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# **FCC Test Report**

Report No.: AGC00747140301FE08

FCC ID : RW9EUTB-745N

**TYPE OF AUTHORIZATION**: Declaration of Conformity

**APPLICATION PURPOSE** : Original Equipment

**PRODUCT DESIGNATION**: TABLET PC

**BRAND NAME** : EUROCASE, EUROCASE TABI

TEST MODEL : EUTB-745N, EUTB-710E, EUTB-710E+, EUTB-704

**CLIENT** : EUROTECHnologie Co., Ltd.

**DATE OF ISSUE** : Mar.17, 2014

**STANDARD(S)** : FCC Part 15 Rules

**REPORT VERSION**: V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

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# REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Mar.17, 2014	Valid	Original Report

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### 1. VERIFICATION OF COMPLIANCE

Applicant	EUROTECHnologie Co., Ltd.
Address	Room 1510, 15/F, Metro Centre II, 21 Lam Hing Street, Kowloon Bay, Kowloon, Hong Kong
Manufacturer	EUROTECHnologie Co., Ltd.
Address Room 1510, 15/F, Metro Centre II, 21 Lam Hing Street, Kowloon Kowloon, Hong Kong	
Product Designation	TABLET PC
Brand name:	EUROCASE, EUROCASE TABI
Test Model	EUTB-745N
Series Model	EUTB-710E, EUTB-710E+, EUTB-704
Difference description	All the same except for the model name.
Date of test:	Mar.12, 2014 to Mar.14, 2014
Deviation:	None
Condition of Test Sample	Normal

The above equipment was tested by Attestation Of Global Compliance Co., Ltd. for compliance with the requirements set forth in the FCC Rules and Regulations Part 15, the measurement procedure according to ANSI C63.4:2003. This said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment are within the compliance requirements.

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

Prepared By

Wall Huang Mar.17, 2014

Checked By

Kidd Yang Mar.17, 2014

Authorized By

Solger Zhang Mar.17, 2014

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## 2. PRODUCT INFORMATION

Housing Type: Plastic

**EUT Rating Voltage:** DC 3.7V by battery or USB Operated

I/O Port Information (⊠Applicable ☐Not Applicable)

I/O Port of EUT								
I/O Port Type	Q'TY	Cable	Tested with					
USB PORT	1	0	1					
TF CARD PORT	1	0	1					
EARPHONE PORT	1	0	1					

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## 3. TEST FACILITY

Facility Attestation of Global Compliance (Shenzhen) Co., Ltd

Location: 2/F., Building 2, No.1-No.4, Chaxi Sanwei Technical Industrial Park, Gushu,

Xixiang, Bao'an District, Shenzhen, Guangdong, China

**Description:** The test site is constructed and calibrated to meet the FCC requirements in

documents ANSI C63.4:2003.

Site Filing: The FCC Registration Number is 259865

Instrument Tolerance: All measuring equipment is in accord with ANSI C63.4 requirements that meet

industry regulatory agency and accreditation agency requirement.

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## 4. SUPPORT EQUIPMENT LIST

Device Type	Manufacturer	Model Name	Serial No.	Data Cable	Power Cable
PC	Dell	INSPIRON	N/A	N/A	1.5m unshielded

<sup>\*\*</sup>Note: All the above equipment/cables were placed in worse case positions to maximize emission signals during emission test.

## 5. SYSTEM DESCRIPTION

## **EUT** test procedure:

- 1. Connect EUT and peripheral devices.
- 2. Power on the EUT, the EUT begins to work.
- 3. Running data transmission and make sure the EUT normal working.

#### **Test Mode**

1. USB (Data transmitting)

NOTE: Other modes have reflected in VOC program.

