

# **47 CFR PART SUBPART 15C**

# **TEST REPORT**

of

# **Bluetooth printer**

Model Name:

P25-M

Brand Name:

**BLUE BAMBOO** 

Report No.:

SH07030016E01

FCC ID:

UWJP25M

prepared for

### **BLUE BAMBOO(HK) LIMITED**

Unit 1001, Lucky Building, No. 39 Wellington Street, Central, Hong Kong

prepared by

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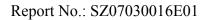


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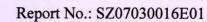
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#### 1. **TEST CERTIFICATION**

Equipment under Test: Bluetooth printer

Trade Name: BLUE BAMBOO

Model Name: P25-M

FCC ID: UWJP25M

Applicant: BLUE BAMBOO(HK) LIMITED

Unit 1001, Lucky Building, No. 39 Wellington Street, Central,

Hong Kong

Manufacturer: BLUE BAMBOO(HK) LIMITED

Unit 1001, Lucky Building, No. 39 Wellington Street, Central,

Hong Kong

Test Standards: 47 CFR Part 15 Subpart C

Test Dates: May 19, 2007 - May 28, 2007

Test Result: PASS

### \* We Hereby Certify That:

The equipment was tested by Shenzhen Electronic Product Quality Testing Center Morlab Laboratory. The test results of this report only apply for the sample equipment identified above. The test data, data evaluation, test procedures and equipment configurations shown in this report were made according to the requirements of related FCC rules. The test report shall be invalid without all the signatures of the test engineer, the reviewer and the approver.

Tested by:

Luo Biao

20 From

Reviewed by:

**Zhang Weimin** 

Approved by:

207.05.29

Shu Luan



# 2. GENERAL INFORMATION

# 2.1 EUT Description

EUT Type...... Bluetooth Printer

Model Name ..... P25-M

Serial No...... (n.a., marked #1 by test site)

Modulation Type..... FHSS

Rated Power...: <= 4dBm

Bluetooth Antenna ..... Peak Gain = 1dBi

Power Supply..... Battery

Trade Name: BLUE BAMBOO

Model Name: P25-BM1

Manufacturer: Edan Technology Corporation

Serial No.: (n.a.)
Capacitance: 950mAh
Rated Voltage: 7.4VDC

Trade Name: BLUE BAMBOO

Model Name: XKD-C1000NHS9.0-12

Manufacturer: Shenzhen Xixing Electronic Co., Ltd.

Serial No.: (n.a.)

Rated Input:  $\sim 100-240V, 50/60Hz, 0.5A$ 

Rated Output: = 9.0V, 1A

Wire Length: 160cm

#### **NOTE:**

1. For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.



# 2.2 Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart C (Bluetooth, 2.4GHz ISM band radiators) for the EUT FCC ID Certification:

No.	Identity	Document Title
1	47 CFR Part 15	Radio Frequency Devices
	(10-1-05 Edition)	

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Result	Date of Test
1	15.247(a)	Number of Hopping Frequency	PASS	2007-05-28
2	15.247(b)	Peak Output Power	PASS	2007-05-28
3	15.247(a)	20dB Bandwidth	PASS	2007-05-28
4	15.247(d)	Peak Power Spectral Density	PASS	2007-05-28
5	15.247(a)	Carrier Frequency Separation	PASS	2007-05-28
6	15.247(a)	Time of Occupancy (Dwell time)	PASS	2007-05-28
7	15.247(c)	Conducted Spurious Emission	PASS	2007-05-28
8	15.247(c)	Band Edge	PASS	2007-05-28
9	15.207	Conducted Emission	PASS	2007-04-19
10	15.209	Radiated Emission	PASS	2007-04-19
	15.247(c)			



# 2.3 Facilities and Accreditations

### 2.3.1 Facilities

Shenzhen Electronic Product Quality Testing Center Morlab Laboratory is a testing organization accredited by China National Accreditation Board for Laboratories (CNAL) according to ISO/IEC 17025. The accreditation certificate number is L1659.

All measurement facilities used to collect the measurement data are located at Electronic Testing Building, Shahe Road, Xili, Nanshan District, Shenzhen 518055 CHINA. The test site is constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22; the FCC registration number is 741109.

#### 2.3.2 Test Environment Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	20 - 25
Relative Humidity (%):	40 - 60
Atmospheric Pressure (kPa):	960



# 3. 47 CFR PART 15C REQUIREMENT

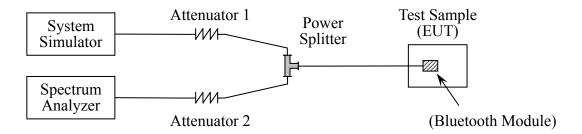
# 3.1 Number of Hopping Frequency

# 3.1.1 Requirement

According to FCC section 15.247(a)(1)(ii), frequency hopping systems operating in the 2400MHz to 2483.5MHz bands shall use at least 75 hopping frequencies.

# 3.1.2 Test Description

#### A. Test Setup:



The EUT, which is powered by the Battery, is coupled to the Spectrum Analyzer (SA) and the Bluetooth Service Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 500hm; the path loss as the factor is calibrated to correct the reading. During the measurement, the Bluetooth Module of the EUT is activated and controlled by the SS, and is set to operate under test mode transmitting 339 bytes DH5 packages at maximum power.

#### **B.** Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Service Simulator	Agilent	E5515C	GB43130131	2006.06	1year
Spectrum Analyzer	Agilent	E7405A	US44210471	2006.07	1year
Power Splitter	Weinschel	1506A	NW521	(n.a.)	(n.a.)
Attenuator 1	Resnet	20dB	(n.a.)	(n.a.)	(n.a.)
Attenuator 2	Resnet	3dB	(n.a.)	(n.a.)	(n.a.)

#### 3.1.3 Test Result

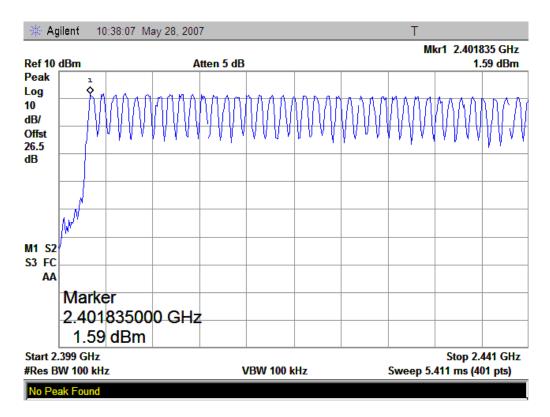
The Bluetooth Module operates at hopping-on test mode; the frequencies number employed is counted to verify the Module's using the number of hopping frequency.



# A. Test Verdict

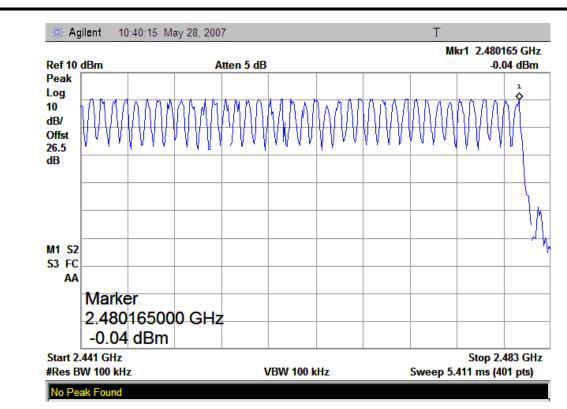
Frequency Block (MHz) Measured Channel Numbers		Min. Limit	Refer to Plot	Verdict
2400 - 2483.5	79	75	Plot A.1/A.2	PASS

### **B.** Test Plots



(Plot A.1: 2402MHz to 2441MHz)





(Plot A.2: 2441MHz to 2480MHz)



# 3.2 Peak Output Power

# 3.2.1 Requirement

According to FCC section 15.247(b)(1), for frequency hopping systems that operates in the 2400MHz to 2483.5MHz band employing at least 75 hopping channels, the maximum peak output power of the intentional radiator shall not exceed 1Watt. For all other frequency hopping systems in the 2400MHz to 2483.5MHz band, it is 0.125Watts.

# 3.2.2 Test Description

See section 3.1.2 of this report.

### 3.2.3 Test Result

The EUT operates at hopping-off test mode. The lowest, middle and highest channels are selected to perform testing to verify the conducted RF output peak power.

