

ADDRESS: South of Shatou Industry District, Chang-An Town,  
DongGuan City, GuangDong,, China  
PHONE : 86-769-5303005 FAX : 86-769-5303006  
E - mail : dgxuhong@changan.net

## FCC TEST REPORT FOR

APPLICANT : Dyna Point (Dong Guan) Electronic  
ADDRESS : Hua Guo Shan Industry Park. Jie Kou,  
Chang'an, Dong Guan, Guang Dong ,China  
EUT : HIP-E Wireless Combo  
MODEL NO. : H1300  
FCC ID : P4XH1300M

Under Part 15, SUBPART C.

CLASS B

### Certification

MEASUREMENT PROCEDURE USED

FCC RULES AND FCC / ANSI C63.4-2001

PREPARED BY :

HomeTek (Changan) Inc.

South of Shatou Industry District, Chang-An Town,  
DongGuan City, GuangDong,, China

Report # : FBRP4203



ADDRESS: South of Shatou Industry District, Chang-An Town  
DongGuan City, GuangDong., China  
PHONE : 86-769-5303005 FAX : 86-769-5303006  
E - mail : dgxuhong@changan.net

## CERTIFICATION

EUT	:	HIP-E Wireless Combo
MODEL NO.	:	H1300
FCC ID	:	P4XH1300M
Receipt Date	:	11/26/2004
REPORT #	:	FBRP4203
APPLICANT	:	Dyna Point (Dong Guan) Electronic
ADDRESS	:	Hua Guo Shan Industry Park. Jie Kou, Chang'an, Dong Guan, Guang Dong ,China

### MEASUREMENT PROCEDURE USED :

FCC RULES AND REGULATION PART 15, SUBPART C  
AND FCC / ANSI C63.4-2001

### We hereby show that:

The measurement shown in this test report were made in accordance with and no deviation with the procedures indicated, and the maximum energy emitted by the equipment was found to be within the FCC limits applicable.

This test result of this report applies to above tested sample only.

This test report shall not be reproduced in part without written approval of HomeTek Technology Inc.

PREPARED BY : \_\_\_\_\_ DATE : 12/07/2004

CHECK BY : \_\_\_\_\_ DATE : 12/07/2004

GEORGE  
Director

APPROVED BY : \_\_\_\_\_ DATE : 12/07/2004

Manager



<b>TABLE OF CONTENTS .....</b>	<b>1</b>
<b>GENERAL INFORMATION.....</b>	<b>2</b>
<b>MODIFICATION LIST .....</b>	<b>4</b>
<b>CONDUCTED POWER LINE TEST .....</b>	<b>5</b>
1    TEST PROCEDURE .....	5
2    RESULT OF CONDUCTED EMISSION TEST.....	5
<b>RADIATED EMISSION TEST.....</b>	<b>6</b>
1    TEST INSTRUMENTS & FACILITIES .....	6
2    EUT OPERATING CONDITION .....	7
3    TEST SETUP .....	8
4    CONFIGURATION OF THE EUT .....	10
5    TEST PROCEDURE .....	16
6    LIMIT OF RADIATED EMISSION CLASS B.....	17
7    RESULT OF RADIATED EMISSION TEST .....	18
<b>PHOTO OF FCC ID LABEL .....</b>	<b>20</b>

