

Page: 1 of 236

ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART E AND INDUSTRY CANADA RSS 247 REQUIREMENT

OF

Product Name: Smart Module

Brand Name: N/A

Model No.: SIMT 1502

Model Difference: N/A

FCC ID: UDV-20170406

IC: 8460A-20170406

Report No.: ER/2017/50038

Issue Date: Jul. 21, 2017

FCC Rule Part: §15.407

IC Rule Part RSS-247 issue 2 Feb. 2017

Propored for:

SHANGHAL SIMCOM LIMITED

Prepared for: SHANGHAI SIMCOM LIMITED

Building A, SIM Technology Building, No.633, Jinzhong Road, Changning Dis-

trict, Shanghai

Prepared by: SGS Taiwan Ltd.

Electronics & Communication Laboratory 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. 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 ap-

pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law SGS Taiwan Ltd. No.134 WuKunoRoad.NewTaipeiIndustria

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: 2 of 236

VERIFICATION OF COMPLIANCE

SHANGHAI SIMCOM LIMITED **Applicant:**

Building A, SIM Technology Building, No.633, Jinzhong Road,

Changning District, Shanghai

Product Name: Smart Module

Brand Name: N/A

Model No.: SIMT 1502

Model Difference: N/A

FCC ID: UDV-20170406

IC: 8460A-20170406

File Number: ER/2017/50038

May 08, 2017 ~ Jun. 12, 2017 Date of test:

Date of EUT Received: May 08, 2017

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:	(on Li	Date:	Jul. 21, 2017
Prepared By:	Tin Lin / Engineer Karen Huang	Date:	Jul. 21, 2017
Approved By:	Karen Huang / Clerk Jim Chang / Asst Manager	Date:	Jul. 21, 2017

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,同時此樣品僅保留卽天。本報告未總本公司書面許可,不可都份複製。
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,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



Page: 3 of 236

Revision History

Report Number	Revision	Description	Issue Date
ER/2017/50038	Rev.00	Initial creation of document	Jul. 21, 2017

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.

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

10.134, WuKungRoad, NewTaipelindustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號



Page: 4 of 236

Table of Contents

1	GENERAL INFORMATION	5
2	SYSTEM TEST CONFIGURATION	8
3	SUMMARY OF TEST RESULT	11
4	DESCRIPTION OF TEST MODES	12
5	MEASUREMENT UNCERTAINTY	16
6	CONDUCTED EMISSION TEST	17
7	DUTY CYCLE TEST SIGNAL	21
8	26dB & 6dB EMISSION BANDWIDTH MEASUREMENT	24
9	MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT	70
10	PEAK POWER SPECTRAL DENSITY	75
11	UNDESIRABLE RADIATED EMISSION MEASUREMENT	99
12	TRANSMISSION IN THE ABSENCE OF DATA	220
	FREQUENCY STABILITY	
14	ANTENNA REQUIREMENT	226
15	MAXIMUM PERMISSIBLE EXPOSURE (MPE)	227
16	MAXIMUM PERMISSIBLE EXPOSURE (MPE)	230
PΗ	OTOGRAPHS OF SET UP	233
РΗ	OTOGRAPHS OF FUT	236

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.

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

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

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

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

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

No.134.WuKungRoad,NewTaipeilndustrialPark,WukungDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區 134 號

No.134.WuKungRoad

台灣檢驗科技股份有限公司



Page: 5 of 236

GENERAL INFORMATION

1.1 Product Description

General:

deneral.			
Product Name:	Smart Module		
Brand Name:	N/A		
Model No.:	SIMT 1502		
Model Difference:	N/A		
Product SW/HW version:	CB03_8909_V4.4_20160901/ V1.2		
Radio SW/HW version:	N/A / N/A		
Test SW Version:	N/A		
RF power setting in TEST SW:	N/A		
Power Supply:	3.8Vdc from DC power Supply		

Antenna Designation	External Antenna, 5GHz Gain: 3.37 dBi (5150MHz-5250MHz) 5GHz Gain: 3.23 dBi (5250MHz-5350MHz) 5GHz Gain: 1.51 dBi (5470MHz-5725MHz) 5GHz Gain: 0.42 dBi (5725MHz-5850MHz)		
Modulation type	64QAM, 16QAM, QPSK, BPSK for OFDM		
Transition Rate:	802.11 a: 6/9/12/18/24/36/48/54 Mbps 802.11 n_20MHz: 6.5 - 72.2Mbps 802.11 n_40MHz: 13.5 - 150.0Mbps		

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.

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

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

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

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

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

No.134.WuKungRoad,NewTaipeilndustrialPark,WukungDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區 134 號

No.134.WuKungRoad

t (886-2) 2299-3279



Page: 6 of 236

FCC WLAN 5GHz:

Wi-Fi	Frequency Range	Channels	Rated Power (Avg.)	Modulation Technology	
	5150~5250	4	15.98 dBm		
11a	5250~5350	4	16.36 dBm	OFDM	
11a	5470~5725	12	15.54 dBm	OFDIVI	
	5725-5850	5	14.26 dBm		
	HT20 5150~5250	4	16.00 dBm		
11n	HT20 5250~5350	4	16.31 dBm	OFDM	
HIII	HT20 5470~5725	12	15.58 dBm	OFDIVI	
	HT20 5725-5850	5	14.33 dBm		
	HT40 5150~5250	2	16.54 dBm		
11n	HT40 5250~5350	2	16.50 dBm	OFDM	
1111	HT40 5470~5725	6	14.07 dBm	OFDIVI	
	HT40 5725-5850	2	14.29 dBm		

IC WLAN 5GHz:

OVILING	, GI IZ.			
Wi-Fi	Frequency Range	Channels	Rated Power (Avg.) / (EIRP)	Modulation Technology
	5150~5250	4	15.98 dBm (EIRP)	
	5250~5350	4	16.36 dBm	
11a	5500~5580	5	14.66 dBm	OFDM
	5700~5700	1	15.54 dBm	
	5745-5825	5	14.26 dBm	
	HT20 5150~5250	4	16.00 dBm (EIRP)	
	HT20 5250~5350	4	16.31 dBm	
11n	HT20 5500~5580	5	14.53 dBm	OFDM
	HT20 5660~5720	4	15.58 dBm	EPA
	HT20 5745-5825	5	14.33 dBm	
	HT40 5150~5250	2	16.54 dBm (EIRP)	
	HT40 5250~5350	2	16.50 dBm	
11n	HT40 5510~5550	2	14.07 dBm	OFDM
	HT40 5670~5670	1	13.01 dBm	
	HT40 5755-5795	2	14.29 dBm	

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.

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

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

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

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

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

No.134.WuKungRoad,NewTaipeilndustrialPark,WukungDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區 134 號

No.134.WuKungRoad

台灣檢驗科技股份有限公司



Page: 7 of 236

1.2 Test Methodology of Applied Standards

FCC Part 15, Subpart E §15.407

FCC KDB 789033 D02 General UNII Test Procedures New Rules

RSS-247 issue 2 Feb. 2017

RSS-Gen issue4 Nov. 2014

ANSI C63.10:2013

Note: All test items have been performed and record as per the above standards.

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

Canada Registration Number: 4620A-5

1.4 Special Accessories

There are no special accessories used while test was conducted.

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.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留卽天。本報告未總本公司書面許可,不可都份複製。
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

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: 8 of 236

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

2.3.1 Conducted Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. 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.

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,同時此樣品僅保留卽天。本報告未總本公司書面許可,不可都份複製。
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,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



Page: 9 of 236

Measurement Results Explanation Example 2.4

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 and attenuator factor. Following shows an offset computation example with cable loss 2dB, and 10dB attenu-

= RF cable loss (dB)+ attenuation factor(dB)=12(dB)

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

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

t (886-2) 2299-3279

www.tw.sqs.com



Page: 10 of 236

Configuration of Tested System

Fig. 2-1 Configuration of Conducted and Radiated Tested System



Fig. 2-2 Conduction



Table 2-1 Equipment Used in Tested System

Ite m	Equipment	Mfr/Brand	Model/Type No.	Series No.	Data Cable	Power Cord
1	WLAN Test Software	N/A	N/A	N/A	N/A	N/A
2.	Notebook	Lenovo	L430	R9-YYG88	Shielded	Un-shielded
3.	Test Tool Kit	N/A	N/A	N/A	N/A	N/A

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at 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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發

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



Page: 11 of 236

SUMMARY OF TEST RESULT 3

FCC Rules	IC Rules	Description Of Test	Result
§15.207	RSS-Gen §8.8	AC Power Line Conducted Emission	Compliant
§15.403(i) §15.407(e)	RSS-247 §6.2.1~ 4 (1) RSS-Gen §6.6	26 dB & 6dB & 99% Emission Bandwidth	Compliant
§15.407(a)	RSS-247 §6.2.1~ 4 (1)	Maximum Conducted Output Power	Compliant
§15.407(a)	RSS-247 §6.2.1~ 4 (1)	Power Spectral Density	Compliant
§15.407(b)	RSS-247 §6.2.1~ 4 (2)	Undesirable Radiated Emissions	Compliant
§15.407(c)	RSS-247 §6.4	Transmission in case of Absence of Information	Compliant
§15.407(g)	RSS-Gen §6.11	Frequency Stability	Compliant
§15.203 §15.407(a)	-	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 fullest extent of the law.

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

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

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

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

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

No.134.WuKungRoad,NewTaipeilndustrialPark,WukungDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區 134 號

No.134.WuKungRoad

台灣檢驗科技股份有限公司

t (886-2) 2299-3279



Page: 12 of 236

DESCRIPTION OF TEST MODES

4.1 Operated in U-NII Bands

Operated band in 5150 MHz ~5250 MHz:

4 channels are provided for 802.11a, 802.11n_HT20

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

2 channels are provided for 802.11n_HT40

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

Operated band in 5250 MHz ~5350 MHz:

4 channels are provided for 802.11a, 802.11n_HT20

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

2 channels are provided for 802.11n_HT40

٠.		-		
\	CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
	54	5270 MHz	62	5310 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. 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

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.sgs.com



Page: 13 of 236

Operated band in 5470 MHz ~5725 MHz:

11 channels are provided for FCC 802.11a, 802.11n HT20

•		1	
CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz		

5 channels are provided for 802.11n HT40

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz		

Note: Channels from 5600MHz ~ 5650MHz are disabled when this product is marketed withing Canada.

Operated band in 5725 MHz ~5850 MHz:

5 channels are provided for 802.11a, 802.11n HT20

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
149	5745 MHz	161	5805 MHz
153	5765 MHz	165	5825 MHz
157	5785 MHz		

2 channels are provided for 802.11n HT40

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755 MHz	159	5795 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. 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

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.sgs.com



Page: 14 of 236

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 mode is programmed.
- 3. Investigation has been done on all the possible configurations for searching the worst case.

BADIATED EMISSION TEST

ADIATED EMISSION TEST:						
RADIATED EMISSION TEST (BELOW 1 GHz)						
MODE	FREQUENCY BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	
802.11a	5180~5240	36 to 48	44	OFDM	6	
802.11a	5260~5320	52 to 64	60	OFDM	6	
802.11a	5500~5720	100 to 140	116	OFDM	6	
802.11a	5745~5825	149 to 165	157	OFDM	6	
	RADIATED EMISSION TEST (ABOVE 1 GHz)					
MODE	FREQUENCY BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	
802.11a	5180~5240	36 to 48	36,44,48	OFDM	6	
802.11n_HT20	3100~3240	30 10 40	30,44,40	OFDM	MCS0	
802.11n_HT40	5190~5230	38 to 46	38,46	OFDM	MCS0	
802.11a	5260~5320	52 to 64	F0 00 04	OFDM	6	
802.11n_HT20	3200~3320	52 10 04	52,60,64	OFDM	MCS0	
802.11n_HT40	5270~5310	54 to 62	54,62	OFDM	MCS0	

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發

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.

t (886-2) 2299-3279

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



Page: 15 of 236

MODE	FREQUENCY BAND (MHz)		TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11a	5500 5700	100 to 144	100 110 140	OFDM	6
802.11n_HT20	5500~5720	100 to 144	100,116,140	OFDM	MCS0
802.11n_HT40	5510~5710	102 to 142	102,110,134	OFDM	MCS0
802.11a	5745 - 500 5	140 to 165	140 157 165	OFDM	6
802.11n_HT20	5745~5825	149 to 165	149,157,165	OFDM	MCS0
802.11n_HT40	5755~5795	151 to 159	151,159	OFDM	MCS0

Note:

The field strength of radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1, E2 mode) for 802.11a/n/ac WLAN Transmitter for channel Low, Mid and High, the worst case H position was reported.

ANTENNA PORT CONDUCTED MEASUREMENT:

TENNAT OTT CONDOCTED MEAGOTIEMENT.					
65	CONDUCTED TEST				
MODE	FREQUENCY BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
802.11a	5180~5240	36 to 48	36,44,48	OFDM	6
802.11n_HT20	3180~3240	30 10 48	30,44,40	OFDM	MCS0
802.11n_HT40	5190~5230	38 to 46	38,46	OFDM	MCS0
802.11a	5260~5320	52 to 64	52,60,64	OFDM	6
802.11n_HT20	5260~5320			OFDM	MCS0
802.11n_HT40	5270~5310	54 to 62	54,62	OFDM	MCS0
802.11a	5500~5720	100 to 140	100,116,140	OFDM	6
802.11n_HT20	5500~5720	~5720 100 to 140 100,116,14	100,116,140	OFDM	MCS0
802.11n_HT40	5510~5710	102 to 134	102,110,134	OFDM	MCS0
802.11a	5745~5825	140 += 105	140 157 105	OFDM	6
802.11n_HT20	3745~5625	149 to 165	149,157,165	OFDM	MCS0
802.11n_HT40	5755~5795	151 to 159	151,159	OFDM	MCS0

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 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 WulkunDRaod.NewTaipeiIndustrialPark.WukunDistrict.NewTaipeiCity.Taiwan24803/新 北市 五 股區新 北產業園區 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: 16 of 236

MEASUREMENT UNCERTAINTY

Test Items	Uncertainty
AC Power Line Conducted Emission	+/- 2.586 dB
26dB & 6dB Emission Bandwidth	+/- 123.36 Hz
The Maximum Output Power Measurement	+/- 0.96 dB
Peak Power Spectral Density Measurement	+/- 1.67 dB
Frequency Stability	+/- 123.36 Hz
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
	30MHz - 167MHz: +/- 4.22dB
Measurement uncertainty	167MHz -500MHz: +/- 3.44dB
(Polarization : Horizontal)	0.5GHz-1GHz: +/- 3.39dB
	1GHz - 18GHz: +/- 4.08dB
	18GHz - 40GHz: +/- 4.08dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

t (886-2) 2299-3279

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發

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: 17 of 236

CONDUCTED EMISSION TEST

6.1. Standard Applicable

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

Frequency range	Limits dB(uV)		
MHz	Quasi-peak	Average	
0.15 to 0.50	66 to 56	56 to 46	
0.50 to 5	56	46	
5 to 30	60	50	

6.2. Measurement Equipment Used

Conducted Emission Test Site								
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.			
EMI Test Receiver	R&S	ESCI7	100760	05/11/2017	05/10/2018			
LISN	SCHWARZ BECK	NSLK 8127	8127-649	05/22/2016	05/21/2017			
LISN	MESS TEC	FCC-LISN-50/250-25- 2-01	4034	03/19/2017	03/18/2018			
Coaxial Cables	N/A	WK CE Cable	N/A	11/26/2016	11/25/2017			

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 rear of the EUT and peripherals were placed flushed with the rear of the tabletop.
- 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. 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 the control of the contro 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

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.sgs.com

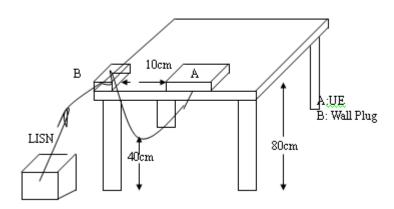
^{1.} The lower limit shall apply at the transition frequencies

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



Page: 18 of 236

6.4. Test SET-UP



6.5. Measurement Procedure

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

t (886-2) 2299-3279

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

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: 19 of 236



Site Conduction Room

Limit FCC Class B Conduction(QF)

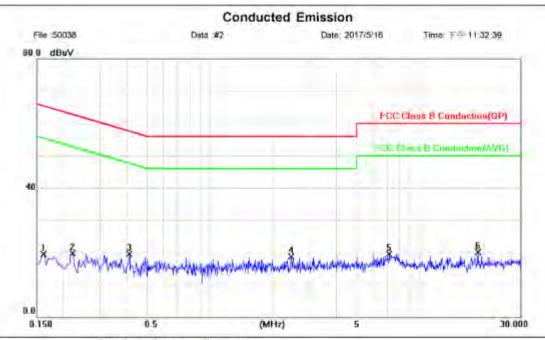
Mode Operation

Phase: Power. AC 120V/60Hz

Temperature

20

Humidity: 58 %



Mk.	Freq	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
	0.1620	9.76	9.80	19.56	65.36	-45.80	peak	
	0.2220	9.89	979	19.68	62.74	-43.06	peak	
	0.4140	9.81	9.79	19.60	57.57	-37.97	peak	
-	2.4460	8.97	9.83	18.80	56.00	-37.20	peak	
	7.1700	9.45	9 99	19.44	60,00	-40.56	peak	
	15.8780	9.91	10.15	20.06	60.00	-39.94	peak	
		MHz 0.1620 0.2220 0.4140 2.4460 7.1700	Mk. Freq. Level MHz dBuV 0.1620 9.76 0.2220 9.89 0.4140 9.81 - 2.4460 8.97 7.1700 9.45	Mk Freq Level Factor MHz dBuV dB 0.1620 9.76 9.80 0.2220 9.89 9.79 0.4140 9.81 9.79 - 2.4460 8.97 9.83 7.1700 9.45 9.99	Mk. Freq Level Factor ment MHz dBuV dB dBuV 0.1620 9.76 9.80 19.56 0.2220 9.89 9.79 19.68 0.4140 9.81 9.79 19.60 2.4460 8.97 9.83 18.80 7.1700 9.45 9.99 19.44	Mk. Freq Level Factor ment Limit MHz dBuV dB dBuV dBuV 0.1620 9.76 9.80 19.56 65.36 0.2220 9.89 9.79 19.68 62.74 0.4140 9.81 9.79 19.60 57.57 2.4460 8.97 9.83 18.80 56.00 7.1700 9.45 9.99 19.44 60.00	Mk. Freq Level Factor ment Limit Over MHz dBuV dB dBuV dB dBuV dB 0.1620 9.76 9.80 19.56 65.36 -45.80 0.2220 9.89 9.79 19.68 62.74 -43.06 0.4140 9.81 9.79 19.60 57.57 -37.97 2.4460 8.97 9.83 18.80 56.00 -37.20 7.1700 9.45 9.99 19.44 60.00 -40.56	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB dBuV dBuV dB Detector 0.1620 9.76 9.80 19.56 65.36 -45.80 peak 0.2220 9.89 9.79 19.68 62.74 -43.06 peak 0.4140 9.81 9.79 19.60 57.57 -37.97 peak 2.4460 8.97 9.83 18.80 56.00 -37.20 peak 7.1700 9.45 9.99 19.44 60.00 -40.56 peak



Page: 20 of 236

Site Conduction Room

Phase:

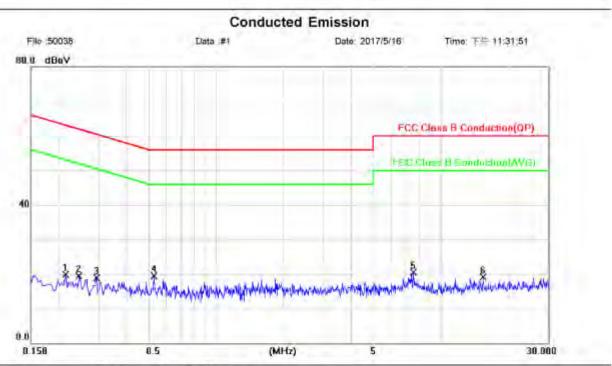
Temperature

Limit: FCC Class B Conduction(QP)

AC 120V/50Hz Power:

Humidity.

Mode: Operation



No	Mk.	Freq	Reading Level	Correct Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment	
1		0.2140	10.06	9.79	19.85	63.05	-43.20	peak		
2		0.2460	9.76	9.79	19.55	61.89	-42.34	peak		
3	-	0.2940	9.16	9.79	18,95	60.41	-41.46	peak		
-4	•	0.5300	9.67	9.79	19.46	56.00	-36.54	peak		
5		7.5260	10.49	10.00	20.49	60.00	-39.51	peak		
6		15.4340	B.95-	10.11	19.06	60.00	-40.94	peak		

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: 21 of 236

DUTY CYCLE TEST SIGNAL

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle.

All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

Formula:

Duty Cycle = Ton / (Ton+Toff)

Measurement Procedure:

- 1. Set span = Zero
- 2. RBW = 8MHz
- 3. VBW = 8MHz.
- 4. Detector = Peak

Duty Cycle:

Mode	Duty Cycle (%)	Duty Factor (dB) =10*log (1/Duty Cycle
802.11a	87.33	0.59
802.11n_20	86.46	0.63
802.11n_40	76.02	1.19

Duty Cycle Factor: $10 * \log(1/0.8733) = 0.59$ Duty Cycle Factor: $10 * \log(1/0.8646) = 0.63$ Duty Cycle Factor: $10 * \log(1/0.7602) = 1.19$

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.

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

台灣檢驗科技股份有限公司



Page: 22 of 236

DUTY CYCLE TEST SIGNAL Measurement Result 802.11a



802.11n HT20



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.

Offices otherwise stated the results shown in this less report relear only to the sample(s) tested and such carriagnes are retained for 90 days only.

Rep. 8月 有说明,此報告结果僅對測試之樣品負責,同時止樣品僅保留到天。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 edocument.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 price of this document is publicated expenses of this decument is publicated and the produced except in full, without price of this document is publicated and the produced except in full, without price of this decument is publicated and the produced except in full, without price of this decument is publicated and the publication of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

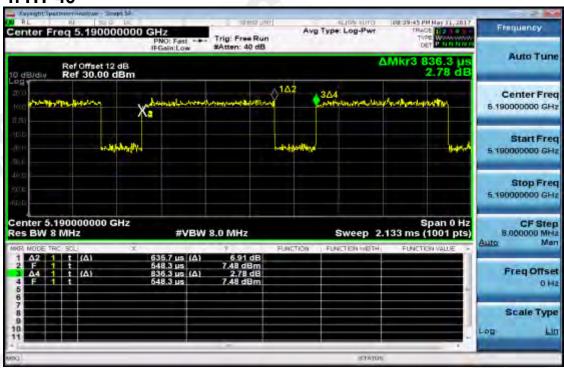
SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

t (886-2) 2299-3279



Page: 23 of 236

802.11 n HT 40



t (886-2) 2299-3279

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. 除非另有说明,此根告结果僅對测試之樣品負責,同時此樣品僅保留90天。本根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 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. WukfunDload.NewTaineiIndustrialPark WukinDistrict NewTaineiIndustrialPark WukinDistrict NewTaineiDistrict NewTaineiDistrict NewTaineiDistrict New

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: 24 of 236

26DB & 6DB EMISSION BANDWIDTH MEASUREMENT

8.1 Standard Applicable

There is no limit bandwidth for U-NII-1, U-NII-2-A and U-NII-2-C.

The minimum of 6dB Bandwidth measurement is 0.5 MHz for U-NII-3

8.2 Measurement Procedure

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules.
- 3. Remove the antenna from the EUT and then connect a low loss RF cable from the Antenna port to the spectrum analyzer.
 - a. 26dB Band width Measurement: Set the spectrum analyzer as 1% of emission BW Sweep=auto, Detector = Peak, Trace Mode = Max Hold, Manually readjust RBW until the RBW/EBW ratio is 1% based on EBW as observed on the result of pre-sequence measurement.
 - b. Mark the peak frequency and –26dB (upper and lower) frequency.
- 4. Repeat the procedures as list above until all test default channels (low, middle, and high) are completed.
- 5. Minimum Emission Bandwidth for the band 5.725-5.850GHz.
 - a. Set the spectrum analyzer as RBW = 100 kHz, VBW = 3*RBW, Span = 30M/50MHz, Detector=Peak,
 - Sweep=auto
 - b. Mark the peak frequency and -6dB (upper and lower) frequency.
- 6. Repeat above procedures until all test default 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 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

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



Page: 25 of 236

Measurement Equipment Used 8.3

	Conducted Emission Test Site								
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.				
EXA Spectrum Ana- lyzer	Agilent	N9030A	MY53120760	03/21/2017	03/20/2018				
DC Block	Mini-Circuits	BLK-18-S+	1	01/05/2017	01/04/2018				
Coaxial Cable	HUBER+SUHNER	SUCOFLEX 102	23670/2	01/05/2017	01/04/2018				
Attenuator	Mini-Circuit	BW-S10W2+	2	01/05/2017	01/04/2018				
Splitter	Agilent	11636B	N/A	01/05/2017	01/04/2018				

Test Set-up

Attenuator **SPA 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. 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.

SCS 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

10.103, WuKungRoad, NewTaipeilndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號



Page: 26 of 236

8.5 Measurement Result 26dB Bandwidth

802.11a Main

802.11n HT20 Main

OUZ.TTA_IMAT	11		002.1111_11120_Wall1			_			
Frequency (MHz)	26dB BW	10 Log (B) (dB)	Frequency (MHz)	26dB BW	10 Log (B) (dB)	802.11n _HT	[·] 40_Main		
()	(MHz)	(42)	()	(MHz)	(42)	_	26dB	40 1 (D)	
5180	28.80	14.594	5180	29.90	14.757	Frequency (MHz)	BW	10 Log (B) (dB)	
5220	30.00	14.771	5220	29.88	14.753	(101112)	(MHz)	(db)	
5240	30.00	14.771	5240	30.00	14.771	5190	50.00	16.990	
5260	30.00	14.771	5260	30.00	14.771	5230	50.00	16.990	
5300	30.00	14.771	5300	29.87	14.752	5270	50.00	16.990	
5320	30.00	14.771	5320	29.98	14.768	5310	50.00	16.990	
5500	29.68	14.725	5500	30.00	14.771	5510	50.00	16.990	
5580	29.62	14.715	5580	29.64	14.718	5550	47.30	16.749	
5700	29.98	14.769	5700	29.95	14.765	5670	49.34	16.932	

802.11a_Main

802.11 n_HT20_Main

	6dB	(0)	_	6dB 802.11n_HT40_Main		6dB		
Frequency (MHz)	BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	6dB BW	10 Log (B) (dB)
5745	16.48	12.170	5745	17.66	12.469	(111112)	(MHz)	(42)
5785	16.41	12.152	5785	17.66	12.469	5755	35.21	15.467
5825	16.41	12.152	5825	17.62	12.459	5795	35.21	15.467

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.

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

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

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

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

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

No.134.WuKungRoad,NewTaipeilndustrialPark,WukungDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區 134 號

No.134.WuKungRoad

台灣檢驗科技股份有限公司

www.tw.sqs.com



Page: 27 of 236

99% Bandwidth

802.11a Main

802.11n HT20 Main

OOZ.TTA_IMAT		
Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	16.622	12.207
5220	16.833	12.262
5240	16.626	12.208
5260	16.940	12.289
5300	16.668	12.219
5320	16.637	12.211
5500	16.470	12.167
5580	16.497	12.174
5700	16.633	12.210

002.1111_11120_Wall1							
Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)					
5180	17.866	12.520					
5220	16.558	12.190					
5240	17.812	12.507					
5260	17.763	12.495					
5300	17.769	12.497					
5320	17.885	12.525					
5500	17.853	12.517					
5580	17.874	12.522					
5700	17.838	12.513					

802.11n _HT40_Main

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5190	32.641	15.138
5230	36.374	15.608
5270	36.062	15.570
5310	36.119	15.577
5510	36.220	15.589
5550	36.075	15.572
5670	36.201	15.587

802.11a_Main

802.11n_HT20_Main

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	16.43	12.156
5785	16.43	12.156
5825	16.46	12.164

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	17.46	12.420
5785	14.72	11.679
5825	14.40	11.584

802.11n _HT40_Main

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5755	34.17	15.336
5795	35.87	15.547

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 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.

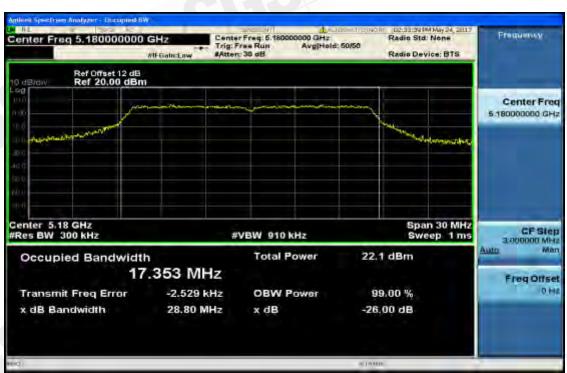
SGS Taiwan Ltd. No.134 WulkunDRaod.NewTaipeiIndustrialPark.WukunDistrict.NewTaipeiCity.Taiwan24803/新 北市 五 股區新 北產業園區 五工路 134 號

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



Page: 28 of 236

802.11a, 5150~5250 MHz (Main) 26dB Band Width Test Data CH-Low (5180MHz)



26dB Band Width Test Data CH-Mid (5220MHz)



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.

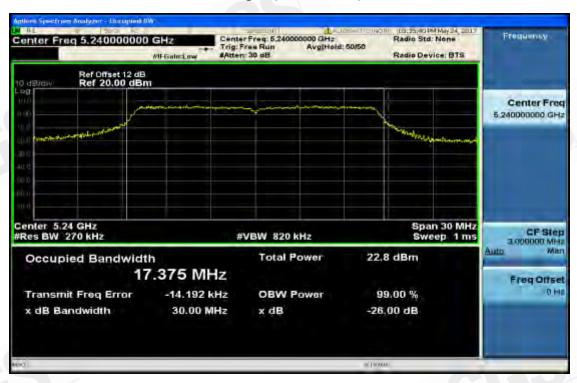
SGS Taiwan Ltd. No.134, WuKungRoad, NewTaipeilndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司



Page: 29 of 236

26dB Band Width Test Data CH-High (5240MHz)



t (886-2) 2299-3279

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 light 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.

Statement of the law.

**No 134 Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Park Witking/Park

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.

