

## ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

### INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART C AND CANADA RSS-210 REQUIREMENT

OF

**Product Name:** MIXAMP 5.8  
**Brand Name:** ASTRO GAMING™  
**Model Name:** MIXAMP 5.8 RX  
**Model Difference:** N/A  
**FCC ID:** YQ6-204M03AG047  
**IC:** 9207A-204M03AG047  
**Report No.:** EH/2010/90036  
**Issue Date:** Oct. 15, 2010  
**FCC Rule Part:** §15.249  
**IC Rule Part:** RSS-210 issue 7:2007, Annex 2.9  
**Prepared for:** Astro Gaming, Inc  
348 Sixth Street, San Francisco, CA. 94103, US  
**Prepared by:** SGS Taiwan Ltd.  
Electronics & Communication Laboratory  
No. 134, Wu Kung Rd., Wuku Industrial Zone,  
Taipei County, Taiwan.



*Note: This report shall not be reproduced except in full, without the written approval of SGS Taiwan Ltd. This document may be altered or revised by SGS Taiwan Ltd. personnel only, and shall be noted in the revision section of the document.*

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

## VERIFICATION OF COMPLIANCE

**Applicant:** Astro Gaming, Inc  
348 Sixth Street, San Francisco, CA. 94103, US

**Product Description:** MIXAMP 5.8

**FCC ID:** YQ6-204M03AG047

**IC:** 9207A-204M03AG047

**Brand Name:** ASTRO GAMING™

**Model No.:** MIXAMP 5.8 RX

**Model Difference:** N/A

**File Number:** EH/2010/90036

**Date of test:** Sep. 30, 2010 ~ Oct. 13, 2010

**Date of EUT Received:** Sep. 30, 2010

### We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd., Electronics & Communication Laboratory. 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 conducted and radiated emission limits of FCC Rules Part 15.249 and RSS-210 issue 7: 2007 Annex 2.9.

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

**Test By:**



**Date:**

Oct. 15, 2010

*Brian Chang / Engineer*

**Prepared By:**

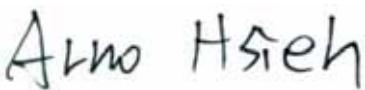


**Date:**

Oct. 15, 2010

*Gigi Yeh / Clerk*

**Approved By:**



**Date:**

Oct. 15, 2010

*Arno Hsieh / Asst. Supervisor*

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

## Version

Version No.	Date	Description
00	Oct. 15, 2010	Initial creation of document

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。  
This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

## Table of Contents

1.1.	PRODUCT DESCRIPTION .....	5
1.2.	RELATED SUBMITTAL(S) / GRANT (S) .....	5
1.3.	TEST METHODOLOGY.....	5
1.4.	TEST FACILITY .....	6
1.5.	SPECIAL ACCESSORIES .....	6
1.6.	EQUIPMENT MODIFICATIONS .....	6
2.1.	EUT CONFIGURATION.....	7
2.2.	EUT EXERCISE .....	7
2.3.	TEST PROCEDURE.....	7
2.4.	LIMITATION .....	8
2.5.	CONFIGURATION OF TESTED SYSTEM .....	10
4.1	MEASUREMENT PROCEDURE: .....	12
4.2	TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION) .....	12
4.3	MEASUREMENT EQUIPMENT USED: .....	12
4.4	MEASUREMENT RESULT: .....	12
5.1	MEASUREMENT PROCEDURE.....	15
5.2	TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION) .....	15
5.3	MEASUREMENT EQUIPMENT USED: .....	16
5.4	FIELD STRENGTH CALCULATION .....	16
5.5	MEASUREMENT RESULT .....	17
6.1	MEASUREMENT PROCEDURE.....	32
6.2	TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION) .....	32
6.3	MEASUREMENT EQUIPMENT USED: .....	32
6.4	MEASUREMENT RESULTS:.....	32
7.1	MEASUREMENT PROCEDURE.....	35
7.2	TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION) .....	35
7.3	MEASUREMENT EQUIPMENT USED: .....	35
7.4	MEASUREMENT RESULTS:.....	35

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

## 1. GENERAL INFORMATION

### 1.1. Product Description

Product Name:	MIXAMP 5.8
Brand Name:	ASTRO GAMING™
Model Name:	MIXAMP 5.8 RX
Model Difference:	N/A
Operation Frequency:	5736 ~ 5814 MHz
Channel number:	3 channels
Modulation Type:	DSSS
Hardware Version	R4
Software Version	N/A
Power Supply	3.7Vdc re-chargeable battery or 1.5V*3 battery
	Battery: Model No: 212-M03XAG-0000, Supplier:Battery-Biz Inc.

### 1.2. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: [YQ6-204M03AG047](#) filing to comply with Section 15.249 of the FCC Part 15, Subpart C Rules and IC: [9207A-204M03AG047](#) filing to comply with Industry Canada RSS-210 issue 7: 2007 Annex 2.9.

### 1.3. Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4 (2003) and RSS-Gen: 2007. Radiated testing was performed at an antenna to EUT distance 3 meters.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

#### 1.4. Test Facility

The measurement facilities used to collect the 3m Radiated Emission and AC power line conducted data are located on the address of SGS Taiwan Ltd. Electronics & Communication Laboratory No. 134, Wu Kung Rd., Wuku Industrial Zone, Taipei Country, Taiwan which are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4: 2003. FCC Registration Number are: 990257 and 236194, Canada Registration Number: 4620A-4.

The 10 m Open Area Test Sites located on the address of SGS Taiwan Ltd. Electronics & Communication Laboratory No. 29, Pau-Tou-Tsuo Valley Chia-Pau Tsuen, Linkou Hsiang, Taipei county, which is constructed and calibrated to meet the CISPR 22/EN 55022 requirements. SGS Site No. 1(3 &10 meters) and FCC Registration Number: 94644.

#### 1.5. Special Accessories

Not available for this EUT intended for grant.

#### 1.6. Equipment Modifications

Not available for this EUT intended for grant.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

## 2. SYSTEM TEST CONFIGURATION

### 2.1. EUT Configuration

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

### 2.2. EUT Exercise

The Transmitter was operated in the engineering operating mode. the Tx frequency was fixed at 5736, 5762 and 5814MHz which were for the purpose of the measurements.

### 2.3. Test Procedure

#### 2.3.1 Conducted Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. According to the requirements in Section 7 and 13 of ANSI C63.4-2003 and RSS-Gen: 2007. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and Average detector mode.

#### 2.3.2 Radiated Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. The turn table 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 max. emission, the relative positions of this hand-held transmitter(EUT) was rotated through three orthogonal axes according to the requirements in Section 8 and 13 of ANSI C63.4-2003 and RSS-Gen:2007.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

## 2.4. Limitation

### (1) Conducted Emission

According to section 15.207(a) and RSS-Gen §7.2.2 Conducted Emission Limits is as following.

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15 – 0.5	66 - 56	56 - 46
0.5 – 5	56	46
5 - 30	60	50

### (2) Radiated Emission 15.249(a) and RSS-210 issue 7,§A2.9(a)

The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following.

Frequency (MHz)	Field strength of Fundamental	Field strength of Harmonics	Distance (m)
902 - 928	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3
2400 – 2483.5	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3
5725 – 5875	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

### (3) Radiated Emission 15.249 (d) and RSS-210 issue 7,§A2.9(b)

Emission Radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or to the general radiated emission limits in Section 15.209 and RSS-210 issue 7,§A2.9(a) as below, whichever is the lesser attenuation.

Frequency (MHz)	Field strength $\mu$ V/m	Distance (m)	Field strength at 3m dB $\mu$ V/m
1.705-30	30	30	69.54
30-88	100	3	40
88-216	150	3	43.5
216-960	200	3	46
Above 960	500	3	54

### (4) Radiated Emission 15.249(e) and RSS-210 issue 7

For frequencies above 1000MHz, the above field strength limits are based on average limits. The peak filed strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20dB under any condition of modulation.

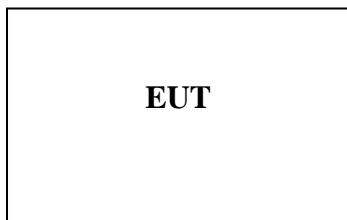
Remark:

1. Emission level in dB $\mu$ V/m=20 log (uV/m)
2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
3. Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of § 15.205
4. Emission spurious frequency which appearing within the Restricted Bands specified in provision of § 15.205, then the general radiated emission limits in § 15.209 apply.

