

Page 1 of 56

ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

INTENTIONAL RADIATOR CERTIFICATION TO **FCC PART 15 SUBPART C REQUIREMENT**

Product Name: Mobile Phone

Brand Name: FUJITSU

Model No.: F-01J

Model Difference: N/A

FCC ID: VQK-F01J

ER/2016/80164 Report No.:

Issue Date: Sep. 27, 2016

FCC Rule Part: §15.247, Cat: DTS

Fujitsu Limited

Prepared for: 1-1, Kamikodanaka 4-chome, Nakahara-ku,

Kawasaki 211-8588, Japan

SGS Taiwan Ltd.

Electronics & Communication Laboratory

Prepared by: No.134, Wu Kung Road, New Taipei Industrial

Park, Wuku District, New Taipei City, Taiwan

24803





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

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 the first o 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 f (886-2) 2298-0488



Page 2 of 56

VERIFICATION OF COMPLIANCE

Fujitsu Limited

Applicant for: 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki 211-8588,

Product Name: Mobile Phone

Brand Name: FUJITSU

Model No.: F-01J

Model Difference: N/A

FCC ID: VQK-F01J

Report Number: ER/2016/80164

Date of test: Aug. 17, 2016 ~ Sep. 19, 2016

Date of EUT Received: Aug. 17, 2016

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 C63.10:2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits.

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

Test By:	louis Chen	Date	Sep. 27, 2016
_	Louis Chen / Engineer	_	
Prepared By:	Vroletta Tang	Date	Sep. 27, 2016
_	Violetta Tang / Clerk	_	
Approved By:	Tim Chang	Date _	Sep. 27, 2016
	.lim Chang / Asst Manager		

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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 the first o 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



Page 3 of 56

Revision History

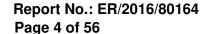
Report Number	Revision	Description	Issue Date
ER/2016/80164	Rev.00	Initial creation of document	Sep. 27, 2016

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.

t (886-2) 2299-3279

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

f (886-2) 2298-0488





Contents

1	GEN	ERAL INFORMATION	6
	1.1	Product Description	6
	1.2	Product Feature of Equipment Under Test	7
	1.3	Test Methodology of Applied Standards	8
	1.4	Test Facility	8
	1.5	Special Accessories	8
	1.6	Equipment Modifications	8
2	SYS	TEM TEST CONFIGURATION	9
	2.1	EUT Configuration	9
	2.2	EUT Exercise	9
	2.3	Test Procedure	9
	2.4	Measurement Results Explanation Example	9
	2.5	Configuration of Tested System	10
3	SUM	MARY OF TEST RESULTS	11
4	DES	CRIPTION OF TEST MODES	12
	4.1	Operated in 2400 ~ 2483.5MHz Band	12
	4.2	The Worst Test Modes and Channel Details	13
5	MEA	SUREMENT UNCERTAINTY	14
6	CON	DUCTED EMISSION TEST	15
	6.1	Standard Applicable:	15
	6.2	Measurement Equipment Used:	15
	6.3	EUT Setup:	15
	6.4	Test SET-UP (Block Diagram of Configuration)	16
	6.5	Measurement Procedure:	16
	6.6	Measurement Result:	16
7	PEAI	K OUTPUT POWER MEASUREMENT	19
	7.1	Standard Applicable:	19
	7.2	Measurement Equipment Used:	19
	7.3	Test Set-up:	19
	7.4	Measurement Procedure:	20
	7.5	Measurement Result:	21

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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 fullests extent of the law.

SGS Taiwan Ltd. No.134 WitKungRoad NewTaineil@idustrialPark WukupDistrict.NewTaineiiCity.Taiwan24803/新北市五股區新七本業園區五工路 134 號

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.



Page 5 of 56

Report No.: ER/2016/80164

SGS	

8	6dB E	BANDWIDTH MEASUREMENT	22
	8.1	Standard Applicable	22
	8.2	Measurement Equipment Used	22
	8.3	Test Set-up:	22
	8.4	Measurement Procedure:	23
	8.5	Measurement Result:	23
9	CONE	DUCTED BAND EDGES AND SPURIOUS EMISSION MEASUREMENT	26
	9.1	Standard Applicable	26
	9.2	Measurement Equipment Used:	26
	9.3	Test SET-UP:	26
	9.4	Measurement Procedure	27
	9.5	Measurement Result	27
10	RADIA	ATED BANDEDGE AND SPURIOUS EMISSION MEASUREMENT	32
	10.1	Standard Applicable	32
	10.2	Measurement Equipment Used	33
	10.3	Test SET-UP	34
	10.4	Measurement Procedure	35
	10.5	Field Strength Calculation	36
	10.6	Test Results of Radiated Spurious Emissions from 9 kHz to 30 MHz	36
	10.7	Measurement Result (Internal Anternna):	36
11	PEAK	POWER SPECTRAL DENSITY	51
	11.1	Standard Applicable:	51
	11.2	Measurement Equipment Used:	51
	11.3	Test Set-up:	51
	11.4	Measurement Procedure:	51
	11.5	Measurement Result:	52
12	ANTE	NNA REQUIREMENT	56
	12.1	Standard Applicable:	56
	12.2	Antenna Connected Construction:	56

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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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, NewTaipeilndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號



Page 6 of 56

GENERAL INFORMATION

1.1 Product Description

General:

Product Name:	Mobile Pho	one	
Brand Name:	FUJITSU		
Model No.:	F-01J		
Model Difference:	N/A		
Hardware Version:	V2.1.0		
Software Version:	R015.1e		
		m Rechargeable Li-polymer Battery AC/DC Adapter	
Power Supply:	Battery: Model No.: CA54310-0069-A1, Supplier: FUJITSU CONNECTED TECHNOLOGIES LIMITED		
	Adapter:	Model No.: FMV-AC346, Supplier: FUJITSU LIMITED	

ANT+

NINI '.	
Frequency Range:	2402 – 2480MHz
Channel Number:	79 channels
Modulation Type:	O-QPSK
Transmit Power:	2.21dBm (Peak)
Antenna Designation:	λ/4 Monopole Antenna, Gain: -7.5dBi

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.

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

f (886-2) 2298-0488



Page 7 of 56

1.2 Product Feature of Equipment Under Test

The equipment under Test (Hereafter Called: EUT) is Mobile Phone, supporting GSM / WCDMA / LTE, Wi-Fi 802.11a/b/g/n/ac, Bluetooth, NFC and ANT+ features, and below is details of information

Product Feature				
Product Name:	Mobile Phone			
Brand Name:	FUJITSU			
Model No.:	F-01J			
Model Difference:	N/A			
FCC ID:	VQK-F01J			
GSM Operating Band(s)	GSM 850/1900MHz			
GPRS / EGPRS Multi Slot Class	GPRS Class 11			
WCDMA Operating Band(s)	FDD Band V			
WCDMA Rel. Version	Rel.9			
LTE Operating Band(s)	FCC Band 5: Part 22			
LTE Rel. Version	Rel.10			
Bluetooth Version	V4.2 dual mode			
Wi-Fi- Specification	802.11a/b/g/n/ac			
NFC Specification	NFC			
ANT+ Specification	ANT+			

Note: The above EUT information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

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.

Unless otherwise stated the results snown in this test report refer only to the sample(s) tested and such sample(s) are retained for so 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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format document, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for Electronic Documents at www.sgs.com 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

> f (886-2) 2298-0488 www.tw.sqs.com

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



Page 8 of 56

Test Methodology of Applied Standards

FCC Part 15, Subpart C §15.247

FCC KDB 558074 D01 DTS Meas. Guidance

ANSI C63.10:2013

Note:

- 1. All test items have been performed and recorded as per the above standards.
- The composite system is compliance with FCC Subpart B is authorized under a DoC procedure.

Test Facility

SGS Taiwan Ltd. Electronics & Communication Laboratory No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan 24803 (TAF code 0513)

FCC Registration Numbers are: 509634

IC Registration Numbers are: 4260A-5

1.5 Special Accessories

There are no special accessories used while test was conducted.

1.6 Equipment Modifications

There was no modification incorporated into the EUT.

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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 the first o 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



Page 9 of 56

SYSTEM TEST CONFIGURATION

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.

EUT Exercise 2.2

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.

Test Procedure 2.3

2.3.1 Conducted Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plan. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz.. The CISPR Quasi-Peak and Average detector mode is employed according to §15.207. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

2.3.2 Radiated Emissions

The EUT is a placed on as turn table. For emissions testing at or below 1 GHz, the table height shall be 0.8 m above the reference ground plan. For emission measurements above 1 GHz, the table height shall be 1.5 m. 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.

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuation factor between EUT conducted port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly EUT RF output level.

Note:

The spectrum analyzer offset is derived from RF cable loss 0.8dB.

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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 the first o 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



Page 10 of 56



2.5 Configuration of Tested System

Fig. 2-1 Radiated Emission & Conducted (Antenna Port) Configuration



Fig. 2-2 AC Power Line Conducted Emission Configuration

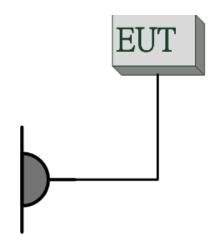


Table 2-1 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Data Cable	Power Cord
1.	ANT+ Test Software	N/A	N/A	N/A	N/A	N/A
2.	Notebook	Lenovo	R400	7440AV6	N/A	Un-shield

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.

