

EMC TEST EPORT

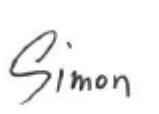
Applicant:	Lenovo (Shanghai) Electronics Technology Co., Ltd.
Address:	Section 304-305, Building No. 4, # 222, Meiyue Road, China (Shanghai) Pilot Free Trade Zone

Manufacturer or Supplier:	Lenovo PC HK Limited
Address:	23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong, China
Product:	Portable Tablet Computer
Brand Name:	Lenovo
Model Name:	TB132FU
FCC ID:	O57TB132FU
Date of tests:	Mar. 21, 2022 ~ Apr. 06, 2022

The submitted sample of the above equipment has been tested for according to the requirements of the following standards:

- ☐ FCC Part 15, Subpart B, Class A
☒ FCC Part 15, Subpart B, Class B
☒ ANSI C63.4:2014

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Simon Wang Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
 Date: Apr. 06, 2022	 Date: Apr. 06, 2022

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TABLE OF CONTENTS

RELEASE CONTROL RECORD	3
1 GENERAL INFORMATION	4
1.1 GENERAL DESCRIPTION OF EUT.....	4
1.2 SUMMARY OF TEST RESULTS.....	6
1.3 MEASUREMENT UNCERTAINTY	7
1.4 DESCRIPTION OF TEST MODES.....	8
1.5 DESCRIPTION OF SUPPORT UNITS.....	9
2 EMISSION TEST	10
2.1 CONDUCTED EMISSION MEASUREMENT.....	10
2.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT.....	10
2.1.2 TEST INSTRUMENTS.....	10
2.1.3 TEST PROCEDURES	11
2.1.4 DEVIATION FROM TEST STANDARD	11
2.1.5 TEST SETUP.....	12
2.1.6 EUT OPERATING CONDITIONS.....	12
2.1.7 TEST RESULTS	13
2.2 RADIATED EMISSION MEASUREMENT.....	15
2.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT	15
2.2.2 TEST INSTRUMENTS.....	16
2.2.3 TEST PROCEDURE.....	17
2.2.4 DEVIATION FROM TEST STANDARD	18
2.2.5 TEST SETUP.....	19
2.2.6 EUT OPERATING CONDITIONS.....	19
2.2.7 TEST RESULTS	20
3 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB	24



RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P22030011EM03	Original release	Apr. 06, 2022

1 GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Portable Tablet Computer	
BRAND NAME	Lenovo	
MODEL NAME	TB132FU	
NOMINAL VOLTAGE	3.87Vdc (Li-ion, battery) 10Vdc (adapter)	
MODULATION TYPE	BT_LE	GFSK
	Bluetooth	GFSK, $\pi/4$ -DQPSK, 8DPSK
	WLAN	DSSS, OFDM, OFDMA
	GPS/GNSS/BeiDou	BPSK
OPERATING FREQUENCY OPERATING FREQUENCY	Bluetooth/BT_LE	2402MHz ~ 2480MHz
	WLAN	2412 ~ 2462MHz for 11b/g/n(HT20/40) /ax(HE20/40)/ax(20M RU26/52/106/242) /(40M RU26/52/106/242/484) 5180 ~ 5240MHz, 5260 ~ 5320 MHz, 5500 ~ 5700MHz, 5745 ~ 5825 MHz for 11a/ n(HT20)/ n(HT40) / ac(VHT20)/ ac(VHT40) / ac(VHT80) / ax(HE20)/ ax(HE40) /ax(HE80)/ax (20M RU26/52/106/242) /(40M RU26/52/106/242/484)/(80M RU26/52/106/242/484/996)
	GPS/GNSS/BeiDou	1559MHz ~ 1610MHz
HW VERSION	Lenovo Tablet TB132FU	
SW VERSION	Lenovo TB132FU_RF01_220315	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	USB cable 1: non-shielded cable, with w/o ferrite core, 1.5 meter USB cable 2: non-shielded cable, with w/o ferrite core, 1.5 meter	
ACCESSORY DEVICES	Refer to note as below	

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

List of Accessory:

ACCESSORIES	BRAND	MODEL	SPECIFICATION
AC Adapter 1	Chengyang	MC-201	I/P: 100-240Vac, 0.7A, O/P: 10.0Vdc, 2.0A
AC Adapter 2	Acbel	MC-201	I/P: 100-240Vac, 0.7A, O/P: 10.0Vdc, 2.0A
USB Cable 1	Jieye	JY-C03-408	Signal Line, 1.5meter
USB Cable 2	Saibao	SLQ-A195A	Signal Line, 1.5meter
Keyboard	Lenovo	KB686U	/
Stylus Pen	Lenovo	Lenovo BTP-131	/
Battery 1	Lenovo/SC UD	L22D2P31	3.87VDC,8200 mAh
Battery 2	Lenovo/Su nwoda	L22D2P31	3.87VDC,8200 mAh
Type C audio line	Saibao	SLQ-A197A	0.1m