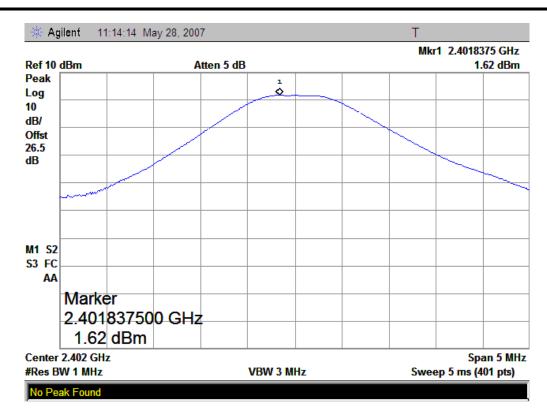
#### A. Test Verdict

СН	Freq.	Measured Max. P	Measured Max. Peak Output Power Limit				Verdict
СП	(MHz)	dBm	W	Refer to Plot	dBm	W	verdict
0	2402	1.62	1.45E-3	Plot A			PASS
39	2441	0.3	1.07E-3	Plot B	30	1	PASS
78	2480	0.272	1.06E-3	Plot C			PASS

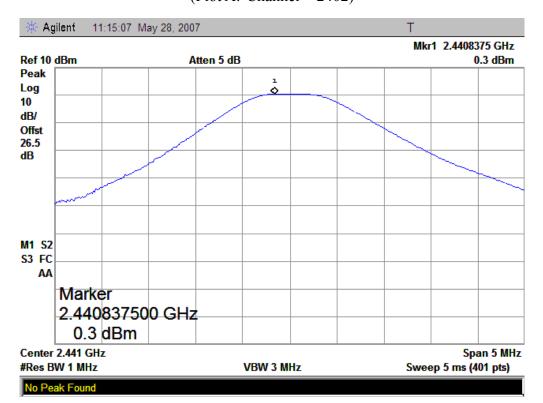
# **B.** Test Plots





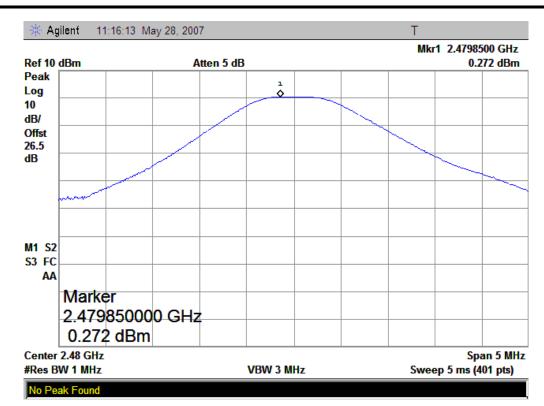


(Plot A: Channel = 2402)



(Plot B: Channel = 2441)





(Plot C: Channel = 2480)



### 3.3 20dB Bandwidth

# 3.3.1 Requirement

The 20dB bandwidth is known as the 99% emission bandwidth, or 20dB bandwidth (10\*log1% = 20dB) taking the total RF output power.

### 3.3.2 Test Description

See section 3.1.2 of this report.

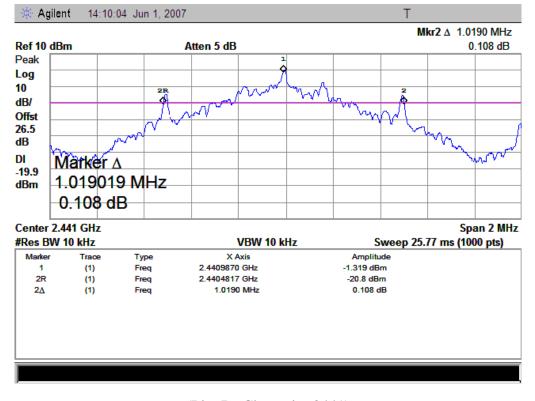
#### 3.3.3 Test Result

The EUT operates at hopping-off test mode. The lowest, middle and highest channels are selected to perform testing to record the 20dB bandwidth.

#### A. Test Verdict

СН	Freq. (MHz)	20dB Bandwidth (MHz)	Refer to Plot
39	2441	1.0190	Plot B

#### **B.** Test Plots



(Plot B: Channel = 2441)



# 3.4 Peak Power Spectral Density

#### 3.4.1 Definition

- 1. For direct sequence systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.
- 2. The direct sequence operating of the hybrid system, with the frequency hopping operation turned off, shall comply with the power density requirements of paragraph (d) of this section.

# 3.4.2 Test Configuration

See section 3.1.2 of this report.

# 3.4.3 Test procedure

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 3. Set the spectrum analyzer as RBW = 3kHz, VBW = 10kHz, Span = 300kHz, Sweep=100s
- 4. Record the max reading.
- 5. Repeat the above procedure until the measurements for all frequencies are completed.

#### 3.4.4 Test results

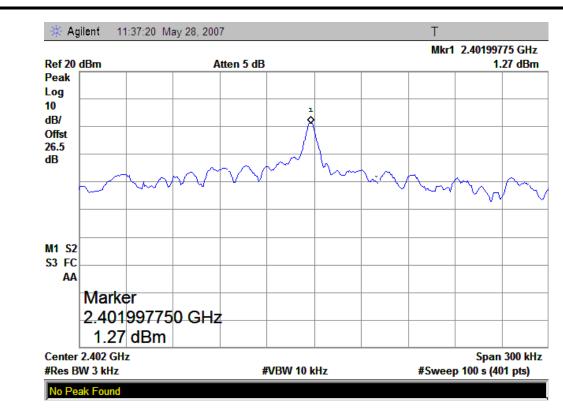
#### **Test Data**

Channel	Frequency	Measured Peak Power Density Limit		Limit	Verdict
Chamilei	(MHz)	dBm	Refer to Plot	dBm	Verdict
0	2402	1.27	Plot A		PASS
39	2441	0.387	Plot B	8	PASS
78	2480	-0.109	Plot C		PASS

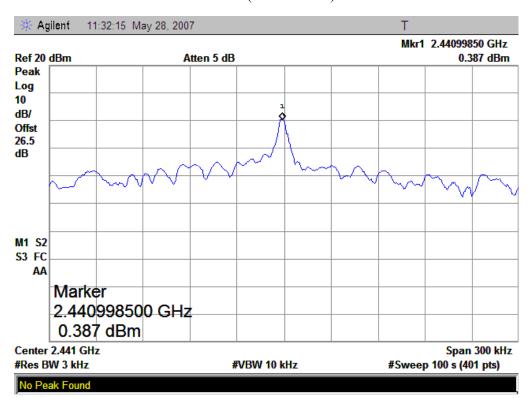
#### **Test Plot:**





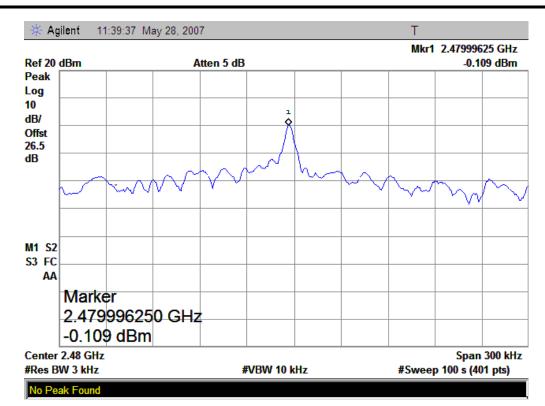


Plot A: (Channel = 0)



Plot B: (Channel = 39)





Plot C: (Channel = 78)



# 3.5 Carried Frequency Separation

# 3.5.1 Requirement

According to FCC section 15.247(a)(1), frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25kHz or the 20dB bandwidth of the hopping channel, whichever is greater.

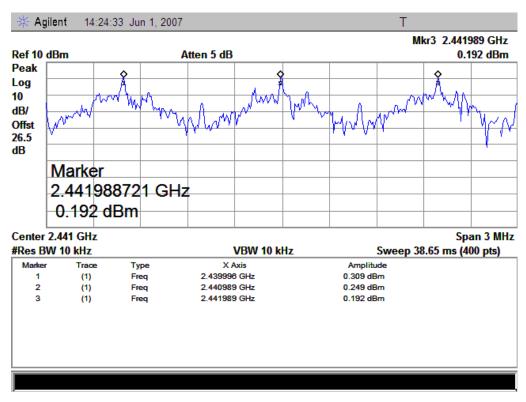
# 3.5.2 Test Description

See section 3.1.2 of this report.

#### 3.5.3 Test Result

The EUT operates at hopping-on test mode.

For any adjacent channels (e.g. the channel 39 and 40 as showed in the Plot A), the Module does have hopping channel carrier frequencies separated by a minimum of 25kHz or the 20dB bandwidth of the hopping channel (refer to section 3.3.3), whichever is greater. So, the verdict is PASS.



(Plot A: Carried Frequency Separation)



# **3.6** Time of Occupancy (Dwell time)

# 3.6.1 Requirement

According to FCC section 15.247(a)(1)(iii), frequency hopping systems in the 2400 - 2483.5MHz band shall use at least 15 non-overlapping channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

# 3.6.2 Test Description

See section 3.1.2 of this report.