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.



Page 11 of 56

SUMMARY OF TEST RESULTS

FCC Rules Description Of Test		Result			
§15.207(a)	AC Power Line Conducted Emission	Compliant			
§15.247(b) (3)	Peak Output Power	Compliant			
§15.247(a)(2)	6dB Bandwidth	Compliant			
§15.247(d)	Conducted Band Edge and Spurious Emission	Compliant			
§15.247(d)	Radiated Band Edge and Spurious Emission	Compliant			
§15.247(e)	Peak Power Density	Compliant			
§15.203 §15.247(b)	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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 fullests extent of the law.

SGS Taiwan Ltd. No.134 WitKungRoad NewTaineil@idustrialPark WukupDistrict.NewTaineiiCity.Taiwan24803/新北市五股區新七本業園區五工路 134 號

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.



Page 12 of 56

DESCRIPTION OF TEST MODES

Operated in 2400 ~ 2483.5MHz Band

79 channels are provided for ANT+

	79 Charmers are provided for ANT+						
СН	FREQUENCY	CH	FREQUENCY	CH	FREQUENCY	СН	FREQUENCY
0	2402 MHz	20	2422 MHz	40	2442 MHz	70	2462 MHz
1	2403 MHz	21	2423 MHz	41	2443 MHz	71	2463 MHz
2	2404 MHz	22	2424 MHz	42	2444 MHz	72	2464 MHz
3	2405 MHz	23	2425 MHz	43	2445 MHz	73	2465 MHz
4	2406 MHz	24	2426 MHz	44	2446 MHz	74	2466 MHz
5	2407 MHz	25	2427 MHz	45	2447 MHz	75	2467 MHz
6	2408 MHz	26	2428 MHz	46	2448 MHz	76	2468 MHz
7	2409 MHz	27	2429 MHz	47	2449 MHz	77	2469 MHz
8	2410 MHz	28	2430 MHz	48	2450 MHz	78	2470 MHz
9	2411 MHz	29	2431 MHz	49	2451 MHz	79	2471 MHz
10	2412 MHz	30	2432 MHz	50	2452 MHz	70	2472 MHz
11	2413 MHz	31	2433 MHz	51	2453 MHz	71	2473 MHz
12	2414 MHz	32	2434 MHz	52	2454 MHz	72	2474 MHz
13	2415 MHz	33	2435 MHz	53	2455 MHz	73	2475 MHz
14	2416 MHz	34	2436 MHz	54	2456 MHz	74	2476 MHz
15	2417 MHz	35	2437 MHz	55	2457 MHz	75	2477 MHz
16	2418 MHz	36	2438 MHz	56	2458 MHz	76	2478 MHz
17	2419 MHz	37	2439 MHz	57	2459 MHz	77	2479 MHz
18	2420 MHz	38	2440 MHz	58	2460 MHz	78	2480 MHz
19	2421 MHz	39	2441 MHz	59	2461 MHz		

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

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

f (886-2) 2298-0488



Page 13 of 56

4.2 The Worst Test Modes and Channel Details

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

RADIATED EMISSION TEST:

	RADIATED TEST					
	Radiated Emission	Test (BELOW 1 GI	Hz)			
MODE	AVAILABLE	TESTED	MODULATION			
MODE	CHANNEL	CHANNEL	MODULATION			
ANT+	0 to 78	0,39,78	O-QPSK			
Radiated Emission Test (ABOVE 1 GHz)						
MODE	AVAILABLE	TESTED	MODULATION			
MODE	CHANNEL	CHANNEL	MODULATION			
ANT+ 0 to 78 0,39,78 O-QPSK						
Band Edge						
ANT+	0 to 78	0,78	O-QPSK			

Note: The field strength of radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1, E2 mode) for ANT+ Transmitter for channel Low, Mid and High, the worst case E1 position was reported.

ANTENNA PORT CONDUCTED MEASUREMENT:

CONDUCTED TEST					
MODE	AVAILABLE	TESTED	MODULATION		
IVIODL	CHANNEL	CHANNEL	WODOL/THON		
ANT+	0 to 78	0,39,78	O-QPSK		

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

Unless otherwise stated the results shown in this test report reter only to the sample(s) tested and such sample(s) are retained for so days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留的天。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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format document, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format document, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format document, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format document, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format document, subject to Terms and Conditions for Electronic Document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and the window of the time of the formation contained hereon reflects the Company's findings at the time of its intervention only and the window of the formation contained hereon reflects the Company's findings at the time of its intervention only and the window of the formation contained hereon reflects the Company's findings at the time of its intervention only and the window of the formation contained he 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

f (886-2) 2298-0488





Page 14 of 56

MEASUREMENT UNCERTAINTY

Test Items	Uncertainty
AC Power Line Conducted Emission	+/- 2.586 dB
Peak Output Power	+/- 0.84 dB
6dB Bandwidth	+/- 51.33 Hz
100 KHz Bandwidth Of Frequency Band Edges	+/- 0.84 dB
Peak Power Density	+/- 1.3 dB
Temperature	+/- 0.65 °C
Humidity	+/- 4.6 %
DC / AC Power Source	DC= +/- 0.13%, AC= +/- 0.2%

Radiated Spurious Emission:

	9kHz – 30MHz: +/- 2.87 dB
	30MHz - 180MHz: +/- 3.37dB
Measurement uncertainty	180MHz -417MHz: +/- 3.19dB
(Polarization : Vertical)	0.417GHz-1GHz: +/- 3.19dB
	1GHz - 18GHz: +/- 4.04dB
	18GHz - 40GHz: +/- 4.04dB

	9kHz – 30MHz: +/- 2.87 dB	
Magaziramant un cartainti	30MHz - 167MHz: +/- 4.22dB	
Measurement uncertainty (Polarization : Horizontal)	167MHz -500MHz: +/- 3.44dB	
(Foldifization : Florizontal)	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.

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.

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.



Page 15 of 56

CONDUCTED EMISSION TEST

Standard Applicable:

Frequency range within 150kHz to 30MHz shall not exceed the Limit table as below.

1 7 0		
Frequency range	Lin dB(
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 the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

Measurement Equipment Used:

Conducted Emission Test Site							
Name of Equip-	Manufacturer	Model	Serial	Calibration	Calibra-		
ment	Manufacturer	Model	Number	Date	tion Due		
EMI Test Receiver	R&S	ESCI7	100760	05/10/2016	05/09/2017		
LISN	SCHWARZBECK	NSLK 8127	8127-649	05/16/2016	05/15/2017		
LISN	MESS TEC	FCC-LISN-50/2 50-25-2-01	4034	05/16/2016	05/15/2017		
Coaxial Cables	N/A	WK CE Cable	N/A	11/26/2015	11/25/2016		

6.3 EUT Setup:

- 1. The conducted emission tests were performed in the test site, using the setup in accordance with the ANSI C63.10:2013.
- 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.

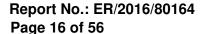
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 the first o 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

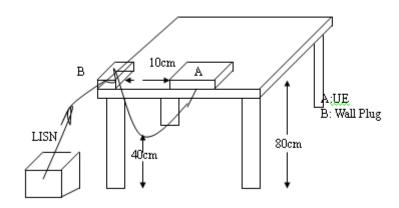
SGS Taiwan Ltd.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 www.tw.sqs.com





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 plan.
- 2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 3. Repeat above procedures until all phases of power being supplied by given UE are completed

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.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 the first o 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

台灣檢驗科技股份有限公司

SGS Taiwan Ltd.

t (886-2) 2299-3279

f (886-2) 2298-0488

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 www.tw.sqs.com



Page 17 of 56

AC POWER LINE CONDUCTED EMISSION TEST DATA

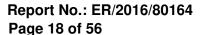
Test Date: Aug. 24, 2016 Operation Mode: Operation mode

Temperature: 20

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.

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





Site Conduction Room

Limit: FCC Class B Conduction(QP)

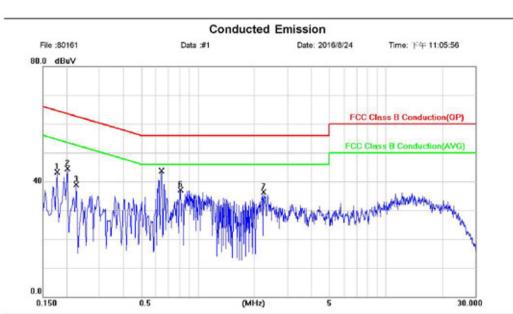
Mode: Operation

Note: Adapter: AC-Adaptor-05

Phase: Power: AC 120V/60Hz

20 TC Temperature:

Humidity: 58 %



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment	
1	0.1780	43.15	0.08	43.23	64.58	-21.35	peak		
2	0.2020	44.41	0.08	44.49	63.53	-19.04	peak		
3	0.2260	38.84	0.08	38.92	62.60	-23.68	peak		
4 .	0.6420	40.60	0.11	40.71	56.00	-15.29	QP		
5	0.6420	28.50	0.11	28.61	46.00	-17.39	AVG		
6	0.8100	36.93	0.11	37.04	56.00	-18.96	peak		
7	2.2460	36.10	0.16	36.26	56.00	-19.74	peak		

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.