1.2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart B			
Standard Section	Test Item	Result	Test lab*
FCC Part 15, Subpart B, Class B ANSI C63.4:2014	Conducted Test	Compliance	A
	Radiated Emission Test (30MHz ~ 1GHz)	Compliance	B
	Radiated Emission Test (Above 1GHz)	Compliance	A

*Test Lab Information Reference

Lab A:

BV 7Layers Communications Technology (Shenzhen) Co. Ltd

Lab Address:

No.B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industrial Park,
Nanshan District, Shenzhen, Guangdong, China

Accredited Test Lab Cert 3939.01

Lab B:

Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch.

Lab Address:

No. 34, Chenwulu Section, Guantai Rd., Houjie Town, Dongguan City, Guangdong 523942, China

Accredited Test Lab Cert 2951.01

1.3 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	150kHz ~ 30MHz	±2.70dB
Radiated emissions	30MHz~1GMHz	±4.98dB
	1GMHz ~6GMHz	±4.70dB
	6GMHz ~18GMHz	±4.60dB
	18GMHz ~40GMHz	±4.12dB

1.4 DESCRIPTION OF TEST MODES

Test Mode	Test Condition
Radiated emission test	
1	Adapter + GPS RX + USB cable + BT Idle + WIFI Idle (2.4G)+ keyboard + Pen + Front Camera On
2	Adapter + Glonass RX + USB cable + WIFI Idle (5G) + BT Idle + keyboard + Pen + Back Camera On
3	tablet PC + bei dou RX + Earphone + BT Idle + WIFI Idle (2.4G)
4	Adapter + GPS RX + USB cable + BT Idle + WIFI Idle (5G) + MPG4
5	USB Link + Data Transmission + GPS RX + BT Idle + WIFI Idle (2.4G) + EUT to Notebook+ USB cable + keyboard + Pen
6	USB Link + Data Transmission + Glonass RX + BT Idle + WIFI Idle (5G) + EUT to SD+ USB cable + keyboard + Pen

Conducted emission test	
1	Adapter + GPS RX + USB cable + WIFI Idle (2.4G) + BT Idle+ keyboard + Pen + Front Camera On +
2	Adapter + Glonass RX + USB cable + WIFI Idle (5G) + BT Idle + keyboard + Pen + Back Camera On
3	Adapter + GPS RX + USB cable + BT Idle + WIFI Idle (5G) + MPG4
4	USB Link + Data Transmission + GPS RX + BT Idle + WIFI Idle (2.4G) + EUT to Notebook+ USB cable + keyboard + Pen
5	USB Link + Data Transmission + Glonass RX + BT Idle + WIFI Idle (5G) + EUT to SD+ USB cable + keyboard + Pen

NOTE:

1. For conducted emission test, mode 1 was the worst case and only this mode was presented in this report.
2. For radiated emission test, test mode 1 was the worst case and only this mode was presented in this report

1.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

For all test

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Laptop	Lenovo	Thnikpad L440	R90FTFKP	N/A
2	USB Cable	MI	N/A	N/A	N/A
3	GPS Simulator+Antenna	TOJOIN	GNSS-5000A	E1-010-010119	N/A
4	Universal radio communication tester	Rohde&Sc hwarz	CMW500	N/A	N/A

NO.	CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	USB Line: Shielded, Detachable 1m;

2 EMISSION TEST

2.1 CONDUCTED EMISSION MEASUREMENT

2.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart B (Section: 15.107 a CLASS B)

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

TEST STANDARD: FCC Part 15, Subpart B (Section: 15.107 b CLASS A)

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	79	66
0.5 ~ 30	73	60

- NOTE:**
1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
 3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

2.1.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR3	101900	Feb. 15,22	Feb. 14,23
EMC32 test software	Rohde&Schwarz	EMC32	NA	NA	NA
LISN network	Rohde&Schwarz	ENV216	101922	Mar. 04,22	Mar. 03,23

- NOTE:**
1. The test was performed in CE shielded room.

