





EMC TEST REPORT

	т.		
Applicant:	ENTEL PCS Telecomun s.a		
Address:	Avenida Costanera Sur 2760, Torre C, Piso 18, las condes. Santiago, Chile		
Γ	T		
Manufacturer or Supplier:	Shenzhen Tinno Mobile Technology Corp.		
Address:	4/F., H-3 Building, OCT Eastern Industrial Park. NO.1 XiangShan East Road., Nan Shan District, Shenzhen, P.R.China.		
Product:	Mobile Phone		
Brand Name:	ÖWN		
Model Name:	ÖWN FUN 6		
FCC ID:	2AO8VFUN6		
Date of tests:	Feb. 28, 2018 ~ Mar. 14, 2018		
The submitted sample of the above equipment has been tested for according to the requirements of the following standards:			
			
CONCLUSION: Th	CONCLUSION: The submitted sample was found to COMPLY with the test requirement		
	Issued by Yuqiang Yin Approved by Bill Yao Engineer / Mobile Department Manager / Mobile Department		
Yuging Biele			

This report is 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. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, 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 your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification

Date: Mar. 15, 2018

Tel: +86 755 8869 6566 Fax: +86 755 8869 6577

Date: Mar. 15, 2018



TABLE OF CONTENTS

RELEASE CONTROL RECORD	3
1 GENERAL INFORMATION	4
1.1 GENERAL DESCRIPTION OF EUT	
1.2 SUMMARY OF TEST RESULTS	
1.3 MEASUREMENT UNCERTAINTY	
1.4 DESCRIPTION OF TEST MODES	
2 EMISSION TEST	9
2.1 CONDUCTED EMISSION MEASUREMENT	a
2.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT	
2.1.2 TEST INSTRUMENTS	
2.1.3 TEST PROCEDURES	
2.1.4 DEVIATION FROM TEST STANDARD	
2.1.5 TEST SETUP	
2.1.6 EUT OPERATING CONDITIONS	
2.1.7 TEST RESULTS	
2.2 RADIATED EMISSION MEASUREMENT	14
2.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT	
2.2.2 TEST INSTRUMENTS	15
2.2.3 TEST PROCEDURE	16
2.2.4 DEVIATION FROM TEST STANDARD	
2.2.5 TEST SETUP	
2.2.6 EUT OPERATING CONDITIONS	
2.2.7 TEST RESULTS	19
3 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO TH	IF FUT
BY THE LAB	

Tel: +86 755 8869 6566 Fax: +86 755 8869 6577

District, Shenzhen51800, China



RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FV180227W007	Original release	Mar. 15, 2018

No.B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industrial Park, Nanshan District, Shenzhen51800, China Tel: +86 755 8869 6566 Fax: +86 755 8869 6577



1 GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF EUT

	DESCRIPTION OF EUT		
PRODUCT	Mobile Phone		
BRAND NAME	ÖWN		
MODEL NAME	ÖWN FUN 6		
NOMINAL VOLTAGE	5Vdc (adapter or host equipment) 4.35Vdc (Li-ion, battery)		
BATTERY	Brand Name: öwn Model Name: öwn FUN 6 Power Rating: DC 4.35V, 2500mAh, Li-ion		
	WLAN	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM	
	BT_LE	BT-LE(GFSK) for DTS	
	Bluetooth	GFSK, π/4-DQPSK, 8DPSK	
MODULATION TYPE	GPS	C/A code	
	GSM	GMSK	
	WCDMA	BPSK/QPSK	
	LTE	QPSK/16QAM	
	FM	FSK	
	WLAN	2412 ~ 2472MHz for 11b/g/n(HT20) 2422 ~ 2462MHz for 11n(HT40)	
	Bluetooth/BT_LE	2402MHz ~ 2480MHz	
	GPS	1575.42MHz	
OPERATING	GSM	824.2MHz ~ 848.8MHz (FOR GSM 850) 1850.2MHz ~ 1909.8MHz (FOR GSM 1900)	
FREQUENCY	WCDMA	1852.4MHz ~ 1907.6MHz (FOR WCDMA Band 1710.7MHz ~ 1754.3MHz (FOR WCDMA Band 826.4MHz ~ 846.6MHz (FOR WCDMA Band 5)	
	1850.7MHz ~ 1909.3MHz (FOR LTE Band2) 1710.7MHz ~ 1754.3MHz (FOR LTE Band4) 2502.5MHz ~ 2567.5MHz (FOR LTE Band7)		
HW VERSION	V1.0		
SW VERSION	OWN_FUN_6_7.1_03		
I/O PORTS	Refer to user's manual		
CABLE SUPPLIED	USB cable: non-shielded, detachable, 1.0meter Earphone: non-shielded, detachable, 1.2meter		

