

# **Radio Test Report**

## IC ID: 7242A-HEI25Y

This report concerns (check one) : ☐ Original Grant ☐ Class II Change

**Issued Date** : Jun. 26, 2013 **Project No.** : 1304083

**Equipment**: TOUR de GUIDE 800

Model Name: HEI-25Y

Applicant : BANKEN CO., LTD

Address: 1842-10 Kimagase, Noda-shi,

Chiba-ken, 270-0222 Japan

Tested by: Neutron Engineering Inc. EMC Laboratory

Date of Receipt: Apr. 11, 2013

Date of Test: Apr. 11, 2013 ~ Apr. 23, 2013

Testing Engineer:

(Josh Lin)

Technical Manager:

(Jeli Talig)

**Authorized Signatory:** 

(Andy Chiu



C-2918 G-91 R-2669 R-2829 T-1666 T-1667

## **Neutron Engineering Inc.**

B1, No. 37, Lane 365, YangGuang St., NeiHu District 114, Taipei, Taiwan.

TEL: +886-2-2657-3299 FAX: +886-2-2657-3331





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## **Declaration**

**Neutron** represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C**., or National Institute of Standards and Technology (**NIST**) of **U.S.A.** 

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#### Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

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## **REPORT ISSUED HISTORY**

Revised Version No.	Description	Issued Date
-	Initial Issue.	Jun. 26, 2013

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## 1 CERTIFICATION

Equipment: TOUR de GUIDE 800

Brand Name : BANKEN Model Name : HEI-25Y

Applicant: BANKEN CO., LTD

Date of Test: Apr. 11, 2013 ~ Apr. 23, 2013 Standards: RSS-210, Issue 8, 2010

FCC Part 15, Subpart C: 2012

ANSI C63.4: 2009

The above equipment has been tested and found compliance with the requirement of the relative standards by Neutron Engineering Inc. EMC Laboratory.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-RSS-1-1304083) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

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## 2.SUMMARY OF TEST RESULTS

RSS-210, Issue 8, 2010; FCC Part 15, Subpart C: 2012					
Standa	ard Clause				
RSS-210	FCC Part 15, Subpart C	Test Item	Result		
NOTE (3)	15.207	Conducted Emission	N/A		
NOTE (4)		99% Occupied Bandwidth	PASS		
NOTE (5)	15.249(d) or 15.209	Radiated Spurious Emission	PASS		
NOTE (6)	15.205	Restricted Bands	PASS		

## NOTE:

- (1) N/A: denotes test is not applicable in this Test Report
- (2) Portable device; SAR report is required.
- (3) Reference standerads is RSS-GEN 7.2.4
- (4) Reference standerads is RSS-GEN 4.6.1
- (5) Reference standerads is RSS-GEN 7.2.5
- (6) Reference standerads is RSS-GEN 7.2.2

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#### 2.1 TEST FACILITY

The test facilities used to collect the test data in this report:

## Radiated emission Test (Below 1 GHz):

**CB08:** (FCC RN: 614388; FCC DN: TW1054; IC Assigned Code: 4428C-1) 1F., No. 61, Ln. 77, Sing-ai Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

## Radiated emission Test (Above 1 GHz):

**CB08:** (VCCI RN: G-91; FCC RN: 614388; FCC DN: TW1054; IC Assigned Code: 4428C-1) 1F., No. 61, Ln. 77, Sing-ai Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

#### 2.2 MEASUREMENT UNCERTAINTY

# The measurement uncertainty is not specified by FCC/Industry Canada rules and for reference only.

The reported uncertainty of measurement  $\mathbf{y} \pm \mathbf{U}$ , where expended uncertainty  $\mathbf{U}$  is based on a standard uncertainty multiplied by a coverage factor of  $\mathbf{k=2}$ , providing a level of confidence of approximately 95%.

The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2.

#### Radiated emission test:

Test Site	Item	Measurement	Frequency Range	Uncertainty	NOTE				
			30 - 200MHz	3.35 dB					
		Horizontal	200 - 1000MHz	3.11 dB					
	Dadiatad	Polarization	1 - 18GHz	3.97 dB					
CB08	Radiated emission at		18 - 40GHz	4.01 dB					
CDUO	3m			30 - 200MHz	3.22 dB				
			JIII	JIII	Jili	Vei	Vertical	200 - 1000MHz	3.24 dB
		Polarization	1 - 18GHz	4.05 dB					
			18 - 40GHz	4.04 dB					

Our calculated Measurement Instrumentation Uncertainty is shown in the tables above. These are our  $U_{\text{lab}}$  values in CISPR 16-4-2 terminology.

Since Table 1 of CISPR 16-4-2 has values of measurement instrumentation uncertainty, called  $U_{\text{CISPR}}$ , as follows:

Conducted Disturbance (mains port) - 150 kHz - 30 MHz: 3.6 dB

Radiated Disturbance (electric field strength on an open area test site or alternative test site) - 30 MHz - 1000 MHz: 5.2 dB

It can be seen that our  $U_{lab}$  values are smaller than  $U_{CISPR}$ .

