

FCC PART 15B

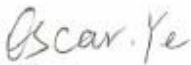
TEST REPORT

For

SWIT Electronics Co., Ltd.

10 Heng Tong Road, Xin'gang Economic and Technological Development Zone, Nanjing 210038
China

FCC ID:2AFFCS-FLOW2000TX

Report Type: Original Report	Product Type: 2000ft Wireless HD
Test Engineer: Jett Zhao	
Report Number: RSHA191012007-00B	
Report Date: 2019-11-20	
Reviewed By: Oscar Ye EMC Manager	
Prepared By: Bay Area Compliance Laboratories Corp. (Kunshan) No.248 Chenghu Road, Kunshan,Jiangsu province, China Tel: +86-0512-86175000 Fax: +86-0512-88934268 www.baclcorp.com.cn	

Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

TABLE OF CONTENTS

GENERAL INFORMATION.....	3
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	3
OBJECTIVE	3
RELATED SUBMITTAL(S)/GRANT(S).....	3
TEST METHODOLOGY	3
TEST FACILITY	4
SYSTEM TEST CONFIGURATION.....	5
JUSTIFICATION	5
EUT EXERCISE SOFTWARE	5
SPECIAL ACCESSORIES.....	5
EQUIPMENT MODIFICATIONS	5
SUPPORT EQUIPMENT LIST AND DETAILS	5
EXTERNAL I/O CABLE.....	5
BLOCK DIAGRAM OF RADIATED TEST SETUP.....	6
SUMMARY OF TEST RESULTS	7
FCC §15.107 –CONDUCTED EMISSIONS	8
APPLICABLE STANDARD	8
MEASUREMENT UNCERTAINTY.....	8
EUT SETUP	8
EMI TEST RECEIVER SETUP.....	9
TEST PROCEDURE	9
TEST EQUIPMENT LIST AND DETAILS.....	9
FACTOR & OVER LIMIT CALCULATION.....	9
TEST DATA	10
FCC §15.109 - RADIATED EMISSIONS	14
APPLICABLE STANDARD	14
MEASUREMENT UNCERTAINTY.....	14
EUT SETUP	14
EMI TEST RECEIVER SETUP.....	15
TEST PROCEDURE	15
TEST EQUIPMENT LIST AND DETAILS.....	16
FACTOR & OVER LIMIT CALCULATION (FOR BELOW 1GHz).....	16
CORRECTED AMPLITUDE & MARGIN CALCULATION (FOR ABOVE 1GHz).....	17
TEST DATA	18

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant	SWIT Electronics Co., Ltd.
Test Model	FLOW2000 Tx
Series Model	FLOW500 Tx, S-6160 Tx, S-6115 Tx, FLOW10K Tx, FLOW6500 Tx, S-6230P Tx, S-6220P Tx
Model Difference	Model names
Product Type	2000ft Wireless HD
Rate Voltage	DC 7V-34V
Highest Operation Frequency	5822.5MHz

Adapter Information:

Model: SW-120100

Input: AC100-240V 50/60Hz 0.5A

Output: 12V, 1000mA

* All measurement and test data in this report was gathered from production sample serial number: 20191012007 (Assigned by BACL, Kunshan). The EUT supplied by the applicant was received on 2019-10-12.

Objective

This report is prepared on behalf of *SWIT Electronics Co., Ltd.* in accordance with Part 2-Subpart J, and Part 15-Subparts A and B of the Federal Communication Commission's rules.

The objective of the manufacturer is to determine the compliance of EUT with FCC Part 15, Class B devices.

Related Submittal(s)/Grant(s)

FCC Part 15.407 NII and FCC Part 15B JAB submissions with FCC ID: 2AFFCS-FLOW2000RX.

FCC Part 15.407 NII submissions with FCC ID: 2AFFCS-FLOW2000TX.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All radiated and conducted emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Kunshan). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) Lab is accredited to ISO/IEC 17025 by A2LA (Lab code: 4323.01) and the FCC designation No. CN1185 under the FCC KDB 974614 D01 and CAB identifier CN0004 under the ISED requirement. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2014.

SYSTEM TEST CONFIGURATION

Justification

The system was configured for testing in a typical fashion (as normally used by a typical user).

Test Mode 1: Adapter+SDI in+TX

Test Mode 2: Adapter+HDMI in+ TX

Test Mode 3: Battery+ SDI in+ TX

Test Mode 4: Battery+ HDMI in+ TX

EUT Exercise Software

No software was used.

Special Accessories

No special accessory was used.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

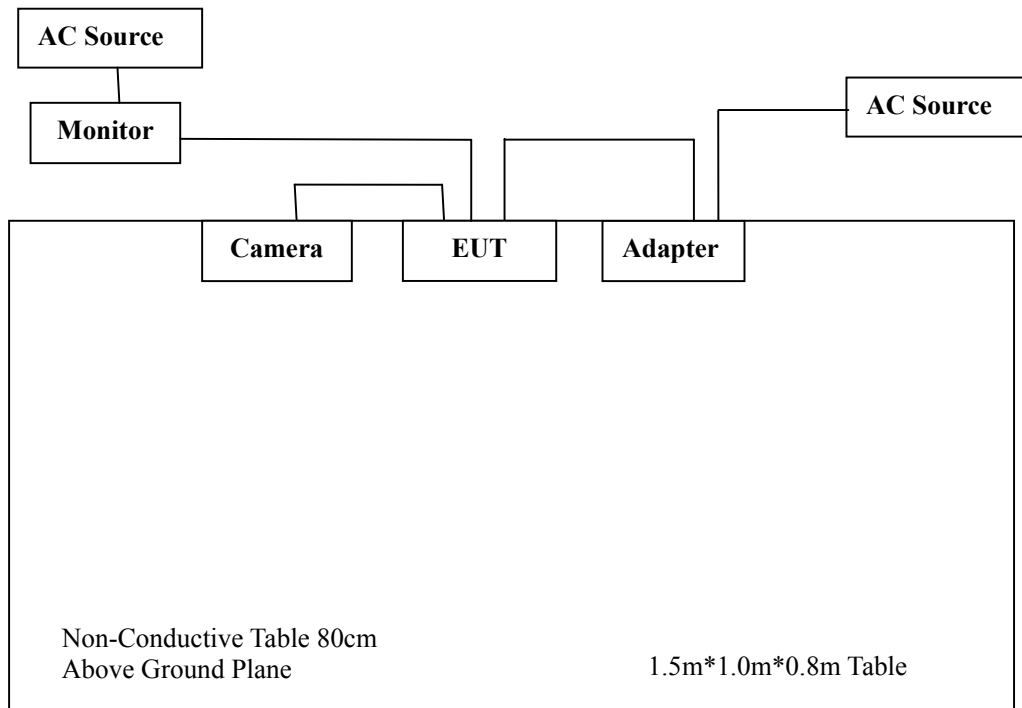
Manufacturer	Description	Model	Serial Number
SWIT	Camera	/	/
SWIT	Battery	S-8975	/
SWIT	Monitor	/	/
SWIT	Adapter (Input: AC100-240V 50/60Hz 0.5A Output:12 VDC, 1000A)	SW-120100	/

External I/O Cable

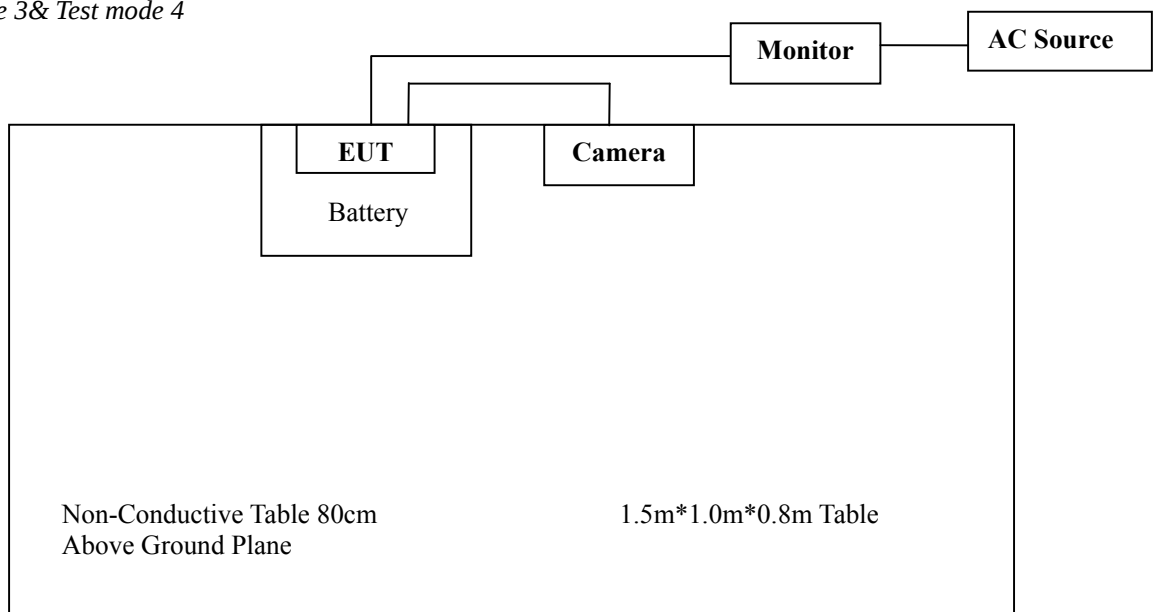
Cable Description	Length (m)	From/Port	To
HDMI Cable	1.0	EUT	Camera
SDI Cable 1	0.4	EUT	Camera
Power Cable 1	1.0	EUT	Adapter
SDI Cable 2	10.0	EUT	Monitor
Power Cable 2	1.0	Monitor	AC Source

