

Page: 1 of 255

ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

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

0F

FCC Applicant: Huawei Technologies Co., Ltd.

Administration Building, Headquarters of Huawei Technologies Co.,

Ltd., Bantian, Longgang District, Shenzhen, 518129, China

IC Applicant: Huawei Technologies Co., Ltd.

> Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, China(Peoples

Republic Of)

Product Name: Notebook Computer **Brand Name:** HUAWEI, HONOR

KPR-W19, KPR-W29, KPR-WXXXXX (X Can be 0-9, A-Z, a-z, blank or FCC Model No.:

symbol "-")

KPR-W19, KPR-W29 IC Model No.:

For the marketing purpose, only different model designations on the **Model Difference:**

marking plate for different markets. No RF concern.

Report Number: T190305W03-RP4 FCC ID: QISKPR-WX9 6369A-KPRWX9

FCC Rule Part: §15.407, Cat:NII

IC Rule: RSS-247 issue 2 Feb. 2017

Issue Date: Mar. 21, 2019

Date of Test: Mar. 07, 2019 ~ Mar. 14, 2019

Date of EUT Received: Mar. 07, 2019

Issued by Compliance Certification Services Inc.Wugu Lab.

No.11, Wugong 6th Rd., Wugu Dist., New Taipei City 24891, Taiwan.

(R.O.C.)

service@ccsrf.com

Note: The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

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

The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc. (Wugu Laboratory).

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

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留⁹0天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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



Page: 2 of 255

Tested By:

Henry Chiang / Engineer

Approved By:

Kevin Tsai / Deputy Manager





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



Page: 3 of 255

Revision History

Report Number	Revision	Description	Effected Page	Issue Date	Revised By
T190305W03-RP4	Rev.00	Initial creation of docu- ment	All	Mar. 21, 2019	Violetta Tang

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

Member of the SGS Group (SGS SA)



Page: 4 of 255

Contents

1	GENERAL INFORMATION	5
2	SYSTEM TEST CONFIGURATION	9
3	SUMMARY OF TEST RESULT	11
4	DESCRIPTION OF TEST MODES	12
5	MEASUREMENT UNCERTAINTY	17
6	CONDUCTED EMISSION TEST	18
7	DUTY CYCLE TEST SIGNAL	22
8	26dB & 6dB EMISSION BANDWIDTH MEASUREMENT	25
9	MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT	70
10	MAXIMUM POWER SPECTRAL DENSITY	88
11	UNDESIRABLE RADIATED EMISSION MEASUREMENT	101
12	TRANSMISSION IN THE ABSENCE OF DATA	251
13	FREQUENCY STABILITY	252
11	ANTENNA RECUIREMENT	255

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



Page: 5 of 255

GENERAL INFORMATION

1.1 Product Description

Product Name:	Notebook	Computer	
Brand Name:	HUAWEI, HONOR		
FCC Model No.:	KPR-W19 blank or sy	, KPR-W29, KPR-WXXXXX (X Can be 0-9, A-Z, a-z, ymbol "-")	
IC Model No.:	KPR-W19	, KPR-W29	
Model Difference:	For the marketing purpose, only different model designations on the marking plate for different markets. No RF concern.		
Product SW/HW version:	1809 (OS Build 17763.194) / B3A		
Radio SW/HW version:	Wi-Fi Component: 20 / Wi-Fi Component: 8265		
Test SW Version:	N/A		
RF power setting in TEST SW:	N/A		
	7.6Vdc from Rechargeable Li-ion Battery or 5Vdc / 9Vdc / 12Vdc / 15Vdc / 20Vdc from AC/DC Adapter. Battery: Model No.: HB4593R1ECW, Supplier: HUAWEI		
Power Supply:			
	Adapter:	Model No.: HW-200325YYY (Y=0-9, A-Z or blank) Supplier: HUAWEI	

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders

may be prosecuted to the fullest extent of the law.



Page: 6 of 255

FCC WLAN 5GHz:

Wi-Fi	Frequency Range	Channels	Avg. Power (dBm)	Modulation Technology
	5150~5250	4	13.95	
44 - 00	5250~5350	4	13.96	OFDM
11a_20	5470~5725	12	13.00	OFDM
	5725~5850	5	12.98	
	5150~5250	4	HT: 13.99	
11n_HT /	5250~5350	4	HT: 13.99	OFDM
ac_VHT 20M	5470~5725	12	HT: 13.00	OFDM
20111	5725~5850	5	HT: 13.00	
	5150~5250	2	HT: 13.95	
11n_HT /	5250~5350	2	HT: 13.93	OFDM
ac_VHT 40M	5470~5725	6	HT: 12.94	OFDM
10101	5725~5850	2	HT: 12.95	
	5150~5250	1	11.00	
11ac	5250~5350	1	10.99	OFDM
VHT80M	5470~5725	3	12.99	OFDM
	5725~5850	1	13.00	
Antenr	PIFA Antenna, Main Antenna: 5150~5250MHz Peak Gain: 1.8dBi 5250~5350MHz Peak Gain: 1.8dBi 5470~5725MHz Peak Gain: 1.84dBi 5725~5850MHz Peak Gain: 1.84dBi Aux Antenna: 5150~5250MHz Peak Gain: 1.84dBi 5250~5350MHz Peak Gain: -0.55dBi 5250~5350MHz Peak Gain: 1.34dBi 5470~5725MHz Peak Gain: 1.46dBi 5725~5850MHz Peak Gain: 1.46dBi			i 3i 3i IBi 3i 3i

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

Member of the SGS Group (SGS SA)



Page: 7 of 255

IC WLAN 5GHz:

N SGHZ.	_		Avg.		
Wi-Fi	Frequency Range	Channels	or EIRP	Rated Power(dBm)	Modulation Technology
	5180~5240	4	EIRP	17.62	
	5260~5320	4	Avg.	13.96	
11a	5500~5580	5	Avg.	13.00	OFDM
	5660~5700	3	Avg.	11.94	
	5745~5825	5	Avg.	12.98	
	5180~5240	4	EIRP	HT: 17.66	
11n_HT /	5260~5320	4	Avg.	HT: 13.99	
ac_VHT	5500~5580	5	Avg.	HT: 13.00	OFDM
20M	5660~5720	4	Avg.	HT: 12.00	
	5745~5825	5	Avg.	HT: 13.00	
	5190~5230	2	EIRP	HT: 17.63	
11n_HT /	5270~5310	2	Avg.	HT: 13.93	OFDM
ac_VHT	5510~5550	2	Avg.	HT: 12.94	
40M	5670~5710	2	Avg.	HT: 12.94	
	5755~5795	2	Avg.	HT: 12.95	
	5210~5210	1	EIRP	14.64	
4.4	5290~5290	1	Avg.	10.99	OFDM
11ac VHT80M	5530~5530	1	Avg.	11.00	OFDIVI
VIIIOOW	5690~5690	1	Avg.	12.19	
	5775~5775	1	Avg.	13.00	
Modula	ation type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 802.11ac only			FDM
Transition Rate:		802.11 n_ 802.11 n_ 802.11 ac 802.11 ac	20MHz: 6. 40MHz: 10 220MHz: 6 240MHz: 6	24/36/48/54 Mbps 5 – 144.4Mbps 3.5 - 300.0Mbps 6.5 –144.4Mbps 13.5 -300.0Mbps 29.3 – 650Mbps	S

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its 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.

Member of the SGS Group (SGS SA)



Page: 8 of 255

1.2 Test Methodology of Applied Standards

FCC Part 15, Subpart E §15.407

FCC KDB 789033 D02 General UNII Test Procedures New Rules

KDB 789033 D02 v01r04 General UNII Test Procedures New Rules

KDB 644545 D03 v01 Guidance for IEEE 802.11ac

RSS-247 issue 2 Feb. 2017

RSS-Gen. issue 5 Apr. 2018

ANSI C63.10:2013

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

1.3 Test Facility

Compliance Certification Services Inc. Wugu Lab. No.11, Wugong 6th Rd.,

Wugu Dist., New Taipei City 24891, Taiwan. (R.O.C.) (TAF code 1309)

FCC Designation number: TW1309

Canada Registration number: 2324G

1.4 Special Accessories

There are no special accessories used while test was conducted.

1.5 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⁹0天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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 Compliance Certification Services Inc.



Page: 9 of 255

SYSTEM TEST CONFIGURATION

2.1 EUT Configuration

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

2.2 EUT Exercise

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

2.3 Test Procedure

2.3.1 Conducted Emissions

The EUT is a placed on a 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 50uH/50 ohm 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 Conducted Test (RF)

The active antenna port of the unlicensed wireless device is connected to the spectrum analyzer with attenuator to protect the instrumentation. If a second antenna port is available, it is tested at one operating frequency, with other port(s) appropriately terminated, to verify it has similar output characteristics as the fully tested port.

2.3.3 Radiated Emissions

The EUT is a placed on a turn table. For emissions testing at or below 1 GHz, the table height shall be 0.8 m above the reference ground plane. 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 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⁹0天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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



Page: 10 of 255

2.4 Measurement Results Explanation

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.

2.5 Configuration of Tested System

Fig. 2-1 Radiated Emission Configuration



Fig.2-3 Conducted Emission (Antenna Port) Configuration



Fig. 2-2 Conducted Emission (AC Power Line) Configuration

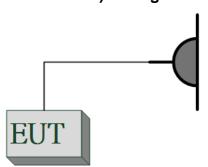


Table 2-1 Equipment Used in Tested System

Iten	n 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

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

除非另有說明,此報告結果僅對測試之樣品負責、同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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



Page: 11 of 255

SUMMARY OF TEST RESULT

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 §6.7	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
§15.205 §15.209 §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)	RSS- Gen §6.8	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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its 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.

Member of the SGS Group (SGS SA)



Page: 12 of 255

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, 802.11ac_VHT20

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

2 channels are provided for 802.11n_HT40, 802.11ac_VHT40

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac_VHT80

CHANNEL	FREQUENCY
42	5210 MHz

Operated band in 5250 MHz ~5350 MHz:

4 channels are provided for 802.11a, 802.11n_HT20, 802.11ac_VHT20

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

2 channels are provided for 802.11n_HT40, 802.11ac_VHT40

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac_VHT80

CHANNEL	FREQUENCY	
58	5290 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 <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is 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.



Page: 13 of 255

Operated band in 5470 MHz ~5725 MHz:

11 channels are provided for 802.11a, 802.11n_HT20, 802.11ac_VHT20

	, <u>-</u>	-,	_
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	144	5720 MHz

5 channels are provided for 802.11n_HT40, 802.11ac_VHT40

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz	142	5710 MHz

3 channels are provided for 802.11ac_VHT80

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
106	5530 MHz	138	5690 MHz
122	5610 MHz		

Operated band in 5725 MHz ~5850 MHz:

5 channels are provided for 802.11a, 802.11n_HT20, 802.11ac_VHT20

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, 802.11ac_VHT40

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755 MHz	159	5795 MHz

1 channel is provided for 802.11ac_VHT80

CHANNEL	FREQUENCY	
155	5775 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 <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is 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.



Page: 14 of 255

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.
- 4. The given UE is pre-scanned among 802.11n and ac modes, and 802.11n yields the highest reading that generates the highest emission.
- 5. The given UE is pre-scanned among SISO Main, SISO Aux and MIMO modes, and SISO Main mode yields the highest reading that generates the highest emission. Therefore, 802.11ac+SISO Main as the mode of radiated test configuration is chosen to carry out the relevantly mandatory test items.

AC POWER LINE CONDUCTED EMISSION TEST:

Test Condition	AC Power line conducted emission for line and neutral	
Worst Case	Operation in normal mode	

RADIATED EMISSION TEST

RADIATED EMISS	ADIATED EMISSION TEST:					
	RADIATED EMISSION TEST (BELOW 1 GHz)					
MODE	FREQUENCY BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11a	5180~5240	36 to 48	36,44,48	OFDM	6	MAIN
802.11a	5260~5320	52 to 64	52,60,64	OFDM	6	MAIN
802.11a	5500~5720	100 to 140	100,116,140	OFDM	6	MAIN
802.11a	5745~5825	149 to 165	149,157,165	OFDM	6	MAIN
802.11ac_VHT80	5210	42	42	OFDM	MCS8	MAIN
802.11ac_VHT80	5290	58	58	OFDM	MCS8	MAIN
802.11ac_VHT80	5530~5690	106 to 138	106,122,138	OFDM	MCS8	MAIN
802.11ac_VHT80	5775	155	155	OFDM	MCS8	MAIN
	RADI	ATED EMISS	ION TEST (A	BOVE 1 GHz)		
MODE	FREQUENCY BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11a	5180~5240	36 to 48	36,44,48	OFDM	6	MAIN
802.11n_HT20	3100~3240	30 10 40	30,44,40	OFDM	MCS8	MAIN
802.11n_HT40	5190~5230	38 to 46	38,46	OFDM	MCS8	MAIN
802.11ac_VHT80	5210	42	42	OFDM	MCS8	MAIN
802.11a	5260~5320	52 to 64	52,60,64	OFDM	6	MAIN
802.11n_HT20			32,00,04	OFDM	MCS8	MAIN
802.11n_HT40	5270~5310	54 to 62	54,62	OFDM	MCS8	MAIN
802.11ac_VHT80	5290	58	58	OFDM	MCS8	MAIN

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

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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



Page: 15 of 255

MODE	FREQUENCY BAND (MHz)		TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11a	5500~5720	100 to 144	100,116,140	OFDM	6	MAIN
802.11n_HT20	5500~5720	100 10 144	100,116,140	OFDM	MCS8	MAIN
802.11n_HT40	5510~5710	102 to 142	102,110,134	OFDM	MCS8	MAIN
802.11ac_VHT80	5530~5690	106 to 138	106,122,138	OFDM	MCS8	MAIN
802.11a	5745~5825	149 to 165	149,157,165	OFDM	6	MAIN
802.11n_HT20	3745~5625	149 (0 165	149,157,165	OFDM	MCS8	MAIN
802.11n_HT40	5755~5795	151 to 159	151,159	OFDM	MCS8	MAIN
802.11ac_VHT80	5775	155	155	OFDM	MCS8	MAIN

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.

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

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



Page: 16 of 255

ANTENNA PORT CONDUCTED MEASUREMENT:

	CONDUCTED TEST					
MODE	FREQUENCY BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11a				OFDM	6	MAIN
802.11n_HT20 802.11ac_VHT20	5180~5240	36 to 48	36,44,48	OFDM	MCS8	MAIN
802.11n_HT40 802.11ac_VHT40	5190~5230	38 to 46	38,46	OFDM	MCS8	MAIN
802.11ac_VHT80	5210	42	42	OFDM	MCS8	MAIN
802.11a				OFDM	6	MAIN
802.11n_HT20 802.11ac_VHT20	5260~5320	52 to 64	52,60,64	OFDM	MCS8	MAIN
802.11n_HT40 802.11ac_VHT40	5270~5310	54 to 62	54,62	OFDM	MCS8	MAIN
802.11ac_VHT80	5290	58	58	OFDM	MCS8	MAIN
802.11a				OFDM	6	MAIN
802.11n_HT20 802.11ac_VHT20	5500~5720	100 to 144	100,116,140,144	OFDM	MCS8	MAIN
802.11n_HT40 802.11ac_VHT40	5510~5710	102 to 142	102,110,134,142	OFDM	MCS8	MAIN
802.11ac_VHT80	5530~5690	106 to 138	106,122,138	OFDM	MCS8	MAIN
802.11a				OFDM	6	MAIN
802.11n_HT20 802.11ac_VHT20	5745~5825	149 to 165	149,157,165	OFDM	MCS8	MAIN
802.11n_HT40 802.11ac_VHT40	5755~5795	151 to 159	151,159	OFDM	MCS8	MAIN
802.11ac_VHT80	5775	155	155	OFDM	MCS8	MAIN

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



Page: 17 of 255

MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 1.2575 dB
26dB & 6dB Emission Bandwidth	+/- 147.256 Hz
The Maximum Output Power	+/- 1.924 dB
Peak Power Spectral Density	+/- 2.038 dB
Frequency Stability	+/- 147.256 Hz
3M Semi Anechoic Chamber / 30M~200M	+/- 4.12 dB
3M Semi Anechoic Chamber / 200M~1000M	+/- 4.68 dB
3M Semi Anechoic Chamber / 1G~8G	+/- 5.18 dB
3M Semi Anechoic Chamber / 8G~18G	+/- 5.47 dB
3M Semi Anechoic Chamber / 18G~26G	+/- 3.81 dB
3M Semi Anechoic Chamber / 26G~40G	+/- 3.87 dB

Note:

- 1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
- 2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.
- 3. The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

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

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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

Member of the SGS Group (SGS SA)



Page: 18 of 255

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				

Note

6.2 Measurement Equipment Used

	Conducted Emission Test Site									
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.					
TYPE		NUMBER	NUMBER	CAL.						
CABLE	EMCI	CFD300-NL	CERF	2018/06/29	2019/06/28					
EMI Test Receiver	R&S	ESCI	100064	2018/07/24	2019/07/23					
LISN	SCHWARZBECK	NSLK 8127	8127-541	2019/01/31	2020/01/30					
LISN	SCHAFFNER	NNB 41	03/10013	2019/02/13	2020/02/12					
Software		EZ-EMC(CCS-3A1-CE)								

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 <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is 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 Compliance Certification Services Inc.

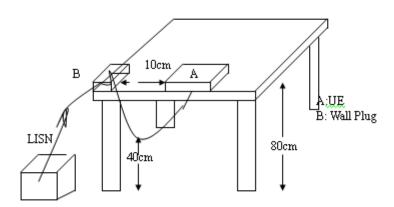
^{1.} The lower limit shall apply at the transition frequencies

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



Page: 19 of 255

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.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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



Page: 20 of 255

AC POWER LINE CONDUCTED EMISSION TEST DATA

T190305W03-RP4 Date: 2019/3/12 Job No.:

Huawei Technologies Co., Ltd. Time: 05:48:49 PM Company:

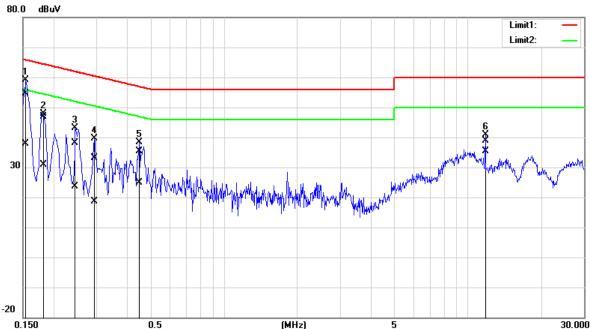
FCC/IC QP Temp.(°C)/Hum.(%): 25(°C)/60% Standard:

Conduction test Test By: Henry Test item:

Test Voltage: AC 120V/60Hz L1 Line:

KPR-W19, KPR-WXXXXX, KPR-W19 Model:

Description: Operation



No.	Frequency	QuasiPeak	Average	Correction	QuasiPeak	Average	QuasiPeak	Average	QuasiPeak	Average	Remark
		reading	reading	factor	result	result	limit	limit	margin	margin	
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1*	0.1539	54.59	37.70	0.16	54.75	37.86	65.78	55.79	-11.03	-17.93	Pass
2	0.1819	46.70	30.79	0.15	46.85	30.94	64.39	54.40	-17.54	-23.46	Pass
3	0.2460	37.95	23.42	0.15	38.10	23.57	61.89	51.89	-23.79	-28.32	Pass
4	0.2940	32.89	18.59	0.15	33.04	18.74	60.41	50.41	-27.37	-31.67	Pass
5	0.4500	35.17	24.61	0.16	35.33	24.77	56.87	46.88	-21.54	-22.11	Pass
6	11.8139	38.48	34.98	0.51	38.99	35.49	60.00	50.00	-21.01	-14.51	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.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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

Member of the SGS Group (SGS SA)



Page: 21 of 255

T190305W03-RP4 Date: 2019/3/12 Job No.:

Huawei Technologies Co., Ltd. Time: 05:53:29 PM Company:

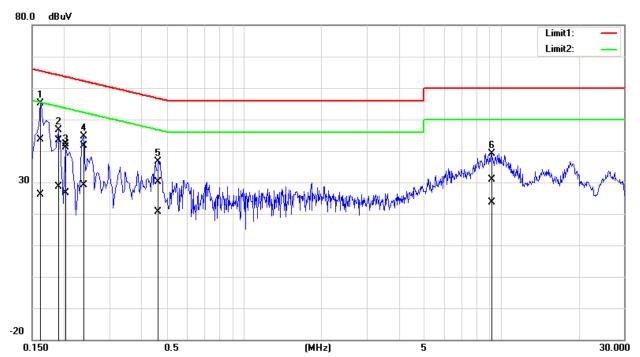
FCC/IC QP Temp.(°C)/Hum.(%): 24(°C)/50% Standard:

Test By: **Conduction test** Henry Test item:

Test Voltage: AC 120V/60Hz Line:

KPR-W19, KPR-WXXXXX, KPR-W19 Model:

Description: Operation



No.	Frequency	QuasiPeak	Average	Correction	QuasiPeak	Average	QuasiPeak	Average	QuasiPeak	Average	Remark
		reading	reading	factor	result	result	limit	limit	margin	margin	
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1620	43.60	26.09	0.10	43.70	26.19	65.36	55.36	-21.66	-29.17	Pass
2	0.1900	43.34	28.43	0.10	43.44	28.53	64.03	54.04	-20.59	-25.51	Pass
3	0.2020	41.94	26.42	0.10	42.04	26.52	63.52	53.53	-21.48	-27.01	Pass
4*	0.2380	41.58	28.99	0.10	41.68	29.09	62.16	52.17	-20.48	-23.08	Pass
5	0.4660	30.13	20.60	0.11	30.24	20.71	56.58	46.58	-26.34	-25.87	Pass
6	9.1899	30.54	23.39	0.36	30.90	23.75	60.00	50.00	-29.10	-26.25	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.



Page: 22 of 255

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)	1/T (kHz)	VBW setting (kHz)
802.11a	94.75	0.23	0.49	1.00
802.11n_20	95.50	0.20	0.52	1.00
802.11n_40	84.42	0.74	1.07	2.00
802.11ac_80	83.93	0.76	2.17	3.00

Duty Cycle Factor: $10 * \log(1/0.9475) = 0.23$ Duty Cycle Factor: $10 * \log(1/0.955) = 0.2$ Duty Cycle Factor: $10 * \log(1/0.8442) = 0.74$ Duty Cycle Factor: $10 * \log(1/0.8393) = 0.76$

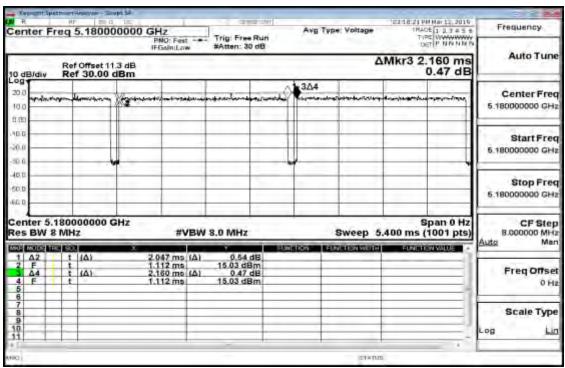
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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 <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is 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

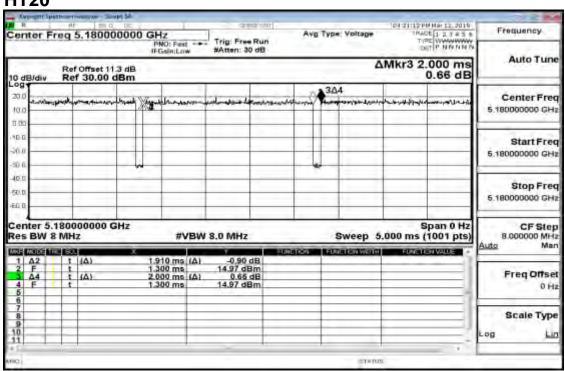


Page: 23 of 255

DUTY CYCLE TEST SIGNAL Measurement Result 802.11a



802.11n HT20



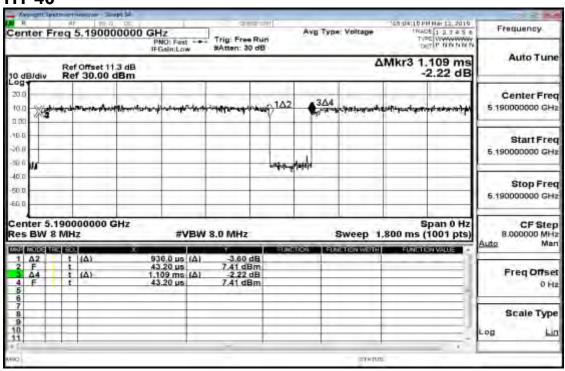
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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

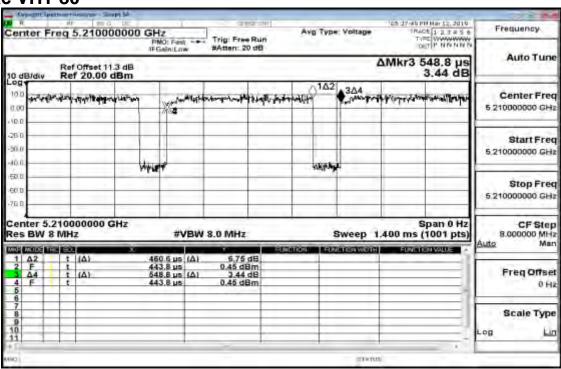


Page: 24 of 255

802.11n HT 40



802.11 ac VHT 80



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

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sqs.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.



Page: 25 of 255

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 <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is 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 Compliance Certification Services Inc.

