
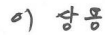


TEST REPORT

FCC Part 15 Subpart B

FCC ID : 2A9DGSOLCOUNT1

Report Number :	EFC-2022-000019
Date of issue :	Mar.30.2023
Total number of pages :	15
Tested by (name + signature)	Seong Seungseop 
Approved by (name + signature) :	Lee Sang Yong 
Testing Laboratory :	Korea Testing & Research institute (KTR)
Address :	98, Gyoyukwon-ro, Gwacheon-si, Gyeonggi-do, 13810, Korea
Applicant`s name :	SOL Inc.
Address :	2F, BK Tower, 28, Beobwon-ro 11-gil, Songpa-gu, Seoul, 05836, Republic of Korea
Manufacturer`s name :	SOL Inc.
Address :	2F, BK Tower, 28, Beobwon-ro 11-gil, Songpa-gu, Seoul, 05836, Republic of Korea
Test specification :	
Standard :	FCC Part 15 Subpart B
Test procedure :	ANSI 63.4 - 2017
Non-standard test method:	N/A
Test Report Form No :	KTR-QI-Y10053-F19(00)
Test Report Form(s) Originator :	Korea Testing & Research institute
Master TRF:	Dated 2012-06
General remarks : <ol style="list-style-type: none"> 1. The test results of this test report are only limited in to the samples and sample names provided by the client and do not guarantee the quality of all products of the client. You can check website (www.ktr.or.kr) or QR code to verify the authenticity of the certificate. 2. This test report shall be used only within the purpose of its defined usage and shall not be used for public relation, advertisement and lawsuit. 3. This test report is only valid when printed on KTR original report paper with hologram and when re-issued by KTR. The copy and the electronic file of the test report are only for reference. 	
Test item description	
Manufacturer :	SOL Inc.
Model/Type reference :	SOL COUNT 1 / SOL COUNT
Ratings :	5 Vd.c., 2.0 A (Battery : Li-ion 3.7 V, 5 000 mAh)



Summary of testing	
Tests performed (name of test and test clause): FCC Part 15 : Subpart B – UNINTENTIONAL RADIATORS – 15.107 Limits of disturbance voltages in the frequency range 150 kHz to 30 MHz – 15.109 Limits of radiated disturbance in the frequency range 30 MHz to 1 000 MHz	Testing location: 98, Gyoyukwon-ro, Gwacheon-si, Gyeonggi-do, 13810, Korea
Summary of compliance with National Differences: N/A	
Copy of marking plate: N/A	
Possible test case verdicts	
– test case does not apply to the test object:	N/A
– test object does meet the requirement :	P (Pass)
– test object does not meet the requirement :	F (Fail)
Testing	
Date of receipt of test item.....:	2022. 08. 16.
Date (s) of performance of tests.....:	2022. 11. 23. ~ 2022. 12. 16.
Complementary items.....:	–

FCC Part 15 : Subpart B – UNINTENTIONAL RADIATORS

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1.1 General Description

1.1.1 Laboratory information

The 10 m semi-anechoic chamber and/or EMC facilities are used for these testing.
These facilities were accredited by KOLAS,KC, KCC of Korea, FCC of USA and VCCI of Japan

Address

KOREA TESTING & RESEARCH INSTITUTE.