台灣檢驗科技股份有限公司

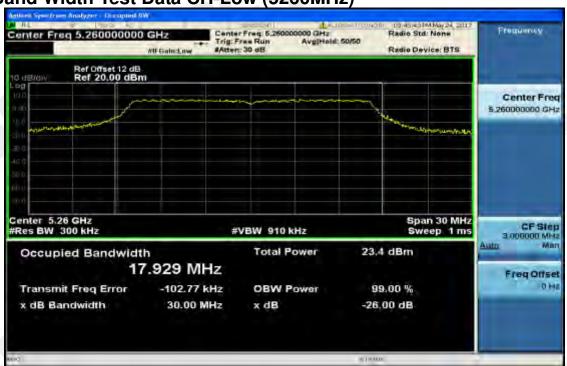
f (886-2) 2298-0488

www.tw.sqs.com

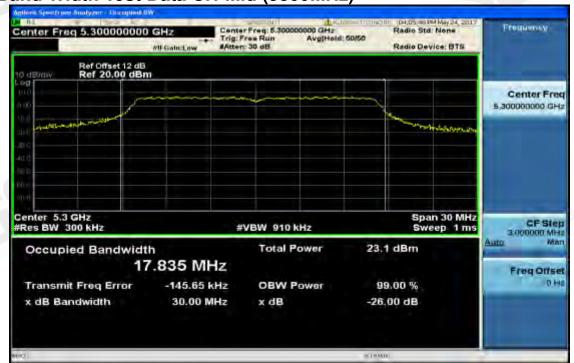


Page: 30 of 236

802.11a, 5250~5350 MHz (Main) 26dB Band Width Test Data CH-Low (5260MHz)



26dB Band Width Test Data CH-Mid (5300MHz)



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 not 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 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 subject 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

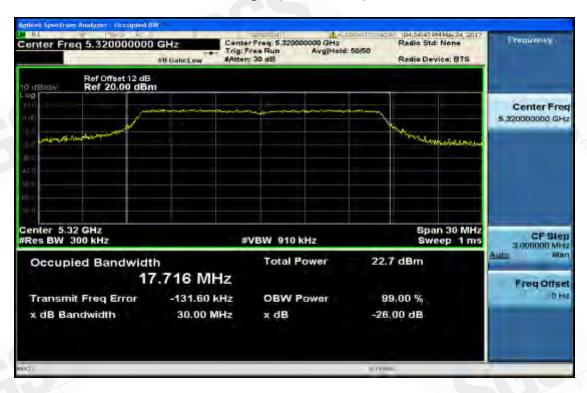
SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

t (886-2) 2299-3279



Page: 31 of 236

26dB Band Width Test Data CH-High (5320MHz)



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 light 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.

Statement of the law.

**No 134 Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Park Witking/Park

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.

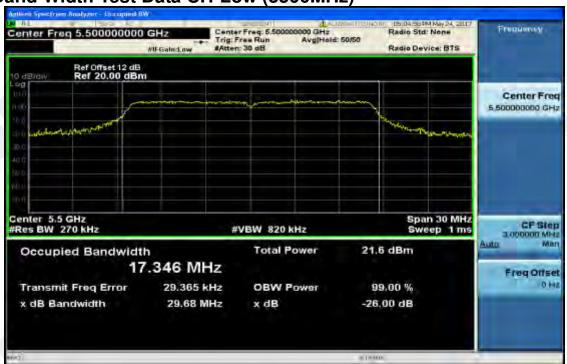
台灣檢驗科技股份有限公司

t (886-2) 2299-3279

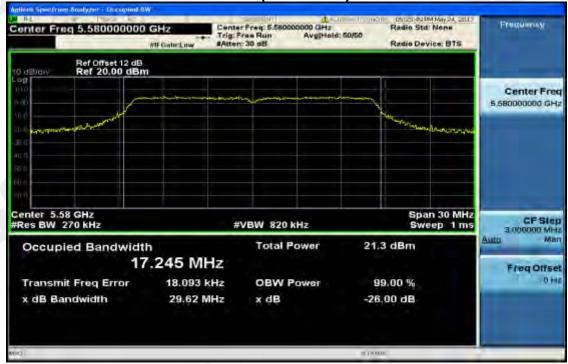


Page: 32 of 236

802.11a, 5470~5725 MHz (Main) 26dB Band Width Test Data CH-Low (5500MHz)



26dB Band Width Test Data CH-Mid (5580MHz)



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.

Offices otherwise stated the results shown in this less report relear only to the sample(s) tested and such carriagnes are retained for 90 days only.

Rep. 8月 有说明,此報告结果僅對測試之樣品負責,同時止樣品僅保留到天。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 edocument.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 price of this document is publicated expenses of this decument is publicated and the produced except in full, without price of this document is publicated and the produced except in full, without price of this decument is publicated and the produced except in full, without price of this decument is publicated and the publication of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

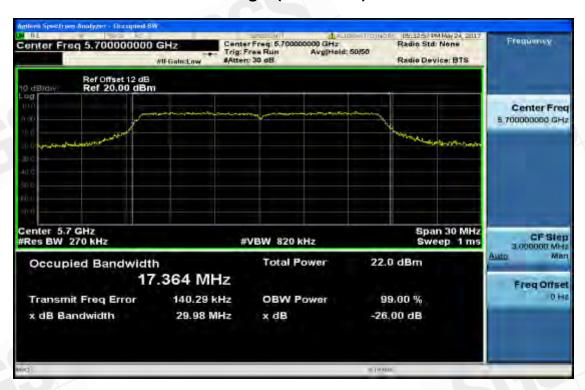
SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

t (886-2) 2299-3279



Page: 33 of 236

26dB Band Width Test Data CH-High (5700MHz)



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 light 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.

Statement of the law.

**No 134 Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Park Witking/Park

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.

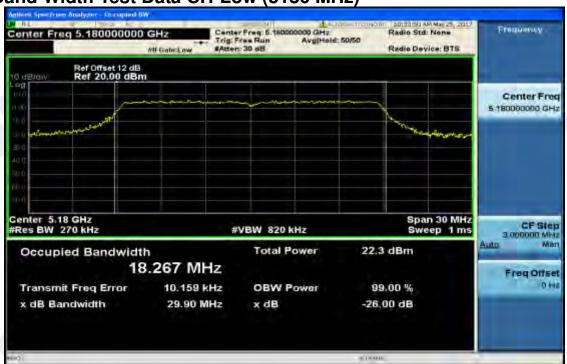
台灣檢驗科技股份有限公司

t (886-2) 2299-3279



Page: 34 of 236

802.11n HT20, 5150~5250 MHz (Main) 26dB Band Width Test Data CH-Low (5180 MHz)



26dB Band Width Test Data CH-Mid (5220 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.

t (886-2) 2299-3279

Unless otherwise stated the results snown in this test report refer only to the sample(s) tested and such sample(s) are retained not 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 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 subject 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

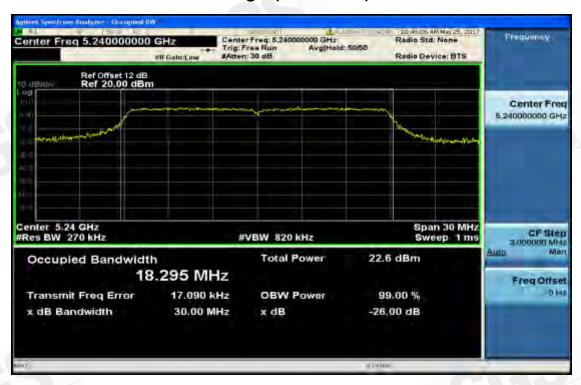
SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司



Page: 35 of 236

26dB Band Width Test Data CH-High (5240 MHz)



t (886-2) 2299-3279

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 light 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.

Statement of the law.

**No 134 Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Park Witking/Park

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.

台灣檢驗科技股份有限公司

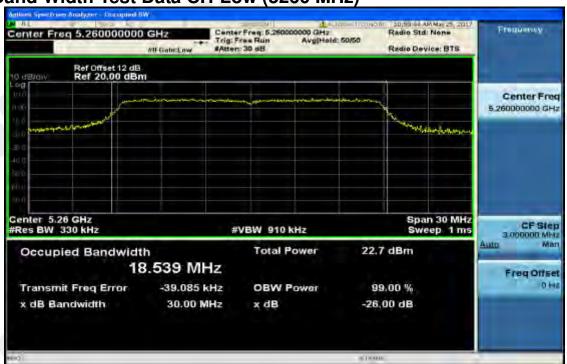
f (886-2) 2298-0488

www.tw.sqs.com

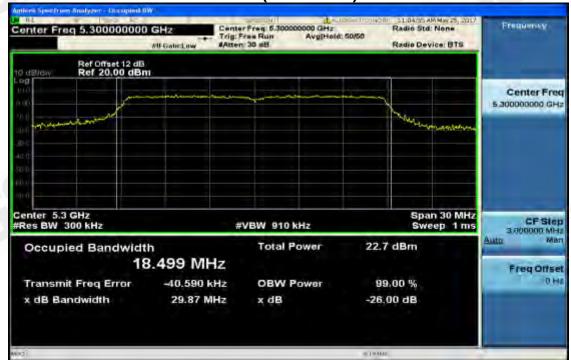


Page: 36 of 236

802.11n HT20, 5250~5350 MHz (Main) 26dB Band Width Test Data CH-Low (5260 MHz)



26dB Band Width Test Data CH-Mid (5300 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.

Unless otherwise stated the results snown in this test report refer only to the sample(s) tested and such sample(s) are retained not 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 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 subject 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



Page: 37 of 236

26dB Band Width Test Data CH-High (5320 MHz)



t (886-2) 2299-3279

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 light 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.

Statement of the law.

**No 134 Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Park Witking/Park

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.

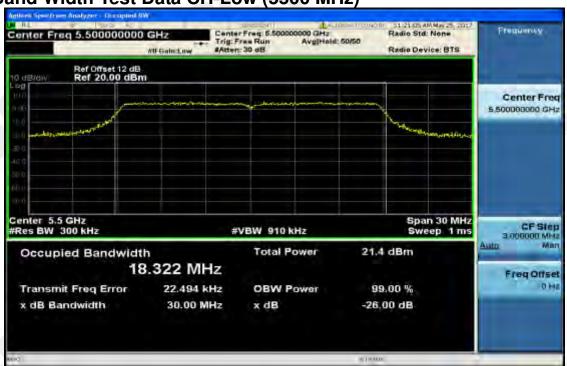
台灣檢驗科技股份有限公司

f (886-2) 2298-0488



Page: 38 of 236

802.11n HT20, 5470~5725 MHz (Main) 26dB Band Width Test Data CH-Low (5500 MHz)



26dB Band Width Test Data CH-Mid (5580 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.

Unless otherwise stated the results snown in this test report refer only to the sample(s) tested and such sample(s) are retained not 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 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 subject 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

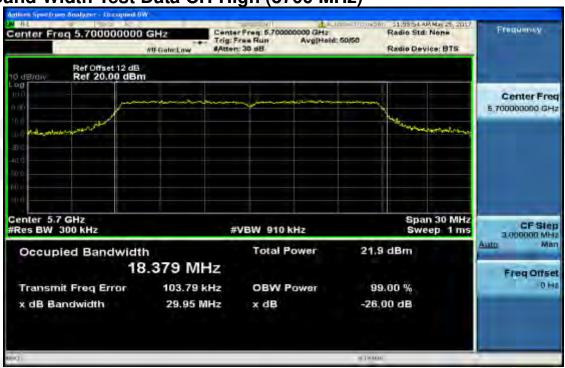
SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司



Page: 39 of 236

26dB Band Width Test Data CH-High (5700 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. 除非另有说明,此根告结果僅對测試之樣品負責,同時此樣品僅保留90天。本根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 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. WukfunDload.NewTaineiIndustrialPark WukinDistrict NewTaineiIndustrialPark WukinDistrict NewTaineiDistrict NewTaineiDistrict NewTaineiDistrict New

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

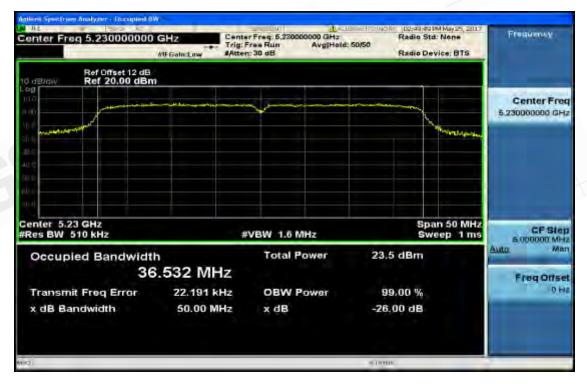


Page: 40 of 236

802.11n HT40, 5150~5250 MHz (Main) 26dB Band Width Test Data CH-Low (5190 MHz)



26dB Band Width Test Data CH-High (5230 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. 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。

t (886-2) 2299-3279

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

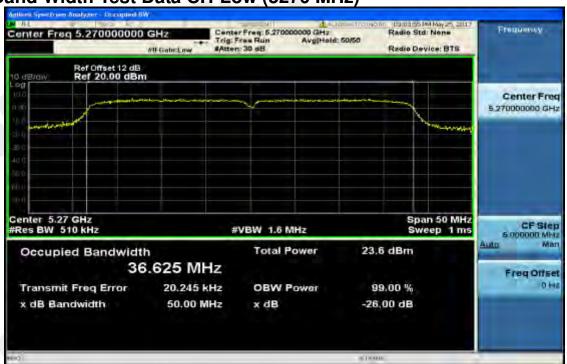
SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司



Page: 41 of 236

802.11n HT40, 5250~5350 MHz (Main) 26dB Band Width Test Data CH-Low (5270 MHz)



26dB Band Width Test Data CH-High (5310MHz)



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

Unless otherwise stated the results snown in this test report refer only to the sample(s) tested and such sample(s) are retained not 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 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 subject 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

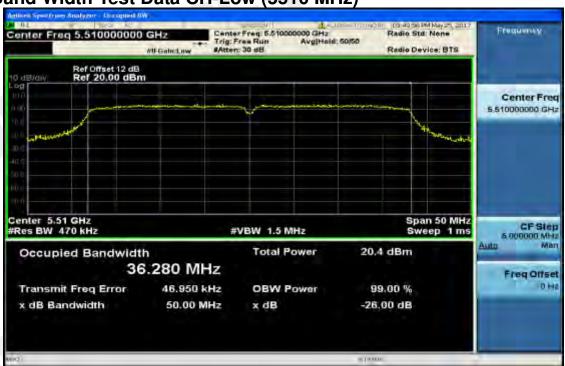
SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司



Page: 42 of 236

802.11n HT40, 5470~5725 MHz (Main) 26dB Band Width Test Data CH-Low (5510 MHz)



26dB Band Width Test Data CH-Mid (5550 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.

t (886-2) 2299-3279

Unless otherwise stated the results snown in this test report refer only to the sample(s) tested and such sample(s) are retained not 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 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 subject 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

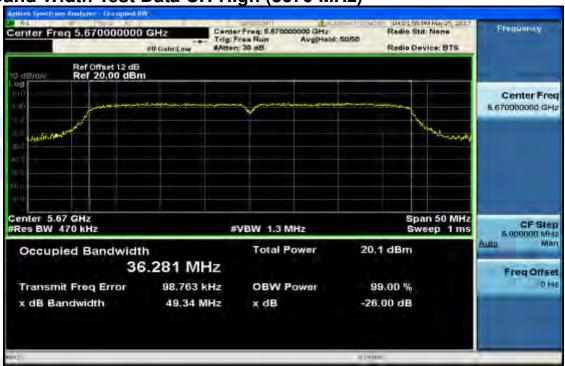
SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司



Page: 43 of 236

26dB Band Width Test Data CH-High (5670 MHz)



t (886-2) 2299-3279

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. 除非另有说明,此根告结果僅對测試之樣品負責,同時此樣品僅保留90天。本根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 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. WukfunDload.NewTaineiIndustrialPark WukinDistrict NewTaineiIndustrialPark WukinDistrict NewTaineiDistrict NewTaineiDistrict NewTaineiDistrict New

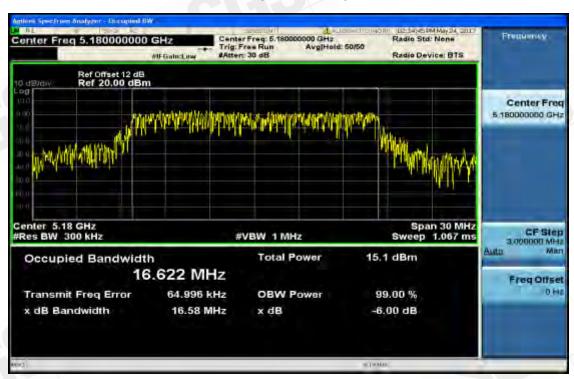
SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司

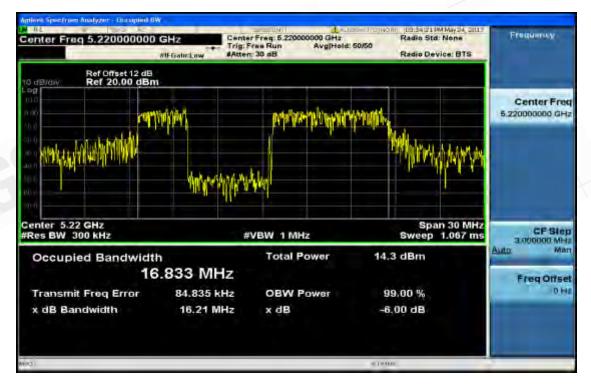


Page: 44 of 236

802.11a, 5150~5250 MHz (Main) 99% Band Width Test Data CH-Low (5180MHz)



99% Band Width Test Data CH-Mid (5220MHz)



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。

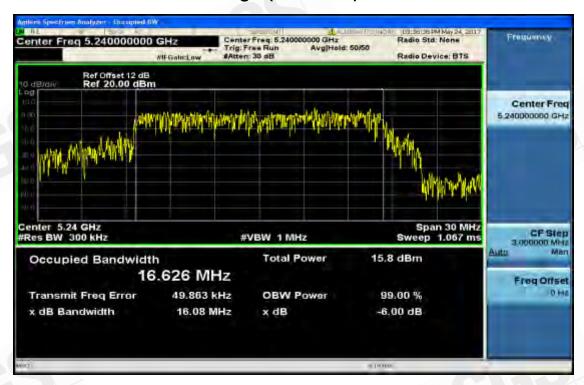
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. 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,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



Page: 45 of 236

99% Band Width Test Data CH-High (5240MHz)



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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發

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

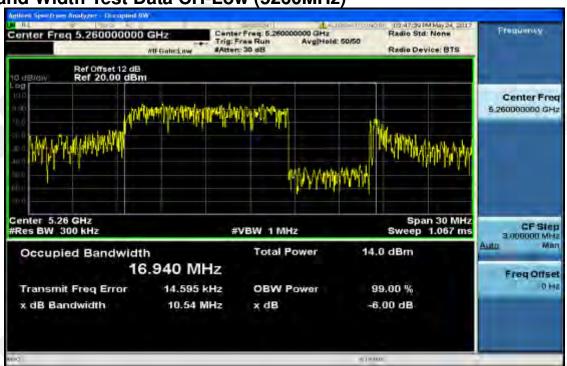
台灣檢驗科技股份有限公司

t (886-2) 2299-3279

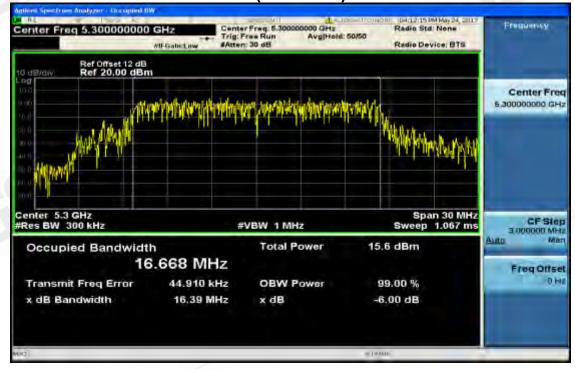


Page: 46 of 236

802.11a, 5250~5350 MHz (Main) 99% Band Width Test Data CH-Low (5260MHz)



99% Band Width Test Data CH-Mid (5300MHz)



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

Unless otherwise stated the results shown in this test report refer only to the sample(s) lested and such sample(s) leste 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

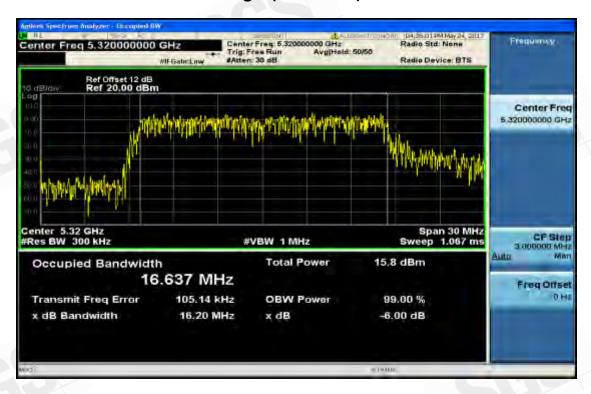
SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司



Page: 47 of 236

99% Band Width Test Data CH-High (5320MHz)



t (886-2) 2299-3279

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. 除非另有说明,此根告结果僅對测試之樣品負責,同時此樣品僅保留90天。本根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 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. WukfunDload.NewTaineiIndustrialPark WukinDistrict NewTaineiIndustrialPark WukinDistrict NewTaineiDistrict NewTaineiDistrict NewTaineiDistrict New

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.

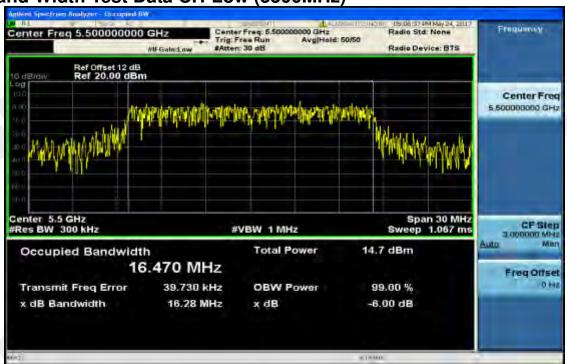
台灣檢驗科技股份有限公司

f (886-2) 2298-0488

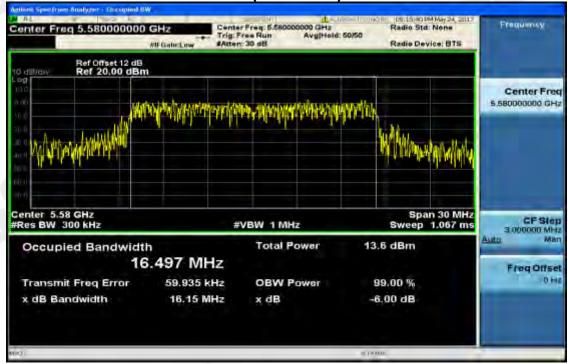


Page: 48 of 236

802.11a, 5470~5725 MHz (Main) 99% Band Width Test Data CH-Low (5500MHz)



99% Band Width Test Data CH-Mid (5580MHz)



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.

Offices otherwise stated the results shown in this less report relear only to the sample(s) tested and such carriagnes are retained for 90 days only.

Rep. 8月 有说明,此報告结果僅對測試之樣品負責,同時止樣品僅保留到天。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 edocument.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 price of this document is approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appropriate and the produced except in full, without price of this decument is unquitable and effective previously the research of the low. pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

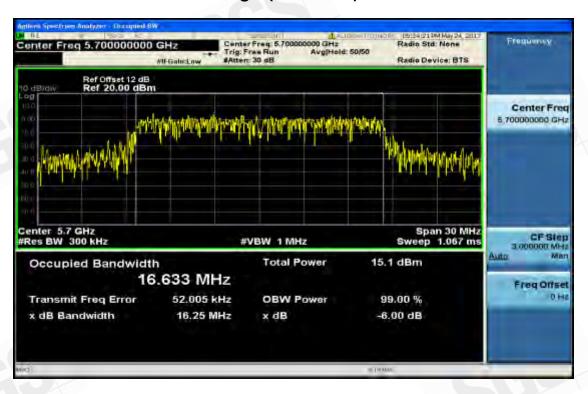
SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司



Page: 49 of 236

99% Band Width Test Data CH-High (5700MHz)



t (886-2) 2299-3279

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. 除非另有说明,此根告结果僅對测試之樣品負責,同時此樣品僅保留90天。本根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 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. WukfunDload.NewTaineiIndustrialPark WukinDistrict NewTaineiIndustrialPark WukinDistrict NewTaineiDistrict NewTaineiDistrict NewTaineiDistrict New

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.

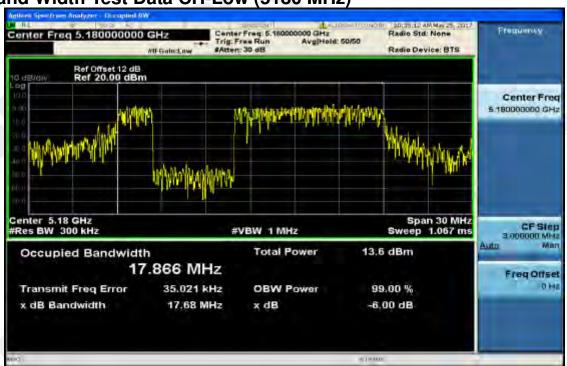
台灣檢驗科技股份有限公司

f (886-2) 2298-0488

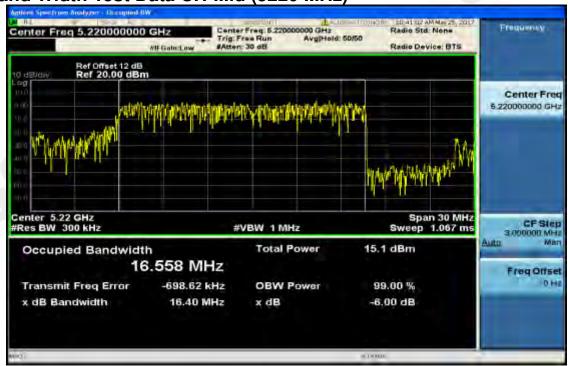


Page: 50 of 236

802.11n HT20, 5150~5250 MHz (Main) 99% Band Width Test Data CH-Low (5180 MHz)



99% Band Width Test Data CH-Mid (5220 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.

Unless otherwise stated the results snown in this test report refer only to the sample(s) tested and such sample(s) are retained not 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 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 subject 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

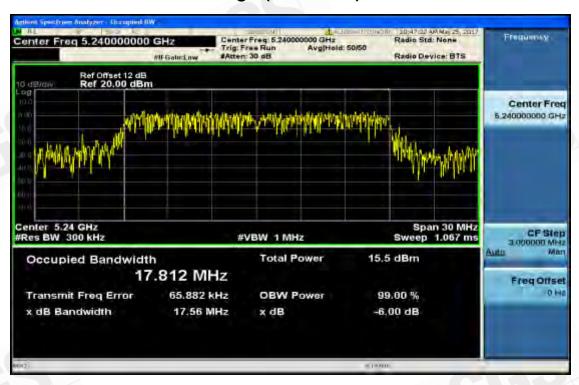
No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

台灣檢驗科技股份有限公司



Page: 51 of 236

99% Band Width Test Data CH-High (5240 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.
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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發

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

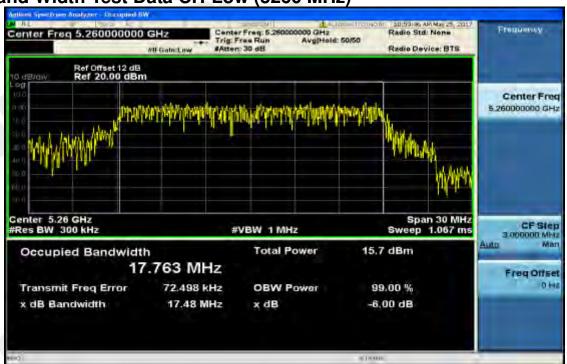
台灣檢驗科技股份有限公司

f (886-2) 2298-0488

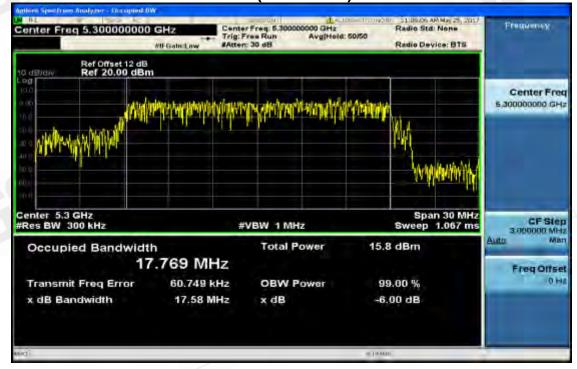


Page: 52 of 236

802.11n HT20, 5250~5350 MHz (Main) 99% Band Width Test Data CH-Low (5260 MHz)



99% Band Width Test Data CH-Mid (5300 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.