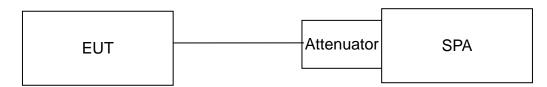


Page: 26 of 255

8.3 Measurement Equipment Used

	SGS Conducted Room								
Name of Equip- ment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due				
Spectrum Analyz- er	Agilent	N9010A	MY51440113	2018/06/20	2019/06/19				
Attenuator	Marvelous	MVE2213-10	RF31	2019/02/26	2020/02/25				
DC Block	PASTERNACK	PE8210	RF81	2019/02/26	2020/02/25				
Coaxial Cables	Woken	00100A1F1A185C	RF229	2019/02/26	2020/02/25				

8.4 Test Set-up



8.5 Measurement Result

26dB and 6dB Bandwidth

802.11a_Ch0 802.11a_Ch1

Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5180	20.18	13.049	5180	19.71	12.946
5220	20.54	13.127	5220	20.29	13.073
5240	19.98	13.006	5240	19.70	12.945
5260	19.53	12.907	5260	20.77	13.175
5300	20.00	13.010	5300	19.42	12.882
5320	19.78	12.963	5320	19.71	12.947
5500	20.20	13.053	5500	20.28	13.071
5580	20.32	13.079	5580	20.03	13.017
5700	19.42	12.882	5700	19.51	12.901
5720(U-NII 2C)	16.00	12.041	5720(U-NII 2C)	16.92	12.284
5720 (U-NII 3)	5.96	7.752	5720 (U-NII 3)	4.84	6.848

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



Page: 27 of 255

802.11a_Ch0

802.11a_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	13.80	11.398	5745	12.57	10.995
5785	16.34	12.133	5785	15.12	11.795
5825	14.82	11.707	5825	11.78	10.711

802.11n_HT20_Ch0

802.11n_HT20_Ch1

			**				
Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)		
5180	20.48	13.113	5180	20.52	13.123		
5220	20.46	13.109	5220	20.17	13.047		
5240	20.53	13.125	5240	19.33	12.862		
5260	20.40	13.097	5260	21.62	13.349		
5300	19.91	12.991	5300	21.04	13.231		
5320	19.42	12.882	5320	20.45	13.107		
5500	20.50	13.118	5500	20.63	13.145		
5580	20.46	13.109	5580	20.48	13.114		
5700	20.00	13.011	5700	20.48	13.113		
5720(U-NII 2C)	17.00	12.304	5720(U-NII 2C)	16.24	12.106		
5720 (U-NII 3)	6.04	7.810	5720 (U-NII 3)	5.52	7.419		

802.11n HT20 Ch0

802.11n HT20 Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	16.92	12.284	5745	13.20	11.206
5785	12.91	11.111	5785	12.68	11.031
5825	15.11	11.793	5825	17.33	12.388

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



Page: 28 of 255

802.11n _HT40_Ch0

802.11n _HT40_Ch1

Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5190	42.88	16.322	5190	42.17	16.250
5230	42.61	16.295	5230	45.06	16.538
5270	41.45	16.175	5270	42.82	16.316
5310	39.12	15.924	5310	44.20	16.454
5510	42.23	16.257	5510	43.84	16.419
5550	43.54	16.389	5550	42.59	16.293
5670	42.26	16.259	5670	43.86	16.421
5710 (U-NII 2C)	37.08	15.691	5710 (U-NII 2C)	36.92	15.673
5710 (U-NII 3)	7.48	8.739	5710 (U-NII 3)	6.04	7.810

802.11n_HT40_Ch0

802.11n_HT40_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5755	33.86	15.297	5755	33.83	15.293
5795	35.07	15.449	5795	31.39	14.968

802.11ac VHT80 Ch0

802.11ac _VHT80_Ch1

Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5210	80.35	19.050	5210	80.42	19.054
5290	81.30	19.101	5290	79.35	18.995
5530	80.42	19.054	5530	81.24	19.098
5610	80.12	19.037	5610	80.34	19.049
5690 (U-NII 2C)	75.64	18.788	5690 (U-NII 2C)	77.08	18.869
5690 (U-NII 3)	5.00	6.990	5690 (U-NII 3)	6.44	8.089

802.11ac _VHT80_Ch0

802.11ac _VHT80_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5775	72.57	18.608	5775	72.65	18.613

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



Page: 29 of 255

99% Bandwidth

802.11a Ch0

802.11a Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	16.583	12.197
5220	16.523	12.181
5240	16.567	12.192
5260	16.622	12.207
5300	16.597	12.200
5320	16.597	12.200
5500	16.558	12.190
5580	16.487	12.171
5700	16.529	12.182
5720(U-NII 2C)	13.269	11.228
5720 (U-NII 3)	3.269	5.144

002.11a_0111			
Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)	
5180	16.585	12.197	
5220	16.544	12.186	
5240	16.537	12.185	
5260	16.484	12.171	
5300	16.502	12.175	
5320	16.534	12.184	
5500	16.531	12.183	
5580	16.554	12.189	
5700	16.540	12.185	
5720(U-NII 2C)	13.287	11.234	
5720 (U-NII 3)	3.287	5.168	

802.11n HT20 Ch0

802.11n_HT20_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	17.717	12.484
5220	17.739	12.489
5240	17.761	12.495
5260	17.733	12.488
5300	17.713	12.483
5320	17.739	12.489
5500	17.731	12.487
5580	17.697	12.479
5700	17.750	12.492
5720(U-NII 2C)	13.864	11.419
5720 (U-NII 3)	3.864	5.870

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	17.759	12.494
5220	17.737	12.489
5240	17.736	12.489
5260	17.759	12.494
5300	17.815	12.508
5320	17.749	12.492
5500	17.738	12.489
5580	17.742	12.490
5700	17.745	12.491
5720(U-NII 2C)	13.853	11.415
5720 (U-NII 3)	3.852	5.857

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



Page: 30 of 255

802.11n HT40 Ch0

802.11n _HT40_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5190	36.009	15.564
5230	36.044	15.568
5270	36.045	15.568
5310	36.030	15.567
5510	36.058	15.570
5550	36.111	15.576
5670	36.047	15.569
5710(U-NII 2C)	33.020	15.188
5710 (U-NII 3)	3.020	4.800

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5190	36.016	15.565
5230	35.992	15.562
5270	36.032	15.567
5310	36.052	15.569
5510	36.048	15.569
5550	36.050	15.569
5670	36.070	15.571
5710(U-NII 2C)	33.031	15.189
5710 (U-NII 3)	3.031	4.816

802.11ac VHT80 Ch0

802.11ac _VHT80_Ch1

002.11d0 _V11100_0110			
Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)	
5210	75.036	18.753	
5290	74.939	18.747	
5530	75.283	18.767	
5610	74.940	18.747	
5690(U-NII 2C)	72.470	18.602	
5690 (U-NII 3)	2.470	3.927	
3090 (O-MI 3)	2.470	3.921	

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5210	75.049	18.753
5290	74.893	18.744
5530	74.997	18.750
5610	75.007	18.751
5690(U-NII 2C)	72.510	18.604
5690 (U-NII 3)	2.510	3.997

802.11a_Ch0

802.11a_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	16.07	12.059
5785	15.97	12.033
5825	16.13	12.076

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	16.22	12.101
5785	16.15	12.081
5825	16.10	12.068

802.11n_HT20_Ch0

802.11n_HT20_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	17.43	12.413
5785	17.08	12.325
5825	17.29	12.378

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	17.26	12.369
5785	17.36	12.394
5825	17.36	12.395

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



Limit (MHz)

< 5250 > 5725

Page: 31 of 255

802.11n _HT40_Ch0

802.11n _HT40_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)	
5755	35.90	15.551	
5795	35.98	15.560	

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5755	36.18	15.585
5795	35.64	15.519

802.11ac _VHT80_Ch0

802.11ac _VHT80_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5775	75.25	18.765

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5775	73.55	18.666

802.11a Ch0

802.11a Ch1

	Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)	Frequency (MHz)	Measured Frequency (MHz)
	5240	5248.16	< 5250	5240	5248.10
	5745	5736.81	> 5725	5745	5736.78

802.11n_HT20_Ch0

802.11n_HT20_Ch1

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)	Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5240	5248.73	< 5250	5240	5248.73	< 5250
5745	5736.09	> 5725	5745	5736.09	> 5725

802.11n _HT40_Ch1

802.11n _HT40_Ch0

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)	Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5230	5248.10	< 5250	5230	5248.05	< 5250
5755	5736.85	> 5725	5755	5736.90	> 5725

802.11ac _VHT80_Ch0

802.11n _HT80_Ch1

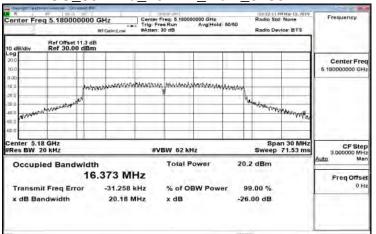
Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)	Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5210	5247.50	< 5250	5210	5247.40	< 5250
5775	5737.50	> 5725	5775	5737.40	> 5725

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

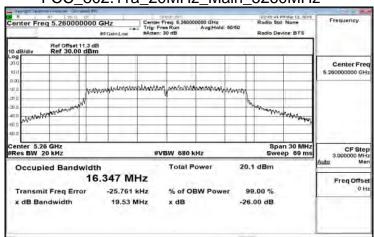


Page: 32 of 255

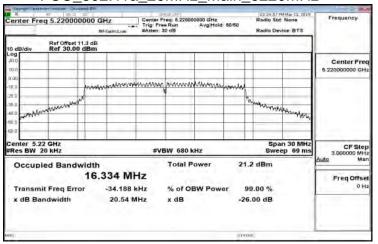
FCC 802.11a 20MHz Main 5180MHz



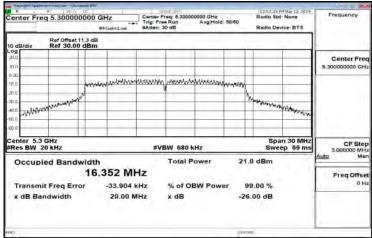
FCC_802.11a_20MHz_Main_5260MHz



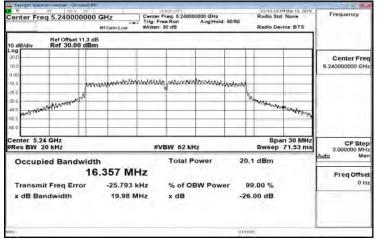
FCC_802.11a_20MHz_Main_5220MHz



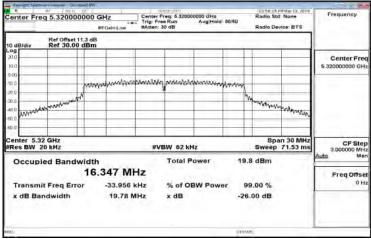
FCC_802.11a_20MHz_Main_5300MHz



FCC 802.11a 20MHz Main 5240MHz



FCC 802.11a 20MHz Main 5320MHz



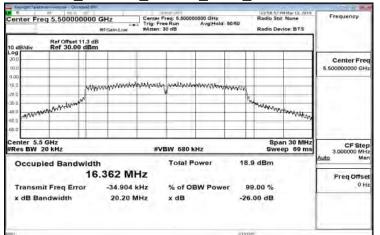
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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 <u>www.sgs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sqs.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.

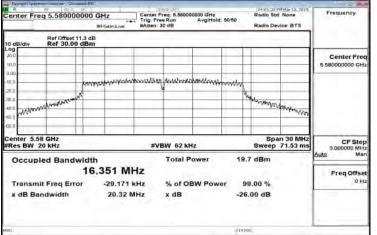


Page: 33 of 255

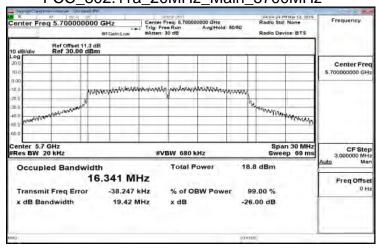
FCC 802.11a 20MHz Main 5500MHz



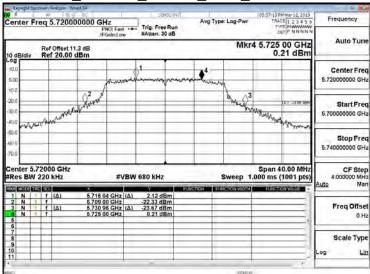
FCC_802.11a_20MHz_Main_5580MHz



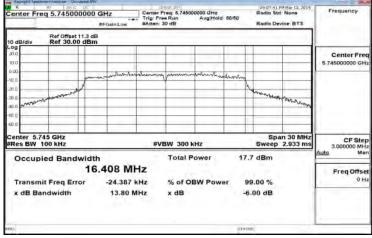
FCC 802.11a 20MHz Main 5700MHz



FCC_802.11a_20MHz_Main_5720MHz



FCC_802.11a_20MHz_Main_5745MHz



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

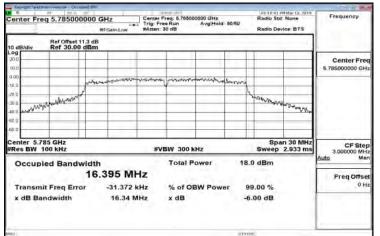
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可都份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sqs.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.

程智科技股份有限公司

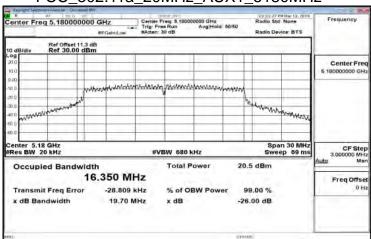


Page: 34 of 255

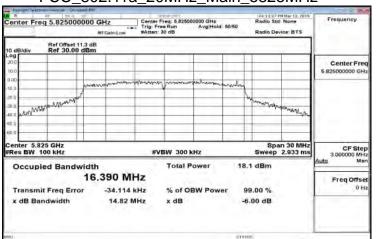
FCC 802.11a 20MHz Main 5785MHz



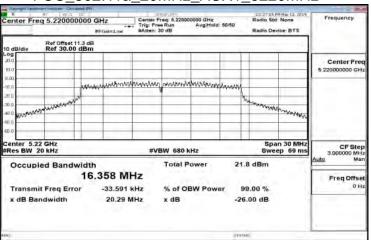
FCC_802.11a_20MHz_AUX1_5180MHz



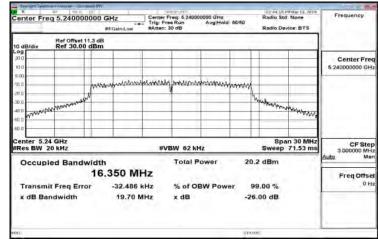
FCC_802.11a_20MHz_Main_5825MHz



FCC_802.11a_20MHz_AUX1_5220MHz



FCC_802.11a_20MHz_AUX1_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.

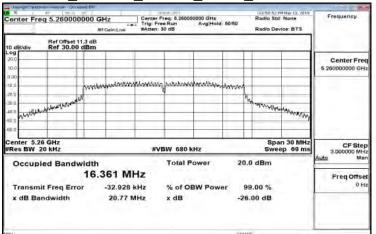
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可都份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sqs.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.

程智科技股份有限公司

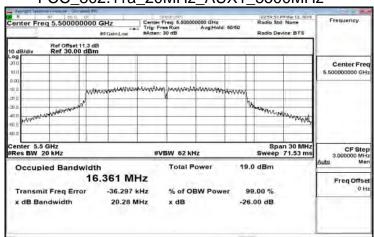


Page: 35 of 255

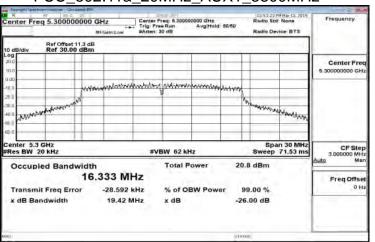
FCC 802.11a 20MHz AUX1 5260MHz



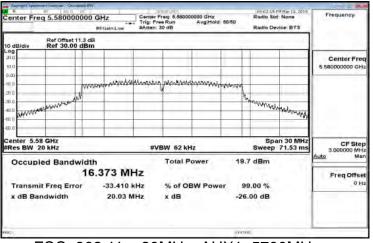
FCC_802.11a_20MHz_AUX1_5500MHz



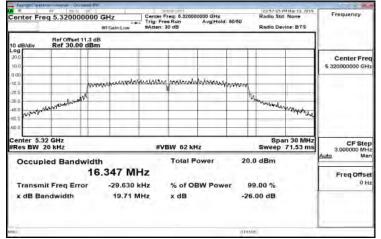
FCC_802.11a_20MHz_AUX1_5300MHz



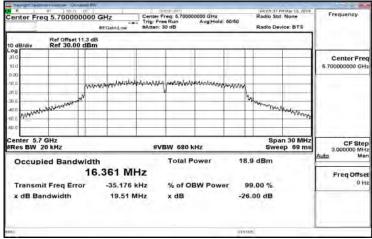
FCC_802.11a_20MHz_AUX1_5580MHz



FCC 802.11a 20MHz AUX1 5320MHz



FCC_802.11a_20MHz_AUX1_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.

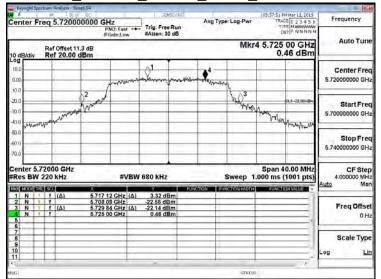
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可都份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sqs.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.

程智科技股份有限公司

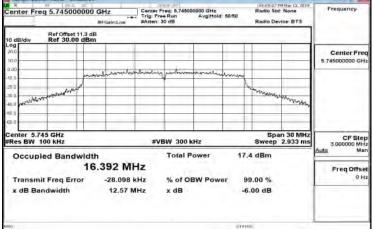


Page: 36 of 255

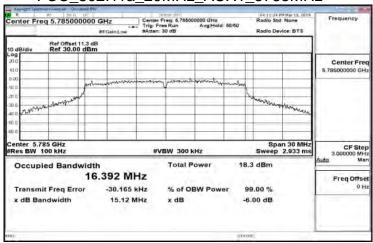
FCC_802.11a_20MHz_AUX1_5720MHz



FCC_802.11a_20MHz_AUX1_5745MHz



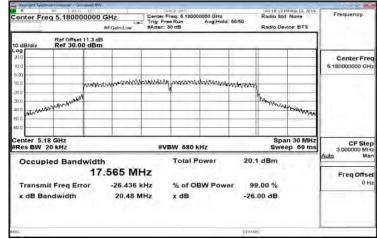
FCC_802.11a_20MHz_AUX1_5785MHz



FCC_802.11a_20MHz_AUX1_5825MHz



FCC 802.11n 20MHz Main 5180MHz



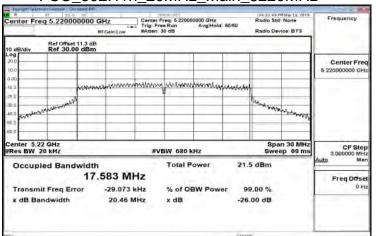
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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 <u>www.sgs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sqs.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.

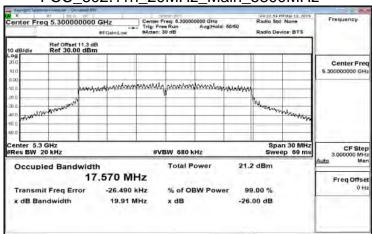


Page: 37 of 255

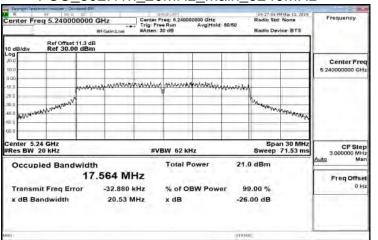
FCC 802.11n 20MHz Main 5220MHz



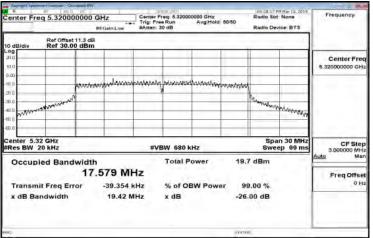
FCC_802.11n_20MHz_Main_5300MHz



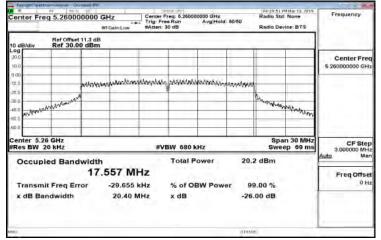
FCC_802.11n_20MHz_Main_5240MHz



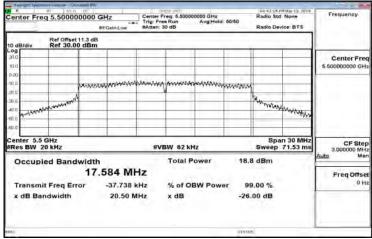
FCC_802.11n_20MHz_Main_5320MHz



FCC 802.11n 20MHz Main 5260MHz



FCC 802.11n 20MHz Main 5500MHz



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

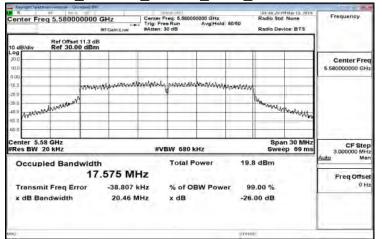
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可都份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sqs.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.

程智科技股份有限公司

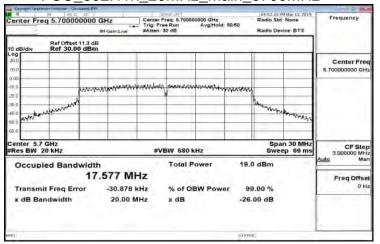


Page: 38 of 255

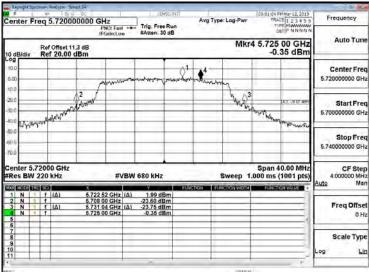
FCC 802.11n 20MHz Main 5580MHz



FCC_802.11n_20MHz_Main_5700MHz



FCC_802.11n_20MHz_Main_5720MHz



FCC_802.11n_20MHz_Main_5745MHz

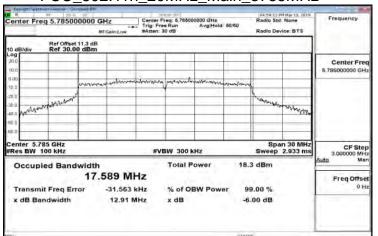


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

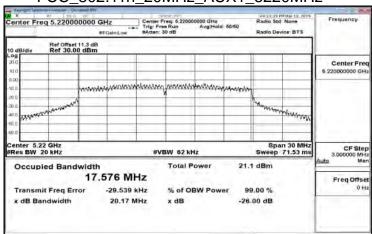


Page: 39 of 255

FCC 802.11n 20MHz Main 5785MHz



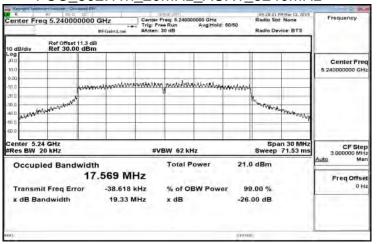
FCC_802.11n_20MHz_AUX1_5220MHz



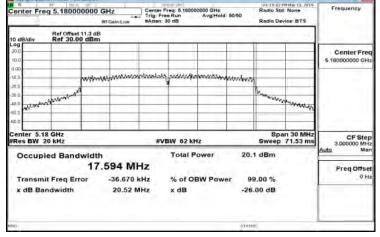
FCC_802.11n_20MHz_Main_5825MHz



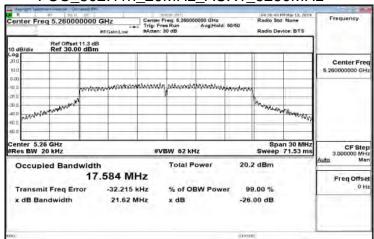
FCC_802.11n_20MHz_AUX1_5240MHz



FCC 802.11n 20MHz AUX1 5180MHz



FCC_802.11n_20MHz_AUX1_5260MHz



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

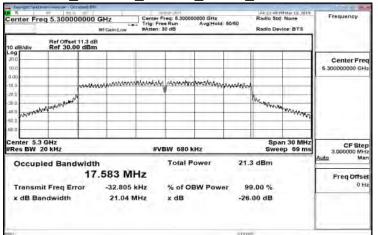
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可都份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sqs.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.

程智科技股份有限公司

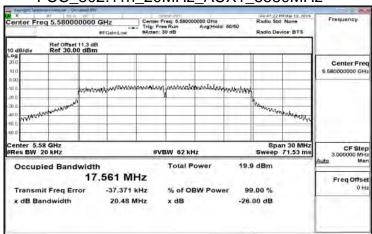


Page: 40 of 255

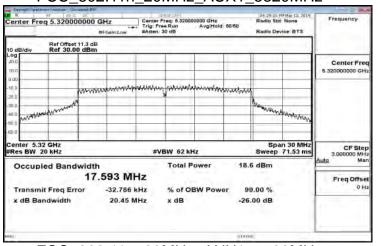
FCC 802.11n 20MHz AUX1 5300MHz



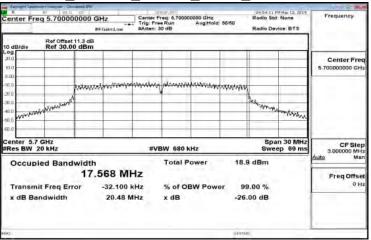
FCC_802.11n_20MHz_AUX1_5580MHz



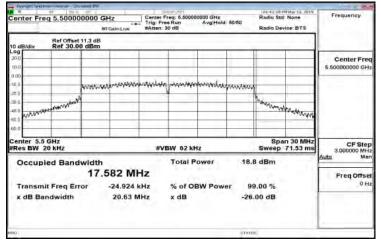
FCC_802.11n_20MHz_AUX1_5320MHz



FCC_802.11n_20MHz_AUX1_5700MHz



FCC 802.11n 20MHz AUX1 5500MHz

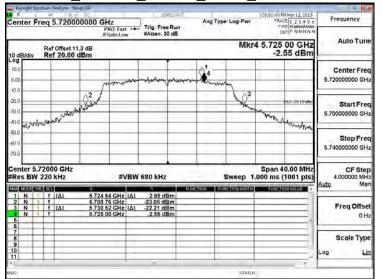


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

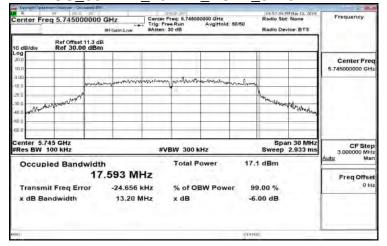


Page: 41 of 255

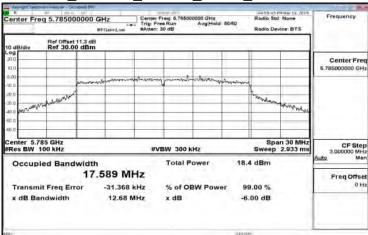
FCC_802.11n_20MHz_AUX1_5720MHz



FCC_802.11n_20MHz_AUX1_5745MHz



FCC_802.11n_20MHz_AUX1_5785MHz



FCC_802.11n_20MHz_AUX1_5825MHz

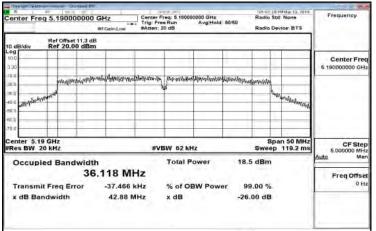


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

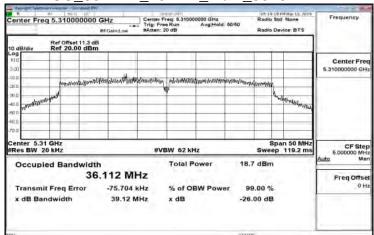


Page: 42 of 255

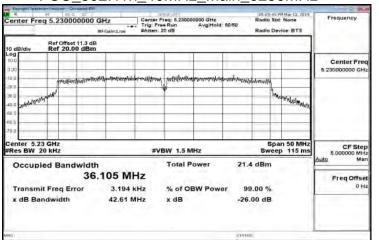
FCC 802.11n 40MHz Main 5190MHz



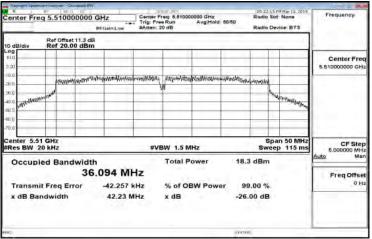
FCC_802.11n_40MHz_Main_5310MHz



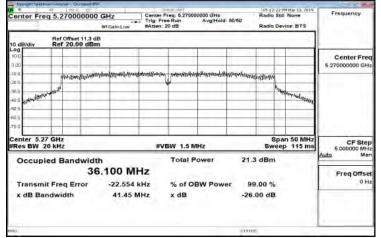
FCC_802.11n_40MHz_Main_5230MHz



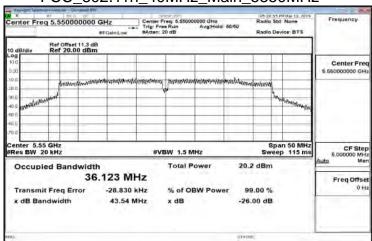
FCC_802.11n_40MHz_Main_5510MHz



FCC 802.11n 40MHz Main 5270MHz



FCC 802.11n 40MHz Main 5550MHz

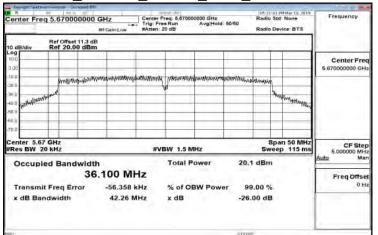


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

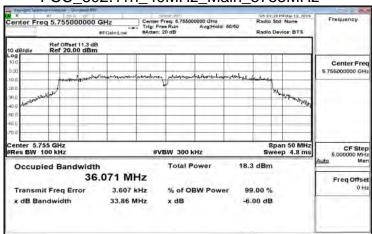


Page: 43 of 255

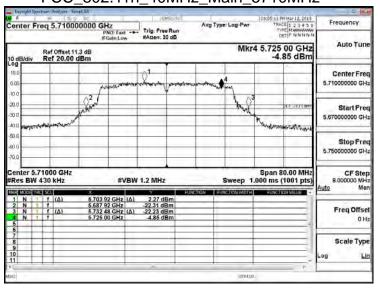
FCC 802.11n 40MHz Main 5670MHz



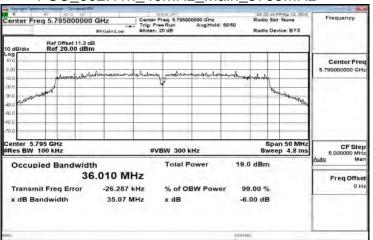
FCC_802.11n_40MHz_Main_5755MHz



FCC_802.11n_40MHz_Main_5710MHz



FCC_802.11n_40MHz_Main_5795MHz



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

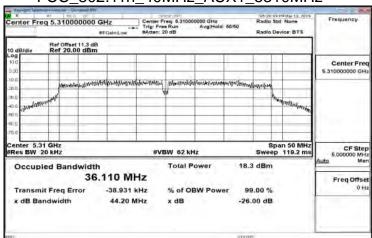


Page: 44 of 255

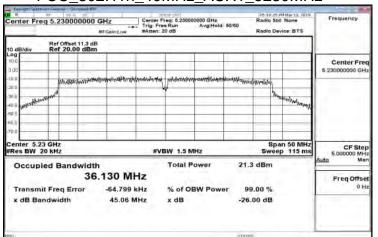
FCC 802.11n 40MHz AUX1 5190MHz

enter Freq 5.190000000 GHz Ref Offset 11.3 dB Ref 20.00 dBm Center Free Antimotic and the United Security of the Land Security Se Span 50 MH Sweep 119.2 m CF Step 5,000000 MHz #VBW 62 kHz 18.5 dBm Occupied Bandwidth 36.082 MHz Freq Offse Transmit Freg Error -67.115 kHz % of OBW Power 99.00 % x dB Bandwidth 42.17 MHz x dB -26.00 dB

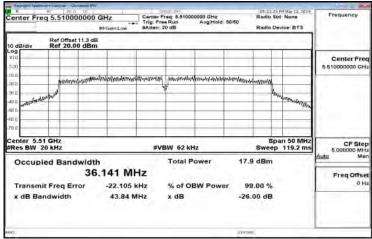
FCC_802.11n_40MHz_AUX1_5310MHz



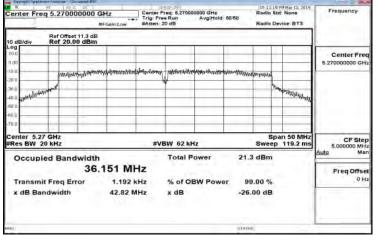
FCC 802.11n 40MHz AUX1 5230MHz



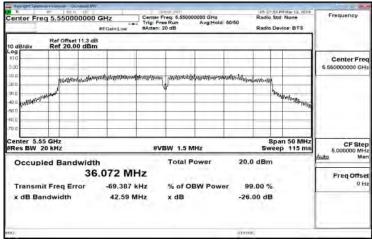
FCC_802.11n_40MHz_AUX1_5510MHz



FCC_802.11n_40MHz_AUX1_5270MHz



FCC_802.11n_40MHz_AUX1_5550MHz



Unless otherwise stated 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 <u>www.sgs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sqs.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.

