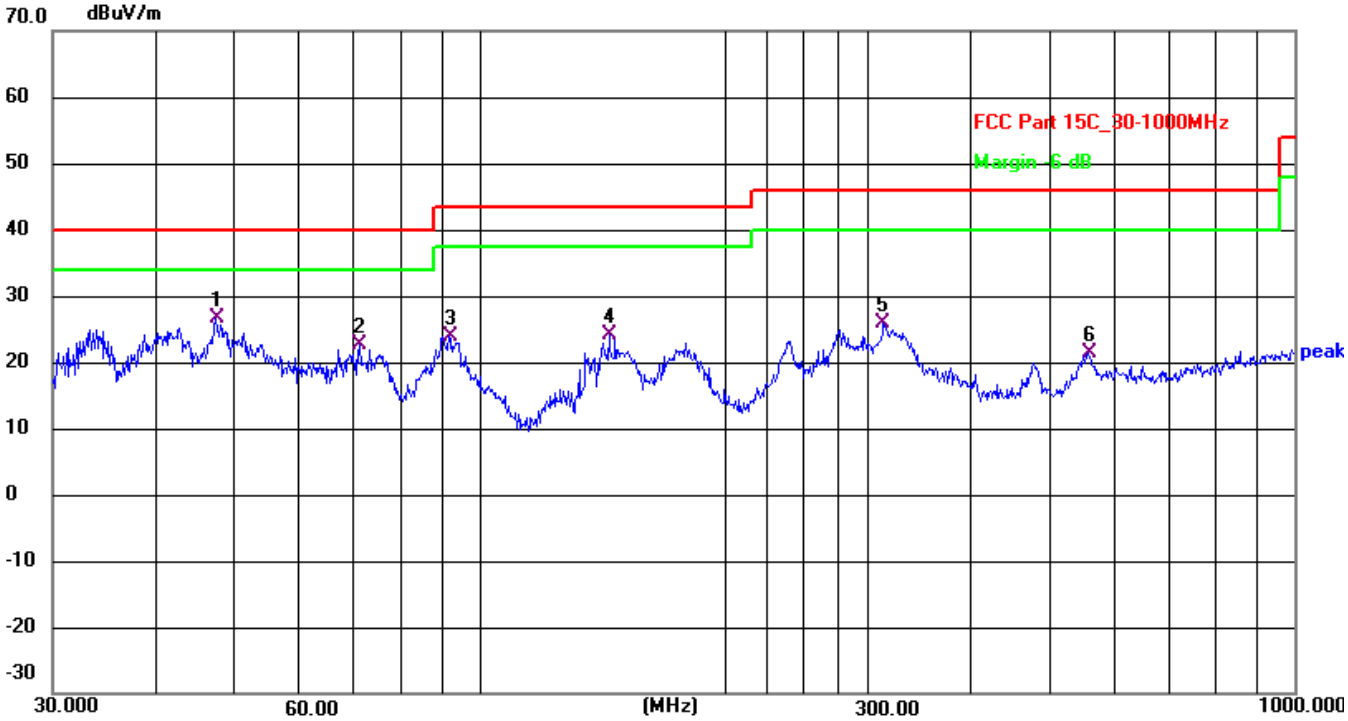
Below 1GHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.5306	38.15	-18.39	19.76	40.00	-20.24	QP
2	75.1822	40.08	-19.68	20.40	40.00	-19.60	QP
3	92.1388	42.24	-18.73	23.51	43.50	-19.99	QP
4	145.8611	38.87	-20.27	18.60	43.50	-24.90	QP
5	280.0237	40.20	-15.41	24.79	46.00	-21.21	QP
6	556.7744	32.60	-11.55	21.05	46.00	-24.95	QP

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	47.4918	43.69	-16.97	26.72	40.00	-13.28	QP
2	71.3300	42.05	-19.52	22.53	40.00	-17.47	QP
3	91.8163	42.59	-18.75	23.84	43.50	-19.66	QP
4	144.3348	44.54	-20.43	24.11	43.50	-19.39	QP
5	313.2760	40.82	-14.86	25.96	46.00	-20.04	QP
6	558.7302	32.78	-11.48	21.30	46.00	-24.70	QP

1). Emission level (dBuV/m) = 20 log Emission level (uV/m).

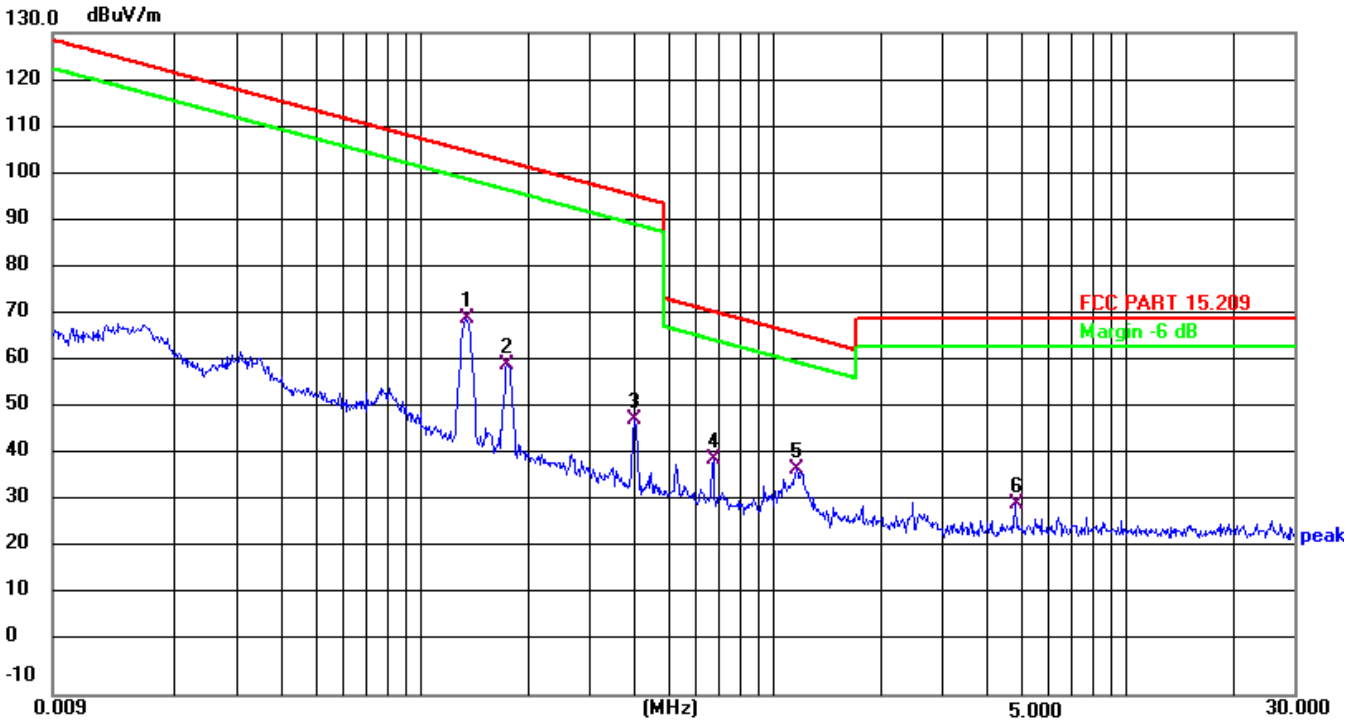
2). Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

report the worst test data (TM13) in test report;

