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CNAS L1659

EMC TEST REPORT

Report No.:	SET2018-02871
Product:	Printer
Model No. :	SP 330DN, SP 3710DN
FCC ID:	BBP-PRSP330DN1
Applicant	Ricoh Company Ltd
Issued by:	CCIC Southern Electronic Product Testing (Shenzhen) Co., Ltd.
Lab Location:	Building 28/29, East of Shigu Xili Industrial Zone, Nanshan District, Shenzhen ,Guangdong , China
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Query No.:3A3CcSEY

Test Report

Product ..... Printer

Model No. ..... SP 330DN, SP 3710DN

Applicant ..... RICOH Co., LTD.

Applicant Address ..... 2-7-1 Izumi Ebina Kanagawa 243-0460 Japan

Manufacturer ..... RICOH Co., LTD.

Manufacturer Address .... 2-7-1 Izumi Ebina Kanagawa 243-0460 Japan

Test Standards ..... FCC PART 15 Subpart B
ANSI C63.4: 2014

Test Result ..... PASS

Tested by ..... Zhang Rong Apr 6,2018

Signature, Date

Reviewed by ..... Zhu Qi Apr 6,2018

Signature, Date

Approved by ..... Smartli Apr 6,2018

Signature, Date

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1 General Information

1.1 Description of EUT

Product: Printer
Model No.: SP 330DN, SP 3710DN
Brand Name: RICOH
Serial No.: 5137Z17C008
I/O Ports: USB,LAN
Accessories: Power cable

Note:

The EUT is class B information technology equipment according to FCC PART 15. For more detailed features description about the EUT, please refer to User's Manual.
Perform ElectroMagnetic Interference measurement in accordance with FCC 47CFR [Codes of Federal Regulations] Part 15 and ANSI C63.4: 2014 for FCC ID.
The EUT have USB port, which can be connected to the WiFi module for WiFi printing operation mode.

Short description of the equipment under test (EUT)

The certification machine is a printer which has print function.

Model difference:

The EUT is a Printer.

Model/Type : SP 330DN, SP 3710DN

Model Differences –
All models have same construction except some below functions,

And differences functions of these models are listed as follows:

Model / Deviations	SP 330DN	SP 3710DN
Print function	○	○
Wifi Modular	△	△
Wired NFC	○	○
Bank Module	△	△
AIO Volume(1K)	○	×
AIO Volume(7K)	×	○
Print Speed: 32PPM	○	○

X：No; O：Yes; △: option
Unless otherwise indicated, all tests were conducted on SP 330DN Tests performed on SP 330DN were considered to be representative of SP 3710DN.

1.2 EUT Information

Kind of equipment	Manufacturer	Model name	Serial number	Remark
Printer	RICOH	SP 330DN	5137Z17C008	-

Note：The wireless routers are used to connect printers and computers to test printer's WiFi printing mode.

1.3 Highest Frequency Generated or Used in The Device or on Which the Device Operates

Kind of equipment	Model name	Operates Frequency	Remark
Printer	SP 330DN	5.32GHz	WiFi

2 Test Facilities and Configuration

2.1 Environmental Conditions

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

- Temperature: 15-35ºC
- Humidity: 30-60 %
- Atmospheric pressure: 86-106 kPa

2.2 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 = ±1.8dB
- Uncertainty of Radiated Emission, Uc = ±5.0dB

2.3 Associated Equipments

Kind of equipment	Manufacturer	Model name	Serial number	Remark
Notebook 1	LENOVO	ThinkPad X250	PC090M90	
USB Memory	SanDisk	BL170525264V	—	
Key board	DELL	L100	CN0RH6566589079K0277	
Mouse	DELL	MOC5U0	H0F02OCQ	
Option（BANK）	RICOH	Paper Feed Unit PB1130	JM534Q00001	
Option（WiFi）	CC&C	WLAN 11ac/11n 1x1USB Adapter	-	WL-8211-V1 FCCID code ： PANRCO330.

2.4 Cables Used

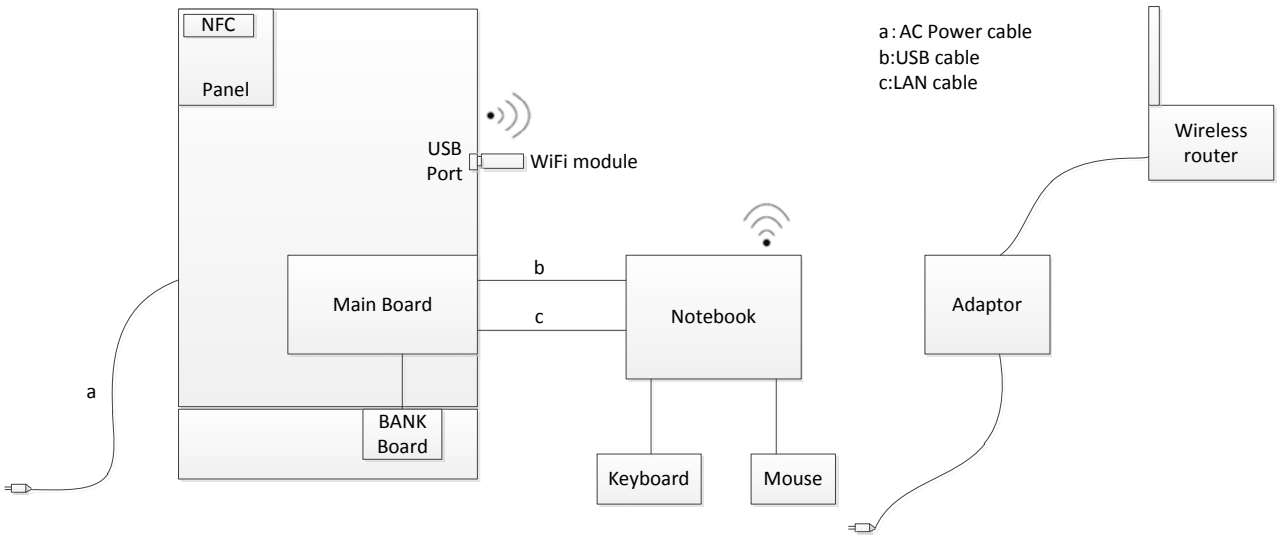
	Cable Name	Length	Shielded	Maker	Remarks
1	USB Cable	2m	YES	New Nam Lee	
2	NIC Cable	3m	No	SANWA	
3	Power Cable	1.5m	No	BizLink	

2.5 Test Configure

Operating modes：

No.	Operating modes	Remarks
1	Standby	
2	USB Print	
3	WiFi Print	
4	NIC Print	

EUT Setup



2.6 Measurement Equipments Used

Description	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due Date
Test Receiver	ROHDE&SCHWARZ	ESCS30	A0304260	Jun.10, 2017	Jun.10, 2018
LISN	ROHDE&SCHWARZ	ESH2-Z5	A0304221	Jun.10, 2017	Jun.10, 2018
Shield Room	Nanbo Tech	RF-2 10.5×5×3.2 (m)	A0301188	Oct.25, 2017	Oct.25,2018
Ultra-Broadband Ant.	SCHWARZBECK	VULB 09160	A0805560	Jun.10, 2017	Jun.10, 2018
Test Receiver	ROHDE&SCHWARZ	ESU8	A0805559	Jun.10, 2017	Jun.10, 2018
Semi-Anechoic Chamber	Albatross	SAC-10MAC1 9.6*11.8*8.55 m	A0802520	Jun.10, 2017	Jun.10, 2018
Horn Ant.	ETS	3160-09	/	Aug.29, 2017	Aug.28, 2018
Horn Ant.	ETS	3160-10	/	Aug.29, 2017	Aug.28, 2018
Test Receiver	ROHDE&SCHWARZ	ESIB7	A0501375	Aug.5, 2017	Aug.4, 2018
Broadband Ant.	ETC	MCTD2786	A150402239	Feb. 25, 2015	Feb.25, 2019
Band Reject Filter	Wainwright	WRCTF2402/ 2480-2400/24 83.5-35/12+9SS	H257/22721	Jun.10,2017	Jun.9,2018

NOTE: Equipments above have been calibrated and are in the period of validation.

3 Summary of Test Results

The EUT has been tested according to the following specifications:

EMISSION			
Test Condition	Test Requirement	Test Method	**Result**
Radiated Emissions	FCC 47CFR Part15 SubpartB	ANSI C63.4:2014	PASS
Conducted Emissions on AC, 0.15MHz to 30MHz	FCC 47CFR Part15 SubpartB	ANSI C63.4:2014	PASS

4 Emission Test

4.1 EUT Setup and Operation

The EUT was powered by 120V AC Mains.

The EUT continuously operated during the test modes as section 2.5.

The EUT and cables, and operation modes were configured to produce the maximum level of emissions.

4.2 Conducted Disturbance at Mains Terminals

4.2.1 Limits of Conducted Disturbance at Mains Terminals

Frequency range (MHz)	Limits (dBμV), Class B ITE	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5.0	56	46
5.0-30.0	60	50

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

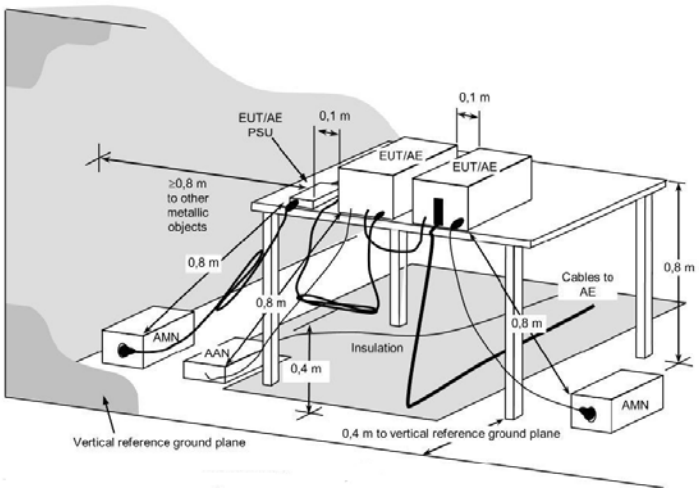
4.2.2 Test Procedure

a. The EUT was placed 0.4 meters from the conducting wall of shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). The LISN provide 50Ω/50μH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels over 10dB under the prescribed limits are not reported.

4.2.3 Test Setup



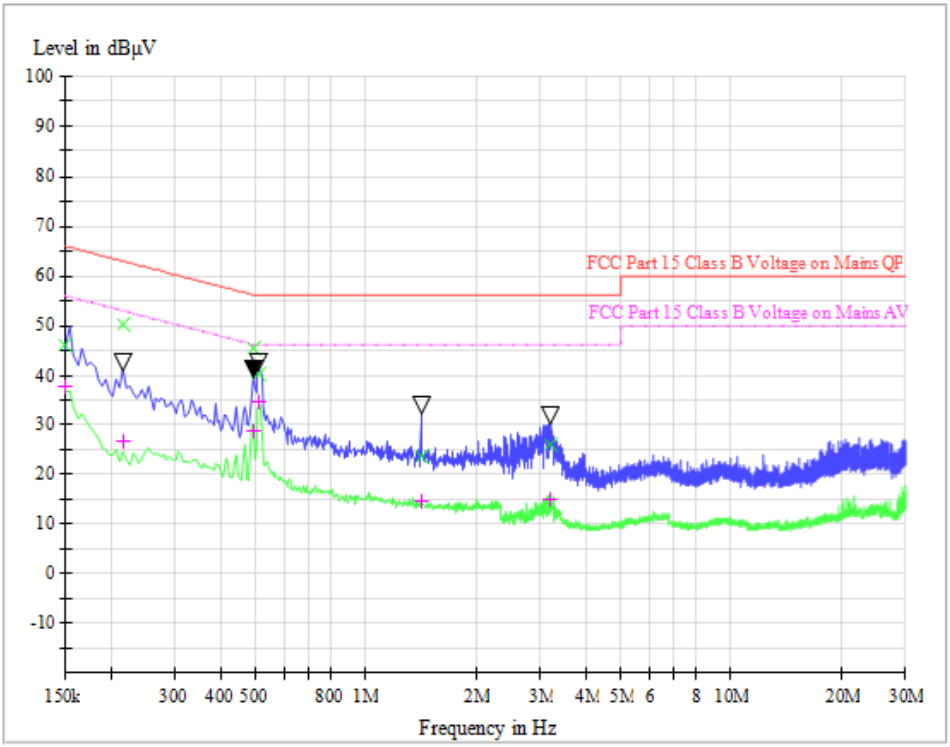
For the actual test configuration, please refer to the related item - Photographs of the Test Configuration.

4.2.4 Test Result

Environment Condition:
Temperature: 23°C; Relative Humidity: 52%; Pressure:101kPa
Test Date: 2018-04-04
Test Engineer: Cheng Weichang
Test Site: Shield Room Site 1
Test Mode: Mode 1-4

1. Conducted Disturbance at Mains Terminals (Standby Mode)

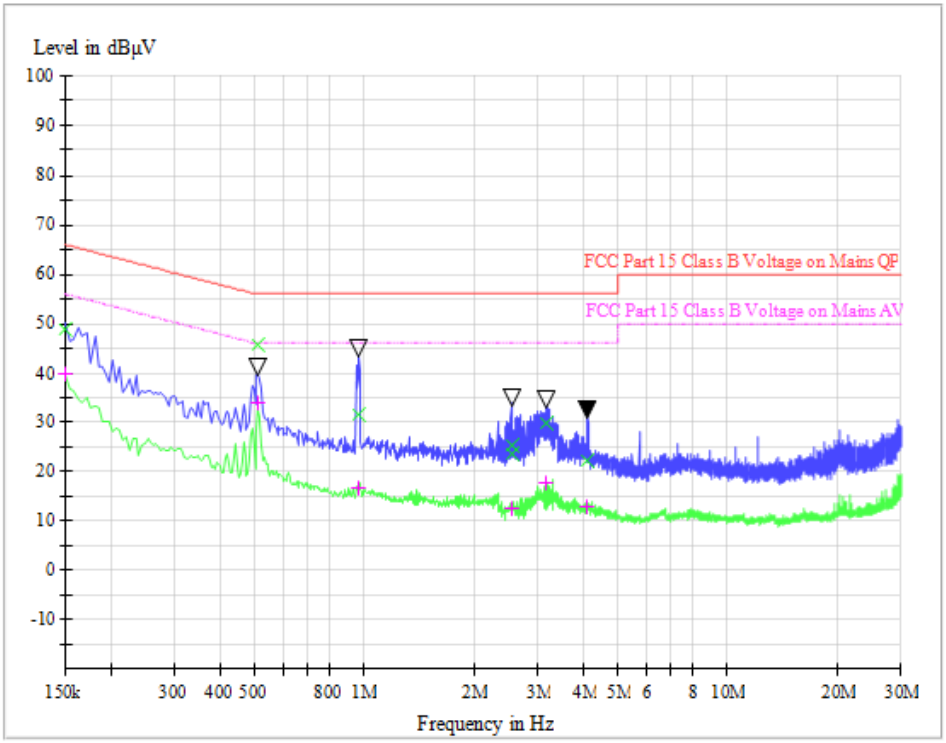
Conducted Disturbance at Mains Terminals (Standby Mode)							
L Test Data							
QP				**CAV**			
Frequency (MHz)	**Limits (dBμV)**	**Measurement Value(dBμV)**	**Margin (dBμV)**	**Frequency (MHz)**	**Limits (dBμV)**	**Measurement Value(dBμV)**	**Margin (dBμV)**
0.1500	66.0	45.98	20.02	0.1500	56.0	37.85	18.15
0.2175	62.9	50.11	12.80	0.2175	52.9	26.78	26.13
0.4920	56.1	45.27	10.86	0.4920	46.1	28.74	17.39
0.5100	56.0	40.12	15.88	0.5100	46.0	34.58	11.42
1.4190	56.0	23.69	32.31	1.4190	46.0	14.59	31.41
3.2145	56.0	25.91	30.09	3.2145	46.0	14.88	31.12
L Test Curve							



NOTE:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.
3. The minimum margin value of quasi-peak and average level is over 3dB.

Conducted Disturbance at Mains Terminals (Standby Mode)							
N Test Data							
QP				**CAV**			
Frequency (MHz)	**Limits (dBμV)**	**Measurement Value(dBμV)**	**Margin (dBμV)**	**Frequency (MHz)**	**Limits (dBμV)**	**Measurement Value(dBμV)**	**Margin (dBμV)**
0.1500	66.0	48.71	17.29	0.1500	56.0	39.79	16.21
0.5100	56.0	45.72	10.28	0.5100	46.0	34.00	12.00
0.9645	56.0	31.57	24.43	0.9645	46.0	16.63	29.37
2.5395	56.0	25.41	30.59	2.5395	46.0	12.62	33.38
3.1650	56.0	29.78	26.22	3.1650	46.0	17.60	28.40
4.1235	56.0	22.21	33.79	4.1235	46.0	12.74	33.26
N Test Curve							



NOTE:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.
3. The minimum margin value of quasi-peak and average level is over 3dB.

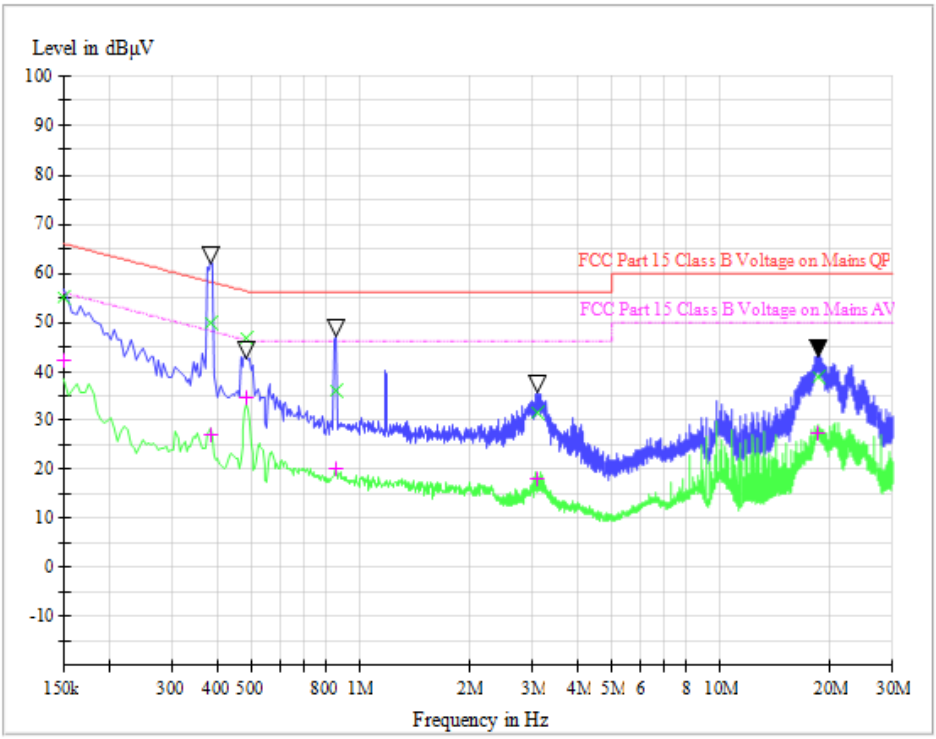
2. Conducted Disturbance at Mains Terminals (USB Print Mode)

Conducted Disturbance at Mains Terminals (USB Print Mode)

L Test Data

QP				CAV			
Frequency (MHz)	Limits (dBμV)	Measurement Value(dBμV)	Margin (dBμV)	Frequency (MHz)	Limits (dBμV)	Measurement Value(dBμV)	Margin (dBμV)
0.1500	66.0	55.02	10.98	0.1500	56.0	42.35	13.65
0.3840	58.2	49.69	8.50	0.3840	48.2	26.94	21.25
0.4830	56.3	46.69	9.60	0.4830	46.3	34.48	11.81
0.8565	56.0	36.08	19.92	0.8565	46.0	20.09	25.91
3.1020	56.0	31.51	24.49	3.1020	46.0	18.02	27.98
18.6090	60.0	38.84	21.16	18.6090	50.0	27.47	22.53

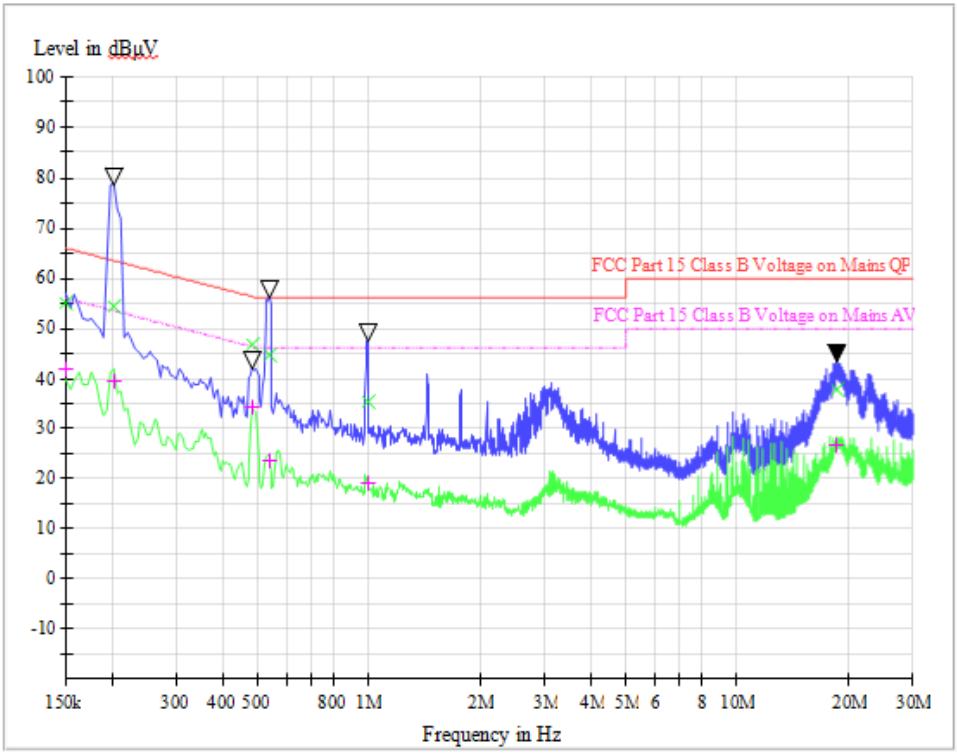
L Test Curve



NOTE:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.
3. The minimum margin value of quasi-peak and average level is over 3dB.

Conducted Disturbance at Mains Terminals (USB Print Mode)							
N Test Data							
QP				CAV			
Frequency (MHz)	Limits (dBμV)	Measurement Value(dBμV)	Margin (dBμV)	Frequency (MHz)	Limits (dBμV)	Measurement Value(dBμV)	Margin (dBμV)
0.1500	66.0	55.01	10.99	0.1500	56.0	41.81	14.19
0.2040	63.4	54.46	8.99	0.2040	53.4	39.42	14.03
0.4830	56.3	46.58	9.71	0.4830	46.3	34.37	11.92
0.5370	56.0	44.70	11.30	0.5370	46.0	23.61	22.39
0.9915	56.0	35.39	20.61	0.9915	46.0	19.12	26.88
18.6855	60.0	37.90	22.10	18.6855	50.0	26.54	23.46
N Test Curve							

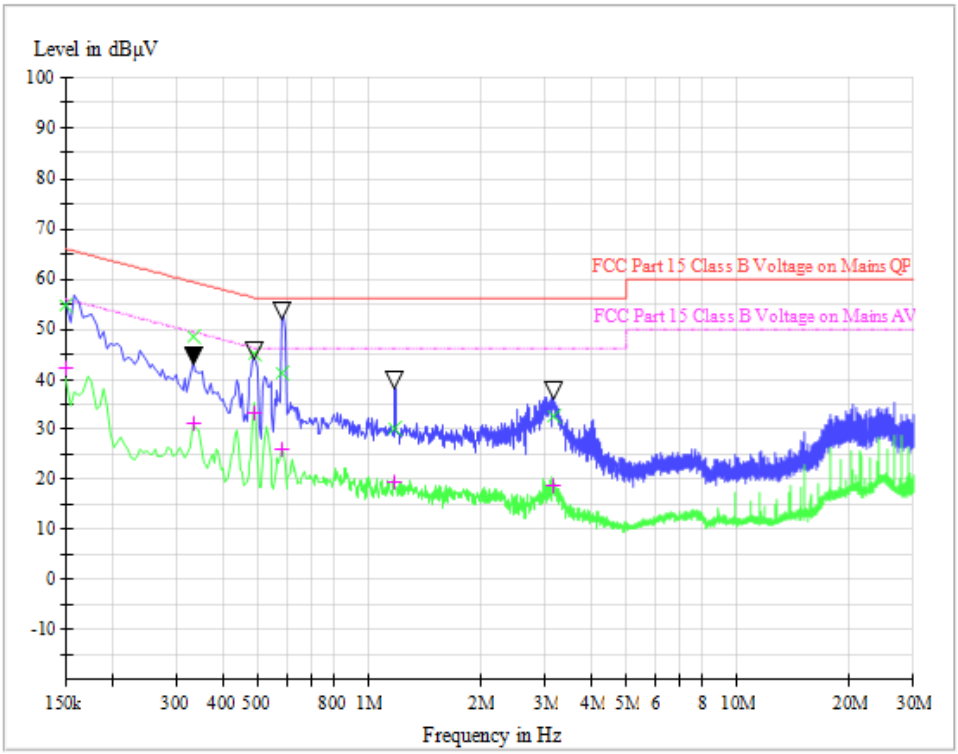


NOTE:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.
3. The minimum margin value of quasi-peak and average level is over 3dB.

