

ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

OF

INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART C REQUIREMENT

| | - |
|----------------------------------|---|
| Product Name: | PDA Phone |
| Brand Name: | Sony |
| Type No.: | PM-0731-BV |
| Model Difference: | N/A |
| FCC ID: | PY7PM-0731 |
| Report No.: | EH/2014/10016 |
| Issue Date: | Mar. 04, 2014 |
| FCC Rule Part: | §15.247, Cat: DSS |
| Prepared for: | Sony Mobile Communications AB Nya Vattentornet 22188 Lund/Sweden |
| Prepared by: | SGS Taiwan Ltd. Electronics & Communication Laboratory No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan 24803 |
| TAF Deting Laboratory 0513 | <i>Note:</i> 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. |



VERIFICATION OF COMPLIANCE

| Applicant: | Sony Mobile Communications AB | |
|-------------------------|------------------------------------|--|
| | Nya Vattentornet 22188 Lund/Sweden | |
| Product Name: | PDA Phone | |
| Brand Name: | Sony | |
| Type No.: | PM-0731-BV | |
| Model Difference: | N/A | |
| FCC ID: | PY7PM-0731 | |
| File Number: | EH/2014/10067 | |
| Date of test: | Jan. 27, 2014 ~ Mar. 04, 2014 | |
| Date of EUT Received: | Jan. 27, 2014 | |
| 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 C63.4:2009 & ANSI C63.10:2009 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 15.247. The test results of this report relate only to the tested sample identified in this report.

| Test By: | Marcus Tseng | Date: | Mar. 04, 2014 |
|--------------|--------------------------------------|-------|---------------|
| Prepared By: | Marcus Tseng/Engineer Julia Chang | Date: | Mar. 04, 2014 |
| Approved By: | Julia Chang / Clerk Jim Chang | Date: | Mar. 04, 2014 |

Jim Chang / 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.

WeifS of all weights and the results and set of the formation of the set 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Revision History

| Report Number | Revision | Description | Issue Date |
|---------------|----------|------------------------------|---------------|
| EH/2014/10016 | Rev.00 | Initial creation of document | Mar. 04, 2014 |
| | | | |
| | | | |
| | | | |



FCC ID: PY7PM-0731

Table of Contents

| 1. | GEN | ERAL INFORMATION | 7 |
|----|------|--|----|
| | 1.3. | Test Methodology | |
| | 1.4. | Test Facility | |
| | 1.5. | Special Accessories | |
| | 1.6. | Equipment Modifications | |
| 2. | SYST | TEM TEST CONFIGURATION | 14 |
| | 2.1. | EUT Configuration | |
| | 2.2. | EUT Exercise | |
| | 2.3. | Test Procedure | |
| | 2.4. | Configuration of Tested System | |
| 3. | SUM | IMARY OF TEST RESULTS | |
| 4. | DES | CRIPTION OF TEST MODES | |
| 5. | MEA | ASUREMENT UNCERTAINTY | |
| 6. | CON | DUCTED EMISSION TEST | |
| | 6.1. | Standard Applicable | |
| | 6.2. | Measurement Equipment Used: | |
| | 6.3. | EUT Setup | |
| | 6.4. | Test SET-UP (Block Diagram of Configuration) | |
| | 6.5. | Measurement Procedure | |
| | 6.6. | Measurement Result | |
| 7. | PEA | K OUTPUT POWER MEASUREMENT | |
| | 7.1. | Standard Applicable | |
| | 7.2. | Measurement Equipment Used | |
| | 7.3. | Test Set-up: | |
| | 7.4. | Measurement Procedure: | |
| | 7.5. | Measurement Result | |
| 8. | 20dB | BANDWIDTH | |
| | 8.1. | Standard Applicable | |
| | 8.2. | Measurement Equipment Used | |
| | 8.3. | Test Set-up | |
| | 8.4. | Measurement Procedure: | |
| | 8.5. | Measurement Result: | |
| 9. | BAN | D EDGES EMISSION MEASUREMENT | |
| | 9.1. | Standard Applicable | |
| | | | |



FCC ID: PY7PM-0731

| | 9.2. | Measurement Equipment Used | 41 |
|-----|-------|---|------|
| | 9.3. | Test SET-UP: | 41 |
| | 9.4. | Measurement Procedure | 42 |
| | 9.5. | Field Strength Calculation | 42 |
| | 9.6. | Measurement Result -1 Out-Of-Band EMISSION: | 42 |
| 10. | SPUR | IOUS RADIATED EMISSION TEST | . 52 |
| | 10.1. | Standard Applicable | . 52 |
| | 10.2. | Measurement Equipment Used: | . 53 |
| | 10.3. | Test SET-UP: | . 54 |
| | 10.4. | Measurement Procedure: | . 55 |
| | 10.5. | Field Strength Calculation | . 56 |
| | 10.6. | Measurement Result: | . 56 |
| 11. | FREQ | QUENCY SEPARATION | . 67 |
| | 11.1. | Standard Applicable | . 67 |
| | 11.2. | Measurement Equipment Used: | . 67 |
| | 11.3. | Test Set-up: | . 67 |
| | 11.4. | Measurement Procedure: | . 67 |
| | 11.5. | Measurement Result: | . 68 |
| 12. | NUM | BER OF HOPPING FREQUENCY | . 69 |
| | 12.1. | Standard Applicable | . 69 |
| | 12.2. | Measurement Equipment Used: | . 69 |
| | 12.3. | Test Set-up: | . 69 |
| | 12.4. | Measurement Procedure: | . 69 |
| | 12.5. | Measurement Result: | . 69 |
| 13. | TIME | COF OCCUPANCY (DWELL TIME) | .72 |
| | 13.1. | Standard Applicable | 72 |
| | 13.2. | Measurement Equipment Used: | 72 |
| | 13.3. | Test Set-up: | 72 |
| | 13.4. | Measurement Procedure: | 73 |
| | 13.5. | Tabular Result of the Measurement: | 74 |
| | 13.6. | Measurement Result: | 75 |
| 14. | ANTE | ENNA REQUIREMENT | . 85 |
| | 14.1. | Standard Applicable | . 85 |
| | 14.2. | Antenna Connected Construction | . 85 |



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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is advised any be prosecuted to the fulle extent of the law.

pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134號



GENERAL INFORMATION 1.

1.1. Product description

General:

| Product Name: | PDA Phone | | |
|--------------------------------|--|---|--|
| Brand Name: | Sony | | |
| Type No.: | PM-0731- | BV | |
| Model Difference: | N/A | | |
| Data Cable (USB): | 1.Model No.: EC450, Supplier: K-one Type No.: AI-0700, Length: 100 cm 2.Model No.: EC801, Supplier: Sony Type No.: AI-0401, Length: 100 cm | | |
| Simple Hands-Free (SHF-White): | • • | : MH410c, Supplier: Foster Electric | |
| Simple Hands-Free (SHF-Black): | Model No.: MH410c, Supplier: Foster Electric Type No.: CCA-0004017 | | |
| Car Charger: | Model No.: AN400, Supplier: Salcomp Type No.: CAA-0003013 | | |
| Hi-Fi Wireless Headset: | Model No.: MW600, Supplier: BALDA Type No.: DDA-0002029.B coupling with Simple Hands Free (Model No.: MH755, Supplier: BALDA Type No.: AG-0502) | | |
| Hardware Version: | Α | | |
| Software Version: | 18.1.A.0.9 | | |
| | 3.8Vdc | | |
| | Battery: | Model No.: LIS1546ERPC, Supplier: Sony Type No.: N/A | |
| Power Supply: | Adapter | 1.Model No.: EP800, Supplier: Salcomp Type No.: CAA-0002016-US | |
| | Adapter: | 2.Model No.: EP880, Supplier: Salcomp Type No.: AC-0400-US | |

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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification and be produced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



Bluetooth_BR+EDR:

| Bluetooth Version: | V3.0+HS |
|----------------------|-----------------------------------|
| Channel number: | 79 channels |
| Modulation type: | Frequency Hopping Spread Spectrum |
| Transmit Power: | 10.04dBm |
| Frequency Range: | 2.402GHz – 2.480GHz |
| Dwell Time: | <= 0.4s |
| Antenna Designation: | PIFA Antenna, Gain: -1.34dBi |

Bluetooth Low Energy:

| Frequency Range: | 2402 – 2480MHz |
|----------------------|------------------------------|
| Bluetooth Version: | V4.0 Dual mode |
| Channel number: | 40 channels |
| Modulation type: | GFSK |
| Transmit Power: | 1.85dBm (Peak) |
| Antenna Designation: | PIFA Antenna, Gain: -1.34dBi |

NFC:

| Operating Frequency | 13.56MHz |
|---------------------|--------------------|
| Transmit Power | < 123dBuV/m at 3m. |
| Number of Channels | 1 |
| Antenna Type | Loop Antenna |
| Modulation Type | ASK, BPSK |

Antenna Plus

| Operation Frequency: | 2402 – 2480MHz | |
|----------------------|------------------------------|--|
| Transmit Power | 101.78dBuV/m at 3m. | |
| Channel number: | 79 | |
| Modulation Type: | GFSK | |
| Antenna Designation: | PIFA Antenna, Gain: -1.34dBi | |



WLAN 2.4GHz+5.7GHz:

| Wi-Fi | Frequency Range | Channels | Rated Power | Modulation Technology | |
|------------------|----------------------|---|--|--------------------------|--|
| 11b/g | 2412-2462 | 11 | b: 20.35dBm g: 21.91dBm | DSSS, OFDM | |
| 11n | HT20 2412-2462 | 11 | HT20: 20.55dBm | OFDM | |
| 11a | 5725-5850 | 5 | a: 21.15dBm | | |
| 11n (5GHz) | HT20 5725-5850 | 5 | HT20: 20.22dBm | OFDM | |
| 11n (5GHz) | HT40 5725-5850 | 2 | HT40: 19.50dBm | | |
| Antenna Des | Antenna Designation: | | PIFA Antenna, 2.4GHz Gain: -1.34dBi 5GHz Gain: 4.51dBi (5725MHz-5850MHz) | | |
| Modulation type: | | CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM | | | |
| Transition Rate: | | 802.11 a: 6/9/12/18/24/36/48/54 Mbps 802.11 b: 1/2/5.5/11 Mbps 802.11 g: 6/9/12/18/24/36/48/54 Mbps 802.11 n_20MHz: 6.5 – 65.0Mbps 802.11 n_40MHz: 13.5 – 135.0Mbps | | | |



WLAN 5GHz:

| Wi-Fi | Frequency Range | Channels | Rated Power (Avg) | Modulation Technology | | |
|---------------------|---|----------|-------------------|--------------------------|--|--|
| 11a | 5150~5250 | 4 | 13.96dBm | OFDM | | |
| | 5250~5350 | 4 | 13.97dBm | | | |
| | 5470~5725 | 8 | 13.99dBm | | | |
| 11n | HT20 5150~5250 | 4 | HT20: 11.49dBm | OFDM | | |
| | HT20 5250~5350 | 4 | HT20: 11.49dBm | | | |
| | HT20 5470~5725 | 8 | HT20: 11.83dBm | | | |
| 11n | HT40 5150~5250 | 2 | HT40: 11.41dBm | OFDM | | |
| | HT40 5250~5350 | 2 | HT40: 10.45dBm | | | |
| | HT40 5470~5725 | | | | | |
| Antenna Designation | Antenna Designation PIFA Antenna, 5GHz Gain: -0.38dBi (5150MHz-5250MHz) 5GHz Gain: 0.10dBi (5250MHz-5350MHz) 5GHz Gain: 3.98dBi (5470MHz-5725MHz) | | | | | |
| Modulation type | CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM | | | | | |
| Transition Rate: | 802.11 a: 6/9/12/18/24/36/48/54 Mbps 802.11 n_20MHz: 6.5 – 65.0Mbps 802.11 n_40MHz: 13.5 – 135.0Mbps | | | | | |



GSM / WCDMA/ LTE:

| | Operating Frequency | Rated Power | |
|---------------------|--|-----------------------|-------|
| | GSM/GPRS 850, Class 33 | 824.2 MHz- 848.8 MHz | 33dBm |
| | EDGE 850, Class 33 | 824.2 MHz- 848.8 MHz | 27dBm |
| | GSM/GPRS 1900, Class 33 | 1850.2MHz - 1909.8MHz | 30dBm |
| | EDGE 1900, Class 33 | 1850.2MHz - 1909.8MHz | 26dBm |
| | WCDMA/HSUPA/HSDPA /HSPA+ Band II | 1852.4MHz – 1907.6MHz | 24dBm |
| | WCDMA/HSUPA/HSDPA /HSPA+ Band IV | 1712.4MHz - 1752.6MHz | 24dBm |
| | WCDMA/HSUPA/HSDPA /HSPA+ Band V | 826.4MHz - 846.6MHz | 24dBm |
| Cellular Phone | 1.4MHz BW LTE-Band 4 1710.7MHz-1754.3MHz | | 23dBm |
| Standards Frequency | 3MHz BW LTE-Band 4 | 1711.5MHz – 1753.5MHz | 23dBm |
| Range and Power | 5MHz BW LTE-Band 4 | 1712.5MHz – 1752.5MHz | 23dBm |
| | 10MHz BW LTE-Band 4 | 1715MHz – 1750MHz | 23dBm |
| | 15MHz BW LTE-Band 4 | 1717.5MHz – 1747.5MHz | 23dBm |
| | 20MHz BW LTE-Band 4 | 1720MHz – 1745MHz | 23dBm |
| | 5MHz BW LTE-Band 7 | 2502.5MHz – 2567.5MHz | 23dBm |
| | 10MHz BW LTE-Band 7 | 2505.0MHz - 2565.0MHz | 23dBm |
| | 15MHz BW LTE-Band 7 | 2507.5MHz - 2562.5MHz | 23dBm |
| | 20MHz BW LTE-Band 7 | 2510.0MHz – 2560MHz | 23dBm |
| | 5MHz BW LTE-Band 17 | 706.5MHz – 713.5MHz | 23dBm |
| | 10MHz BW LTE-Band 17 | 709.0MHz -711.0MHz | 23dBm |



FCC ID: PY7PM-0731

| | GSM 850: 250KGXW, GSM 1900: 249KGXW |
|-------------------|---|
| | GPRS 850: 256KGXW, GPRS 1900: 248KGXW |
| | EDGE 850: 253KG7W, EDGE 1900: 248KG7W |
| | WCDMA Band II: 4M22F9W, WCDMA Band IV: 4M28F9W, |
| | WCDMA Band V: 4M20F9W |
| | HSDPA Band II: 4M17F9W, HSDPA Band IV: 4M23F9W, |
| | HSDPA Band V: 4M12F9W |
| | HSUPA Band II: 4M23F9W, HSUPA Band IV: 4M24F9W, |
| | HSUPA Band V: 4M25F9W |
| | 1.4MHz BW LTE-Band 4 QPSK:1M10D7W |
| | 1.4MHz BW LTE-Band 4 16QAM: 1M10D7W |
| | 3MHz BW LTE-Band 4 QPSK: 2M71D7W |
| | 3MHz BW LTE-Band 4 16QAM: 2M71D7W |
| | 5MHz BW LTE-Band 4 QPSK: 4M50D7W |
| | 5MHz BW LTE-Band 4 16QAM: 4M50D7W |
| | 10MHz BW LTE-Band 4 QPSK: 8M98D7W |
| Type of Emission: | 10MHz BW LTE-Band 4 16QAM: 8M98D7W |
| J 1 | 15MHz BW LTE-Band 4 QPSK: 13M45D7W |
| | 15MHz BW LTE-Band 4 16QAM: 13M48D7W |
| | 20MHz BW LTE-Band 4 QPSK: 17M91D7W |
| | 20MHz BW LTE-Band 4 16QAM: 7M94D7W |
| | 5MHz BW LTE-Band 7 QPSK: 4M51D7W |
| | 5MHz BW LTE-Band 7 16QAM: 4M51D7W |
| | 10MHz BW LTE-Band 7 QPSK: 9M01D7W |
| | 10MHz BW LTE-Band 7 16QAM: 8M99D7W |
| | 15MHz BW LTE-Band 7 QPSK: 13M46D7W |
| | 15MHz BW LTE-Band 7 16QAM: 13M46D7W |
| | 20MHz BW LTE-Band 7 QPSK: 17M92D7W |
| | 20MHz BW LTE-Band 7 16QAM: 17M93D7W |
| | 5MHz BW LTE-Band 17 QPSK: 4M151D7W |
| | 5MHz BW LTE-Band 17 16QAM: 4M51D7W |
| | 10MHz BW LTE-Band 17 QPSK: 8M97D7W |
| | 10MHz BW LTE-Band 17 16QAM: 8M94D7W |
| | |
| IMEI: | 004402452036837(2G&3G); 004402452038445(4G) |
| | |

The report applied for Bluetooth BR+EDR.



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

This submittal(s) (test report) is intended for **FCC ID:** <u>**PY7PM-0731**</u> filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules. The composite system (digital device) is compliance with FCC part 15; Subpart B is authorized under the certification procedure.

1.3. Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.4:2009 and ANSI C63.10:2009. Radiated testing was performed at an antenna to EUT distance 3 meters. Tested in accordance with FCC Public Notice DA 00-705 – Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems

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 Road, Wuku Industrial Zone, Taipei County, Taiwan which are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4:2009. & ANSI C63.10:2009. FCC Registration Number is: 990257..

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

There is no special accessory used while test was conducted.

1.6. Equipment Modifications

There was no modification incorporated into the EUT.

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。

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 document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.



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

An engineering test mode (software/firmware) that applicant provided was utilized to manipulate the EUT into transmit, selection of the test channel, and modulation scheme.

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 general criterion in Section 7.1 of ANSI C63.4:2009 & 6.2 ANSI 63.10:2009.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz, and the measurement procedure 7.3 in ANSI 63.4:2009 & 6.2.2, and 6.2.3 in ANSI 63.10:2009 is followed to carry out the test. The CISPR Quasi-Peak and Average detector mode is employed according to §15.107

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 and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna according to the requirements in Section 8 and 13 and of ANSI C63.4:2009, & Section 6.3, 6.4, 6.5, and 6.6 of ANSI 63.10:2009 and DA 00-705.

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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

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.