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



Page 19 of 56

PEAK OUTPUT POWER MEASUREMENT

Standard Applicable:

For systems using digital modulation in the 2400-2483.5 MHz bands, the limit for peak output power is 1Watt.

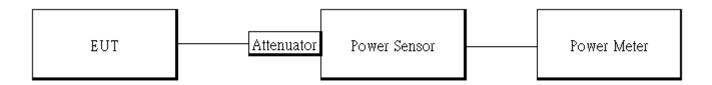
If the transmitting antenna of directional gain greater than 6dBi are used the peak output power form the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the Antenna exceeds 6dBi.

In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of Antenna exceeds 6dBi.

Measurement Equipment Used:

SGS Conducted Room						
Name of Equipment	Manufacturer	Model	Serial Number	Calibra- tion Date	Calibra- tion Due	
Power Meter	Anritsu	ML2495A	1005007	12/09/2015	12/08/2016	
Power Sensor	Anritsu	MA2411B	917032	12/09/2015	12/08/2016	
EXA Spectrum Analyzer	Agilent	N9030A	MY53120760	02/26/2016	02/25/2017	
DC Block	Mini-Circuits	BLK-18-S+	1	01/02/2016	01/01/2017	
Coaxial Cable	HUBER+SUHNER	SUCOFLEX 102	23670/2	01/02/2016	01/01/2017	
Attenuator	Mini-Circuit	BW-S10W2+	2	01/02/2016	01/01/2017	
Splitter	Agilent	11636B	N/A	01/02/2016	01/01/2017	
DC Power Supply	Agilent	E3640A	MY52410006	11/05/2015	11/04/2016	
Temperature Chamber	TERCHY	MHG-120LF	911009	05/17/2016	05/16/2017	

Test Set-up: 7.3

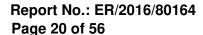


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 the first o 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





7.4 Measurement Procedure:

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
- Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter.

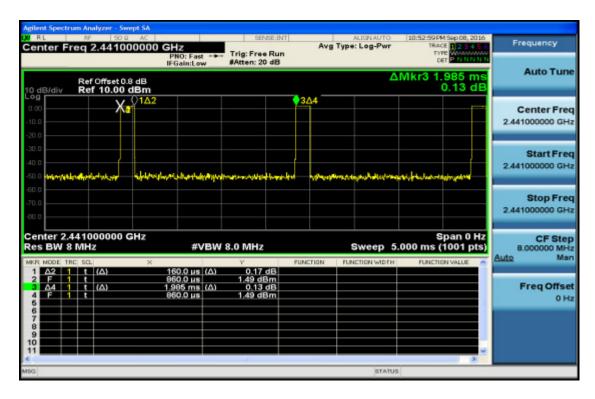
Power Meter:

It is used as the auxiliary test equipment to conduct the output power measurement.

- 4. Record the max. Reading as observed from Power Meter.
- 5. Repeat above procedures until all test default channel measured was complete.

Duty Factor:

	Duty Cycle (%)	Duty Factor (dB)
ANT+	8.06	10.94



Duty Cycle Factor:10*log(1/8.06/100)=10.94

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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 the first o 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 t (886-2) 2299-3279 www.tw.sqs.com



Page 21 of 56

Measurement Result:

ANT+ mode:

Frequency (MHz)	Peak Power Output (dBm)	Required Limit
2402	1.88	1 Watt = 30 dBm
2441	2.21	1 Watt = 30 dBm
2480	1.08	1 Watt = 30 dBm

ANT+ mode:

Frequency (MHz)	Avg. Power Output (dBm)	Required Limit
2402	-9.22	1 Watt = 30 dBm
2441	-8.65	1 Watt = 30 dBm
2480	-9.99	1 Watt = 30 dBm

^{*}Note: Measured by power meter, cable loss as 0.8 dB that offsets on the power meter in Peak

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.

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,比報告结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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 approval of this document is unlawful and offenders may be prosecuted to the fullest 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 f (886-2) 2298-0488

^{*}Note: Measured by power meter, as cable loss+ Duty cycle factor that offsets on the power meter



Page 22 of 56

6dB BANDWIDTH MEASUREMENT

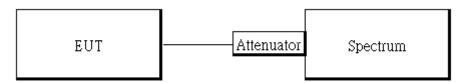
Standard Applicable

The minimum 6 dB bandwidth shall be at least 500 kHz.

8.2 Measurement Equipment Used

SGS Conducted Room						
Name of Equipment	Manufacturer	Model	Serial Number	Calibra- tion Date	Calibra- tion Due	
Power Meter	Anritsu	ML2495A	1005007	12/09/2015	12/08/2016	
Power Sensor	Anritsu	MA2411B	917032	12/09/2015	12/08/2016	
EXA Spectrum Analyzer	Agilent	N9030A	MY53120760	02/26/2016	02/25/2017	
DC Block	Mini-Circuits	BLK-18-S+	1	01/02/2016	01/01/2017	
Coaxial Cable	HUBER+SUHNER	SUCOFLEX 102	23670/2	01/02/2016	01/01/2017	
Attenuator	Mini-Circuit	BW-S10W2+	2	01/02/2016	01/01/2017	
Splitter	Agilent	11636B	N/A	01/02/2016	01/01/2017	
DC Power Supply	Agilent	E3640A	MY52410006	11/05/2015	11/04/2016	
Temperature Chamber	TERCHY	MHG-120LF	911009	05/17/2016	05/16/2017	

8.3 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.

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,比報告结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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 approval of this document is unlawful and offenders may be prosecuted to the fullest 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 f (886-2) 2298-0488



Page 23 of 56

8.4 Measurement Procedure:

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
- 3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 4. For 6dB Bandwidth:
 - Set the spectrum analyzer as RBW=100 kHz, VBW= 3*RBW, Span = 5MHz, Detector=Peak, Sweep=auto.
- 5. Mark the peak frequency and –6dB (upper and lower) frequency.
- 6. Repeat above procedures until all test default channel is completed

Measurement Result: 8.5

ANT+ mode

Frequency (MHz)	6dB BW (MHz)	BW (MHz)	Result
2402	0.5994	> 0.5	PASS
2441	0.5098	> 0.5	PASS
2480	0.5099	> 0.5	PASS

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

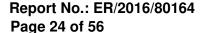
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 the first o 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

台灣檢驗科技股份有限公司 t (886-2) 2299-3279

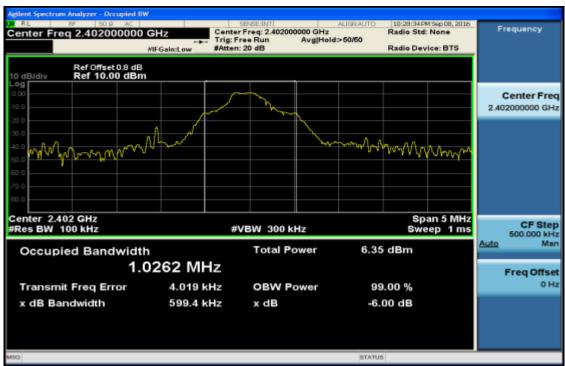
No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

www.tw.sqs.com





6dB Band Width Test Data (ANT+ mode)



CH-Mid



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.

t (886-2) 2299-3279

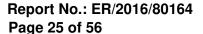
Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval 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

台灣檢驗科技股份有限公司

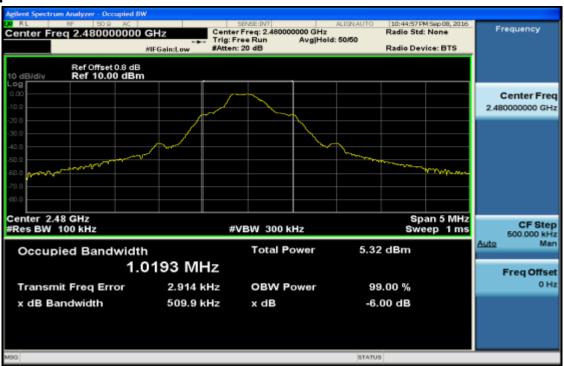
f (886-2) 2298-0488

www.tw.sqs.com





CH-High



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.

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.

Refs 丹有说明,此根告结果僅對測試之樣品負責,同時此樣品僅保留的天。本根专未绝本公司書面對可,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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 unawful and offenders may be prospectived to the fallest extent of the law. pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 26 of 56

CONDUCTED BAND EDGES AND SPURIOUS EMISSION MEASUREMENT

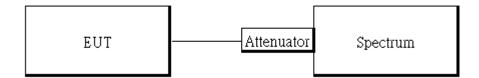
Standard Applicable

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. 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).