#### 3.6.3 Test Result

The EUT operates at hopping-off test mode (under DH5 data package).

#### A. Test Verdict

CH Low: 2.894 \* (1600/6)/79 \* 30 = 293.06 (ms) CH Mid: 2.510 \* (1600/6)/79 \* 30 = 254.18 (ms) CH High: 2.882 \* (1600/6)/79 \* 30 = 291.85 (ms)

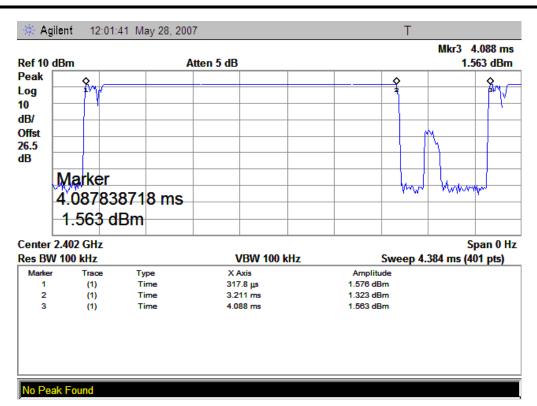
СН	Freq.	Pulse Tim	ne	Calculated Dwell	Limit (ms)	Verdict	
CII	(MHz)	ms	Refer to Plot	Time (ms)	Lillit (ills)	verdict	
0	2402	2.894	Plot A	293.06		PASS	
39	2441	2.510	Plot B	254.18	400	PASS	
78	2480	2.882	Plot C	291.85		PASS	

# **B.** Test Plots

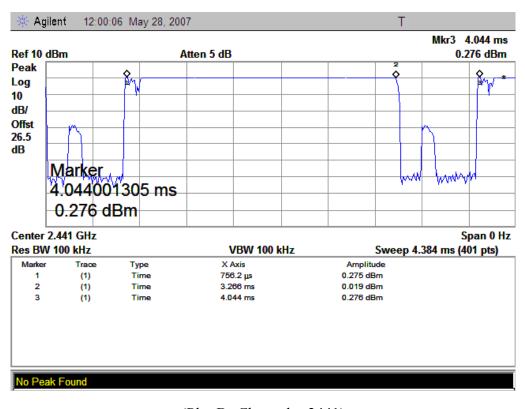
Note: the following plots record the Pulse Time of the Module carrier.





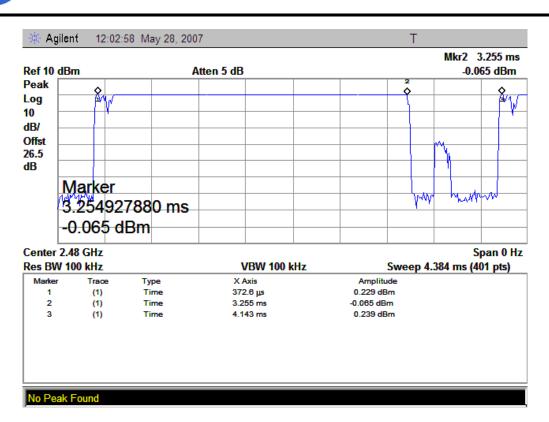


(Plot A: Channel = 2402)



(Plot B: Channel = 2441)





(Plot C: Channel = 2480)



# 3.7 Conducted Spurious Emissions

# 3.7.1 Requirement

According to FCC section 15.247(c), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is 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, based on either an RF conducted or a radiated measurement.

# 3.7.2 Test Description

See section 3.1.2 of this report.

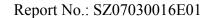
#### 3.7.3 Test Result

The EUT operates at hopping-off test mode. The measurement frequency range is from 9 KHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions.

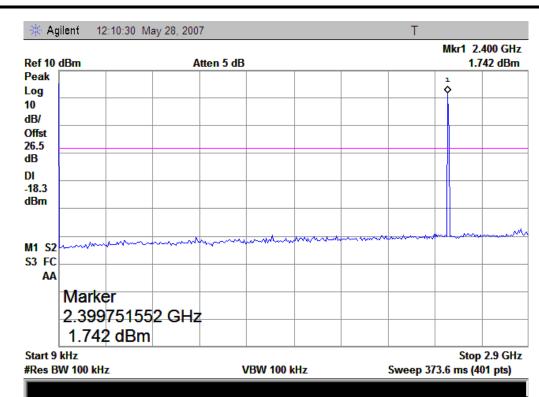
### A. Test Verdict

СН	Freq.	Measured Max. Out of Band	Refer to Plot	Limit	(dBm)	Verdict
СП	(MHz)	Emissions (dBm)	Refer to Fiot	$P_{c}$	P <sub>-20dBc</sub>	verdict
0	2402	-47.65	Plot A.1/A.2	1.742	-18.258	PASS
39	2441	-46.15	Plot B.1/B.2	0.599	-19.401	PASS
78	2480	-47.87	Plot C.1/C.2	0.388	-19.612	PASS

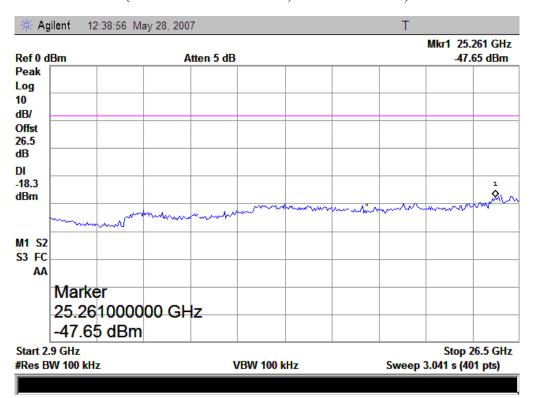
#### **B.** Test Plots







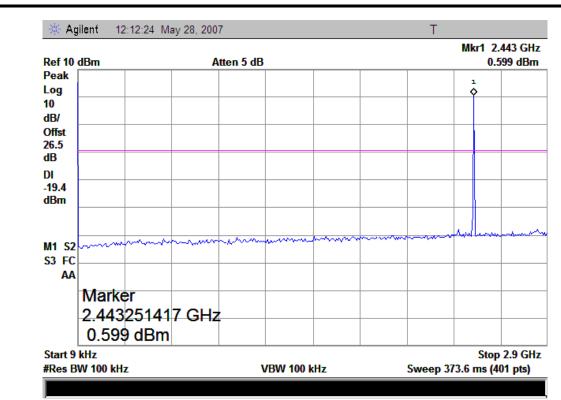
(Plot A.1: Channel = 0, 9KHz to 2.9GHz)



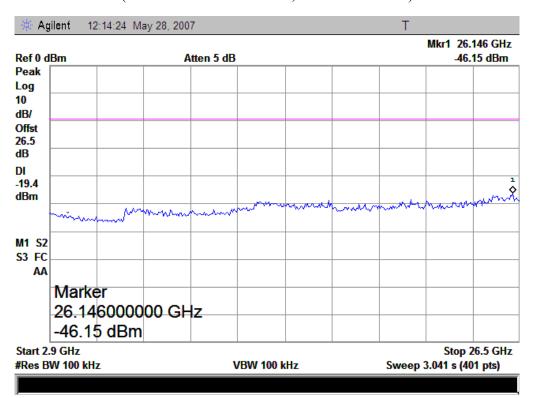
(Plot A.2: Channel = 0, 2.9GHz to 26.5GHz)



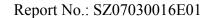




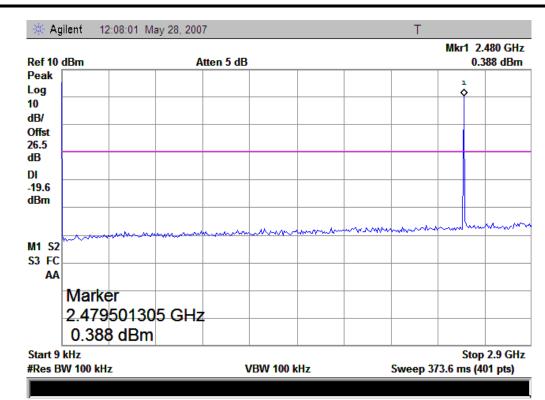
(Plot B.1: Channel = 39, 9KHz to 2.9GHz)



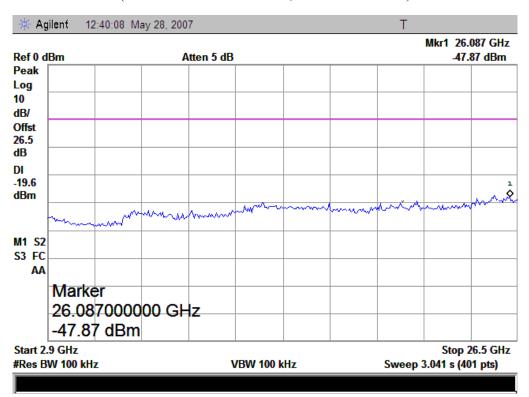
(Plot B.2: Channel = 39, 2.9GHz to 26.5GHz)







(Plot C.1: Channel = 78, 9KHz to 2.9GHz)



(Plot C.2: Channel = 78, 2.9GHz to 26.5GHz)



# 3.8 Band Edge

### 3.8.1 Requirement

According to FCC section 15.247(c), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is 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, based on either an RF conducted or a radiated measurement.

