

Product Name : Personal Navigation Device

Model No. : M-Nav 760

Applicant : Navman Wireless Holdings

Address : 2700 Patriot Boulevard, Suite 410, Glenview, IL 60026, USA

Date of Receipt : 2009/03/12

Issued Date : 2009/10/20

Report No. : 09A280R-ITUSP01V02

Report Version : V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF, NVLAP, NIST or any agency of the Government.

The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.



# **Test Report Certification**

Issued Date : 2009/10/20

Report No. : 09A280R-ITUSP01V02

# QuieTek

Product Name : Personal Navigation Device

Applicant : Navman Wireless Holdings

Address : 2700 Patriot Boulevard, Suite 410, Glenview, IL 60026, USA

Manufacturer : Navman Wireless Holdings

Model No. : M-Nav 760

EUT Rated Voltage : DC 12V

EUT Test Voltage : AC 120 V / 60 Hz

Trade Name : Navman Wireless ANAVMAN

Applicable Standard : FCC CFR Title 47 Part 15 Subpart B: 2007, Class B

CISPR 22: 2005, ANSI C63.4: 2003

Test Result : Complied

Performed Location : Quietek Corporation (Linkou Laboratory)

No.5-22, Ruei-Shu Valley, Ruei-Ping Tsuen Lin Kuo

Shiang, Taipei, 244 Taiwan, R.O.C.

TEL:+866-2-8601-3788 / FAX:+886-2-8601-3789

Documented By :

(Adm. Specialist / Leven Huang)

Reviewed By :

(Engineer / Elvis Su)

Approved By :

( Manager / Vincent Lin )



#### **Laboratory Information**

We, **QuieTek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scopes:

Taiwan R.O.C. : BSMI, NCC, TAF

Germany : TUV Rheinland

Norway : Nemko, DNV

USA : FCC, NVLAP

Japan : VCCI

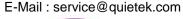
The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site : <a href="http://tw.quietek.com/modules/enterprise/services.php?item=100">http://tw.quietek.com/modules/enterprise/services.php?item=100</a>
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : <a href="http://www.quietek.com/">http://www.quietek.com/</a>

If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

#### **HsinChu Testing Laboratory:**

No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.

TEL:+886-3-592-8858 / FAX:+886-3-592-8859









#### **LinKou Testing Laboratory:**







#### Suzhou (China) Testing Laboratory:









# TABLE OF CONTENTS

Des	scription	Page
1.	General Information	5
1.1.	EUT Description	5
1.2.	. Mode of Operation	6
1.3.	. Tested System Details	7
1.4.	Configuration of Tested System	8
1.5.	. EUT Exercise Software	10
2.	Technical Test	11
2.1.	. Summary of Test Result	11
2.2.	List of Test Equipment	12
2.3.	. Measurement Uncertainty	13
2.4.	. Test Environment	14
3.	Conducted Emission	15
3.1.	Test Specification	15
3.2.	. Test Setup	15
3.3.	Limit	15
3.4	Test Procedure	16
3.5	Test Result	17
3.6	. Test Photograph	29
4.	Radiated Emission	31
4.1.	Test Specification	31
4.2	. Test Setup	31
4.3	Limit	32
4.4	Test Procedure	33
4.5	. Test Result	34
4.6	. Test Photograph	42
5.	Attachment	45
	EUT Photograph	45



# 1. General Information

# 1.1. EUT Description

Product Name	Personal Navigation Device	
Trade Name	Navman Wireless	
Model No.	M-Nav 760	

Component	Component		
Audio to RCA Cable	Non-shielded, 0.3m		
Earphone	Non-shielded, 1.1m		
Power Adapter	MFR: PHIHONG, M/N: PSAA05A-050		
	Input: 100~240V, 200mA, 50~60Hz, 13~20VA		
	Output: DC 5V, 1A LPS		
	Cable Out: Non-shielded, 1.8m		



#### 1.2. Mode of Operation

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Pre-Test Mode

Mode 1: GPS+Docking+Car Charge

Mode 2: MP3

Mode 3: Video

Mode 4: BT(Adapter)

Mode 5: AV IN

Final Test Mode

Emission Mode 1: GPS+Docking+Car Charge

Mode 4: BT(Adapter)



# 1.3. Tested System Details

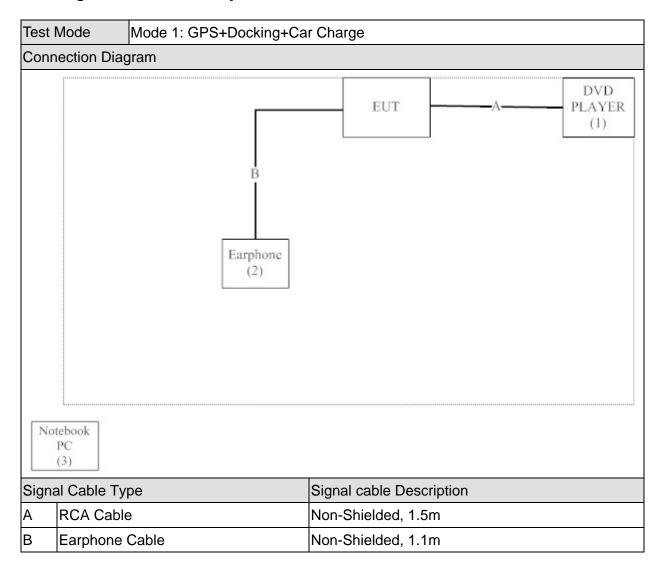
The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Test Mode		Mode 1: GPS+Docking+Car Charge				
Product		Manufacturer	Model No.	Serial No.	Power Cord	
1	DVD PLAYER	Panasonic	DVD-S97	VC6GG001022R	Non-Shielded, 1.8m	
2	Earphone	RoyalTek	N/A	N/A	N/A	
3	Notebook PC	DELL	PP04X	2D2ZM1S	N/A	