9.2 **Measurement Equipment Used:**

SGS Conducted Room					
Name of Equipment	Manufacturer	Model	Serial Number	Calibra- tion Date	Calibra- tion Due
Power Meter	Anritsu	ML2495A	1005007	12/09/2015	12/08/2016
Power Sensor	Anritsu	MA2411B	917032	12/09/2015	12/08/2016
EXA Spectrum Analyzer	Agilent	N9030A	MY53120760	02/26/2016	02/25/2017
DC Block	Mini-Circuits	BLK-18-S+	1	01/02/2016	01/01/2017
Coaxial Cable	HUBER+SUHNER	SUCOFLEX 102	23670/2	01/02/2016	01/01/2017
Attenuator	Mini-Circuit	BW-S10W2+	2	01/02/2016	01/01/2017
Splitter	Agilent	11636B	N/A	01/02/2016	01/01/2017
DC Power Supply	Agilent	E3640A	MY52410006	11/05/2015	11/04/2016
Temperature Chamber	TERCHY	MHG-120LF	911009	05/17/2016	05/16/2017

Test SET-UP: 9.3



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

Market And Andrews A tronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms-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

t (886-2) 2299-3279

f (886-2) 2298-0488



Page 27 of 56

9.4 Measurement Procedure

Conducted Band Edge:

- To connect Antenna Port of EUT to Spectrum.
- 2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
- Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 4. Set start to edge frequency, and stop frequency of spectrum analyzer so as to encompass the spectrum to be examined.
- 5. Set the spectrum analyzer as RBW=100 kHz, VBW=300 kHz, Detector = Peak, Sweep = auto
- 6. Mark the highest reading of the emission as the reference level measurement.
- 7. Set DL as the limit = reading on marker 1 20dBm
- 8. Marker on frequency, 2.3999GHz and 2.4836GHz, and examine shall 100 kHz immediately outside the authorized (2400~2483.5) be attenuated by 20dB at least relative to the maximum emission of power.
- 9. Repeat above procedures until all default test channel (low, middle, and high) was complete.

Conducted Spurious Emission:

- To connect Antenna Port of EUT to Spectrum.
- 2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
- 3. Set RBW = 100 kHz & VBW=300 kHz, Detector = Peak, Sweep = Auto
- 4. Allow trace to fully stabilize.
- 5. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.
- 6. Repeat above procedures until all default test channel measured were complete.

9.5 Measurement Result

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

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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 the first o 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

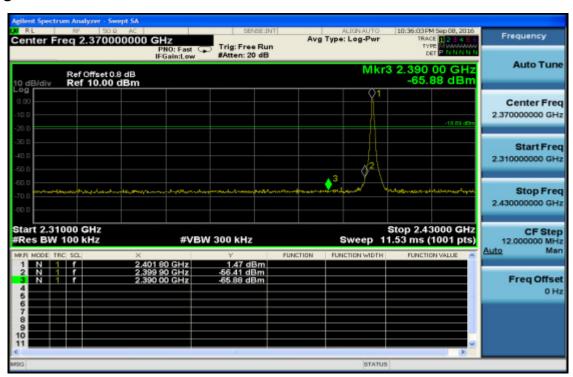
SGS Taiwan Ltd.

f (886-2) 2298-0488

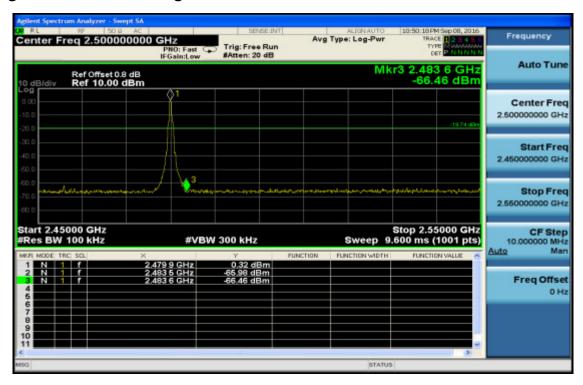
No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



ANT+ mode **Band Edges Test Data CH-Low**



Band Edges Test Data CH-High



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.

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.

Refs 丹有说明,此根告结果僅對測試之樣品負責,同時此樣品僅保留的天。本根专未绝本公司書面對可,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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 unawful and offenders may be prospectived to the fallest extent of the law. pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

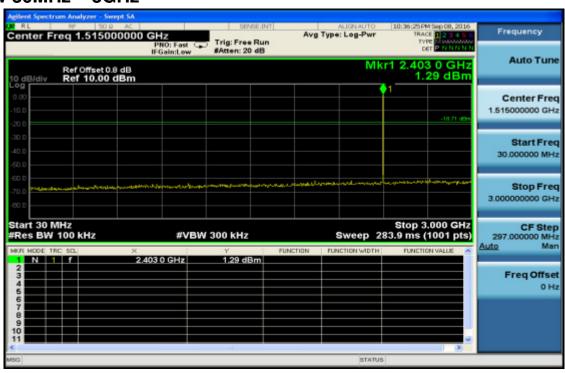
No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

t (886-2) 2299-3279

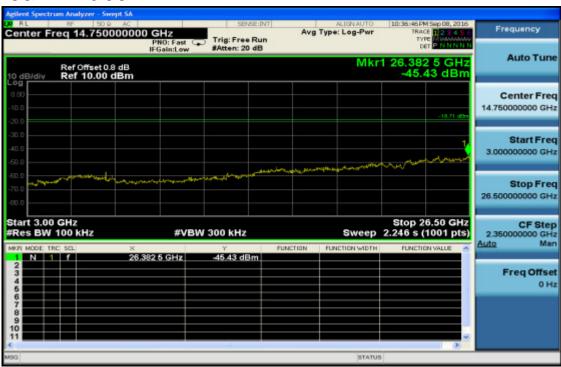
f (886-2) 2298-0488 www.tw.sqs.com



Conducted Spurious Emission Measurement Result CH-Low 30MHz - 3GHz



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.

t (886-2) 2299-3279

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

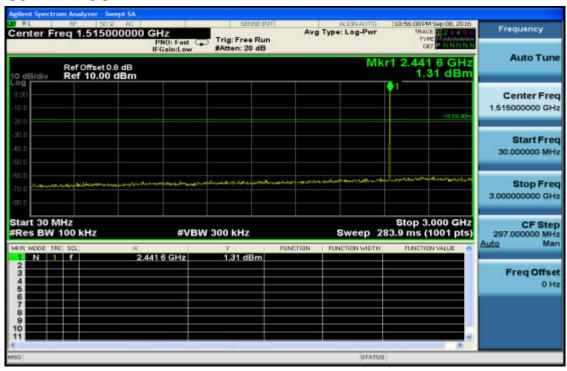
台灣檢驗科技股份有限公司

f (886-2) 2298-0488

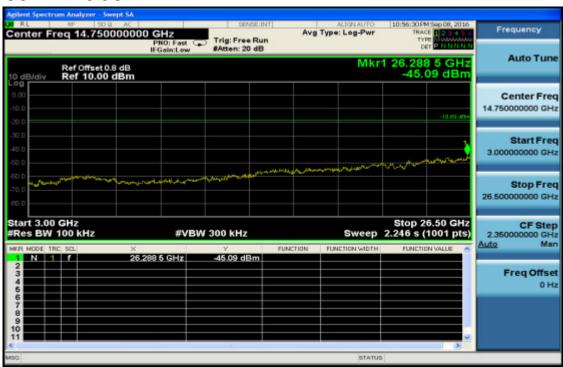
www.tw.sqs.com



CH-Mid 30MHz - 3GHz



CH-Mid 3GHz - 26.5GHz



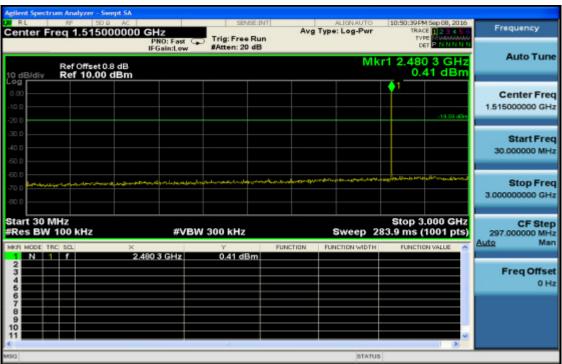
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for you gays only. 除非另有說明,此根告结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 www.sgs.com/terms and conditions htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 apparations of this document is unlawful and differeders may be prosequited to the law. pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

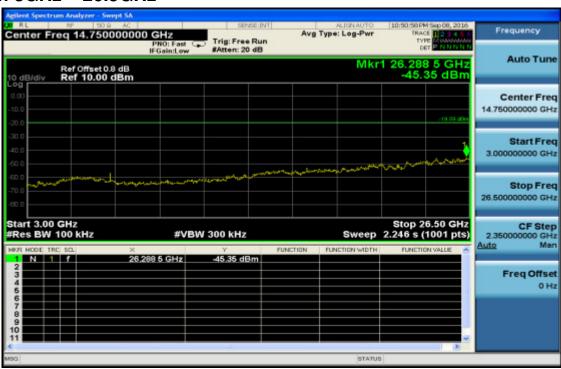
No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



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.

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.