程智科技股份有限公司

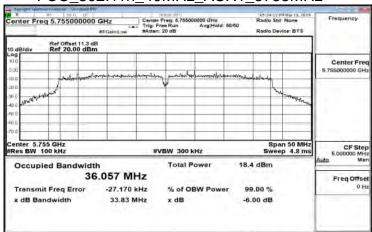


Page: 45 of 255

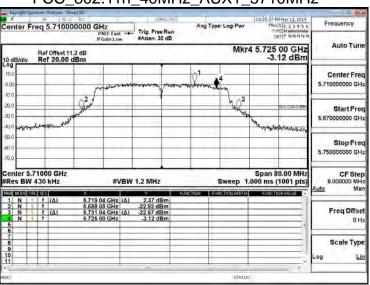
FCC 802.11n 40MHz AUX1 5670MHz



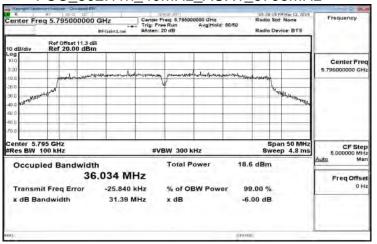
FCC_802.11n_40MHz_AUX1_5755MHz



FCC_802.11n_40MHz_AUX1_5710MHz



FCC_802.11n_40MHz_AUX1_5795MHz

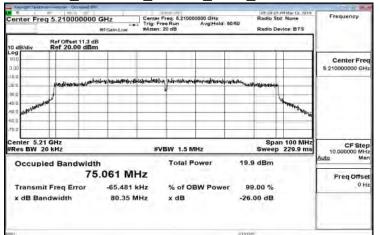


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

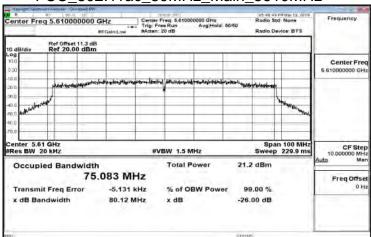


Page: 46 of 255

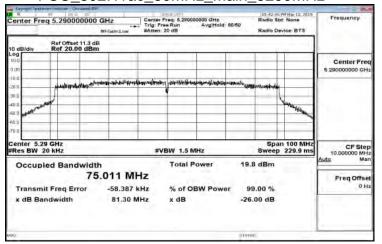
FCC_802.11ac_80MHz_Main_5210MHz



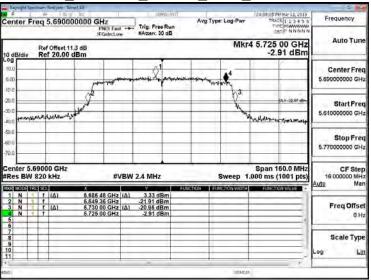
FCC_802.11ac_80MHz_Main_5610MHz



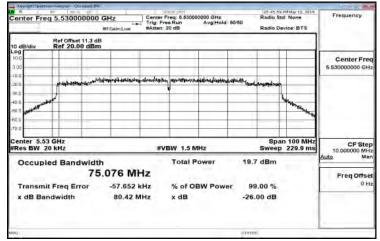
FCC_802.11ac_80MHz_Main_5290MHz



FCC_802.11ac_80MHz_Main_5690MHz



FCC_802.11ac_80MHz_Main_5530MHz



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

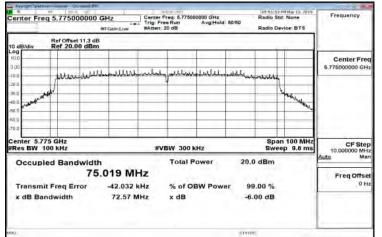
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可都份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sqs.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.

程智科技股份有限公司

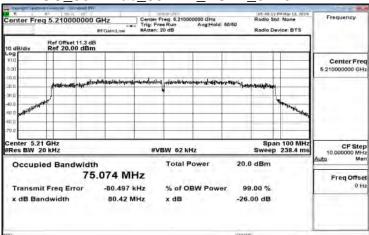


Page: 47 of 255

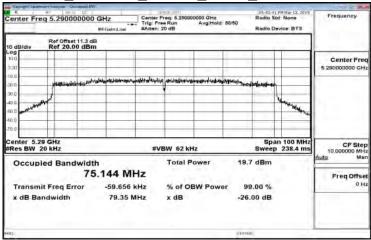
FCC 802.11ac 80MHz Main 5775MHz



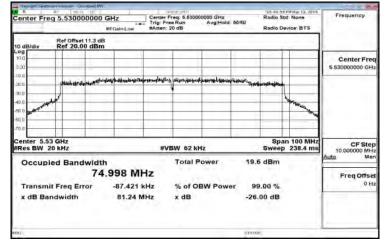
FCC_802.11ac_80MHz_AUX1_5210MHz



FCC_802.11ac_80MHz_AUX1_5290MHz



FCC_802.11ac_80MHz_AUX1_5530MHz

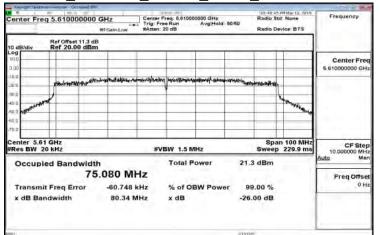


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

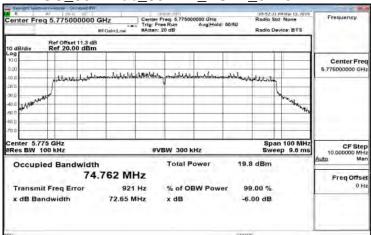


Page: 48 of 255

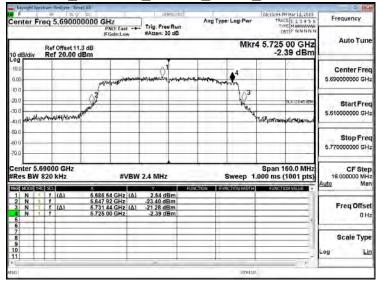
FCC 802.11ac 80MHz AUX1 5610MHz



FCC_802.11ac_80MHz_AUX1_5775MHz



FCC_802.11ac_80MHz_AUX1_5690MHz



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

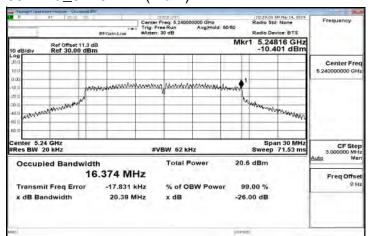
Offices unleavage stated the estate state of the state o pany's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



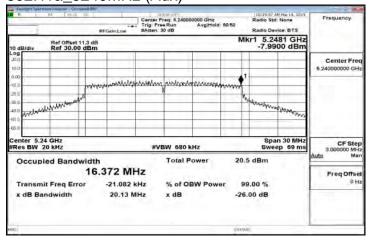
Page: 49 of 255

99% BW to prove that all signals in band I is no over band U-NII-1

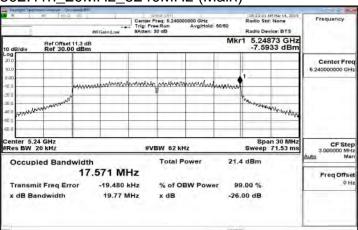
802.11a_5240MHz (Main)



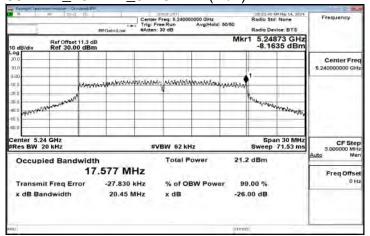
802.11a_5240MHz (Aux)



802.11n_20MHz_5240MHz (Main)



802.11n 20MHz 5240MHz (Aux)

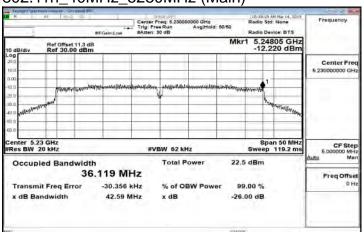


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

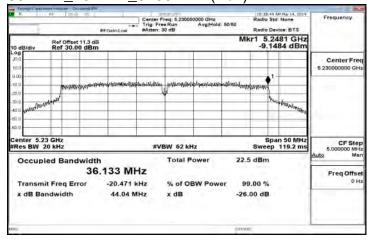


Page: 50 of 255

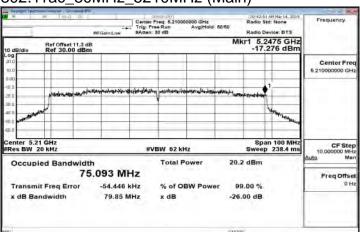
802.11n_40MHz_5230MHz (Main)



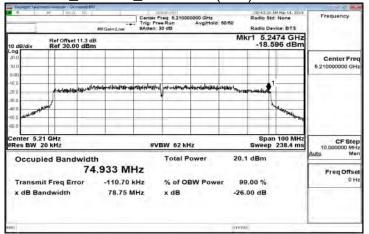
802.11n 40MHz 5230MHz (Aux)



802.11ac_80MHz_5210MHz (Main)



802.11ac 80MHz 5210MHz (Aux)



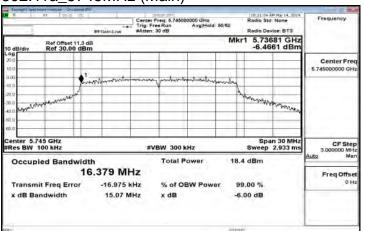
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



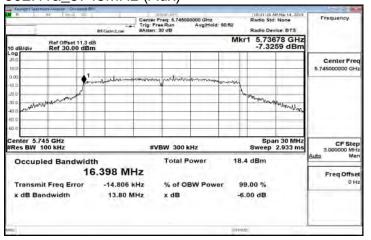
Page: 51 of 255

99% BW to prove that all signals in band I is no over band U-NII-3

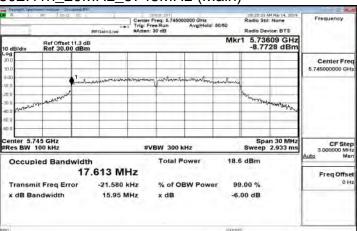
802.11a_5745MHz (Main)



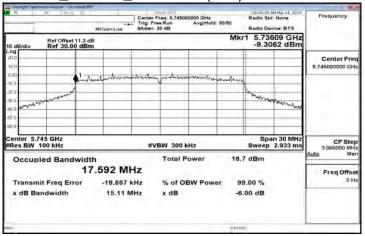
802.11a_5745MHz (Aux)



802.11n_20MHz_5745MHz (Main)



802.11n_20MHz _5745MHz (Aux)

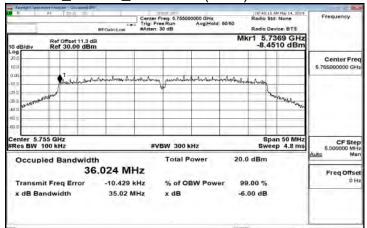


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

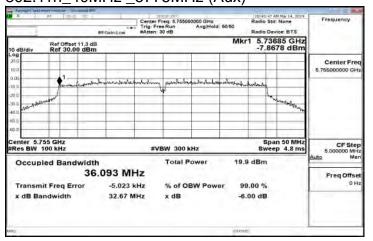


Page: 52 of 255

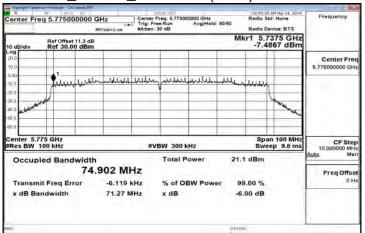
802.11n 40MHz 5775MHz (Main)



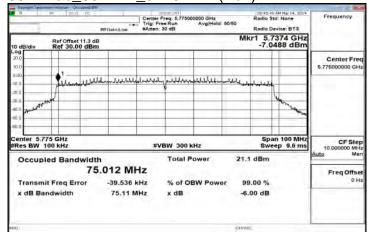
802.11n_40MHz _5775MHz (Aux)



802.11ac 80MHz 5775MHz (Main)



802.11ac_80MHz _5775MHz (Aux)



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

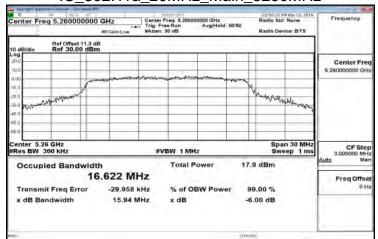


Page: 53 of 255

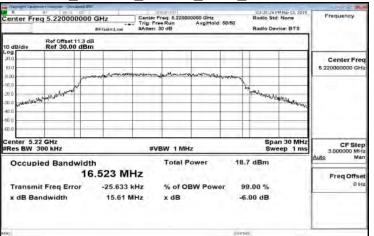
For 99%, IC_802.11a_20MHz_Main_5180MHz



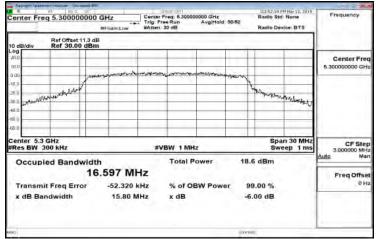
IC 802.11a 20MHz Main 5260MHz



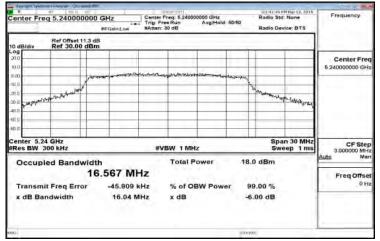
IC_802.11a_20MHz_Main_5220MHz



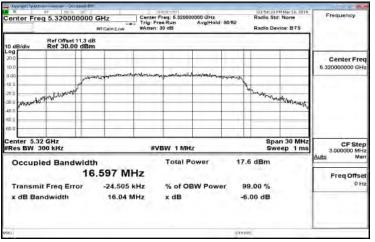
IC_802.11a_20MHz_Main_5300MHz



IC 802.11a 20MHz Main 5240MHz



IC 802.11a 20MHz Main 5320MHz

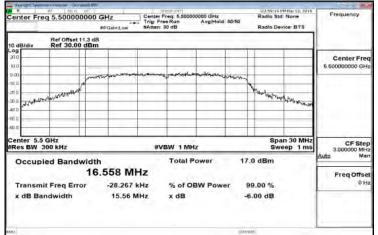


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

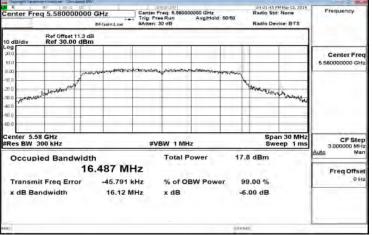


Page: 54 of 255

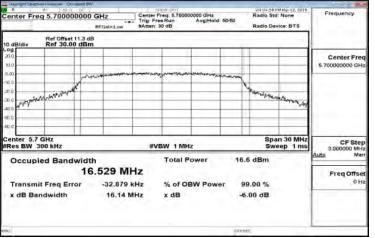
IC 802.11a 20MHz Main 5500MHz



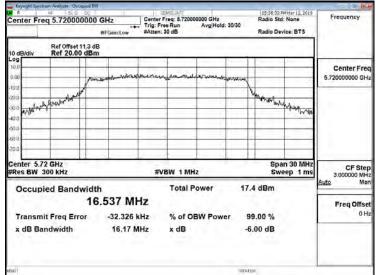
IC_802.11a_20MHz_Main_5580MHz



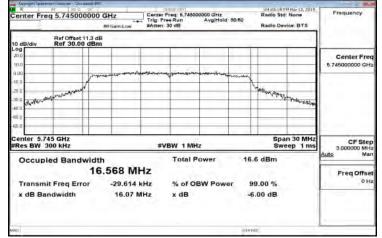
IC 802.11a 20MHz Main 5700MHz



IC 802.11a 20MHz Main 5720MHz



IC_802.11a_20MHz_Main_5745MHz

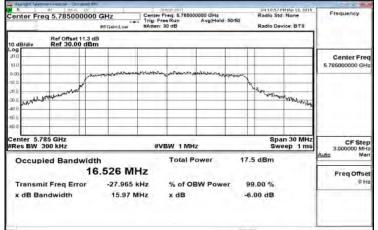


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

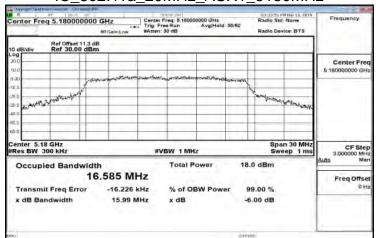


Page: 55 of 255

IC 802.11a 20MHz Main 5785MHz



IC_802.11a_20MHz_AUX1_5180MHz



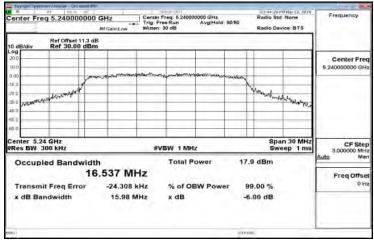
IC_802.11a_20MHz_Main_5825MHz



IC_802.11a_20MHz_AUX1_5220MHz



IC 802.11a 20MHz AUX1 5240MHz

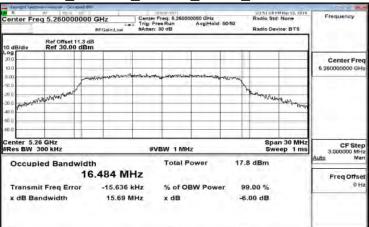


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

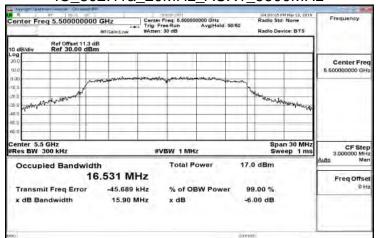


Page: 56 of 255

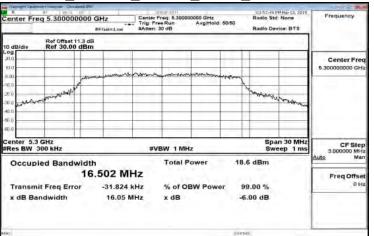
IC 802.11a 20MHz AUX1 5260MHz



IC 802.11a 20MHz AUX1 5500MHz



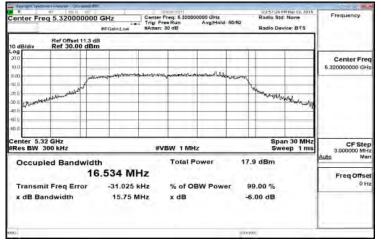
IC_802.11a_20MHz_AUX1_5300MHz



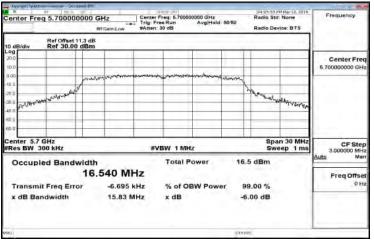
IC_802.11a_20MHz_AUX1_5580MHz



IC 802.11a 20MHz AUX1 5320MHz



IC_802.11a_20MHz_AUX1_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 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

程智科技股份有限公司



Page: 57 of 255

IC 802.11a 20MHz AUX1 5720MHz



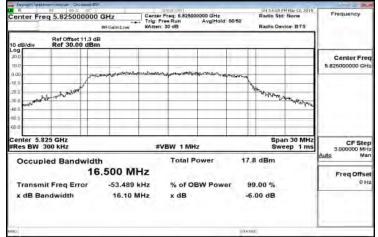
IC_802.11a_20MHz_AUX1_5745MHz



IC_802.11a_20MHz_AUX1_5785MHz



IC_802.11a_20MHz_AUX1_5825MHz



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

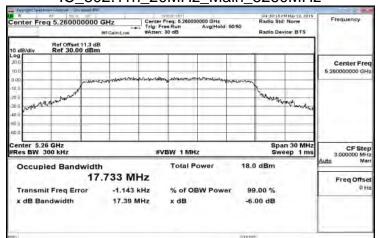


Page: 58 of 255

IC 802.11n 20MHz Main 5180MHz



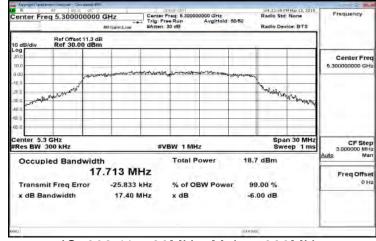
IC_802.11n_20MHz_Main_5260MHz



IC_802.11n_20MHz_Main_5220MHz



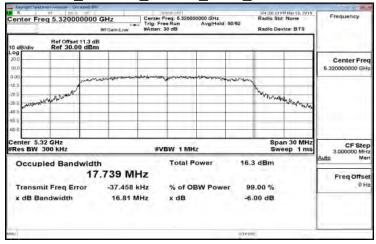
IC_802.11n_20MHz_Main_5300MHz



IC_802.11n_20MHz_Main_5240MHz



IC_802.11n_20MHz_Main_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.

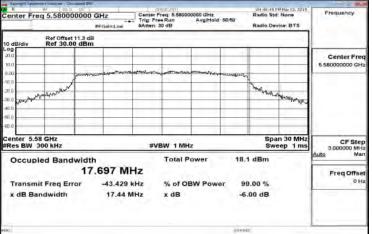


Page: 59 of 255

IC 802.11n 20MHz Main 5500MHz



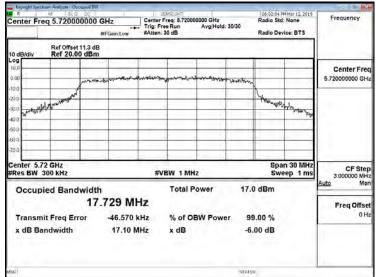
IC_802.11n_20MHz_Main_5580MHz



IC 802.11n 20MHz Main 5700MHz



IC 802.11n 20MHz Main 5720MHz



IC_802.11n_20MHz_Main_5745MHz

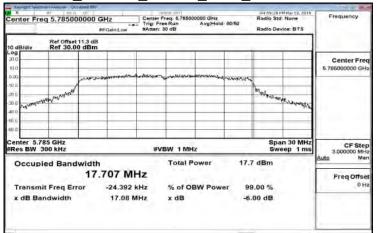


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

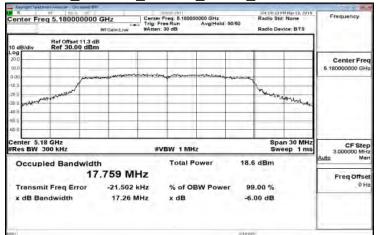


Page: 60 of 255

IC 802.11n 20MHz Main 5785MHz



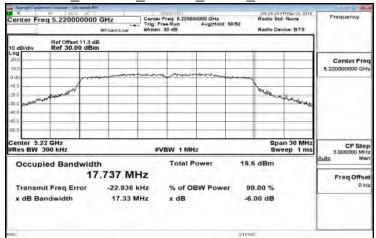
IC 802.11n 20MHz AUX1 5180MHz



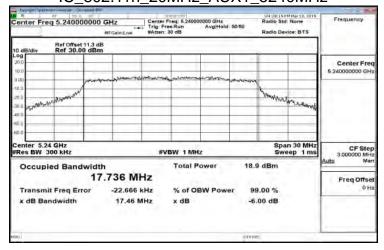
IC_802.11n_20MHz_Main_5825MHz



IC_802.11n_20MHz_AUX1_5220MHz



IC 802.11n 20MHz AUX1 5240MHz

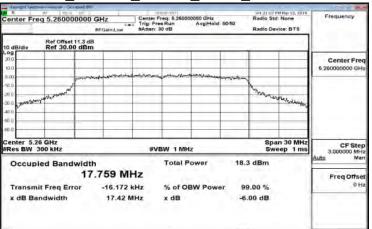


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

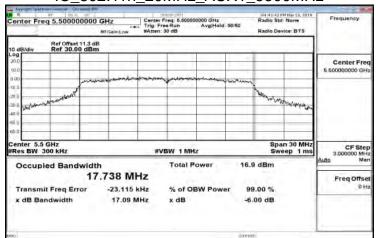


Page: 61 of 255

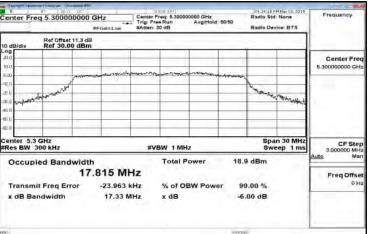
IC 802.11n 20MHz AUX1 5260MHz



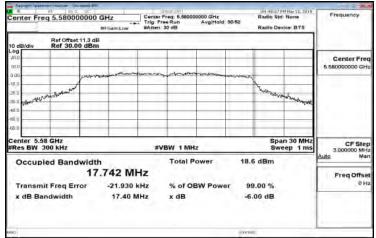
IC 802.11n 20MHz AUX1 5500MHz



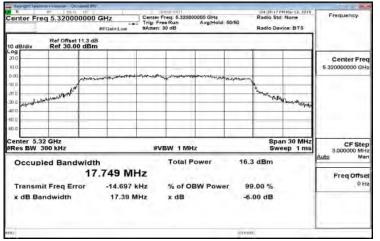
IC_802.11n_20MHz_AUX1_5300MHz



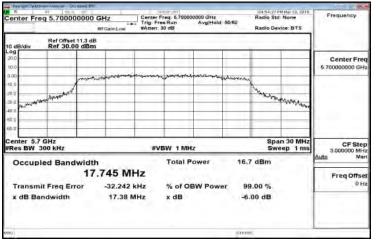
IC_802.11n_20MHz_AUX1_5580MHz



IC 802.11n 20MHz AUX1 5320MHz



IC 802.11n 20MHz AUX1 5700MHz

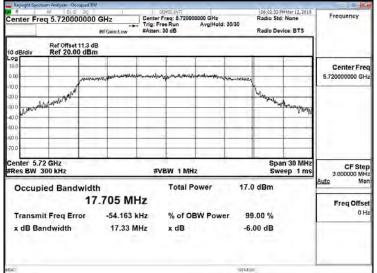


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 62 of 255

IC 802.11n 20MHz AUX1 5720MHz



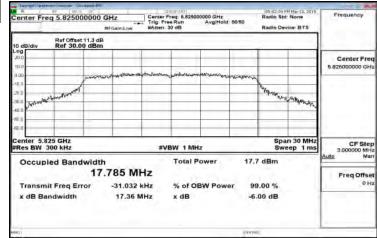
IC_802.11n_20MHz_AUX1_5745MHz



IC 802.11n 20MHz AUX1 5785MHz



IC_802.11n_20MHz_AUX1_ _5825MHz

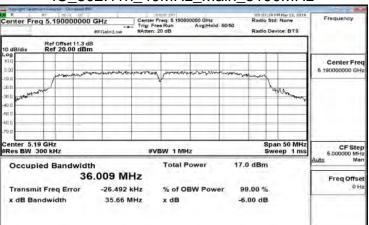


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 63 of 255

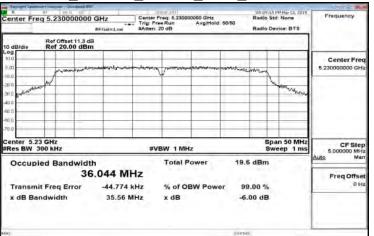
IC 802.11n 40MHz Main 5190MHz



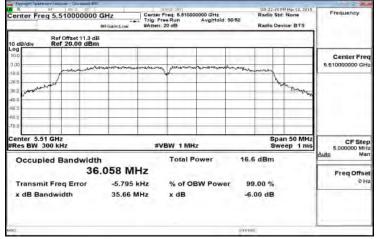
IC 802.11n 40MHz Main 5310MHz



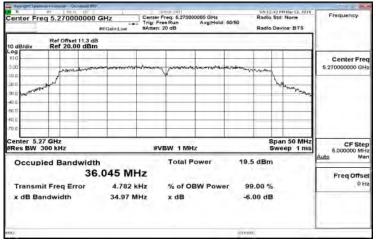
IC_802.11n_40MHz_Main_5230MHz



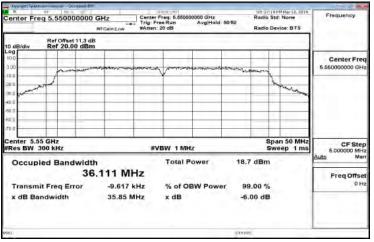
IC 802.11n 40MHz Main 5510MHz



IC 802.11n 40MHz Main 5270MHz



IC 802.11n 40MHz Main 5550MHz



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

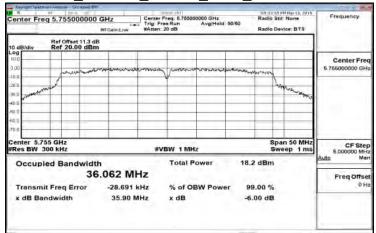


Page: 64 of 255

IC 802.11n 40MHz Main 5670MHz



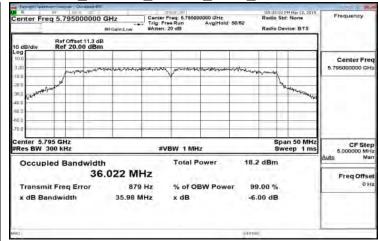
IC 802.11n 40MHz Main 5755MHz



IC_802.11n_40MHz_Main_5710MHz



IC_802.11n_40MHz_Main_5795MHz



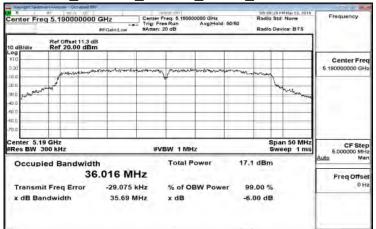
Member of the SGS Group (SGS SA)