98, Gyoyukwon-ro, Gwacheon-si, Gyeonggi-do, 13810, Korea

Phone No. : + 82-2-2164-0011

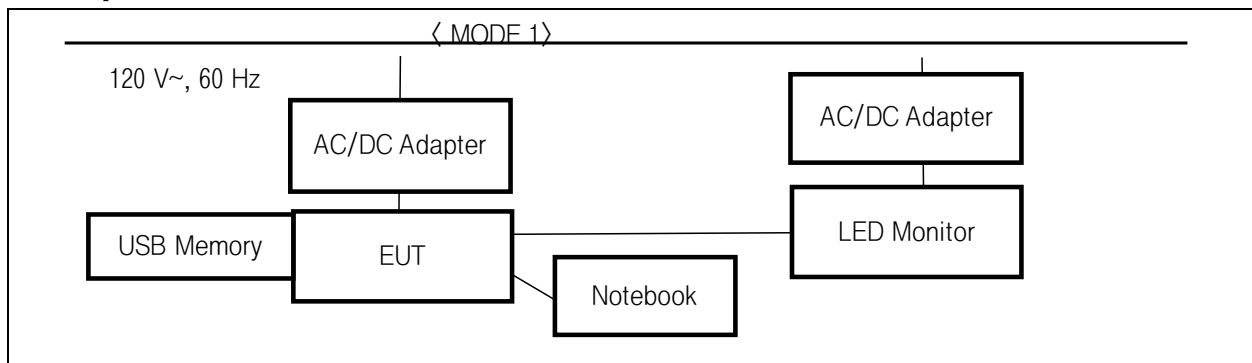
Facsimile No. : + 82-2-2634-1008

Registered No.

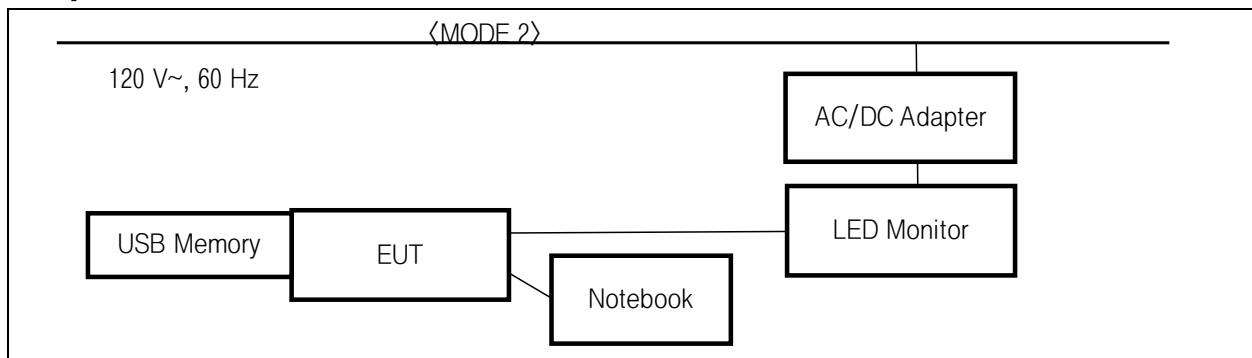
KCC & FCC : KCC & FCC : KR0030(Designation), FCC : 503434(Registration)

1.1.2 Equipment Description

[MODE 1]



[MODE 2]



1.1.3 Additional information about the EUT

Basic model	Variable Model name base	Variable	Range of variable	Comments
-	-	-	-	-

1.1.4 Equipment Used During Test

Use*	Product Type	Manufacturer	Model	Comments
EUT	SOL COUNT	SOL Inc.	SOL COUNT 1	–
ACC	AC/DC Adapter	DONGGUAN YINGJU ELECTRONICS CO.,LTD	A3514_ESM	Output : 5 Vd.c.
	AC/DC Adapter	Flextronics Power Systems (Dongguan)	A1205	For LED Monitor
	Mouse	Samsung Electronics Co., Ltd.	AA-SM7PCP	
	Notebook PC	Samsung Electronics Co., Ltd.	NT501R5L	
	LED Monitor	Samsung Electronics Co., Ltd.	S27E510C	
	USB Memory	–	–	–

* Use = EUT – Equipment Under Test, ACC – Accessory (Not Subjected to Test), or SIM – Simulator (Not Subjected to Test)

1.1.5 Power Interface

Mode #	Voltage (V)	Current (A)	Power (W)	Frequency (DC/AC-Hz)	Phases (#)	Comments
1	120	–	–	AC – 60	1	AC/DC Adapter (EUT : 5 Vd.c. Charge)
2	–	–	–	–	–	No external power (battery operation)