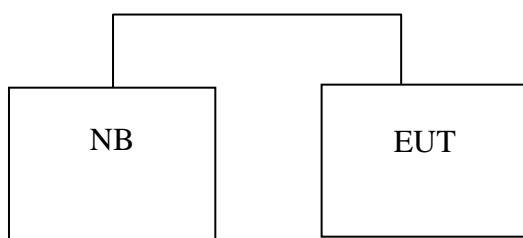
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

## 2.5. Configuration of Tested System

**Fig. 2-1 Radiated Configuration**



**Fig. 2-2 AC Conduction Configuration**



**Table 2-2 Equipment Used in Tested System**

Item	Equipment	Mfr/Brand	Model/ Type No.	Series No.	Data Cable	Power Cord
1.	Notebook	IBM	R61	L3A9050	N/A	Un-shielded

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

**Grounding:** Grounding was in accordance with the manufacturer's requirements and conditions for the intended use.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

### 3. SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result
§15.207/ RSS-Gen §7.2.2	Conducted Emission	Compliant
§15.249(a)(d) RSS-210 issue 7,§A2.9(a)	Field Strength Measurement	Compliant
§15.249(e) RSS-210 issue 7,§A2.9(b)	TX Spurious Emission	Compliant
§15.249(d)	20dB band width Measurement	Compliant
RSS-Gen §4.4.1	99% Power Bandwidth	Compliant

#### Description of test modes

The EUT has been tested under operating condition.

Test program used to control the EUT for staying in continuous transmitting mode is programmed.

Channel low (5736MHz)、mid (5762MHz) and high (5814MHz) with highest data rate are chosen for full testing.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)) . Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

#### 4. CONDUCTED EMISSIONS TEST

## 4.1 Measurement Procedure:

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

## 4.2 Test SET-UP (Block Diagram of Configuration)

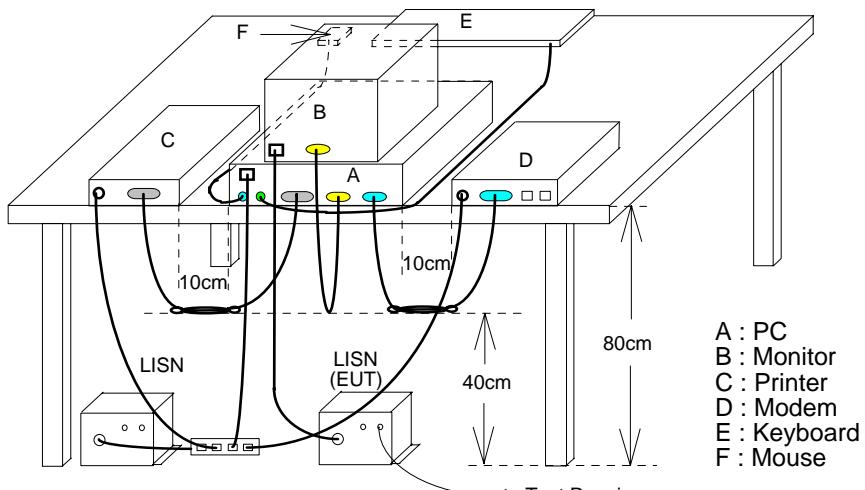


Fig. 2

#### **4.3 Measurement Equipment Used:**

Conducted Emission Test Site					
<b>EQUIPMENT TYPE</b>	<b>MFR</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>LAST CAL.</b>	<b>CAL DUE.</b>
EMI Test Receiver	R&S	ESCS30	828985/004	09/15/2010	09/14/2011
LISN	Rolf-Heine	NNB-2/16Z	99012	02/02/2010	02/01/2011
LISN	FCC	FCC-LISN-50/250-25-2-01	04034	02/02/2010	02/01/2011
Coaxial Cables	N/A	WK CE Cable	N/A	11/28/2009	11/27/2010

## 4.4 Measurement Result:

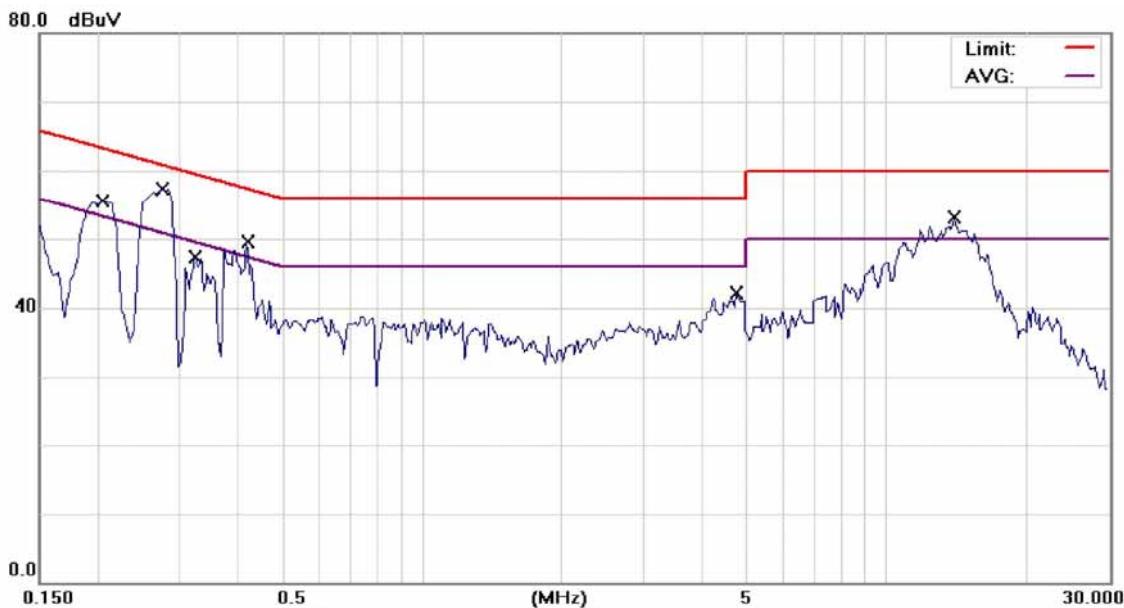
The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

Note: Refer to next page for measurement data and plots.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgsone.com/authentication](http://www.sgsone.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

## AC POWER LINE CONDUCTED EMISSION TEST DATA

Operation Mode:	Normal mode	Test Date:	Oct. 12, 2010
		Test By:	Brain



Site SGS CONDUCTED #1

Phase: **L1**

Temperature: 24 °C

Limit: FCC Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 57 %

EUT: MIXAMP 5.8

Distance:

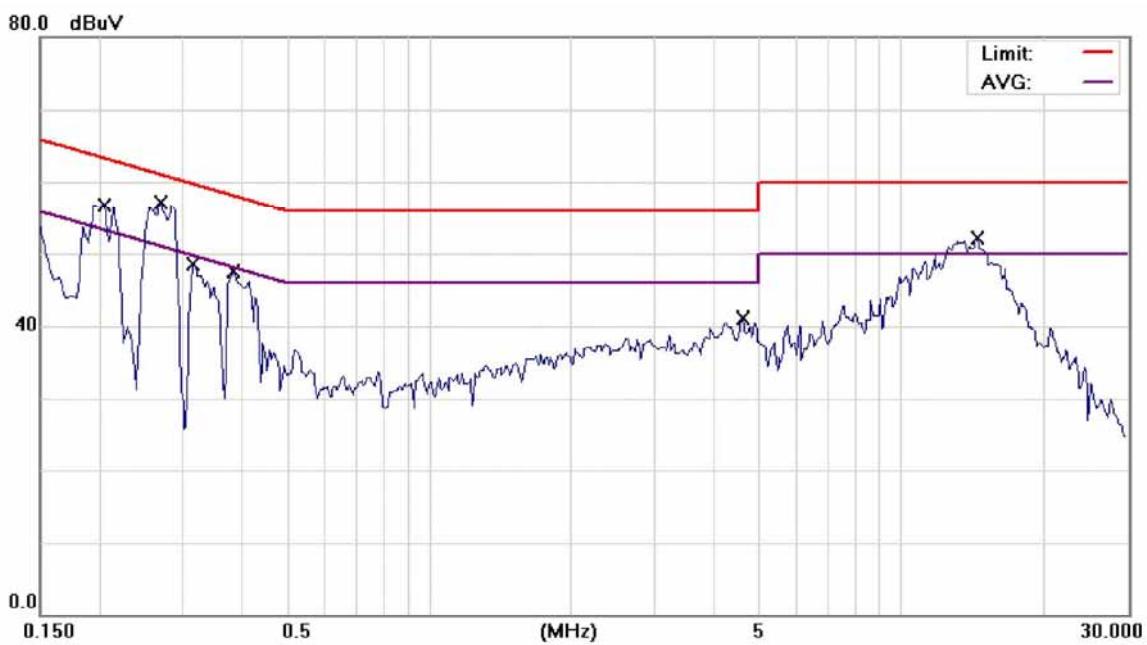
Air Pressure: hpa

M/N: MIXAMP 5.8 RX

Note: Operation mode

No.	Mk.	Freq.	Reading Level	Factor	Measure- ment	Limit	Over	
							dB	Detector
1	0.2027	52.10	0.12	52.22	63.50	-11.28	QP	
2	0.2027	40.20	0.12	40.32	53.50	-13.18	AVG	
3 *	0.2746	54.30	0.12	54.42	60.98	-6.56	QP	
4	0.2746	40.70	0.12	40.82	50.98	-10.16	AVG	
5	0.3250	47.12	0.12	47.24	59.58	-12.34	QP	
6	0.4196	44.20	0.12	44.32	57.46	-13.14	QP	
7	0.4196	31.40	0.12	31.52	47.46	-15.94	AVG	
8	4.7600	41.89	0.22	42.11	56.00	-13.89	QP	
9	14.0610	47.50	0.55	48.05	60.00	-11.95	QP	
10	14.0610	37.50	0.55	38.05	50.00	-11.95	AVG	

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.



Site: SGS CONDUCTED #1	Phase: <b>N</b>	Temperature: 24 °C
Limit: FCC Class B Conduction(QP)	Power: AC 120V/60Hz	Humidity: 57 %
EUT: MIXAMP 5.8	Distance:	Air Pressure: hpa
M/N: MIXAMP 5.8 RX		
Note: Operation mode		

No.	Mk.	Freq.	Reading Level	Factor	Measure- ment	Limit	Over	
							dB	Detector
1		0.2050	52.60	0.13	52.73	63.41	-10.68	QP
2		0.2050	38.60	0.13	38.73	53.41	-14.68	AVG
3 *		0.2689	53.90	0.13	54.03	61.15	-7.12	QP
4		0.2689	40.20	0.13	40.33	51.15	-10.82	AVG
5		0.3150	48.39	0.12	48.51	59.84	-11.33	QP
6		0.3850	47.38	0.12	47.50	58.17	-10.67	QP
7		4.6100	40.98	0.21	41.19	56.00	-14.81	QP
8		14.5206	43.30	0.51	43.81	60.00	-16.19	QP
9		14.5206	32.70	0.51	33.21	50.00	-16.79	AVG

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgsonsite.com/authentication](http://www.sgsonsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

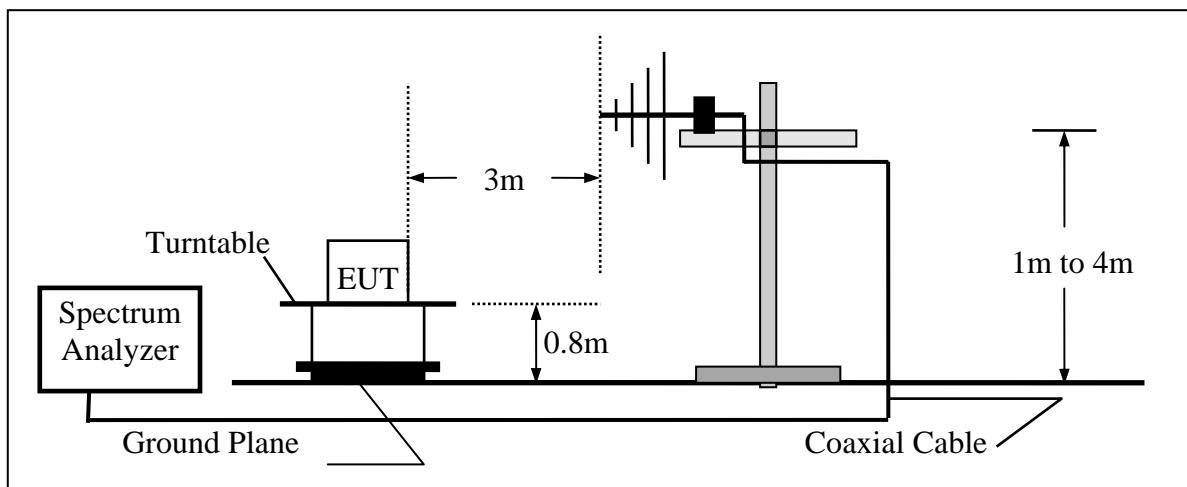
## 5. RADIATED EMISSION TEST

### 5.1 Measurement Procedure

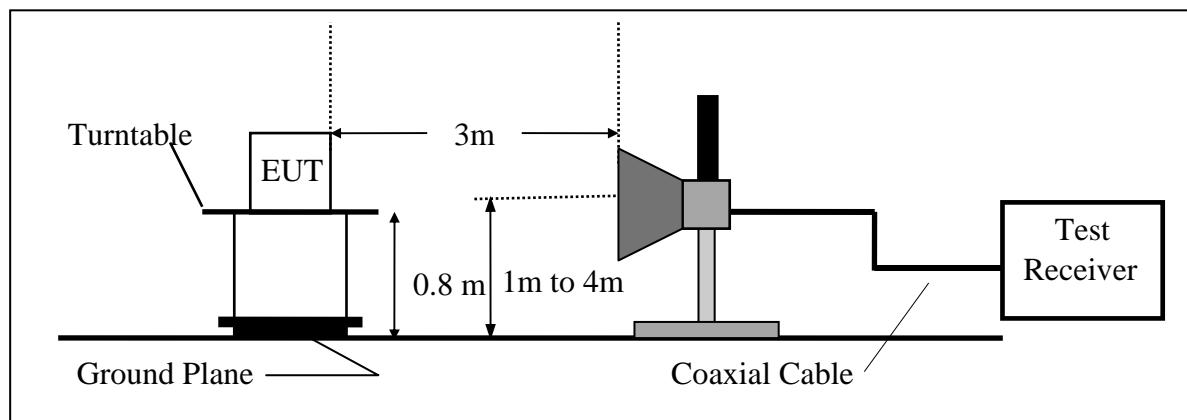
1. The EUT was placed on a turntable that is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measured were complete.

### 5.2 Test SET-UP (Block Diagram of Configuration)

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(B) Radiated Emission Test Set-UP Frequency Over 1 GHz



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

### 5.3 Measurement Equipment Used:

966 Chamber					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	R&S	FSP 40	100034	02/12/2010	02/11/2011
Bilog Antenna	SCHWAZBECK	VULB9160	3136	11/19/2009	11/18/2010
Horn antenna	SCHWAZBECK	BBHA 9120D	309/320	03/09/2009	03/08/2011
Pre-Amplifier	Agilent	8447D	1937A02834	11/28/2009	11/28/2010
Pre-Amplifier	Agilent	8449B	3008A01973	01/05/2010	01/04/2011
Radio Communication Analyzer	R & S	CMU200	111787	10/31/2008	10/30/2010
DC Block	Agilent	BLK-18	155452	07/05/2010	07/04/2011
Turn Table	HD	DT420	N/A	N.C.R	N.C.R
Antenna Tower	HD	MA240-N	240/657	N.C.R	N.C.R
Controller	HD	HD100	N/A	N.C.R	N.C.R
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-10M	10m	01/05/2010	01/04/2011
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-3M	3m	01/05/2010	01/04/2011
3m Site	SGS	966 chamber	N/A	11/08/2009	11/09/2010

### 5.4 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)) Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

## 5.5 Measurement Result

### Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode	TX CH Low	Test Date	Oct. 06, 2009
Fundamental Frequency	5736MHz	Test By	Brain
Temperature	25 °C	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
58.13	V	Peak	41.83	-14.66	27.17	40.00	-12.83
65.89	V	Peak	42.09	-15.09	27.00	40.00	-13.00
92.08	V	Peak	46.91	-17.38	29.53	43.50	-13.97
101.78	V	Peak	48.37	-16.87	31.50	43.50	-12.00
843.83	V	Peak	32.50	-2.10	30.40	46.00	-15.60
890.39	V	Peak	32.53	-1.20	31.33	46.00	-14.67
56.19	H	Peak	39.41	-14.63	24.78	40.00	-15.22
70.74	H	Peak	41.24	-16.27	24.97	40.00	-15.03
92.08	H	Peak	42.63	-17.38	25.25	43.50	-18.25
101.78	H	Peak	43.34	-16.87	26.47	43.50	-17.03
140.58	H	Peak	44.16	-13.65	30.51	43.50	-12.99
887.48	H	Peak	32.74	-1.25	31.49	46.00	-14.51