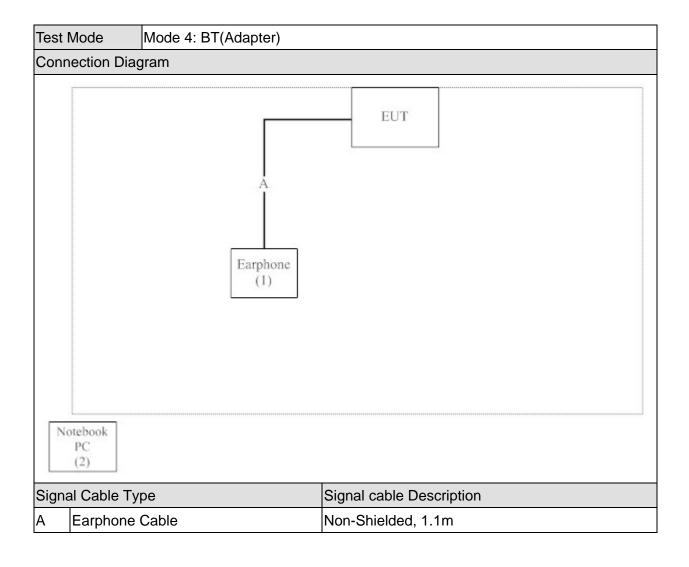
Test Mode		Mode 4: BT(Adapter)				
Product		Manufacturer	Model No.	Serial No.	Power Cord	
1	Earphone	RoyalTek	N/A	N/A	N/A	
2	Notebook PC	DELL	PP04X	2D2ZM1S	N/A	



# 1.4. Configuration of Tested System









# 1.5. EUT Exercise Software

1	Setup the EUT and simulators as shown on 1.4.
2	Turn on the power of all equipment.
3	A mufti meter was used to verify the model operation before the measurement.

Page: 10 of 52



# 2. Technical Test

# 2.1. Summary of Test Result

$\boxtimes$	No deviations from the test standards
	Deviations from the test standards as below description:

Emission					
Performed Item Normative References		Test	Deviation		
		Performed			
Conducted Emission	FCC CFR Title 47 Part 15 Subpart B: 2007	Yes	No		
	Class B, ANSI C63.4: 2003				
Radiated Emission	FCC CFR Title 47 Part 15 Subpart B: 2007	Yes	No		
	Class B, ANSI C63.4: 2003				

Page: 11 of 52



# 2.2. List of Test Equipment

#### Conducted Emission / SR1

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
EMI Test Receiver	R&S	ESCS 30	100366	2009/10/20
LISN	R&S	ENV4200	833209/007	2009/08/14
LISN	R&S	ENV216	100085	2009/02/17
Pulse Limiter	R&S	ESH3-Z2	357.88.10.52	2009/09/09

#### Radiated Emission / Site2

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Bilog Antenna	Schaffner Chase	CBL6112B	2921	2009/09/15
Broadband Horn Antenna	Schwarzbeck	BBHA9170	208	2009/07/25
EMI Test Receiver	R&S	ESCS 30	100123	2009/03/23
Horn Antenna	Schwarzbeck	BBHA9120D	305	2009/08/10
Pre-Amplifier	QTK	N/A	N/A	2009/01/03
Spectrum Analyzer	Advantest	R3162	120300652	2009/04/06

Page: 12 of 52



# 2.3. Measurement Uncertainty

#### **Conducted Emission**

The measurement uncertainty is evaluated as  $\pm$  2.26 dB.

### **Radiated Emission**

The measurement uncertainty is evaluated as  $\pm$  3.19 dB.

Page: 13 of 52



# 2.4. Test Environment

Performed Item	Items	Required	Actual
	Temperature (°C)	15-35	25
Conducted Emission	Humidity (%RH)	25-75	50
	Barometric pressure (mbar)	860-1060	950-1000
	Temperature (°C)	15-35	25
Radiated Emission	Humidity (%RH)	25-75	50
	Barometric pressure (mbar)	860-1060	950-1000

Page: 14 of 52

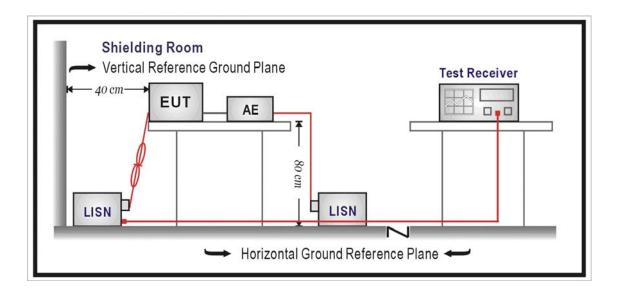


#### 3. Conducted Emission

# 3.1. Test Specification

According to Standard: FCC Part 15 Subpart B, ANSI C63.4

### 3.2. Test Setup



#### 3.3. **Limit**

Limits				
Frequency (MHz)	QP (dBuV)	AV (dBuV)		
0.15 - 0.50	66 - 56	56 – 46		
0.50-5.0	56	46		
5.0 - 30	60	50		

Remarks: In the above table, the tighter limit applies at the band edges.