1.1.6 Information of Manufacture

	Information	
1	Manufacture & Address	SOL Inc. 2F, BK Tower, 28, Beobwon-ro 11-gil, Songpa-gu, Seoul, Republic of Korea

1.2 EUT Operation Modes

Mode #	Description
1	CHARGE, USB linkage status(memory and mouse), Display out, Internal video recording, Ethernt(traffic and ping)
2	USB linkage status(memory and mouse), Display out, Internal video recording, Ethernt(traffic and ping)

1.3 Input/Output Ports

Port #	Name	Type	Cable Max. > 3 m	Cable Shielded	Connected to
1	DC IN	USB-C	DC IN	–	AC/DC Adapter
2	USB PORT 1	USB	USB PORT 1	–	USB Memory
3	USB PORT 2	USB	USB PORT 2	–	Mouse
4	HDMI OUT	HDMI	HDMI OUT	Shield	LED Monitor
5	LAN PORT	RJ-45	LAN PORT	–	Notebook PC

1.4 EUT Internal Clock Frequencies or Oscillator Frequencies

Frequency (MHz)	Description
19.2	System clock
24	CIS Sensor master clock
48	WLAN(WiFi) reference clock

1.5 Result Summary

FCC Part 15		
Clause	Requirement – Test	Result
15.107	Limits of disturbance voltages in the frequency range 150 kHz to 30 MHz	PASS
15.109	Limits of radiated disturbance in the frequency range 30 MHz to 1 000 MHz	PASS

1.6 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4-2017

All measurement uncertainty values are shown with a coverage factor of $k = 2$ to indicated a 95 % level of confidence. The measurement data shown herein meets or exceeds the U CISPR measurement uncertainty values specified in CISPR 16-4-2 and thus, can be compared directly to specified limits to determined compliance.

Parameter	Expanded Uncertainty
Conducted Emissions(150 kHz ~ 30 MHz)	± 2.20 dB
Radiated Spurious Emissions(Below 1 GHz)	± 5.80 dB

1.7 Test Conditions and Results – Limits of disturbance voltage in the frequency range:150 kHz to 30 MHz

1.7	TEST: Limits of terminal disturbance voltages in the frequency range 150 kHz to 30 MHz				Verdict	
Method	Measurements were made on a ground plane that extends 1-meter minimum beyond all sides of the system under test. All power was connected to the system through Line Impedance Stabilization Networks (LISN). Conducted voltage measurements on mains lines were made at the output of the LISN. Conducted voltage on load terminals and additional terminals were made by using a 1 500 Ω probe.				P	
Parameters recorded during the test		Laboratory Ambient Temperature		(21.8 ± 1.0) °C		
		Relative Humidity		(46.3 ± 1.0) %		
		Air pressure		(100.4 ± 1.0) kPa		
Date of Test		2022. 12. 16.				
Fully configured sample scanned over the following frequency range		150 kHz to 30 MHz				
Except for Class A digital devices						
Limits – At mains terminals						
Frequency (MHz)	Limit (dBµV)					
	Quasi-Peak	Result	Average	Result		
0.15 to 0.5	56 ~ 66	PASS	46 ~ 56	PASS		
0.5 to 5	56	PASS	46	PASS		
5 to 30	60	PASS	50	PASS		
Supplementary information: None						
Test Equipment Used						
Description	Manufacturer	Model	Identifier	Cal. Date	Next Cal. Due	Test Software
Test Receiver	R & S	ESR3	102623	2022. 09. 06.	2023. 09. 06.	EMC32 (ver. 10.60.20)
LISN	R & S	ENV216	101365	2022. 02. 18.	2023. 02. 18.	
Extension Cable	–	Extension Cable	–	2022. 02. 18.	2023. 02. 18.	
Artificial hand	–	–	–	–	–	
Artificial hand	–	–	–	–	–	

Test set-up



EUT Operation mode :

MODE #1 CHARGE, USB linkage status(memory and mouse), Display out, Internal video recording,
Ethernt(traffic and ping)