**APPENDIX A**

PHOTOS OF TEST CONFIGURATION

**APPENDIX B**

PHOTOS OF EUT

## GENERAL INFORMATION

1 APPLICANT	: <u>Dyna Point (Dong Guan) Electronic</u>
2 ADDRESS	: <u>Hua Guo Shan Industry Park. Jie Kou,</u> <u>Chang'an, Dong Guan, Guang Dong ,China</u>
3 MANUFACTURER	: <u>Dyna Point (Dong Guan) Electronic</u>
4 ADDRESS	: <u>Hua Guo Shan Industry Park. Jie Kou,</u> <u>Chang'an, Dong Guan, Guang Dong ,China</u>
5 DESCRIPTION OF EUT	:
EUT	: <u>HIP-E Wireless Combo</u>
FCC ID	: <u>P4XH1300M</u>
Model Number	: <u>H1300</u>
Serial #	: <u>N/A</u>
Transmit Frequency	: <u>27.042MHz</u>
Deviation	: <u>5KHz ± 2KHz</u>
Modulation	: <u>Fsk</u>
Coding	: <u>Mouse Manchester</u>
Number of ID	: <u>255 sets</u>
Effective Distance	: <u>2 m</u>
Working voltage	: <u>3V DC / 2 * AA Battery</u>
Working Current	: <u>≤40mA</u>
Stand-by Current	: <u>≤10mA</u>
Sleep mode current	: <u>≤0.07mA</u>
Working mode to stand-by mode time	: <u>2-4sec</u>
Working mode to sleeping mode time	: <u>8-10sec</u>
Buttons	: <u>3 buttons with scrolling wheel</u>
Performance	: <u>Optical Mouse</u>
Resolution	: <u>800 CPI</u>



## 6 TEST MODE:

The test mode of FM 27.042MHz is worst case, and the final test data were shown in this test report.



HomeTek (Chang-An) Inc.

FCC ID : P4XH1300M

## MODIFICATION LIST

※ There is no modification to this EUT by HomeTek (Chang-An) Inc.



## CONDUCTED POWER LINE TEST

### 1 TEST PROCEDURE

According to **ANSI C63.4 – 2001**.

### 2 RESULT OF CONDUCTED EMISSION TEST

N/A (Conducted Power Line Test is not applicable to this EUT ( Model : **H1300**)).

## RADIATED EMISSION TEST

### 1 TEST INSTRUMENTS & FACILITIES

The following test Instruments was used during the radiated emission test :

Item	Instruments /facilities	Specification	Manufacturer	Model # / S/N#	Date of Cal.
1	OPEN AREA TEST SITE	<input checked="" type="checkbox"/> OATS 5	HOMETEK	N/A	AUG/2004
2	EMI TEST RECEIVER	20Hz ~ 26.5GHz	ROHDE & SCHWARZ	ESBI 845636/007	JUL/2004
3	PRE-AMPLIFIER	0.1MHz ~ 1.3GHz	HEWLEET PACKARD	8447D 1937A02095	AUG/2004
4	ANTENNA (BI-LOG)	25MHz ~ 2GHz	ANTENNA RESEACH	LPB2520/A 1095	AUG/2004
5	ANTENNA (DIPOLE)	30 ~ 300MHz	ROHDE & SCHWARZ	HZ-12 842899/0008	AUG/2004
6	ANTENNA (DIPOLE)	300 ~ 1000MHz	ROHDE & SCHWARZ	HZ-12 842007/0004	AUG/2004
7	SIGNAL GENERATOR	9KHz ~ 2GHz	MARCOIN	2022D 119229/010	AUG/2004