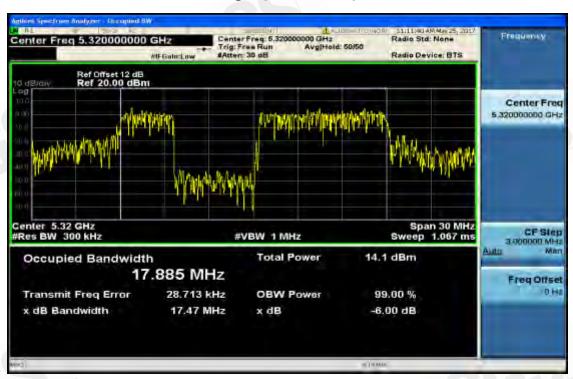
Unless otherwise stated the results snown in this test report refer only to the sample(s) tested and such sample(s) are retained not so days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, 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 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 subject 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: 53 of 236

99% Band Width Test Data CH-High (5320 MHz)



t (886-2) 2299-3279

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發

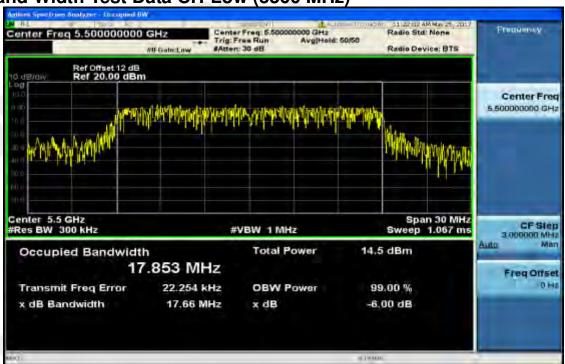
No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司

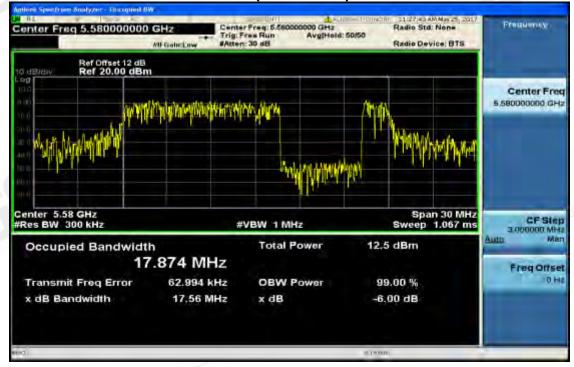


Page: 54 of 236

802.11n HT20, 5470~5725 MHz (Main) 99% Band Width Test Data CH-Low (5500 MHz)



99% Band Width Test Data CH-Mid (5580 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.

t (886-2) 2299-3279

Unless otherwise stated the results snown in this test report refer only to the sample(s) tested and such sample(s) are retained not 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 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 subject 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

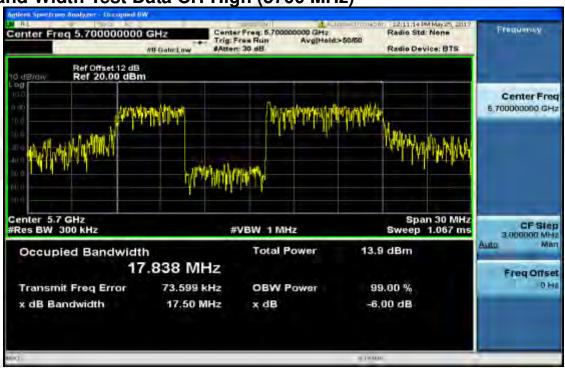
SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司



Page: 55 of 236

99% Band Width Test Data CH-High (5700 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. 除非另有说明,此根告结果僅對测試之樣品負責,同時此樣品僅保留90天。本根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 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. WukfunDload.NewTaineiIndustrialPark WukinDistrict NewTaineiIndustrialPark WukinDistrict NewTaineiDistrict NewTaineiDistrict NewTaineiDistrict New

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

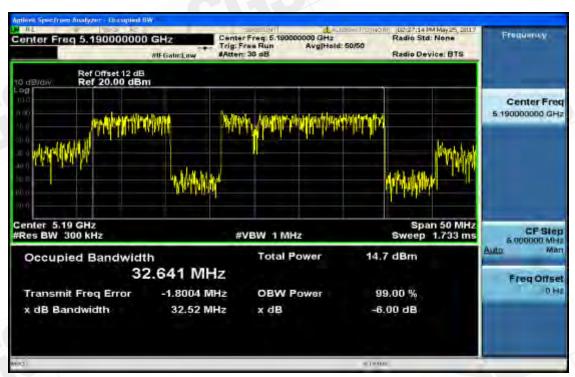
台灣檢驗科技股份有限公司

t (886-2) 2299-3279

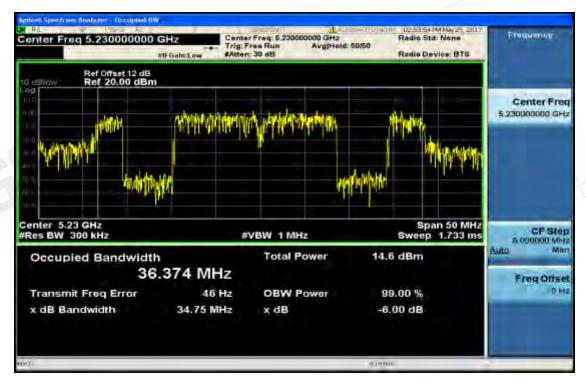


Page: 56 of 236

802.11n HT40, 5150~5250 MHz (Main) 99% Band Width Test Data CH-Low (5190 MHz)



99% Band Width Test Data CH-High (5230 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.

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

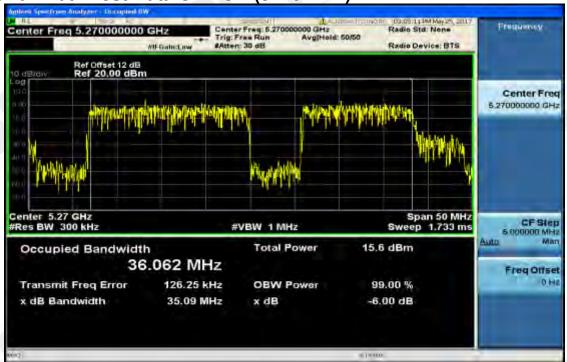
No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

t (886-2) 2299-3279

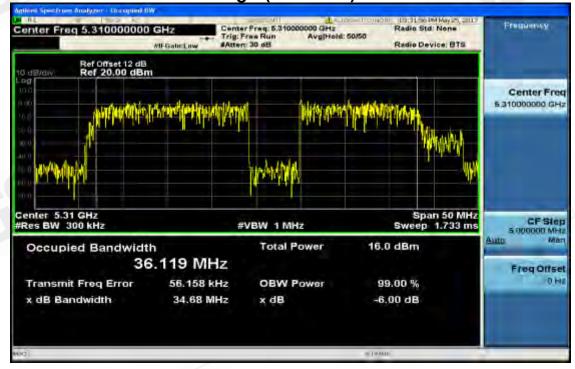


Page: 57 of 236

802.11n HT40, 5250~5350 MHz (Main) 99% Band Width Test Data CH-Low (5270 MHz)



99% Band Width Test Data CH-High (5310MHz)



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) lested and such sample(s) leste 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

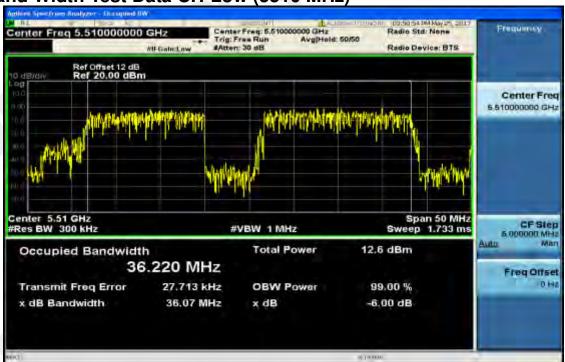
No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

台灣檢驗科技股份有限公司

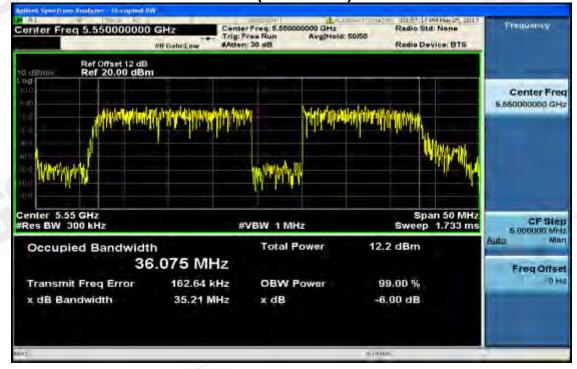


Page: 58 of 236

802.11n HT40, 5470~5725 MHz (Main) 99% Band Width Test Data CH-Low (5510 MHz)



99% Band Width Test Data CH-Mid (5550 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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) lested and such sample(s) leste 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

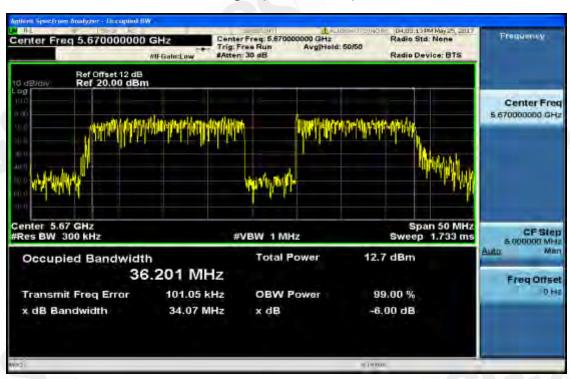
t (886-2) 2299-3279

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



Page: 59 of 236

99% Band Width Test Data CH-High (5670 MHz)



t (886-2) 2299-3279

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發

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



Page: 60 of 236

6dB Band Width measure with Peak detector for FCC 802.11a, 5725~5850 MHz (Main)

6dB Band Width Test Data CH-Low (5745 MHz)



6dB Band Width Test Data CH-Mid (5785 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.

t (886-2) 2299-3279

Unless otherwise stated the results shown in this test report refer only to the sample(s) lested and such sample(s) leste 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

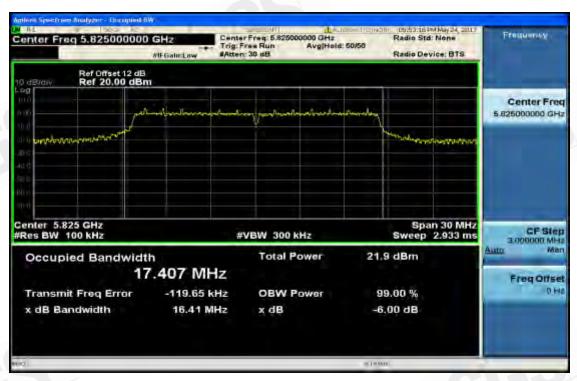
SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司



Page: 61 of 236

6dB Band Width Test Data CH-High (5825 MHz)



t (886-2) 2299-3279

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. 除非另有说明,此根告结果僅對测試之樣品負責,同時此樣品僅保留90天。本根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 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. WukfunDload.NewTaineiIndustrialPark WukinDistrict NewTaineiIndustrialPark WukinDistrict NewTaineiDistrict NewTaineiDistrict NewTaineiDistrict New

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.

台灣檢驗科技股份有限公司



Page: 62 of 236

802.11n HT20, 5725~5850 MHz (Main) 6dB Band Width Test Data CH-Low (5745 MHz)



6dB Band Width Test Data CH-Mid (5785 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.

Unless otherwise stated the results snown in this test report refer only to the sample(s) tested and such sample(s) are retained not 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 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 subject 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

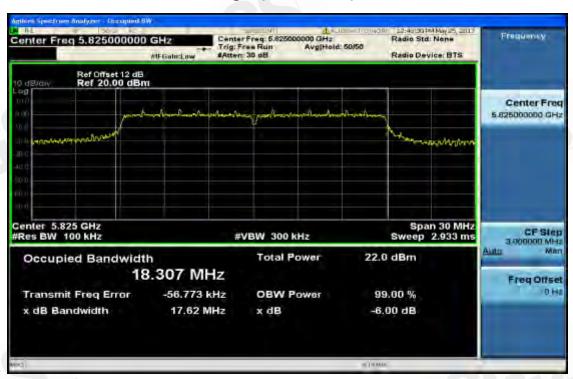
SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司



Page: 63 of 236

6dB Band Width Test Data CH-High (5825 MHz)



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 SGS Taiwan Ltd.

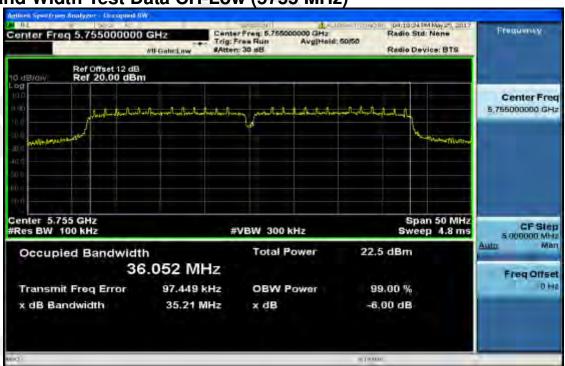
台灣檢驗科技股份有限公司

f (886-2) 2298-0488

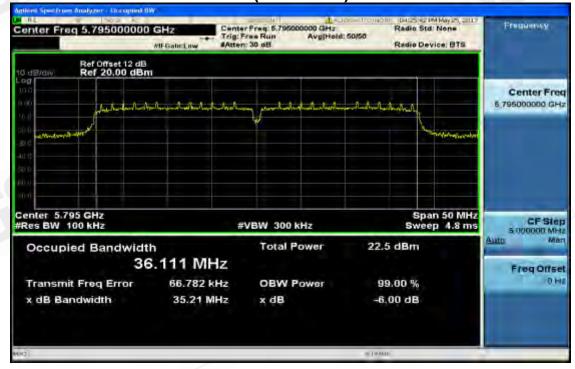


Page: 64 of 236

802.11n HT40, 5725~5850 MHz (Main) 6dB Band Width Test Data CH-Low (5755 MHz)



6dB Band Width Test Data CH-Mid (5795 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.

t (886-2) 2299-3279

Unless otherwise stated the results snown in this test report refer only to the sample(s) tested and such sample(s) are retained not 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 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 subject 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

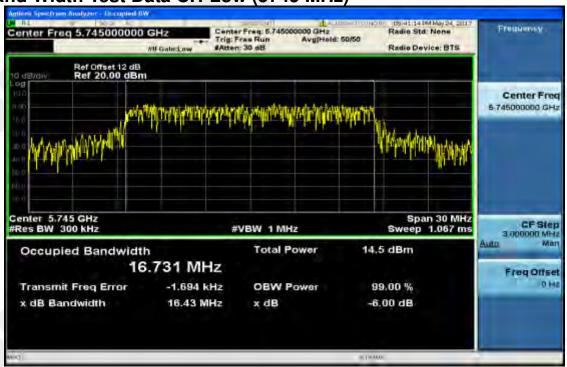


Page: 65 of 236

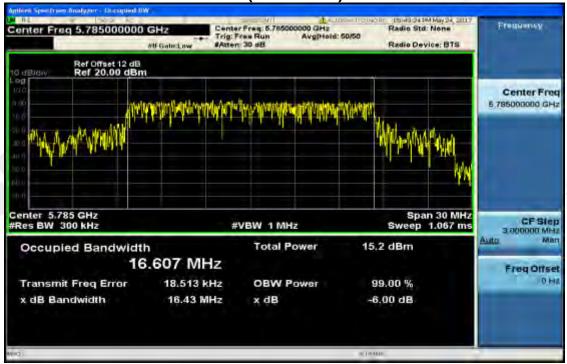
6dB Band Width measure with Average detector for IC

802.11a, 5725~5850 MHz (Main)

6dB Band Width Test Data CH-Low (5745 MHz)



6dB Band Width Test Data CH-Mid (5785 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.

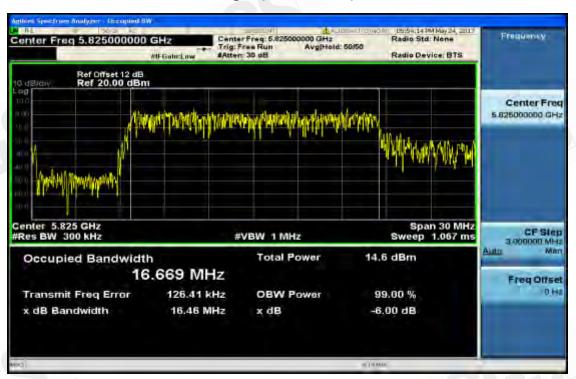
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留到天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and, for electronic format documents, subject to Terms and Conditions 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,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



Page: 66 of 236

6dB Band Width Test Data CH-High (5825 MHz)



t (886-2) 2299-3279

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發

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.

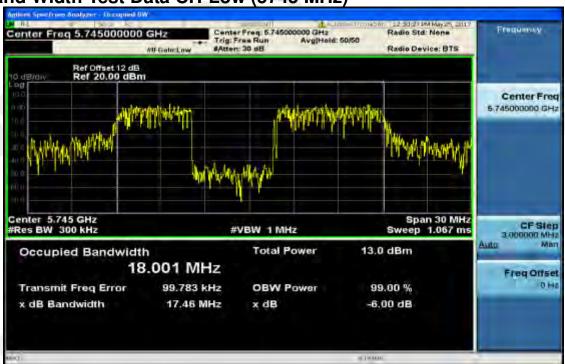
台灣檢驗科技股份有限公司

f (886-2) 2298-0488

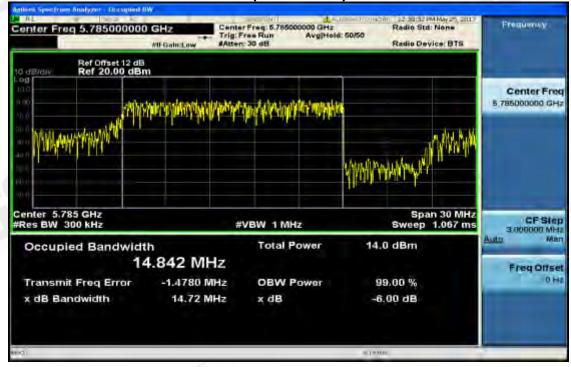


Page: 67 of 236

802.11n HT20, 5725~5850 MHz (Main) 6dB Band Width Test Data CH-Low (5745 MHz)



6dB Band Width Test Data CH-Mid (5785 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.

t (886-2) 2299-3279

Unless otherwise stated the results snown in this test report refer only to the sample(s) tested and such sample(s) are retained not 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 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 subject Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-

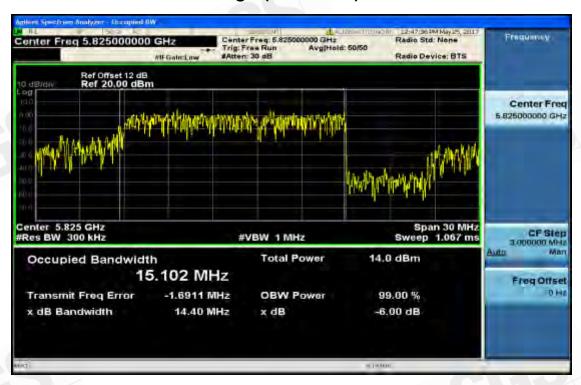
pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

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



Page: 68 of 236

6dB Band Width Test Data CH-High (5825 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.
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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發

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

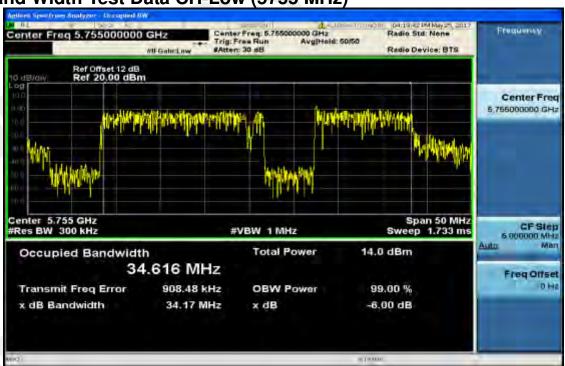
台灣檢驗科技股份有限公司

f (886-2) 2298-0488

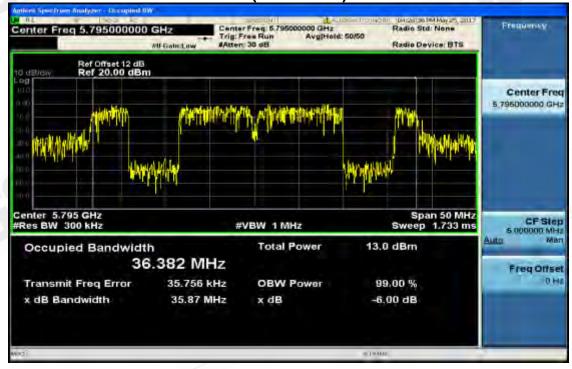


Page: 69 of 236

802.11n HT40, 5725~5850 MHz (Main) 6dB Band Width Test Data CH-Low (5755 MHz)



6dB Band Width Test Data CH-Mid (5795 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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) lested and such sample(s) leste 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



Page: 70 of 236

9 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

9.1 Standard Applicable

FCC

OPERZTION Band		EUT CATEGORY	LIMIT		
U-NII-1		Access Point (Mater device)	1 Watt(30dBm)		
		Fixed point-to-point Acess Ponit	1 Watt(30dBm)		
	V	Mobile and portable clinet device	250mW(23.98dBm)		
U-NII-2A	V		250mW(23.98dBm) or 11dBm+10 log B		
U-NII-2C	V		250mW(23.98dBm) or 11dBm+10 log B		
U-NII-3	V		1 Watt(30dBm)		

IC

OPERZTION FREQUENCY BAND	LIMIT					
5150~5250 MHz	EIRP shall not exceed 200 mW or 10 + 10 log10B, dBm					
5250~5350 MHz	Conducted output power shall not exceed 250 mW or 11 +10 log10B EIRP shall not exceed 1.0 W or 17 + 10 log10B, dBm					
5470-5600 MHz and 5650-5725 MHz	Conducted output power shall not exceed 250 mW or 11 +10 log ₁₀ B EIRP shall not exceed 1.0 W or 17 + 10 log ₁₀ B, dBm					
5725~5850 MHz	Conducted output power shall not exceed 1 W					

If transmitting antennas of directional gain greater than 6 dBi are used, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the direction-al gain of the antenna exceeds 6 dBi.

9.2 Measurement Procedure

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules .
- 3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter
- 4. Power Meter is used as the auxiliary test equipment to conduct the output power measure-
- 5. Record the max. reading and add 10 log(1/duty cycle).
- 6. Repeat above procedures until all frequency (low, middle, and high 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

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,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



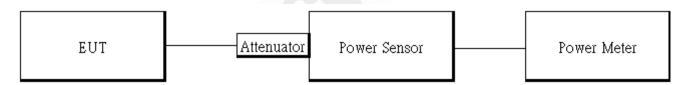
Page: 71 of 236

Measurement Equipment Used 9.3

Refer to section 8.3 for details.

Conducted Emission Test Site									
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.				
Power Meter	Anritsu	ML2495A	1005007	12/15/2016	12/14/2017				
Power Sensor	Anritsu	MA2411B	917032	12/15/2016	12/14/2017				
DC Block	Mini-Circuits	BLK-18-S+	1	01/05/2017	01/04/2018				
Coaxial Cable	HUBER+SUHNER	SUCOFLEX 102	23670/2	01/05/2017	01/04/2018				
Attenuator	Mini-Circuit	BW-S10W2+	2	01/05/2017	01/04/2018				

9.4 Test Set-up



9.5 Measurement Result

FCC

802.11a Main

СН	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
36	5180	6M	15.45	35.061		23.98		PASS
44	5220	6M	15.91	38.978	3-	23.98		PASS
48	5240	6M	15.98	39.612		23.98		PASS
52	5260	6M	16.10	40.721	23.98	or 11+10log(B) =	25.77	PASS
60	5300	6M	16.29	42.542	23.98	or 11+10log(B) =	25.77	PASS
64	5320	6M	16.36	43.234	23.98	or $11+10\log(B) =$	25.77	PASS
100	5500	6M	14.66	29.230	23.98	or 11+10log(B) =	25.72	PASS
116	5580	6M	14.18	26.171	23.98	or $11+10\log(B) =$	25.72	PASS
140	5700	6M	15.54	35.795	23.98	or $11+10\log(B) =$	25.77	PASS
149	5745	6M	13.81	24.034		30		PASS
157	5785	6M	14.26	26.658		30		PASS
165	5825	6M	13.62	23.005		30		PASS

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. 除非另有说明,此根告结果僅對测試之樣品負責,同時此樣品僅保留90天。本根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 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. WukfunDload.NewTaineiIndustrialPark WukinDistrict NewTaineiIndustrialPark WukinDistrict NewTaineiDistrict NewTaineiDistrict NewTaineiDistrict New

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.

t (886-2) 2299-3279



Page: 72 of 236

802.11n_HT20_Main

СН	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
36	5180	MCS0	15.53	35.767		23.98		PASS
44	5220	MCS0	16.00	39.855		23.98		PASS
48	5240	MCS0	15.99	39.764		23.98		PASS
52	5260	MCS0	16.07	40.503	23.98	or 11+10log(B) =	25.77	PASS
60	5300	MCS0	16.06	40.410	23.98	or 11+10log(B) =	25.75	PASS
64	5320	MCS0	16.31	42.804	23.98	or $11+10\log(B) =$	25.77	PASS
100	5500	MCS0	14.53	28.411	23.98	or $11+10\log(B) =$	25.77	PASS
116	5580	MCS0	14.33	27.132	23.98	or 11+10log(B) =	25.72	PASS
140	5700	MCS0	15.58	36.181	23.98	or 11+10log(B) =	25.76	PASS
149	5745	MCS0	13.88	24.462		30	·	PASS
157	5785	MCS0	14.33	27.132		30		PASS
165	5825	MCS0	13.64	23.147		30		PASS

802.11n HT40 Main

СН	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
38	5190	MCS0	16.36	43.270		23.98		PASS
46	5230	MCS0	16.54	45.101		23.98		PASS
54	5270	MCS0	16.50	44.688	23.98	or $11+10\log(B) =$	27.99	PASS
62	5310	MCS0	16.32	42.873	23.98	or $11+10\log(B) =$	27.99	PASS
102	5510	MCS0	14.07	25.538	23.98	or $11+10\log(B) =$	27.99	PASS
110	5550	MCS0	13.02	20.053	23.98	or $11+10\log(B) =$	27.75	PASS
134	5670	MCS0	13.01	20.007	23.98	or 11+10log(B) =	27.93	PASS
151	5755	MCS0	13.95	24.842		30		PASS
159	5795	MCS0	14.29	26.865		30		PASS

^{*} Note: The duty cycle factor is compensated to obtain the maximum value of measurement in average.

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 light 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.

Statement of the law.

**No 134 Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Board New/Taipelindustrial/Park Witking/Park Witking/Park

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.sgs.com



Page: 73 of 236

IC

802.11a Main

<u>002.114</u>							
СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
52	5260	16.10	40.721	23.98	or 11+10log(B) =	23.29	PASS
60	5300	16.29	42.542	23.98	or 11+10log(B) =	23.22	PASS
64	5320	16.36	43.234	23.98	or 11+10log(B) =	23.21	PASS
100	5500	14.66	29.230	23.98	or 11+10log(B) =	23.17	PASS
116	5580	14.18	26.171	23.98	or 11+10log(B) =	23.17	PASS
140	5700	15.54	35.795	23.98	or 11+10log(B) =	23.21	PASS
149	5745	13.81	24.034		30		PASS
157	5785	14.26	26.658		30		PASS
165	5825	13.62	23.005		30		PASS

802.11n HT20 Main

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
52	5260	16.07	40.503	23.98	or 11+10log(B) =	23.50	PASS
60	5300	16.06	40.410	23.98	or 11+10log(B) =	23.50	PASS
64	5320	16.31	42.804	23.98	or 11+10log(B) =	23.52	PASS
100	5500	14.53	28.411	23.98	or 11+10log(B) =	23.52	PASS
116	5580	14.33	27.132	23.98	or 11+10log(B) =	23.52	PASS
140	5700	15.58	36.181	23.98	or $11 + 10\log(B) =$	23.51	PASS
149	5745	13.88	24.462		30		PASS
157	5785	14.33	27.132		30		PASS
165	5825	13.64	23.147		30		PASS

802.11n HT40 Main

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)	18	RESULT
54	5270	16.50	44.688	23.98	or 11+10log(B) =	26.57	PASS
62	5310	16.32	42.873	23.98	or 11+10log(B) =	26.58	PASS
102	5510	14.07	25.538	23.98	or 11+10log(B) =	26.59	PASS
110	5550	13.02	20.053	23.98	or $11 + 10\log(B) =$	26.57	PASS
134	5670	13.01	20.007	23.98	or 11+10log(B) =	26.59	PASS
151	5755	13.95	24.842		30		PASS
159	5795	14.29	26.865		30		PASS

* Note: The duty cycle factor is compensated to obtain the maximum value of measurement in average

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. 除非另有说明,此根告结果僅對測试之樣品負責,同時此樣品僅保留90天。本根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 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.

SCENTENT

INDICATED

*

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: 74 of 236

802.11a_Main

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)		REQUIRED LIMIT (dBm)		RESULT
36	5180	15.45	3.370	18.82	76.177	23.01	or 10+10log(B)=	22.21	PASS
44	5220	15.91	3.370	19.28	84.688	23.01	or 10+10log(B)=	22.26	PASS
48	5240	15.98	3.370	19.35	86.064	23.01	or 10+10log(B)=	22.21	PASS
52	5260	16.10	3.230	19.33	85.669	30	or 17+10log(B)=	29.29	PASS
60	5300	16.29	3.230	19.52	89.500	30	or 17+10log(B)=	29.22	PASS
64	5320	16.36	3.230	19.59	90.954	30	or 17+10log(B)=	29.21	PASS
100	5500	14.66	1.510	16.17	41.383	30	or 17+10log(B)=	29.17	PASS
116	5580	14.18	1.510	15.69	37.053	30	or 17+10log(B)=	29.17	PASS
140	5700	15.54	1.510	17.05	50.678	30	or 17+10log(B)=	29.21	PASS

802.11n HT20 Main

<u> </u>	_11120_IVIGI11								
СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)		REQUIRED LIMIT (dBm)		RESULT
36	5180	15.53	3.370	18.90	77.712	23.01	or 10+10log(B)=	22.52	PASS
44	5220	16.00	3.370	19.37	86.594	23.01	or 10+10log(B)=	22.19	PASS
48	5240	15.99	3.370	19.36	86.395	23.01	or 10+10log(B)=	22.51	PASS
52	5260	16.07	3.230	19.30	85.209	30	or 17+10log(B)=	29.50	PASS
60	5300	16.06	3.230	19.29	85.013	30	or 17+10log(B)=	29.50	PASS
64	5320	16.31	3.230	19.54	90.051	30	or 17+10log(B)=	29.52	PASS
100	5500	14.53	1.510	16.04	40.224	30	or 17+10log(B)=	29.52	PASS
116	5580	14.33	1.510	15.84	38.414	30	or 17+10log(B)=	29.52	PASS
140	5700	15.58	1.510	17.09	51.226	30	or 17+10log(B)=	29.51	PASS

802.11n_HT40_Main

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)			RESULT
38	5190	16.36	3.370	19.73	94.013	23.01	or 10+10log(B)=	25.14	PASS
46	5230	16.54	3.370	19.91	97.991	23.01	or 10+10log(B)=	25.61	PASS
54	5270	16.50	3.230	19.73	94.013	30	or $17+10\log(B)=$	32.57	PASS
62	5310	16.32	3.230	19.55	90.196	30	or 17+10log(B)=	32.58	PASS
102	5510	14.07	1.510	15.58	36.157	30	or 17+10log(B)=	32.59	PASS
110	5550	13.02	1.510	14.53	28.391	30	or 17+10log(B)=	32.57	PASS
134	5670	13.01	1.510	14.52	28.326	30	or 17+10log(B)=	32.59	PASS

* Note: EIRP = Average Power + Gain

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 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 WulkfungRoad.NewTaipeiIndustrialPark WulkupDistrict.NewTaipeiCity.Taiwan24803/新·t.市 无 股區新·t.產業限區 无工路 134 號

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.sgs.com



Page: 75 of 236

10 PEAK POWER SPECTRAL DENSITY

10.1 Standard Applicable

FCC

OPERATION Band	\	EUT CATEGORY	LIMIT
U-NII-1		Access Point (Mater device)	17dBm/ MHz
		Fixed point-to-point Acess Ponit	
		Mobile and portable clinet device	11dBm/ MHz
U-NII-2A			11dBm/ MHz
U-NII-2C			11dBm/ MHz
U-NII-3			30dBm/ 500kHz

IC

OPERATION FREQUENCY BAND	LIMIT
5150~5250 MHz	EIRP spectral density 10 dBm / MHz
5250~5350 MHz	11dBm / MHz
5470-5600 MHz and 5650-5725 MHz	11dBm / MHz
5725~5850 MHz	30dBm / 500 kHz

If transmitting antennas of directional gain greater than 6 dBi are used, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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。

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



Page: 76 of 236

10.2 Measurement Procedure

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules .
- 3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to Spectrum.

