



FCC REPORT

Report Reference No..... : TRE1612009804 R/C.....:22756

FCC ID..... : 2AKO6ADC01

Applicant's name..... : Shenzhen AlldoCube Technology and Science Co.,Ltd

Address..... : Building No.1,Suwang Industrial Park,Xiahenglang Dalang,
Longhua District,Shenzhen,China

Manufacturer..... : Shenzhen AlldoCube Technology and Science Co.,Ltd

Address..... : Building No.1,Suwang Industrial Park,Xiahenglang Dalang,Longhua
District,Shenzhen,China

Test item description : Tablet PC

Trade Mark : ALLDOCUBE, WELLSENSE

Model/Type reference..... : i15 TD

List Model : i15 T、i15 TC、iWork10 ultimate

Standard : 47 CFR FCC Part 15 Subpart B - Unintentional Radiators

Date of receipt of test sample..... : Dec. 16, 2016

Date of testing..... : Dec. 19, 2016- Dec. 29, 2016

Date of issue..... : Dec. 30, 2016

Result..... : Pass

Compiled by
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Jeff Sun

Approved by
(position+printed name+signature)...: RF Manager Hans Hu

Hans Hu

Testing Laboratory Name : Shenzhen Huatongwei International Inspection Co., Ltd.

Address..... : 1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao,
Gongming, Shenzhen, China

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1. Test standards and Report version

1.1. Test Standards

The tests were performed according to following standards:

[47 CFR FCC Part 15 Subpart B](#) - Unintentional Radiators

[ANSI C63.4: 2014](#) – American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40GHz

1.2. Report version

Version No.	Date of issue	Description
00	Dec. 30, 2016	Original

2. Test Description

Test Item	Section in CFR 47	Result
Conducted Emissions	15.107(a)	Pass
Radiated Emission	15.109(a)	Pass

Note: The measurement uncertainty is not included in the test result.

3. Summary

3.1. Client Information

Applicant:	Shenzhen AlldoCube Technology and Science Co.,Ltd
Address:	Building No.1,Suwang Industrial Park,Xiahenglang Dalang,Longhua District,Shenzhen,China
Manufacturer:	Shenzhen AlldoCube Technology and Science Co.,Ltd
Address:	Building No.1,Suwang Industrial Park,Xiahenglang Dalang,Longhua District,Shenzhen,China

3.2. Product Description

Name of EUT	Tablet PC
Trade Mark:	ALLDOCUBE,WELLSENSE
Model No.:	i15 TD
List Model:	i15 T、i15 TC、iWork10 ultimate
Power supply:	AC 120V/60Hz
Adapter information:	Model:FJ-SW1260502000UU Input:100-240V~50/60Hz,0.4A Max Output:5V,2000mA

3.3. EUT operation mode

The EUT has been tested under communication with PC by USB mode.

3.4. EUT configuration

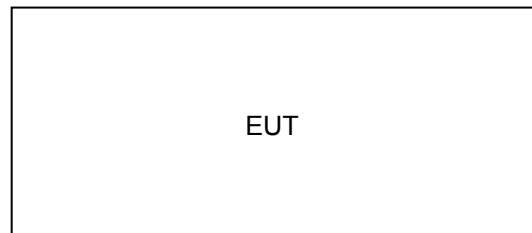
The following peripheral devices and interface cables were connected during the measurement:

- - supplied by the manufacturer
- - supplied by the lab

○	Display	Manufacturer :	EIZO
		Model No. :	FS2333
○	U disk	Manufacturer :	Kingston
		Model No. :	DT101G2
○	Mouse	Manufacturer :	DELL
		Model No. :	MS111-T
○	Printer	Manufacturer :	EPSON
		Model No. :	L101

Note:Peripheral devices comply with FCC DOC approval.

3.5. Configuration of Tested System



4. Test Environment

4.1. Address of the test laboratory

Laboratory: Shenzhen Huatongwei International Inspection Co., Ltd.