#### Remark:

- 1 No further spurious emissions detected from the lowest internal frequency and 30MHz.
- 2 Measuring frequencies from the lowest internal frequency to the 1GHz.
- 3 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak / QP detector mode.
- 4 Measurement result 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.
- 5 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz, VBW=300KHz.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

**Radiated Spurious Emission Measurement Result (below 1GHz)**

Operation Mode	TX CH Mid	Test Date	Oct. 06, 2010
Fundamental Frequency	5762MHz	Test By	Brain
Temperature	25 °C	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
58.13	V	Peak	41.91	-14.66	27.25	40.00	-12.75
65.89	V	Peak	42.48	-15.09	27.39	40.00	-12.61
92.08	V	Peak	47.53	-17.38	30.15	43.50	-13.35
101.78	V	Peak	49.56	-16.87	32.69	43.50	-10.81
843.83	V	Peak	33.99	-2.10	31.89	46.00	-14.11
945.68	V	Peak	32.23	-1.01	31.22	46.00	-14.78
53.28	H	Peak	38.53	-14.40	24.13	40.00	-15.87
70.74	H	Peak	41.26	-16.27	24.99	40.00	-15.01
91.11	H	Peak	42.52	-17.58	24.94	43.50	-18.56
101.78	H	Peak	45.24	-16.87	28.37	43.50	-15.13
140.58	H	Peak	47.64	-13.65	33.99	43.50	-9.51
885.54	H	Peak	32.27	-1.27	31.00	46.00	-15.00

**Remark:**

- 1 No further spurious emissions detected from the lowest internal frequency and 30MHz.
- 2 Measuring frequencies from the lowest internal frequency to the 1GHz.
- 3 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak / QP detector mode.
- 4 Measurement result 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.
- 5 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz, VBW=300KHz.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

### Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode	TX CH High	Test Date	Oct. 06, 2010
Fundamental Frequency	5814MHz	Test By	Brain
Temperature	25 °C	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
58.13	V	Peak	41.30	-14.66	26.64	40.00	-13.36
65.89	V	Peak	41.72	-15.09	26.63	40.00	-13.37
101.78	V	Peak	47.19	-17.62	29.57	43.50	-13.93
880.69	V	Peak	49.48	-16.87	32.61	46.00	-13.39
958.29	V	Peak	31.98	-1.44	30.54	46.00	-15.46
381.14	V	Peak	33.26	-0.95	32.31	46.00	-13.69
58.13	H	Peak	38.82	-14.66	24.16	40.00	-15.84
70.74	H	Peak	41.35	-16.27	25.08	40.00	-14.92
92.08	H	Peak	42.24	-17.38	24.86	43.50	-18.64
101.78	H	Peak	44.91	-16.87	28.04	43.50	-15.46
140.58	H	Peak	48.43	-13.65	34.78	43.50	-8.72
880.69	H	Peak	33.11	-1.44	31.67	46.00	-14.33

#### Remark:

- 1 No further spurious emissions detected from the lowest internal frequency and 30MHz.
- 2 Measuring frequencies from the lowest internal frequency to the 1GHz.
- 3 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak / QP detector mode.
- 4 Measurement result 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.
- 5 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz, VBW=300KHz.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

### Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode: TX CH Low  
Fundamental Frequency: 5736MHz  
Temperature : 25 °C  
Humidity : 65 %

Test Date : Oct. 06, 2010  
Test By: Brain  
Pol: Vertical

Freq. (MHz)	Ant.Pol. H/V	Peak	AV	Actual Factor	Actual	Actual	Peak Limit	AV Limit	Margin
		Reading (dBuV)	Reading (dBuV)		Peak FS (dBuV/m)	AV FS (dBuV/m)	at 3m (dBuV/m)	at 3m (dBuV/m)	
5736.0	V	84.92	75.25	8.08	93.00	83.33	114.00	94.00	-10.67 F
3873.0	V	34.98	--	3.25	38.23	--	74.00	54.00	-15.77 S
11472.0	V	24.59	--	19.18	43.77	--	74.00	54.00	-10.23 H
17208.0	V	--	--			--	74.00	54.00	H
22944.0	V	--	--			--	74.00	54.00	H
28680.0	V	--	--			--	74.00	54.00	H
34416.0	V	--	--			--	74.00	54.00	H
40152.0	V	--	--			--	74.00	54.00	H
45888.0	V	--	--			--	74.00	54.00	H
51624.0	V	--	--			--	74.00	54.00	H
57360.0	V	--	--			--	74.00	54.00	H

#### Remark:

- 1 Measuring frequencies from the lowest internal frequency to the 10th of fundamental frequency
- 2 Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.
- 3 "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- 4 Measurement of data 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.
- 5 Spectrum Peak mode IF bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, Sweep time= 200 ms., the VBW setting was 3 MHz.
- 6 Spectrum AV mode if bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

**Radiated Spurious Emission Measurement Result (above 1GHz)**

Operation Mode: TX CH Low  
 Fundamental Frequency: 5736MHz  
 Temperature : 25 °C  
 Humidity : 65 %

Test Date : Oct. 06, 2010  
 Test By: Brain  
 Pol: Horizontal

Freq. (MHz)	Ant.Pol. H/V	Peak	AV	Factor	Actual	Actual	Peak Limit	AV Limit	Margin (dB)
		Reading (dBuV)	Reading (dBuV)		Peak FS (dBuV/m)	AV FS (dBuV/m)	at 3m (dBuV/m)	at 3m (dBuV/m)	
5736.0	H	90.32	82.08	8.08	98.40	90.16	114.00	94.00	-3.84 F
4178.5	H	36.07	--	4.27	40.34	--	74.00	54.00	-13.66 S
11472.0	H	29.54	--	19.18	48.72	--	74.00	54.00	-5.28 H
17208.0	H	--	--			--	74.00	54.00	H
22944.0	H	--	--			--	74.00	54.00	H
28680.0	H	--	--			--	74.00	54.00	H
34416.0	H	--	--			--	74.00	54.00	H
40152.0	H	--	--			--	74.00	54.00	H
45888.0	H	--	--			--	74.00	54.00	H
51624.0	H	--	--			--	74.00	54.00	H
57360.0	H	--	--			--	74.00	54.00	H

**Remark:**

- 1 Measuring frequencies from the lowest internal frequency to the 10th of fundamental frequency
- 2 Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.
- 3 "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- 4 Measurement of data 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.
- 5 Spectrum Peak mode IF bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, Sweep time= 200 ms., the VBW setting was 3 MHz.
- 6 Spectrum AV mode if bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

### Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode: TX CH Mid  
 Fundamental Frequency: 5762MHz  
 Temperature : 25 °C  
 Humidity : 65 %

Test Date : Oct. 06, 2010  
 Test By: Brain  
 Pol: Vertical

Freq. (MHz)	Ant.Pol. H/V	Peak	AV	Factor	Actual	Actual	Peak Limit	AV Limit	Margin (dB)
		Reading (dBuV)	Reading (dBuV)		Peak FS (dBuV/m)	AV FS (dBuV/m)	at 3m (dBuV/m)	at 3m (dBuV/m)	
5762.0	V	84.21	74.85	8.14	92.35	82.99	114.00	94.00	-11.01 F
4035.5	V	34.90	--	3.80	38.70	--	74.00	54.00	-15.30 S
11524.0	V	22.20	--	19.17	41.37	--	74.00	54.00	-12.63 H
17286.0	V	--	--			--	74.00	54.00	H
23048.0	V	--	--			--	74.00	54.00	H
28810.0	V	--	--			--	74.00	54.00	H
34572.0	V	--	--			--	74.00	54.00	H
40334.0	V	--	--			--	74.00	54.00	H
46096.0	V	--	--			--	74.00	54.00	H
51858.0	V	--	--			--	74.00	54.00	H
57620.0	V	--	--			--	74.00	54.00	H

#### Remark:

- 1 Measuring frequencies from the lowest internal frequency to the 10th of fundamental frequency
- 2 Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.
- 3 "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- 4 Measurement of data 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.
- 5 Spectrum Peak mode IF bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, Sweep time= 200 ms., the VBW setting was 3 MHz.
- 6 Spectrum AV mode if bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

### Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode: TX CH Mid  
Fundamental Frequency: 5762MHz  
Temperature : 25 °C  
Humidity : 65 %