#### 3.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination.

(Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed on conducted measurement.

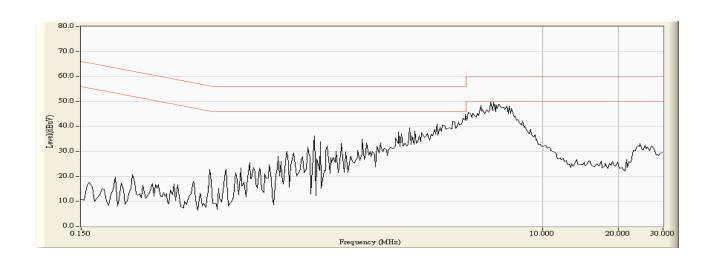
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

Page: 16 of 52



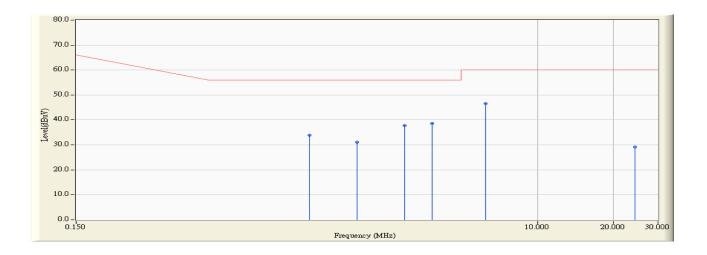
#### 3.5. Test Result

Site : SR1	Time: 2009/03/20 - 10:34
Limit : CISPR_B_00M_QP	Margin : 10
EUT : Personal Navigation Device	Probe : DC_LISN_NNBM8126F - Line1
Power : AC 120V/60Hz	Note : Mode 1





Site : SR1	Time: 2009/03/20 - 10:35
Limit : CISPR_B_00M_QP	Margin : 0
EUT : Personal Navigation Device	Probe : DC_LISN_NNBM8126F - Line1
Power : AC 120V/60Hz	Note : Mode 1

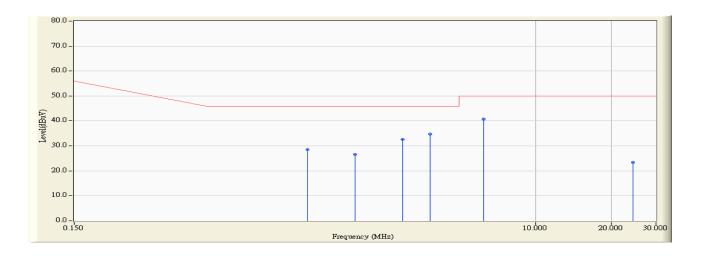


		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV)	(dB)	(dBuV)	
1		1.252	0.400	33.580	33.980	-22.020	56.000	QUASIPEAK
2		1.935	0.400	30.770	31.170	-24.830	56.000	QUASIPEAK
3		2.982	0.400	37.350	37.750	-18.250	56.000	QUASIPEAK
4		3.830	0.400	38.250	38.650	-17.350	56.000	QUASIPEAK
5	*	6.244	0.400	46.050	46.450	-13.550	60.000	QUASIPEAK
6		24.377	0.790	28.330	29.120	-30.880	60.000	QUASIPEAK

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Site : SR1	Time : 2009/03/20 - 10:35
Limit : CISPR_B_00M_AV	Margin: 0
EUT : Personal Navigation Device	Probe : DC_LISN_NNBM8126F - Line1
Power : AC 120V/60Hz	Note : Mode 1

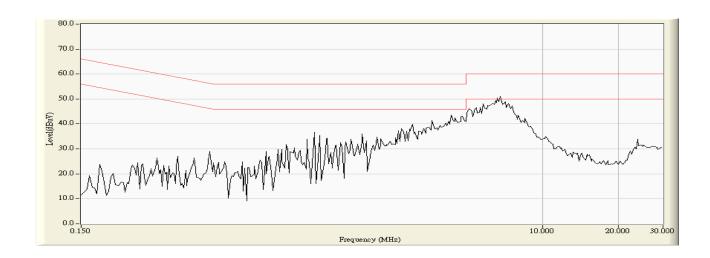


		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV)	(dB)	(dBuV)	
1		1.252	0.400	28.230	28.630	-17.370	46.000	AVERAGE
2		1.935	0.400	26.100	26.500	-19.500	46.000	AVERAGE
3		2.982	0.400	32.260	32.660	-13.340	46.000	AVERAGE
4		3.830	0.400	34.290	34.690	-11.310	46.000	AVERAGE
5	*	6.244	0.400	40.290	40.690	-9.310	50.000	AVERAGE
6		24.377	0.790	22.630	23.420	-26.580	50.000	AVERAGE

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor

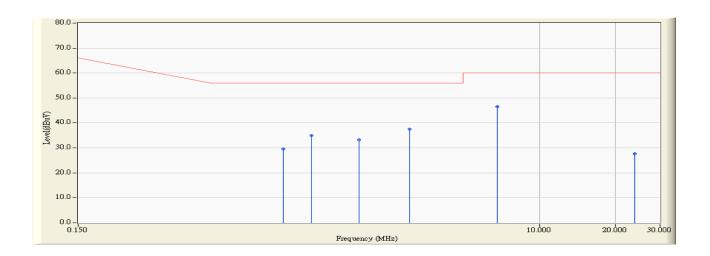


Site : SR1	Time : 2009/03/20 - 10:36
Limit : CISPR_B_00M_QP	Margin : 10
EUT : Personal Navigation Device	Probe : DC_LISN_NNBM8126F - Line2
Power : AC 120V/60Hz	Note : Mode 1