Test results : PASS

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.202000	----	34.07	53.53	19.45	1000.0	9.000	L1	9.6
0.266000	30.77	----	61.24	30.47	1000.0	9.000	N	9.7
0.546000	----	23.53	46.00	22.47	1000.0	9.000	N	9.7
0.558000	31.29	----	56.00	24.71	1000.0	9.000	N	9.7
0.566000	30.92	----	56.00	25.08	1000.0	9.000	L1	9.6
0.570000	----	20.22	46.00	25.78	1000.0	9.000	N	9.7
1.222000	----	19.00	46.00	27.00	1000.0	9.000	L1	9.7
1.546000	29.88	----	56.00	26.12	1000.0	9.000	L1	9.7
2.126000	----	18.60	46.00	27.40	1000.0	9.000	L1	9.7
2.254000	30.92	----	56.00	25.08	1000.0	9.000	L1	9.7
7.446000	34.48	----	60.00	25.52	1000.0	9.000	N	10.0
7.906000	----	28.61	50.00	21.39	1000.0	9.000	N	10.0
8.098000	----	29.51	50.00	20.49	1000.0	9.000	N	10.0
10.338000	32.23	----	60.00	27.77	1000.0	9.000	N	10.1
16.146000	28.07	----	60.00	31.93	1000.0	9.000	L1	10.2
16.162000	----	14.91	50.00	35.09	1000.0	9.000	N	10.3

*Corr : LISN factor + extension cable factor + Cable loss

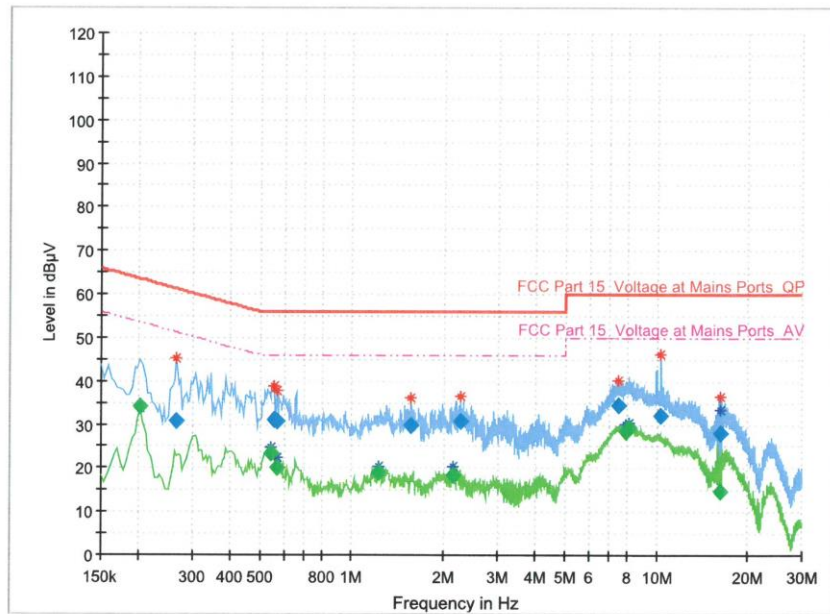
Test Graph

Test

EMC32 Report

Common Information

EUT: SOL COUNT 1
 Order Number : EFC-2022-000019
 Factor : ENV216(101365) + EX-CABLE
 Polarization : Live & Neutral
 Test Voltage : 120 V~, 60 Hz
 Test Spec : FCC Part 15