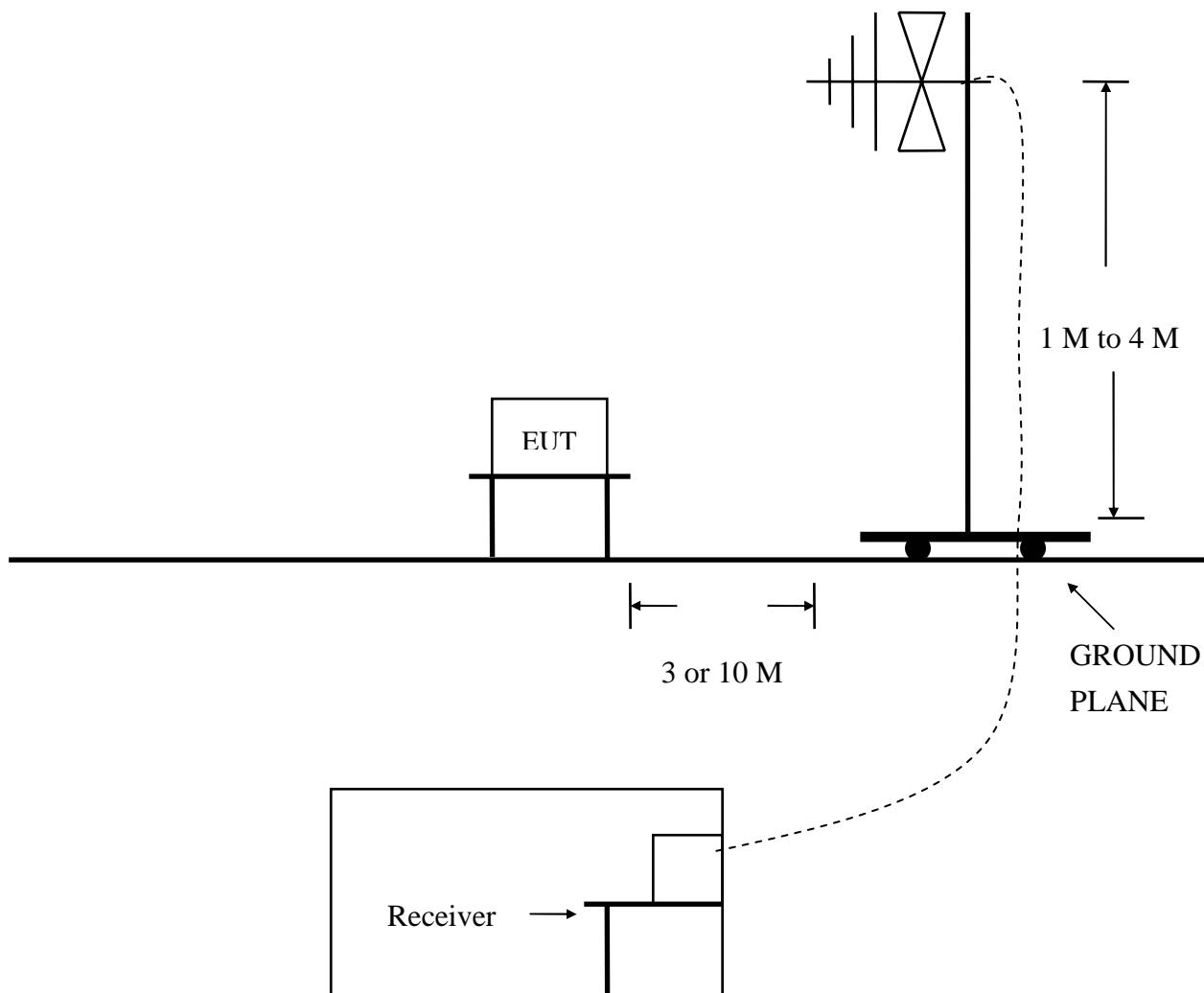
Note : Items 1 ~ 7 were calibrated within period of 1 year.

## 2 EUT OPERATING CONDITION

- 2.1 Configure the EUT according to the **ANSI C63.4 - 2001**.
- 2.2 The radiated emission in the frequency range from 30 MHz - 1000 MHz was test in a horizontal and vertical polarization at HomeTek (Chang-An) Lab's open site V.
- 2.3 The frequency of the EUT is 27.042 MHz.
- 2.4 Connect the EUT power input to 4 X DC 1.5V AA Battery.
- 2.5 Turn on all the power of EUT and peripheral.
- 2.6 The EUT was operated in its normal operating mode for the purpose of the measurements.
- 2.7 The receiving antenna polarized horizontally was varied from 1 to 4 meters and the wooden turntable was rotated through 360 degrees to obtain the highest reading on the ESMI test receiver or on the display of the spectrum analyzer. And also, each emission was to be maximized by changing the orientation of the EUT.
- 2.8 **The photos of radiated test configuration, please refer to appendix A.**