Refs 丹有说明,此根告结果僅對測試之樣品負責,同時此樣品僅保留的天。本根专未绝本公司書面對可,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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 unawful and offenders may be prospectived to the fallest 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

f (886-2) 2298-0488

www.tw.sqs.com



Page 32 of 56

10 RADIATED BANDEDGE AND SPURIOUS EMISSION MEASUREMENT

10.1 Standard Applicable

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. In addition, radiated emissions which fall in the restricted bands must also comply with the §15.209 limit as below.

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.

Frequency (MHz)	Field strength (microvolts/meter)	Distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Note:

- 1. The lower limit shall apply at the transition frequencies.
- 2. Emission level $(dB\mu V/m) = 20 \log Emission level (dB\mu V/m)$

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

Main and the state of the sta

tronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms-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 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.

f (886-2) 2298-0488 www.tw.sqs.com



Page 33 of 56

10.2 Measurement Equipment Used

SGS SAC-III					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EMI Test Receiver	R&S	ESCI7	100760	05/10/2016	05/09/2017
Spectrum Analyzer	Agilent	E4446A	MY51100003	01/29/2016	01/28/2017
Loop Antenna	ETS-Lindgren	6502	00143303	12/23/2015	12/22/2016
Bilog Antenna	SCHWAZBECK	VULB9168	378	12/14/2015	12/13/2016
Horn Antenna	Schwarzbeck	BBHA9120D	1441	08/01/2016	07/31/2017
Pre-Amplifier	Agilent	8447D	2944A07676	01/02/2016	01/01/2017
Pre-Amplifier	EMC Instruments Corp.	EMC0126530	980038	01/02/2016	01/01/2017
Turn Table	HD	DT420	N/A	N.C.R	N.C.R
Antenna Tower	ChamPro	AM-BS-4500-B	060776-ABS	N.C.R	N.C.R
Controller	ChamPro	EM1000	60776	N.C.R	N.C.R
Low Loss Cable	Huber Suhner	966_RX	9	01/02/2016	01/01/2017
3m Site NSA	SGS	966 chamber	N/A	07/01/2016	06/30/2017
Low Loss Cable	Huber Suhner	966 TX	1	01/02/2016	01/01/2017
Horn Antenna	Schwarzbeck	BBHA9170	184	12/12/2015	12/11/2016
Pre-Amplifier	EMC Instruments Corp.	EMC184045	980135	01/02/2016	01/01/2017

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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 fullests extent of the law.

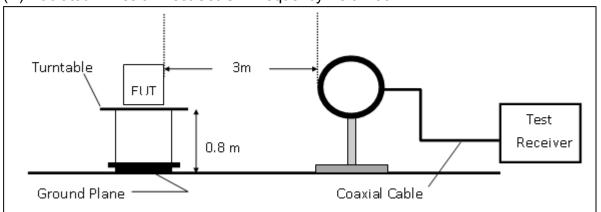
SGS Taiwan Ltd. No.134 WitKungRoad NewTaineil@idustrialPark WukupDistrict.NewTaineiiCity.Taiwan24803/新北市五股區新七本業園區五工路 134 號

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 f (886-2) 2298-0488

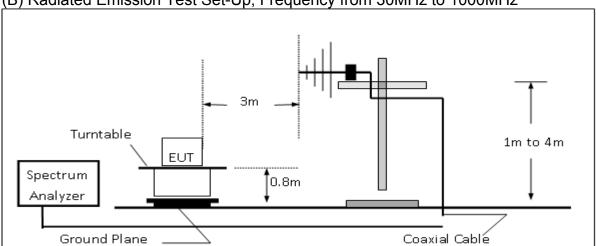


10.3 Test SET-UP

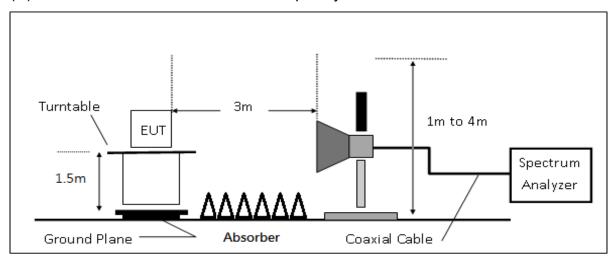
(A) Radiated Emission Test Set-UP Frequency Below 30MHz.



(B) Radiated Emission Test Set-Up, Frequency from 30MHz to 1000MHz



(C) 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.

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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 the first 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

t (886-2) 2299-3279

f (886-2) 2298-0488



Page 35 of 56

10.4 Measurement Procedure

- 1. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance .
- The EUT was placed on a turn table with 0.8m for frequency< 1GHz and 0.8m for frequen-2. cy> 1GHz above ground plan.
- The turn table shall rotate 360 degrees to determine the position of maximum emission level. 3.
- 4. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
- 5. Set the spectrum analyzer as RBW=120 kHz and VBW=300 kHz for Peak Detector (PK) and Quasi-peak (QP) at frequency below 1 GHz.
- 6. Set the spectrum analyzer as RBW=1 MHz, VBW=3 MHz for Peak Detector at frequency above 1 GHz.
- 7. Set the spectrum analyzer as RBW=1 MHz, VBW=10 Hz (Duty cycle > 98%) or VBW ≥ 1/T (Duty cycle < 98%) for Average Detector at frequency above 1 GHz.
- 8. 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.
- Maximum procedure was performed on the six highest emissions to ensure EUT compli-9. ance.
- 10. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. On spectrum, change spectrum mode in linear display mode, and reduce VBW = 10Hz if average reading is measured.
- 11. Repeat above procedures until all default test channel measured were complete.

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

Market And Andrews A tronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms-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. t (886-2) 2299-3279

f (886-2) 2298-0488

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 www.tw.sqs.com



Page 36 of 56

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	S .	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

Actual FS(dB μ V/m) = SPA. Reading level(dB μ V) + Factor(dB)

Factor(dB) = Antenna Factor(dB μ V/m) + Cable Loss(dB) – Pre Amplifier Gain(dB)

Note:

"F": denotes Fundamental Frequency.; "H": denotes Harmonic Frequency.

"E": denotes Band Edge Frequency.; "S": denotes Spurious Frequency.

10.6 Test Results of Radiated Spurious Emissions from 9 kHz to 30 MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit per 15.31(o) was not reported.

10.7 Measurement Result (Internal Anternna):

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

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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 the first o 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

台灣檢驗科技股份有限公司 t (886-2) 2299-3279

SGS Taiwan Ltd.

f (886-2) 2298-0488

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 www.tw.sqs.com



Page 37 of 56

Radiated Band Edge Measurement Result

ANT+ Operation Mode: Test Date: 09/15/2016

Fundamental Frequency: 2402 MHz Temp. / Humi.: 23 deg_C / 62 RH

Operation Band: Bandedge CH LOW Test Engineer: Tin

Measurement Antenna Pol.: VERTICAL EUT Pol.: E1 Plane

	Freq.	Note	Decetor	Actual	Spectrum 5 cm	Factor	Limit	Margin	
			Mode	Reading Level	FS		@3m		
	MHz	F/H/E/S	QP/AV/PK	dΒμV/m	dBµV/m	dB	dBuV/m	dB	
•	2390.00	Е	Average	27.77	29.51	-1.74	54.00	-26.23	
	2390.00	Е	Peak	41.92	43.66	-1.74	74.00	-32.08	

Operation Mode: ANT+ Test Date: 09/15/2016

Fundamental Frequency: 2402 MHz Temp. / Humi.: 23 deg_C / 62 RH

Bandedge CH LOW Test Engineer: Operation Band:

EUT Pol.: E1 Plane Measurement Antenna Pol.: HORIZONTAL

	Freq.	Note	Decetor	Actual	Spectrum	Factor	Limit	Margin	
			Mode	Reading Level	FS		@3m		
	MHz	F/H/E/S	QP/AV/PK	dΒμV/m	dΒμV/m	dB	dBuV/m	dB	
•	2390.00	Е	Average	26.86	28.60	-1.74	54.00	-27.14	
	2390.00	Е	Peak	39.18	40.93	-1.74	74.00	-34.82	

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.

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

> t (886-2) 2299-3279 f (886-2) 2298-0488 www.tw.sqs.com



Page 38 of 56

Operation Mode: ANT+ Test Date: 09/15/2016

Fundamental Frequency: 2480 MHz Temp. / Humi.: 23 deg C / 62 RH

Operation Band: Bandedge CH HIGH Test Engineer:

EUT Pol.: E1 Plane Measurement Antenna Pol.: VERTICAL

Freq.	Note	Decetor	Actual	Spectrum 5 cm	Factor	Limit	Margin	
		Mode	Reading Level	FS		@3m		
MHz	F/H/E/S	QP/AV/PK	dΒμV/m	dBµV/m	dB	dBuV/m	dB	
2483.50	Е	Average	26.66	28.28	-1.62	54.00	-27.34	_
2483.50	Е	Peak	40.26	41.88	-1.62	74.00	-33.74	

Operation Mode: Test Date: ANT+ 09/15/2016

Fundamental Frequency: 2480 MHz Temp. / Humi.: 23 deg C / 62 RH

Operation Band: Bandedge CH HIGH Test Engineer:

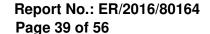
EUT Pol.: E1 Plane Measurement Antenna Pol.: HORIZONTAL

Freq.	Note	Decetor	Actual	Spe ctrum	Factor	Limit	Margin	
		Mode	Reading Level	FS		@3m		
MHz	F/H/E/S	QP/AV/PK	dΒμV/m	dBµV/m	dB	dBuV/m	dB	
2483.50	Е	Average	26.63	28.25	-1.62	54.00	-27.37	
2483.50	Е	Peak	39.66	41.28	-1.62	74.00	-34.34	

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.