BV 7Layers Communications Technology (Shenzhen) Co. Ltd No.B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industrial Park, Nanshan District, Shenzhen51800, China Tel: +86 755 8869 6566 Fax: +86 755 8869 6577



ACCESSORY	Defende nede ee heleer
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. The EUT was powered by the following adapters:

ADAPTER 1	
BRAND:	öwn
MODEL:	TN050100E5
INPUT:	AC 100-240V, 150mA
OUTPUT:	DC 5V, 1000mA

ADAPTER 2	
BRAND:	öwn
MODEL:	TN050100U5
INPUT:	AC 100-240V, 150mA
OUTPUT:	DC 5V, 1000mA

3. The EUT matched the following USB cable and earphone:

USB CABLE	·
BRAND:	N/A
MODEL:	N/A
SIGNAL LINE:	1.5 METER

EARPHONE	
BRAND:	N/A
MODEL:	HF-B1070-B
SIGNAL LINE:	1.0 METER

4. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

Page 5 of 23



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	Remark	
FCC Part 15, Subpart B, Class B ANSI C63.4:2014	Conducted Test	PASS	Meets limits minimum passing margin is -8.39dB at 14.280000MHz.	
	Radiated Emission Test (30MHz ~ 1GHz)	PASS	Meets Class B Limit Minimum passing margin is -3.17dB at 86.26MHz	
	Radiated Emission Test (Above 1GHz)	PASS	Meets Class B Limit Minimum passing margin is -15.97dB at 3150MHz	

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	+/-2.66dB
Dodiete de accionione	30MHz ~ 1GHz	+/-3.26dB
Radiated emissions	1GHz ~ 18GHz	+/-4.48dB



1.4 DESCRIPTION OF TEST MODES

Test Mode	Test Condition		
	Radiated emission test		
1	GSM850 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx+ Back camera on		
2	GSM1900 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx+ Front camer aon		
3	WCDMA B2 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx+ MPEG4		
4	WCDMA B4 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx+ FM Rx		
5	WCDMA B5 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx		
6	LTE B2 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx		
7	LTE B4 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx		
8	LTE B7 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx		
9	GSM 850 Idle+ USB Link+ Earphone+ BT Idle+WIFI Idle(2.4G)+ GPS Rx		
	Conducted emission test		
1	GSM850 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx+ Back camera on		
2	GSM1900 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx+ Front camer aon		
3	WCDMA B2 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx+ MPEG4		
4	WCDMA B4 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx+ FM Rx		
5	WCDMA B5 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx		
6	LTE B2 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx		
7	LTE B4 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx		
8	LTE B7 Idle+ Adapter+ Earphone+ USB cable+ BT Idle+WIFI Idle(2.4G)+ GPS Rx		
9	GSM 850 Idle+ USB Link+ Earphone+ BT Idle+WIFI Idle(2.4G)+ GPS Rx		

NOTE:

- 1. For conducted emission test, test mode 1 was the worst case and only this mode was presented in this report.
- 2. For radiated emission test, test mode 9 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.

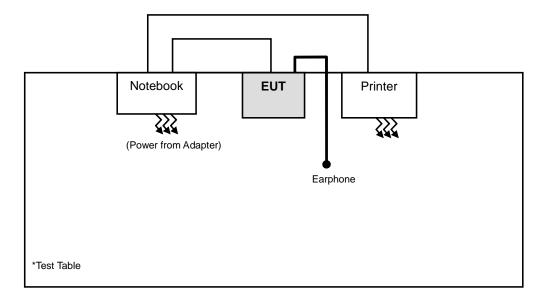
FOR EMISSION TESTS

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Notebook	N/A	N/A	N/A	N/A
2	Printer	N/A	N/A	N/A	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	N/A
2	N/A

1.6 CONFIGURATION OF SYSTEM UNDER TEST

Test configuration





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)

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

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	Jun. 28,17	Jun. 27,18
EMC32 test software	Rohde&Schwarz	EMC32	NA	NA	NA
LISN network	Rohde&Schwarz	ENV216	101922	Sep. 18,17	Sep. 17,18

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

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.



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.