If  $U_{lab}$  is less than or equal to  $U_{CISPR}$ , then:

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit. If  $U_{lab}$  is greater than  $U_{CISPR}$ , then:
- compliance is deemed to occur if no measured disturbance level, increased by (U<sub>lab</sub> U<sub>CISPR</sub>), exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level, increased by (U<sub>lab</sub> U<sub>CISPR</sub>), exceeds the disturbance limit.

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## **3 GENERAL INFORMATION**

## 3.1 GENERAL DESCRIPTION OF EUT

Equipment	TOUR de GUIDE 800		
Brand Name	BANKEN		
Model Name	HEI-25Y		
OEM Brand/Model Name	N/A		
Model Difference	N/A		
	The EUT is a TOUR de GU	IIDE 800.	
	Operation Frequency	918.00 MHz - 925.50 MHz	
	Modulation Type	GFSK	
	Number Of Channel Please refer to the Note 2.		
Product Description	Antenna Designation	Please refer to the Note 3.	
	Antenna Gain(Peak)	Please refer to the Note 3.	
	Field Strength	81.67dBuV/m@3m	
	More details of EUT technical specification, please refer to the User's		
	Manual.		
Power Source	Battery supplied.		
Power Rating	I/P: DC 3V (2*AA)		
Connecting I/O Port(s)	Please refer to the User's Manual		
Products Covered	1 * Microphone		
EUT Modification(s)	N/A		

## NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

## 2. Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	918.0	07	921.0	13	924.0
02	918.5	80	921.5	14	924.5
03	919.0	09	922.0	15	925.0
04	919.5	10	922.5	16	925.5
05	920.0	11	923.0		
06	920.5	12	923.5		

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## 3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

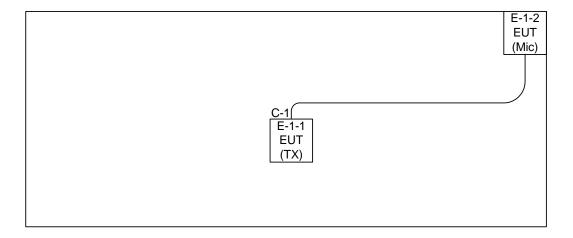
Test Items	Mode	Channel	Note
99% Occupied Bandwidth	GFSK	918.00 MHz, 921.50 MHz, 925.50 MHz	
Radiated Spurious Emission (30 MHz to 1 GHz)	GFSK	921.50 MHz	
Radiated Spurious Emission (above 1 GHz)	GFSK	918.00 MHz, 921.50 MHz, 925.50 MHz	
Restricted Bands	GFSK	918.00 MHz, 921.50 MHz, 925.50 MHz	

NOTE: The measurements are performed at the highest, middle, lowest available channels.

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## 3.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



C-1 Audio Cable

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## 3.4 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.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID/IC ID	Series No.	Note
E-1	TOUR de GUIDE 800	BANKEN	HEI-25Y	VGWHEI-25Y 7242A-HEI25Y	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	1.2M	

NOTE: The support equipment was authorized by Declaration of Conformity (DOC).

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## **4 99% OCCUPIED BANDWIDTH**

## 4.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Oct. 01, 2013

NOTE: N/A: denotes No Model Name, No Serial No. or No Calibration specified.

## 4.2 MEASURING INSTRUMENTS SETTING

EMI Test Receiver	Parameter Setting
Attenuation	Auto
Span Frequency	> Measurement Bandwidth
RB	100 kHz
VB	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

## **4.3 TEST PROCEDURES**

- a. The transmitter output (antenna port) was connected to the spectrum analyser in peak hold mode.
- b. The resolution bandwidth of 100 kHz and the video bandwidth of 100 kHz were utilised for 99% emission bandwidth measurement.

## 4.4 TEST SETUP LAYOUT

EUT	SPECTRUM
	ANALYZER

#### 4.5 DEVIATION FROM TEST STANDARD

No deviation

## 4.6 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

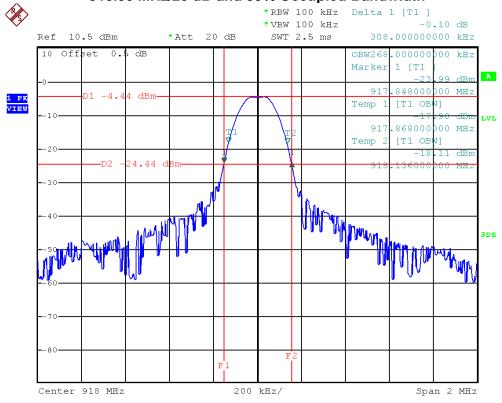
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## 4.7 TEST RESULTS

E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y				
Temperature	26°C	Relative Humidity	60%				
Test Voltage	DC 3V						
Test Mode	918.00 MHz, 921.50 MHz, 925.50 MHz						

