EMC TEST REPORT

Report No.:	20250217G03102X-W1
Product Name:	SOLIS GO
FCC ID:	2A9UP-SOL24PB
Model No. :	SGO24
Applicant:	SIMO Holdings Inc.
Address:	PO.Box PO.Box 309, Ugland House, GrandCayman, KY1-1104, Cayman Islands
Received Date:	2025.02.24
Dates of Testing:	2025.02.25 -2025.03.06
Issued by:	CCIC Southern Testing Co., Ltd.
Lab Location:	Electronic Testing Building, No.43, Shahe Road, Xili Street,Nanshan District, Shenzhen, Guangdong, China. Query E-Mail: manager@ccic-set.com Feedback E-Mail: integrity@ccic-set.com Report query tel: 0755-26627338 Feedback tel: 0755-86185963

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Test Report

Product Name	SOLIS GO
Model No.	SGO24
Applicant	SIMO Holdings Inc.
Applicant Address	PO.Box PO.Box 309, Ugland House, GrandCayman, KY1-1104, Cayman Islands
Manufacturer	SIMO Holdings Inc.
Manufacturer Address	PO.Box PO.Box 309, Ugland House, GrandCayman, KY1-1104, Cayman Islands
Test Standards	47 CFR Part 15 Subpart B
Test Result	PASS

Tested by	Deng Shanfei	
	Deng Shanfei, Test Engineer	2025.03.07
Reviewed by	Sun Jiaohui	
	Sun Jiaohui, Senior Engineer	2025.03.07
Approved by	Chris You	2025.03.07
	Chris You, Manager	

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Change History		
Issue	Date	Reason for change
1.0	2025.03.07	First edition

1. GENERAL INFORMATION

1.1 EUT Description

EUT Name:	SOLIS GO
Trade Name:	
Brand Name:	SIMO
Hardware Version:	YL2326-V1.0-0202
Software Version:	yl2326a_a_solis_go_v03_202405110
Power Supply:	Battery: 8000mAh/3.8V/30.4Wh Adapter (VC56JBCH) AC 120V

Note 1: The EUT is a SOLIS GO; It could support the following operating mode and frequency band:
WCDMA BAND 2/5/8; LTE BAND 2/4/5/7/12/17/25/26/38/41;
2.4G/5G WIFI; Bluetooth; GNSS;

Note 2: Based on the original report 20240417G06548X-W1, the battery was updated and the stray frequency band was updated, and the EMC was retested.

Note 3: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

1.2 Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart B:

No.	Identity	Document Title
1	47 CFR Part 15 Subpart B	Radio Frequency Devices

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Result
1	15.107	Conducted Emission	PASS
2	15.109	Radiated Emission	PASS

NOTE:

(1) The EUT has been tested according to 47 CFR Part 15 Subpart B, CLASS B. The test procedure is according to ANSI C63.4:2014.

1.3 Facilities and Accreditations

1.3.1 Facilities

☒ **CCIC-SET Lab 1**
Address: Electronic Testing Building, No.43, Shahe Road, Xili Street, Nanshan District, Shenzhen, Guangdong, China

FCC-Registration No.: CN1283

CCIC Southern Testing Co., Ltd EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Designation Number: CN1283, valid time is until Jun. 30th, 2025.

ISED Registration: 11185A, CAB number: CN0064

CCIC Southern Testing Co., Ltd. EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 11185A on Aug. 04, 2016, valid time is until Jun. 30th, 2025.

A2LA Code: 5721.01

CCIC-SET is a third party testing organization accredited by A2LA according to ISO/IEC 17025. The accreditation certificate number is 5721.01.

CNAS L1659

CCIC Southern Testing Co., Ltd. CCIC is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659.

☐ **CCIC-SET Lab 4**
Address: No.125, Hongmei Section, Wangsha Road, Hongmei Town, Dongguan City, Guangdong Province, China

CNAS L1659

CCIC Southern Testing Co., Ltd. CCIC is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659.

1.3.2 Test Environment Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (℃):	15℃ - 35℃
Relative Humidity (%):	25% -75%

Atmospheric Pressure (kPa):	86kPa-106kPa

1.3.3 Measurement Uncertainty

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.

Uncertainty of Conducted Emission:	Uc = 3.2 dB (k=2)
Uncertainty of Radiated Emission: (30MHz~1GHz)	Uc = 5.8 dB (k=2)
Uncertainty of Radiated Emission: (1~6GHz)	Uc = 5.1 dB (k=2)
Uncertainty of Radiated Emission: (6~18GHz)	Uc = 5.5 dB (k=2)

2. TEST CONDITIONS SETTING

2.1 Test Peripherals

The following is a listing of the EUT and peripherals utilized during the performance of EMC test:

Support Equipment:

Description	Brand name	Model	Serial No.	FCCID
Adapter	/	VC56JBCH	/	/
Load	/	/	/	/