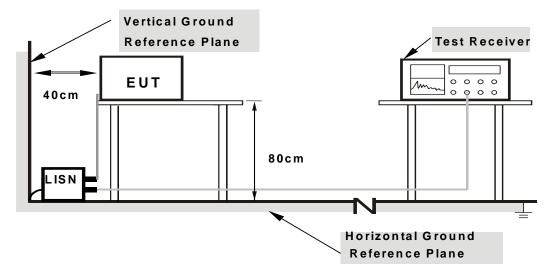
NOTE: All modes of operation were investigated and the worst-case emissions are reported.

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

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



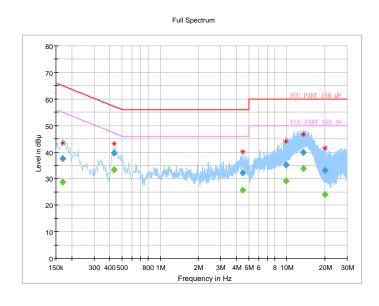
2.1.7 TEST RESULTS

TEST VOLTAGE		Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
ENVIRONMENTAL CONDITIONS	23deg. C, 52RH	TESTED BY	Jocan Guo

Frequency (MHz)	QuasiPeak (dB¦ÌV)	CAverage (dB¦ÌV)	Limit (dB¦ÌV)	Margin (dB)	Line	Filter	Corr. (dB)
0.170000		28.58	54.96	-26.38	L1	ON	9.7
0.170000	37.60		64.96	-27.36	L1	ON	9.7
0.432000		33.40	47.21	-13.81	L1	ON	9.7
0.432000	39.59		57.21	-17.62	L1	ON	9.7
4.488000		25.63	46.00	-20.37	L1	ON	9.7
4.488000	32.15		56.00	-23.85	L1	ON	9.7
9.828000		29.13	50.00	-20.87	L1	ON	9.9
9.828000	35.31		60.00	-24.69	L1	ON	9.9
13.476000		33.84	50.00	-16.16	L1	ON	9.9
13.476000	39.93		60.00	-20.07	L1	ON	9.9
20.104000		24.01	50.00	-25.99	L1	ON	9.9
20.104000	33.03		60.00	-26.97	L1	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 = Emission level Limit value
- 5. Correction factor = Insertion loss + Cable loss
- 6. Emission Level = Correction Factor + Reading Value.



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

District, Shenzhen51800, China

Tel: +86 755 8869 6566 Fax: +86 755 8869 6577

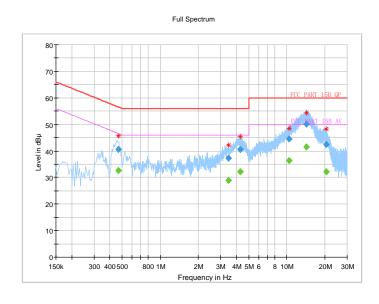


TEST VOLTAGE	DC 5V From Adapter Input 120 Vac, 60 Hz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
ENVIRONMENTAL CONDITIONS	23deg. C, 52RH	TESTED BY	Jocan Guo

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.468000		32.56	46.55	-13.99	N	ON	0.468000
0.468000	40.62		56.55	-15.93	N	ON	0.468000
3.458000		28.84	46.00	-17.16	N	ON	3.458000
3.458000	37.42		56.00	18.58	N	ON	3.458000
4.282000		32.29	46.00	-13.71	N	ON	4.282000
4.282000	40.57		56.00	-15.43	N	ON	4.282000
10.434000		36.32	50.00	-13.68	N	ON	10.43400
10.434000	44.64		60.00	-15.36	N	ON	10.43400
14.280000		41.61	50.00	-8.39	N	ON	14.28000
14.280000	50.25		60.00	-9.75	N	ON	14.28000
20.384000		32.19	50.00	-17.81	N	ON	20.38400
20.384000	42.42		60.00	-17.58	N	ON	20.38400

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



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 (dBµV/m)								
Frequencies (MHz)	FCC 15B/ ICES-003, Class A	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	37					
960-1000	49.5	43.5	47	37					
1000-3000	Avg: 49.5	Avg: 43.5	Not defined	Not defined					
3000+	Peak: 69.5	Peak: 63.5	Not defined	Not defined					

Radiated Emissions Limits at 3 meters (dBµV/m)							
Frequencies (MHz)	FCC 15B / ICES-003, Class A	FCC 15B / ICES-003, Class B	CISPR 22, Class A	CISPR 22, Class B			
30-88	49.5	40					
88-216	54	43.5	50.5	40.5			
216-230	56.9	46					
230-960	56.9	40	57.5	47.5			
960-1000	60	54	57.5	47.5			
1000-3000			Avg: 56	Avg: 50			
	Avg: 60	Avg: 54	Peak: 76	Peak: 70			
3000+	Peak: 80	Peak: 74	Avg: 60	Avg: 54			
			Peak: 80	Peak: 74			