Site : SR1	Time : 2009/03/20 - 10:37
Limit : CISPR_B_00M_QP	Margin: 0
EUT : Personal Navigation Device	Probe : DC_LISN_NNBM8126F - Line2
Power : AC 120V/60Hz	Note : Mode 1

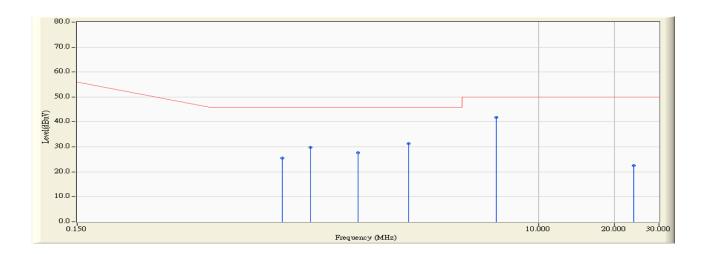


		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV)	(dB)	(dBuV)	
1		0.970	0.400	29.100	29.500	-26.500	56.000	QUASIPEAK
2		1.252	0.400	34.580	34.980	-21.020	56.000	QUASIPEAK
3		1.939	0.400	32.780	33.180	-22.820	56.000	QUASIPEAK
4		3.064	0.400	37.190	37.590	-18.410	56.000	QUASIPEAK
5	*	6.814	0.400	46.130	46.530	-13.470	60.000	QUASIPEAK
6		23.896	0.780	26.930	27.710	-32.290	60.000	QUASIPEAK

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Site : SR1	Time : 2009/03/20 - 10:37
Limit : CISPR_B_00M_AV	Margin: 0
EUT : Personal Navigation Device	Probe : DC_LISN_NNBM8126F - Line2
Power : AC 120V/60Hz	Note : Mode 1

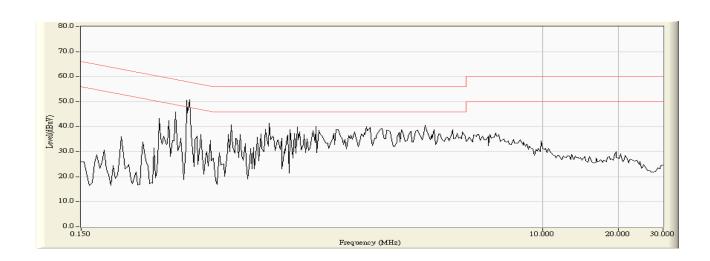


		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV)	(dB)	(dBuV)	
1		0.970	0.400	25.060	25.460	-20.540	46.000	AVERAGE
2		1.252	0.400	29.460	29.860	-16.140	46.000	AVERAGE
3		1.939	0.400	27.270	27.670	-18.330	46.000	AVERAGE
4		3.064	0.400	30.910	31.310	-14.690	46.000	AVERAGE
5	*	6.814	0.400	41.460	41.860	-8.140	50.000	AVERAGE
6		23.896	0.780	21.810	22.590	-27.410	50.000	AVERAGE

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor

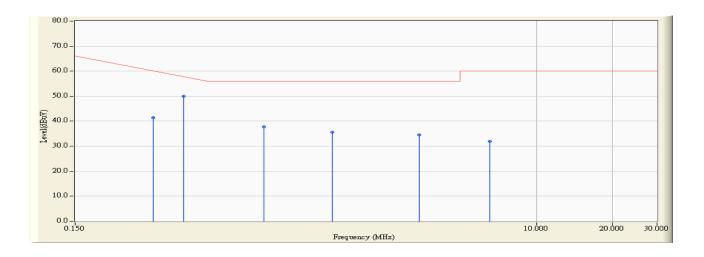


Site : SR1	Time : 2009/03/19 - 22:51
Limit : CISPR_B_00M_QP	Margin : 10
EUT : Personal Navigation Device	Probe : ENV-216-L1 - Line1
Power : AC 120V/60Hz	Note : Mode 4





Site : SR1	Time : 2009/03/19 - 22:52
Limit : CISPR_B_00M_QP	Margin : 0
EUT : Personal Navigation Device	Probe : ENV-216-L1 - Line1
Power : AC 120V/60Hz	Note : Mode 4

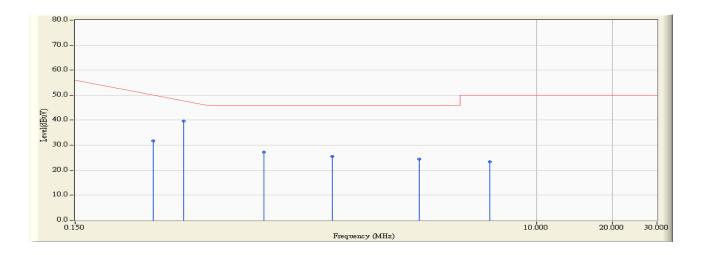


		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV)	(dB)	(dBuV)	
1		0.306	9.830	31.520	41.350	-20.193	61.543	QUASIPEAK
2	*	0.404	9.820	40.070	49.890	-8.853	58.743	QUASIPEAK
3		0.834	9.830	27.930	37.760	-18.240	56.000	QUASIPEAK
4		1.556	9.840	25.730	35.570	-20.430	56.000	QUASIPEAK
5		3.431	9.860	24.740	34.600	-21.400	56.000	QUASIPEAK
6		6.525	9.890	22.150	32.040	-27.960	60.000	QUASIPEAK

