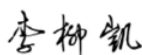


Industrial Internet Innovation Center (Shanghai) Co.,Ltd.**EMC TEST REPORT**

PRODUCT	Smart counter scale
BRAND	SUNMI
MODEL	ACS-F2521,ACS-F2522,ACS-F2523
APPLICANT	Shanghai Sunmi Technology Co.,Ltd.
FCC ID	2AH25S2CC
IC	22621-S2CC
ISSUE DATE	February 27, 2024
STANDARD(S)	FCC Part 15, Subpart B, ANSI C63.4-2014

Prepared by: *Li Liukai*Reviewed by: *Qin Yabin*Approved by: *Zhang Min***CAUTION:**

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CONTENTS

1	SUMMARY OF TEST REPORT	3
1.1	TEST STANDARD (S)	3
1.2	SUMMARY OF TEST RESULTS	3
2	GENERAL INFORMATION OF THE LABORATORY	4
2.1	TESTING LABORATORY	4
2.2	LABORATORY ENVIRONMENTAL REQUIREMENTS	4
2.3	PROJECT INFORMATION	4
3	GENERAL INFORMATION OF THE CUSTOMER	5
3.1	APPLICANT	5
3.2	MANUFACTURER	5
3.3	FACTORY	5
4	GENERAL INFORMATION OF THE PRODUCT	6
4.1	PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	6
4.2	DESCRIPTION FOR AUXILIARY EQUIPMENT (AE)	6
5	TEST CONFIGURATION INFORMATION	8
5.1	LABORATORY ENVIRONMENTAL CONDITIONS	8
5.2	DECISION OF FINAL TEST MODE	9
5.3	EUT SYSTEM OPERATION	10
5.4	EUT CONNECTION DIAGRAM OF TEST SYSTEM	11
5.5	TEST EQUIPMENT UTILIZED	12
5.6	MEASUREMENT UNCERTAINTY	12
6	TEST RESULTS	13
6.1	RADIATED EMISSION	13
6.2	CONDUCTED EMISSION	16
	ANNEX A: MEASUREMENT DATA	18
	ANNEX B: REVISED HISTORY	30
	ANNEX C: ACCREDITATION CERTIFICATE	31

1 Summary of Test Report

1.1 Test Standard (s)

No.	Test Standard(s)	Title
1	FCC Part 15, Subpart B	Radio frequency devices
2	ANSI C63.4	Method of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
3	ICES-003	Information Technology Equipment (Including Digital Apparatus)-Limits and Methods of Measurement
NOTE: According to customer requirements, test and report using the latest version of the standard.		

1.2 Summary of Test Results

No.	Item(s)	Standard(s)	Verdicts for Single Item	Detailed Results
1	Radiated Emission	15.109(a)	Pass	See section 6.1
2	AC Conducted Emission	15.107(a)	Pass	See section 6.2

NOTE:

The ACS-F2521,ACS-F2522,ACS-F2523 manufactured by Shanghai Sunmi Technology Co.,Ltd. is a new product for testing.

There are three configurations S08aa (Mainly Supply) & S16aa (Secondary Supply) & S12aa (Thirdly Supply) in this project. We mainly tested the S08aa (Mainly Supply), and the other configuration tested the worst mode of the main supply, and recorded the test results of the worst mode respectively in the report.

Industrial Internet Innovation Center (Shanghai) Co., Ltd. only performed test cases which identified with Pass/Fail/Inc result in section 1.3.

Industrial Internet Innovation Center (Shanghai) Co., Ltd. has verified that the compliance of the tested device specified in section 4 of this test report is successfully evaluated according to the procedure and test methods as defined in type certification requirement listed in section 1 of this test report.

The description of the differences between S08aa (Mainly Supply) & S16aa (Secondary Supply) & S12aa (Thirdly Supply) are as follows:

Model	Screen size
ACS-F2521: S16aa (Secondary Supply)	15.6" screen+10.1" screen
ACS-F2522: S08aa (Mainly Supply)	15.6" screen+15.6" screen
ACS-F2523: S12aa (Thirdly Supply)	15.6" screen

2 General Information of The Laboratory

2.1 Testing Laboratory

Lab Name	Industrial Internet Innovation Center (Shanghai) Co.,Ltd.
Address	Building 4, No. 766, Jingang Road, Pudong, Shanghai, China
Telephone	021-68866880
FCC Registration No.	708870
FCC Designation No.	CN1364
IC designation No.	10766A
CAB identifier	CN0067

2.2 Laboratory Environmental Requirements

Temperature	15℃~35℃
Relative Humidity	25%RH~75%RH
Atmospheric Pressure	86kPa~106kPa
Supply Voltage	120V/60Hz

2.3 Project Information

Project Manager	Gao Hongning
Test Date	January 04, 2024 to January 23, 2024

3 General Information of The Customer

3.1 Applicant

Company	Shanghai Sunmi Technology Co.,Ltd.
Address	Room 505,No.388,Song Hu Road,Yang Pu District,Shanghai,China
Telephone	+86 17302160204

3.2 Manufacturer

Company	Shanghai Sunmi Technology Co.,Ltd.
Address	Room 505,No.388,Song Hu Road,Yang Pu District,Shanghai,China
Telephone	+86 17302160204

3.3 Factory

Company	N/A
Address	N/A

4 General Information of The Product

4.1 Product Description for Equipment under Test (EUT)

Product	Smart counter scale
Model	ACS-F2521,ACS-F2522,ACS-F2523
Date of Receipt	January 02, 2024
EUT ID*	S08aa (Mainly Supply) & S16aa (Secondary Supply) & S12aa (Thirdly Supply)
SN/IMEI	N/A
Supported Radio Technology and Bands	WLAN 802.11b,g,n WLAN 802.11a,n,ac BT 4.2
Hardware Version	RK3568_MB_V2.0
Software Version	3.0.11
NOTE1: EUT ID is the internal identification code of the laboratory. NOTE2: Photographs of EUT are shown in ANNEX A of this test report. NOTE3: Samples in the test report are provided by the customer. The test results are only applicable to the samples received by the laboratory.	

4.2 Description for Auxiliary Equipment (AE)

AE ID*	Description	Model	SN/Remark
CB04	Adapter	CYSE65-240250	Jiangsu Chenyang Electron Co., Ltd. 24V,2.5A
UB04	AC Cable	N/A	N/A
AE1	Notebook PC	DELL Latitude E6510	N/A
AE2	LAN Cable	N/A	N/A
AE3	Keyboard	KB212-B	CN-0Y88XT-65890-12I-005Q-A00
AE4	Mouse	MS111-P	CN-011D3V-71581-19J-1A64
AE5	Earphone	N/A	N/A
AE6	Micro SD card	Kingston SDC4/4GB 77	N/A
AE7	Cash Box	NC020	N/A
AE8	Telephone	HA8000(28) P/T S	N/A
AE9	U disk	Kingston DTSE9 16GB	N/A

AE10	U disk	Kingston DTSE9 16GB	N/A
AE11	USB Cable	N/A	N/A
AE12	Object of weight	N/A	N/A
NOTE: *AE ID is the internal identification code of the laboratory.			

5 Test Configuration Information

5.1 Laboratory Environmental Conditions

5.1.1 Permanent Facilities

Semi-anechoic chamber SAC3-1 (9 m*8m*6.2m) & SAC3-2 (9.8m*6.7m*6.7m)	
Shielding effectiveness	0.014MHz ~1MHz, >60dB; 1MHz~1000MHz, >90dB.
Electrical insulation	> 2MΩ
Ground system resistance	< 4Ω
Normalised site attenuation (NSA)	< ± 4 dB, 3m distance, from 30 to 1000 MHz
Site voltage standing-wave ratio (SVSWR)	Between 0 and 6 dB, from 1GHz to 18GHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

Shielded room	
Shielding effectiveness	0.014MHz~1MHz, >60dB; 1MHz~1000MHz, >90dB.
Electrical insulation	> 2 MΩ
Ground system resistance	< 4Ω

5.2 Decision of final test mode

The EUT was tested in conjunction with the accessories in Section 4.2. We tested all of the following test modes and selected the worst mode from the test results and recorded them in the report.