4. For U-NII1, U-NII-2A, U-NII-2C Band:

Set RBW=1MHz, VBW=3MHz, where span is enough to capture the entire bandwidth, Sweep time = Auto (601 pts), detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)

For U-NII-3 Band:

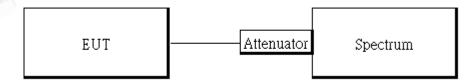
Set RBW=500 kHz, VBW≥ 3RBW, where span is enough to capture the entire bandwidth, Sweep time = Auto (601 pts), detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)

- 5. User the cursor on spectrum to peak search the highest level of trace
- 6. Record the max. reading and add 10 log(1/duty cycle).
- 7. Repeat above procedures until all default test channel (low, middle, and high) was complete.

10.3 Measurement Equipment Used

	Conducted Emission Test Site										
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.						
EXA Spectrum Analyzer	Agilent	N9030A	MY53120760	03/21/2017	03/20/2018						
DC Block	Mini-Circuits	BLK-18-S+	1	01/05/2017	01/04/2018						
Coaxial Cable	HUBER+SUHN ER	SUCOFLEX 102	23670/2	01/05/2017	01/04/2018						
Attenuator	Mini-Circuit	BW-S10W2+	2	01/05/2017	01/04/2018						

10.4 Test Set-up



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

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at 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.

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: 77 of 236

10.5 Measurement Result

POWER	DENSITY 802.	11a MOD	E	POWER DE	NSITY 802.11n	HT20 M	ODE
Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
5180	-2.07	17	-19.07	5180	-4.60	17	-21.60
5220	-0.04	17	-17.04	5220	-3.14	17	-20.14
5240	1.29	17	-15.71	5240	-2.77	17	-19.77
5260	-0.58	11	-11.58	5260	-2.22	11	-13.22
5300	-1.71	11	-12.71	5300	-2.17	11	-13.17
5320	-1.39	11	-12.39	5320	-3.15	- 11	-14.15
5500	-2.07	11	-13.07	5500	-4.19	11	-15.19
5580	-4.30	11	-15.30	5580	-4.35	11	-15.35
5700	-0.46	11	-11.46	5700	-3.46	11	-14.46
5745	8.49	30	-21.51	5745	7.74	30	-22.26
5785	8.89	30	-21.11	5785	8.29	30	-21.71
5825	8.34	30	-21.66	5825	8.41	30	-21.59

POWER DE	NSITY 802.11n	HT 40 M	ODE
Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
5190	-8.87	17	-25.87
5230	-9.77	17	-26.77
5270	-7.8	11	-18.80
5310	-7.9	11	-18.90
5510	-11.52	11	-22.52
5550	-11.98	11	-22.98
5670	-10.84	11	-21.84
5755	5.18	30	-24.82
5795	4.93	30	-25.07

EIRP

E	EIRP spectral density 802.11a MODE					EIRP spectral density 802.11n HT20 MODE					
Freq. (MHz)	PPSD (dBm)	Ant. Gain (dBi)	EIRP SD (dBm)	Limit (dBm)	Margin (dB)	Freq. (MHz)	PPSD (dBm)	Ant. Gain (dBi)	EIRP SD (dBm)	Limit (dBm)	Margin (dB)
5180	-2.07	3.37	1.30	10	-12.07	5180	-4.60	3.37	-1.23	10	-14.60
5220	-0.04	3.37	3.33	10	-10.04	5220	-3.14	3.37	0.23	10	-13.14
5240	1.29	3.37	4.66	10	-8.71	5240	-2.77	3.37	0.60	10	-12.77

EIRP spectral density 802.11n HT40 MODE								
Freq. (MHz)	PPSD (dBm)	Ant. Gain (dBi)	EIRP SD (dBm)	Limit (dBm)	Margin (dB)			
5180	-8.87	3.37	-5.50	10	-18.87			
5220	-9.77	3.37	-6.40	10	-19.77			

Note:

SISO offset=

12 dB

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.

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

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

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

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

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

No.134.WuKungRoad,NewTaipeilndustrialPark,WukungDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區 134 號

No.134.WuKungRoad

台灣檢驗科技股份有限公司

t (886-2) 2299-3279



Page: 78 of 236

802.11a 5150~5250 MHz

Peak Power Spectral Density Data Plot (CH Low 5180 MHz)



Peak Power Spectral Density Data Plot (CH Mid 5220 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

Offices otherwise stated the results shown in this less report relear only to the samplets) tested and such radius and relearned for 90 days only.

Rep. 8月 有说明,此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 unquitable and effective provided to the full set extent of this document. pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

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

t (886-2) 2299-3279



Page: 79 of 236

Peak Power Spectral Density Data Plot (CH High 5240 MHz)



t (886-2) 2299-3279

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 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 document. 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 Left

**No 134 Wikinn Road New Taineilnd users and such sample(s) are retained for 90 days only.

**Reference of the sample for 90 days only.

**Reference of 10 d

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.

台灣檢驗科技股份有限公司



Page: 80 of 236

802.11a 5250~5350 MHz Peak Power Spectral Density Data Plot (CH Low 5260 MHz)



Peak Power Spectral Density Data Plot (CH Mid 5300 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.

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,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

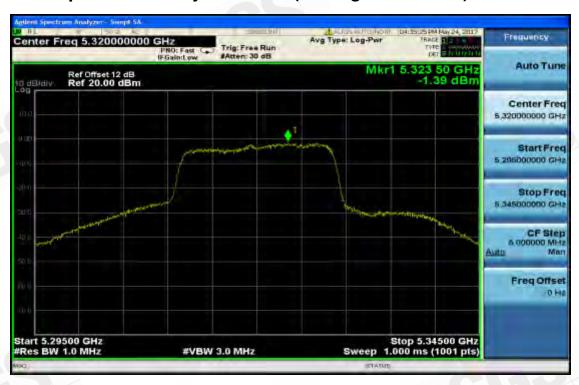
t (886-2) 2299-3279

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



Page: 81 of 236

Peak Power Spectral Density Data Plot (CH High 5320 MHz)



t (886-2) 2299-3279

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發

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: 82 of 236

802.11a 5470~5725 MHz Peak Power Spectral Density Data Plot (CH Low 5500 MHz)



Peak Power Spectral Density Data Plot (CH Mid 5580 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. 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

t (886-2) 2299-3279



Page: 83 of 236

Peak Power Spectral Density Data Plot (CH High 5700 MHz)



t (886-2) 2299-3279

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發

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: 84 of 236

802.11a 5725~5850 MHz

Peak Power Spectral Density Data Plot (CH Low 5745 MHz)



Peak Power Spectral Density Data Plot (CH Mid 5785 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.

Offices otherwise stated the results shown in this less report relear only to the samplets) tested and such radius and relearned for 90 days only.

Rep. 8月 有说明,此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 unquitable and effective provided to the full set extent of this document. 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



Page: 85 of 236

Peak Power Spectral Density Data Plot (CH High 5825 MHz)



t (886-2) 2299-3279

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 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 document. 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 Left

**No 134 Wikinn Road New Taineilnd users and such sample(s) are retained for 90 days only.

**Reference of the sample for 90 days only.

**Reference of 10 d

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: 86 of 236

802.11n HT20, 5150~5250 MHz Peak Power Spectral Density Data Plot (CH Low 5180 MHz)



Peak Power Spectral Density Data Plot (CH Mid 5220 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. 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.

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.sgs.com



Page: 87 of 236

Peak Power Spectral Density Data Plot (CH High 5240 MHz)



t (886-2) 2299-3279

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 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 document. 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 Left

**No 134 Wikinn Road New Taineilnd users and such sample(s) are retained for 90 days only.

**Reference of the sample for 90 days only.

**Reference of 10 d

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.

台灣檢驗科技股份有限公司

f (886-2) 2298-0488

www.tw.sqs.com



Page: 88 of 236

802.11n HT20, 5250~5350 MHz Peak Power Spectral Density Data Plot (CH Low 5260MHz)



Peak Power Spectral Density Data Plot (CH Mid 5300 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.

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,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



Page: 89 of 236

Peak Power Spectral Density Data Plot (CH High 5320 MHz)



t (886-2) 2299-3279

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發

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: 90 of 236

802.11n HT20, 5470~5725 MHz Peak Power Spectral Density Data Plot (CH Low 5500 MHz)



Peak Power Spectral Density Data Plot (CH Mid 5580MHz)



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

投份有限公司 t (886-2) 2299-3279



Page: 91 of 236

Peak Power Spectral Density Data Plot (CH High 5700 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. 除非另有说明,此根告结果僅對测試之樣品負責,同時此樣品僅保留90天。本根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 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. WukfunDload.NewTaineiIndustrialPark WukinDistrict NewTaineiIndustrialPark WukinDistrict NewTaineiDistrict NewTaineiDistrict NewTaineiDistrict New

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



Page: 92 of 236

802.11n HT20, 5725~5850 MHz

Peak Power Spectral Density Data Plot (CH Low 5745 MHz)



Peak Power Spectral Density Data Plot (CH Mid 5785 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.

Offices otherwise stated the results shown in this less report relear only to the samplets) tested and such radius and relearned for 90 days only.

Rep. 8月 有说明,此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 unquitable and effective provided to the full set extent of this document. 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



Page: 93 of 236

Peak Power Spectral Density Data Plot (CH High 5825 MHz)



t (886-2) 2299-3279

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 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 document. 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 Left

**No 134 Wikinn Road New Taineilnd users and such sample(s) are retained for 90 days only.

**Reference of the sample for 90 days only.

**Reference of 10 d

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.

台灣檢驗科技股份有限公司

www.tw.sqs.com



Page: 94 of 236

802.11n HT40, 5150~5250 MHz Peak Power Spectral Density Data Plot (CH Low 5190 MHz)



Peak Power Spectral Density Data Plot (CH High 5230 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.

t (886-2) 2299-3279

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,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: 95 of 236

802.11n HT40, 5250~5350 MHz Peak Power Spectral Density Data Plot (CH Low 5270 MHz)



Peak Power Spectral Density Data Plot (CH High 5310 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.

t (886-2) 2299-3279

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,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



Page: 96 of 236

802.11n HT40, 5470~5725 MHz Peak Power Spectral Density Data Plot (CH Low 5510 MHz)



Peak Power Spectral Density Data Plot (CH Mid 5550 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. 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,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



Page: 97 of 236

Peak Power Spectral Density Data Plot (CH High 5670 MHz)



t (886-2) 2299-3279

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. 除非另有说明,此根告结果僅對测試之樣品負責,同時此樣品僅保留90天。本根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 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. WukfunDload.NewTaineiIndustrialPark WukinDistrict NewTaineiIndustrialPark WukinDistrict NewTaineiDistrict NewTaineiDistrict NewTaineiDistrict New

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: 98 of 236

802.11n HT40, 5725~5850 MHz Peak Power Spectral Density Data Plot (CH Low 5755 MHz)



Peak Power Spectral Density Data Plot (CH High 5795 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. 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.

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

限公司 t (886-2) 2299-3279



Page: 99 of 236

11 UNDESIRABLE RADIATED EMISSION MEASUREMENT

11.1 Standard Applicable

The maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- 1. For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
- 2. For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

APPLICABLE TO	LIMIT				
FCC KDB 789033 D02 General UNII Test Procedures New Rules	FIELD STRENGTH AT 3m				
Composition realist	PK: 74 (dBμV/m)	AV 54 (dBμV/m)			
APPLICABLE TO	EIRP LIMIT	FIELD STRENGTH AT 3m			
15.407(b)(1) RSS-247 6.2.1.2 15.407(b)(2) RSS-247 6.2.2.2	PK: -27 (dBm/MHz)	PK: 68.3 (dBμV/m)			
15.407(b)(3) RSS-247 6.2.3.2					
15.407(b)(4)(i) RSS-247 6.2.4.2	PK:-27 (dBm/MHz) *1 PK:10 (dBm/MHz) *2 PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	PK: 68.2(dBµV/m) *1 PK:105.2 (dBµV/m) *2 PK: 110.8(dBµV/m) *3 PK:122.2 (dBµV/m) *4			

^{*1} beyond 75 MHz or more above of the bandedge.

EIRP = $((E^*d)^2) / 30$, where E is the field in V/m, d is the measurement distance (3m), EIRP is the equivalent isotropically radiated power in Watts...

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,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

^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.



Page: 100 of 236

Unwanted spurious emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

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 $(dB\mu V/m) = 20 \log Emission level (dB\mu V/m)$

Measurement Equipment Used

SGS 966 Chamber No.C									
EQUIPMENT	EQUIPMENT	EQUIPMENT	EQUIPMENT	EQUIPMENT	EQUIPMENT				
TYPE	TYPE	TYPE	TYPE	TYPE	TYPE				
EMI Test Receiver	R&S	ESCI7	100760	05/11/2017	05/10/2018				
Spectrum Analyzer	Agilent	E4446A	MY51100003	04/25/2017	04/24/2018				
Loop Antenna	ETS-Lindgren	6502	148045	09/20/2016	09/19/2017				
Bilog Antenna	SCHWAZBECK	VULB9168	378	12/19/2016	12/18/2017				
Horn Antenna	Schwarzbeck	BBHA9120D	1441	08/01/2016	07/31/2017				
Pre-Amplifier	Agilent	8447D	2944A07676	01/05/2017	01/04/2018				
Pre-Amplifier	EMC Instru- ments Corp.	EMC0126530	980038	01/05/2017	01/04/2018				
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	01/05/2017	01/04/2018				
3m Site NSA	SGS	966 chamber	N/A	07/01/2016	06/30/2017				
Low Loss Cable	Huber Suhner	966 TX	1	01/05/2017	01/04/2018				
Horn Antenna	Schwarzbeck	BBHA9170	184	12/12/2016	12/11/2017				
Pre-Amplifier	EMC Instru- ments Corp.	EMC184045	980135	01/05/2017	01/04/2018				

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,同時此樣品僅保留明天。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 dispiration 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 approaches of this document is unlawful and effenders may be prosequed 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.

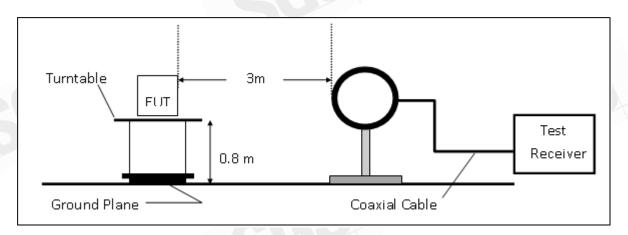
No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



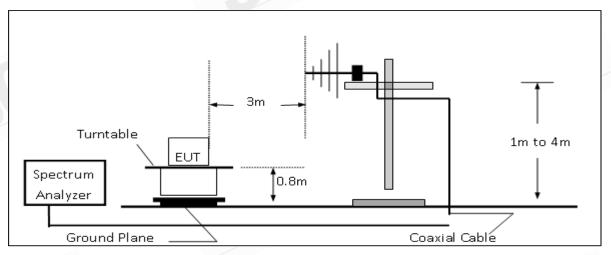
Page: 101 of 236

11.3 **Test SET-UP**

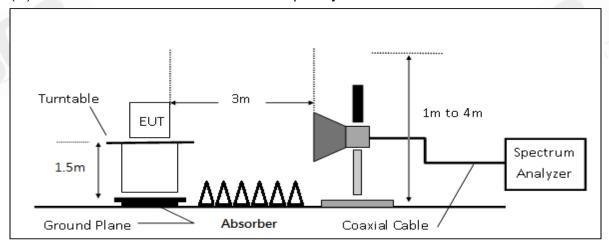
(A) Radiated Emission Test Set-UP Frequency Below 30MHz.



(B) Radiated Emission Test Set-Up, Frequency form 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.
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 approvance in which the defendance may be preserved 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

t (886-2) 2299-3279



Page: 102 of 236

11.4 Measurement Procedure

- The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules.
- The EUT was placed on a turn table with 0.8m for frequency< 1GHz and 1.5m for frequen-3. cy> 1GHz above ground plane.
- The turn table shall rotate 360 degrees to determine the position of maximum emission level.
- EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
- Set the spectrum analyzer as RBW=120 kHz and VBW=300 kHz for Peak Detector (PK) 6. and Quasi-peak (QP) at frequency below 1 GHz.
- Set the spectrum analyzer as RBW=1 MHz, VBW=3 MHz for Peak Detector at frequen-7. cy above 1 GHz.
- Set the spectrum analyzer as RBW=1 MHz, VBW=10 Hz (Duty cycle > 98%) or VBW ≥ 8. 1/T (Duty cycle < 98%) for Average Detector at frequency above 1 GHz.
- 9. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 10. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 11. Repeat above procedures until all frequency measured were complete.

11.5 Field Strength Calculation

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

FS = RA + AF + CL - AG

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

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)

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,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



Page: 103 of 236

Note:

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

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

11.6 Test Results of Radiated Spurious Emissions form 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.

11.7 Measurement Result

Refer to attach 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. 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.

d. 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



Page: 104 of 236

Radiated Spurious Emission Measurement Result

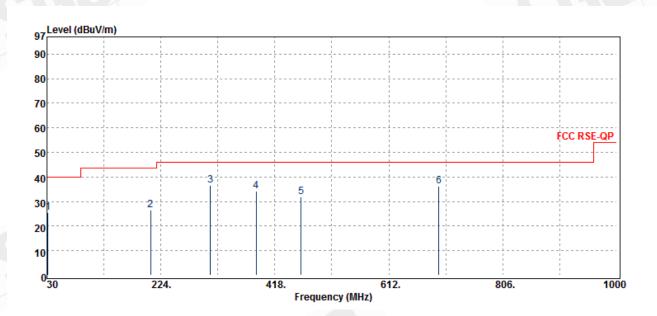
Below 1GHz Worst-Case Data:

802.11a 5150~5250 MHz

Operation Band Test Date :2017-05-16 :802.11aB1

Fundamental Frequency Temp./Humi. :5220 MHz :22 deg_C / 61 RH

Operation Mode :Tx CH MID Engineer :Mike EUT Pol. :H Plane :VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
							_
31.94	S	Peak	34.65	-9.11	25.54	40.00	-14.46
206.54	S	Peak	36.24	-9.71	26.53	43.50	-16.97
308.39	S	Peak	42.27	-5.57	36.70	46.00	-9.30
385.99	S	Peak	38.49	-4.31	34.18	46.00	-11.82
462.62	S	Peak	34.30	-2.56	31.74	46.00	-14.26
697.36	S	Peak	34.74	1.36	36.10	46.00	-9.90

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 approvance in which the defendance may be preserved 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



Page: 105 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

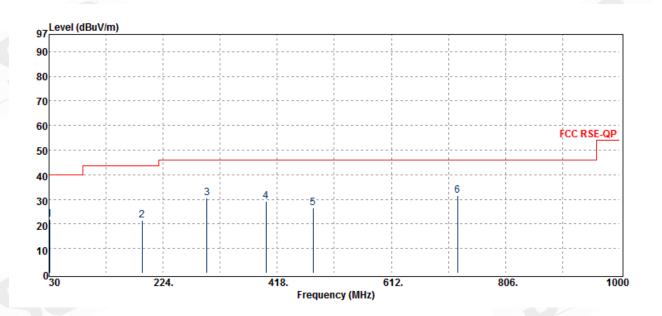
:802.11aB1 :5220 MHz :Tx CH MID :H Plane

Test Date :2017-05-16

Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
30.97	S	Peak	31.10	-9.15	21.95	40.00	-18.05
188.11	S	Peak	30.52	-9.20	21.32	43.50	-22.18
298.69	S	Peak	36.39	-5.95	30.44	46.00	-15.56
398.60	S	Peak	33.02	-3.97	29.05	46.00	-16.95
479.11	S	Peak	28.94	-2.39	26.55	46.00	-19.45
724.52	S	Peak	29.74	1.69	31.43	46.00	-14.57
188.11 298.69 398.60 479.11	\$ \$ \$ \$	Peak Peak Peak Peak	30.52 36.39 33.02 28.94	-9.20 -5.95 -3.97 -2.39	21.32 30.44 29.05 26.55	43.50 46.00 46.00 46.00	-22.18 -15.56 -16.95 -19.45



Page: 106 of 236

802.11a 5250~5350 MHz

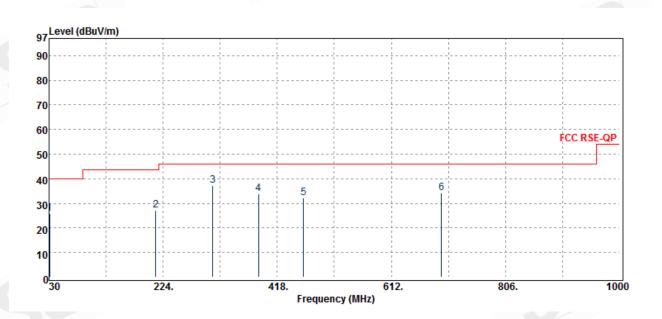
Operation Band :802.11aB2 Fundamental Frequency :5300 MHz **Operation Mode** :Tx CH MID

EUT Pol. :H Plane **Test Date** :2017-05-16

Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
30.97	S	Peak	34.86	-9.15	25.71	40.00	-14.29
211.39	S	Peak	36.81	-9.70	27.11	43.50	-16.39
308.39	S	Peak	42.94	-5.57	37.37	46.00	-8.63
385.99	S	Peak	38.17	-4.31	33.86	46.00	-12.14
462.62	S	Peak	34.67	-2.56	32.11	46.00	-13.89
697.36	S	Peak	32.98	1.36	34.34	46.00	-11.66

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 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 WulkunDRaod.NewTaipeiIndustrialPark.WukuDistrict.NewTaipeiCity.Taiwan24803/新 北市 五股區新北產業園區五工路 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 t (886-2) 2299-3279

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



Page: 107 of 236

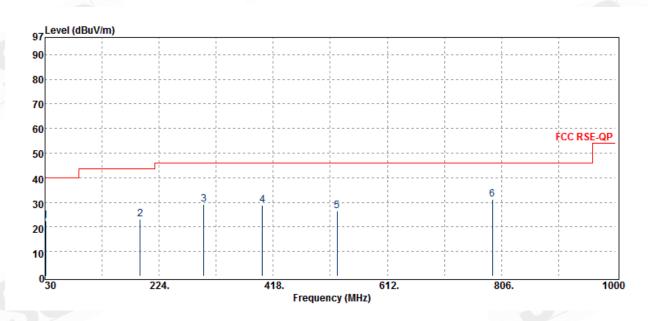
Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11aB2 :5300 MHz :Tx CH MID :H Plane

Test Date :2017-05-16 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
			T PPO				_
30.97	S	Peak	31.52	-9.15	22.37	40.00	-17.63
191.99	9 S	Peak	32.53	-9.42	23.11	43.50	-20.39
299.66	6 S	Peak	35.00	-5.93	29.07	46.00	-16.93
399.57	7 S	Peak	32.86	-3.92	28.94	46.00	-17.06
526.64	4 S	Peak	27.83	-1.44	26.39	46.00	-19.61
790.48	3 S	Peak	28.44	2.86	31.30	46.00	-14.70

t (886-2) 2299-3279



Page: 108 of 236

802.11a, 5470~5725 MHz

Operation Band :802.11aB3 Fundamental Frequency :5580 MHz Operation Mode

EUT Pol.

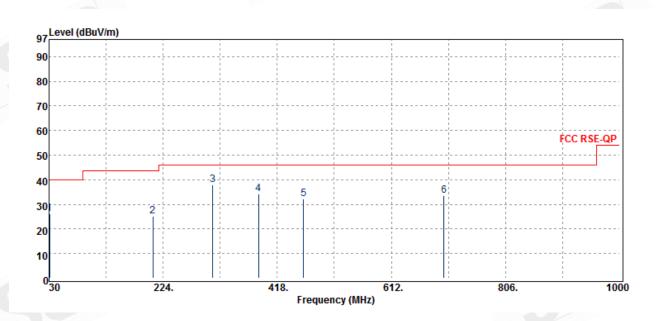
:Tx CH MID :H Plane

Test Date :2017-05-16

Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
30.97	S	Peak	35.22	-9.15	26.07	40.00	-13.93
206.54	S	Peak	35.03	-9.71	25.32	43.50	-18.18
308.39	S	Peak	43.36	-5.57	37.79	46.00	-8.21
385.99	S	Peak	38.52	-4.31	34.21	46.00	-11.79
462.62	S	Peak	34.67	-2.56	32.11	46.00	-13.89
701.24	S	Peak	32.18	1.44	33.62	46.00	-12.38

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 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 WulkunDRaod.NewTaipeiIndustrialPark.WukuDistrict.NewTaipeiCity.Taiwan24803/新 北市 五股區新北產業園區五工路 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



Page: 109 of 236

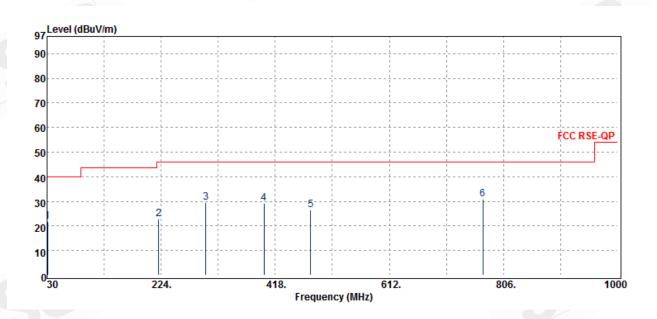
Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11aB3 :5580 MHz :Tx CH MID :H Plane

Test Date :2017-05-16 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
30.97	S	Peak	31.09	-9.15	21.94	40.00	-18.06
220.12	S	Peak	32.01	-9.25	22.76	46.00	-23.24
299.66	S	Peak	35.49	-5.93	29.56	46.00	-16.44
398.60	S	Peak	33.09	-3.97	29.12	46.00	-16.88
478.14	S	Peak	28.78	-2.43	26.35	46.00	-19.65
771.08	S	Peak	28.43	2.61	31.04	46.00	-14.96



Page: 110 of 236

802.11a, 5725~5850 MHz

Operation Band :802.11aB4 Fundamental Frequency :5785 MHz Operation Mode

EUT Pol.