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

> 台灣檢驗科技股份有限公司 t (886-2) 2299-3279 f (886-2) 2298-0488 www.tw.sqs.com





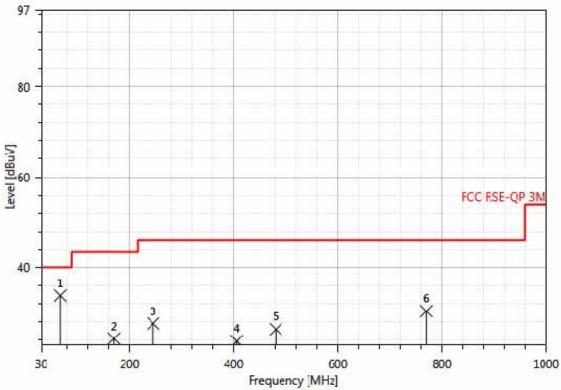
Radiated Spurious Emission Measurement Result For Frequency from 30MHz to 1000MHz

Operation Mode: ANT+ Test Date: 09/15/2016

23 deg_C / 62 RH Fundamental Frequency: 2402 MHz Temp. / Humi.:

Operation Band: Tx CH LOW Test Engineer:

EUT Pol.: E1 Plane Measurement Antenna Pol.: VERTICAL



Freq.	Note	Decetor	Actual	Spectrum	Factor	Limit	Margin	
		Mode	Reading Level	FS		@3m		
MHz	F/H/E/S	QP/AV/PK	dΒμV/m	dBµV/m	dB	dBuV/m	dB	
66.86	S	Peak	33.78	43.36	-9.58	40.00	-6.22	
169.68	S	Peak	24.29	31.86	-7.57	43.50	-19.21	
245.34	S	Peak	27.63	35.67	-8.03	46.00	-18.37	
406.36	S	Peak	23.75	27.34	-3.59	46.00	-22.25	
481.05	S	Peak	26.36	28.73	-2.37	46.00	-19.64	
770.11	S	Peak	30.36	27.67	2.69	46.00	-15.64	

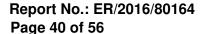
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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 t (886-2) 2299-3279

f (886-2) 2298-0488

www.tw.sgs.com

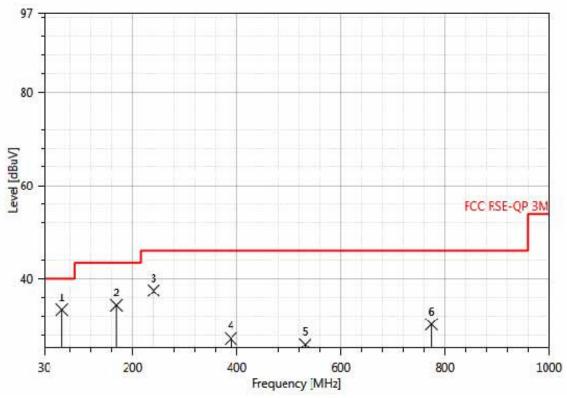




Fundamental Frequency: 2402 MHz Temp. / Humi.: 23 deg_C / 62 RH

Operation Band: Tx CH LOW Test Engineer:

Measurement Antenna Pol.: HORIZONTAL EUT Pol.: E1 Plane



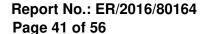
Freq.	Note	Decetor	Actual	Spectrum	Factor	Limit	Margin
		Mode	Reading Level	FS		@3m	
MHz	F/H/E/S	QP/AV/PK	dBμV/m	dBµV/m	dB	dBuV/m	dB
63.95	S	Peak	33.40	42.34	-8.93	40.00	-6.60
168.71	S	Peak	34.31	41.84	-7.53	43.50	-9.19
240.49	S	Peak	37.48	45.52	-8.03	46.00	-8.52
388.90	S	Peak	27.23	31.52	-4.30	46.00	-18.77
531.49	S	Peak	25.98	27.54	-1.57	46.00	-20.02
773.99	S	Peak	30.26	27.48	2.77	46.00	-15.74

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.

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.

Refs 丹有说明,此根告结果僅對測試之樣品負責,同時此樣品僅保留的天。本根专未绝本公司書面對可,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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 unawful and offenders may be prospectived to the fallest extent of the law. pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

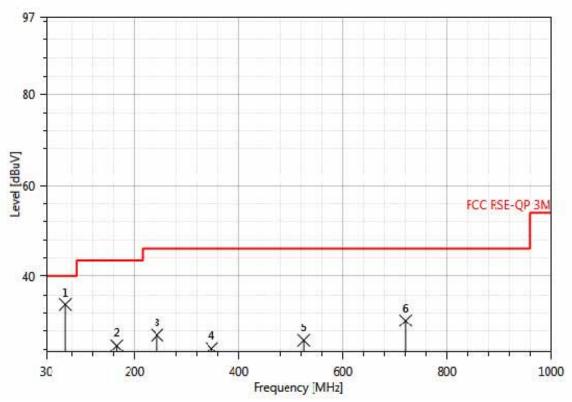




Fundamental Frequency: 2442 MHz Temp. / Humi.: 23 deg_C / 62 RH

Operation Band: Tx CH MID Test Engineer:

EUT Pol.: E1 Plane Measurement Antenna Pol.: VERTICAL



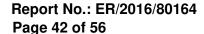
Freq.	Note	Decetor	Actual	Spectrum	Factor	Limit	Margin
		Mode	Reading Level	FS		@3m	
MHz	F/H/E/S	QP/AV/PK	dΒμV/m	dBµV/m	dB	dBuV/m	dB
66.86	S	Peak	33.75	43.33	-9.58	40.00	-6.25
165.80	S	Peak	24.78	32.17	-7.39	43.50	-18.72
243.40	S	Peak	27.05	35.08	-8.03	46.00	-18.95
348.16	S	Peak	24.18	29.12	-4.94	46.00	-21.82
524.70	S	Peak	25.95	27.63	-1.68	46.00	-20.05
720.64	S	Peak	30.26	28.78	1.48	46.00	-15.74

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.

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.

Refs 丹有说明,此根告结果僅對測試之樣品負責,同時此樣品僅保留的天。本根专未绝本公司書面對可,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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 unawful and offenders may be prospectived to the fallest extent of the law. pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

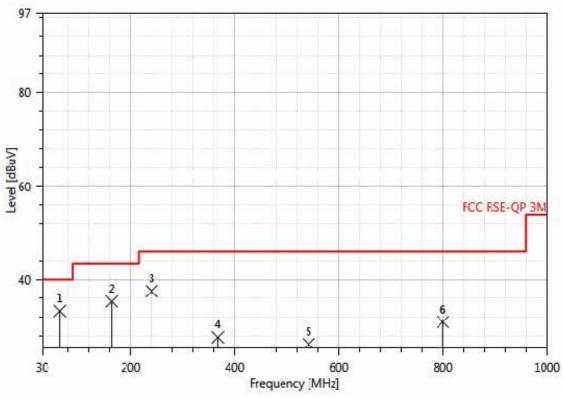




Fundamental Frequency: 2442 MHz Temp. / Humi.: 23 deg_C / 62 RH

Operation Band: Tx CH MID Test Engineer:

Measurement Antenna Pol.: HORIZONTAL EUT Pol.: E1 Plane



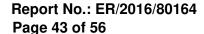
Freq.	Note	Decetor	Actual	Spectrum	Factor	Limit	Margin
		Mode	Reading Level	FS		@3m	
MHz	F/H/E/S	QP/AV/PK	dΒμV/m	dΒμV/m	dB	dBuV/m	dB
63.95	S	Peak	33.30	42.24	-8.93	40.00	-6.70
163.86	S	Peak	35.34	42.78	-7.44	43.50	-8.16
240.49	S	Peak	37.54	45.58	-8.03	46.00	-8.46
367.56	S	Peak	27.68	32.41	-4.73	46.00	-18.32
542.16	S	Peak	26.19	27.94	-1.75	46.00	-19.81
800.18	S	Peak	30.97	27.85	3.12	46.00	-15.03

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.

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.