Test Date : Oct. 06, 2010  
Test By: Brain  
Pol: Horizontal

Freq. (MHz)	Ant.Pol. H/V	Peak	AV	Actual Factor	Actual	Actual	Peak Limit	AV Limit	Margin (dB)
		Reading (dBuV)	Reading (dBuV)		Peak FS (dBuV/m)	AV FS (dBuV/m)	at 3m (dBuV/m)	at 3m (dBuV/m)	
5762.0	H	90.66	82.31	8.14	98.80	90.45	114.00	94.00	-3.55
3840.5	H	36.71	--	3.15	39.86	--	74.00	54.00	-14.14
11524.0	H	26.46	--	19.17	45.63	--	74.00	54.00	-8.37
17286.0	H	--	--		--	--	74.00	54.00	
23048.0	H	--	--		--	--	74.00	54.00	
28810.0	H	--	--		--	--	74.00	54.00	
34572.0	H	--	--		--	--	74.00	54.00	
40334.0	H	--	--		--	--	74.00	54.00	
46096.0	H	--	--		--	--	74.00	54.00	
51858.0	H	--	--		--	--	74.00	54.00	
57620.0	H	--	--		--	--	74.00	54.00	

#### Remark:

- 1 Measuring frequencies from the lowest internal frequency to the 10th of fundamental frequency
- 2 Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.
- 3 "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- 4 Measurement of data 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.
- 5 Spectrum Peak mode IF bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, Sweep time= 200 ms., the VBW setting was 3 MHz.
- 6 Spectrum AV mode if bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

### Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode: TX CH High  
 Fundamental Frequency: 5814MHz  
 Temperature : 25 °C  
 Humidity : 65 %

Test Date : Oct. 06, 2010  
 Test By: Brain  
 Pol: Vertical

Freq. (MHz)	Ant.Pol. H/V	Peak	AV	Factor	Actual	Actual	Peak Limit	AV Limit	Margin (dB)
		Reading (dBuV)	Reading (dBuV)		Peak FS (dBuV/m)	AV FS (dBuV/m)	at 3m (dBuV/m)	at 3m (dBuV/m)	
5814.0	V	84.47	74.11	8.29	92.76	82.40	114.00	94.00	-11.60 F
4165.5	V	34.24	--	4.21	38.45	--	74.00	54.00	-15.55 S
11524.0	V	24.46	--	19.25	43.71	--	74.00	54.00	-10.29 H
17286.0	V	--	--			--	74.00	54.00	H
23048.0	V	--	--			--	74.00	54.00	H
28810.0	V	--	--			--	74.00	54.00	H
34572.0	V	--	--			--	74.00	54.00	H
40334.0	V	--	--			--	74.00	54.00	H
46096.0	V	--	--			--	74.00	54.00	H
51858.0	V	--	--			--	74.00	54.00	H
57620.0	V	--	--			--	74.00	54.00	H

#### Remark:

- 1 Measuring frequencies from the lowest internal frequency to the 10th of fundamental frequency
- 2 Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.
- 3 "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- 4 Measurement of data 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.
- 5 Spectrum Peak mode IF bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, Sweep time= 200 ms., the VBW setting was 3 MHz.
- 6 Spectrum AV mode if bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

**Radiated Spurious Emission Measurement Result (above 1GHz)**

Operation Mode: TX CH High  
Fundamental Frequency: 5814MHz  
Temperature : 25 °C  
Humidity : 65 %

Test Date : Oct. 06, 2010  
Test By: Brain  
Pol: Horizontal

Freq. (MHz)	Ant.Pol. H/V	Peak	AV	Actual Factor	Actual	Actual	Peak Limit	AV Limit	Margin (dB)
		Reading (dBuV)	Reading (dBuV)		Peak FS (dBuV/m)	AV FS (dBuV/m)	at 3m (dBuV/m)	at 3m (dBuV/m)	
5814.0	H	91.52	82.03	8.29	99.81	90.32	114.00	94.00	-3.68
4198.0	H	35.12	--	4.33	39.45	--	74.00	54.00	-14.55
11524.0	H	28.86	--	19.25	48.11	--	74.00	54.00	-5.89
17286.0	H	--	--		--	--	74.00	54.00	
23048.0	H	--	--		--	--	74.00	54.00	
28810.0	H	--	--		--	--	74.00	54.00	
34572.0	H	--	--		--	--	74.00	54.00	
40334.0	H	--	--		--	--	74.00	54.00	
46096.0	H	--	--		--	--	74.00	54.00	
51858.0	H	--	--		--	--	74.00	54.00	
57620.0	H	--	--		--	--	74.00	54.00	

**Remark:**

- 1 Measuring frequencies from the lowest internal frequency to the 10th of fundamental frequency
- 2 Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.
- 3 "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- 4 Measurement of data 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.
- 5 Spectrum Peak mode IF bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, Sweep time= 200 ms., the VBW setting was 3 MHz.
- 6 Spectrum AV mode if bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

**Radiated Spurious Emission Measurement Result (below 1GHz)**

Operation Mode	RX CH Low	Test Date	Oct. 06, 2010
Fundamental Frequency	5736MHz	Test By	Brain
Temperature	25 °C	Pol	Ver./Hor
Humidity	65 %		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
58.13	V	Peak	47.61	-16.87	30.74	40.00	-9.26
62.98	V	Peak	47.19	-16.10	31.09	40.00	-8.91
90.14	V	Peak	43.85	-13.40	30.45	43.50	-13.05
101.78	V	Peak	48.52	-14.37	34.15	43.50	-9.35
837.04	V	Peak	44.75	-12.82	31.93	46.00	-14.07
880.69	V	Peak	42.85	-10.69	32.16	46.00	-13.84
56.19	H	Peak	39.41	-14.63	24.78	40.00	-15.22
70.74	H	Peak	41.10	-16.27	24.83	40.00	-15.17
92.08	H	Peak	43.07	-17.38	25.69	43.50	-17.81
101.78	H	Peak	42.99	-16.87	26.12	43.50	-17.38
793.39	H	Peak	33.35	-3.19	30.16	46.00	-15.84
885.54	H	Peak	32.73	-1.27	31.46	46.00	-14.54

**Remark:**

- 1 No further spurious emissions detected from the lowest internal frequency and 30MHz.
- 2 Measuring frequencies from the lowest internal frequency to the 1GHz.
- 3 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak / QP detector mode.
- 4 Measurement result 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.
- 5 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz, VBW=300KHz.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

**Radiated Spurious Emission Measurement Result (below 1GHz)**

Operation Mode	RX CH Mid	Test Date	Oct. 06, 2010
Fundamental Frequency	5762MHz	Test By	Brain
Temperature	25 °C	Pol	Ver./Hor
Humidity	65 %		

<b>Freq. (MHz)</b>	<b>Ant.Pol.</b>	<b>Detector Mode</b>	<b>Reading (dBuV)</b>	<b>Factor (dB)</b>	<b>Actual FS (dBuV/m)</b>	<b>Limit3m (dBuV/m)</b>	<b>Safe Margin (dB)</b>
58.13	V	Peak	41.34	-14.66	26.68	40.00	-13.32
65.89	V	Peak	41.46	-15.09	26.37	40.00	-13.63
90.14	V	Peak	47.45	-17.62	29.83	43.50	-13.67
94.99	V	Peak	45.91	-17.26	28.65	43.50	-14.85
101.78	V	Peak	48.42	-16.87	31.55	43.50	-11.95
880.69	V	Peak	32.74	-1.44	31.30	46.00	-14.70
56.19	H	Peak	38.17	-14.63	23.54	40.00	-16.46
70.74	H	Peak	40.64	-16.27	24.37	40.00	-15.63
92.08	H	Peak	43.49	-17.38	26.11	43.50	-17.39
101.78	H	Peak	44.29	-16.87	27.42	43.50	-16.08
843.83	H	Peak	32.68	-2.10	30.58	46.00	-15.42
945.68	H	Peak	31.64	-1.01	30.63	46.00	-15.37

**Remark:**

- 1 No further spurious emissions detected from the lowest internal frequency and 30MHz.
- 2 Measuring frequencies from the lowest internal frequency to the 1GHz.
- 3 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak / QP detector mode.
- 4 Measurement result 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.
- 5 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz, VBW=300KHz.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

**Radiated Spurious Emission Measurement Result (below 1GHz)**

Operation Mode	RX CH High	Test Date	Oct. 06, 2010
Fundamental Frequency	5814MHz	Test By	Brain
Temperature	25 °C	Pol	Ver./Hor
Humidity	65 %		