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## 6. SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result
§15.107	Conduction Emission	Compliant
§15.109	Radiated Emission	Compliant

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## 7. FCC LINE CONDUCTED EMISSION TEST

## 7.1. TEST EQUIPMENT OF LINE CONDUCTED EMISSION TEST

Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	Agilent	E4440A	US41421290	07/18/2013	07/17/2014
EMI Test Receiver	Rohde & Schwarz	ESCI	100694	07/18/2013	07/17/2014
LISN	Rohde & Schwarz	ESH2-Z5	862060/020	07/18/2013	07/17/2014

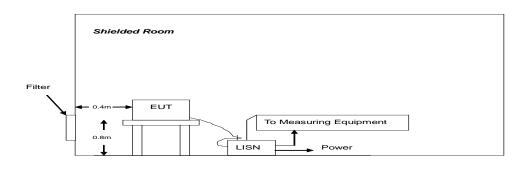
## 7.2 .LIMITS OF LINE CONDUCTED EMISSION TEST

_	Maximum RF Line Voltage						
Frequency	Q.P.( dBuV)	Average( dBuV)					
150kHz~500kHz	66-56	56-46					
500kHz~5MHz	56	46					
5MHz~30MHz	60	50					

<sup>\*\*</sup>Note: 1. The lower limit shall apply at the transition frequency.

2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz

## 7.3. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



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#### 7.4. PROCEDURE OF LINE CONDUCTED EMISSION TEST

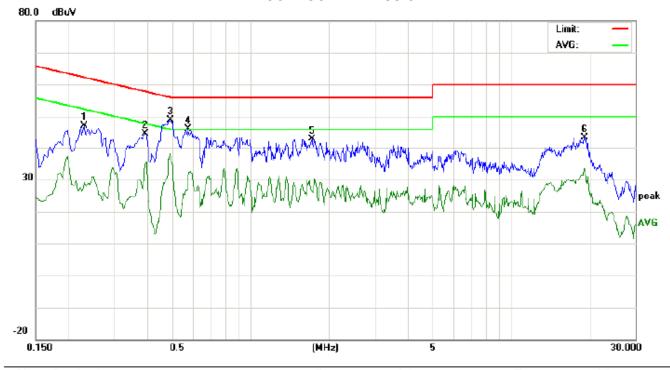
- 1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2) Support equipment, if needed, was placed as per ANSI C63.4.
- 3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- 4) The EUT received power by PC. All support equipments received AC 120V/60Hz power from socket under the turntable, if any.
- 5) The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 6) Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- 7) During the above scans, the emissions were maximized by cable manipulation.
- 8) A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions.
- 9) Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.

The test data of the worst case condition(mode 2) was reported on the following Data page.

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## 7.5 TEST RESULT OF LINE CONDUCTED EMISSION TEST

## LINE CONDUCTED EMISSION - L



Site: Conduction Phase: L1 Temperature: 26
Limit: FCC Class B Conduction(QP) Power: Humidity: 60 %

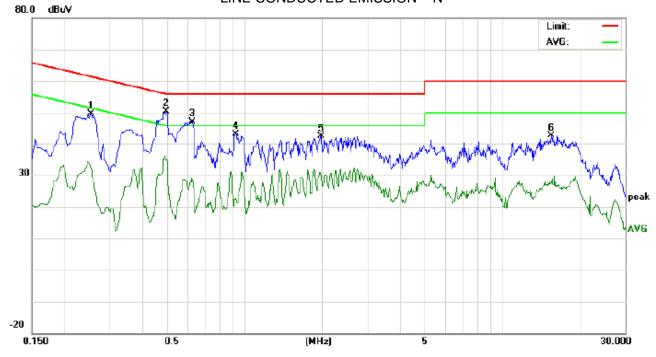
EUT: TABLET PC M/N: EUTB-745N Mode: Mode 1

Note:

No.	Freq.	Rea	ding_L (dBuV)		Correct Measurement Factor (dBuV)		Limit Margin (dBuV) (dB)		P/F	Comment				
	(MHz)	Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.2300	36.82		18.81	10.25	47.07		29.06	62.45	52.45	-15.38	-23.39	Р	
2	0.3940	34.25		24.50	10.33	44.58		34.83	57.98	47.98	-13.40	-13.15	Р	
3	0.4939	38.55		26.62	10.40	48.95		37.02	56.10	46.10	-7.15	-9.08	Р	
4	0.5777	35.86		20.41	10.33	46.19		30.74	56.00	46.00	-9.81	-15.26	Р	
5	1.7177	32.49		16.17	10.31	42.80		26.48	56.00	46.00	-13.20	-19.52	Р	
6	19.1339	33.22		23.25	10.12	43.34		33.37	60.00	50.00	-16.66	-16.63	Р	

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## LINE CONDUCTED EMISSION - N



Site: Conduction Phase: N Temperature: 26
Limit: FCC Class B Conduction(QP) Power: Humidity: 60 %