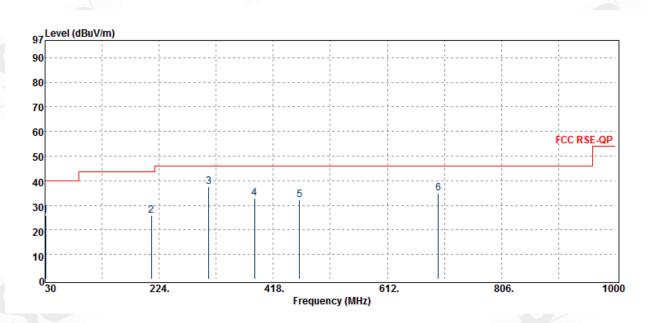
:Tx CH MID :H Plane

Test Date :2017-05-16

Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
30.97	S	Peak	35.13	-9.15	25.98	40.00	-14.02
210.42	S	Peak	35.53	-9.76	25.77	43.50	-17.73
308.39	S	Peak	43.14	-5.57	37.57	46.00	-8.43
385.99	S	Peak	37.18	-4.31	32.87	46.00	-13.13
462.62	S	Peak	34.67	-2.56	32.11	46.00	-13.89
698.33	S	Peak	33.52	1.40	34.92	46.00	-11.08

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 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 WulkunDRaod.NewTaipeiIndustrialPark.WukuDistrict.NewTaipeiCity.Taiwan24803/新 北市 五股區新北產業園區五工路 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 t (886-2) 2299-3279

台灣檢驗科技股份有限公司



Page: 111 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

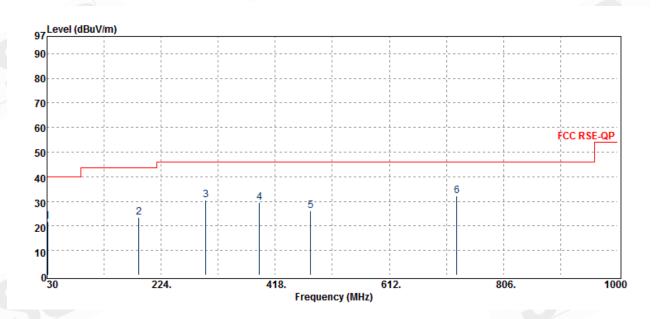
:802.11aB4 :5785 MHz :Tx CH MID :H Plane

Test Date :2017-05-16

Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
30.97	S	Peak	30.98	-9.15	21.83	40.00	-18.17
186.17	S	Peak	32.59	-9.10	23.49	43.50	-20.01
299.66	S	Peak	36.31	-5.93	30.38	46.00	-15.62
390.84	S	Peak	33.84	-4.18	29.66	46.00	-16.34
478.14	S	Peak	28.68	-2.43	26.25	46.00	-19.75
726.46	S	Peak	30.42	1.74	32.16	46.00	-13.84



Page: 112 of 236

Above 1GHz Worst-Case Data:

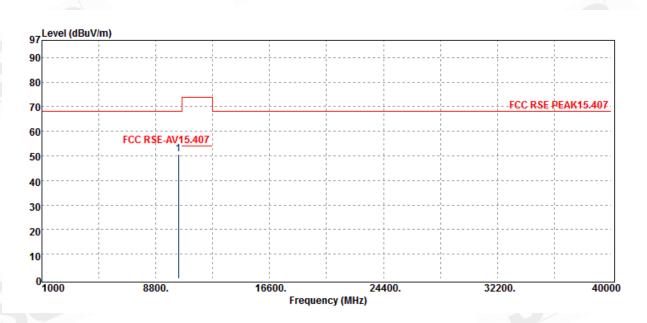
Radiated Spurious Emission Measurement Result 802.11a, 5150~5250 MHz

Operation Band Test Date :802.11aB1 :2017-05-16

Fundamental Frequency :5180 MHz Temp./Humi. :23 deg C / 62 RH

Operation Mode :Tx CH LOW Engineer :Mike

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



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin	
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB	
10360.00	Н	Peak	32.53	18.29	50.82	68.30	-17.48	

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 approvance in the index produced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or approvance of this decument is unquited and effective provinced to the full 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



Page: 113 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

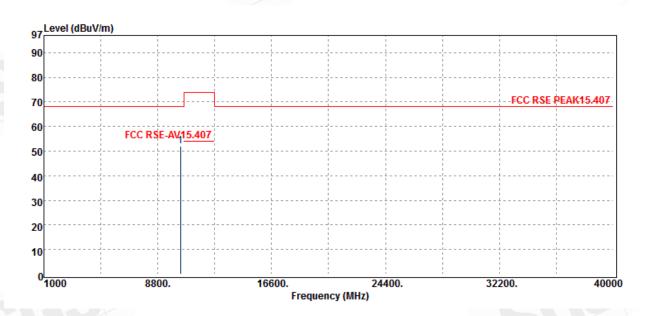
:802.11aB1 :5180 MHz :Tx CH LOW :H Plane

Test Date :2017-05-16

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
-			Cale				_
10360.00	Н	Peak	33.84	18.29	52.13	68.30	-16.17



Page: 114 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

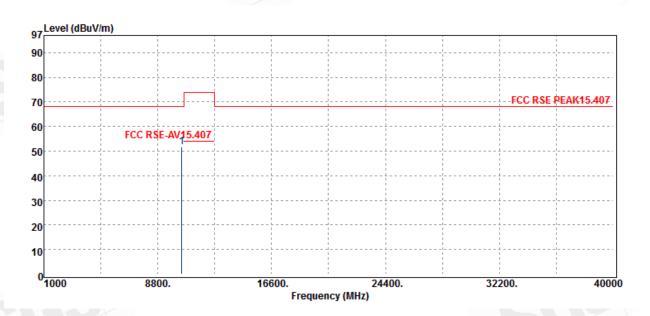
:802.11aB1 :5220 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
-			Cale				_
10440.00	Н	Peak	33.07	18.69	51.76	68.30	-16.54

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 115 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

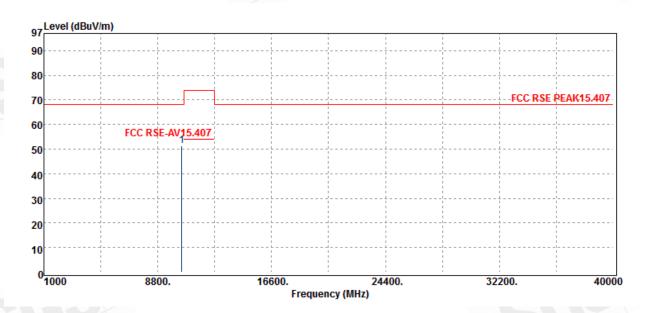
:802.11aB1 :5220 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
-			Cal				_
10440.00	Н	Peak	32.57	18.69	51.26	68.30	-17.04



Page: 116 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

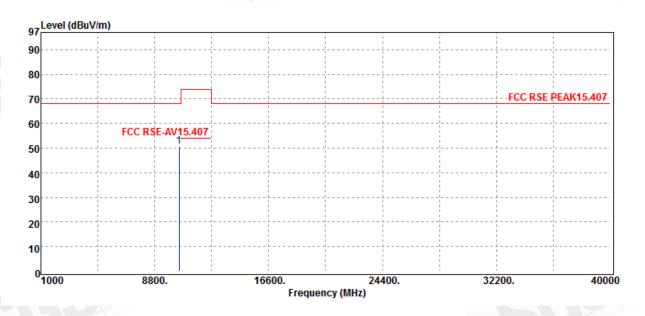
:802.11aB1 :5240 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
-			Cale				_
10480.00	Н	Peak	32.38	18.30	50.68	68.30	-17.62

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 117 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

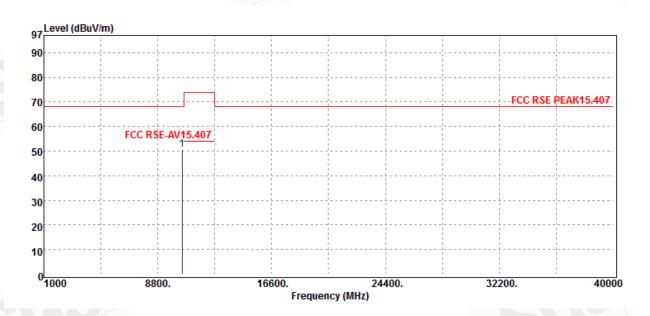
:802.11aB1 :5240 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
			Cal				_
10480.00	Н	Peak	32.30	18.30	50.60	68.30	-17.70



Page: 118 of 236

Radiated Spurious Emission Measurement Result 802.11a, 5250MHz-5350MHz

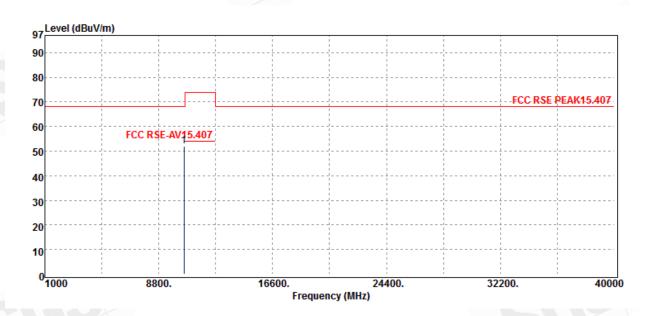
Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11aB2 :5260 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15 Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
'			Cale				
10520.00	Н	Peak	32.79	19.38	52.17	68.30	-16.13

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



Page: 119 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

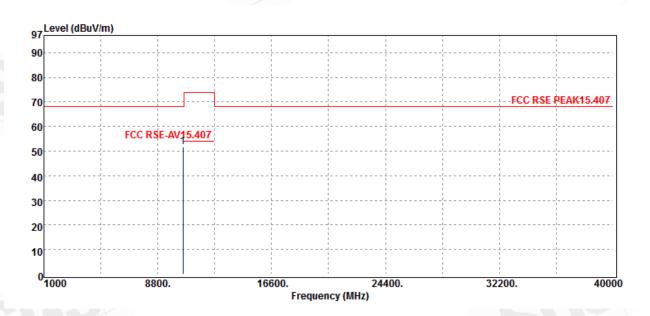
:802.11aB2 :5260 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
-			Cale				_
10520.00	Н	Peak	32.45	19.38	51.83	68.30	-16.47



Page: 120 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

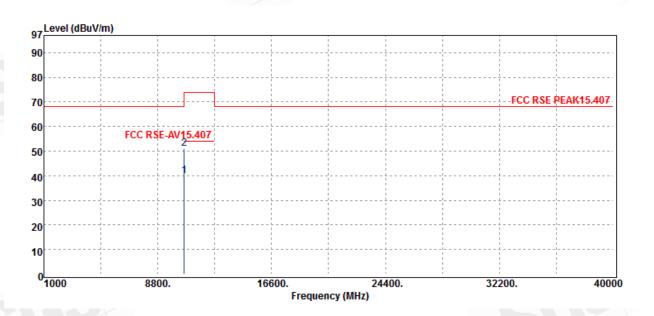
:802.11aB2 :5300 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
			Cal				_
10600.00	Н	Average	20.88	18.91	39.79	54.00	-14.21
10600.00	Н	Peak	32.14	18.91	51.05	74.00	-22.95

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 121 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

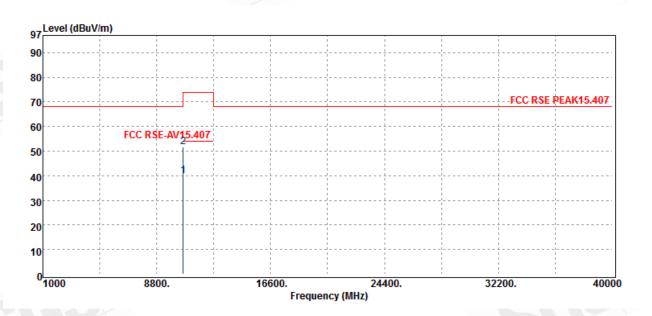
:802.11aB2 :5300 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
							_
10600.00	Н	Average	20.91	18.91	39.82	54.00	-14.18
10600.00	Н	Peak	32.78	18.91	51.69	74.00	-22.31



Page: 122 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

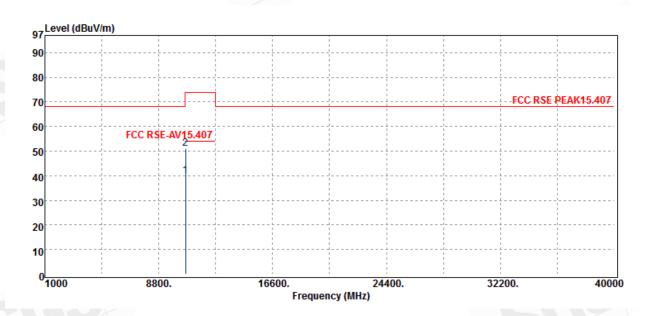
:802.11aB2 :5320 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
							_
10640.00	Н	Average	20.81	19.19	40.00	54.00	-14.00
10640.00	Н	Peak	31.86	19.19	51.05	74.00	-22.95

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 123 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

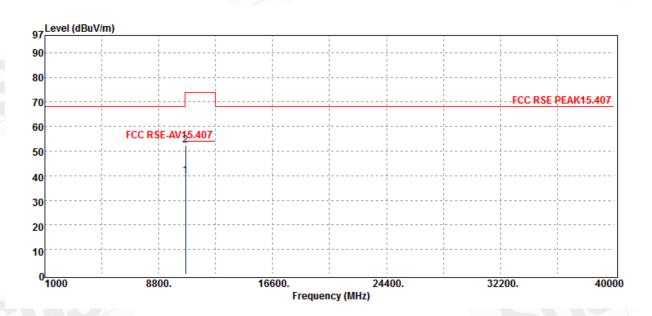
:802.11aB2 :5320 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
							_
10640.00	Н	Average	20.77	19.19	39.96	54.00	-14.04
10640.00	Н	Peak	33.10	19.19	52.29	74.00	-21.71



Page: 124 of 236

Radiated Spurious Emission Measurement Result 802.11a, 5470~5725 MHz

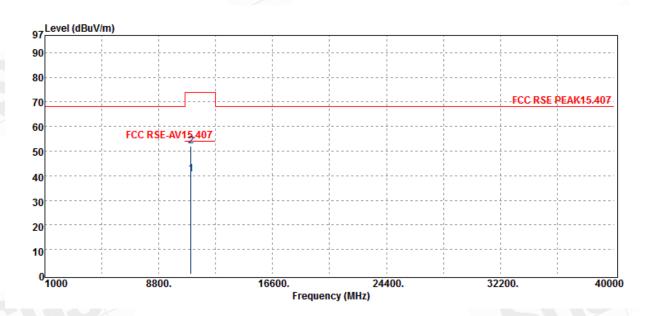
Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11aB3 :5500 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15 Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				_
11000.00	Н	Average	20.52	20.16	40.68	54.00	-13.32
11000.00	Н	Peak	31.99	20.16	52.15	74.00	-21.85

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



Page: 125 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

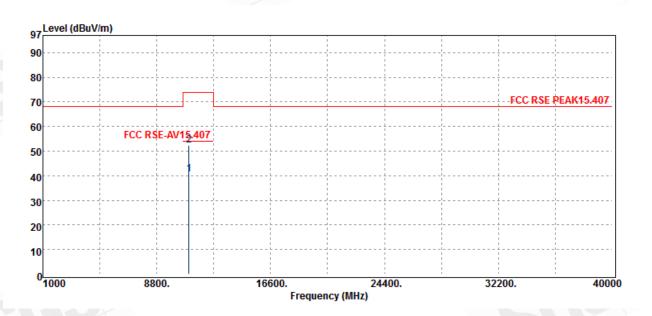
:802.11aB3 :5500 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				_
11000.00	Н	Average	20.49	20.16	40.65	54.00	-13.35
11000.00	Н	Peak	32.10	20.16	52.26	74.00	-21.74



Page: 126 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

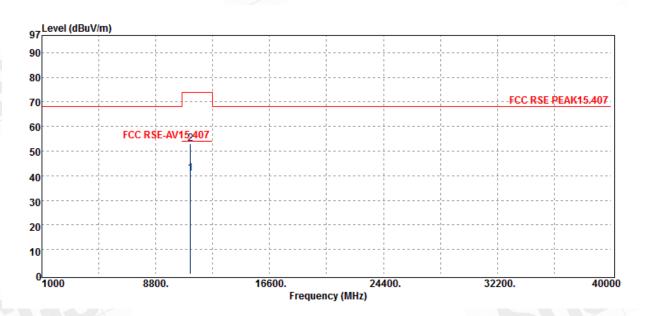
:802.11aB3 :5580 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				_
11160.00	Н	Average	20.68	20.44	41.12	54.00	-12.88
11160.00	Н	Peak	32.44	20.44	52.88	74.00	-21.12

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 127 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

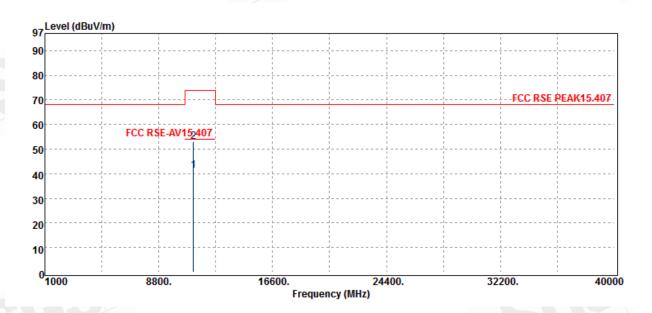
:802.11aB3 :5580 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				
11160.00	Н	Average	20.73	20.44	41.17	54.00	-12.83
11160.00	Н	Peak	32.70	20.44	53.14	74.00	-20.86

台灣檢驗科技股份有限公司

t (886-2) 2299-3279



Page: 128 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

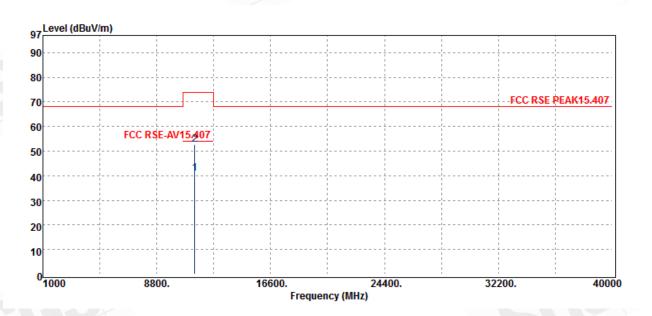
:802.11aB3 :5700 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				
11400.00	Н	Average	20.55	20.56	41.11	54.00	-12.89
11400.00	Н	Peak	32.13	20.56	52.69	74.00	-21.31

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 129 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

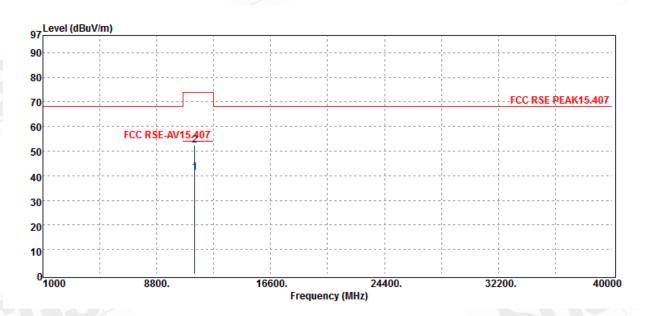
:802.11aB3 :5700 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				
11400.00	Н	Average	20.57	20.56	41.13	54.00	-12.87
11400.00	Н	Peak	31.74	20.56	52.30	74.00	-21.70

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 130 of 236

Radiated Spurious Emission Measurement Result 802.11a, 5725~5850 MHz

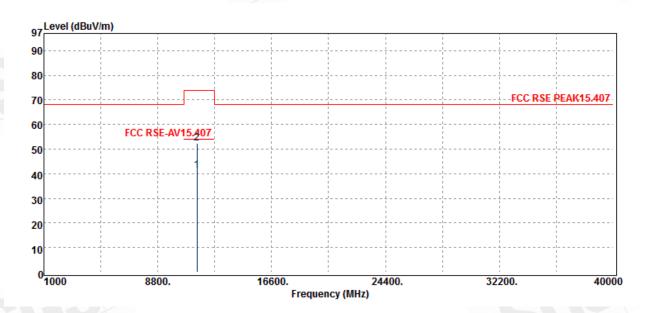
Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11aB4 :5745 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15 Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				_
11490.00	Н	Average	20.82	20.42	41.24	54.00	-12.76
11490.00	Н	Peak	31.80	20.42	52.22	74.00	-21.78

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



Page: 131 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

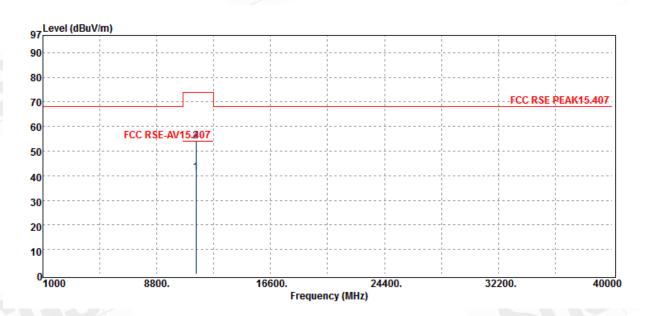
:802.11aB4 :5745 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				_
11490.00	Н	Average	20.77	20.42	41.19	54.00	-12.81
11490.00	Н	Peak	33.71	20.42	54.13	74.00	-19.87

台灣檢驗科技股份有限公司

t (886-2) 2299-3279



Page: 132 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

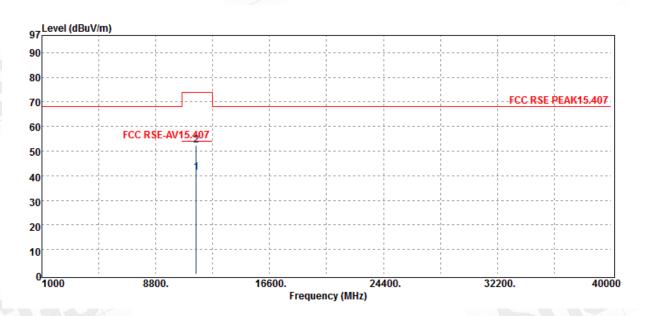
:802.11aB4 :5785 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
							_
11570.00	Н	Average	20.73	20.58	41.31	54.00	-12.69
11570.00	Н	Peak	31.68	20.58	52.26	74.00	-21.74

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. 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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 133 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

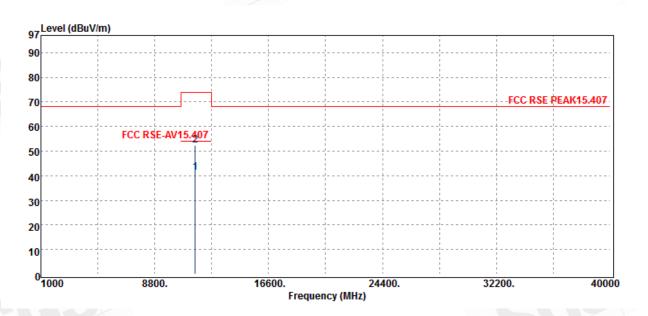
:802.11aB4 :5785 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
							_
11570.00	Н	Average	20.76	20.58	41.34	54.00	-12.66
11570.00	Н	Peak	31.77	20.58	52.35	74.00	-21.65

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 134 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

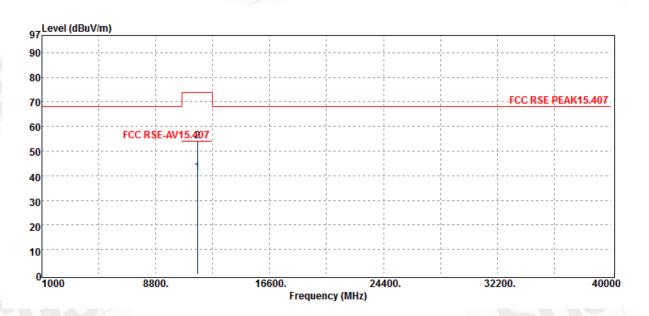
:802.11aB4 :5825 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dĔ
							_
11650.00	Н	Average	20.78	20.43	41.21	54.00	-12.79
11650.00	Н	Peak	33.65	20.43	54.08	74.00	-19.92

t (886-2) 2299-3279



Page: 135 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

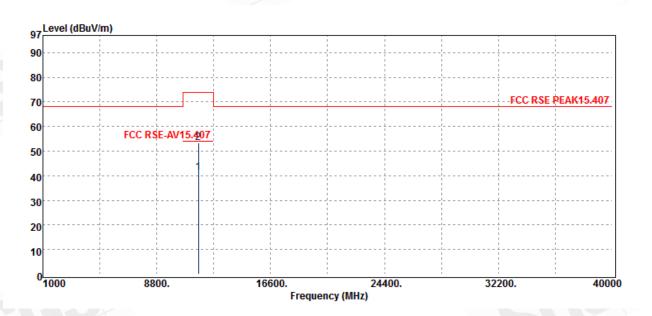
:802.11aB4 :5825 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dĔ
							_
11650.00	Н	Average	20.74	20.43	41.17	54.00	-12.83
11650.00	Н	Peak	33.09	20.43	53.52	74.00	-20.48



Page: 136 of 236

Radiated Spurious Emission Measurement Result 802.11n HT20, 5150~5250 MHz

Operation Band Fundamental Frequency **Operation Mode**

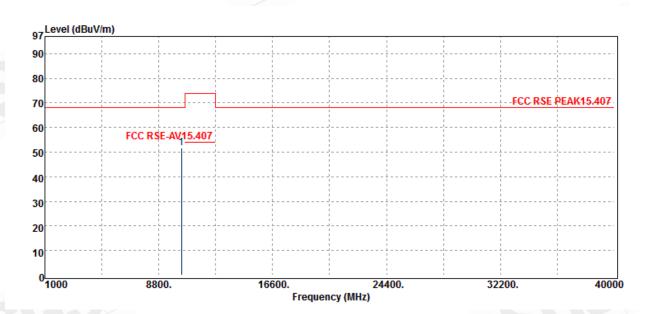
EUT Pol.

:802.11n20B1 :5180 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15 Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
-			Cale				_
10360.00	Н	Peak	33.47	18.29	51.76	68.30	-16.54

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



Page: 137 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

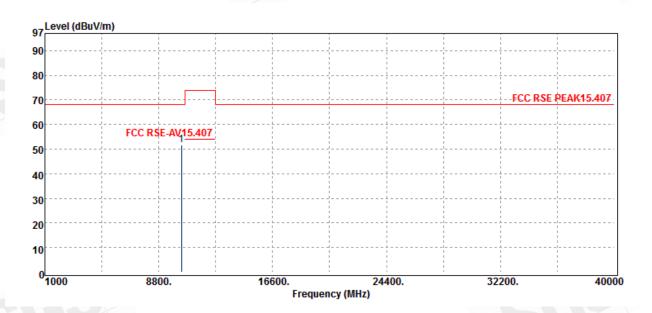
:802.11n20B1 :5180 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
-			Cal				_
10360.00	Н	Peak	33.31	18.29	51.60	68.30	-16.70

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 138 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

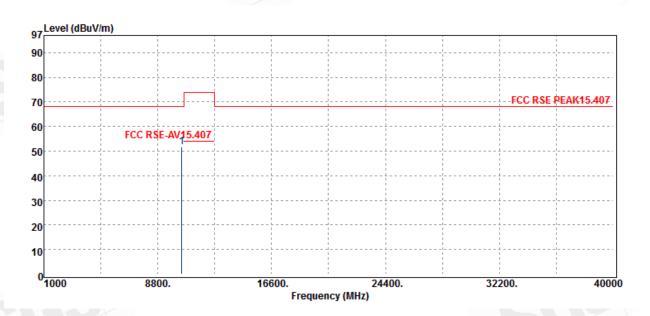
:802.11n20B1 :5220 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
-			Cale				_
10440.00	Н	Peak	33.07	18.69	51.76	68.30	-16.54

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 139 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

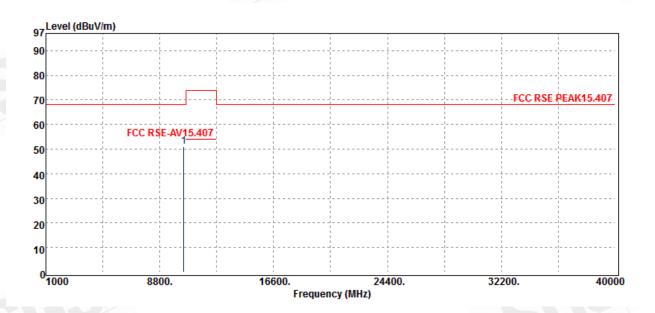
:802.11n20B1 :5220 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
-			Cal				_
10440.00	Н	Peak	32.21	18.69	50.90	68.30	-17.40



Page: 140 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

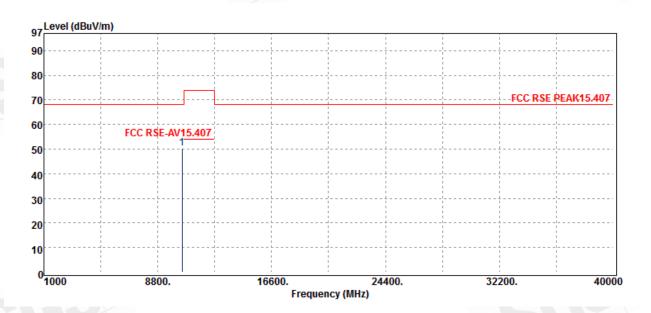
:802.11n20B1 :5240 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
-			Cal				_
10480.00	Н	Peak	32.12	18.30	50.42	68.30	-17.88



Page: 141 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

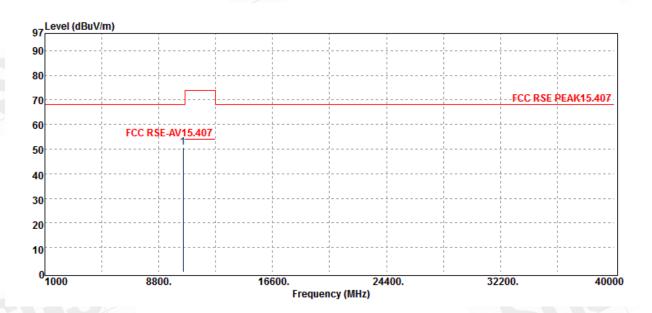
:802.11n20B1 :5240 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
			Cal				_
10480.00	Н	Peak	32.29	18.30	50.59	68.30	-17.71

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 142 of 236

Radiated Spurious Emission Measurement Result 802.11n HT20, 5250~5350 MHz

Operation Band Fundamental Frequency Operation Mode

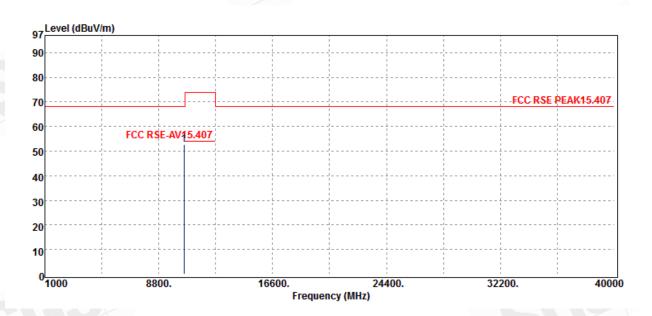
EUT Pol.