<b>Freq. (MHz)</b>	<b>Ant.Pol. H/V</b>	<b>Detector Mode (PK/QP)</b>	<b>Reading (dBuV)</b>	<b>Factor (dB)</b>	<b>Actual FS (dBuV/m)</b>	<b>Limit3m (dBuV/m)</b>	<b>Safe Margin (dB)</b>
58.13	V	Peak	41.11	-14.66	26.45	40.00	-13.55
65.89	V	Peak	41.95	-15.09	26.86	40.00	-13.14
90.14	V	Peak	47.70	-17.62	30.08	43.50	-13.42
96.93	V	Peak	47.21	-17.16	30.05	43.50	-13.45
101.78	V	Peak	48.24	-16.87	31.37	43.50	-12.13
885.54	V	Peak	32.80	-1.27	31.53	46.00	-14.47
56.19	H	Peak	38.75	-14.63	24.12	40.00	-15.88
70.74	H	Peak	41.16	-16.27	24.89	40.00	-15.11
92.08	H	Peak	42.61	-17.38	25.23	43.50	-18.27
101.78	H	Peak	43.35	-16.87	26.48	43.50	-17.02
856.44	H	Peak	32.87	-1.89	30.98	46.00	-15.02
897.18	H	Peak	32.47	-1.11	31.36	46.00	-14.64
58.13	V	Peak	41.11	-14.66	26.45	40.00	-13.55
65.89	V	Peak	41.95	-15.09	26.86	40.00	-13.14

**Remark:**

- 1 No further spurious emissions detected from the lowest internal frequency and 30MHz.
- 2 Measuring frequencies from the lowest internal frequency to the 1GHz.
- 3 Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak / QP detector mode.
- 4 Measurement result 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.
- 5 The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz, VBW=300KHz.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

**Radiated Spurious Emission Measurement Result (above 1GHz)**

Operation Mode: RX CH Low  
Fundamental Frequency: 5736MHz  
Temperature : 25 °C  
Humidity : 65 %

Test Date : Oct. 06, 2010  
Test By: Brain  
Pol: V/H

Freq. (MHz)	Ant.Pol. H/V	Peak	AV	Factor	Actual	Actual	Peak Limit	AV Limit	Margin (dB)
		Reading (dBuV)	Reading (dBuV)		Peak FS (dBuV/m)	AV FS (dBuV/m)	at 3m (dBuV/m)	at 3m (dBuV/m)	
4035.5	V	35.36	--	3.80	39.16	--	74.00	54.00	-14.84 S
11472.0	V	--	--			--	74.00	54.00	H
17208.0	V	--	--			--	74.00	54.00	H
22944.0	V	--	--			--	74.00	54.00	H
28680.0	V	--	--			--	74.00	54.00	H
3821.0	H	36.01	--	3.08	39.09	--	74.00	54.00	-14.91 S
11472.0	H	--	--			--	74.00	54.00	H
17208.0	H	--	--			--	74.00	54.00	H
22944.0	H	--	--			--	74.00	54.00	H
28680.0	H	--	--			--	74.00	54.00	H

**Remark:**

- 1 Measuring frequencies from the lowest internal frequency to the 10th of fundamental frequency
- 2 Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.
- 3 "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- 4 Measurement of data 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.
- 5 Spectrum Peak mode IF bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, Sweep time= 200 ms., the VBW setting was 3 MHz.
- 6 Spectrum AV mode if bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

### Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode: RX CH Mid  
Fundamental Frequency: 5762MHz  
Temperature : 25 °C  
Humidity : 65 %

Test Date : Oct. 06, 2010  
Test By: Brain  
Pol: V/H

Freq. (MHz)	Ant.Pol. H/V	Peak	AV	Factor	Actual	Actual	Peak Limit	AV Limit	Margin
		Reading (dBuV)	Reading (dBuV)		Peak FS (dBuV/m)	AV FS (dBuV/m)	at 3m (dBuV/m)	at 3m (dBuV/m)	
11524.0	V	--	--			--	74.00	54.00	H
17286.0	V	--	--			--	74.00	54.00	H
23048.0	V	--	--			--	74.00	54.00	H
28810.0	V	--	--			--	74.00	54.00	H
4211.0	H	35.35	--	4.38	39.73	--	74.00	54.00	-14.27 S
11524.0	H	--	--			--	74.00	54.00	H
17286.0	H	--	--			--	74.00	54.00	H
23048.0	H	--	--			--	74.00	54.00	H
28810.0	H	--	--			--	74.00	54.00	H

#### Remark:

- 1 Measuring frequencies from the lowest internal frequency to the 10th of fundamental frequency
- 2 Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.
- 3 “F” denotes fundamental frequency; “H” denotes harmonics frequency. “S” denotes spurious frequency.
- 4 Measurement of data 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.
- 5 Spectrum Peak mode IF bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, Sweep time= 200 ms., the VBW setting was 3 MHz.
- 6 Spectrum AV mode if bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

**Radiated Spurious Emission Measurement Result (above 1GHz)**

Operation Mode: RX CH High  
Fundamental Frequency: 5814MHz  
Temperature : 25 °C  
Humidity : 65 %

Test Date : Oct. 06, 2010  
Test By: Brain  
Pol: V/H

Freq. (MHz)	Ant.Pol. H/V	Peak	AV	Factor	Actual	Actual	Peak Limit	AV Limit	Margin (dB)
		Reading (dBuV)	Reading (dBuV)		Peak FS (dBuV/m)	AV FS (dBuV/m)	at 3m (dBuV/m)	at 3m (dBuV/m)	
4178.5	V	35.46	--	4.27	39.73	--	74.00	54.00	-14.27 S
11524.0	V	--	--			--	74.00	54.00	H
17286.0	V	--	--			--	74.00	54.00	H
23048.0	V	--	--			--	74.00	54.00	H
28810.0	V	--	--			--	74.00	54.00	H
4113.5	H	34.68	--	4.04	38.72	--	74.00	54.00	-15.28 S
11524.0	H	--	--			--	74.00	54.00	H
17286.0	H	--	--			--	74.00	54.00	H
23048.0	H	--	--			--	74.00	54.00	H
28810.0	H	--	--			--	74.00	54.00	H

**Remark:**

- 1 Measuring frequencies from the lowest internal frequency to the 10th of fundamental frequency
- 2 Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.
- 3 "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- 4 Measurement of data 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.
- 5 Spectrum Peak mode IF bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, Sweep time= 200 ms., the VBW setting was 3 MHz.
- 6 Spectrum AV mode if bandwidth Setting : 1GHz- 26GHz, RBW= 1MHz, VBW= 10Hz, Sweep time= 200 ms.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

## 6. 20 DB BAND WIDTH MEASUREMENT

### 6.1 Measurement Procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set ETU normal operating mode.
3. Set SPA Center Frequency = fundamental frequency, RBW = 100kHz, VBW = 300kHz, Span =30MHz.
4. Set SPA Max hold. Mark peak, -20dB.

### 6.2 Test SET-UP (Block Diagram of Configuration)

Same as 4.2 Radiated Emission Measurement.

### 6.3 Measurement Equipment Used:

Same as 4.2 Radiated Emission Measurement.

