TESTING LABORATORY
CERTIFICATE#4323.01

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-FLOW2000RX

Report Type:	**Product Type:**
Original Report	2000ft Wireless HD

Test Engineer:	Jett Zhao
Report Number:	RSHA191012008-00B
Report Date:	2020-01-09
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

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant	SWIT Electronics Co., Ltd.
Test Model	FLOW2000 Rx
Series Model	FLOW500 Rx,S-6160 Rx,S-6115 Rx
Model Difference	Model names
Product	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: 20191012008 (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-FLOW2000TX.
FCC Part 15.407 NII submissions with FCC ID: 2AFFCS-FLOW2000RX.

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 out+RX
Test mode 2: Adapter+HDMI out + RX
Test mode 3: Battery+ SDI out + RX
Test mode 4: Battery+ HDMI out + RX

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	Monitor1	/	/
SWIT	Battery	S-8975	/
SWIT	Adapter	GP304U-120-200	/
SWIT	RX	FLOW2000 Tx	/
ANMTE	Monitor 2	SFD-EPC/APC170	

External I/O Cable

Mode 1:

Cable Description	Length (m)	From/Port	To
SDI Cable 1	0.4	EUT	Monitor1
SDI Cable 2	1.5	EUT	Monitor 2
Power Cable 1	1.0	EUT	Adapter 1
Power Cable 2	1.0	Adapter 1	AC Source
Power Cable 3	1.5	Adapter 2	Monitor 1
Power Cable 4	1.0	Adapter 2	AC Source
Power Cable 5	1.0	AC Source	Monitor 2

Mode 2:

Cable Description	Length (m)	From/Port	To
HDMI Cable	1.0	EUT	Monitor1
Power Cable 1	1.0	EUT	Adapter 1
Power Cable 2	1.0	Adapter 1	AC Source
Power Cable 3	1.5	Adapter 2	Monitor 1
Power Cable 4	1.2	AC Source	Adapter 2

Mode 3:

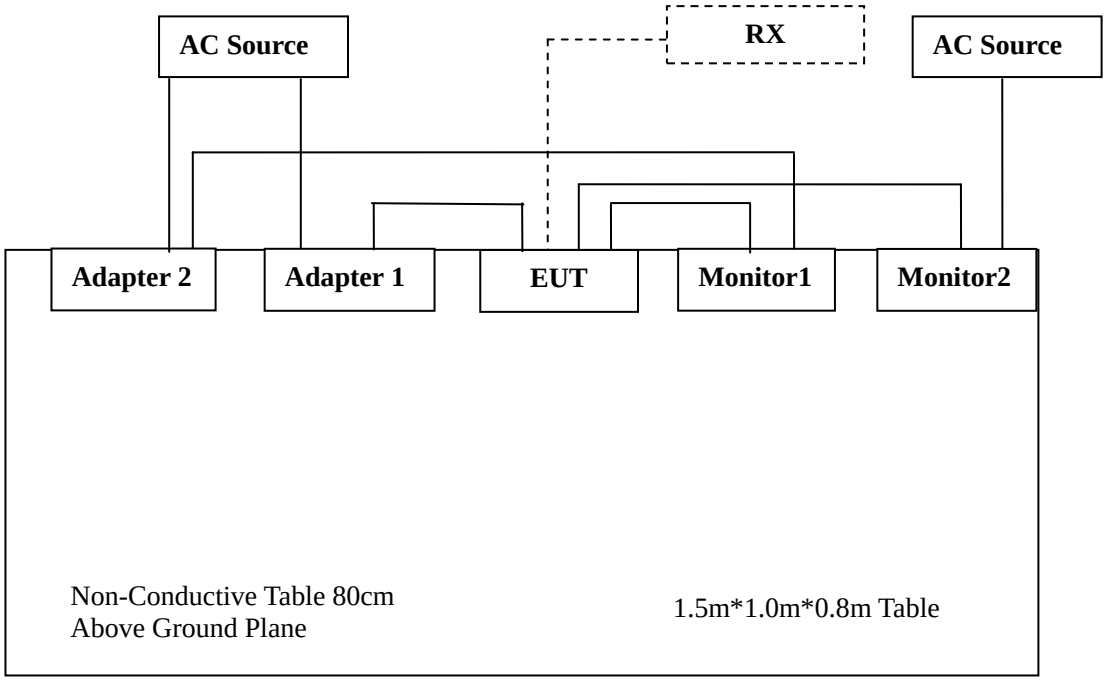
Cable Description	Length (m)	From/Port	To
SDI Cable 1	0.4	EUT	Monitor1
SDI Cable 2	1.5	EUT	Monitor 2
Power Cable 1	1.0	AC Source	Adapter
Power Cable 2	1.5	Adapter	Monitor 1
Power Cable 5	1.0	AC Source	Monitor 2

Mode 4:

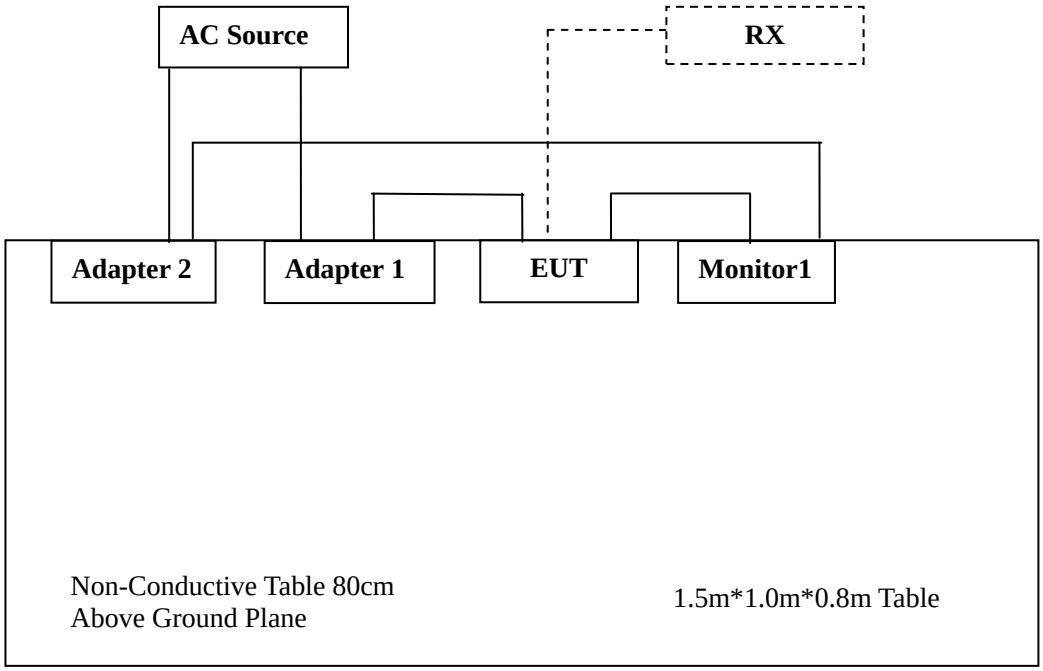
Cable Description	Length (m)	From/Port	To
HDMI Cable	1.0	EUT	Monitor
Power Cable 1	1.0	Adapter	AC Source
Power Cable 3	1.5	Adapter	Monitor