Refs 丹有说明,此根告结果僅對測試之樣品負責,同時此樣品僅保留的天。本根专未绝本公司書面對可,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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 unawful and offenders may be prospectived to the fallest extent of the law. pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

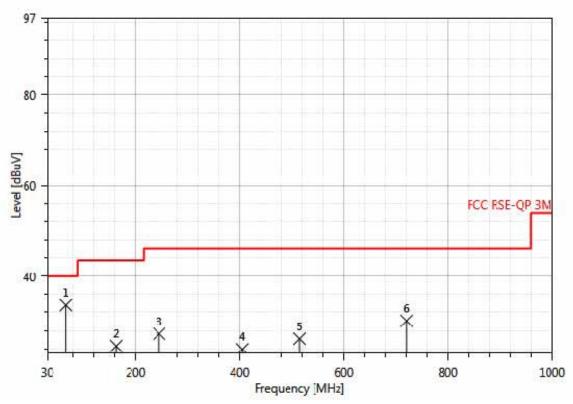




Fundamental Frequency: 2480 MHz Temp. / Humi.: 23 deg_C / 62 RH

Operation Band: Tx CH HIGH Test Engineer:

EUT Pol.: E1 Plane Measurement Antenna Pol.: VERTICAL



Freq.	Note	Decetor	Actual	Spectrum	Factor	Limit	Margin
		Mode	Reading Level	FS		@3m	
MHz	F/H/E/S	QP/AV/PK	dΒμV/m	dBµV/m	dB	dBuV/m	dB
65.89	S	Peak	33.58	42.96	-9.38	40.00	-6.42
162.89	S	Peak	24.60	32.08	-7.48	43.50	-18.90
245.34	S	Peak	27.30	35.33	-8.03	46.00	-18.70
405.39	S	Peak	23.88	27.58	-3.70	46.00	-22.12
515.00	S	Peak	26.20	28.14	-1.94	46.00	-19.80
720.64	S	Peak	30.15	28.67	1.48	46.00	-15.85

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.

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.

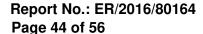
Refs 丹有说明,此根告结果僅對測試之樣品負責,同時此樣品僅保留的天。本根专未绝本公司書面對可,不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 unawful and offenders may be prospectived to the fallest 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

台灣檢驗科技股份有限公司

f (886-2) 2298-0488

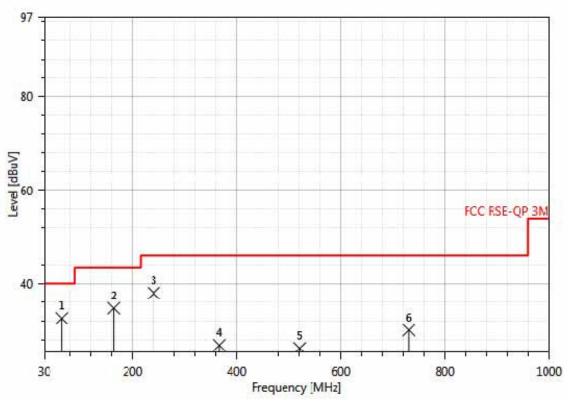




Fundamental Frequency: 2480 MHz Temp. / Humi.: 23 deg_C / 62 RH

Operation Band: Tx CH HIGH Test Engineer:

Measurement Antenna Pol.: HORIZONTAL EUT Pol.: E1 Plane



Freq.	Note	Decetor	Actual	Spectrum	Factor	Limit	Margin
		Mode	Reading Level	FS		@3m	
MHz	F/H/E/S	QP/AV/PK	dΒμV/m	dBµV/m	dB	dBuV/m	dB
63.95	S	Peak	32.60	41.53	-8.93	40.00	-7.40
163.86	S	Peak	34.76	42.20	-7.44	43.50	-8.74
240.49	S	Peak	37.97	46.01	-8.03	46.00	-8.03
366.59	S	Peak	26.86	31.58	-4.72	46.00	-19.14
520.82	S	Peak	26.20	27.77	-1.58	46.00	-19.80
730.34	S	Peak	30.06	28.39	1.67	46.00	-15.94

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.

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.

Refs 丹有说明,此根告结果僅對測試之樣品負責,同時此樣品僅保留的天。本根专未绝本公司書面對可,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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 unawful and offenders may be prospectived to the fallest extent of the law. pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page 45 of 56

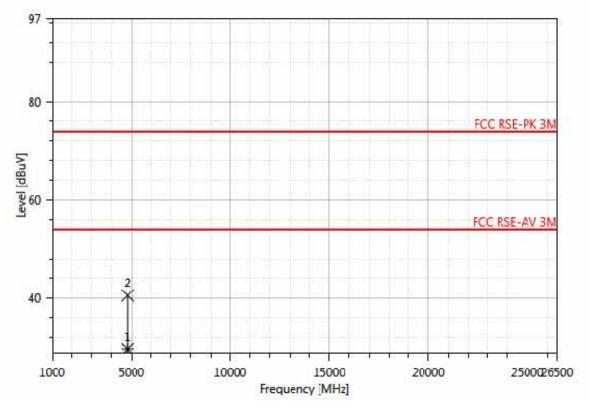
Radiated Spurious Emission Measurement Result For Frequency above 1GHz

Operation Mode: Test Date: 09/15/2016 ANT+

Fundamental Frequency: 2402 MHz Temp. / Humi.: 23 deg_C / 62 RH

Operation Band: Tx CH LOW Test Engineer:

EUT Pol.: E1 Plane Measurement Antenna Pol.: VERTICAL

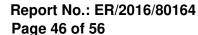


	Freq.	Note	Decetor	Actual	Spe ctrum	Factor	Limit	Margin
			Mode	Reading Level	FS		@3m	
	MHz	F/H/E/S	QP/AV/PK	dBμV/m	dBµV/m	dB	dBuV/m	dB
4	804.00	Е	Average	29.56	24.64	4.92	54.00	-24.44
4	804.00	Е	Peak	40.57	35.64	4.92	74.00	-33.43

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.

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 t (886-2) 2299-3279 www.tw.sqs.com

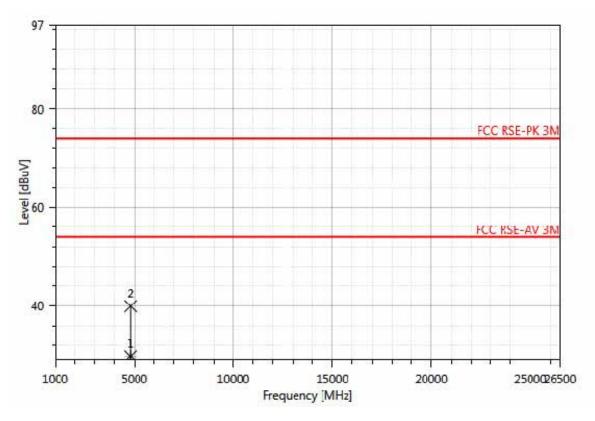




Fundamental Frequency: 2402 MHz Temp. / Humi.: 23 deg_C / 62 RH

Operation Band: Tx CH LOW Test Engineer:

EUT Pol.: E1 Plane Measurement Antenna Pol.: HORIZONTAL

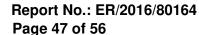


Freq.	Note	Decetor	Actual	Spectrum	Factor	Limit	Margin
		Mode	Reading Level	FS		@3m	
MHz	F/H/E/S	QP/AV/PK	dBμV/m	dBµV/m	dB	dBuV/m	dB
4804.00	Е	Average	29.79	24.87	4.92	54.00	-24.21
4804.00	Е	Peak	39.95	35.03	4.92	74.00	-34.05

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.

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

t (886-2) 2299-3279 f (886-2) 2298-0488 www.tw.sqs.com

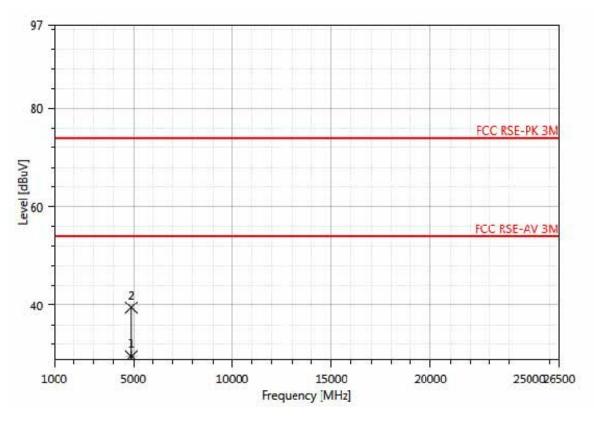




Fundamental Frequency: 2441 MHz Temp. / Humi.: 23 deg C / 62 RH

Operation Band: Tx CH MID Test Engineer:

EUT Pol.: E1 Plane Measurement Antenna Pol.: VERTICAL

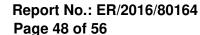


Freq.	Note	Decetor	Actual	Spectrum	Factor	Limit	Margin
		Mode	Reading Level	FS		@3m	
MHz	F/H/E/S	QP/AV/PK	dBμV/m	dBµV/m	dB	dBuV/m	dB
4884.00	Е	Average	29.60	24.41	5.19	54.00	-24.40
4884.00	Ε	Peak	39.49	34.30	5.19	74.00	-34.51

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.