### 3 TEST SETUP

#### 3.1 TEST SETUP OF OPEN SITE.

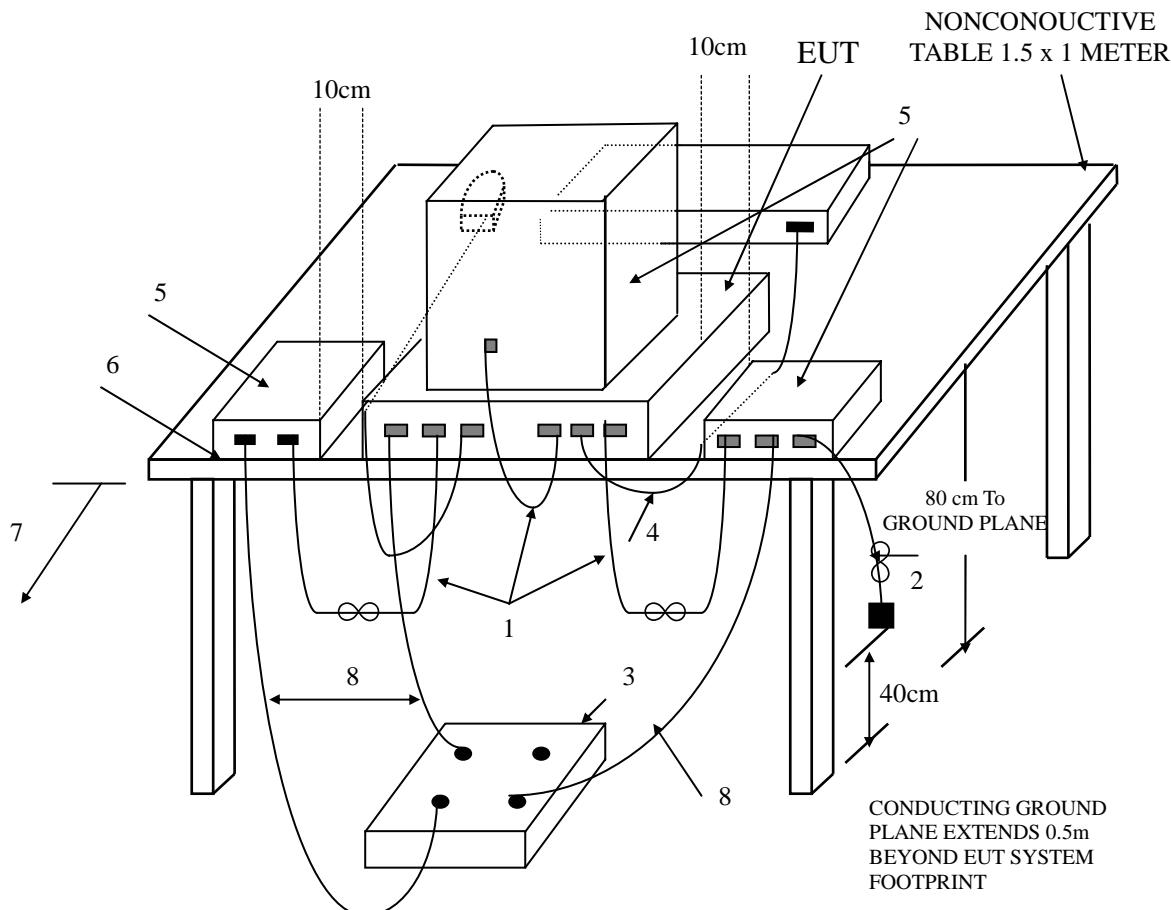


## 3.2 TEST SETUP OF EUT

ANSI

ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE RANGE OF 9kHz TO 40 GHz

C63.4-2001



(Details for setup configuration, please refer to appendix A.)

LEGEND:

1. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth forming a bundle 30 to 40 cm long, hanging approximately in the middle between ground plane and table.
2. I/O cables that are connected to a peripheral shall be bundled in center. The end of the cable may be terminated if required using correct terminating impedance. The total length shall not exceed 1m.
3. If LISNs are kept in the test setup for radiated emissions, it is preferred that they be installed under the ground plane with the receptacle flush with the ground plane.
4. Cables of hand-operated devices, such as keyboards, mouses, etc., have to be placed as close as possible to the controller.
5. Non-EUT components of EUT system being tested.
6. The rear of all components of the system under test shall be located flush with the rear of the table.
7. No vertical conducting wall used.
8. Power cords drape to the floor and are routed over to receptacle.