Frequency	20 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Result
918.00	0.31	0.27	PASS
921.50	0.31	0.26	PASS
925.50	0.31	0.26	PASS

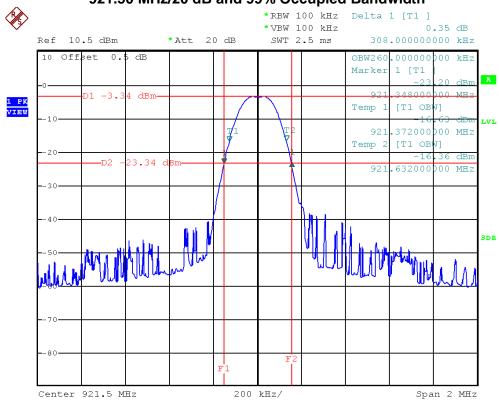
## 918.00 MHz/20 dB and 99% Occupied Bandwidth



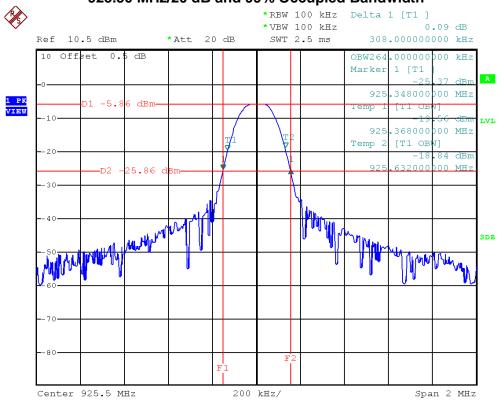
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# Neutron Engineering Inc.





## 925.50 MHz/20 dB and 99% Occupied Bandwidth



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## **5 RADIATED SPURIOUS EMISSION (9 KHZ TO 1 GHZ)**

## **5.1 LIMIT**

20 dB in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequency Range: 9 kHz to 1 GHz							
FREQUENCY (MHz)	3						
0.009~0.490	2400/F(kHz)	300					
0.490~1.705	24000/F(kHz)	30					
1.705~30.0	30	30					
30~88	100	3					
88~216	150	3					
216~960	200	3					
Above 960	500	3					

Frequency Range: above 1 GHz							
FREQUENCY	Class A (dBu	ıV/m) (at 3m)	Class B (dBuV/m) (at 3m)				
(MHz)	PEAK	AVERAGE	PEAK	AVERAGE			
above 1 GHz	80	60	74	54			

## NOTE:

- 1. The limit for radiated test was performed according to FCC PART 15B.
- 2. The tighter limit applies at the band edges.
- 3. Emission level (dBuV/m)=20log Emission level (uV/m).
- 4. The test result calculated as following: Measurement Value = Reading Level + Correct Factor Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain (if use) Margin Level = Measurement Value – Limit Value

FCC Part15, Subpart C (15.249)					
Limit	Frequency Range (MHz)				
Field strength of fundamental 50000 μV/m (94 dBμV/m) @ 3 m	902-928, 2400-2483.5, 5725-5875				
Field strength of harmonics 500 μV/m (54 dBμV/m) @ 3 m	Other				

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## **5.2 MEASUREMENT INSTRUMENTS LIST**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Oct. 01, 2013
2	Microflex Cable	N/A	N/A	1m	May. 14, 2013
3	Test Cable	N/A	LMR-400	966_12m	May. 15, 2013
4	Test Cable	N/A	LMR-400	966_3m	May. 15, 2013
5	Pre-Amplifier	EMC	EMC-330	980088	Jun. 07, 2013
6	Log-Bicon Antenna	Schwarzbeck	VULB9168-352	9168-352	Jun. 12, 2013
7	Loop Ant.	EMCO	6502	00042960	Jul. 25, 2013

Remark: "N/A" denotes No Model Name, No Serial No. or No Calibration specified.

## **5.3 MEASURING INSTRUMENTS SETTING**

EMI Test Receiver	Parameter Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

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#### 5.4 TEST PROCEDURES

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1 GHz. For frequencies above 1 GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m Semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item -EUT Test Photos.
- g. The testing follows the guidelines in ANSI C63.4 and FCC Public Notice DA 00-705 Measurement Guidelines. In case the emission is fail due to the used RBW/VBW is too wide, marker-delta method of FCC Public Notice DA 00-705 will be followed.

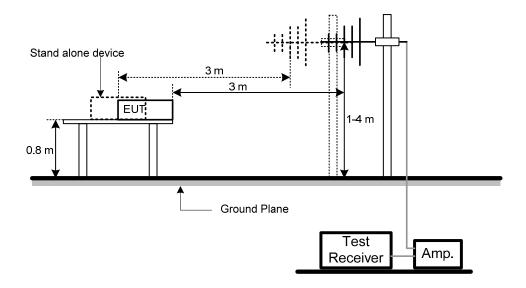
## NOTE:

- a. Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode with Detector BW=120 kHz; SPA setting in RBW=100 kHz, VBW =100 kHz, Swp. Time = 0.3 sec./ MHz.
- b. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.