The test data please refer to following page:

Temperature	23.6℃	Humidity	52.2%
Test Engineer	Mark Chen	Configurations	Transmit

0.009 MHz – 30 MHz



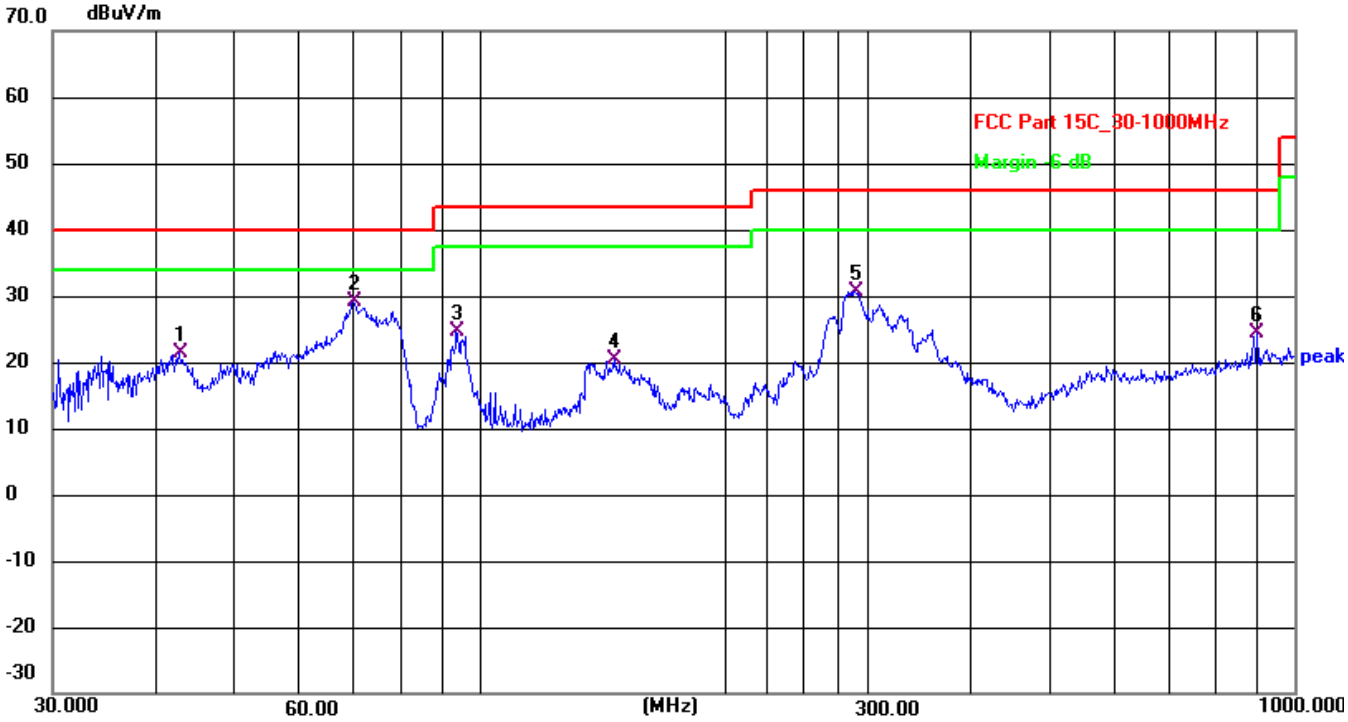
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1341	78.96	-9.50	69.46	104.99	-35.53	QP
2	0.1751	69.34	-9.50	59.84	102.69	-42.85	QP
3	0.4008	57.14	-8.72	48.42	95.54	-47.12	QP
4	0.6736	48.01	-8.10	39.91	71.04	-31.13	QP
5	1.1600	44.58	-6.96	37.62	66.32	-28.70	QP
6	4.8358	39.73	-9.40	30.33	69.54	-39.21	QP

Remark: 1). Measured at antenna position 0 degree and 90 degree, recorded worst case at 0 degree.

2). Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

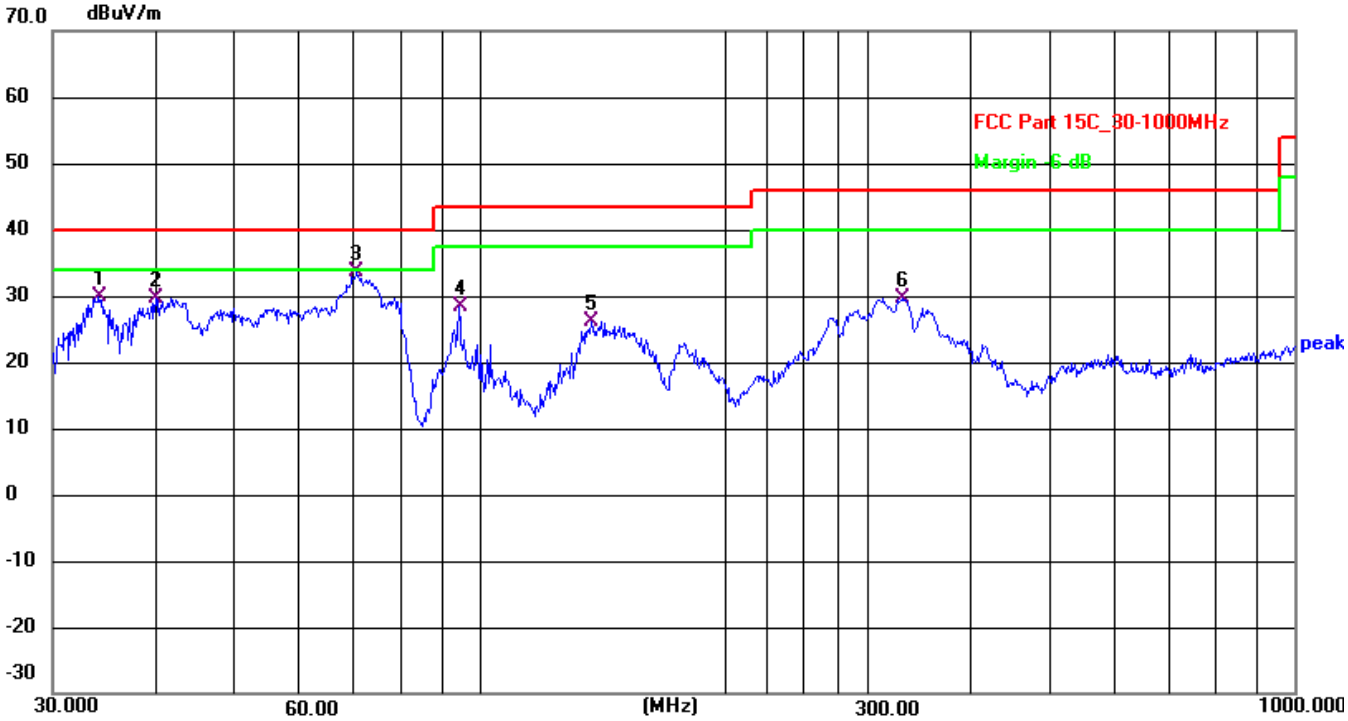
Below 1GHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	42.8998	38.53	-17.17	21.36	40.00	-18.64	QP
2	70.0903	48.67	-19.47	29.20	40.00	-10.80	QP
3	93.7685	43.23	-18.62	24.61	43.50	-18.89	QP
4	146.3735	40.65	-20.22	20.43	43.50	-23.07	QP
5	289.0021	46.19	-15.51	30.68	46.00	-15.32	QP
6	900.1474	32.66	-8.30	24.36	46.00	-21.64	QP

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	34.1561	47.84	-17.91	29.93	40.00	-10.07	QP
2	40.1347	47.15	-17.52	29.63	40.00	-10.37	QP
3	70.8315	53.09	-19.50	33.59	40.00	-6.41	QP
4	94.4284	47.06	-18.57	28.49	43.50	-15.01	QP
5	137.4202	46.97	-20.81	26.16	43.50	-17.34	QP
6	330.1949	43.92	-14.33	29.59	46.00	-16.41	QP

1). Emission level (dBuV/m) = 20 log Emission level (uV/m).

2). Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

report the worst test data (TM16) in test report;

The test data please refer to following page:

Temperature	23.6℃	Humidity	52.2%
Test Engineer	Mark Chen	Configurations	Transmit

0.009 MHz – 30 MHz

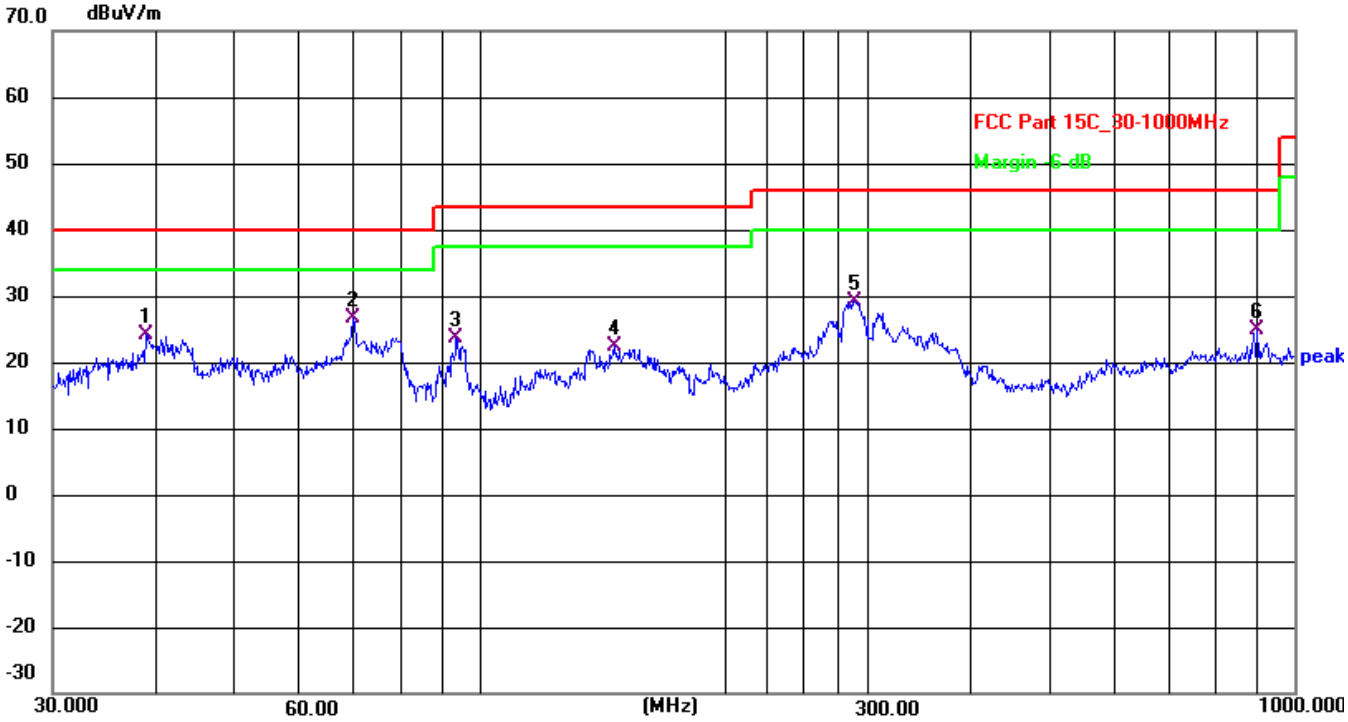
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1340	81.46	-9.50	71.96	105.00	-33.04	QP
2	0.1751	72.34	-9.50	62.84	102.69	-39.85	QP
3	0.4007	61.14	-8.72	52.42	95.54	-43.12	QP
4	0.5281	48.15	-8.46	39.69	73.15	-33.46	QP
5	1.1600	45.57	-6.95	38.62	66.32	-27.70	QP
6	9.7149	38.64	-9.78	28.86	69.54	-40.68	QP

Remark: 1). Measured at antenna position 0 degree and 90 degree, recorded worst case at 0 degree.

2). Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

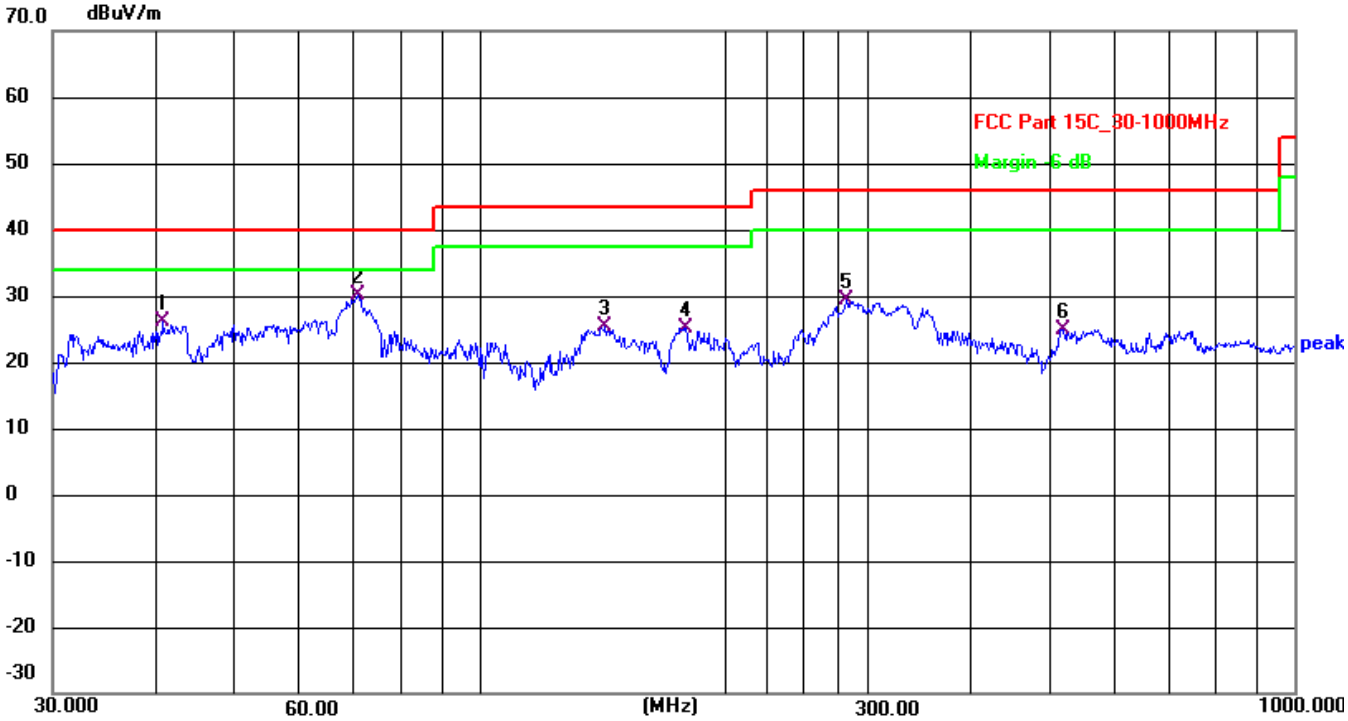
Below 1GHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	39.0242	41.65	-17.60	24.05	40.00	-15.95	QP
2	70.0901	46.17	-19.47	26.70	40.00	-13.30	QP
3	93.7681	42.23	-18.62	23.61	43.50	-19.89	QP
4	146.3734	42.65	-20.22	22.43	43.50	-21.07	QP
5	289.0020	44.69	-15.51	29.18	46.00	-16.82	QP
6	900.1471	33.16	-8.30	24.86	46.00	-21.14	QP

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	40.9879	43.64	-17.41	26.23	40.00	-13.77	QP
2	71.0802	49.61	-19.51	30.10	40.00	-9.90	QP
3	142.8240	45.98	-20.59	25.39	43.50	-18.11	QP
4	179.3863	43.98	-18.74	25.24	43.50	-18.26	QP
5	281.9945	44.91	-15.43	29.48	46.00	-16.52	QP
6	520.8881	37.75	-12.80	24.95	46.00	-21.05	QP

1). Emission level (dBuV/m) = 20 log Emission level (uV/m).

2). Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

report the worst test data (TM19) in test report;

The test data please refer to following page:

Temperature	23.6℃	Humidity	52.2%
Test Engineer	Mark Chen	Configurations	Transmit

0.009 MHz – 30 MHz

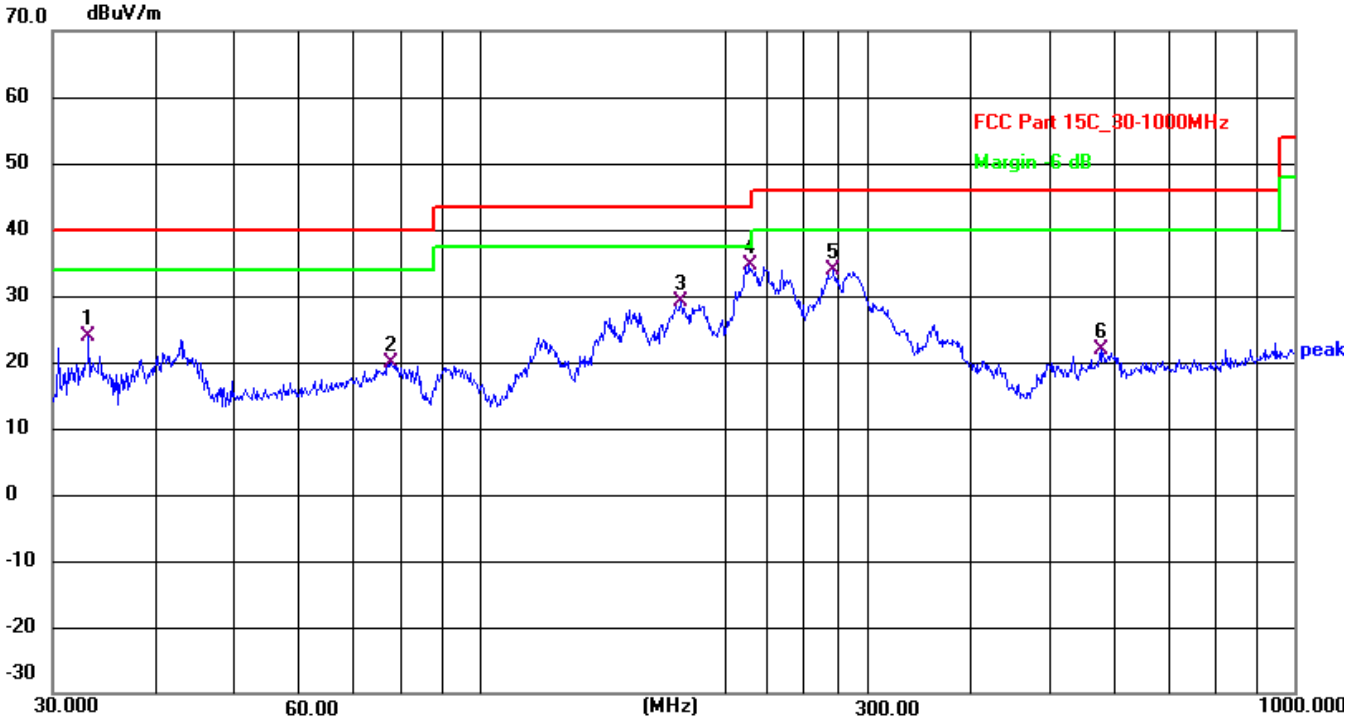
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1341	80.31	-9.50	70.81	104.99	-34.18	QP
2	0.2404	59.79	-9.02	50.77	99.95	-49.18	QP
3	0.3607	55.91	-8.80	47.11	96.45	-49.34	QP
4	0.4008	57.20	-8.72	48.48	95.54	-47.06	QP
5	0.6682	49.26	-8.10	41.16	71.11	-29.95	QP
6	1.1982	45.82	-6.88	38.94	66.03	-27.09	QP

