



## **TEST REPORT**

Applicant	Flashbay Electronics
Address	Blgd b & C Xi Feng Cheng IND Zone, No.2 FuYuan Road He Ping, Village, FuYong Town, ShenZhen China

Manufacturer or Supplier	Flashbay Electronics	
Address	Blgd b & C Xi Feng Cheng IND Zone, No.2 FuYuan Road He Ping, Village, FuYong Town, ShenZhen China	
Product	Bluetooth headphone	
Brand Name	N/A	
Model	Mambo(MO)	
Additional Model & Model Difference	Nappa(NP), Craft(CC), Indie(ID), See items 2.1	
Date of tests	Nov. 21, 2017 ~ Feb. 07, 2018	



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

#### 

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

Tested by Breeze Jiang Project Engineer/ EMC Department	Approved by Glyn He Supervisor / EMC Department	
Breeze	Date: Feb. 09, 2018	

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## **RELEASE CONTROL RECORD**

Issue No.	Description	Date Issued
C171121N005	Original release	Feb. 09, 2018

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## 1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

Emission				
Standard	Test Item	Result	Remarks	
	Conducted test	PASS	Minimum passing margin is -7.33dB at 0.55225MHz	
AS/NZS CISPR 32: 2015, Class B	1.50. 4000 840-		Meets limits minimum passing margin is -8.53dB at 191.990MHz	
			Meets limits minimum passing margin is -10.99 dB at 3258.000MHz.	

## 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:

The listed uncertainties are the worst case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

MEASUREMENT	FREQUENCY	UNCERTAINTY
Mains Terminal Disturbance Voltage Test	0.15MHz ~ 30MHz	+/- 2.70 dB
De diete d Diete de ee ee Teet	30MHz ~ 1000MHz	+/- 4.03dB
Radiated Disturbance Test	1GHz-18GHz	+/- 4.72dB

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## **2 GENERAL INFORMATION**

## 2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Bluetooth headphone	
TEST MODEL	Mambo(MO)	
ADDITIONAL MODEL	Nappa(NP), Craft(CC), Indie(ID)	
POWER SUPPLY	DC 3.7V from Li-ion Battery or DC 5V from USB Host	
POWER SUPPLI	Unit	
CABLE SUPPLIED	USB Line: unshielded, detachable 0.2m,	
CABLE SUPPLIED	Aux in Line: unshielded, detachable 0.95m	
OPERATION FREQUENCY	2402 - 2480MHz for BT	

## NOTE:

- 1. For the test results, the EUT had been tested with all conditions. But only the worst case was showed in test report.
- 2. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- Please refer to the EUT photo document (Reference No.: 171121N005) for detailed product photo.
- 4. Additional models Nappa(NP), Craft(CC), Indie(ID) are identical with the test model Mambo(MO) except the model no. for trading purpose.

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## 2.2 DESCRIPTION OF TEST MODES

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

## **♦ FOR CONDUCTED EMISSION TEST**

Test Mode	Test Voltage	
Charging		
Aux in + Charging	DC 5V from Adapter Input AC 230V 50Hz	
Standby		

◆ FOR RADIATED EMISSIONS TEST (BELOW 1GHz)

Test Mode	Test Voltage	
Charging	DC 5V from Adapter Input AC 230V 50Hz	
Aux in + Charging		
Aux in		
Standby	DC 3.7V from Battery	
BT Link Normal Working		

**♦** FOR RADIATED EMISSIONS TEST (ABOVE 1GHz)

Test Mode	Test Voltage
BT Link Normal Working	DC 5V from Adapter Input AC 230V 50Hz

Note: When the EUT charging that wireless function cann't working.

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## 2.3 TEST PROGRAM USED AND OPERATION DESCRIPTIONS

- 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.

## 2.4 GENERAL DESCRIPTION OF APPLIED STANDARDS

According to the specifications of the manufacturers, the EUT must comply with the requirements of the following standards:

#### **AS/NZS CISPR 32:2015**

All applicable tests have been performed and recorded as per the above standards.