2.4. Configuration of Tested System

Fig. 2-1 Radiated Emission

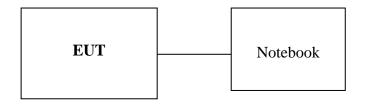


Fig. 2-2 Conducted (Antenna Port) Configuration

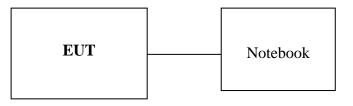


Table 2-1 Equipment Used in Tested System

| Item | Equipment | Mfr/Brand | Model/Type No. | Series No. | Data Cable | Power Cord |
|------|----------------------------|-----------|----------------|------------|------------|------------|
| 1. | Bluetooth Test Software | QRCT | 2.4.83.0 | N/A | N/A | N/A |
| 2. | Bluetooth Test Set | Anritsu | MT8852B | 6k00006107 | N/A | N/A |
| 3. | Notebook | DELL | E5400 | 3704625136 | N/A | N/A |

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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

GS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134號



FCC ID: PY7PM-0731

Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 16 of 105

Fig. 2-3 AC Power Line Conducted Emission

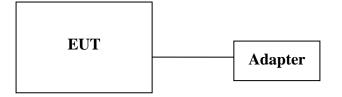


Table 2-2 Equipment Used in Tested System

| Iten | n Equipment | Mfr/Brand | Model/Type No. | Series No. | Data Cable | Power Cord |
|------|----------------------------|-----------|----------------|------------|------------|------------|
| 1. | Bluetooth Test Software | QRCT | 2.4.83.0 | N/A | N/A | N/A |



3. SUMMARY OF TEST RESULTS

| FCC Rules | Description Of Test | Result |
|--------------------------------|--|-----------|
| §15.207(a) | AC Power Line Conducted Emission | Compliant |
| §15.247(b)(1) | Peak Output Power | Compliant |
| §15.247(a)(1) | 20dB Bandwidth | Compliant |
| §15.247(d) | 100 kHz Bandwidth Of Frequency Band Edges | Compliant |
| \$15.247(d) \$15.209(a) (f) | Spurious Emission | Compliant |
| §15.247(a)(1) | Frequency Separation | Compliant |
| §15.247(a)(1)(iii) | Number of hopping frequency | Compliant |
| §15.247(a)(1)(iii) | Time of Occupancy | Compliant |
| §15.203 Antenna Requirement | | Compliant |

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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is advised at the fulle at vent of the law. pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.



4. DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

Channel Low, Mid and High with highest rated data rate were chosen as worst case for full testing. The field strength of spurious radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1, E2 mode) for Bluetooth Transmitter for channel Low, Mid and High the worst case E2 position was reported.

Channel Low: channel 1 at 2402MHz Channel Mid: channel 39 at 2441MHz Channel High: channel 78 at 2480MHz

In comparison with BR and EDR mode, emission carried out by EDR is chosen as the most representative measurement to perform measurement of radiated spurious emission pursuant to Part 15C.Modulation, EDR, is selected to be performed for 100 kHz Bandwidth Band Edge, Conducted Spurious Emission, Frequency Separation, Number of hopping frequency due to its characteristics of wider bandwidth.

Data type being used to conduct the measurement: DH1/DH3/DH5 (GFSK) with 1Mbps 2DH1/2DH3/2DH5 (∏/4 DQPSK) with 2Mbps 3DH1/3DH3/3DH5 (8DPSK) with 3Mbps

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 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.



5. MEASUREMENT UNCERTAINTY

| Test Items | Uncertainty | |
|--|--------------------------|--|
| AC Power Line Conducted Emission | +/- 2.586 dB | |
| Peak Output Power | +/- 1.55 dB | |
| 20dB Bandwidth | +/- 123.36 Hz | |
| 100 KHz Bandwidth Of Frequency Band Edges | +/- 1.55 dB | |
| Frequency Separation | +/- 123.36 Hz | |
| Number of hopping frequency | +/- 123.36 Hz | |
| Time of Occupancy | +/- 123.36 Hz | |
| Temperature | +/- 0.8 °C | |
| Humidity | +/- 4.7 % | |
| DC / AC Power Source | DC= +/- 1%, AC= +/- 0.2% | |

Radiated Spurious Emission:

| | 30MHz - 180MHz: +/- 3.37dB | | |
|--|----------------------------|--|--|
| | 180MHz -417MHz: +/- 3.19dB | | |
| Measurement uncertainty (Polarization : Vertical) | 0.417GHz-1GHz: +/- 3.19dB | | |
| (i onalization : v or treat) | 1GHz - 18GHz: +/- 4.04dB | | |
| | 18GHz - 40GHz: +/- 4.04dB | | |

| | 30MHz - 167MHz: +/- 4.22dB | | |
|-----------------------------|----------------------------|--|--|
| Measurement uncertainty | 167MHz -500MHz: +/- 3.44dB | | |
| (Polarization : Horizontal) | 0.5GHz-1GHz: +/- 3.39dB | | |
| | 1GHz - 18GHz: +/- 4.08dB | | |
| | 18GHz - 40GHz: +/- 4.08dB | | |

This uncertainty represents an expanded uncertainty expressed at approximately the

95% confidence level using a coverage factor of k=2.



CONDUCTED EMISSION TEST 6.

6.1. Standard Applicable

According to §15.207, frequency within 150 kHz to 30MHz shall not exceed the limit table as below.

| Frequency range | Limits dB(uV) | | | | |
|--|--|----------|--|--|--|
| MHz | Quasi-peak | Average | | | |
| 0.15 to 0.50 | 66 to 56 | 56 to 46 | | | |
| 0.50 to 5 | 56 | 46 | | | |
| 5 to 30 | 60 | 50 | | | |
| Note | | | | | |
| 1. The lower limit shall apply at the transition frequencies | | | | | |
| 2. The limit decreases linearly with t | 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz. | | | | |

6.2. **Measurement Equipment Used:**

| Conducted Emission Test Site | | | | | |
|-------------------------------------|------------|-------------------------|--------|------------|------------|
| EQUIPMENT MFR MODEL SERIAL LAST CAI | | | | | |
| TYPE | | NUMBER | NUMBER | CAL. | |
| EMI Test Receiver | R&S | ESCI7 | 100760 | 05/27/2013 | 05/26/2014 |
| LISN | Rolf-Heine | NNB-2/16Z | 99012 | 03/23/2013 | 03/22/2014 |
| LISN | FCC | FCC-LISN-50/250-25-2-01 | 04034 | 03/23/2013 | 03/22/2014 |
| Coaxial Cables | N/A | WK CE Cable | N/A | 11/26/2013 | 11/25/2014 |

6.3. EUT Setup

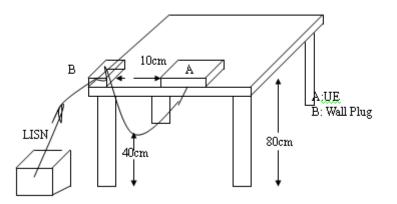
- 1. The conducted emission tests were performed in the test site, using the setup in accordance with the ANSI C63.4:2009 & ANSI 63.10:2009.
- 2. The AC/DC Power adaptor of EUT was plug-in LISN. The EUT was placed flushed with the rear of the table.
- 3. The LISN was connected with 120Vac/60Hz power source.

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.

時非另有説明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90.tr。本報告未經本公司書面許可,不可能份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-



6.4. Test SET-UP (Block Diagram of Configuration)



6.5. 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.

6.6. Measurement Result

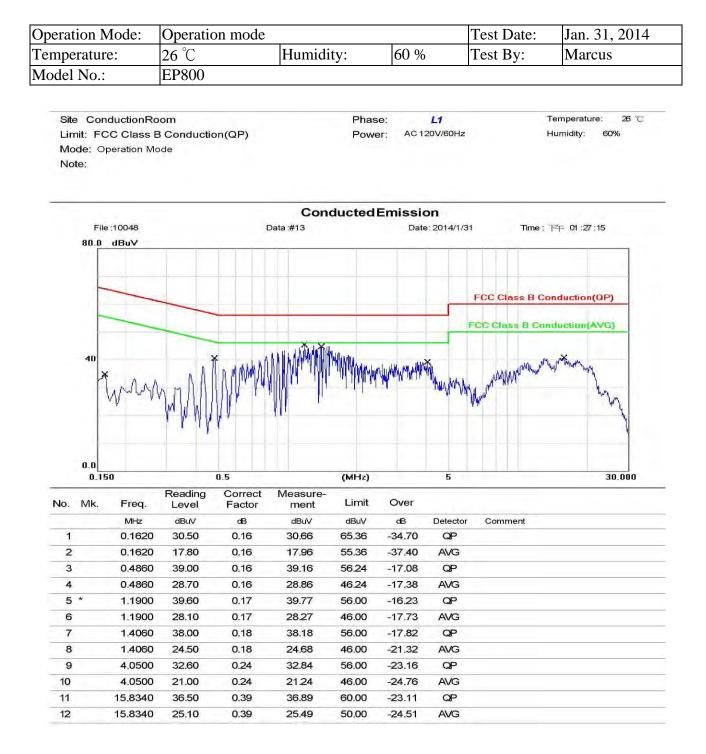
Note: Refer to next page for measurement data and plots. Note2: The * reveals the worst-case results that closet to the limit

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.

WeifS of all weights and the results and set of the formation of the set 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



AC POWER LINE CONDUCTED EMISSION TEST DATA



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.

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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd. No.134, WuKungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號



FCC ID: PY7PM-0731

26 °C Site ConductionRoom Temperature: Phase' N AC 120V/60Hz Humidity: Limit: FCC Class B Conduction(QP) Power: 60% Mode: Operation Mode Note: **Conducted Emission** File :10048 Data :#12 Date: 2014/1/31 Time:下午 01:22:55 80.0 dBuV FCC Class B Conduction(QP) FCC Class B Conduction(AVG)

41 0.0

| 0.15 | 0 | | 0.5 | | (MHz) | | 5 | | 30.000 |
|------|---------|--|---|--|--|---|--|--|--|
| Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | | | |
| | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment | |
| | 0.1620 | 36.30 | 0.18 | 36.48 | 65.36 | -28.88 | QP | | |
| L | 0.1620 | 18.10 | 0.18 | 18.28 | 55.36 | -37.08 | AVG | | |
| | 0.1940 | 31.60 | 0.19 | 31.79 | 63.86 | -32.07 | QP | | |
| | 0.1940 | 16.00 | 0.19 | 16.19 | 53.86 | -37.67 | AVG | | |
| | 0.4820 | 31.10 | 0.19 | 31.29 | 56.30 | -25.01 | QP | | |
| * | 0.4820 | 24.70 | 0.19 | 24.89 | 46.30 | -21.41 | AVG | | |
| | 1.1780 | 30.70 | 0.21 | 30.91 | 56.00 | -25.09 | QP | | |
| | 1.1780 | 18.40 | 0.21 | 18.61 | 46.00 | -27.39 | AVG | | |
| | 3.8540 | 26.00 | 0.29 | 26.29 | 56.00 | -29.71 | QP | | |
| | 3.8540 | 6.50 | 0.29 | 6.79 | 46.00 | -39.21 | AVG | | |
| | 20.9340 | 33.50 | 0.53 | 34.03 | 60.00 | -25.97 | QP | | |
| | 20.9340 | 15.80 | 0.53 | 16.33 | 50.00 | -33.67 | AVG | | |
| | Sec. | MHz 0.1620 0.1620 0.1940 0.1940 0.4820 * 0.4820 1.1780 1.1780 3.8540 3.8540 20.9340 | Mk. Freq. Reading Level MHz dBuV 0.1620 36.30 0.1620 18.10 0.1940 31.60 0.1940 31.60 0.1940 31.00 0.1940 31.10 * 0.4820 31.10 * 0.4820 30.70 1.1780 30.70 1.1780 3.8540 26.00 3.8540 3.8540 6.50 20.9340 | Mk. Freq. Reading Level Correct Factor MHz dBuV dB 0.1620 36.30 0.18 0.1620 18.10 0.18 0.1940 31.60 0.19 0.1940 16.00 0.19 0.4820 31.10 0.19 * 0.4820 24.70 0.19 1.1780 30.70 0.21 3.8540 26.00 0.29 3.8540 6.50 0.29 20.9340 33.50 0.53 | Mk. Freq. Reading Level Correct Factor Measure- ment MHz dBu/ dB dB/ 0.1620 36.30 0.18 36.48 0.1620 18.10 0.18 18.28 0.1940 31.60 0.19 31.79 0.1940 16.00 0.19 31.29 0.4820 31.10 0.19 31.29 * 0.4820 24.70 0.19 24.89 1.1780 30.70 0.21 30.91 1.1780 18.40 0.21 18.61 3.8540 26.00 0.29 26.29 3.8540 6.50 0.29 6.79 20.9340 33.50 0.53 34.03 | Mk. Freq. Reading Level Correct Factor Measure ment Limit MHz dBuV dB dBuV dBuV <td< td=""><td>Mk. Freq. Reading Level Correct Factor Measure- ment Limit Over MHz dBuV dB dB dBuV dB dB dBuV dB dD <t< td=""><td>Mk. Freq. Reading Level Correct Factor Measure ment Limit Over MHz dBuV dB dBuV dBUV dBUV dB Detector 0.1620 36.30 0.18 36.48 65.36 -28.88 QP 0.1620 18.10 0.18 18.28 55.36 -37.08 AVG 0.1940 31.60 0.19 31.79 63.86 -32.07 QP 0.1940 16.00 0.19 16.19 53.86 -37.67 AVG 0.4820 31.10 0.19 31.29 56.30 -25.01 QP * 0.4820 31.10 0.19 31.29 56.30 -25.01 QP * 0.4820 24.70 0.19 24.89 46.30 -21.41 AVG 1.1780 30.70 0.21 30.91 56.00 -29.71 QP 3.8540 26.00 0.29 26.29 56.00 -29.71 QP <t< td=""><td>Mk. Freq. Reading Level Correct Factor Measure- ment Limit Over MHz dBuV dB dBuV dBuV dB Detector Comment 0.1620 36.30 0.18 36.48 65.36 -28.88 QP 0.1620 18.10 0.18 18.28 55.36 -37.08 AVG 0.1940 31.60 0.19 31.79 63.86 -32.07 QP 0.1940 16.00 0.19 16.19 53.86 -37.67 AVG 0.4820 31.10 0.19 31.29 56.30 -25.01 QP * 0.4820 31.70 0.21 30.91 56.00 -21.41 AVG * 0.4820 30.70 0.21 30.91 56.00 -27.39 AVG * 0.4820 26.00 0.29 26.29 56.00 -29.71 QP * 3.8540 6.50 0.29 6.79 46.00 -39.21<</td></t<></td></t<></td></td<> | Mk. Freq. Reading Level Correct Factor Measure- ment Limit Over MHz dBuV dB dB dBuV dB dB dBuV dB dD dD <t< td=""><td>Mk. Freq. Reading Level Correct Factor Measure ment Limit Over MHz dBuV dB dBuV dBUV dBUV dB Detector 0.1620 36.30 0.18 36.48 65.36 -28.88 QP 0.1620 18.10 0.18 18.28 55.36 -37.08 AVG 0.1940 31.60 0.19 31.79 63.86 -32.07 QP 0.1940 16.00 0.19 16.19 53.86 -37.67 AVG 0.4820 31.10 0.19 31.29 56.30 -25.01 QP * 0.4820 31.10 0.19 31.29 56.30 -25.01 QP * 0.4820 24.70 0.19 24.89 46.30 -21.41 AVG 1.1780 30.70 0.21 30.91 56.00 -29.71 QP 3.8540 26.00 0.29 26.29 56.00 -29.71 QP <t< td=""><td>Mk. Freq. Reading Level Correct Factor Measure- ment Limit Over MHz dBuV dB dBuV dBuV dB Detector Comment 0.1620 36.30 0.18 36.48 65.36 -28.88 QP 0.1620 18.10 0.18 18.28 55.36 -37.08 AVG 0.1940 31.60 0.19 31.79 63.86 -32.07 QP 0.1940 16.00 0.19 16.19 53.86 -37.67 AVG 0.4820 31.10 0.19 31.29 56.30 -25.01 QP * 0.4820 31.70 0.21 30.91 56.00 -21.41 AVG * 0.4820 30.70 0.21 30.91 56.00 -27.39 AVG * 0.4820 26.00 0.29 26.29 56.00 -29.71 QP * 3.8540 6.50 0.29 6.79 46.00 -39.21<</td></t<></td></t<> | Mk. Freq. Reading Level Correct Factor Measure ment Limit Over MHz dBuV dB dBuV dBUV dBUV dB Detector 0.1620 36.30 0.18 36.48 65.36 -28.88 QP 0.1620 18.10 0.18 18.28 55.36 -37.08 AVG 0.1940 31.60 0.19 31.79 63.86 -32.07 QP 0.1940 16.00 0.19 16.19 53.86 -37.67 AVG 0.4820 31.10 0.19 31.29 56.30 -25.01 QP * 0.4820 31.10 0.19 31.29 56.30 -25.01 QP * 0.4820 24.70 0.19 24.89 46.30 -21.41 AVG 1.1780 30.70 0.21 30.91 56.00 -29.71 QP 3.8540 26.00 0.29 26.29 56.00 -29.71 QP <t< td=""><td>Mk. Freq. Reading Level Correct Factor Measure- ment Limit Over MHz dBuV dB dBuV dBuV dB Detector Comment 0.1620 36.30 0.18 36.48 65.36 -28.88 QP 0.1620 18.10 0.18 18.28 55.36 -37.08 AVG 0.1940 31.60 0.19 31.79 63.86 -32.07 QP 0.1940 16.00 0.19 16.19 53.86 -37.67 AVG 0.4820 31.10 0.19 31.29 56.30 -25.01 QP * 0.4820 31.70 0.21 30.91 56.00 -21.41 AVG * 0.4820 30.70 0.21 30.91 56.00 -27.39 AVG * 0.4820 26.00 0.29 26.29 56.00 -29.71 QP * 3.8540 6.50 0.29 6.79 46.00 -39.21<</td></t<> | Mk. Freq. Reading Level Correct Factor Measure- ment Limit Over MHz dBuV dB dBuV dBuV dB Detector Comment 0.1620 36.30 0.18 36.48 65.36 -28.88 QP 0.1620 18.10 0.18 18.28 55.36 -37.08 AVG 0.1940 31.60 0.19 31.79 63.86 -32.07 QP 0.1940 16.00 0.19 16.19 53.86 -37.67 AVG 0.4820 31.10 0.19 31.29 56.30 -25.01 QP * 0.4820 31.70 0.21 30.91 56.00 -21.41 AVG * 0.4820 30.70 0.21 30.91 56.00 -27.39 AVG * 0.4820 26.00 0.29 26.29 56.00 -29.71 QP * 3.8540 6.50 0.29 6.79 46.00 -39.21< |



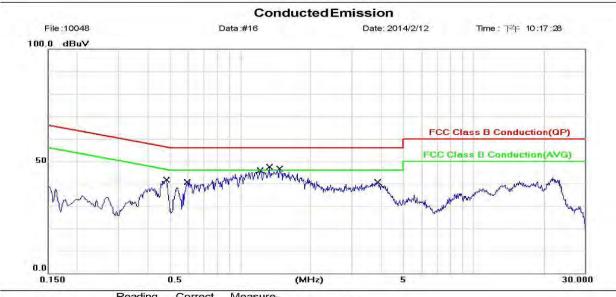
FCC ID: PY7PM-0731

| Operation Mode: | Operation mode | | | Test Date: | Feb. 12, 2014 |
|-----------------|----------------|-----------|------|------------|---------------|
| Temperature: | 26 ℃ | Humidity: | 60 % | Test By: | Marcus |
| Model No.: | EP880 | • | | | • |

Site ConductionRoom Limit: FCC Class B Conduction(QP) Mode: Operation Mode Note:

Phase: L1 AC 120V/60Hz Power:

Temperature: 26 °C Humidity: 60%



| No. | Mk. | Freq. | Level | Factor | ment | Limit | Over | | |
|-----|-------|--------|------------------------------|--------|-------|-------|--------|---|---------|
| - | | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | | 0.4780 | 39.00 | 0.16 | 39.16 | 56.37 | -17.21 | QP | |
| 2 | | 0.4780 | 29.20 | 0.16 | 29.36 | 46.37 | -17.01 | AVG | |
| 3 | | 0.5913 | 36.10 | 0.16 | 36.26 | 56.00 | -19.74 | QP | |
| 4 | | 0.5913 | 25.90 | 0.16 | 26.06 | 46.00 | -19.94 | AVG | |
| 5 | | 1.2226 | 41.30 | 0.17 | 41.47 | 56.00 | -14.53 | QP | |
| 6 | | 1.2226 | 30.20 | 0.17 | 30.37 | 46.00 | -15.63 | AVG | |
| 7 | * | 1.3373 | 41.30 | 0.18 | 41.48 | 56.00 | -14.52 | QP | |
| 8 | | 1.3373 | 30.70 | 0.18 | 30.88 | 46.00 | -15.12 | AVG | |
| 9 | 1.000 | 1.4827 | 41.10 | 0.18 | 41.28 | 56.00 | -14.72 | QP | |
| 10 | | 1.4827 | 28.80 | 0.18 | 28.98 | 46.00 | -17.02 | AVG | |
| 11 | | 3.8820 | 34.10 | 0.24 | 34.34 | 56.00 | -21.66 | QP | |
| 12 | _ | 3.8820 | 22.90 | 0.24 | 23.14 | 46.00 | -22.86 | AVG | |
| | | | and the second second second | | | | | and the second se | |

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. 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,不可部分複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

S Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134號



5

6

7

8

9

10

11

12

1.3413

1.3413

1.5015

1.5015

3.7420

3.7420

23.3660

23.3660

34.80

21.80

34.60

22.20

27.30

16.40

34.70

19.00

0.21

0.21

0.23

0.23

0.28

0.28

0.55

0.55

FCC ID: PY7PM-0731

26 °C Site ConductionRoom Phase: N Temperature: AC 120V/60Hz Limit: FCC Class B Conduction(QP) Humidity: 60% Power: Mode: Operation Mode Note: **Conducted Emission** File:10048 Date: 2014/2/12 Data #17 Time:下午 10:23:47 100.0 dBuV FCC Class B Conduction(QP) FCC Class B Conduction(AVG) 50 0.0 0.150 5 30.000 (MHz) 0.5 Reading Measure-Correct Freq. Limit Over No. Mk. Level Factor ment MHz dBuV dB dBuV dBuV Comment dB Detector 0.2134 26.80 0.19 26.99 63.07 -36.08 1 QP 2 0.2134 18.00 0.19 18.19 53.07 -34.88 AVG 3 0.4833 31.70 0.19 31.89 56.28 -24.39 QP 4 0.4833 21.40 0.19 21.59 46.28 -24.69 AVG

56.00

46.00

56.00

46.00

56.00

46.00

60.00

50.00

-20.99

-23.99

-21.17

-23.57

-28.42

-29.32

-24.75

-30.45

OP

AVG

QP

AVG

QP

AVG

QP

AV/G

35.01

22.01

34.83

22.43

27.58

16.68

35.25

19.55

| Unless otherwise stated the results shown in this | test report refer only to the sample(s) tested an | nd such sample(s) are retained for 90 days only. |
|---|---|--|
| | | |

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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd. No.134, WuKungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號



7. PEAK OUTPUT POWER MEASUREMENT

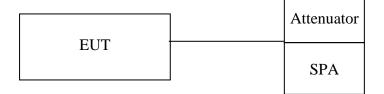
7.1. Standard Applicable

According to §15.247(b)(1), for frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 hopping channels, The Limit: 1Watt. For all other frequency hopping systems in the 2400 - 2483.5MHz band: The Limit: 0.125 Watts.

7.2. Measurement Equipment Used

| | Conducted Emission Test Site | | | | | | |
|-------------------|------------------------------|--------------------|------------|------------|------------|--|--|
| EQUIPMENT | MFR | MODEL | SERIAL | LAST | CAL DUE. | | |
| ТҮРЕ | | NUMBER | NUMBER | CAL. | | | |
| Power Meter | Anritsu | ML2495A | 1005007 | 01/13/2014 | 01/12/2015 | | |
| Power Sensor | Anritsu | MA2411B | 917032 | 01/13/2014 | 01/12/2015 | | |
| Spectrum Analyzer | Agilent | E4446A | MY51100003 | 05/30/2013 | 05/29/2014 | | |
| Spectrum Analyzer | Agilent | E4440A | MY45304525 | 03/15/2013 | 03/14/2014 | | |
| DC Block | Mini-Circuits | BLK-18-S+ | 1 | 02/28/2013 | 02/27/2014 | | |
| Low Loss Cable | HUBER+SUHNER | SUCOFLEX 104PEA | N/A | 01/03/2014 | 01/02/2015 | | |
| Attenuator | Mini-Circuit | BW-S10W2+ | 002 | 02/28/2013 | 02/27/2014 | | |
| Splitter | Agilent | 11636B | N/A | 02/28/2013 | 02/27/2014 | | |

7.3. Test Set-up:



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.

Chiefs So therwise stated the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested after social after feature in the results and social social after feature in the results and social socia 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



7.4. 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 power meter or spectrum. (Max Hold, Detector = Peak, RBW >=20dB bandwidth)
- 3. Record the max. reading.
- 4. Repeat above procedures until all default test channel is completed.

NOTE: cable loss as 4dB that offsets in the spectrum

7.5. Measurement Result

| Frequency (MHz) | Reading Power (dBm) | Output Power (dBm) | Output Power (W) | Limit (W) |
|--------------------|------------------------|-----------------------|---------------------|--------------|
| 2402.00 | 6.58 | 6.58 | 0.00455 | 1 |
| 2441.00 | 8.96 | 8.96 | 0.00787 | 1 |
| 2480.00 | 7.22 | 7.22 | 0.00527 | 1 |

2M EDR mode:

| Frequency (MHz) | Reading Power (dBm) | Output Power (dBm) | Output Power (W) | Limit (W) |
|--------------------|------------------------|-----------------------|---------------------|--------------|
| 2402.00 | 7.47 | 7.47 | 0.00558 | 0.125 |
| 2441.00 | 9.83 | 9.83 | 0.00962 | 0.125 |
| 2480.00 | 8.05 | 8.05 | 0.00638 | 0.125 |

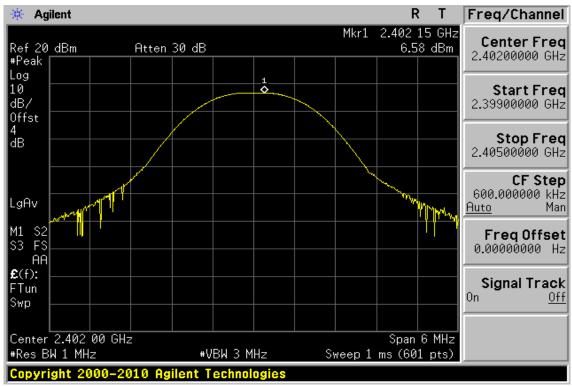
3M EDR mode:

| Frequency (MHz) | Reading Power (dBm) | Output Power (dBm) | Output Power (W) | Limit (W) |
|--------------------|------------------------|-----------------------|---------------------|--------------|
| 2402.00 | 7.68 | 7.68 | 0.00586 | 0.125 |
| 2441.00 | 10.04 | 10.04 | 0.01009 | 0.125 |
| 2480.00 | 8.28 | 8.28 | 0.00673 | 0.125 |

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.

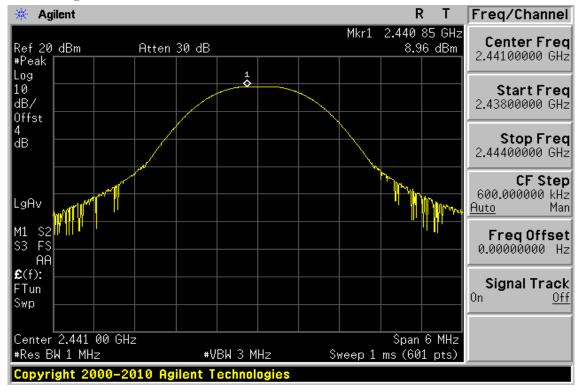
Chiefs So therwise stated the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested after social after feature in the results and social social after feature in the results and social socia 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



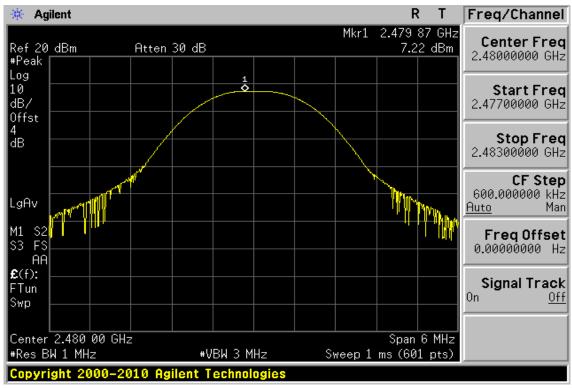


Peak Power Output Data Plot (CH Low) (1M BR mode)

Peak Power Output Data Plot (CH Mid) (1M BR mode)

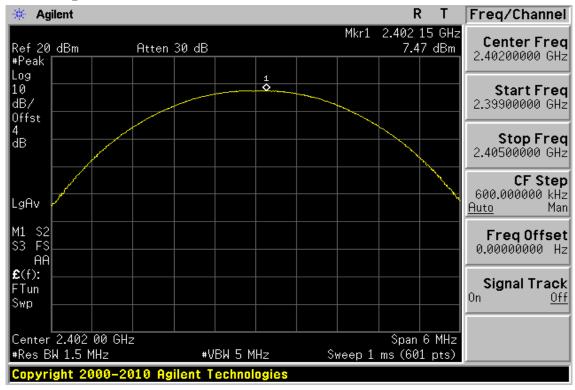


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

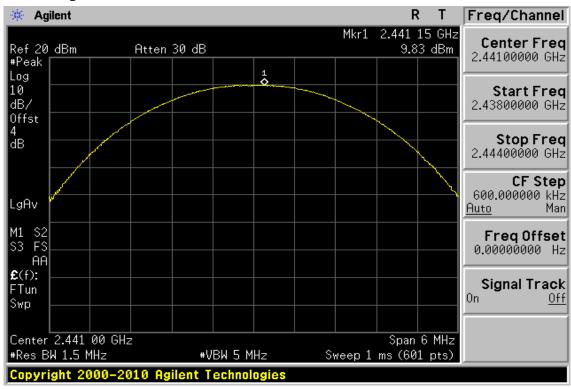


Peak Power Output Data Plot (CH High) (1M BR mode)

Peak Power Output Data Plot (CH Low) (2M EDR mode)

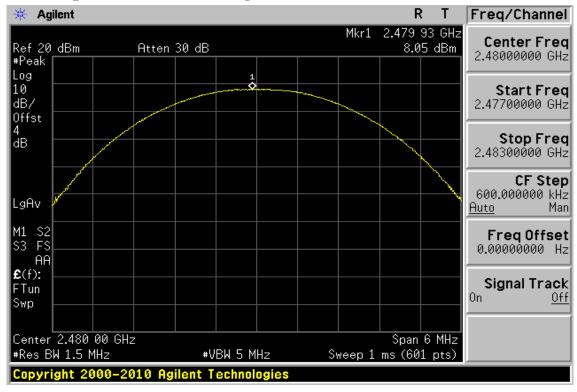


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



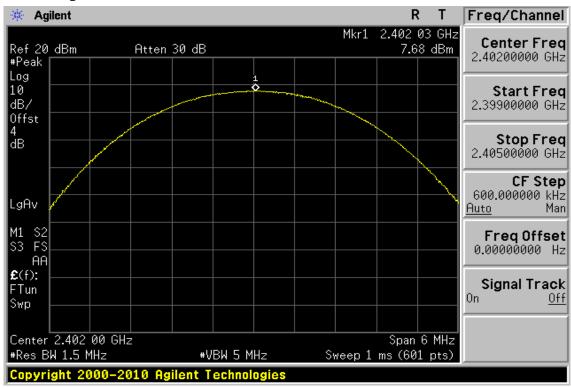
Peak Power Output Data Plot (CH Mid) (2M EDR mode)

Peak Power Output Data Plot (CH High) (2M EDR mode)



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.





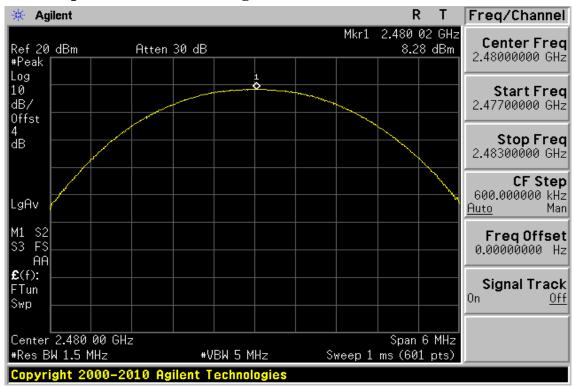
Peak Power Output Data Plot (CH Low) (3M EDR mode)

Peak Power Output Data Plot (CH Mid) (3M EDR mode)



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.





Peak Power Output Data Plot (CH High) (3M EDR mode)

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.

Chiefs So therwise stated the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested after social after feature in the results and social social after feature in the results and social socia 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



8. 20dB BANDWIDTH

8.1. Standard Applicable

For 20dB Bandwidth

According to §15.247(a)(1) and RSS210 A8.1(b), for frequency hopping systems operating in the 2400MHz-2483.5 MHz no limit for 20dB bandwidth.

8.2. Measurement Equipment Used

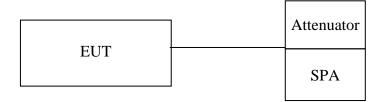
| | Conducted Emission Test Site | | | | | |
|-------------------|------------------------------|--------------------|------------|------------|------------|--|
| EQUIPMENT | MFR | MODEL | SERIAL | LAST | CAL DUE. | |
| ТҮРЕ | | NUMBER | NUMBER | CAL. | | |
| Power Meter | Anritsu | ML2495A | 1005007 | 01/13/2014 | 01/12/2015 | |
| Power Sensor | Anritsu | MA2411B | 917032 | 01/13/2014 | 01/12/2015 | |
| Spectrum Analyzer | Agilent | E4446A | MY51100003 | 05/30/2013 | 05/29/2014 | |
| Spectrum Analyzer | Agilent | E4440A | MY45304525 | 03/15/2013 | 03/14/2014 | |
| DC Block | Mini-Circuits | BLK-18-S+ | 1 | 02/28/2013 | 02/27/2014 | |
| Low Loss Cable | HUBER+SUHNER | SUCOFLEX 104PEA | N/A | 01/03/2014 | 01/02/2015 | |
| Attenuator | Mini-Circuit | BW-S10W2+ | 002 | 02/28/2013 | 02/27/2014 | |
| Splitter | Agilent | 11636B | N/A | 02/28/2013 | 02/27/2014 | |

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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-

pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134號



8.3. Test Set-up



8.4. 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=10 kHz (1 % of 20 dB Bandwidth.), VBW = 30 kHz, Span= 3MHz, Sweep=auto, Detector = Peak, and Max hold for 20dB Bandwidth test.
- 4. Mark the peak frequency and –20dB (upper and lower) frequency
- 5. Repeat above procedures until all test default channel is completed

NOTE: cable loss as 4dB that offsets in the spectrum

NOTE2: For the plot of bandwidth measurement, the marker of the 20dB BW is arrow-mark

WeifS of all weights and the results and set of the formation of the set 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

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.



8.5. Measurement Result:

1M BR mode:

| СН | Bandwidth |
|------|-----------|
| | (MHz) |
| Low | 0.926 |
| Mid | 0.926 |
| High | 0.922 |

2M EDR mode:

| СН | Bandwidth | 2/3 Bandwidth |
|------|-----------|---------------|
| | (MHz) | (MHz) |
| Low | 1.312 | 0.859 |
| Mid | 1.314 | 0.859 |
| High | 1.314 | 0.860 |

3M EDR mode:

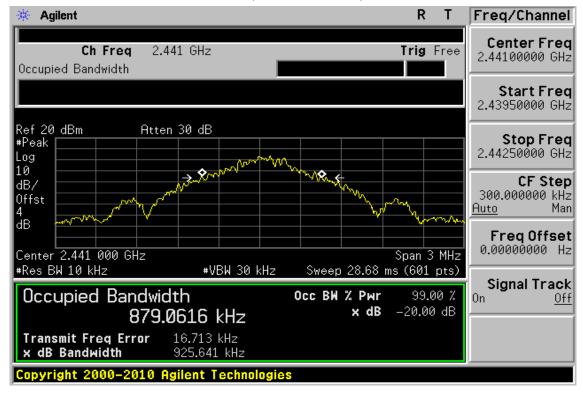
| СН | Bandwidth | 2/3 Bandwidth |
|-------|-----------|---------------|
| | (MHz) | (MHz) |
| Lower | 1.278 | 0.847 |
| Mid | 1.342 | 0.847 |
| High | 1.317 | 0.848 |



20dB Band Width Test Data CH-Low (1M BR mode)



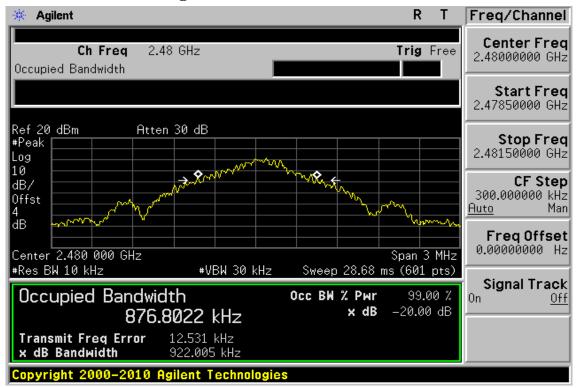
20dB Band Width Test Data CH-Mid (1M BR mode)



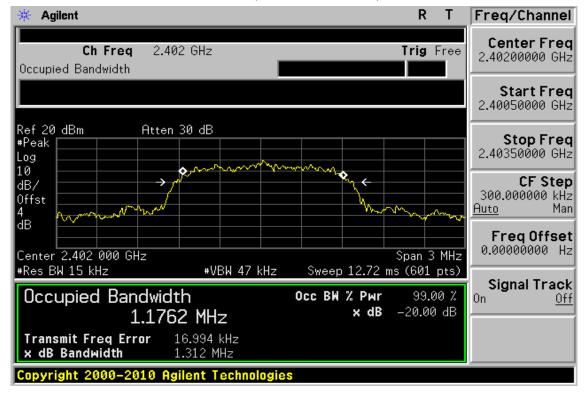
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



20dB Width Test Data CH-High (1M BR mode)



20dB Band Width Test Data CH-Low (2M EDR mode)

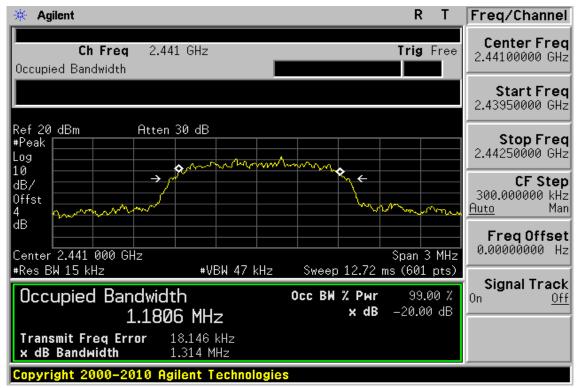


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

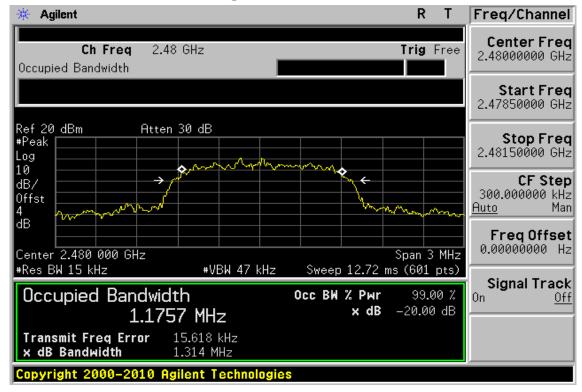
Chiles Solite was stated are located and the and a state of the form of the state tronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms-e-document.htm. Attention is frawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



20dB Band Width Test Data CH-Mid (2M EDR mode)



20dB Band Width Test Data CH-High (2M EDR mode)

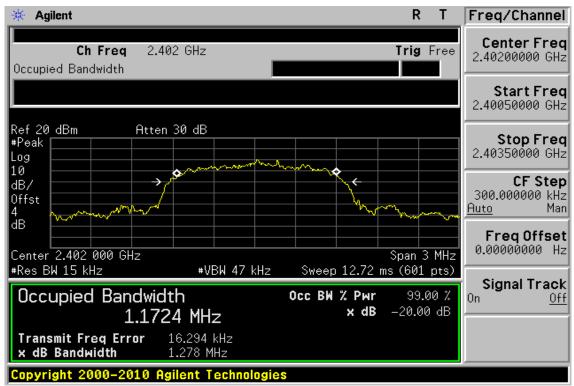


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

Chiles Solite was stated are located and the and a state of the form of the state tronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms-e-document.htm. Attention is frawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



20dB Band Width Test Data CH-Low (3M EDR mode)



20dB Band Width Test Data CH-Mid (3M EDR mode)

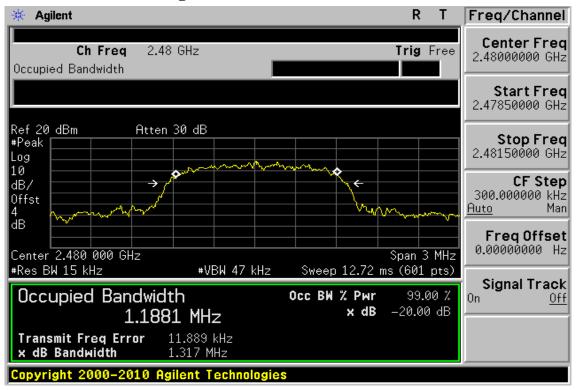


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

Onless other was stated are required in a result of the form in this result of the form in this result of the form in this result of the form in the result of the tronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms-e-document.htm. Attention is frawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd.