Remark: 1). Measured at antenna position 0 degree and 90 degree, recorded worst case at 0 degree.

2). Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

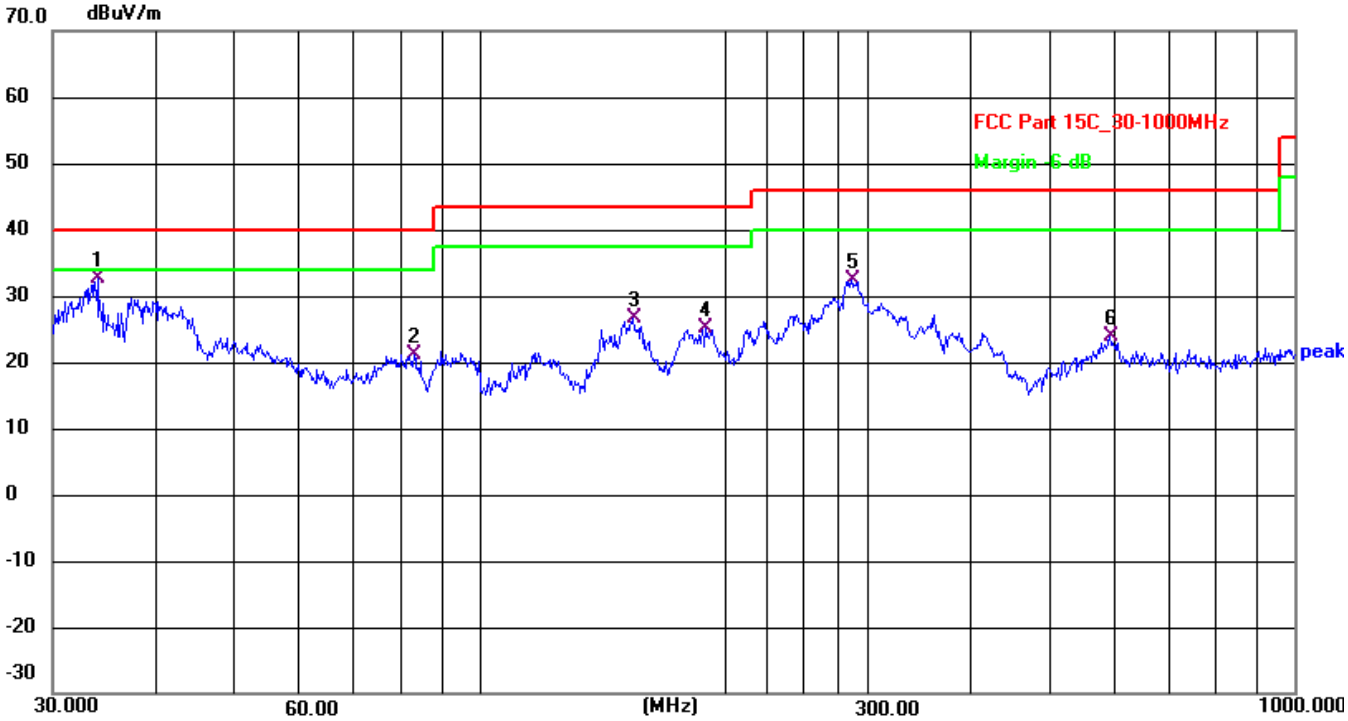
Below 1GHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	33.2112	41.79	-18.02	23.77	40.00	-16.23	QP
2	77.8654	39.63	-19.78	19.85	40.00	-20.15	QP
3	176.8878	48.10	-18.95	29.15	43.50	-14.35	QP
4	214.5143	51.73	-17.01	34.72	43.50	-8.78	QP
5	272.2776	49.37	-15.39	33.98	46.00	-12.02	QP
6	578.6699	32.66	-10.80	21.86	46.00	-24.14	QP

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	34.0365	50.58	-17.93	32.65	40.00	-7.35	QP
2	83.2298	40.79	-19.56	21.23	40.00	-18.77	QP
3	154.2786	46.44	-19.76	26.68	43.50	-16.82	QP
4	189.7385	43.57	-18.34	25.23	43.50	-18.27	QP
5	285.9778	47.82	-15.47	32.35	46.00	-13.65	QP
6	593.0497	34.51	-10.56	23.95	46.00	-22.05	QP

1). Emission level (dBuV/m) = 20 log Emission level (uV/m).