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.202000	---	34.07	53.53	19.45	1000.0	9.000	L1	9.6
0.266000	30.77	---	61.24	30.47	1000.0	9.000	N	9.7
0.546000	---	23.53	46.00	22.47	1000.0	9.000	N	9.7
0.558000	31.29	---	56.00	24.71	1000.0	9.000	N	9.7
0.566000	30.92	---	56.00	25.08	1000.0	9.000	L1	9.6
0.570000	---	20.22	46.00	25.78	1000.0	9.000	N	9.7
1.222000	---	19.00	46.00	27.00	1000.0	9.000	L1	9.7
1.546000	29.88	---	56.00	26.12	1000.0	9.000	L1	9.7
2.126000	---	18.60	46.00	27.40	1000.0	9.000	L1	9.7
2.254000	30.92	---	56.00	25.08	1000.0	9.000	L1	9.7
7.446000	34.48	---	60.00	25.52	1000.0	9.000	N	10.0
7.906000	---	28.61	50.00	21.39	1000.0	9.000	N	10.0
8.098000	---	29.51	50.00	20.49	1000.0	9.000	N	10.0
10.338000	32.23	---	60.00	27.77	1000.0	9.000	N	10.1
16.146000	28.07	---	60.00	31.93	1000.0	9.000	L1	10.2
16.162000	---	14.91	50.00	35.09	1000.0	9.000	N	10.3

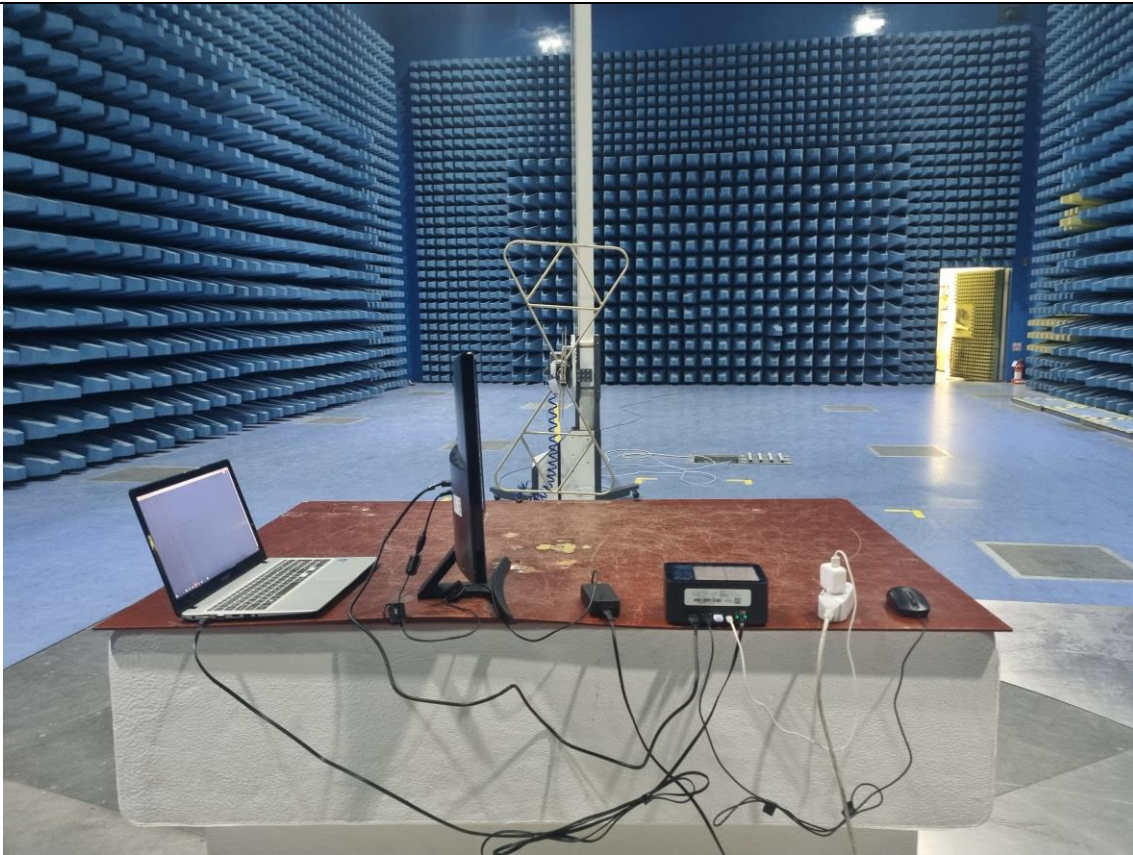
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1.8 Test Conditions and Results – Limits of radiated disturbance in the frequency range : 30 MHz to 1 000 MHz