Block Diagram of Radiated Test Setup

Test mode 1& Test mode 2



Test mode 3& Test mode 4



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§15.107	Conducted Emissions	Compliant
§15.109	Radiated Emissions	Compliant

FCC §15.107 –CONDUCTED EMISSIONS

Applicable Standard

According to FCC§15.107

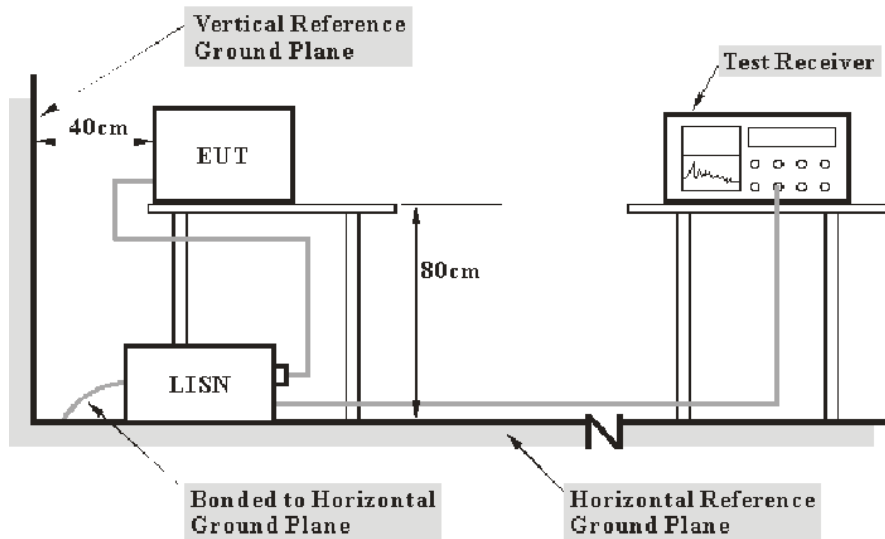
Measurement Uncertainty

Input quantities to be considered for conducted disturbance measurements maybe receiver reading, attenuation of the connection between LISN and receiver, LISN voltage division factor, LISN VDF frequency interpolation and receiver related input quantities, etc.

Item		Measurement Uncertainty	U_{cispr}
AMN	150kHz~30MHz	3.19 dB	3.4 dB

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

EUT Setup



Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The measurement procedure of EUT setup is according with ANSI C63.4-2014. The related limit was specified in FCC Part 15.107 Class B limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

Test Procedure

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All final data was recorded in the Quasi-peak and average detection mode.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESR	1316.3003K03-101746-zn	2019-08-05	2020-08-04
Rohde & Schwarz	LISN	ENV216	3560655016	2018-11-30	2019-11-29
Audix	Test Software	e3	V9	--	--
MICRO-COAX	Coaxial Cable	Cable-15	015	2019-09-08	2020-09-07

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Kunshan) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Factor & Over Limit Calculation

The Factor is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation. The basic equation is as follows:

$$\text{Factor (dB)} = \text{LISN VDF (dB)} + \text{Cable Loss (dB)} + \text{Transient Limiter Attenuation (dB)}$$

The “**Over Limit**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit of 7 dB means the emission is 7 dB above the limit. The equation for over limit calculation is as follows:

$$\text{Over Limit (dB)} = \text{Read level (dB}\mu\text{V)} + \text{Factor (dB)} - \text{Limit (dB}\mu\text{V)}$$

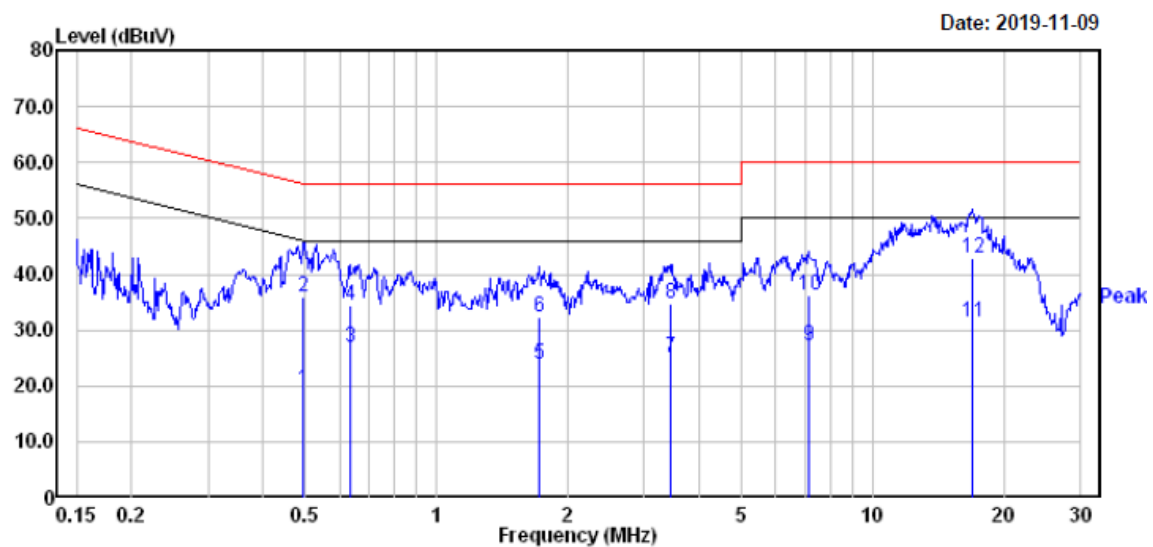
Test Data**Environmental Conditions**

Temperature:	22°C
Relative Humidity:	50 %
ATM Pressure:	101.0 kPa

The testing was performed by Jett Zhao on 2019-11-09

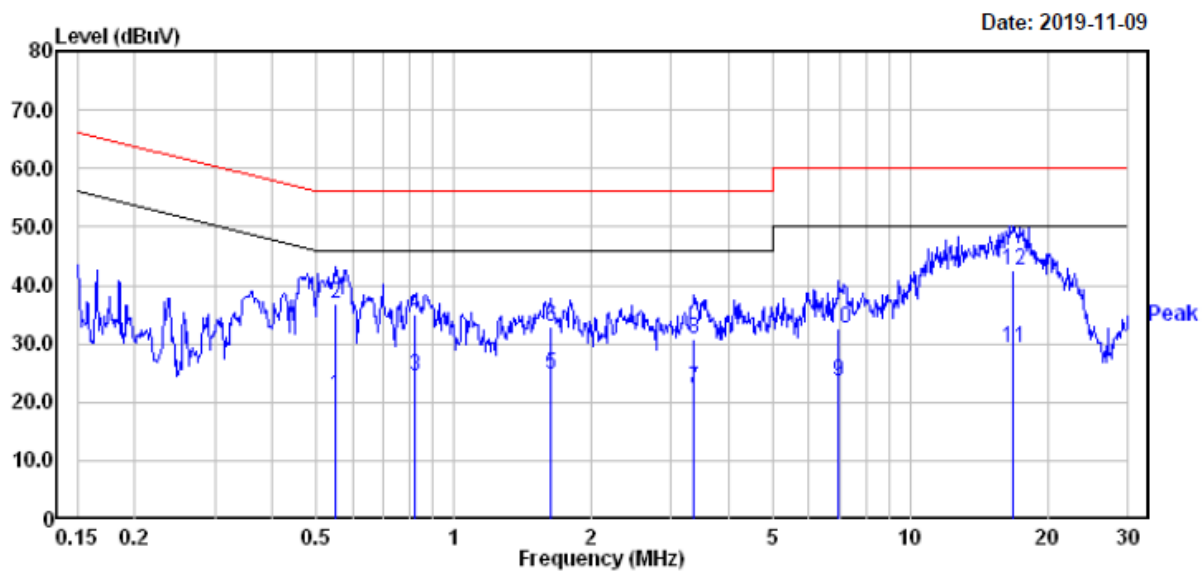
Test Mode1:

AC 120V/60 Hz, Line:



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.497	-0.30	19.76	19.46	46.05	-26.59	Average
2	0.497	16.20	19.76	35.96	56.05	-20.09	QP
3	0.634	7.10	19.75	26.85	46.00	-19.15	Average
4	0.634	14.80	19.75	34.55	56.00	-21.45	QP
5	1.725	4.10	19.84	23.94	46.00	-22.06	Average
6	1.725	12.50	19.84	32.34	56.00	-23.66	QP
7	3.454	5.60	19.46	25.06	46.00	-20.94	Average
8	3.454	15.30	19.46	34.76	56.00	-21.24	QP
9	7.137	7.60	19.52	27.12	50.00	-22.88	Average
10	7.137	16.60	19.52	36.12	60.00	-23.88	QP
11	17.018	11.50	19.77	31.27	50.00	-18.73	Average
12	17.018	23.00	19.77	42.77	60.00	-17.23	QP

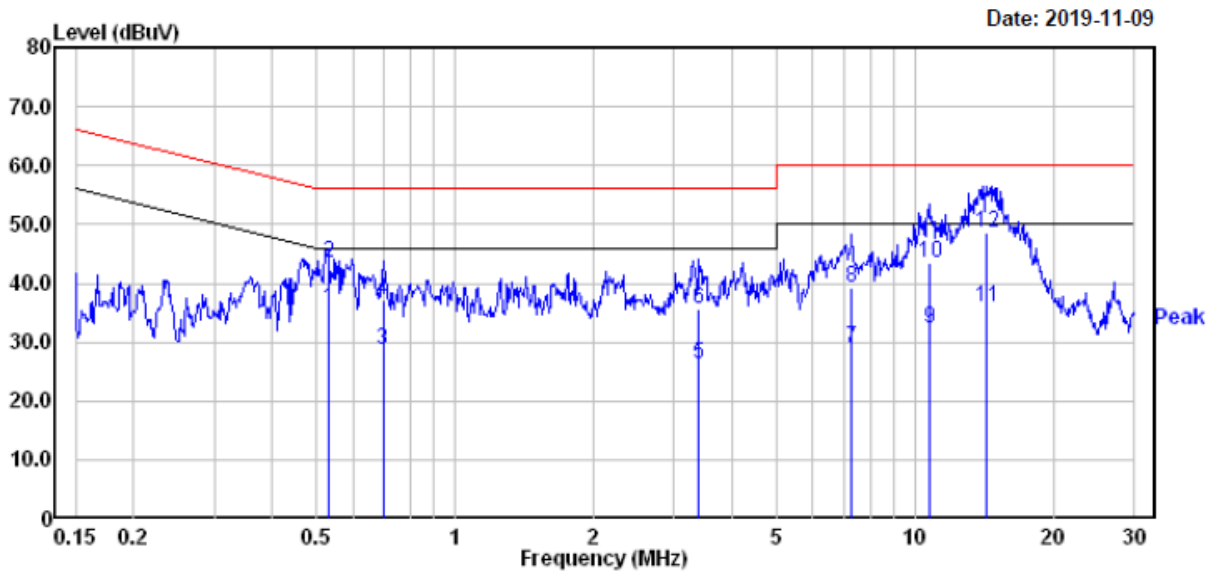
AC 120V/60 Hz, Neutral:



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.552	1.50	19.75	21.25	46.00	-24.75	Average
2	0.552	17.00	19.75	36.75	56.00	-19.25	QP
3	0.822	4.61	19.70	24.31	46.00	-21.69	Average
4	0.822	15.41	19.70	35.11	56.00	-20.89	QP
5	1.636	4.80	19.84	24.64	46.00	-21.36	Average
6	1.636	13.20	19.84	33.04	56.00	-22.96	QP
7	3.364	2.80	19.46	22.26	46.00	-23.74	Average
8	3.364	11.20	19.46	30.66	56.00	-25.34	QP
9	6.988	4.00	19.52	23.52	50.00	-26.48	Average
10	6.988	13.20	19.52	32.72	60.00	-27.28	QP
11	16.839	9.60	19.76	29.36	50.00	-20.64	Average
12	16.839	22.70	19.76	42.46	60.00	-17.54	QP

Test Mode2:

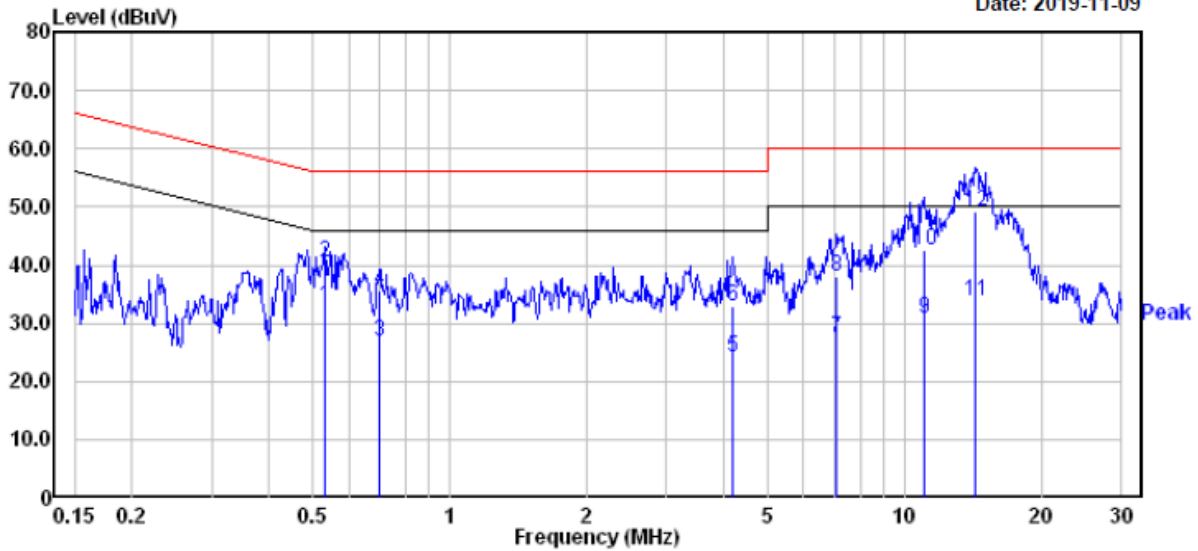
AC 120V/60 Hz, Line:



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.529	15.81	19.75	35.56	46.00	-10.44	Average
2	0.529	23.71	19.75	43.46	56.00	-12.54	QP
3	0.697	8.90	19.75	28.65	46.00	-17.35	Average
4	0.697	17.40	19.75	37.15	56.00	-18.85	QP
5	3.399	6.90	19.46	26.36	46.00	-19.64	Average
6	3.399	16.20	19.46	35.66	56.00	-20.34	QP
7	7.290	9.50	19.52	29.02	50.00	-20.98	Average
8	7.290	19.70	19.52	39.22	60.00	-20.78	QP
9	10.733	12.70	19.57	32.27	50.00	-17.73	Average
10	10.733	23.90	19.57	43.47	60.00	-16.53	QP
11	14.364	16.30	19.62	35.92	50.00	-14.08	Average
12	14.364	29.10	19.62	48.72	60.00	-11.28	QP

AC 120V/60 Hz, Neutral:

Date: 2019-11-09



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.529	13.21	19.75	32.96	46.00	-13.04	Average
2	0.529	20.71	19.75	40.46	56.00	-15.54	QP
3	0.701	7.10	19.75	26.85	46.00	-19.15	Average
4	0.701	16.00	19.75	35.75	56.00	-20.25	QP
5	4.202	4.60	19.47	24.07	46.00	-21.93	Average
6	4.202	13.30	19.47	32.77	56.00	-23.23	QP
7	7.100	7.90	19.52	27.42	50.00	-22.58	Average
8	7.100	18.60	19.52	38.12	60.00	-21.88	QP
9	11.021	11.10	19.57	30.67	50.00	-19.33	Average
10	11.021	23.10	19.57	42.67	60.00	-17.33	QP
11	14.364	14.20	19.62	33.82	50.00	-16.18	Average
12	14.364	29.60	19.62	49.22	60.00	-10.78	QP

Note:

- 1) Factor (dB) = LISN VDF (dB) + Cable Loss (dB) + Transient Limiter Attenuation (dB)
- 2) Over Limit (dB) = Read level (dBμV) + Factor (dB) - Limit (dBμV)