# 3.8.2 Test Description

See section 3.1.2 of this report.

#### 3.8.3 Test Result

The EUT operates at hopping-off test mode. The lowest and highest channels are tested to verify the band edge emissions.

#### A. Test Verdict

 $P_{\text{Max Band Edge Emission}}$  is the measured maximum band edge level;

 $f_{\text{Max\_Band\_Edge\_Emission}}$  is the frequency at which the maximum band edge level is measured;

P<sub>c</sub> is the level of the Module carrier;

P<sub>-20dBc</sub> is the level that is -20dBm below the P<sub>c</sub>;

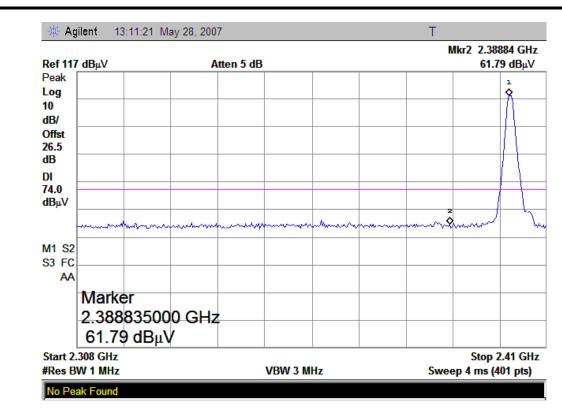
Δ<sub>Marker Delta</sub>= P<sub>c</sub> - P<sub>Max Band Edge Emission</sub>

	CH	Freq. (MHz)	Measured Max. Band Edge		Limit (dBm)		<b>∆</b> Marker_Delta	Refer	V/ 1: -4
	СН		P <sub>Max_Band_Edge_E</sub> <sub>mission</sub> (dBm)	f <sub>Max_Band_Edge_E</sub> mission (MHz)	P <sub>c</sub>	P <sub>-20dBc</sub>	(dB)	to Plot	Verdict
	0	2402	-45.31	2389	1.78	-18.3	47.09	Plot A	PASS
	78	2480	-41.32	2384	0.42	-19.6	41.74	Plot B	PASS

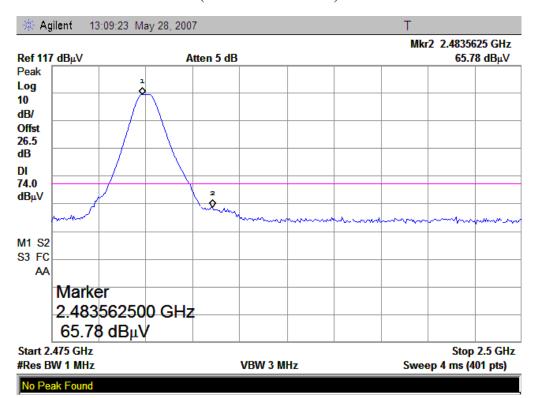
### **B.** Test Plots







(Plot A: Channel = 0)



(Plot B: Channel = 78)



### 3.9 Conducted Emission

### 3.9.1 Requirement

According to FCC §15.107, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a  $50\mu\text{H}/50\Omega$  line impedance stabilization network (LISN).

Eraguanay ranga (MHz)	Conducted Limit (dBµV)				
Frequency range (MHz)	Quai-peak	Average			
0.15 - 0.50	66 to 56	56 to 46			
0.50 - 5	56	46			
0.50 - 30	60	50			

#### **NOTE:**

- 1. The limit is applicable to Class B ITE.
- 2. The lower limit shall apply at the band edges.
- 3. The limit decreases linearly with the logarithm of the frequency in the range 0.15 0.50MHz.

#### 3.9.2 Test Procedure

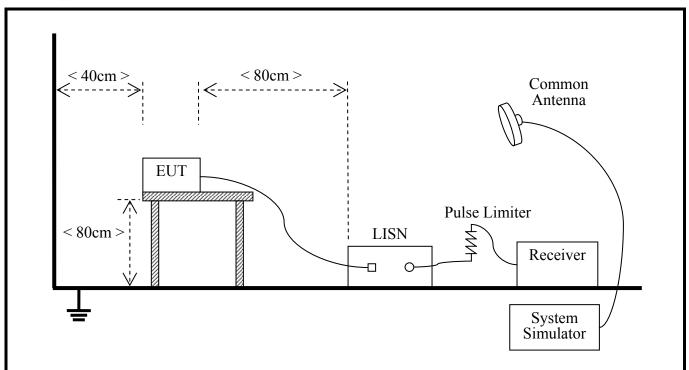
- 1. The EUT is placed on a 0.8m high insulating table, which stands on the grounded conducting floor, and keeps 0.4m away from the grounded conducting wall. The EUT is connected to the power mains through a LISN which provides  $50\Omega/50\mu H$  of coupling impedance for the measuring instrument.
- 2. The test frequency range is from 150kHz to 30MHz. The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels that are more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors.
- 3. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed.

# 3.9.3 Test Setup

Please refer to Annex B for the photographs of the Test Configuration.







# 3.9.4 Test Result

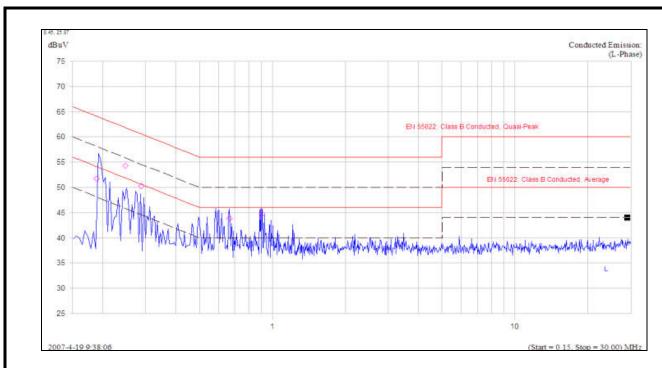
# A. Test Verdict Recorded for Suspicious Points:

No.	@Frequency	Meası	Measured Emission Level (dBμV)				Limit (dBµV)	
NO.	(MHz)	PK	QP	AV	Phase	QP	AV	Verdict
1	0.118	51.7	37.7	23.0	L	64.1	54.1	PASS
2	0.248	54.3	47.2	32.2	L	61.8	51.8	PASS
3	0.288	50.3	38.2	23.5	L	60.6	50.6	PASS
4	0.665	43.9	30.1	22.4	L	56.0	46.0	PASS
5	0.905	44.7	30.9	22.0	L	56.0	46.0	PASS
6	0.200	49.9	39.2	30.8	N	63.6	53.6	PASS
7	0.416	41.3	32.1	25.0	N	58.6	48.6	PASS
8	0.640	45.5	32.2	22.4	N	56.0	46.0	PASS
9	1.473	35.4	27.5	21.3	N	56.0	46.0	PASS
10	1.698	33.6	27.2	21.2	N	56.0	46.0	PASS

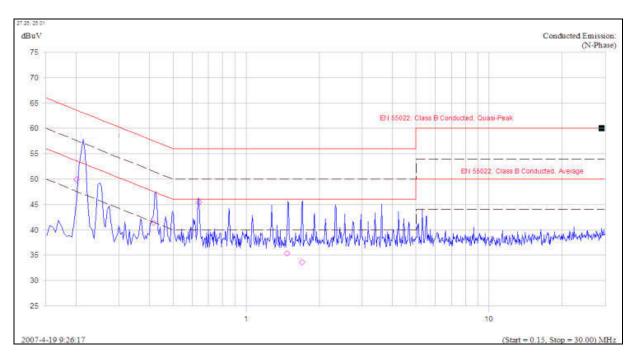
# **B.** Test Plot:







(Plot A: L Phase)



(Plot B: N Phase)



#### 3.10 Radiated Emissions

### 3.10.1 Requirement

According to FCC section 15.247(c), radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

According to FCC section 15.209(a), 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 (μV/m)	Measurement Distance (m)
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

As shown in FCC section 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector. When average radiated emission measurements are specified in this part, including emission measurements below 1000MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules.