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



Page: 65 of 255

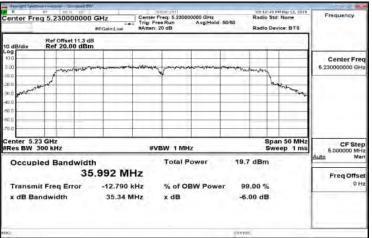
IC 802.11n 40MHz AUX1 5190MHz



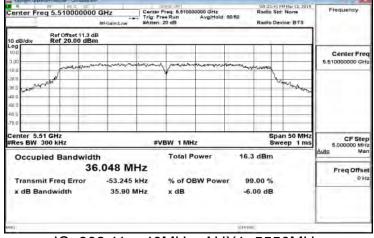
IC 802.11n 40MHz AUX1 5310MHz



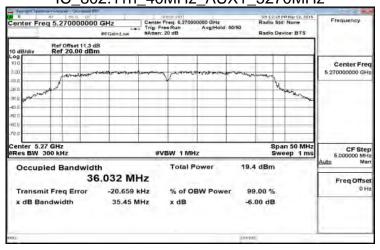
IC 802.11n 40MHz AUX1 5230MHz



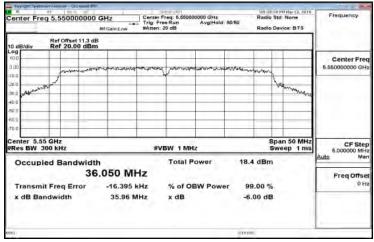
IC_802.11n_40MHz_AUX1_5510MHz



IC_802.11n_40MHz_AUX1_5270MHz



IC 802.11n 40MHz AUX1 5550MHz

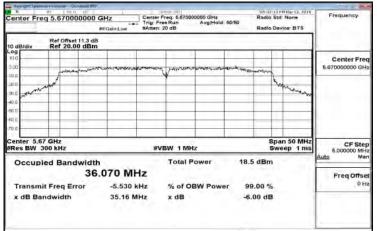


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

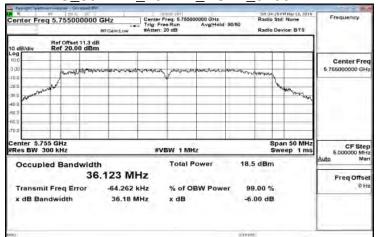


Page: 66 of 255

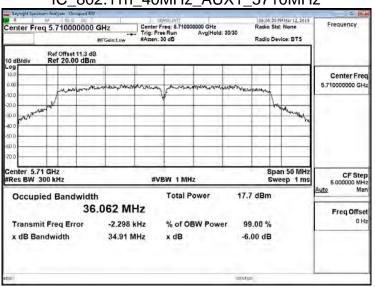
IC_802.11n_40MHz_AUX1_5670MHz



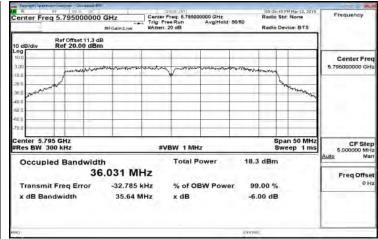
IC 802.11n 40MHz AUX1 5755MHz



IC_802.11n_40MHz_AUX1_ _5710MHz



IC_802.11n_40MHz_AUX1_5795MHz

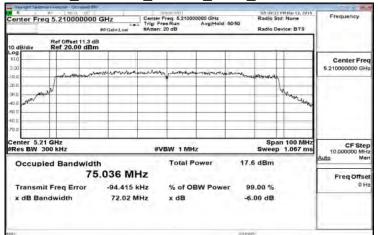


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

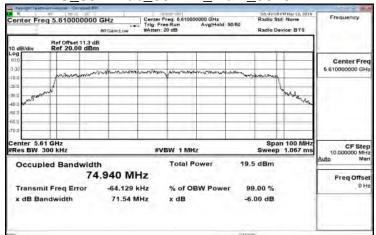


Page: 67 of 255

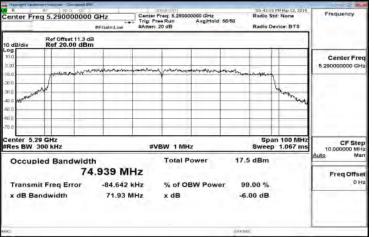
IC_802.11ac_80MHz_Main_5210MHz



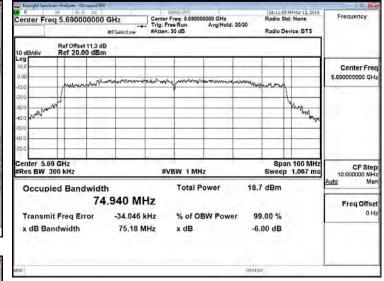
IC_802.11ac_80MHz_Main_5610MHz



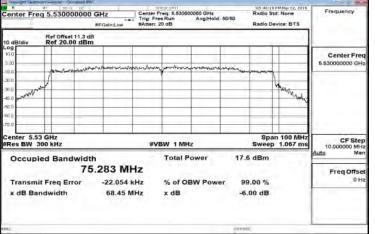
IC_802.11ac_80MHz_Main_5290MHz



IC_802.11ac_80MHz_Main_ 5690MHz



IC_802.11ac_80MHz_Main_5530MHz



Unless otherwise stated 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

程智科技股份有限公司

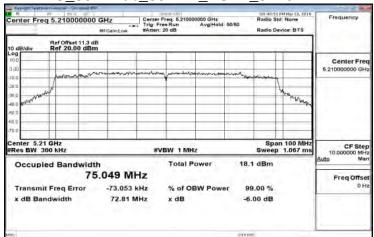


Page: 68 of 255

IC_802.11ac_80MHz_Main_5775MHz



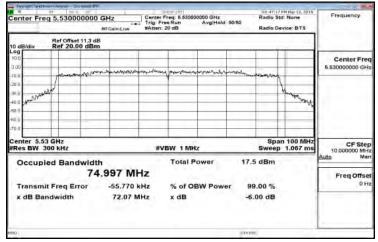
IC_802.11ac_80MHz_AUX1_5210MHz



IC_802.11ac_80MHz_AUX1_5290MHz



IC_802.11ac_80MHz_AUX1_5530MHz

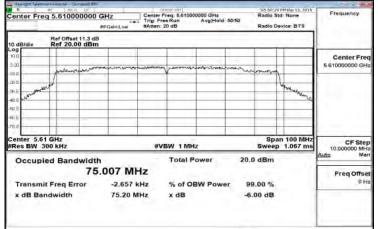


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

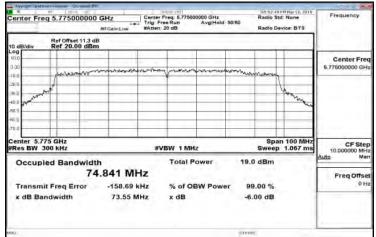


Page: 69 of 255

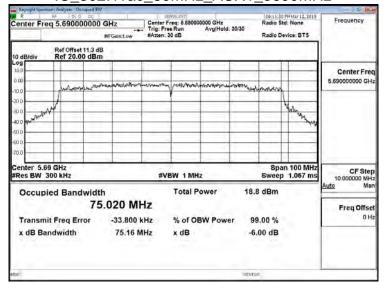
IC 802.11ac 80MHz AUX1 5610MHz



IC_802.11ac_80MHz_AUX1_5775MHz



IC_802.11ac_80MHz_AUX1_5690MHz



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



Page: 70 of 255

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)		
		Mobile and portable clinet device	250mW(23.98dBm)		
U-NII-2A			250mW(23.98dBm) or 11dBm+10 log B		
U-NII-2C			250mW(23.98dBm) or 11dBm+10 log B		
U-NII-3			1 Watt(30dBm)		

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

ISED

OPERZTION FREQUENCY BAND	LIMIT				
5150~5250 MHz	EIRP shall not exceed 200 mW or 10 + 10 log ₁₀ B, dBm				
5250~5350 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				
5470-5600 MHz and 5650-5725 MHz	Conducted output power shall not exceed 250 mW or 11 +10 log10 B EIRP shall not exceed 1.0 W or 17 + 10 log10B, dBm				
5725~5850 MHz	Conducted output power shall not exceed 1 W				

For equipment operating in the band 5725-5850 MHz, If transmitting antennas of directional gain greater than 6 dBi are used, the Maximum transmit power 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.



Page: 71 of 255

Note:

As per FCC KDB 662911 D01

Unequal antenna gains, with equal transmit powers. For antenna gains given by G1, G2, ..., GN dBi.

(i) If transmit signals are correlated, then Directional gain

= $10 \log[(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N_{ANT}] dBi$

[Note the "20"s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]

Note: 5.15-5.25G

1.8 dBi Antenna1 Gain: -0.55 dBi Antenna2 Gain: Number Antenna: 2 pcs

Directional gain = gain of antenna element + 10 log (# of TX antenna elements)

Effective Legacy Gain (dBi) = 4.81 dBi

Limit: 23.98dBm

Note: 5.25-5.35G

1.8 dBi Antenna1 Gain: Antenna2 Gain: 1.34 dBi Number Antenna: 2 pcs

Directional gain = gain of antenna element + 10 log (# of TX antenna elements)

Effective Legacy Gain (dBi) = 4.81 dBi

Limit: 23.98dBm

Note: 5.47-5.725G

Antenna1 Gain: 1.84 dBi Antenna2 Gain: 1.46 dBi Number Antenna: 2 pcs

Directional gain = gain of antenna element + 10 log (# of TX antenna elements)

Effective Legacy Gain (dBi) = 4.85 dBi

Limit: 23.968dBm

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



Page: 72 of 255

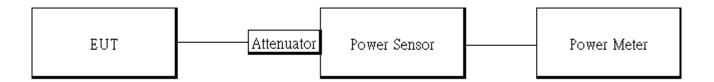
9.2 Measurement Procedure

- 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.
- Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter
- Power Meter is used as the auxiliary test equipment to conduct the output power measurement.
- Record the max. reading and add 10 log(1/duty cycle).
- Repeat above procedures until all frequency (low, middle, and high channel) measured were complete.

9.3 Measurement Equipment Used

SGS Conducted Room								
Name of Equip- ment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due			
Power Meter	Anritsu	ML2496A	1242004	2018/10/23	2019/10/22			
Power Sensor	Anritsu	MA2411B	1207365	2018/10/23	2019/10/22			
Power Sensor	Anritsu	MA2411B	1207368	2018/10/24	2019/10/23			
Attenuator	Marvelous	MVE2213-10	RF31	2019/02/26	2020/02/25			
Coaxial Cables	Woken	00100A1F1A185C	RF229	2019/02/26	2020/02/25			

9.4 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.



Page: 73 of 255

9.5 Measurement Result

Conducted output power (FCC)

802 11a Ch0

002.11a_	0110							
СН	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
36	5180	6	12.94	19.698		23.98		PASS
44	5220	6	13.95	24.855			PASS	
48	5240	6	12.98	19.880			PASS	
52	5260	6	12.97	19.834	23.98	or 11+10log(B) =	23.91	PASS
60	5300	6	13.96	24.913	23.98	or 11+10log(B) =	24.01	PASS
64	5320	6	12.99	19.926	23.98	or 11+10log(B) =	23.96	PASS
100	5500	6	11.97	15.755	23.98	or 11+10log(B) =	24.05	PASS
116	5580	6	13.00	19.972	23.98	or 11+10log(B) =	24.08	PASS
140	5700	6	11.94	15.647	23.98	or 11+10log(B) =	23.88	PASS
149	5745	6	11.99	15.828		30		PASS
157	5785	6	12.98	19.880		30		PASS
165	5825	6	12.96	19.789		30		PASS

000 44 a Ch4

802.11a_	Cni				,			
СН	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
36	5180	6	12.93	19.653		23.98		PASS
44	5220	6	13.92	24.684			PASS	
48	5240	6	12.93	19.653			PASS	
52	5260	6	12.92	19.607	23.98	or 11+10log(B) =	24.18	PASS
60	5300	6	13.93	24.741	23.98	or 11+10log(B) =	23.88	PASS
64	5320	6	12.98	19.880	23.98	or 11+10log(B) =	23.95	PASS
100	5500	6	11.96	15.719	23.98	or 11+10log(B) =	24.07	PASS
116	5580	6	12.97	19.834	23.98	or 11+10log(B) =	24.02	PASS
140	5700	6	11.93	15.611	23.98	or 11+10log(B) =	23.90	PASS
149	5745	6	11.94	15.647		30		PASS
157	5785	6	12.96	19.789		30		PASS
165	5825	6	12.94	19.698		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.



Page: 74 of 255

802.11a 2Tx

011	Frequency	Data	rg. POV	VER (dB		TOTAL		REQUIRED		
СН	(MHz)	Rate	CH 0	CH 1	POWER (dBm)	POWER (mW)		LIMIT (dBm)		RESULT
36	5180	6	10.1	9.16	12.91	19.548		23.98		PASS
44	5220	6	11.2	10.1	13.90	24.561		23.98		PASS
48	5240	6	10.1	9.25	12.92	19.606		23.98		PASS
52	5260	6	9.91	9.3	12.86	19.321	23.98	or 11+10log(B) =	23.91	PASS
60	5300	6	11	10.4	13.93	24.737	23.98	or 11+10log(B) =	23.88	PASS
64	5320	6	10	9.4	12.96	19.771	23.98	or 11+10log(B) =	23.95	PASS
100	5500	6	9.06	8.17	11.88	15.425	23.98	or 11+10log(B) =	24.05	PASS
116	5580	6	10.1	9.24	12.94	19.685	23.98	or 11+10log(B) =	24.02	PASS
140	5700	6	9.13	8.1	11.89	15.452	23.98	or 11+10log(B) =	23.88	PASS
149	5745	6	9.23	8.04	11.92	15.560		30		PASS
157	5785	6	10	9.3	12.91	19.561		30		PASS
165	5825	6	10	9.23	12.88	19.418		30		PASS

802.11n HT20 Ch0

	1120_0110	1	TOTAL	TOTAL		DECLUBED		1
СН	Frequency	Data	TOTAL POWER	TOTAL POWER		REQUIRED LIMIT		RESULT
	(MHz)	Rate	(dBm)	(mW)		(dBm)		I ILLUGET
36	5180	MCS0	12.99	19.907	23.98			PASS
44	5220	MCS0	13.99	25.061			PASS	
48	5240	MCS0	12.97	19.815			PASS	
52	5260	MCS0	13.00	19.952	23.98	or 11+10log(B) =	24.10	PASS
60	5300	MCS0	13.99	25.061	23.98	or 11+10log(B) =	23.99	PASS
64	5320	MCS0	13.00	19.952	23.98	or 11+10log(B) =	23.88	PASS
100	5500	MCS0	11.99	15.812	23.98	or 11+10log(B) =	24.12	PASS
116	5580	MCS0	13.00	19.952	23.98	or 11+10log(B) =	24.11	PASS
140	5700	MCS0	12.00	15.849	23.98	or 11+10log(B) =	24.01	PASS
144	5720(U-NII 2C)	MCS0	9.58	9.088	23.98	or 11+10log(B) =	23.30	PASS
144	5720 (U-NII 3)	MCS0	3.41	2.190		30		PASS
149	5745	MCS0	12.00	15.849		30		PASS
157	5785	MCS0	13.00	19.952	_	30	_	PASS
165	5825	MCS0	12.99	19.907		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.



Page: 75 of 255

802.11n_HT20_Ch1

СН	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
36	5180	MCS0	12.98	19.861		23.98		PASS
44	5220	MCS0	13.95	24.831			PASS	
48	5240	MCS0	12.96	19.770			PASS	
52	5260	MCS0	12.98	19.861	23.98	24.35	PASS	
60	5300	MCS0	13.98	25.003	23.98	24.23	PASS	
64	5320	MCS0	12.99	19.907	23.98 or 11+10log(B) = 24.11			PASS
100	5500	MCS0	11.98	15.776	23.98	or 11+10log(B) =	24.14	PASS
116	5580	MCS0	12.98	19.861	23.98	or $11+10\log(B) =$	24.11	PASS
140	5700	MCS0	11.97	15.740	23.98	or 11+10log(B) =	24.11	PASS
144	5720(U-NII 2C)	MCS0	9.68	9.289	23.98	or $11+10\log(B) =$	23.11	PASS
144	5720 (U-NII 3)	MCS0	3.29	2.133		30		PASS
149	5745	MCS0	11.97	15.740		30		PASS
157	5785	MCS0	12.97	19.815		30		PASS
165	5825	MCS0	12.98	19.861			PASS	

802.11n HT20 MIMO

	Frequency	Data	/g. POW	/ER (dBr		TOTAL		REQUIRED		
СН	(MHz)	Rate	CH 0	CH 1	POWER (dBm)	POWER (mW)		LIMIT (dBm)		RESULT
36	5180	MCS8	10.2	9.1	12.90	19.476		23.98		PASS
44	5220	MCS8	11.2	10.2	13.94	24.800		23.98		PASS
48	5240	MCS8	10	9.4	12.92	19.591		23.98		PASS
52	5260	MCS8	9.93	9.5	12.93	19.636	23.98	or 11+10log(B) =	24.10	PASS
60	5300	MCS8	11	10.5	13.94	24.797	23.98	or 11+10log(B) =	23.99	PASS
64	5320	MCS8	10	9.5	12.97	19.804	23.98	or 11+10log(B) =	23.88	PASS
100	5500	MCS8	9.1	8.35	11.95	15.673	23.98	or 11+10log(B) =	24.12	PASS
116	5580	MCS8	10	9.35	12.90	19.487	23.98	or 11+10log(B) =	24.11	PASS
140	5700	MCS8	9.15	8.3	11.96	15.689	23.98	or 11+10log(B) =	24.01	PASS
144	5720(U-NII 2C)	MCS8	7.47	6.96	9.56	9.031	23.98	or 11+10log(B) =	23.11	PASS
144	5720 (U-NII 3)	MCS8	2.65	2.37	3.40	2.186		30		PASS
149	5745	MCS8	9.22	8.2	11.95	15.668		30		PASS
157	5785	MCS8	10	9.48	12.96	19.761		30		PASS
165	5825	MCS8	10	9.43	12.93	19.654		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.



Page: 76 of 255

802.11n_HT40_Ch0

СН	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
38	5190	MCS0	10.94	12.404		23.98		PASS
46	5230	MCS0	13.95	24.806		23.98		PASS
54	5270	MCS0	13.93	24.692	23.98	or 11+10log(B) =	27.18	PASS
62	5310	MCS0	10.94	12.404	23.98	or 11+10log(B) =	26.92	PASS
102	5510	MCS0	10.95	12.432	23.98	or $11+10\log(B) =$	27.26	PASS
110	5550	MCS0	12.94	19.659	23.98	or 11+10log(B) =	27.39	PASS
134	5670	MCS0	12.94	19.659	23.98	or $11+10\log(B) =$	27.26	PASS
142	5710(U-NII 2C)	MCS0	10.79	11.993	23.98	or 11+10log(B) =	26.69	PASS
142	5710 (U-NII 3)	MCS0	2.18	1.651		30		PASS
151	5755	MCS0	12.95	19.704		30		PASS
159	5795	MCS0	12.93	19.613		30		PASS

802.11n HT40 Ch1

002.1111_1	1140_0111							
СН	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
38	5190	MCS0	10.93	12.375		23.98		PASS
46	5230	MCS0	13.94	24.749		23.98		PASS
54	5270	MCS0	13.92	24.635	23.98	or 11+10log(B) =	27.32	PASS
62	5310	MCS0	10.93	12.375	23.98	or $11+10\log(B) =$	27.45	PASS
102	5510	MCS0	10.93	12.375	23.98	or 11+10log(B) =	27.42	PASS
110	5550	MCS0	12.92	19.568	23.98	or 11+10log(B) =	27.29	PASS
134	5670	MCS0	12.93	19.613	23.98	or 11+10log(B) =	27.42	PASS
142	5710(U-NII 2C)	MCS0	11.13	12.984	23.98	or 11+10log(B) =	26.67	PASS
142	5710 (U-NII 3)	MCS0	1.82	1.521		23.98		PASS
151	5755	MCS0	12.93	19.613		23.98		PASS
159	5795	MCS0	12.91	19.523		30	<u> </u>	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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its 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.

Member of the SGS Group (SGS SA)



Page: 77 of 255

802.11n_HT40_MIMO

CII	Frequency	Data	vg. POW	ER (dBr		TOTAL		REQUIRED		DECLUT
СН	(MHz)	Rate	CH 0	CH 1	POWER (dBm)	POWER (mW)		LIMIT (dBm)		RESULT
38	5190	MCS8	7.84	6.35	10.90	12.315		23.98		PASS
46	5230	MCS8	10.9	9.37	13.92	24.652		23.98		PASS
54	5270	MCS8	10.4	9.88	13.90	24.571	23.98	or 11+10log(B) =	27.18	PASS
62	5310	MCS8	7.5	6.78	10.90	12.305	23.98	or 11+10log(B) =	26.92	PASS
102	5510	MCS8	7.68	6.57	10.91	12.320	23.98	or $11+10\log(B) =$	27.26	PASS
110	5550	MCS8	9.5	8.79	12.91	19.522	23.98	or 11+10log(B) =	27.29	PASS
134	5670	MCS8	9.63	8.63	12.90	19.519	23.98	or 11+10log(B) =	27.26	PASS
142	5710(U-NII 2C)	MCS8	7.93	7.58	10.76	11.923	23.98	or 11+10log(B) =	26.67	PASS
142	5720 (U-NII 3)	MCS8	1.6	1.24	2.17	1.649		30		PASS
151	5755	MCS8	9.72	8.55	12.92	19.589		30		PASS
159	5795	MCS8	9.63	8.62	12.90	19.499		30		PASS

802.11ac VHT80 Ch0

СН	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)			
42	5210	MCS0	11.00	12.598		23.98		PASS	
58	5290	MCS0	10.99	12.569	23.98	or 11+10log(B) =	30.10	PASS	
106	5530	MCS0	11.00	12.598	23.98	or 11+10log(B) =	30.05	PASS	
122	5610	MCS0	12.99	19.921	23.98	or 11+10log(B) =	30.04	PASS	
138	5690(U-NII 2C)	MCS0	12.19	16.548	23.98	or 11+10log(B) =	29.79	PASS	
138	5690 (U-NII 3)	MCS0	0.81	1.204		30		PASS	
155	5775	MCS0	13.00	19.967		30		PASS	

802.11ac VHT80 Ch1

СН	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		
42	5210	MCS0	10.98	12.540		23.98		PASS
58	5290	MCS0	10.98	12.540	23.98	or 11+10log(B) =	30.00	PASS
106	5530	MCS0	10.99	12.569	23.98	or 11+10log(B) =	30.10	PASS
122	5610	MCS0	12.98	19.875	23.98	or 11+10log(B) =	30.05	PASS
138	5690(U-NII 2C)	MCS0	11.98	15.783	23.98	or 11+10log(B) =	29.87	PASS
138	5690 (U-NII 3)	MCS0	1.00	1.259		23.98		PASS
155	5775	MCS0	12.99	19.921		23.98	•	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.



Page: 78 of 255

802.11ac VHT80 MIMO

OU.	Frequency	Data	vg. POW	ER (dBr		TOTAL		REQUIRED		DECLUT
СН	(MHz)	Rate	CH 0	CH 1	POWER (dBm)	POWER (mW)		LIMIT (dBm)		RESULT
42	5210	MCS0	7.44	6.84	10.92	12.370		23.98		PASS
58	5290	MCS0	7.04	7.19	10.89	12.272	23.98	or 11+10log(B) =	30.00	PASS
106	5530	MCS0	7.24	6.99	10.89	12.275	23.98	or 11+10log(B) =	30.05	PASS
122	5610	MCS0	9.27	8.95	12.89	19.437	23.98	or 11+10log(B) =	30.04	PASS
138	5690(U-NII 2C)	MCS0	9.04	7.97	12.14	16.367	23.98	or 11+10log(B) =	29.79	PASS
138	5690 (U-NII 3)	MCS0	0.6	0.67	0.80	1.203		30		PASS
155	5775	MCS0	9.44	8.74	12.88	19.397		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.



Page: 79 of 255

Conducted output power (IC)

802.11a Ch0

OUZ.TIU_							
СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
52	5260	12.97	19.834	23.98	or 11+10log(B) =	23.21	PASS
60	5300	13.96	24.913	23.98	or 11+10log(B) =	23.20	PASS
64	5320	12.99	19.926	23.98	or 11+10log(B) =	23.20	PASS
100	5500	11.97	15.755	23.98	or 11+10log(B) =	23.19	PASS
116	5580	13.00	19.972	23.98	or 11+10log(B) =	23.17	PASS
140	5700	11.94	15.647	23.98	or 11+10log(B) =	23.18	PASS
149	5745	11.99	15.828		30		PASS
157	5785	12.98	19.880		30		PASS
165	5825	12.96	19.789		30	•	PASS

802.11a Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
52	5260	12.92	19.607	23.98	or 11+10log(B) =	23.17	PASS
60	5300	13.93	24.741	23.98	or 11+10log(B) =	23.18	PASS
64	5320	12.98	19.880	23.98	or 11+10log(B) =	23.18	PASS
100	5500	11.96	15.719	23.98	or 11+10log(B) =	23.18	PASS
116	5580	12.97	19.834	23.98	or 11+10log(B) =	23.19	PASS
140	5700	11.93	15.611	23.98	or 11+10log(B) =	23.19	PASS
149	5745	11.94	15.647		30		PASS
157	5785	12.96	19.789		30		PASS
165	5825	12.94	19.698		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.



Page: 80 of 255

802.11a 2Tx

СН	Frequency (MHz)		RAGE VER CH 1	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
52	5260	9.91	9.3	12.86	19.321	23.98	or 11+10log(B) =	23.17	PASS
60	5300	10.96	10.4	13.93	24.737	23.98	or 11+10log(B) =	23.18	PASS
64	5320	10.01	9.4	12.96	19.771	23.98	or 11+10log(B) =	23.18	PASS
100	5500	9.06	8.17	11.88	15.425	23.98	or 11+10log(B) =	23.18	PASS
116	5580	10.11	9.24	12.94	19.685	23.98	or 11+10log(B) =	23.17	PASS
140	5700	9.13	8.1	11.89	15.452	23.98	or $11+10\log(B) =$	23.18	PASS
149	5745	9.23	8.04	11.92	15.560		30		PASS
157	5785	10.01	9.3	12.91	19.561		30		PASS
165	5825	10.01	9.23	12.88	19.418		30	•	PASS

802.11n HT20 Ch0

_							
СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
52	5260	13.00	19.952	23.98	or 11+10log(B) =	23.49	PASS
60	5300	13.99	25.061	23.98	or 11+10log(B) =	23.48	PASS
64	5320	13.00	19.952	23.98	or 11+10log(B) =	23.49	PASS
100	5500	11.99	15.812	23.98	or 11+10log(B) =	23.49	PASS
116	5580	13.00	19.952	23.98	or 11+10log(B) =	23.48	PASS
140	5700	12.00	15.849	23.98	or 11+10log(B) =	23.49	PASS
144	5720(U-NII 2C)	9.58	9.088	23.98	or 11+11log(B) =	22.42	PASS
144	5720 (U-NII 3)	3.41	2.190		30		PASS
149	5745	12.00	15.849		30		PASS
157	5785	13.00	19.952		30		PASS
165	5825	12.99	19.907		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.



Page: 81 of 255

802.11n HT20 Ch1

	20_0						
СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
52	5260	12.98	19.861	23.98	or 11+10log(B) =	23.49	PASS
60	5300	13.98	25.003	23.98	or 11+10log(B) =	23.51	PASS
64	5320	12.99	19.907	23.98	or 11+10log(B) =	23.49	PASS
100	5500	11.98	15.776	23.98	or 11+10log(B) =	23.49	PASS
116	5580	12.98	19.861	23.98	or 11+10log(B) =	23.49	PASS
140	5700	11.97	15.740	23.98	or 11+10log(B) =	23.49	PASS
144	5720(U-NII 2C)	9.68	9.289	23.98	or 11+10log(B) =	22.42	PASS
144	5720 (U-NII 3)	3.29	2.133		30		PASS
149	5745	11.97	15.740		30		PASS
157	5785	12.97	19.815		30		PASS
165	5825	12.98	19.861		30		PASS

802.11n HT20 MIMO

002.1111_									
СН	Frequency		RAGE R (dBm)	TOTAL POWER	TOTAL POWER		REQUIRED LIMIT		RESULT
	(MHz)	CH 0	CH 1	(dBm)	(mW)		(dBm)		
52	5260	9.93	9.5	12.93	19.636	23.98	or 11+10log(B) =	23.49	PASS
60	5300	11	10.45	13.94	24.797	23.98	or 11+10log(B) =	23.48	PASS
64	5320	10	9.5	12.97	19.804	23.98	or 11+10log(B) =	23.49	PASS
100	5500	9.1	8.35	11.95	15.673	23.98	or 11+10log(B) =	23.49	PASS
116	5580	10	9.35	12.90	19.487	23.98	or 11+10log(B) =	23.48	PASS
140	5700	9.15	8.3	11.96	15.689	23.98	or 11+10log(B) =	23.49	PASS
144	5720(U-NII 2C)	7.467	6.963	9.56	9.031	23.98	or 11+10log(B) =	22.42	PASS
144	5720 (U-NII 3)	2.653	2.367	3.40	2.186		30		PASS
149	5745	9.22	8.2	11.95	15.668		30		PASS
157	5785	10	9.48	12.96	19.761		30		PASS
165	5825	10	9.43	12.93	19.654		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.



Page: 82 of 255

802.11n_HT40_Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
54	5270	13.93	24.692	23.98	or 11+10log(B) =	26.57	PASS
62	5310	10.94	12.404	23.98	or 11+10log(B) =	26.57	PASS
102	5510	10.95	12.432	23.98	or 11+10log(B) =	26.57	PASS
110	5550	12.94	19.659	23.98	or 11+10log(B) =	26.58	PASS
134	5670	12.94	19.659	23.98	or 11+10log(B) =	26.57	PASS
142	5710(U-NII 2C)	10.79	11.993	23.98	or 11+11log(B) =	26.19	PASS
142	5710 (U-NII 3)	2.18	1.651		30		PASS
151	5755	12.95	19.704		30		PASS
159	5795	12.93	19.613		30		PASS

802.11n HT40 Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
54	5270	13.92	24.635	23.98	or 11+10log(B) =	26.57	PASS
62	5310	10.93	12.375	23.98	or 11+10log(B) =	26.57	PASS
102	5510	10.93	12.375	23.98	or 11+10log(B) =	26.57	PASS
110	5550	12.92	19.568	23.98	or 11+10log(B) =	26.57	PASS
134	5670	12.93	19.613	23.98	or 11+10log(B) =	26.57	PASS
142	5710(U-NII 2C)	11.13	12.984	23.98	or 11+10log(B) =	26.19	PASS
142	5710 (U-NII 3)	1.82	1.521		30		PASS
151	5755	12.93	19.613		30		PASS
159	5795	12.91	19.523		30		PASS

802 11n HT40 MIMO

002.1111_									
СН	Frequency	AVEF POWEF	RAGE R (dBm)	TOTAL POWER	TOTAL POWER		REQUIRED LIMIT		RESULT
	(MHz)	CH 0	CH 1	(dBm)	(mW)		(dBm)		1,20021
54	5270	10.42	9.88	13.90	24.571	23.98	or 11+10log(B) =	26.57	PASS
62	5310	7.5	6.78	10.90	12.305	23.98	or 11+10log(B) =	26.57	PASS
102	5510	7.68	6.57	10.91	12.320	23.98	or 11+10log(B) =	26.57	PASS
110	5550	9.5	8.79	12.91	19.522	23.98	or 11+10log(B) =	26.57	PASS
134	5670	9.63	8.63	12.90	19.519	23.98	or 11+10log(B) =	26.57	PASS
142	5710(U-NII 2C)	7.93	7.58	10.76	11.923	23.98	or 11+10log(B) =	26.19	PASS
142	5710 (U-NII 3)	1.6	1.24	2.17	1.649		30		PASS
151	5755	9.72	8.55	12.92	19.589		30		PASS
159	5795	9.63	8.62	12.90	19.499		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.