FCC §15.109 - RADIATED EMISSIONS

Applicable Standard

FCC §15.109

Measurement Uncertainty

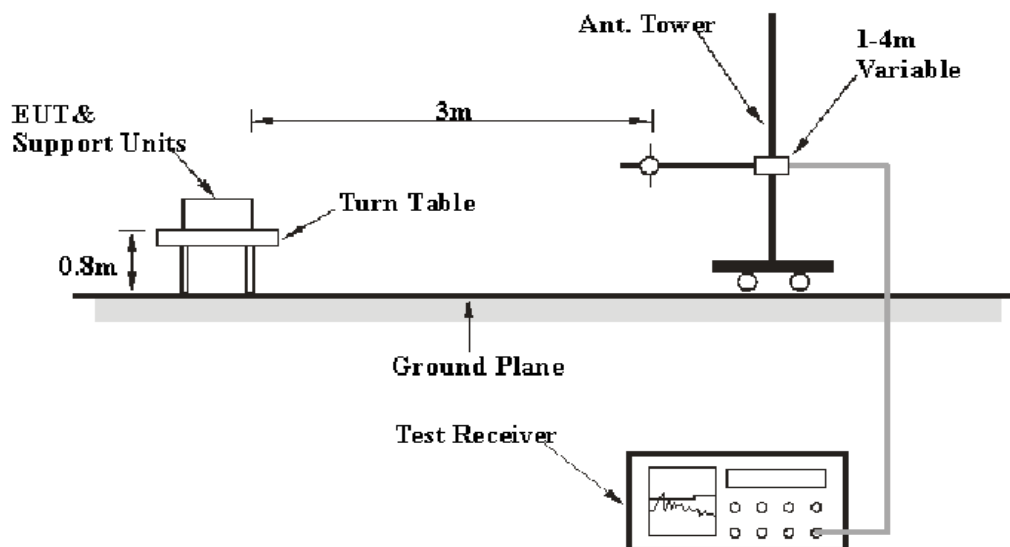
All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average) and system repeatability.

Item		Measurement Uncertainty	U_{cispr}
Radiated Emission	30MHz~1GHz	6.11dB	6.3 dB
	1GHz~6GHz	4.45dB	5.2 dB
	6 GHz ~30 GHz	5.23dB	5.5 dB

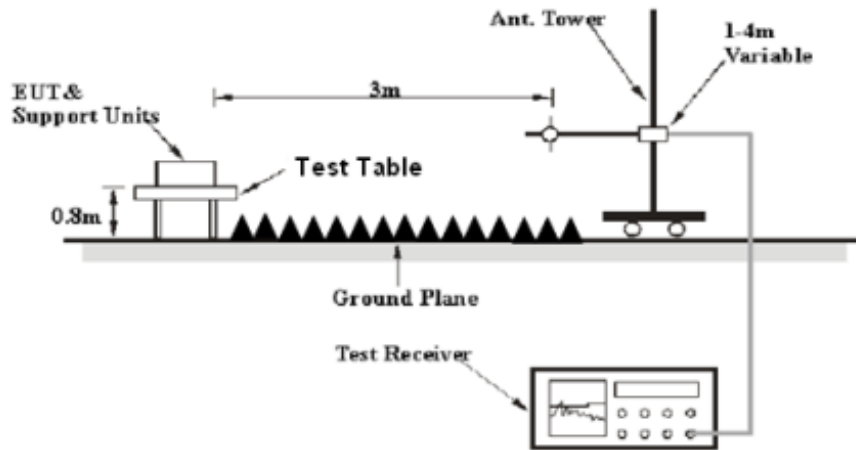
Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2014. The specification used was the FCC Part 15.109 Class B limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver Setup

The system was investigated from 30 MHz to 30 GHz.

During the radiated emission test, the EMI test receiver was set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30MHz – 1000 MHz	120 kHz	300 kHz	120kHz	QP
Above 1 GHz	1MHz	3 MHz	/	Peak
	1MHz	3 MHz	1MHz	AVG

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All data was recorded in the Quasi-peak detector mode from 30MHz to 1GHz, Peak and average detection mode above 1GHz.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sonoma Instrument	Amplifier	310N	185700	2019-08-14	2020-08-13
Rohde & Schwarz	EMI Test receiver	ESR	1316.3003K03-102454-Qd	2019-06-25	2020-06-24
Audix	Test Software	e3	V9	-	-
Sunol Sciences	Broadband Antenna	JB3	A060217	2016-12-26	2019-12-25
Champrotek	Chamber	Chamber A	T-KSEMC049	-	-
Champrotek	Chamber	Chamber B	T-KSEMC080	-	-
R&S	Auto test Software	EMC32	100361	-	-
EM Electronics	Amplifier	EM18G40G	060726	2019-08-14	2020-08-13
ETS-LINDGREN	Horn Antenna	3116	00084159	2016-12-12	2020-12-11
ETS	Horn Antenna	3115	6229	2016-12-12	2019-12-11
Rohde & Schwarz	EMI Receiver	ESU40	100207	2019-05-30	2020-05-29
A.H.Systems, inc	Amplifier	2641-1	491	2019-02-20	2020-02-19
MICRO-COAX	Coaxial Cable	Cable-8	008	2019-08-15	2020-08-14
MICRO-COAX	Coaxial Cable	Cable-9	009	2019-08-15	2020-08-14
MICRO-COAX	Coaxial Cable	Cable-10	010	2019-08-15	2020-08-14
MICRO-COAX	Coaxial Cable	Cable-4	004	2018-12-12	2019-12-11
MICRO-COAX	Coaxial Cable	Cable-5	005	2018-12-12	2019-12-11

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Kunshan) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Factor & Over Limit Calculation (For Below 1GHz)

The factor is calculated by adding Antenna Factor, Cable Loss and Amplifier Gain. The basic equation is as follows:

$$\text{Factor (dB)} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + \text{Amplifier Gain (dB)}$$

The “**Over Limit**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over Limit of 7dB means the emission is 7 dB above the limit. The equation for over Limit calculation is as follows:

$$\text{Over Limit (dB)} = \text{Read level (dB}\mu\text{V)} + \text{Factor (dB)} - \text{Limit (dB}\mu\text{V)}$$

Corrected Amplitude & Margin Calculation (For Above 1GHz)

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Data**Environmental Conditions**

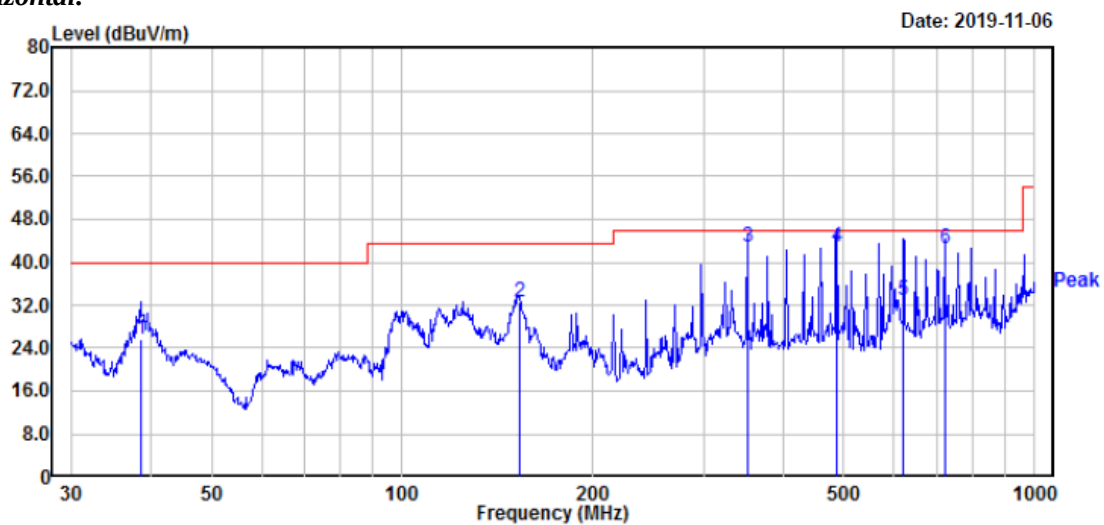
Temperature:	24 °C
Relative Humidity:	53%
ATM Pressure:	101.0 kPa

