





# **FCC TEST REPORT**

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, P.R.China
Product	Lenovo Smart Clock 2
Brand Name	Lenovo
Model	Lenovo CD-24502F
Additional Model & Model Difference	N/A
Date of tests	Mar. 15, 2021 ~ Jun. 08, 2021

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

#### □ CFR-2021 Title 47 FCC Part 15 Subpart B, Class B

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

Tested by Lucas Chen	Approved by Madison Luo
Project Engineer / EMC Department	Assistant Manager / EMC Department

Date: Jun. 17, 2021

This report is governed by, and incorporates by reference, CPS Conditions of Service as posted at the date of issuance of this report at <a href="https://www.cps.bureauveritas.com/terms-conditions/">https://www.cps.bureauveritas.com/terms-conditions/</a> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute you unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

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# **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS2103WGD0047	Original release	Jun. 17, 2021

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### 1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD				
Standard Section	Test Item Result		Remark	
	Conducted test	PASS	Meets limits minimum passing margin is -4.57dB at 13.27200 MHz	
CFR-2021 Title 47 FCC Part 15 Subpart B, Class B	Radiated Emission Test (30MHz ~ 1GHz)	PASS	Meets limits minimum passing margin is -3.01dB at 249.231MHz	
	Radiated Emission Test (Above 1GHz)	PASS	Meets limits minimum passing margin is -15.90dB at 5114.00MHz	

#### 1.1 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 emission test	0.15MHz ~ 30MHz	+/- 3.05 dB	
Dedicted emissions	30MHz ~ 1GHz	+ /- 4.00 dB	
Radiated emissions	Above 1GHz	+ /- 5.17 dB	

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#### 2 GENERAL INFORMATION

#### 2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Lenovo Smart Clock 2
MODEL NO.	Lenovo CD-24502F
ADDITIONAL MODEL	N/A
FCC ID	O57CD24502F
POWER SUPPLY	DC 12V from adapter input: AC 100-240V 50/60Hz Max. 0.8A
CABLE SUPPLIED	N/A
THE HIGHEST OPERATING 2402MHz ~ 2480MHz for BT	
FREQUENCY 2412MHz ~ 2472MHz for 11b/g/n(HT20)	

#### **NOTES:**

- 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.
- 3. Please refer to the EUT photo document (Reference No.: 2103WGD0047-2) for detailed product photo.
- 4. For trade convenience, this product can match two different DDR chips and adapters (please see the below list). When the product is shipped, one of them will be used randomly. The difference has been considered during this test, full test were performed for the 1 prototype and 2 prototype. But only the worst case was showed in test report.

Differentia	1 prototype	2 prototype
DDR Chips	M15T4G16256A BRAND: ESMT	MT41K256M16TW BRAND: Micron
Adapters	Made by Chenyang Electronics	Made by ACBEL ELECTRICAL

5. The EUT were powered by the following Adapters, only the worst case adapter was showed in the report.

ADAPTER 1	
BRAND:	Lenovo (chenyang)
MODEL:	AD18W2002
	AC 100-240V, 50/60Hz 0.8A Max.
OUTPUT:	DC 12V, 1.5A
DC LINE:	Unshielded, Non-detachable, 150cm.
MANUFACTURER Chen Yang electronic	
ADAPTER 2	
BRAND:	Lenovo (Acbel)
MODEL:	AD18W2002
INPUT:	AC 100-240V, 50/60Hz 0.8A Max.
OUTPUT:	DC 12V, 1.5A
DC LINE:	Unshielded, Non-detachable, 150cm.
	ACBEL ELECTRICAL

Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch

No. 96, Guantai Road (Houjie Section), Houjie Town, Dongguan City, Guangdong Province. 523942. People's Republic of China. Tel.: +86 769 8998 2098 Fax: +86 769 8593 1080



### 2.2 DESCRIPTION OF TEST MODES

The EUT were tested under the following modes, the final worst mode was marked in boldface and recorded in this report.