3. Conducted Disturbance at Mains Terminals (WiFi Print Mode)

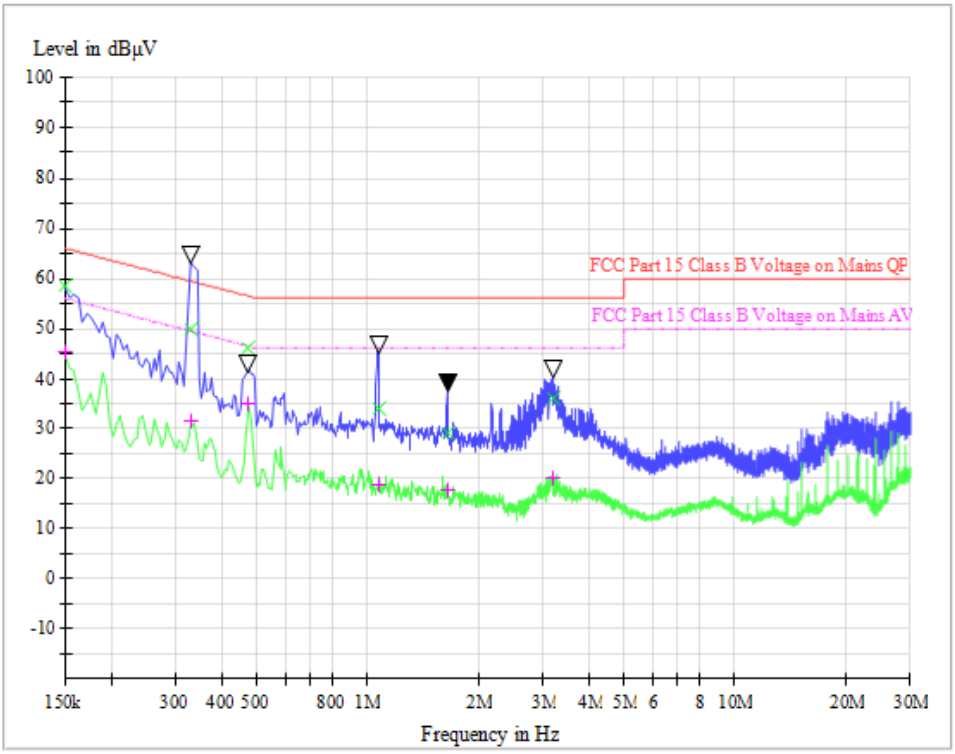
Conducted Disturbance at Mains Terminals (WiFi Print Mode)							
L Test Data							
QP				**CAV**			
Frequency (MHz)	**Limits (dBμV)**	**Measurement Value(dBμV)**	**Margin (dBμV)**	**Frequency (MHz)**	**Limits (dBμV)**	**Measurement Value(dBμV)**	**Margin (dBμV)**
0.1500	66.0	54.87	11.13	0.1500	56.0	42.24	13.76
0.3345	59.3	48.36	10.98	0.3345	49.3	31.15	18.19
0.4875	56.2	44.95	11.26	0.4875	46.2	33.13	13.08
0.5775	56.0	41.34	14.66	0.5775	46.0	25.87	20.13
1.1760	56.0	30.07	25.93	1.1760	46.0	19.37	26.63
3.1515	56.0	32.62	23.38	3.1515	46.0	18.89	27.11
L Test Curve							



NOTE:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.
3. The minimum margin value of quasi-peak and average level is over 3dB.

Conducted Disturbance at Mains Terminals (WiFi Print Mode)							
N Test Data							
QP				CAV			
Frequency (MHz)	Limits (dBμV)	Measurement Value(dBμV)	Margin (dBμV)	Frequency (MHz)	Limits (dBμV)	Measurement Value(dBμV)	Margin (dBμV)
0.1500	66.0	58.63	7.37	0.1500	56.0	45.49	10.51
0.3300	59.5	50.00	9.45	0.3300	49.5	31.57	17.88
0.4740	56.4	46.22	10.22	0.4740	46.4	34.88	11.56
1.0680	56.0	33.95	22.05	1.0680	46.0	18.85	27.15
1.6485	56.0	28.98	27.02	1.6485	46.0	17.64	28.36
3.1830	56.0	35.93	20.07	3.1830	46.0	20.20	25.80
N Test Curve							

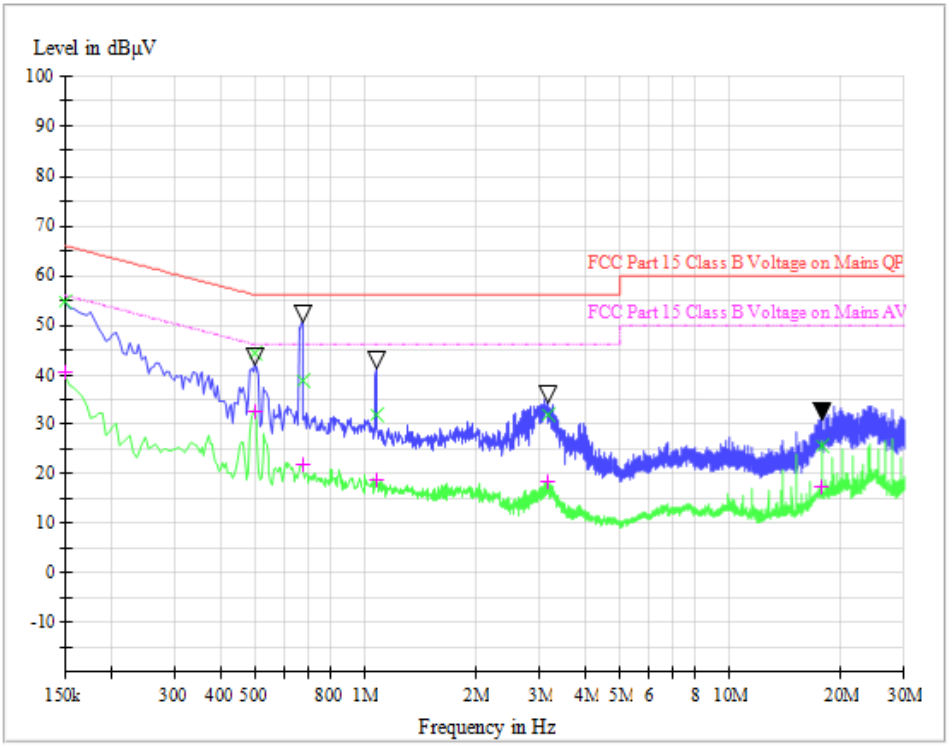


NOTE:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.
3. The minimum margin value of quasi-peak and average level is over 3dB.

4. Conducted Disturbance at Mains Terminals (NIC Print Mode)

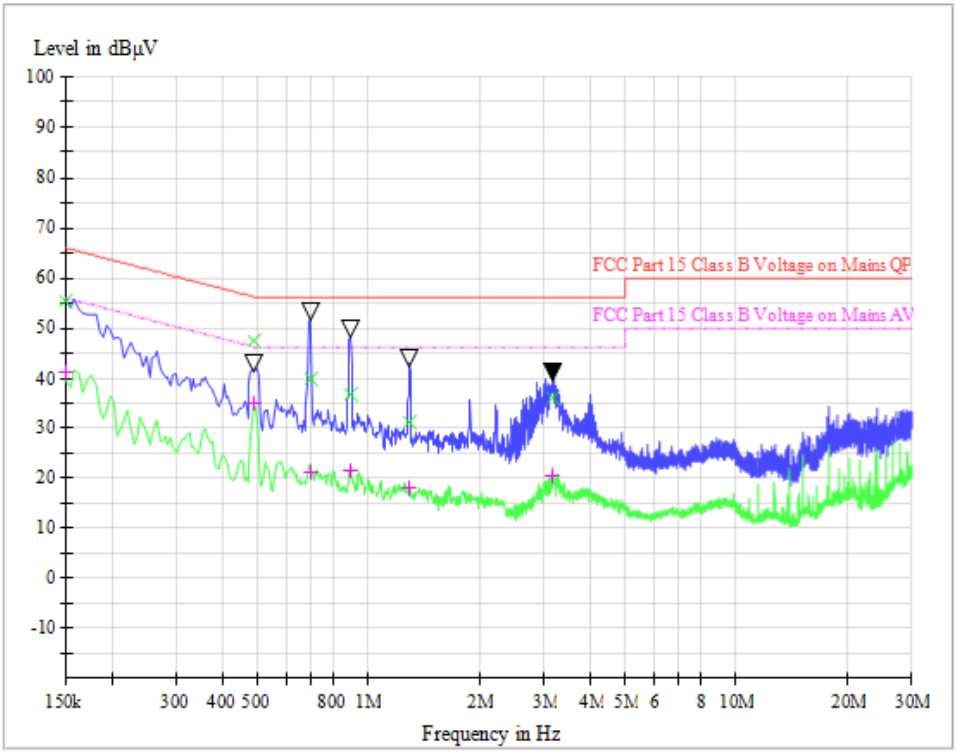
Conducted Disturbance at Mains Terminals (NIC Print Mode)							
L Test Data							
QP				**CAV**			
Frequency (MHz)	**Limits (dBμV)**	**Measurement Value(dBμV)**	**Margin (dBμV)**	**Frequency (MHz)**	**Limits (dBμV)**	**Measurement Value(dBμV)**	**Margin (dBμV)**
0.1500	66.0	54.63	11.37	0.1500	56.0	40.58	15.42
0.4965	56.1	44.37	11.69	0.4965	46.1	32.68	13.38
0.6720	56.0	38.96	17.04	0.6720	46.0	21.87	24.13
1.0725	56.0	31.99	24.01	1.0725	46.0	18.75	27.25
3.1515	56.0	31.93	24.07	3.1515	46.0	18.28	27.72
17.7855	60.0	25.72	34.28	17.7855	50.0	17.34	32.66
L Test Curve							



NOTE:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.
3. The minimum margin value of quasi-peak and average level is over 3dB.

Conducted Disturbance at Mains Terminals (NIC Print Mode)							
N Test Data							
QP				CAV			
Frequency (MHz)	Limits (dBμV)	Measurement Value(dBμV)	Margin (dBμV)	Frequency (MHz)	Limits (dBμV)	Measurement Value(dBμV)	Margin (dBμV)
0.1500	66.0	55.23	10.77	0.1500	56.0	41.27	14.73
0.4875	56.2	47.35	8.86	0.4875	46.2	34.91	11.30
0.6945	56.0	39.70	16.30	0.6945	46.0	21.22	24.78
0.8970	56.0	36.65	19.35	0.8970	46.0	21.62	24.38
1.2930	56.0	31.33	24.67	1.2930	46.0	18.15	27.85
3.1560	56.0	36.04	19.96	3.1560	46.0	20.59	25.41
N Test Curve							



NOTE:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.
3. The minimum margin value of quasi-peak and average level is over 3dB.

4.3 Radiated Emission Test

4.3.1 Limits of Radiated Emission

The field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency of Emission (MHz)	Field Strength (dBμV/m) at 3m
30 - 88	40(QP)
88 -216	43.5(QP)
216 - 960	46.4(QP)
960-1000	54(QP)
Above 1000	54(AV)/74(PK)

NOTE:

1. Field Strength (dBμV/m)=20log Field Strength (μV/m).
2. In the emission tables above, the tighter limit applies at the band edges.

4.3.2 Test Procedure

a. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

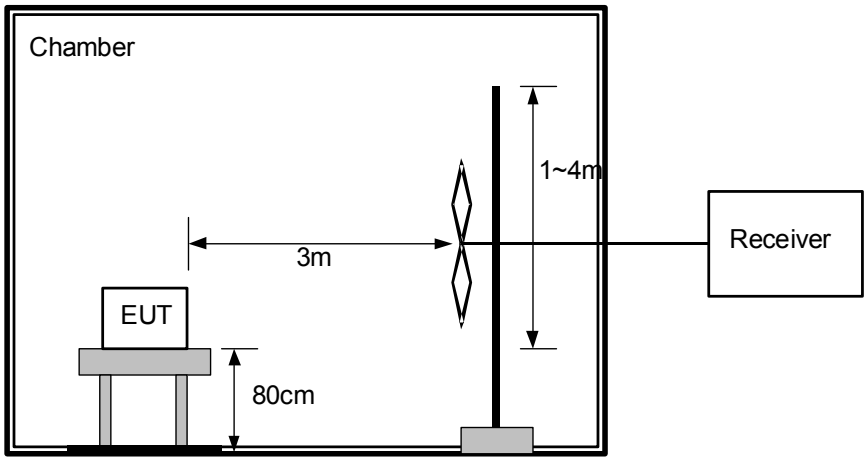
b. The antenna is a broadband antenna, and its height is varied from one meter to four meter above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

c. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to the heights from 1 to 4 meters and the ratable table was turned from 0 degrees to 360 degrees to find the maximum reading.

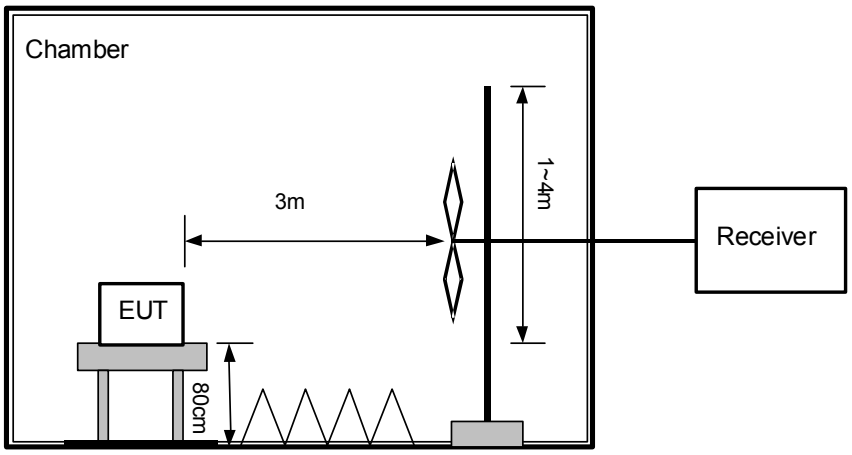
d. The test-receiver system was set to Peak Detector Function and Specified Bandwidth with Maximum Hold Mode.

e. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emission that did not have 10 dB margins would be retested one by one using the quasi-peak method.

4.3.3 Test Setup



Below 1GHz



Over 1GHz

Note: The highest frequency of the internal sources of the EUT is 5320 MHz; the measurement was made up to 40 GHz.

4.3.4 Test Results

Environment Condition:
Temperature: 23°C; Relative Humidity: 52%; Pressure:101kPa
Test Date: 2018-04-04- 2018-04-05
Test Engineer: Chen Weixiong
Test Site: 10m Anechoic Chamber
Test Mode: Mode 1-4

1. Radiated Emission Test data (Standby Mode)

-Horizontal

Frequency (MHz)	QuasiPeak (dBμV/m)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dBμV/m)	Limit (dBμV/m)
57.88	16.2	120	400	H	123	-17	23.8	40
81.64	20.4	120	400	H	52	-20.5	19.6	40
99.12	23.6	120	400	H	35	-16.4	19.9	43.5
124.8	23.4	120	400	H	95	-19.4	20.1	43.5
277.6	23.9	120	400	H	224	-14.6	22.1	46
338.2	33.4	120	400	H	76	-12.6	12.6	46

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
1183.57	41.23	73.9	32.67	0.0	100.0	H
2943.65	41.36	73.9	32.54	0.0	100.0	H
6251.35	45.25	73.9	28.65	0.0	100.0	H
6923.65	45.94	73.9	27.96	0.0	100.0	H
14523.05	46.11	73.9	27.79	0.0	100.0	H
16536.59	46.58	73.9	27.32	0.0	100.0	H

Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
1183.57	28.19	54.0	25.81	0.0	100.0	H
2943.65	29.58	54.0	24.42	0.0	100.0	H
6251.35	31.58	54.0	22.42	0.0	100.0	H
6923.65	31.62	54.0	22.38	0.0	100.0	H
14523.05	32.51	54.0	21.49	0.0	100.0	H
16536.59	32.12	54.0	21.88	0.0	100.0	H

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
21549	44.4	73.9	29.5	0.0	100.0	H
23561	45.1	73.9	28.8	0.0	100.0	H
25095	47.4	73.9	26.5	0.0	100.0	H
25467	46.6	73.9	27.3	0.0	100.0	H
25777	46.8	73.9	27.1	0.0	100.0	H
26402	48.0	73.9	25.9	0.0	100.0	H

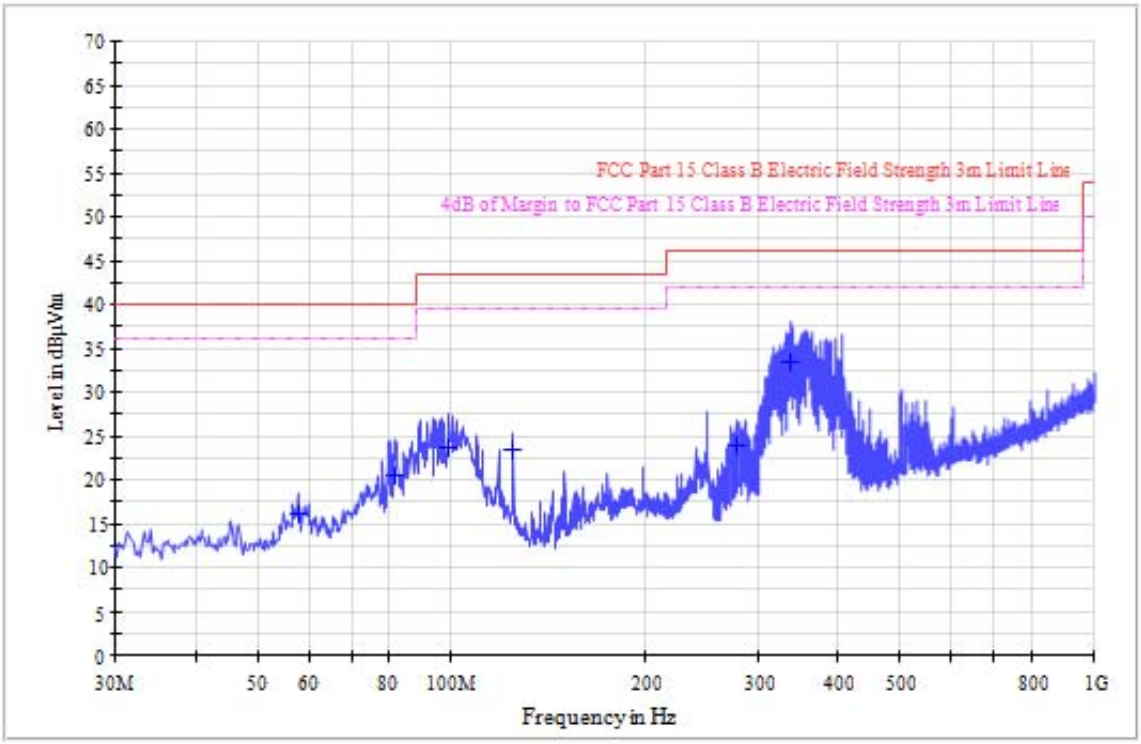
Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
21549	31.9	54.0	22.1	0.0	100.0	H
23561	32.6	54.0	21.4	0.0	100.0	H
25095	34.8	54.0	19.2	0.0	100.0	H
25467	34.2	54.0	19.8	0.0	100.0	H
25777	34.3	54.0	19.7	0.0	100.0	H
26402	35.6	54.0	18.4	0.0	100.0	H

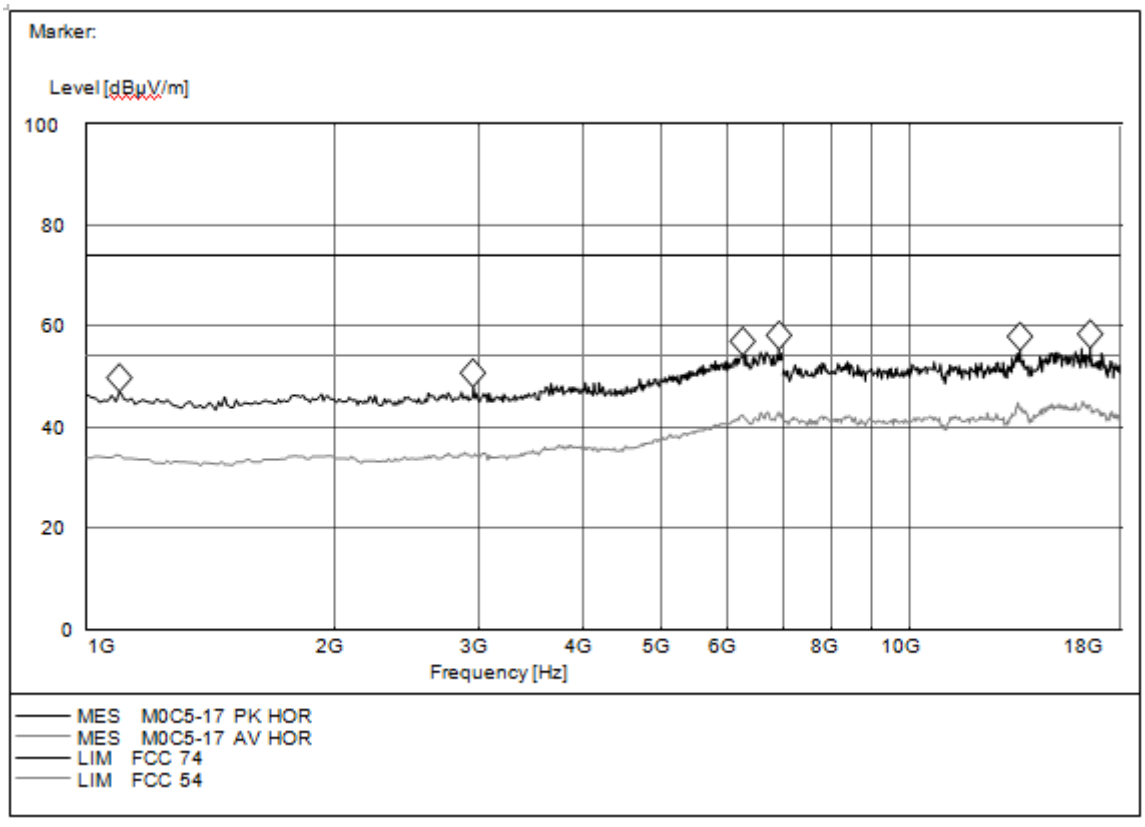
Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
31222	44.8	73.9	29.1	0.0	100.0	H
32160	42.8	73.9	31.1	0.0	100.0	H
33351	42.4	73.9	31.5	0.0	100.0	H
37273	45.3	73.9	28.6	0.0	100.0	H
38947	47.8	73.9	26.1	0.0	100.0	H
39592	48.7	73.9	25.2	0.0	100.0	H

Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
31222	31.4	54.0	22.6	0.0	100.0	H
32160	29.9	54.0	24.1	0.0	100.0	H
33351	29.9	54.0	24.1	0.0	100.0	H
37273	32.3	54.0	21.7	0.0	100.0	H
38947	35.1	54.0	18.9	0.0	100.0	H
39592	35.9	54.0	18.1	0.0	100.0	H

NOTE:

The minimum margin value is over 4dB.