2.1.3 TEST PROCEDURES

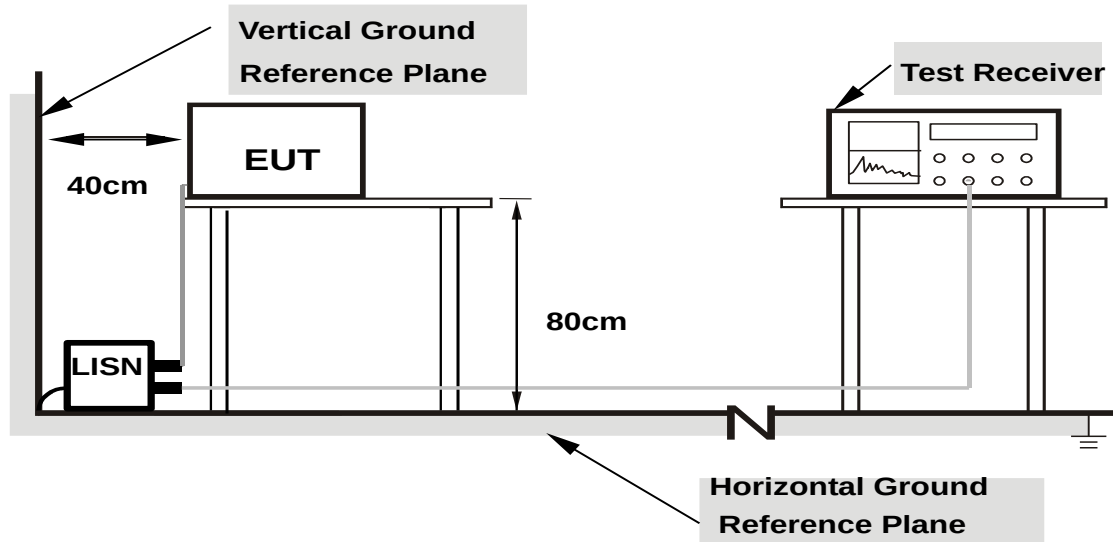
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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 30MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

2.1.4 DEVIATION FROM TEST STANDARD

No deviation.

2.1.5 TEST SETUP



**Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes**

For the actual test configuration, please refer to the attached file (Test Setup Photo).

2.1.6 EUT OPERATING CONDITIONS

- Turned on the power and connected of all equipment.
- EUT was operated according to the use type described in the manufacturer's specifications or the user's manual.

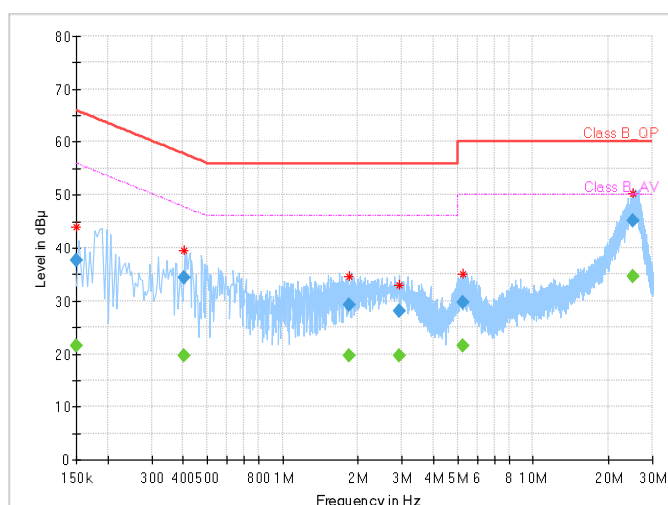
2.1.7 TEST RESULTS

TEST VOLTAGE	Input 120 Vac, 60 Hz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
ENVIRONMENTAL CONDITIONS	26deg. C, 51%RH	TESTED BY	Carl xie

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	21.60	56.00	34.40	L1	ON	9.7
0.150000	37.70	---	66.00	28.30	L1	ON	9.7
0.404000	---	19.62	47.77	28.15	L1	ON	9.7
0.404000	34.48	---	57.77	23.29	L1	ON	9.7
1.852000	---	19.69	46.00	26.31	L1	ON	9.7
1.852000	29.23	---	56.00	26.77	L1	ON	9.7
2.920000	---	19.68	46.00	26.32	L1	ON	9.7
2.920000	28.15	---	56.00	27.85	L1	ON	9.7
5.228000	---	21.63	50.00	28.37	L1	ON	9.7
5.228000	29.63	---	60.00	30.37	L1	ON	9.7
25.148000	---	34.54	50.00	15.46	L1	ON	9.8
25.148000	45.16	---	60.00	14.84	L1	ON	9.8

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Limit value - Emission level
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.