Support Cable：

Description	Shield Type	Ferrite Core	Length
/	/	/	/

2.2 Test Mode

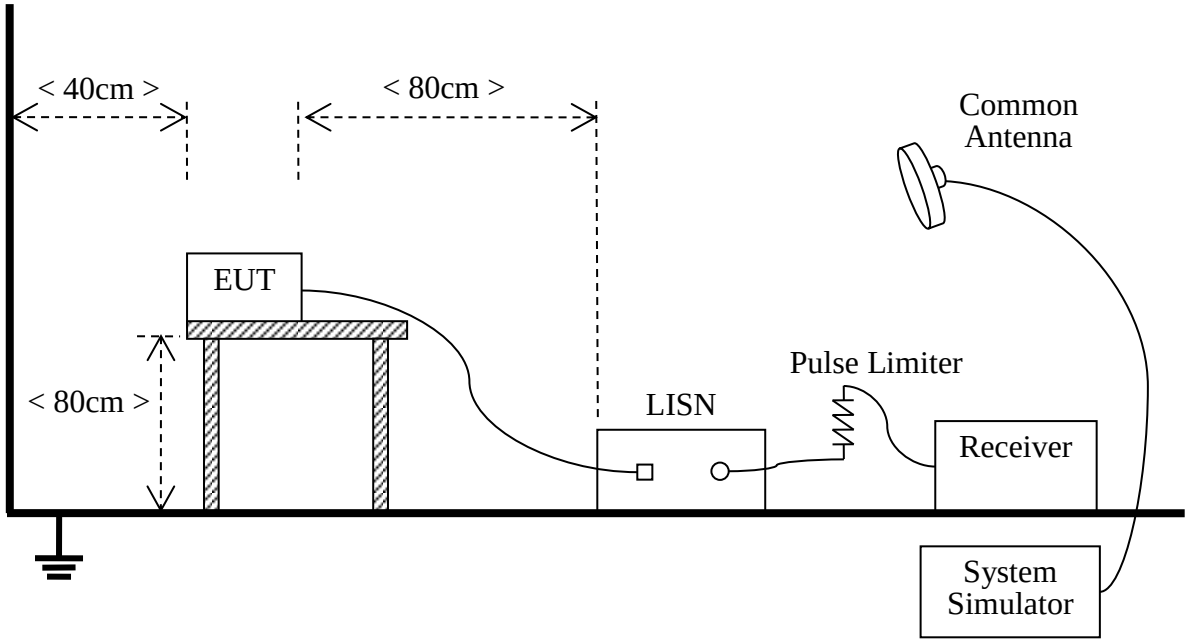
Note 4: The EUT have the following typical setups during the test:
Setup1: WCDMA BAND 2 Link + Adapter + Charger;
Setup2: WCDMA BAND 5 Link + Adapter + Charger;
Setup3: WCDMA BAND 8 Link + Adapter + Charger;
Setup4: LTE BAND 2 Link + Adapter + Charger;
Setup5: LTE BAND 4 Link + Adapter + Charger;
Setup6: LTE BAND 5 Link + Adapter + Charger;
Setup7: LTE BAND 7 Link + Adapter + Charger;
Setup8: LTE BAND 12 Link + Adapter + Charger;
Setup9: LTE BAND 17 Link + Adapter + Charger;
Setup10: LTE BAND 25 Link + Adapter + Charger;
Setup11: LTE BAND 26 Link + Adapter + Charger;
Setup12: LTE BAND 41 Link + Adapter + Charger;
Setup13: EUT working + Load + Discharger (TYPE-C port);
Setup14: EUT working + Load + Discharger (USB port);
Setup15: EUT working + Load + Discharger (lightning port);
Setup16: 2.4G WIFI + Adapter + Charger;
Setup17: 5G WIFI + Adapter + Charger;
Setup18: Bluetooth + Adapter + Charger;
Setup19: GNSS + Adapter + Charger;

Note 5: All the patterns have been tested and only the worst results are recorded in the report.

2.3 Test Setup and Equipments List

2.3.1 Conducted Emission

A. Test Setup:



The EUT is placed on a 0.8m high insulating table, which stands on the grounded conducting floor, and keeps 0.4m away from the grounded conducting wall. The EUT is connected to the power mains through a LISN which provides 50Ω/50μH of coupling impedance for the measuring instrument. The Common Antenna is used for the call between the EUT and the System Simulator (SS). A Pulse Limiter is used to protect the measuring instrument. The factors of the whole test system are calibrated to correct the reading.

