

# FCC 47 CFR PART 15 SUBPART C

### **TEST REPORT**

For

Notebook PC

Model: CE260

Trade Name: FIC; EVEREX; iDOT

Prepared for

# First International Computer,Inc NO.300,YangGuang St.,NeiHu,Taipei, Taiwan,114

Issued by

COMPLIANCE CERTIFICATION SERVICES (KUNSHAN) INC.

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Compliance Certification Services Inc. Report No.: KS070919A01-RP FCC ID: EUNCE260A

Date of Issue: September 21, 2007

# 1. TEST RESULT CERTIFICATION

Applicant:	First International NO.300, YangGuang	Computer,Inc St.,NeiHu,Taipei,Taiwan,114
Equipment Under Test:	Notebook PC	1
Trade Name:	FIC; EVEREX; iDO	Т
Model:	CE260	
Date of Test:	From September 21, 2	2007 to June 25,2007
	APPLICABLE S	TANDARDS
STAN	DARD	TEST RESULT
FCC 47 CFR Pa	rt 15 Subpart C	No non-compliance noted

#### We here by certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4: 2003 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.247.

The test results of this report relate only to the tested sample EUT identified in this report.

Approved by:

Mite Chueh EMC Manager Compliance Certification Service Inc. Reviewed by:

Lin Zhang EMC Section Manager Compliance Certification Service Inc.



# 2. EUT DESCRIPTION

h	
Product	Notebook PC
Trade Name	FIC; EVEREX; iDOT
Model Number	CE260
Model Discrepancy	N/A
Bluetooth module Model Number	GUBTCR42M
Bluetooth module Brand name	Billionton
Power Supply	<ul> <li>Powered from an AC/DC power adapter</li> <li>(1)Model number: SADP-65KB AD Manufacturer: DELTA Input: AC 100-240V, 50-60Hz, 1.5A Output: DC 20V, 3.25A</li> <li>(2)Model number: 0335C2065 Manufacturer: Lishin Input: AC 100-240V, 50-60Hz, 1.7A Output: DC 20V, 3.25A</li> </ul>
Frequency Range	2402 ~ 2480 MHz
Transmit Power	1.78 dBm
Modulation Technique	FHSS
Transmit Data Rate	1Mbps
Number of Channels	79 Channels
Antenna Specification	PIFA Antenna / Gain: 1.96dBi

**Remark:** This submittal(s) (test report) is intended for FCC ID: <u>EUNCE260A</u> filing to comply with Section 15.207, 15.209 and 15.247 of the FCC Part 15, Subpart C Rules.

Note: this report have some changes on the basis of the original report.

- 1. The Bluetooth antenna from PCB antenna into PIFA antenna.
- 2. The Bluetooth module changed the model number from GUBTCR42M-A into GUBTCR42M, so we retest the items of Band Edges Measurement and Radiated Emissions, others item please refer to the report of KS070608A01.



# 3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4 and FCC CFR 47 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055, 2.1057, 15.207, 15.209 and 15.247.

# **EUT CONFIGURATION**

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

### **EUT EXERCISE**

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.247 under the FCC Rules Part 15 Subpart C.

# **GENERAL TEST PROCEDURES**

#### **Conducted Emissions**

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

#### **Radiated Emissions**

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4.

### **MODIFICATION**

N/A



# FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	( <sup>2</sup> )
13.36 - 13.41	322 - 335.4		

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

<sup>1</sup> Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

<sup>2</sup> Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

# **DESCRIPTION OF TEST MODES**

The EUT (CE260) has been tested under operating condition. Software used to control the EUT for staying in continuous transmitting mode is programmed. The field strength of spurious radiation emission was measured in the following position:

After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz, which worst case was in normal link mode only. Channel Low (2402MHz)  $\cdot$  Mid (2441MHz) and High (2480MHz) were chosen for full testing.



# 4. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.



# 5. FACILITIES AND ACCREDITATIONS

# FACILITIES

All measurement facilities used to collect the measurement data are located at CCS China Kunshan Lab at 10#Weiye Rd, Innovation Park Eco. & Tec. Development Zone

Kunshan city JiangSu, (215300), CHINA.