20dB Width Test Data CH-High (3M EDR mode)



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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms</u>.e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134號



9. BAND EDGES EMISSION MEASUREMENT

9.1. Standard Applicable

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

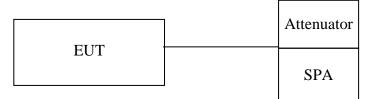
9.2. Measurement Equipment Used

9.2.1. Conducted Emission at antenna port:

| Conducted Emission Test Site | | | | | | | | | |
|------------------------------|---------------|--------------------|--------------|------------|------------|--|--|--|--|
| EQUIPMENT | EQUIPMENT MFR | | MODEL SERIAL | | CAL DUE. | | | | |
| ТҮРЕ | | NUMBER | NUMBER | CAL. | | | | | |
| Spectrum Analyzer | Agilent | E4446A | MY51100003 | 05/30/2013 | 05/29/2014 | | | | |
| Spectrum Analyzer | Agilent | E4440A | MY45304525 | 03/15/2013 | 03/14/2014 | | | | |
| DC Block | Mini-Circuits | BLK-18-S+ | 1 | 02/28/2013 | 02/27/2014 | | | | |
| Low Loss Cable HUBER+SUHNER | | SUCOFLEX 104PEA | N/A | 01/03/2014 | 01/02/2015 | | | | |
| Attenuator | Mini-Circuit | BW-S10W2+ | 002 | 02/28/2013 | 02/27/2014 | | | | |
| Splitter | Agilent | 11636B | N/A | 02/28/2013 | 02/27/2014 | | | | |

9.3. Test SET-UP:

9.3.1. Conducted Emission at antenna port:



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。

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 document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



9.4. Measurement Procedure

100 kHz BANDWIDTH OF BAND EDGES:

- 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 center frequency of spectrum analyzer = operating frequency.
- 4. Set the spectrum analyzer as RBW, VBW=300 kHz, Sweep = auto
- 5. Mark Peak, 2.390GHz and 2.4835GHz and record the max. level.
- 6. Repeat above procedures until all frequency measured were complete.

Out-Of-Band EMISSION

- 1. To connect Antenna Port of EUT to Spectrum.
- 2. Set RBW = 100K & VBW = 300K on Spectrum.
- 3. Sweep the frequency to determine spurious emission as seen on spectrum from span of 30MHz to 3G, 3G to 8G, 8G to 13G, 13G to 18G and 18G to 26.5GHz
- 4. Via Software, combine 5 spans of frequency range into two plots containing the range of 30MHz to 3GHz, and 3GHz to 26.5GHz.

9.5. 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:

$\mathbf{FS} = \mathbf{RA} + \mathbf{AF} + \mathbf{CL} - \mathbf{AG}$

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

9.6. Measurement Result -1 Out-Of-Band EMISSION:

Note: Refer to next page spectrum analyzer data chart and tabular data sheets.

NOTE: cable loss as 4dB that offsets in the spectrum

NOTE: the occurrence of the spike on the conducted emission is the signal of the fundamental emission.

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.

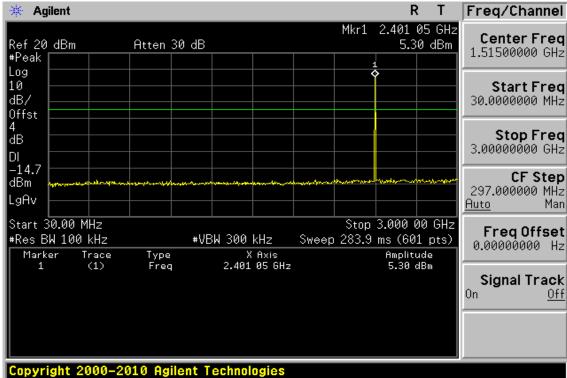
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

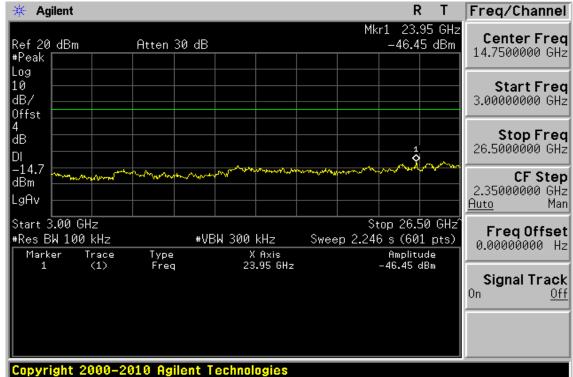


9.7 Measurement Result -1 Conducted Spurious Emission Measurement Result (Worst: EDR mode)





Ch Low 3GHz – 26.5GHz

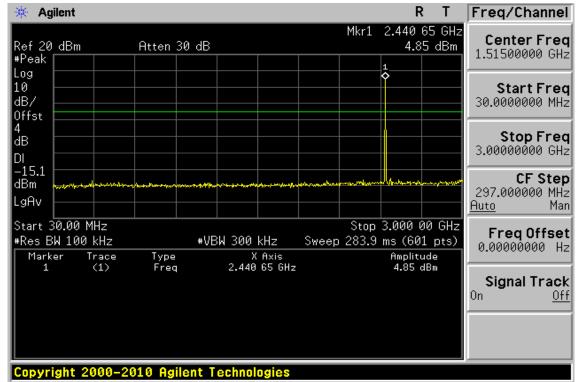


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

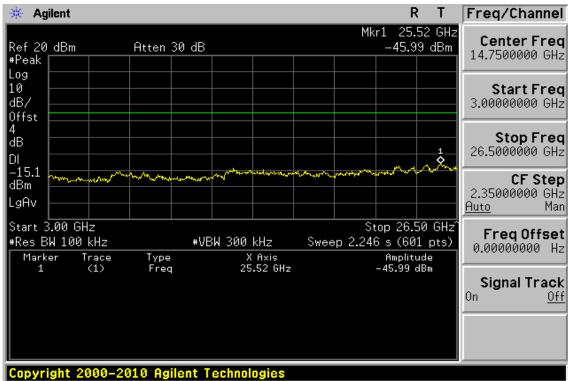
WeifS of all weights and the results and set of the formation of the set of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Ch Mid 30MHz – 3GHz



Ch Mid 3GHz – 26.5GHz



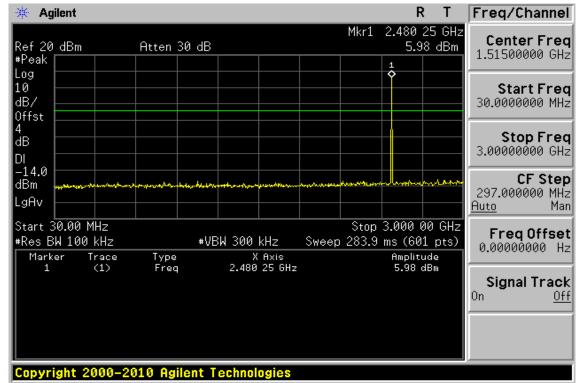
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

Chiefs So therwise stated the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested after social after feature in the results and social social after feature in the results and social socia 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

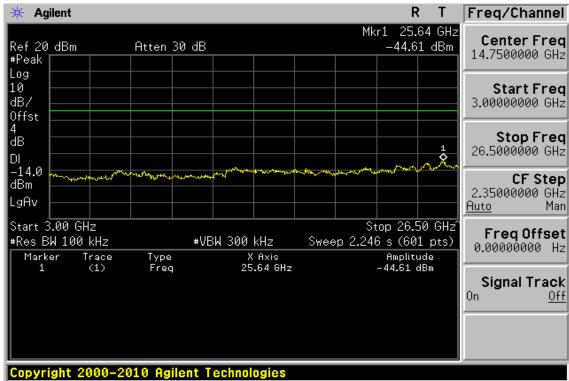
No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 S Taiwan Ltd.



Ch High 30MHz – 3GHz



Ch High 3GHz – 26.5GHz



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.

Chiefs So therwise stated the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested after social after feature in the results and social social after feature in the results and social socia 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 S Taiwan Ltd.



Tabular Results:

| Out of Band emission at Fundamental Frequency Operation Mode | | antenna terminals :2412 MHz :TX Low | s – Bluetooth (ED Engine | :Nick | |
|---|----------------|---|-----------------------------|--------------|----------------------|
| | Freq. (MHz) | Note F/H/E/S | Reading dBm | Limit dBm | Safe Margin dB |
| - | 2401.00 | Ref | 5.30 | | |
| | <30 | S | | -14.70 | |
| | 30-1000 | S | | -14.70 | |
| | 4824.00 | Н | | -14.70 | |

| 4824.00 | Н | | -14.70 | |
|----------|---|--------|--------|-------|
| 7236.00 | Н | | -14.70 | |
| 9648.00 | Н | | -14.70 | |
| 12060.00 | Н | | -14.70 | |
| 14472.00 | Н | | -14.70 | |
| 16884.00 | Н | | -14.70 | |
| 19296.00 | Н | | -14.70 | |
| 21708.00 | Н | | -14.70 | |
| 23950.00 | S | -46.45 | -14.70 | 31.75 |
| 24120.00 | Н | | -14.70 | |

"H" : denotes Harmonic Frequency. "S" : denotes Spurious Frequency. Note : "---": denotes Noise Floor. Ref: Reference Signal

Note2: Limit = Ref (the highest emission of the fundamental) - 20dBm

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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is advised that information contaited extend of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-tervent is unaviated and defineders may be prosecuted to the fulleat extent of the law pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 47 of 105

| Fundamental Frequency Operation Mode | | :2441 MHz :TX Mid | Engine | :Nick | |
|---|----------------|----------------------|----------------|--------------|----------------------|
| | Freq. (MHz) | Note F/H/E/S | Reading dBm | Limit dBm | Safe Margin dB |
| | 2440.65 | Ref | 4.85 | | |
| | <30 | S | | -15.10 | |
| | 30-1000 | S | | -15.10 | |
| | 4882.00 | Н | | -15.10 | |
| | 7323.00 | Н | | -15.10 | |
| | 9764.00 | Н | | -15.10 | |
| | 12205.00 | Н | | -15.10 | |
| | 14646.00 | Н | | -15.10 | |
| | 17087.00 | Н | | -15.10 | |
| | 19528.00 | Н | | -15.10 | |
| | 21969.00 | Н | | -15.10 | |
| | 24410.00 | Н | | -15.10 | |
| | 25520.00 | S | -45.99 | -15.10 | 30.89 |

"H" : denotes Harmonic Frequency. "S" : denotes Spurious Frequency. Note : "---": denotes Noise Floor.

Note2: Limit = Ref (the highest emission of the fundamental) - 20dBm



Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 48 of 105

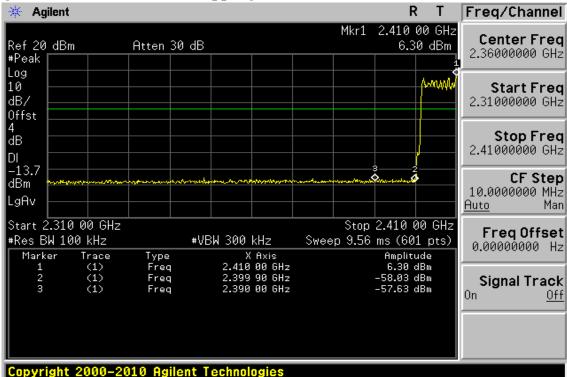
| Fundamental Frequency Operation Mode | | :2480 MHz :TX High | Engine | Engineer | | |
|---|----------------|-----------------------|----------------|--------------|----------------------|--|
| | Freq. (MHz) | Note F/H/E/S | Reading dBm | Limit dBm | Safe Margin dB | |
| | 2480.25 | Ref | 5.98 | | | |
| | <30 | S | | -14.00 | | |
| | 30-1000 | S | | -14.00 | | |
| | 4960.00 | Н | | -14.00 | | |
| | 7440.00 | Н | | -14.00 | | |
| | 9920.00 | Н | | -14.00 | | |
| | 12400.00 | Н | | -14.00 | | |
| | 14880.00 | Н | | -14.00 | | |
| | 17360.00 | Н | | -14.00 | | |
| | 19840.00 | Н | | -14.00 | | |
| | 22320.00 | Н | | -14.00 | | |
| | 24800.00 | Н | | -14.00 | | |
| | 25640.00 | S | -44.61 | -14.00 | 30.61 | |

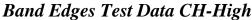
"H" : denotes Harmonic Frequency. "S" : denotes Spurious Frequency. Note : "---": denotes Noise Floor.

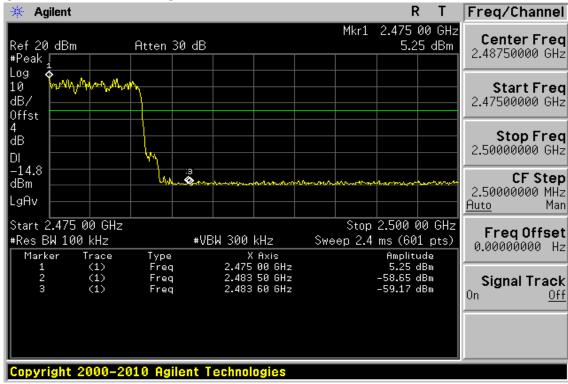
Note2: Limit = Ref (the highest emission of the fundamental) - 20dBm



9.7 Measurement Result -2 100 kHz BANDWIDTH OF BNAD EDGE: Band Edges Test Data CH-Low (Hopping mode) (Worst: EDR mode)



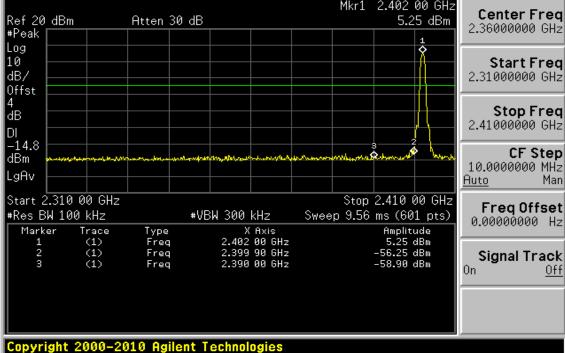




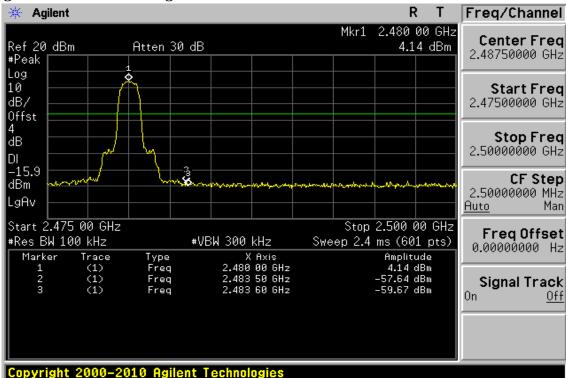
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

WeifS of all weights and the results and set of the formation of the set 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.









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

Onless other was stated are required in a result of the form in this result of the form in this result of the form in this result of the form in the result of the tronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms-e-document.htm. Attention is frawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Bluetooth EDR – The Worst

| Frequency (GHz) | Results (dBm) | Ref (dBm) | Limit (dBm) | Verdict |
|-----------------|---------------|-----------|-------------|---------|
| 2.3999 | -56.25 | 5.25 | -14.80 | Pass |
| 2.4835 | -57.64 | 4.14 | -15.90 | Pass |

Note: Limit = Ref (The highest level of emission) dBm - 20dBm

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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is advised that information contaited extend of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-tervent is unaviated and defineders may be prosecuted to the fulleat extent of the law pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.



10. SPURIOUS RADIATED EMISSION TEST

10.1. Standard Applicable

According to §15.247(d),

Emission at antenna port:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Radiated Spurious Emission

Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

And according to §15.33(a) (1), for an intentional radiator operates below 10GHz, the frequency range of measurements: to the tenth harmonic of the highest fundamental frequency or to 40GHz, whichever is lower.