FCC Part 15 Class B Electric Field Strength 3m Limit Line
4dB of Margin to FCC Part 15 Class B Electric Field Strength 3m Limit Line
Level in dBµV/m
Frequency in Hz
30M
50
60
80
100M
200
300
400
500
800
1G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Frequency [Hz]
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2G
3G
4G
5G
6G
8G
10G
18G
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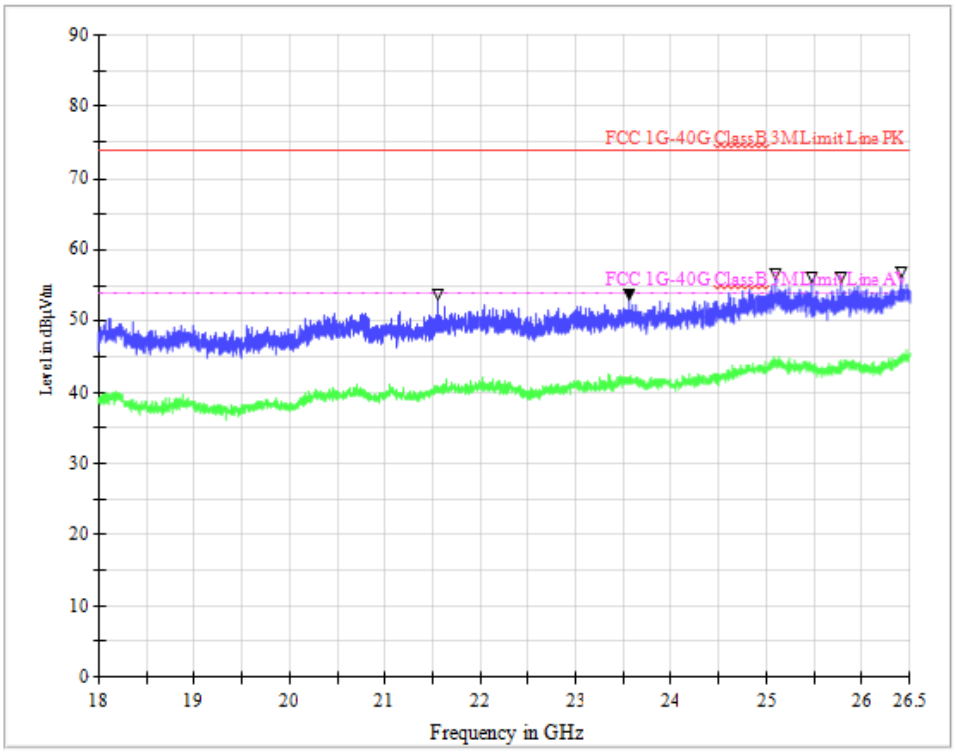
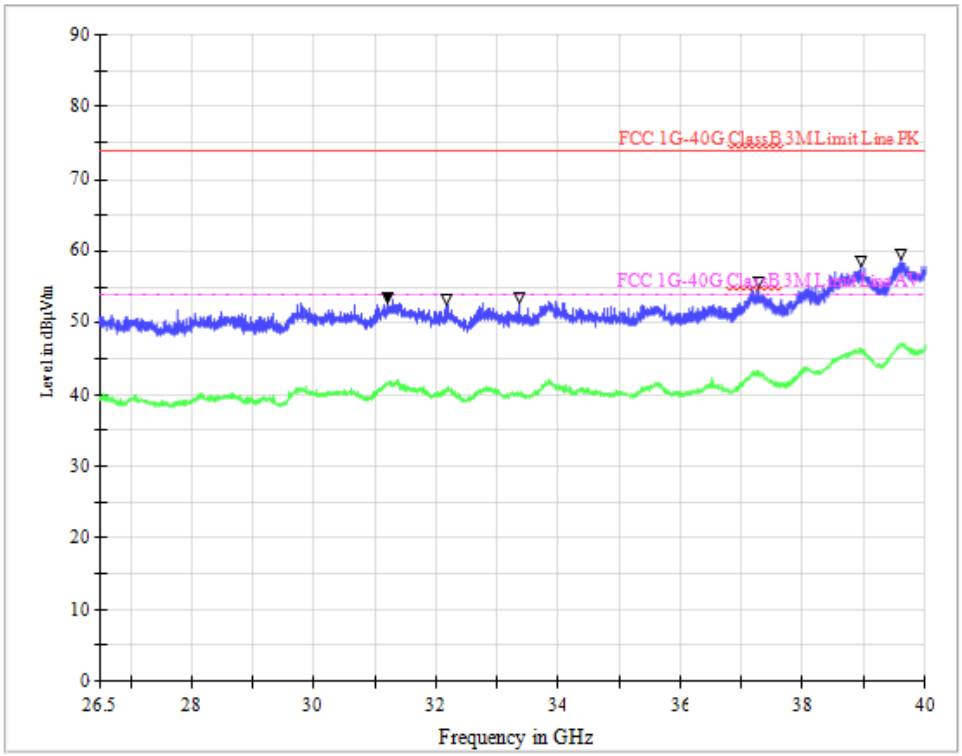
MES M0C5-17 AV HOR
LIM FCC 74
LIM FCC 54


FCC 1G-40G ClassB 3MLimit Line PK
FCC 1G-40G ClassB 3MLimit Line AV
Level in dBµVm
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
18
19
20
21
22
23
24
25
26
26.5


FCC 1G-40G ClassB 3MLimit Line PK
FCC 1G-40G ClassB 3MLimit Line AV
Level in dBµVm
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
26.5
28
30
32
34
36
38
40

-Vertical

Frequency (MHz)	QuasiPeak (dB μ V/m)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dBμV/m)	Limit (dBμV/m)
34.12	23.4	120	200	V	120	-17.9	16.6	40.0
60.80	16.4	120	200	V	78	-17.5	23.6	40.0
95.00	22.5	120	200	V	38	-16.7	21.0	43.5
124.80	23.8	120	200	V	66	-19.4	19.7	43.5
284.88	24.5	120	200	V	162	-14.2	21.5	46.0
376.28	33.5	120	200	V	320	-11.9	12.5	46.0

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
1876.51	39.52	73.9	34.38	0.0	100.0	V
2423.69	39.89	73.9	34.01	0.0	100.0	V
6230.59	43.52	73.9	30.38	0.0	100.0	V
6996.38	43.21	73.9	30.69	0.0	100.0	V
15531.06	44.28	73.9	29.62	0.0	100.0	V
16875.63	44.85	73.9	29.05	0.0	100.0	V

Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
1876.51	29.44	54	24.56	0.0	100.0	V
2423.69	30.36	54	23.64	0.0	100.0	V
6230.59	31.99	54	22.01	0.0	100.0	V
6996.38	33.25	54	20.75	0.0	100.0	V
15531.06	33.85	54	20.15	0.0	100.0	V
16875.63	34.20	54	19.8	0.0	100.0	V

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
23714	44.9	73.9	29.0	0.0	100.0	V
24371	45.1	73.9	28.8	0.0	100.0	V
24823	46.1	73.9	27.8	0.0	100.0	V
25085	47.2	73.9	26.7	0.0	100.0	V
26368	48.1	73.9	25.8	0.0	100.0	V
26496	48.4	73.9	25.5	0.0	100.0	V

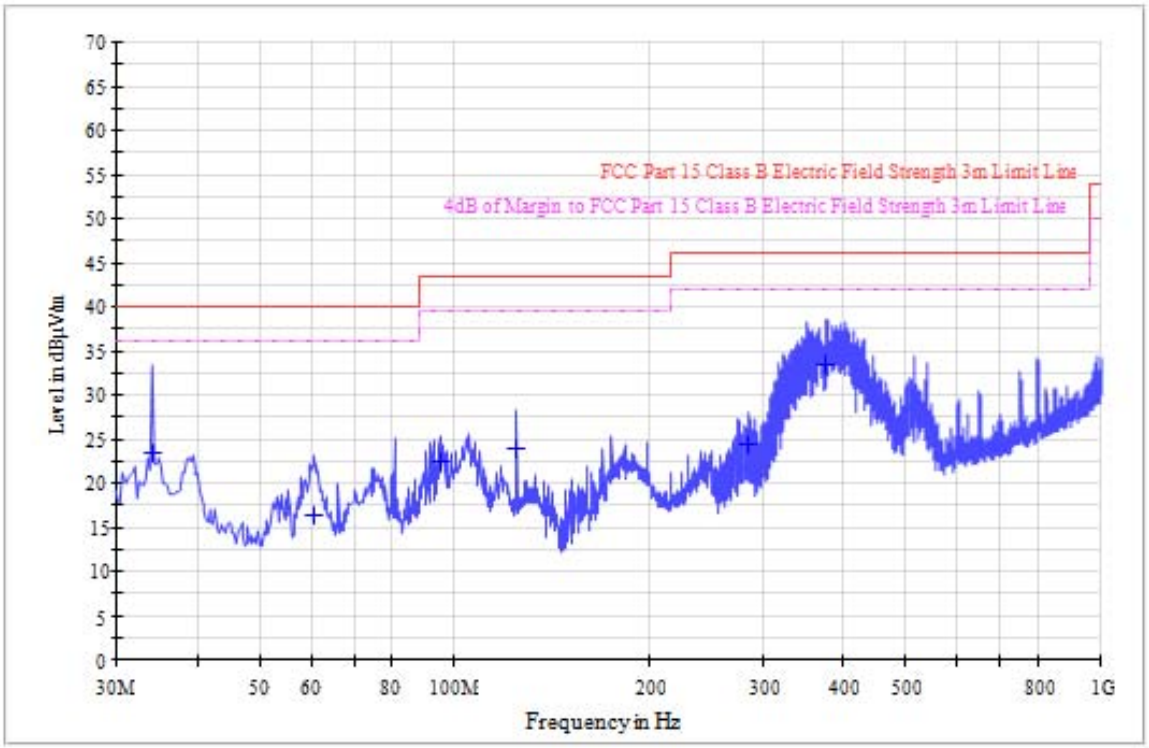
Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
23714	32.5	54.0	21.5	0.0	100.0	V
24371	32.8	54.0	21.2	0.0	100.0	V
24823	34.1	54.0	19.9	0.0	100.0	V
25085	34.8	54.0	19.2	0.0	100.0	V
26368	35.4	54.0	18.6	0.0	100.0	V
26496	35.9	54.0	18.1	0.0	100.0	V

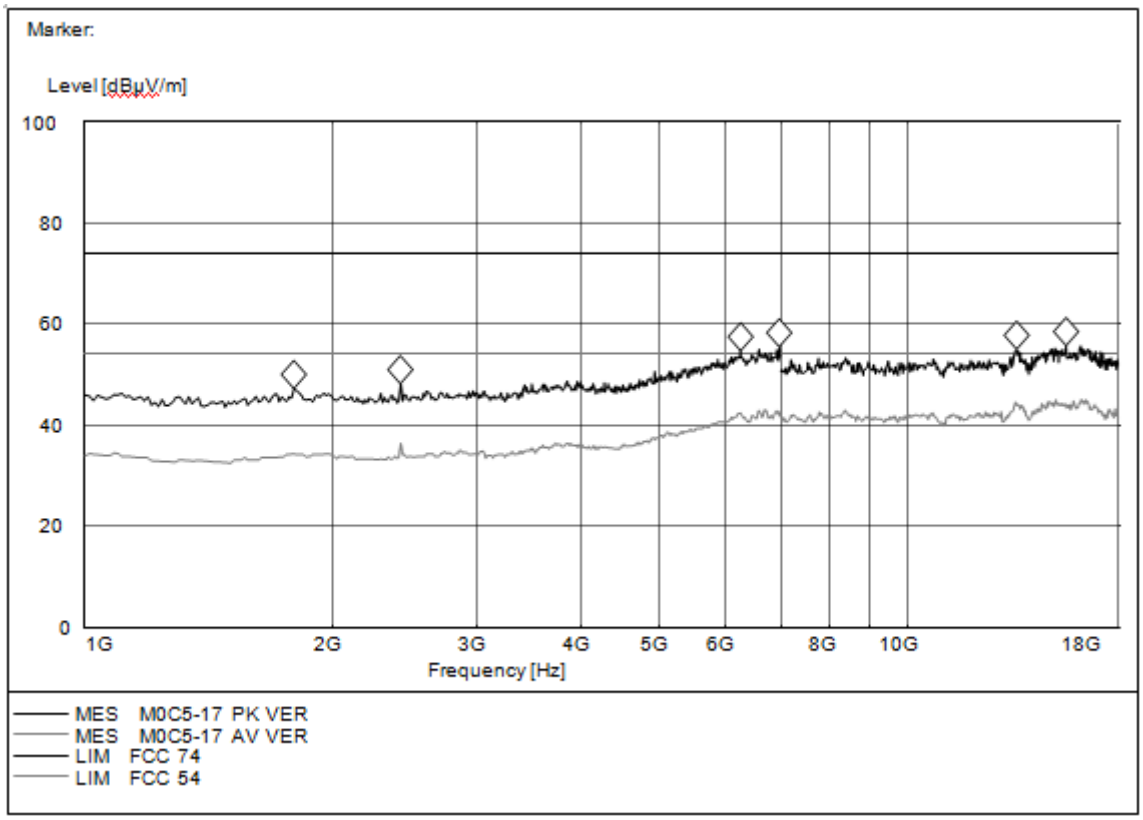
Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
31269	44.4	73.9	29.5	0.0	100.0	V
31876	42.0	73.9	31.9	0.0	100.0	V
33878	43.8	73.9	30.1	0.0	100.0	V
36993	43.0	73.9	30.9	0.0	100.0	V
38836	48.2	73.9	25.7	0.0	100.0	V
39554	48.2	73.9	25.7	0.0	100.0	V

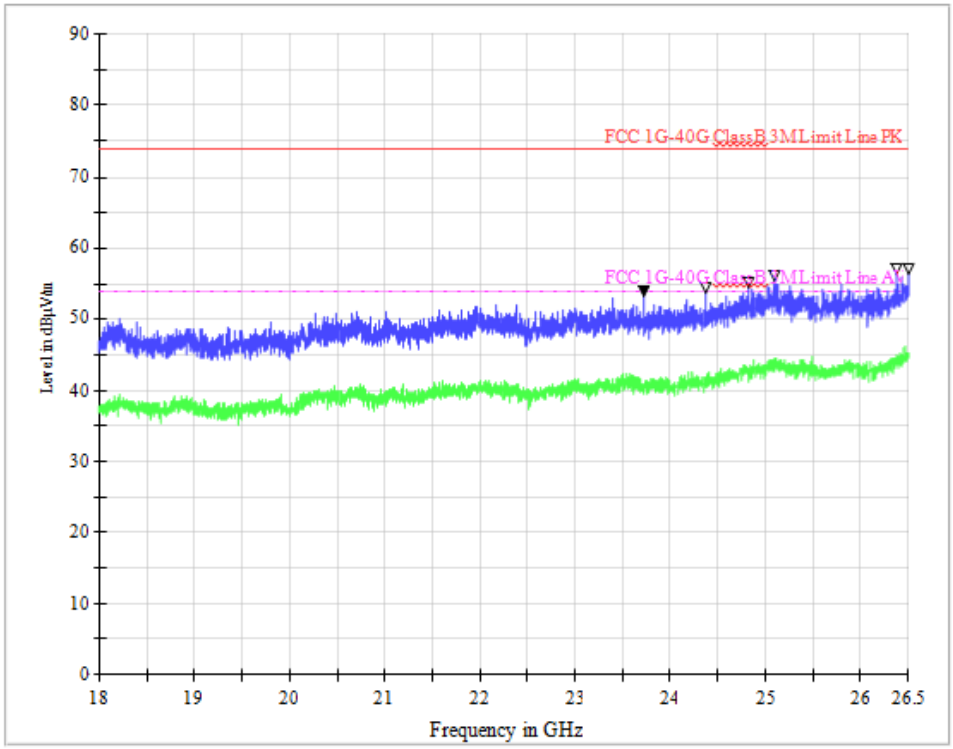
Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
31269	31.5	54.0	22.5	0.0	100.0	V
31876	29.8	54.0	24.2	0.0	100.0	V
33878	31.3	54.0	22.7	0.0	100.0	V
36993	30.9	54.0	23.1	0.0	100.0	V
38836	35.2	54.0	18.8	0.0	100.0	V
39554	35.6	54.0	18.4	0.0	100.0	V

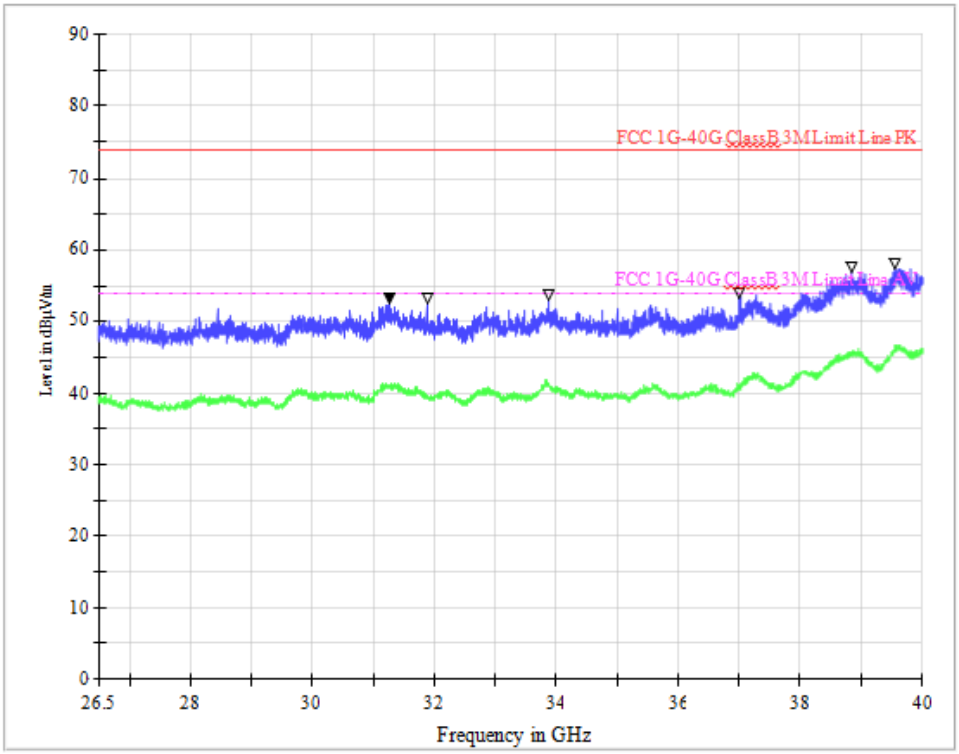
NOTE:

The minimum margin value is over 4dB.


FCC Part 15 Class B Electric Field Strength 3m Limit Line
4dB of Margin to FCC Part 15 Class B Electric Field Strength 3m Limit Line
Level in dBµV/m
Frequency in Hz
30M
50
60
80
100M
200
300
400
500
800
1G


Marker:
Level [dBµV/m]
Frequency [Hz]
1G
2G
3G
4G
5G
6G
8G
10G
18G
MES M0C5-17 PK VER
MES M0C5-17 AV VER
LIM FCC 74
LIM FCC 54


FCC 1G-40G ClassB 3MLimit Line PK
FCC 1G-40G ClassB 3MLimit Line AV
Level in dBµV/m
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
18
19
20
21
22
23
24
25
26
26.5


FCC 1G-40G ClassB 3MLimit Line PK
FCC 1G-40G ClassB 3MLimit Line AV
Level in dBµV/m
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
26.5
28
30
32
34
36
38
40

2. Radiated Emission Test data (USB Print Mode)

-Horizontal

Frequency (MHz)	QuasiPeak (dBμV/m))	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dBμV/m)	Limit (dBμV/m)
59.60	19.4	120	300	H	0	-17.1	20.6	40.0
89.40	23.1	120	300	H	0	-17.9	20.4	43.5
104.68	24.2	120	300	H	0	-16.7	19.3	43.5
170.88	24.1	120	300	H	0	-19.2	19.4	43.5
317.60	30.4	120	300	H	0	-13.5	15.6	46.0
357.60	33.4	120	300	H	0	-12.1	12.6	46.0

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
1899.74	39.28	73.9	34.62	0.0	100.0	H
3892.36	41.72	73.9	32.18	0.0	100.0	H
6205.69	43.55	73.9	30.35	0.0	100.0	H
6996.83	43.00	73.9	30.9	0.0	100.0	H
15866.86	44.02	73.9	29.88	0.0	100.0	H
17059.874	43.71	73.9	30.19	0.0	100.0	H

Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
1899.74	28.82	54.0	25.18	0.0	100.0	H
3892.36	30.57	54.0	23.43	0.0	100.0	H
6205.69	33.25	54.0	20.75	0.0	100.0	H
6996.83	32.86	54.0	21.14	0.0	100.0	H
15866.86	32.51	54.0	21.49	0.0	100.0	H
17059.874	33.78	54.0	20.22	0.0	100.0	H

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
21708	44.5	73.9	29.4	0.0	100.0	H
23438	45	73.9	28.9	0.0	100.0	H
24893	46.7	73.9	27.2	0.0	100.0	H
25352	47.2	73.9	26.7	0.0	100.0	H
25945	47.3	73.9	26.6	0.0	100.0	H
26432	48.3	73.9	25.6	0.0	100.0	H

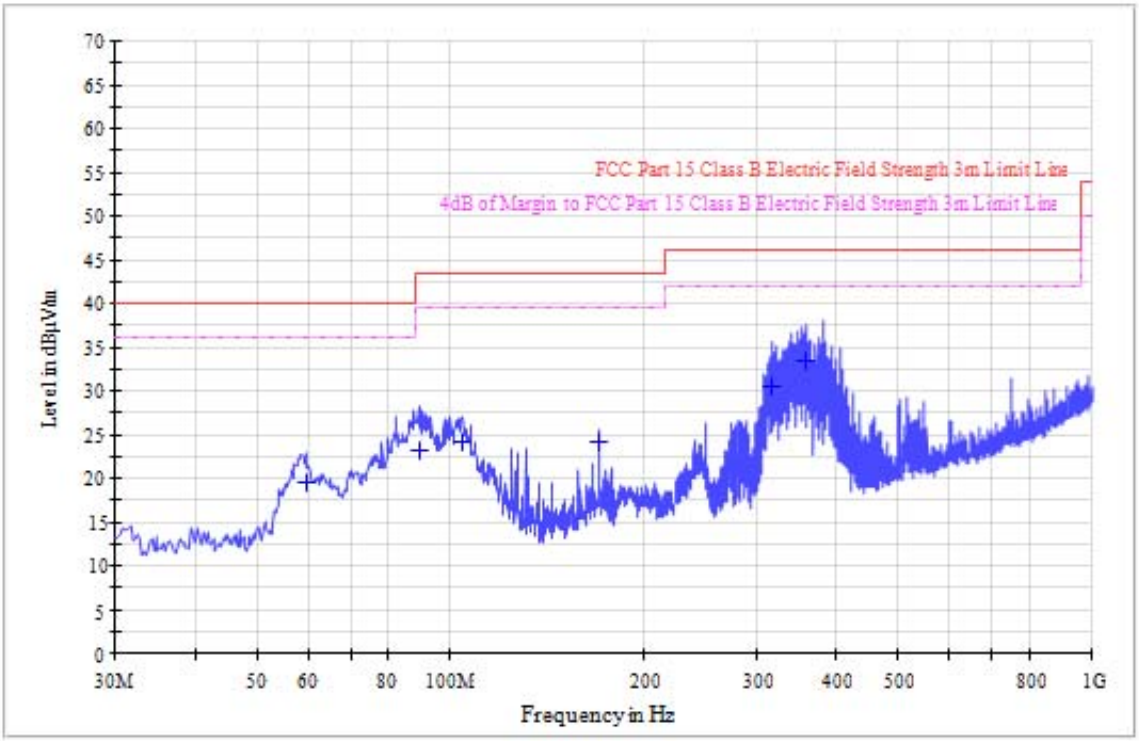
Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
21708	32.0	54.0	22.0	0.0	100.0	H
23438	32.4	54.0	21.6	0.0	100.0	H
24893	34.0	54.0	20.0	0.0	100.0	H
25352	34.5	54.0	19.5	0.0	100.0	H
25945	34.8	54.0	19.2	0.0	100.0	H
26432	35.8	54.0	18.2	0.0	100.0	H

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
29804	44.2	73.9	29.7	0.0	100.0	H
31255	44.0	73.9	29.9	0.0	100.0	H
33854	43.9	73.9	30.0	0.0	100.0	H
37290	45.0	73.9	28.9	0.0	100.0	H
38903	47.6	73.9	26.3	0.0	100.0	H
39659	47.9	73.9	26.0	0.0	100.0	H

Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
29804	31.5	54.0	22.5	0.0	100.0	H
31255	31.5	54.0	22.5	0.0	100.0	H
33854	31.6	54.0	22.4	0.0	100.0	H
37290	32.1	54.0	21.9	0.0	100.0	H
38903	35.1	54.0	18.9	0.0	100.0	H
39659	35.7	54.0	18.3	0.0	100.0	H

NOTE:

The minimum margin value is over 4dB.