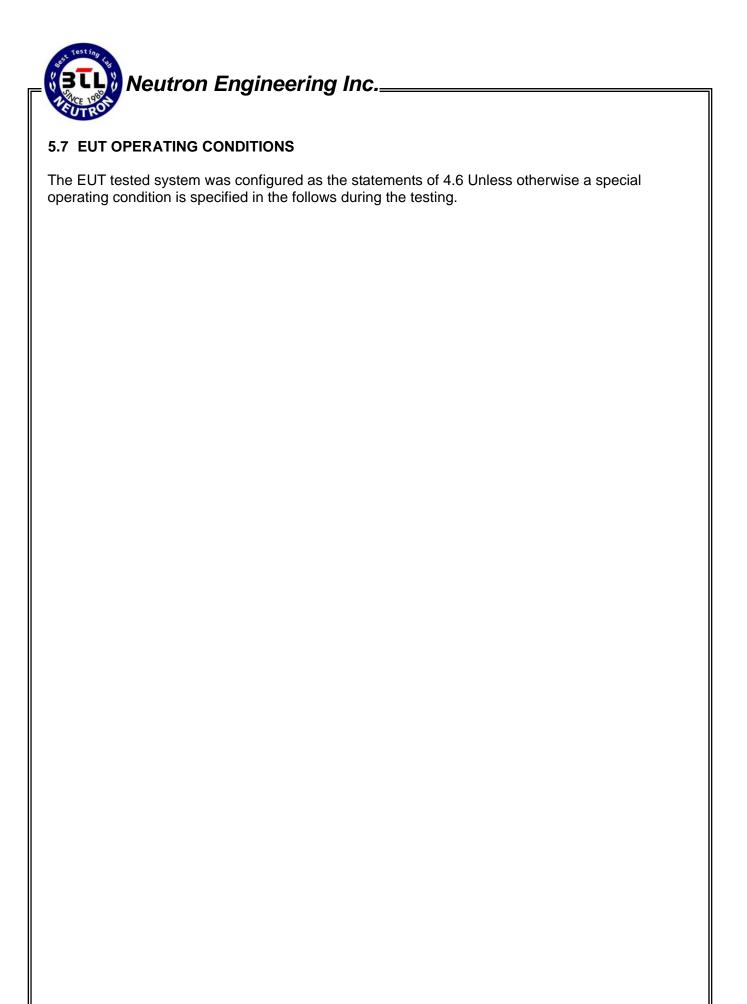
#### 5.5 DEVIATION FROM TEST STANDARD

No deviation

## **5.6 TEST SETUP LAYOUT**



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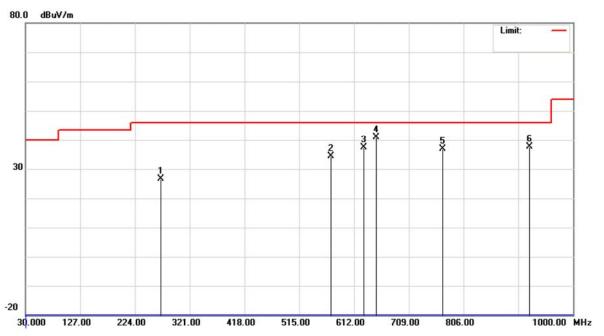
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## 5.8 TEST RESULTS

E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 3V		
Test Mode	921.50 MHz		

## **Polarization: Vertical**

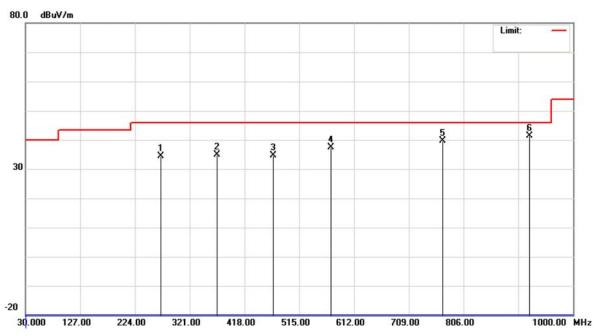


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	1	270.0750	45.69	-19.04	26.65	46.00	-19.35	peak	
2		570.7750	46.40	-11.97	34.43	46.00	-11.57	peak	
3	(	628.9749	47.85	-10.56	37.29	46.00	-8.71	peak	
4	* (	650.7999	51.02	-10.25	40.77	46.00	-5.23	peak	
5	-	769.6250	45.55	-8.64	36.91	46.00	-9.09	peak	
6	(	922.4000	44.10	-6.41	37.69	46.00	-8.31	peak	

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E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 3V		
Test Mode	921.50 MHz		

## **Polarization: Horizontal**



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		270.0750	53.32	-19.04	34.28	46.00	-11.72	peak	
2		369.5000	51.44	-16.57	34.87	46.00	-11.13	peak	
3		468.9249	48.86	-14.17	34.69	46.00	-11.31	peak	
4		570.7750	49.45	-11.97	37.48	46.00	-8.52	peak	
5		769.6250	48.27	-8.64	39.63	46.00	-6.37	peak	
6	*	922.4000	47.96	-6.50	41.46	46.00	-4.54	peak	