Address: 1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China

Phone: 86-755-26748019 Fax: 86-755-26748089

4.2. Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L1225

Shenzhen Huatongwei International Inspection Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories

(identical to ISO/IEC17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories, Date of Registration: February 28, 2015. Valid time is until February 27, 2018.

A2LA-Lab Cert. No. 3902.01

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with

ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing. Valid time is until December 31, 2016.

FCC-Registration No.: 317478

Shenzhen Huatongwei International Inspection 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. Registration 317478, Renewal date Jul. 18, 2014, valid time is until Jul. 18, 2017.

IC-Registration No.: 5377A&5377B

The 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 5377A on Dec. 31, 2013, valid time is until Dec. 31, 2016.

Two 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 5377B on Dec.03, 2014, valid time is until Dec.03, 2017.

ACA

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our A2LA accreditation.

4.3. Equipments Used during the Test

Conducted Emission					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal
1	EMI Test Receiver	Rohde & Schwarz	ESCI	101247	2016/11/13
2	Artificial Mains	Rohde & Schwarz	NNLK 8121	573	2016/11/13
3	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	101488	2016/11/13
4	Test cable	ENVIROFLEX	3651	1101902	2016/11/13
5	Test Software	Rohde & Schwarz	ES-K1	N/A	N/A

Radiated Emission					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal
1	Ultra-Broadband Antenna	ShwarzBeck	VULB9163	538	2016/11/13
2	EMI Test Receiver	Rohde & Schwarz	ESCI	101247	2016/11/13
3	EMI Test Software	Audix	E3	N/A	N/A
4	Turntable	MATURO	TT2.0	----	N/A
5	Antenna Mast	MATURO	TAM-4.0-P-12	----	N/A
6	EMI Test Software	Rohde & Schwarz	ESK1	N/A	N/A
7	Ultra-Broadband Antenna	Rohde&Schwarz	HL562	100015	2016/11/13
8	Amplifier	ShwarzBeck	BBV 9743	9743-0022	2016/11/13
9	TURNTABLE	ETS	2088	2149	N/A
10	HORN ANTENNA	Rohde&Schwarz	HF906	100039	2016/11/13
11	Test cable	Siva Cables Italy	RG 58A/U	W14.02	2016/11/13

The calibration interval was one year.

4.4. Environmental conditions

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

Temperature:	15~35°C
Relative Humidity:	30~60 %
Air Pressure:	950~1050mba

4.5. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongwei laboratory is reported:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	30~1000MHz	4.24 dB	(1)
Radiated Emission	1~18GHz	5.16 dB	(1)
Radiated Emission	18-40GHz	5.54 dB	(1)
Conducted Disturbance	0.15~30MHz	3.39 dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

5. Test Conditions and Results

5.1. Conducted Emissions Test

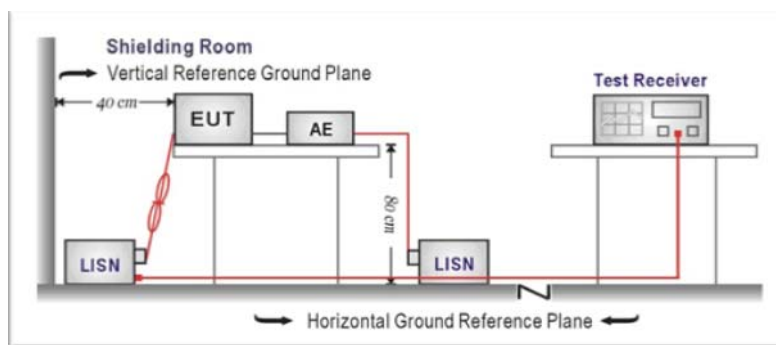
LIMIT

FCC CFR Title 47 Part 15 Subpart B Section 15.107:

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT was setup according to ANSI C63.4-2014.
2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface.
3. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment.
4. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
5. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
6. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
7. Conducted emissions were investigated over the frequency range from 0.15 MHz to 30 MHz using a receiver bandwidth of 9 kHz.
8. During the above scans, the emissions were maximized by cable manipulation.