The test configuration modes are as the following:

S08aa (Mainly Supply):

Test Item	Test setup and operating modes
Radiated emission	30MHz-18GHz frequency range: Mode 1: Working mode (Full system) + Data Link+ CB04+ UB04 Mode 2: Working mode (Full system) + Weighing mode+ CB04+ UB04 Mode 3: Print mode+ CB04+ UB04
AC Conducted emission	Mode 1: Working mode (Full system) + Data Link+ CB04+ UB04 Mode 2: Working mode (Full system) + Weighing mode+ CB04+ UB04 Mode 3: Print mode+ CB04+ UB04
Note: 1. All test modes are performed, only the worst cases test data are recorded in this report. 2. The worst case of radiated emission for 30MHz-1GHz is Mode 2 and for 1GHz -18GHz is Mode 1. 3. The worst case for conducted emission is mode 2.	

S16aa (Secondary Supply):

Test Item	Test setup and operating modes
Radiated emission	30MHz-18GHz frequency range: Mode 1: Working mode (Full system) + Data Link+ CB04+ UB04 Mode 2: Working mode (Full system) + Weighing mode+ CB04+ UB04
AC Conducted emission	Mode 2: Working mode (Full system) + Weighing mode+ CB04+ UB04
Note: 1. The worst case of radiated emission for 30MHz-1GHz is Mode 2 and for 1GHz -18GHz is Mode 1. 2. The worst case for conducted emission is mode 2.	

S12aa (Thirdly Supply):

Test Item	Test setup and operating modes
Radiated emission	30MHz-18GHz frequency range: Mode 1: Working mode (Full system) + Data Link+ CB04+ UB04 Mode 2: Working mode (Full system) + Weighing mode+ CB04+ UB04
AC Conducted emission	Mode 2: Working mode (Full system) + Weighing mode+ CB04+ UB04
Note: 1. The worst case of radiated emission for 30MHz-1GHz is Mode 2 and for 1GHz -18GHz is Mode 1. 2. The worst case for conducted emission is mode 2.	

5.3 EUT System Operation

1. Connect the EUT with AE.
2. Setup the EUT according to the standard.
3. Start testing and monitoring the function.
4. Working mode (Full system): The EUT is powered by a power adapter. The EUT is connected to a PC through network cable. Other ports are connected to telephone, keyboard, U disk etc. and through LAN cable to PC for exchange of PING command.
5. Data Link means data application transferred mode between EUT and SD Card.
6. Weighing mode: The load is placed on the electronic scale, which can measure the mass of the load.

5.4 EUT Connection Diagram of Test System

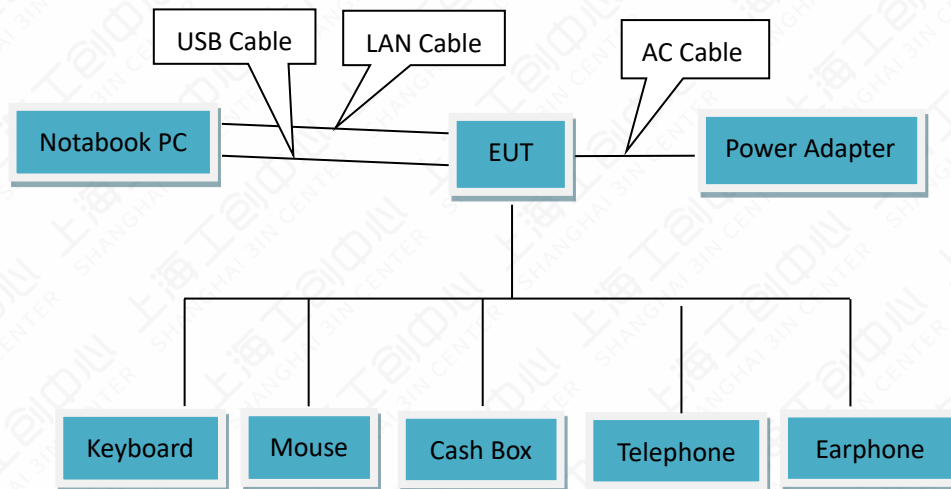


Figure 5.4-1 Mode 1

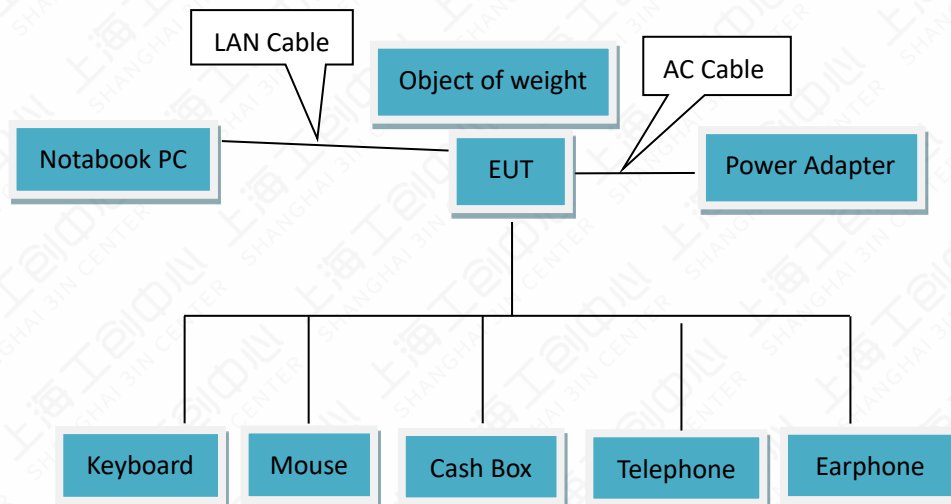


Figure 5.4-2 Mode 2

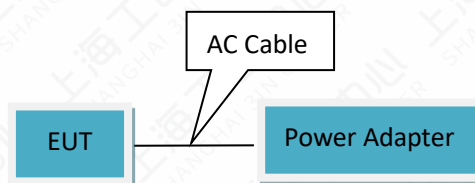


Figure 5.4-3 Mode 3

5.5 Test Equipment Utilized

No.	Name	Model	S/N	SW Version	HW Version	Manufacturer	Cal. Date	Cal. Interval
1	Test Receiver	ESCI	101235	V5.1-24-3	00	R&S	2023-12-19	1 year
2	Test Receiver	ESR7	102399	1.4	00	R&S	2023-06-23	1 year
3	Test Receiver	FSW43	101943	1.12	00	R&S	2023-08-31	1 year
4	Trilog Antenna	VULB9162	00426	N/A	N/A	Schwarzbeck	2023-07-18	1 year
5	Double Ridged Guide Antenna	ETS-3117	00135885	N/A	N/A	ETS	2023-03-23	2 years
6	2-Line V-Network	ENV216	101380	N/A	N/A	R&S	2023-12-19	1 year
7	EMI Test Software	EMC32 V10.35.02	N/A	N/A	N/A	R&S	N/A	N/A
8	EMI Test Software	EMC32 V10.60.20	N/A	N/A	N/A	R&S	N/A	N/A

5.6 Measurement Uncertainty

Item (s)	Uncertainty
Radiated Emission 30MHz-1000MHz	4.86 dB
Radiated Emission 1000MHz-18000MHz	5.58 dB
Conducted Emission	3.30 dB
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

6 Test Results

6.1 Radiated Emission

6.1.1 Method of Measurement

- a. For 30MHz -1000MHz, the EUT was placed on the top of a rotating 0.8m table above the ground at a semi-anechoic chamber. The distance between the EUT and the received antenna was 3 meters. The table was rotated 360 degree and the received antenna mounted on a variable-height antenna tower was varied from 1m to 4m to find the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna were set during the measurement.
- b. For 1000MHz -18000MHz, the EUT was placed on the top of a 0.8m table above the ground at a 3m fully anechoic chamber. The maximal emission value was acquired by adjusting the antenna height, The table was rotated 360 degrees to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna were set during the measurement