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

# EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."



# TABLE OF ACCREDITATIONS AND LISTINGS

Country	Agency	Scope of Accreditation	Logo
USA	A2LA	47 CFR FCC Part 15/18 (using ANSI C63.4:2003); VCCI V3; CNS 13438; CNS 13439; CNS 13803; CISPR 11; EN 55011; CISPR 13; EN 55013; CISPR 22:2005; CISPR 22:1997 +A1 :2000+A2 :2002; EN 55022:2006; EN55022 :1998 +A1 :2001+A2 :2003; EN 61000-6-3 (excluding discontinuous interference); EN 61000-6-4; AS/NZS CISPR 22; CAN/CSA-CEI/IEC CISPR 22; EN 61000-3-2; EN 61000-3-3; EN550024; EN 61000-4-2; EN 61000-4-3; EN61000-4-4; EN 61000-4-5; EN 61000-4-6; IEC 61000-4-8; EN 61000-4-5; IEC 61000-4-3; IEC 61000-4-8; IEC 61000-4-2; IEC 61000-4-3; IEC 61000-4-4; IEC 61000-4-5; IEC 61000-4-6; IEC 61000-4-8; IEC 61000-4-11; EN 300 220-3; EN 300 328; EN 300 330-2; EN 300 440-1; EN 300-440-2; EN 300 893; EN 301 489-01; EN 301 489-3; EN 301 489-07; EN 301 489-17; 47 CFR FCC Part 15, 22, 24	
USA	FCC	3/10 meter Sites to perform FCC Part 15/18 measurements	<b>FC</b> 93105, 90471
Japan	VCCI	3/10 meter Sites and conducted test sites to perform radiated/conducted measurements	<b>VCCI</b> R-1600 C-1707
Norway	NEMKO	EN61000-6-1/2/3/4, EN 50082-1/2, IEC 61000-6-1/2/3/4, EN 50091-2, EN 55011, EN 55022, EN 55024, EN 61000-3-2/3, EN 61000-11, IEC 61000-4-2/3/4/5/6/8/11, CISPR16-1/2/3/4	ELA 105

\* Note: No part of this report may be used to claim or imply product endorsement by A2LA or other government agency.



# 6. SETUP OF EQUIPMENT UNDER TEST

# SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

No.	Equipment	Model No.	Serial No.	FCC ID	Trade Name	Data Cable	Power Cord
1	Monitor	CPD-G42 0	2404647	DoC	SONY	Shielded, 1.8m with a Core	Un-Shielded, 1.5m
2	HDD(USB)-9	F12-UF	A0100222-539 0021	DoC	TeraSys	N/A	Shielded, 1.8m
3	HDD(USB)-5	F12-UF	A0100214-4C g0003	DoC	TeraSys	N/A	Shielded, 1.8m
4	Speaker-1	CD-371	N/A	DoC	JINLIAN	Un-Shielded, 2.0m	N/A
5	Notebook	M285	1824064-1B	DoC	LEO	Line cable: Un-Shielded 1.8m LAN cable: Un-Shielded 1.8m	Shielded, 1.8m
6	Mouse(USB)	M-UV83	HCA60406943	DoC	Logitech	Shielded, 1.8m	N/A

# SUPPORT EQUIPMENT

- 1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
- 2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.



# 7. FCC PART 15.247 REQUIREMENTS

# **BAND EDGES MEASUREMENT**

# **LIMIT**

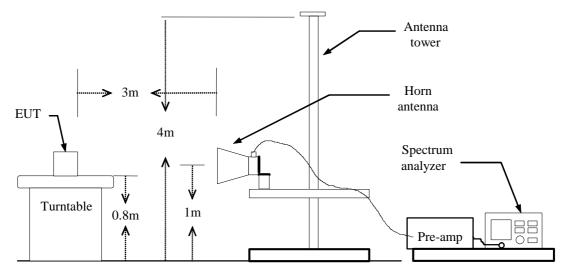
According to \$15.247(c), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in \$15.205(a), must also comply with the radiated emission limits specified in15.209(a).