TEST MODE:

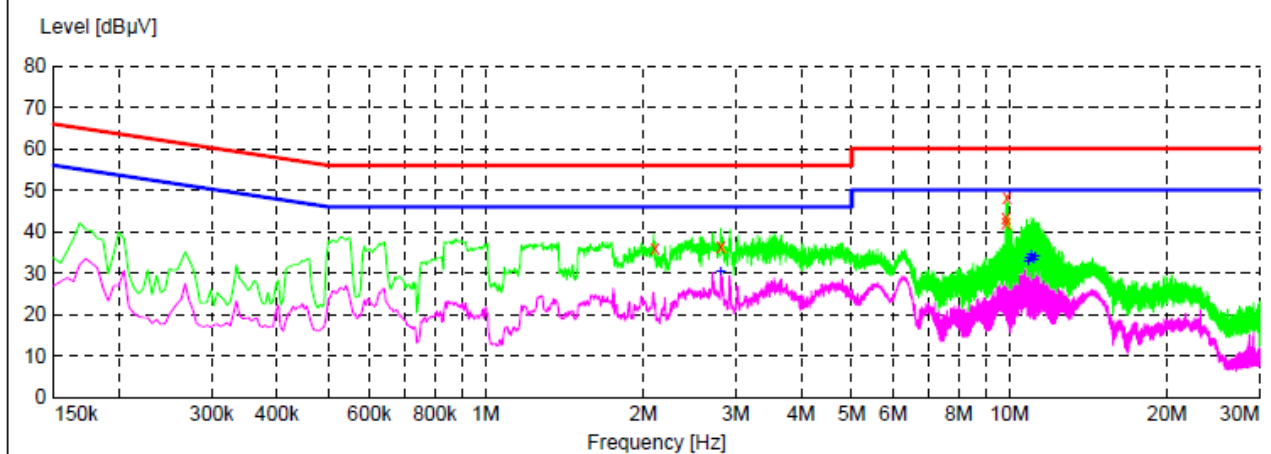
Please refer to the clause 3.3

TEST RESULTS

☒ Passed ☐ Not Applicable

Test Line:

L

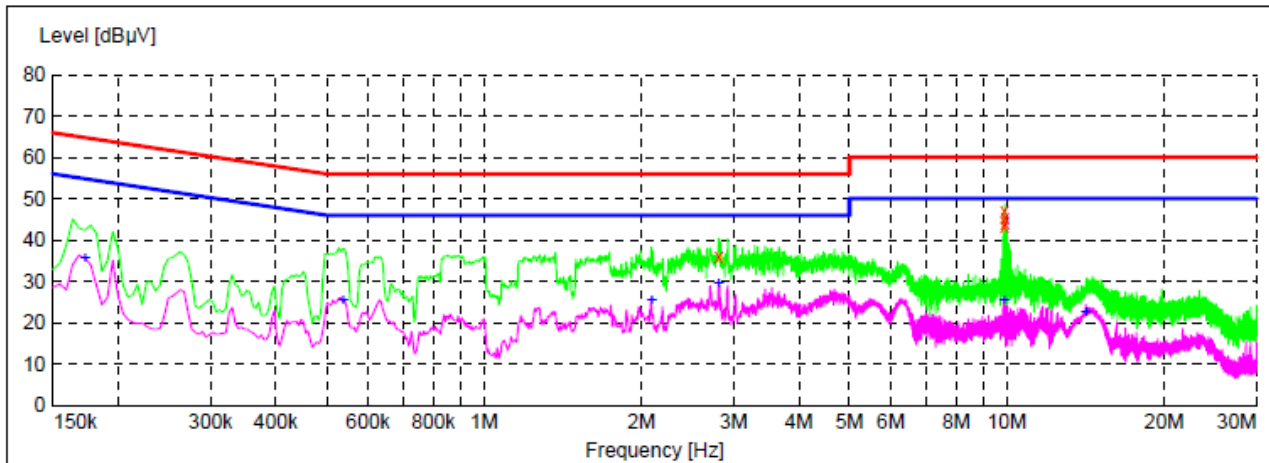


x x x MES GM1612205012_fin

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
2.107500	35.90	10.2	56	20.1	QP	L1	GND
2.814000	36.30	10.2	56	19.7	QP	L1	GND
9.852000	42.30	10.6	60	17.7	QP	L1	GND
9.856500	43.50	10.6	60	16.5	QP	L1	GND
9.888000	48.20	10.6	60	11.8	QP	L1	GND
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
2.814000	30.20	10.2	46	15.8	AV	L1	GND
10.860000	32.60	10.6	50	17.4	AV	L1	GND
10.923000	33.40	10.6	50	16.6	AV	L1	GND
10.990500	34.50	10.6	50	15.5	AV	L1	GND
11.125500	33.20	10.6	50	16.8	AV	L1	GND
11.188500	33.80	10.6	50	16.2	AV	L1	GND

Test Line:

N



x x MES GM1612205011_fin

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
2.814000	35.90	10.2	56	20.1	QP	N	GND
9.888000	47.00	10.6	60	13.0	QP	N	GND
9.892500	43.50	10.6	60	16.5	QP	N	GND
9.919500	44.30	10.6	60	15.7	QP	N	GND
9.924000	45.30	10.6	60	14.7	QP	N	GND
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.172500	35.80	10.4	55	19.0	AV	N	GND
0.537000	25.20	10.2	46	20.8	AV	N	GND
2.094000	25.20	10.2	46	20.8	AV	N	GND
2.814000	29.60	10.2	46	16.4	AV	N	GND
9.888000	25.50	10.6	50	24.5	AV	N	GND
14.149500	22.70	10.5	50	27.3	AV	N	GND

5.2. Radiated Emission Test

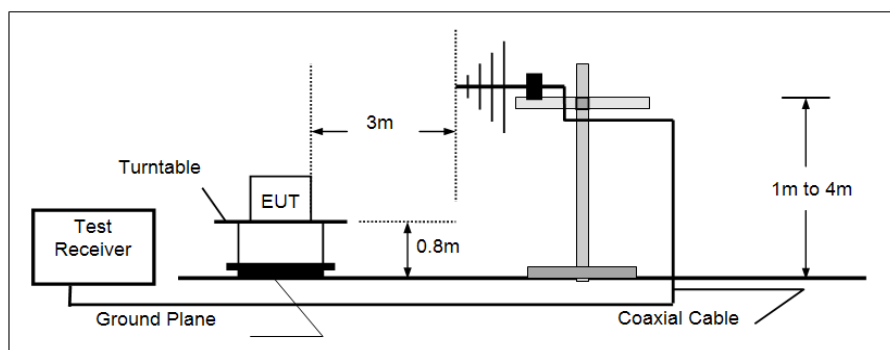
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.209

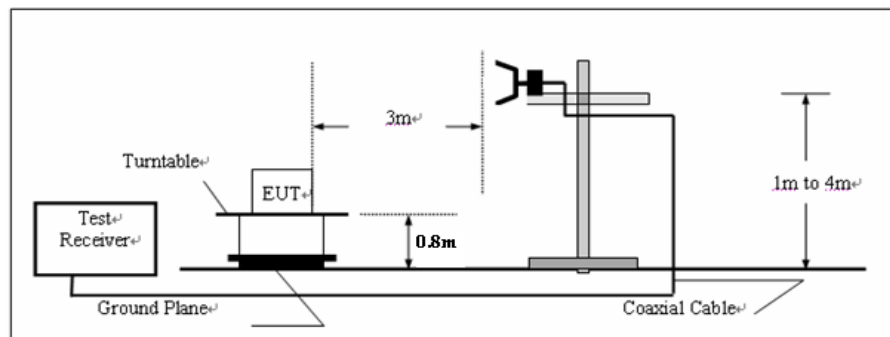
Frequency	Limit (dBuV/m @3m)	Value
30MHz-88MHz	40.00	Quasi-peak
88MHz-216MHz	43.50	Quasi-peak
216MHz-960MHz	46.00	Quasi-peak
960MHz-1GHz	54.00	Quasi-peak
Above 1GHz	54.00	Average
	74.00	Peak