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## **6 RADIATED SPURIOUS EMISSION (ABOVE 1 GHZ)**

## **6.1 LIMIT**

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequency Range: 9 kHz to 1 GHz							
FREQUENCY (MHz)							
0.009~0.490	2400/F(kHz)	300					
0.490~1.705	24000/F(kHz)	30					
1.705~30.0	30	30					
30~88	100	3					
88~216	150	3					
216~960	200	3					
Above 960	500	3					

Frequency Range: above 1 GHz							
FREQUENCY	Class A (dBu	IV/m) (at 3m)	Class B (dBuV/m) (at 3m)				
(MHz)	PEAK	AVERAGE	PEAK	AVERAGE			
above 1 GHz	80	60	74	54			

## NOTE:

- (1) The limit for radiated test was performed according to FCC PART 15B.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).
- (4) The test result calculated as following: Measurement Value = Reading Level + Correct Factor Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain(if use) Margin Level = Measurement Value – Limit Value

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## **6.2 MEASUREMENT INSTRUMENTS LIST**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Oct. 01, 2013
2	Microflex Cable	N/A	N/A	1m	May. 14, 2013
3	Test Cable	N/A	LMR-400	966_12m	May. 15, 2013
4	Test Cable	N/A	LMR-400	966_3m	May. 15, 2013
5	Pre-Amplifier	EMC	EMC-330	980088	Jun. 07, 2013
6	Log-Bicon Antenna	Schwarzbeck	VULB9168-352	9168-352	Jun. 12, 2013
7	Loop Ant.	EMCO	6502	00042960	Jul. 25, 2013

Remark: "N/A" denotes No Model Name, No Serial No. or No Calibration specified.

## **6.3 MEASURING INSTRUMENTS SETTING**

Spectrum Analyzer	Parameter Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (other emission)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average

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#### 6.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m Semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- c. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- d. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.
- f. The testing follows the guidelines in ANSI C63.4 and FCC Public Notice DA 00-705 Measurement Guidelines. In case the emission is fail due to the used RBW/VBW is too wide, marker-delta method of FCC Public Notice DA 00-705 will be followed.

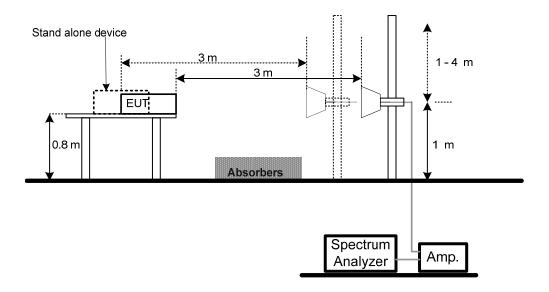
#### NOTE:

- a. Reading in which marked as Peak means measurements by using are Peak Mode with instrument setting in RBW= 1 MHz, VBW= 1 MHz, Swp. Time = Auto. Reading in which marked as AV means measurements by using are Average Mode with instrument setting in RBW= 1 MHz, VBW= 10 Hz, Swp. Time = Auto.
- b. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform.