### 6.4 Measurement Results:

5736 Channel = 17.118MHz

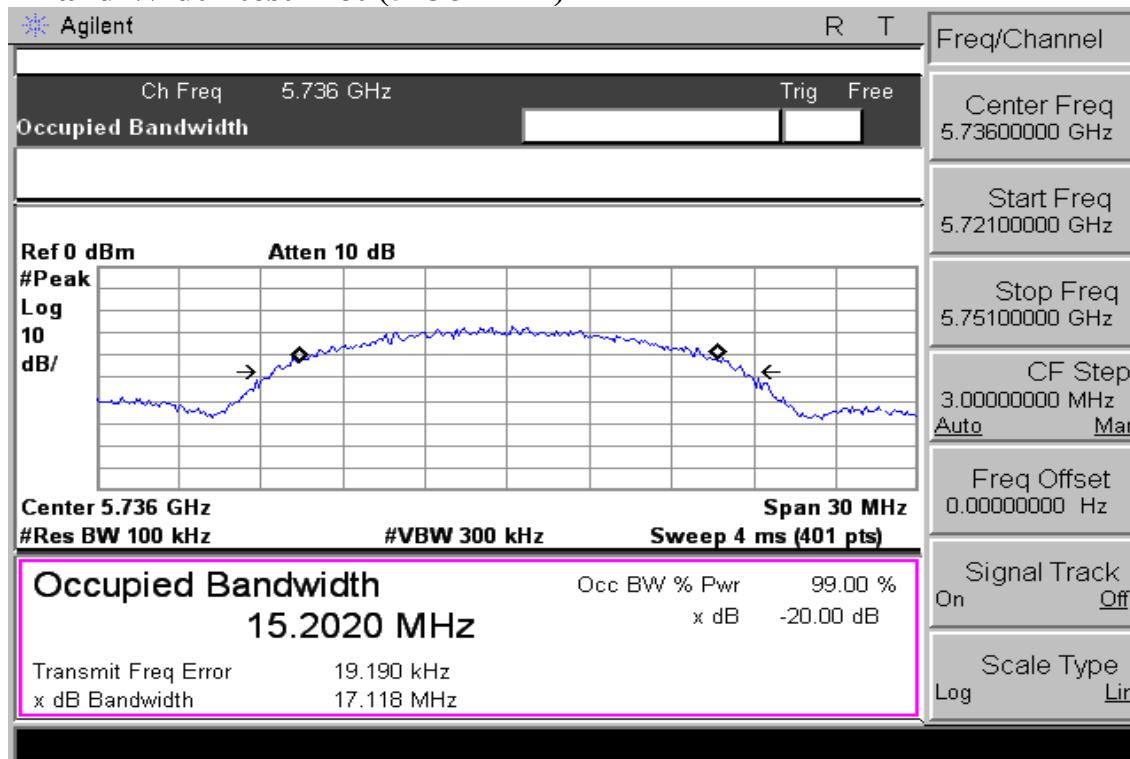
5762 Channel = 17.103MHz

5814 Channel = 17.073MHz

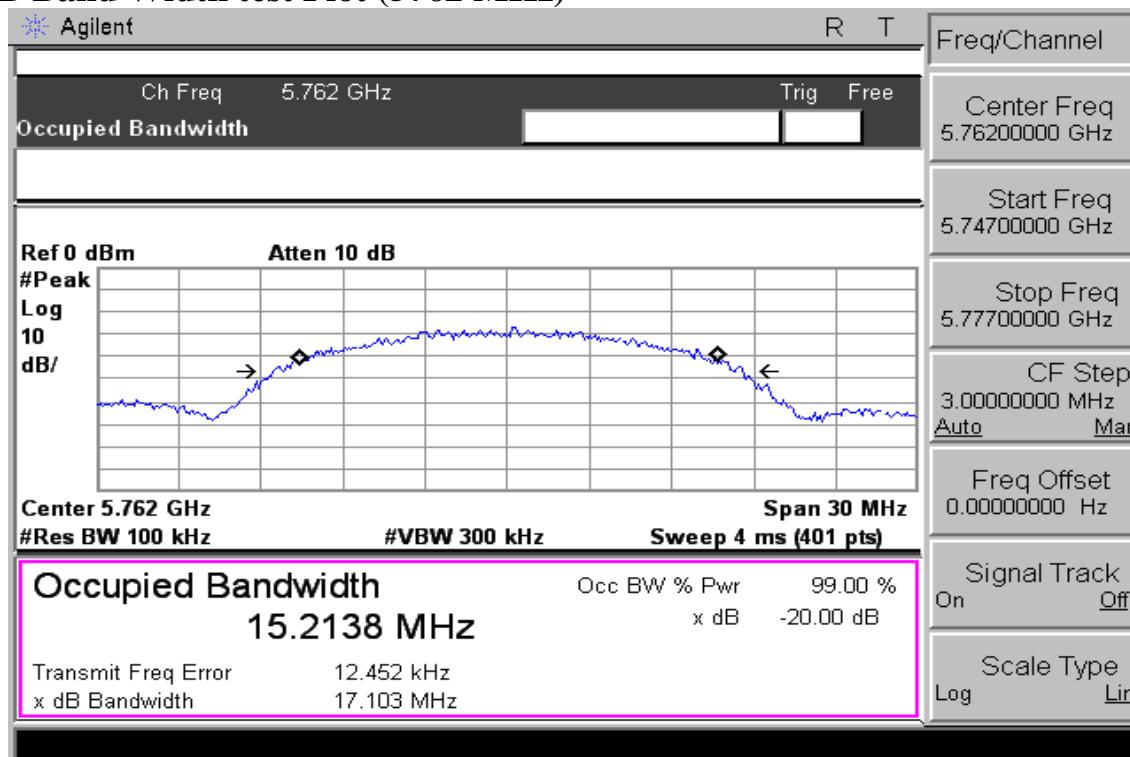
Refer to attached data chart.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

## 20dB Band Width test Plot (5736 MHz)

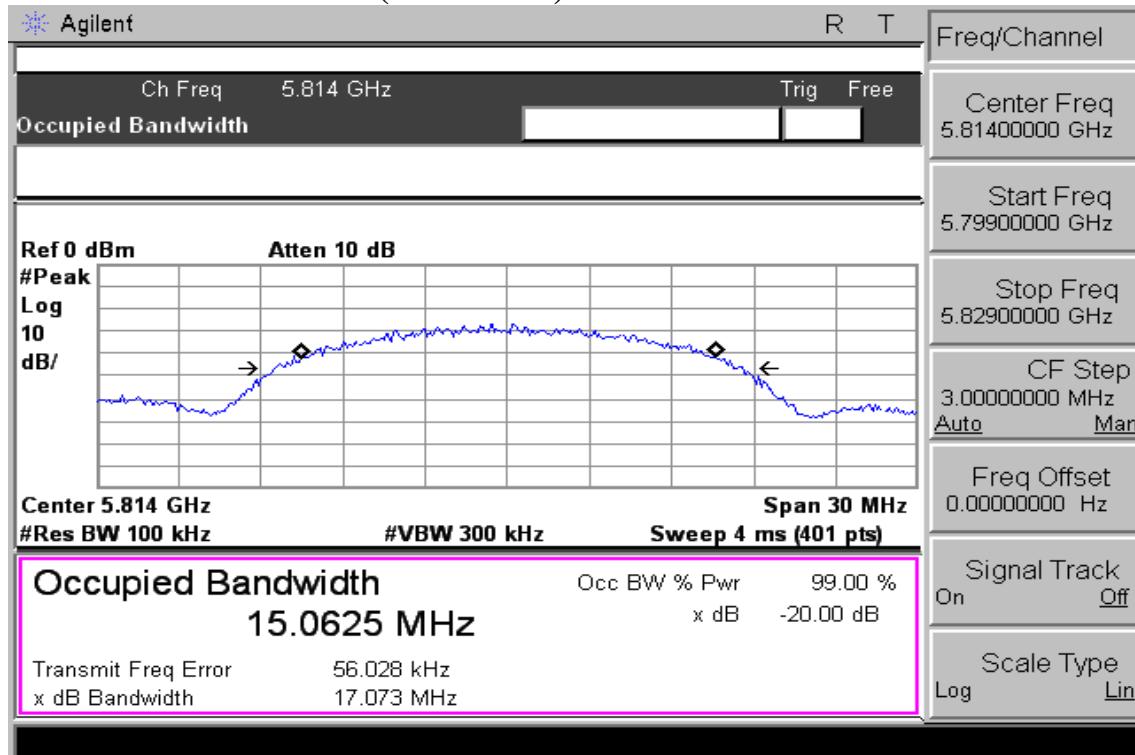


## 20dB Band Width test Plot (5762 MHz)



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

## 20dB Band Width test Plot (5814 MHz)



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)) . Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

## 7. 99% BAND WIDTH MEASUREMENT

### 7.1 Measurement 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=1% of the approximate emission bandwidth, VBW = 3 times RBW, Span= approximately 20dB below the peak level. Sweep=auto
- 4 Turn on the 99% bandwidth function, max reading..
- 5 Repeat above procedures until all frequency measured were complete.

### 7.2 Test SET-UP (Block Diagram of Configuration)

Same as 4.2 Radiated Emission Measurement.

### 7.3 Measurement Equipment Used:

Same as 4.2 Radiated Emission Measurement.