:802.11n20B2 :5260 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15 Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
			Cal				
10520.00	Н	Peak	33.27	19.38	52.65	68.30	-15.65

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



Page: 143 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

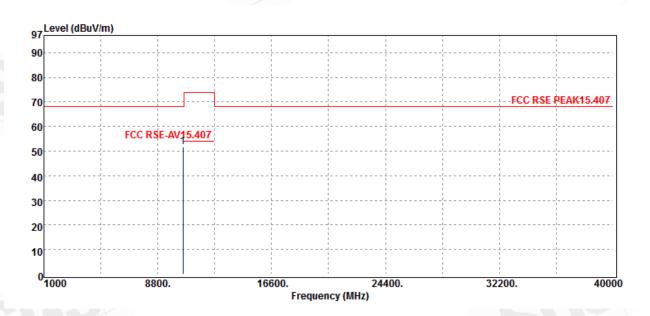
:802.11n20B2 :5260 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
-			Cal				_
10520.00	Н	Peak	32.33	19.38	51.71	68.30	-16.59

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 144 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

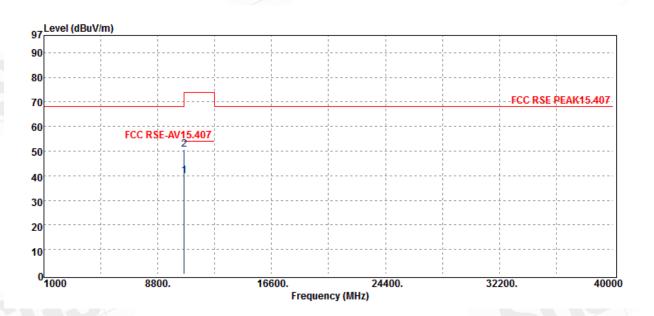
:802.11n20B2 :5300 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
			Cal				_
10600.00	Н	Average	20.89	18.91	39.80	54.00	-14.20
10600.00	Н	Peak	31.94	18.91	50.85	74.00	-23.15

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 145 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

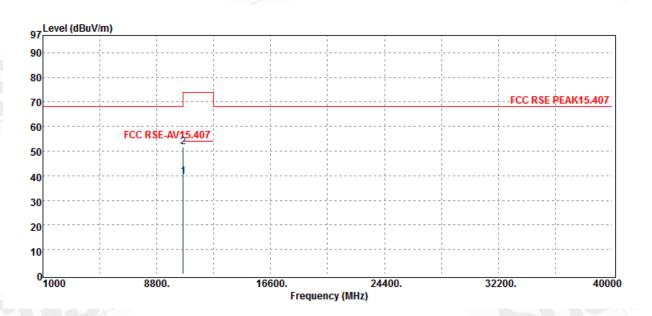
:802.11n20B2 :5300 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				_
10600.00	Н	Average	20.77	18.91	39.68	54.00	-14.32
10600.00	Н	Peak	32.91	18.91	51.82	74.00	-22.18

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 146 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

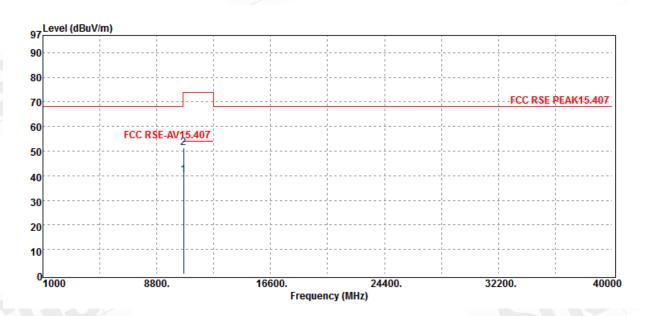
:802.11n20B2 :5320 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
							_
10640.00	Н	Average	20.94	19.19	40.13	54.00	-13.87
10640.00	Н	Peak	32.28	19.19	51.47	74.00	-22.53

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 147 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

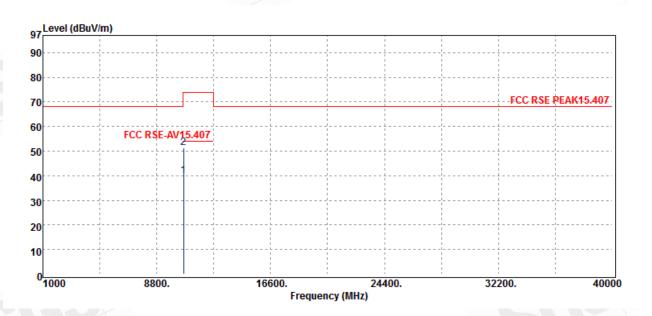
:802.11n20B2 :5320 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dĔ
							_
10640.00	Н	Average	20.90	19.19	40.09	54.00	-13.91
10640.00	Н	Peak	32.16	19.19	51.35	74.00	-22.65

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 148 of 236

Radiated Spurious Emission Measurement Result 802.11n HT20, 5470~5725 MHz

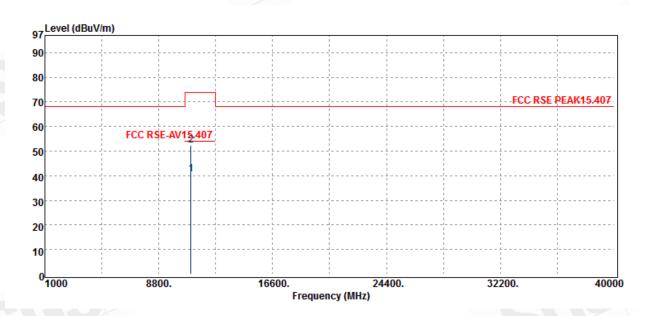
Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11n20B3 :5500 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15 Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
							_
11000.00	Н	Average	20.48	20.16	40.64	54.00	-13.36
11000.00	Н	Peak	32.17	20.16	52.33	74.00	-21.67

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

台灣檢驗科技股份有限公司



Page: 149 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

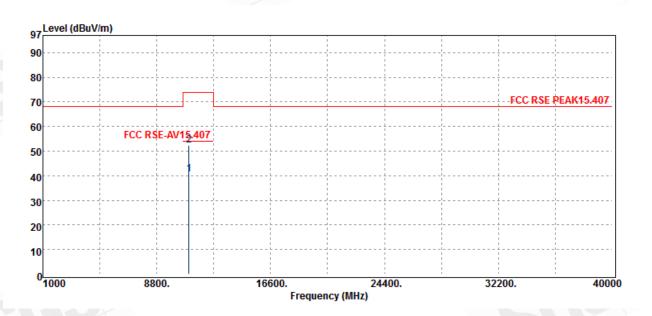
:802.11n20B3 :5500 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dĔ
							_
11000.00	Н	Average	20.50	20.16	40.66	54.00	-13.34
11000.00	Н	Peak	32.32	20.16	52.48	74.00	-21.52

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 150 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

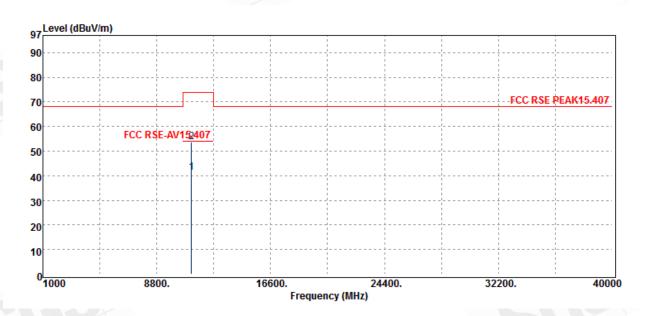
:802.11n20B3 :5580 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				_
11160.00	Н	Average	20.85	20.44	41.29	54.00	-12.71
11160.00	Н	Peak	33.32	20.44	53.76	74.00	-20.24

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 151 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

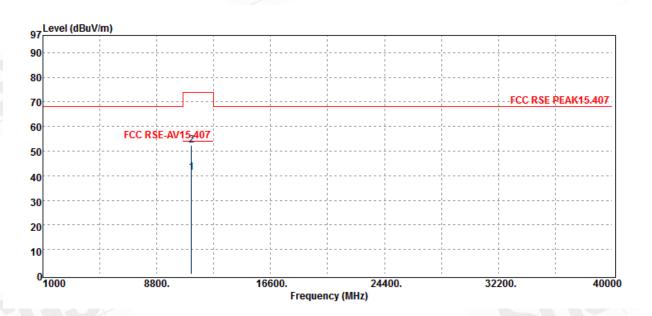
:802.11n20B3 :5580 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
							_
11160.00	Н	Average	20.81	20.44	41.25	54.00	-12.75
11160.00	Н	Peak	31.92	20.44	52.36	74.00	-21.64

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. 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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 152 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

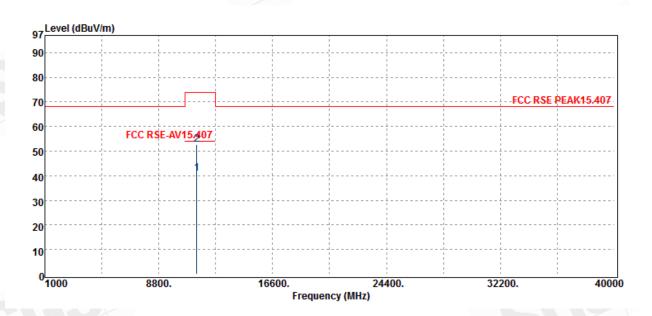
:802.11n20B3 :5700 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
							_
11400.00	Н	Average	20.54	20.56	41.10	54.00	-12.90
11400.00	Н	Peak	32.29	20.56	52.85	74.00	-21.15

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 153 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

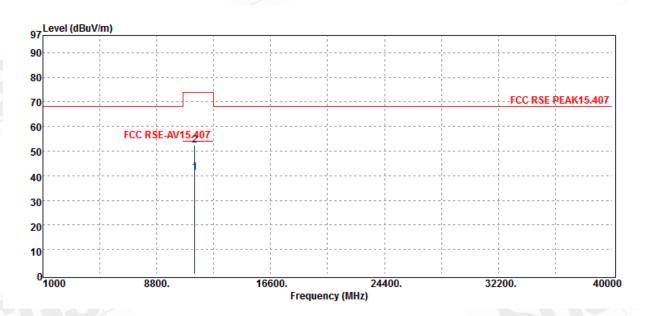
:802.11n20B3 :5700 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dĔ
							_
11400.00	Н	Average	20.59	20.56	41.15	54.00	-12.85
11400.00	Н	Peak	31.72	20.56	52.28	74.00	-21.72

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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

台灣檢驗科技股份有限公司



Page: 154 of 236

Radiated Spurious Emission Measurement Result 802.11n HT20, 5725~5850 MHz

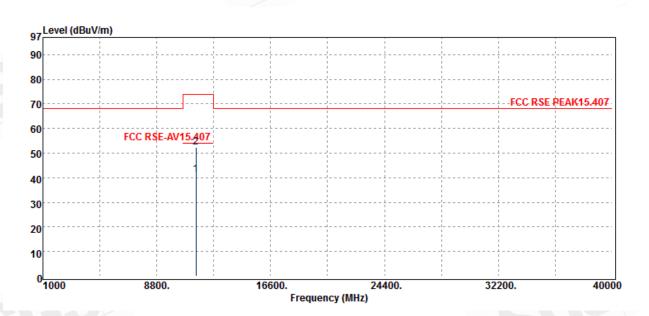
Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11n20B4 :5745 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15 Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dBμV	dB	dBμV/m	dBμV/m	dB
							_
11490.00	Н	Average	20.84	20.42	41.26	54.00	-12.74
11490.00	Н	Peak	32.01	20.42	52.43	74.00	-21.57

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



Page: 155 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

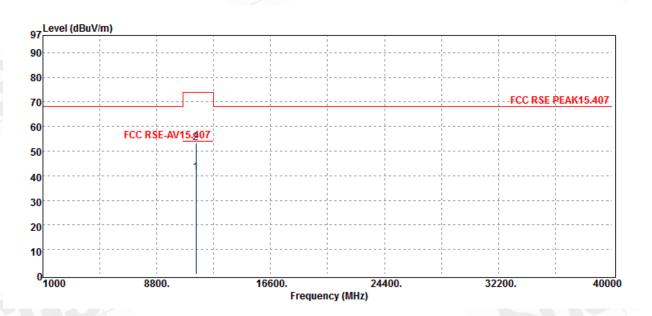
:802.11n20B4 :5745 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
							_
11490.00	Н	Average	20.79	20.42	41.21	54.00	-12.79
11490.00	Н	Peak	33.02	20.42	53.44	74.00	-20.56

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 156 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

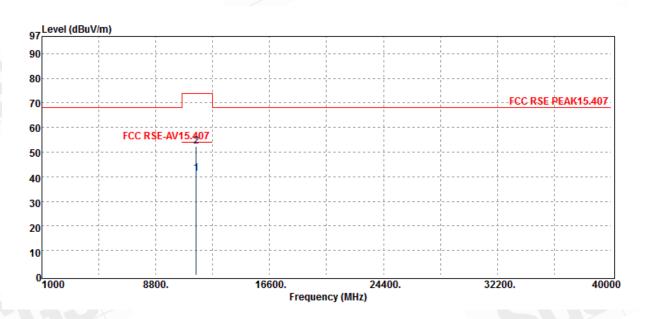
:802.11n20B4 :5785 MHz :Tx CH MID :H Plane

:2017-05-15 **Test Date**

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				_
11570.00	Н	Average	20.69	20.58	41.27	54.00	-12.73
11570.00	Н	Peak	31.85	20.58	52.43	74.00	-21.57

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 157 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

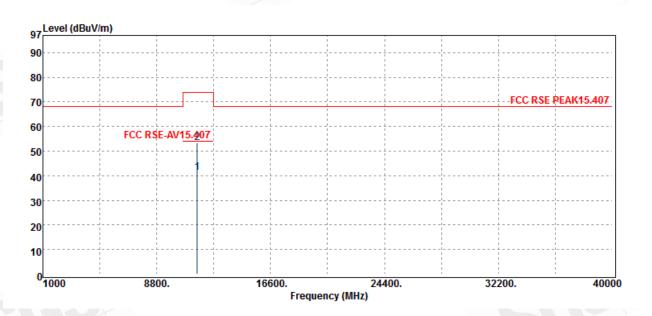
:802.11n20B4 :5785 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dĔ
							_
11570.00	Н	Average	20.73	20.58	41.31	54.00	-12.69
11570.00	Н	Peak	32.75	20.58	53.33	74.00	-20.67

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 158 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

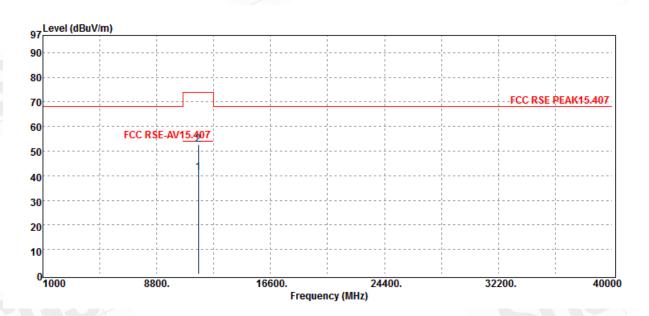
:802.11n20B4 :5825 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dĔ
							_
11650.00	Н	Average	20.75	20.43	41.18	54.00	-12.82
11650.00	Н	Peak	32.19	20.43	52.62	74.00	-21.38

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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

台灣檢驗科技股份有限公司



Page: 159 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

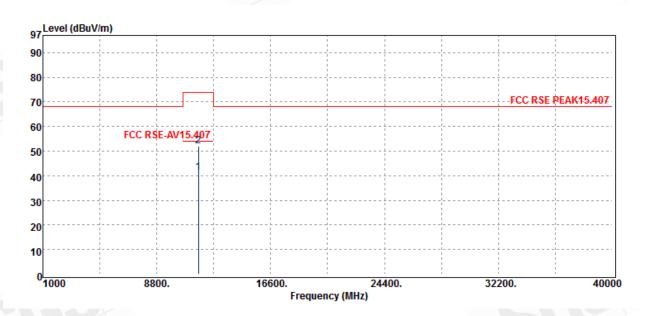
:802.11n20B4 :5825 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
							_
11650.00	Н	Average	20.77	20.43	41.20	54.00	-12.80
11650.00	Н	Peak	31.76	20.43	52.19	74.00	-21.81

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 160 of 236

Radiated Spurious Emission Measurement Result 802.11n HT40, 5150~5250 MHz

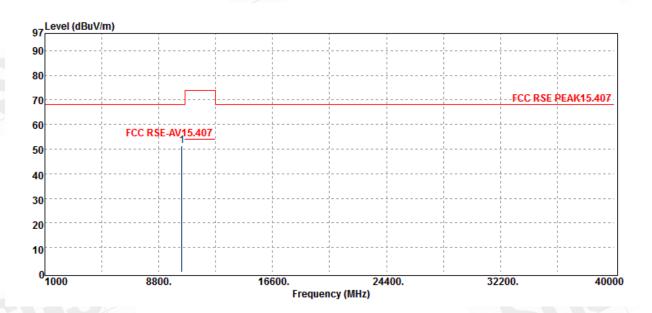
Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11n40B1 :5190 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15 Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
			Cal				_
10380.00	Н	Peak	33.37	18.12	51.49	68.30	-16.81

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



Page: 161 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

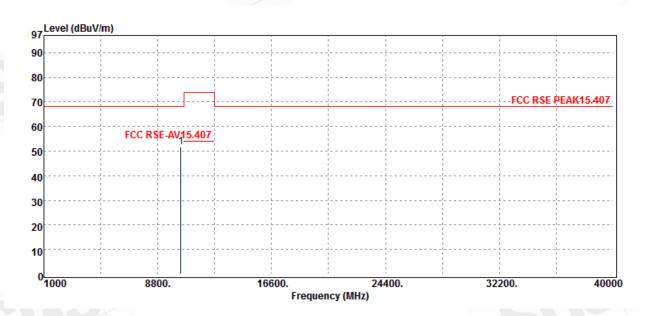
:802.11n40B1 :5190 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
			Cal				_
10380.00	Н	Peak	33.57	18.12	51.69	68.30	-16.61

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 162 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

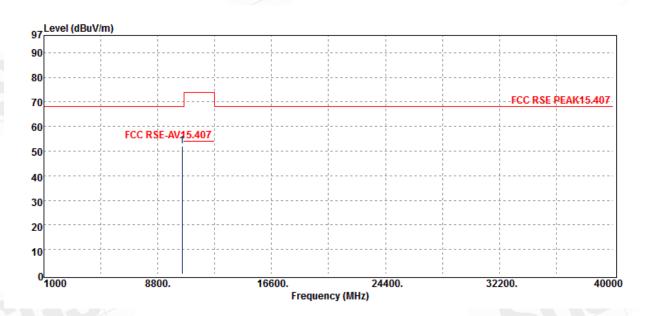
:802.11n40B1 :5230 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
			Cale				_
10460.00	Н	Peak	33.49	18.55	52.04	68.30	-16.26

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 163 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

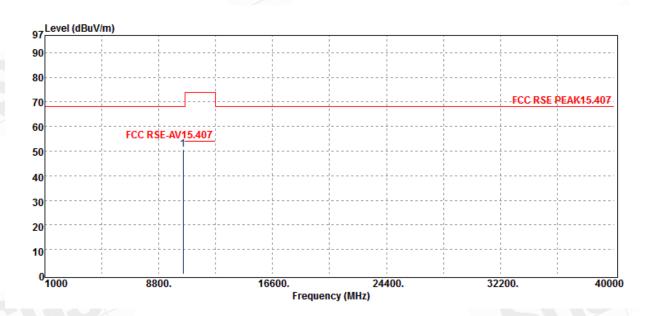
:802.11n40B1 :5230 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
			Cal				_
10460.00	Н	Peak	32.01	18.55	50.56	68.30	-17.74

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. 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.

SCS 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

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: 164 of 236

Radiated Spurious Emission Measurement Result 802.11n HT40, 5250~5350 MHz

Operation Band Fundamental Frequency **Operation Mode**

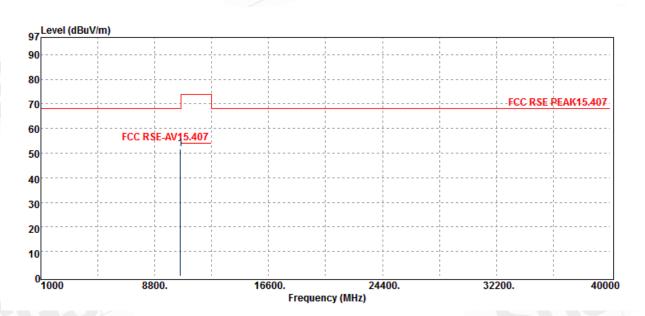
EUT Pol.

:802.11n40B2 :5270 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15 Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
			Cal				_
10540.00	Н	Peak	32.56	19.17	51.73	68.30	-16.57

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



Page: 165 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

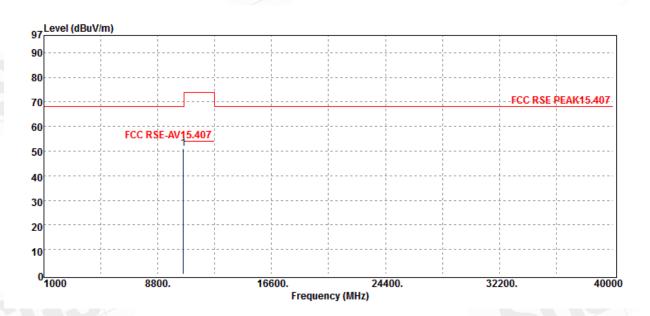
:802.11n40B2 :5270 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
			Cal				_
10540.00	Н	Peak	31.96	19.17	51.13	68.30	-17.17

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.

SCS 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

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: 166 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

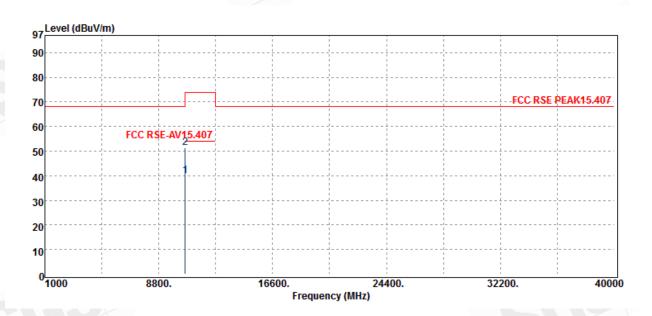
:802.11n40B2 :5310 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dB
							_
10620.00	Н	Average	20.78	19.11	39.89	54.00	-14.11
10620.00	Н	Peak	32.22	19.11	51.33	74.00	-22.67

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.

SCS 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

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: 167 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

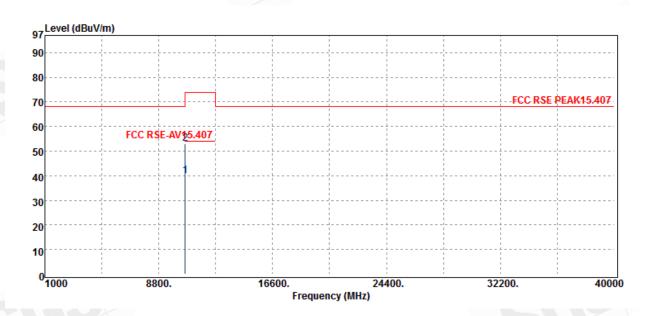
:802.11n40B2 :5310 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dB
							_
10620.00	Н	Average	20.74	19.11	39.85	54.00	-14.15
10620.00	Н	Peak	33.89	19.11	53.00	74.00	-21.00

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 168 of 236

Radiated Spurious Emission Measurement Result 802.11n HT40, 5470~5725 MHz

Operation Band Fundamental Frequency **Operation Mode**

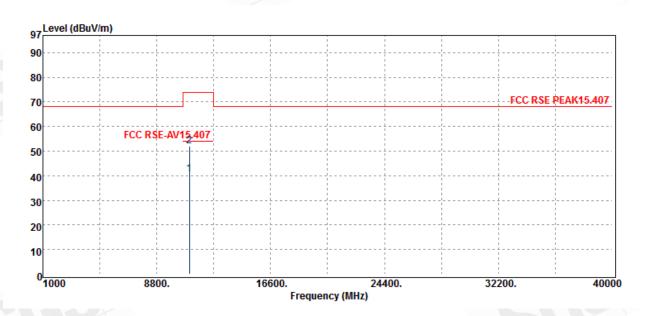
EUT Pol.

:802.11n40B3 :5510 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15 Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
							_
11020.00	Н	Average	20.41	20.16	40.57	54.00	-13.43
11020.00	Н	Peak	31.94	20.16	52.10	74.00	-21.90

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



Page: 169 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

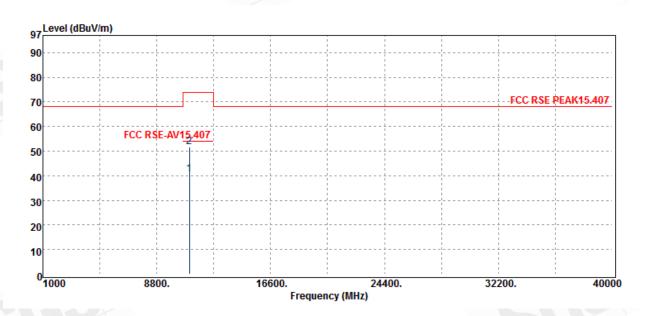
:802.11n40B3 :5510 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dĔ
							_
11020.00	Н	Average	20.48	20.16	40.64	54.00	-13.36
11020.00	Н	Peak	31.68	20.16	51.84	74.00	-22.16

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 170 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

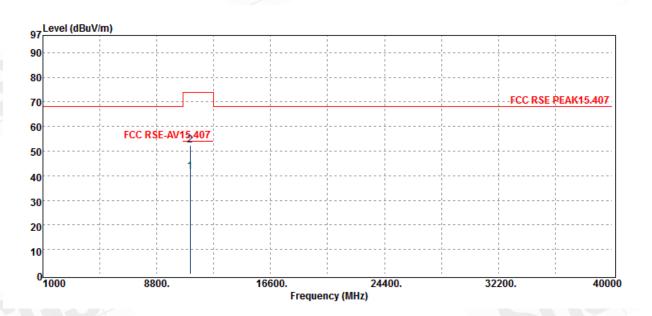
:802.11n40B3 :5550 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
							_
11100.00	Н	Average	21.23	20.32	41.55	54.00	-12.45
11100.00	Н	Peak	32.00	20.32	52.32	74.00	-21.68

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.

SCS 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

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: 171 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

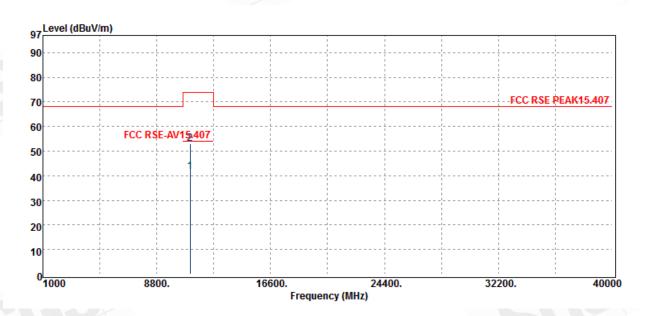
:802.11n40B3 :5550 MHz :Tx CH MID :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				_
11100.00	Н	Average	21.29	20.32	41.61	54.00	-12.39
11100.00	Н	Peak	32.68	20.32	53.00	74.00	-21.00

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 172 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

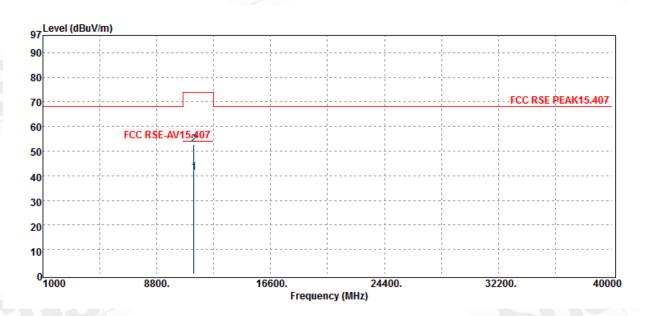
:802.11n40B3 :5670 MHz :Tx CH HIGH :H Plane

:2017-05-15 **Test Date**

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				_
11340.00	Н	Average	21.04	20.38	41.42	54.00	-12.58
11340.00	Н	Peak	32.20	20.38	52.58	74.00	-21.42

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 173 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

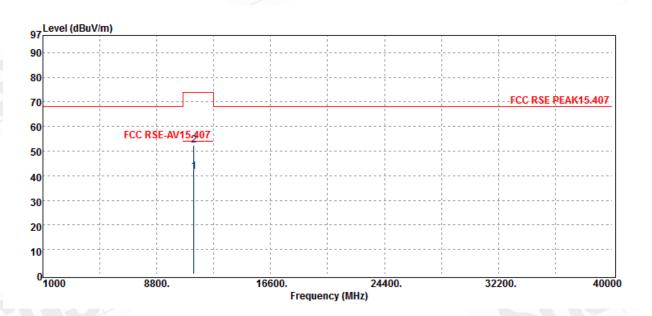
:802.11n40B3 :5670 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				_
11340.00	Н	Average	21.10	20.38	41.48	54.00	-12.52
11340.00	Н	Peak	32.02	20.38	52.40	74.00	-21.60

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.

SCS 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

No.134, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 174 of 236

Radiated Spurious Emission Measurement Result 802.11n HT40, 5725~5850 MHz

Operation Band Fundamental Frequency Operation Mode

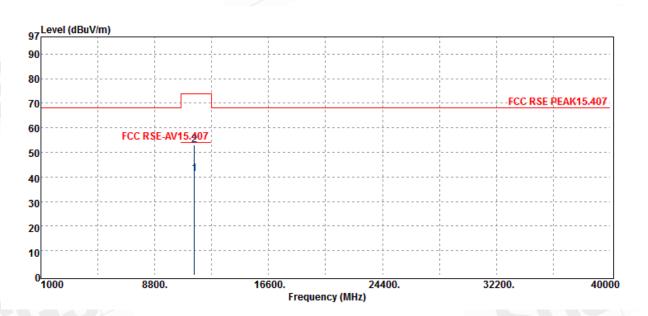
EUT Pol.

:802.11n40B4 :5755 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15 Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

Measurement Antenna Pol. :VERTICAL



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
			Cale				_
11510.00	Н	Average	20.80	20.38	41.18	54.00	-12.82
11510.00	Н	Peak	32.67	20.38	53.05	74.00	-20.95

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 approvance in which the defendance may be preserved 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

t (886-2) 2299-3279



Page: 175 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

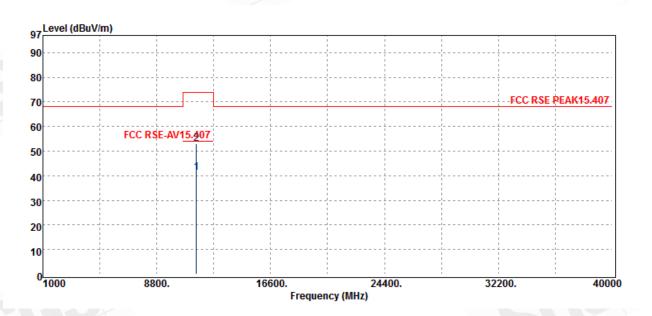
:802.11n40B4 :5755 MHz :Tx CH LOW :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dBμV	dB	dBμV/m	dBμV/m	dB
							_
11510.00	Н	Average	20.77	20.38	41.15	54.00	-12.85
11510.00	Н	Peak	32.64	20.38	53.02	74.00	-20.98

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.