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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



10.2. Measurement Equipment Used:

10.2.1. Radiated emission:

| 966 Chamber | | | | | | | | |
|------------------------|--------------------------|-------------|------------|------------|------------|--|--|--|
| EQUIPMENT | MFR | MODEL | SERIAL | LAST | CAL DUE. | | | |
| ТҮРЕ | | NUMBER | NUMBER | CAL. | | | | |
| EMI Test Receiver | R&S | ESCI7 | 100760 | 05/27/2013 | 05/26/2014 | | | |
| Spectrum Analyzer | Agilent | E4446A | MY51100003 | 05/30/2013 | 05/29/2014 | | | |
| EXA Spectrum Analyzer | Agilent | N9010A | MY50420195 | 01/20/2014 | 01/19/2015 | | | |
| Spectrum Analyzer | R&S | FSV-30 | 101398 | 10/22/2013 | 10/21/2014 | | | |
| Bilog Antenna | SCHWAZBECK | VULB9168 | 378 | 01/02/2014 | 01/02/2015 | | | |
| Horn antenna | ETS.LINDGREN | 3117 | 123995 | 05/31/2013 | 05/30/2014 | | | |
| Horn Antenna | Schwarzbeck | BBHA9170 | 184 | 01/23/2014 | 01/22/2015 | | | |
| Pre-Amplifier | Agilent | 8447D | 2944A07676 | 01/03/2014 | 01/02/2015 | | | |
| Pre-Amplifier | Agilent | 8449B | 3008A00578 | 01/03/2014 | 01/02/2015 | | | |
| Pre-Amplifier | EMC Instruments Corp. | EMC184045 | 980135 | 01/24/2014 | 01/23/2015 | | | |
| Filter 2400-2483.5 MHz | EWT | EWT-14-0166 | M2 | 02/28/2013 | 02/28/2014 | | | |
| Attenuator | Mini-Circuit | BW-S10W2+ | 004 | 02/28/2013 | 02/27/2014 | | | |
| 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 | 966_Rx | 9 | 01/03/2014 | 01/02/2015 | | | |
| 3m Site NSA | SGS | 966 chamber | N/A | 07/15/2013 | 07/14/2014 | | | |

NOTE: N.C.R refers to Not Calibrated Required.

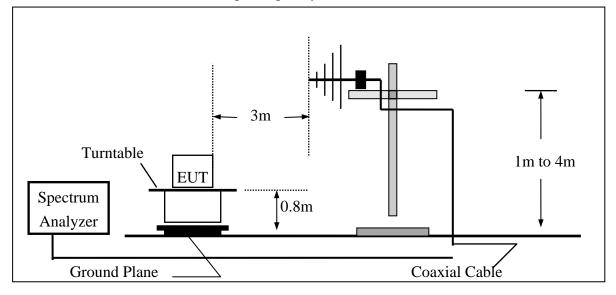
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is advised that information contaited extend of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-tervent is unaviated and defineders may be prosecuted to the fulleat extent of the law pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



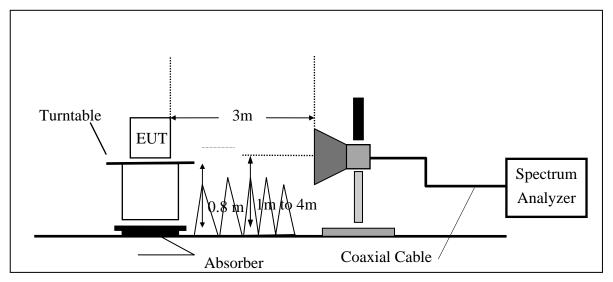
10.3. Test SET-UP:

10.3.1. Radiated emission:

(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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



10.4. Measurement Procedure:

Radiated Emission:

- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. The turn table shall rotate 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
- 4. When measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.
- 5. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 6. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 7. Repeat above procedures until all frequency of the interest measured were complete.

Auxiliary Procedure (Setting on Spectrum to capture the reading of emission level):

Span = wide enough to fully capture the emission being measured RBW = 1 MHz for $f \ge 1$ GHz, 100 kHz for f < 1 GHz VBW \ge RBW Sweep = auto Detector function = peak Trace = max hold

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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



10.5. 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 | |

Remark:

- 1. The limit of the emission level is expressed in dBuV/m, which converts $20*\log(uV/m)$
- 2. Factor(dB) = Antenna Factor(dB μ V/m) + Cable Loss(dB) Pre Amplifier Gain(dB)

10.6. Measurement Result:

Note: Refer to next page spectrum analyzer data chart and tabular data sheets.

Note: For measurement plot of radiation revealing the compliance of 15.209, please refer to Appendix I.

Note: For the tabular table as presents below, "F" : denotes Fundamental Frequency. ; "H" : denotes Harmonic Frequency. "E" : denotes Band Edge Frequency. ; "S" : denotes Spurious Frequency. "---": denotes Noise Floor

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.

Fine Solution in the Solution in the Solution in the Solution of the Solution Solution Solution (Solution Solution) (Fine S tronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms-e-document.htm. Attention is frawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



FCC ID: PY7PM-0731

| 10.6.1 Radiated Emission - Band Edge: (HoppinOperation Band:EDR+ HoppingFundamental Frequency:2402 MHzOperation Mode:Band Edge LOWEUT Pol.:E2 Plane | | ping | ng Mode) (Worst: EDR mode) Test Date :2014-02-13 Temp./Humi. :23.3deg_C /52 RH Engineer :Allen Measurement Antenna Pol. :VERTICAL | | | | |
|--|---------|---|---|---|--------------|--|--------|
| Freq. | Note | Detector Mode | Spectrun Reading Le | | Actual FS | Limit @3m | Margin |
| MHz | F/H/E/S | PK/QP/AV | dBµV | dB | dBµV/m | dBµV/m | dB |
| 2390.00 | Е | Average | 31.07 | 2.42 | 33.49 | 54.00 | -20.51 |
| 2390.00 | Е | Peak | 42.92 | 2.42 | 45.34 | 74.00 | -28.66 |
| 2390.00 E Operation Band Fundamental Frequency Operation Mode EUT Pol. | | :EDR+Hopj :2402 MHz :Band Edge :E2 Plane | | Test Date Temp./Humi. Engineer Measurement A | Antenna Pol. | :2014-02-13 :23.3deg_C / :Allen :HORIZONT | |

| Freq. | Note | Detector | Spectrum | Factor | Actual | Limit | Margin |
|---------|---------|----------|---------------|--------|--------|--------|--------|
| | | Mode | Reading Level | | FS | @3m | |
| MHz | F/H/E/S | PK/QP/AV | dBµV | dB | dBµV/m | dBµV/m | dB |
| 2390.00 | Е | Average | 30.75 | 2.42 | 33.17 | 54.00 | -20.83 |
| 2390.00 | Е | Peak | 43.74 | 2.42 | 46.16 | 74.00 | -27.84 |



Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 58 of 105

| Operation Bar Fundamental I Operation Mo EUT Pol. | Frequency | :EDR+Hopping :2480 MHz :Band Edge HIGH :E2 Plane | | Test Date Temp./Humi. Engineer Measurement Antenna Pol. | | :2014-02-14 :23.3deg_C /52 RH :Allen :VERTICAL | |
|---|-----------|---|------------------------|--|--------------|---|--------|
| Freq. | Note | Detector Mode | Spectrum Reading Le | | Actual FS | Limit @3m | Margin |
| MHz | F/H/E/S | PK/QP/AV | dBµV | dB | dBµV/m | dBµV/m | dB |
| 2483.50 | E | Average | 30.21 | 2.74 | 32.95 | 54.00 | -21.05 |
| 2483.50 | E | Peak | 43.22 | 2.74 | 45.96 | 74.00 | -28.04 |
| Operation Band Fundamental Frequency Operation Mode EUT Pol. | | :EDR+Hppping :2480 MHz :Band Edge HIGH :E2 Plane | | Test Date Temp./Humi. Engineer Measurement Antenna Pol. | | :2014-02-14 :23.3deg_C :Allen :HORIZON | |
| Freq. | Note | Detector Mode | Spectrum Reading Le | | Actual FS | Limit @3m | Margin |
| MHz | F/H/E/S | PK/QP/AV | dBµV | dB | dBµV/m | dBµV/m | dB |
| 2483.50 | Е | Average | 30.18 | 2.74 | 32.92 | 54.00 | -21.08 |
| 2483.50 | Е | Peak | 42.80 | 2.74 | 45.54 | 74.00 | -28.46 |



| 10.6.2 Radia | ted Emissio | n – Band Edg | ge (Non-Hopp | oing Mode) (W | orst: EDR m | ode): | |
|---|-------------|--|--------------|---|-------------|--|--------|
| Operation Ba | nd | :EDR | , | Test Date | | :2014-02-13 | |
| Fundamental | Frequency | :2402 MHz | , | Temp./Humi. | | :23.3deg_C/ | ′52 RH |
| Operation Mo | ode | :Band Edge | LOW | Engineer | | :Allen | |
| EUT Pol. | | :E2 Plane | | Measurement A | ntenna Pol. | :VERTICAL | , |
| Freq. | Note | Detector | Spectrum | Factor | Actual | Limit | Margin |
| rieq. | Note | | • | | | | Margin |
| | | Mode | Reading Lev | el | FS | @3m | |
| MHz | F/H/E/S | PK/QP/AV | dBµV | dB | dBµV/m | dBµV/m | dB |
| 2390.00 | E | Average | 31.11 | 2.42 | 33.53 | 54.00 | -20.47 |
| 2390.00 | E | Peak | 45.65 | 2.42 | 48.07 | 74.00 | -25.93 |
| Operation Ba Fundamental Operation Mo EUT Pol. | Frequency | :EDR :2402 MHz :Band Edge :E2 Plane | LOW | Test Date Temp./Humi. Engineer Measurement A | ntenna Pol. | :2014-02-13 :23.3deg_C / :Allen :HORIZONT | ′52 RH |

| Freq. | Note | Detector | Spectrum | Factor | Actual | Limit | Margin |
|---------|---------|----------|---------------|--------|--------|--------|--------|
| | | Mode | Reading Level | | FS | @3m | |
| MHz | F/H/E/S | PK/QP/AV | dBµV | dB | dBµV/m | dBµV/m | dB |
| 2390.00 | E | Average | 30.77 | 2.42 | 33.19 | 54.00 | -20.81 |
| 2390.00 | E | Peak | 43.66 | 2.42 | 46.08 | 74.00 | -27.92 |



Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 60 of 105

| Operation Band Fundamental Frequ Operation Mode EUT Pol. | :EDR ency :2480 MHz :Band Edge :E2 Plane | E HIGH Eng | t Date np./Humi. gineer asurement A | antenna Pol. | :2014-02-13 :23.3deg_C / :Allen :VERTICAL | |
|---|---|---------------------------|--|--------------|--|--------|
| Freq. No | ote Detector Mode | Spectrum Reading Level | Factor | Actual FS | Limit @3m | Margin |
| MHz F/H | /E/S PK/QP/AV | dBµV | dB | dBµV/m | dBµV/m | dB |
| 2483.50 H | E Average | 31.01 | 2.74 | 33.75 | 54.00 | -20.25 |
| 2483.50 H | E Peak | 47.95 | 2.74 | 50.69 | 74.00 | -23.31 |
| Operation Band Fundamental Frequ Operation Mode EUT Pol. | :EDR ency :2480 MHz :Band Edge :E2 Plane | HIGH Eng | t Date np./Humi. gineer asurement A | antenna Pol. | :2014-02-13 :23.3deg_C / :Allen :HORIZONT | |
| Freq. No | ote Detector Mode | Spectrum Reading Level | Factor | Actual FS | Limit @3m | Margin |
| MHz F/H | /E/S PK/QP/AV | dBμV | dB | dBµV/m | dBµV/m | dB |
| 2483.50 H | E Average | 31.03 | 2.74 | 33.77 | 54.00 | -20.23 |
| 2483.50 H | E Peak | 47.06 | 2.74 | 49.80 | 74.00 | -24.20 |

| 10.6.2 Radiated Spurious Emission Measurement Result (worst case EDR mode) | | | | | | | |
|--|---------|----------------------|---------------|--------------|-----------------------------|-------------|---------|
| Operation Ba | | :EDR | | st Date | | :2014-02-14 | (50 DI) |
| Fundamental Operation Mo | - · | :2402 MHz :TX LOW | 1 | | :23.3deg_C /52 RH :Allen | | |
| EUT Pol. | Jue | :E2 Plane | | 0 | (D 1 | :VERTICAL | |
| | | | | easurement A | | | |
| Freq. | Note | Detector | Spectrum | Factor | Actual | Limit | Margin |
| | | Mode | Reading Level | | FS | @3m | |
| MHz | F/H/E/S | PK/QP/AV | dBμV | dB | dBµV/m | dBµV/m | dB |
| | | | | | | | |
| 31.94 | S | Peak | 52.62 | -13.96 | 38.66 | 40.00 | -1.34 |
| 99.84 | S | Peak | 39.93 | -17.86 | 22.07 | 43.50 | -21.43 |
| 288.99 | S | Peak | 41.86 | -11.44 | 30.42 | 46.00 | -15.58 |
| 480.08 | S | Peak | 33.10 | -7.75 | 25.35 | 46.00 | -20.65 |
| 672.14 | S | Peak | 29.45 | -3.95 | 25.50 | 46.00 | -20.50 |
| 797.27 | S | Peak | 33.29 | -2.35 | 30.94 | 46.00 | -15.06 |
| 1602.00 | S | Average | 28.32 | -1.97 | 26.35 | 54.00 | -27.65 |
| 1602.00 | S | Peak | 51.93 | -1.97 | 49.96 | 74.00 | -24.04 |
| 4804.00 | Н | Average | 25.10 | 6.79 | 31.89 | 54.00 | -22.11 |
| 4804.00 | Н | Peak | 38.16 | 6.79 | 44.95 | 74.00 | -29.05 |
| 7206.00 | Н | | | | | | |
| 9608.00 | Н | | | | | | |
| 12010.00 | Н | | | | | | |
| 14412.00 | Н | | | | | | |
| 16814.00 | Н | | | | | | |
| 19216.00 | Н | | | | | | |
| 21618.00 | Н | | | | | | |
| 24020.00 | Н | | | | | | |
| | | | | | | | |

10.6.2 Radiated Spurious Emission Measurement Result (worst case FDR mode)



Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 62 of 105

| Operation Ba Fundamental Operation Mo EUT Pol. | Frequency | :EDR :2402 MHz :TX LOW :E2 Plane | Test Date Temp./Humi. Engineer Measurement Antenna Pol. | | | :2014-02-14 :23.3deg_C /52 RH :Allen :HORIZONTAL | |
|---|-----------|---|--|--------|--------|---|--------|
| Freq. | Note | Detector | Spectrum | Factor | Actual | Limit | Margin |
| | | Mode | Reading Level | | FS | @3m | |
| MHz | F/H/E/S | PK/QP/AV | dBµV | dB | dBµV/m | dBµV/m | dB |
| | | | | | | | |
| 42.61 | S | Peak | 36.72 | -13.25 | 23.47 | 40.00 | -16.53 |
| 148.34 | S | Peak | 42.51 | -12.86 | 29.65 | 43.50 | -13.85 |
| 202.66 | S | Peak | 38.48 | -15.18 | 23.30 | 43.50 | -20.20 |
| 290.93 | S | Peak | 38.44 | -11.41 | 27.03 | 46.00 | -18.97 |
| 499.48 | S | Peak | 34.58 | -7.54 | 27.04 | 46.00 | -18.96 |
| 799.21 | S | Peak | 33.86 | -2.31 | 31.55 | 46.00 | -14.45 |
| 1595.00 | S | Average | 29.36 | -2.03 | 27.33 | 54.00 | -26.67 |
| 1595.00 | S | Peak | 50.21 | -2.03 | 48.18 | 74.00 | -25.82 |
| 4804.00 | Н | Average | 25.09 | 6.79 | 31.88 | 54.00 | -22.12 |
| 4804.00 | Н | Peak | 36.99 | 6.79 | 43.78 | 74.00 | -30.22 |
| 7206.00 | Н | | | | | | |
| 9608.00 | Н | | | | | | |
| 12010.00 | Н | | | | | | |
| 14412.00 | Н | | | | | | |
| 16814.00 | Н | | | | | | |
| 19216.00 | Н | | | | | | |
| 21618.00 | Н | | | | | | |
| 24020.00 | Н | | | | | | |
| | | | | | | | |



Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 63 of 105

| Operation Ba Fundamental Operation Mo EUT Pol. | Frequency | :EDR :2441 MHz :TX MID :E2 Plane | Test Date Temp./Humi. Engineer Measurement Antenna Pol. | | | :2014-02-14 :23.3deg_C /52 RH :Allen :VERTICAL | |
|---|-----------|---|--|--------|--------|---|--------|
| Freq. | Note | Detector | Spectrum | Factor | Actual | Limit | Margin |
| | | Mode | Reading Level | | FS | @3m | |
| MHz | F/H/E/S | PK/QP/AV | dBµV | dB | dBµV/m | dBµV/m | dB |
| | | | | | | | |
| 31.94 | S | Peak | 52.67 | -13.96 | 38.71 | 40.00 | -1.29 |
| 99.84 | S | Peak | 39.65 | -17.86 | 21.79 | 43.50 | -21.71 |
| 285.11 | S | Peak | 40.66 | -11.48 | 29.18 | 46.00 | -16.82 |
| 480.08 | S | Peak | 32.64 | -7.75 | 24.89 | 46.00 | -21.11 |
| 530.52 | S | Peak | 33.11 | -7.54 | 25.57 | 46.00 | -20.43 |
| 799.21 | S | Peak | 34.92 | -2.31 | 32.61 | 46.00 | -13.39 |
| 1595.00 | S | Average | 30.93 | -2.03 | 28.90 | 54.00 | -25.10 |
| 1595.00 | S | Peak | 50.53 | -2.03 | 48.50 | 74.00 | -25.50 |
| 4882.00 | Н | Average | 25.08 | 6.96 | 32.04 | 54.00 | -21.96 |
| 4882.00 | Н | Peak | 37.72 | 6.96 | 44.68 | 74.00 | -29.32 |
| 7323.00 | Н | | | | | | |
| 9764.00 | Н | | | | | | |
| 12205.00 | Н | | | | | | |
| 14646.00 | Н | | | | | | |
| 17087.00 | Н | | | | | | |
| 19528.00 | Н | | | | | | |
| 21969.00 | Н | | | | | | |
| 24410.00 | Н | | | | | | |
| | | | | | | | |



Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 64 of 105

| Operation Ba Fundamental Operation Mo EUT Pol. | Frequency | :EDR :2441 MHz :TX MID :E2 Plane | Test Date Temp./Humi. Engineer Measurement Antenna Pol. | | | :2014-02-14 :23.3deg_C /52 RH :Allen :HORIZONTAL | |
|---|-----------|---|--|--------|--------|---|--------|
| Freq. | Note | Detector | Spectrum | Factor | Actual | Limit | Margin |
| | | Mode | Reading Level | | FS | @3m | |
| MHz | F/H/E/S | PK/QP/AV | dBµV | dB | dBµV/m | dBµV/m | dB |
| | | | | | | | |
| 43.58 | S | Peak | 37.22 | -13.17 | 24.05 | 40.00 | -15.95 |
| 142.52 | S | Peak | 40.66 | -13.07 | 27.59 | 43.50 | -15.91 |
| 201.69 | S | Peak | 38.83 | -15.19 | 23.64 | 43.50 | -19.86 |
| 278.32 | S | Peak | 41.21 | -11.60 | 29.61 | 46.00 | -16.39 |
| 499.48 | S | Peak | 34.44 | -7.54 | 26.90 | 46.00 | -19.10 |
| 796.30 | S | Peak | 30.94 | -2.38 | 28.56 | 46.00 | -17.44 |
| 1595.00 | S | Average | 29.56 | -2.03 | 27.53 | 54.00 | -26.47 |
| 1595.00 | S | Peak | 48.22 | -2.03 | 46.19 | 74.00 | -27.81 |
| 4882.00 | Н | Average | 25.05 | 6.96 | 32.01 | 54.00 | -21.99 |
| 4882.00 | Н | Peak | 37.70 | 6.96 | 44.66 | 74.00 | -29.34 |
| 7323.00 | Н | | | | | | |
| 9764.00 | Н | | | | | | |
| 12205.00 | Н | | | | | | |
| 14646.00 | Н | | | | | | |
| 17087.00 | Н | | | | | | |
| 19528.00 | Н | | | | | | |
| 21969.00 | Н | | | | | | |
| 24410.00 | Н | | | | | | |
| | | | | | | | |



Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 65 of 105

| Operation Ba Fundamental Operation Mo EUT Pol. | Frequency | :EDR :2480 MHz :TX HIGH :E2 Plane | Test Date Temp./Humi. Engineer Measurement Antenna Pol. | | | :2014-02-14 :23.3deg_C /52 RH :Allen :VERTICAL | |
|---|-----------|--|--|--------|--------|---|--------|
| Freq. | Note | Detector | Spectrum | Factor | Actual | Limit | Margin |
| | | Mode | Reading Level | | FS | @3m | |
| MHz | F/H/E/S | PK/QP/AV | dBµV | dB | dBµV/m | dBµV/m | dB |
| | | | | | | | |
| 31.94 | S | Peak | 52.32 | -13.96 | 38.36 | 40.00 | -1.64 |
| 99.84 | S | Peak | 39.15 | -17.86 | 21.29 | 43.50 | -22.21 |
| 320.03 | S | Peak | 39.78 | -10.97 | 28.81 | 46.00 | -17.19 |
| 480.08 | S | Peak | 34.13 | -7.75 | 26.38 | 46.00 | -19.62 |
| 665.35 | S | Peak | 31.69 | -4.16 | 27.53 | 46.00 | -18.47 |
| 800.18 | S | Peak | 37.99 | -2.29 | 35.70 | 46.00 | -10.30 |
| 1595.00 | S | Average | 30.90 | -2.03 | 28.87 | 54.00 | -25.13 |
| 1595.00 | S | Peak | 50.02 | -2.03 | 47.99 | 74.00 | -26.01 |
| 4960.00 | Н | Average | 23.90 | 7.09 | 30.99 | 54.00 | -23.01 |
| 4960.00 | Н | Peak | 37.81 | 7.09 | 44.90 | 74.00 | -29.10 |
| 7440.00 | Н | | | | | | |
| 9920.00 | Н | | | | | | |
| 12400.00 | Н | | | | | | |
| 14880.00 | Н | | | | | | |
| 17360.00 | Н | | | | | | |
| 19840.00 | Н | | | | | | |
| 22320.00 | Н | | | | | | |
| 24800.00 | Н | | | | | | |
| | | | | | | | |



Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 66 of 105

| Operation Ba Fundamental Operation Mo EUT Pol. | Frequency | :EDR :2480 MHz :TX HIGH :E2 Plane | Test Date Temp./Humi. Engineer Measurement Antenna Pol. | | | :2014-02-14 :23.3deg_C /52 RH :Allen :HORIZONTAL | |
|---|-----------|--|--|--------|--------|---|--------|
| Freq. | Note | Detector | Spectrum | Factor | Actual | Limit | Margin |
| | | Mode | Reading Level | | FS | @3m | |
| MHz | F/H/E/S | PK/QP/AV | dBµV | dB | dBµV/m | dBµV/m | dB |
| | | | | | | | |
| 43.58 | S | Peak | 36.02 | -13.17 | 22.85 | 40.00 | -17.15 |
| 145.43 | S | Peak | 41.08 | -12.95 | 28.13 | 43.50 | -15.37 |
| 281.23 | S | Peak | 39.59 | -11.52 | 28.07 | 46.00 | -17.93 |
| 499.48 | S | Peak | 34.04 | -7.54 | 26.50 | 46.00 | -19.50 |
| 645.95 | S | Peak | 31.06 | -4.78 | 26.28 | 46.00 | -19.72 |
| 799.21 | S | Peak | 33.67 | -2.31 | 31.36 | 46.00 | -14.64 |
| 1595.00 | S | Average | 29.35 | -2.03 | 27.32 | 54.00 | -26.68 |
| 1595.00 | S | Peak | 47.54 | -2.03 | 45.51 | 74.00 | -28.49 |
| 4960.00 | Н | Average | 23.87 | 7.09 | 30.96 | 54.00 | -23.04 |
| 4960.00 | Н | Peak | 36.47 | 7.09 | 43.56 | 74.00 | -30.44 |
| 7440.00 | Н | | | | | | |
| 9920.00 | Н | | | | | | |
| 12400.00 | Н | | | | | | |
| 14880.00 | Н | | | | | | |
| 17360.00 | Н | | | | | | |
| 19840.00 | Н | | | | | | |
| 22320.00 | Н | | | | | | |
| 24800.00 | Н | | | | | | |
| | | | | | | | |



11. FREQUENCY SEPARATION

11.1. Standard Applicable

According to §15.247(a)(1), Frequency hopping systems shall have hopping channel carrier frequencies separated by minimum of 25 kHz or the 2/3*20dB bandwidth of the hopping channel, whichever is greater.

11.2. Measurement Equipment Used:

| | Conducted Emission Test Site | | | | | | | |
|-------------------|------------------------------|--------------------|------------|------------|------------|--|--|--|
| EQUIPMENT | MFR | MODEL | SERIAL | LAST | CAL DUE. | | | |
| ТҮРЕ | | NUMBER | NUMBER | CAL. | | | | |
| Spectrum Analyzer | Agilent | E4446A | MY51100003 | 05/30/2013 | 05/29/2014 | | | |
| Spectrum Analyzer | Agilent | E4440A | MY45304525 | 03/15/2013 | 03/14/2014 | | | |
| DC Block | Mini-Circuits | BLK-18-S+ | 1 | 02/28/2013 | 02/27/2014 | | | |
| Low Loss Cable | HUBER+SUHNER | SUCOFLEX 104PEA | N/A | 01/03/2014 | 01/02/2015 | | | |
| Attenuator | Mini-Circuit | BW-S10W2+ | 002 | 02/28/2013 | 02/27/2014 | | | |
| Splitter | Agilent | 11636B | N/A | 02/28/2013 | 02/27/2014 | | | |

11.3. Test Set-up:

| | Attenuator | |
|-----|------------|--|
| EUT | SPA | |

11.4. 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 center frequency of spectrum analyzer = middle of hopping channel.
- 4. Set the spectrum analyzer as RBW, VBW=100 kHz, Adjust Span to 5MHz, Sweep = auto.
- 5. Max hold. Mark 3 Peaks of hopping channel and record the 3 peaks frequency.

WeifS of all weights and the results and set of the formation of the set 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

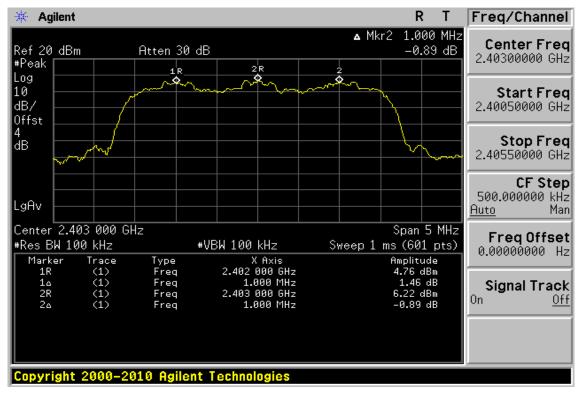
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



11.5. Measurement Result:

| Channel separation (MHz) | Limit | Result |
|-----------------------------|---|--------|
| 1 | >=25 kHz or 2/3 times 20dB bandwidth | PASS |

Frequency Separation Test Data



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.

Chiefs So therwise stated the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested after social after feature in the results and social social after feature in the results and social socia 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

GS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134號



12. NUMBER OF HOPPING FREQUENCY

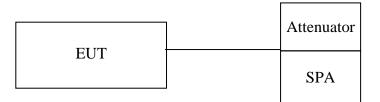
12.1. Standard Applicable

According to §15.247(a)(1)(iii), Frequency hopping systems operating in the 2400MHz-2483.5 MHz bands shall use at least 15 hopping frequencies.

12.2. Measurement Equipment Used:

| Conducted Emission Test Site | | | | | | | | |
|------------------------------|---------------|--------------------|------------|------------|------------|--|--|--|
| EQUIPMENT | MFR | MODEL | SERIAL | LAST | CAL DUE. | | | |
| ТҮРЕ | | NUMBER | NUMBER | CAL. | | | | |
| Spectrum Analyzer | Agilent | E4446A | MY51100003 | 05/30/2013 | 05/29/2014 | | | |
| Spectrum Analyzer | Agilent | E4440A | MY45304525 | 03/15/2013 | 03/14/2014 | | | |
| DC Block | Mini-Circuits | BLK-18-S+ | 1 | 02/28/2013 | 02/27/2014 | | | |
| Low Loss Cable | HUBER+SUHNER | SUCOFLEX 104PEA | N/A | 01/03/2014 | 01/02/2015 | | | |
| Attenuator | Mini-Circuit | BW-S10W2+ | 002 | 02/28/2013 | 02/27/2014 | | | |
| Splitter | Agilent | 11636B | N/A | 02/28/2013 | 02/27/2014 | | | |

12.3. Test Set-up:



12.4. 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 spectrum analyzer Start=2400MHz, Stop = 2483.5MHz, Sweep = auto.
- 4. Set the spectrum analyzer as RBW=430 kHz, VBW=1.5MHz., Detector = Peak
- 5. Max hold, view and count how many channel in the band.

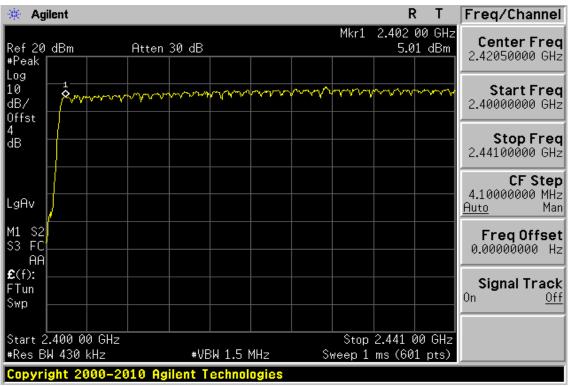
12.5. Measurement Result:

Note: Refer to next page for 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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms-e-document.htm. Attention is frawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

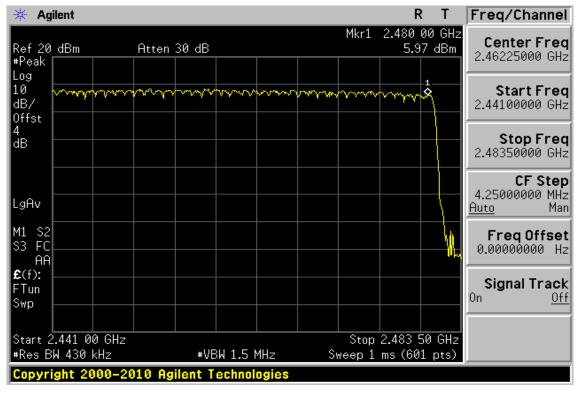


Channel Number



2.4 GHz - 2.441GHz

2.441 GHz - 2.4835GHz



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.

Chiefs So therwise stated the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested after social after feature in the results and social social after feature in the results and social socia 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 S Taiwan Ltd.



Tabular Data of Total Channel Number:

| | Channel Number | Limit | |
|-----------------------|----------------|-------|--|
| 2.4 GHz – 2.441GHz | 40 | | |
| 2.441 GHz – 2.4835GHz | 39 | 15 | |
| 2.4GHz ~2.4835GHz | (40+39) = 79 | | |

13. TIME OF OCCUPANCY (DWELL TIME)

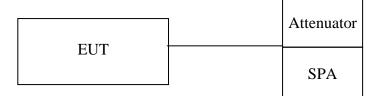
13.1. Standard Applicable

According to §15.247(a)(1)(iii), Frequency hopping systems operating in the 2400MHz-2483.5 MHz. The average time of occupancy on any frequency shall not greater than 0.4 s within period of 0.4 seconds multiplied by the number of hopping channel employed.

13.2. Measurement Equipment Used:

| Conducted Emission Test Site | | | | | | | | |
|------------------------------|---------------|--------------------|------------|------------|------------|--|--|--|
| EQUIPMENT | MFR | MODEL | SERIAL | LAST | CAL DUE. | | | |
| ТҮРЕ | | NUMBER | NUMBER | CAL. | | | | |
| Spectrum Analyzer | Agilent | E4446A | MY51100003 | 05/30/2013 | 05/29/2014 | | | |
| Spectrum Analyzer | Agilent | E4440A | MY45304525 | 03/15/2013 | 03/14/2014 | | | |
| DC Block | Mini-Circuits | BLK-18-S+ | 1 | 02/28/2013 | 02/27/2014 | | | |
| Low Loss Cable | HUBER+SUHNER | SUCOFLEX 104PEA | N/A | 01/03/2014 | 01/02/2015 | | | |
| Attenuator | Mini-Circuit | BW-S10W2+ | 002 | 02/28/2013 | 02/27/2014 | | | |
| Splitter | Agilent | 11636B | N/A | 02/28/2013 | 02/27/2014 | | | |

13.3. Test Set-up:



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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms</u>.e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



13.4. 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 center frequency of spectrum analyzer = operating frequency.
- 4. Set the spectrum analyzer as RBW, VBW=1MHz, 3MHz, Span = 0Hz, Detector = Peak, Adjust Sweep = 2~7ms.
- 5. Repeat above procedures until all frequency of the interest measured were complete.

Formula Deduced: time occupancy of one time slot X Hopping rate / total slot in one channel / total channel that hops X period of working channels.

Where, standard hopping rate is 1600 hops/s, slot in one channel for DH1, DH3, and DH5 is 2, 4, and 6, respectively.

DH1 consists of single time slot of the uplink, and one slot of the downlink Total Slot: 2

DH3 consists of three time slot of the uplink, and one slot of the downlink. Total Slot: 4

DH5 consists of five time slot of the uplink, and one slot of the downlink. Total Slot: 6

Note: the result of the complete test default channel at 1Mbps is recorded on the test report, 2Mbps, and 3Mbps only records the measurement result at middle channel that reveals no much deviation.

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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



13.5. Tabular Result of the Measurement:

1Mbps (GFSK):

| Test Channel: | Mode: | Measurement Result (ms): | Limit (ms): |
|---------------|-------|--------------------------|-------------|
| Low: | DH1 | 121.60 | 400ms |
| | DH3 | 261.28 | 400ms |
| | DH5 | 307.52 | 400ms |
| Middle: | DH1 | 121.60 | 400ms |
| | DH3 | 261.28 | 400ms |
| | DH5 | 307.52 | 400ms |
| High: | DH1 | 121.60 | 400ms |
| | DH3 | 261.28 | 400ms |
| | DH5 | 307.52 | 400ms |

2Mbps ($\Pi/4$ DQPSK):

| Test Channel: | Mode: | Measurement Result (ms): | Limit (ms): |
|---------------|-------|--------------------------|-------------|
| Middle: | 2DH1 | 121.60 | 400ms |
| | 2DH3 | 261.28 | 400ms |
| | 2DH5 | 307.52 | 400ms |

3Mbps (8DPSK):

| Test Channel: | Mode: | Measurement Result (ms): | Limit (ms): |
|---------------|-------|--------------------------|-------------|
| Middle: | 3DH1 | 121.60 | 400 |
| | 3DH3 | 261.28 | 400 |
| | 3DH5 | 307.52 | 400 |

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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is advised that information contaited extend of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-tervent is unage of this document is unavitied and reference are particed to the fulle extent of the law pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



A period time = 0.4 (s) * 79 = 31.6 (s)

| 1Mbp | s: |
|-------|------------|
| intop | b • |

| CH Low | DH1 time slot = | 0.380 (ms) * (1600/2/79) | * 31.6 = | 121.60 (ms | ;) |
|--------|-----------------|--------------------------|----------|------------|----|
| | DH3 time slot = | 1.633 (ms) * (1600/4/79) | * 31.6 = | 261.28 (ms | ;) |
| | DH5 time slot = | 2.883 (ms) * (1600/6/79) | * 31.6 = | 307.52 (ms | ;) |

| CH Mid | DH1 time slot = | 0.380 (ms) * (1600/2/79) | * 31.6 = | 121.60 (ms) |
|--------|-----------------|--------------------------|----------|-------------|
| | DH3 time slot = | 1.633 (ms) * (1600/4/79) | * 31.6 = | 261.28 (ms) |
| | DH5 time slot = | 2.883 (ms) * (1600/6/79) | * 31.6 = | 307.52 (ms) |

| CH High | DH1 time slot = | 0.380 (ms) * (1600/2/79) | * 31.6 = | 121.60 | (ms) |
|---------|-----------------|--------------------------|----------|--------|------|
| | DH3 time slot = | 1.633 (ms) * (1600/4/79) | * 31.6 = | 261.28 | (ms) |
| | DH5 time slot = | 2.883 (ms) * (1600/6/79) | * 31.6 = | 307.52 | (ms) |

2Mbps:

| | CH Mid | 2DH1 time slot = | 0.380 (ms) * (1600/2/79) | * 31.6 = | 121.60 (ms) |
|--------|--------|------------------|--------------------------|----------|-------------|
| | | 2DH3 time slot = | 1.633 (ms) * (1600/4/79) | * 31.6 = | 261.28 (ms) |
| | | 2DH5 time slot = | 2.883 (ms) * (1600/6/79) | * 31.6 = | 307.52 (ms) |
| 3Mbps: | | | | | |
| | CH Mid | 3DH1 time slot = | 0.380 (ms) * (1600/2/79) | * 31.6 = | 121.60 (ms) |
| | | 3DH3 time slot = | 1.633 (ms) * (1600/4/79) | * 31.6 = | 261.28 (ms) |
| | | 3DH5 time slot = | 2.883 (ms) * (1600/6/79) | * 31.6 = | 307.52 (ms) |
| | | | | | |

13.6. Measurement Result:

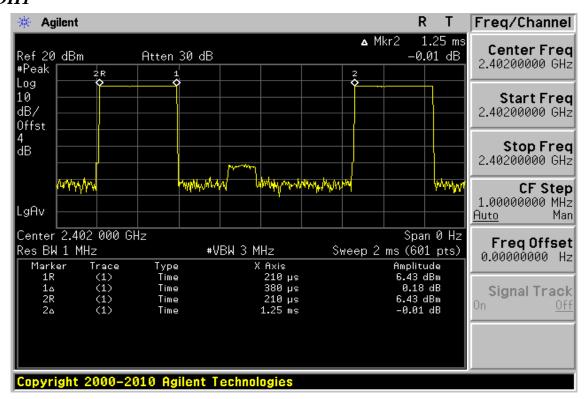
Note: Refer to next page for plots.