6.1.2 EUT Connection Diagram of Test System

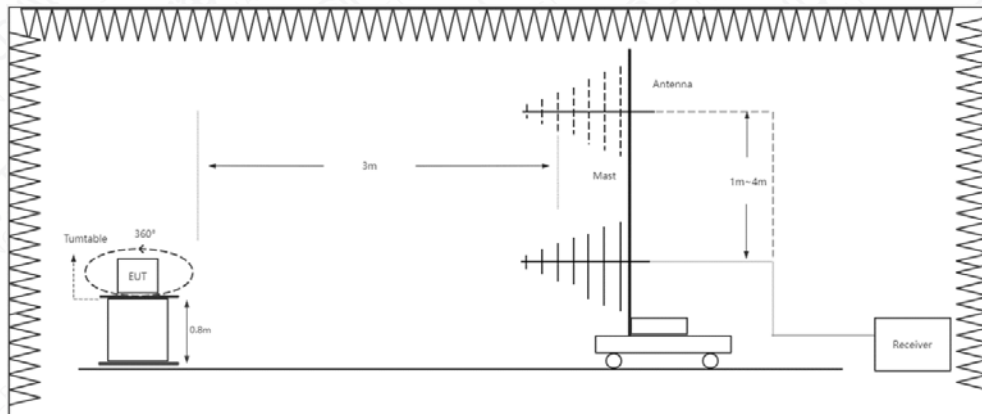


Figure 6.1.2-1 RE 30MHz-1GHz Connection Diagram

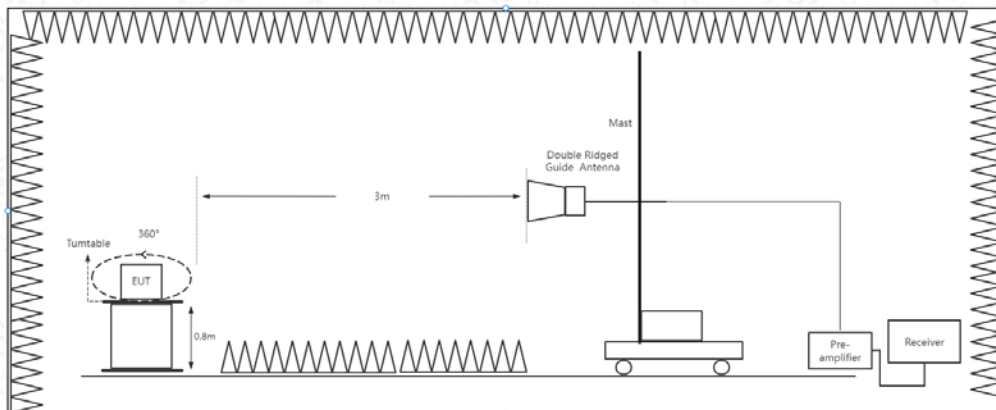


Figure 6.1.2-2 RE Above 1GHz Connection Diagram

6.1.3 Test Condition

Frequency Range (MHz)	RBW/VBW	Sweep Time (s)
30-1000	120kHz/300kHz	AUTO
1000-18000	1MHz/3MHz	AUTO

6.1.4 Limit/Criterion

Frequency Range (MHz)	Quasi-Peak (dBμV/m)	Peak (dBμV/m)	Average (dBμV/m)
30-88	40	N/A	N/A
88-216	43.5	N/A	N/A
216-960	46	N/A	N/A
Above 960	54	N/A	N/A
Above 1000	N/A	74	54

6.1.5 Test environmental conditions

Temperature	18.2℃
Relative Humidity	34.2%RH
Atmospheric Pressure	103.1 kPa

6.1.6 Test Results

S08aa (Mainly Supply):

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 2: Working mode (Full system) + Weighing mode+ CB04+ UB04	30-1000	See Annex A.1-1	Pass
Mode 1: Working mode (Full system) + Data Link+ CB04+ UB04	1000-18000	See Annex A.1-2 &A.1-3	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S16aa (Secondary Supply):

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 2: Working mode (Full system) + Weighing mode+ CB04+ UB04	30-1000	See Annex A.1-4	Pass
Mode 1: Working mode (Full system) + Data Link+ CB04+ UB04	1000-18000	See Annex A.1-5 &A.1-6	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S12aa (Thirdly Supply):

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 2: Working mode (Full system) + Weighing mode+ CB04+ UB04	30-1000	See Annex A.1-7	Pass
Mode 1: Working mode (Full system) + Data Link+ CB04+ UB04	1000-18000	See Annex A.1-8 &A.1-9	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

6.2 Conducted Emission

6.2.1 Method of Measurement

The EUT was placed on a 0.8m height table with EUT being connected to the power mains through a line impedance stabilization network (LISN). Both lines of the power mains connected to the EUT were checked for maximum conducted interference. The frequency range from 150 kHz to 30 MHz was searched.

6.2.2 EUT Connection Diagram of Test System

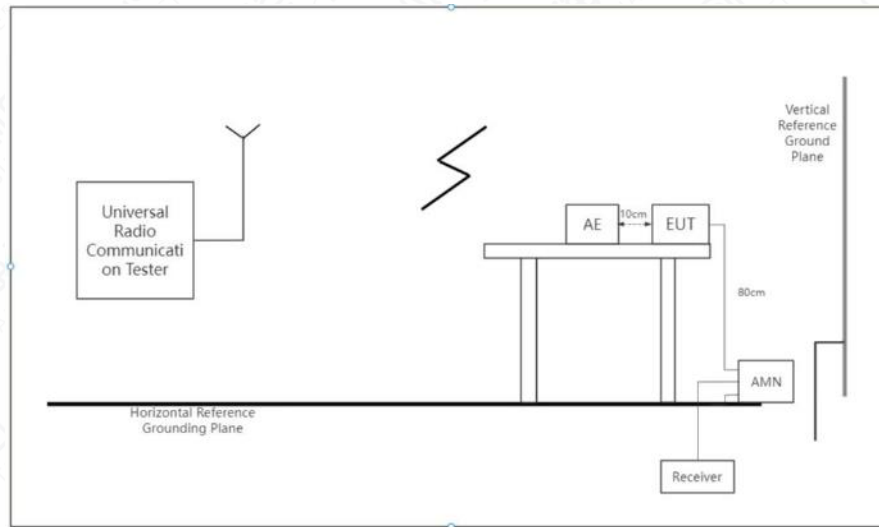


Figure 6.2.2-1 CE Connection Diagram

6.2.3 Test Condition

Test Condition in Charging Mode

Voltage (V)	Frequency (Hz)	RBW	Sweep Time (s)
120	60	9 kHz	AUTO

6.2.4 Limit

Frequency Range (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency		

6.2.5 Testing environmental conditions

Temperature	19.5℃
Relative Humidity	42.2%RH
Atmospheric Pressure	101.8kPa

6.2.6 Test Results

S08aa (Mainly Supply):

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 2: Working mode (Full system) + Weighing mode+ CB04+ UB04	0.15-30	See Annex A.2-1	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S16aa (Secondary Supply):

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 2: Working mode (Full system) + Weighing mode+ CB04+ UB04	0.15-30	See Annex A.2-2	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

S12aa (Thirdly Supply):

Mode	Frequency (MHz)	Test Results	Verdicts
Mode 2: Working mode (Full system) + Weighing mode+ CB04+ UB04	0.15-30	See Annex A.2-3	Pass
NOTE Abbreviations used in this clause: Pass—P; Fail—F; Not applicable—N/A			

Annex A: Measurement Data

A.1 Radiated Emission

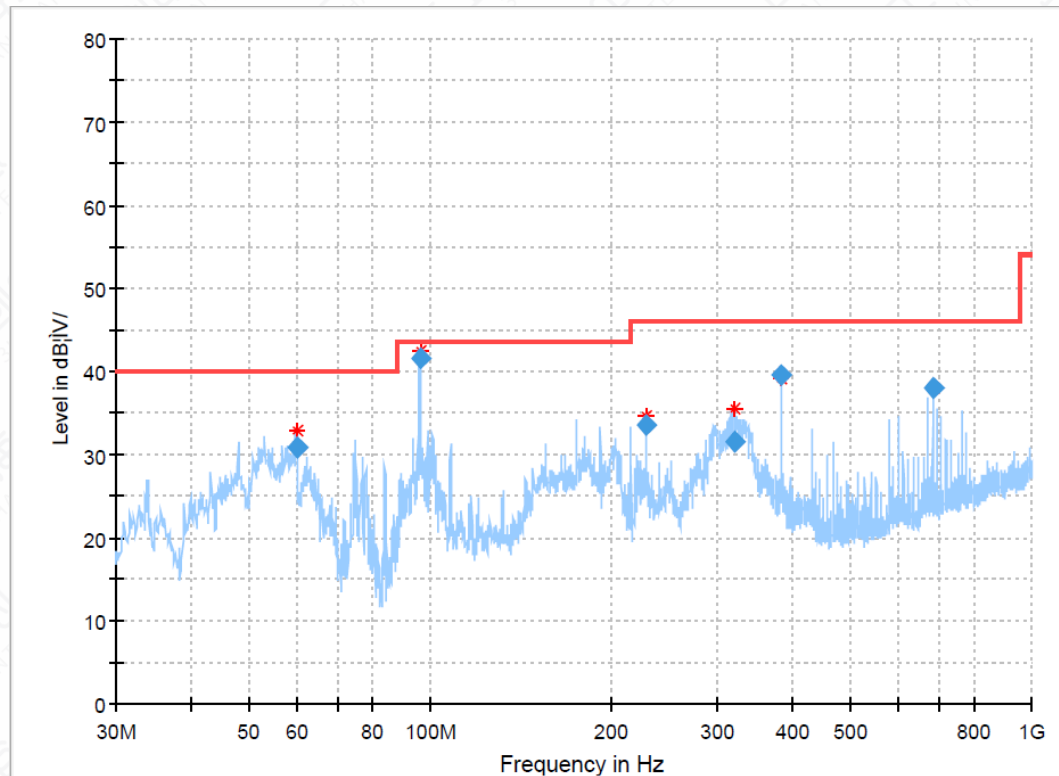


Figure A.1-1 Mode 2 (30M-1GHz) _ S08aa (Mainly Supply)