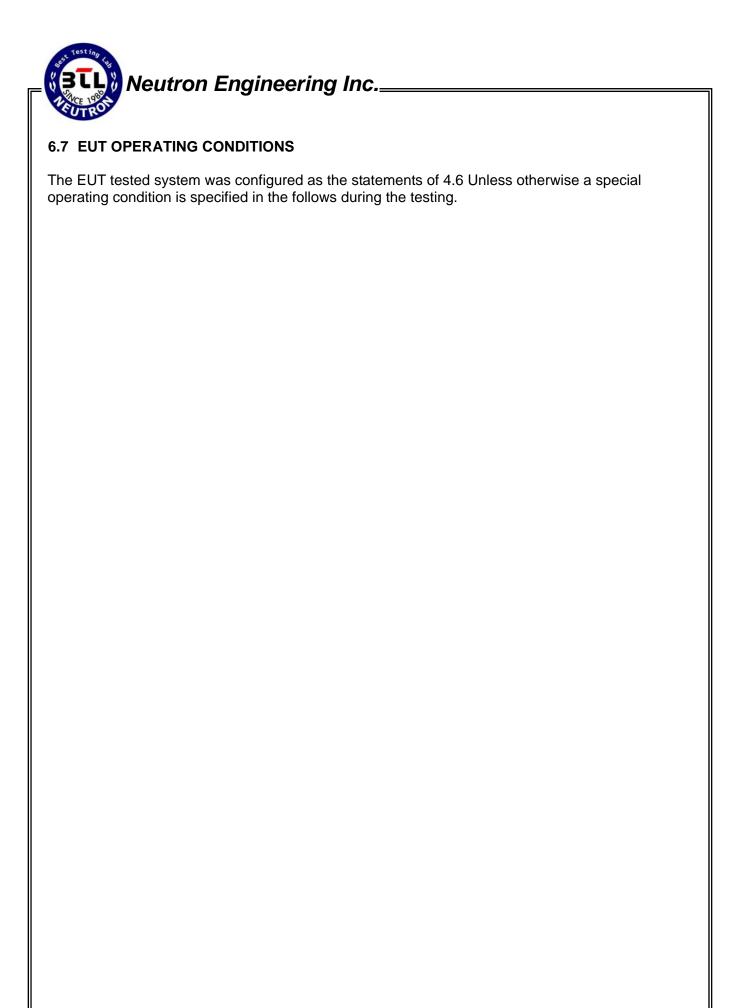
#### 6.5 DEVIATION FROM TEST STANDARD

No deviation

## **6.6 TEST SETUP LAYOUT**



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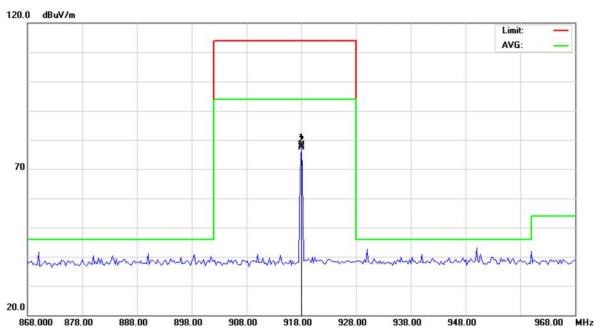
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## 6.8 TEST RESULTS

E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y		
Temperature	26°C	Relative Humidity 60%			
Test Voltage	DC 3V				
Test Mode	918.00 MHz				

## **Polarization: Vertical**

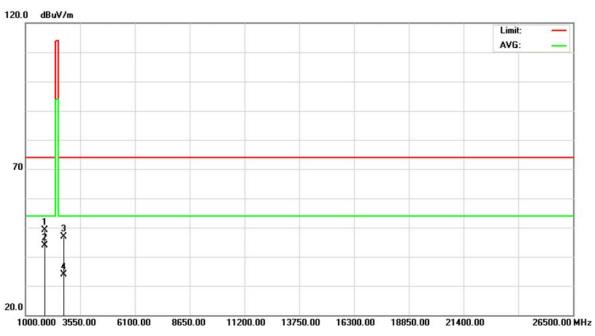


No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		918.0000	51.63	26.45	78.08	114.0	-35.92	peak		
2	*	918.0000	50.83	26.45	77.28	94.00	-16.72	AVG		

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E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 3V		
Test Mode	918.00 MHz		

## **Polarization: Vertical**

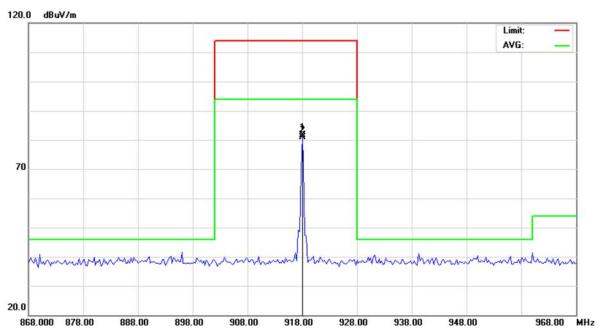


No.	Mk	. Freq.	Level	Factor	ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		1836.025	51.42	-2.41	49.01	74.00	-24.99	peak		
2	*	1836.025	46.32	-2.41	43.91	54.00	-10.09	AVG		
3		2753.925	45.84	1.08	46.92	74.00	-27.08	peak		
4		2753.925	32.80	1.08	33.88	54.00	-20.12	AVG		

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E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 3V		
Test Mode	918.00 MHz		

## **Polarization: Horizontal**

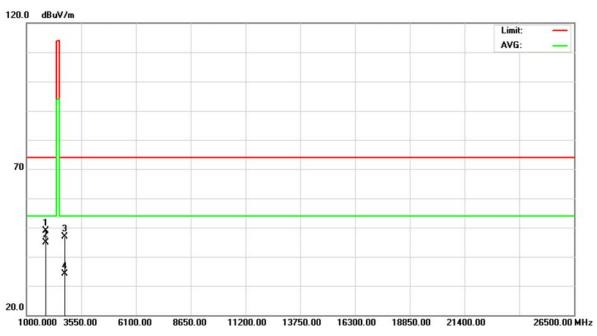


No.	Mł	k. Freq.	Reading Level	Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		918.0000	55.29	26.38	81.67	114.0	-32.33	peak		
2	*	918.0000	54.56	26.38	80.94	94.00	-13.06	AVG		

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E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 3V		
Test Mode	918.00 MHz		