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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is advised that information contaited extend of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-tervent is unage of this document is unavitied and reference are particed to the fulle extent of the law pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

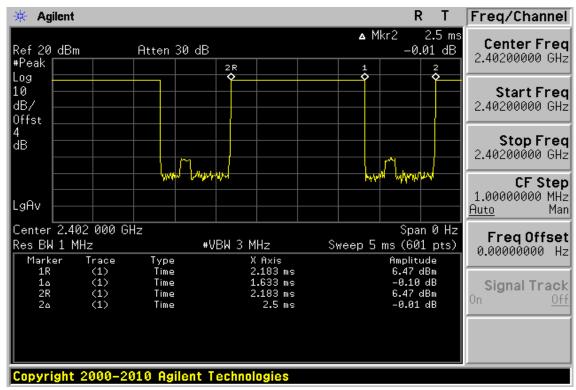


Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 76 of 105

CH-Low DH1



DH3

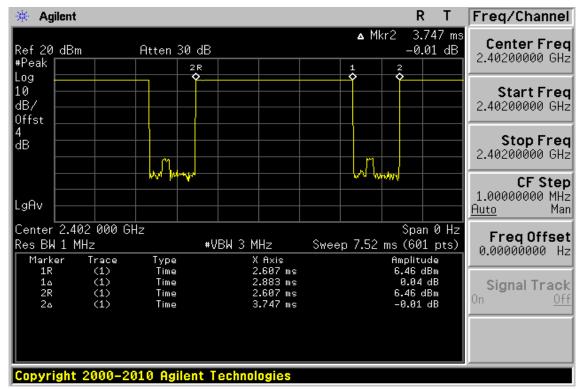


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

Chiefs So therwise stated the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested after social after feature in the results and social social after feature in the results and social socia 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

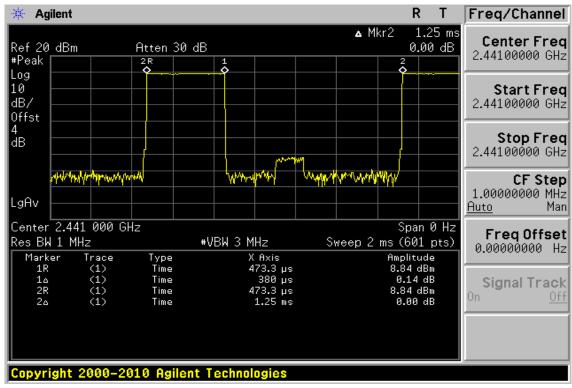


DH5



CH-Mid

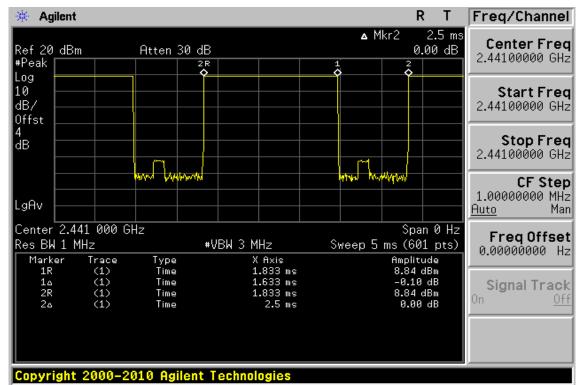
DH1



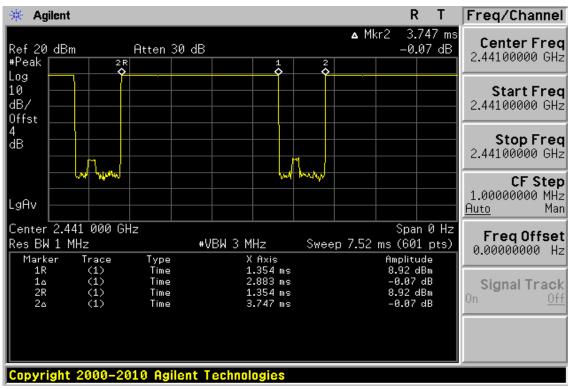
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

Chiefs So therwise stated the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested after social after feature in the results and social social after feature in the results and social socia 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

DH3



DH5



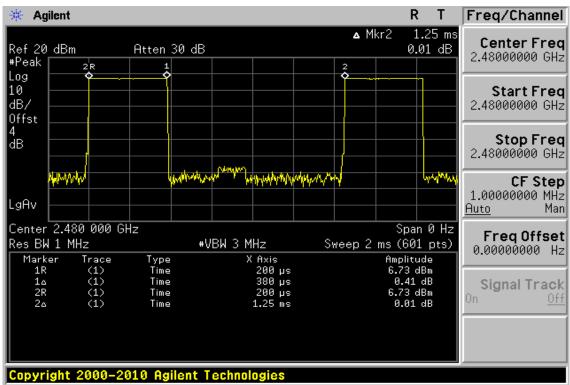
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

Chiefs So therwise stated the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested after social after feature in the results and social social after feature in the results and social socia 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

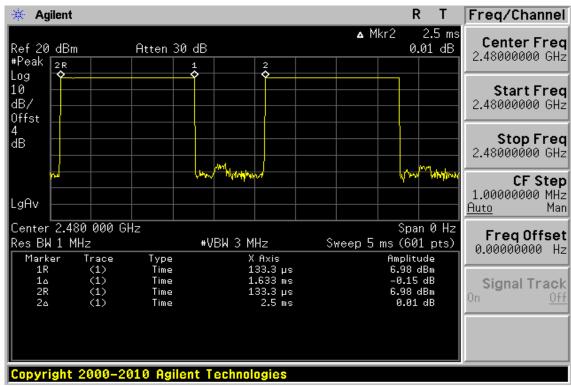


CH-High





DH3

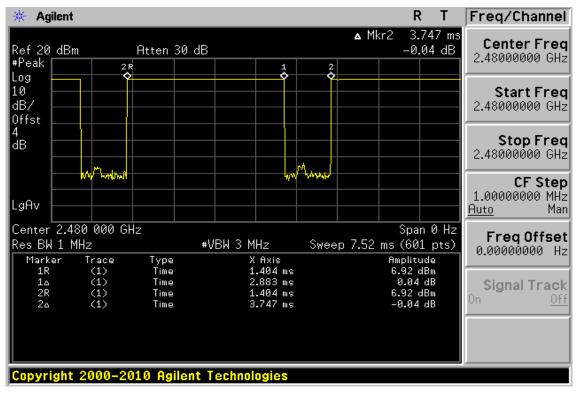


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

Chiefs So therwise stated the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested after social after feature in the results and social social after feature in the results and social socia 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



DH5



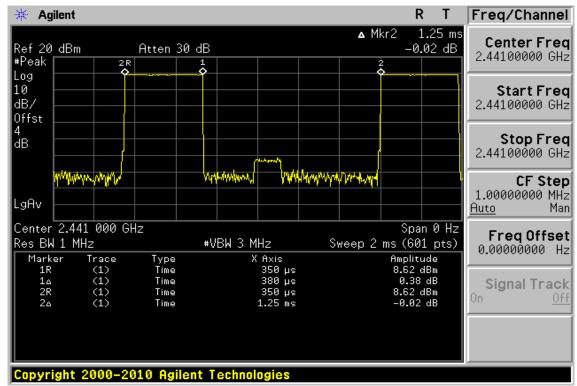
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-

pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. S Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134號

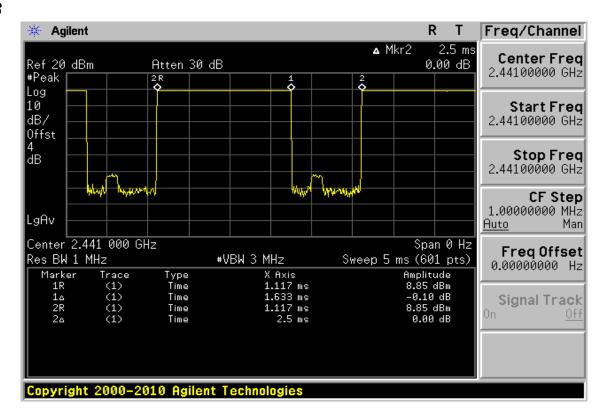


Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 81 of 105

CH-Mid 2DH1



2DH3



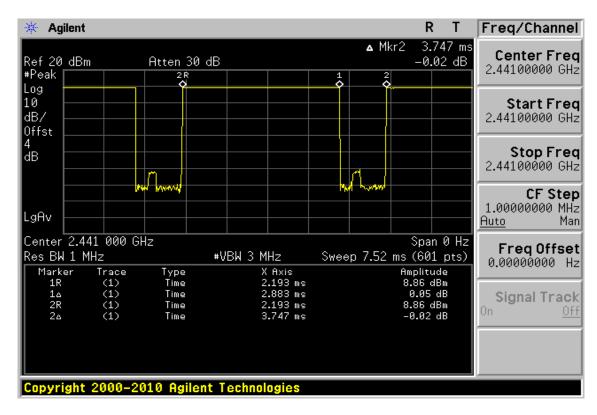
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

Chiefs So therwise stated the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested after social after feature in the results and social social after feature in the results and social socia 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 S Taiwan Ltd.



2DH5



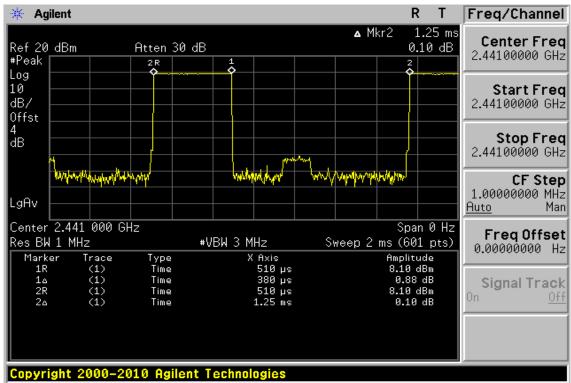
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 S Taiwan Ltd.

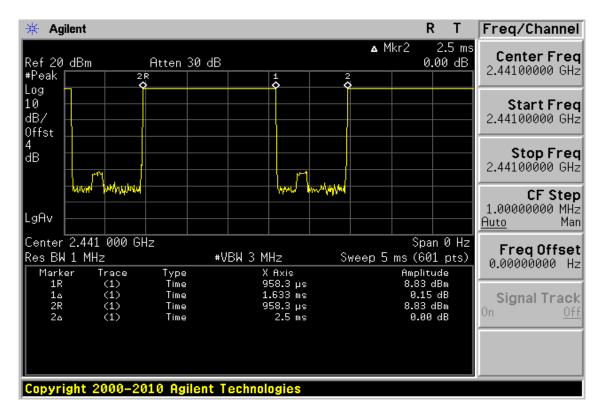


Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 83 of 105

CH-Mid **3DH1**



3DH3



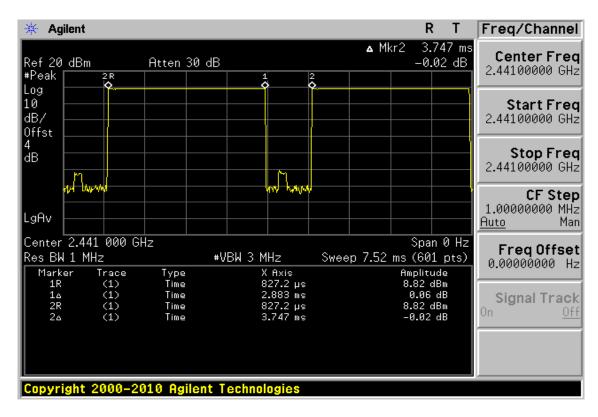
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

Chiefs So therwise stated the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested and social after feature in the results shown in this test report refer only to the sample(s) tested after social after feature in the results and social social after feature in the results and social socia 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 S Taiwan Ltd.



3DH5



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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 GS Taiwan Ltd.

14. ANTENNA REQUIREMENT

14.1. Standard Applicable

For intentional device, according to §15.203, an intentional radiator shall be designed to ensure that no antenna other than furnished by the responsible party shall be used with the device.

14.2. Antenna Connected Construction

The directional gains of antenna used for transmitting is -1.34dBi, and the antenna connector is designed with unique type RF connector and no consideration of replacement. Please see EUT photo and antenna spec. for details.

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.

WeifS of all weights and the results and set of the formation of the set 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 86 of 105

APPENDIX 1

MEASUREMENT PLOT OF RADIATED SPURIOUS EMISSION

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. 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,不可部分複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.



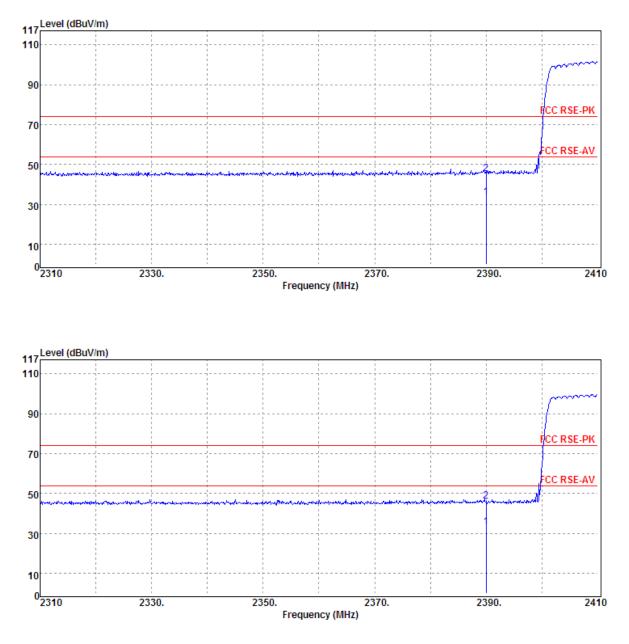
Band Edges Radiated Emission: (Hopping Mode)

Note: The emission that surpasses the limit of peak represents the fundamental emission of the operation that does not account to be conformed to the limit of the interest.

Note: The trace on RE (radiation emission) plot is as colored blue, and the detection manner we've

employed is peak detector.

| :EDR+ Hopping | Test Date | :2014-02-13 |
|----------------|-----------------------------|--|
| :2402 MHz | Temp./Humi. | :23.3deg_C /52 RH |
| :Band Edge LOW | Engineer | :Allen |
| :E2 Plan | Measurement Antenna Pol. | :Ver. / Hor. |
| | :2402 MHz :Band Edge LOW | :EDR+ HoppingTest Date:2402 MHzTemp./Humi.:Band Edge LOWEngineer |



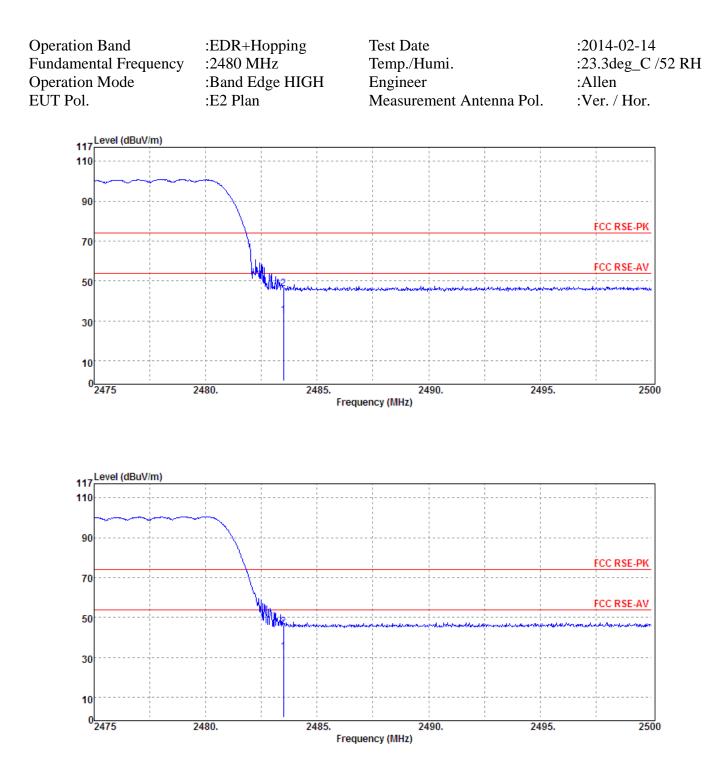
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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 printed overleaf, available on request or accessible at <u>www.sqs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sqs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 88 of 105



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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms</u> and <u>conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms</u> education.htm jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



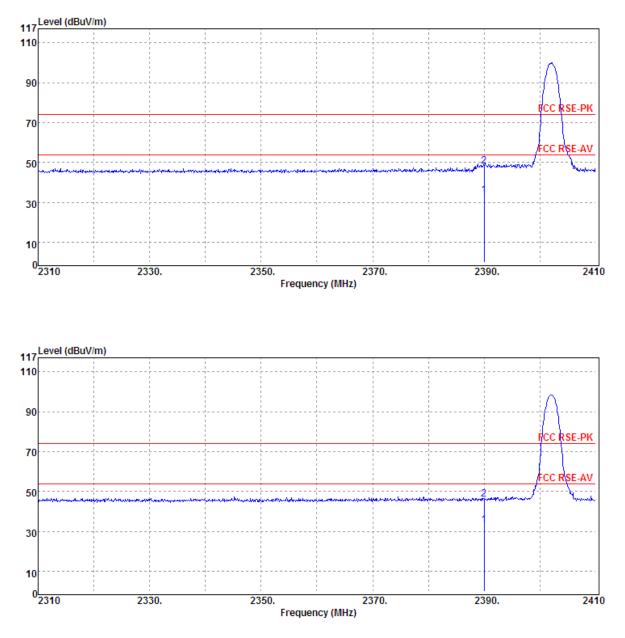
Band Edges Radiated Emission: (Non-Hopping Mode)

Note: The emission that surpasses the limit of peak represents the fundamental emission of the operation that does not account to be conformed to the limit of the interest.

Note: The trace on RE (radiation emission) plot is as colored blue, and the detection manner we've

| employ | ved is | neak | detector. |
|--------|--------|------|-----------|
| employ | yeu 15 | peak | uelector. |

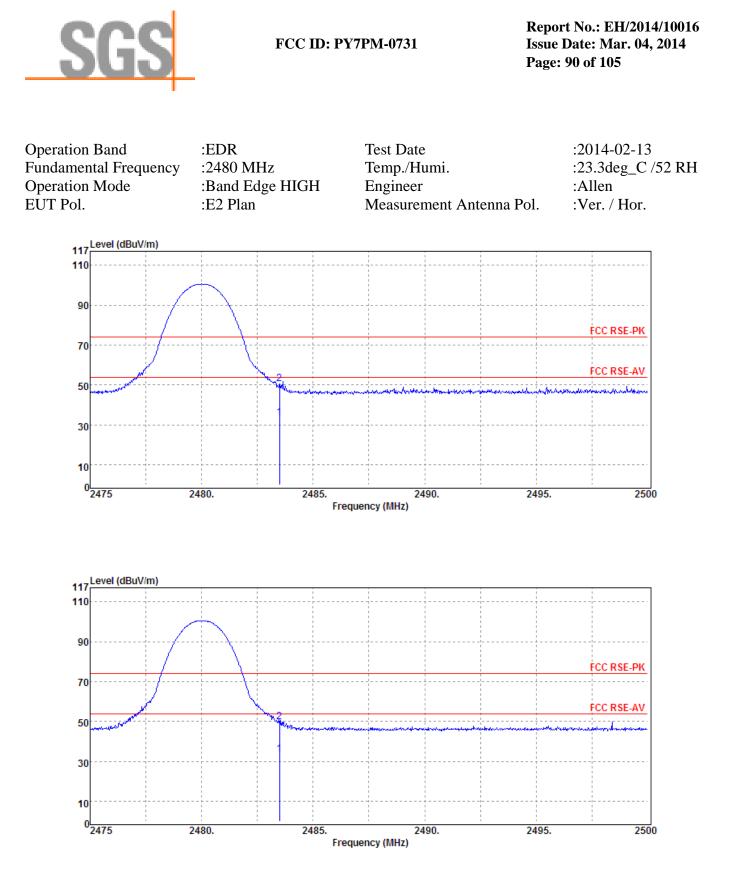
| · • • | | |
|----------------|-------------------------------------|---|
| :EDR | Test Date | :2014-02-13 |
| :2402 MHz | Temp./Humi. | :23.3deg_C /52 RH |
| :Band Edge LOW | Engineer | :Allen |
| :E2 Plan | Measurement Antenna Pol. | :Ver. / Hor. |
| | :EDR :2402 MHz :Band Edge LOW | :EDRTest Date:2402 MHzTemp./Humi.:Band Edge LOWEngineer |



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.