Full Spectrum

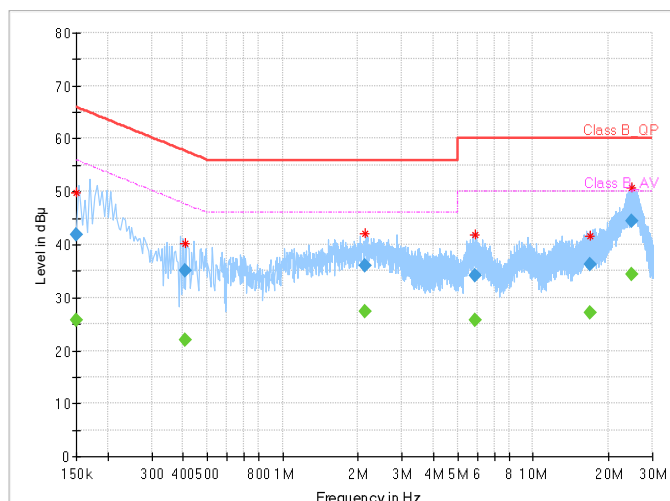


TEST VOLTAGE	Input 120 Vac, 60 Hz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
ENVIRONMENTAL CONDITIONS	26deg. C, 51%RH	TESTED BY	Carl xie

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	25.78	56.00	30.22	N	ON	9.7
0.150000	41.96	---	66.00	24.04	N	ON	9.7
0.408000	---	21.92	47.69	25.77	N	ON	9.7
0.408000	35.19	---	57.69	22.50	N	ON	9.7
2.128000	---	27.32	46.00	18.68	N	ON	9.8
2.128000	35.98	---	56.00	20.02	N	ON	9.8
5.904000	---	25.82	50.00	24.18	N	ON	9.8
5.904000	34.25	---	60.00	25.75	N	ON	9.8
16.976000	---	27.20	50.00	22.80	N	ON	9.9
16.976000	36.25	---	60.00	23.75	N	ON	9.9
24.704000	---	34.38	50.00	15.62	N	ON	9.9
24.704000	44.45	---	60.00	15.55	N	ON	9.9

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Limit value - Emission level
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.

Full Spectrum



2.2 RADIATED EMISSION MEASUREMENT

2.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart B (Section: 15.109)

Emissions radiated outside of the specified bands, shall be according to the general radiated limits as following:

Radiated Emissions Limits at 10 meters (dB μ V/m)		
Frequencies (MHz)	FCC 15B/ ICES-003, Class A	FCC 15B / ICES-003, Class B
30-88	39	29.5
88-216	43.5	33.1
216-960	46.4	35.6
960-1000	49.5	43.5

Radiated Emissions Limits at 3 meters (dB μ V/m)		
Frequencies (MHz)	FCC 15B / ICES-003, Class A	FCC 15B / ICES-003, Class B
1000-3000	Avg: 60	Avg: 54
3000+	Peak: 80	Peak: 74

Frequency Range (For unintentional radiators)

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5 th harmonic of the highest frequency or 40GHz, whichever is lower

- NOTE:**
1. The lower limit shall apply at the transition frequencies.
 2. Emission level (dB μ V/m) = 20 log Emission level (uV/m).
 3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.
 4. QP detector shall be applied if not specified.

2.2.2 TEST INSTRUMENTS

Frequency range below 1GHz

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU26	100005	Apr. 16, 22
EMI Test Receiver	Rohde&Schwarz	ESR7	101564	Jan. 18, 23
Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-555	Jan. 09, 23
Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-554	Jan. 09, 23
Preamplifier	EMCI	EMC1135	980378	Mar. 12, 23
Preamplifier	EMCI	EMC1135	980423	Mar. 12, 23
10m Semi-anechoic Chamber	CHANGLING	21.4m*12.1m*8.8m	NSEMC006	Oct. 15, 22
Coaxial RF Cable	/	10m Below 1GHz	C2310084	Aug. 03, 22
Coaxial RF Cable	/	10m Below 1GHz	C2310085	Aug. 03, 22
Test Software	ADT	ADT_Radiated_V8.7.07	N/A	N/A

- NOTE:**
1. The calibration interval of the above test instruments is 12 months or 24 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
 2. The test was performed in Dongguan 10m Semi-anechoic Chamber

Frequency range above 1GHz

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	May. 19, 20	May. 18, 23
Horn Antenna	ETS-LINDGREN	3117	00168728	Mar. 06, 22	Mar. 05, 23
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Feb. 21, 22	Feb. 20, 23
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	Jun. 03, 21	Jun. 02, 22
E3 Test Software	E3	V 9.160323	N/A	N/A	N/A

- NOTE:**
1. The calibration interval of the above test instruments is 12 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
 2. The test was performed in 966 Chamber (a 3m Semi-anechoic chamber).