977 Chamber (3m)							
Name of Equipment	Manufacturer	Model	Serial Number	<b>Calibration Due</b>			
Spectrum Analyzer	Agilent	E4446A	MY44020154	11/16/2007			
Pre-Amplfier	Miteq	NSP4000-NF	870731	01/21/2008			
Horn Antenna	Austriah	BBHA9120D	D267	02/03/2008			
Turn Table	СТ	CT123	4162	N.C.R			
Antenna Tower	СТ	CTERG23	3253	N.C.R			
Controller	СТ	CT100	95635	N.C.R			
Coax Switch	Anitsu	MP 598	M 80094	N/A			
Site NSA	CCS Lab.	N/A	N/A	02/15/2008			

### MEASUREMENT EQUIPMENT USED

**Remark:** Each piece of equipment is scheduled for calibration once a year.

### **Test Configuration**



# TEST PROCEDURE

- 1. The EUT is placed on a turntable, which is 0.8m above the ground plane.
- 2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.



- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
  - (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
  - (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
- 5. Repeat the procedures until all the PEAK and AVERAGE versus POLARIZATION are measured.

### TEST RESULTS

# <u>CH LOW</u>

Freq. (MHz)	Ant. Pol H/V	Peak Reading	AV Reading	Ant. / CL CF	Actu	al Fs	Peak Limit	AV Limit	Peak Margin	AV Margin
		(dBuV)	(dBuV)	( <b>dB</b> )	Peak (dBuV/m)	AV (dBuV/m)	(ави v/m `	(dBuV/m)	( <b>dB</b> )	( <b>dB</b> )
2390.00	V	44.74	31.86	5.30	49.47	36.54	74	54	-24.53	-17.46
2390.00	Н	43.79	31.76	5.30	48.06	36.67	74	54	-25.94	-17.33

### CH HIGH

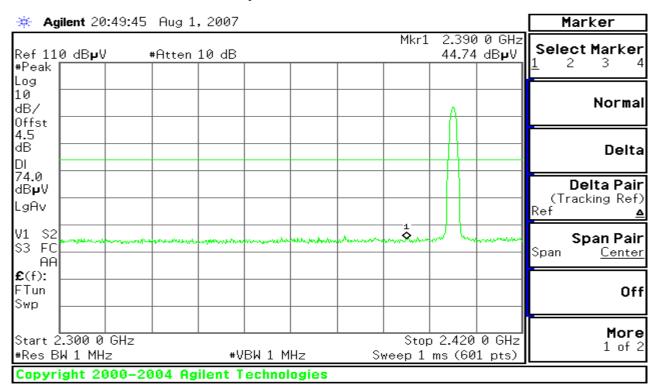
Freq. (MHz)	Ant. Pol H/V	Peak Reading	AV Reading	Ant. / CL CF	Actu	al Fs	Peak Limit	AV Limit	Peak Margin	AV Margin
		(dBuV)	(dBuV)	(dB)	Peak (dBuV/m)	AV (dBuV/m)	( <b>ави v/m</b> `	(dBuV/m)	(dB)	( <b>dB</b> )
2483.50	V	49.17	34.86	5.40	50.73	35.29	74	54	-23.27	-18.71
2483.50	Н	44.58	34.08	5.40	51.07	36.64	74	54	-22.93	-17.36

Refer to attach spectrum analyzer data chart.