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
60.017080	30.95	40.00	9.05	100.0	V	0.0	-12.8
95.988560	41.59	43.50	1.91	100.0	V	302.0	-13.6
227.975200	33.55	46.00	12.45	200.0	V	351.0	-11.9
320.524600	31.42	46.00	14.58	100.0	H	216.0	-9.2
383.049840	39.58	46.00	6.42	100.0	V	0.0	-7.5
683.976040	37.95	46.00	8.05	200.0	H	132.0	-1.5

Note:

1.Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

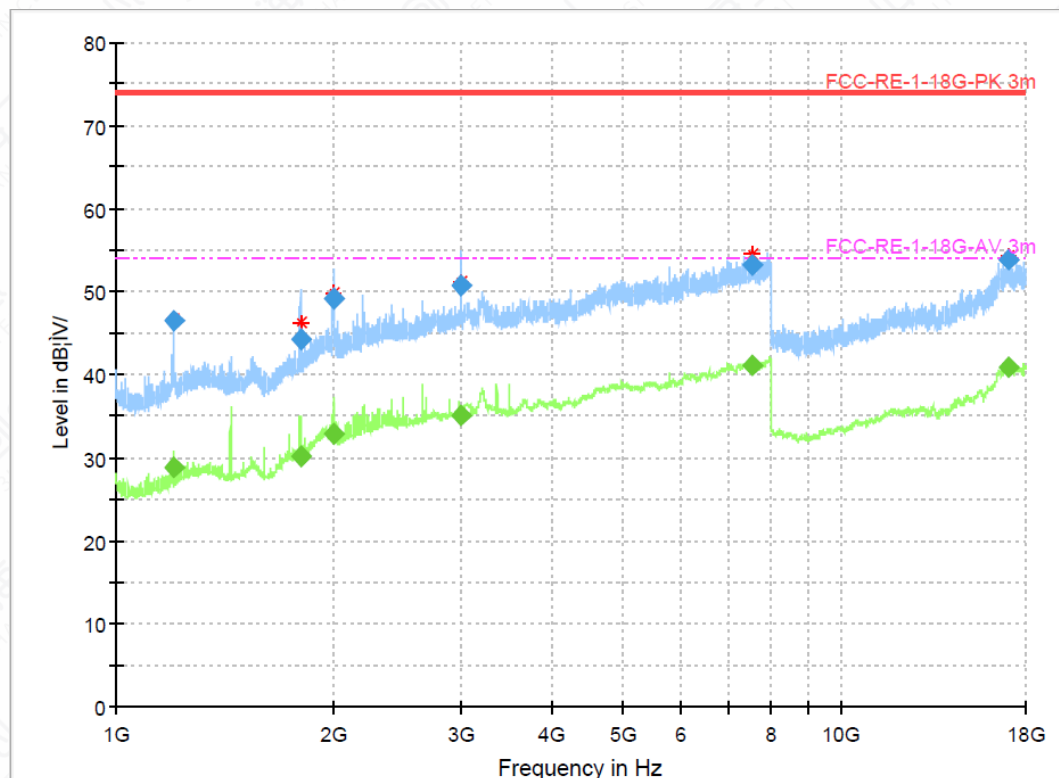


Figure A.1-2 Mode 1 (1GHz-18GHz)-H_S08aa (Mainly Supply)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1200.117500	46.50	---	74.00	27.50	100.0	H	279.0	0.6
1200.117500	---	28.81	54.00	25.19	100.0	H	279.0	0.6
1799.128750	---	30.20	54.00	23.80	115.0	H	250.0	4.5
1799.128750	44.26	---	74.00	29.74	115.0	H	250.0	4.5
1996.850000	---	32.83	54.00	21.17	115.0	H	250.0	6.4
1996.850000	49.14	---	74.00	24.86	115.0	H	250.0	6.4
2988.500000	50.69	---	74.00	23.31	187.0	H	162.0	11.2
2988.500000	---	35.08	54.00	18.92	187.0	H	162.0	11.2
7532.456250	53.24	---	74.00	20.76	209.0	H	264.0	20.7
7532.456250	---	41.01	54.00	12.99	209.0	H	264.0	20.7
16994.980000	53.80	---	74.00	20.20	102.0	H	0.0	21.9
16994.980000	---	40.90	54.00	13.10	102.0	H	0.0	21.9

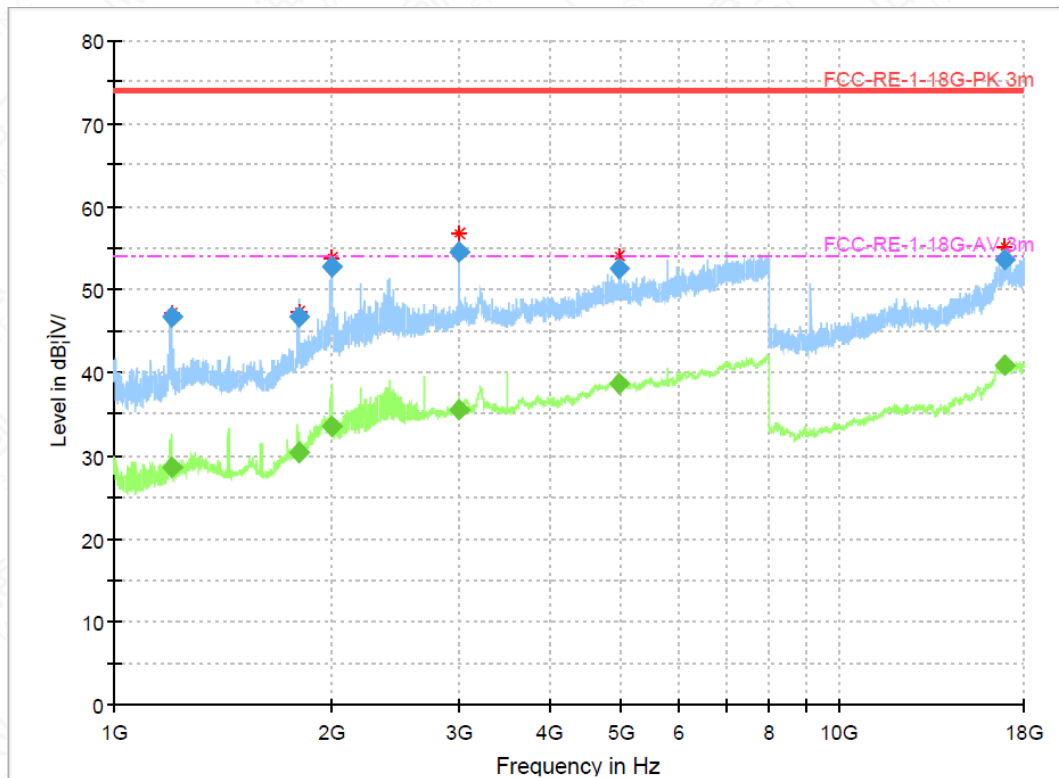


Figure A.1-3 Mode 1 (1GHz-18GHz)-V _ S08aa (Mainly Supply)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1198.857500	---	28.55	54.00	25.45	100.0	V	0.0	0.6
1198.857500	46.64	---	74.00	27.36	100.0	V	0.0	0.6
1797.593750	46.77	---	74.00	27.23	215.0	V	26.0	4.5
1797.593750	---	30.29	54.00	23.71	215.0	V	26.0	4.5
1995.875000	52.79	---	74.00	21.21	215.0	V	0.0	6.4
1995.875000	---	33.49	54.00	20.51	215.0	V	0.0	6.4
2999.785406	---	35.57	54.00	18.43	102.0	V	195.0	11.3
2999.785406	54.43	---	74.00	19.57	102.0	V	195.0	11.3
4990.078750	---	38.61	54.00	15.39	115.0	V	24.0	15.9
4990.078750	52.41	---	74.00	21.59	115.0	V	24.0	15.9
16982.257500	---	40.79	54.00	13.21	111.0	V	359.0	21.9
16982.257500	53.67	---	74.00	20.33	111.0	V	359.0	21.9