## 2.5 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	Mobile Phone	Iphone 4	APPLE	A1332	N/A
2	Mobile Phone	SAMSUNG	GT-S7572	R21D85CCB7N	N/A
3	Adapter	N/A	DC5V 1A	N/A	N/A

NO.	DESCRIPTION OF THE ABOVE SUPPORT UNITS
1 ~ 3	N/A

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## CONDUCTED EMISSION FROM THE AC MAINS POWER PORT

#### 3.1 LIMITS

Fraguency (MHz)	Class A	(dBuV)	Class B (dBuV)		
Frequency (MHz)	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.

#### 3.2 TEST INSTRUMENT

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Apr. 05,17	Apr. 04,18
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Mar. 06,17	Mar. 05,18
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Apr. 05,17	Apr. 04,18
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Jan. 04,18	Jan. 03,19
Test software	ADT	ADT_Cond _V7.3.7	N/A	N/A	N/A

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

#### 3.3 TEST ARRANGEMENT

- 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 test results of conducted emissions at mains ports are recorded of six worst margins for quasi-peak (mandatory) [and average (if necessary)] values against the limits at frequencies of interest unless the margin is 20 dB or greater.

Note: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

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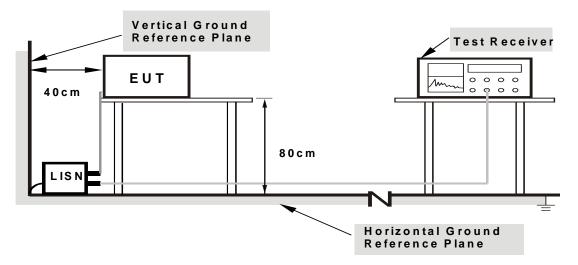
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<sup>2.</sup> The limit decreases linearly with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.



## 3.4 TEST SETUP



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

2.Both of LISNs (AMN) are 80cm from EUT and at least 80cm from other units and other metal planes support units.

## 3.5 SUPPLEMENTARY INFORMATION

N/A

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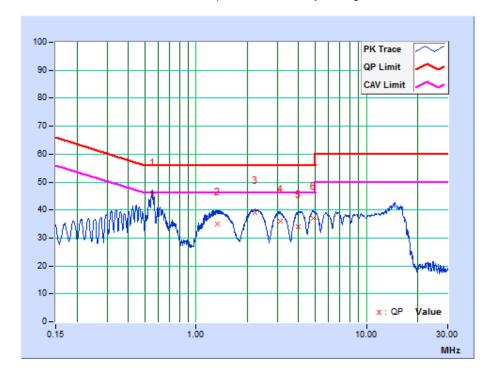


## 3.6 TEST RESULTS

TEST MODE	Aux in + Charging	6DB BANDWIDTH	9 kHz
TEST VOLTAGE	DC 5V from Adapter input AC 230V 50Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	25deg. C, 49% RH	TESTED BY	Xue Wang

No.	Freq. [MHz]	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]			nit (uV)]		rgin dB)
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.55225	10.22	35.28	28.45	45.50	38.67	56.00	46.00	-10.50	-7.33
2	1.33575	10.22	24.83	18.45	35.05	28.67	56.00	46.00	-20.95	-17.33
3	2.22450	10.22	28.67	22.60	38.89	32.82	56.00	46.00	-17.11	-13.18
4	3.11550	10.22	25.85	18.75	36.07	28.97	56.00	46.00	-19.93	-17.03
5	3.97275	10.22	23.81	14.80	34.03	25.02	56.00	46.00	-21.97	-20.98
6	4.85025	10.22	26.82	21.72	37.04	31.94	56.00	46.00	-18.96	-14.06

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



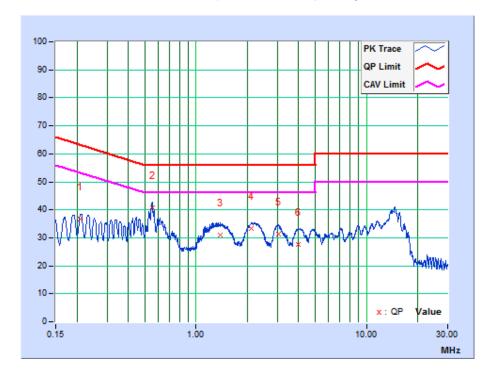
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TEST MODE	Aux in + Charging	6DB BANDWIDTH	9 kHz
TEST VOLTAGE	DC 5V from Adapter input AC 230V 50Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	25deg. C, 49% RH	TESTED BY	Xue Wang