**Test Configuration**  
**Tabletop Equipment Radiated Emission**

## 4 CONFIGURATION OF THE EUT

The EUT was configured according to **ANSI C63.4 - 2001**. All I/O ports were connected to the appropriate peripherals. All peripherals and cables are listed below:

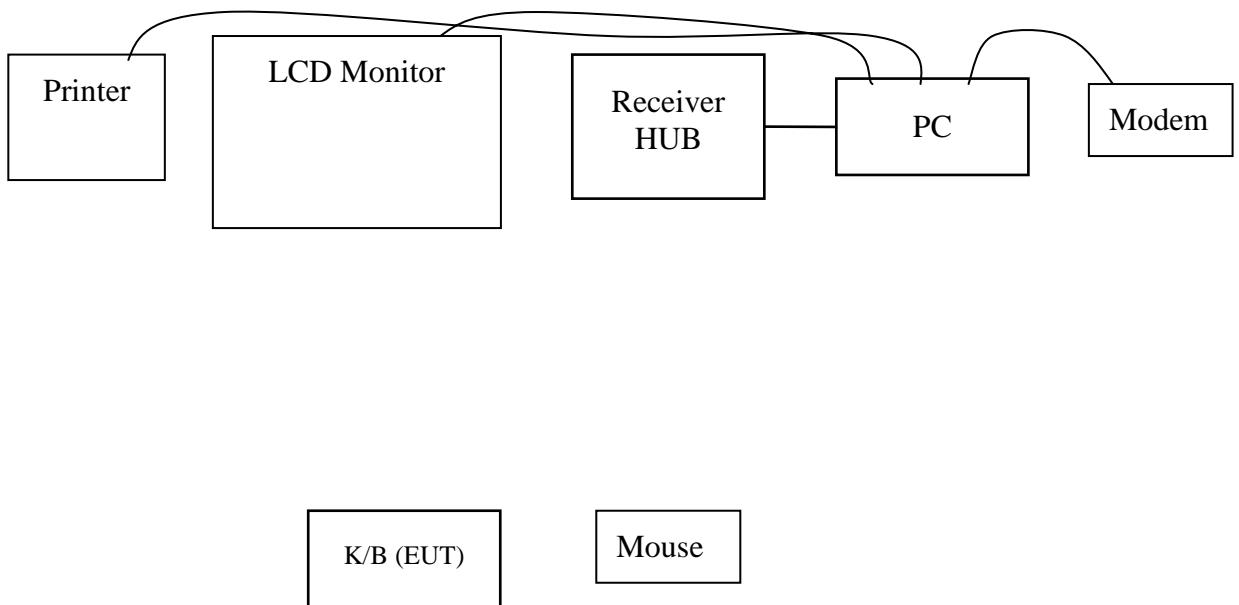


Figure 1

## 4.1 EUT

EUT Type : Proto Type Engineer Type Mass Production

Condition when received : Good Damage : \_\_\_\_\_

Applicant/ Manufacturer : Dyna Point (Dong Guan) Electronic

Address : Hua Guo Shan Industry Park. Jie Kou, Chang'an,  
Dong Guan,Guang Dong ,China

Devices : HIP-E Wireless Combo

Model Number : H1300

Serial Number : N/A

FCC ID : P4XH1300M

## 4.2 PERIPHERALS

 Host Personal Computer

Manufacturer : COMPAQ

Model Number : X05-66111

Serial Number : 6L17JSB3V014

FCC ID : FCC DoC

 LCD Monitor

Manufacturer : YHI

Model Number : LM17WXYZ

Serial Number : N/A

FCC ID : FCC DoC

Data Cable : Shielded, 1.5 m, Connected to the VGA port

Power Cord : Un-Shielded, 1.8 m

Adaptor of LCD Monitor

Manufacturer : YHI  
Model Number : 043-124000-I3  
Serial Number : 3Y000089  
FCC ID : FCC DoC  
Power Cord(AC) : Un-shield,1.8m  
Power Cord(DC) : Un-shield,1.8m

 Receiver HUB

Manufacturer : Dyna Point (Dong Guan) Electronic  
Model Number : H1300  
Serial Number : N/A  
FCC ID : N/A  
Data Cable1 (USB) : Shielded, 1 m, Connect to the USB port of PC  
Data Cable1 (1394) : Shielded, 1 m, Connect to the 1394 port of PC