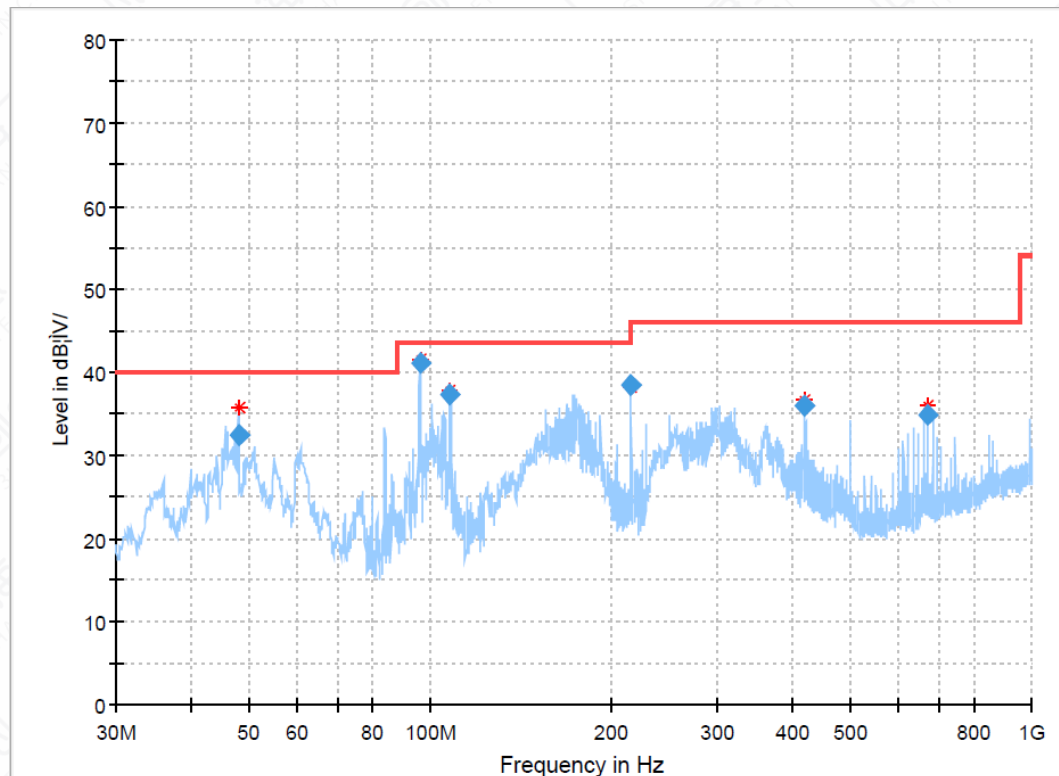


Figure A.1-4 Mode 2 (30M-1GHz) _ S16aa (Secondary Supply)

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
47.961440	32.51	40.00	7.49	100.0	V	153.0	-11.2
96.009080	41.12	43.50	2.38	100.0	V	280.0	-13.6
107.978160	37.40	43.50	6.10	100.0	V	303.0	-13.5
216.000840	38.54	46.00	7.46	200.0	V	348.0	-12.8
419.967240	35.90	46.00	10.10	100.0	V	105.0	-6.7
671.963400	34.83	46.00	11.17	200.0	H	215.0	-1.7

Note:

1.Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

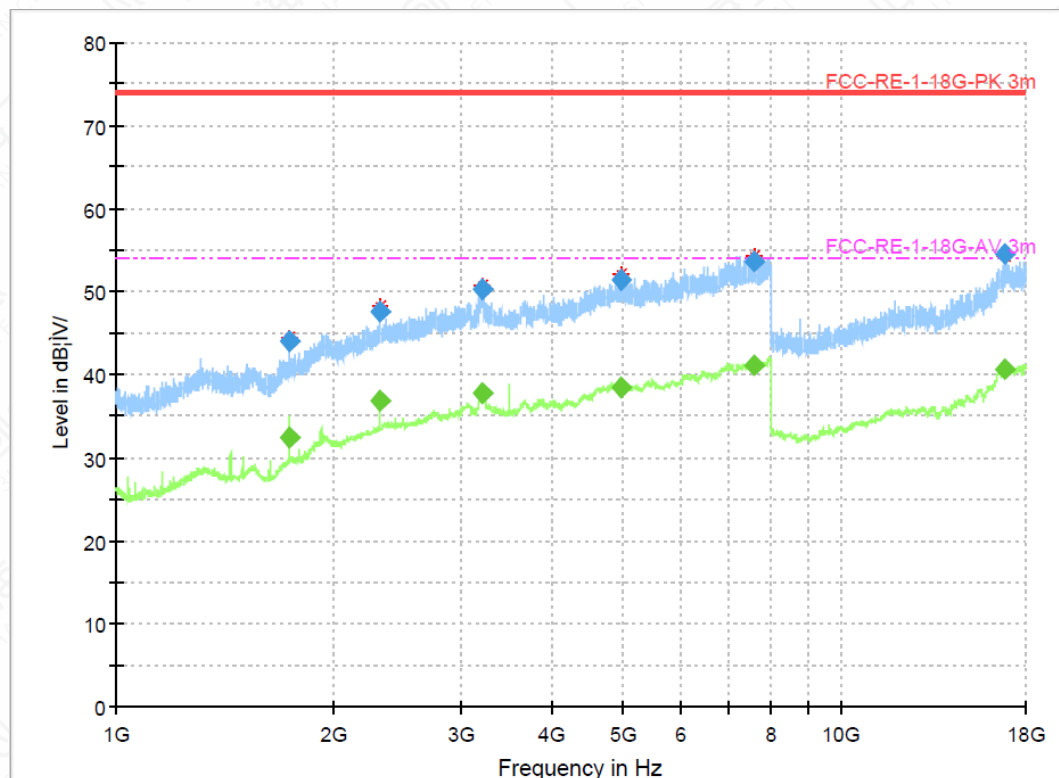


Figure A.1-5 Mode 1 (1GHz-18GHz)-H _ S16aa (Secondary Supply)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1738.970000	44.02	---	74.00	29.98	100.0	H	72.0	4.2
1738.970000	---	32.33	54.00	21.67	100.0	H	72.0	4.2
2318.315000	---	36.85	54.00	17.15	115.0	H	100.0	8.4
2318.315000	47.69	---	74.00	26.31	115.0	H	100.0	8.4
3205.146250	50.22	---	74.00	23.78	115.0	H	314.0	14.3
3205.146250	---	37.66	54.00	16.34	115.0	H	314.0	14.3
4982.765000	51.42	---	74.00	22.58	215.0	H	0.0	15.8
4982.765000	---	38.44	54.00	15.56	215.0	H	0.0	15.8
7594.740000	---	41.12	54.00	12.88	102.0	H	357.0	20.8
7594.740000	53.61	---	74.00	20.39	102.0	H	357.0	20.8
16857.655000	54.52	---	74.00	19.48	115.0	H	67.0	21.9
16857.655000	---	40.69	54.00	13.31	115.0	H	67.0	21.9