Email: customerservice.dg@cn.bureauveritas.com



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 $(dBuV/m) = 20 \log Emission level (uV/m)$.
- 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 below1GHz

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
3m Semi-anechoic	ETS-LINDGREN	0	Euroshieldpn-	May 00 47	Mov OF 40
Chamber	E 15-LINDGREN	9111 6111 6111	CT0001143-1216	May 06,17	May 05,18
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Nov. 26,16	Nov. 25,18
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 10,18	Mar. 09,19
Signal Pre-Amplifier	EMSI	EMC 9135	980249	Jul. 24,17	Jul. 23,18

Frequency range above 1GHz

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.				
3m Semi-anechoic Chamber	ETS-LINDGREN		Euroshieldpn- CT0001143-1216	May 06,17	May 05,18				
	ETS-LINDGREN			Nov. 26,16	Nov. 25,18				
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Mar. 10,18	Mar. 09,19				
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	Jul. 24,17	Jul. 23,18				

NOTE: 1. The test was performed in 3m chamber.

- 2. 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.
- 3. The FCC Site Registration No. is 525120.



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 3 meter semi-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 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. 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.



<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.
- 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:

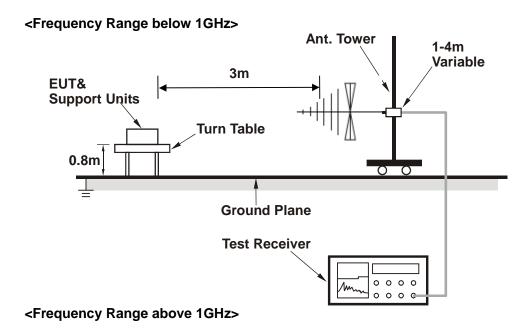
- 1. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
- 2. The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak detection at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth of test receiver/spectrum analyzer is 10Hz for Average detection (AV) at frequency above 1GHz.
- 3. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the receiver antenna.
- 4. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
- 5. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) (if the raw value not contains the amplifier);
- 6. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) Amplifier Gain(dB) (if the raw value contains the amplifier)
- 7. Margin value = Emission level Limit value.

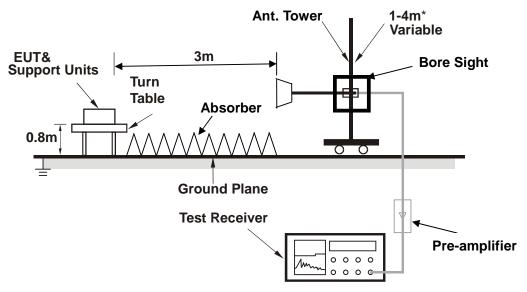
2.2.4 DEVIATION FROM TEST STANDARD

No deviation.



2.2.5 **TEST SETUP**





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

2.2.6 **EUT OPERATING CONDITIONS**

Same as item 2.1.6.

No.B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industrial Park, Nanshan District, Shenzhen51800, China

Tel: +86 755 8869 6566 Fax: +86 755 8869 6577

Email: customerservice.dg@cn.bureauveritas.com

Report Version 1

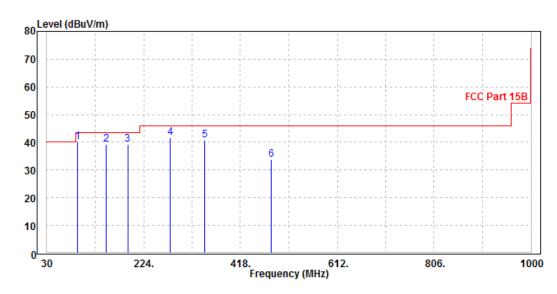


2.2.7 **TEST RESULTS**

TEST VOLTAGE	DC 5V From Adapter 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	Star Le		

	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	
91.11	40	67.07	43.5	-3.5	8.49	1.47	37.03	100	22	QP	
149.31	39.25	64.52	43.5	-4.25	9.64	1.88	36.79	100	32	QP	
191.99	39.28	63.35	43.5	-4.22	10.4	2.13	36.6	100	8	QP	
276.38	41.57	62.21	46	-4.43	13.28	2.59	36.51	100	350	QP	
346.22	40.82	59.17	46	-5.18	15.33	2.92	36.6	200	163	QP	
480.08	33.78	49.47	46	-12.22	17.82	3.4	36.91	200	225	QP	

- 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.