 Keyboard (RF)

Manufacturer : Dyna Point (Dong Guan) Electronic  
Model Number : H1300  
Serial Number : N/A  
FCC ID : P4XH1300K

 Printer

Manufacturer : EPSON  
Model Number : STYLUS C20SX  
Serial Number : DLRE134382  
FCC ID : FCC DoC  
Data Cable : Shielded, 1.5 m, Connected to the Printer port  
Power Cord & Adaptor : Un-Shielded, 1.8 m

Modem

Manufacturer : ACEEX  
Model Number : 1414  
Serial Number : N/A  
FCC ID : IFAXDM1414  
Data Cable : Shielded, 1.5 m, Connected to the COM port  
Power Cord & Adaptor : Un-Shielded, 1.8 m

 Microphone

Manufacturer : OKAY  
Model Number : DM-901  
Serial Number : N/A  
FCC ID : N/A  
Data Cable : N/A  
Power Cord : Shielded, 3 m

 Speaker

Manufacturer : ALSO TECHNOLOGY CO., LTD  
Model Number : A-858CEV  
Serial Number : N/A  
FCC ID : FCC DoC  
Data Cable : N/A  
Power Cord : Un-Shielded, 1.2 m

 MultiMedia Card

Manufacturer : SanDisk  
Model Number : N/A  
Memory Size : 32 MB  
Serial Number : N/A



FCC ID : N/A

 SD Card

Manufacturer : Integral  
Model Number : N/A  
Memory Size : 16 MB  
Serial Number : N/A  
FCC ID : N/A

 Compact Flash Card

Manufacturer : Feiya  
Model Number : N/A  
Memory Size : 16 MB  
Serial Number : N/A  
FCC ID : N/A

 Memory Stick Card

Manufacturer : SONY  
Model Number : N/A  
Memory Size : 32 MB  
Serial Number : N/A  
FCC ID : N/A

 Smart Media Card

Manufacturer : KOREA  
Model Number : N/A  
Memory Size : 32 MB  
Serial Number : N/A  
FCC ID : N/A

 U-Disk

Manufacturer : Kingstyle

Model Number : BD08

Memory Size : 32 MB

Serial Number : N/A

FCC ID : N/A

## 4.3 REMARK : N/A

## 5 TEST PROCEDURE

- 5.1 The EUT was test according to **ANSI C63.4 – 2001 & FCC Part 15.35/15.209/15.227**.
- 5.2 The radiated test was performed at HomeTek (Chang-An) Lab's Open Site V.
- 5.3 This site is on file with the FCC laboratory division, test firm registration number: 140723, expiration Date : 2007/9/24.
- 5.4 For emission frequencies measured below 1 GHz, a pre-scan is performed in a shielded chamber to determine the accurate frequencies. The signal of higher emissions will be checked on a open test site. As the same purpose, for emission frequencies measured above 1 GHz, a pre-scan also be performed with a 1 meter measuring distance before final test.
- 5.5 For emission frequencies measured below and above 1 GHz, set the spectrum analyzer or a 100KHz and 1MHz resolution bandwidth respectively for each frequency measured in item 5.4.
- 5.6 The receiving antenna is to be raised and lowered over a range from 1 to 4 meters in horizontally polarized orientation. Move the antenna to a position where the highest value is indicated on spectrum analyzer, then change the orientation of EUT on test table over a range from 0° to 360 ° with a speed as slow as possible and keep the azimuth that highest emission is indicated on the spectrum analyzer. Vary the antenna position again and record the highest value as a final reading. A RF test receiver is also used to confirm emissions measured.
- 5.7 Repeat item 5.6 until all frequencies need to be measured were completed.
- 5.8 Repeat item 5.7 with search antenna in vertical polarized orientations.
- 5.9 Check seven frequencies of highest emission with varying the placement of cables (if any) associated with EUT to obtain the worst case and record the result.
- 5.10 The frequency range from 30 MHz to 1 GHz were investigated, the measurement were made at 3 meters, with a BI-log antenna.