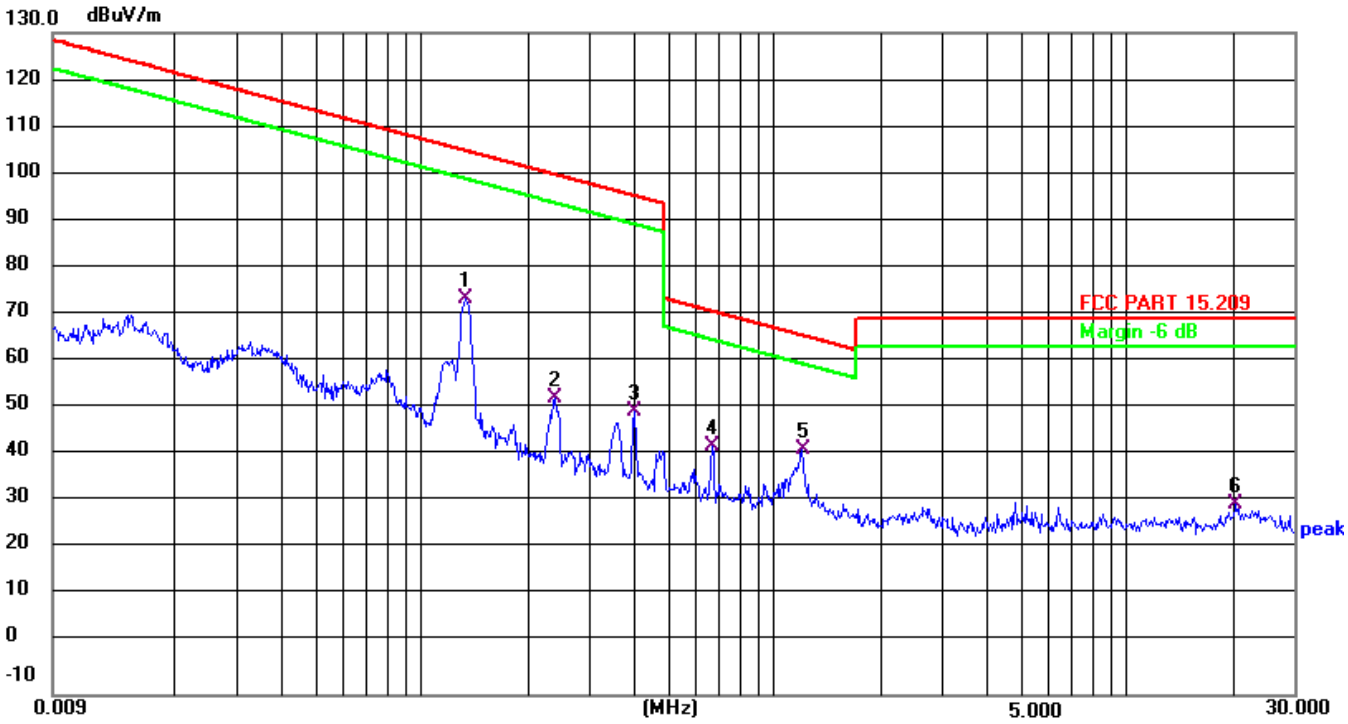
2). Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

report the worst test data (TM25) in test report;

The test data please refer to following page:

Temperature	23.6℃	Humidity	52.2%
Test Engineer	Mark Chen	Configurations	Transmit

0.009 MHz – 30 MHz



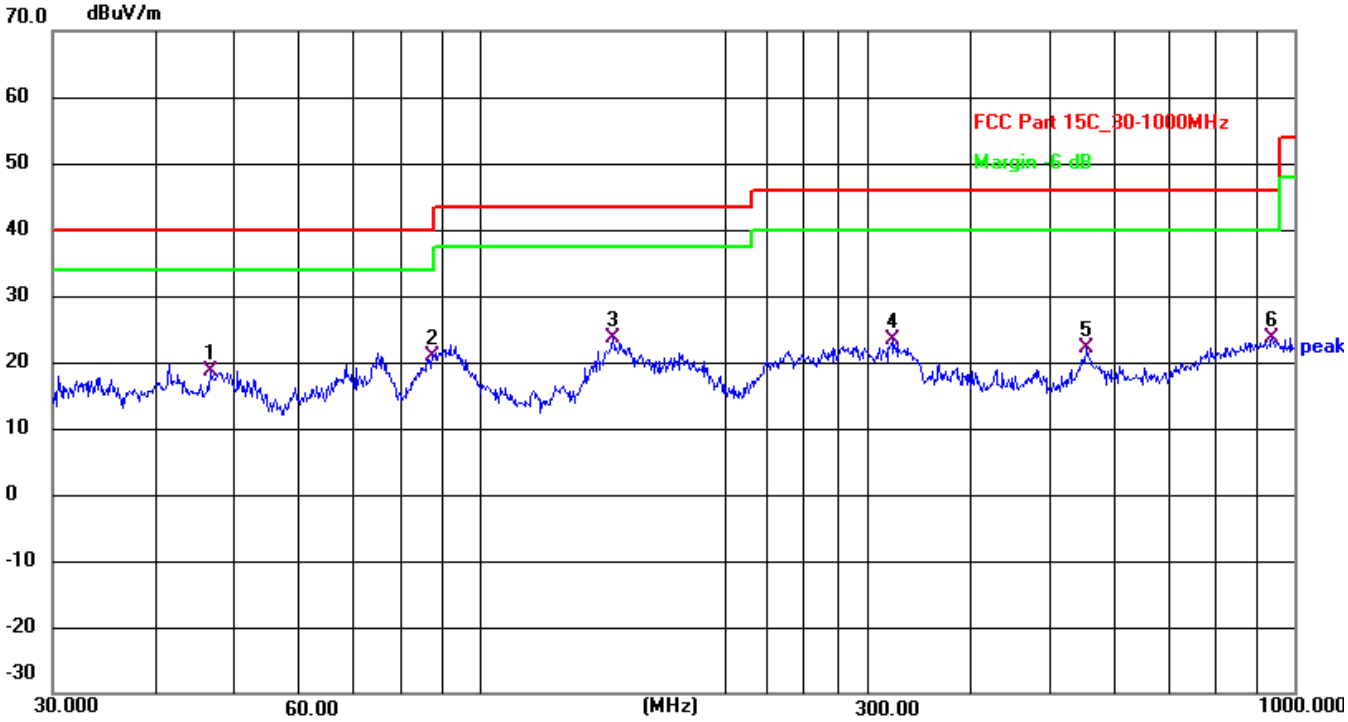
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1340	83.31	-9.50	73.81	105.00	-31.19	QP
2	0.2404	61.79	-9.02	52.77	99.95	-47.18	QP
3	0.4040	58.62	-8.72	49.90	95.47	-45.57	QP
4	0.6681	50.76	-8.10	42.66	71.11	-28.45	QP
5	1.1976	48.82	-6.88	41.94	66.04	-24.10	QP
6	20.4900	40.14	-9.83	30.31	69.54	-39.23	QP

Remark: 1). Measured at antenna position 0 degree and 90 degree, recorded worst case at 0 degree.

2). Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

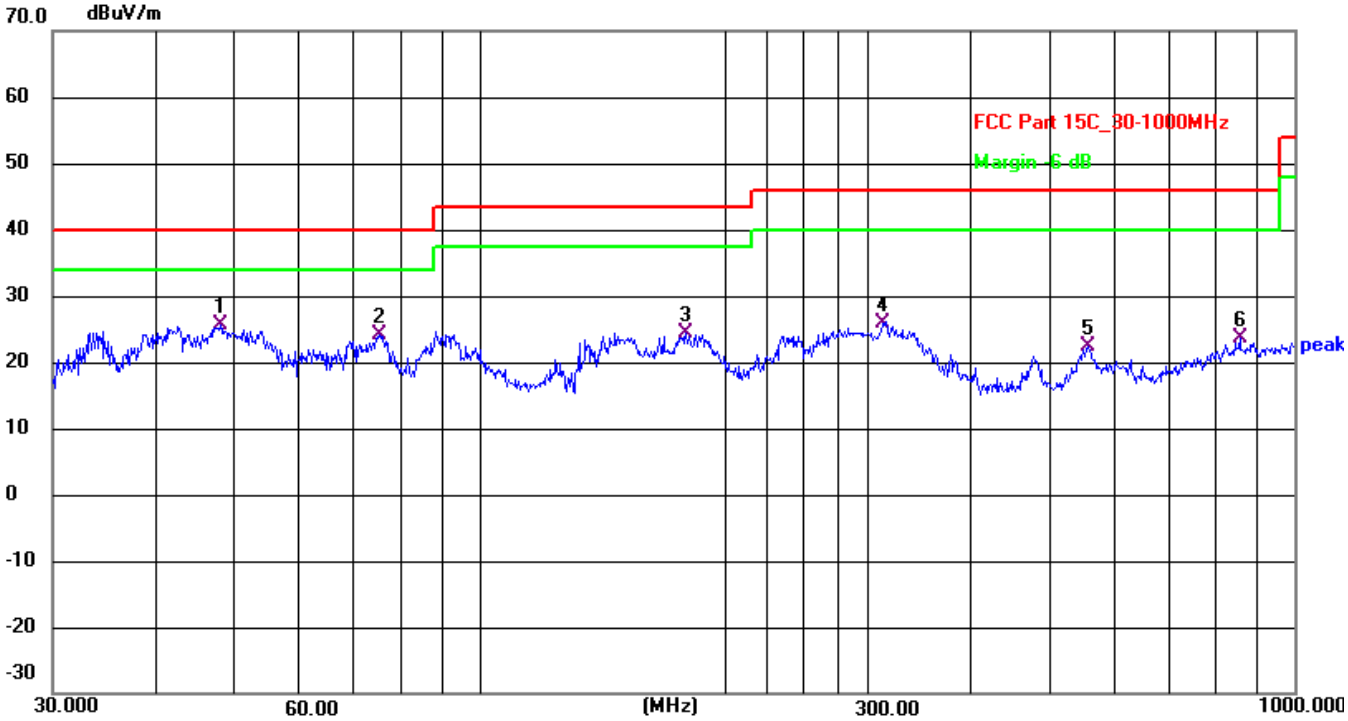
Below 1GHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	46.8301	35.59	-16.95	18.64	40.00	-21.36	QP
2	87.7245	40.02	-19.11	20.91	40.00	-19.09	QP
3	145.8608	43.87	-20.27	23.60	43.50	-19.90	QP
4	321.0605	37.92	-14.42	23.50	46.00	-22.50	QP
5	556.7743	33.60	-11.55	22.05	46.00	-23.95	QP
6	938.8324	31.56	-7.89	23.67	46.00	-22.33	QP

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	48.1625	42.68	-16.98	25.70	40.00	-14.30	QP
2	75.4462	43.81	-19.69	24.12	40.00	-15.88	QP
3	179.3863	43.17	-18.74	24.43	43.50	-19.07	QP
4	313.2760	40.82	-14.86	25.96	46.00	-20.04	QP
5	558.7300	33.78	-11.48	22.30	46.00	-23.70	QP
6	857.0244	32.64	-8.90	23.74	46.00	-22.26	QP

1). Emission level (dBuV/m) = 20 log Emission level (uV/m).

2). Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

report the worst test data (TM31) in test report;

The test data please refer to following page:

Temperature	23.6℃	Humidity	52.2%
Test Engineer	Mark Chen	Configurations	Transmit

0.009 MHz – 30 MHz

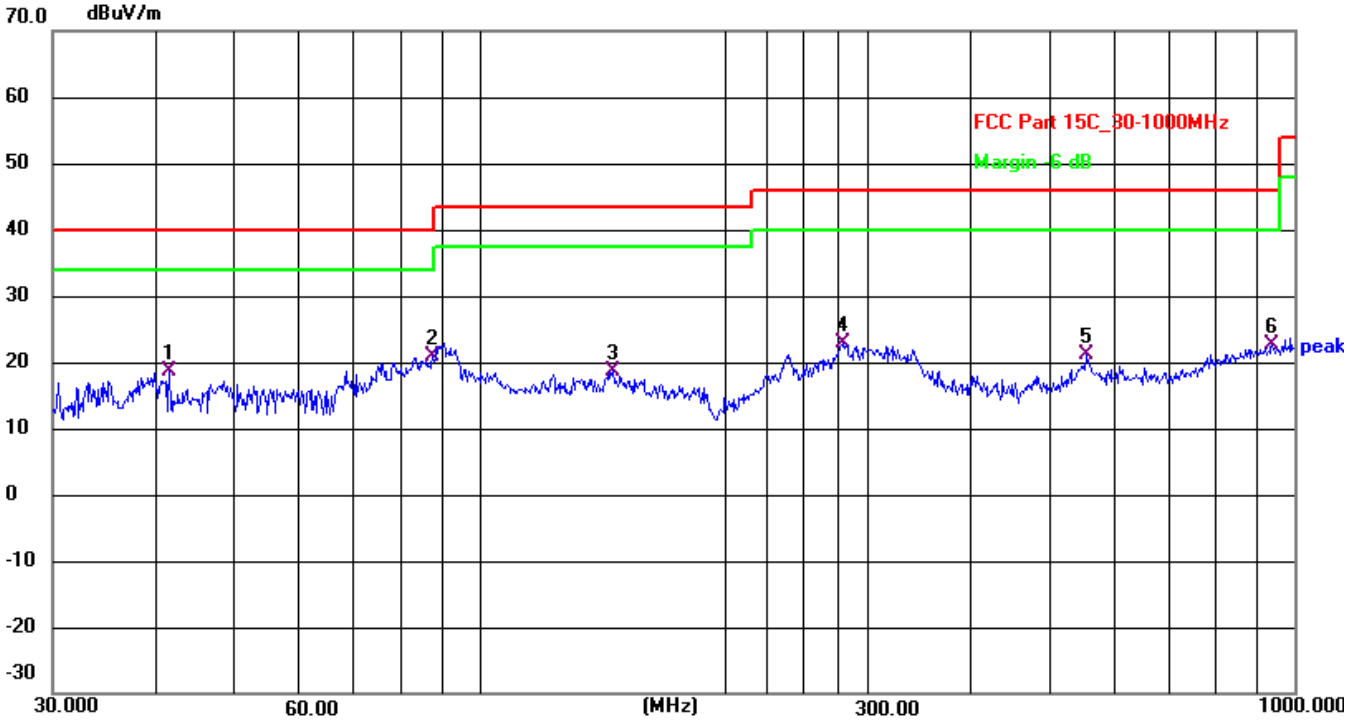
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.1340	83.81	-9.50	74.31	105.00	-30.69	QP
2	0.2404	62.79	-9.02	53.77	99.95	-46.18	QP
3	0.3577	56.79	-8.80	47.99	96.52	-48.53	QP
4	0.4007	58.20	-8.72	49.48	95.54	-46.06	QP
5	0.5964	49.03	-8.27	40.76	72.09	-31.33	QP
6	1.1977	46.32	-6.88	39.44	66.04	-26.60	QP