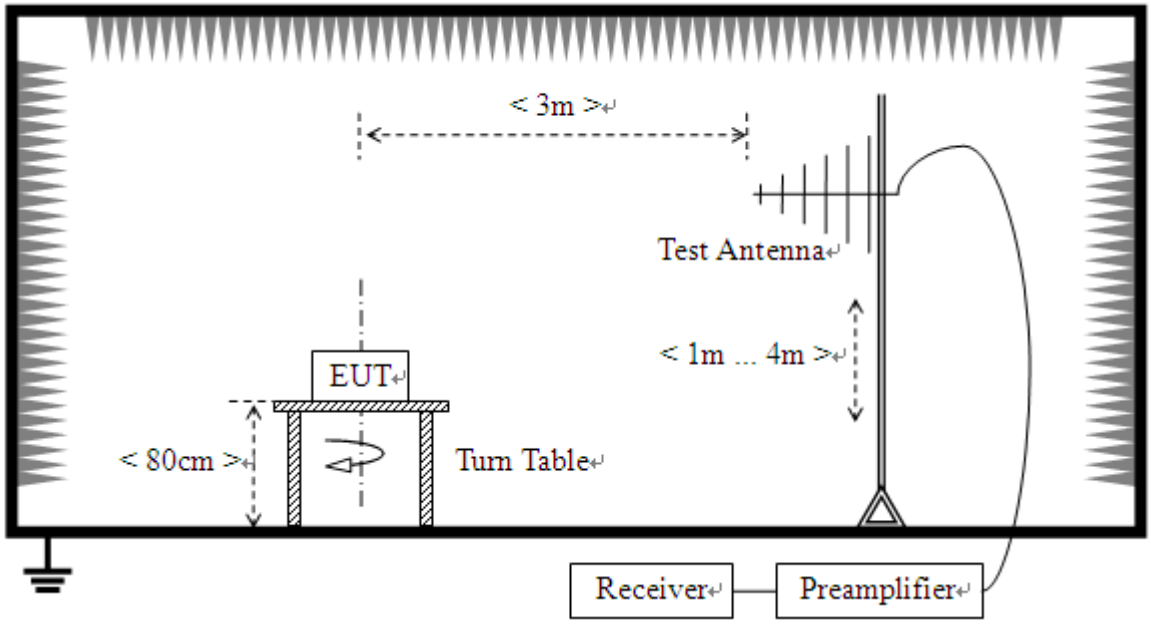
B. Equipments List:

Description	Manufacturer	Model	Serial No.	Calibration Date	Calibration Due. Date
Test Receiver	KEYSIGHT	N9038A	A141202036	2024.06.05	2025.06.04
LISN	ROHDE&SCHWARZ	ENV216	A140701847	2024.05.23	2025.05.22
Cable	MATCHING PAD	W7	/	2024.08.02	2025.08.01

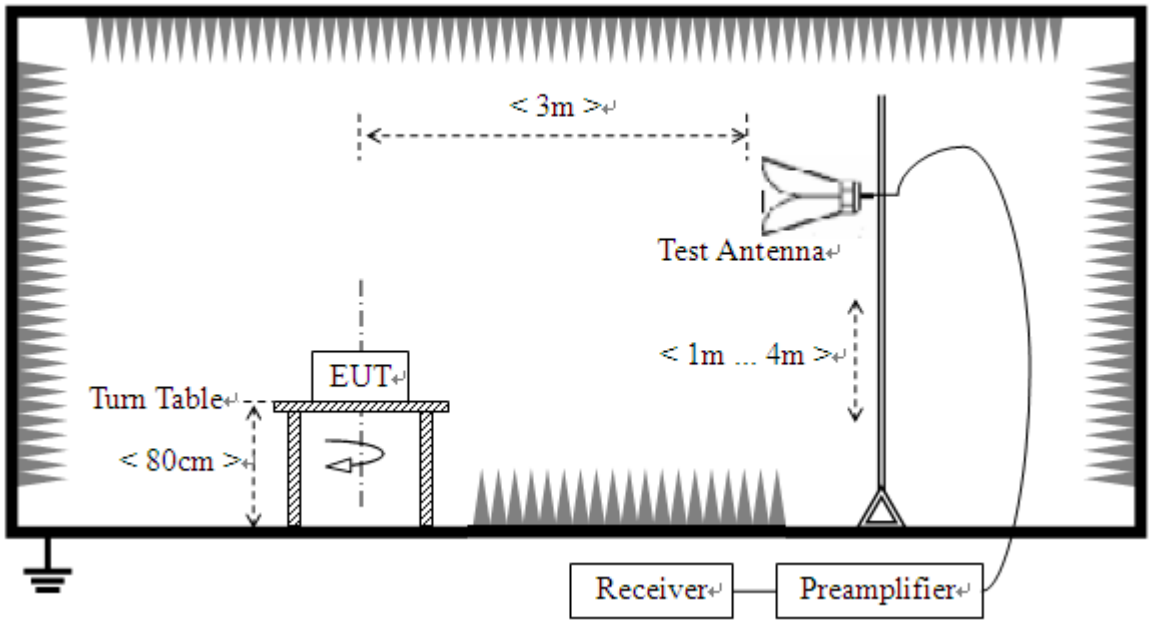
2.3.2 Radiated Emission

A. Test Setup:

1) For radiated emissions from 30MHz to1GHz



2) For radiated emissions above 1GHz



B. Test Procedure

The test is performed in a 3m Semi-Anechoic Chamber; the antenna factor, cable loss and so on of the site (factors) is calculated to correct the reading. The EUT is placed on a 0.8m high insulating Turn Table, and keeps 3m away from the Test Antenna, which is mounted on a variable-height antenna master tower.

For the test Antenna:

1) In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength. The emission levels at both horizontal and vertical polarizations should be tested.

C. Equipments List:

Description	Manufacturer	Model	Serial No.	Calibration Date	Calibration Due. Date
EMI Test Receiver	ROHDE&SCHWARZ	ESIB7	A0501375	2025.01.13	2026.01.12
Broadband Ant.	ETC	MCTD2786	A150402239	2024.06.01	2025.05.31
3M Anechoic Chamber	Albatross	SAC-3MAC 9*6*6m	A0412375	2024.02.28	2027.02.27
EMI Test Receiver	ROHDE&SCHWARZ	ESW26	A180502935	2024.05.24	2025.05.23
5M Anechoic Chamber	Albatross	SAC-5MAC 12.8x6.8x6.4m	A0304210	2024.08.02	2026.08.01
EMI Horn Ant.	ROHDE&SCHWARZ	HF906	A0304225	2024.04.02	2027.04.01

3. 47 CFR PART 15B REQUIREMENTS

3.1 Conducted Emission

3.1.1 Requirement

According to FCC section 15.107, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50μH/50Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

Note:

a) The limit subjects to the Class B digital device.

b) The lower limit shall apply at the band edges.

c) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

3.1.2 Test Description

See section 2.3.1 of this report.