FCC Part 15 Class B Electric Field Strength 3m Limit Line
4dB of Margin to FCC Part 15 Class B Electric Field Strength 3m Limit Line
Level in dBµV/m
Frequency in Hz
30M
50
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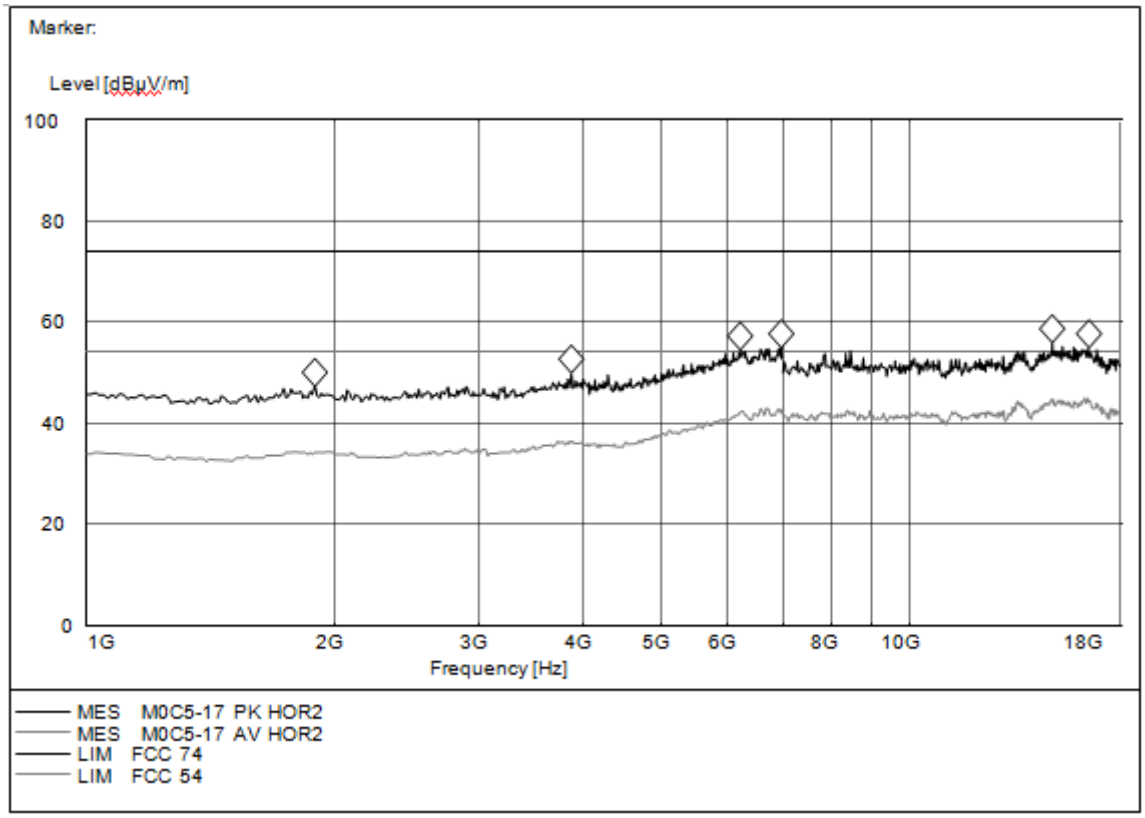
300
400
500
800
1G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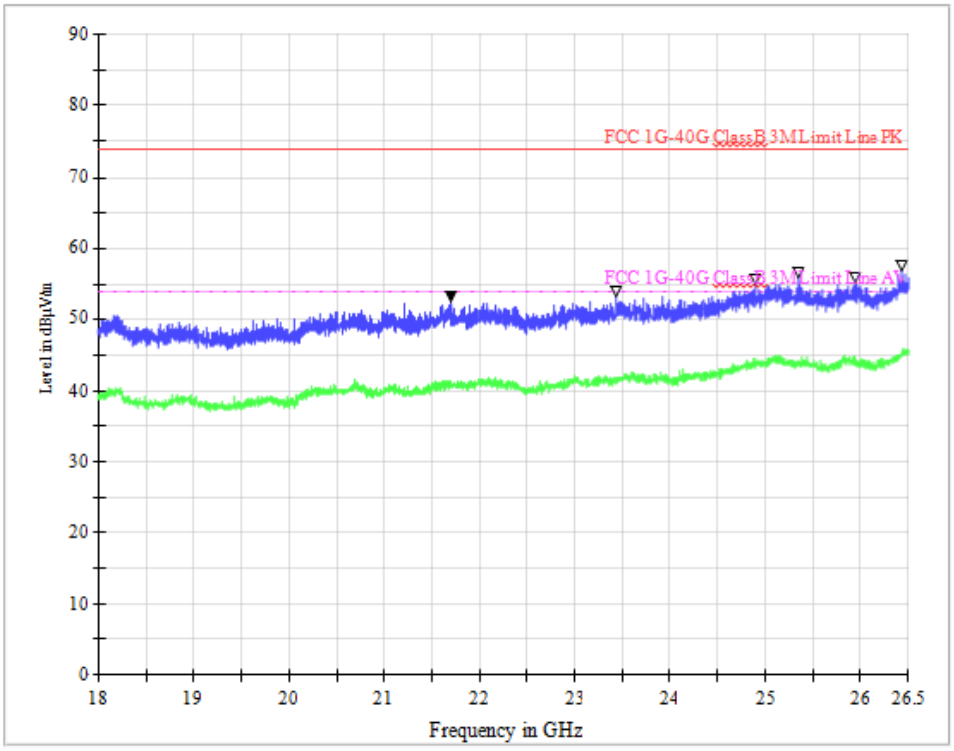
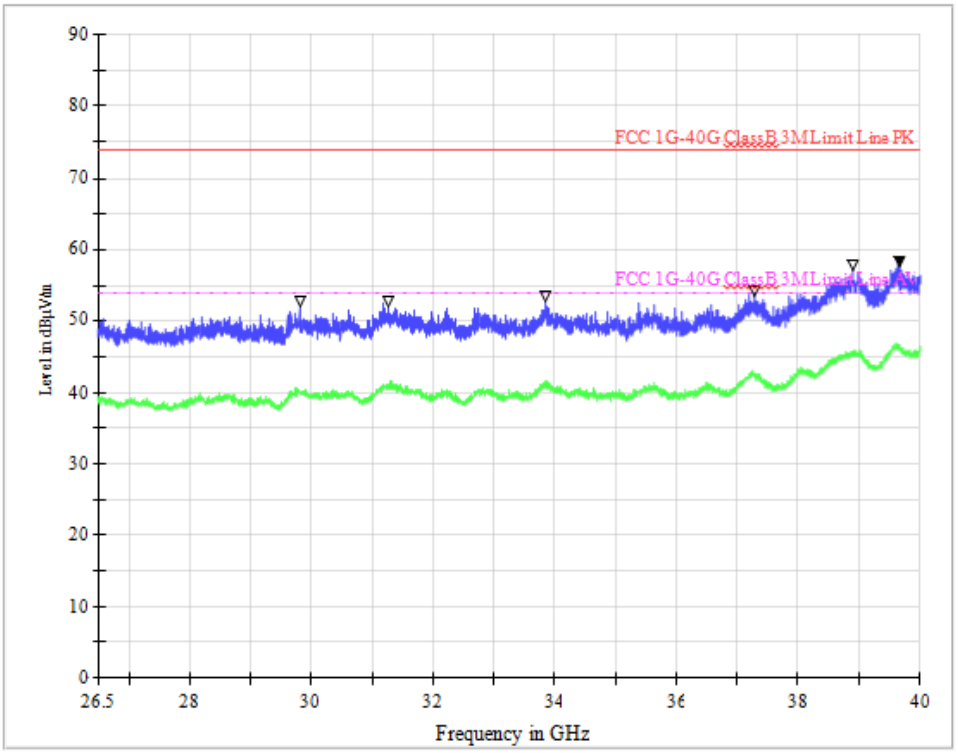
Level [dBµV/m]
Frequency [Hz]
1G
2G
3G
4G
5G
6G
8G
10G
18G
MES M0C5-17 PK HOR2
MES M0C5-17 AV HOR2
LIM FCC 74
LIM FCC 54


FCC 1G-40G ClassB 3MLimit Line PK
FCC 1G-40G ClassB 3MLimit Line AV
Level in dBµV/m
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
18
19
20
21
22
23
24
25
26
26.5


FCC 1G-40G ClassB 3MLimit Line PK
FCC 1G-40G ClassB 3MLimit Line AV
Level in dBµV/m
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
26.5
28
30
32
34
36
38
40

-Vertical

Frequency (MHz)	QuasiPeak (dBµV/m)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dBµV/m)	Limit (dBµV/m)
59.60	26.4	120	100	V	125	-17.1	13.6	40.0
104.68	23.4	120	100	V	52	-16.7	20.1	43.5
124.80	16.8	120	100	V	230	-19.4	26.7	43.5
246.08	23.4	120	100	V	145	-15.2	22.6	46.0
358.84	32.9	120	100	V	78	-12	13.1	46.0
399.08	34.5	120	100	V	226	-11.2	11.5	46.0

Frequency (MHz)	Peak (dBµV/m)	Peak limit (dBµV/m)	Peak Margin (dBµV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
2192.38	39.25	73.9	34.65	0.0	100.0	V
5356.85	41.98	73.9	31.92	0.0	100.0	V
6205.49	44.28	73.9	29.62	0.0	100.0	V
6596.52	44.11	73.9	29.79	0.0	100.0	V
14106.52	43.98	73.9	29.92	0.0	100.0	V
16156.25	43.91	73.9	29.99	0.0	100.0	V

Frequency (MHz)	Average (dBµV/m)	Average limit (dBµV/m)	Average Margin (dBµV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
2192.38	28.10	54.0	25.90	0.0	100.0	V
5356.85	29.52	54.0	24.48	0.0	100.0	V
6205.49	31.73	54.0	22.27	0.0	100.0	V
6596.52	31.92	54.0	22.08	0.0	100.0	V
14106.52	32.28	54.0	21.72	0.0	100.0	V
16156.25	32.82	54.0	21.18	0.0	100.0	V

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
20760	44	73.9	29.9	0.0	100.0	V
21965	45	73.9	28.9	0.0	100.0	V
22773	43.7	73.9	30.2	0.0	100.0	V
23703	45.2	73.9	28.7	0.0	100.0	V
25121	47.2	73.9	26.7	0.0	100.0	V
26432	48.3	73.9	25.6	0.0	100.0	V

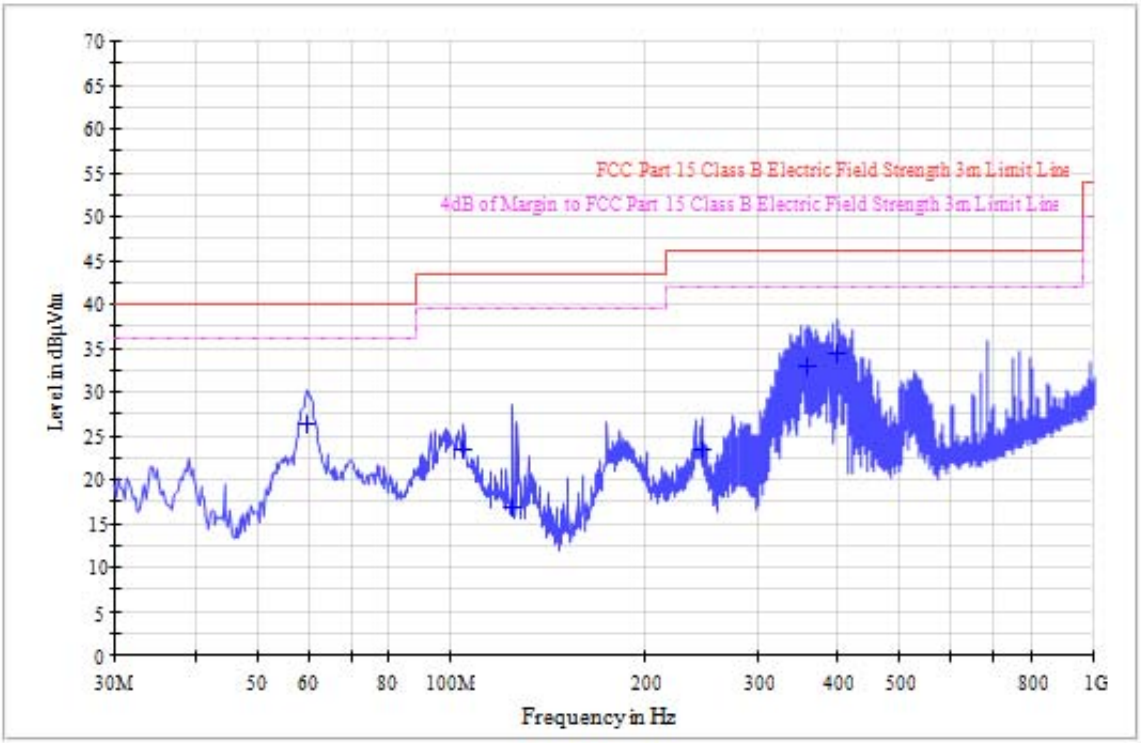
Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
20760	31.5	54.0	22.5	0.0	100.0	V
21965	32	54.0	22.0	0.0	100.0	V
22773	31.3	54.0	22.7	0.0	100.0	V
23703	32.4	54.0	21.6	0.0	100.0	V
25121	34.8	54.0	19.2	0.0	100.0	V
26432	35.8	54.0	18.2	0.0	100.0	V

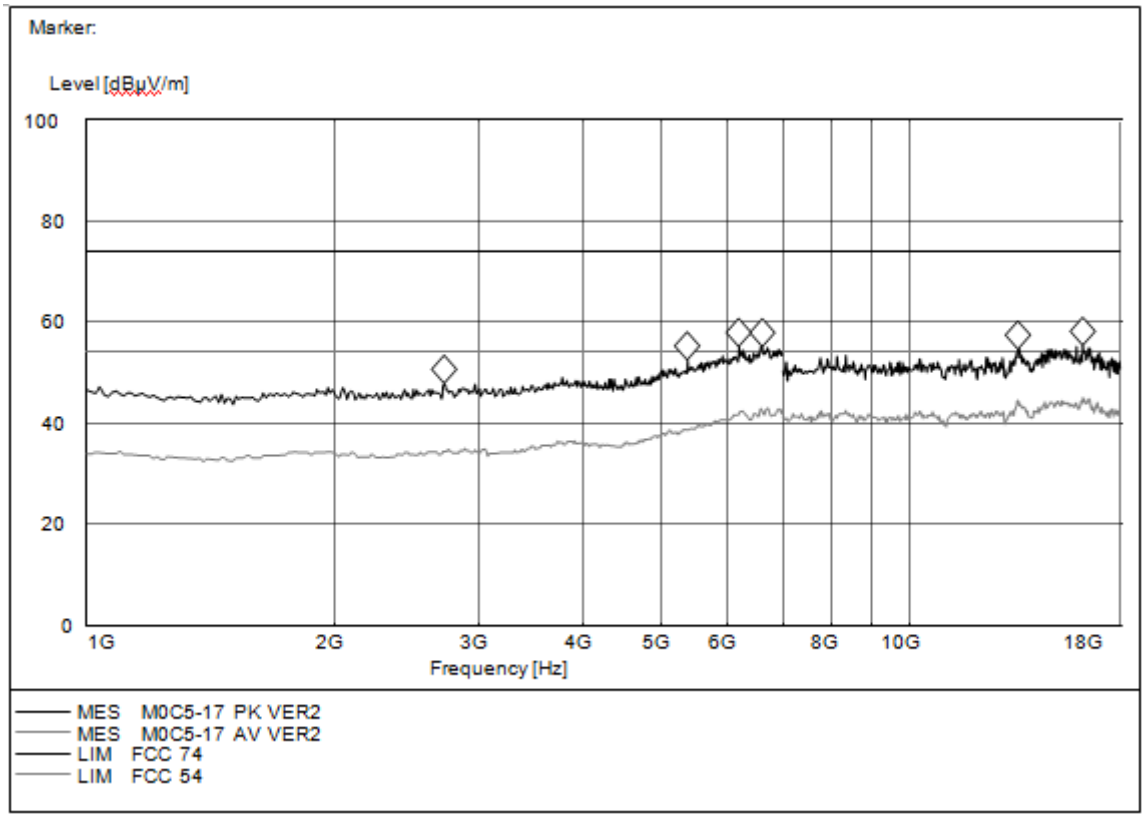
Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
29720	44.3	73.9	29.6	0.0	100.0	V
31201	44.7	73.9	29.2	0.0	100.0	V
33780	44.4	73.9	29.5	0.0	100.0	V
37347	44.6	73.9	29.3	0.0	100.0	V
38744	48.2	73.9	25.7	0.0	100.0	V
39581	47.9	73.9	26.0	0.0	100.0	V

Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
29720	31.5	54.0	22.5	0.0	100.0	V
31201	31.5	54.0	22.5	0.0	100.0	V
33780	31.4	54.0	22.6	0.0	100.0	V
37347	32.2	54.0	21.8	0.0	100.0	V
38744	35.9	54.0	18.1	0.0	100.0	V
39581	35.8	54.0	18.2	0.0	100.0	V

NOTE:

The minimum margin value is over 4dB.


FCC Part 15 Class B Electric Field Strength 3m Limit Line
4dB of Margin to FCC Part 15 Class B Electric Field Strength 3m Limit Line
Level in dBµV/m
Frequency in Hz
30M
50
60
80
100M
200
300
400
500
800
1G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Frequency [Hz]
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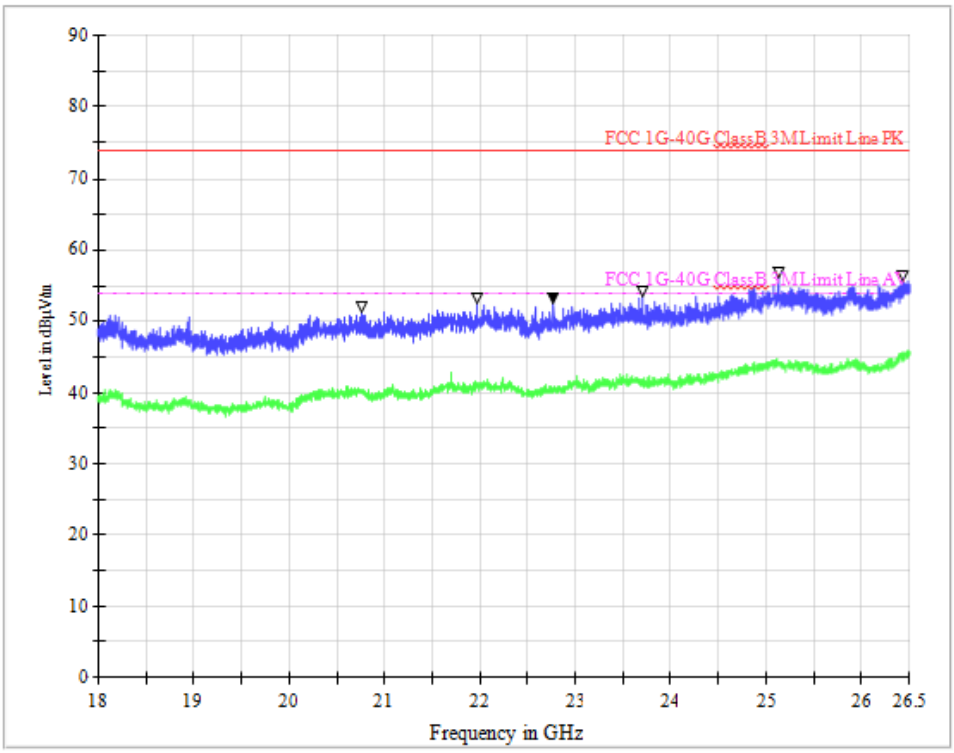
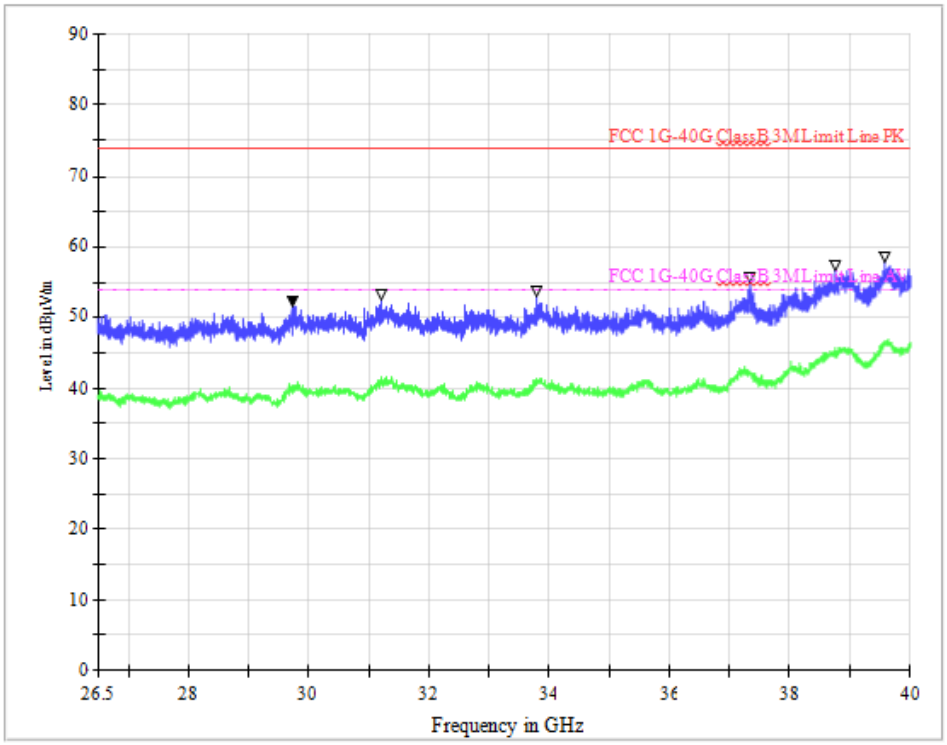
2G
3G
4G
5G
6G
8G
10G
18G
MES M0C5-17 PK VER2
MES M0C5-17 AV VER2
LIM FCC 74
LIM FCC 54


FCC 1G-40G ClassB 3MLimit Line PK
FCC 1G-40G ClassB 3MLimit Line AV
Level in dBµV/m
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
18
19
20
21
22
23
24
25
26
26.5


FCC 1G-40G ClassB 3MLimit Line PK
FCC 1G-40G ClassB 3MLimit Line AV
Level in dBµV/m
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
26.5
28
30
32
34
36
38
40

3. Radiated Emission Test data (WiFi Print Mode)

-Horizontal

Frequency (MHz)	QuasiPeak (dBμV/m)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dBμV/m)	Limit (dBμV/m)
89.16	23.6	120	300	H	98	-18	19.9	43.5
99.84	22.6	120	300	H	56	-16.4	20.9	43.5
249.96	24.8	120	300	H	55	-15	21.2	46.0
287.28	25.2	120	300	H	75	-14.1	20.8	46.0
341.84	31.0	120	300	H	66	-12.5	15	46.0
362.48	32.6	120	300	H	125	-12	13.4	46.0

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
1875.04	40.37	73.9	33.53	0.0	100.0	H
2896.53	41.98	73.9	31.92	0.0	100.0	H
5823.54	42.25	73.9	31.65	0.0	100.0	H
6762.59	44.52	73.9	29.38	0.0	100.0	H
15002.00	45.42	73.9	28.48	0.0	100.0	H
15982.36	45.12	73.9	28.78	0.0	100.0	H

Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
1875.04	26.59	54.0	27.41	0.0	100.0	H
2896.53	27.81	54.0	26.19	0.0	100.0	H
5823.54	28.17	54.0	25.83	0.0	100.0	H
6762.59	30.12	54.0	23.88	0.0	100.0	H
15002.00	30.59	54.0	23.41	0.0	100.0	H
15982.36	31.71	54.0	22.29	0.0	100.0	H

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
20714	44.7	73.9	29.2	0.0	100.0	H
23519	45.4	73.9	28.5	0.0	100.0	H
23682	45.1	73.9	28.8	0.0	100.0	H
24998	46.2	73.9	27.7	0.0	100.0	H
25888	47.2	73.9	26.7	0.0	100.0	H
26423	48.2	73.9	25.7	0.0	100.0	H