#### 3.10.2 Test Procedure

- 1. The EUT is set to operate at hopping off test mode.
- 2. The lowest, middle and highest channels of the EUT are employed to perform this test.
- 3. The test frequency range is from 9kHz to 30MHz, and from 30MHz to the 10th harmonic of the fundamental frequency.

The corresponding Test Antenna is located at 1m height. The Peak (PK) detector is employed to sweep the radiated field strength over the test frequency range while the Turn Table is located separately at the degree of  $STEP_{TT}(degree)=N*45$ ,  $N \in [0, 8]$ .

For each fundamental frequency signal, rotate the Turn Table and vary the Test Antenna height until the emission is at its highest amplitude; then tuned the Receiver and use the PK and Average (AV) detectors to measure and record these maximum readings as P<sub>Fundamental FieldStrength</sub>.



Calculate the field strength of band edge emission falling in adjacent restricted bands (from 2310MHz to 2390MHz and from 2483.5MHz to 2500MHz) recorded as  $P_{Max\_Band\_Edge\_Field\_Strength}$  that is mentioned in FCC section 15.205(a) via the method of "Marker Delta" described by the formula:  $P_{Max\_Band\_Edge\_Field\_Strength} = P_{Fundamental\_FieldStrength} - \Delta_{Marker\_Delta}(@f_{Max\_Band\_Edge\_Emission}), \text{ where the } \Delta_{Marker\_Delta}(@f_{Max\_Band\_Edge\_Emission}) \text{ is the measured maximum band edge emission } \Delta_{Marker\_Delta} \text{ virus the frequency } f_{Max\_Band\_Edge\_Emission} \text{ which are mentioned in the section } 3.8 \text{ of this test report. The } P_{Max\_Band\_Edge\_Field\_Strength} \text{ is compared with the PK and AV limit lines.}$ 

Observe the restricted bands mentioned in FCC section 15.205(a), and for each swept signal that is more than or have narrow negative margins beyond the AV limit line, rotate the Turn Table and vary the Test Antenna height until the emission is at its highest amplitude; then tuned the Receiver and use the PK and AV detectors to measure this suspect signal to find its maximum readings and compare with the PK and AV limit lines.

Both the Vertical (V) and the Horizontal (H) polarizations of the Test Antenna are employed to perform this test.

### **3.10.3** Test Setup

#### A. Test Setup Sketch

The test is performed in a 3m Semi-Anechoic Chamber. The EUT is placed on a 0.8m high insulating Turn Table and keeps

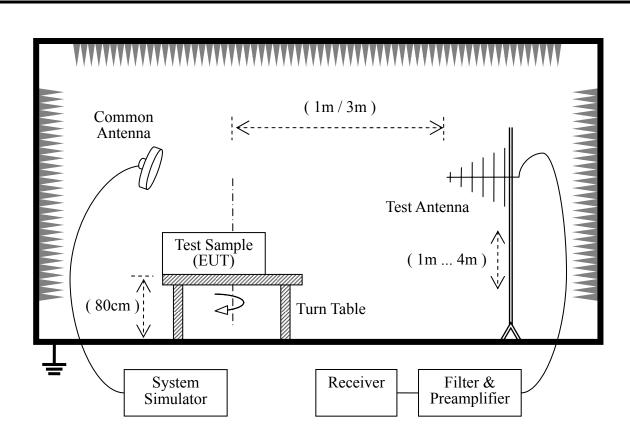
- 1. 3m away from the Test Antenna which is a Bi-Log one with working frequency range from 30MHz to 3GHz while a Horn one with working frequency range above 3GHz, and is mounted on a variable-height antenna master tower.
- 2. 1m away from the Test Antenna which is a Loop one with working frequency range from 9kHz to 30MHz, and the center of which is positioned at 1m above the ground.

If applicable, a Filter (Notch and/or High-Pass) and a Preamplifier are employed for the measuring instrument of a Receiver. The factors of the whole test system are calibrated to correct the reading.

The EUT is powered by the Battery, which is charged with the AC Adapter powered by 120V 60Hz AC mains supply.

The EUT is activated and controlled by the System Simulator via a Common Antenna, and is set to operate under hopping on test mode transmitting 339 bytes DH5 packages at maximum power condition.





# **B.** Equipments List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Receiver	Agilent	E7405A	US44210471	2006.07	1year
Semi-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2006.08	2year
Test Antenna (Bi-Log)	Schwarzbeck	VULB 9163	9163-274	2006.07	1year
Test Antenna (Horn)	Schwarzbeck	BBHA 9120C	9120C-384	2006.07	1year
System Simulator	R&S	CMU200	100448	2006.10	1year

# 3.10.4 Test Result

# A. Test Verdict

# A. The Field Strength of Fundamental Emissions

СН	Freq.	P <sub>Fundamental_FieldSt</sub>	rength (dBµV/m)	Antenna	Refer to Plot
СП	(MHz)	PK	AV	Polarization	Refer to Flot
	2402	85.12	67.33	Н	Plot A.3
0	2402	86.92	71.98	V	Plot A.7
39	2441	83.32	66.87	Н	Plot B.3
39		88.56	72.53	V	Plot B.7



СН	Freq.	$P_{Fundamental\_FieldStrength}$ (dB $\mu$ V/m)		Antenna	Refer to Plot	
CII	(MHz)	PK	AV	Polarization	Kelei to Flot	
78	2480	84.21	65.98	Н	Plot C.3	
/ 8		88.32	70.38	V	Plot C.7	

The Calculated Field Strength of Band Edge Emissions Fall in the Restricted Bands

	Freq. (MHz)	P <sub>Fundamental_FieldStrength</sub>		Measured M	ax. Band E			
СН		Detector		$@f_{Max\_Band\_}$	$\Delta_{\text{Marker}}$	P <sub>Max_Band_Edge_</sub>	Limit	Verdict
			$dB\mu V/m$	Edge_Emission	Delta	Field_Strength	$(dB\mu V/m)$	
				$(MHz)$ $(dB)$ $(dB\mu V/m)$				
0	2402	PK	86.92	2400.00	47.09	39.83	74	PASS
U		AV	71.98		47.09	24.89	54	PASS
78	2480	PK	88.32	2494.00	41.74	46.58	74	PASS
/8		AV	70.38	2484.00	41./4	28.64	54	PASS

The Field Strength of Radiated Emissions Fall in the Restricted Bands

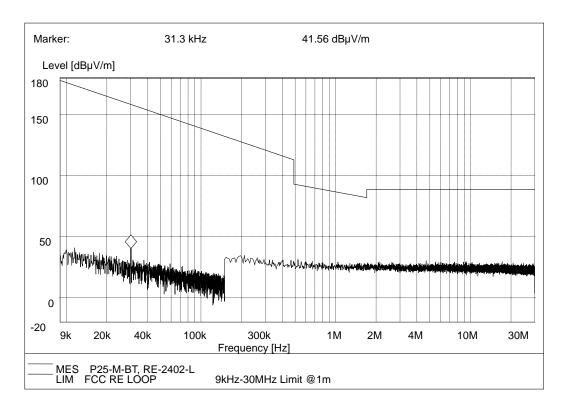
NOTE: also refer to Plot A.1 to Plot A.9, Plot B.1 to Plot B.9 and Plot C.1 to Plot C.9 for the emissions falling in the restricted bands.

СН	Freq. (MHz)	Antenna Polarization	Measured Max. Radiated Emissions in the Restricted Bands (dBμV/m)		Limit (dBµV/m)		Verdict		
		nz) Polarization	PK	AV	PK	AV			
0	2402	V			74	54	PASS		
U		2402	2402	2402	Н			74	54
39	2441	2441	V			74	54	PASS	
39	2441	Н			74	54	PASS		
78	2480	V			74	54	PASS		
/8		Н			74	54	PASS		

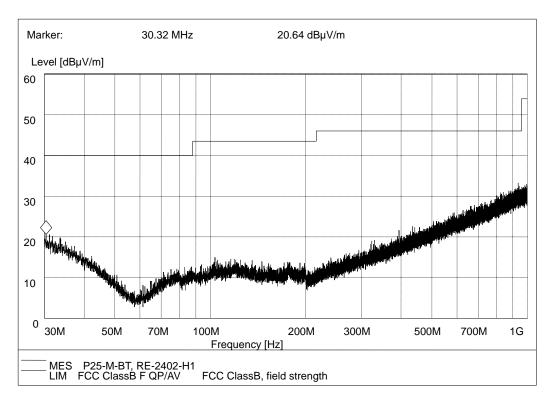




# B. Test Plots for the Whole Measurement Frequency Range



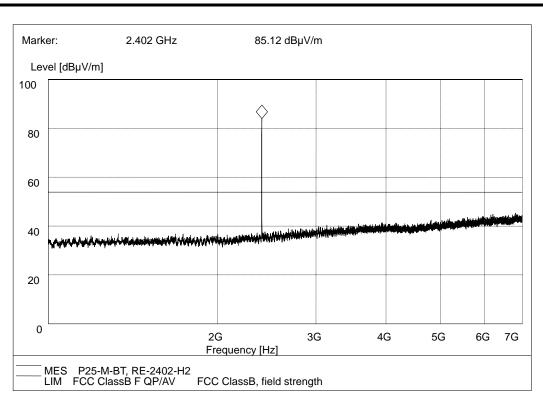
(Plot A.1: 9kHz to 30MHz)