#### **CONDUCTED EMISSION TEST:**

Test Mode	Test Voltage	<b>Test Sample</b>
Wi-Fi (2.4G) Link (Play music) + Clock + Touch Screen		
BT (Play music) + Clock + Touch Screen		
Standby (No playing music) + Clock + Touch Screen + Wireless Charging Dock (Wireless Charging)		
Standby (No playing music) + Clock + Touch Screen + Wireless Charging Dock (USB-A Output (DC 5V/2A))	DC 12V from Adapter Input AC120V 60Hz;	1 prototype 2 prototype
BT (Play music) + Clock + Touch Screen + Wireless	, , , , , , , , , , , , , , , , , , ,	, ,,
Charging Dock (Wireless Charging) Wi-Fi (2.4G) Link (Play music) + Clock + Touch Screen		
+ Wireless Charging Dock (Wireless Charging + USB-A		
Output (DC 5V/0.5A))		

**◆ RADIATED EMISSION TEST (BELOW 1GHZ):** 

Test Mode	Test Voltage	Test Sample
Wi-Fi (2.4G) Link (Play music) + Clock + Touch Screen		
BT (Play music) + Clock + Touch Screen		
Standby (No playing music) + Clock + Touch Screen +		
Wireless Charging Dock (Wireless Charging)		
Standby (No playing music) + Clock + Touch Screen +	DC 12V from Adapter	1 prototype
Wireless Charging Dock (USB-A Output (DC 5V/2A))	Input AC120V 60Hz;	2 prototype
BT (Play music) + Clock + Touch Screen + Wireless	,	_ prototype
Charging Dock (Wireless Charging)		
Wi-Fi (2.4G) Link (Play music) + Clock + Touch Screen		
+ Wireless Charging Dock (Wireless Charging + USB-A		
Output (DC 5V/0.5A))		

#### **♦** RADIATED EMISSION TEST (ABOVE1GHZ):

Test Mode	Test Voltage	<b>Test Sample</b>
Wi-Fi (2.4G) Link (Play music) + Clock + Touch Screen	DC 12V from Adapter 1 prototy	
BT (Play music) + Clock + Touch Screen	Input AC120V 60Hz;	2 prototype

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### 2.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an dependent 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.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Wireless Router	LB-LINK	BL-WR4300H	WR002	N/A
2	iPhone 11	Apple	MWN02CH/A	N/A	N/A
3	iPhone X	Apple	MQA52CH/A	N/A	N/A
4	iPhone 12 Pro	Apple	A2408	N/A	N/A
5	Receiver Load	N/A	N/A	N/A	N/A
6	Wireless Charging Dock	Lenovo	Lenovo SE-A61UW	N/A	N/A

NO.	DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	DC Line: Unshielded, Detachable 1.2m
2-6	N/A

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#### **EMISSION TEST**

#### **CONDUCTED EMISSION MEASUREMENT** 3.1

#### 3.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

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

FREQUENCY (MHz)	Class A	(dBuV)	Class B (dBuV)			
FREQUENCY (WITZ)	Quasi-peak	Average	Quasi-peak	Average		
0.15 - 0.5	79	66	66 - 56	56 - 46		
0.50 - 5.0	73	60	56	46		
5.0 - 30.0	73	60	60	50		

- **NOTES**: (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 0.50 MHz.
  - (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.

#### 3.1.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Mar. 17,22
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Mar. 17,22
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Mar. 17,22
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Sep. 17,21
Test software	ADT	ADT_Cond_V7.3.7	N/A	N/A

NOTES: 1. The test was performed at Shielded Room 553.

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<sup>2.</sup> The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.



#### 3.1.3 TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.4:2014 amended as per ANSI C63.4a:2017.

- 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 30 MHz was searched. Emission levels under (Limit 20dB) were not recorded.

#### NOTES:

- 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. Margin value = Emission level Limit value
- 4. Correction factor = Insertion loss + Cable loss
- 5. Emission Level = Correction Factor + Reading Value

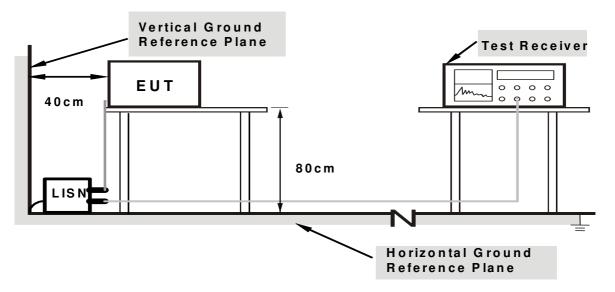
#### 3.1.4 DEVIATION FROM TEST STANDARD

No deviation.

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#### 3.1.5 TEST SETUP



Notes: 1.Support units were connected to second LISN.

2. Both of LISNs (AMN) are  $80\,\text{cm}$  from EUT and at least  $80\,\text{cm}$  from other units and other metal planes support units.

#### 3.1.6 EUT OPERATING CONDITIONS

- a. Turned on the power of all equipment.
- b. EUT was operated according to the type description in manufacturer's specifications or the User's Manual.