3.1.3 Test Result

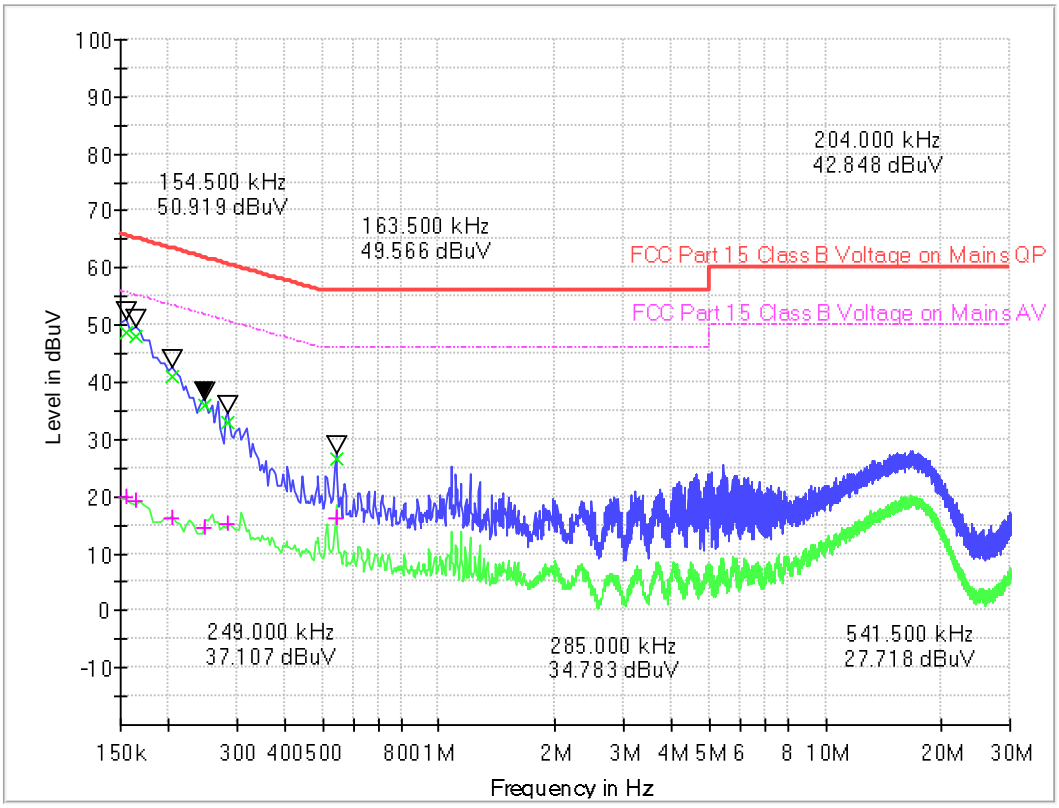
The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. All test modes are considered, refer to recorded points and plots below.

Note:

Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a Nominal 120V AC, 50/60Hz) for which the device is capable of operation. A device rated for 50/60 Hz operation need not be tested at both frequencies provided the radiated and line conducted emissions are the same at both frequencies.

Test voltage and frequency (120V AC, 60Hz)

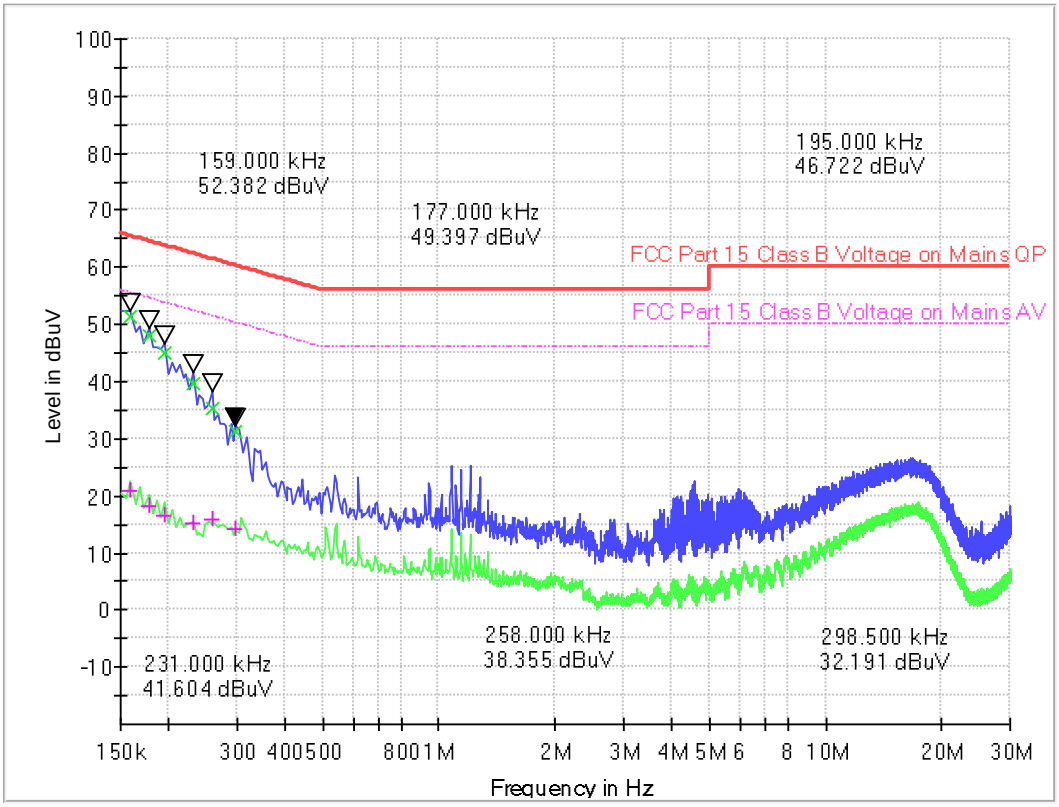
A. Mains terminal disturbance voltage, L phase, Setup 1