Block Diagram of Radiated Test Setup

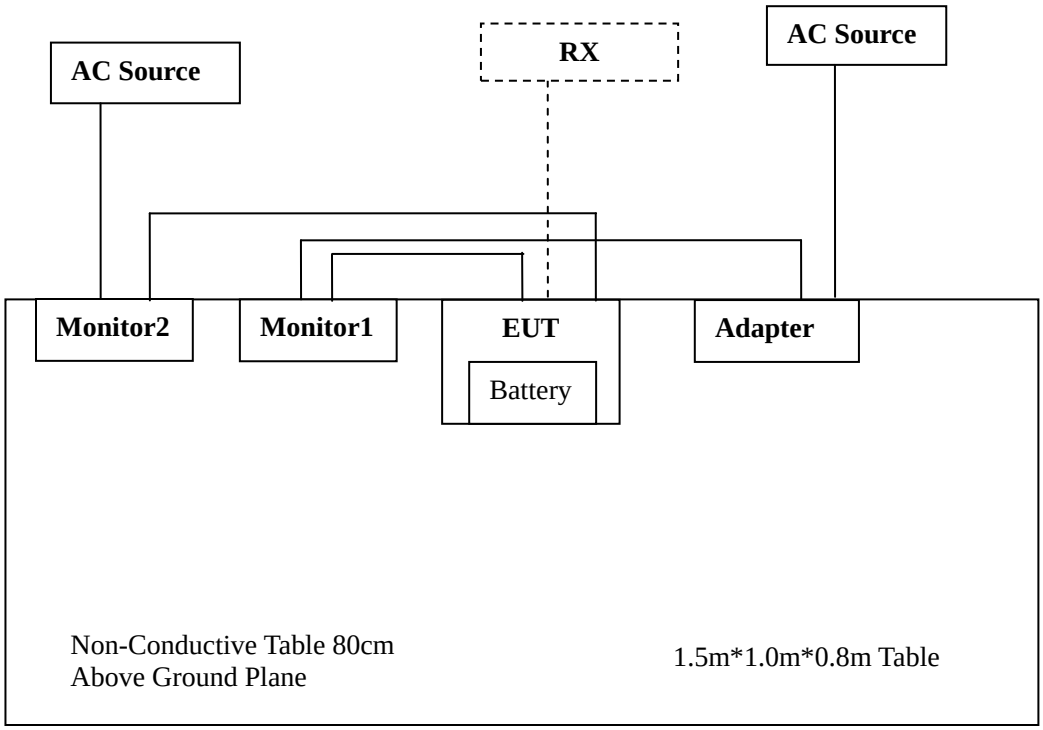
Test mode 1



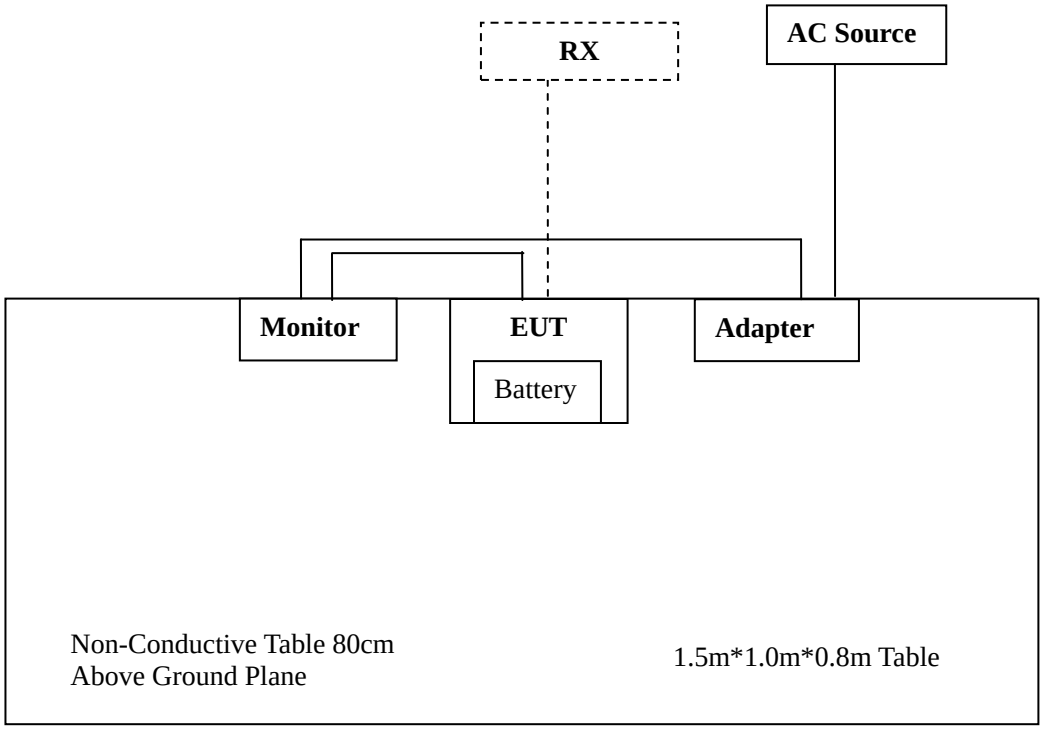
Test mode 2



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

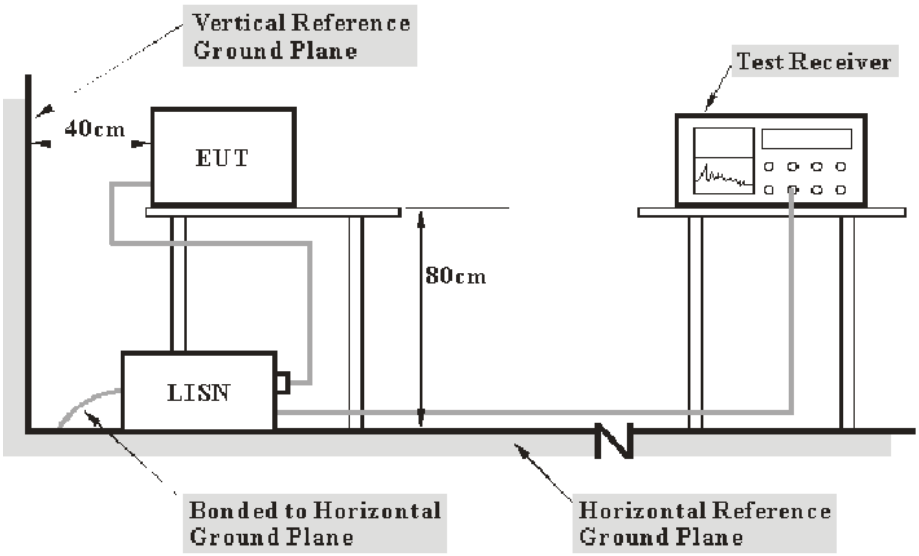
Measurement Uncertainty

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
Rohde & Schwarz	LISN	ESH3-Z5	862770/011	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:

Factor (dB) = LISN VDF (dB) + Cable Loss (dB) + 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:

Over Limit (dB) = Read level (dBµV) + Factor (dB) - Limit (dBµV)