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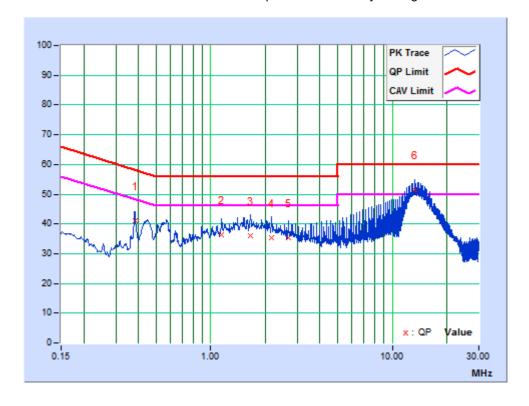


# 3.1.7 TEST RESULTS

TEST MODE	See section 2.2	6DB BANDWIDTH	9 kHz
TEST VOLTAGE	See section 2.2	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	25deg.C, 64% RH	TESTED BY	Wink Wang

	Freq.	Corr.	Readin	g Value		sion vel	Lir	nit	Mar	gin
No.		Factor	[dB	(uV)]	[dB	(uV)]	[dB	(uV)]	(d	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.38175	9.85	31.24	25.50	41.09	35.35	58.24	48.24	-17.15	-12.89
2	1.14900	9.83	26.44	17.77	36.27	27.60	56.00	46.00	-19.73	-18.40
3	1.65750	9.84	26.08	15.34	35.92	25.18	56.00	46.00	-20.08	-20.82
4	2.17050	9.85	25.42	16.33	35.27	26.18	56.00	46.00	-20.73	-19.82
5	2.67900	9.86	25.57	17.88	35.43	27.74	56.00	46.00	-20.57	-18.26
6	13.27200	10.08	41.50	35.35	51.58	45.43	60.00	50.00	-8.42	-4.57

**REMARKS:** The emission levels of other frequencies were very low against the limit.



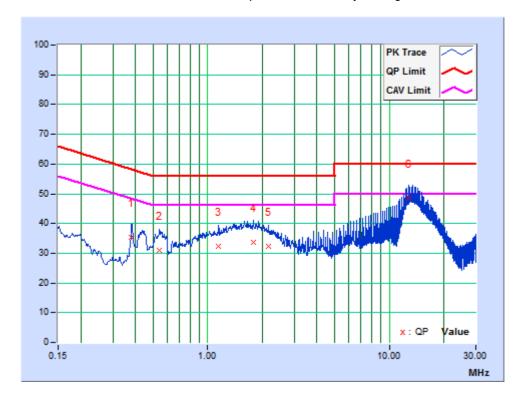
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TEST MODE	See section 2.2	6DB BANDWIDTH	9 kHz
TEST VOLTAGE	See section 2.2	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	25deg.C, 64% RH	TESTED BY	Wink Wang

	Freq.	Corr.	Readin	g Value		sion vel	Lir	nit	Mar	gin
No.		Factor	[dB	(uV)]	[dB	(uV)]	[dB	(uV)]	(d	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.38159	9.79	25.67	20.89	35.46	30.68	58.24	48.24	-22.79	-17.57
2	0.54071	9.80	21.33	14.30	31.13	24.10	56.00	46.00	-24.87	-21.90
3	1.15058	9.80	22.69	13.99	32.49	23.79	56.00	46.00	-23.51	-22.21
4	1.78575	9.81	23.77	14.68	33.58	24.49	56.00	46.00	-22.42	-21.51
5	2.16830	9.81	22.61	13.92	32.42	23.73	56.00	46.00	-23.58	-22.27
6	12.76125	10.06	38.59	32.49	48.65	42.55	60.00	50.00	-11.35	-7.45

**REMARKS:** The emission levels of other frequencies were very low against the limit.



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### 3.2 RADIATED EMISSION MEASUREMENT

# 3.2.1 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 (dBµV/m)						
Frequencies (MHz)	FCC 15B Class A	FCC 15B Class B	CISPR 22, Class A	CISPR 22, Class B		
30-88	39	29.5				
88-216	43.5	33.1	40	30		
216-230	46.4	25.6				
230-960	46.4	35.6	47	07		
960-1000	49.5	43.5	] 4/	37		

Radiated Emissions Limits at 3 meters (dBμV/m)					
Frequencies (MHz)	FCC 15B, Class B				
30-88	49.5	40			
88-216	54	43.5			
216-230	56.9	46			
230-960	56.9	46			
960-1000	60	54			
1000-3000	Avg: 60	Avg: 54			
Above 3000	Peak: 80	Peak: 74			

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# FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

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

Notes: (1) The lower limit shall apply at the transition frequencies.