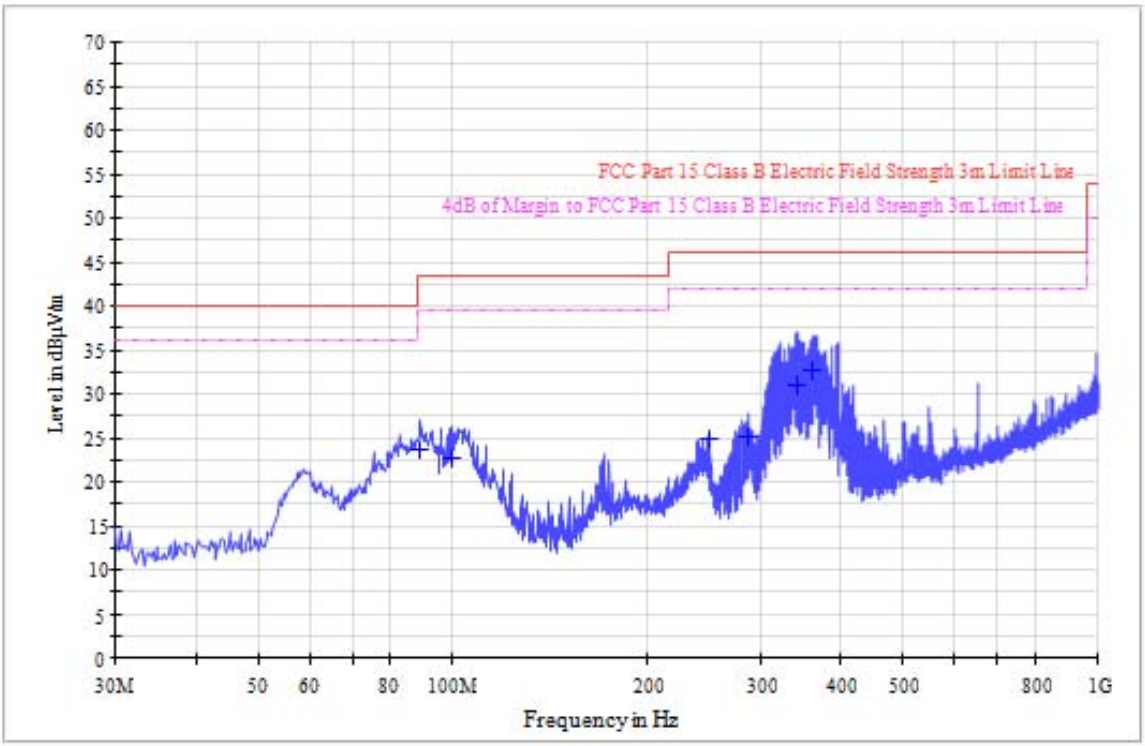
Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
20714	31.6	54.0	22.4	0.0	100.0	H
23519	32.6	54.0	21.4	0.0	100.0	H
23682	32.4	54.0	21.6	0.0	100.0	H
24998	34.2	54.0	19.8	0.0	100.0	H
25888	34.8	54.0	19.2	0.0	100.0	H
26423	35.7	54.0	18.3	0.0	100.0	H

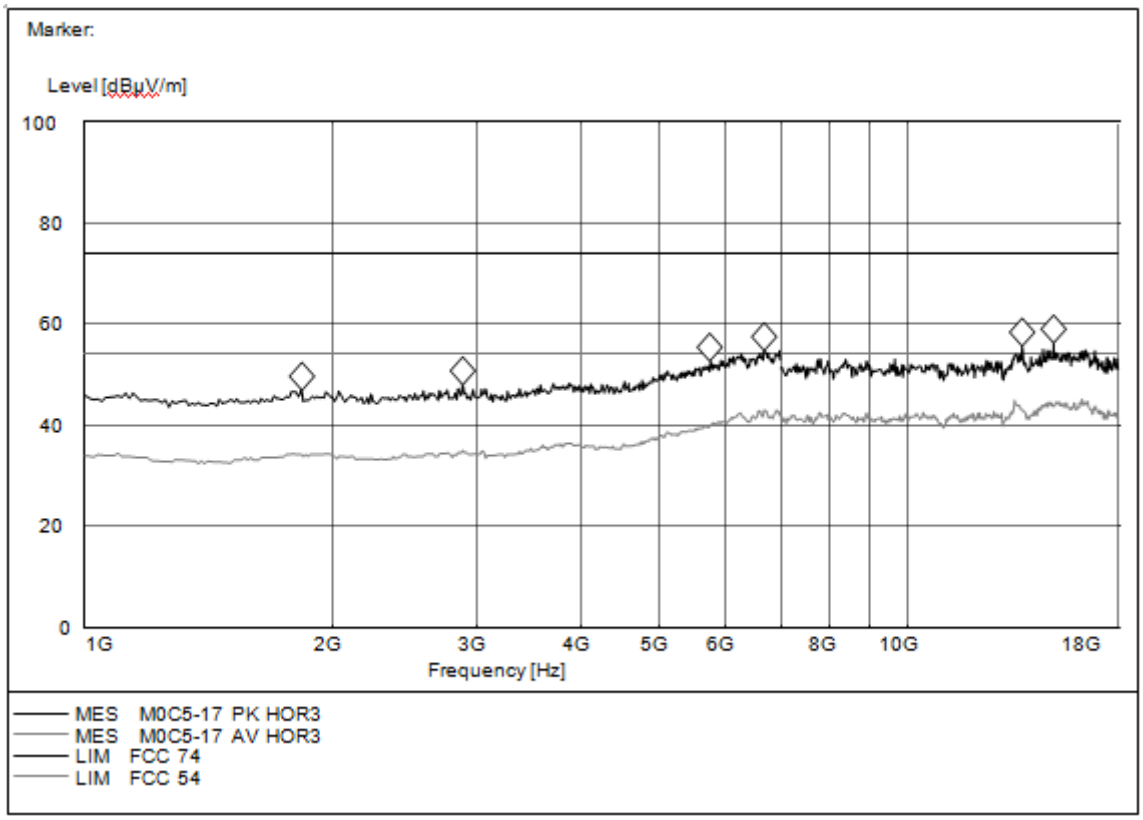
Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
31269	42.7	73.9	31.2	0.0	100.0	H
33817	43.1	73.9	30.8	0.0	100.0	H
35643	42.8	73.9	31.1	0.0	100.0	H
38042	45.2	73.9	28.7	0.0	100.0	H
38906	47.4	73.9	26.5	0.0	100.0	H
39649	48.2	73.9	25.7	0.0	100.0	H

Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
31269	30.2	54.0	23.8	0.0	100.0	H
33817	30.4	54.0	23.6	0.0	100.0	H
35643	30.1	54.0	23.9	0.0	100.0	H
38042	32.4	54.0	21.6	0.0	100.0	H
38906	34.9	54.0	19.1	0.0	100.0	H
39649	35.6	54.0	18.4	0.0	100.0	H

NOTE:

The minimum margin value is over 4dB.


FCC Part 15 Class B Electric Field Strength 3m Limit Line
4dB of Margin to FCC Part 15 Class B Electric Field Strength 3m Limit Line
Level in dBµV/m
Frequency in Hz
30M
50
60
80
100M
200
300
400
500
800
1G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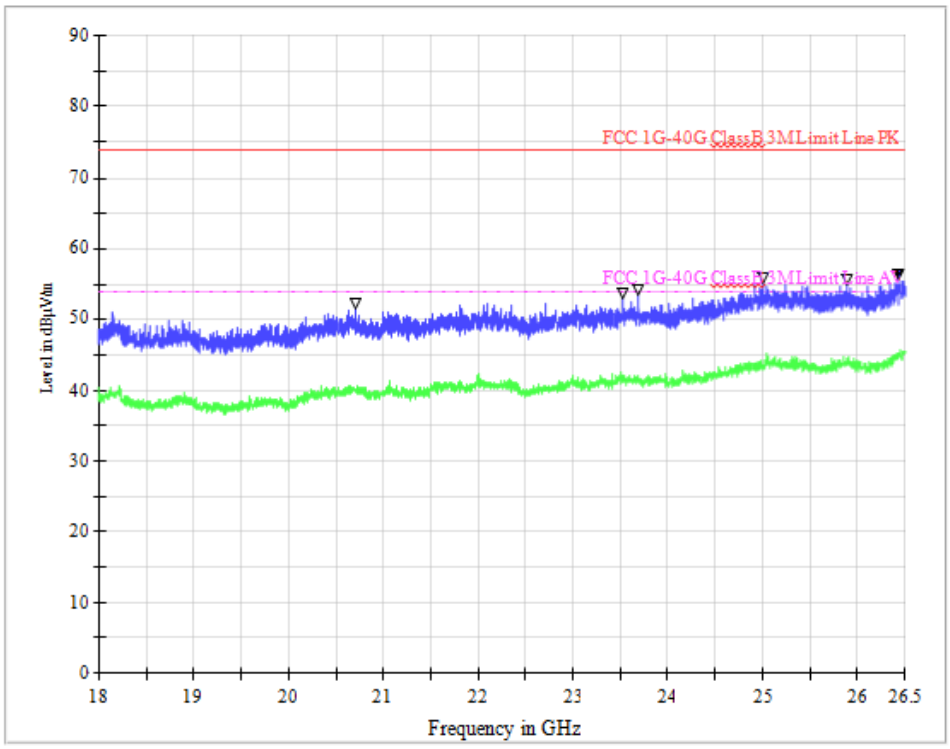
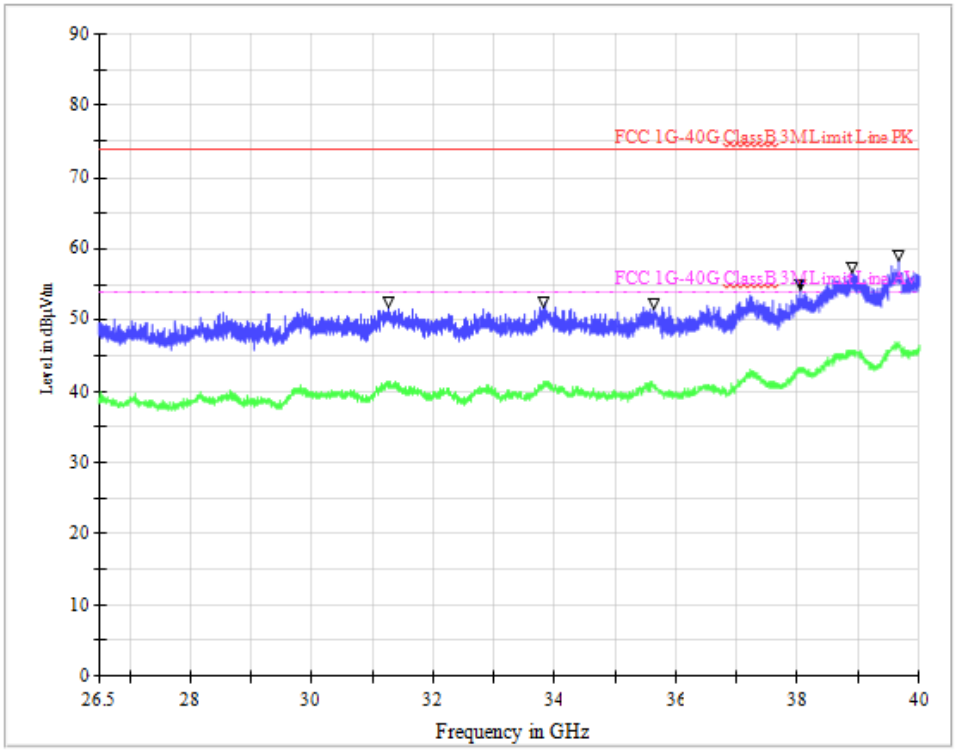
Frequency [Hz]
1G
2G
3G
4G
5G
6G
8G
10G
18G
MES M0C5-17 PK HOR3
MES M0C5-17 AV HOR3
LIM FCC 74
LIM FCC 54


FCC 1G-40G ClassB 3M Limit Line PK
FCC 1G-40G ClassB 3M Limit Line AV
Level in dBµV/m
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
18
19
20
21
22
23
24
25
26
26.5


FCC 1G-40G ClassB 3M Limit Line PK
FCC 1G-40G ClassB 3M Limit Line AV
Level in dBµV/m
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
26.5
28
30
32
34
36
38
40

-Vertical

Frequency (MHz)	QuasiPeak (dBµV/m)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dBµV/m)	Limit (dBµV/m)
59.36	26.4	120	100	V	25	-17.1	13.6	40.0
98.64	30.1	120	100	V	38	-16.4	13.4	43.5
284.88	27.5	120	100	V	86	-14.2	18.5	46.0
358.60	32.4	120	100	V	105	-12	13.6	46.0
402.72	36.4	120	100	V	226	-11.2	9.6	46.0
650.08	34.5	120	100	V	324	-6.1	11.5	46.0

Frequency (MHz)	Peak (dBµV/m)	Peak limit (dBµV/m)	Peak Margin (dBµV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
1785.32	40.81	73.9	33.09	0.0	100.0	V
3842.35	42.06	73.9	31.84	0.0	100.0	V
6236.86	43.84	73.9	30.06	0.0	100.0	V
6927.86	43.98	73.9	29.92	0.0	100.0	V
15531.48	43.23	73.9	30.67	0.0	100.0	V
16354.89	44.06	73.9	29.84	0.0	100.0	V

Frequency (MHz)	Average (dBµV/m)	Average limit (dBµV/m)	Average Margin (dBµV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
1785.32	29.25	54.0	24.75	0.0	100.0	V
3842.35	30.98	54.0	23.02	0.0	100.0	V
6236.86	31.82	54.0	22.18	0.0	100.0	V
6927.86	32.01	54.0	21.99	0.0	100.0	V
15531.48	32.57	54.0	21.43	0.0	100.0	V
16354.89	32.50	54.0	21.5	0.0	100.0	V

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
20329	43.9	73.9	30.0	0.0	100.0	V
21980	44.8	73.9	29.1	0.0	100.0	V
23478	45.1	73.9	28.8	0.0	100.0	V
25078	47.3	73.9	26.6	0.0	100.0	V
26213	47.6	73.9	26.3	0.0	100.0	V
26394	48	73.9	25.9	0.0	100.0	V

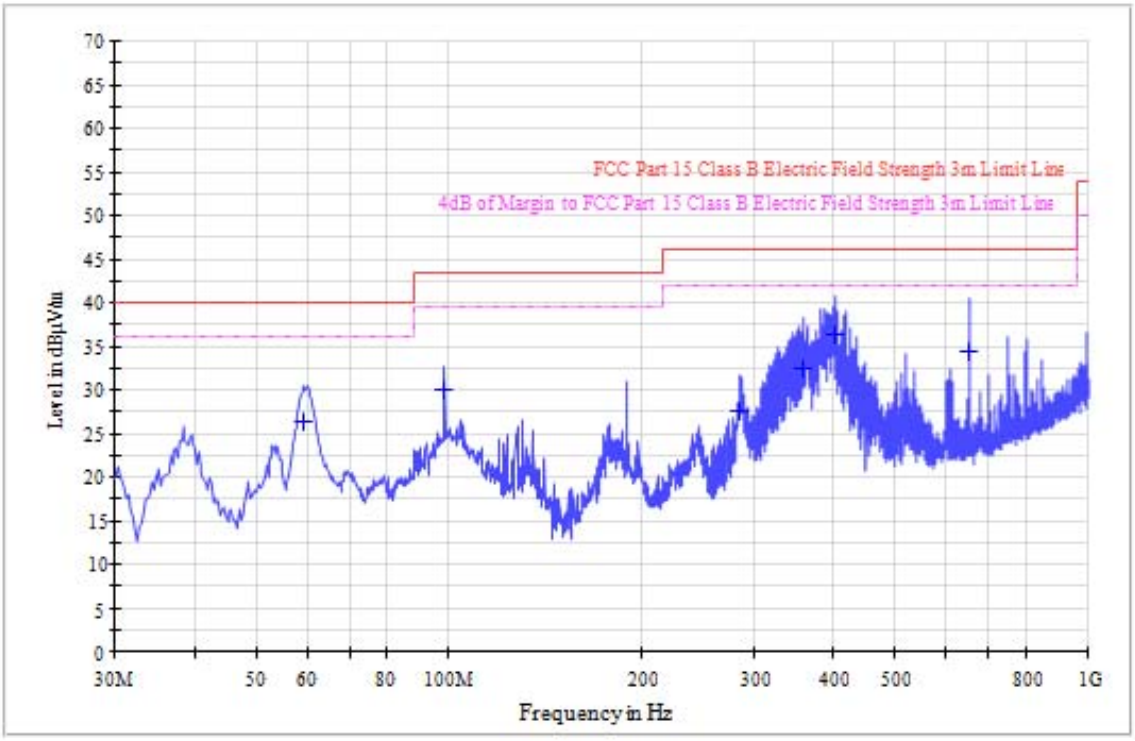
Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
20329	31.5	54.0	22.5	0.0	100.0	V
21980	32.2	54.0	21.8	0.0	100.0	V
23478	32.5	54.0	21.5	0.0	100.0	V
25078	34.8	54.0	19.2	0.0	100.0	V
26213	34.9	54.0	19.1	0.0	100.0	V
26394	35.4	54.0	18.6	0.0	100.0	V

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
31174	42.6	73.9	31.3	0.0	100.0	V
32858	42.5	73.9	31.4	0.0	100.0	V
33837	43.4	73.9	30.5	0.0	100.0	V
37357	44.1	73.9	29.8	0.0	100.0	V
38856	48.0	73.9	25.9	0.0	100.0	V
39635	48.1	73.9	25.8	0.0	100.0	V

Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
31174	30.0	54.0	24.0	0.0	100.0	V
32858	29.6	54.0	24.4	0.0	100.0	V
33837	30.5	54.0	23.5	0.0	100.0	V
37357	31.4	54.0	22.6	0.0	100.0	V
38856	34.9	54.0	19.1	0.0	100.0	V
39635	35.7	54.0	18.3	0.0	100.0	V

NOTE:

The minimum margin value is over 4dB.


FCC Part 15 Class B Electric Field Strength 3m Limit Line
4dB of Margin to FCC Part 15 Class B Electric Field Strength 3m Limit Line
Level in dBµV/m
Frequency in Hz
30M
50
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100M
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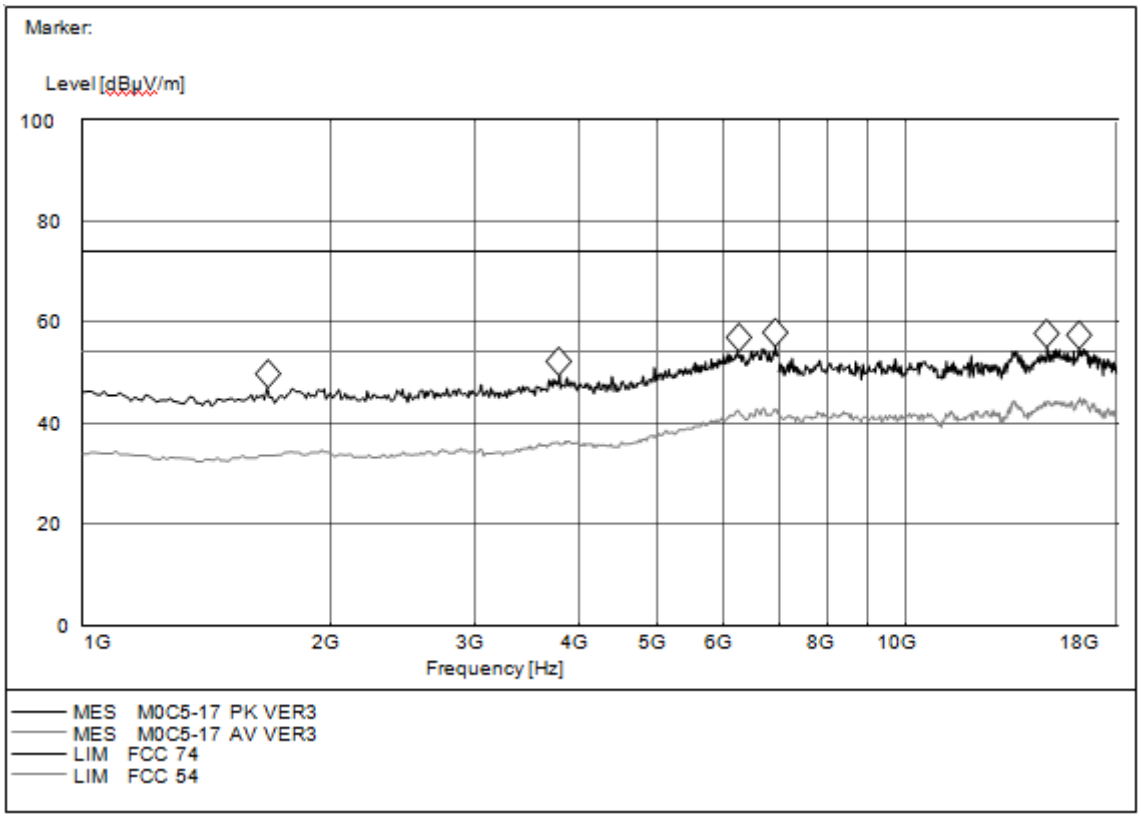
300
400
500
800
1G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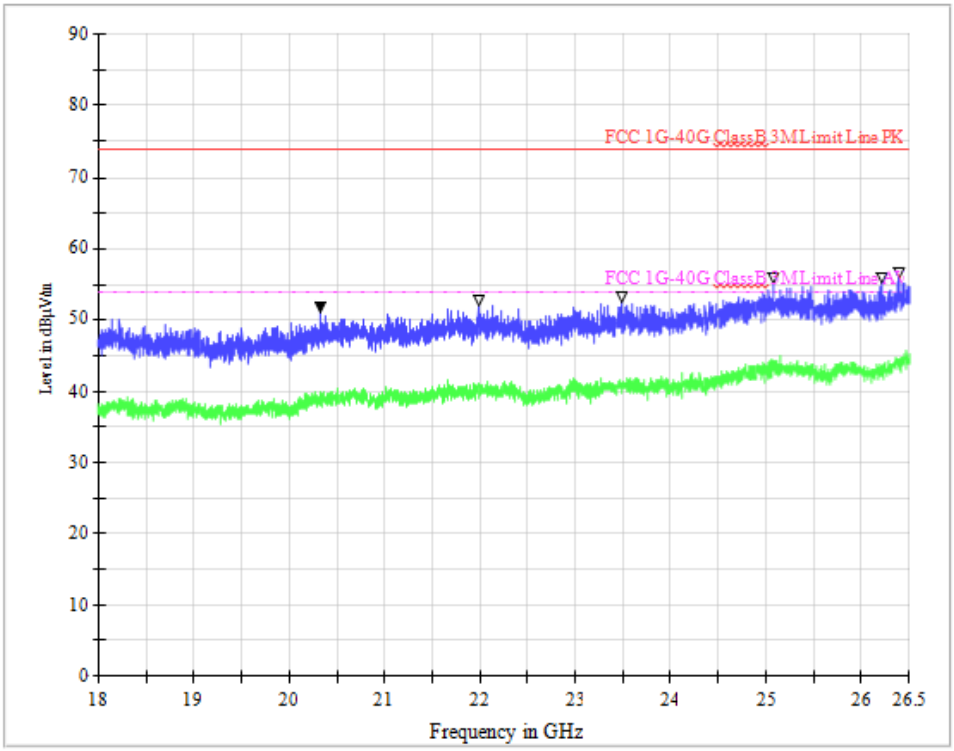
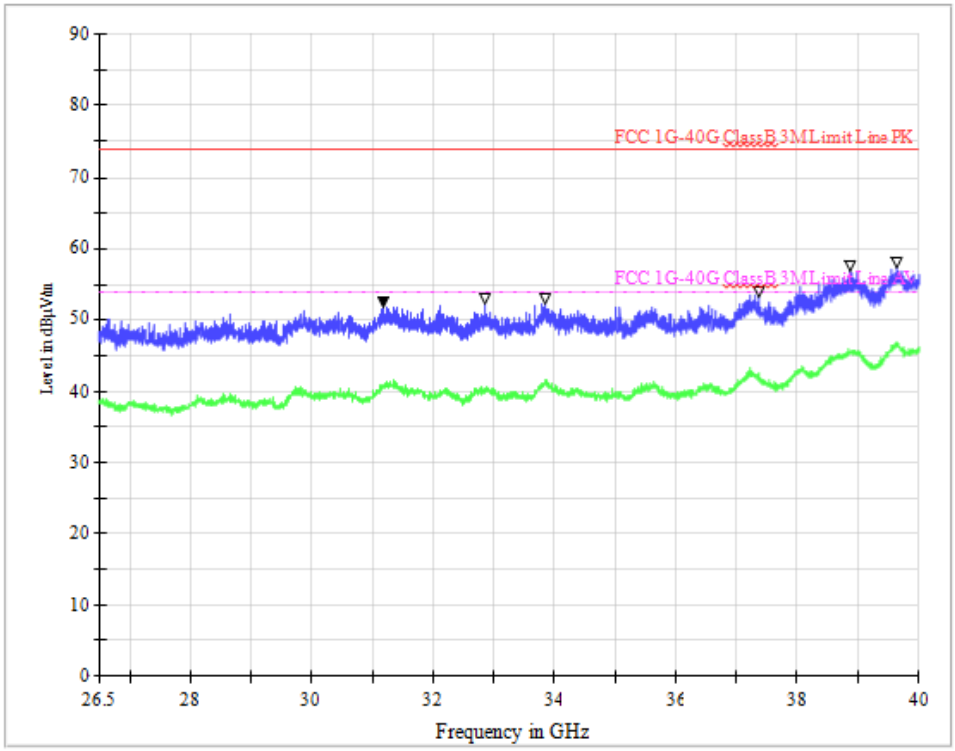
Frequency [Hz]
1G
2G
3G
4G
5G
6G
8G
10G
18G
MES M0C5-17 PK VER3
MES M0C5-17 AV VER3
LIM FCC 74
LIM FCC 54