Test Data

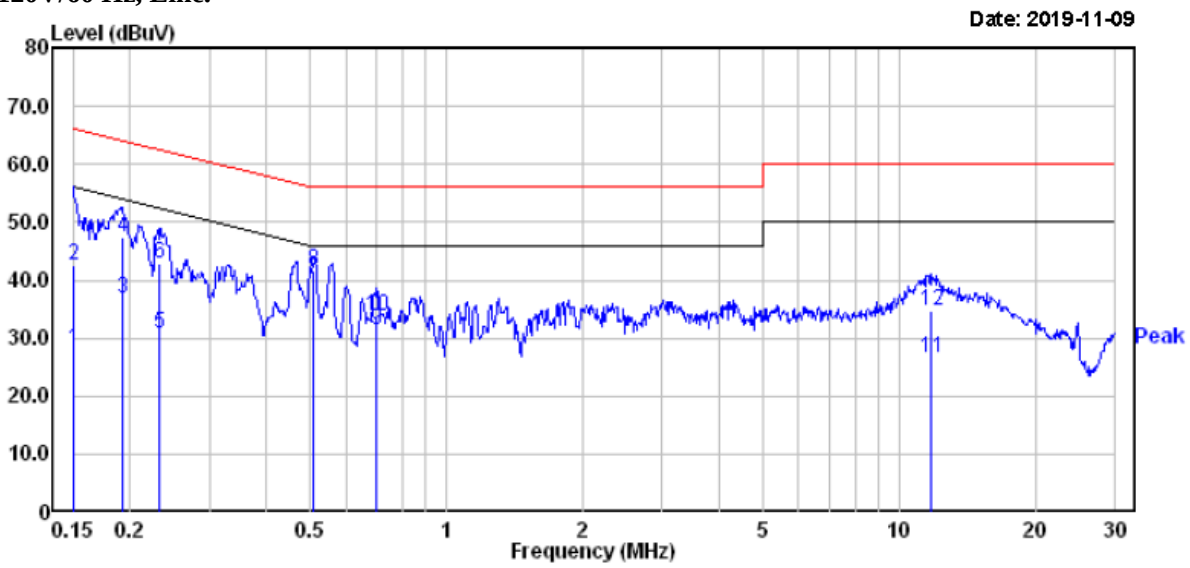
Environmental Conditions

Temperature:	20.0~21.5℃
Relative Humidity:	50~52 %
ATM Pressure:	101.0~102.1 kPa

The testing was performed by Jett Zhao from 2019-11-09 to 2019-11-24

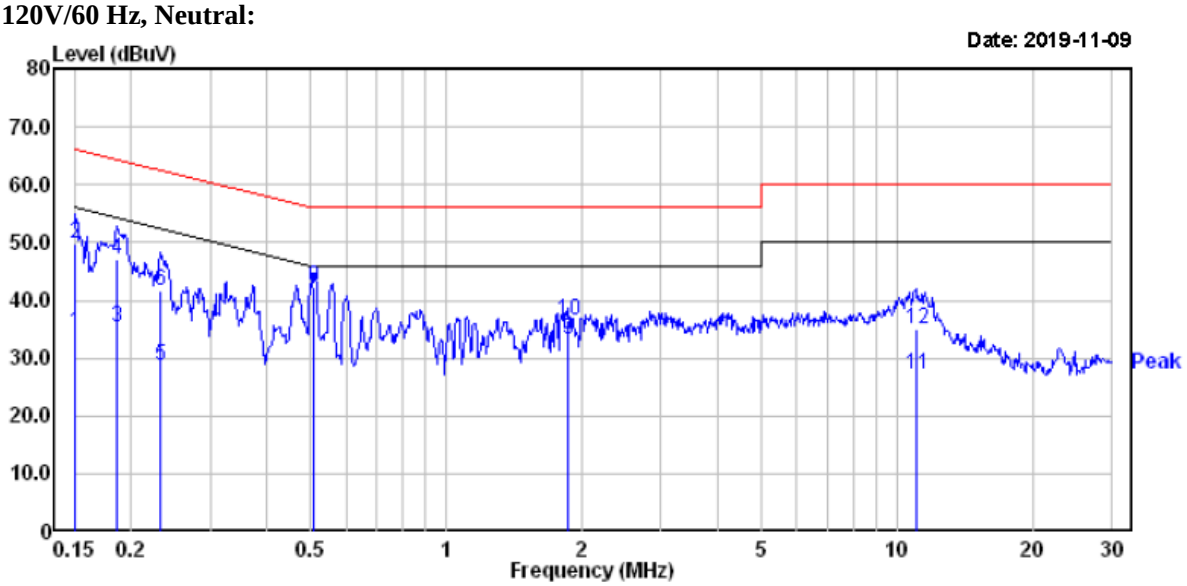
Test mode1:

AC 120V/60 Hz, Line*:*



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.150	8.30	19.82	28.12	56.00	-27.88	Average
2	0.150	22.80	19.82	42.62	66.00	-23.38	QP
3	0.192	16.90	19.82	36.72	53.93	-17.21	Average
4	0.192	27.70	19.82	47.52	63.93	-16.41	QP
5	0.233	10.90	19.82	30.72	52.35	-21.63	Average
6	0.233	23.10	19.82	42.92	62.35	-19.43	QP
7	0.510	20.50	19.76	40.26	46.00	-5.74	Average
8	0.510	21.90	19.76	41.66	56.00	-14.34	QP
9	0.701	11.70	19.75	31.45	46.00	-14.55	Average
10	0.701	14.20	19.75	33.95	56.00	-22.05	QP
11	11.807	7.10	19.58	26.68	50.00	-23.32	Average
12	11.807	15.10	19.58	34.68	60.00	-25.32	QP

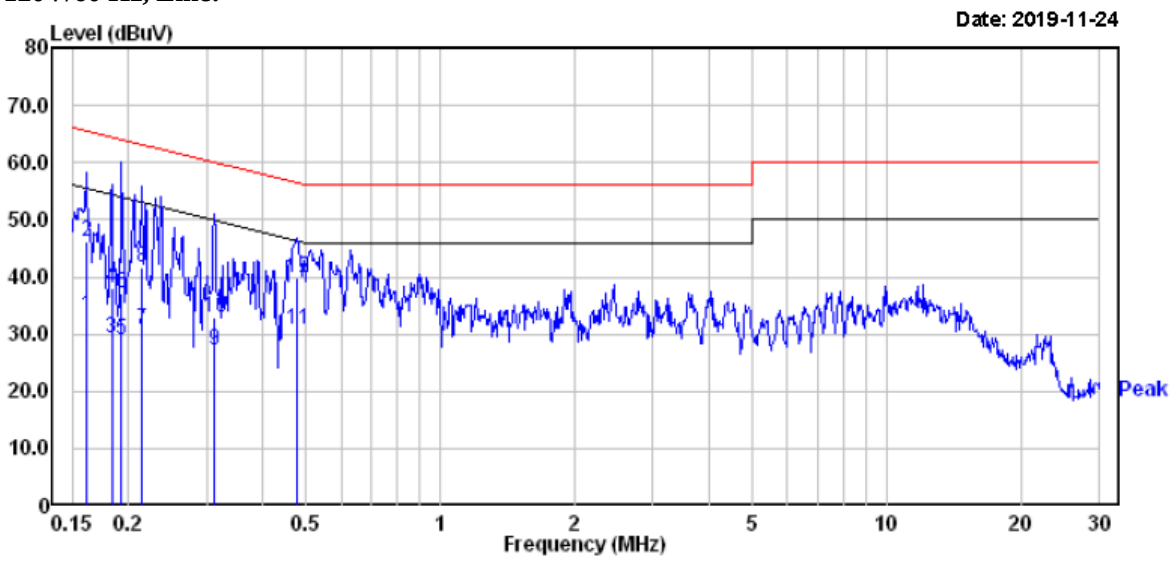
AC 120V/60 Hz, Neutral:



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.150	14.50	19.82	34.32	56.00	-21.68	Average
2	0.150	30.10	19.82	49.92	66.00	-16.08	QP
3	0.186	15.41	19.82	35.23	54.20	-18.97	Average
4	0.186	27.31	19.82	47.13	64.20	-17.07	QP
5	0.232	8.90	19.82	28.72	52.39	-23.67	Average
6	0.232	21.90	19.82	41.72	62.39	-20.67	QP
7	0.507	21.30	19.76	41.06	46.00	-4.94	Average
8	0.507	22.50	19.76	42.26	56.00	-13.74	QP
9	1.868	13.30	19.83	33.13	46.00	-12.87	Average
10	1.868	16.80	19.83	36.63	56.00	-19.37	QP
11	11.021	7.70	19.57	27.27	50.00	-22.73	Average
12	11.021	15.30	19.57	34.87	60.00	-25.13	QP

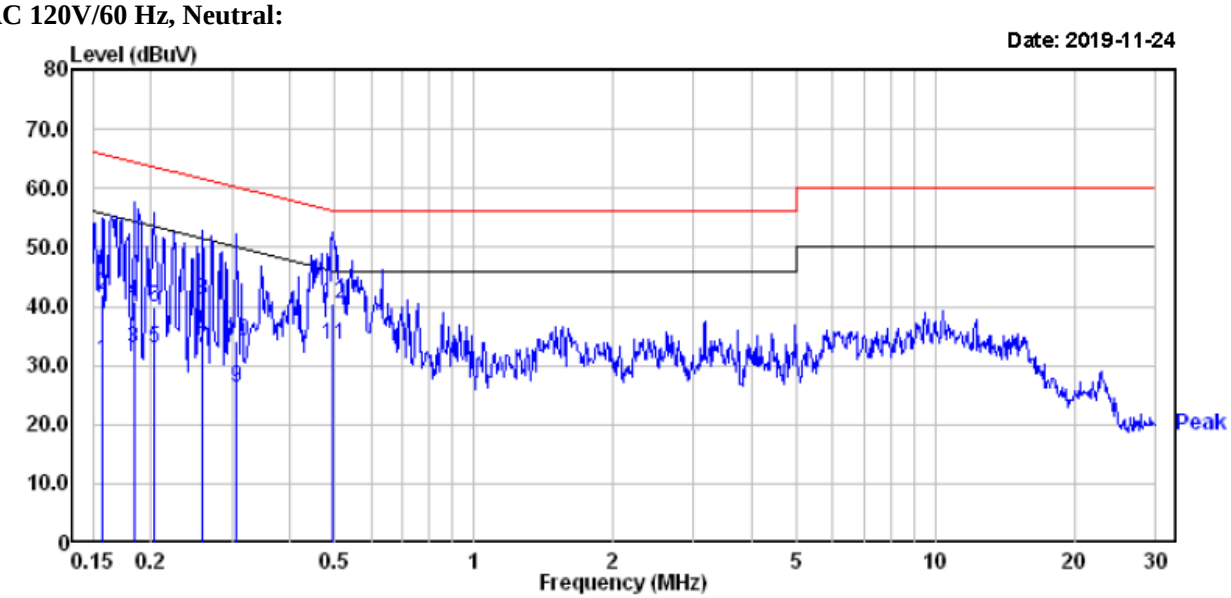
Test mode2:

AC 120V/60 Hz, Line:



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.161	13.35	19.83	33.18	55.43	-22.25	Average
2	0.161	26.35	19.83	46.18	65.43	-19.25	QP
3	0.183	9.34	19.83	29.17	54.33	-25.16	Average
4	0.183	18.34	19.83	38.17	64.33	-26.16	QP
5	0.193	9.20	19.82	29.02	53.89	-24.87	Average
6	0.193	17.20	19.82	37.02	63.89	-26.87	QP
7	0.215	10.88	19.82	30.70	53.01	-22.31	Average
8	0.215	21.88	19.82	41.70	63.01	-21.31	QP
9	0.312	7.20	19.83	27.03	49.93	-22.90	Average
10	0.312	13.20	19.83	33.03	59.93	-26.90	QP
11	0.479	11.04	19.76	30.80	46.36	-15.56	Average
12	0.479	20.04	19.76	39.80	56.36	-16.56	QP