- (2) Emission level  $(dBuV/m) = 20 \log Emission level (uV/m)$ .
- (3) All emanation 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.

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#### 3.2.2 TEST INSTRUMENTS

#### **FREQUENCY RANGE BELOW 1GHz**

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.			
EMI Test Receiver	Rohde&Schwarz	ESU26	100005	May 13, 22			
EMI Test Receiver	Rohde&Schwarz	ESR7	101564	Mar. 07,22			
Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-555	Dec. 11, 21			
Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-554	Jan. 09, 22			
Preamplifier	EMCI	EMC1135	980378	Mar. 13,22			
Preamplifier	EMCI	EMC1135	980423	Mar. 13,22			
10m Semi-anechoic Chamber	CHANGLING	21.4m*12.1m*8.8m	NSEMC006	May 23,22			
Test Software	ADT	ADT Radiated V8.7.07	N/A	N/A			

NOTES: 1. The test was performed in 10m Chamber.

- 2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
- 3. The FCC Site Registration No. is 749762.

#### **FREQUENCY RANGE ABOVE 1GHz**

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Horn Antenna	ETS-Lindgren	3117	00085519	Nov. 06, 21
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170147	May 09, 22
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101003	Feb. 24,22
Broadband Preamplifier (1~18GHz)	SCHWARZBECK	BBV9718	266	May 08,22
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Jan. 10,22
Test Software	ADT	ADT_Radiated_V8.7.07	N/A	N/A

NOTES: 1. The test was performed in 10m Chamber.

- 2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
- 3. The FCC Site Registration No. is 749762.

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#### 3.2.3 TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.4:2014 amended as per ANSI C63.4a:2017.

#### <Frequency Range below 1GHz>

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10meter 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.

#### NOTES:

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

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#### <Frequency Range above 1GHz>

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter 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 can be varied from one meter-to four meters, the height of adjustment depends on the EUT height and the antenna 3dB beamwidth both, to detect 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 and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test receiver/spectrum was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.

#### NOTES:

- 1. 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 for Average detection (AV) at frequency above 1GHz.
- 2. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the receiver
- 3. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
- 4. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) (if the raw value not contains the amplifier)
- 5. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) Amplifier Gain(dB) (if the raw value contains the amplifier).
- 6. Margin value = Emission level Limit value

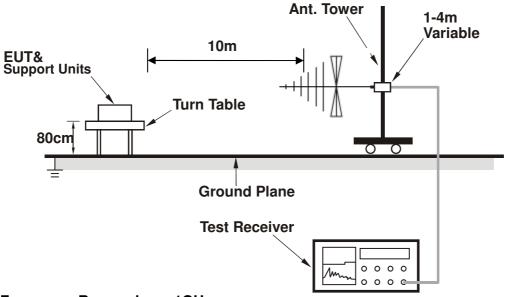
#### 3.2.4 DEVIATION FROM TEST STANDARD

No deviation.

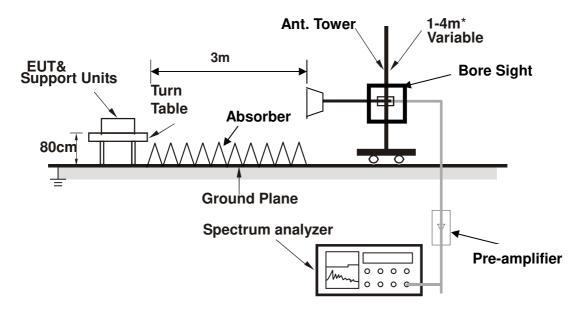


#### 3.2.5 TEST SETUP

#### <Frequency Range below 1GHz>



<Frequency Range above 1GHz>



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

### 3.2.6 EUT OPERATING CONDITIONS

See items 3.1.6.

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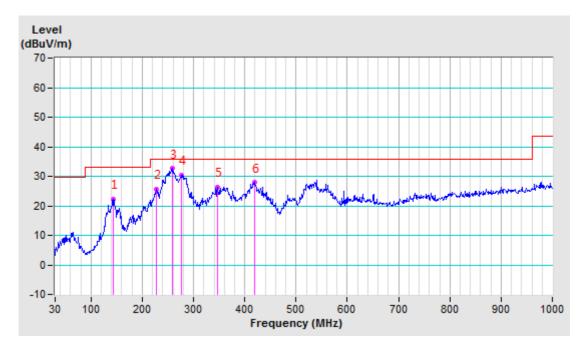