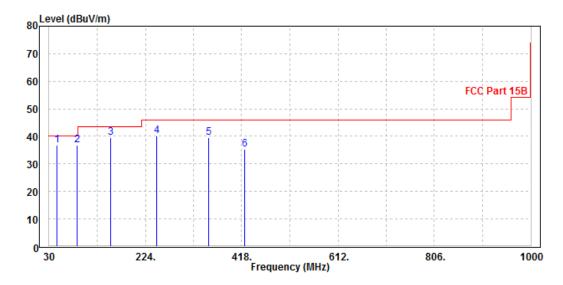
Tel: +86 755 8869 6566 Fax: +86 755 8869 6577



TEST VOLTAGE	DC 5V From Adapter 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	Star Le		

	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
46.49	36.82	66.97	40	-3.18	6.24	1.03	37.42	100	330	QP
86.26	36.83	64.23	40	-3.17	8.25	1.43	37.08	100	15	QP
154.16	39.46	64.26	43.5	-4.04	10.07	1.9	36.77	100	78	QP
246.31	40.12	61.66	46	-5.88	12.55	2.43	36.52	100	159	QP
352.04	39.43	57.58	46	-6.57	15.52	2.94	36.61	100	305	QP
423.82	35.28	51.53	46	-10.72	17.31	3.22	36.78	100	56	QP

- 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.



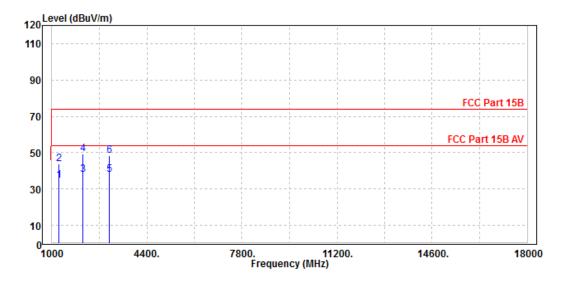


LIEST VOLTAGE	DC 5V From Adapter Input 120 Vac, 60 Hz	FREQUENCY RANGE	1-18 GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70 %RH	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Peak/Average, 1 MHz
TESTED BY	Star Le		

	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	
1250	34.64	48.31	54	-19.36	28.95	5.74	48.36	100	48	Average	
1250	43.94	57.61	74	-30.06	28.95	5.74	48.36	100	48	Peak	
2115	37.68	46.35	54	-16.32	32.01	7.66	48.34	100	110	Average	
2115	49.17	57.84	74	-24.83	32.01	7.66	48.34	100	110	Peak	
3050	37.99	44.14	54	-16.01	32.91	9.28	48.34	100	215	Average	
3050	48.17	54.32	74	-25.83	32.91	9.28	48.34	100	215	Peak	

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.



Tel: +86 755 8869 6566 Fax: +86 755 8869 6577

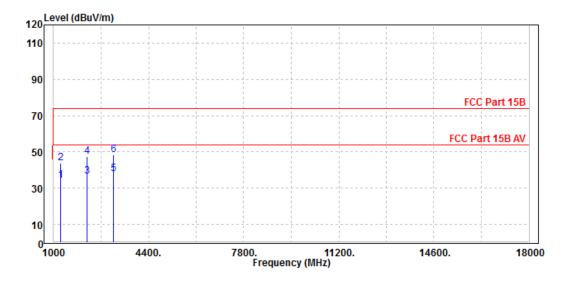


LIEST VOLTAGE	DC 5V From Adapter Input 120 Vac, 60 Hz	FREQUENCY RANGE	1-18 GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70 %RH	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Peak/Average, 1 MHz
TESTED BY	Star Le		

	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	
1260	34.22	47.88	54	-19.78	28.94	5.76	48.36	100	120	Average	
1260	43.76	57.42	74	-30.24	28.94	5.76	48.36	100	120	Peak	
2200	36.69	45.11	54	-17.31	32.1	7.81	48.33	100	80	Average	
2200	47.62	56.04	74	-26.38	32.1	7.81	48.33	100	80	Peak	
3150	38.03	44.02	54	-15.97	32.93	9.43	48.35	100	215	Average	
3150	48.26	54.25	74	-25.74	32.93	9.43	48.35	100	215	Peak	

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.



Tel: +86 755 8869 6566 Fax: +86 755 8869 6577



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.

---END---