AC 120V/60 Hz, Neutral:



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.157	11.03	19.82	30.85	55.60	-24.75	Average
2	0.157	22.03	19.82	41.85	65.60	-23.75	QP
3	0.183	12.93	19.83	32.76	54.33	-21.57	Average
4	0.183	20.93	19.83	40.76	64.33	-23.57	QP
5	0.203	13.01	19.82	32.83	53.49	-20.66	Average
6	0.203	20.01	19.82	39.83	63.49	-23.66	QP
7	0.259	13.10	19.82	32.92	51.47	-18.55	Average
8	0.259	21.10	19.82	40.92	61.47	-20.55	QP
9	0.305	6.32	19.83	26.15	50.10	-23.95	Average
10	0.305	14.32	19.83	34.15	60.10	-25.95	QP
11	0.494	13.83	19.76	33.59	46.10	-12.51	Average
12	0.494	20.83	19.76	40.59	56.10	-15.51	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

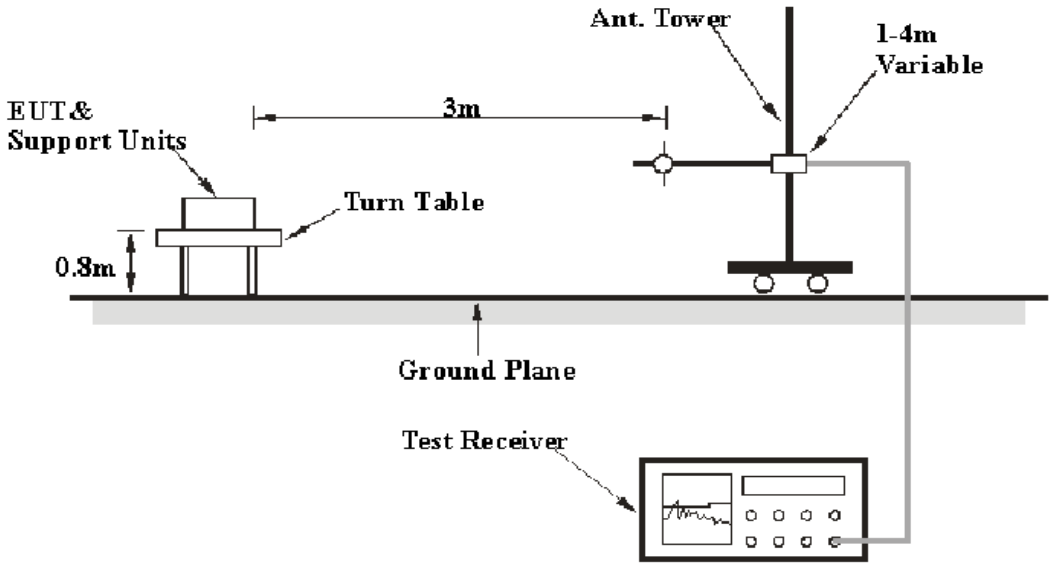
All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency 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

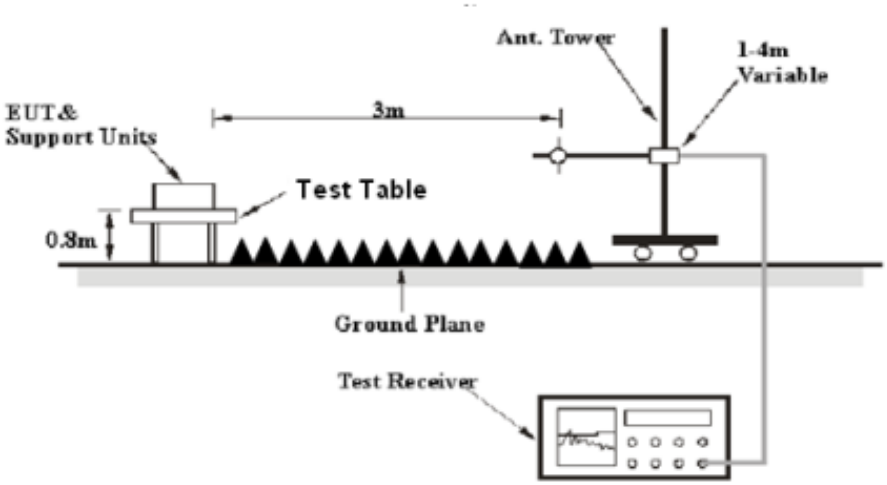
Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

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 30GHz.

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
Sunol Sciences	Broadband Antenna	JB3	A060217	2016-12-26	2019-12-25
Champrotek	Chamber	Chamber A	T-KSEMC049	-	-
Champrotek	Chamber	Chamber B	T-KSEMC080	-	-
Rohde & Schwarz	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
Audix	Test Software	e3	V9	-	-
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-4	004	2019-12-12	2020-12-11
MICRO-COAX	Coaxial Cable	Cable-5	005	2018-12-12	2019-12-11
MICRO-COAX	Coaxial Cable	Cable-5	005	2019-12-12	2020-12-11

*** 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:

Factor (dB/m) =Antenna Factor (dB/m) + Cable Loss (dB) + 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:

Over Limit (dB) = Read level (dBμV) + Factor (dB) - Limit (dBμV)

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:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - 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:

Margin = Limit – Corrected Amplitude

Test Data

Environmental Conditions

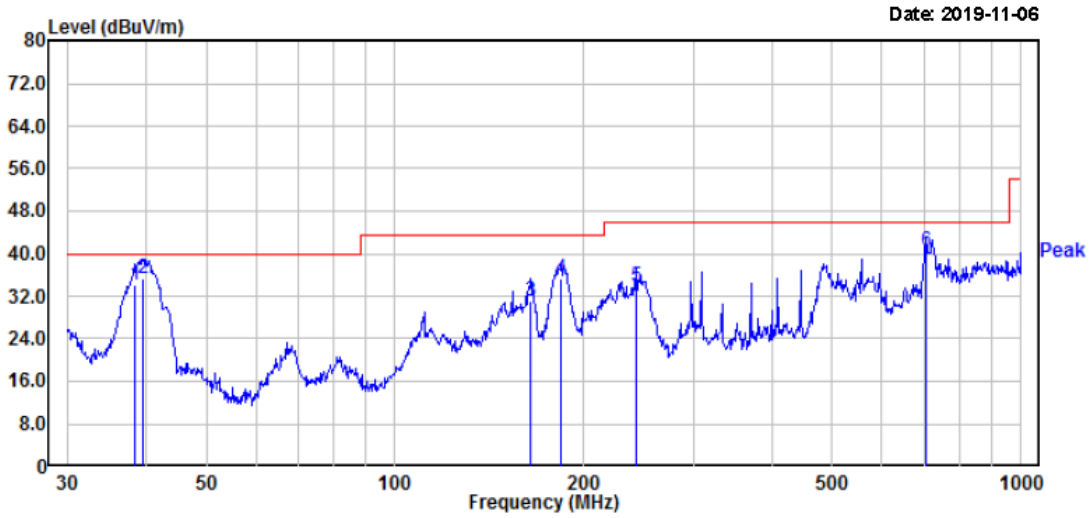
Temperature:	21.6℃~21.8 ℃
Relative Humidity:	50%~52%
ATM Pressure:	101.0 kPa ~101.2 kPa

The testing was performed by Jett Zhao on 2019-11-06 and 2020-01-09

Test mode 1

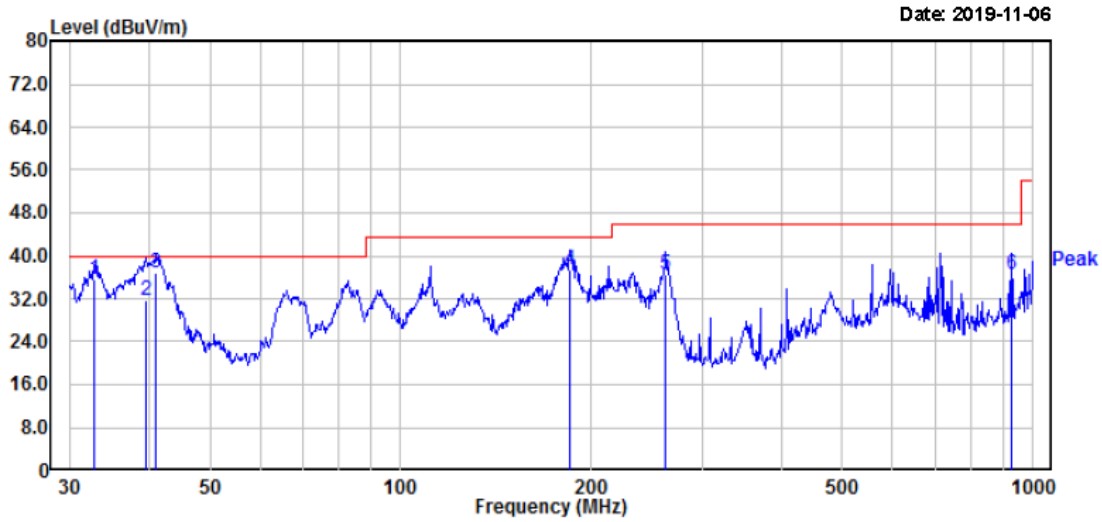
1) Below 1GHz:

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	38.35	44.30	34.23	40.00	-5.77	100	355	QP	-10.07
2	39.58	46.30	35.21	40.00	-4.79	100	355	QP	-11.09
3	164.91	43.31	31.02	43.50	-12.48	200	333	QP	-12.29
4	183.84	48.00	35.26	43.50	-8.24	100	304	QP	-12.74
5	242.53	46.39	33.81	46.00	-12.19	100	262	QP	-12.58
6	706.70	42.29	40.32	46.00	-5.68	100	209	QP	-1.97

Vertical:

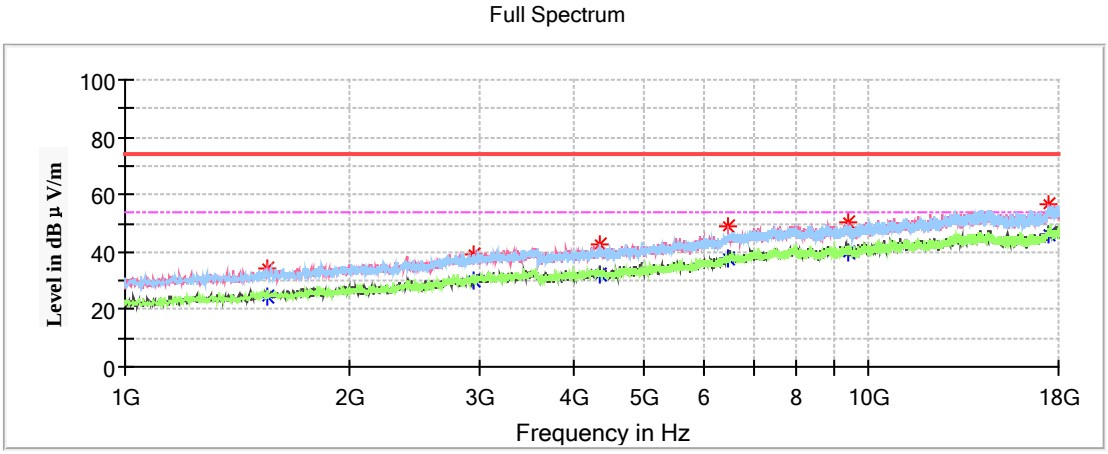


	Freq	Read Level	Level	Limit Line	Over Limit	APos	TPos	Remark	Factor
	MHz	dBuV	dBuV/m	dBuV/m	dB	cm	deg		dB/m
1	32.86	41.10	35.59	40.00	-4.41	100	17	QP	-5.51
2	39.58	42.80	31.71	40.00	-8.29	200	357	QP	-11.09
3	41.13	48.90	36.83	40.00	-3.17	100	357	QP	-12.07
4	185.79	49.99	37.40	43.50	-6.10	100	323	QP	-12.59
5	262.90	47.90	36.44	46.00	-9.56	100	5	QP	-11.46
6	925.76	35.11	36.67	46.00	-9.33	100	357	QP	1.56

Note:

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

2)1GHz-18 GHz:



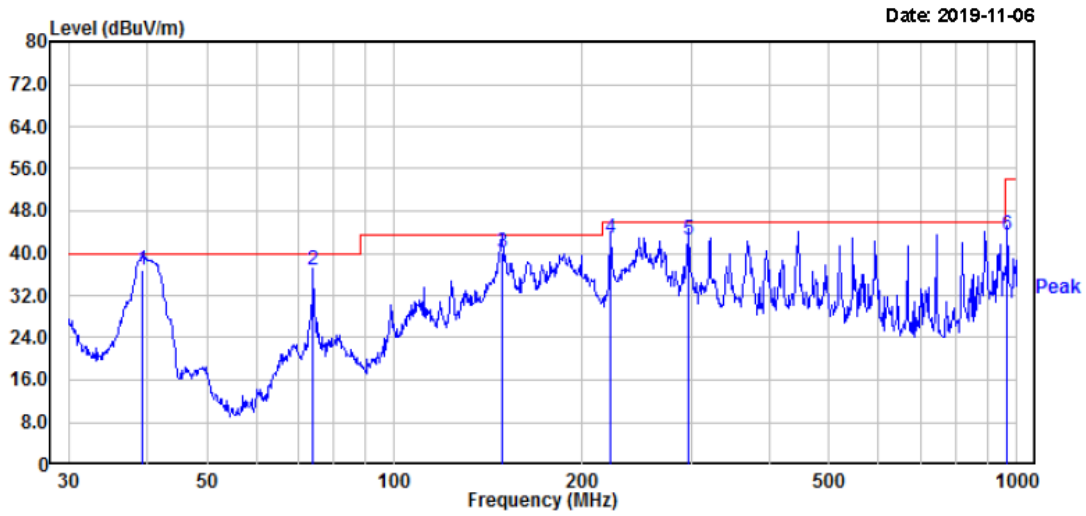
Frequency (MHz)	Max Peak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1549.100000	---	24.65	54.00	29.35	100.0	V	19.0	-9.8
1549.100000	33.92	---	74.00	40.08	100.0	V	19.0	-9.8
2939.700000	---	30.06	54.00	23.94	100.0	H	80.0	-4.7
2939.700000	39.40	---	74.00	34.60	100.0	H	80.0	-4.7
4342.200000	---	31.96	54.00	22.04	100.0	H	188.0	-1.3
4342.200000	42.31	---	74.00	31.69	100.0	H	188.0	-1.3
6484.200000	---	37.76	54.00	16.24	200.0	V	359.0	4.3
6484.200000	48.76	---	74.00	25.24	200.0	V	359.0	4.3
9409.900000	---	40.14	54.00	13.86	100.0	V	201.0	7.7
9409.900000	50.08	---	74.00	23.92	100.0	V	201.0	7.7
17464.500000	---	45.88	54.00	8.12	200.0	V	355.0	14.1
17464.500000	56.68	---	74.00	17.32	200.0	V	355.0	14.1

1) Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain
2) Margin = Limit – Corrected Amplitude

Test mode 2

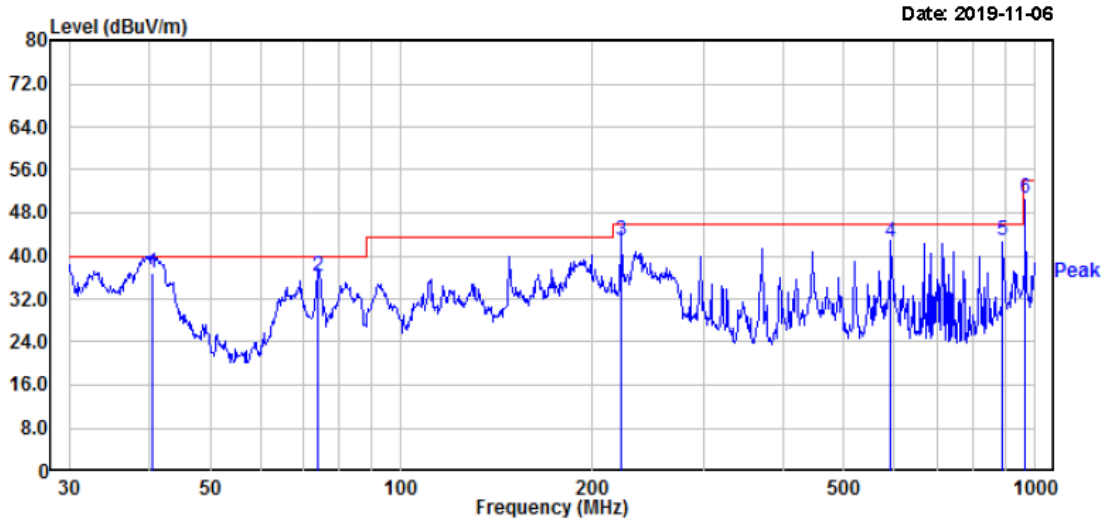
1) Below 1GHz:

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	39.44	47.89	36.92	40.00	-3.08	100	308	QP	-10.97
2	74.14	53.70	36.69	40.00	-3.31	200	329	QP	-17.01
3	148.96	52.08	40.20	43.50	-3.30	200	359	QP	-11.88
4	222.17	56.32	42.93	46.00	-3.07	100	246	QP	-13.39
5	296.18	52.99	42.65	46.00	-3.35	100	221	QP	-10.34
6	965.54	41.03	43.38	54.00	-10.62	100	303	QP	2.35

Vertical:

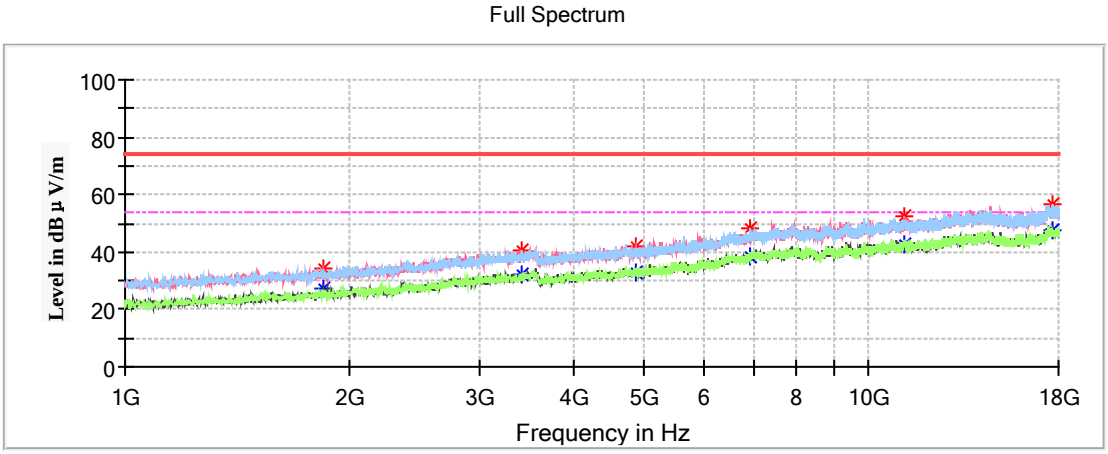


	Freq	Read Level	Level	Limit Line	Over Limit	APos	TPos	Remark	Factor
	MHz	dBuV	dBuV/m	dBuV/m	dB	cm	deg		dB/m
1	40.56	48.71	36.95	40.00	-3.05	100	171	QP	-11.76
2	74.14	53.20	36.19	40.00	-3.81	100	10	QP	-17.01
3	222.95	56.30	42.93	46.00	-3.07	200	218	QP	-13.37
4	593.05	46.70	42.61	46.00	-3.39	100	354	QP	-4.09
5	890.73	41.90	42.75	46.00	-3.25	100	347	QP	0.85
6	965.54	48.31	50.66	54.00	-3.34	200	356	QP	2.35

Note:

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

2) 1GHz-18 GHz:



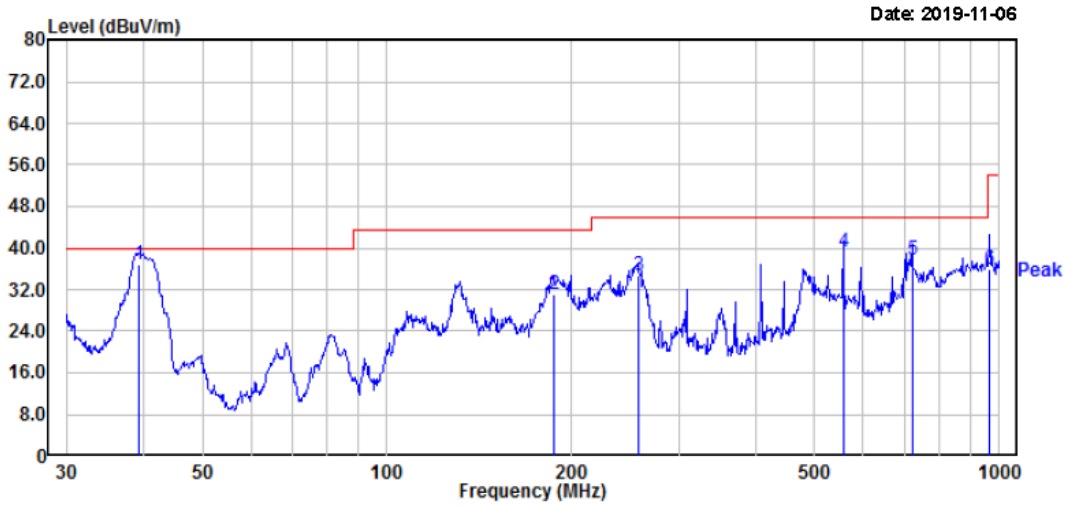
Frequency (MHz)	Max Peak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1853.400000	---	27.44	54.00	26.56	100.0	V	176.0	-8.7
1853.400000	34.56	---	74.00	39.44	100.0	V	176.0	-8.7
3420.800000	---	32.14	54.00	21.86	200.0	H	101.0	-3.7
3420.800000	40.49	---	74.00	33.51	200.0	H	101.0	-3.7
4848.800000	---	33.15	54.00	20.85	100.0	V	161.0	-0.5
4848.800000	42.18	---	74.00	31.82	100.0	V	161.0	-0.5
6946.600000	---	38.68	54.00	15.32	100.0	H	29.0	5.2
6946.600000	48.04	---	74.00	25.96	100.0	H	29.0	5.2
11171.100000	---	42.39	54.00	11.61	200.0	V	191.0	9.8
11171.100000	52.45	---	74.00	21.55	200.0	V	191.0	9.8
17661.700000	---	47.72	54.00	6.28	100.0	H	86.0	14.0
17661.700000	56.75	---	74.00	17.25	100.0	H	86.0	14.0

1) Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain
2) Margin = Limit – Corrected Amplitude

Test mode 3

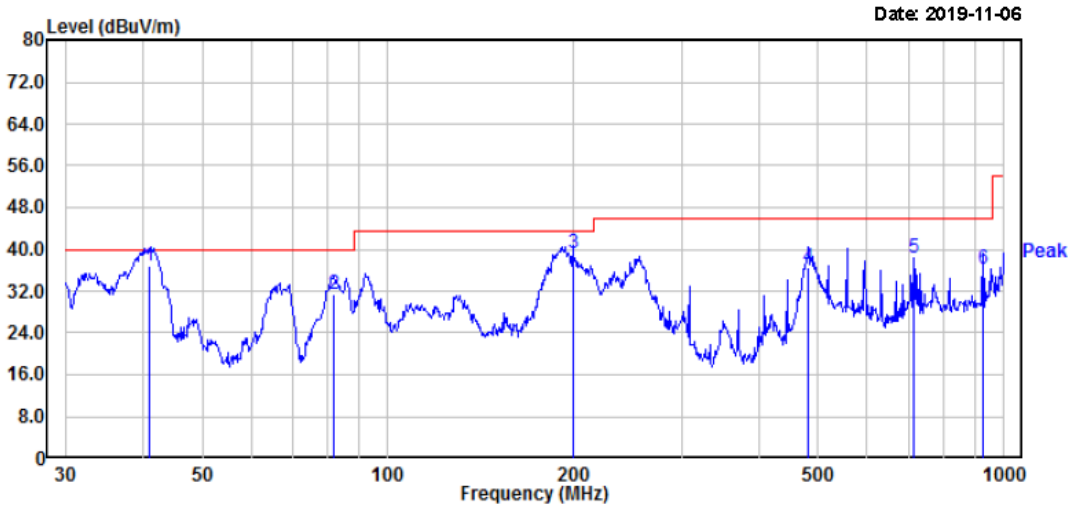
1) Below 1GHz:

Horizontal:



	Freq	Read Level	Level	Limit Line	Over Limit	APos	TPos	Remark	Factor
	MHz	dBuV	dBuV/m	dBuV/m	dB	cm	deg		dB/m
1	39.44	47.69	36.72	40.00	-3.28	100	197	QP	-10.97
2	187.10	43.50	31.00	43.50	-12.50	200	322	QP	-12.50
3	257.42	46.50	34.76	46.00	-11.24	100	266	QP	-11.74
4	556.77	43.91	39.24	46.00	-6.76	200	354	QP	-4.67
5	721.73	39.40	37.63	46.00	-8.37	200	303	QP	-1.77
6	965.54	33.61	35.96	54.00	-18.04	100	12	QP	2.35

Vertical:

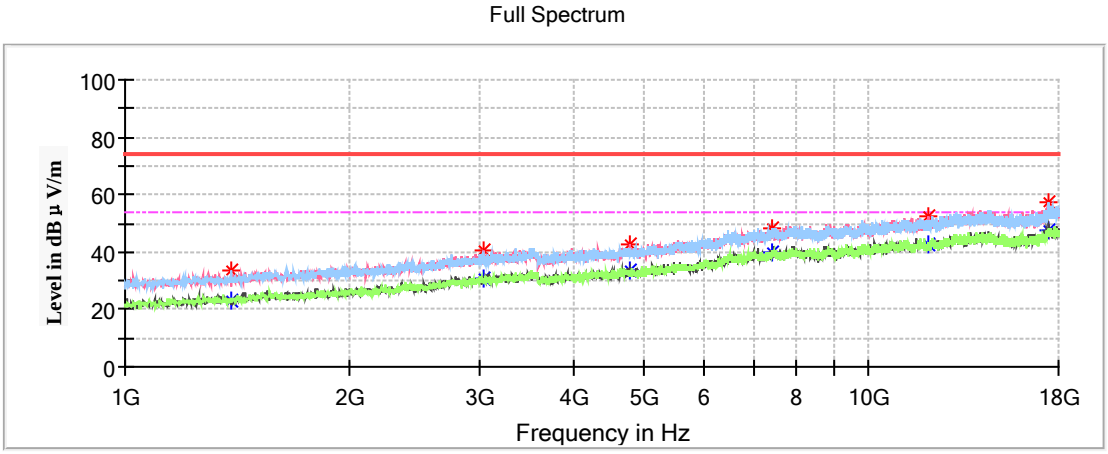


	Freq	Read Level	Level	Limit Line	Over Limit	APos	TPos	Remark	Factor
	MHz	dBuV	dBuV/m	dBuV/m	dB	cm	deg		dB/m
1	41.13	48.90	36.83	40.00	-3.17	100	4	QP	-12.07
2	81.78	48.70	31.52	40.00	-8.48	200	358	QP	-17.18
3	199.99	50.80	39.18	43.50	-4.32	100	176	QP	-11.62
4	482.22	42.51	36.61	46.00	-9.39	100	281	QP	-5.90
5	714.17	40.30	38.42	46.00	-7.58	100	268	QP	-1.88
6	925.76	34.71	36.27	46.00	-9.73	200	266	QP	1.56

Note:

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

2) Above 1 GHz:



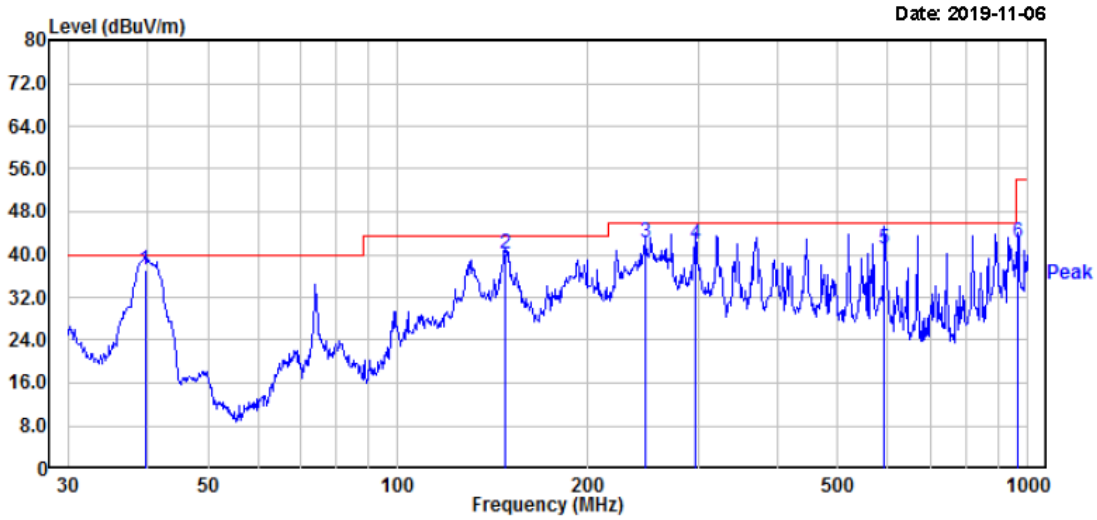
Frequency (MHz)	Max Peak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1391.000000	---	23.08	54.00	30.92	200.0	H	296.0	-10.5
1391.000000	33.72	---	74.00	40.28	200.0	H	296.0	-10.5
3040.000000	---	30.54	54.00	23.46	100.0	V	201.0	-4.3
3040.000000	40.30	---	74.00	33.70	100.0	V	201.0	-4.3
4763.800000	---	33.23	54.00	20.77	100.0	V	80.0	-0.6
4763.800000	42.67	---	74.00	31.33	100.0	V	80.0	-0.6
7393.700000	---	39.60	54.00	14.40	200.0	V	275.0	6.0
7393.700000	48.47	---	74.00	25.53	200.0	V	275.0	6.0
12051.700000	---	42.38	54.00	11.62	200.0	V	332.0	10.1
12051.700000	52.18	---	74.00	21.82	200.0	V	332.0	10.1
17416.900000	---	47.49	54.00	6.51	100.0	H	100.0	13.9
17416.900000	57.16	---	74.00	16.84	100.0	H	100.0	13.9

1) Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain
2) Margin = Limit – Corrected Amplitude

Test mode 4

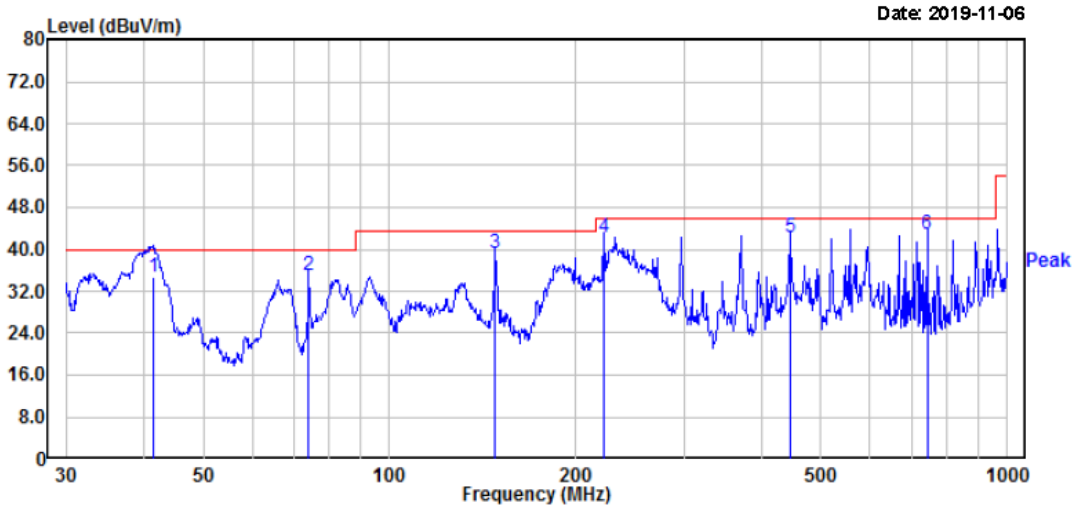
1) Below 1GHz:

Horizontal:



	Freq	Read Level	Level	Limit Line	Over Limit	APos	TPos	Remark	Factor
	MHz	dBuV	dBuV/m	dBuV/m	dB	cm	deg		dB/m
1	39.72	48.19	36.99	40.00	-3.01	100	144	QP	-11.20
2	148.44	51.97	40.10	43.50	-3.40	200	0	QP	-11.87
3	246.82	54.74	42.41	46.00	-3.59	100	311	QP	-12.33
4	296.18	52.32	41.98	46.00	-4.02	100	236	QP	-10.34
5	593.05	45.25	41.16	46.00	-4.84	200	206	QP	-4.09
6	965.54	39.82	42.17	54.00	-11.83	100	0	QP	2.35

Vertical:

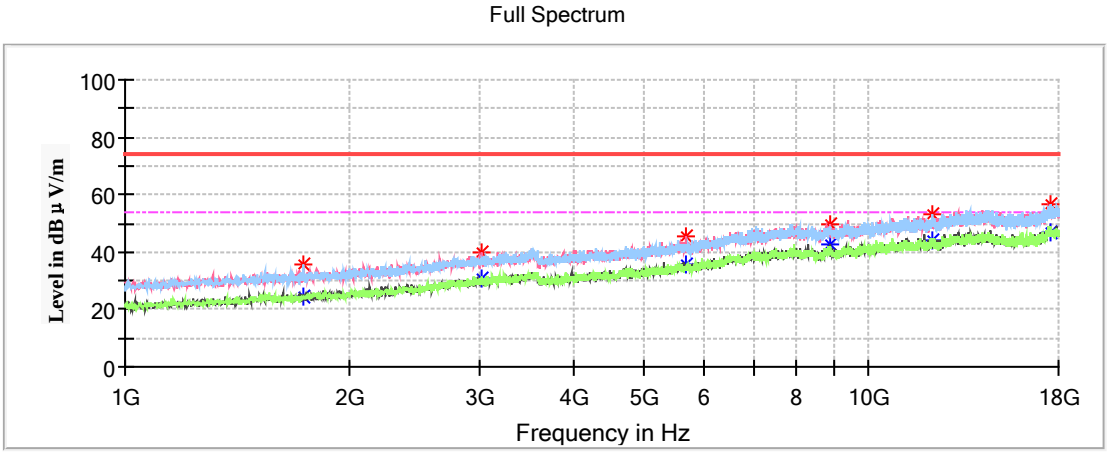


	Freq	Read Level	Level	Limit Line	Over Limit	APos	TPos	Remark	Factor
	MHz	dBuV	dBuV/m	dBuV/m	dB	cm	deg		dB/m
1	41.57	46.89	34.59	40.00	-5.41	100	2	QP	-12.30
2	74.14	52.12	35.11	40.00	-4.89	200	290	QP	-17.01
3	148.44	51.22	39.35	43.50	-4.15	200	48	QP	-11.87
4	222.17	55.70	42.31	46.00	-3.69	100	2	QP	-13.39
5	446.41	49.10	42.41	46.00	-3.59	100	271	QP	-6.69
6	742.26	44.39	42.91	46.00	-3.09	100	193	QP	-1.48

Note:

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

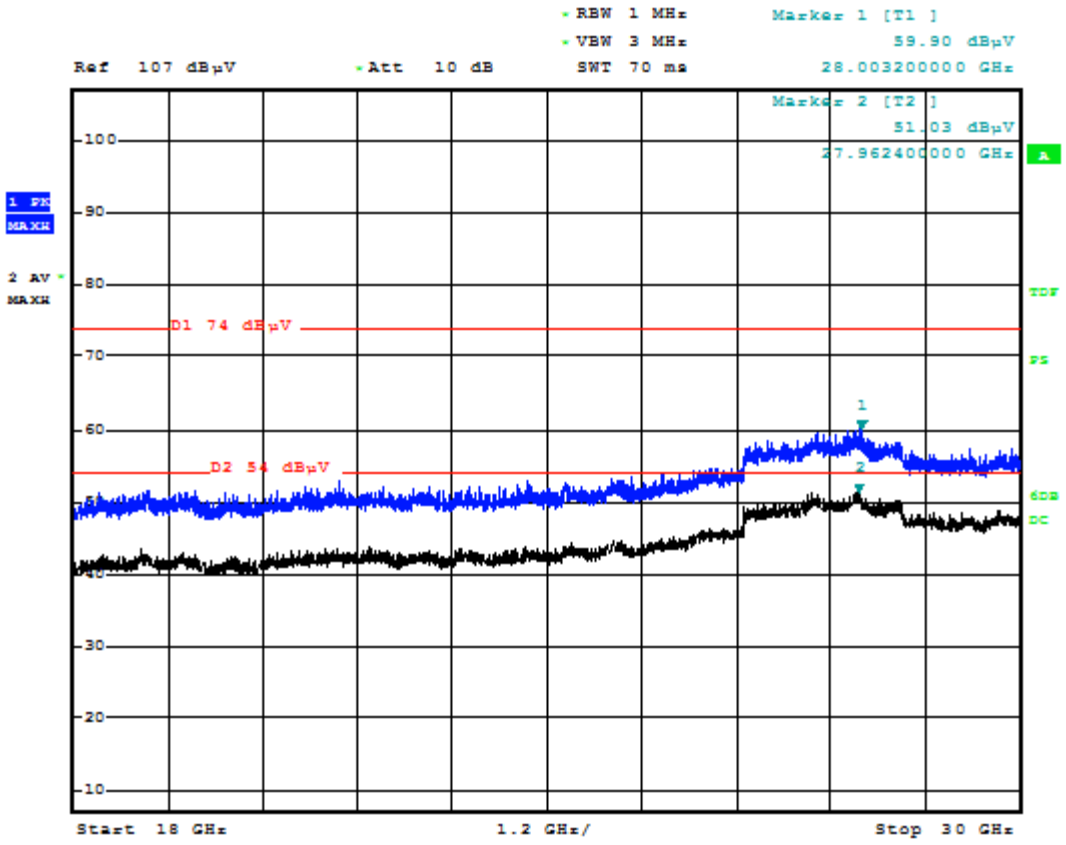
2) Above 1 GHz:



Frequency (MHz)	Max Peak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1739.500000	---	24.20	54.00	29.80	100.0	H	52.0	-9.1
1739.500000	35.32	---	74.00	38.68	100.0	H	52.0	-9.1
3012.800000	---	30.90	54.00	23.10	100.0	V	243.0	-4.4
3012.800000	39.90	---	74.00	34.10	100.0	V	243.0	-4.4
5664.800000	---	35.47	54.00	18.53	200.0	V	257.0	1.7
5664.800000	45.12	---	74.00	28.88	200.0	V	257.0	1.7
8886.300000	---	42.50	54.00	11.50	100.0	V	184.0	7.4
8886.300000	49.39	---	74.00	24.61	100.0	V	184.0	7.4
12182.600000	---	43.73	54.00	10.27	100.0	H	0.0	10.2
12182.600000	53.28	---	74.00	20.72	100.0	H	0.0	10.2
17592.000000	---	46.52	54.00	7.48	100.0	H	250.0	14.1
17592.000000	56.87	---	74.00	17.13	100.0	H	250.0	14.1

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:



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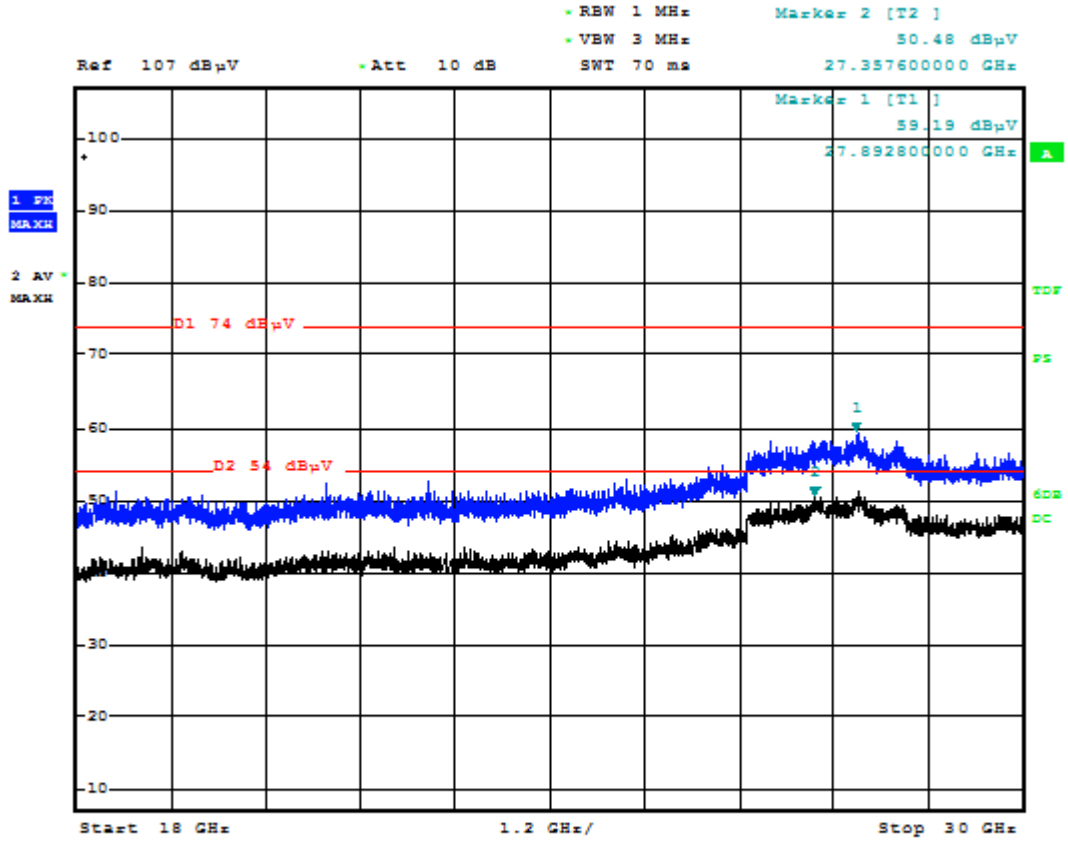
Vertical:



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