#### **Band Edges (CH Low)**

#### Detector mode: Peak Polarity: Vertical

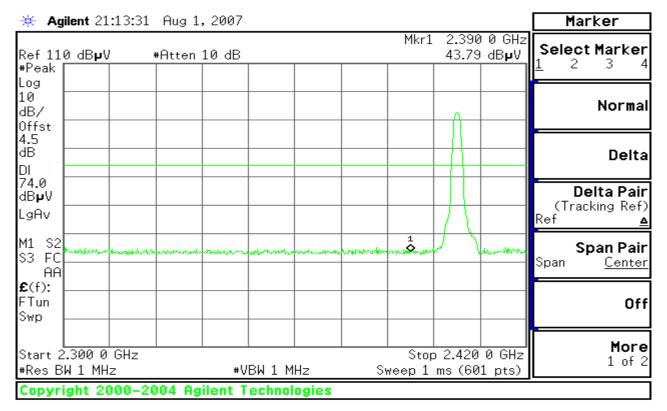


#### Detector mode: Average Polarity: Vertical

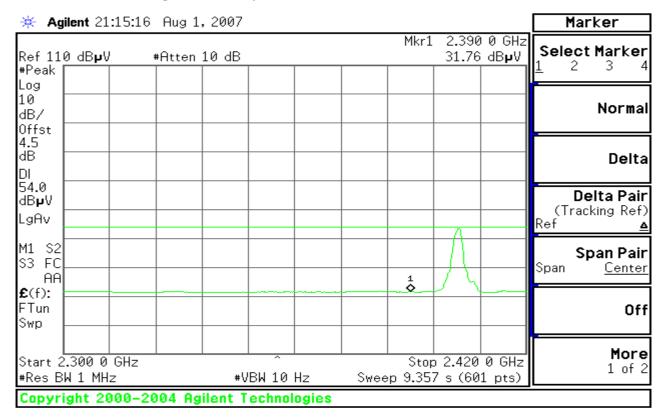
#### 🔆 Agilent 21:06:25 Aug 1, 2007 Trace Mkr1 2.390 0 GHz Trace Ref 110 dB**µ**V #Atten 10 dB 31.86 dBµV 2 #Peak Log 10 **Clear Write** dB/ Offst 4.5 dB Max Hold DL 54.0 dB**µ**V Min Hold LgAv M1 S2 View S3 FC AA £(f): FTun Blank Swp Center 2.360 0 GHz Span 120 MHz Sweep 9.357 s (601 pts) #Res BW 1 MHz #VBW 10 Hz Copyright 2000–2004 Agilent Technologies



#### Detector mode: Peak Polarity: Horizontal



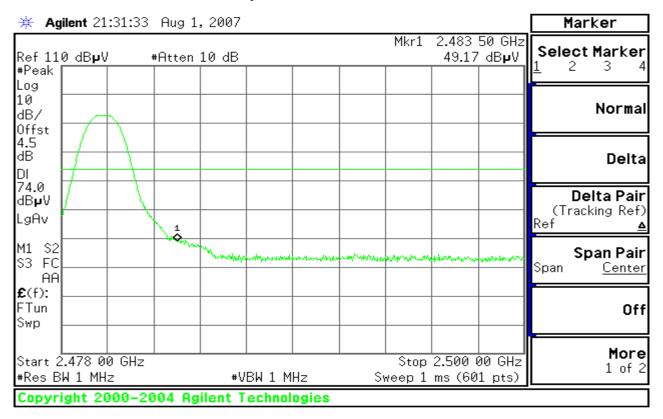
#### Detector mode: Average Polarity: Horizontal