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Site : SR1	Time : 2009/03/19 - 22:52
Limit : CISPR_B_00M_AV	Margin: 0
EUT : Personal Navigation Device	Probe : ENV-216-L1 - Line1
Power : AC 120V/60Hz	Note : Mode 4

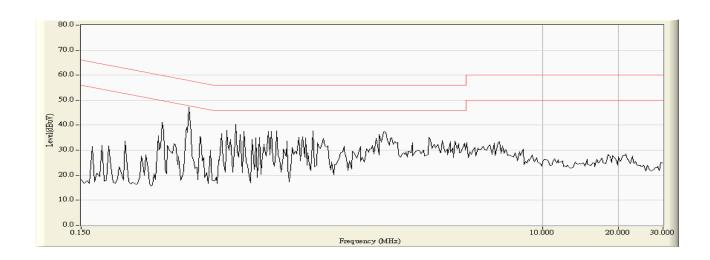


		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV)	(dB)	(dBuV)	
1		0.306	9.830	21.810	31.640	-19.903	51.543	AVERAGE
2	*	0.404	9.820	29.790	39.610	-9.133	48.743	AVERAGE
3		0.834	9.830	17.440	27.270	-18.730	46.000	AVERAGE
4		1.556	9.840	15.680	25.520	-20.480	46.000	AVERAGE
5		3.431	9.860	14.600	24.460	-21.540	46.000	AVERAGE
6		6.525	9.890	13.520	23.410	-26.590	50.000	AVERAGE

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor

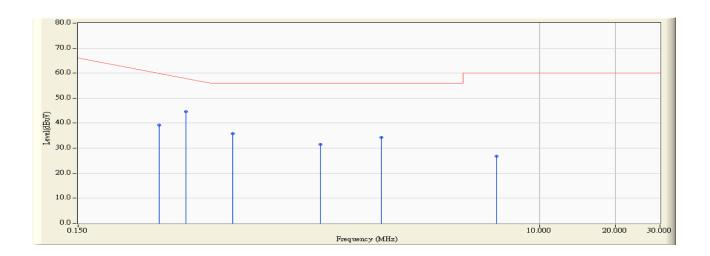


Site : SR1	Time : 2009/03/19 - 22:52
Limit : CISPR_B_00M_QP	Margin : 10
EUT : Personal Navigation Device	Probe : ENV-216-N - Line2
Power : AC 120V/60Hz	Note : Mode 4





Site : SR1	Time : 2009/03/19 - 22:53
Limit : CISPR_B_00M_QP	Margin : 0
EUT : Personal Navigation Device	Probe : ENV-216-N - Line2
Power : AC 120V/60Hz	Note : Mode 4

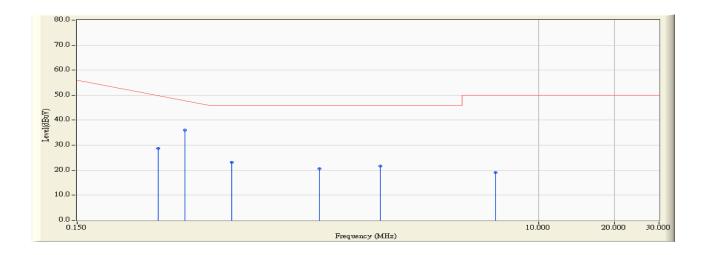


		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV)	(dB)	(dBuV)	
1		0.314	9.850	29.460	39.310	-22.004	61.314	QUASIPEAK
2	*	0.400	9.840	34.760	44.600	-14.257	58.857	QUASIPEAK
3		0.611	9.830	25.950	35.780	-20.220	56.000	QUASIPEAK
4		1.361	9.840	21.660	31.500	-24.500	56.000	QUASIPEAK
5		2.369	9.850	24.570	34.420	-21.580	56.000	QUASIPEAK
6		6.779	9.900	16.830	26.730	-33.270	60.000	QUASIPEAK

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Site : SR1	Time : 2009/03/19 - 22:53
Limit : CISPR_B_00M_AV	Margin: 0
EUT : Personal Navigation Device	Probe : ENV-216-N - Line2
Power : AC 120V/60Hz	Note : Mode 4



		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV)	(dB)	(dBuV)	
1		0.314	9.850	18.940	28.790	-22.524	51.314	AVERAGE
2	*	0.400	9.840	26.120	35.960	-12.897	48.857	AVERAGE
3		0.611	9.830	13.280	23.110	-22.890	46.000	AVERAGE
4		1.361	9.840	10.820	20.660	-25.340	46.000	AVERAGE
5		2.369	9.850	11.870	21.720	-24.280	46.000	AVERAGE
6		6.779	9.900	9.120	19.020	-30.980	50.000	AVERAGE

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



# 3.6. Test Photograph

Test Mode : Mode 1: GPS+Docking+Car Charge
Description : Front View of Conducted Test



Test Mode : Mode 1: GPS+Docking+Car Charge
Description : Back View of Conducted Test



Page: 29 of 52



Test Mode : Mode 4: BT(Adapter)

Description : Front View of Conducted Test



Test Mode : Mode 4: BT(Adapter)