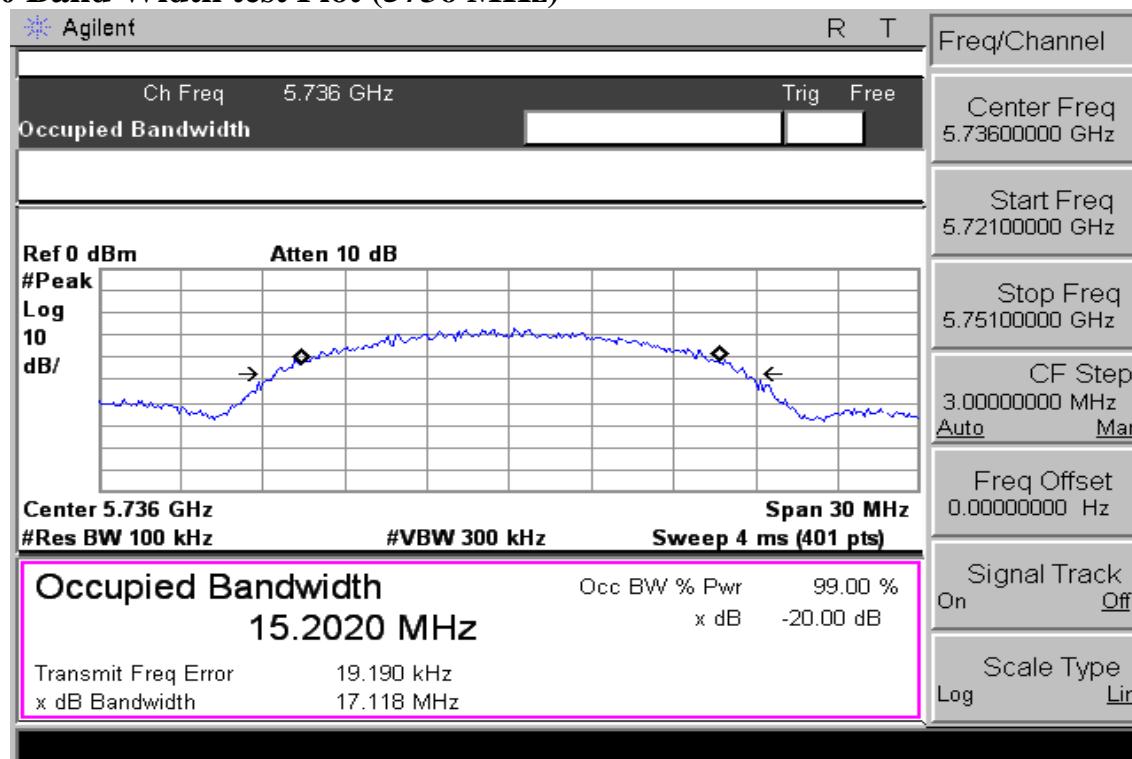
### 7.4 Measurement Results:

5736 Channel = 15.2020MHz  
5762 Channel = 15.2138MHz  
5814 Channel = 15.0625MHz

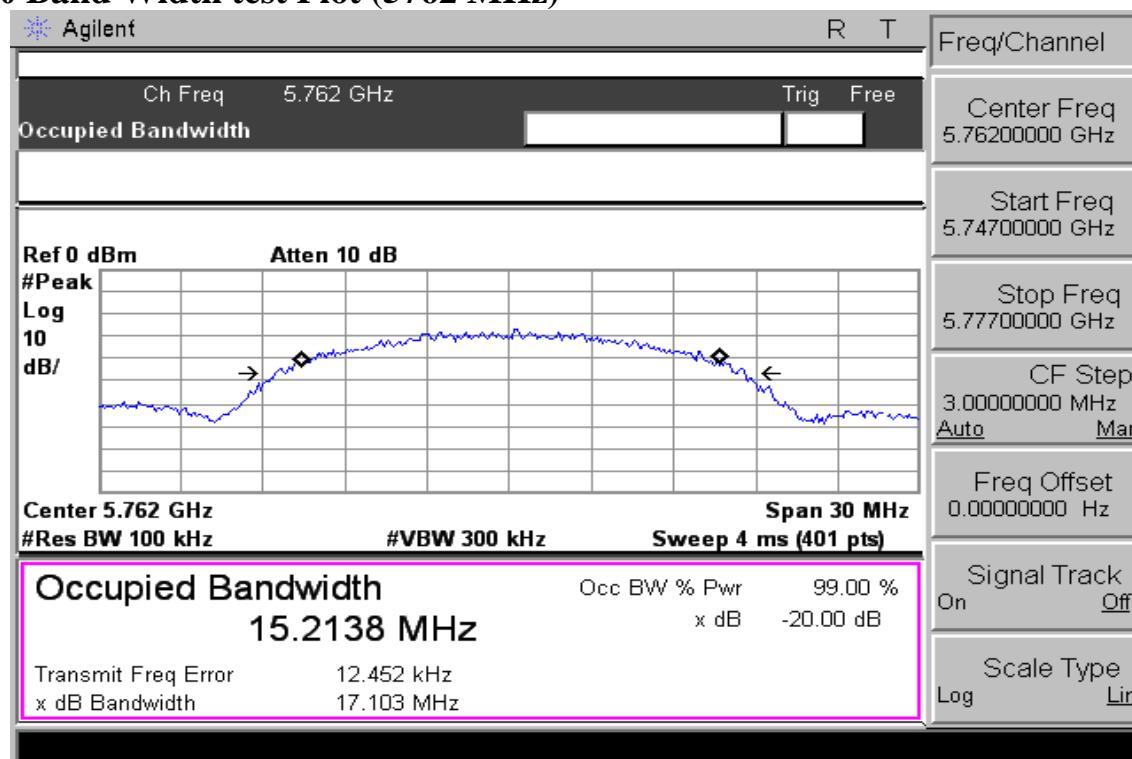
Refer to attached data chart.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

### 99% Band Width test Plot (5736 MHz)

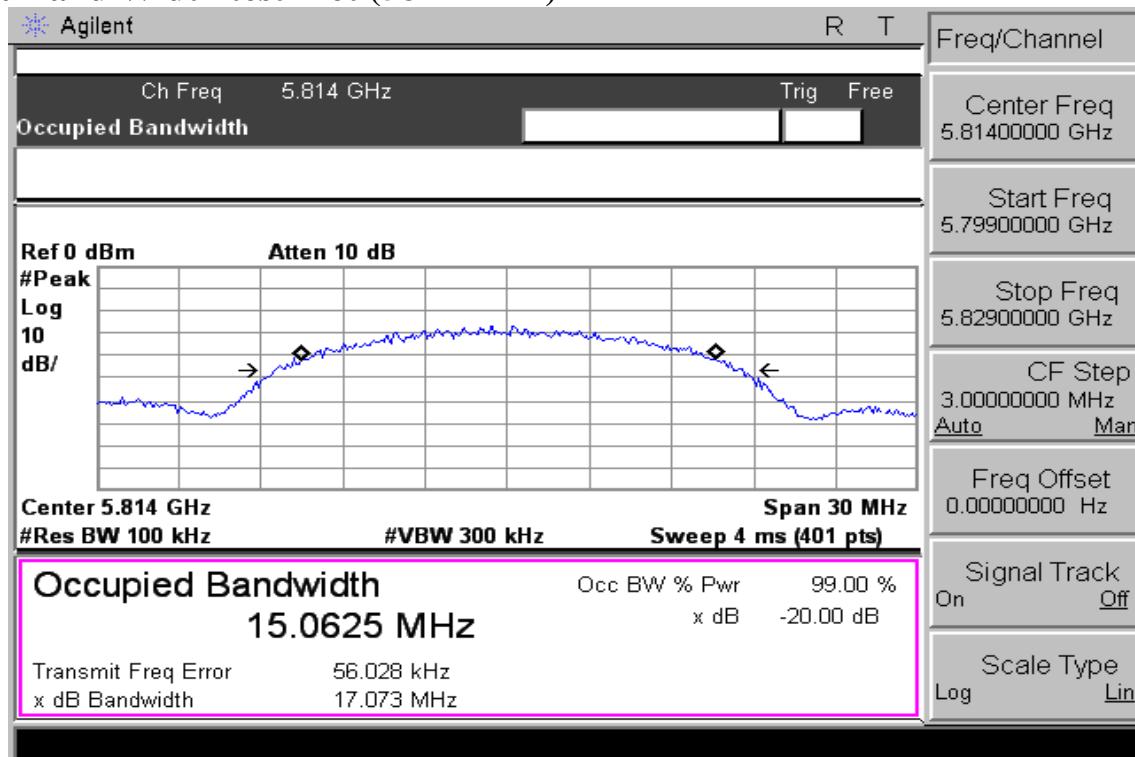


### 99% Band Width test Plot (5762 MHz)



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

### 99% Band Width test Plot (5814 MHz)



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service ([www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm)) and Terms and Conditions for Electronic Documents ([www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm)). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues established therein. Even if printed this electronic document is to be treated as an original within the meaning of UCP 600 article 20b. The authenticity of this document may be verified at [www.sgs onsite.com/authentication](http://www.sgs onsite.com/authentication). Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.