No.	No. Freq. Factor [dB (uV)] [		Freq. Factor [dB (uV)] [dB (uV)]		Limit [dB (uV)]		Margin (dB)			
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.20956	10.01	26.71	17.21	36.72	27.22	63.22	53.22	-26.50	-26.00
2	0.55225	10.02	30.63	24.79	40.65	34.81	56.00	46.00	-15.35	-11.19
3	1.37850	10.01	20.84	16.23	30.85	26.24	56.00	46.00	-25.15	-19.76
4	2.11875	10.01	23.26	11.95	33.27	21.96	56.00	46.00	-22.73	-24.04
5	3.05250	10.03	21.38	15.23	31.41	25.26	56.00	46.00	-24.59	-20.74
6	3.97050	10.02	17.74	12.09	27.76	22.11	56.00	46.00	-28.24	-23.89

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



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## 4 RADIATED EMISSION MEASUREMENT

## 4.1 LIMITS

## **4.2 OF RADIATED EMISSION MEASUREMENT**

## FOR FREQUENCY BELOW 1000 MHz

FREQUENCY	Class A (at 10m)	Class B (at 10m)		
(MHz)	Quasi-Peak dBuV/m	Quasi-Peak dBuV/m		
30 – 230	40	30		
230 – 1000	47	37		

FREQUENCY	Class A (at 3m)	Class B (at 3m)		
(MHz)	Quasi-Peak dBuV/m	Quasi-Peak dBuV/m		
30 – 230	50	40		
230 – 1000	57	47		

## For FM receivers

Distance (m)	Source	Frequency Range	Limits dB (uV/m)	
(111)		(MHz)	Quasi-pe	ak
	Local oscillator	≤1000	Fundamental	50
		30 to 300	Harmonics	42
10		300 to 1000	Harmonics	46
	Other	30 to 230		30
		230 to 1000		37
	Local oscillator	≤1000	Fundamental	60
		30 to 300	Harmonics	52
3		300 to 1000	Harmonics	56
	Other	30 to 230		40
		230 to 1000		47

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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 108	1000
108 – 500	2000
500 – 1000	5000
	Up to 5 times of the highest
Above 1000	frequency or 6 GHz, whichever is
	less

## FOR FREQUENCY ABOVE 1000 MHz

EDECHENCY (CH-)	Class A (dBu	ıV/m) (at 3m)	Class B (dBuV/m) (at 3m)		
FREQUENCY (GHz)	PEAK	AVERAGE	PEAK	AVERAGE	
1 to 3	76	56	70	50	
3 to 6	80	60	74	54	

**NOTE:** 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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## 4.3 TEST INSTRUMENTS

#### FREQUENCY RANGE BELOW 1GHz

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101564	Feb. 27,17	Feb. 26,18
EMI Test Receiver	Rohde&Schwarz	ESCI	101418	Feb. 27,17	Feb. 26,18
Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-555	Nov. 13, 17	Nov. 12, 18
Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-554	Dec. 17, 17	Dec. 16, 18
Signal Amplifier	Agilent	8447D	2944A10488	Jun. 23,17	Jun. 22,18
Signal Amplifier	Agilent	8447D	2944A11174	Jun. 23,17	Jun. 22,18
10m Semi-anechoic Chamber	CHANGLING	21.4m*12.1m* 8.8m		Mar. 06,17	Mar. 05,18
Test Software	ADT	ADT_Radiated _V8.7.07	N/A	N/A	N/A

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

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

## FREQUENCY RANGE ABOVE 1GHz

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Horn Antenna	ETS-Lindgren	3117	00085519	Dec. 10, 17	Dec. 09, 18
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170242	Mar. 15,17	Mar. 14,18
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101003	Apr. 05,17	Apr. 04,18
Broadband Preamplifier	SCHWARZBECK	BBV9718	266	Mar. 21,17	Mar. 20,18
Pre-Amplifier (100MHz-26.5GHz)	EMCI	EMC 012645	980077	May 19,17	May 18,18
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Nov. 08,17	Nov. 07,18
Test Software	ADT	ADT_Radiated _V8.7.07	N/A	N/A	N/A

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

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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.