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

t (886-2) 2299-3279 f (886-2) 2298-0488 www.tw.sqs.com

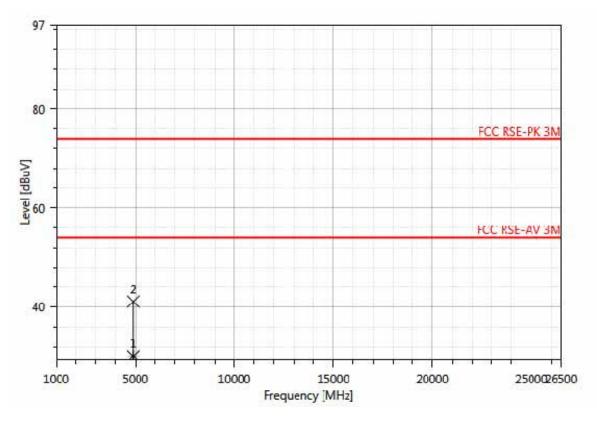




Fundamental Frequency: 2441 MHz Temp. / Humi.: 23 deg_C / 62 RH

Operation Band: Tx CH MID Test Engineer:

EUT Pol.: E1 Plane Measurement Antenna Pol.: HORIZONTAL

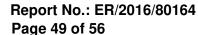


Freq.	Note	Decetor	Actual	Spectrum 5 ctrum	Factor	Limit	Margin
		Mode	Reading Level	FS		@3m	
MHz	F/H/E/S	QP/AV/PK	dBμV/m	dΒμV/m	dB	dBuV/m	dB
4884.00	Е	Average	30.04	24.85	5.19	54.00	-23.96
4884.00	Е	Peak	41.09	35.90	5.19	74.00	-32.91

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.

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 t (886-2) 2299-3279 www.tw.sqs.com

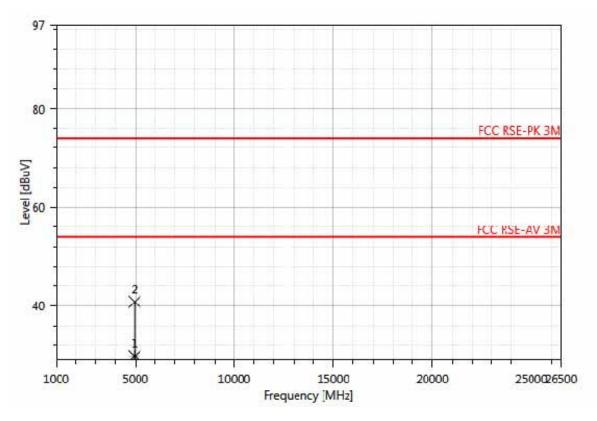




Fundamental Frequency: 2480 MHz Temp. / Humi.: 23 deg C / 62 RH

Operation Band: Tx CH HIGH Test Engineer:

EUT Pol.: E1 Plane Measurement Antenna Pol.: VERTICAL

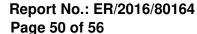


Freq.	Note	Decetor	Actual	Spectrum	Factor	Limit	Margin
		Mode	Reading Level	FS		@3m	
MHz	F/H/E/S	QP/AV/PK	dBμV/m	dΒμV/m	dB	dBuV/m	dB
4960.00	Е	Average	29.78	24.49	5.29	54.00	-24.22
4960.00	Е	Peak	40.81	35.53	5.29	74.00	-33.19

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.

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 t (886-2) 2299-3279 www.tw.sqs.com

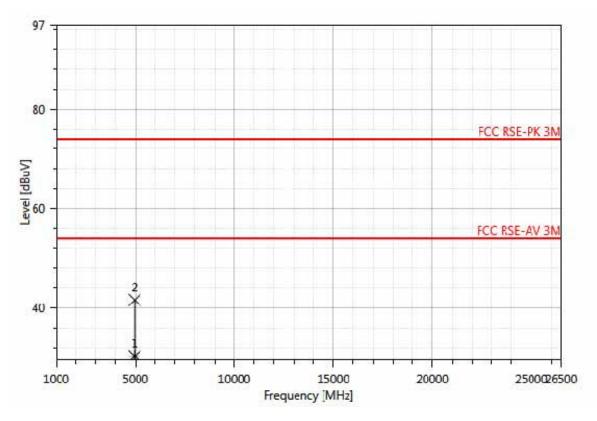




Fundamental Frequency: 2480 MHz Temp. / Humi.: 23 deg_C / 62 RH

Operation Band: Tx CH HIGH Test Engineer:

EUT Pol.: E1 Plane Measurement Antenna Pol.: HORIZONTAL



Freq.	Note	Decetor	Actual	Spectrum	Factor	Limit	Margin
		Mode	Reading Level	FS		@3m	
MHz	F/H/E/S	QP/AV/PK	dBμV/m	dBµV/m	dB	dBuV/m	dB
4960.00	Е	Average	30.26	24.97	5.29	54.00	-23.74
4960.00	Е	Peak	41.60	36.32	5.29	74.00	-32.40

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.

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

t (886-2) 2299-3279 www.tw.sqs.com



Page 51 of 56

11 PEAK POWER SPECTRAL DENSITY

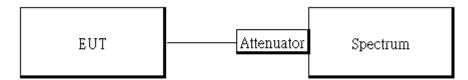
11.1 Standard Applicable:

The power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

11.2 Measurement Equipment Used:

SGS Conducted Room						
Name of Equipment	Manufacturer	Model	Serial Number	Calibra- tion Date	Calibra- tion Due	
Power Meter	Anritsu	ML2495A	1005007	12/09/2015	12/08/2016	
Power Sensor	Anritsu	MA2411B	917032	12/09/2015	12/08/2016	
EXA Spectrum Analyzer	Agilent	N9030A	MY53120760	02/26/2016	02/25/2017	
DC Block	Mini-Circuits	BLK-18-S+	1	01/02/2016	01/01/2017	
Coaxial Cable	HUBER+SUHNER	SUCOFLEX 102	23670/2	01/02/2016	01/01/2017	
Attenuator	Mini-Circuit	BW-S10W2+	2	01/02/2016	01/01/2017	
Splitter	Agilent	11636B	N/A	01/02/2016	01/01/2017	
DC Power Supply	Agilent	E3640A	MY52410006	11/05/2015	11/04/2016	
Temperature Chamber	TERCHY	MHG-120LF	911009	05/17/2016	05/16/2017	

11.3 Test Set-up:



11.4 Measurement Procedure:

- 1. Set analyzer center frequency to DTS channel center frequency.
- 2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
- 3. Set the span to 1.5 times the DTS channel bandwidth.
- 4. Set the RBW = 3 kHz.
- 5. Set the VBW = 10 kHz.
- 6. Detector = peak.
- 7. Sweep time = auto couple.
- 8. Trace mode = max hold.
- 9. Allow trace to fully stabilize.
- 10. Use the peak marker function to determine the maximum amplitude level.

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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 the first of the company is subject to the company is subject t 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



Page 52 of 56

11.5 Measurement Result:

ANT+ mode

7.1111 1110 000							
Frequency (MHz)	RF Power Density (dBm)	Maximum Limit (dBm)	Result				
2402	-6.47	8	PASS				
2441	-6.44	8	PASS				
2480	-7.58	8	PASS				

NOTE: cable loss as 0.8dB that offsets in the spectrum

Band Edge Limit

Frequency (MHz)	RF Power Density (dBm)	Bandedge Limit = PSD - 20dB
2402	1.31	-18.69
2480	0.26	-19.74

NOTE: cable loss as dB that offsets in the spectrum

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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 fullests extent of the law.

SGS Taiwan Ltd. No.134 WitKungRoad NewTaineil@idustrialPark WukupDistrict.NewTaineiiCity.Taiwan24803/新北市五股區新七本業園區五工路 134 號

SGS Taiwan Ltd.



ANT+ mode **Power Spectral Density Test Plot (CH-Low)**



Power Spectral Density Test Plot (CH-Mid)



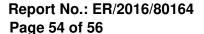
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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

f (886-2) 2298-0488

www.tw.sqs.com





Power Spectral Density Test Plot (CH-High)



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.

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.

Refs 丹有说明,此根告结果僅對測試之樣品負責,同時此樣品僅保留的天。本根专未绝本公司書面對可,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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 unawful and offenders may be prospectived to the fallest 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

台灣檢驗科技股份有限公司

t (886-2) 2299-3279 f (886-2) 2298-0488

www.tw.sqs.com



Power Spectral Density for Bandedge Limit (CH-Low)



Power Spectral Density for Bandedge Limit (CH-High)



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.

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

台灣檢驗科技股份有限公司

f (886-2) 2298-0488

www.tw.sqs.com



Page 56 of 56

12 ANTENNA REQUIREMENT

12.1 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.

If the transmitting antenna is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi.

In case of point-to-point operation, the power shall be reduced by the one dB for every 3 dB that the directional gain of antenna exceeds 6dBi.

12.2 Antenna Connected Construction:

An embedded-in antenna design is used.

The internal antenna is designed as permanently attached and no consideration of replacement. Please see EUT photo and antenna spec. for details.

The antenna gain is less than 6dBi. Therefore, it is not necessary to reduce maximum output power limit.

~ End of Report ~

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 www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms 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 the first of the company is subject to the company is subject t 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.