2.2.3 TEST PROCEDURE

<Frequency Range below 1GHz>

The basic test procedure was in accordance with ANSI C63.4:2014 (section 12).

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from 1 meter to 4 meters 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.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1GHz.

NOTE:

1. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. $\text{Emission level(dBuV/m)} = \text{Raw Value(dBuV)} + \text{Correction Factor(dB/m)}$
3. $\text{Correction Factor(dB/m)} = \text{Antenna Factor (dB/m)} + \text{Cable Factor (dB)}$ (if the raw value not contains the amplifier);
4. $\text{Correction Factor(dB/m)} = \text{Antenna Factor (dB/m)} + \text{Cable Factor (dB)} - \text{Amplifier Gain(dB)}$ (if the raw value contains the amplifier).
5. $\text{Margin value} = \text{Emission level} - \text{Limit value}$.

<Frequency Range above 1GHz>

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter fully-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters 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. The bore sight should be used during the test above 1GHz.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz

NOTE:

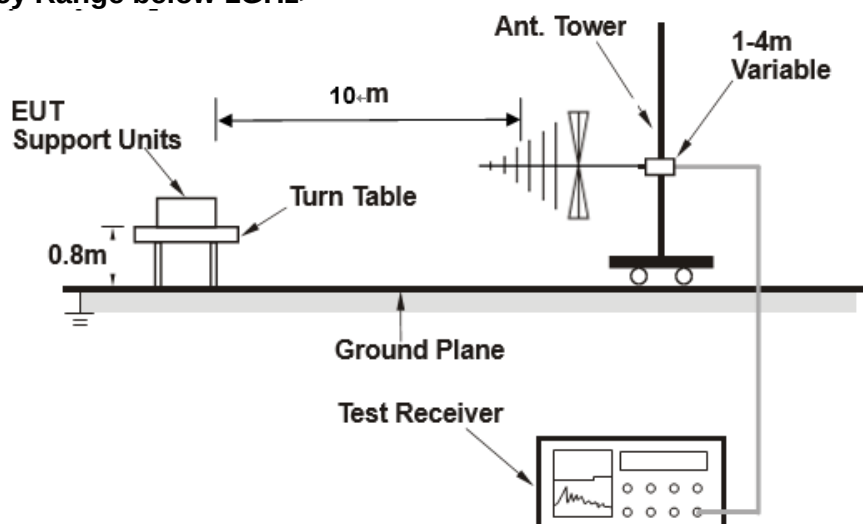
- . The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
- . The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak detection at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth of test receiver/spectrum analyzer is 1Hz for Average detection (AV) at frequency above 1GHz.
- . For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the receiver antenna.
- . $\text{Emission level(dBuV/m)} = \text{Raw Value(dBuV)} + \text{Correction Factor(dB/m)}$
- . $\text{Correction Factor(dB/m)} = \text{Antenna Factor (dB/m)} + \text{Cable Factor (dB)}$ (if the raw value not contains the amplifier);
- . $\text{Correction Factor(dB/m)} = \text{Antenna Factor (dB/m)} + \text{Cable Factor (dB)} - \text{Amplifier Gain(dB)}$ (if the raw value contains the amplifier)
- . $\text{Margin value} = \text{Emission level} - \text{Limit value}.$