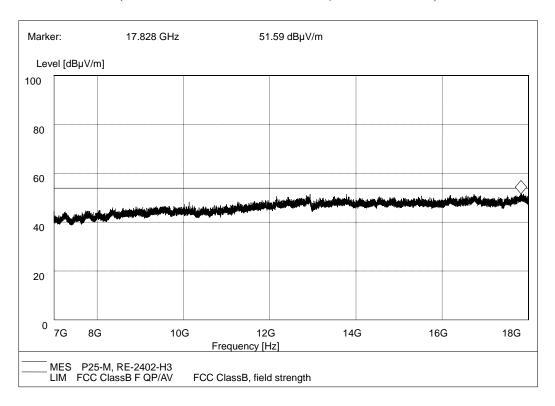
(Plot A.2: Antenna Horizontal, 30MHz to 1GHz)







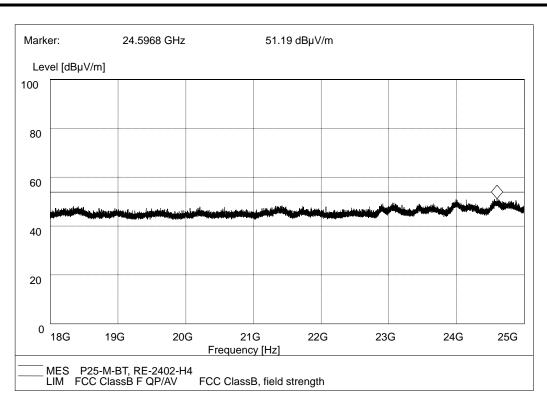
(Plot A.3: Antenna Horizontal, 1GHz to 7GHz)



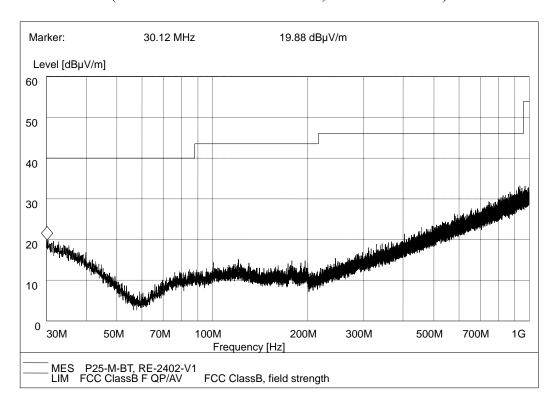
(Plot A.4: Antenna Horizontal, 7GHz to 18GHz)







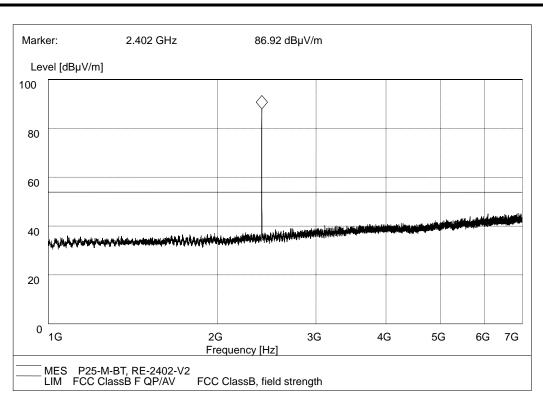
(Plot A.5: Antenna Horizontal, 18GHz to 25GHz)



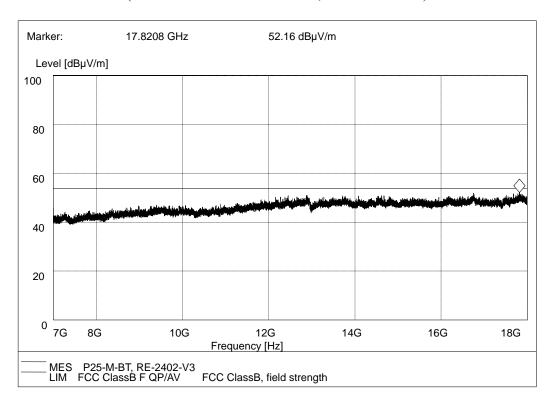
(Plot A.6: Antenna Vertical, 30MHz to 1GHz)







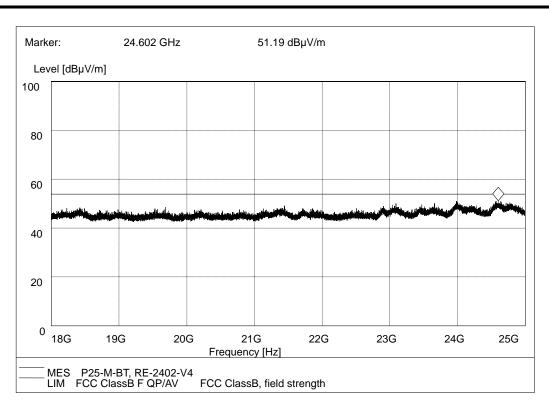
(Plot A.7: Antenna Vertical, 1GHz to 7GHz)



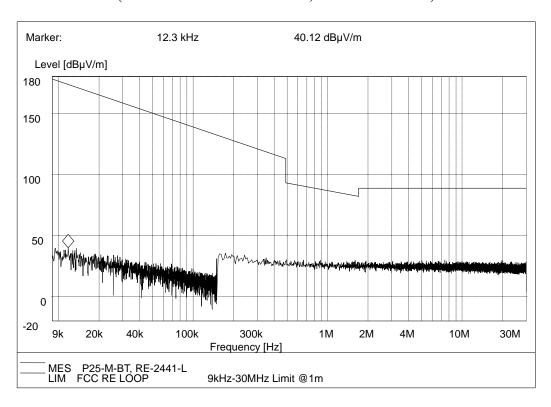
(Plot A.8: Antenna Vertical, 7GHz to 18GHz)







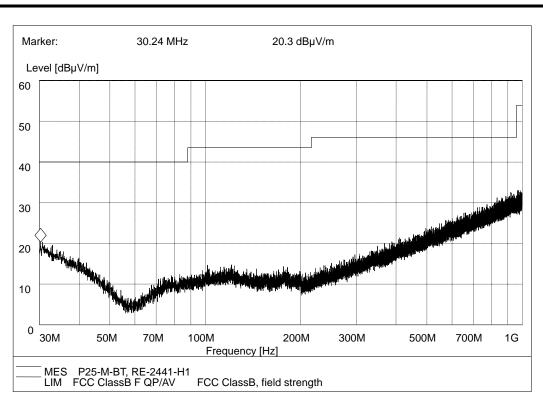
(Plot A.9: Antenna Vertical, 18GHz to 25GHz)



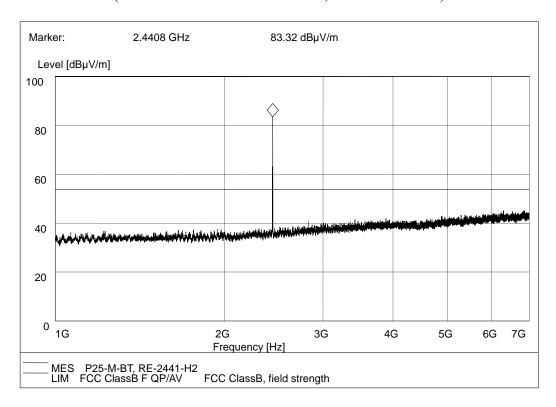
(Plot B.1: 9kHz to 30MHz)







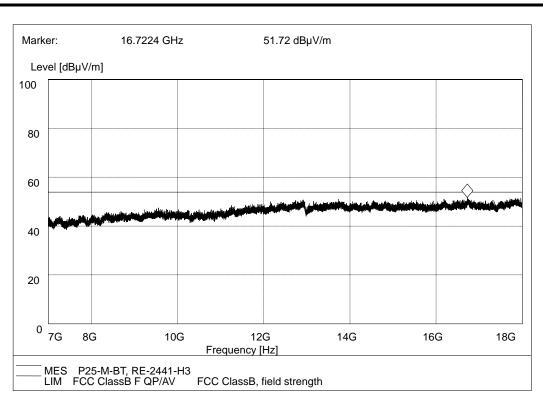
(Plot B.2: Antenna Horizontal, 30MHz to 1GHz)