1.8	TEST: Limits of radiated disturbance in the frequency range			Verdict
Method	Measurements were made on a 3 meters open area test site that complies to CISPR 16. Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 3 meters with the receive antenna located at 1 to 4-meters height in both horizontal and vertical polarities. Final measurements (quasi-peak) were then performed by rotating the EUT 360° and adjusting the receive antenna height from 1 to 4-meters. All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable.			P
Parameters recorded during the test		Laboratory Ambient Temperature	(11.8 ± 1.0) °C	
		Relative Humidity	(47.4 ± 1.0) %	
		Air pressure	(99.6 ± 1.0) kPa	
Fully configured sample scanned over the following frequency range		30 MHz to 1 000 MHz	3 meters measurement distance	
Date of Test		2022.11.23		
Limits – Enclosure				
Frequency (MHz)		Limit		
		Field strength (µV/m)	Field strength (dBµV/m)	Results
30 to 88		100	40.00	PASS
88 to 216		150	43.52	PASS
216 to 960		200	46.02	PASS
Above 960		500	53.97	PASS
Supplementary information:				
Unit conversion => 20 * LOG(Field strength(µV/m)) = Field strength(dBµV/m)				

Test Equipment Used						
Description	Manufacturer	Model	Identifier	Cal. Date	Next Cal. Due	Test Software
Test Receiver	R & S	ESW26	103016	2022.08.19	2023.08.19	EMC32 (ver. 10.50.40)
Bi-Log Ant	TDK	HLP-3003C	130962	2022.12.02	2023.12.02	
Antenna Mast	innco	CO3000	–	–	–	
Turn Table	HD	–	–	–	–	

Test set-up MODE #1



Test set-up MODE #2



EUT Operation mode :

MODE # 1 : CHARGE, USB linkage status(memory and mouse), Display out, Internal video recording, Ethernet(traffic and ping)

MODE # 2 : USB linkage status(memory and mouse), Display out, Internal video recording, Ethernet (traffic and ping)

Reference the test result.

Test results : PASS

[MODE #1]

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.130500	35.95	40.00	4.05	1000.0	120.000	100.0	V	40.0	11.2
61.154500	28.35	40.00	11.65	1000.0	120.000	119.0	V	121.0	11.1
287.991500	38.79	46.02	7.23	1000.0	120.000	107.0	H	217.0	15.4
480.011500	42.34	46.02	3.68	1000.0	120.000	104.0	V	246.0	21.3
528.018000	42.95	46.02	3.07	1000.0	120.000	100.0	V	277.0	23.0
740.650500	41.97	46.02	4.05	1000.0	120.000	108.0	H	187.0	25.5

*Corr : ANT Factor + Cable loss

[MODE #2]

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
36.891000	29.38	40.00	10.62	1000.0	120.000	125.0	V	152.0	11.6
46.630000	35.97	40.00	4.03	1000.0	120.000	100.0	V	303.0	11.2
73.897000	27.77	40.00	12.23	1000.0	120.000	104.0	V	130.0	10.5
144.665500	35.84	43.52	7.68	1000.0	120.000	100.0	V	49.0	13.3
443.434000	41.08	46.02	4.94	1000.0	120.000	109.0	V	139.0	20.4
510.014500	41.52	46.02	4.50	1000.0	120.000	100.0	V	238.0	22.3