Page: 83 of 255

802.11ac VHT80 Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
58	5290	10.99	12.569	23.98	or 11+10log(B) =	29.75	PASS
106	5530	11.00	12.598	23.98	or 11+10log(B) =	29.77	PASS
122	5610	12.99	19.921	23.98	or 11+11log(B) =	29.75	PASS
138	5690(U-NII 2C)	12.19	16.548	23.98	or 11+12log(B) =	29.60	PASS
138	5690 (U-NII 3)	0.81	1.204		30		PASS
155	5775	13.00	19.967		30		PASS

802.11ac VHT80 Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)		REQUIRED LIMIT (dBm)		RESULT
58	5290	10.98	12.540	23.98	or 11+10log(B) =	29.74	PASS
106	5530	10.99	12.569	23.98	or 11+10log(B) =	29.75	PASS
122	5610	12.98	19.875	23.98	or 11+10log(B) =	29.75	PASS
138	5690(U-NII 2C)	11.98	15.783	23.98	or 11+10log(B) =	29.60	PASS
138	5690 (U-NII 3)	1.00	1.259		30		PASS
155	5775	12.99	19.921		30		PASS

802.11ac_VHT80_MIMO

СН	Frequency		RAGE R (dBm)	TOTAL POWER	TOTAL POWER		REQUIRED LIMIT		RESULT
0	(MHz)	CH 0	CH 1	(dBm)	(mW)		(dBm)		1,20021
58	5290	7.04	7.19	10.89	12.272	23.98	or 11+10log(B) =	29.74	PASS
106	5530	7.24	6.99	10.89	12.275	23.98	or 11+10log(B) =	29.75	PASS
122	5610	9.27	8.95	12.89	19.437	23.98	or 11+10log(B) =	29.75	PASS
138	5690(U-NII 2C)	9.042	7.974	12.14	16.367	23.98	or 11+10log(B) =	29.60	PASS
138	5690 (U-NII 3)	0.598	0.666	0.80	1.203		30		PASS
155	5775	9.44	8.74	12.88	19.397		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.



Page: 84 of 255

EIRP

802.11a_Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)		REQUIRED LIMIT (dBm)		RESULT
36	5180	12.94	1.800	14.74	29.814	23.01	or 10+10log(B)=	22.20	PASS
44	5220	13.95	1.800	15.75	37.620	23.01	or 10+10log(B)=	22.18	PASS
48	5240	12.98	1.800	14.78	30.090	23.01	or 10+10log(B)=	22.19	PASS
52	5260	12.97	1.800	14.77	30.021	30	or 17+10log(B)=	29.21	PASS
60	5300	13.96	1.800	15.76	37.707	30	or 17+10log(B)=	29.20	PASS
64	5320	12.99	1.800	14.79	30.159	30	or 17+10log(B)=	29.20	PASS
100	5500	11.97	1.840	13.81	24.067	30	or 17+10log(B)=	29.19	PASS
116	5580	13.00	1.840	14.84	30.508	30	or 17+10log(B)=	29.17	PASS
140	5700	11.94	1.840	13.78	23.901	30	or 17+10log(B)=	29.18	PASS

802.11a Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)		REQUIRED LIMIT (dBm)		RESULT
36	5180	12.93	-0.550	12.38	17.315	23.01	or 10+10log(B)=	22.20	PASS
44	5220	13.92	-0.550	13.37	21.748	23.01	or 10+10log(B)=	22.19	PASS
48	5240	12.93	-0.550	12.38	17.315	23.01	or 10+10log(B)=	22.18	PASS
52	5260	12.92	1.340	14.26	26.694	30	or 17+10log(B)=	29.17	PASS
60	5300	13.93	1.340	15.27	33.684	30	or 17+10log(B)=	29.18	PASS
64	5320	12.98	1.340	14.32	27.066	30	or 17+10log(B)=	29.18	PASS
100	5500	11.96	1.460	13.42	22.000	30	or 17+10log(B)=	29.18	PASS
116	5580	12.97	1.460	14.43	27.760	30	or 17+10log(B)=	29.19	PASS
140	5700	11.93	1.460	13.39	21.848	30	or 17+10log(B)=	29.19	PASS

802.11a 2Tx

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)		REQUIRED LIMIT (dBm)		RESULT
36	5180	12.91	3.715	16.63	45.978	23.01	or 10+10log(B)=	22.20	PASS
44	5220	13.90	3.715	17.62	57.769	23.01	or 10+10log(B)=	22.18	PASS
48	5240	12.92	3.715	16.64	46.114	23.01	or 10+10log(B)=	22.18	PASS
52	5260	12.86	4.583	17.44	55.508	30	or 17+10log(B)=	29.17	PASS
60	5300	13.93	4.583	18.52	71.070	30	or 17+10log(B)=	29.18	PASS
64	5320	12.96	4.583	17.54	56.801	30	or 17+10log(B)=	29.18	PASS
100	5500	11.88	4.662	16.54	45.130	30	or 17+10log(B)=	29.18	PASS
116	5580	12.94	4.662	17.60	57.592	30	or 17+10log(B)=	29.17	PASS
140	5700	11.89	4.662	16.55	45.210	30	or 17+10log(B)=	29.18	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.



Page: 85 of 255

802.11n_HT20_Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)		REQUIRED LIMIT (dBm)		RESULT
36	5180	12.99	1.800	14.79	30.130	23.01	or 10+10log(B)=	22.48	PASS
44	5220	13.99	1.800	15.79	37.931	23.01	or 10+10log(B)=	22.49	PASS
48	5240	12.97	1.800	14.77	29.991	23.01	or 10+10log(B)=	22.49	PASS
52	5260	13.00	1.800	14.80	30.199	30	or 17+10log(B)=	29.49	PASS
60	5300	13.99	1.800	15.79	37.931	30	or 17+10log(B)=	29.48	PASS
64	5320	13.00	1.800	14.80	30.199	30	or 17+10log(B)=	29.49	PASS
100	5500	11.99	1.840	13.83	24.154	30	or 17+10log(B)=	29.49	PASS
116	5580	13.00	1.840	14.84	30.479	30	or 17+10log(B)=	29.48	PASS
140	5700	12.00	1.840	13.84	24.210	30	or 17+10log(B)=	29.49	PASS

802 11n HT20 Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)		REQUIRED LIMIT (dBm)		RESULT
36	5180	12.98	-0.550	12.43	17.498	23.01	or 10+10log(B)=	22.49	PASS
44	5220	13.95	-0.550	13.40	21.877	23.01	or 10+10log(B)=	22.49	PASS
48	5240	12.96	-0.550	12.41	17.418	23.01	or 10+10log(B)=	22.49	PASS
52	5260	12.98	1.340	14.32	27.039	30	or 17+10log(B)=	29.49	PASS
60	5300	13.98	1.340	15.32	34.041	30	or 17+10log(B)=	29.51	PASS
64	5320	12.99	1.340	14.33	27.102	30	or 17+10log(B)=	29.49	PASS
100	5500	11.98	1.460	13.44	22.080	30	or 17+10log(B)=	29.49	PASS
116	5580	12.98	1.460	14.44	27.797	30	or 17+10log(B)=	29.49	PASS
140	5700	11.97	1.460	13.43	22.029	30	or 17+10log(B)=	29.49	PASS

802.11n_HT20_MIMO

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)		REQUIRED LIMIT (dBm)		RESULT
36	5180	12.90	3.715	16.61	45.809	23.01	or 10+10log(B)=	22.48	PASS
44	5220	13.94	3.715	17.66	58.332	23.01	or 10+10log(B)=	22.49	PASS
48	5240	12.92	3.715	16.64	46.080	23.01	or 10+10log(B)=	22.49	PASS
52	5260	12.93	4.583	17.51	56.415	30	or 17+10log(B)=	29.49	PASS
60	5300	13.94	4.583	18.53	71.241	30	or 17+10log(B)=	29.48	PASS
64	5320	12.97	4.583	17.55	56.896	30	or 17+10log(B)=	29.49	PASS
100	5500	11.95	4.662	16.61	45.854	30	or 17+10log(B)=	29.49	PASS
116	5580	12.90	4.662	17.56	57.014	30	or 17+10log(B)=	29.48	PASS
140	5700	11.96	4.662	16.62	45.903	30	or 17+10log(B)=	29.49	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.



Page: 86 of 255

802.11n_HT40_Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)		REQUIRED LIMIT (dBm)		RESULT
38	5190	10.94	1.800	12.74	18.774	23.01	or 10+10log(B)=	25.56	PASS
46	5230	13.95	1.800	15.75	37.545	23.01	or 10+10log(B)=	25.57	PASS
54	5270	13.93	1.800	15.73	37.373	30	or 17+10log(B)=	32.57	PASS
62	5310	10.94	1.800	12.74	18.774	30	or 17+10log(B)=	32.57	PASS
102	5510	10.95	1.840	12.79	18.991	30	or 17+10log(B)=	32.57	PASS
110	5550	12.94	1.840	14.78	30.030	30	or 17+10log(B)=	32.58	PASS
134	5670	12.94	1.840	14.78	30.030	30	or 17+10log(B)=	32.57	PASS

802.11n HT40 Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)		REQUIRED LIMIT (dBm)		RESULT
38	5190	10.93	-0.550	10.38	10.903	23.01	or 10+10log(B)=	25.56	PASS
46	5230	13.94	-0.550	13.39	21.805	23.01	or 10+10log(B)=	25.56	PASS
54	5270	13.92	1.340	15.26	33.539	30	or 17+10log(B)=	32.57	PASS
62	5310	10.93	1.340	12.27	16.848	30	or 17+10log(B)=	32.57	PASS
102	5510	10.93	1.460	12.39	17.320	30	or 17+10log(B)=	32.57	PASS
110	5550	12.92	1.460	14.38	27.388	30	or 17+10log(B)=	32.57	PASS
134	5670	12.93	1.460	14.39	27.451	30	or 17+10log(B)=	32.57	PASS

802.11n HT40 MIMO

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)		REQUIRED LIMIT (dBm)		RESULT
38	5190	10.90	3.715	14.62	28.967	23.01	or 10+10log(B)=	25.56	PASS
46	5230	13.92	3.715	17.63	57.985	23.01	or 10+10log(B)=	25.56	PASS
54	5270	13.90	4.583	18.49	70.592	30	or 17+10log(B)=	32.57	PASS
62	5310	10.90	4.583	15.48	35.352	30	or 17+10log(B)=	32.57	PASS
102	5510	10.91	4.662	15.57	36.046	30	or 17+10log(B)=	32.57	PASS
110	5550	12.91	4.662	17.57	57.118	30	or 17+10log(B)=	32.57	PASS
134	5670	12.90	4.662	17.57	57.108	30	or 17+10log(B)=	32.57	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.



Page: 87 of 255

802.11ac_VHT80_Ch0

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)		REQUIRED LIMIT (dBm)		RESULT
42	5210	11.00	1.800	12.80	19.068	23.01	or 10+10log(B)=	28.75	PASS
58	5290	10.99	1.800	12.79	19.024	30	or 17+10log(B)=	35.75	PASS
106	5530	11.00	1.840	12.84	19.244	30	or 17+10log(B)=	35.77	PASS

802.11ac_VHT80_Ch1

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)		REQUIRED LIMIT (dBm)		RESULT
42	5210	10.98	-0.550	10.43	11.049	23.01	or 10+10log(B)=	28.75	PASS
58	5290	10.98	1.340	12.32	17.073	30	or 17+10log(B)=	35.74	PASS
106	5530	10.99	1.460	12.45	17.592	30	or 17+10log(B)=	35.75	PASS

802.11ac_VHT80_MIMO

СН	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)		REQUIRED LIMIT (dBm)		RESULT
42	5210	10.92	3.715	14.64	29.095	23.01	or 10+10log(B)=	28.75	PASS
58	5290	10.89	4.583	15.47	35.256	30	or 17+10log(B)=	35.74	PASS
106	5530	10.89	4.662	15.55	35.913	30	or 17+10log(B)=	35.75	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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its 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.

Member of the SGS Group (SGS SA)



Page: 88 of 255

10 MAXIMUM POWER SPECTRAL DENSITY

Standard Applicable 10.1

FCC

OPERZTION Band	EUT CATEGORY		LIMIT
		Access Point (Master device)	17dBm/ MHz
U-NII-1		Fixed point-to-point Access Ponit	Trubin, wii iz
√		Mobile and portable client device	11dBm/ MHz
U-NII-2A			11dBm/ MHz
U-NII-2C			11dBm/ MHz
U-NII-3			30dBm/ 500kHz

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

ISED

OPERZTION 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

For equipment operating in the band 5725-5850 MHz, If transmitting antennas of directional gain greater than 6 dBi are used, the Maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Note:

As per FCC KDB 662911 D01

Unequal antenna gains, with equal transmit powers. For antenna gains given by G1, G2, ..., GN dBi.

- (i) If transmit signals are correlated, then Directional gain
- = $10 \log[(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2/N_{ANT}] dBi$

[Note the "20"s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]

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



Page: 89 of 255

	Effective Legacy Gain (dBi)	PSD Limit		
UNII-1	1.80	11.00	dBm/MHz	
UNII-2A	1.80	11.00	dBm/MHz	
U-NII-2C	1.84	11.00	dBm/MHz	
U-NII-3	1.84	30.00	dBm/500 kHz	

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.

Note: For the test of PSD at MIMO mode, the highest emission of worst case employing Measure and add 10 log (N) technical is reported on this report after the comparison between Main Antenna at single transmitting mode and Aux that yields the higher value. The MIMO transmitting mode produces higher value of outcome

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

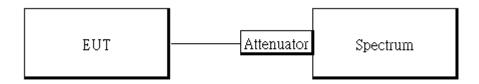


Page: 90 of 255

10.3 **Measurement Equipment Used**

SGS Conducted Room								
Name of Equip- ment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due			
Spectrum Analyzer	Agilent	N9010A	MY51440113	2018/06/20	2019/06/19			
Attenuator	Marvelous	MVE2213-10	RF31	2019/02/26	2020/02/25			
DC Block	PASTERNACK	PE8210	RF81	2019/02/26	2020/02/25			
Coaxial Cables	Woken	00100A1F1A185C	RF229	2019/02/26	2020/02/25			

Test Set-up 10.4



10.5 **Measurement Result**

POWER DENSITY 802.11a MODE								
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)			
5180	3.29	0.23	3.52	11	-7.48			
5220	-0.56	0.23	-0.33	11	-11.33			
5240	1.26	0.23	1.49	11	-9.51			
5260	-0.17	0.23	0.06	11	-10.94			
5300	1.31	0.23	1.54	11	-9.46			
5320	-0.61	0.23	-0.38	11	-11.38			
5500	-0.55	0.23	-0.32	11	-11.32			
5580	-1.17	0.23	-0.94	11	-11.94			
5700	-1.66	0.23	-1.43	11	-12.43			
5720 (U-NII 2C)	0.28	0.23	0.51	11	-10.49			
5720 (U-NII 3)	-0.95	0.23	-0.72	30	-30.72			
5745	-2.70	-	-2.70	30	-32.70			
5785	-1.80	-	-1.80	30	-31.80			
5825	-4.82	-	-4.82	30	-34.82			

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



Page: 91 of 255

POWER DENSITY 802.11n HT20 MODE								
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)			
5180	-0.85	0.20	-0.65	11	-11.65			
5220	-1.06	0.20	-0.86	11	-11.86			
5240	1.96	0.20	2.16	11	-8.84			
5260	1.49	0.20	1.69	11	-9.31			
5300	2.20	0.20	2.40	11	-8.60			
5320	-2.19	0.20	-1.99	11	-12.99			
5500	-2.99	0.20	-2.79	11	-13.79			
5580	1.39	0.20	1.59	11	-9.41			
5700	-0.10	0.20	0.10	11	-10.90			
5720 (U-NII 2C)	-0.52	0.20	-0.32	11	-11.32			
5720 (U-NII 3)	-2.01	0.20	-1.81	30	-31.81			
5745	-3.00	-	-3.00	30	-33.00			
5785	-2.01	-	-2.01	30	-32.01			
5825	-3.47	-	-3.47	30	-33.47			

POWER DENSITY 802.11n HT40 MODE								
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)			
5190	-9.23	0.74	-8.49	11	-19.49			
5230	-4.13	0.74	-3.39	11	-14.39			
5270	-8.45	0.74	-7.71	11	-18.71			
5310	-7.65	0.74	-6.91	11	-17.91			
5510	-9.69	0.74	-8.95	11	-19.95			
5550	-8.85	0.74	-8.11	11	-19.11			
5670	-8.08	0.74	-7.34	11	-18.34			
5710 (U-NII 2C)	-8.03	0.74	-7.29	11	-18.29			
5710 (U-NII 3)	10.56	0.74	11.30	30	-18.70			
5755	-12.00	-	-12.00	30	-42.00			
5795	-10.42	-	-10.42	30	-40.42			

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its 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.

Member of the SGS Group (SGS SA)



Page: 92 of 255

POWER DENSITY 802.11ac VHT80 MODE								
Frequency (MHz)	Factor Duty Factor		Limit (dBm)	Margin (dB)				
5210	-10.78	0.76	-10.02	11	-21.02			
5290	-10.78	0.76	-10.02	11	-21.02			
5530	-10.89	0.76	-10.13	11	-21.13			
5610	-10.37	0.76	-9.61	11	-20.61			
5690 (U-NII 2C)	-7.28	0.76	-6.52	11	-17.52			
5690 (U-NII 3)	-14.30	0.76	-13.54	30	-43.54			
5775	-11.67	-	-11.67	30	-41.67			

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.



Page: 93 of 255

	EIRP spectral density 802.11a MODE							
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP SD (dBm)	Limit (dBm)	Margin (dB)			
5180	3.52	1.80	5.32	10	-4.68			
5220	-0.33	1.80	1.47	10	-8.53			
5240	1.49	1.80	3.29	10	-6.71			

EIRP spectral density 802.11n HT20 MODE							
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP SD (dBm)	Limit (dBm)	Margin (dB)		
5180	-0.65	1.80	1.15	10	-8.85		
5220	-0.86	1.80	0.94	10	-9.06		
5240	2.16	1.80	3.96	10	-6.04		

EIRP spectral density 802.11n HT40 MODE							
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP SD (dBm)	Limit (dBm)	Margin (dB)		
5180	-8.49	1.80	-6.69	10	-16.69		
5220	-3.39	1.80	-1.59	10	-11.59		

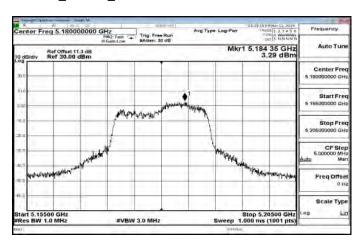
EIRP spectral density 802.11ac VHT80 MODE						
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP SD (dBm)	Limit (dBm)	Margin (dB)	
5210	-10.02	1.80	-8.22	10	-18.22	

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

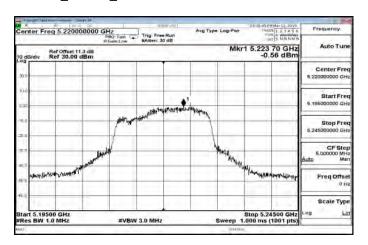


Page: 94 of 255

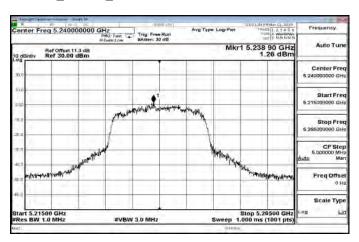
802.11a 20MHz 5180MHz



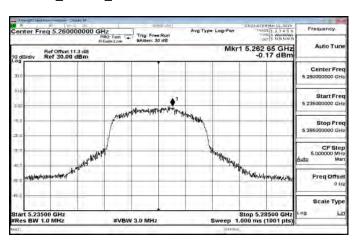
802.11a 20MHz 5220MHz



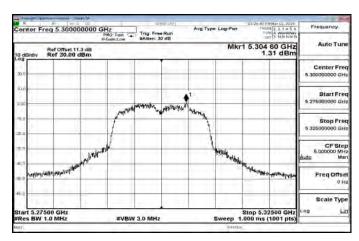
802.11a_20MHz_5240MHz



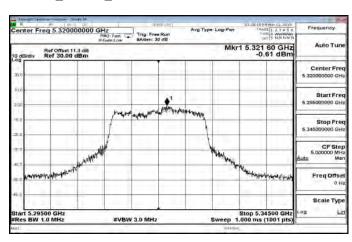
802.11a 20MHz 5260MHz



802.11a 20MHz 5300MHz



802.11a_20MHz_5320MHz

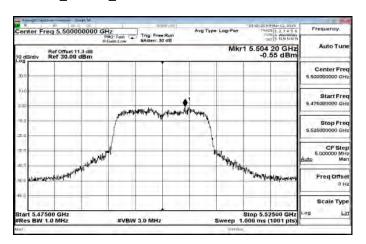


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

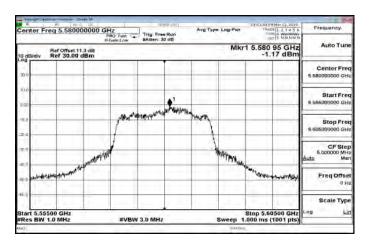


Page: 95 of 255

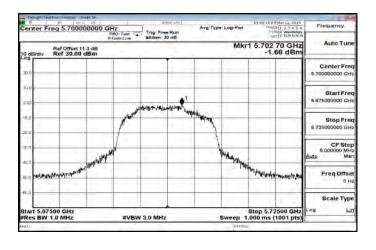
802.11a 20MHz 5500MHz



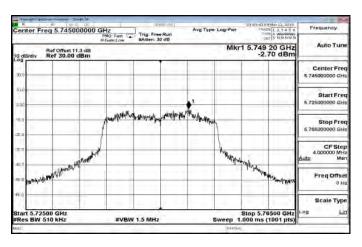
802.11a_20MHz_5580MHz



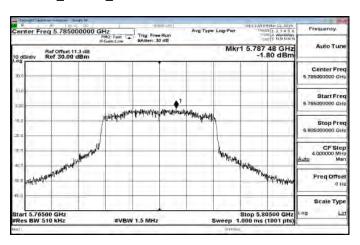
802.11a_20MHz_5700MHz



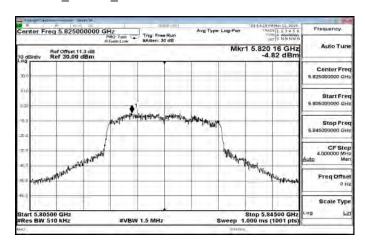
802.11a 20MHz 5745MHz



802.11a_20MHz_5785MHz



802.11a_20MHz_5825MHz



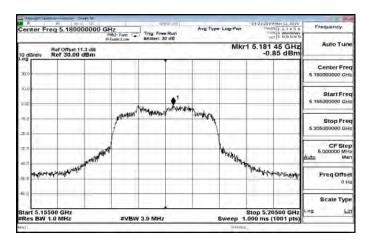
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留勿天。本報告未經本公司書面許可,不可部份複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms and conditions.htm and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms and conditions.htm and for electronic format documents, which is 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.

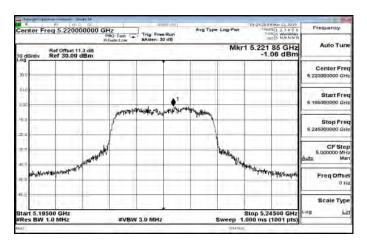


Page: 96 of 255

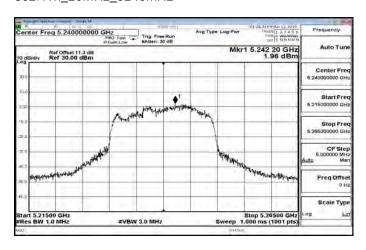
802.11n 20MHz 5180MHz



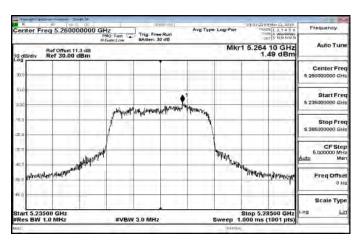
802.11n_20MHz_5220MHz



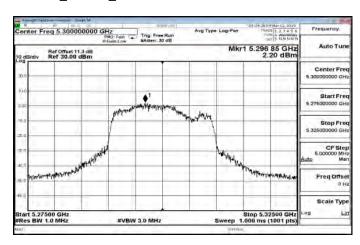
802.11n_20MHz_5240MHz



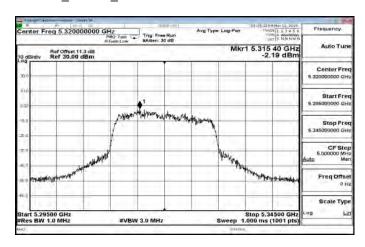
802.11n 20MHz 5260MHz



802.11n_20MHz_5300MHz



802.11n_20MHz_5320MHz

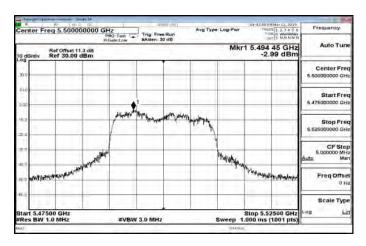


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

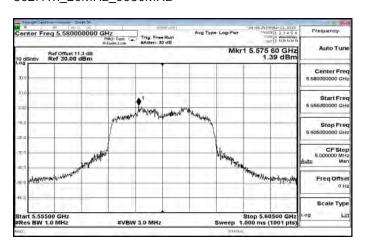


Page: 97 of 255

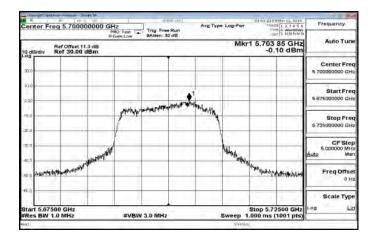
802.11n 20MHz 5500MHz



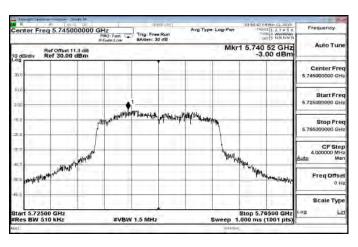
802.11n_20MHz_5580MHz



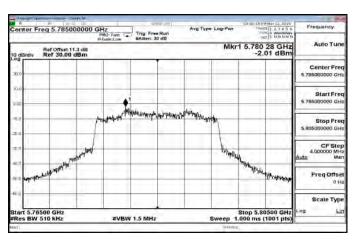
802.11n_20MHz_5700MHz



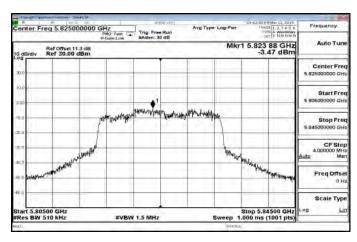
802.11n 20MHz 5745MHz



802.11n_20MHz_5785MHz



802.11n_20MHz_5825MHz

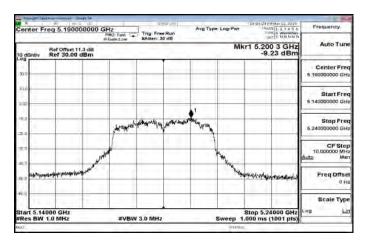


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

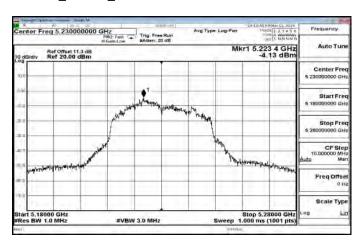


Page: 98 of 255

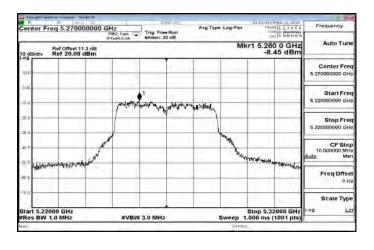
802.11n 40MHz 5190MHz



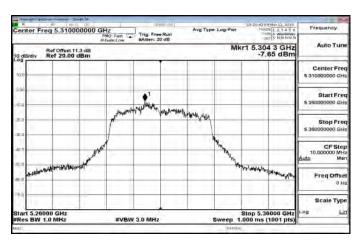
802.11n_40MHz_5230MHz



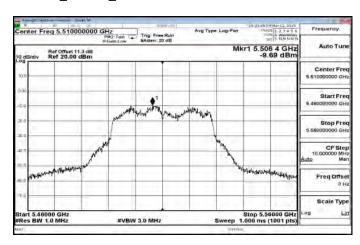
802.11n_40MHz_5270MHz



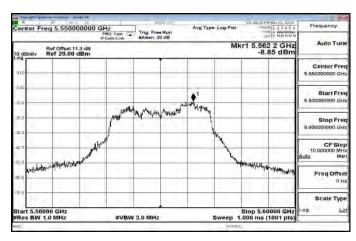
802.11n 40MHz 5310MHz



802.11n_40MHz_5510MHz



802.11n_40MHz_5550MHz

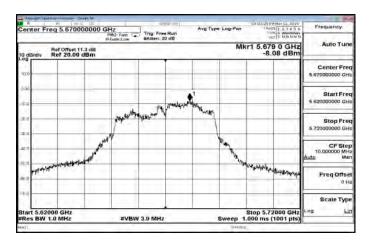


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

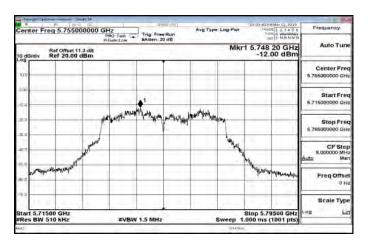


Page: 99 of 255

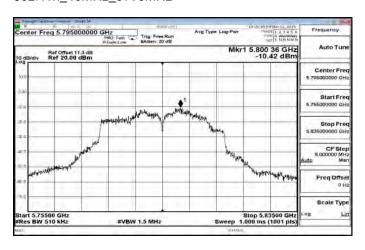
802.11n 40MHz 5670MHz



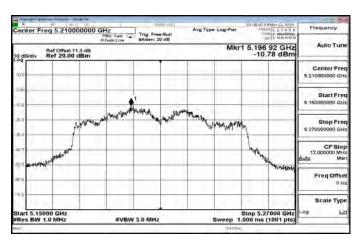
802.11n_40MHz_5755MHz



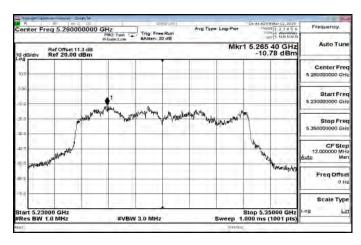
802.11n_40MHz_5795MHz



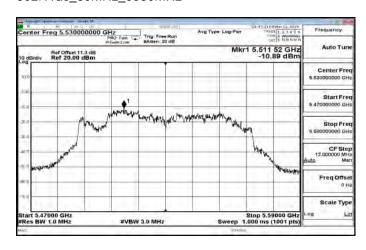
802.11ac 80MHz 5210MHz



802.11ac_80MHz_5290MHz



802.11ac_80MHz_5530MHz

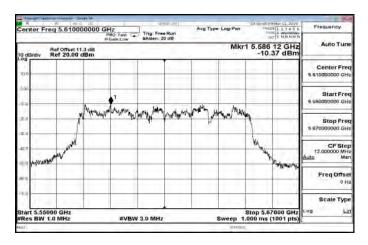


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

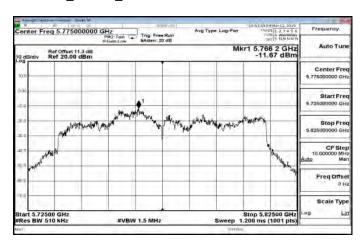


Page: 100 of 255

802.11ac 80MHz 5610MHz



802.11ac_80MHz_5775MHz



Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its 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

Member of the SGS Group (SGS SA)



Page: 101 of 255

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	CABLE TO LIMIT			
FCC KDB 789033 D02 General UNII Test Procedures New Rules	FIELD STRENGTH AT 3m			
Crim react reaction real real	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				
	PK:-27 (dBm/MHz) *1	PK: 68.2(dBµV/m) *1		
15.407(b)(4)(i)	PK:10 (dBm/MHz) *2	PK:105.2 (dBµV/m) *2		
RSS-247 6.2.4.2	PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	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.