TEST CONFIGURATION

➤ 30MHz ~ 1GHz



➤ Above 1GHz



TEST PROCEDURE

1. The EUT was tested according to ANSI C63.4:2014.
2. The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna.
5. The tested frequency range 30MHz to 25GHz.
6. Use the following spectrum analyzer settings
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Below 1GHz, RBW=120KHz, VBW=300KHz, Sweep=auto, Detector function=QP, Trace=max hold;
If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
 - (3) Above 1GHz, RBW=1MHz, VBW=3MHz

TEST MODE:

Please refer to the clause 3.3

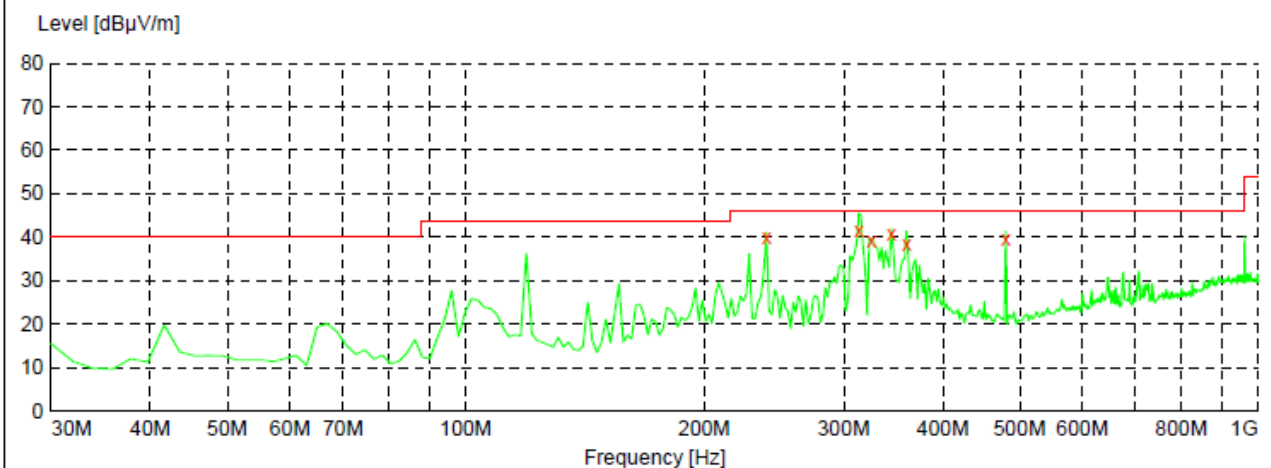
TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

Note: *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*

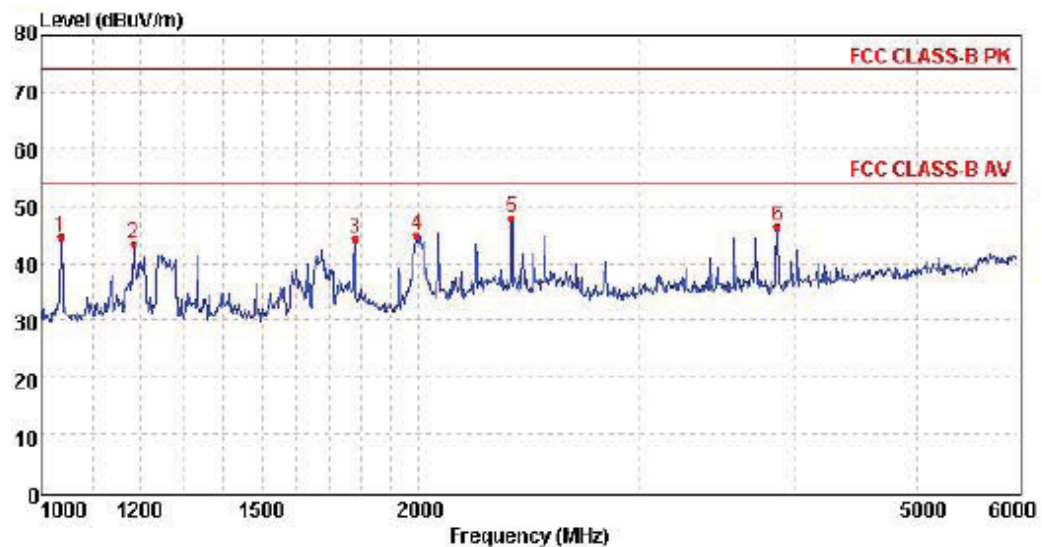
Polarization:

Horizontal



x x MES GM1612226053_red

Frequency MHz	Level dBuV/m	Transd dB	Limit dBuV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
239.520000	39.40	-14.6	46.0	6.6	QP	100.0	311.00	HORIZONTAL
313.240000	41.80	-12.6	46.0	4.2	QP	100.0	239.00	HORIZONTAL
324.880000	38.80	-12.3	46.0	7.2	QP	100.0	239.00	HORIZONTAL
344.280000	40.20	-11.8	46.0	5.8	QP	100.0	239.00	HORIZONTAL
359.800000	37.70	-11.5	46.0	8.3	QP	100.0	332.00	HORIZONTAL
480.080000	38.60	-8.4	46.0	7.4	QP	100.0	203.00	HORIZONTAL

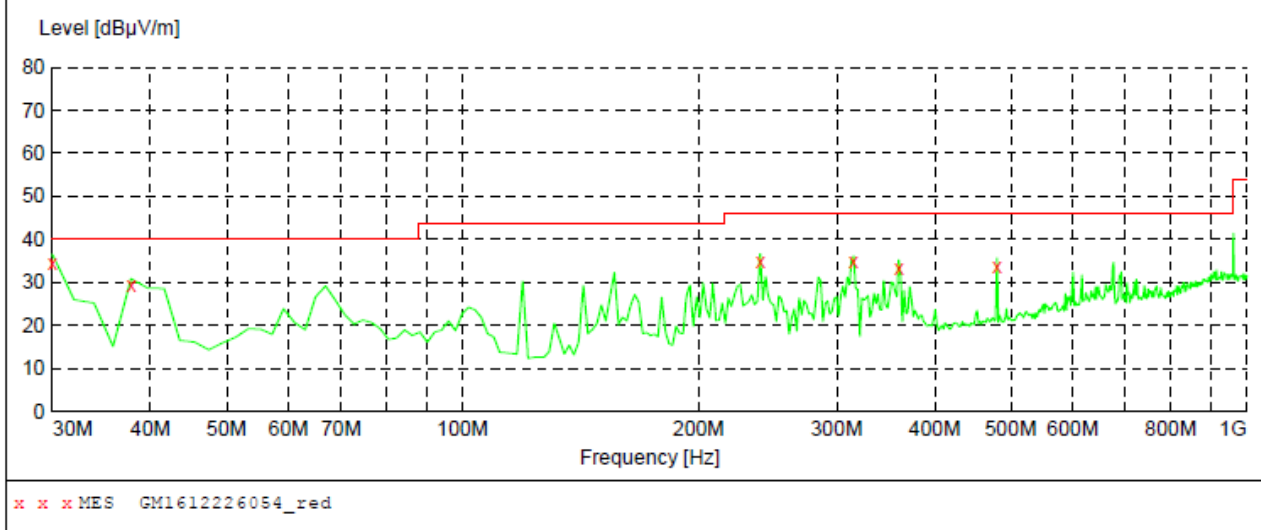


Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	1036.49	52.62	24.24	4.29	36.65	44.50	74.00	-29.50	Peak
2	1185.56	51.09	24.41	4.63	36.58	43.55	74.00	-30.45	Peak
3	1780.59	49.96	25.54	5.92	37.10	44.32	74.00	-29.68	Peak
4	1993.37	49.85	26.09	6.26	37.29	44.91	74.00	-29.09	Peak
5	2371.75	51.62	27.48	6.72	37.82	48.00	74.00	-26.00	Peak
6	3861.23	46.73	29.28	8.59	38.19	46.41	74.00	-27.59	Peak