SCS 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

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: 176 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

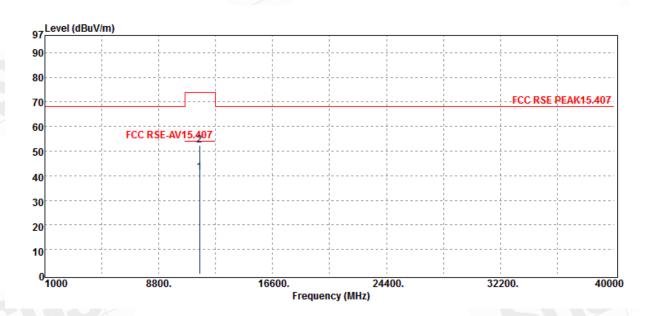
:802.11n40B4 :5795 MHz :Tx CH HIGH :H Plane

:2017-05-15 **Test Date**

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dĔ
			Cal				_
11590.00	Н	Average	20.75	20.43	41.18	54.00	-12.82
11590.00	Н	Peak	32.01	20.43	52.44	74.00	-21.56

台灣檢驗科技股份有限公司

t (886-2) 2299-3279



Page: 177 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

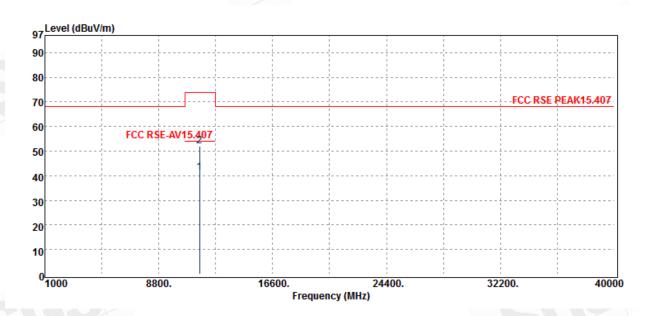
:802.11n40B4 :5795 MHz :Tx CH HIGH :H Plane

Test Date :2017-05-15

Temp./Humi. :23 deg_C / 62 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Safe Margin
MHz	F/H/E/S	PK/QP/AV	dBμV	dB	dBμV/m	dBμV/m	dB
							_
11590.00	Н	Average	20.73	20.43	41.16	54.00	-12.84
11590.00	Н	Peak	31.68	20.43	52.11	74.00	-21.89

台灣檢驗科技股份有限公司

t (886-2) 2299-3279



Page: 178 of 236

Band edge falling to restricted band 802.11a mode

Operation Band :802.11aB1 **Fundamental Frequency** :5180 MHz

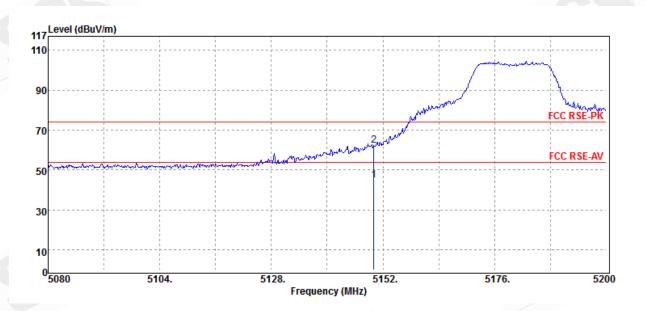
:Bandedge CH LOW Operation Mode

EUT Pol. :H Plane **Test Date** :2017-05-12

Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5150.00	E	Average	38.89	5.88	44.77	54.00	-9.23
5150.00	E	Peak	56.52	5.88	62.40	74.00	-11.60

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 approvance in the index produced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or approvance of this decument is unquited and effective provinced to the full extent of the leave. 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



Page: 179 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11aB1 :5180 MHz

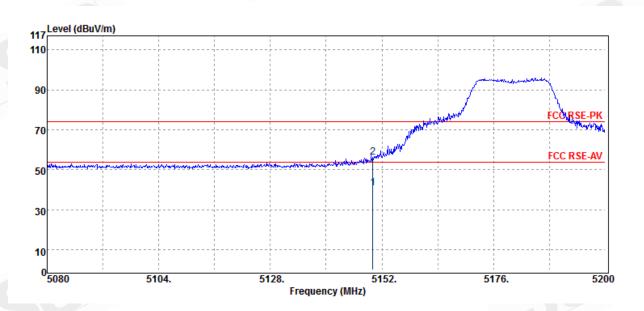
:Bandedge CH LOW

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5150.00	E	Average	35.15	5.88	41.03	54.00	-12.97
5150.00	Е	Peak	50.52	5.88	56.40	74.00	-17.60

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



Page: 180 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11aB2 :5320 MHz

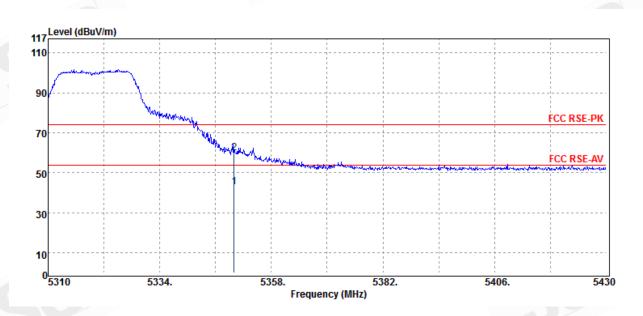
:Bandedge CH HIGH

:H Plane

Test Date :2017-05-12 :22 deg_C / 61 RH

Temp./Humi. Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5350.00	E	Average	36.57	6.16	42.73	54.00	-11.27
5350.00	E	Peak	53.83	6.16	59.99	74.00	-14.01

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



Page: 181 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11aB2 :5320 MHz

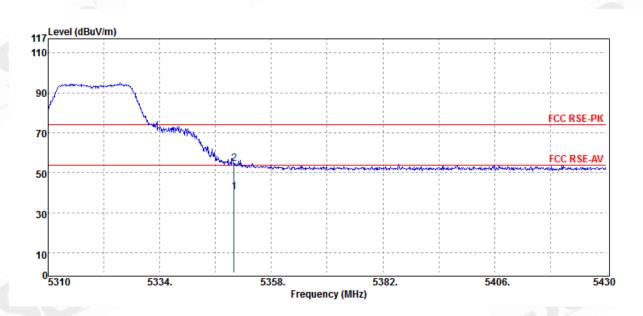
:Bandedge CH HIGH

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5350.00	E	Average	34.17	6.16	40.33	54.00	-13.67
5350.00	Е	Peak	48.54	6.16	54.70	74.00	-19.30

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



Page: 182 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11aB3 :5500 MHz

:Bandedge CH LOW

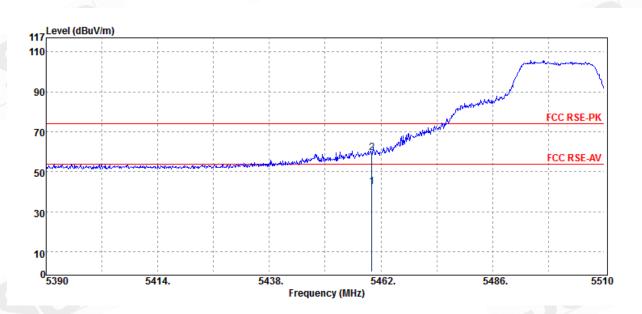
:H Plane

Test Date :2017-05-12

Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5460.00	E	Average	36.39	6.23	42.62	54.00	-11.38
5460.00	E	Peak	53.48	6.23	59.71	74.00	-14.29



Page: 183 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11aB3 :5500 MHz

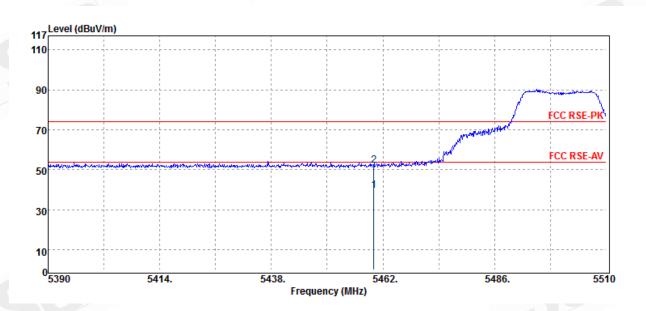
:Bandedge CH LOW

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5460.00	E	Average	33.50	6.23	39.73	54.00	-14.27
5460.00	Е	Peak	45.79	6.23	52.02	74.00	-21.98

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



Page: 184 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11aB3 :5500 MHz

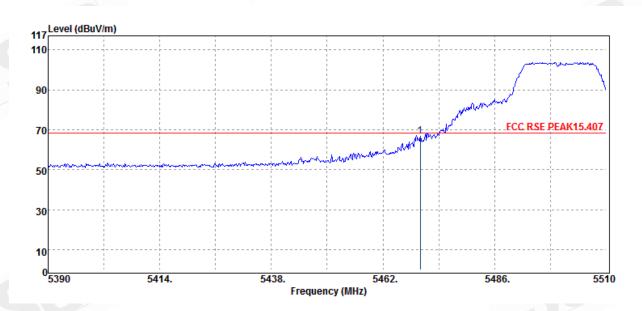
:Bandedge CH LOW RSE

:H Plane

Test Date :2017-05-12

Temp./Humi. :22 deg_C / 61 RH Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB	
5470.0	00 F	Peak	60.55	6.26	66.81	68.30	-1 49	-

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發



Page: 185 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11aB3 :5500 MHz

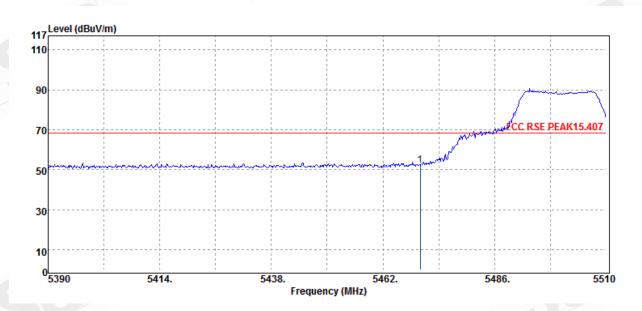
:Bandedge CH LOW RSE

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dB	
5470.00	E	Peak	46 14	6.26	52.40	68.30	-15.90	_

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發



Page: 186 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11aB3 :5700 MHz

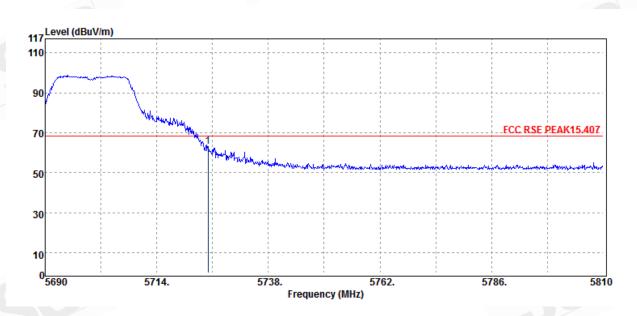
:Bandedge CH HIGH

:H Plane

Test Date :2017-05-12

Temp./Humi. :22 deg_C / 61 RH Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dB	
5725.00	E	Peak	56.59	6.59	63.18	68.30	-5.12	_

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發



Page: 187 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11aB3 :5700 MHz

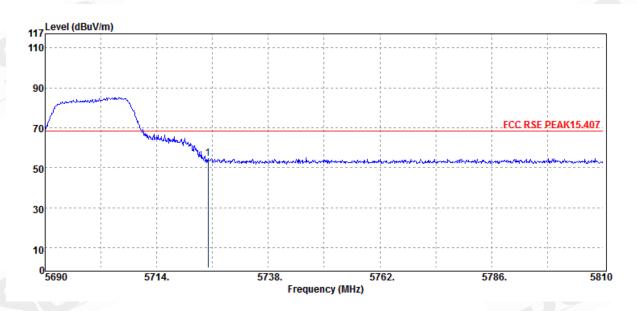
:Bandedge CH HIGH

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dB	
5725.00	E	Peak	47 95	6.59	54.54	68.30	-13.76	_

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發



Page: 188 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11aB4 :5745 MHz

:Bandedge CH LOW

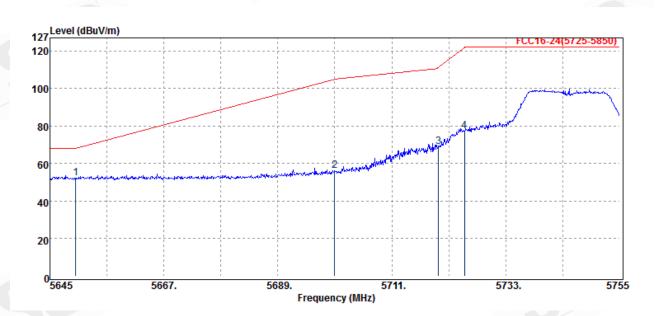
:H Plane

Test Date :2017-05-12

Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5650.00	E	Peak	45.74	6.48	52.22	68.23	-16.01
5700.00	Е	Peak	49.58	6.67	56.25	105.23	-48.98
5720.00	Е	Peak	62.35	6.60	68.95	110.83	-41.88
5725.00	Е	Peak	70.63	6.59	77.22	122.23	-45.01



Page: 189 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11aB4 :5745 MHz

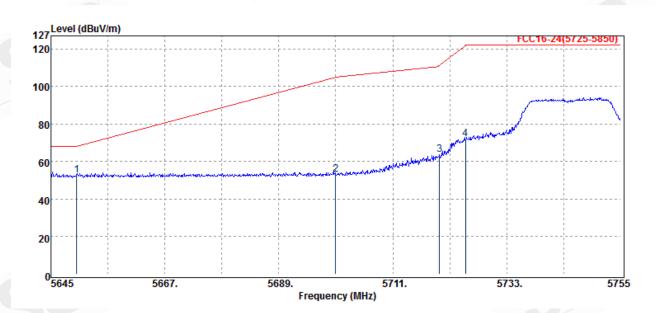
:Bandedge CH LOW

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer

:HORIZONTAL Measurement Antenna Pol.



Freq	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5650.0	00 E	Peak	46.06	6.48	52.54	68.23	-15.69
5700.0	00 E	Peak	46.67	6.67	53.34	105.23	-51.89
5720.0	00 E	Peak	57.08	6.60	63.68	110.83	-47.15
5725.0	00 E	Peak	65.49	6.59	72.08	122.23	-50.15

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

台灣檢驗科技股份有限公司

f (886-2) 2298-0488

www.tw.sqs.com



Page: 190 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11aB4 :5825 MHz

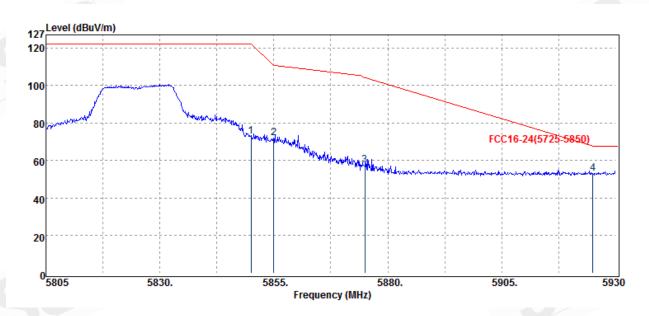
:Bandedge CH HIGH

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5850.00	E	Peak	65.61	7.28	72.89	122.23	-49.34
5855.00	Е	Peak	64.68	7.32	72.00	110.83	-38.83
5875.00	Е	Peak	50.00	7.37	57.37	105.23	-47.86
5925.00	Е	Peak	45.92	7.39	53.31	68.23	-14.92



Page: 191 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11aB4 :5825 MHz

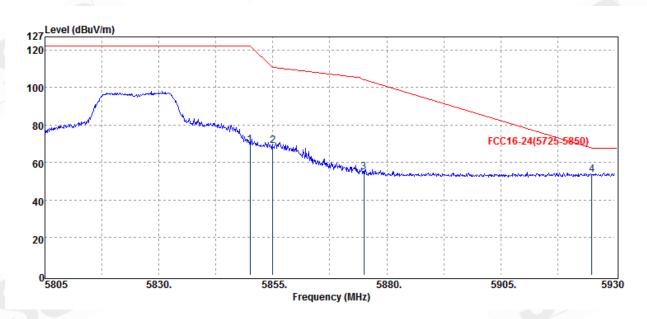
:Bandedge CH HIGH

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
 5850.00	E	Peak	62.17	7.28	69.45	122.23	-52.78
5855.00	Е	Peak	61.87	7.32	69.19	110.83	-41.64
5875.00	E	Peak	47.38	7.37	54.75	105.23	-50.48
5925.00	Е	Peak	46.12	7.39	53.51	68.23	-14.72

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

台灣檢驗科技股份有限公司



Page: 192 of 236

802.11n20 HT mode

Operation Band Fundamental Frequency **Operation Mode**

EUT Pol.

:802.11n20B1 :5180 MHz

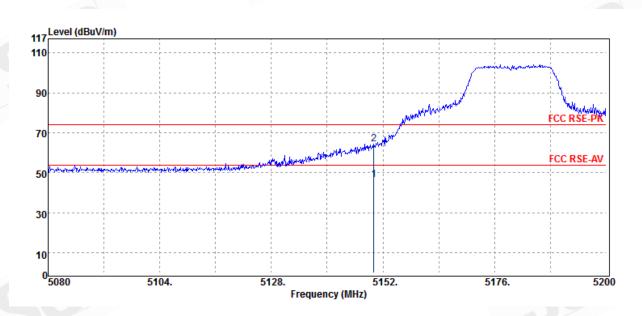
:Bandedge CH LOW

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5150.00	E	Average	40.55	5.88	46.43	54.00	-7.57
5150.00	Е	Peak	58.39	5.88	64.27	74.00	-9.73

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

台灣檢驗科技股份有限公司



Page: 193 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

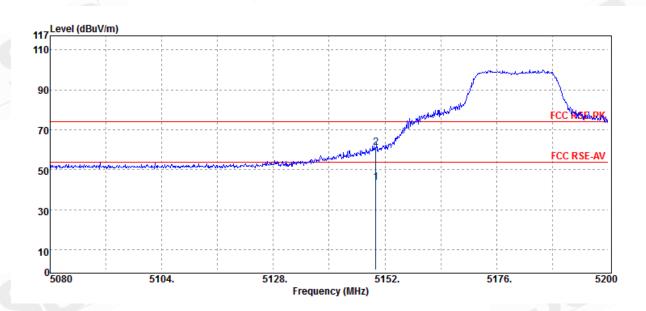
:802.11n20B1 :5180 MHz :Bandedge CH LOW

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5150.00	E	Average	37.93	5.88	43.81	54.00	-10.19
5150.00	Е	Peak	55.06	5.88	60.94	74.00	-13.06

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



Page: 194 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

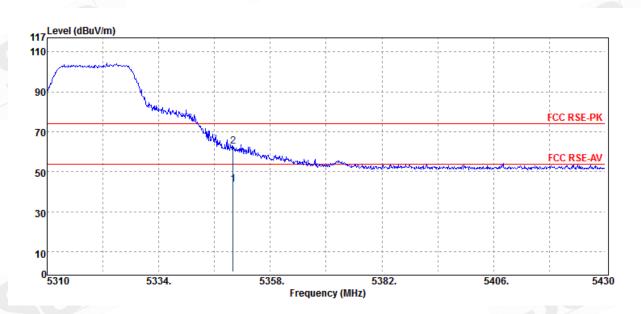
:802.11n20B2 :5320 MHz :Bandedge CH HIGH

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5350.00	E	Average	37.42	6.16	43.58	54.00	-10.42
5350.00	Е	Peak	56.76	6.16	62.92	74.00	-11.08

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



Page: 195 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11n20B2 :5320 MHz

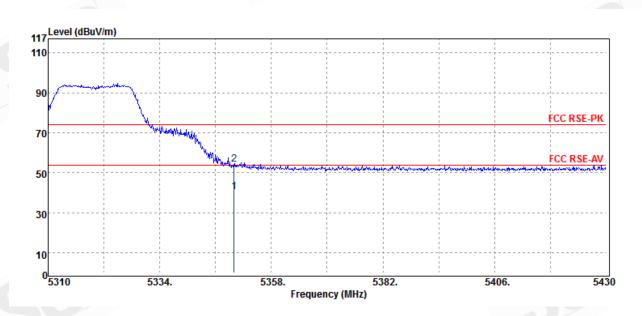
:Bandedge CH HIGH

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5350.00	E	Average	34.15	6.16	40.31	54.00	-13.69
5350.00	Е	Peak	48.07	6.16	54.23	74.00	-19.77

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



Page: 196 of 236

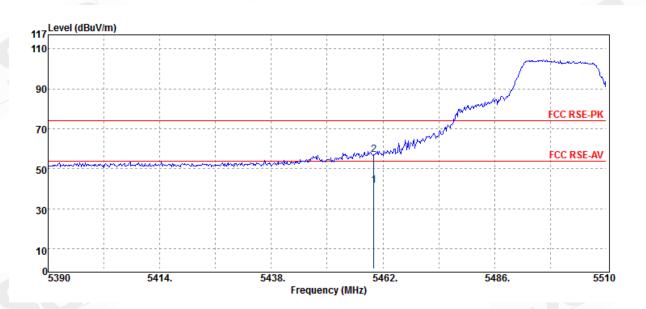
Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11n20B3 :5500 MHz :Bandedge CH LOW :H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5460.00	E	Average	35.62	6.23	41.85	54.00	-12.15
5460.00	E	Peak	50.96	6.23	57.19	74.00	-16.81



Page: 197 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

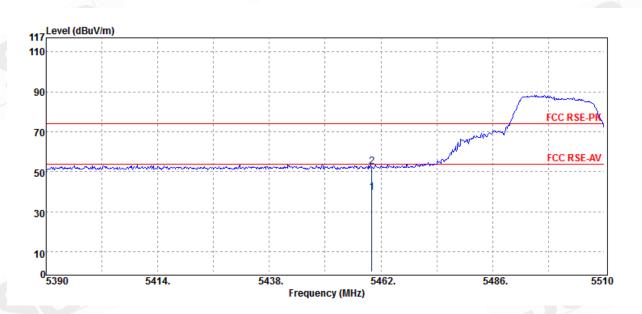
:802.11n20B3 :5500 MHz :Bandedge CH LOW

:H Plane

Test Date Temp./Humi. Engineer

:2017-05-12 :22 deg_C / 61 RH

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5460.00	E	Average	33.48	6.23	39.71	54.00	-14.29
5460.00	E	Peak	46.27	6.23	52.50	74.00	-21.50

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



Page: 198 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11n20B3 :5500 MHz

:Bandedge CH LOW RSE

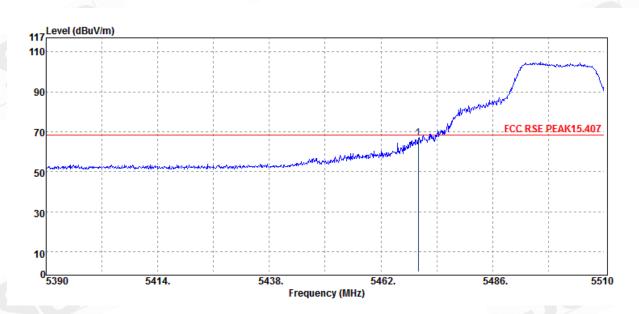
:H Plane

Test Date :2017-05-12

Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dB	
5470.00	E	Peak	60.54	6.26	66.80	68.30	-1.50	•

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發

台灣檢驗科技股份有限公司

t (886-2) 2299-3279

f (886-2) 2298-0488



Page: 199 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11n20B3 :5500 MHz

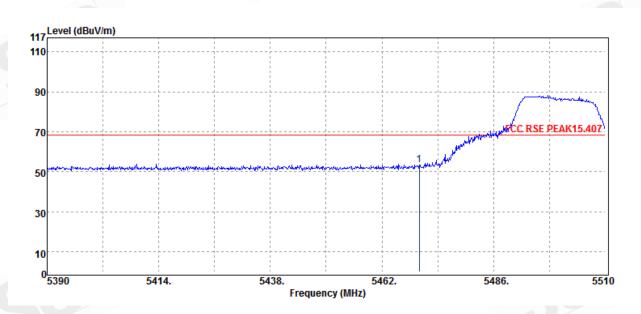
:Bandedge CH LOW RSE

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer

:HORIZONTAL Measurement Antenna Pol.



	Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
	MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dB	
-	5470.00	F	Peak	46 99	6.26	53 25	68.30	-15.05	-

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.
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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發



Page: 200 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

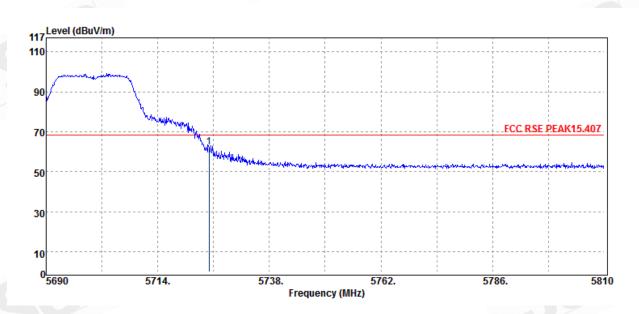
:802.11n20B3 :5700 MHz :Bandedge CH HIGH

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5725.00	E	Peak	55.56	6.59	62.15	68.30	-6.15

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



Page: 201 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11n20B3 :5700 MHz

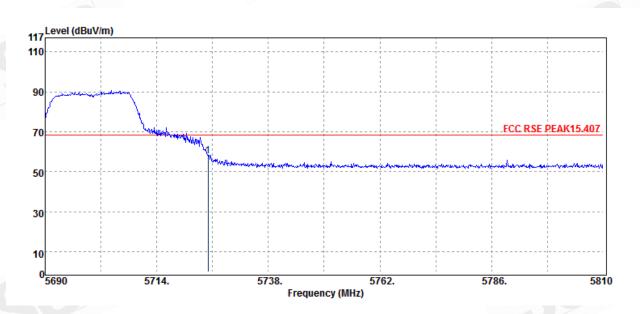
:Bandedge CH HIGH

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB	
5725.00	E	Peak	51.36	6.59	57.95	68.30	-10.35	_

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

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發



Page: 202 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11n20B4 :5745 MHz :Bandedge CH LOW

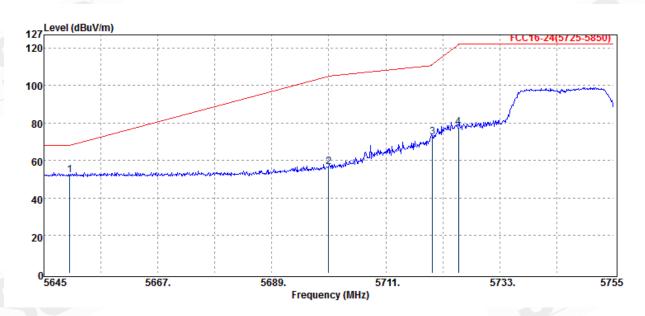
:H Plane

Test Date Temp./Humi. Engineer

:2017-05-12 :22 deg_C / 61 RH

:Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dBμV	dB	dBμV/m	dBμV/m	dB
5650.00	Е	Peak	45.68	6.48	52.16	68.23	-16.07
5700.00	E	Peak	50.10	6.67	56.77	105.23	-48.46
5720.00	E	Peak	65.85	6.60	72.45	110.83	-38.38
5725.00	Е	Peak	71.40	6.59	77.99	122.23	-44.24

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



Page: 203 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11n20B4 :5745 MHz

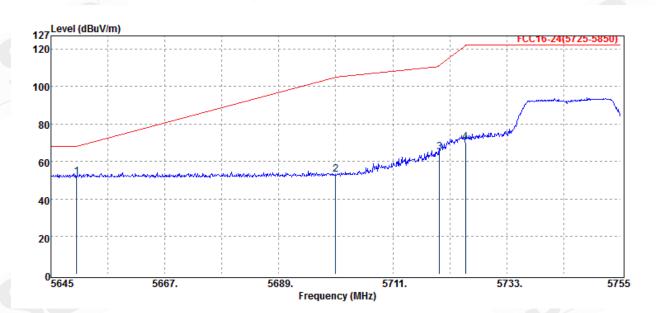
:Bandedge CH LOW

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer

:HORIZONTAL Measurement Antenna Pol.



Fre	q.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MH	łz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5650	0.00	Е	Peak	45.42	6.48	51.90	68.23	-16.33
5700	0.00	Ε	Peak	46.65	6.67	53.32	105.23	-51.91
5720	0.00	E	Peak	58.28	6.60	64.88	110.83	-45.95
5725	5.00	Ε	Peak	63.93	6.59	70.52	122.23	-51.71



Page: 204 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11n20B4 :5825 MHz

:Bandedge CH HIGH

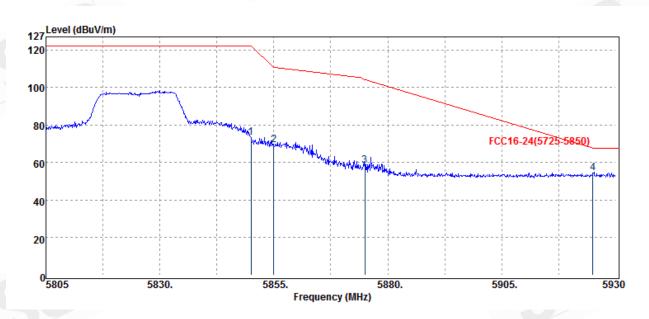
:H Plane

Test Date :2017-05-12

Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



	Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
	MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5	850.00	E	Peak	65.90	7.28	73.18	122.23	-49.05
5	855.00	Е	Peak	62.08	7.32	69.40	110.83	-41.43
5	875.00	Е	Peak	50.89	7.37	58.26	105.23	-46.97
5	925.00	E	Peak	46.99	7.39	54.38	68.23	-13.85

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

台灣檢驗科技股份有限公司



Page: 205 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11n20B4 :5825 MHz

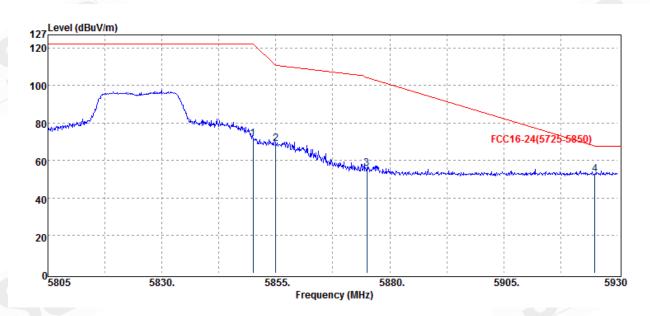
:Bandedge CH HIGH

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5850.00	Е	Peak	64.17	7.28	71.45	122.23	-50.78
5855.00	Е	Peak	61.79	7.32	69.11	110.83	-41.72
5875.00	E	Peak	48.28	7.37	55.65	105.23	-49.58
5925.00	Е	Peak	45.29	7.39	52.68	68.23	-15.55

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



Page: 206 of 236

802.11n40 HT mode

Operation Band Fundamental Frequency **Operation Mode**

EUT Pol.