The testing was performed by Jett Zhao on 2019-11-06

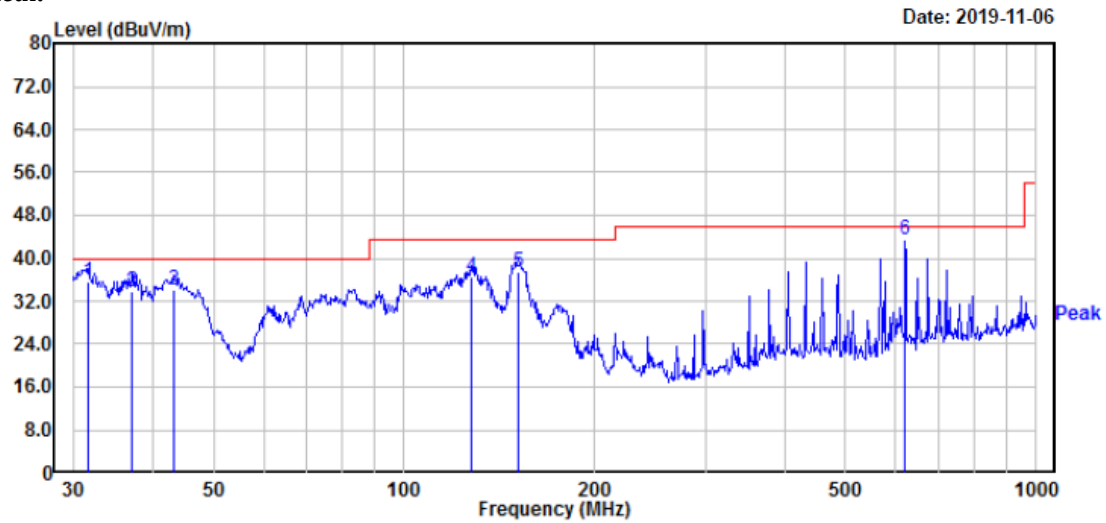
Test mode 1

1) Below 1GHz:

Horizontal:



	Freq	Read Level	Level	Limit Line	Over Limit	APos	TPos	Remark	Factor
	MHz	dBuV	dBuV/m	dBuV/m	dB	cm	deg		dB/m
1	38.62	36.10	25.81	40.00	-14.19	100	140	QP	-10.29
2	153.74	44.39	32.45	43.50	-11.05	200	271	QP	-11.94
3	351.71	51.99	42.98	46.00	-3.02	100	42	QP	-9.01
4	487.32	48.49	42.72	46.00	-3.28	100	360	QP	-5.77
5	620.71	36.40	32.79	46.00	-13.21	100	3	QP	-3.61
6	721.73	44.20	42.43	46.00	-3.57	100	3	QP	-1.77

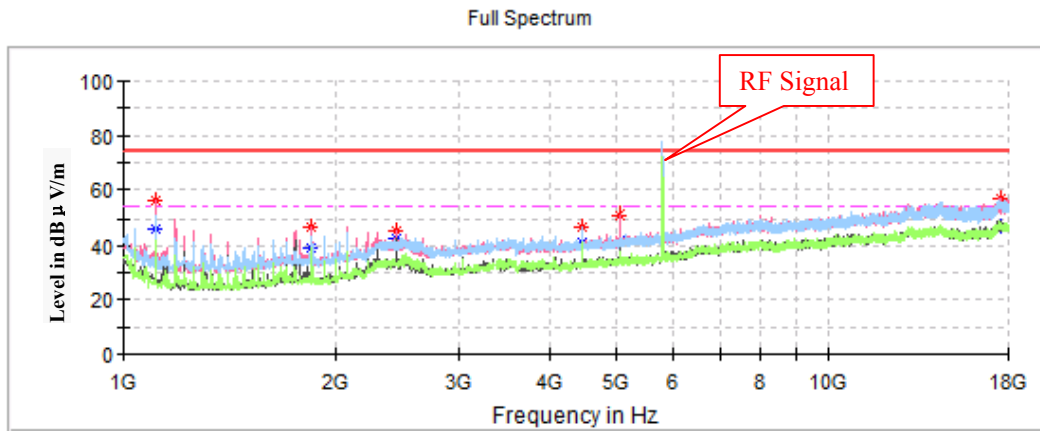
Vertical:

	Freq	Read Level	Level	Limit Line	Over Limit	APos	TPos	Remark	Factor
	MHz	dBuV	dBuV/m	dBuV/m	dB	cm	deg		dB/m
1	31.62	40.10	35.62	40.00	-4.38	100	4	QP	-4.48
2	37.16	42.81	33.72	40.00	-6.28	100	4	QP	-9.09
3	43.20	47.21	34.00	40.00	-6.00	100	338	QP	-13.21
4	127.67	47.50	36.41	43.50	-7.09	100	38	QP	-11.09
5	152.13	49.40	37.48	43.50	-6.02	100	225	QP	-11.92
6	620.71	47.10	43.49	46.00	-2.51	100	108	QP	-3.61

1) Factor (dB) = Antenna Factor (dB/m) + Cable Loss (dB) + Amplifier Gain (dB)

2) Over Limit (dB) = Read level (dBuV) + Factor (dB) - Limit (dBuV)

2) 1GHz-18 GHz:



Frequency (MHz)	Max Peak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1110.500000	---	46.49	54.00	7.51	100.0	V	290.0	-12.0
1110.500000	55.88	---	74.00	18.12	100.0	V	290.0	-12.0
1853.400000	---	39.27	54.00	14.73	200.0	H	312.0	-8.7
1853.400000	46.73	---	74.00	27.27	200.0	H	312.0	-8.7
2446.700000	---	42.54	54.00	11.46	100.0	V	275.0	-7.1
2446.700000	45.77	---	74.00	28.23	100.0	V	275.0	-7.1
4449.300000	---	41.57	54.00	12.43	200.0	H	265.0	-1.1
4449.300000	47.15	---	74.00	26.85	200.0	H	265.0	-1.1
5042.600000	---	41.74	54.00	12.26	100.0	V	260.0	-0.1
5042.600000	51.38	---	74.00	22.62	100.0	V	260.0	-0.1
17556.300000	---	46.59	54.00	7.41	100.0	V	0.0	14.2
17556.300000	56.66	---	74.00	17.34	100.0	V	0.0	14.2

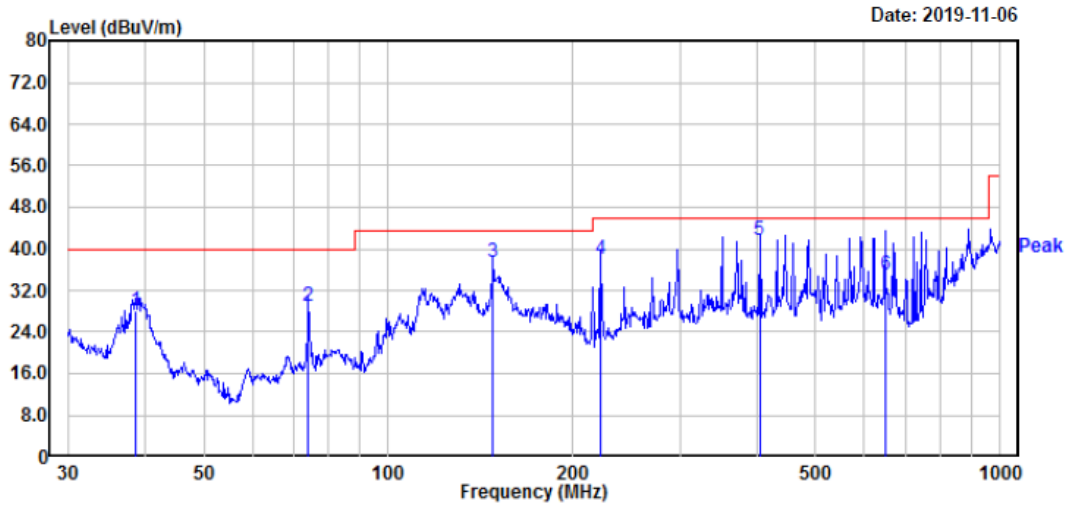
1) Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

2) Margin = Limit – Corrected Amplitude

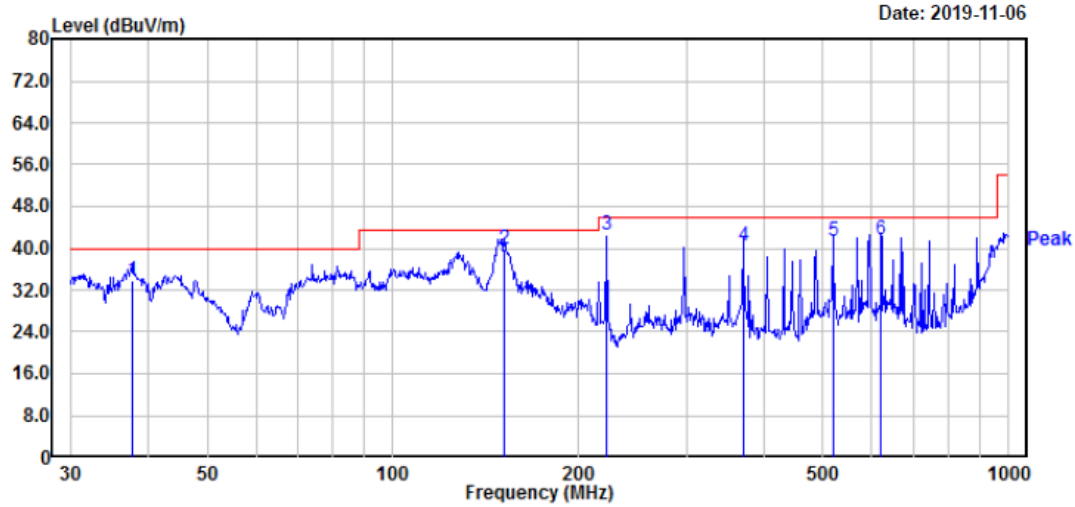
Test mode 2

1) Below 1GHz:

Horizontal:



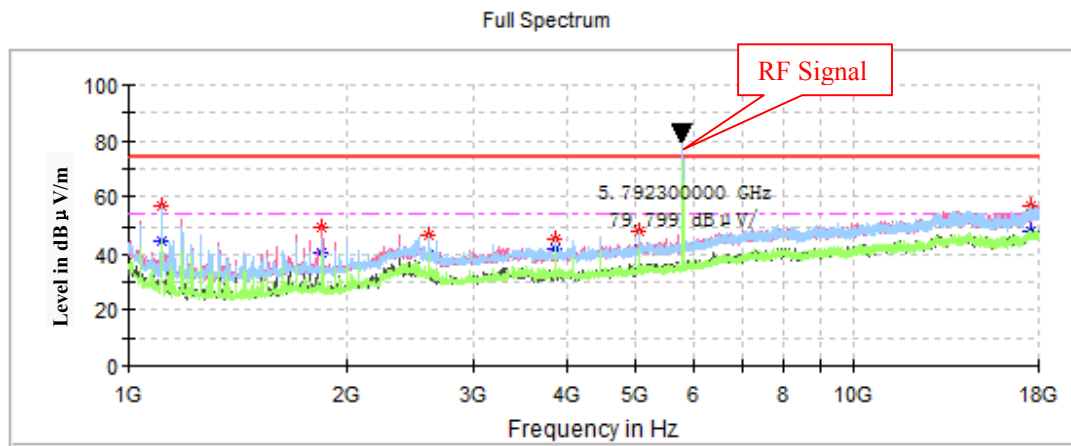
	Freq	Read Level	Level	Limit Line	Over Limit	APos	TPos	Remark	Factor
	MHz	dBuV	dBuV/m	dBuV/m	dB	cm	deg		dB/m
1	38.62	38.30	28.01	40.00	-11.99	100	8	QP	-10.29
2	74.14	46.00	28.99	40.00	-11.01	200	257	QP	-17.01
3	148.44	49.20	37.33	43.50	-6.17	200	303	QP	-11.87
4	222.95	51.40	38.03	46.00	-7.97	200	355	QP	-13.37
5	404.67	49.29	41.78	46.00	-4.22	100	8	QP	-7.51
6	649.66	38.20	35.12	46.00	-10.88	200	355	QP	-3.08

Vertical:

	Freq	Read Level	Level	Limit Line	Over Limit	APos	TPos	Remark	Factor
	MHz	dBuV	dBuV/m	dBuV/m	dB	cm	deg		dB/m
1	37.68	43.19	33.68	40.00	-6.32	100	297	QP	-9.51
2	152.13	51.68	39.76	43.50	-3.74	100	71	QP	-11.92
3	222.95	56.00	42.63	46.00	-3.37	100	59	QP	-13.37
4	370.70	48.91	40.37	46.00	-5.63	200	360	QP	-8.54
5	519.07	46.59	41.38	46.00	-4.62	100	7	QP	-5.21
6	620.71	45.18	41.57	46.00	-4.43	100	109	QP	-3.61

1) Factor (dB) = Antenna Factor (dB/m) + Cable Loss (dB) + Amplifier Gain (dB)

2) Over Limit (dB) = Read level (dBuV) + Factor (dB) - Limit (dBuV)

2) Above 1 GHz:

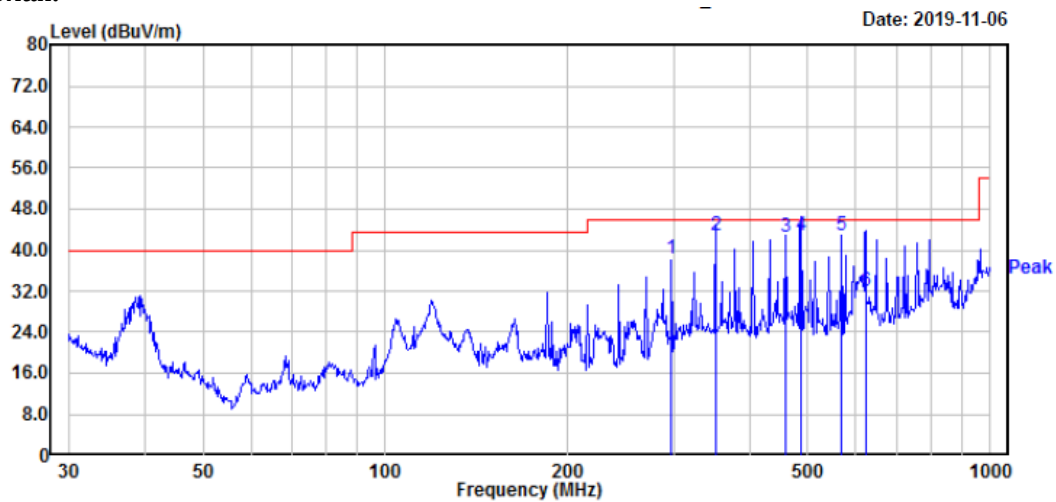
Frequency (MHz)	Max Peak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1112.200000	---	44.91	54.00	9.09	200.0	H	216.0	-12.0
1112.200000	56.95	---	74.00	17.05	200.0	H	216.0	-12.0
1853.400000	---	40.66	54.00	13.34	100.0	V	229.0	-8.7
1853.400000	49.47	---	74.00	24.53	100.0	V	229.0	-8.7
2594.600000	---	40.16	54.00	13.84	200.0	H	332.0	-6.4
2594.600000	46.69	---	74.00	27.31	200.0	H	332.0	-6.4
3856.000000	---	42.11	54.00	11.89	100.0	V	166.0	-2.3
3856.000000	45.17	---	74.00	28.83	100.0	V	166.0	-2.3
5042.600000	---	41.79	54.00	12.21	100.0	H	197.0	-0.1
5042.600000	48.23	---	74.00	25.77	100.0	H	197.0	-0.1
17598.800000	---	48.34	54.00	5.66	200.0	H	2.0	14.1
17598.800000	56.99	---	74.00	17.01	200.0	H	2.0	14.1

1) Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

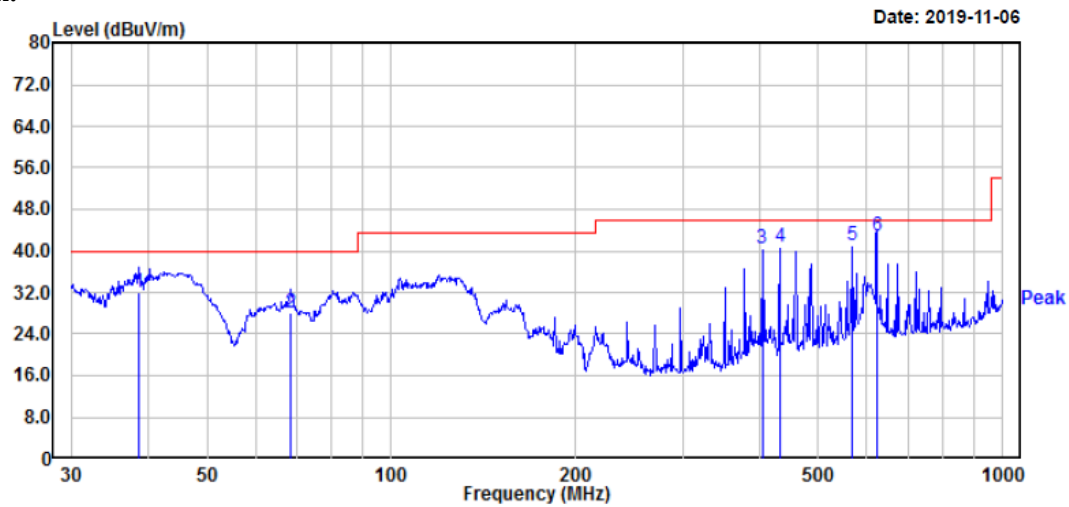
2) Margin = Limit – Corrected Amplitude

Test mode 3

1) Below 1GHz:

Horizontal:

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	297.22	48.60	-10.32	38.28	46.00	-7.72	100	33	QP
2	351.71	51.79	-9.01	42.78	46.00	-3.22	100	3	QP
3	459.11	49.11	-6.42	42.69	46.00	-3.31	200	28	QP
4	487.32	48.49	-5.77	42.72	46.00	-3.28	200	35	QP
5	568.61	47.41	-4.49	42.92	46.00	-3.08	200	190	QP
6	622.89	35.60	-3.57	32.03	46.00	-13.97	100	3	QP