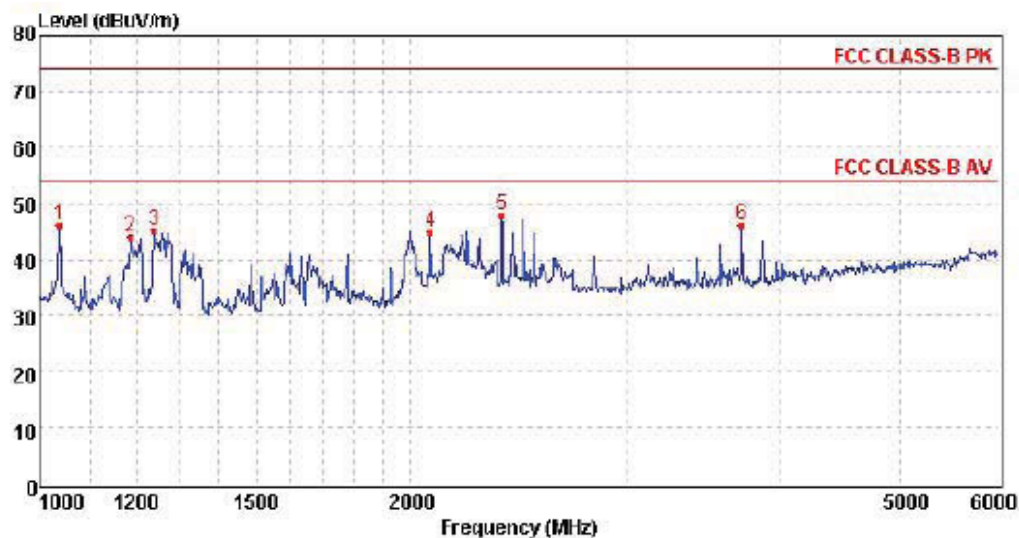
Note: The frequency range 6GHz to 25GHz no emission found ,only report worse case.

Polarization:

Vertical



Frequency MHz	Level dBuV/m	Transd dB	Limit dBuV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
30.000000	34.40	-18.6	40.0	5.6	QP	100.0	25.00	VERTICAL
37.760000	28.80	-17.3	40.0	11.2	QP	100.0	272.00	VERTICAL
239.520000	34.60	-14.6	46.0	11.4	QP	100.0	174.00	VERTICAL
315.180000	34.10	-12.5	46.0	11.9	QP	100.0	211.00	VERTICAL
359.800000	33.20	-11.5	46.0	12.8	QP	100.0	58.00	VERTICAL
480.080000	33.60	-8.4	46.0	12.4	QP	100.0	174.00	VERTICAL



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	1038.34	54.26	24.25	4.30	36.65	46.16	74.00	-27.84	Peak
2	1185.56	51.65	24.41	4.63	36.58	44.11	74.00	-29.89	Peak
3	1239.88	52.56	24.46	4.73	36.55	45.20	74.00	-28.80	Peak
4	2077.24	49.55	26.40	6.34	37.32	44.97	74.00	-29.03	Peak
5	2371.75	51.52	27.48	6.72	37.82	47.90	74.00	-26.10	Peak
6	3711.99	47.02	29.06	8.40	38.25	46.23	74.00	-27.77	Peak

Note: The frequency range 6GHz to 25GHz no emission found ,only report worse case.

6. Test Setup Photos of the EUT

Conducted Emission(AC Mains)



Radiated Emission (30MHz-1GHz)



Radiated Emission (Above 1GHz)



7. **External and Internal Photos of the EUT**

Reference to Test Report TRE1612009801

.....End of Report.....