Description : Back View of Conducted Test





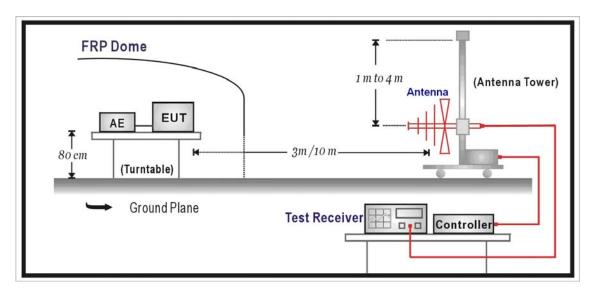
#### 4. Radiated Emission

### 4.1. Test Specification

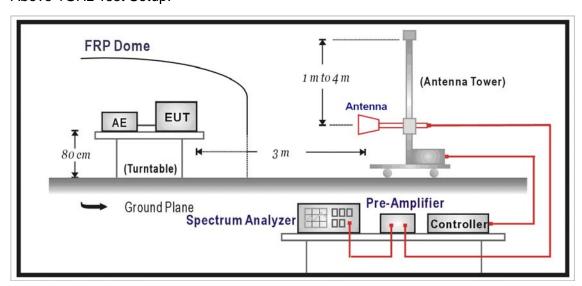
According to EMC Standard: FCC Part 15 Subpart B, ANSI C63.4

### 4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:





#### 4.3. Limit

Under 1GHz test shall not exceed the following value:

Limits					
Frequency (MHz)	Distance (m)	dBuV/m			
30 – 230	10	30			
230 – 1000	10	37			

#### Remark:

- 1. The tighter limit shall apply at the edge between two frequency bands.
- 2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Above 1GHz test shall not exceed the following value:

FCC Part 15	FCC Part 15 Subpart B Paragraph 15.109 Limits (dBuV/m)				
Frequency (MHz)	Distance (m)	dBuV/m			
30-88	3	40			
88-216	3	43.5			
216-960	3	46			
Above 960	3	54			

#### Remark:

- 1. The tighter limit shall apply at the edge between two frequency bands.
- 2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
- 3. RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)



#### 4.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground.

The turn table can rotate 360 degrees to determine the position of the maximum emission level and the antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated on radiated measurement.

For an unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table:

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 <sup>th</sup> harmonic of the highest frequency or 40 GHz, whichever is lower

On any frequency or frequencies below or equal to 1000 MHz, the radiated limits shown are based on measuring equipment employing a quasi-peak detector function and above 1000 MHz, the radiated limits shown are based measuring equipment employing an average detector function.

When average radiated emission measurement are included emission measurement Above 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.

For class A, the measurement distance between the EUT and antenna is 10 meters for under 1GHz and above 1GHz.

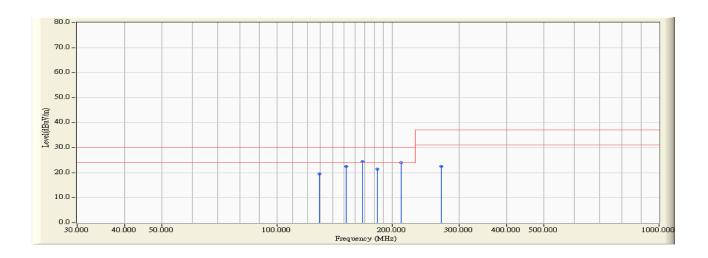
For class B, the measurement distance between the EUT and antenna is 10 meters for under 1GHz and 3 meters for above 1GHz.

The bandwidth below 1GHz setting on the field strength meter (R&S Test Receiver ESCS 30) is 120 kHz and above 1GHz is 1MHz.



#### 4.5. Test Result

Site : OATS-2	Time: 2009/03/19 - 20:03
Limit : CISPR_B_10M_QP	Margin : 6
EUT : Personal Navigation Device	Probe : Site2_CBL6112_10M_0811 - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1

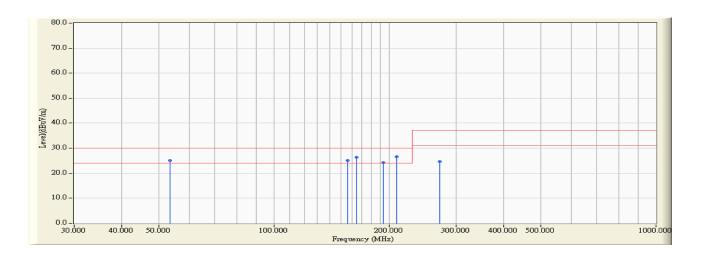


		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV/m)	(dB)	(dBuV/m)	
1		129.350	14.617	5.000	19.617	-10.383	30.000	QUASIPEAK
2		151.510	13.442	9.160	22.601	-7.399	30.000	QUASIPEAK
3	*	167.650	12.533	11.880	24.413	-5.587	30.000	QUASIPEAK
4		183.000	12.107	9.300	21.407	-8.593	30.000	QUASIPEAK
5		211.700	13.095	10.890	23.986	-6.014	30.000	QUASIPEAK
6		269.600	16.430	6.000	22.430	-14.570	37.000	QUASIPEAK

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Site : OATS-2	Time : 2009/03/19 - 19:59			
Limit : CISPR_B_10M_QP	Margin : 6			
EUT : Personal Navigation Device	Probe : Site2_CBL6112_10M_0811 - VERTICAL			
Power : AC 120V/60Hz	Note : Mode 1			