FCC 1G-40G ClassB 3MLimit Line PK
FCC 1G-40G ClassB 3MLimit Line AV
Level in dBµV/m
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
18
19
20
21
22
23
24
25
26
26.5


FCC 1G-40G ClassB 3MLimit Line PK
FCC 1G-40G ClassB 3MLimit Line AV
Level in dBµV/m
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
26.5
28
30
32
34
36
38
40

4. Radiated Emission Test data (NIC Print Mode)

-Horizontal

Frequency (MHz)	QuasiPeak (dBμV/m)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dBμV/m)	Limit (dBμV/m)
58.12	17.5	120	400	H	56	-17.1	22.5	40.0
97.64	24.0	120	400	H	68	-16.5	19.5	43.5
124.80	23.8	120	400	H	95	-19.4	19.7	43.5
142.76	21.4	120	400	H	120	-20.6	22.1	43.5
282.44	24.3	120	400	H	230	-14.4	21.7	46.0
357.88	33.8	120	400	H	256	-12.1	12.2	46.0

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
1280.56	41.10	73.9	32.80	0.0	100.0	H
1823.56	41.38	73.9	32.52	0.0	100.0	H
6640.26	43.25	73.9	30.65	0.0	100.0	H
8001.57	43.28	73.9	30.62	0.0	100.0	H
14280.56	43.71	73.9	30.19	0.0	100.0	H
16788.36	43.86	73.9	30.04	0.0	100.0	H

Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
1280.56	28.17	54.0	25.83	0.0	100.0	H
1823.56	28.59	54.0	25.41	0.0	100.0	H
6640.26	30.25	54.0	23.75	0.0	100.0	H
8001.57	30.58	54.0	23.42	0.0	100.0	H
14280.56	30.96	54.0	23.04	0.0	100.0	H
16788.36	31.21	54.0	22.79	0.0	100.0	H

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
24141	45.3	73.9	28.6	0.0	100.0	H
24324	45.5	73.9	28.4	0.0	100.0	H
24823	46.6	73.9	27.3	0.0	100.0	H
25089	47.4	73.9	26.5	0.0	100.0	H
26026	47.5	73.9	26.4	0.0	100.0	H
26413	48.5	73.9	25.4	0.0	100.0	H

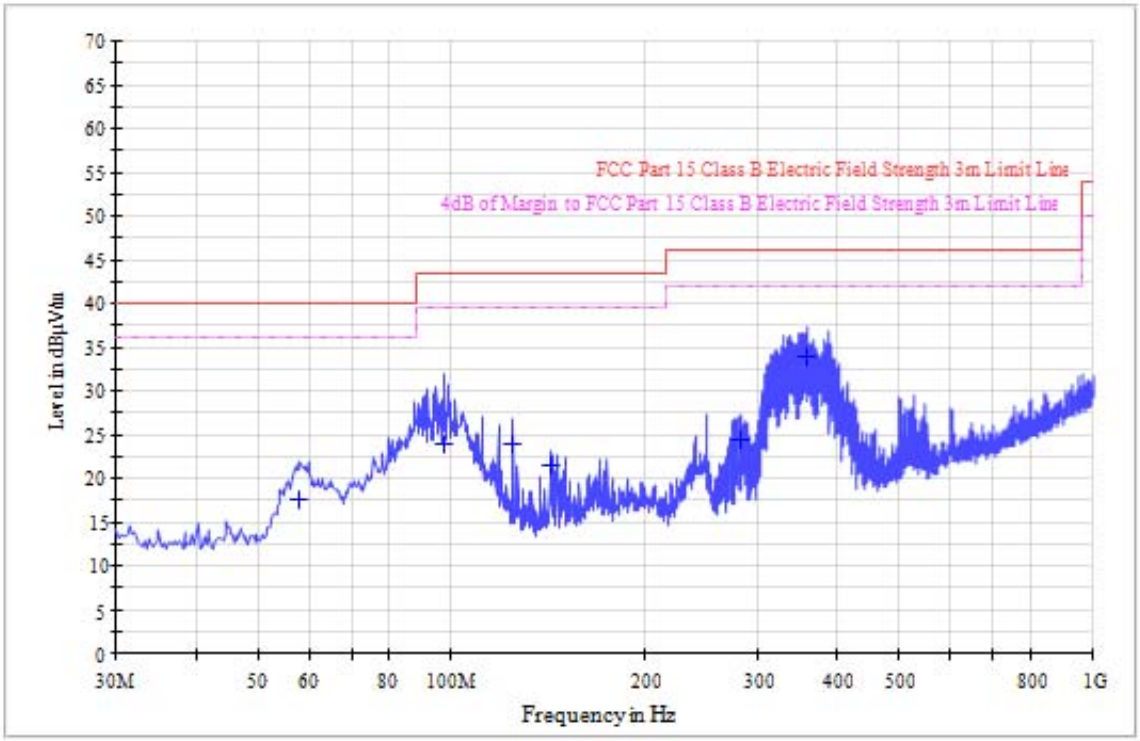
Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
24141	32.2	54.0	21.8	0.0	100.0	H
24324	32.2	54.0	21.8	0.0	100.0	H
24823	33.5	54.0	20.5	0.0	100.0	H
25089	34.1	54.0	19.9	0.0	100.0	H
26026	34.0	54.0	20.0	0.0	100.0	H
26413	35.3	54.0	18.7	0.0	100.0	H

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
31697	43.3	73.9	30.6	0.0	100.0	H
33888	44	73.9	29.9	0.0	100.0	H
37172	44.6	73.9	29.3	0.0	100.0	H
38059	45.4	73.9	28.5	0.0	100.0	H
38660	47.3	73.9	26.6	0.0	100.0	H
39625	48.5	73.9	25.4	0.0	100.0	H

Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
31697	30.6	54.0	23.4	0.0	100.0	H
33888	31.3	54.0	22.7	0.0	100.0	H
37172	32.1	54.0	21.9	0.0	100.0	H
38059	32.9	54.0	21.1	0.0	100.0	H
38660	34.7	54.0	19.3	0.0	100.0	H
39625	35.9	54.0	18.1	0.0	100.0	H

NOTE:

The minimum margin value is over 4dB.


FCC Part 15 Class B Electric Field Strength 3m Limit Line
4dB of Margin to FCC Part 15 Class B Electric Field Strength 3m Limit Line
Level in dBµV/m
Frequency in Hz
30M
50
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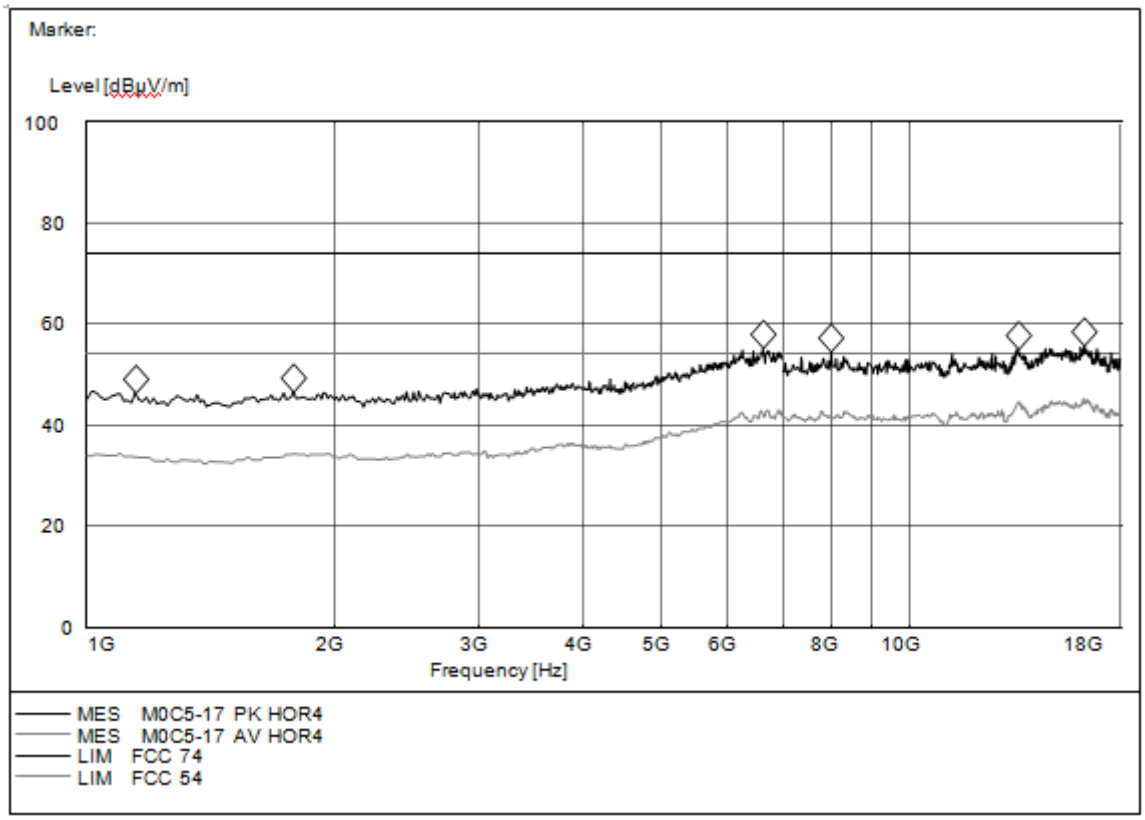
80
100M
200
300
400
500
800
1G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Frequency [Hz]
1G
2G
3G
4G
5G
6G
8G
10G
18G
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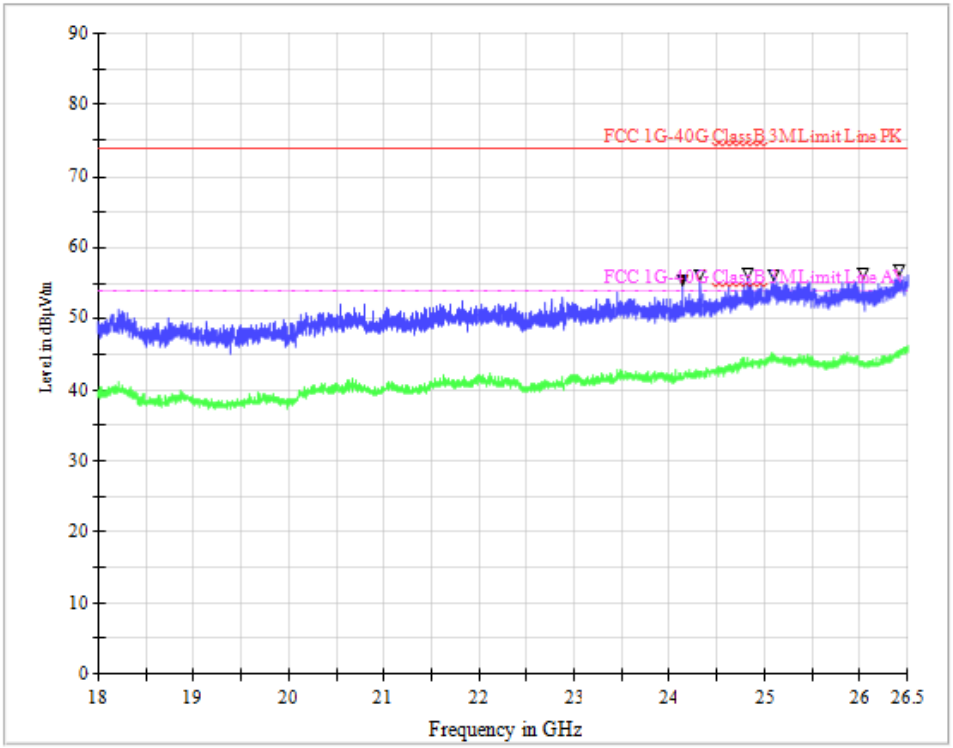
MES M0C5-17 AV HOR4
LIM FCC 74
LIM FCC 54


FCC 1G-40G ClassB 3MLimit Line PK
Level in dBµV/m
Frequency in GHz
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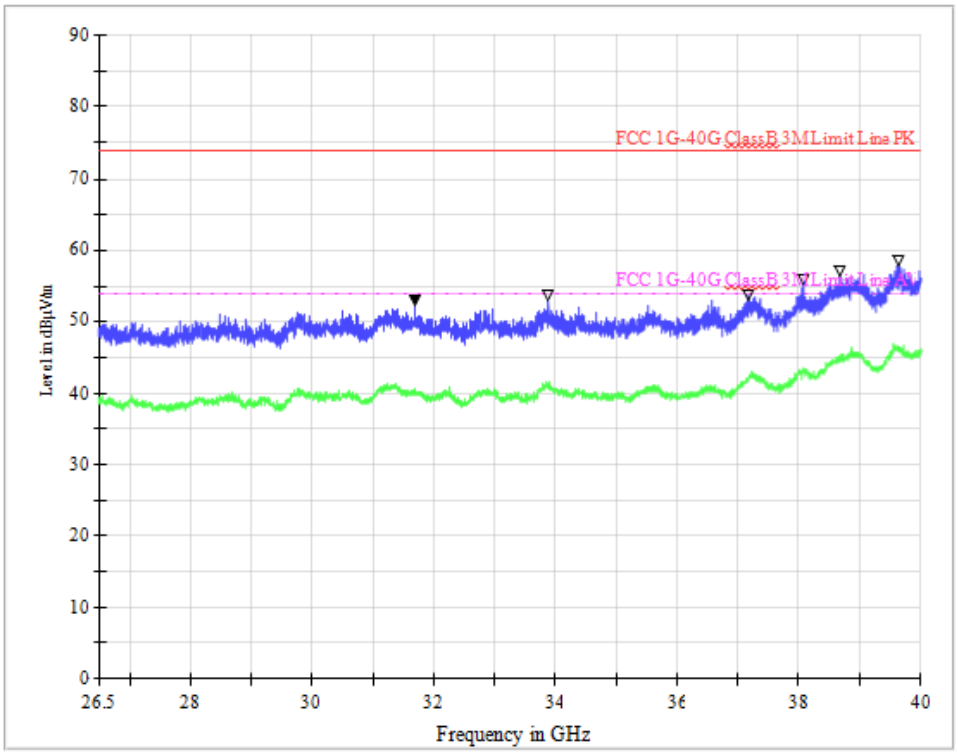
80
70
60
50
40
30
20
10
0
18
19
20
21
22
23
24
25
26
26.5


FCC 1G-40G ClassB 3MLimit Line PK
Level in dBµV/m
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
26.5
28
30
32
34
36
38
40

-Vertical

Frequency (MHz)	QuasiPeak (dBµV/m)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dBµV/m)	Limit (dBµV/m)
60.32	27.4	120	100	V	125	-17.3	12.6	40.0
98.88	26.2	120	100	V	86	-16.4	17.3	43.5
124.80	28.1	120	100	V	23	-19.4	15.4	43.5
344.28	32.1	120	100	V	45	-12.5	13.9	46.0
402.72	34.6	120	100	V	226	-11.2	11.4	46.0
603.28	33.8	120	100	V	95	-6.7	12.2	46.0

Frequency (MHz)	Peak (dBµV/m)	Peak limit (dBµV/m)	Peak Margin (dBµV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
1855.72	40.83	73.9	33.07	0.0	100.0	V
3852.31	41.48	73.9	32.42	0.0	100.0	V
6235.68	44.19	73.9	29.71	0.0	100.0	V
8325.47	43.43	73.9	30.47	0.0	100.0	V
10855.71	43.22	73.9	30.68	0.0	100.0	V
14756.26	44.71	73.9	29.19	0.0	100.0	V

Frequency (MHz)	Average (dBµV/m)	Average limit (dBµV/m)	Average Margin (dBµV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
1855.72	28.10	54.0	25.90	0.0	100.0	V
3852.31	28.61	54.0	25.39	0.0	100.0	V
6235.68	31.52	54.0	22.48	0.0	100.0	V
8325.47	30.92	54.0	23.08	0.0	100.0	V
10855.71	30.75	54.0	23.25	0.0	100.0	V
14756.26	31.77	54.0	22.23	0.0	100.0	V

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
22010	44.8	73.9	29.1	0.0	100.0	V
22862	45.3	73.9	28.6	0.0	100.0	V
23967	45.1	73.9	28.8	0.0	100.0	V
24781	47.3	73.9	26.6	0.0	100.0	V
25376	46.9	73.9	27.0	0.0	100.0	V
26413	48.2	73.9	25.7	0.0	100.0	V

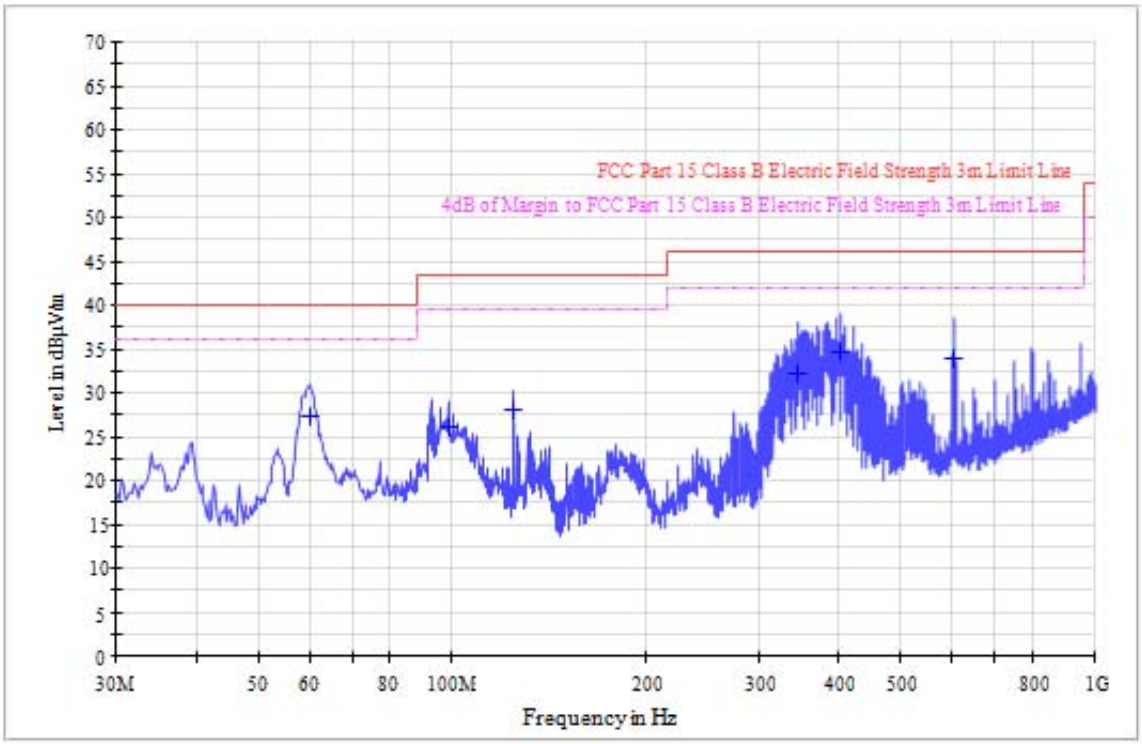
Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
24141	32.3	54.0	21.7	0.0	100.0	V
24324	31.6	54.0	22.4	0.0	100.0	V
24823	32.7	54.0	21.3	0.0	100.0	V
25089	34.1	54.0	19.9	0.0	100.0	V
26026	34.5	54.0	19.5	0.0	100.0	V
26413	35.8	54.0	18.2	0.0	100.0	V

Frequency (MHz)	Peak (dBμV/m)	Peak limit (dBμV/m)	Peak Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
30115	43.5	73.9	30.4	0.0	100.0	V
31292	45.3	73.9	28.6	0.0	100.0	V
34060	43.6	73.9	30.3	0.0	100.0	V
37340	44.5	73.9	29.4	0.0	100.0	V
38971	47.3	73.9	26.6	0.0	100.0	V
39666	48.4	73.9	25.5	0.0	100.0	V

Frequency (MHz)	Average (dBμV/m)	Average limit (dBμV/m)	Average Margin (dBμV/m)	Turntable position (deg)	Ant. height (cm)	Polarity
30115	31	54.0	23.0	0.0	100.0	V
31292	31.5	54.0	22.5	0.0	100.0	V
34060	31.7	54.0	22.3	0.0	100.0	V
37340	32	54.0	22.0	0.0	100.0	V
38971	35.2	54.0	18.8	0.0	100.0	V
39666	35.6	54.0	18.4	0.0	100.0	V

NOTE:

The minimum margin value is over 4dB.