^{*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: 102 of 255

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



Page: 103 of 255

11.2 **Measurement Equipment Used**

966A Chamber						
Name of Equipment	Manufacturer	Model	Serial Num- ber	Calibration Date	Calibration Due	
Bilog Antenna	Sunol Sciences	JB3	A030105	2018/07/13	2019/07/12	
Cable	HUBER SU- HNER	SUCOFLEX 104PEA	25157	2019/02/26	2020/02/25	
Cable	HUBER SU- HNER	SUCOFLEX 104PEA	20995	2019/02/26	2020/02/25	
Digital Ther- mo-Hygro Meter	WISEWIND	1206	D07	2019/01/30	2020/01/29	
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	2018/08/20	2019/08/19	
High Pass Fil- ters	WI	WHKX7.0/18G-8SS	45	2019/02/26	2020/02/25	
Horn Antenna	ETS LINDGREN	3116	00026370	2018/12/26	2019/12/25	
Loop Ant	ETS.LINDGREN	6502	148045	2018/10/08	2019/10/07	
Pre-Amplifier	EMEC	EM330	060609	2019/02/26	2020/02/25	
Pre-Amplifier	MITEQ	AMF-6F-260400-40-8P	985646	2019/02/26	2020/02/25	
Pre-Amplifier	HP	8449B	3008A00965	2019/02/26	2020/02/25	
PSA Series Spectrum An- alyzer	Agilent	E4446A	MY46180323	2018/05/31	2019/05/30	
Antenna Tow- er	ccs	CC-A-1F	N/A	N.C.R	N.C.R	
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R	
Turn Table	CCS CC-T-1F		N/A	N.C.R	N.C.R	
Software	e3 V6.11-20180413					

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

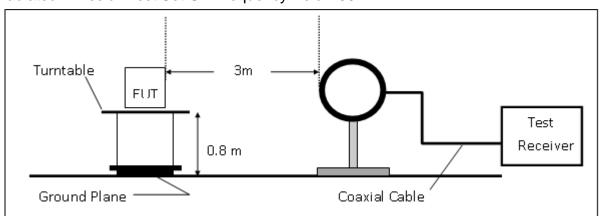


Page: 104 of 255

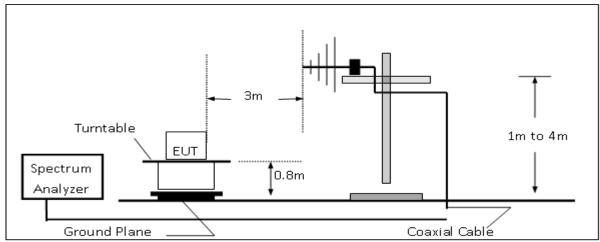


11.3 **Test SET-UP**

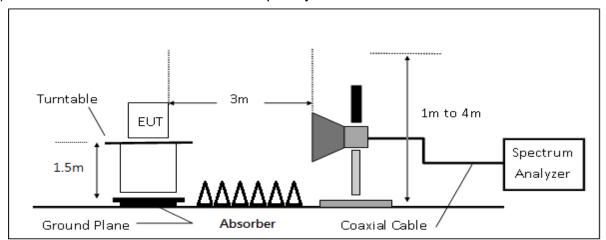
(A) Radiated Emission Test Set-UP Frequency Below 30MHz.



(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.



Page: 105 of 255

11.4 **Measurement Procedure**

- The EUT was placed on a turn table which is 0.8m above ground plane. 1.
- 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 frequency> 3. 1GHz above ground plane.
- The turn table shall rotate 360 degrees to determine the position of maximum emission level. 4.
- 5. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
- 6. Set the spectrum analyzer as RBW=120 kHz and VBW=300 kHz for Peak Detector (PK) and Quasi-peak (QP) at frequency below 1 GHz.
- Set the spectrum analyzer as RBW=1 MHz, VBW=3 MHz for Peak Detector at frequency 7. above 1 GHz.
- Set the spectrum analyzer as RBW=1 MHz, VBW=10 Hz (Duty cycle > 98%) or VBW ≥ 1/T 8. (Duty cycle < 98%) for Average Detector at frequency above 1 GHz.
- 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 $FS(dB\mu V/m) = SPA$. Reading level(dB μV) + Factor(dB)

Factor(dB) = Antenna Factor(dBµV/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 <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is 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 Compliance Certification Services Inc.



Page: 106 of 255

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) & RSS-GEN §6.13.2 was not reported.

Pre-scanned was done at frequency 5.47 GHz and 5.85 GHz for bandedge measurement of straddle channels 138, 142 and 144 which was 20dB lower than the limit per 15.31(o) & RSS-GEN §6.13.2 was not reported.

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



Page: 107 of 255

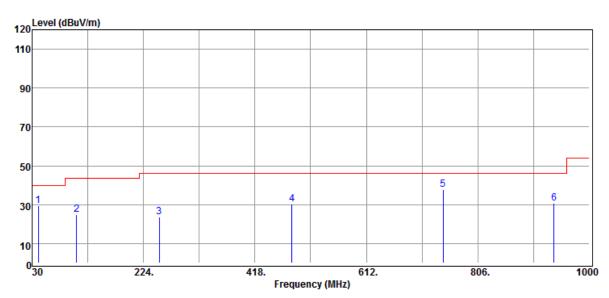
11.7 **Measurement Result**

Radiated Spurious Emission Measurement Result

Below 1GHz Worst-Case Data:

802.11a 5150~5250 MHz

:2019-03-12 Operation Mode :802.11a / Band 1 **Test Date** Test Mode :TX CH MID Temp./Humi. :22/56 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Engineer Test Channel :5220 MHz :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBμV/m	dBµV/m	dB
40.67	Peak	38.91	-9.47	29.44	40.00	-10.56
107.60	Peak	35.08	-10.12	24.96	43.50	-18.54
251.16	Peak	33.33	-9.79	23.54	46.00	-22.46
482.02	Peak	32.31	-2.03	30.28	46.00	-15.72
745.86	Peak	35.37	2.32	37.69	46.00	-8.31
938.89	Peak	25.60	5.04	30.64	46.00	-15.36

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

除非另有說明,此報告結果僅對測試之樣品負責、同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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

Member of the SGS Group (SGS SA)



Page: 108 of 255

Operation Mode Test Mode **EUT Pol**

Test Channel

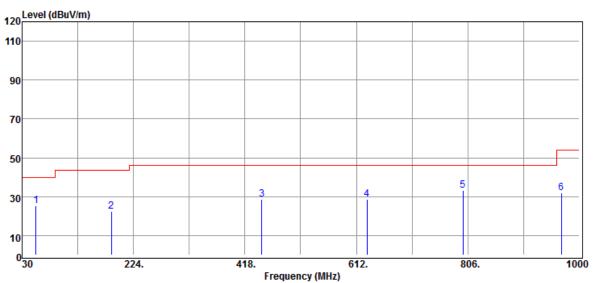
:802.11a / Band 1 :TX CH LOW :H Plan :5220 MHz

Test Date Temp./Humi. Antenna Pol. :2019-03-12

:22/56

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
54.25	Peak	40.81	-15.33	25.48	40.00	-14.52
185.20	Peak	32.84	-10.50	22.34	43.50	-21.16
447.10	Peak	31.82	-3.12	28.70	46.00	-17.30
630.43	Peak	27.87	0.86	28.73	46.00	-17.27
797.27	Peak	30.61	2.74	33.35	46.00	-12.65
968.96	Peak	25.63	6.55	32.18	54.00	-21.82

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

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its 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

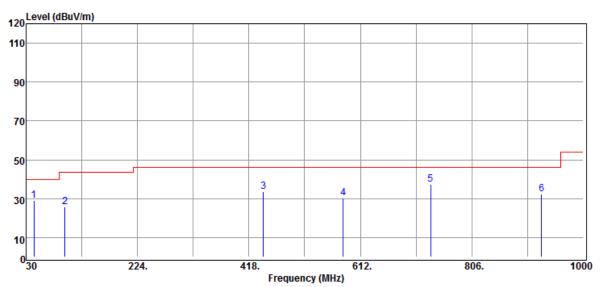
Member of the SGS Group (SGS SA)



Page: 109 of 255

802.11a 5250~5350 MHz

Operation Mode :802.11a / Band 2 **Test Date** :2019-03-12 Test Mode :TX CH MID Temp./Humi. :22/54 **EUT Pol** Antenna Pol. :H Plan :VERTICAL Test Channel :5300 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBµV/m	dB
43.58	Peak	40.65	-11.40	29.25	40.00	-10.75
97.90	Peak	38.47	-12.68	25.79	43.50	-17.71
443.22	Peak	36.82	-3.23	33.59	46.00	-12.41
581.93	Peak	31.70	-1.47	30.23	46.00	-15.77
734.22	Peak	35.80	1.72	37.52	46.00	-8.48
927.25	Peak	27.46	4.96	32.42	46.00	-13.58

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



Page: 110 of 255

Operation Mode Test Mode

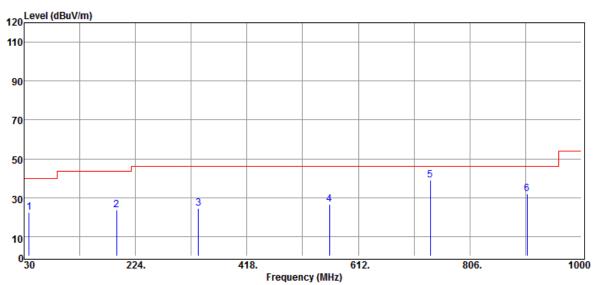
:802.11a / Band 2

:TX CH MID **EUT Pol** :H Plan Test Channel :5300 MHz

Test Date Temp./Humi. Antenna Pol. :2019-03-12 :22/54

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBµV/m	dB
						_
38.73	Peak	30.32	-7.88	22.44	40.00	-17.56
191.02	Peak	33.58	-10.04	23.54	43.50	-19.96
333.61	Peak	30.95	-6.43	24.52	46.00	-21.48
561.56	Peak	28.16	-1.50	26.66	46.00	-19.34
737.13	Peak	36.93	1.90	38.83	46.00	-7.17
905.91	Peak	27.13	4.82	31.95	46.00	-14.05

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.

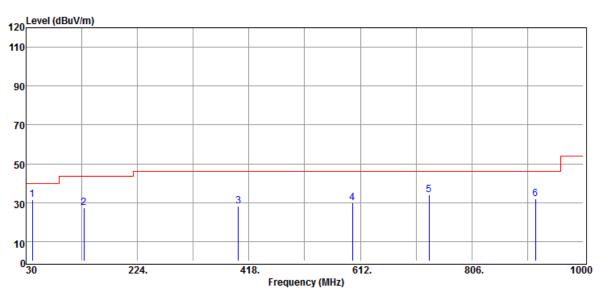
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 111 of 255

802.11a, 5470~5725 MHz

Operation Mode :802.11a / Band 3 **Test Date** :2019-03-12 Test Mode :TX CH MID Temp./Humi. :23/54 **EUT Pol** Antenna Pol. :H Plan :VERTICAL Test Channel :5580 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBμV/m	dBµV/m	dB
						_
40.67	Peak	40.89	-9.47	31.42	40.00	-8.58
130.88	Peak	35.91	-8.52	27.39	43.50	-16.11
399.57	Peak	32.92	-4.67	28.25	46.00	-17.75
598.42	Peak	30.68	-0.91	29.77	46.00	-16.23
731.31	Peak	32.59	1.58	34.17	46.00	-11.83
916.58	Peak	27.09	4.83	31.92	46.00	-14.08

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.



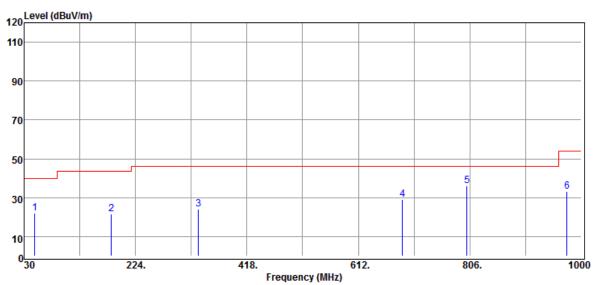
Page: 112 of 255

Operation Mode :802.11a / Band 3 Test Mode :TX CH MID

EUT Pol :H Plan Test Channel :5580 MHz **Test Date** :2019-03-12 Temp./Humi. :23/54

Antenna Pol. :HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
48.43	Peak	35.93	-13.97	21.96	40.00	-18.04
182.29	Peak	32.33	-10.64	21.69	43.50	-21.81
333.61	Peak	30.58	-6.43	24.15	46.00	-21.85
688.63	Peak	28.11	1.00	29.11	46.00	-16.89
801.15	Peak	33.20	2.99	36.19	46.00	-9.81
974.78	Peak	26.61	6.64	33.25	54.00	-20.75

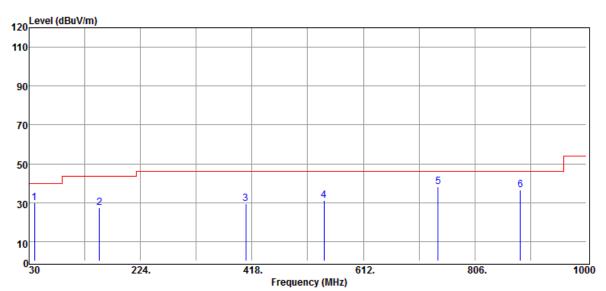
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 113 of 255

802.11a, 5725~5850 MHz

Operation Mode :802.11a / Band 4 **Test Date** :2019-03-12 Test Mode :TX CH MID Temp./Humi. :23/55 **EUT Pol** Antenna Pol. :H Plan :VERTICAL Test Channel :5785 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
39.70	Peak	38.34	-8.62	29.72	40.00	-10.28
152.22	Peak	37.01	-9.40	27.61	43.50	-15.89
407.33	Peak	33.85	-4.54	29.31	46.00	-16.69
543.13	Peak	32.52	-1.17	31.35	46.00	-14.65
741.98	Peak	35.86	2.16	38.02	46.00	-7.98
885.54	Peak	32.12	4.39	36.51	46.00	-9.49

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.



Page: 114 of 255

Operation Mode Test Mode **EUT Pol**

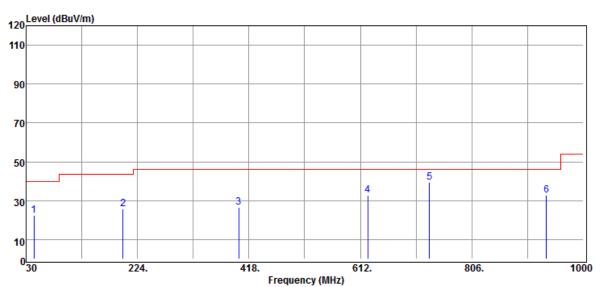
Test Channel

:802.11a / Band 4

:TX CH MID :H Plan :5785 MHz

Test Date Temp./Humi. Antenna Pol. :2019-03-12 :23/55 :HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBµV/m	dBµV/m	dB
43.58	Peak	33.63	-11.40	22.23	40.00	-17.77
198.78	Peak	34.30	-8.64	25.66	43.50	-17.84
400.54	Peak	31.41	-4.64	26.77	46.00	-19.23
624.61	Peak	32.23	0.62	32.85	46.00	-13.15
732.28	Peak	37.89	1.63	39.52	46.00	-6.48
935.98	Peak	27.65	5.06	32.71	46.00	-13.29

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



Page: 115 of 255

802.11ac VHT80, 5150~5250 MHz

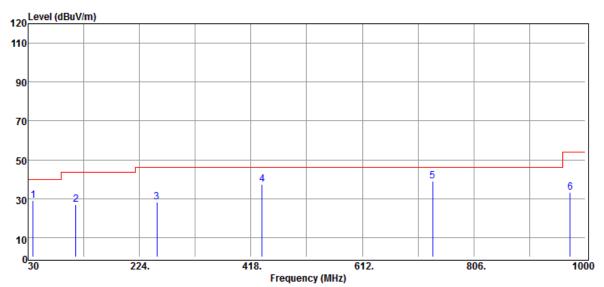
Operation Mode :802.11ac80 / Band 1

Test Mode :TX CH LOW **EUT Pol** :H Plan Test Channel :5210 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2019-03-12 :23/55

:VERTICAL :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBμ̈V	dB	dBµV/m	dBµV/m	dB
38.73	Peak	37.03	-7.88	29.15	40.00	-10.85
113.42	Peak	36.11	-8.98	27.13	43.50	-16.37
254.07	Peak	37.90	-9.68	28.22	46.00	-17.78
437.40	Peak	41.00	-3.48	37.52	46.00	-8.48
734.22	Peak	37.44	1.72	39.16	46.00	-6.84
973.81	Peak	26.65	6.64	33.29	54.00	-20.71

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.



Page: 116 of 255

Operation Mode Test Mode

:802.11ac80 / Band 1

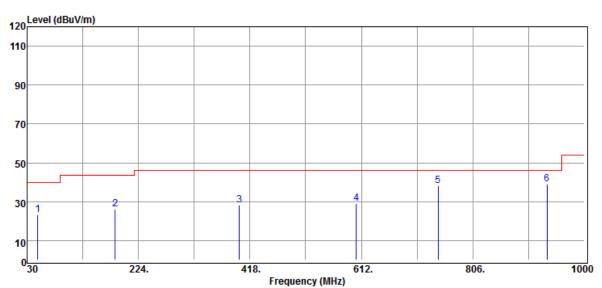
:TX CH LOW

EUT Pol Test Channel :H Plan :5210 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-12

:23/55

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBµV/m	dBµV/m	dB
48.43	Peak	37.16	-13.97	23.19	40.00	-16.81
183.26	Peak	36.74	-10.62	26.12	43.50	-17.38
399.57	Peak	32.98	-4.67	28.31	46.00	-17.69
603.27	Peak	29.83	-0.59	29.24	46.00	-16.76
745.86	Peak	36.08	2.32	38.40	46.00	-7.60
935.01	Peak	33.93	5.06	38.99	46.00	-7.01

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

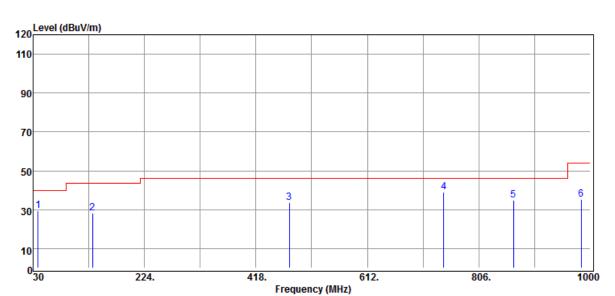
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 117 of 255

802.11ac VHT80, 5250~5350 MHz

Operation Mode :802.11ac80 / Band 2 **Test Date** :2019-03-12 Test Mode :TX CH HIGH Temp./Humi. :23/56 **EUT Pol** Antenna Pol. :H Plan :VERTICAL Test Channel :5290 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBµV/m	dBµV/m	dB
38.73	Peak	37.32	-7.88	29.44	40.00	-10.56
133.79	Peak	36.89	-8.67	28.22	43.50	-15.28
476.20	Peak	35.92	-2.12	33.80	46.00	-12.20
744.89	Peak	36.73	2.26	38.99	46.00	-7.01
866.14	Peak	30.72	3.99	34.71	46.00	-11.29
984.48	Peak	28.82	6.45	35.27	54.00	-18.73

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



Page: 118 of 255

Operation Mode Test Mode

:802.11ac80 / Band 2

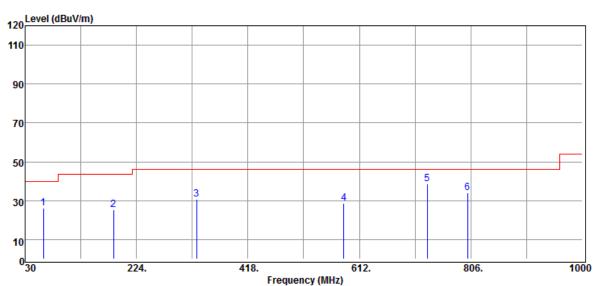
:TX CH HIGH

EUT Pol Test Channel :H Plan :5290 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-12

:23/56

:HORIZONTAL

Engineer :Jerry



	· ·· ·								
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin			
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB			
62.01	Peak	41.18	-15.05	26.13	40.00	-13.87			
184.23	Peak	35.91	-10.59	25.32	43.50	-18.18			
328.76	Peak	37.00	-6.37	30.63	46.00	-15.37			
584.84	Peak	30.06	-1.42	28.64	46.00	-17.36			
730.34	Peak	37.27	1.53	38.80	46.00	-7.20			
800.18	Peak	31.11	2.93	34.04	46.00	-11.96			

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



Page: 119 of 255

802.11ac VHT80, 5470~5725 MHz

Operation Mode :802.11ac80 / Band 3

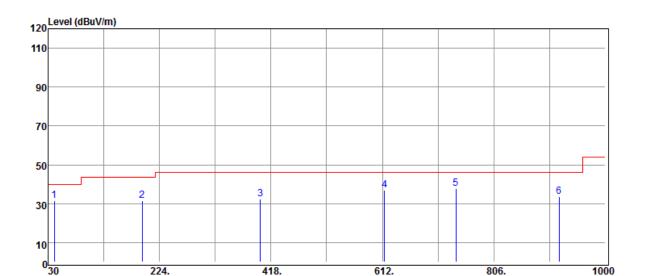
Test Mode :TX CH MID **EUT Pol** :H Plan Test Channel :5610 MHz

Test Date Temp./Humi. Antenna Pol.

Engineer

:2019-03-12 :23/57

:VERTICAL :Jerry



rrequency (minz)										
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin				
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB				
40.67	Peak	40.86	-9.47	31.39	40.00	-8.61				
193.93	Peak	41.26	-9.64	31.62	43.50	-11.88				
399.57	Peak	37.09	-4.67	32.42	46.00	-13.58				
615.88	Peak	36.90	0.07	36.97	46.00	-9.03				
740.04	Peak	35.51	2.10	37.61	46.00	-8.39				
919.49	Peak	28.55	4.91	33.46	46.00	-12.54				

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.



Page: 120 of 255

Operation Mode Test Mode

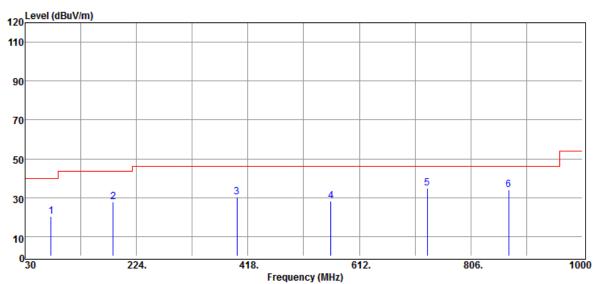
:802.11ac80 / Band 3

:TX CH MID

EUT Pol Test Channel :H Plan :5610 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-12 :23/57

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBµV/m	dBµV/m	dB
75.59	Peak	34.48	-14.31	20.17	40.00	-19.83
183.26	Peak	38.27	-10.62	27.65	43.50	-15.85
398.60	Peak	34.99	-4.71	30.28	46.00	-15.72
562.53	Peak	29.61	-1.49	28.12	46.00	-17.88
730.34	Peak	33.49	1.53	35.02	46.00	-10.98
871.96	Peak	30.27	3.97	34.24	46.00	-11.76

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.