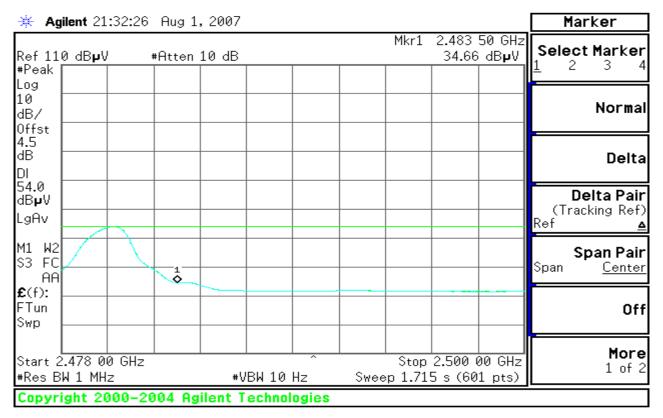


#### Band Edges (CH High)

#### Detector mode: Peak Polarity: Vertical

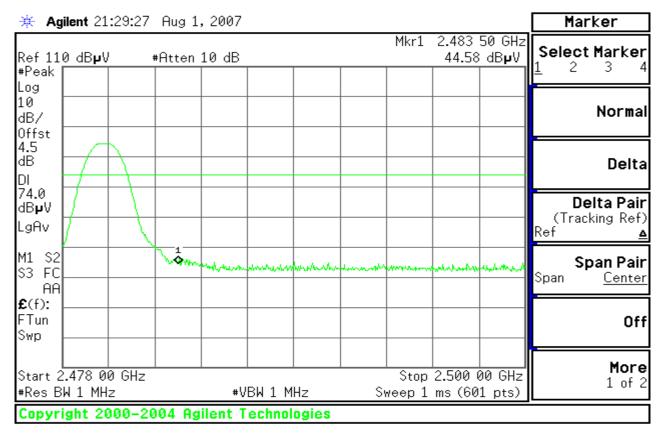


#### Detector mode: Average Polarity: Vertical

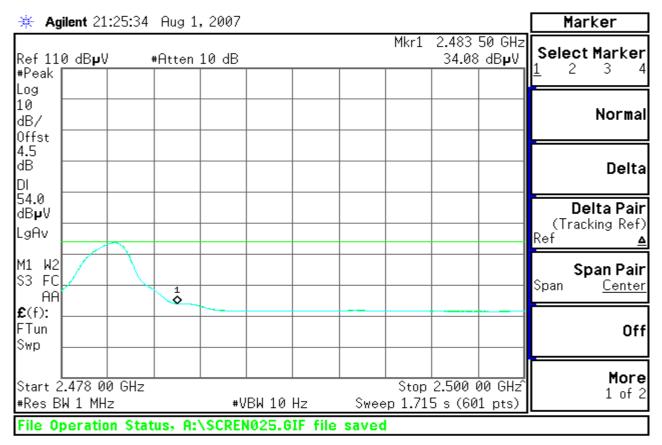




#### Detector mode: Peak Polarity: Horizontal



#### Detector mode: Average Polarity: Horizontal



Rev. 00



# **RADIO FREQUENCY EXPOSURE**

# **LIMIT**

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See 15.247(b)(4) and 1.1307(b)(1) of this chapter.

#### **EUT Specification**

EUT	Portable Navigator
Frequency band (Operating)	<ul> <li>WLAN: 2.412GHz ~ 2.462GHz</li> <li>WLAN: 5.18GHz ~ 5.32GHz / 5.50GHz ~ 5.70GHz</li> <li>WLAN: 5.745GHz ~ 5.825GHz</li> <li>Others: Bluetooth: 2.402GHz ~ 2.480GHz</li> </ul>
Device category	<ul> <li>Portable (&lt;20cm separation)</li> <li>Mobile (&gt;20cm separation)</li> <li>Others</li> </ul>
Exposure classification	Occupational/Controlled exposure ( $S = 5mW/cm^2$ ) General Population/Uncontrolled exposure ( $S=1mW/cm^2$ )
Antenna diversity	<ul> <li>Single antenna</li> <li>Multiple antennas</li> <li>Tx diversity</li> <li>Rx diversity</li> <li>Tx/Rx diversity</li> </ul>
Max. output power	1.78dBm (1.507mW)
Antenna gain (Max)	1.96dBi (Numeric gain: 1. 570mW)
Evaluation applied	<ul> <li>MPE Evaluation</li> <li>SAR Evaluation</li> <li>N/A</li> </ul>

#### Remark:

- 1. The maximum output power is <u>1.78dBm (1.507mW) at 2402MHz</u> (with <u>1.570numeric</u> antenna gain.)
- 2. DTS device is not subject to routine RF evaluation; MPE estimate is used to justify the compliance.
- 3. For mobile or fixed location transmitters, no SAR consideration applied. The minimum separation generally be used is at least 20 cm, even if the calculations indicate that the MPE distance would be lesser.

# **TEST RESULTS**

Non-compliance.



# **SPURIOUS EMISSIONS**

### **Radiated Emissions**

# LIMIT

1. Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (mV/m)	Measurement Distance (m)
30-88	100*	3
88-216	150*	3
216-960	200*	3
Above 960	500	3

**Remark:** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

2. In the above emission table, the tighter limit applies at the band edges.

Frequency (Hz)	Field Strength (µV/m at 3-meter)	Field Strength (dBµV/m at 3-meter)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54