# 3.2.7 TEST RESULTS (BELOW 1GHz)

TEST MODE	See section 2.2	FREQUENCY RANGE	30-1000MHz
TEST VOLTAGE	See section 2.2	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	22deg. C, 56% RH	TESTED BY: Ray	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10 M								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	
1	142.763	-20.63	42.75	22.12	33.10	-10.98	400	22	
2	228.001	-22.29	48.00	25.71	35.60	-9.89	400	58	
3	258.435	-21.06	53.61	32.55	35.60	-3.05	400	30	
4	276.016	-20.28	50.63	30.35	35.60	-5.25	200	43	
5	346.099	-18.67	44.96	26.29	35.60	-9.31	200	34	
6	419.940	-16.21	44.05	27.84	35.60	-7.76	200	43	

- 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: 30MHz to 1000MHz.
  - 4. Only emissions significantly above equipment noise floor are reported.



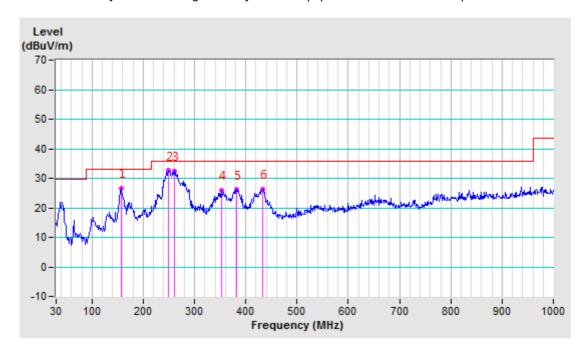
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TEST MODE	See section 2.2	FREQUENCY RANGE	30-1000MHz
TEST VOLTAGE	See section 2.2	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	22deg. C, 56% RH	TESTED BY: Ray	

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 10 M									
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)		
1	156.834	-20.36	46.96	26.60	33.10	-6.50	100	53		
2	249.231	-21.13	53.72	32.59	35.60	-3.01	300	268		
3	261.648	-20.6	53.14	32.54	35.60	-3.06	100	294		
4	352.638	-17.9	43.83	25.93	35.60	-9.67	100	338		
5	381.934	-17.2	43.38	26.18	35.60	-9.42	100	316		
6	432.861	-15.38	41.79	26.41	35.60	-9.19	300	358		

- **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: 30MHz to 1000MHz.
  - 4. Only emissions significantly above equipment noise floor are reported.



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# 3.2.8 TEST RESULTS (ABOVE 1GHz)

TEST MODE	See section 2.2	FREQUENCY RANGE	Above 1GHz
TEST VOLTAGE	See section 2.2	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Peak, Average 1MHz
ENVIRONMENTAL CONDITIONS	26deg. C, 55% RH	TESTED BY: Ra	у

	ANT	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10 M							
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	
1	1447.80PK	0.98	47.12	48.10	74.00	-25.90	100	132	
2	1447.80AV	0.98	31.82	32.80	54.00	-21.20	100	132	
3	4711.00PK	8.27	35.53	43.80	74.00	-30.20	100	41	
4	4711.00AV	8.27	24.53	32.80	54.00	-21.20	100	41	
5	5114.00PK	8.78	35.02	43.80	74.00	-30.20	100	38	
6	5114.00AV	8.78	29.32	38.10	54.00	-15.90	100	38	
	AN	TENNA POL	ARITY &	TEST DIST	ANCE: VER	FICAL AT 1	0 M		
No.	Freq.	Correction Factor	Raw Value	Emission Level	Limit	Margin	Antenna Height	Table Angle	
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(Degree)	
1	1456.00PK			(dBuV/m) 45.80	(dBuV/m) 74.00	(dB) -28.20	_	•	
1 2	, ,	(dB/m)	(dBuV)	,	,		(cm)	(Degree)	
	1456.00PK	(dB/m) 1.01	(dBuV) 44.79	45.80	74.00	-28.20	(cm) 100	(Degree) 44	
2	1456.00PK 1456.00AV	(dB/m) 1.01 1.01	(dBuV) 44.79 34.09	45.80 35.10	74.00 54.00	-28.20 -18.90	(cm) 100 100	(Degree) 44 44	
3	1456.00PK 1456.00AV 2593.00PK	(dB/m) 1.01 1.01 5.45	(dBuV) 44.79 34.09 35.22	45.80 35.10 40.67	74.00 54.00 74.00	-28.20 -18.90 -33.33	(cm) 100 100 100	(Degree) 44 44 235	

**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 18GHz.
- 4. Only emissions significantly above equipment noise floor are reported.

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### 4 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please see Attachment 1

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# 5 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.

---END---

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