Page: 121 of 255

802.11ac VHT80, 5725~5850 MHz

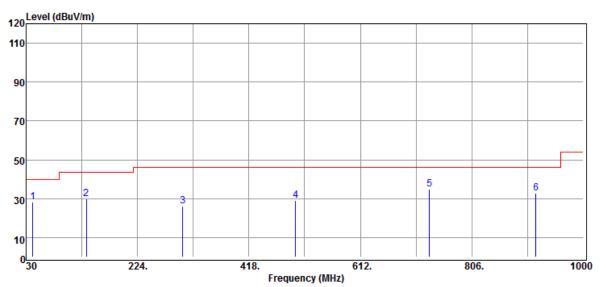
Operation Mode :802.11ac80 / Band 4

Test Mode :TX CH LOW **EUT Pol** :H Plan

Test Channel :5775 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-12

:23/57 :VERTICAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBµV/m	dBµV/m	dB
41.64	Peak	38.42	-10.03	28.39	40.00	-11.61
134.76	Peak	38.71	-8.73	29.98	43.50	-13.52
302.57	Peak	33.84	-7.48	26.36	46.00	-19.64
499.48	Peak	31.07	-2.10	28.97	46.00	-17.03
732.28	Peak	33.24	1.63	34.87	46.00	-11.13
917.55	Peak	27.91	4.85	32.76	46.00	-13.24

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 122 of 255

Operation Mode Test Mode

:802.11ac80 / Band 4

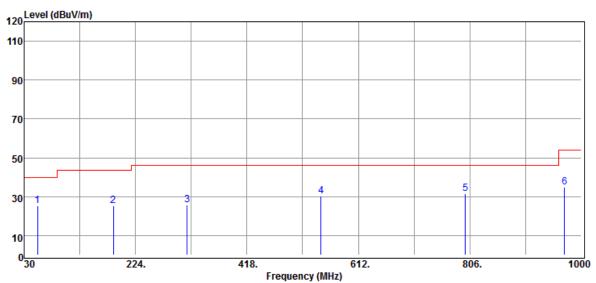
:TX CH LOW

EUT Pol :H Plan Test Channel :5775 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-12

:23/57

:HORIZONTAL

Engineer :Jerry



		-				
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
						_
53.28	Peak	40.54	-15.17	25.37	40.00	-14.63
185.20	Peak	35.94	-10.50	25.44	43.50	-18.06
314.21	Peak	32.54	-6.99	25.55	46.00	-20.45
547.01	Peak	31.41	-1.25	30.16	46.00	-15.84
798.24	Peak	28.65	2.81	31.46	46.00	-14.54
970.90	Peak	28.15	6.65	34.80	54.00	-19.20

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



:2019-03-12

Page: 123 of 255

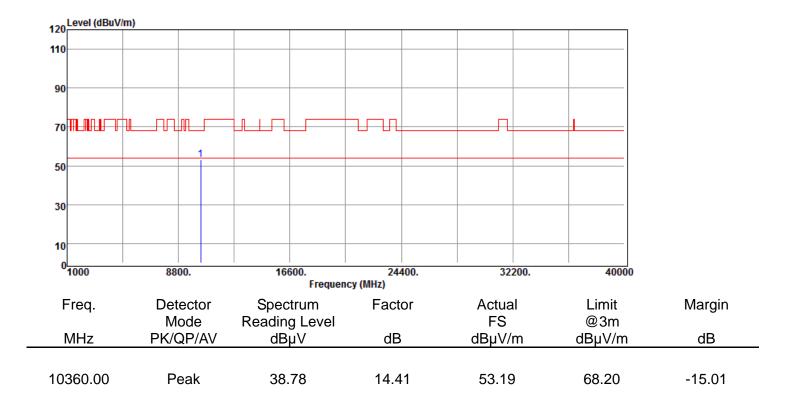
Above 1GHz Worst-Case Data:

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

Operation Mode :802.11a / Band 1 Test Date

Test Mode :TX CH LOW Temp./Humi. :23/54 **EUT Pol** :H Plan Antenna Pol. :VERTICAL

Test Channel :5180 MHz Engineer :Jerry



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

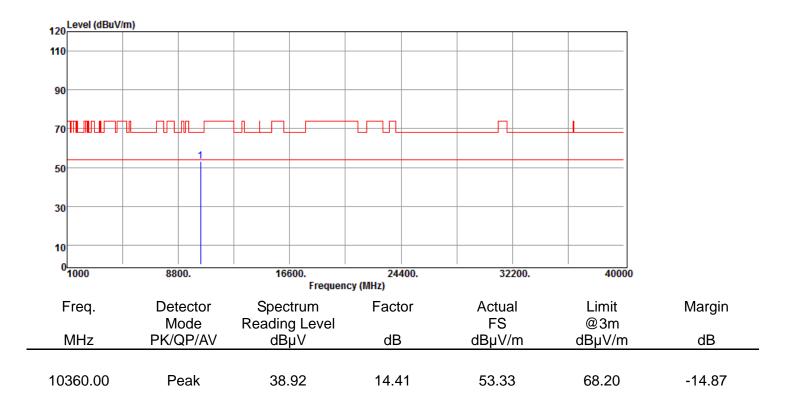


Page: 124 of 255

Operation Mode :802.11a / Band 1 **Test Date** :2019-03-12 Test Mode

:TX CH LOW Temp./Humi. :23/54 **EUT Pol** Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5180 MHz Engineer :Jerry



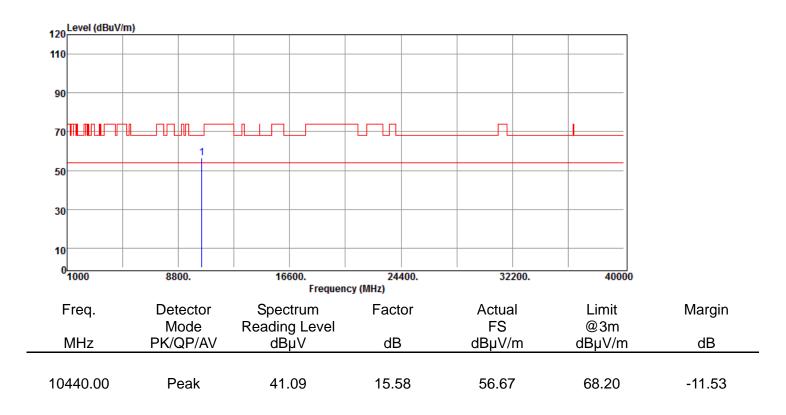
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 125 of 255

Operation Mode :802.11a / Band 1 Test Mode :TX CH MID **EUT Pol** :H Plan Test Channel :5220 MHz

Test Date :2019-03-12 Temp./Humi. :22/55 Antenna Pol. :VERTICAL Engineer :Jerry



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

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

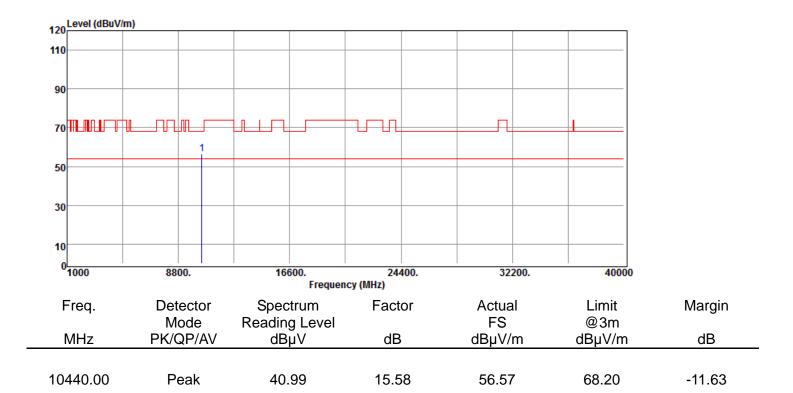


Page: 126 of 255

Operation Mode :802.11a / Band 1 **Test Date** :2019-03-12 Test Mode :TX CH MID Temp./Humi. :22/55

EUT Pol Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5220 MHz Engineer :Jerry



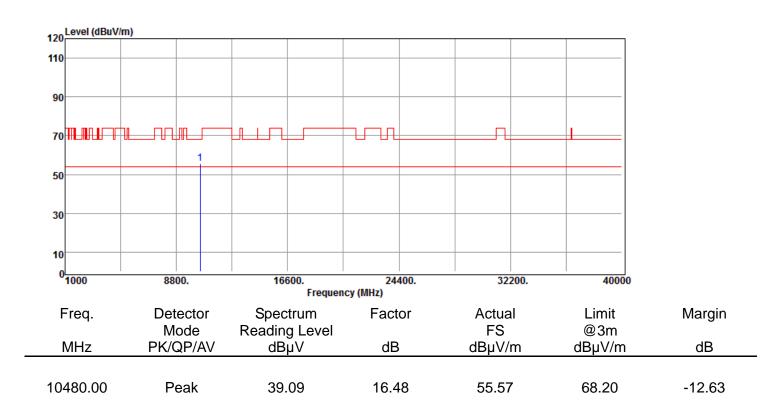
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 127 of 255

Operation Mode :802.11a / Band 1 Test Mode :TX CH HIGH **EUT Pol** :H Plan Test Channel :5240 MHz

Test Date :2019-03-12 Temp./Humi. :23/56 Antenna Pol. :VERTICAL Engineer :Jerry



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

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

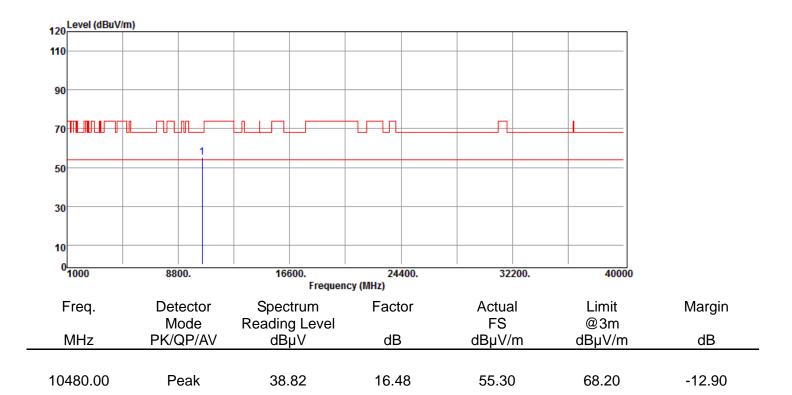


Page: 128 of 255

Operation Mode :802.11a / Band 1 **Test Date** :2019-03-12 Test Mode :TX CH HIGH Temp./Humi. :23/56

EUT Pol Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5240 MHz Engineer :Jerry



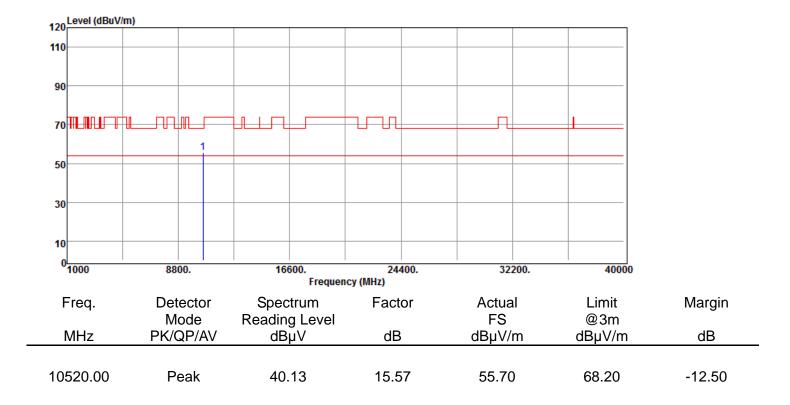
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 129 of 255

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

Operation Mode :802.11a / Band 2 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :23/55 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5260 MHz Engineer :Jerry



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

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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

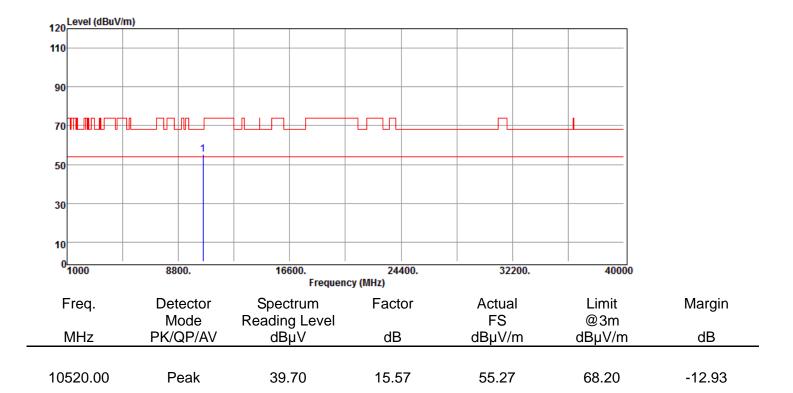


Page: 130 of 255

Operation Mode :802.11a / Band 2 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :23/55

EUT Pol Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5260 MHz Engineer :Jerry



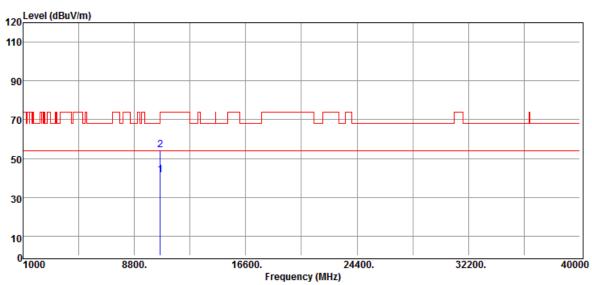
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 131 of 255

Operation Mode :802.11a / Band 2 Test Mode :TX CH MID **EUT Pol** :H Plan Test Channel :5300 MHz

Test Date :2019-03-12 Temp./Humi. :23/55 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
10600.00	Average	25.97	15.47	41.44	54.00	-12.56
10600.00	Peak	39.04	15.47	54.51	68.20	-13.69

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

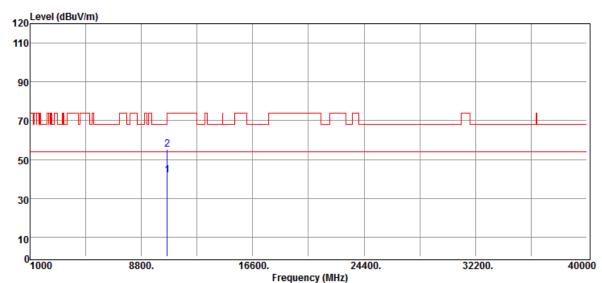


Page: 132 of 255

Operation Mode :802.11a / Band 2 **Test Date** :2019-03-12

Test Mode :TX CH MID Temp./Humi. :23/55 **EUT Pol** Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5300 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin		
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB		
10600.00	Average	26.53	15.47	42.00	54.00	-12.00		
10600.00	Peak	39.57	15.47	55.04	68.20	-13.16		

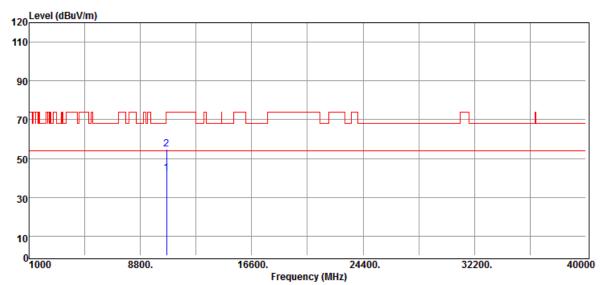
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 133 of 255

Operation Mode :802.11a / Band 2 Test Mode :TX CH HIGH **EUT Pol** :H Plan Test Channel :5320 MHz

Test Date :2019-03-12 Temp./Humi. :24/57 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
10640.00	Average	26.26	16.12	42.38	54.00	-11.62
10640.00	Peak	38.59	16.12	54.71	74.00	-19.29

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



Test Channel

Report No.: T190305W03-RP4

Page: 134 of 255

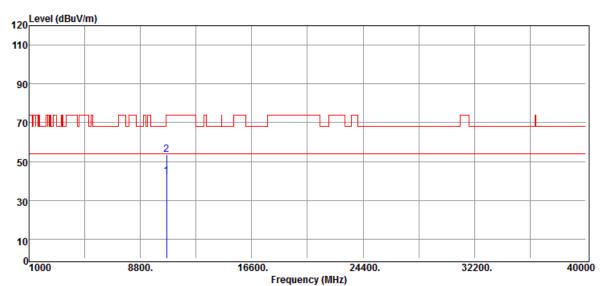
Operation Mode :802.11a / Band 2 Test Mode :TX CH HIGH **EUT Pol** :H Plan

:5320 MHz

Test Date Temp./Humi. Antenna Pol. :2019-03-12

:24/57 :HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
10640.00	Average	26.35	16.12	42.47	54.00	-11.53
10640.00	Peak	37.44	16.12	53.56	74.00	-20.44

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

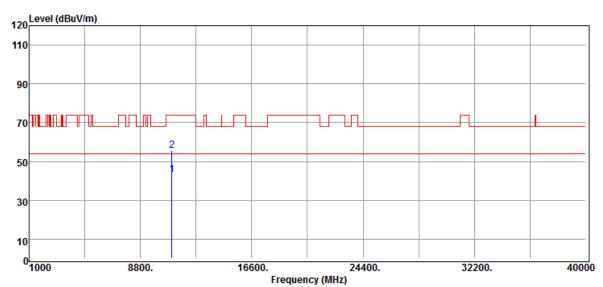
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 135 of 255

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

Operation Mode :802.11a / Band 3 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :24/56 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5500 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
11000.00	Average	25.30	17.75	43.05	54.00	-10.95
11000.00	Peak	37.97	17.75	55.72	74.00	-18.28

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

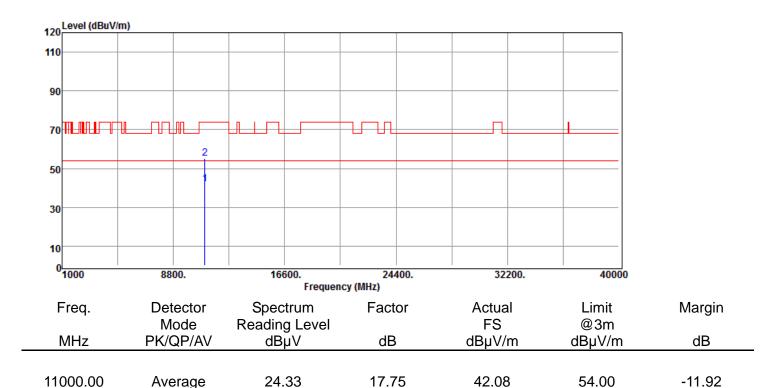
除非另有說明,此報告結果僅對測試之樣品負責、同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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



Page: 136 of 255

Operation Mode :802.11a / Band 3 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :24/56

EUT Pol Antenna Pol. :H Plan :HORIZONTAL Test Channel :5500 MHz Engineer :Jerry



17.75

55.18

74.00

-18.82

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

37.43

Company's sole responsibility is to its 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

11000.00

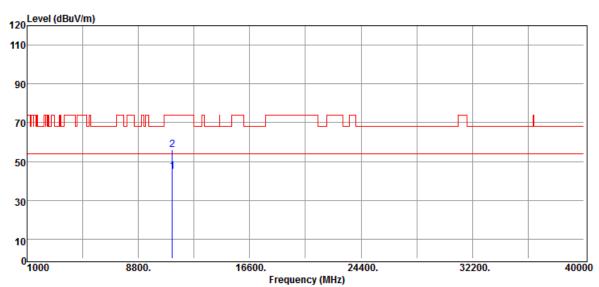
Peak



Page: 137 of 255

Operation Mode :802.11a / Band 3 Test Mode :TX CH MID **EUT Pol** :H Plan Test Channel :5580 MHz

Test Date :2019-03-12 Temp./Humi. :24/56 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11160.00	Average	28.37	16.53	44.90	54.00	-9.10
11160.00	Peak	39.37	16.53	55.90	74.00	-18.10

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

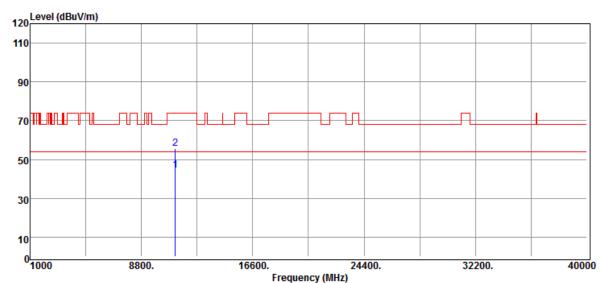


Page: 138 of 255

Operation Mode :802.11a / Band 3 **Test Date** :2019-03-12 Test Mode :TX CH MID Temp./Humi. :24/56

EUT Pol Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5580 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin			
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB			
11160.00	Average	27.78	16.53	44.31	54.00	-9.69			
11160.00	Peak	38.95	16.53	55.48	74.00	-18.52			

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.

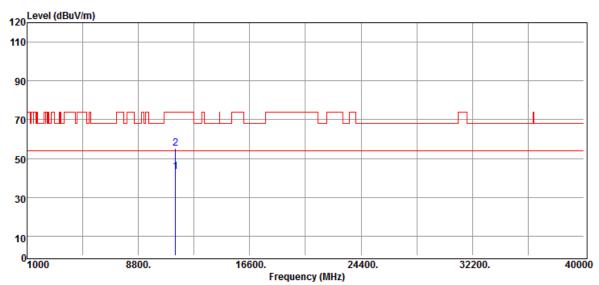


Page: 139 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

:802.11a / Band 3 :TX CH HIGH :H Plan :5700 MHz

Test Date :2019-03-12 Temp./Humi. :24/58 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11400.00	Average	26.61	16.48	43.09	54.00	-10.91
11400.00	Peak	38.72	16.48	55.20	74.00	-18.80

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



Page: 140 of 255

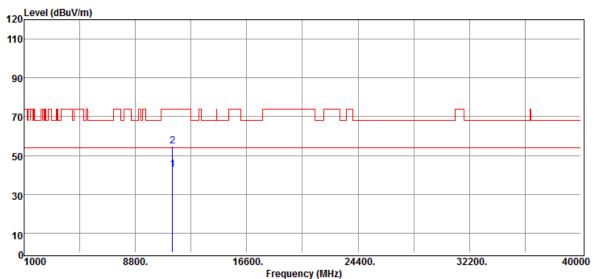
Operation Mode Test Mode

:802.11a / Band 3 :TX CH HIGH

EUT Pol :H Plan Test Channel :5700 MHz **Test Date** :2019-03-12 Temp./Humi. :24/58

Antenna Pol. :HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin					
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB					
11400.00	Average	26.09	16.48	42.57	54.00	-11.43					
11400.00	Peak	38.39	16.48	54.87	74.00	-19.13					

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

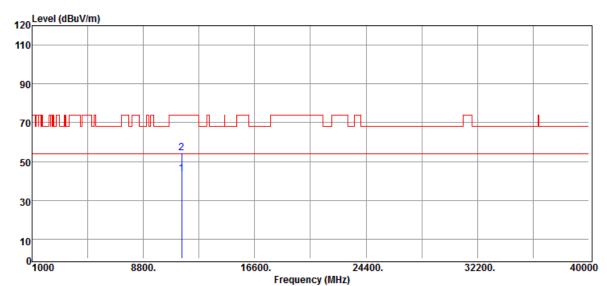
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 141 of 255

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

Operation Mode :802.11a / Band 4 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :24/58 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5745 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11490.00	Average	27.68	15.85	43.53	54.00	-10.47
11490.00	Peak	38.64	15.85	54.49	74.00	-19.51

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

除非另有說明,此報告結果僅對測試之樣品負責、同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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

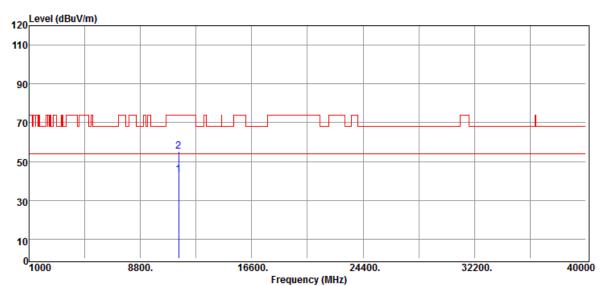


Page: 142 of 255

Operation Mode :802.11a / Band 4 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :24/58

EUT Pol Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5745 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11490.00	Average	27.42	15.85	43.27	54.00	-10.73
11490.00	Peak	39.32	15.85	55.17	74.00	-18.83

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 143 of 255

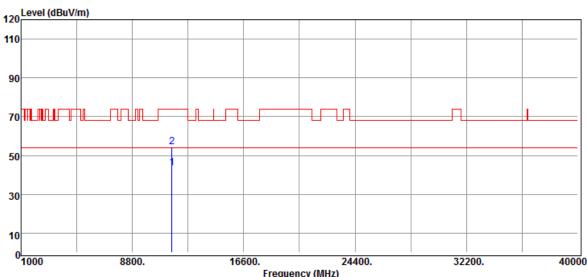
Operation Mode Test Mode **EUT Pol** Test Channel

:802.11a / Band 4 :TX CH MID

:H Plan :5785 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-12

:24/58 :VERTICAL

Engineer :Jerry



		rroquono	y ()				
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dBμV	dB	dBµV/m	dBµV/m	dB	
		<u>.</u>		<u>.</u>	-		
11570.00	Average	27.45	16.29	43.74	54.00	-10.26	
11570.00	Peak	38.22	16.29	54.51	74.00	-19.49	

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its 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



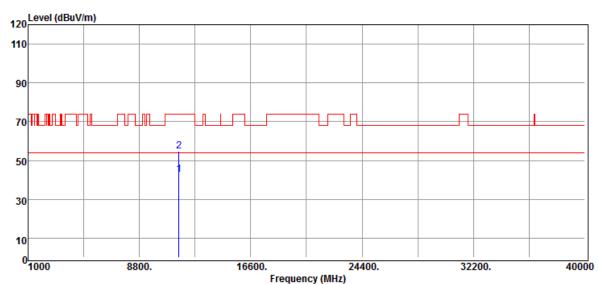
:2019-03-12

Page: 144 of 255

Operation Mode :802.11a / Band 4 **Test Date** Test Mode :TX CH MID Temp./Humi.

:24/58 **EUT Pol** Antenna Pol. :H Plan :HORIZONTAL Test Channel :5785 MHz

Engineer :Jerry



Freq. Detector Spectrum Factor	Actual FS	Limit @3m	Margin
Mode Reading Level		@ OIII	
MHz PK/QP/AV dBµV dB	dBµV/m	dBµV/m	dB
11570.00 Average 26.68 16.29	42.97	54.00	-11.03
11570.00 Peak 38.65 16.29	54.94	74.00	-19.06

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 145 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

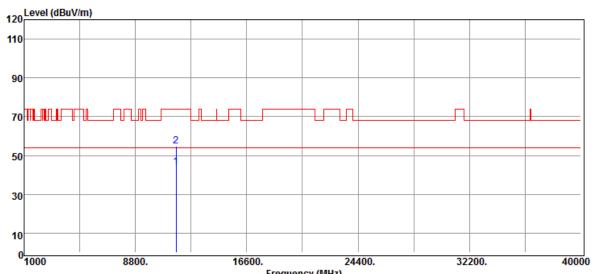
:802.11a / Band 4 :TX CH HIGH :H Plan

:5825 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2019-03-12 :23/59

:VERTICAL :Jerry



Frequency (winz)								
	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
_								
	11650.00	Average	27.21	16.61	43.82	54.00	-10.18	
	11650.00	Peak	38.13	16.61	54.74	74.00	-19.26	

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

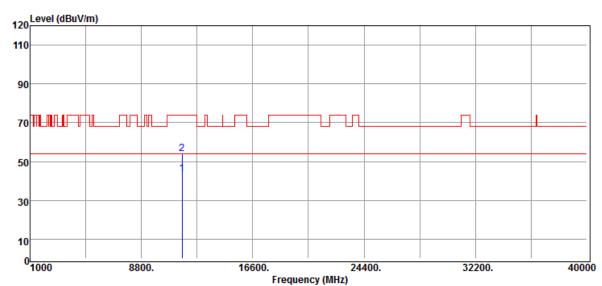


Page: 146 of 255

Operation Mode :802.11a / Band 4 **Test Date** :2019-03-12 Test Mode :TX CH HIGH Temp./Humi. :23/59

EUT Pol Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5825 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11650.00	Average	26.96	16.61	43.57	54.00	-10.43
11650.00	Peak	37.45	16.61	54.06	74.00	-19.94

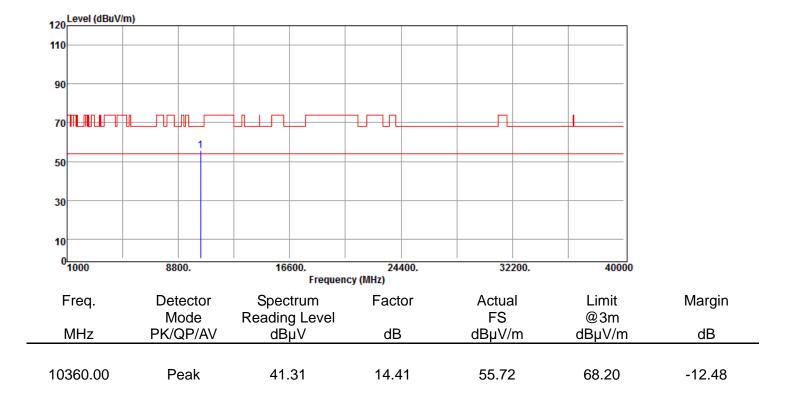
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 147 of 255

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

Operation Mode :802.11n20 / Band 1 Test Date :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :23/55 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5180 MHz Engineer :Jerry



Unless otherwise stated 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,同時此樣品僅保留卯天。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 be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

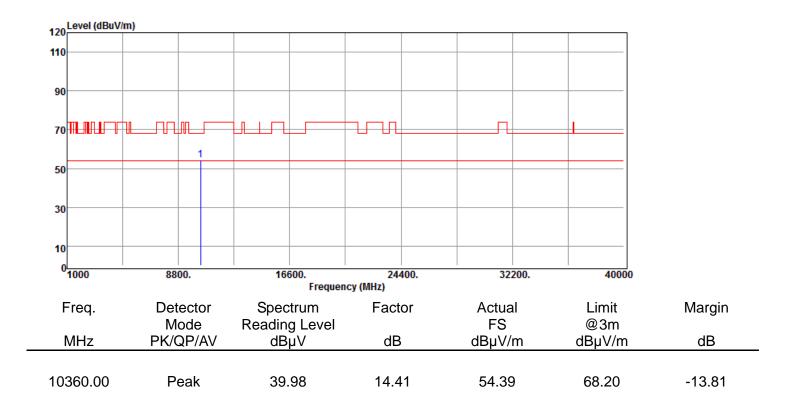


Page: 148 of 255

Operation Mode :802.11n20 / Band 1 **Test Date** :2019-03-12

Test Mode :TX CH LOW Temp./Humi. :23/55 **EUT Pol** Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5180 MHz Engineer :Jerry



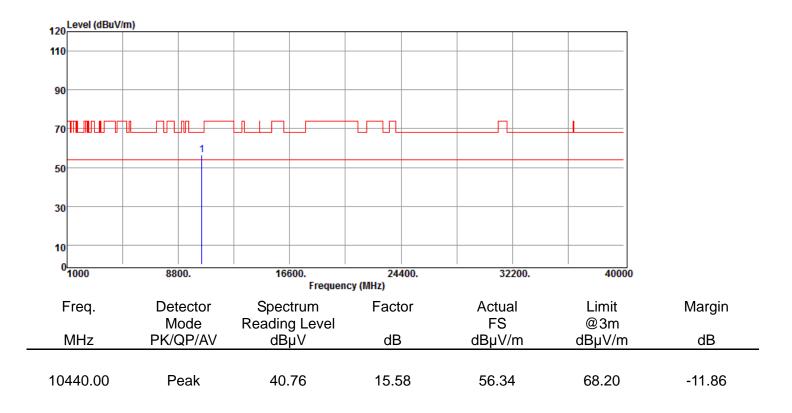
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 149 of 255

Operation Mode :802.11n20 / Band 1 Test Mode :TX CH MID **EUT Pol** :H Plan Test Channel :5220 MHz

Test Date :2019-03-12 Temp./Humi. :22/56 Antenna Pol. :VERTICAL Engineer :Jerry



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

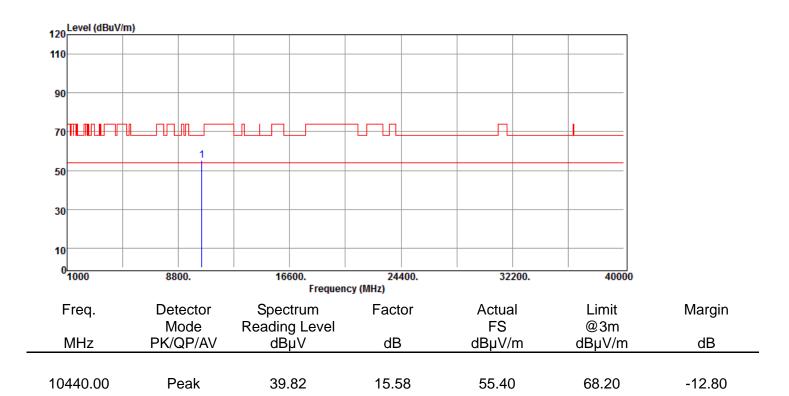


Page: 150 of 255

Operation Mode :802.11n20 / Band 1 **Test Date** :2019-03-12

Test Mode :TX CH MID Temp./Humi. :22/56 **EUT Pol** Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5220 MHz Engineer :Jerry