FCC Part 15 Class B Electric Field Strength 3m Limit Line
4dB of Margin to FCC Part 15 Class B Electric Field Strength 3m Limit Line
Level in dBµV/m
Frequency in Hz
30M
50
60
80
100M
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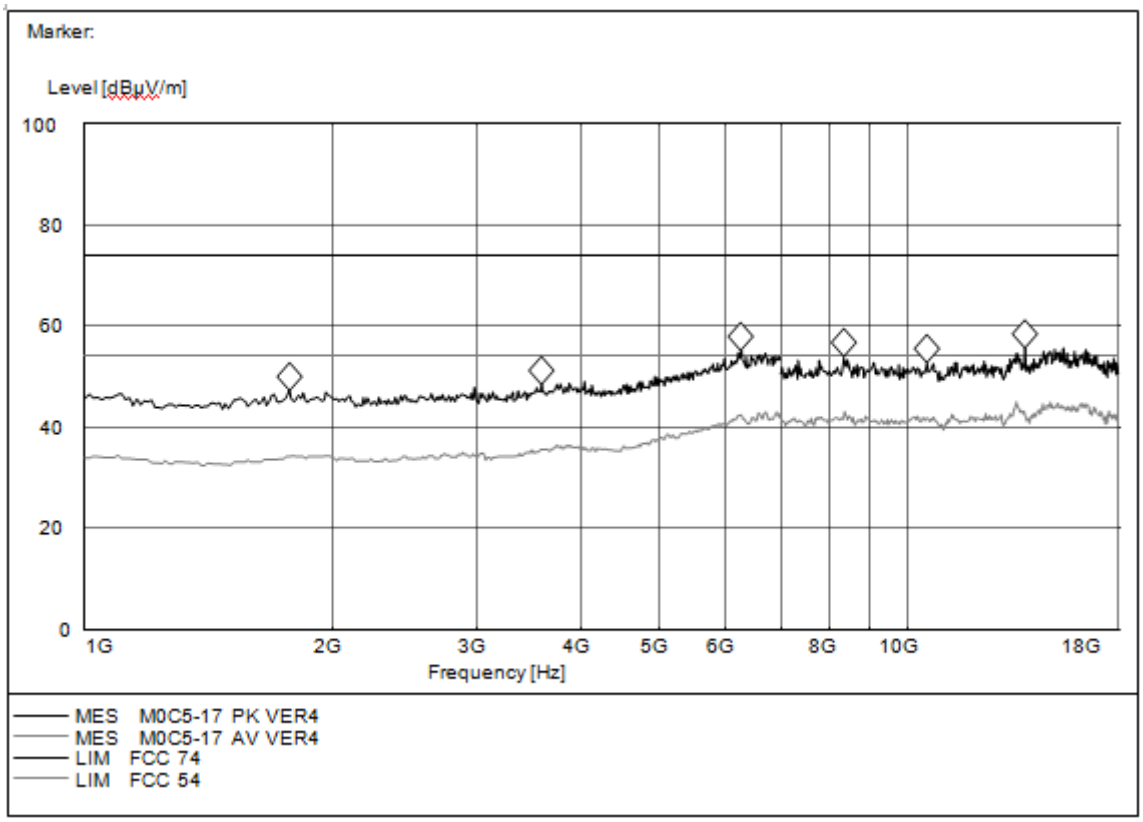
300
400
500
800
1G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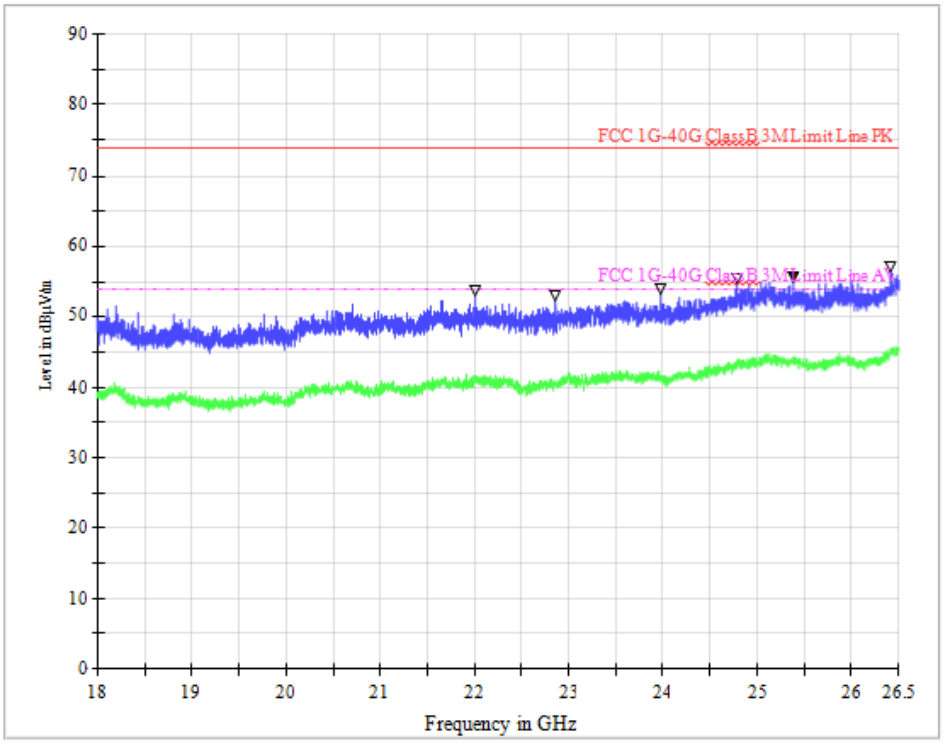
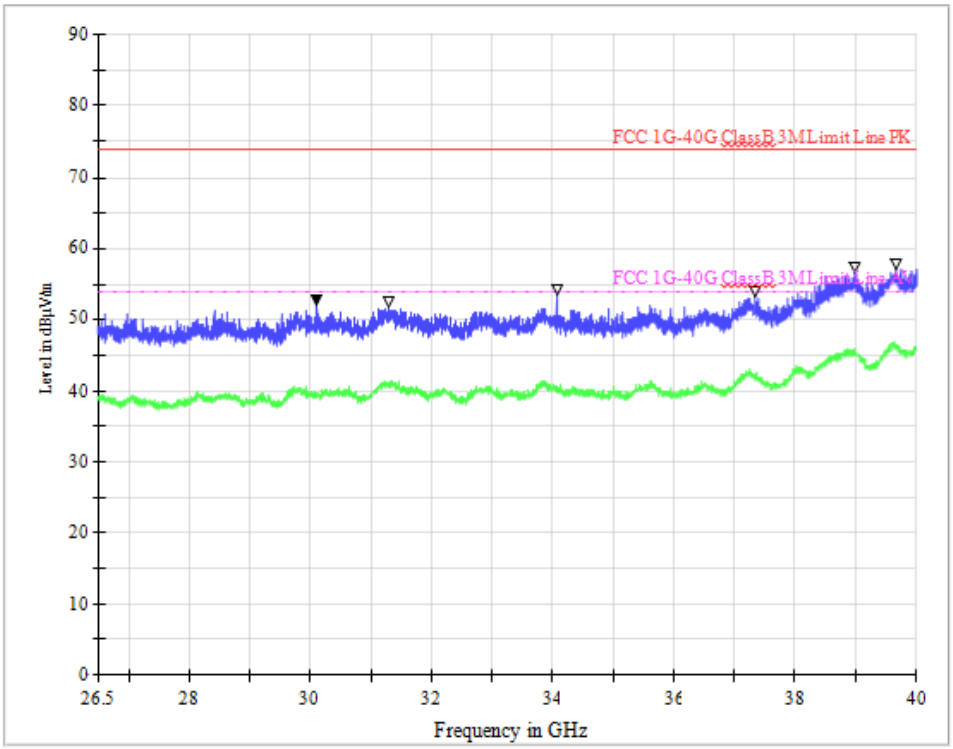
Level [dBµV/m]
Frequency [Hz]
1G
2G
3G
4G
5G
6G
8G
10G
18G
MES M0C5-17 PK VER4
MES M0C5-17 AV VER4
LIM FCC 74
LIM FCC 54


FCC 1G-40G ClassB 3MLimit Line PK
FCC 1G-40G ClassB 3MLimit Line AV
Level in dBµV/m
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
18
19
20
21
22
23
24
25
26
26.5

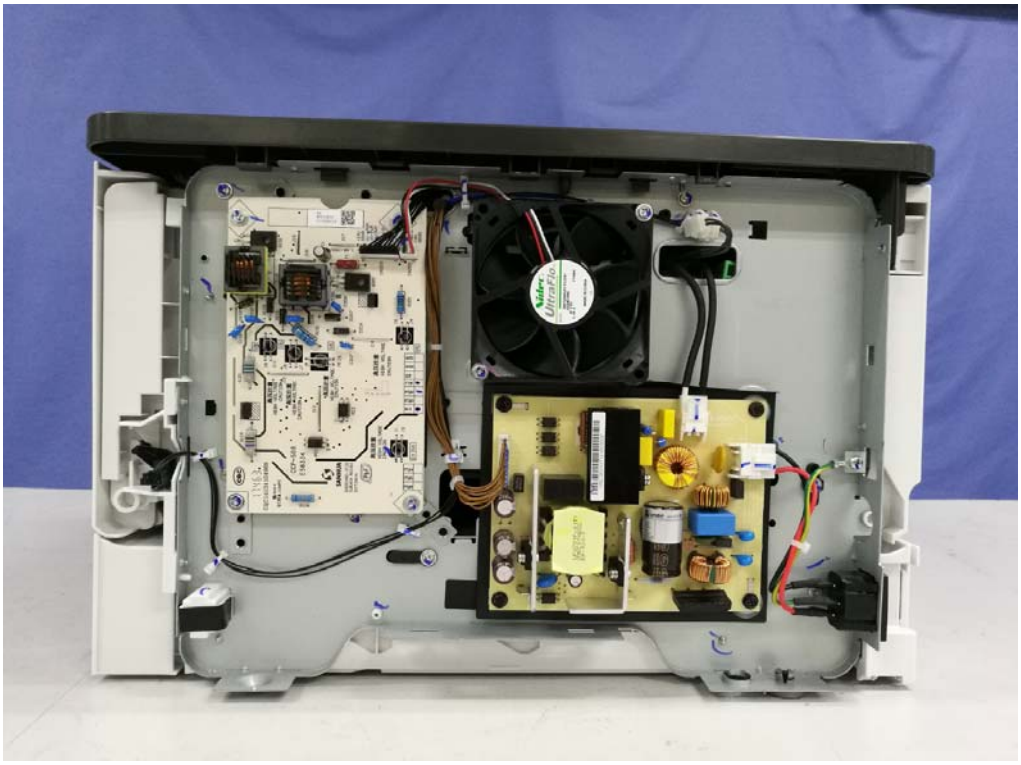

FCC 1G-40G ClassB 3MLimit Line PK
Level in dBµV/m
Frequency in GHz
90
80
70
60
50
40
30
20
10
0
26.5
28
30
32
34
36
38
40

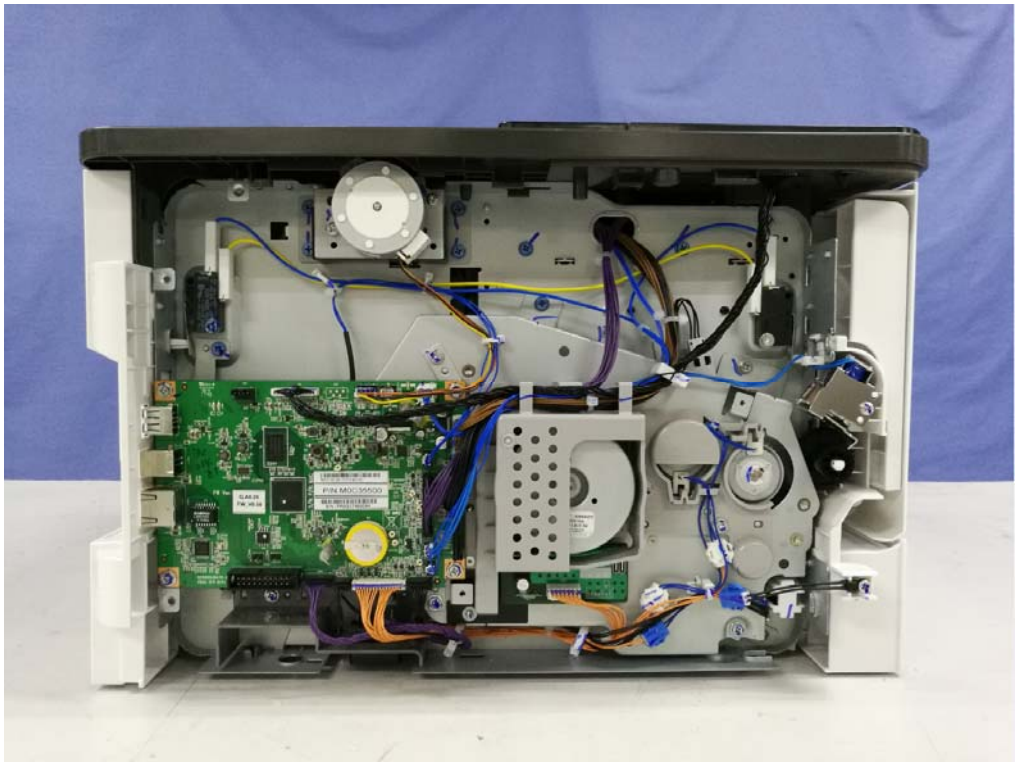
Appendix I：Photographs of the EUT

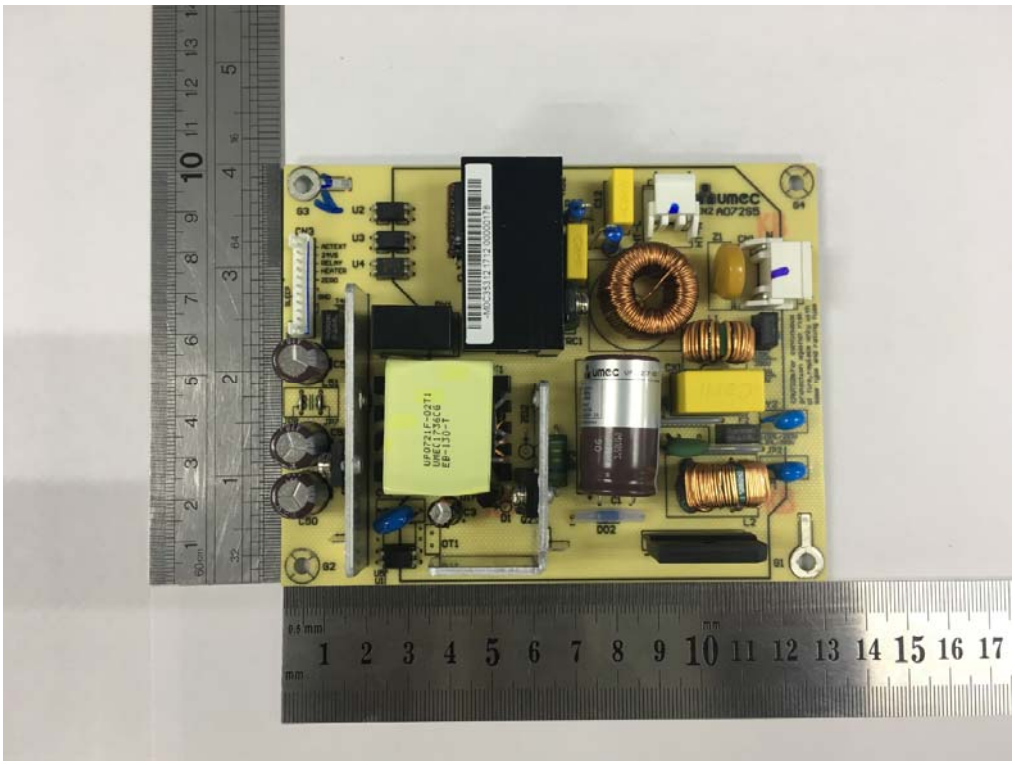
1. Appearance

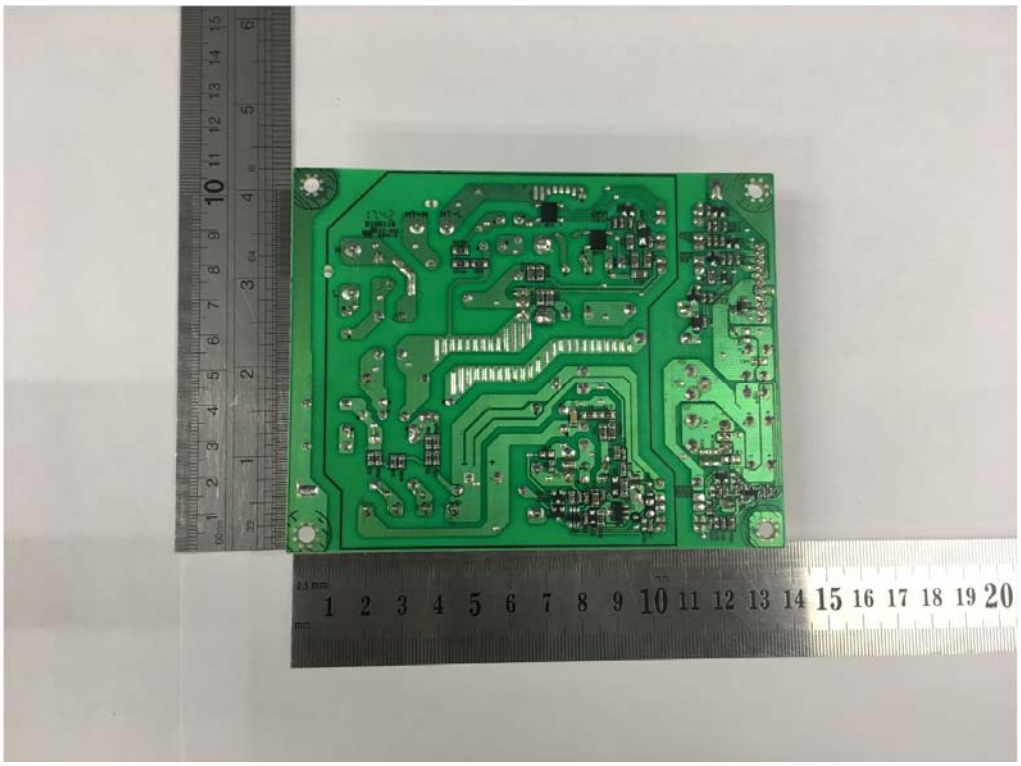
13kg

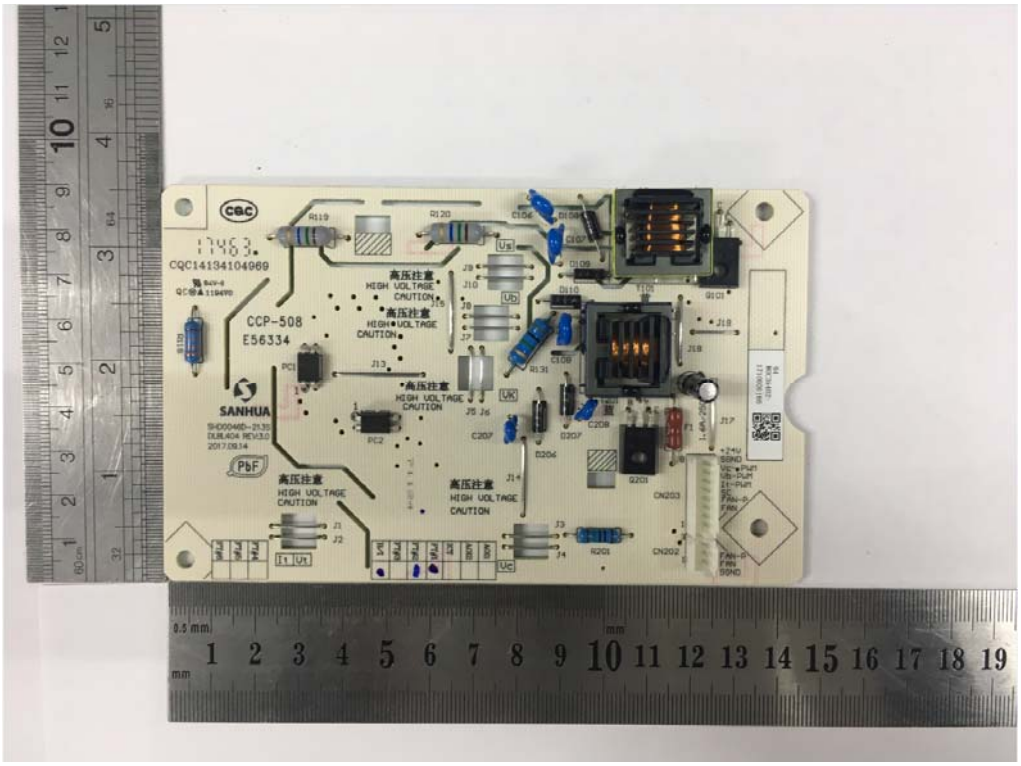
2.Inside







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E56334
SANHUA
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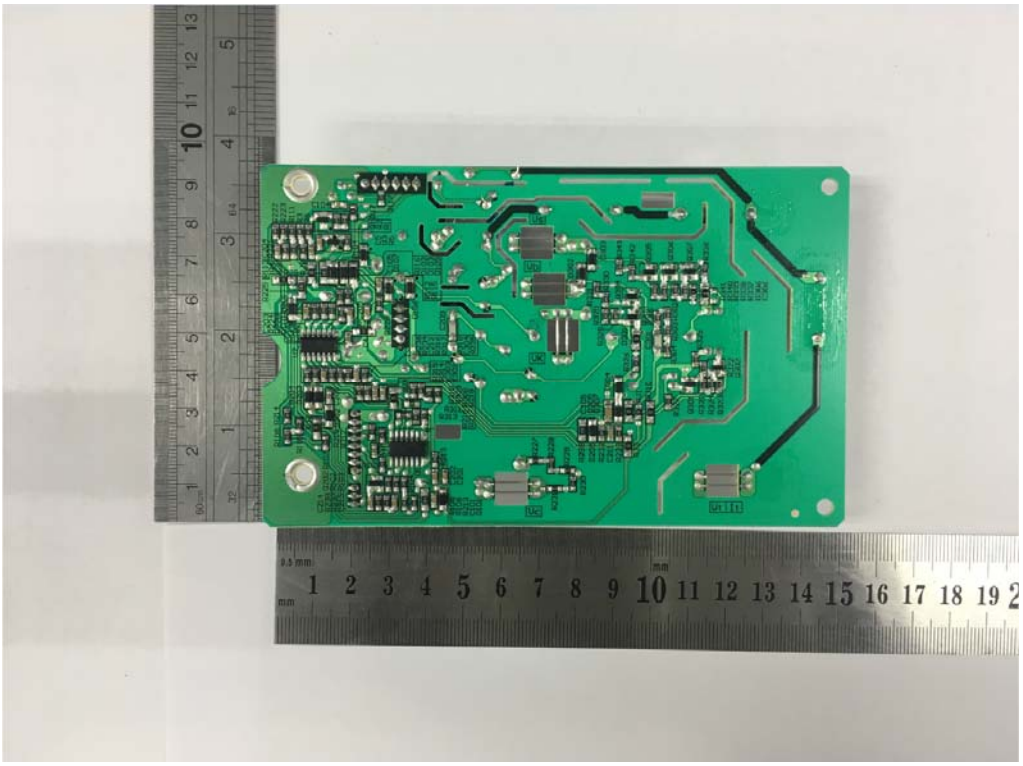
HIGH VOLTAGE CAUTION



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FW_V0.50
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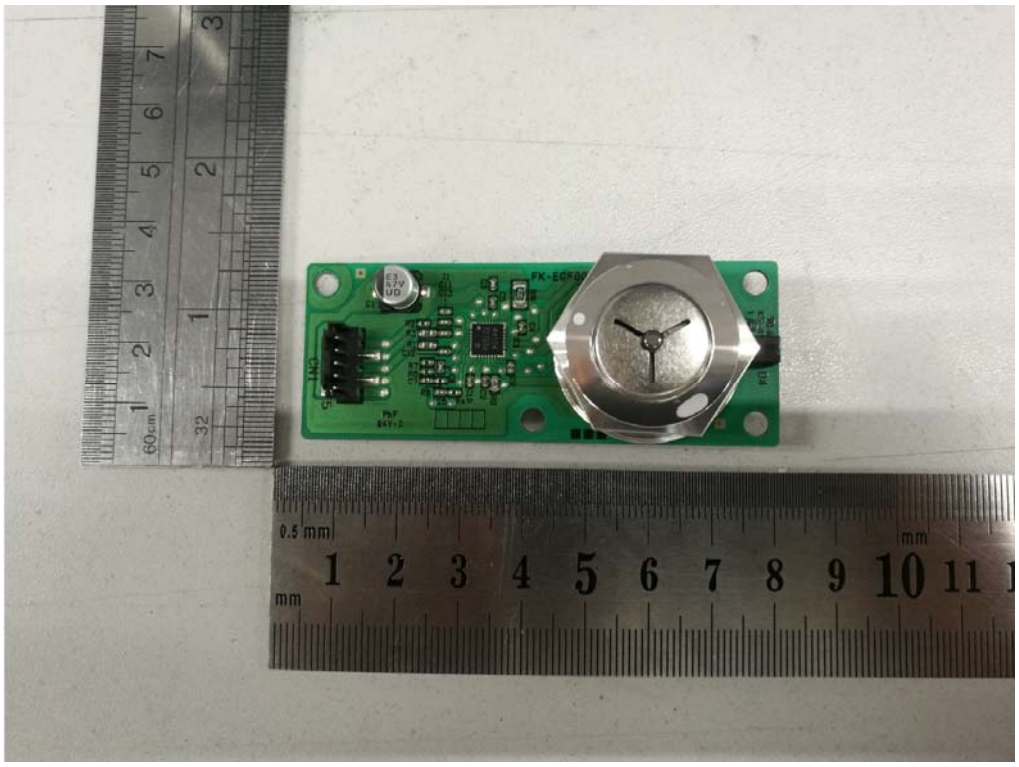
S/N:PRXS17490084
EU only