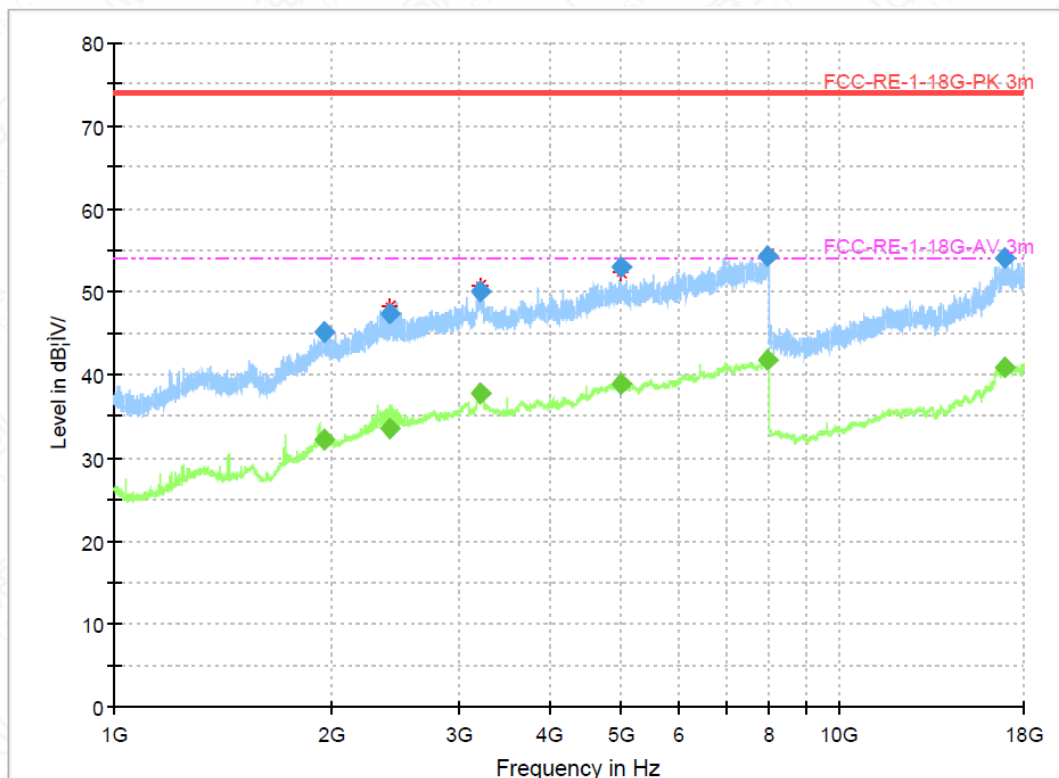


Figure A.1-6 Mode 1 (1GHz-18GHz)-V _ S16aa (Secondary Supply)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1951.288750	---	32.07	54.00	21.93	102.0	V	0.0	7.0
1951.288750	45.17	---	74.00	28.83	102.0	V	0.0	7.0
2398.092500	---	33.42	54.00	20.58	215.0	V	269.0	8.7
2398.092500	47.30	---	74.00	26.70	215.0	V	269.0	8.7
3205.581250	---	37.66	54.00	16.34	102.0	V	189.0	14.3
3205.581250	50.10	---	74.00	23.90	102.0	V	189.0	14.3
4999.096250	53.01	---	74.00	20.99	102.0	V	0.0	15.9
4999.096250	---	38.82	54.00	15.18	102.0	V	0.0	15.9
7994.493750	---	41.71	54.00	12.29	115.0	V	160.0	21.3
7994.493750	54.22	---	74.00	19.78	115.0	V	160.0	21.3
16917.967500	54.18	---	74.00	19.82	111.0	V	298.0	22.0
16917.967500	---	40.95	54.00	13.05	111.0	V	298.0	22.0

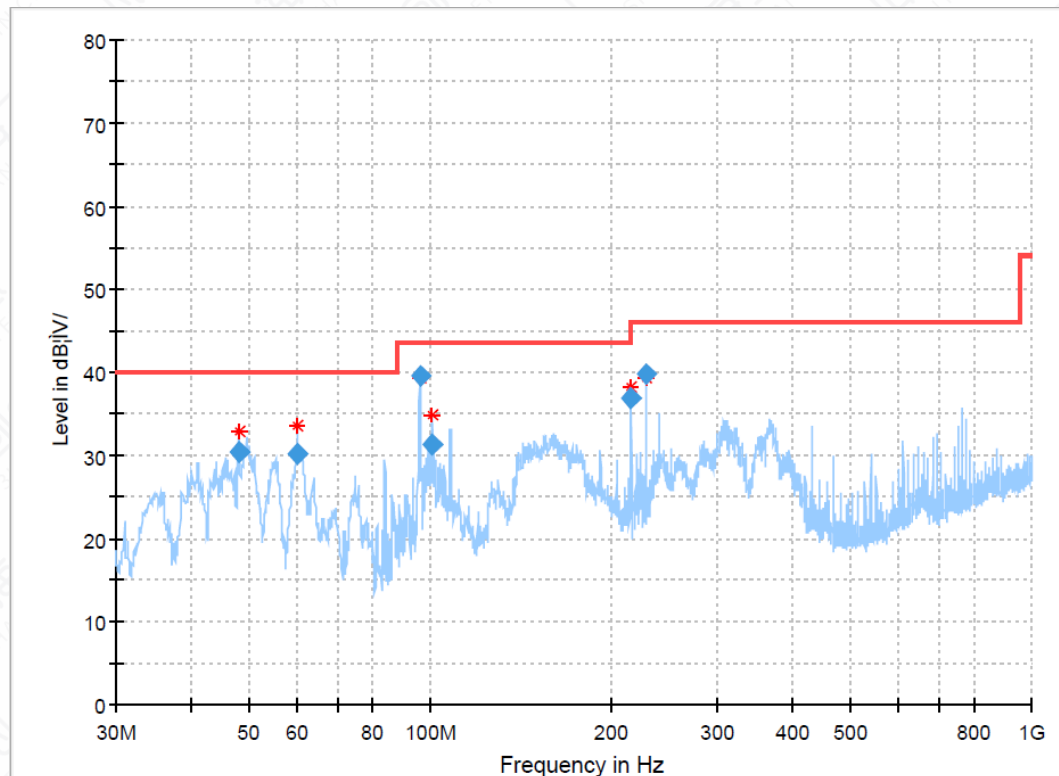


Figure A.1-7 Mode 2 (30M-1GHz) _ S12aa (Secondary Supply)

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
48.005960	30.33	40.00	9.67	100.0	V	126.0	-11.2
60.009120	30.24	40.00	9.76	100.0	V	103.0	-12.8
95.989160	39.57	43.50	3.93	100.0	V	231.0	-13.6
100.974320	31.35	43.50	12.15	100.0	V	312.0	-13.1
215.987280	36.78	43.50	6.72	100.0	H	133.0	-12.8
227.986480	39.70	46.00	6.30	100.0	H	52.0	-11.9

Note:

1.Horizontal and vertical polarity is all have been tested, the result of them is synthesized in the above data diagram.