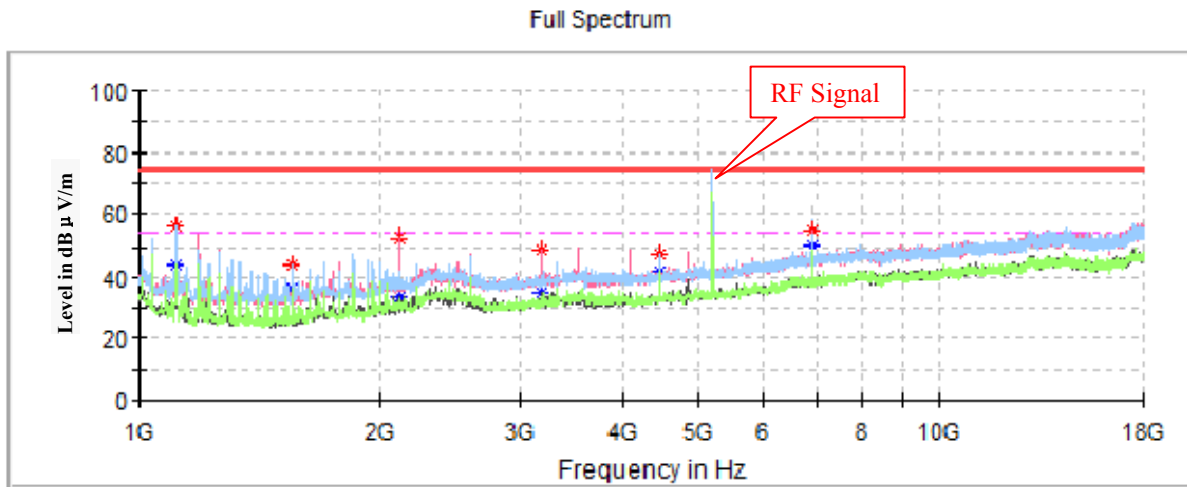
Vertical:

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	38.62	42.40	-10.29	32.11	40.00	-7.89	100	1	QP
2	68.63	45.10	-16.98	28.12	40.00	-11.88	100	1	QP
3	404.67	47.89	-7.51	40.38	46.00	-5.62	100	70	QP
4	432.55	47.79	-6.96	40.83	46.00	-5.17	100	31	QP
5	568.61	45.51	-4.49	41.02	46.00	-4.98	100	70	QP
6	622.89	46.30	-3.57	42.73	46.00	-3.27	100	98	QP

1) Factor (dB) = Antenna Factor (dB/m) + Cable Loss (dB) + Amplifier Gain (dB)

2) Over Limit (dB) = Read level (dBuV) + Factor (dB) - Limit (dBuV)

2) Above 1 GHz:



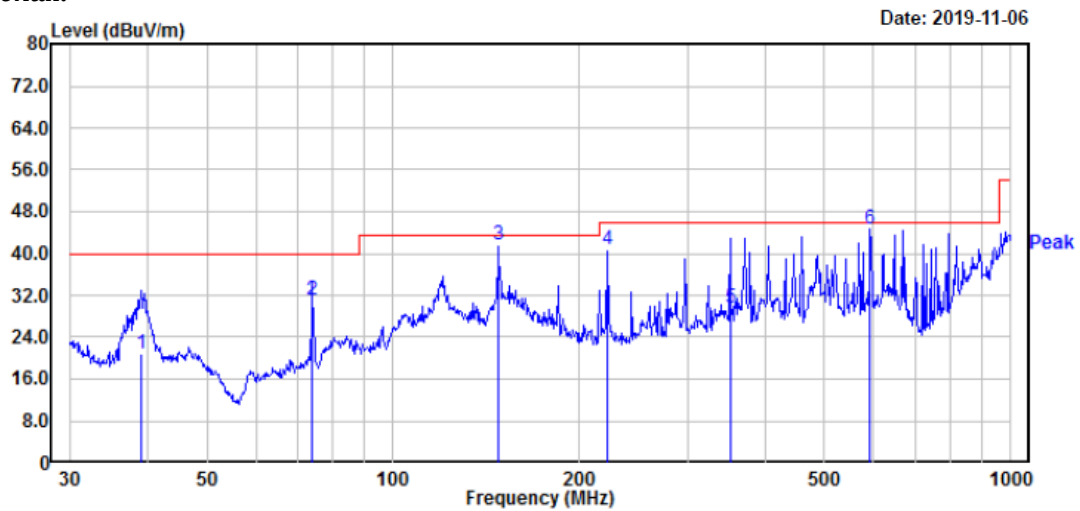
Frequency (MHz)	Max Peak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1110.500000	---	44.28	54.00	9.72	100.0	V	158.0	-12.0
1110.500000	55.78	---	74.00	18.22	100.0	V	158.0	-12.0
1555.900000	---	36.55	54.00	17.45	100.0	H	195.0	-9.7
1557.600000	44.08	---	74.00	29.92	100.0	H	195.0	-9.7
2118.600000	---	33.67	54.00	20.33	100.0	V	340.0	-7.9
2118.600000	52.78	---	74.00	21.22	100.0	V	340.0	-7.9
3189.600000	---	35.02	54.00	18.98	100.0	V	340.0	-4.1
3189.600000	49.21	---	74.00	24.79	100.0	V	340.0	-4.1
4449.300000	---	41.71	54.00	12.29	100.0	H	273.0	-1.1
4449.300000	47.66	---	74.00	26.34	100.0	H	273.0	-1.1
6905.800000	---	50.48	54.00	3.52	200.0	V	182.0	5.2
6905.800000	60.01	---	74.00	13.99	200.0	V	182.0	5.2

1) Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

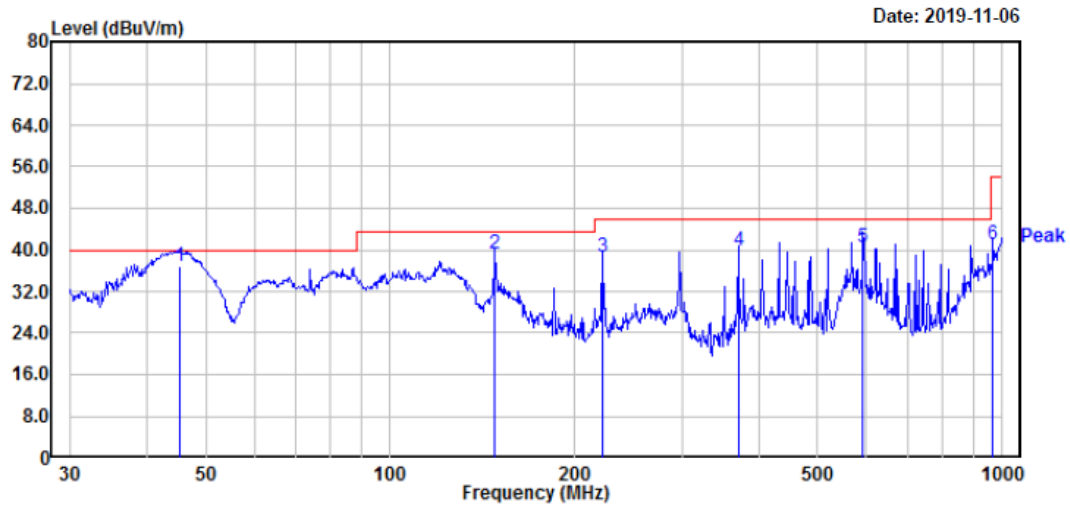
2) Margin = Limit – Corrected Amplitude

Test mode 4

1) Below 1GHz:

Horizontal:

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	39.16	31.69	-10.74	20.95	40.00	-19.05	100	251	QP
2	74.14	48.10	-17.01	31.09	40.00	-8.91	200	34	QP
3	148.44	53.50	-11.87	41.63	43.50	-1.87	200	76	QP
4	222.95	54.10	-13.37	40.73	46.00	-5.27	100	316	QP
5	351.71	38.49	-9.01	29.48	46.00	-16.52	100	8	QP
6	593.05	48.90	-4.09	44.81	46.00	-1.19	200	8	QP