## 6 LIMIT OF RADIATED EMISSION CLASS B

Frequency (MHz)	Measurement Distance	dBuV/m	uV/m
Fundamental frequency	3 (M)	80	10,000
30 - 88	3 (M)	40	100
88 - 216	3 (M)	43.5	150
216 - 960	3 (M)	46	200
Above 960	3 (M)	54	500

6.1 The tighter limit shall apply at the edge between two frequency bands.

6.2 Measurement distance in meters between the measuring instrument antenna and the closed point of any part of the EUT or peripherals.

## 7 RESULT OF RADIATED EMISSION TEST

7.1 The frequency range from 30 MHz to 1 GHz was investigated.

7.2 All readings below or equal 1 GHz are quasi-peak or peak values with resolution bandwidth of 120 KHz. The reading of fundamental frequency is peak or average values. With resolution bandwidth of 120KHz.

7.3 The measurements were made at 3 meters of HomeTek (Chang-An) Lab's open site V.

7.4 Temperature : 33 °C, Humidity : 55 % RH.

7.5 Deviation form the test standards and rules : None.

7.6 Radiated Emission data : **Horizontal**

Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Read Level (dBuV)	ANT Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Detector
* 27.042	43.93	80.00	-36.07	52.35	18.43	0.70	27.55	Peak
240.49	41.05	46.00	-4.95	61.85	9.51	3.64	33.95	Peak
256.01	40.13	46.00	-5.87	57.94	11.38	4.71	33.90	Peak
270.56	41.11	46.00	-4.89	57.43	12.33	5.16	33.81	Peak
286.08	42.92	46.00	-3.08	58.80	13.69	4.13	33.70	Peak
* 316.15	42.97	46.00	-3.03	53.76	18.46	4.33	33.58	Peak
361.74	42.93	46.00	-3.07	55.54	16.13	4.75	33.49	Peak
482.02	42.22	46.00	-3.78	50.98	19.06	5.23	33.05	QP
576.11	41.64	46.00	-4.36	50.10	16.16	7.98	32.60	Peak

- Emission Level = Read Level – Preamp Factor + ANT Factor + Cable Loss.
- Sample Calculation for 316.15 MHz .
- Emission Level : ( 53.76 ) - ( 33.58 ) + ( 18.46 ) + ( 4.33 ) = 42.97 .

7.7 Radiated Emission data : **Vertical**

Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Read Level (dBuV)	ANT Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Detector
* 27.042	43.38	80.00	-36.62	51.79	18.43	0.70	27.54	Peak
97.90	34.59	43.50	-8.91	56.93	9.07	2.65	34.06	Peak
210.42	34.29	46.00	-11.71	50.83	14.40	3.02	33.96	Peak
240.49	40.15	46.00	-5.85	55.58	14.88	3.64	33.95	Peak
256.01	40.22	46.00	-5.78	55.60	13.81	4.71	33.90	Peak
316.15	40.67	46.00	-5.33	51.25	18.67	4.33	33.58	QP
482.02	41.93	46.00	-4.07	47.72	22.03	5.23	33.05	QP
721.61	41.99	46.00	-4.01	37.32	26.42	10.56	32.31	QP
* 890.39	42.04	46.00	-3.96	36.44	26.88	10.04	31.32	Peak

- Emission Level = Read Level – Preamp Factor + ANT Factor + Cable Loss.
- Sample Calculation for 890.39 MHz .
- Emission Level : ( 36.44 ) - ( 31.32 ) + ( 26.88 ) + (10.04 ) = 42.04 .

## REMARK :

1. Model : H1300
2. Measuring mode : FM 27.042 Mode
3. “\*”, means this frequency is fundamental or the highest level.
4. The radiated emission test was passed at minimum margin :  
Horizontal 316.15 MHz/ 42.97 dBuV/m, Antenna Height 3.2 Meter,  
Turn Table 75 degree.
5. Result : **PASSED**



## PHOTO OF FCC ID LABEL

### SAMPLE OF FCC ID LABEL :

FCC ID : P4XH1300M

This device complies with part 15 of the FCC Rules.  
Operation is subject to the following two conditions: (1)  
This device may not cause harmful interference. And (2)  
this device must accept any interference that may cause  
undesired operation.

**Please refer to appendix B photo of ID location.**