*Corr : ANT Factor + Cable loss

Test Graph – MODE #1

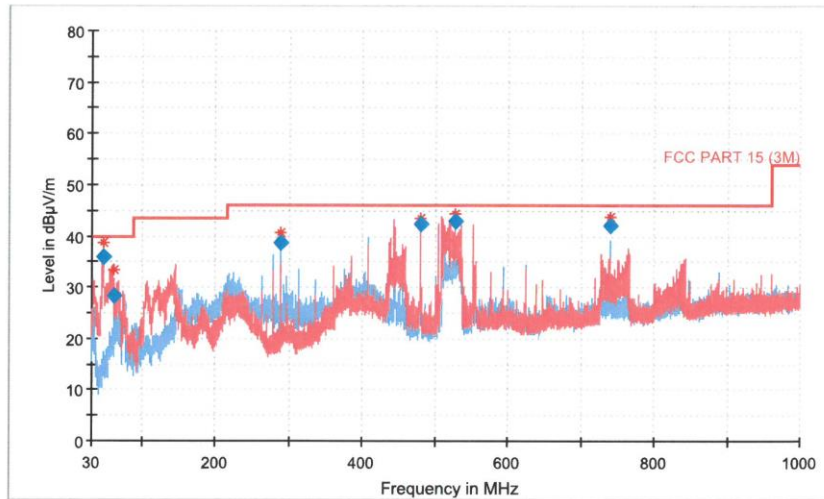
EMI Auto Test

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EMI RE Auto Test Report

Common Information

EUT: SOL COUNT 1
 Order No: EFC-2022-000019
 Test Description: FCC PART 15 SUBPART B
 Operating Conditions: MODE 1
 Operator Name: KTR



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.130500	35.95	40.00	4.05	1000.0	120.000	100.0	V	40.0	11.2
61.154500	28.35	40.00	11.65	1000.0	120.000	119.0	V	121.0	11.1
287.991500	38.79	46.02	7.23	1000.0	120.000	107.0	H	217.0	15.4
480.011500	42.34	46.02	3.68	1000.0	120.000	104.0	V	246.0	21.3
528.018000	42.95	46.02	3.07	1000.0	120.000	100.0	V	277.0	23.0
740.650500	41.97	46.02	4.05	1000.0	120.000	108.0	H	187.0	25.5

11/23/2022

Test Graph – MODE #2

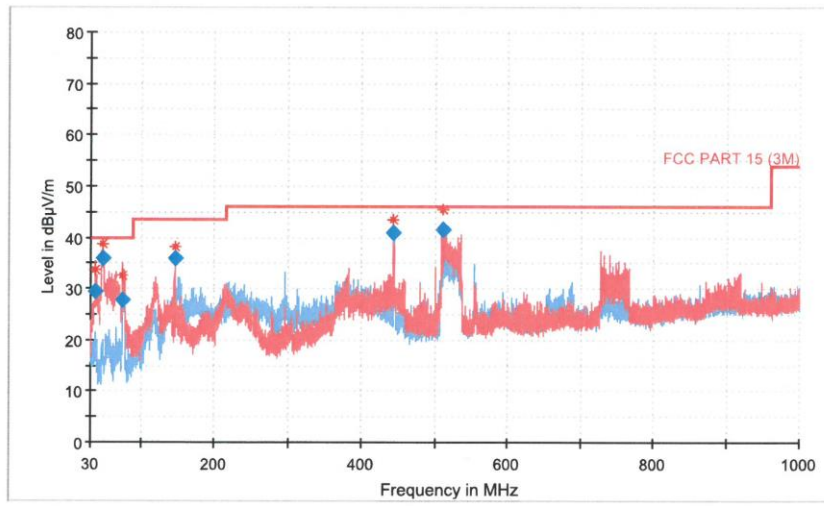
EMI Auto Test

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EMI RE Auto Test Report

Common Information

EUT: SOL COUNT 1
 Order No: EFC-2022-000019
 Test Description: FCC PART 15 SUBPART B
 Operating Conditions: MODE 2
 Operator Name: KTR



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
36.891000	29.38	40.00	10.62	1000.0	120.000	125.0	V	152.0	11.6
46.630000	35.97	40.00	4.03	1000.0	120.000	100.0	V	303.0	11.2
73.897000	27.77	40.00	12.23	1000.0	120.000	104.0	V	130.0	10.5
144.665500	35.84	43.52	7.68	1000.0	120.000	100.0	V	49.0	13.3
443.434000	41.08	46.02	4.94	1000.0	120.000	109.0	V	139.0	20.4
510.014500	41.52	46.02	4.50	1000.0	120.000	100.0	V	238.0	22.3

11/23/2022