EUT: TABLET PC M/N: EUTB-745N Mode: Mode 1

Note:

No.	Freq.	eq. (dBuV) Factor							Margin (dB)		P/F	Comment		
	(MHz)	Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.2540	39.24		21.81	10.27	49.51		32.08	61.62	51.62	-12.11	-19.54	Р	
2	0.4979	39.90		24.79	10.40	50.30		35.19	56.03	46.03	-5.73	-10.84	Р	
3	0.6300	36.76		18.06	10.32	47.08		28.38	56.00	46.00	-8.92	-17.62	Р	
4	0.9260	32.83		12.22	10.40	43.23		22.62	56.00	46.00	-12.77	-23.38	Р	
5	1.9818	32.03		19.51	10.23	42.26		29.74	56.00	46.00	-13.74	-16.26	Р	
6	15.5497	32.41		17.54	10.11	42.52		27.65	60.00	50.00	-17.48	-22.35	Р	

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## 8. FCC RADIATED EMISSION TEST

## 8.1. TEST EQUIPMENT OF RADIATED EMISSION

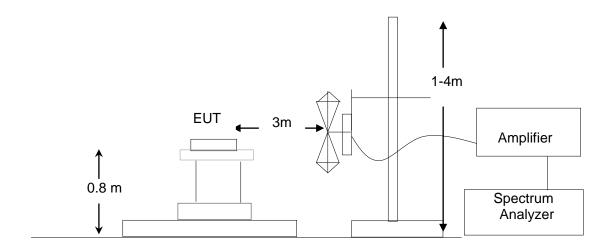
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
PSA SERIES SPECTRUM ANALYZER	AGILENT	E4440A	US41421290	07/18/2013	07/17/2014
ANTENNA	A.H.	SAS-521-4	26	07/18/2013	07/17/2014
HORN ANTENNA	EM	EM-AH-10180	67	04/21/2013	04/20/2014
AMPLIFIER	EM	EM30180	0607030	07/18/2013	07/17/2014
POSITIONING	NAT-	ME 7000	ME70000447	07/40/0040	07/47/0044
CONTROLLER	MF	MF-7802	MF780208147	07/18/2013	07/17/2014

## 8.2. LIMITS OF RADIATED EMISSION TEST

Frequency (MHz)	Distance (m)	Maximum Field Strength Limit (dBuV/m/ Q.P.)
30~88	3	40.0
88~216	3	43.5
216~960	3	46.0
Above 960	3	54.0

<sup>\*\*</sup>Note: The lower limit shall apply at the transition frequency.

## 8.3 BLOCK DIAGRAM OF RADIATED EMISSION TEST



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#### 8.4 PROCEDURE OF RADIATED EMISSION TEST

- 1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden turntable with a height of 0.8 meters is used which is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2) Support equipment, if needed, was placed as per ANSI C63.4.
- 3) All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- 4) The EUT received power by PC. All support equipments received AC 120V/60Hz power from socket under the turntable, if any.
- 5) The antenna was placed at 3 meter away from the EUT as stated in FCC Part 15. The antenna connected to the Analyzer via a cable and at times a pre-amplifier would be used.
- 6) The Analyzer / Receiver quickly scanned from 30MHz to 1000MHz. The EUT test program was started. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- 7) The test mode(s) were scanned during the test:
- 8) Recorded at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit and Q.P./Peak reading is presented.

The test data of the worst case condition(mode 1) was reported on the following Data page

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## 8.5 TEST RESULT OF RADIATED EMISSION TEST

## Radiated Emission Test -Horizontal -3m



Site: site #1 Limit: FCC Class B 3M Radiation

EUT: TABLET PC M/N: EUTB-745N

Mode: Mode 1

Note:

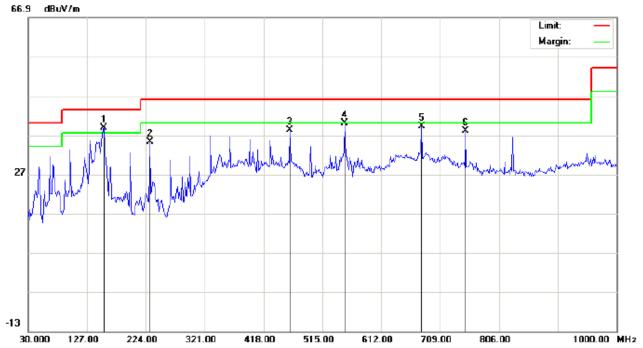
Polarization: Horizontal Temperature: 26
Power: AC 120V/60Hz Humidity: 60 %