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## **4.4 TEST PROCEDURE**

## <Frequency Range below 1GHz>

- 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. 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.
- 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.

#### NOTE:

- 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 antenna.
- 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.

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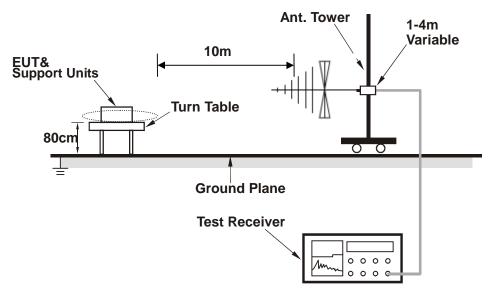
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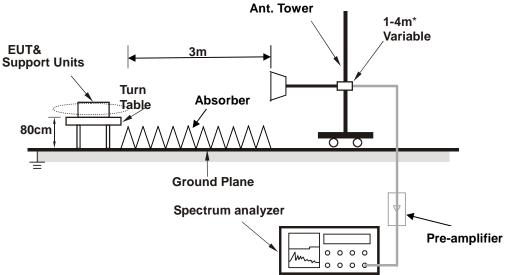


## 4.5 TEST SETUP

## <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

## 4.6 SUPPLEMENTARY INFORMATION

The more stringent measurement method of paragraph 8.3.2 in ANSI C63.4:2014 was applied for the test.

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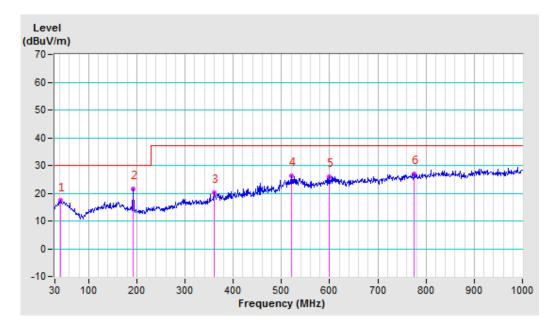
## 4.7 TEST RESULTS (BELOW 1GHz)

TEST MODE	BT Link Normal Working					
FREQUENCY RANGE	30-1000 MHz	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak, 120kHz			
ENVIRONMENTAL CONDITIONS	21.0deg. C, 54.0% RH	TESTED BY: Xin Peng				

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10 M										
	Freq.	Correction Ray	Raw	Emission	Limit	Margin	Antenna	Table			
No.	(MHz)	Factor	Value	Level	(dBuV/m)	(dB)	Height	Angle			
(IVITZ)	(1011 12)	(dB/m)	(dBuV)	(dBuV/m)		(ub)	(cm)	(Degree)			
1	40.816	-8.99	26.36	17.37	30.00	-12.63	400	8			
2	191.990	-10.66	32.13	21.47	30.00	-8.53	400	0			
3	360.237	-6.06	26.32	20.26	37.00	-16.74	200	310			
4	520.578	-3.33	29.63	26.30	37.00	-10.70	200	325			
5	599.875	-0.86	26.84	25.98	37.00	-11.02	200	22			
6	775.979	2.71	24.17	26.88	37.00	-10.12	400	90			

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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496.619

610.448

6

-4.35

-0.84

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TES	ST MODE		ВТ	BT Link Normal Working							
FREQUENCY RANGE			30-1000 MHz		DETECTOR FUNCTION & BANDWIDTH		Quasi-Peak, 120kHz				
ENVIRONMENTAL CONDITIONS			21	.0deg. C, 5	4.0% RH	TESTED BY: Xin Peng					
	ANT	ENNA F	20	LARITY 8	& TEST D	ISTANCE:	VERTIC	AL AT 10	M		
No.	No. Freq. Correction Factor (dB/m)		•	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)		
1	40.961	-9.00		26.76	17.76	30.00	-12.24	100	264		
2	171.329	-9.39		25.92	16.53	30.00	-13.47	300	158		
3	283.510	-7.58		24.09	16.51	37.00	-20.49	100	360		
4	404.372	-5.14		24.81	19.67	37.00	-17.33	100	331		