## **Polarization: Horizontal**

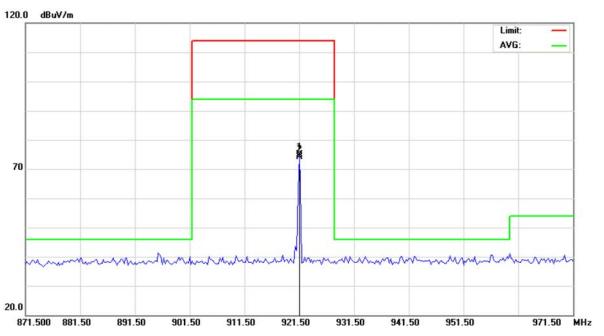


No.	Mk	. Freq.	Level	Factor	ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		1836.050	51.36	-2.41	48.95	74.00	-25.05	peak		
2	*	1836.050	47.22	-2.41	44.81	54.00	-9.19	AVG		
3		2753.925	45.75	1.08	46.83	74.00	-27.17	peak		
4		2753.925	33.11	1.08	34.19	54.00	-19.81	AVG		

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E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 3V		
Test Mode	921.50 MHz		

## **Polarization: Vertical**

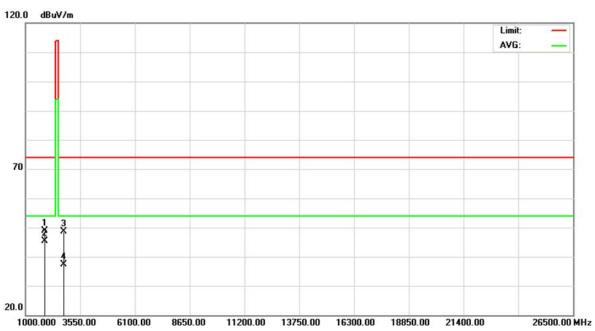


No.	Mk	Κ.	Freq.	Level	Factor	Measure- ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		921	.5000	48.35	26.50	74.85	114.0	-39.15	peak		
2	*	921	.5000	47.56	26.50	74.06	94.00	-19.94	AVG		

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E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y	
Temperature	26°C	Relative Humidity 60%		
Test Voltage	DC 3V			
Test Mode	921.50 MHz			

## **Polarization: Vertical**

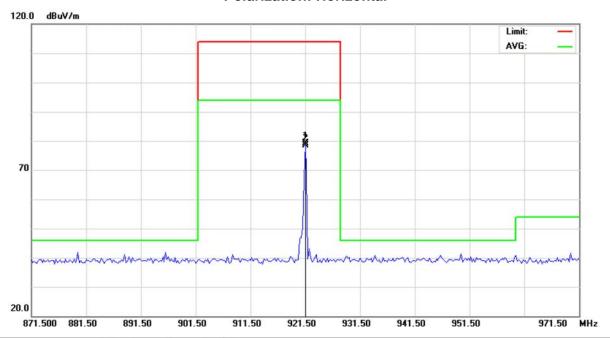


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		1842.988	51.33	-2.39	48.94	74.00	-25.06	peak	
2	*	1842.988	47.76	-2.39	45.37	54.00	-8.63	AVG	
3		2764.550	47.41	1.10	48.51	74.00	-25.49	peak	
4		2764.550	36.29	1.10	37.39	54.00	-16.61	AVG	

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E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 3V		
Test Mode	921.50 MHz		

## **Polarization: Horizontal**

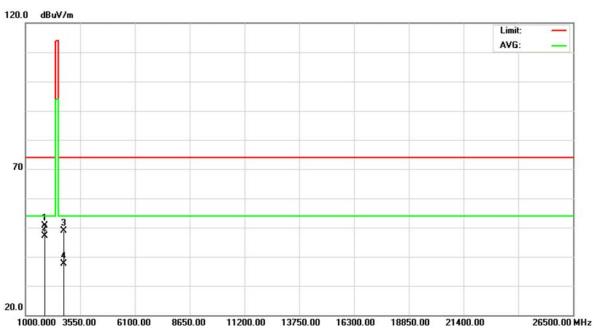


No.	Mk	ζ.	Freq.	Level	Factor	ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		921	.5000	52.79	26.41	79.20	114.0	-34.80	peak		
2	*	921	.5000	51.97	26.41	78.38	94.00	-15.62	AVG		

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E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y					
Temperature	26°C	Relative Humidity	60%					
Test Voltage	DC 3V							
Test Mode	921.50 MHz							

## **Polarization: Horizontal**

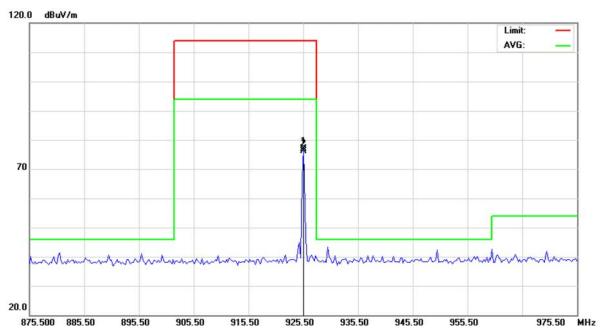


No.	Mł	k. Freq.	Level	Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		1843.037	52.98	-2.39	50.59	74.00	-23.41	peak		
2	*	1843.037	49.59	-2.39	47.20	54.00	-6.80	AVG		
3		2764.538	47.72	1.10	48.82	74.00	-25.18	peak		
4		2764.538	36.46	1.10	37.56	54.00	-16.44	AVG		