2.2.4 DEVIATION FROM TEST STANDARD

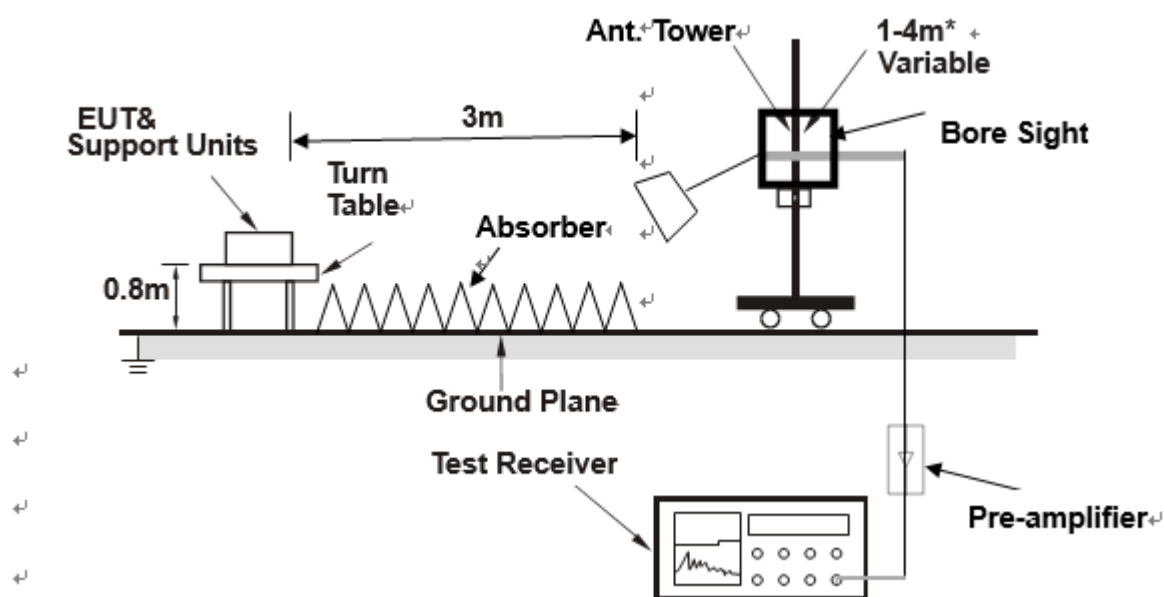
No deviation.

2.2.5 TEST SETUP

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



Note: Above 1G is a directional antenna

depends on the EUT height and the antenna 3dB bandwidth both, refer to section 7.3 of CISPR 16-2-3.

2.2.6 EUT OPERATING CONDITIONS

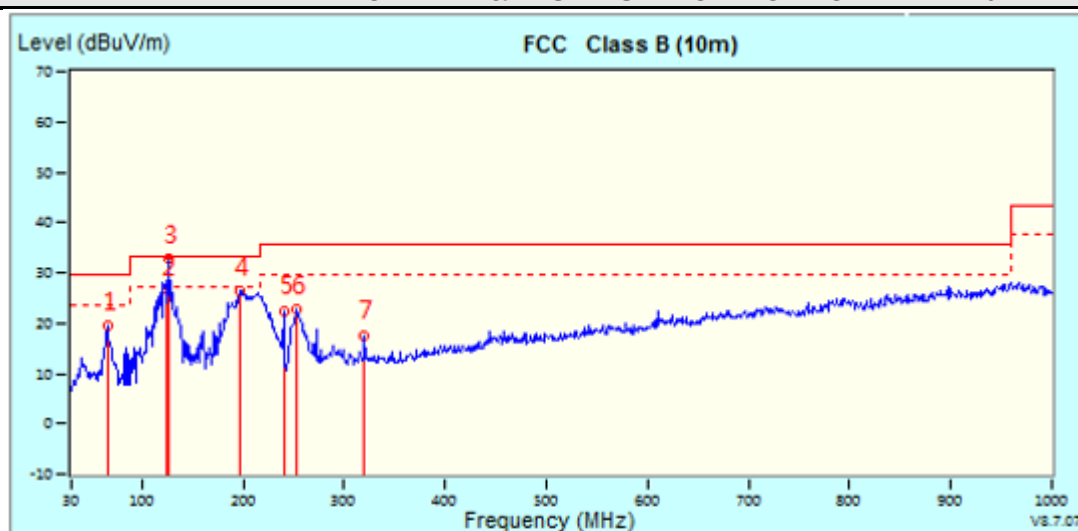
Same as item 2.1.6.

2.2.7 TEST RESULTS

Acceleromete alternative worst case:

TEST VOLTAGE	Data Transmission Input 120 Vac, 60 Hz	FREQUENCY RANGE	30-1000 MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70 %RH	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Quasi-Peak, 120 kHz
TESTED BY	Jace Hu		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10 M