**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.

37.00

37.00

-15.20

-12.36

100

300

0

125

2. Negative sign (-) in the margin column signify levels below the limit.

21.80

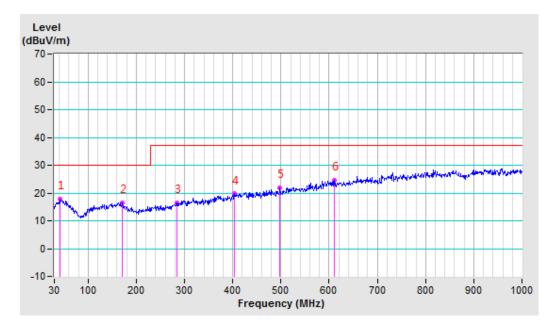
24.64

3. Frequency range scanned: 30MHz to 1000MHz.

26.15

25.48

4. Only emissions significantly above equipment noise floor are reported.



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## 4.8 TEST RESULTS (ABOVE 1GHZ)

TEST MODE	BT Link Normal Working					
TEST VOLTAGE	DC 3.7V from Battery	FREQUENCY RANGE	1-6 GHz			
ENVIRONMENTAL CONDITIONS	21.0deg. C, 54.0% RH	TESTED BY: Luke				

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
	Freq.	Correction	Raw	Emission	Limit	Margin	Antenna	Table			
No.	(MHz)	Factor	Value	Level	(dBuV/m)	(dB)	Height	Angle			
	(1711 12)	(dB/m)	(dBuV)	(dBuV/m)	(ubu v/III)	(ub)	(cm)	(Degree)			
1	3258.000PK	4.02	58.99	63.01	74.00	-10.99	100	2			
2	3258.000AV	4.02	38.65	42.67	54.00	-11.33	100	2			
3	3846.000PK	5.22	57.26	62.48	74.00	-11.52	100	345			
4	3846.000AV	5.22	36.45	41.67	54.00	-12.33	100	345			
5	4526.000PK	6.73	55.06	61.79	74.00	-12.21	100	278			
6	4526.000AV	6.73	35.64	42.37	54.00	-11.63	100	278			

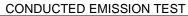
	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
	Freq.	Correction	Raw	Emission	Limit	Margin	Antenna	Table			
No.	•	Factor	Value	Level	(dBuV/m) (dB	_	Height	Angle			
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)		(ub)	(cm)	(Degree)			
1	3126.000PK	3.37	58.76	62.13	74.00	-11.87	100	289			
2	3126.000AV	3.37	38.30	41.67	54.00	-12.33	100	289			
3	3948.000PK	5.20	56.14	61.34	74.00	-12.66	100	248			
4	3948.000AV	5.20	36.39	41.59	54.00	-12.41	100	248			
5	4628.000PK	6.76	54.91	61.67	74.00	-12.33	100	27			
6	4628.000AV	6.76	34.51	41.27	54.00	-12.73	100	27			

- 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 6GHz.
  - 4. Only emissions significantly above equipment noise floor are reported.

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## PHOTOGRAPHS OF THE TEST CONFIGURATION



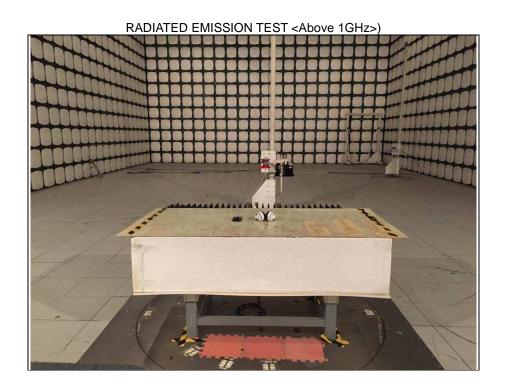




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# 6 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

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

**END** 

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