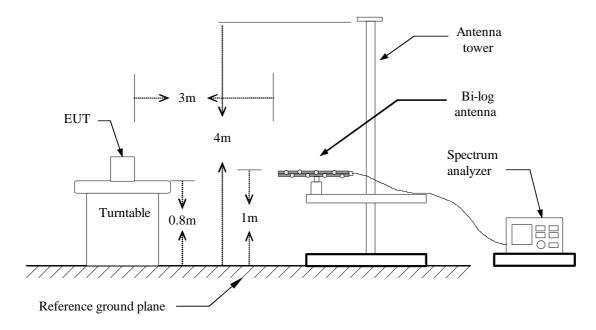
977 Chamber (3m)									
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due					
Spectrum Analyzer	Agilent	E4446A	MY44020154	11/16/2007					
ESPI3 EMI RECEIVER	R&S	ESPI3	101026	11/10/2007					
Pre-Amplfier	MINI	ZFL-1000VH2	d041703	12/12/2007					
Pre-Amplfier	Miteq	NSP4000-NF	870731	01/21/2008					
Bilog Antenna	Sunol Sciences	JB1	A110204-2	11/09/2007					
Horn Antenna	Austriah	BBHA9120D	D267	09/20/2008					
Turn Table	СТ	CT123	4162	N.C.R					
Antenna Tower	СТ	CTERG23	3253	N.C.R					
Controller	СТ	CT100	95635	N.C.R					
Coax Switch	Anitsu	MP 598	M 80094	N/A					
Site NSA	CCS Lab.	N/A	N/A	02/15/2008					

# MEASUREMENT EQUIPMENT USED

**Remark:** Each piece of equipment is scheduled for calibration once a year.

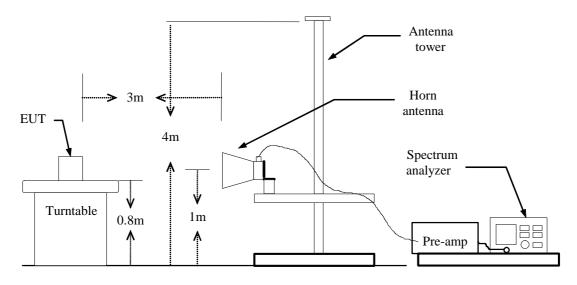
#### **Test Configuration**

#### **Below 1 GHz**





Above 1 GHz



# TEST PROCEDURE

- 1. The EUT is placed on a turntable, which is 0.8m above ground plane.
- 2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
- 4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 6. Set the spectrum analyzer in the following setting as:

Below 1GHz:

```
RBW=100kHz / VBW=300kHz / Sweep=AUTO
```

Above 1GHz:

(a) PEAK: RBW=VBW=1MHz / Sweep=AUTO

- (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
- 7. Repeat above procedures until the measurements for all frequencies are complete.



# TEST RESULTS

#### Below 1 GHz

Operation Mode: Normal Link Test Date: September 21, 200								
Temperatu	re: 25°C				Tested by	y: healing		
Humidity:	42 %	RH			<b>Polarity:</b>	Ver. / Ho	or.	
Freq.	Ant.Pol.	Detector	Reading	Factor	Actual FS	Limit 3m	Safe	
(MHz)	H/V	Mode (PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	Margin (dB)	
40.8150	V	QP	42.94	-9.11	33.83	40.0	-6.17	
210.2530	V	QP	46.86	-10.36	36.50	43.5	-7.00	
215.0360	V	QP	44.56	-10.44	34.12	43.5	-9.38	
242.3333	V	QP	49.08	-9.37	39.71	46.0	-6.29	
464.6850	V	QP	40.88	-3.14	37.74	46.0	-8.26	
802.6740	V	QP	38.17	2.45	40.62	46.0	-5.38	
40.2550	Н	QP	42.79	-7.96	34.83	40.0	-5.17	
47.2150	Н	QP	44.35	-12.42	31.93	40.0	-8.07	
104.9670	Н	QP	43.12	-11.09	32.03	43.5	-11.47	
169.8340	Н	QP	46.55	-10.13	36.42	43.5	-7.08	
179.0334	Н	QP	47.15	-10.66	36.49	43.5	-7.01	
427.2641	Н	QP	42.97	-3.94	39.03	46.0	-6.97	

#### Notes:

- 1. Measuring frequencies from 30 MHz to the 1GHz.
- 2. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak detector mode.
- 3. Data of measurement within this frequency range shown "---" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- 4. The IF bandwidth of SPA between 30MHz to 1GHz was 100kHz.