(Plot A: L Phase)

Frequency (MHz)	QuasiPeak (dB µ V)	CAverage (dB µ V)	Cabel Loss (dB)	Corr. (dB)	Margin - QPK	Limit - QPK	Margin - AV	Limit - AV (dB µ V)
0.154500	48.61	20.04	0.1	10.1	17.14	65.75	35.72	55.75
0.163500	47.99	19.28	0.1	10.1	17.30	65.28	36.01	55.28
0.204000	41.14	16.34	0.1	10.1	22.31	63.45	37.10	53.45
0.249000	35.96	14.58	0.1	10.1	25.83	61.79	37.21	51.79
0.285000	32.97	15.17	0.1	10.1	27.70	60.67	35.50	50.67
0.541500	26.43	16.09	0.1	10.1	29.57	56.00	29.91	46.00

B. Mains terminal disturbance voltage, N phase, Setup 1



(Plot B: N Phase)

Frequency (MHz)	QuasiPeak (dB µ V)	CAverage (dB µ V)	Cabel Loss (dB)	Corr. (dB)	Margin - QPK	Limit - QPK	Margin - AV	Limit - AV (dB µ V)
0.159000	51.50	20.87	0.1	10.1	14.02	65.52	34.64	55.52
0.177000	48.06	18.09	0.1	10.1	16.56	64.63	36.54	54.63
0.195000	45.01	16.67	0.1	10.1	18.81	63.82	37.15	53.82
0.231000	39.83	15.06	0.1	10.1	22.59	62.41	37.36	52.41
0.258000	35.46	15.72	0.1	10.1	26.03	61.50	35.77	51.50
0.298500	31.13	14.04	0.1	10.1	29.16	60.28	36.24	50.28

3.2 Radiated Emission

3.2.1 Requirement

According to FCC section 15.109, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency range (MHz)	Field Strength		Field Strength Limitation at 3m Measurement Dist	
	μV/m	Dist	(uV/m)	(dBuV/m)
30.0 - 88.0	100	3m	100	20log 100
88.0 - 216.0	150	3m	150	20log 150
216.0 - 960.0	200	3m	200	20log 200
Above 960.0	500	3m	500	20log 500

a) For frequencies above 1000MHz, the field strength limits are based on average detector. When average radiated emission measurements are specified in this part, including emission measurements below 1000MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules.

b) Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength.

c) For below 1G :QP detector RBW 120kHz ,VBW 300kHz.

For Above 1G: PK detector RBW 1MHz,VBW 3MHz for PK value ;AV detector RBW 1MHz, VBW 10Hz for AV value.

Note:

1) The tighter limit shall apply at the boundary between two frequency ranges.
2) Limitation expressed in dBuV/m is calculated by 20log Emission Level(uV/m).
3) If measurement is made at 3m distance, then F.S Limitation at 3m distance is adjusted by using the formula of $Ld1 = Ld2 * (d2/d1)^{2.}$
   Example:
   F.S Limit at 30m distance is 30uV/m, then F.S Limitation at 3m distance is adjusted as
   $Ld1 = L1 = 30uV/m * (10)^2 = 100 * 30uV/m.$

3.2.2 Test Description

See section 2.3.2 of this report.