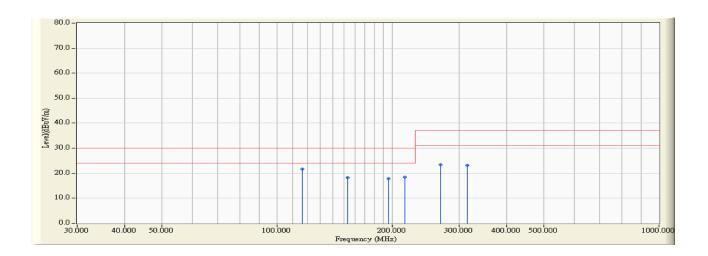


		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV/m)	(dB)	(dBuV/m)	
1		53.520	9.490	15.540	25.031	-4.969	30.000	QUASIPEAK
2		155.650	13.127	11.960	25.087	-4.913	30.000	QUASIPEAK
3		164.650	12.635	13.830	26.466	-3.534	30.000	QUASIPEAK
4		193.200	12.172	12.100	24.272	-5.728	30.000	QUASIPEAK
5	*	209.600	12.941	13.670	26.611	-3.389	30.000	QUASIPEAK
6		271.100	16.462	8.180	24.641	-12.359	37.000	QUASIPEAK

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Site : OATS-2	Time : 2009/03/19 - 19:41
Limit : CISPR_B_10M_QP	Margin : 6
EUT : Personal Navigation Device	Probe : Site2_CBL6112_10M_0811 - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 4

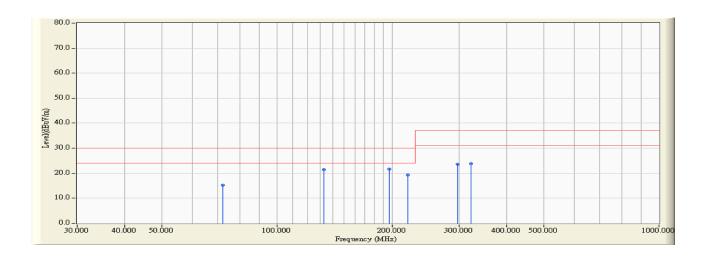


		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV/m)	(dB)	(dBuV/m)	
1	*	116.500	14.766	7.000	21.765	-8.235	30.000	QUASIPEAK
2		153.400	13.295	5.000	18.295	-11.705	30.000	QUASIPEAK
3		196.200	12.193	5.700	17.893	-12.107	30.000	QUASIPEAK
4		216.500	13.452	5.000	18.451	-11.549	30.000	QUASIPEAK
5		268.500	16.398	7.000	23.398	-13.602	37.000	QUASIPEAK
6		314.600	17.548	5.710	23.258	-13.742	37.000	QUASIPEAK

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Site : OATS-2	Time : 2009/03/19 - 19:35
Limit : CISPR_B_10M_QP	Margin : 6
EUT : Personal Navigation Device	Probe : Site2_CBL6112_10M_0811 - VERTICAL
Power : AC 120V/60Hz	Note : Mode 4

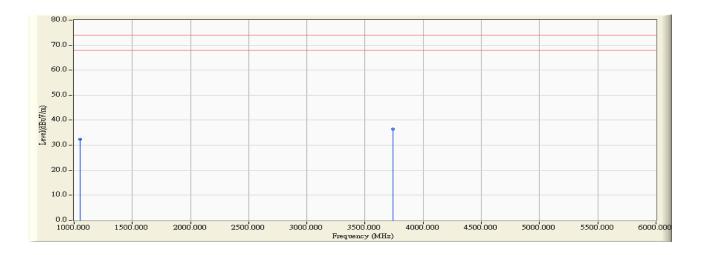


		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV/m)	(dB)	(dBuV/m)	
1		72.300	8.888	6.270	15.158	-14.842	30.000	QUASIPEAK
2		132.710	14.522	6.830	21.352	-8.648	30.000	QUASIPEAK
3	*	196.650	12.198	9.400	21.598	-8.402	30.000	QUASIPEAK
4		220.180	13.725	5.600	19.325	-10.675	30.000	QUASIPEAK
5		296.910	17.075	6.510	23.585	-13.415	37.000	QUASIPEAK
6		321.642	17.750	6.150	23.900	-13.100	37.000	QUASIPEAK

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Site : OATS-2	Time : 2009/03/20 - 06:01
Limit : FCC_B_(Above_1G)_03M_PK	Margin : 6
EUT : Personal Navigation Device	Probe : 9120D_1-18G_Horn - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1

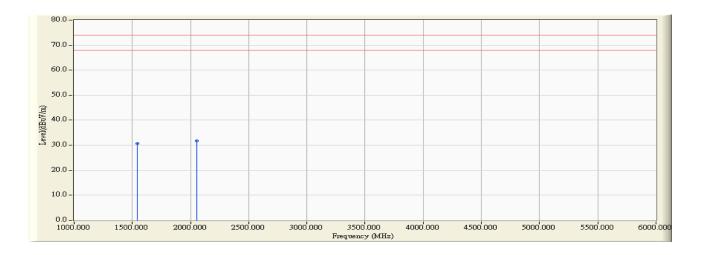


		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV/m)	(dB)	(dBuV/m)	
1		1054.000	-4.430	36.720	32.290	-41.710	74.000	PEAK
2	*	3740.000	0.117	36.410	36.527	-37.473	74.000	PEAK

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Site : OATS-2	Time : 2009/03/20 - 06:06
Limit : FCC_B_(Above_1G)_03M_PK	Margin : 6
EUT : Personal Navigation Device	Probe : 9120D_1-18G_Horn - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1