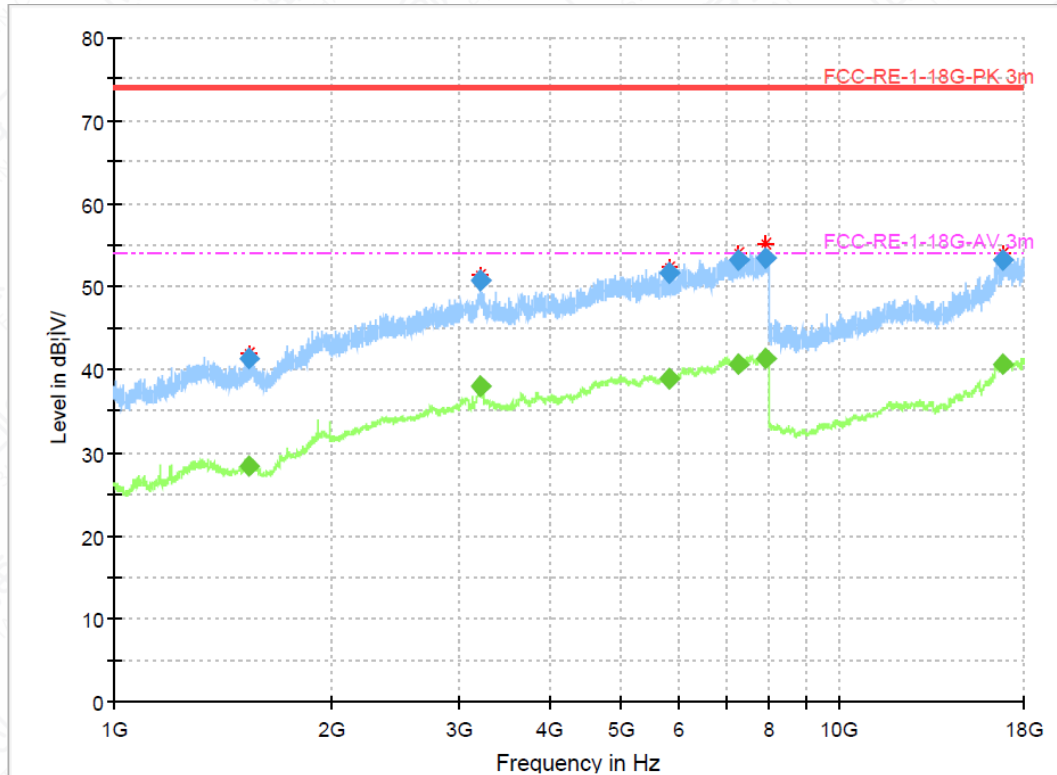


Figure A.1-8 Mode 1 (1GHz-18GHz)-H _ S12aa (Secondary Supply)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1534.353750	---	28.32	54.00	25.68	115.0	H	112.0	3.0
1534.353750	41.36	---	74.00	32.64	115.0	H	112.0	3.0
3202.393750	50.78	---	74.00	23.22	185.0	H	42.0	14.4
3202.393750	---	37.96	54.00	16.04	185.0	H	42.0	14.4
5848.810000	51.62	---	74.00	22.38	201.0	H	3.0	17.3
5848.810000	---	38.86	54.00	15.14	201.0	H	3.0	17.3
7264.423750	53.27	---	74.00	20.73	115.0	H	359.0	19.9
7264.423750	---	40.77	54.00	13.23	115.0	H	359.0	19.9
7945.592500	53.39	---	74.00	20.61	115.0	H	355.0	21.1
7945.592500	---	41.39	54.00	12.61	115.0	H	355.0	21.1
16777.340000	---	40.57	54.00	13.43	215.0	H	359.0	21.8
16777.340000	53.16	---	74.00	20.84	215.0	H	359.0	21.8

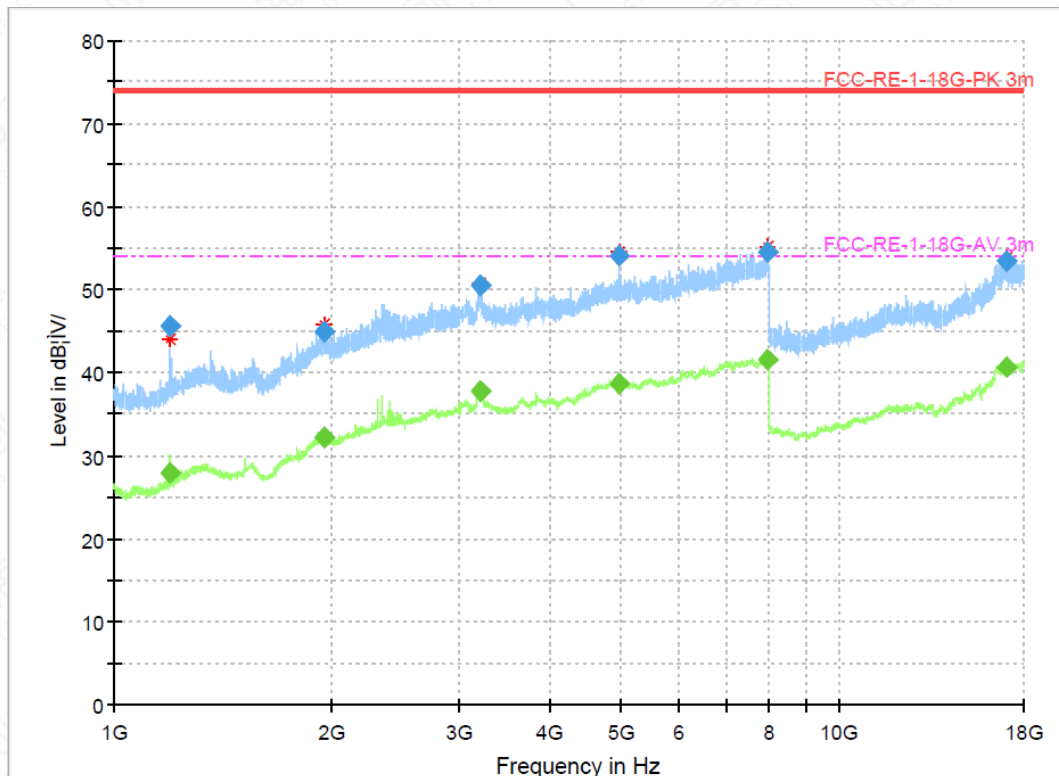


Figure A.1-9 Mode 1 (1GHz-18GHz)-V _ S12aa (Secondary Supply)

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1197.945000	---	27.97	54.00	26.03	100.0	V	243.0	0.5
1197.945000	45.48	---	74.00	28.52	100.0	V	243.0	0.5
1951.105000	45.00	---	74.00	29.00	115.0	V	243.0	7.0
1951.105000	---	32.10	54.00	21.90	115.0	V	243.0	7.0
3198.773750	---	37.70	54.00	16.30	115.0	V	341.0	14.4
3198.773750	50.44	---	74.00	23.56	115.0	V	341.0	14.4
4978.491250	54.04	---	74.00	19.96	115.0	V	285.0	15.8
4978.491250	---	38.65	54.00	15.35	115.0	V	285.0	15.8
7986.696250	---	41.64	54.00	12.36	115.0	V	356.0	21.2
7986.696250	54.43	---	74.00	19.57	115.0	V	356.0	21.2
17086.396250	---	40.78	54.00	13.22	115.0	V	150.0	21.9
17086.396250	53.45	---	74.00	20.55	115.0	V	150.0	21.9

A.2 Conducted Emission

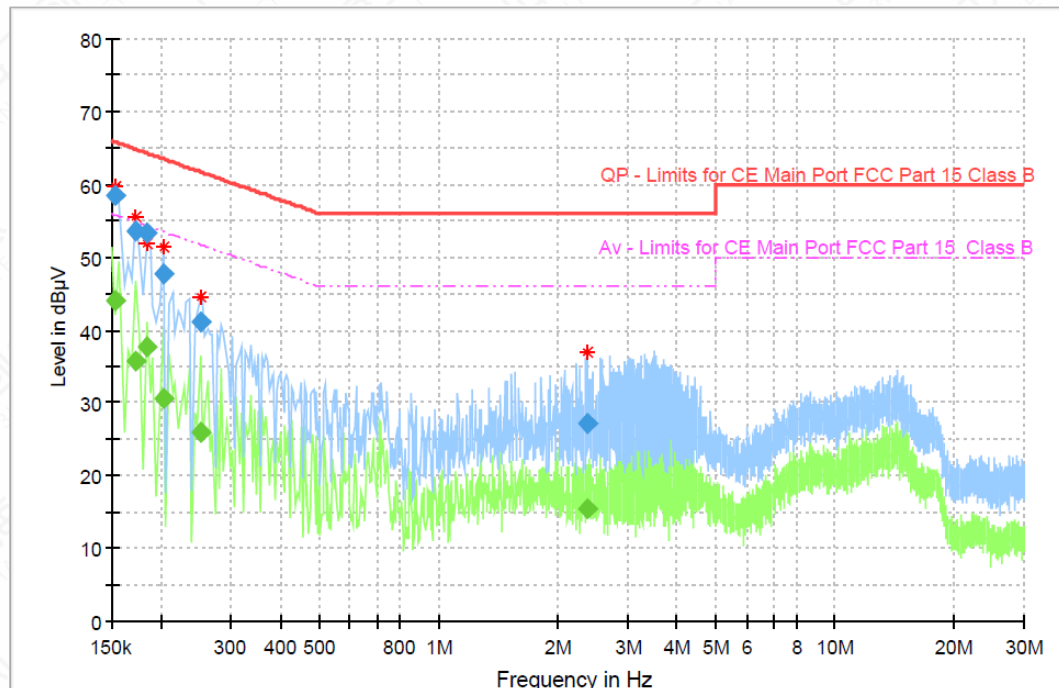


Figure A.2-1 Mode 2 (150kHz-30MHz) _ S08aa (Mainly Supply)

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.153731	---	43.98	55.80	11.81	15000	9.000	L1	ON	9.6
0.153731	58.46	---	65.80	7.33	15000	9.000	L1	ON	9.6
0.172388	---	35.82	54.85	19.02	15000	9.000	L1	ON	9.6
0.172388	53.57	---	64.85	11.27	15000	9.000	L1	ON	9.6
0.183581	---	37.70	54.32	16.62	15000	9.000	L1	ON	9.6
0.183581	53.39	---	64.32	10.93	15000	9.000	L1	ON	9.6
0.202238	---	30.70	53.52	22.82	15000	9.000	L1	ON	9.6
0.202238	47.82	---	63.52	15.69	15000	9.000	L1	ON	9.6
0.250744	---	25.87	51.73	25.87	15000	9.000	L1	ON	9.6
0.250744	41.03	---	61.73	20.70	15000	9.000	L1	ON	9.6
2.373825	---	15.38	46.00	30.62	15000	9.000	N	ON	9.6
2.373825	27.14	---	56.00	28.86	15000	9.000	N	ON	9.6

Note: L1 and N line is all have been tested, the result of them is synthesized in the above data diagram.