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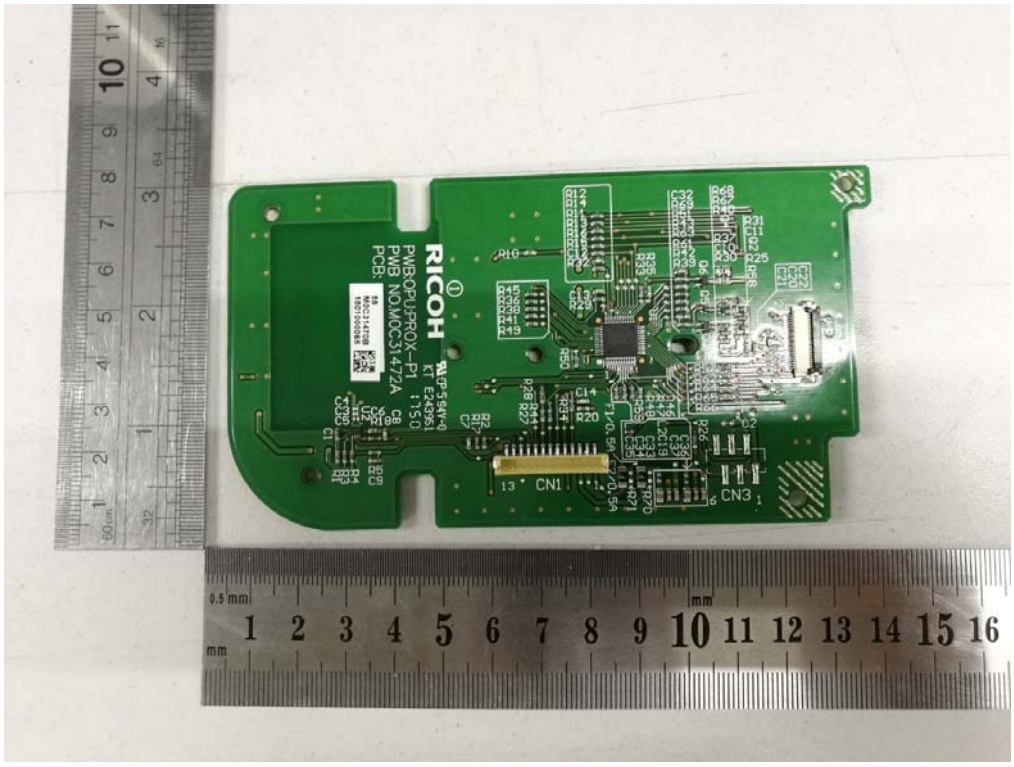
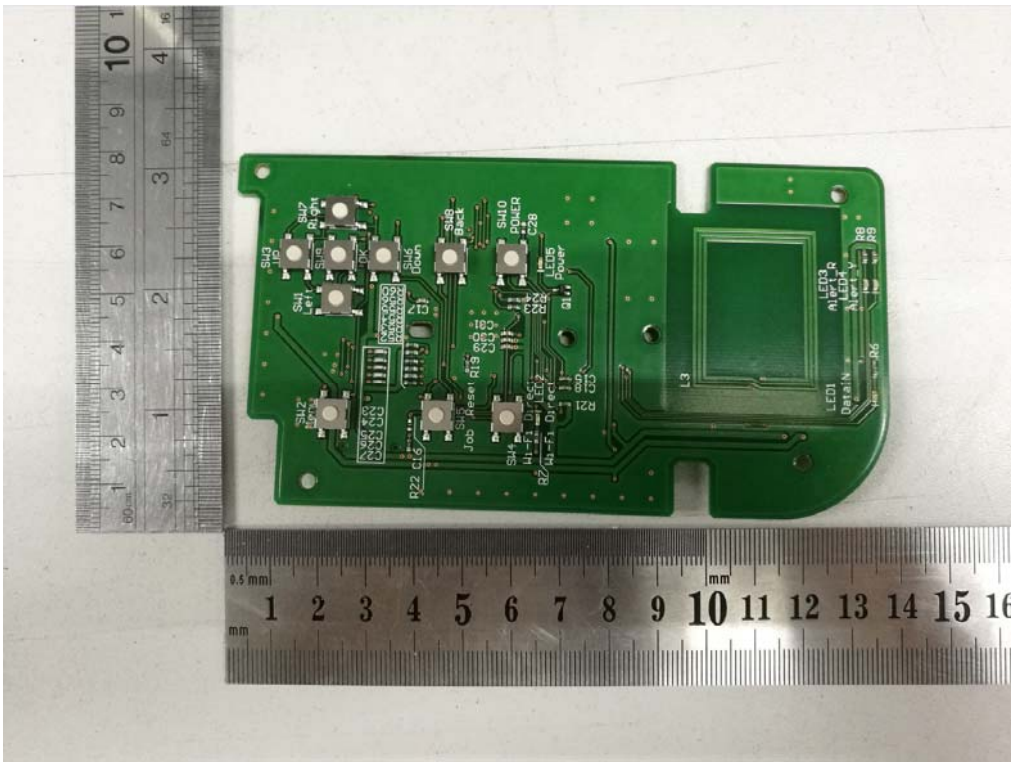
MA506NF14RR 2477Z8
PINEBER


RICOH
PWB:
PWB NO.MOC31472A
CN1
CN3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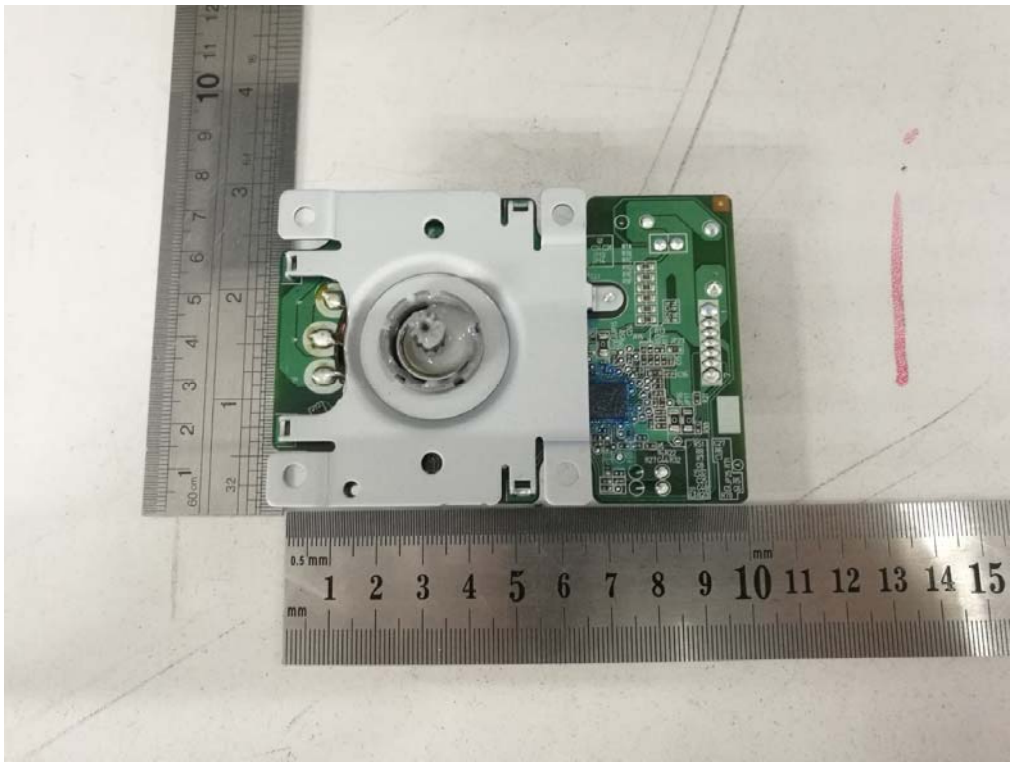
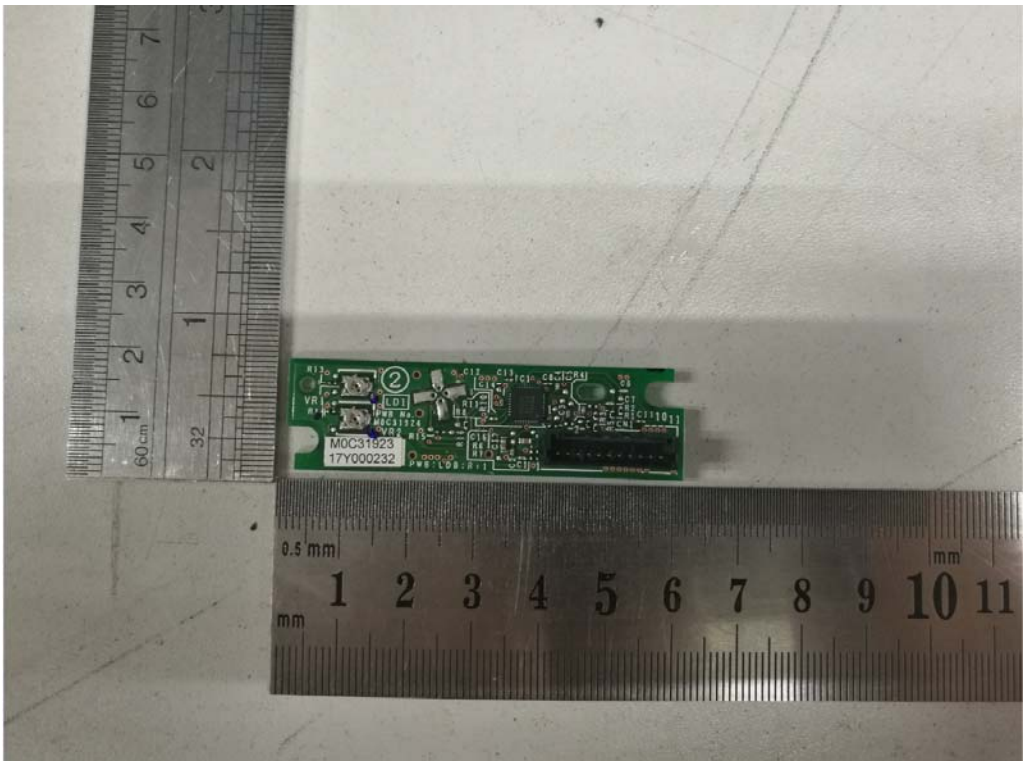
SW8
SW10
POWER
SW3
SW4
SW1
SW2
LED1
LED3
LED4
LED5
Power

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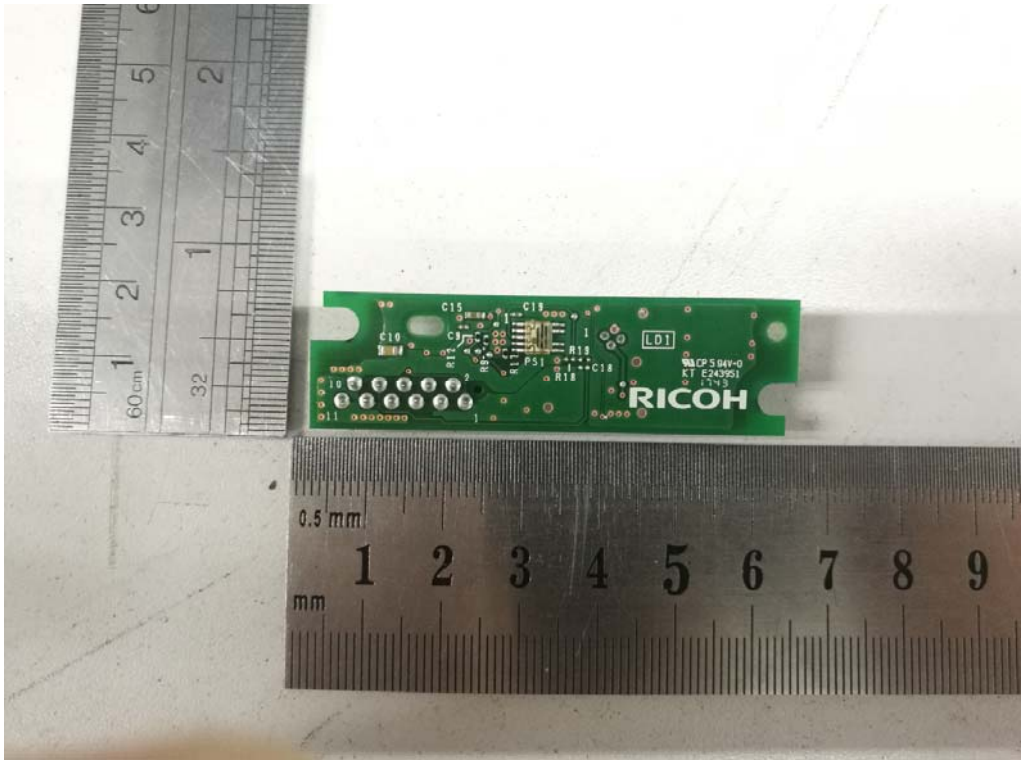
mm
1 2 3 4 5 6 7 8 9 10 11


LD1
RICOH
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mm
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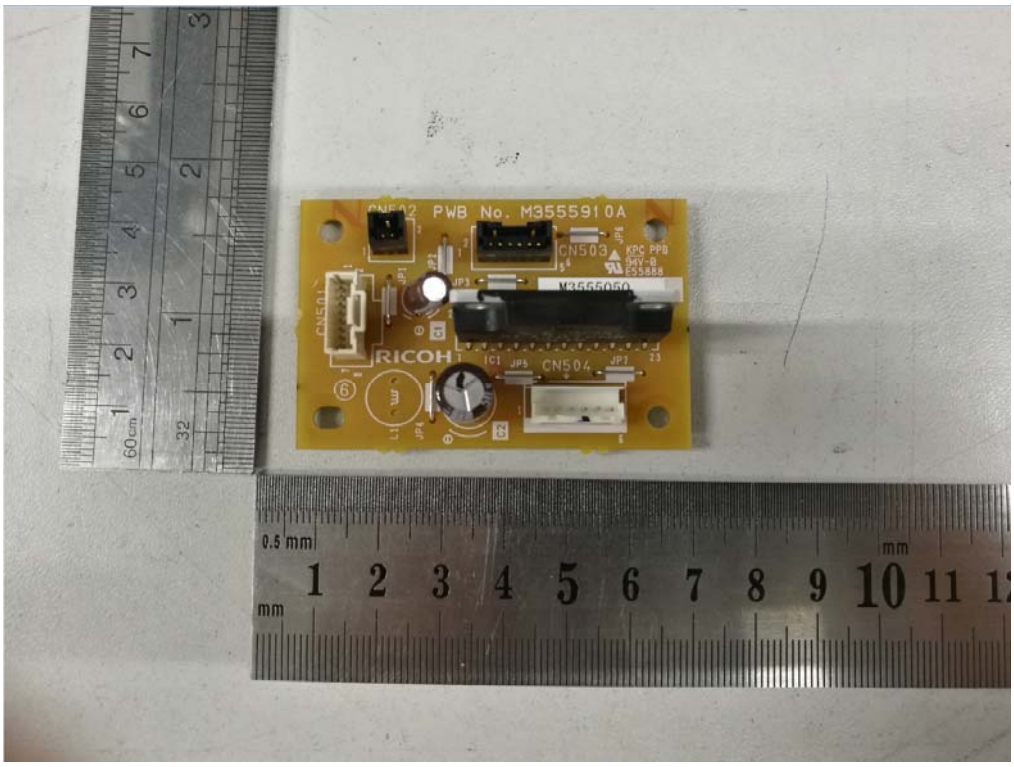
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CN503
CN504
RICOH
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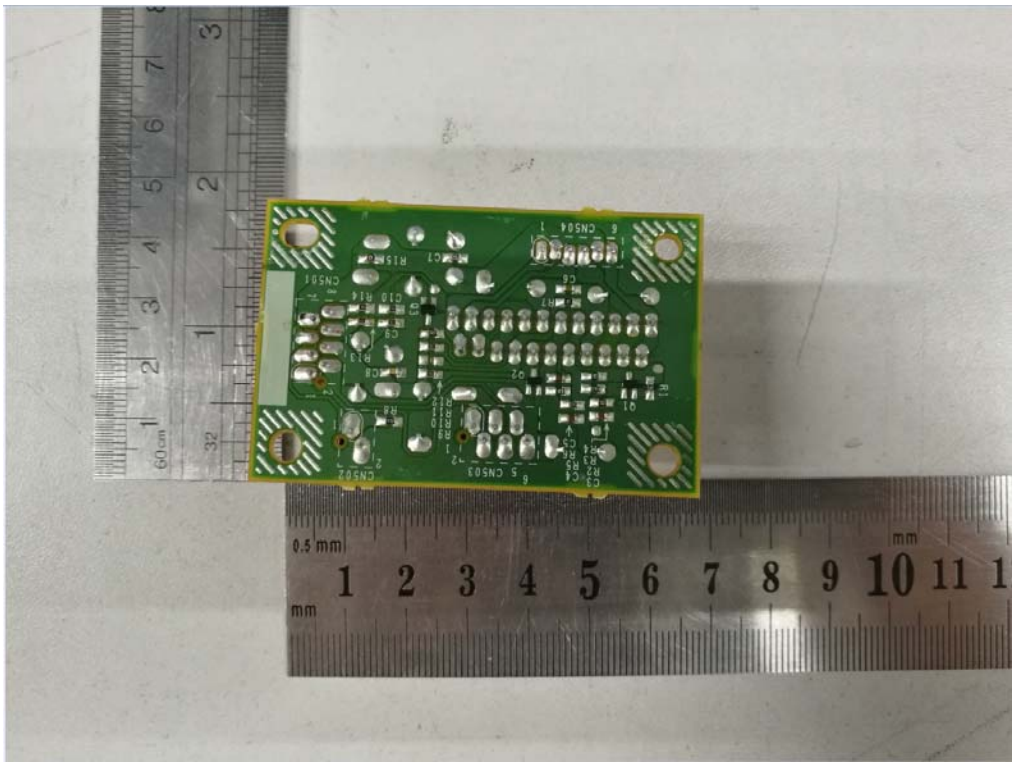
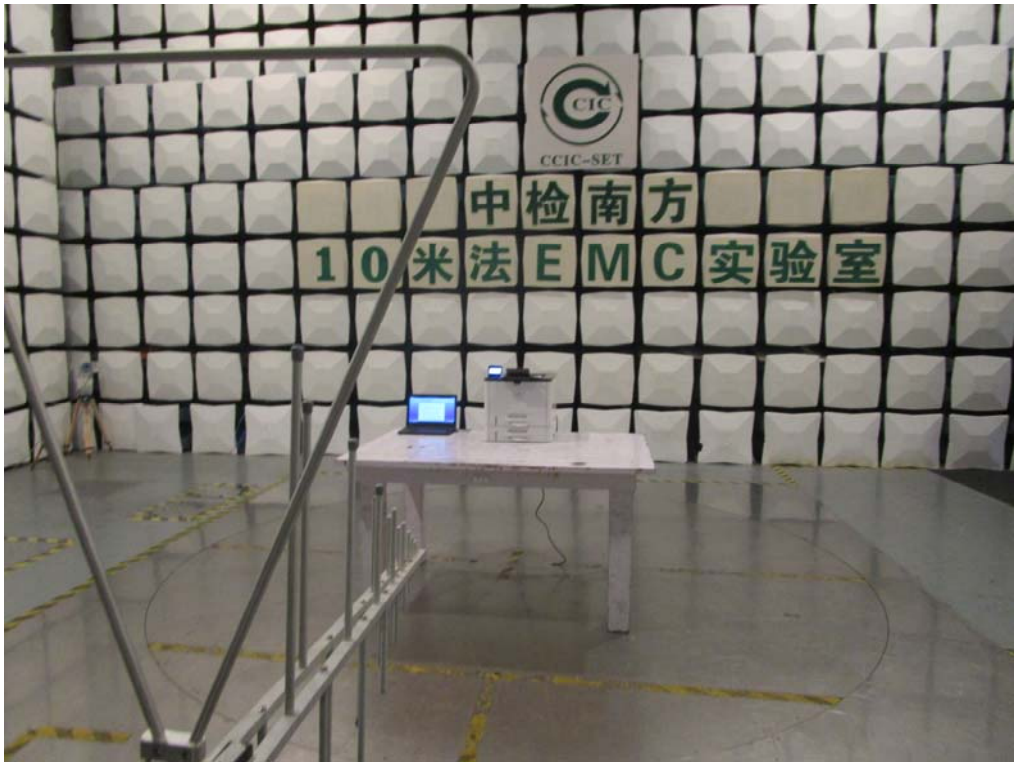
mm

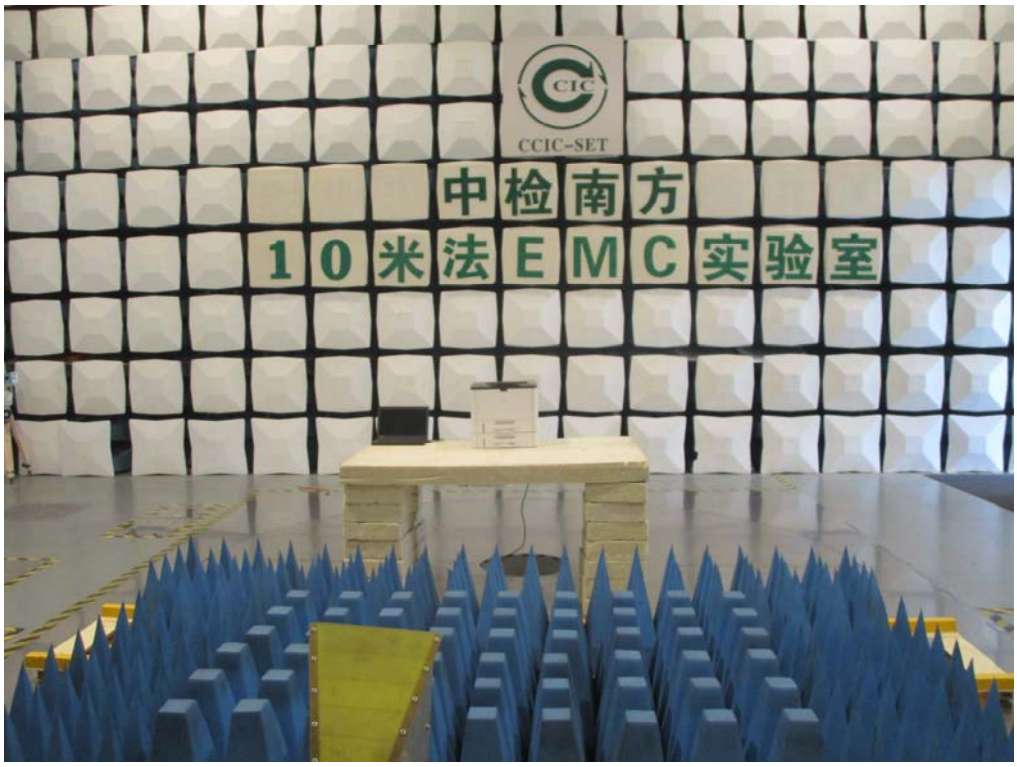

0.5 mm
mm

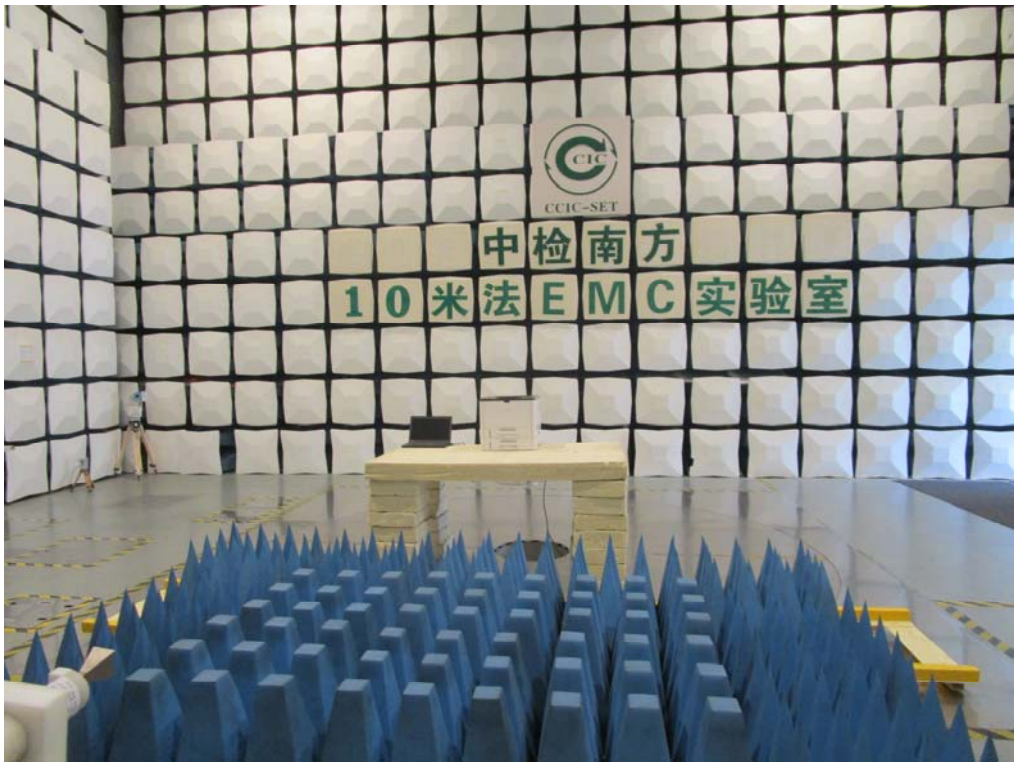
Appendix II：Photographs of EMC Test Configuration

1. Conducted Disturbance at Mains Terminals

2. Radiated Field Strength Measurement







End of Report