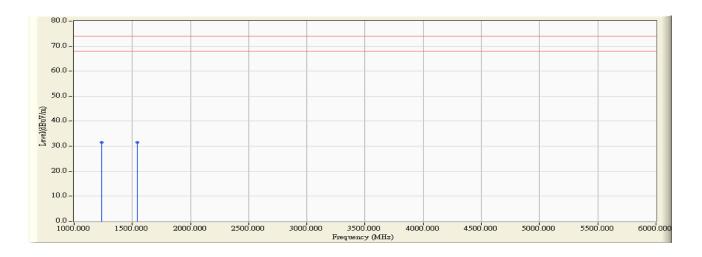


		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV/m)	(dB)	(dBuV/m)	
1		1542.000	-3.789	34.380	30.591	-43.409	74.000	PEAK
2	*	2054.000	-3.090	34.810	31.720	-42.280	74.000	PEAK

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Site : OATS-2	Time : 2009/03/20 - 06:11
Limit : FCC_B_(Above_1G)_03M_PK	Margin : 6
EUT : Personal Navigation Device	Probe: 9120D_1-18G_Horn - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 4

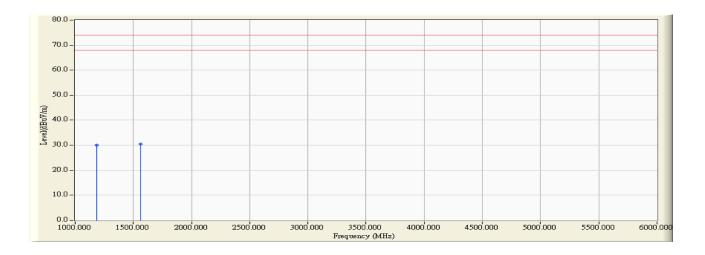


		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV/m)	(dB)	(dBuV/m)	
1		1235.000	-4.231	35.720	31.489	-42.511	74.000	PEAK
2	*	1545.000	-3.791	35.360	31.569	-42.431	74.000	PEAK

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Site : OATS-2	Time : 2009/03/20 - 06:16
Limit : FCC_B_(Above_1G)_03M_PK	Margin : 6
EUT : Personal Navigation Device	Probe : 9120D_1-18G_Horn - VERTICAL
Power : AC 120V/60Hz	Note : Mode 4



		Frequency	Correct Factor	Reading Level	Measure Level	Margin	Limit	Detector Type
		(MHz)	(dB)	(dBuV)	(dBuV/m)	(dB)	(dBuV/m)	
1		1182.000	-4.360	34.360	30.000	-44.000	74.000	PEAK
2	*	1565.000	-3.815	34.270	30.455	-43.545	74.000	PEAK

- 1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
- 2. " \* ", means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



### 4.6. Test Photograph

Test Mode : Mode 1: GPS+Docking+Car Charge

Description : Front View of Radiated Test



Test Mode : Mode 1: GPS+Docking+Car Charge

Description : Back View of Radiated Test





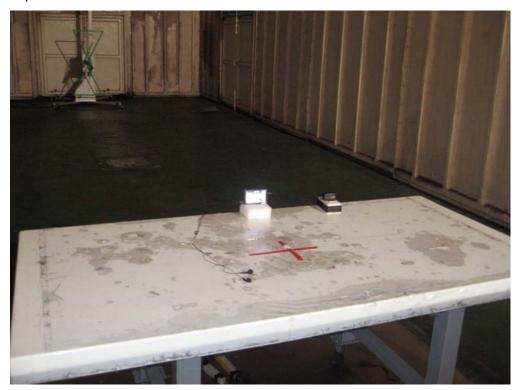
Test Mode : Mode 1: GPS+Docking+Car Charge

Description : Front View of High Frequency Radiated Test



Test Mode : Mode 4: BT(Adapter)

Description : Front View of Radiated Test





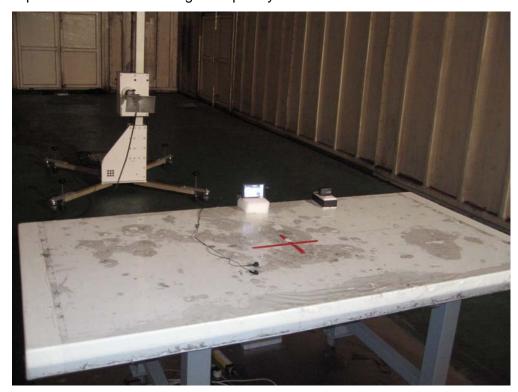
Test Mode : Mode 4: BT(Adapter)

Description : Back View of Radiated Test



Test Mode : Mode 4: BT(Adapter)

Description : Front View of High Frequency Radiated Test





### 5. Attachment

### > EUT Photograph

(1) EUT Photo



### (2) EUT Photo





### (3) EUT Photo



## (4) EUT Photo

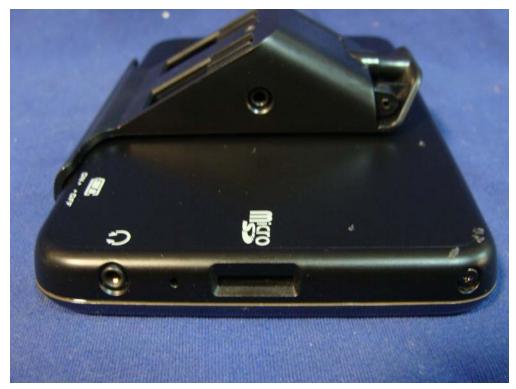




## (5) EUT Photo



# (6) EUT Photo





## (7) EUT Photo



# (8) EUT Photo





### (9) EUT Photo



# (10) EUT Photo





### (11) EUT Photo



## (12) EUT Photo





### (13) EUT Photo



# (14) EUT Photo





# (15) EUT Photo