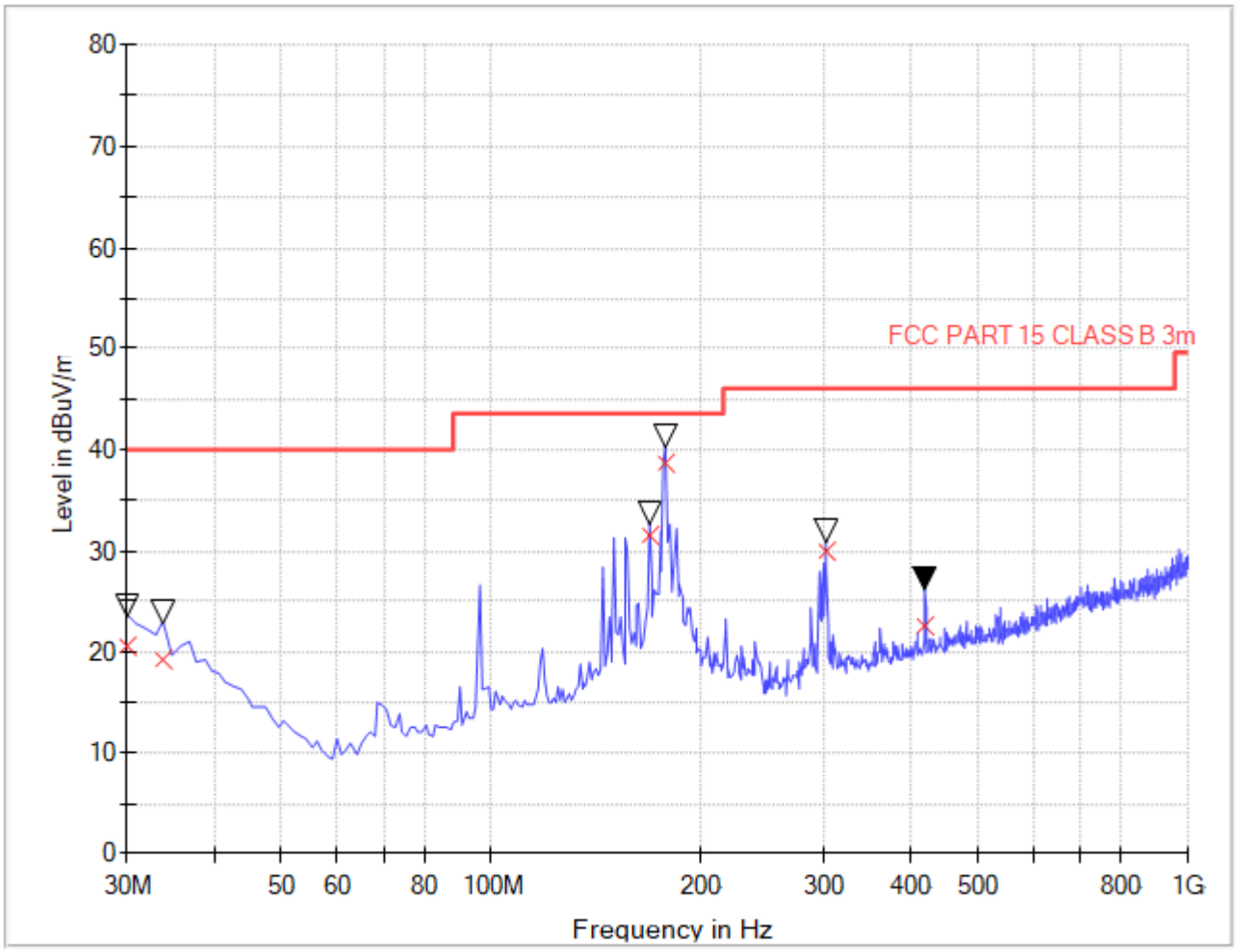
3.2.3 Test Result

The maximum radiated emission is searched using PK, QP and AV detectors; the emission levels more than the limits, and that have narrow margins from the limits will be re-measured with AV and QP detectors. Both the vertical and the horizontal polarizations of the Test Antenna are considered to perform the tests. All test modes are considered, refer to recorded points and plots below.

The amplitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be reported.

Note: All radiated emission tests were performed in X, Y, Z axis direction, and only the worst axis test condition was recorded in this test report.