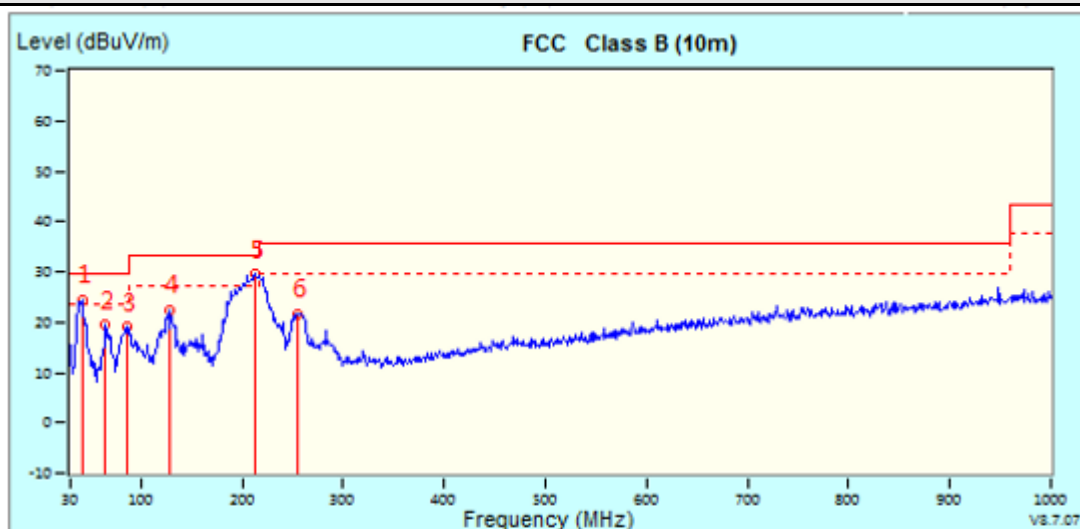


This data is for evaluation purposes only. It cannot be used for EMC approvals unless it contains the approved signature.
If you have any questions regarding the test data, you can write your comments to customerservice.dg@cn.bureauveritas.com

No.	Frequency MHz	Factor dB/m	Reading dBuV	Emission dBuV/m	Limit dBuV/m	Margin dB	Tower Table	
							cm	deg
1	66.4963 (PK)	-21.80	41.15	19.35	29.50	-10.15	400	189
2	125.0000 (QP)	-21.69	47.99	26.30	33.10	-6.80	400	206
*	3	125.4237 (PK)	-21.65	54.31	32.66	-0.44	400	206
4	197.5675 (PK)	-22.23	48.58	26.35	33.10	-6.75	400	144
5	240.0050 (PK)	-21.00	43.48	22.48	35.60	-13.12	400	197
6	253.1000 (PK)	-20.55	43.29	22.74	35.60	-12.86	400	278
7	320.0300 (PK)	-18.05	35.70	17.65	35.60	-17.95	400	43

TEST VOLTAGE	Data Transmission Input 120 Vac, 60 Hz	FREQUENCY RANGE	30-1000 MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70% RH	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Quasi-Peak , 120 kHz
TESTED BY	Jace Hu		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 10 M



This data is for evaluation purposes only. It cannot be used for EMC approvals unless it contains the approved signature.
If you have any questions regarding the test data, you can write your comments to customerservice.dg@cn.bureauveritas.com

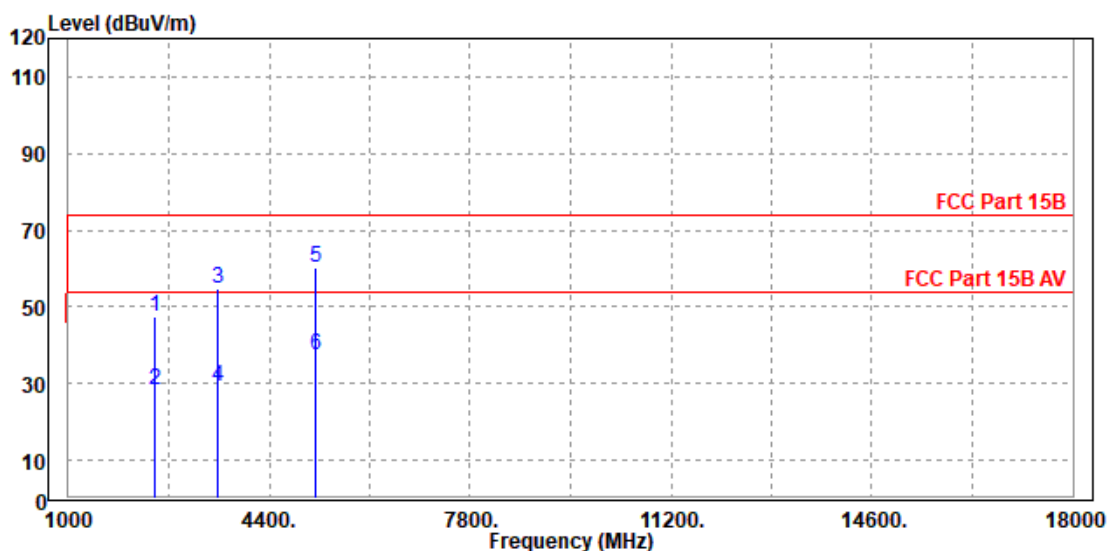
No.	Frequency MHz	Factor dB/m	Reading dBuV	Emission dBuV/m	Limit dBuV/m	Margin dB	Tower Table	
							cm	deg
1	41.3011 (PK)	-20.85	45.36	24.51	29.50	-4.99	300	129
2	65.1158 (PK)	-22.43	41.89	19.46	29.50	-10.04	100	358
3	86.1173 (PK)	-25.39	44.28	18.89	29.50	-10.61	300	191
4	129.2845 (PK)	-21.44	43.83	22.39	33.10	-10.71	100	131
*	5	212.7086 (PK)	-22.23	51.71	29.48	-3.62	100	327
6	254.7602 (PK)	-20.42	42.06	21.64	35.60	-13.96	100	309