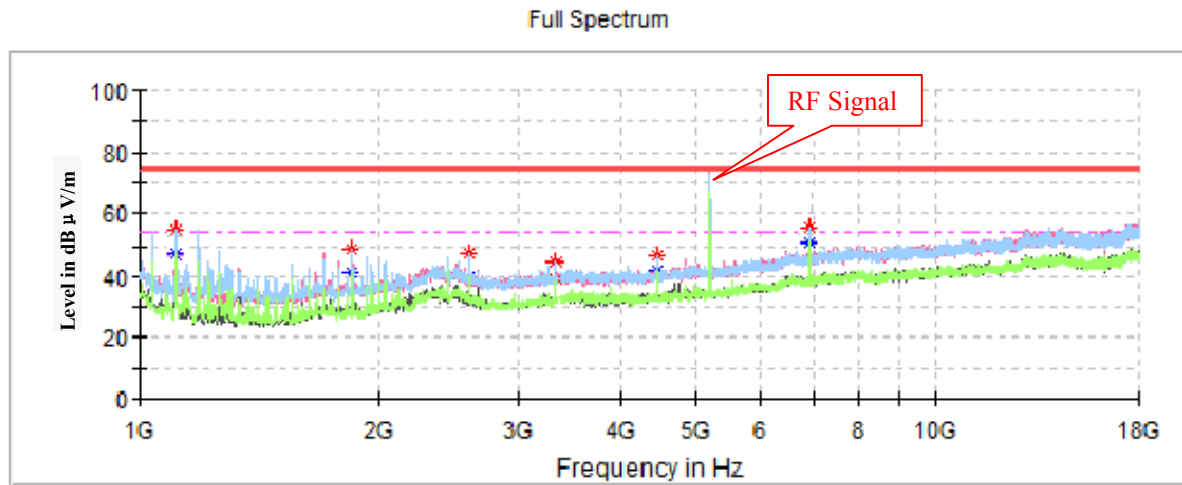
Vertical:

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	45.38	51.20	-14.40	36.80	40.00	-3.20	100	77	QP
2	148.44	51.04	-11.87	39.17	43.50	-4.33	100	116	QP
3	222.17	51.91	-13.39	38.52	46.00	-7.48	100	229	QP
4	370.70	48.44	-8.54	39.90	46.00	-6.10	100	4	QP
5	593.05	44.68	-4.09	40.59	46.00	-5.41	200	359	QP
6	965.54	38.73	2.35	41.08	54.00	-12.92	100	1	QP

Note:

- 1) Factor (dB) = Antenna Factor (dB/m) + Cable Loss (dB) + Amplifier Gain (dB)
- 2) Over Limit (dB) = Read level (dBuV) + Factor (dB) - Limit (dBuV)

2) Above 1 GHz:

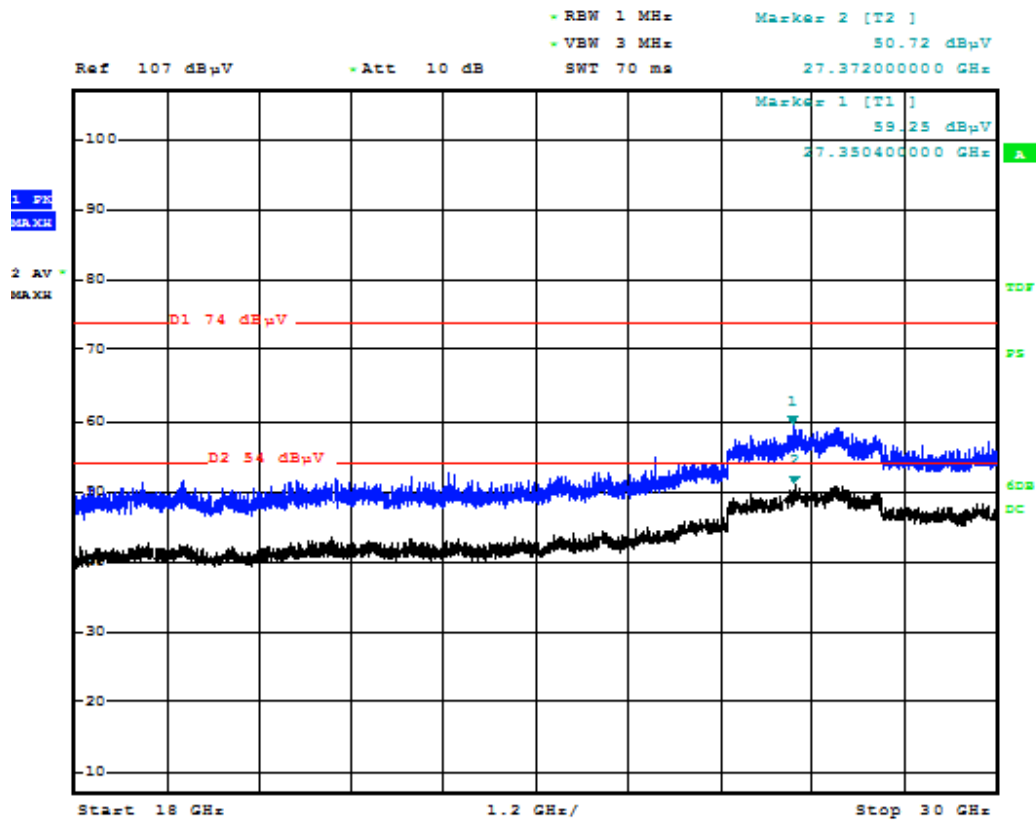


Frequency (MHz)	Max Peak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1110.500000	---	47.70	54.00	6.30	100.0	H	173.0	-12.0
1110.500000	62.54	---	74.00	11.46	100.0	H	173.0	-12.0
1853.400000	---	41.40	54.00	12.60	200.0	H	0.0	-8.7
1853.400000	49.10	---	74.00	24.90	200.0	H	0.0	-8.7
2594.600000	---	40.10	54.00	13.90	100.0	H	142.0	-6.4
2594.600000	47.55	---	74.00	26.45	100.0	H	142.0	-6.4
3335.800000	---	39.50	54.00	14.50	100.0	V	216.0	-3.8
3335.800000	44.88	---	74.00	29.12	100.0	V	216.0	-3.8
4449.300000	---	41.70	54.00	12.30	200.0	H	263.0	-1.1
4449.300000	47.18	---	74.00	26.82	200.0	H	263.0	-1.1
6905.800000	---	50.60	54.00	3.40	100.0	H	157.0	5.2
6905.800000	62.27	---	74.00	11.73	100.0	H	157.0	5.2

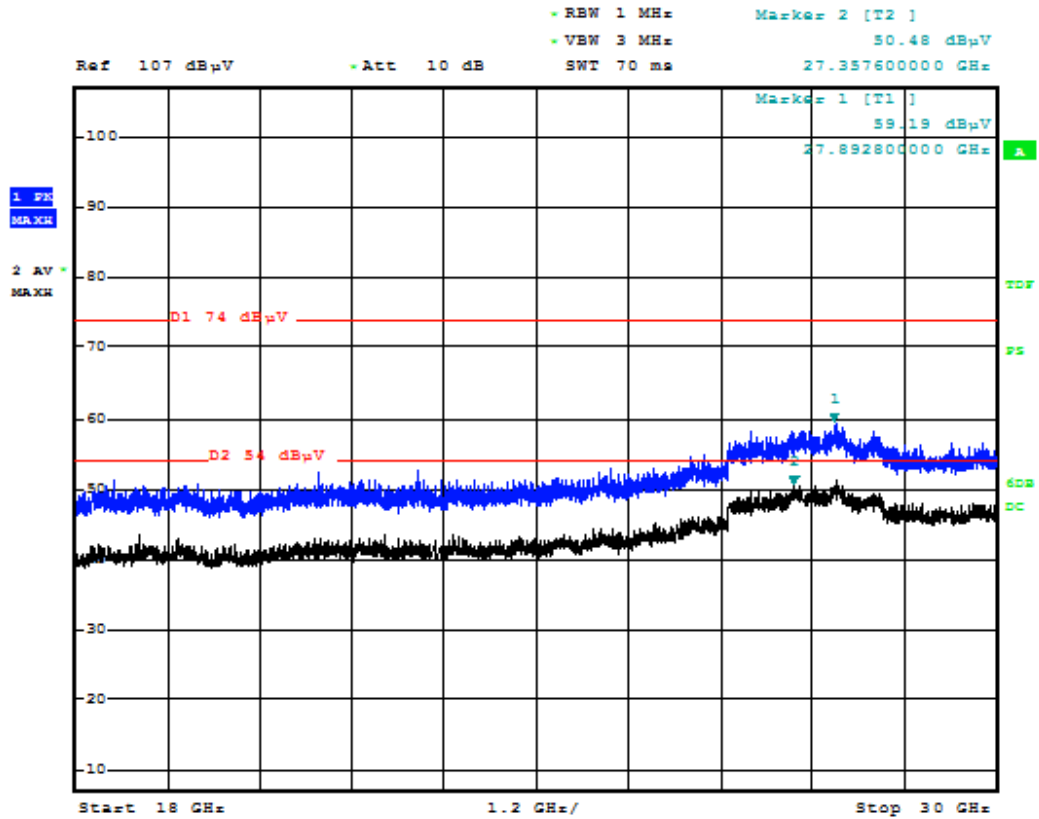
1) Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

2) Margin = Limit – Corrected Amplitude

3) 18GHz-30 GHz:(Pre-scan four test modes, only the mode 1 which the worst case was recorded in report).
Horizontal:



Vertical:



*****END OF REPORT*****