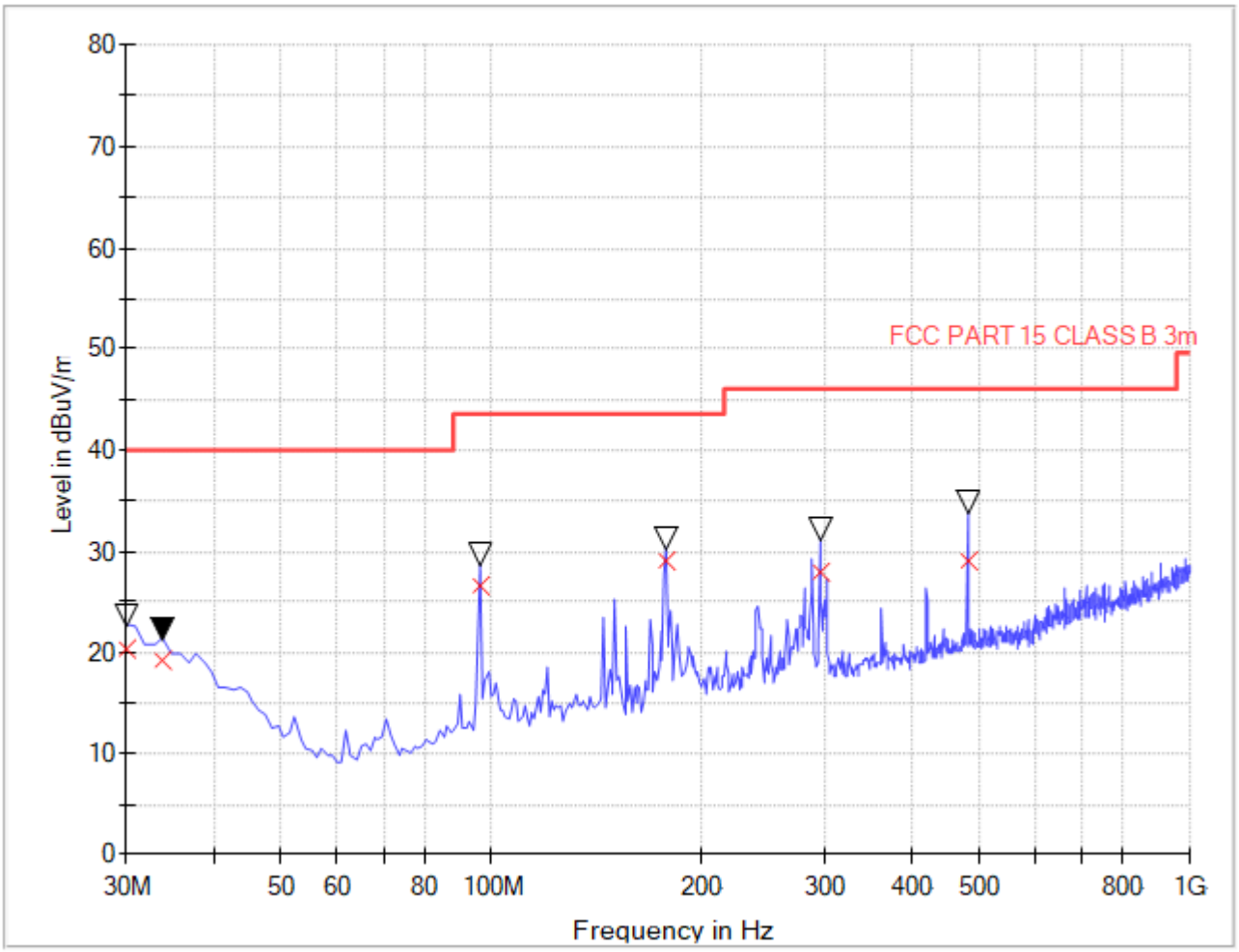
A. Radiation disturbances, antenna polarization: Vertical, Setup 13



(Plot C: Test Antenna Vertical 30M - 1G)

Frequency (MHz)	QuasiPeak (dBµV/m)	Bandwidth (kHz)	Antenna height (cm)	Limit (dBµV/m)	Margin (dB)	Antenna	Cable Loss(dB)	ANT. Factor(dB)	Verdict
30.00	20.48	120.000	106	40.0	19.52	Vertical	0.5	18.8	Pass
33.88	19.23	120.000	102	40.0	20.77	Vertical	0.5	17.2	Pass
168.72	31.51	120.000	107	43.5	11.99	Vertical	1.2	10.6	Pass
177.44	38.66	120.000	104	43.5	4.84	Vertical	1.2	10.1	Pass
302.56	29.96	120.000	106	46.0	16.04	Vertical	1.4	14.4	Pass
419.92	22.53	120.000	101	46.0	23.47	Vertical	1.5	16.8	Pass

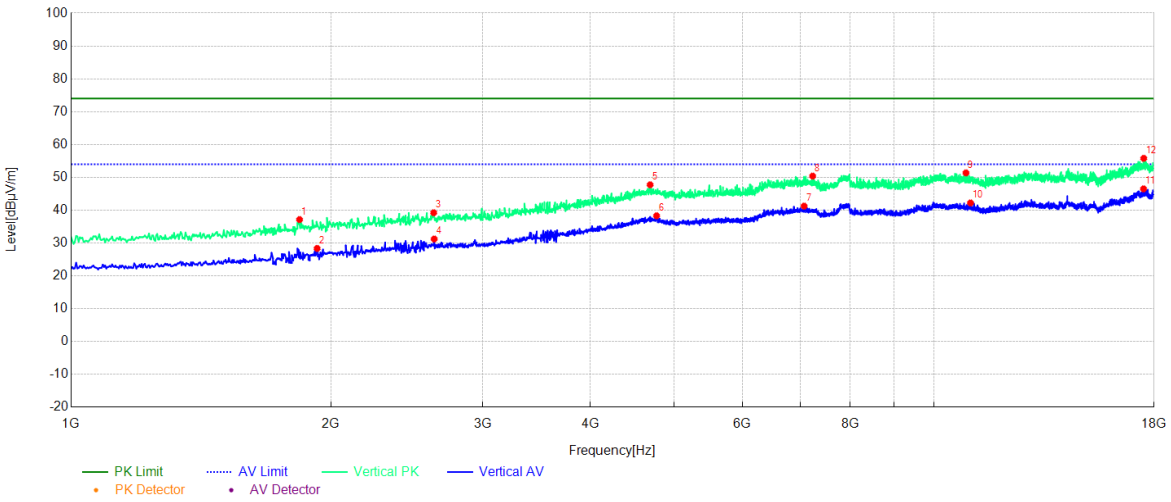
B. Radiation disturbances, antenna polarization: Horizontal, Setup 13



(Plot D: Test Antenna Horizontal 30M - 1G)