TEST VOLTAGE	Data Transmission Input 120 Vac, 60 Hz	FREQUENCY RANGE	1-18 GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70 %RH	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Peak/Average, 1 MHz
TESTED BY	Jace Hu		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2462	47.66	56.09	74	-26.34	31.98	5.96	46.37	200	20	Peak
2462	28.1	36.53	54	-25.9	31.98	5.96	46.37	200	20	Average
3516	54.68	60.78	74	-19.32	33.01	7.27	46.38	200	75	Peak
3516	29.36	35.46	54	-24.64	33.01	7.27	46.38	200	75	Average
5182	60.25	62.47	74	-13.75	34.55	9.58	46.35	200	0	Peak
5182	37.19	39.41	54	-16.81	34.55	9.58	46.35	200	0	Average

REMARKS:

1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 1GHz to 30GHz. For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.
4. Only emissions significantly above equipment noise floor are reported.

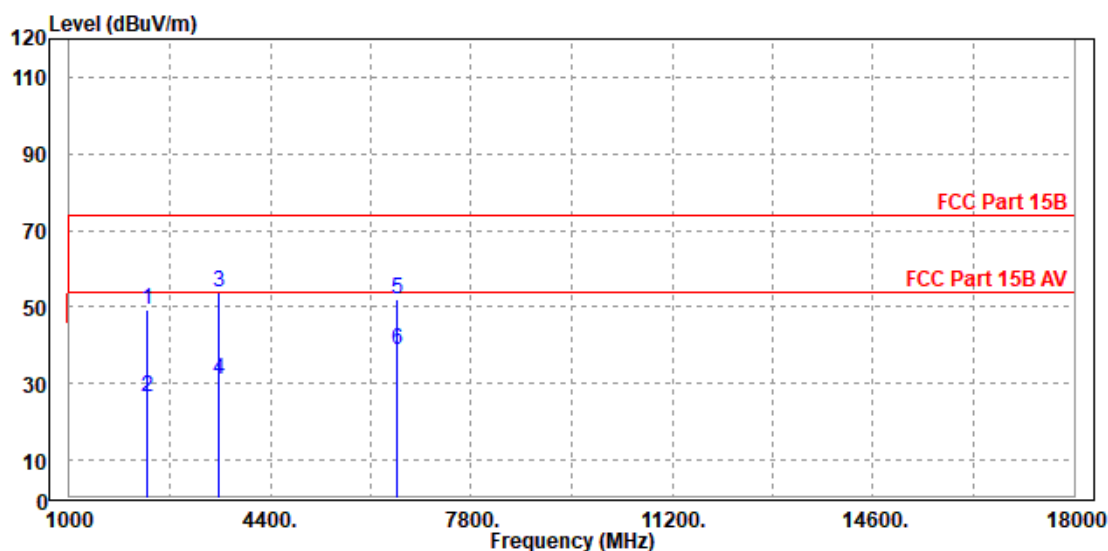


TEST VOLTAGE	Data Transmission Input 120 Vac, 60 Hz	FREQUENCY RANGE	1-18 GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70 %RH	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Peak/Average, 1 MHz
TESTED BY	Jace Hu		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
2326	49.1	57.72	74	-24.9	31.98	5.77	46.37	100	55	Peak
2326	26.58	35.2	54	-27.42	31.98	5.77	46.37	100	55	Average
3533	54.03	60.22	74	-19.97	32.92	7.27	46.38	100	185	Peak
3533	30.96	37.15	54	-23.04	32.92	7.27	46.38	100	185	Average
6542	51.9	49.44	74	-22.1	35.83	12.59	45.96	110	120	Peak
6542	38.8	36.34	54	-15.2	35.83	12.59	45.96	110	120	Average

REMARKS:

1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 1GHz to 30GHz. For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.
4. Only emissions significantly above equipment noise floor are reported.



3 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications were made to the EUT by the lab during the test.

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