Distance:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1	*	164.1833	24.54	14.44	38.98	43.50	-4.52	peak			
2		198.1331	25.54	11.91	37.45	43.50	-6.05	peak			
3		330.6999	18.37	17.45	35.82	46.00	-10.18	peak			
4		552.1833	17.24	22.53	39.77	46.00	-6.23	peak			
5		726.7833	12.86	25.96	38.82	46.00	-7.18	peak			
6		828.6331	9.20	27.31	36.51	46.00	-9.49	peak			

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## Radiated Emission Test -Vertical -3m



Site: site #1

Limit: FCC Class B 3M Radiation

EUT: TABLET PC M/N: EUTB-745N

Mode: Mode 1

Note:

Polarization: Vertical Temperature: 26
Power: Humidity: 60 %

Distance:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBuV/m	dBu∀/m	dB		cm	degree	
1	*	154.4832	23.43	15.29	38.72	43.50	-4.78	peak			
2		230.4667	23.18	11.99	35.17	46.00	-10.83	peak			
3		461.6499	17.43	20.72	38.15	46.00	-7.85	peak			
4		552.1833	17.50	22.49	39.99	46.00	-6.01	peak			
5		678.2833	14.59	24.61	39.20	46.00	-6.80	peak			
6		751.0333	11.36	26.64	38.00	46.00	-8.00	peak		·	

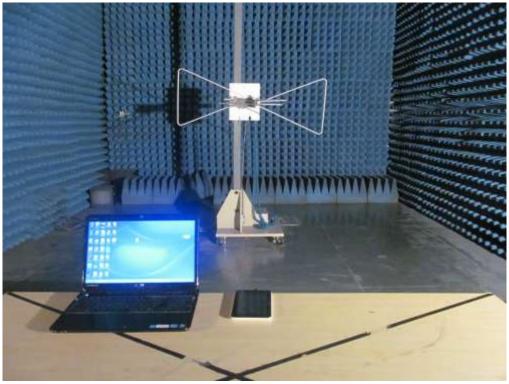
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## **APPENDIX 1 PHOTOGRAPHS OF TEST SETUP**

FCC LINE CONDUCTED EMISSION TEST SETUP



FCC RADIATED EMISSION TEST SETUP



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## APPENDIX 2 PHOTOGRAPHS OF EUT

All VIEW OF EUT



TOP VIEW OF EUT



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FRONT VIEW OF EUT



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**BACK VIEW OF EUT** 



LEFT VIEW OF EUT

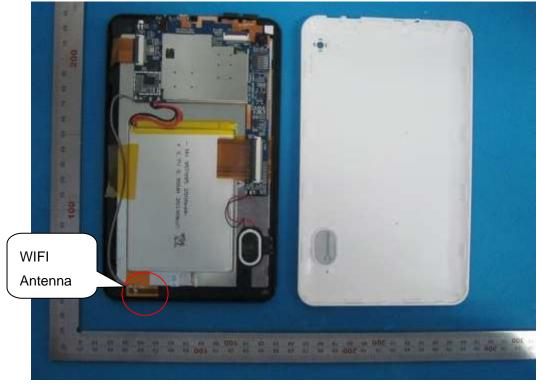


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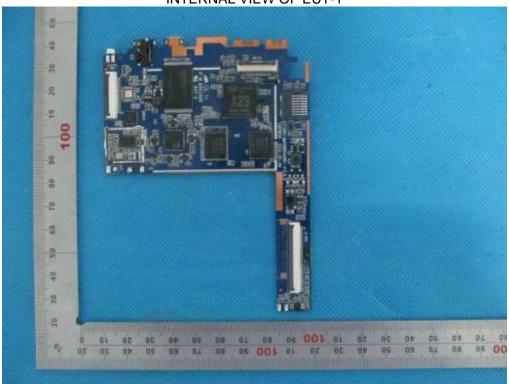






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**INTERNAL VIEW OF EUT-1** 



**INTERNAL VIEW OF EUT-2** 



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