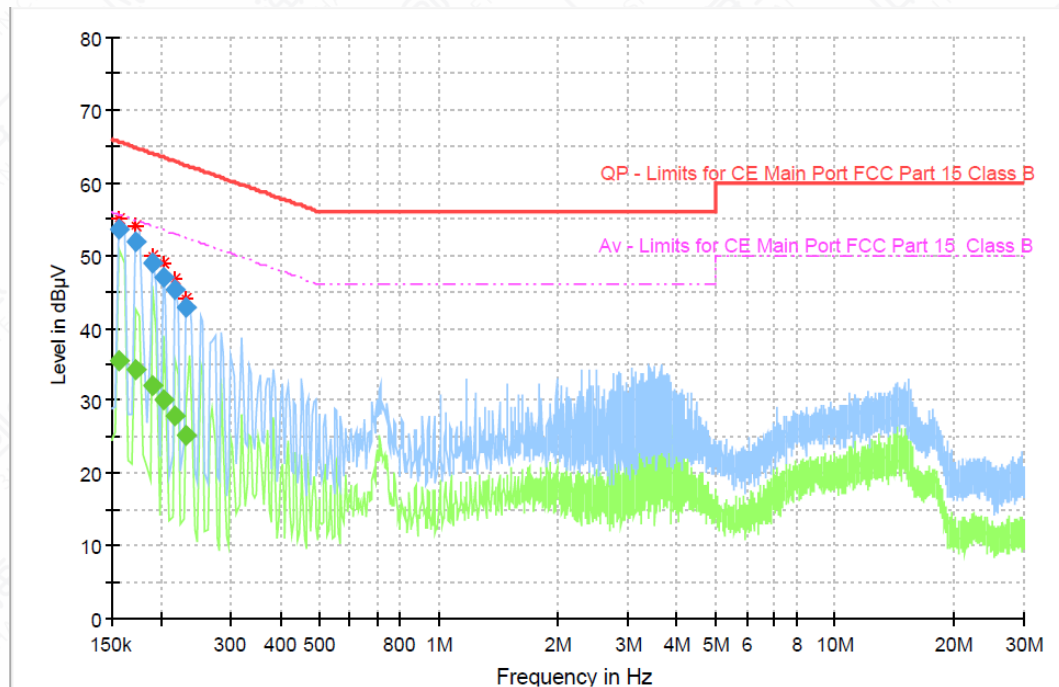


Figure A.2-2 Mode 2 (150kHz-30MHz) _ S16aa (Secondary Supply)

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.157463	---	35.55	55.60	20.04	15000	9.000	L1	ON	9.6
0.157463	53.61	---	65.60	11.99	15000	9.000	L1	ON	9.6
0.172388	---	34.36	54.85	20.48	15000	9.000	L1	ON	9.6
0.172388	51.91	---	64.85	12.93	15000	9.000	L1	ON	9.6
0.191044	---	31.93	53.99	22.06	15000	9.000	L1	ON	9.6
0.191044	48.93	---	63.99	15.06	15000	9.000	L1	ON	9.6
0.202238	---	30.06	53.52	23.46	15000	9.000	L1	ON	9.6
0.202238	47.07	---	63.52	16.45	15000	9.000	L1	ON	9.6
0.217163	---	28.00	52.93	24.93	15000	9.000	L1	ON	9.6
0.217163	45.21	---	62.93	17.72	15000	9.000	L1	ON	9.6
0.232088	---	25.09	52.38	27.28	15000	9.000	L1	ON	9.6
0.232088	42.80	---	62.38	19.57	15000	9.000	L1	ON	9.6

Note: L1 and N line is all have been tested, the result of them is synthesized in the above data diagram.

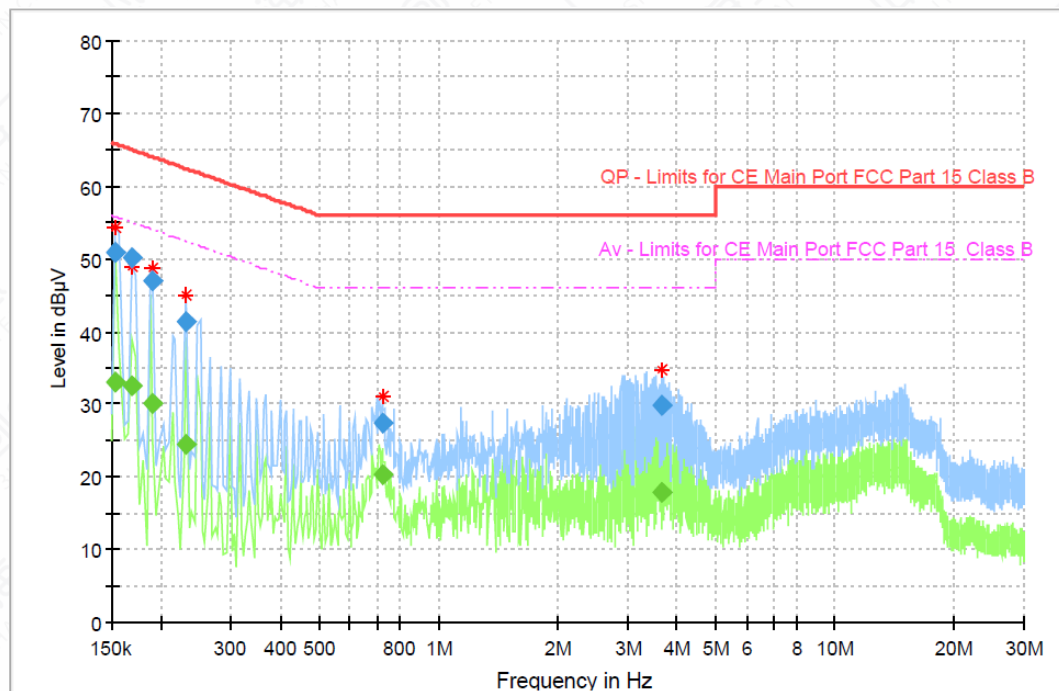


Figure A.2-3 Mode 2 (150kHz-30MHz) _ S12aa (Secondary Supply)

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.153731	---	32.96	55.80	22.84	15000	9.000	L1	ON	9.6
0.153731	51.00	---	65.80	14.80	15000	9.000	L1	ON	9.6
0.168656	---	32.56	55.03	22.47	15000	9.000	L1	ON	9.6
0.168656	50.17	---	65.03	14.85	15000	9.000	L1	ON	9.6
0.191044	---	30.10	53.99	23.89	15000	9.000	L1	ON	9.6
0.191044	46.86	---	63.99	17.13	15000	9.000	L1	ON	9.6
0.232088	---	24.52	52.38	27.85	15000	9.000	L1	ON	9.6
0.232088	41.44	---	62.38	20.93	15000	9.000	L1	ON	9.6
0.724613	---	20.33	46.00	25.67	15000	9.000	L1	ON	9.6
0.724613	27.39	---	56.00	28.61	15000	9.000	L1	ON	9.6
3.649913	---	17.77	46.00	28.23	15000	9.000	L1	ON	9.6
3.649913	29.93	---	56.00	26.07	15000	9.000	L1	ON	9.6

Note: L1 and N line is all have been tested, the result of them is synthesized in the above data diagram.

Annex B: Revised History

Version	Revised Content
V00	Initial

Annex C: Accreditation Certificate





Accredited Laboratory

A2LA has accredited

**INDUSTRIAL INTERNET INNOVATION CENTER
(SHANGHAI) CO., LTD.**

Shanghai, People's Republic of China

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 20th day of September 2023.



Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3682.01
Valid to February 28, 2025

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