Remark: 1). Measured at antenna position 0 degree and 90 degree, recorded worst case at 0 degree.

2). Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

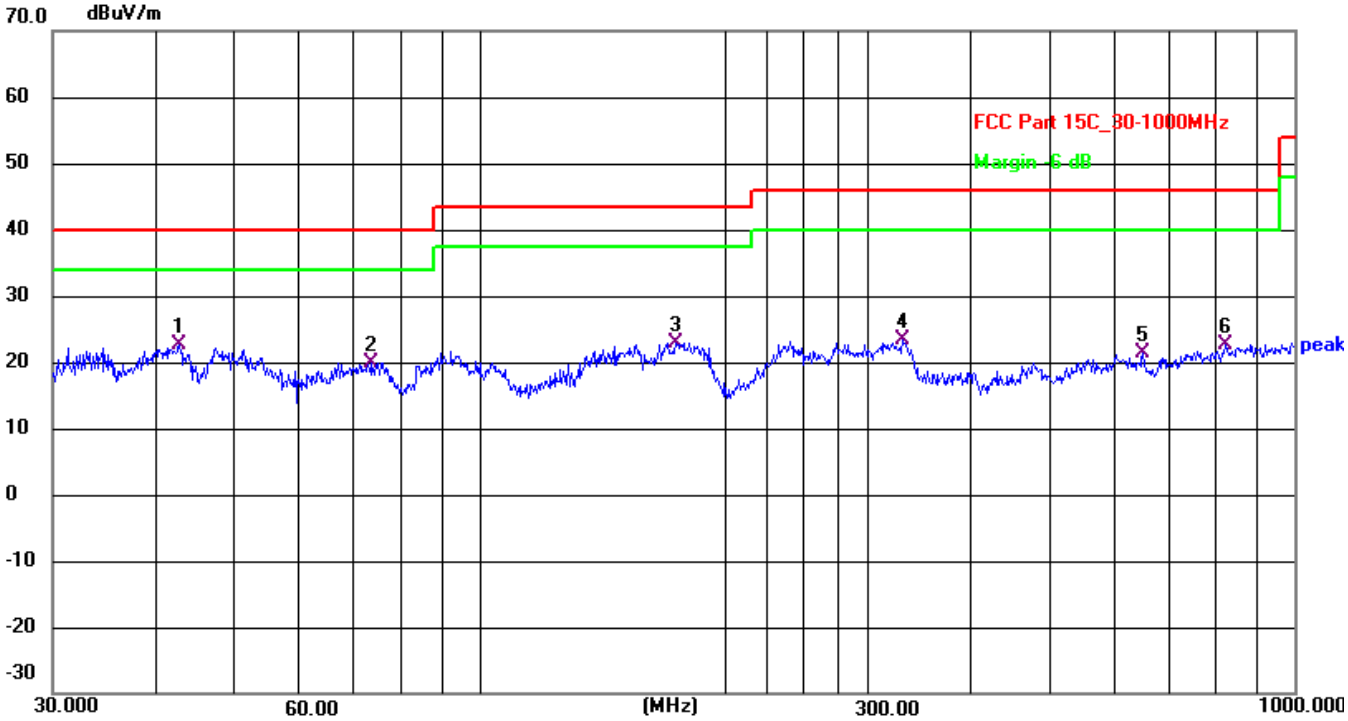
Below 1GHz

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	41.7129	36.04	-17.32	18.72	40.00	-21.28	QP
2	87.7245	40.02	-19.11	20.91	40.00	-19.09	QP
3	145.8608	38.87	-20.27	18.60	43.50	-24.90	QP
4	280.0237	38.20	-15.41	22.79	46.00	-23.21	QP
5	556.7743	32.60	-11.55	21.05	46.00	-24.95	QP
6	938.8324	30.56	-7.89	22.67	46.00	-23.33	QP

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	42.8997	39.71	-17.17	22.54	40.00	-17.46	QP
2	73.8756	39.62	-19.63	19.99	40.00	-20.01	QP
3	174.4240	42.00	-19.16	22.84	43.50	-20.66	QP
4	330.1947	37.78	-14.33	23.45	46.00	-22.55	QP
5	651.9415	32.32	-11.02	21.30	46.00	-24.70	QP
6	821.7103	31.85	-9.18	22.67	46.00	-23.33	QP

1). Emission level (dBuV/m) = 20 log Emission level (uV/m).

2). Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

9. PHOTOGRAPHS OF TEST SETUP

Please refer to separated files for Test Setup Photos of the EUT.

10. EXTERNAL PHOTOGRAPHS OF THE EUT

Please refer to separated files for External Photos of the EUT.

11. INTERNAL PHOTOGRAPHS OF THE EUT

Please refer to separated files for Internal Photos of the EUT.

----------THE END OF REPORT----------