Frequency (MHz)	QuasiPeak (dBµV/m)	Bandwidth (kHz)	Antenna height (cm)	Limit (dBµV/m)	Margin (dB)	Antenna	Cable Loss(dB)	ANT. Factor(dB)	Verdict
30.00	20.43	120.000	102	40.0	19.57	Horizontal	0.5	18.8	Pass
33.88	19.17	120.000	105	40.0	20.83	Horizontal	0.5	17.2	Pass
95.96	26.64	120.000	103	43.5	16.86	Horizontal	0.8	9.6	Pass
177.44	29.01	120.000	107	43.5	14.49	Horizontal	1.2	10.1	Pass
294.80	27.93	120.000	108	46.0	18.07	Horizontal	1.3	14.2	Pass
480.08	29.09	120.000	102	46.0	16.91	Horizontal	1.5	17.8	Pass

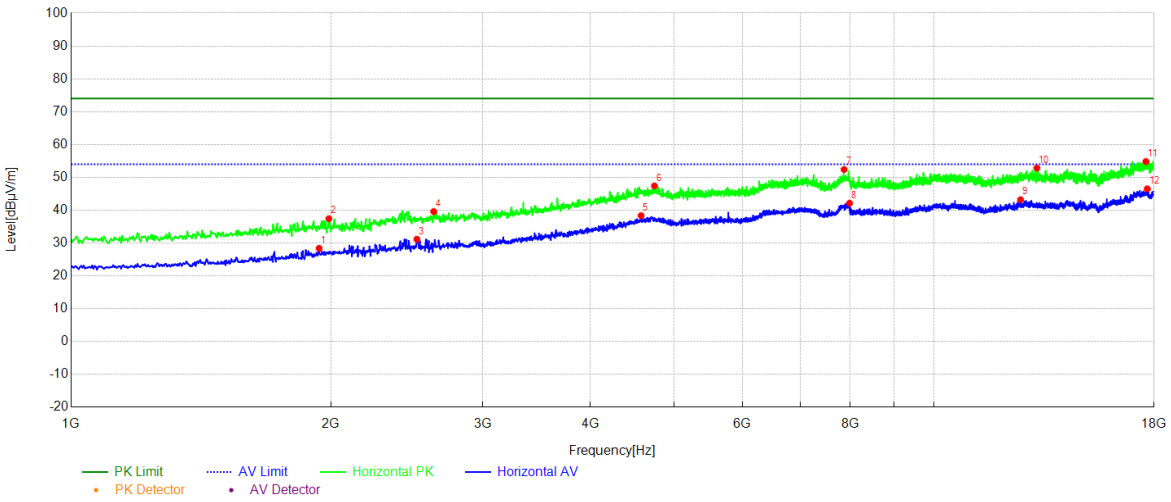
A. Radiation disturbances, antenna polarization: Vertical, Setup 14



(Plot M: Test Antenna Horizontal 1G – 18G)

NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin[dBµV/m]	Trace	Height [cm]	Angle [°]	Polarity
1	1839.97	37.15	-11.95	74.00	36.85	PK	103	326	Vertical
2	1928.39	28.36	-11.46	54.00	25.64	AV	105	223	Vertical
3	2632.33	39.22	-9.13	74.00	34.78	PK	102	267	Vertical
4	2635.73	31.23	-9.13	54.00	22.77	AV	109	112	Vertical
5	4689.74	47.74	0.33	74.00	26.26	PK	104	175	Vertical
6	4771.35	38.30	0.41	54.00	15.70	AV	105	136	Vertical
7	7073.61	41.24	4.21	54.00	12.76	AV	102	13	Vertical
8	7236.85	50.38	4.01	74.00	23.62	PK	103	204	Vertical
9	10895.98	51.36	7.33	74.00	22.64	PK	106	351	Vertical
10	11028.61	42.20	7.33	54.00	11.80	AV	101	95	Vertical
11	17500.10	46.49	14.47	54.00	7.51	AV	105	322	Vertical
12	17510.30	55.79	14.47	74.00	18.21	PK	108	97	Vertical

B. Radiation disturbances, antenna polarization: Horizontal, Setup 14



(Plot N: Test Antenna Vertical 1G – 18G)

NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin[dBµV/m]	Trace	Height [cm]	Angle [°]	Polarity
1	1938.59	28.38	-11.40	54.00	25.62	AV	108	76	Horizont
2	1989.60	37.42	-11.13	74.00	36.58	PK	103	47	Horizont
3	2516.70	31.15	-9.32	54.00	22.85	AV	104	98	Horizont
4	2632.33	39.58	-9.13	74.00	34.42	PK	105	62	Horizont
5	4577.52	38.35	-0.03	54.00	15.65	AV	102	136	Horizont
6	4744.15	47.39	0.38	74.00	26.61	PK	109	333	Horizont
7	7869.37	52.40	5.14	74.00	21.60	PK	105	277	Horizont
8	7985.00	42.12	5.43	54.00	11.88	AV	103	101	Horizont
9	12603.12	43.19	7.86	54.00	10.81	AV	102	135	Horizont
10	13164.23	52.82	8.88	74.00	21.18	PK	107	53	Horizont
11	17612.32	54.82	14.52	74.00	19.18	PK	106	12	Horizont
12	17673.53	46.49	14.77	54.00	7.51	AV	104	45	Horizont

-----End of Report-----