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E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 3V		
Test Mode	925.50 MHz		

## **Polarization: Vertical**

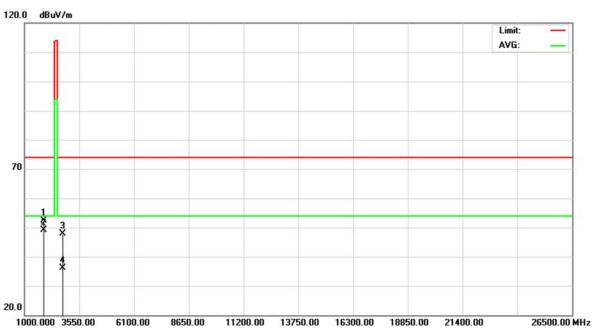


No.	Mk	. Freq.	Level	Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		925.5000	50.28	26.55	76.83	114.0	-37.17	peak		
2	*	925.5000	49.50	26.55	76.05	94.00	-17.95	AVG		

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E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 3V		
Test Mode	925.50 MHz		

## **Polarization: Vertical**

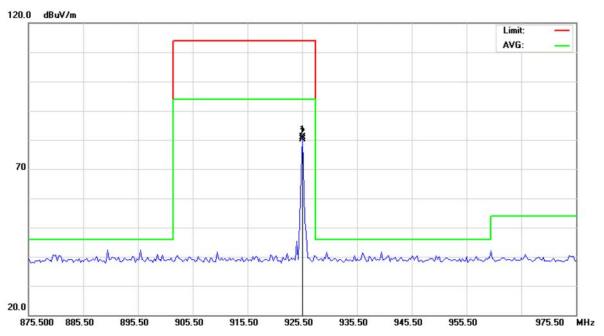


No.	Mk	c. Freq.	Reading Level	Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		1851.012	54.79	-2.36	52.43	74.00	-21.57	peak		
2	*	1851.012	51.61	-2.36	49.25	54.00	-4.75	AVG		
3		2776.462	46.67	1.12	47.79	74.00	-26.21	peak		
4		2776.462	35.01	1.12	36.13	54.00	-17.87	AVG		

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E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 3V		
Test Mode	925.50 MHz		

## **Polarization: Horizontal**

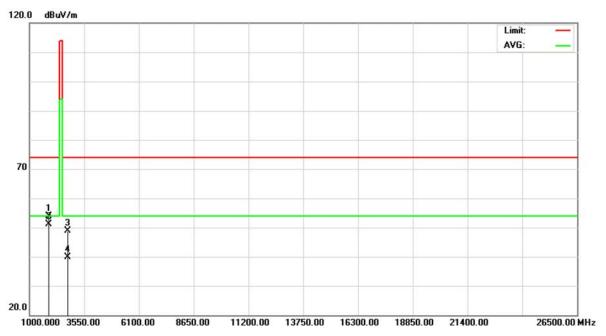


No.	Mł	k.	Freq.	Level	Factor	Measure- ment	Limit	Over			
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		925	.5000	54.43	26.45	80.88	114.0	-33.12	peak		
2	*	925	.5000	53.66	26.45	80.11	94.00	-13.89	AVG		

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E.U.T	TOUR de GUIDE 800	Model Name	HEI-25Y
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 3V		
Test Mode	925.50 MHz		

## **Polarization: Horizontal**



No.	Mk	c. Freq.	Level	Factor	ment	Limit	Over			
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1		1851.063	56.26	-2.36	53.90	74.00	-20.10	peak		
2	*	1851.063	53.56	-2.36	51.20	54.00	-2.80	AVG		
3		2776.525	47.70	1.12	48.82	74.00	-25.18	peak		
4		2776.525	38.77	1.12	39.89	54.00	-14.11	AVG		

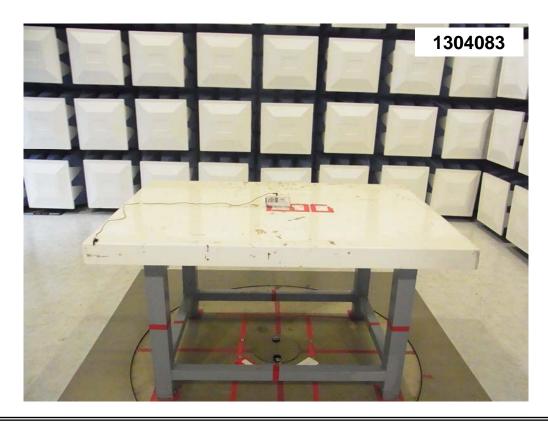
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## 7 EUT TEST PHOTO

## Radiated spurious emission test photos





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