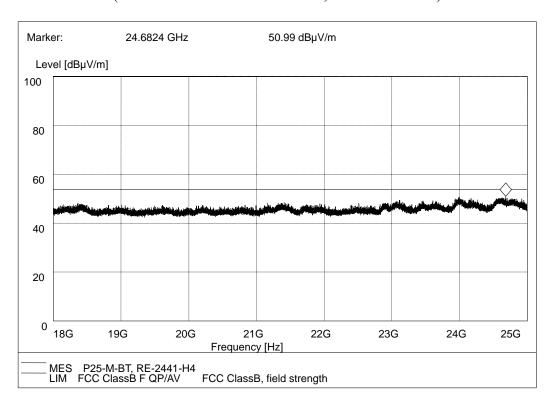
(Plot B.3: Antenna Horizontal, 1GHz to 7GHz)



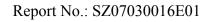




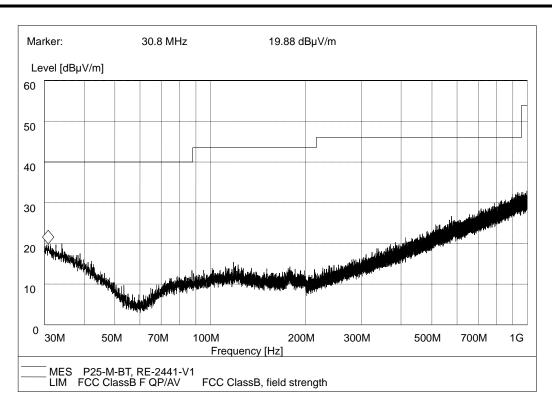
(Plot B.4: Antenna Horizontal, 7GHz to 18GHz)



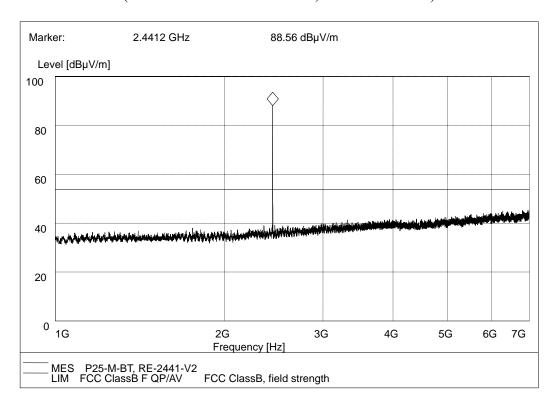
(Plot B.5: Antenna Horizontal, 18GHz to 25GHz)







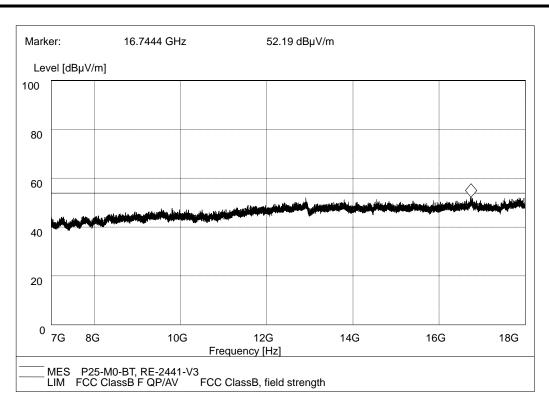
(Plot B.6: Antenna Vertical, 30MHz to 1GHz)



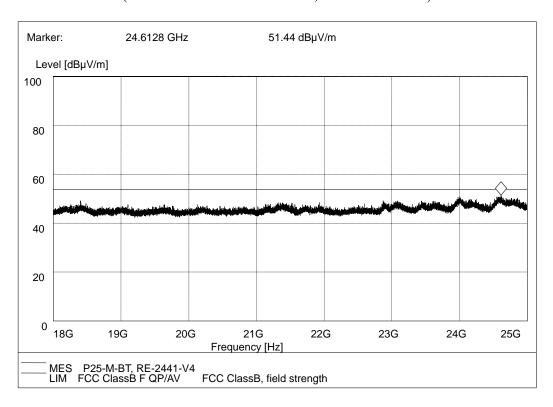
(Plot B.7: Antenna Vertical, 1GHz to 7GHz)





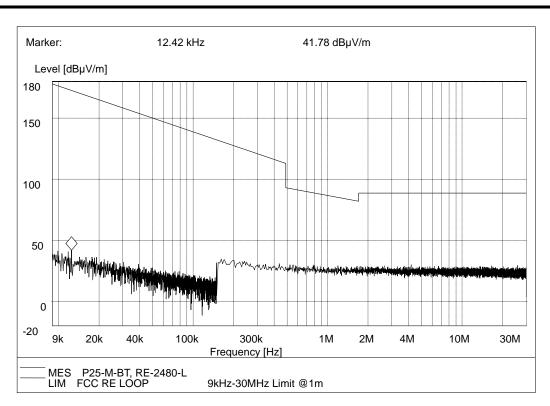


(Plot B.8: Antenna Vertical, 7GHz to 18GHz)

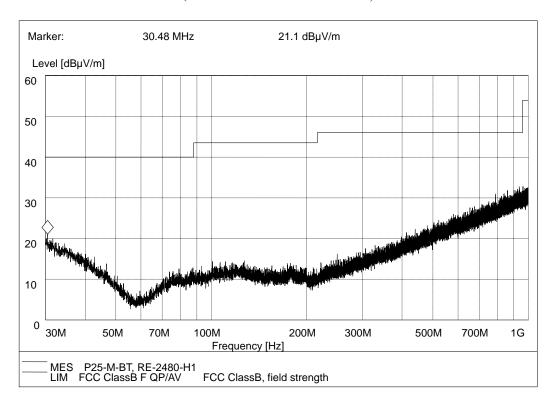


(Plot B.9: Antenna Vertical, 18GHz to 25GHz)





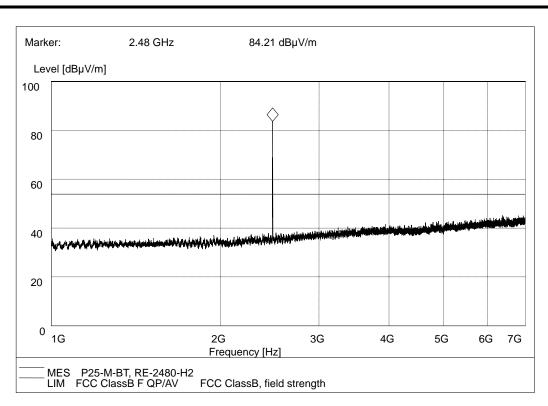
(Plot C.1: 9kHz to 30MHz)



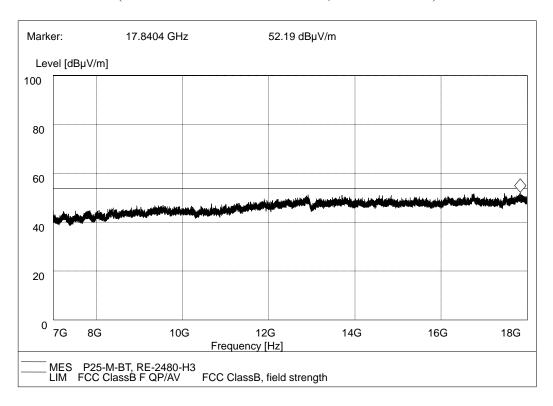
(Plot C.2: Antenna Horizontal, 30MHz to 1GHz)







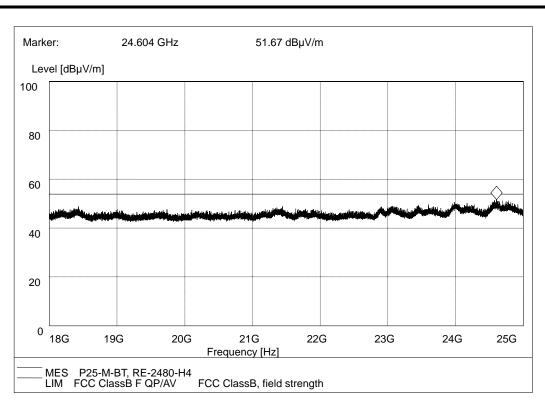
(Plot C.3: Antenna Horizontal, 1GHz to 7GHz)