#### Above 1 GHz

**Operation Mode:** TX/ CH Low

**Temperature:** 25°C

Humidity: 42 % RH

Test Date:September 21, 2007Tested by:healingPolarity:Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading	AV Reading	Ant. / CL CF	Actual Fs		Peak Limit	AV Limit	Margin (dB)	Remark
		(dBuV)	(dBuV)	(dB)	Peak	AV	) (ави v / m	(dBuV/m)		Keinai K
					(dBuV/m)	(dBuV/m)				
4800.00	V	40.13	25.51	12.35	52.48	37.86	74	54	-16.14	Avg
7216.67	V	32.05	19.13	19.41	51.46	38.54	74	54	-15.46	Avg
4800.00	Н	39.96	24.57	12.35	52.31	36.92	74	54	-17.08	Avg
7216.67	Н	32.21	17.64	19.41	51.62	37.05	74	54	-16.95	Avg

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Spectrum setting:
  - *a. Peak Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 1MHz, Sweep time = Auto.*
  - *b.* AV Setting 1GH z to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.



**Operation Mode:** TX/ CH Mid

**Temperature:** 25°C

Humidity: 42 % RH

Test Date: September 21, 2007 Tested by: healing Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading	AV Reading	Ant. / CL CF	Actual Fs		Peak Limit (aBu v/m	AV Limit (dBuV/m)	Margin (dB)	Remark
		(dBuV)		Peak (dBuV/m)	AV (dBuV/m)					
4875.00	V	38.78	24.42	12.42	51.20	36.84	74	54	-17.16	Avg
7333.33	V	33.07	17.33	19.34	52.41	36.67	74	54	-17.33	Avg
4875.00	Н	37.85	24.06	12.42	50.27	36.48	74	54	-17.52	Avg
7316.67	Н	32.04	16.69	19.35	51.39	36.04	74	54	-17.96	Avg

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Spectrum setting:
  - *a. Peak Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 1MHz, Sweep time = Auto.*
  - *b.* AV Setting 1GH z to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.



**Operation Mode:** TX/ CH High

**Temperature:** 25°C

Humidity: 42 % RH

Test Date: September 21, 2007 Tested by: healing Polarity: Ver. / Hor.

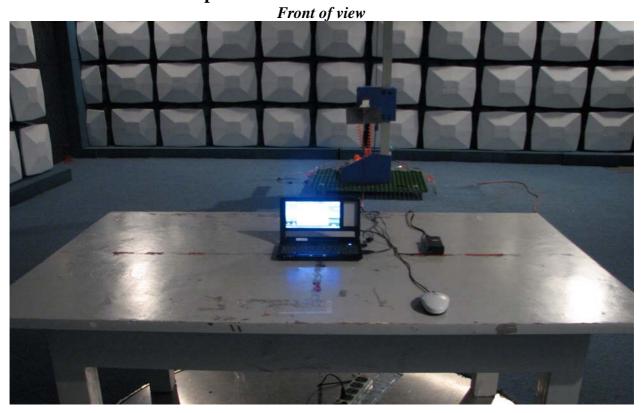
Freq. (MHz)	Ant. Pol H/V	Peak Reading	Actual Fs		ual Fs	Peak Limit	AV Limit	Margin (dB)	<b>D</b>	
		(dBuV)	(dBuV)	(dB)	Peak (dBuV/m)	AV (dBuV/m)	) (авиv/т	(dBuV/m)		Remark
4958.33	V	39.84	23.99	12.49	52.33	36.48	74	54	-17.52	Avg
7458.33	V	33.53	17.36	19.43	52.96	36.79	74	54	-17.21	Avg
4958.33	Н	41.15	23.76	12.49	53.64	36.25	74	54	-17.75	Avg
7450.00	Н	34.66	16.96	19.41	54.07	36.37	74	54	-17.63	Avg

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Spectrum setting:
  - *a. Peak Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 1MHz, Sweep time = Auto.*
  - *b.* AV Setting 1GH z to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.



# 8. APPENDIX 1 PHOTOGRAPHS OF TEST SETUP

**Radiated Emission Set up Photos** 



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