:802.11n40B1 :5190 MHz

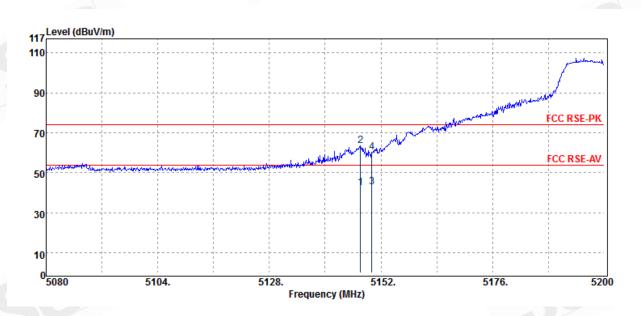
:Bandedge CH LOW

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



	Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
	MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5	5147.56	S	Average	36.56	5.89	42.45	54.00	-11.55
5	5147.56	S	Peak	57.50	5.89	63.39	74.00	-10.61
5	5150.00	E	Average	37.11	5.88	42.99	54.00	-11.01
5	5150.00	E	Peak	54.44	5.88	60.32	74.00	-13.68



Page: 207 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11n40B1 :5190 MHz

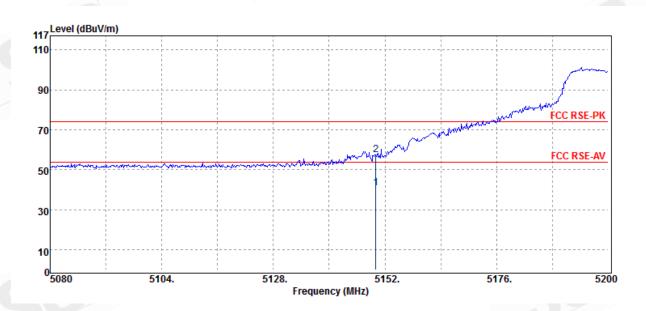
:Bandedge CH LOW

:H Plane

Test Date :2017-05-12 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5150.00	E	Average	35.20	5.88	41.08	54.00	-12.92
5150.00	Е	Peak	51.53	5.88	57.41	74.00	-16.59

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



Page: 208 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11n40B2 :5310 MHz

:Bandedge CH HIGH

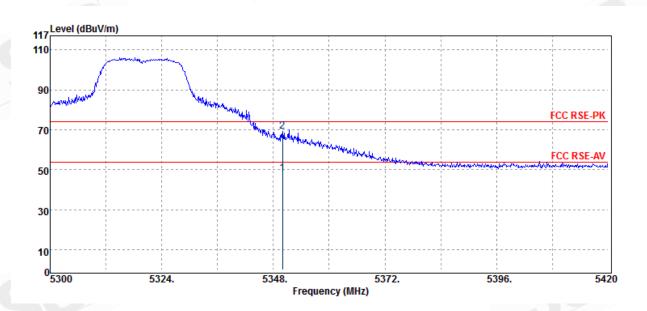
:H Plane

Test Date :2017-05-15

Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5350.00	E	Average	41.87	6.16	48.03	54.00	-5.97
5350.00	Е	Peak	63.03	6.16	69.19	74.00	-4.81



Page: 209 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11n40B2 :5310 MHz

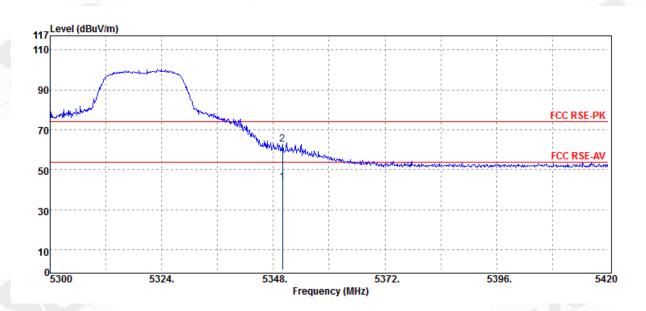
:Bandedge CH HIGH

:H Plane

Test Date :2017-05-15 Temp./Humi. :22 deg_C / 61 RH

Engineer

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5350.00	E	Average	37.39	6.16	43.55	54.00	-10.45
5350.00	Е	Peak	56.55	6.16	62.71	74.00	-11.29

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



Page: 210 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

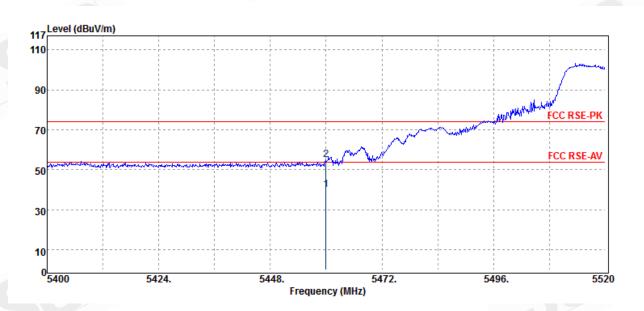
:802.11n40B3 :5510 MHz :Bandedge CH LOW :H Plane

Test Date Temp./Humi. Engineer

:2017-05-15 :22 deg_C / 61 RH

:Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5460.00	E	Average	33.74	6.23	39.97	54.00	-14.03
5460.00	E	Peak	48.74	6.23	54.97	74.00	-19.03



Page: 211 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11n40B3 :5510 MHz :Bandedge CH LOW

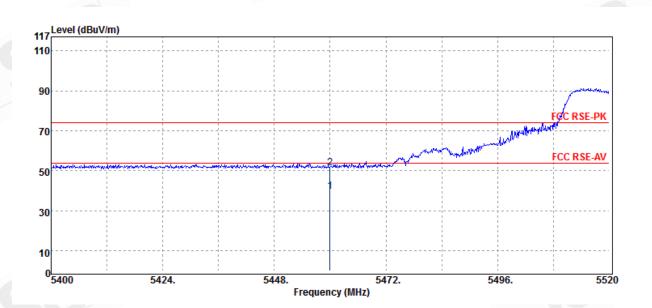
:H Plane

Temp./Humi. Engineer

Test Date

:2017-05-15 :22 deg_C / 61 RH

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5460.00) E	Average	33.47	6.23	39.70	54.00	-14.30
5460.00) E	Peak	45.14	6.23	51.37	74.00	-22.63



Page: 212 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11n40B3 :5510 MHz

:Bandedge CH LOW RSE

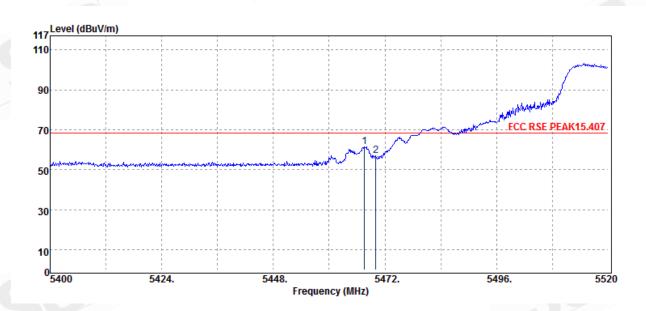
:H Plane

Test Date :2017-05-15

Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5467.56	S	Peak	55.31	6.25	61.56	68.30	-6.74
5470.00	Е	Peak	50.62	6.26	56.88	68.30	-11.42



Page: 213 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11n40B3 :5510 MHz

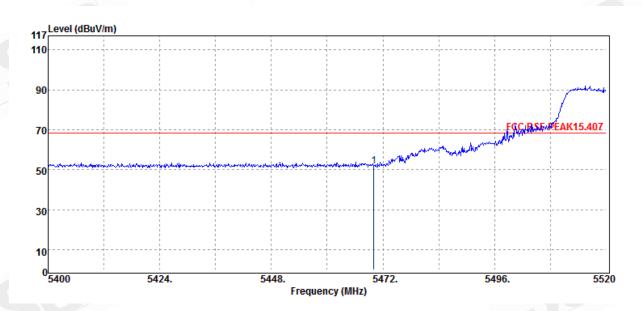
:Bandedge CH LOW RSE

:H Plane

Test Date :2017-05-15 Temp./Humi. :22 deg_C / 61 RH

Engineer

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB	
5470 00	F	Peak	45.73	6.26	51 99	68.30	-16.31	_

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發



Page: 214 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

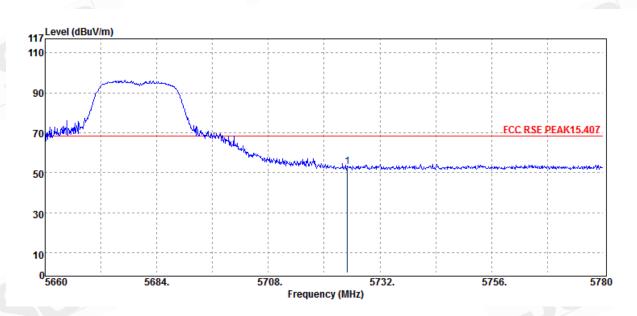
:802.11n40B3 :5670 MHz :Bandedge CH HIGH

:H Plane

Test Date Temp./Humi. Engineer

:2017-05-15 :22 deg_C / 61 RH

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB	
5725 00	F	Peak	46 47	6.59	53.06	68.30	-15 24	_

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發



Page: 215 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11n40B3 :5670 MHz

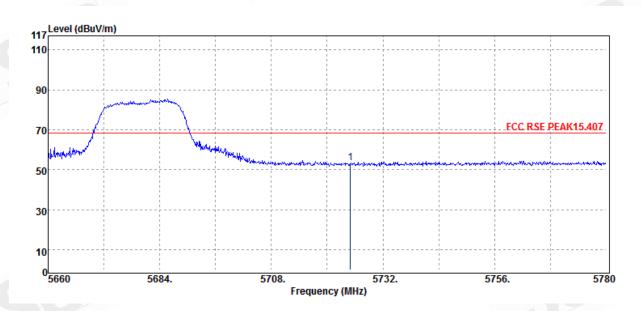
:Bandedge CH HIGH

:H Plane

Test Date :2017-05-15 Temp./Humi. :22 deg_C / 61 RH

Engineer

:HORIZONTAL Measurement Antenna Pol.



	Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
	MHz	F/H/E/S	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBμV/m	dB	
•	5725.00	E	Peak	46.90	6.59	53.49	68.30	-14.81	_

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發



Page: 216 of 236

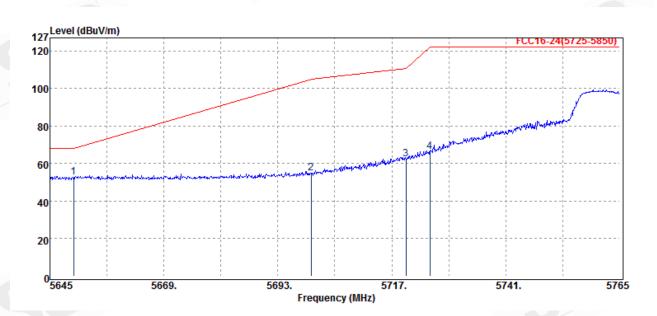
Operation Band Fundamental Frequency Operation Mode EUT Pol.

:802.11n40B4 :5755 MHz :Bandedge CH LOW :H Plane

Test Date :2017-05-15 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



F	req.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
N	ЛHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
56	50.00	E	Peak	46.14	6.48	52.62	68.23	-15.61
57	00.00	E	Peak	48.20	6.67	54.87	105.23	-50.36
57	20.00	E	Peak	56.00	6.60	62.60	110.83	-48.23
57	25.00	E	Peak	59.72	6.59	66.31	122.23	-55.92

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 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 WulkunDRaod.NewTaipeiIndustrialPark.WukunDistrict.NewTaipeiCity.Taiwan24803/新 北市 五股區新北產業園區五工路 134 號



Page: 217 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

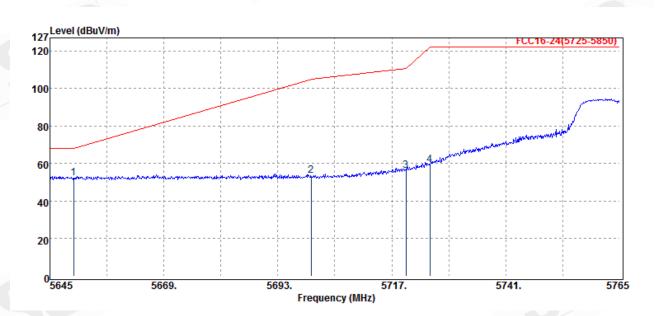
:802.11n40B4 :5755 MHz :Bandedge CH LOW

:H Plane

Test Date Temp./Humi. Engineer

:2017-05-15 :22 deg_C / 61 RH

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5650.00	E	Peak	45.63	6.48	52.11	68.23	-16.12
5700.00	Е	Peak	46.93	6.67	53.60	105.23	-51.63
5720.00	Е	Peak	49.62	6.60	56.22	110.83	-54.61
5725.00	Е	Peak	52.94	6.59	59.53	122.23	-62.70

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



Page: 218 of 236

Operation Band Fundamental Frequency Operation Mode EUT Pol.

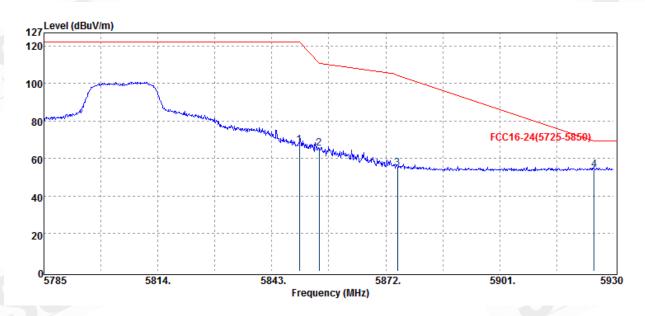
:802.11n40B4 :5795 MHz :Bandedge CH HIGH

:H Plane

Test Date :2017-05-15 Temp./Humi. :22 deg_C / 61 RH

Engineer :Mike

:VERTICAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5850.00	E	Peak	59.83	7.28	67.11	122.23	-55.12
5855.00	Е	Peak	58.23	7.32	65.55	110.83	-45.28
5875.00	Е	Peak	47.66	7.37	55.03	105.23	-50.20
5925.00	Е	Peak	46.70	7.39	54.09	68.23	-14.14

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



Page: 219 of 236

Operation Band Fundamental Frequency **Operation Mode** EUT Pol.

:802.11n40B4 :5795 MHz

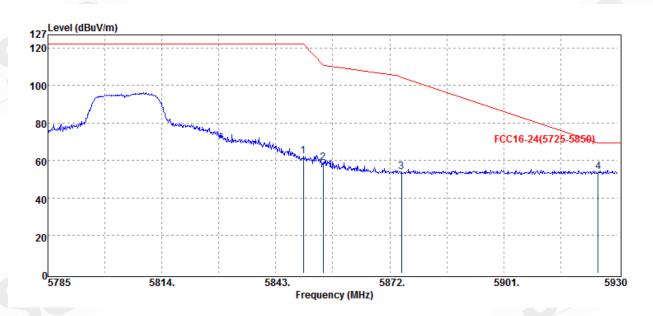
:Bandedge CH HIGH

:H Plane

Test Date :2017-05-15 Temp./Humi. :22 deg_C / 61 RH

Engineer

:HORIZONTAL Measurement Antenna Pol.



Freq.	Note	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	F/H/E/S	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5850.00	E	Peak	55.30	7.28	62.58	122.23	-59.65
5855.00	Е	Peak	51.53	7.32	58.85	110.83	-51.98
5875.00	Е	Peak	46.85	7.37	54.22	105.23	-51.01
5925.00	Е	Peak	46.51	7.39	53.90	68.23	-14.33



Page: 220 of 236

12 TRANSMISSION IN THE ABSENCE OF DATA

12.1 Standard Applicable

According to §15.407(c)

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

12.2 Result

No non-compliance noted:

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. the EUT can detect the control-ling signal of ASK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

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。

t (886-2) 2299-3279

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.

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



Page: 221 of 236

13 FREQUENCY STABILITY

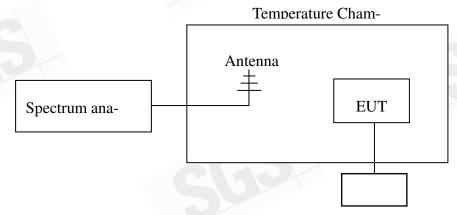
13.1 Standard Applicable

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

13.2 Measurement Procedure

- 1. The EUT was placed inside temperature chamber and powered and powered by nominal DC voltage.
- 2. Set EUT as normal operation.
- 3. Turn the EUT on and couple its output to spectrum.
- 4. Turn the EUT off and set the chamber to the highest temperature specified.
- 5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT and measure the operating frequency.
- 6. Repeat step with the temperature chamber set to the lowest temperature.

13.3 Test SET-UP



Variable AC Power Supply

13.4 Measurement Equipment Used

Conducted Emission Test Site								
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.			
EXA Spectrum Analyzer	Agilent	N9030A	MY53120760	03/21/2017	03/20/2018			
DC Block	Mini-Circuits	BLK-18-S+	1	01/05/2017	01/04/2018			
Coaxial Cable	HUBER+SUH NER	SUCOFLEX 102	23670/2	01/05/2017	01/04/2018			
Attenuator	Mini-Circuit	BW-S10W2+	2	01/05/2017	01/04/2018			
DC Power Supply	Agilent	E3640A	MY52410006	11/21/2016	11/20/2017			
Temperature Chamber	TERCHY	MHG-120LF	911009	05/17/2016	05/16/2017			

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

t (886-2) 2299-3279



Page: 222 of 236

Measurement Result

Operation Mode	802.11 a	Test Date	2017.5.24
Temperature	:17 ℃	Test By	Cooper
Humidity	:65 %		

Test Temp.	Test Voltage	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	ΔFrequency (MHz)
		36	5180	5,180.06006	-0.00001159
		44	5220	5,220.06006	-0.00001151
		48	5240	5,240.06006	-0.00001146
		52	5260	5,260.06006	-0.00001142
		60	5300	5,300.06006	-0.00001133
	3.63V	64	5320	5,320.06006	-0.00001129
		100	5500	5,500.06006	-0.00001092
		116	5580	5,580.06006	-0.00001076
		140	5700	5,700.04492	-0.00000788
		149	5745	5,745.06006	-0.00001045
		157	5785	5,785.06006	-0.00001038
		165	5825	5,825.06006	-0.00001031
-10 °C		36	5180	5,180.06006	-0.00001159
_		44	5220	5,220.06006	-0.00001151
		48	5240	5,240.06006	-0.00001146
		52	5260	5,260.06006	-0.00001142
		60	5300	5,300.06006	-0.00001133
	2.97V	64	5320	5,320.06006	-0.00001129
		100	5500	5,500.06006	-0.00001092
		116	5580	5,580.06006	-0.00001076
		140	5700	5,700.06006	-0.00001054
		149	5745	5,745.06006	-0.00001045
		157	5785	5,785.06006	-0.00001038
		165	5825	5,825.06006	-0.00001031

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.

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

10.104, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 223 of 236

		36	5180	5,180.06006	-0.00001159
		44	5220	5,220.06006	-0.00001151
		48	5240	5,240.06006	-0.00001146
		52	5260	5,260.06006	-0.00001142
		60	5300	5,300.06006	-0.00001133
25 ℃	3.3V	64	5320	5,320.06006	-0.00001129
		100	5500	5,500.06006	-0.00001092
		116	5580	5,580.07495	-0.00001343
		140	5700	5,700.06006	-0.00001054
		149	5745	5,745.06006	-0.00001045
		157	5785	5,785.06006	-0.00001038
		165	5825	5,825.06006	-0.00001031
		36	5180	5,180.06006	-0.00001159
		44	5220	5,220.06006	-0.00001151
		48	5240	5,240.06006	-0.00001146
		52	5260	5,260.06006	-0.00001142
		60	5300	5,300.06006	-0.00001133
		64	5320	5,320.06006	-0.00001129
	3.63V	100	5500	5,500.06006	-0.00001092
		116	5580	5,580.06006	-0.00001076
		140	5700	5,700.06006	-0.00001054
		149	5745	5,745.06006	-0.00001045
		157	5785	5,785.06006	-0.00001038
		165	5825	5,825.06006	-0.00001031
55 ℃		36	5180	5,180.06006	-0.00001159
		44	5220	5,220.06006	-0.00001151
		48	5240	5,240.06006	-0.00001146
		52	5260	5,260.06006	-0.00001142
		60	5300	5,300.06006	-0.00001133
	2.97V	64	5320	5,320.06006	-0.00001129
		100	5500	5,500.04492	-0.00000817
		116	5580	5,580.06006	
		140	5700	5,700.06006	
		149	5745		-0.00001045
		157	5785		-0.00001038
		165	5825	-	-0.00001031
	•				

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.

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

10.104, WuKungRoad, NewTaipeilndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號



Page: 224 of 236

Operation Mode	802.11 n_HT40	Test Date	2017.5.24
Temperature	:17 ℃	Test By	Cooper
Humidity	:65 %		

Test Temp.	Test Voltage	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	ΔFrequency (MHz)
		38	5190	5,190.04981	-0.00000960
		46	5230	5,230.04981	-0.00000952
		54	5270	5,270.04981	-0.00000945
		62	5310	5,310.04981	-0.00000938
	3.63V	102	5510	5,510.04981	-0.00000904
		110	5550	5,550.07495	-0.00001350
		134	5670	5,670.09985	-0.00001761
		151	5755	5,755.07495	-0.00001302
-10 °C		159	5795	5,795.09985	-0.00001723
		38	5190	5,190.05005	-0.00000964
		46	5230	5,230.07495	-0.00001433
		54	5270	5,270.07495	-0.00001422
		62	5310	5,310.07495	-0.00001412
	2.97V	102	5510	5,510.07495	-0.00001360
		110	5550	5,550.07495	-0.00001350
		134	5670	5,670.07495	-0.00001322
		151	5755	5,755.07495	-0.00001302
		159	5795	5,795.05005	-0.00000864

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.

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

10.104, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 225 of 236

		38	5190	5,190.02490	-0.00000480
		46	5230	5,230.07495	-0.00001433
		54	5270	5,270.02490	-0.00000473
		62	5310	5,310.07495	-0.00001412
25 ℃	3.3V	102	5510	5,510.07495	-0.00001360
		110	5550	5,550.07495	-0.00001350
		134	5670	5,670.07495	-0.00001322
		151	5755	5,755.09985	-0.00001735
		159	5795	5,795.05005	-0.00000864
		38	5190	5,190.07495	-0.00001444
		46	5230	5,230.07495	-0.00001433
	3.63V	54	5270	5,270.07495	-0.00001422
		62	5310	5,310.05005	-0.00000943
		102	5510	5,510.07495	-0.00001360
		110	5550	5,550.04981	-0.00000897
		134	5670	5,670.07495	-0.00001322
		151	5755	5,755.05005	-0.00000870
		159	5795	5,795.10010	-0.00001727
55 ℃		38	5190	5,190.07495	-0.00001444
		46	5230	5,230.05005	-0.00000957
		54	5270	5,270.02490	-0.00000473
		62	5310	5,310.05005	-0.00000943
	2.97V	102	5510	5,510.07495	-0.00001360
		110	5550	5,550.07495	-0.00001350
		134	5670	5,670.07495	-0.00001322
		151	5755	5,755.07495	-0.00001302
		159	5795	5,795.05005	-0.00000864

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.

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

10.104, WuKungRoad, NewTaipeilndustrialPark, 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



Page: 226 of 236

14 ANTENNA REQUIREMENT

14.1 Standard Applicable

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.

According to §15.407, If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

14.2 Antenna Connected Construction

A PIFA antenna design is used.

The antenna is designed with permanent 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.

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

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.sgs.com



Page: 227 of 236

15 MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Standard Applicable 15.1

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

This is a Mobile device, the MPE is required.

According to §1.1310 and §2.1091 RF exposure is calculated.

Limits for Maximum Permissive Exposure (MPE)

Frequency Range	Electric Field	Magnetic Field	Power Density	Averaging Time					
(MHz)	Strength (V/m)	Strength (A/m)	(mW/cm ²)	(minute)					
	Limits for General Population/Uncontrolled Exposure								
0.3-1.34	614	1.63	*(100)	30					
1.34-30	824/f	2.19/f	*(180/f ²)	30					
30-300	27.5	0.073	0.2	30					
300-1500	/	1	F/1500	30					
1500-15000	/	/	1.0	30					

F = frequency in MHz

Prediction of MPE limit at a given distance Equation from page 18 of OET Bulletin 65, Edition 97-01

 $S=PG/4\pi R^2$

Where: S = Power density

P = Power input to antenna

G = Power gain of the antenna in the direction of interest relative to an isotropic radiator

R = Distance to the center of radiation of the antenna

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

^{* =} Plane-wave equipment power density



Page: 228 of 236

Maximum Permissible Exposure (MPE) Evaluation (Worst Case) 15.2

MPE Prediction (5150~5250MHz)

Average output power at antenna input terminal:	16.54	(dBm)
Average output power at antenna input terminal:	45.08167	(mW)
Duty cycle:	76.02	(%)
Maximum Pav :	34.271086	(mW)
Peak Antenna gain (Maximum):	3.37	(dBi)
Peak Antenna gain (linear):	2.1727012	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	5230	(MHz)
MPE limit for uncontrolled exposure at prediction	1	(mW/cm2)
Power density at predication frequency at 20 (cm)	0.015	(mW/cm2)

Measurement Result

The predicted power density level at 20 cm is 0.015 mW/cm2.

This is below the uncontrolled exposure limit of 1 mW/cm2 at 5230MHz.

MPE Prediction (5250~5350MHz)

Average output power at antenna input terminal:	16.50	(dBm)
Average output power at antenna input terminal:	44.668359	(mW)
Duty cycle:	76.02	(%)
Maximum Pav :	33.956887	(mW)
Peak Antenna gain (Maximum):	3.23	(dBi)
Peak Antenna gain (linear):	2.1037784	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	5270	(MHz)
MPE limit for uncontrolled exposure at prediction	1	(mW/cm2)
Power density at predication frequency at 20 (cm)	0.014	(mW/cm2)

Measurement Result

The predicted power density level at 20 cm is 0.014 mW/cm2.

This is below the uncontrolled exposure limit of 1 mW/cm2 at 5270MHz.

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,同時此樣品僅保留明天。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 dispiration 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 approaches of this document is unlawful and effenders may be prosequed 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 t (886-2) 2299-3279



Page: 229 of 236

MPE Prediction (5470~5725MHz)

Average output power at antenna input terminal:	15.58	(dBm)
Average output power at antenna input terminal:	36.140986	(mW)
Duty cycle:	86.46	(%)
Maximum Pav :	31.247497	(mW)
Peak Antenna gain (Maximum):	1.51	(dBi)
Peak Antenna gain (linear):	1.4157938	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	5700	(MHz)
MPE limit for uncontrolled exposure at prediction	1	(mW/cm2)
Power density at predication frequency at 20 (cm)	0.009	(mW/cm2)

Measurement Result

The predicted power density level at 20 cm is 0.009 mW/cm2.

This is below the uncontrolled exposure limit of 1 mW/cm2 at 5700MHz.

MPE Prediction (5725~5850MHz)

Average output power at antenna input terminal:	14.33	(dBm)
Average output power at antenna input terminal:	27.101916	(mW)
Duty cycle:	86.46	(%)
Maximum Pav :	23.432317	(mW)
Peak Antenna gain (Maximum):	0.42	(dBi)
Peak Antenna gain (linear):	1.1015393	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	5785	(MHz)
MPE limit for uncontrolled exposure at prediction	1	(mW/cm2)
Power density at predication frequency at 20 (cm)	0.005	(mW/cm2)

Measurement Result

The predicted power density level at 20 cm is 0.005 mW/cm2.

This is below the uncontrolled exposure limit of 1 mW/cm2 at 5785MHz.

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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發

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



Page: 230 of 236

16 MAXIMUM PERMISSIBLE EXPOSURE (MPE)

16.1 **Standard Applicable**

According to RSS 102 March 19,2015 issue 5 §2.5.2 RF Exposure Evaluation

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

below 20 MHz₆ and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance);

at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $22.48/f_{0.5}W$ (adjusted for tune-up tolerance), where f is in MHz;

at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance);

at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1.31 x 10-2 $f_{0.6834}$ W (adjusted for tune-up tolerance), where fis in MHz;

This is a Mobile device, at which separation distance between the user and the device's antenna is 20cm. Therefore, section 2.5.2 shall be complied with.

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

台灣檢驗科技股份有限公司

t (886-2) 2299-3279

f (886-2) 2298-0488



Page: 231 of 236

Maximum Permissible Exposure (MPE) Exemption (Worst Case) 802.11a (5150~5250MHz)

Max. output power including tune-up tolerance:	16.54	(dBm)
Max. output power including tune-up tolerance:	45.08167	(mW)
Antenna gain (Peak):	3.37	(dBi)
Maximum antenna gain:	2.1727012	(numeric)
Frenquency	5230	MHz
Limit	4.5551	W
EIRP	0.0979	W

Evaluation Result

The radiated power is 16.54 + 3.37 = 19.91 dBm(EIRP) =97.949mW =0.097949W that is less than or equal to 4.555W. Hence, following section 2.5.2 of RSS102 issue 5, RF exposure evaluation is no longer required.

802.11a (5250~5350MHz)

Max. output power including tune-up tolerance:	16.5	(dBm)
Max. output power including tune-up tolerance:	44.668359	(mW)
Antenna gain (Peak):	3.23	(dBi)
Maximum antenna gain:	2.1037784	(numeric)
Frenquency	5270	MHz
Limit	4.5789	W
EIRP	0.0940	W

Evaluation Result

The radiated power is 16.5 + 3.23 = 19.73 dBm(EIRP) =93.972mW =0.093972W that is less than or equal to 4.579W. Hence, following section 2.5.2 of RSS102 issue 5, RF exposure evaluation is no longer required.

t (886-2) 2299-3279

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 disciplination 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 principles and their open propriate in the full set extent of this decument is unquality and entirely and except the full set extent of the law. pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 232 of 236

802.11a (5470~5725MHz)

Max. output power including tune-up tolerance:	15.58	(dBm)
Max. output power including tune-up tolerance:	36.140986	(mW)
Antenna gain (Peak):	1.51	(dBi)
Maximum antenna gain:	1.4157938	(numeric)
Frenquency	5700	MHz
Limit	4.8310	W
EIRP	0.0512	8

Evaluation Result

The radiated power is 15.58 + 1.51 = 17.09 dBm(EIRP) =51.168mW =0.051168W that is less than or equal to 4.831W. Hence, following section 2.5.2 of RSS102 issue 5, RF exposure evaluation is no longer required.

802.11a (5725~5850MHz)

Max. output power including tune-up tolerance:	14.33	(dBm)
Max. output power including tune-up tolerance:	27.101916	(mW)
Antenna gain (Peak):	0.42	(dBi)
Maximum antenna gain:	1.1015393	(numeric)
Frenquency	5785	MHz
Limit	4.8801	W
EIRP	0.0299	W

Evaluation Result

The radiated power is 14.33 + 0.42 = 14.75 dBm(EIRP) = 29.854 mW = 0.029854 Wthat is less than or equal to 4.88W. Hence, following section 2.5.2 of RSS102 issue 5, RF exposure evaluation is no longer 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 approvance in the index produced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or approvance of this decument is unquited and effective provinced to the full extent of t 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

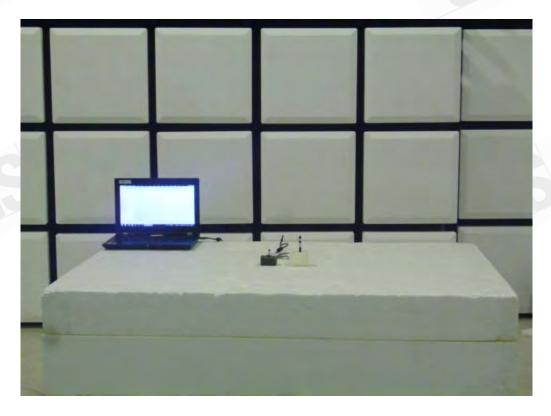


Page: 233 of 236

PHOTOGRAPHS OF SET UP

Radiated Emission Set up Photos (Below 1GHz)





t (886-2) 2299-3279



Page: 234 of 236

Radiated Emission Set up Photos (Above 1GHz)





台灣檢驗科技股份有限公司

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



Page: 235 of 236

AC Power-line Conducted Emission Set up Photo





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.

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

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



Page: 236 of 236

Conducted Setup Photo (Measurement at Antenna Port)



PHOTOGRAPHS OF EUT

Please refer to the attached file (EUT Photo)

~ 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.
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 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 document. 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.

SCS Taiwan Lift

No 134 Withing Road New Taineindustrial Park Withing District New TaineiCity Taiwan 24803/新北市五股區新北本業園區五工数 134 發