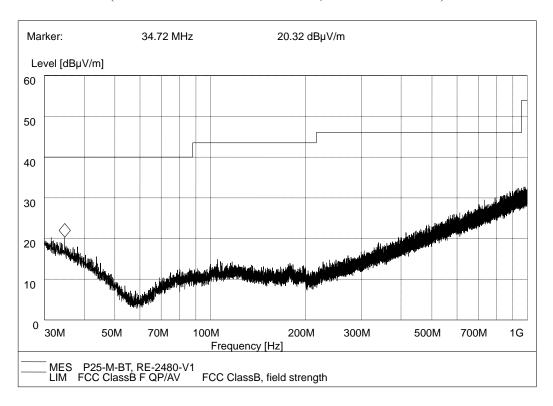
(Plot C.4: Antenna Horizontal, 7GHz to 18GHz)







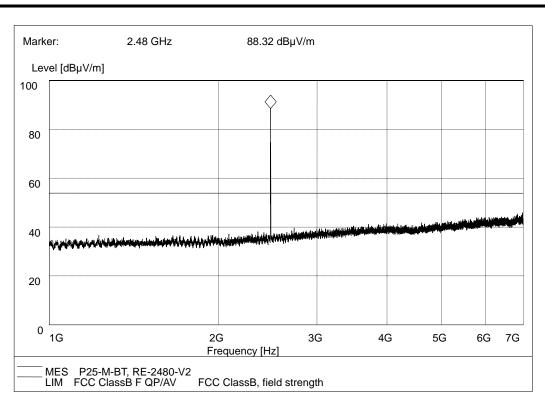
(Plot C.5: Antenna Horizontal, 18GHz to 25GHz)



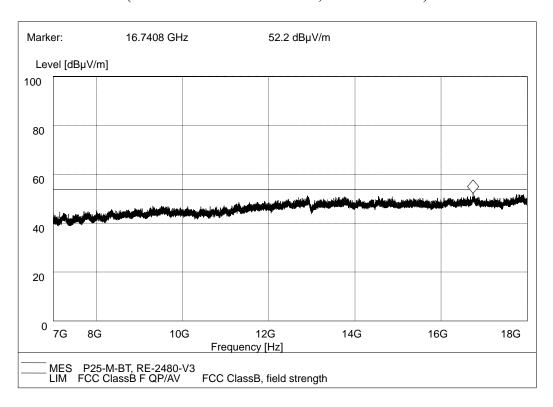
(Plot C.6: Antenna Vertical, 30MHz to 1GHz)







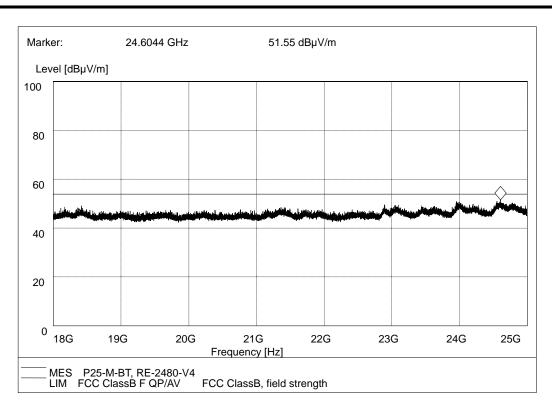
(Plot C.7: Antenna Vertical, 1GHz to 7GHz)



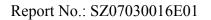
(Plot C.8: Antenna Vertical, 7GHz to 18GHz)







(Plot C.9: Antenna Vertical, 18GHz to 25GHz)



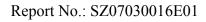


## ANNEX A PHOTOS OF THE EUT

1. Appearance of the EUT





















2. Appearance of the Adapter

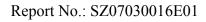








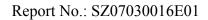
3. Inside of the EUT



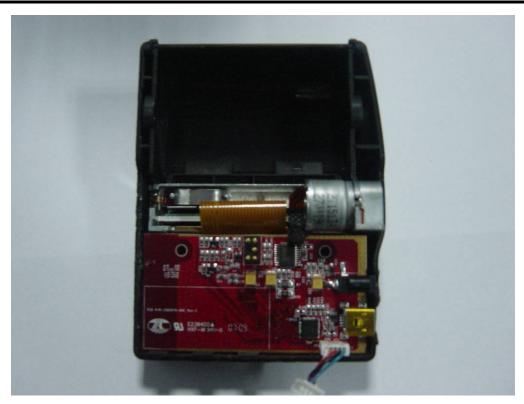


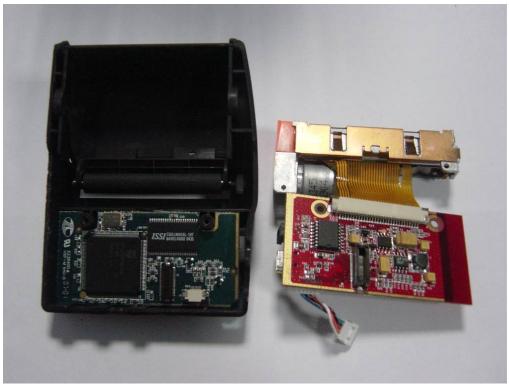


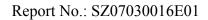




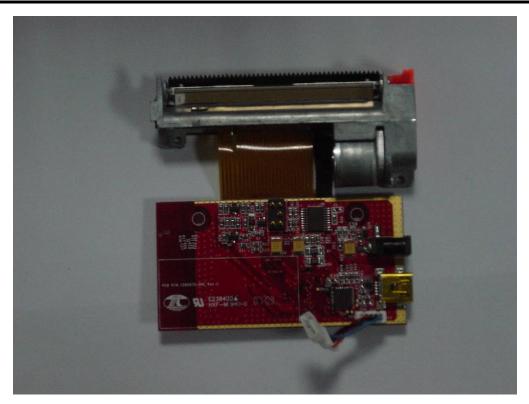


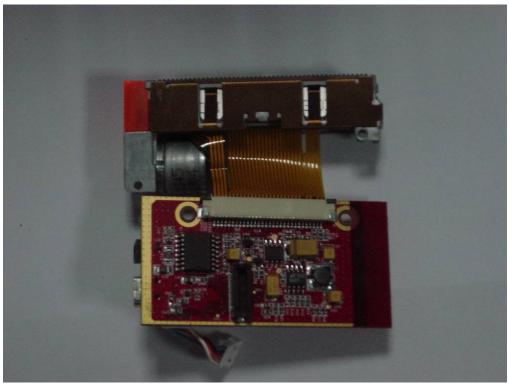


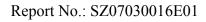




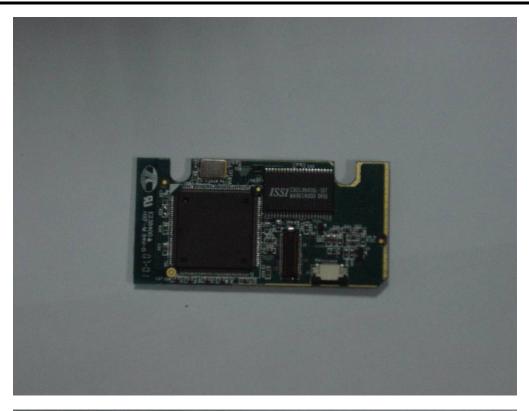












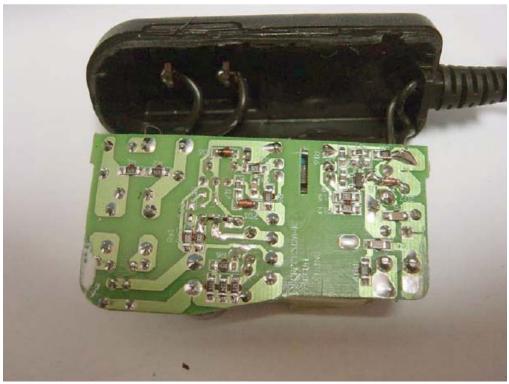


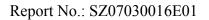
4. Inside of the Adapter







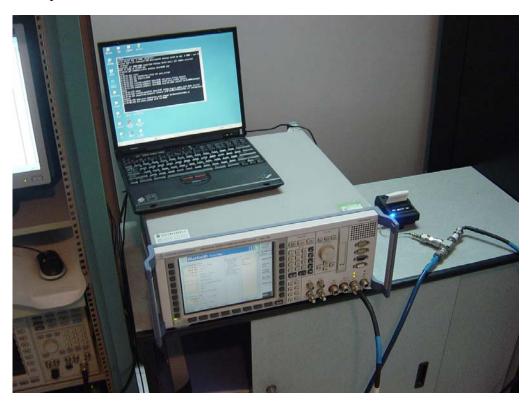






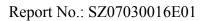
## ANNEX B PHOTOS OF TEST SETUP

1. RF Test Setup



2. Conducted Emission Test Setup







3. Radiated Emission Test Setup