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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.



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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



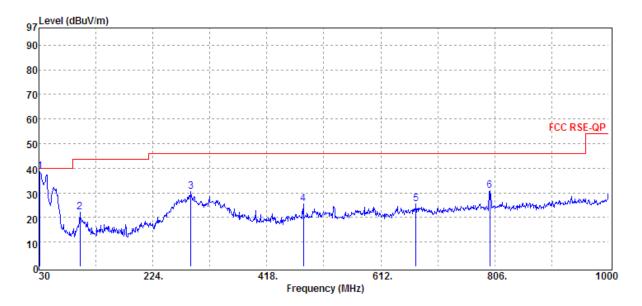
Radiated Spurious Emission Measurement photos Result (below 1GHz)

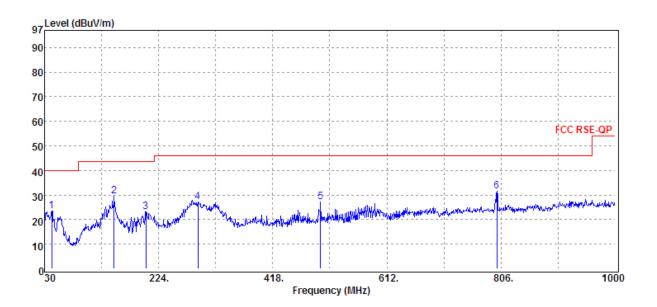
Note: The trace on RE (radiation emission) plot is as colored blue, and the detection manner we've

employed is peak detector.

| Operation Band | :EDR |
|-----------------------|-----------|
| Fundamental Frequency | :2402 MHz |
| Operation Mode | :TX LOW |
| EUT Pol. | : E2 Plan |

Test Date :2014-02-14 Temp./Humi. :23.3deg_C /52 RH Engineer :Allen Measurement Antenna Pol. : Ver. / Hor.



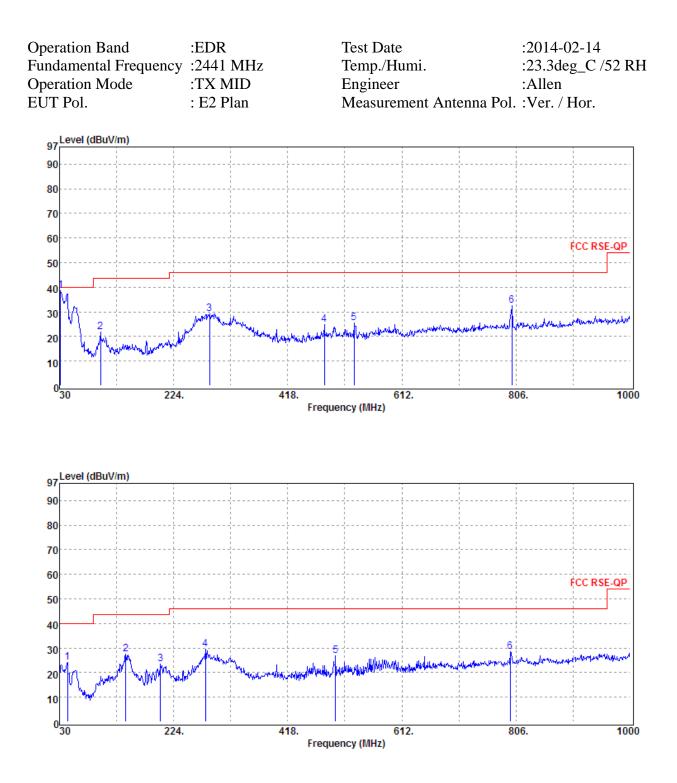


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

時非另有説明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90.tr。本報告未經本公司書面許可,不可能份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



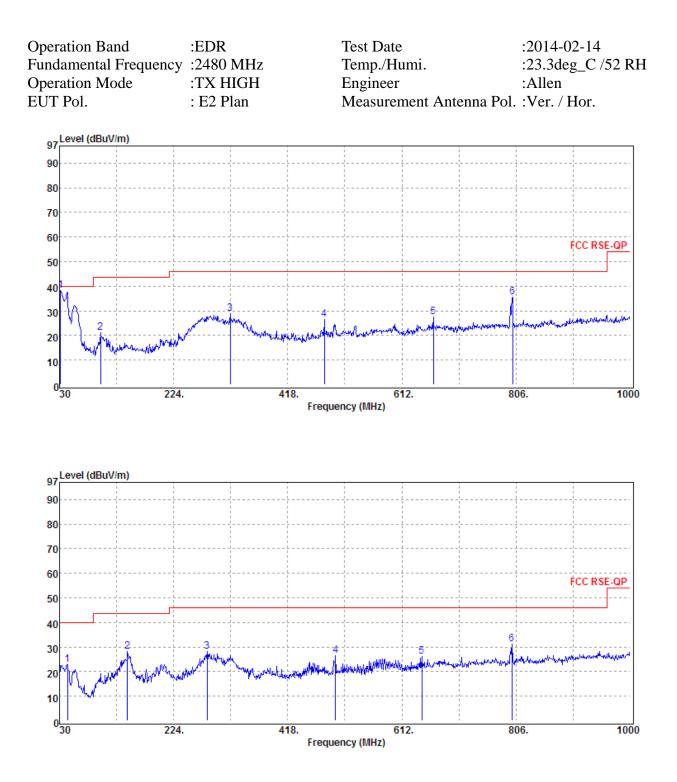
Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 92 of 105



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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms</u> and <u>conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms</u> education.htm jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 93 of 105

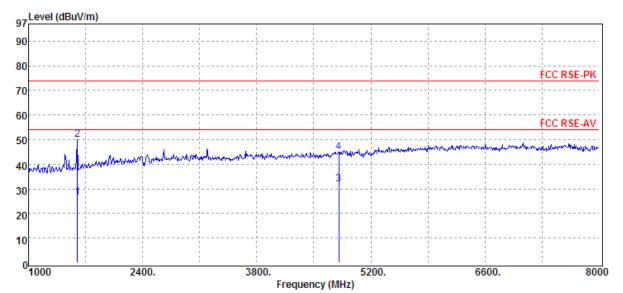


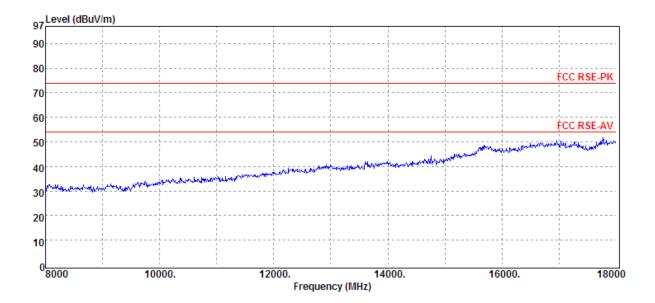
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms</u> and <u>conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms</u> education.htm jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



Radiated Spurious Emission Measurement photos Result (above 1GHz)

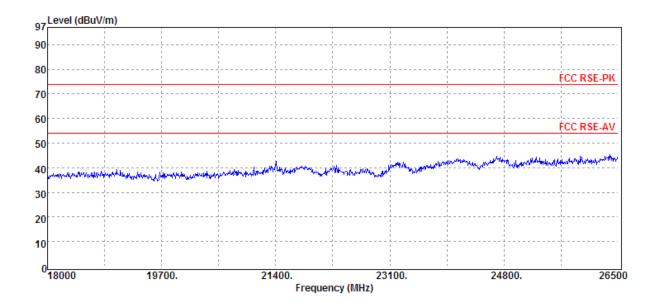
| - | _ | | |
|-----------------------|-----------|--------------------------|-------------------|
| Operation Band | :EDR | Test Date | :2014-02-14 |
| Fundamental Frequency | :2402 MHz | Temp./Humi. | :23.3deg_C /52 RH |
| Operation Mode | :TX LOW | Engineer | :Allen |
| EUT Pol. | : E2 Plan | Measurement Antenna Pol. | :VERTICAL |
| | | | |





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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is produced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

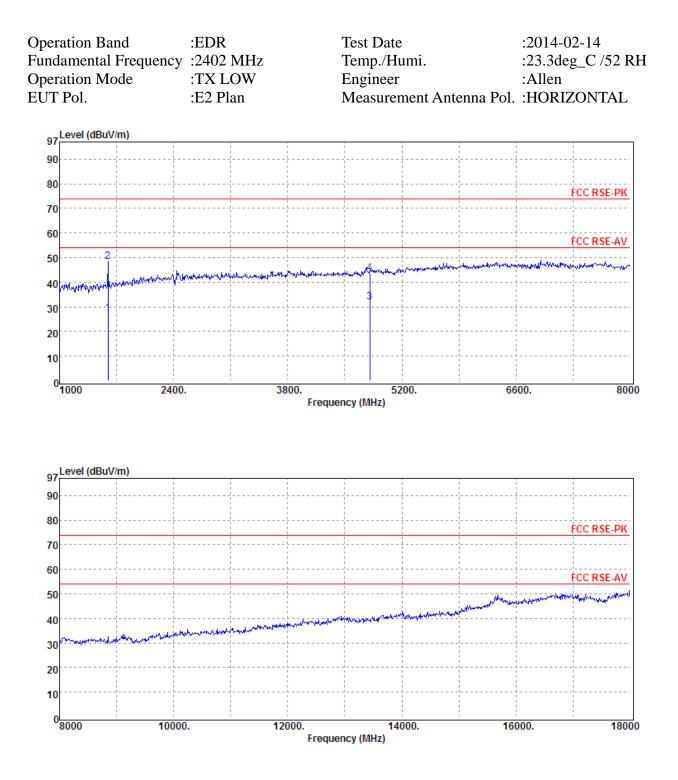




Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部分複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted, the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

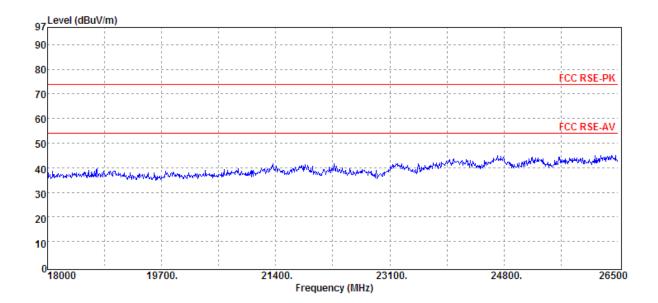


Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 96 of 105



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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is produced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

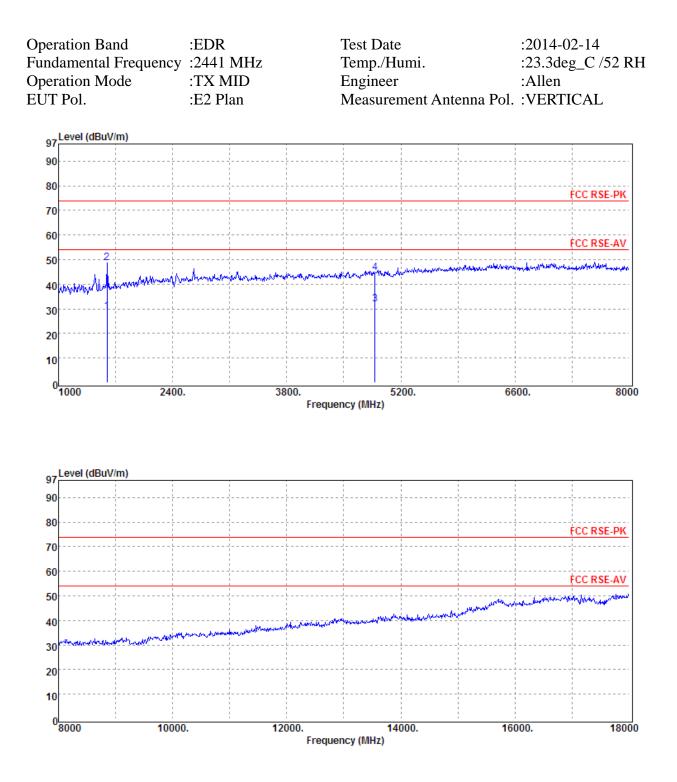




Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部分複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted, the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

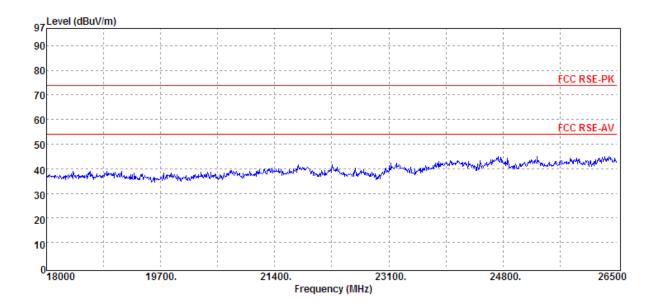


Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 98 of 105



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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is produced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號





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. 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,不可部分複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-

pearance of this document is unlawful and offenders may be prosecuted, the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

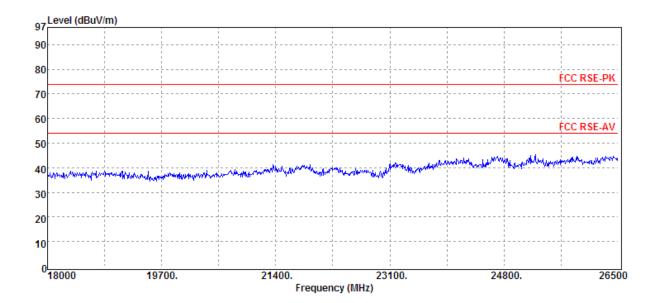


Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 100 of 105



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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document is produced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

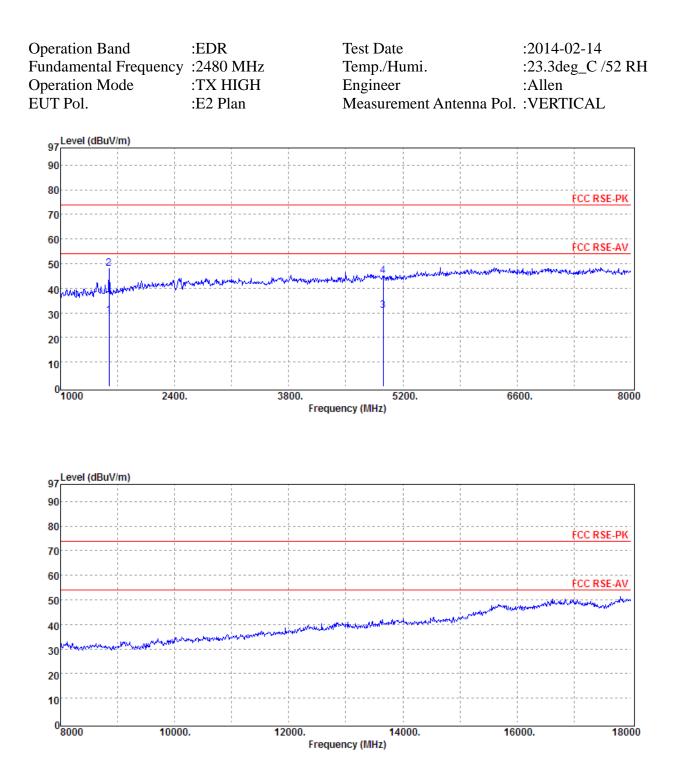




Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部分複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted, the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

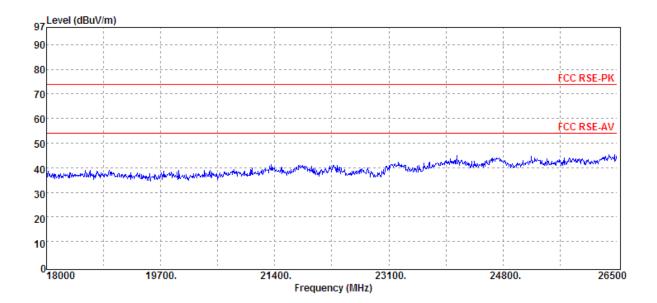


Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 102 of 105



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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms</u> and <u>conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms</u> education.htm jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

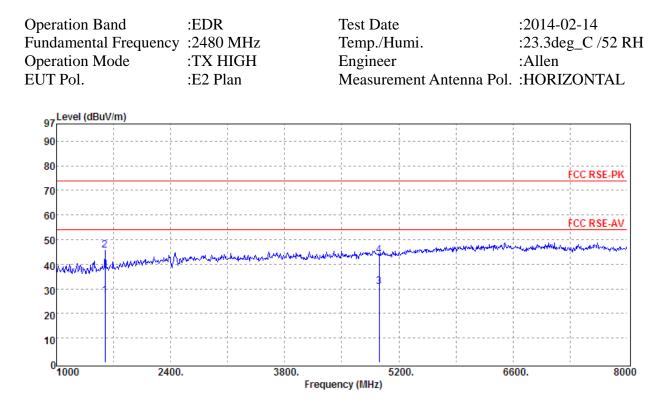


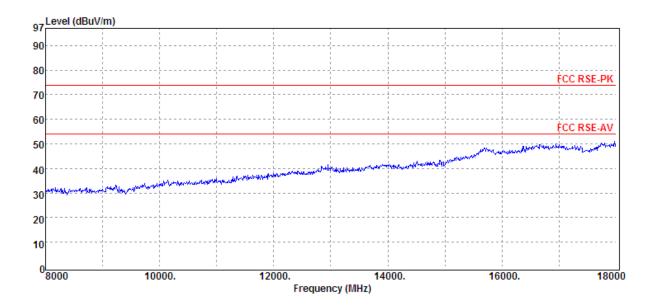


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部分複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted, the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



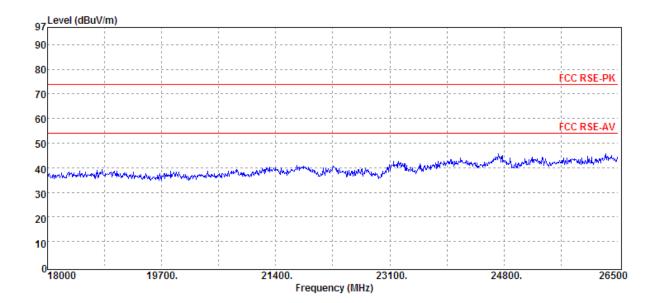
Report No.: EH/2014/10016 Issue Date: Mar. 04, 2014 Page: 104 of 105





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. 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 printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-participant discussed the function of the content of the function. pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號





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. 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,不可部分複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u></u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. 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. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted, the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號