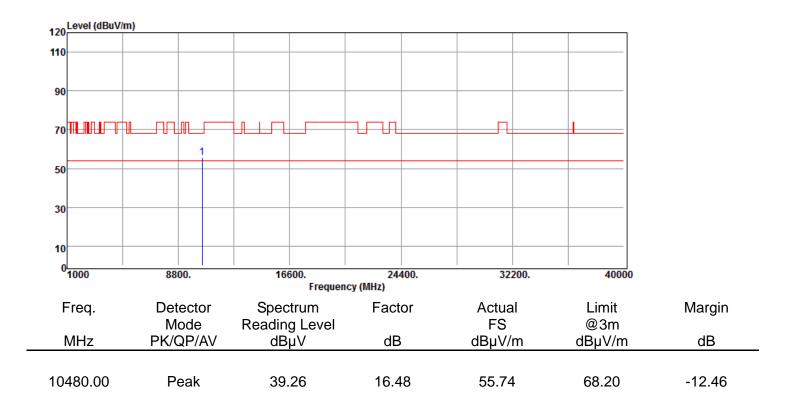
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 151 of 255

Operation Mode :802.11n20 / Band 1 Test Mode :TX CH HIGH **EUT Pol** :H Plan Test Channel :5240 MHz

Test Date :2019-03-12 Temp./Humi. :23/56 Antenna Pol. :VERTICAL Engineer :Jerry



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

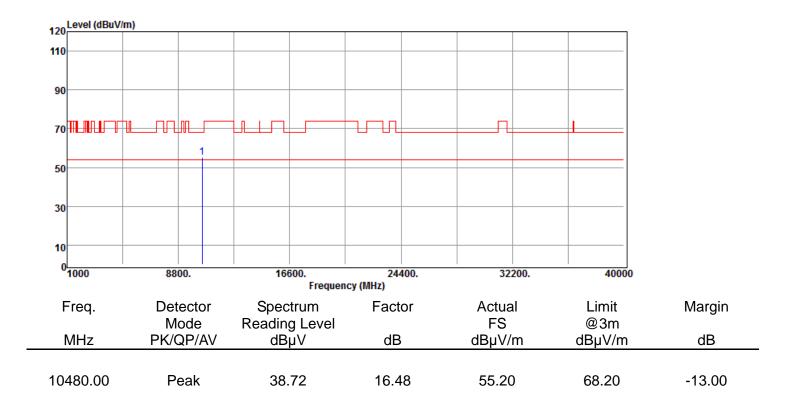


Page: 152 of 255

Operation Mode :802.11n20 / Band 1 **Test Date** :2019-03-12 Test Mode

:TX CH HIGH Temp./Humi. :23/56 **EUT Pol** Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5240 MHz Engineer :Jerry



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

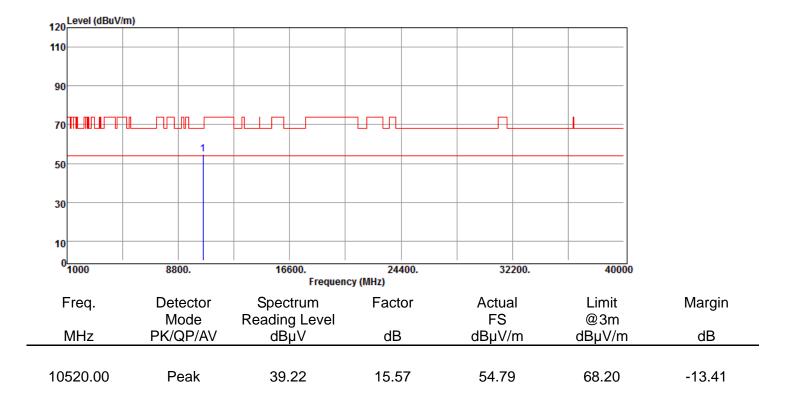
Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized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



Page: 153 of 255

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

Operation Mode :802.11n20 / Band 2 Test Date :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :23/55 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5260 MHz Engineer :Jerry



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

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format

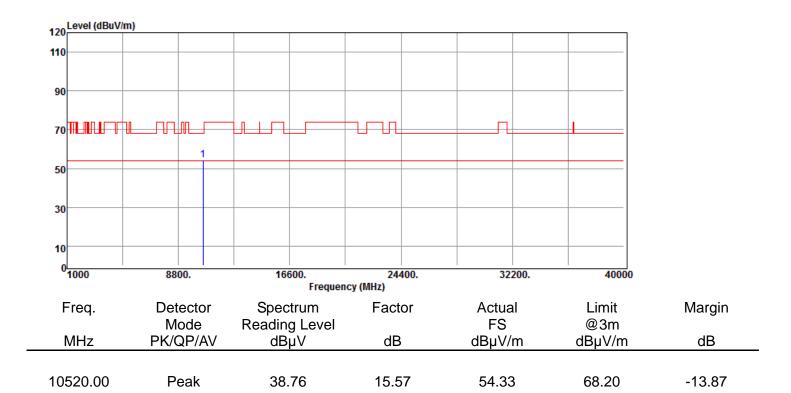


Page: 154 of 255

Operation Mode :802.11n20 / Band 2 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :23/55

EUT Pol Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5260 MHz Engineer :Jerry



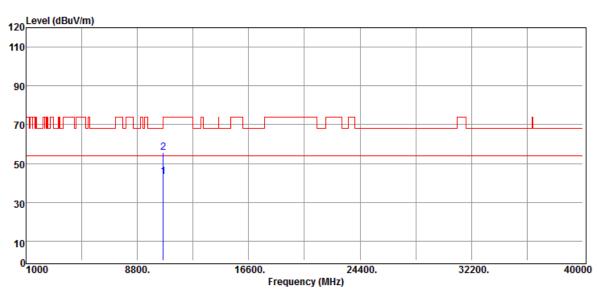
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 155 of 255

Operation Mode :802.11n20 / Band 2 Test Mode :TX CH MID **EUT Pol** :H Plan Test Channel :5300 MHz

Test Date :2019-03-12 Temp./Humi. :23/55 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
10600.00	Average	27.67	15.47	43.14	54.00	-10.86
10600.00	Peak	40.04	15.47	55.51	68.20	-12.69

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

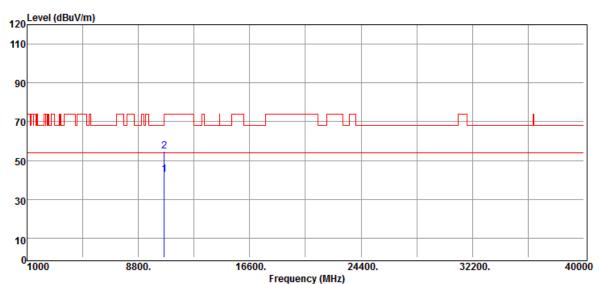


Page: 156 of 255

Operation Mode :802.11n20 / Band 2 **Test Date** :2019-03-12 Test Mode :TX CH MID Temp./Humi. :23/55

EUT Pol Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5300 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
10600.00	Average	27.34	15.47	42.81	54.00	-11.19
10600.00	Peak	39.34	15.47	54.81	68.20	-13.39

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

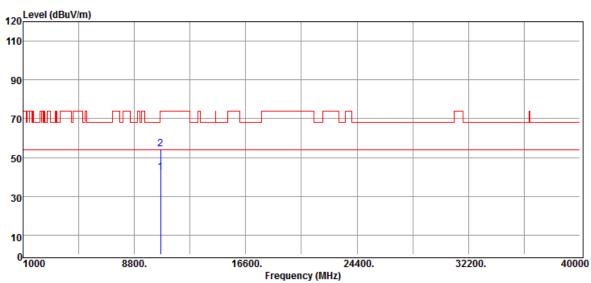
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 157 of 255

Operation Mode :802.11n20 / Band 2 Test Mode :TX CH HIGH **EUT Pol** :H Plan Test Channel :5320 MHz

Test Date :2019-03-12 Temp./Humi. :24/58 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
10640.00	Average	26.21	16.12	42.33	54.00	-11.67
10640.00	Peak	38.42	16.12	54.54	74.00	-19.46

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

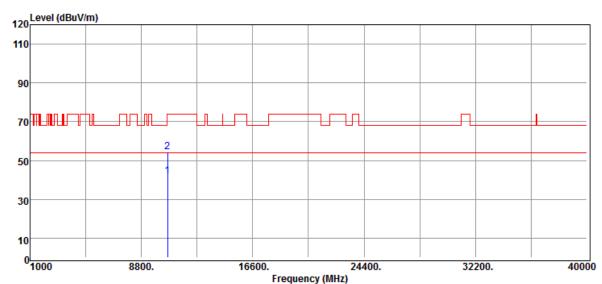


Page: 158 of 255

Operation Mode :802.11n20 / Band 2 **Test Date** :2019-03-12 Test Mode

:TX CH HIGH Temp./Humi. :24/58 **EUT Pol** Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5320 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
10640.00	Average	25.95	16.12	42.07	54.00	-11.93
10640.00	Peak	38.10	16.12	54.22	74.00	-19.78

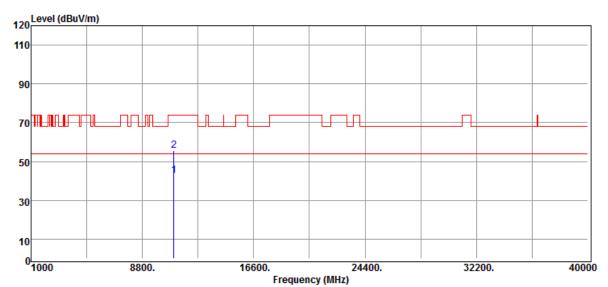
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 159 of 255

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

Operation Mode :802.11n20 / Band 3 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :24/56 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5500 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
11000.00	Average	25.16	17.75	42.91	54.00	-11.09
11000.00	Peak	37.97	17.75	55.72	74.00	-18.28

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

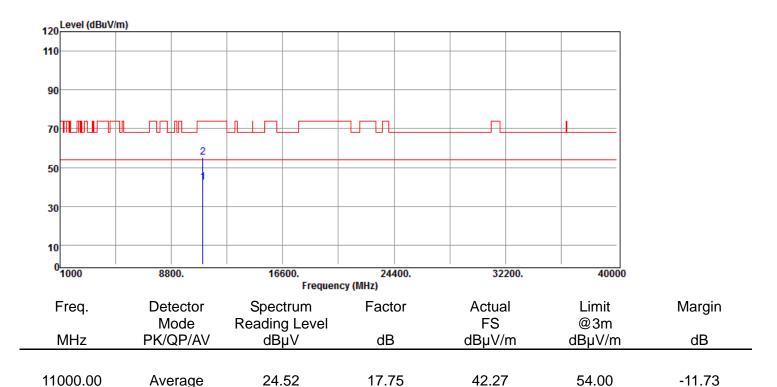
除非另有說明,此報告結果僅對測試之樣品負責、同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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



Page: 160 of 255

Operation Mode :802.11n20 / Band 3 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :24/56

EUT Pol Antenna Pol. :H Plan :HORIZONTAL Test Channel :5500 MHz Engineer :Jerry



17.75

55.38

74.00

-18.62

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.

37.63

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its 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

11000.00

Peak



Page: 161 of 255

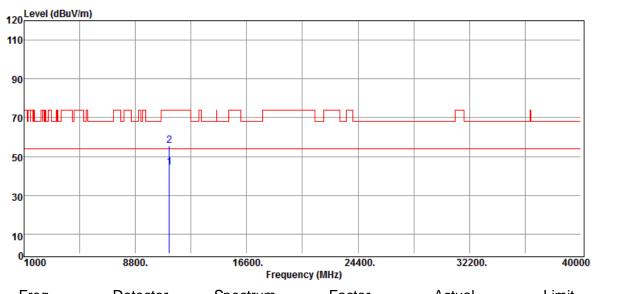
Operation Mode Test Mode **EUT Pol** Test Channel

:802.11n20 / Band 3 :TX CH MID

:H Plan :5580 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-12

:24/56 :VERTICAL

Engineer :Jerry



· ····································								
	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
	11160.00	Average	27.79	16.53	44.32	54.00	-9.68	
	11160.00	Peak	39.14	16.53	55.67	74.00	-18.33	

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its 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



:2019-03-12

Page: 162 of 255

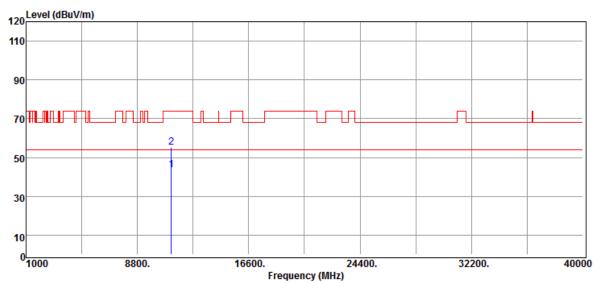
Operation Mode Test Mode

:802.11n20 / Band 3 :TX CH MID

EUT Pol :H Plan Test Channel :5580 MHz **Test Date** Temp./Humi.

:24/56 Antenna Pol. :HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
						_
11160.00	Average	27.14	16.53	43.67	54.00	-10.33
11160.00	Peak	38.72	16.53	55.25	74.00	-18.75

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



Page: 163 of 255

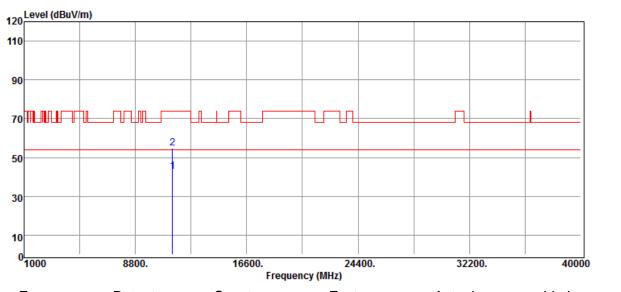
Operation Mode Test Mode **EUT Pol** Test Channel

:802.11n20 / Band 3 :TX CH HIGH

:H Plan :5700 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-12

:24/58 :VERTICAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
	_					
11400.00	Average	26.42	16.48	42.90	54.00	-11.10
11400.00	Peak	38.48	16.48	54.96	74.00	-19.04

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



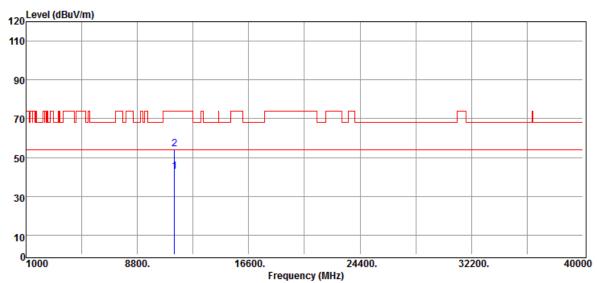
Page: 164 of 255

Operation Mode :802.11n20 / Band 3 Test Mode :TX CH HIGH

EUT Pol :H Plan Test Channel :5700 MHz **Test Date** :2019-03-12 Temp./Humi. :24/58

Antenna Pol. :HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
11400.00	Average	26.46	16.48	42.94	54.00	-11.06
11400.00	Peak	38.02	16.48	54.50	74.00	-19.50

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.



Page: 165 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

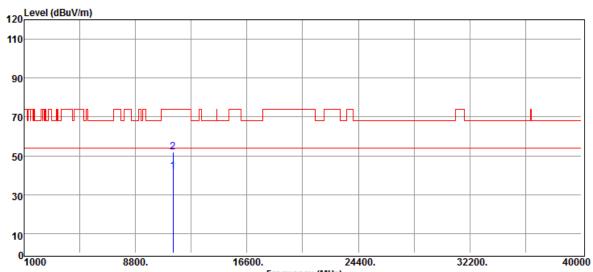
:802.11n20 / Band 3-4

:TX CH MID

:H Plan :5720 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-12

:20/54 :VERTICAL

Engineer :Jerry



Frequency (MHz)									
	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin		
	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB		
	11440.00	Average	24.89	17.09	41.98	54.00	-12.02		
	11440.00	Peak	34.93	17.09	52.02	74.00	-21.98		

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its 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

程智科技股份有限公司



Page: 166 of 255

Operation Mode Test Mode

:802.11n20 / Band 3-4

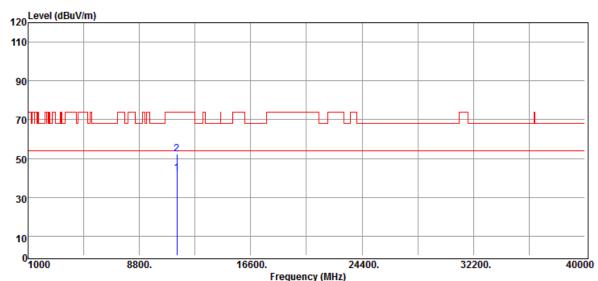
:TX CH MID

EUT Pol Test Channel :H Plan :5720 MHz **Test Date** Temp./Humi. Antenna Pol.

:2019-03-12 :20/54

:HORIZONTAL

Engineer :Jerry



riodasiis) (iiii2)								
Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin			
PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB			
Average	25.14	17.09	42.23	54.00	-11.77			
Peak	35.37	17.09	52.46	74.00	-21.54			
	Mode PK/QP/AV Average	Detector Spectrum Mode Reading Level PK/QP/AV dBµV Average 25.14	Detector Spectrum Factor Mode Reading Level PK/QP/AV dBµV dB Average 25.14 17.09	Detector Spectrum Factor Actual Mode Reading Level FS HK/QP/AV dBμV dB dBμV/m Average 25.14 17.09 42.23	Detector Mode PK/QP/AVSpectrum Reading Level dBμVFactor FS dBActual FS dBμV/mLimit G G M G BμV/mAverage25.1417.0942.2354.00			

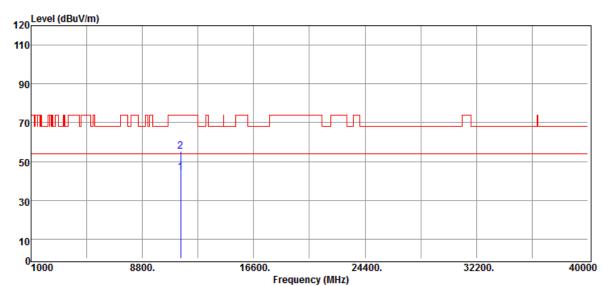
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 167 of 255

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

Operation Mode :802.11n20 / Band 4 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :24/58 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5745 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
11490.00	Average	28.60	15.85	44.45	54.00	-9.55
11490.00	Peak	39.32	15.85	55.17	74.00	-18.83

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

除非另有說明,此報告結果僅對測試之樣品負責、同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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

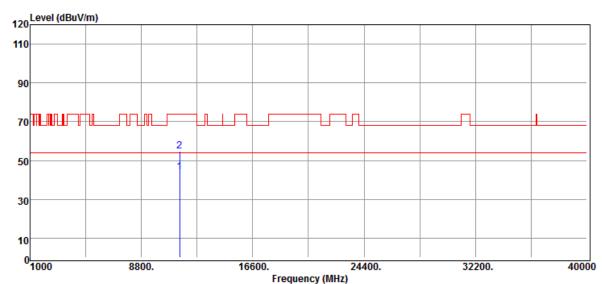


Page: 168 of 255

Operation Mode :802.11n20 / Band 4 **Test Date** :2019-03-12 Test Mode

:TX CH LOW Temp./Humi. :24/58 **EUT Pol** Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5745 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
11490.00	Average	28.12	15.85	43.97	54.00	-10.03	
11490.00	Peak	38.89	15.85	54.74	74.00	-19.26	

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.



Page: 169 of 255

Operation Mode Test Mode **EUT Pol**

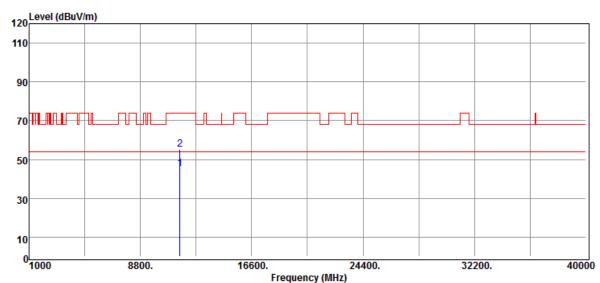
Test Channel

:802.11n20 / Band 4 :TX CH MID

:H Plan :5785 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-12

:24/58 :VERTICAL

Engineer :Jerry



	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin		
	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB		
	11570.00	Average	28.80	16.29	45.09	54.00	-8.91		
	11570.00	Peak	38.80	16.29	55.09	74.00	-18.91		

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

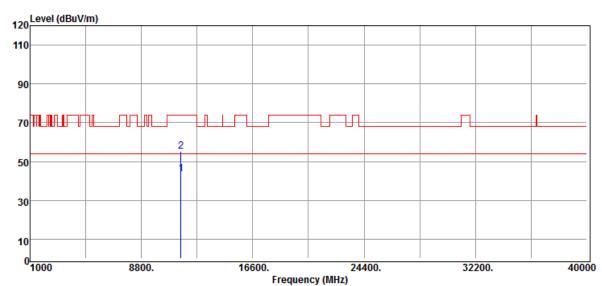


Page: 170 of 255

Operation Mode :802.11n20 / Band 4 **Test Date** :2019-03-12

Test Mode :TX CH MID Temp./Humi. :24/58 **EUT Pol** Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5785 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
11570.00	Average	27.25	16.29	43.54	54.00	-10.46
11570.00	Peak	38.87	16.29	55.16	74.00	-18.84

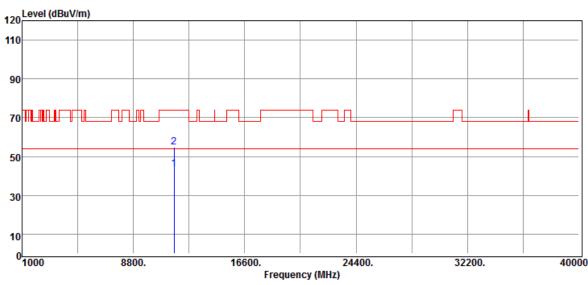
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 171 of 255

Operation Mode :802.11n20 / Band 4 Test Mode :TX CH HIGH **EUT Pol** :H Plan Test Channel :5825 MHz

Test Date :2019-03-12 Temp./Humi. :23/57 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11650.00	Average	26.96	16.61	43.57	54.00	-10.43
11650.00	Peak	38.28	16.61	54.89	74.00	-19.11

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



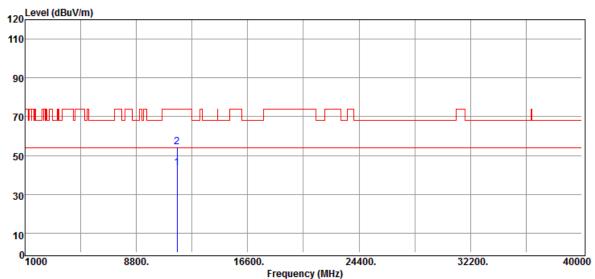
Page: 172 of 255

Operation Mode :802.11n20 / Band 4 Test Mode :TX CH HIGH

EUT Pol :H Plan Test Channel :5825 MHz **Test Date** :2019-03-12 Temp./Humi. :23/57

Antenna Pol. :HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11650.00	Average	26.96	16.61	43.57	54.00	-10.43
11650.00	Peak	37.75	16.61	54.36	74.00	-19.64

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.

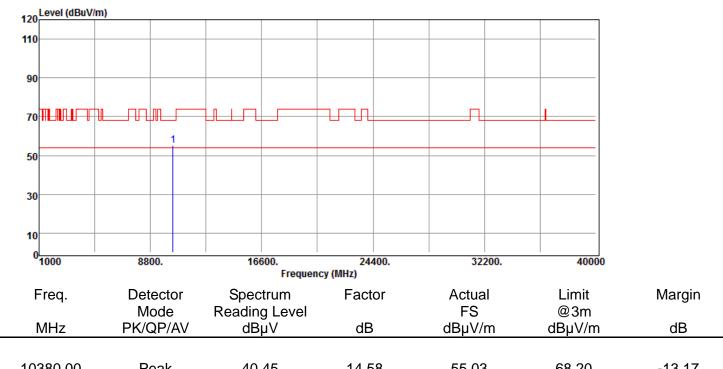
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 173 of 255

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

Operation Mode :802.11n40 / Band 1 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :23/59 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5190 MHz Engineer :Jerry



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
10380.00	Peak	40.45	14.58	55.03	68.20	-13.17

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 <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is 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

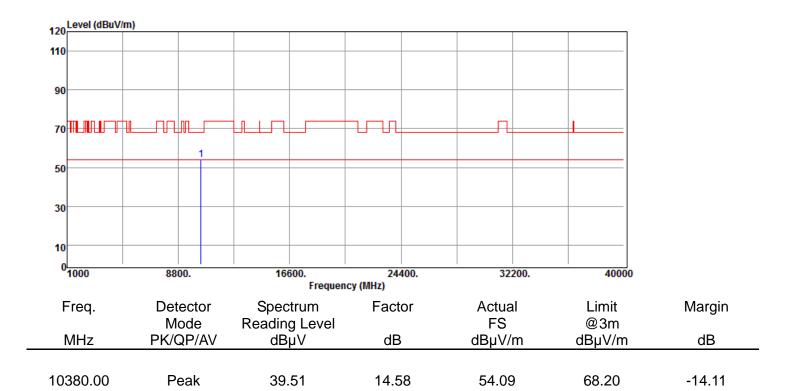


Page: 174 of 255

Operation Mode :802.11n40 / Band 1 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :23/59

EUT Pol Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5190 MHz Engineer :Jerry



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

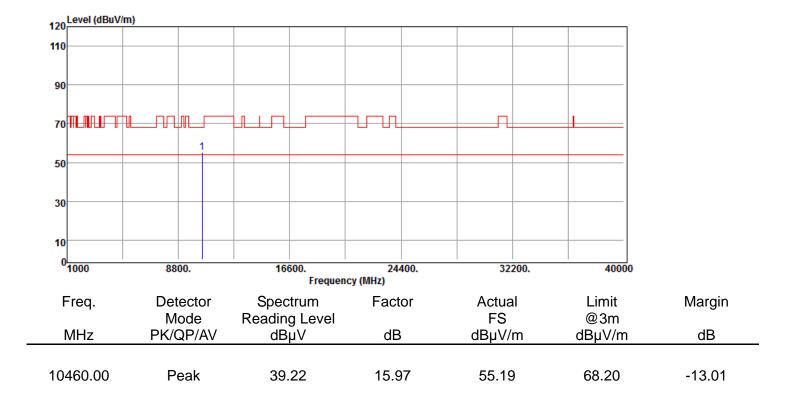
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 175 of 255

Operation Mode :802.11n40 / Band 1 Test Mode :TX CH HIGH **EUT Pol** :H Plan Test Channel :5230 MHz

Test Date :2019-03-12 Temp./Humi. :22/58 Antenna Pol. :VERTICAL Engineer :Jerry



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

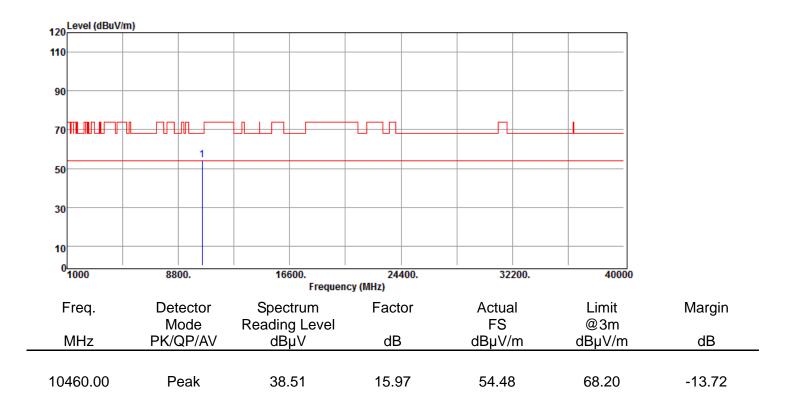


Page: 176 of 255

Operation Mode :802.11n40 / Band 1 **Test Date** :2019-03-12 Test Mode :TX CH HIGH Temp./Humi. :22/58

EUT Pol Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5230 MHz Engineer :Jerry



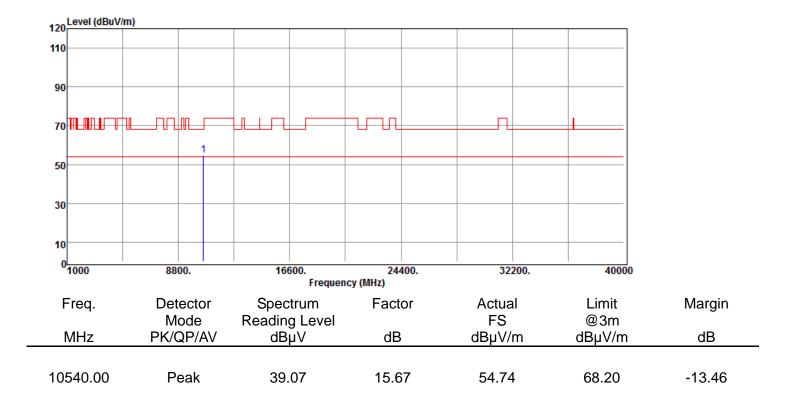
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 177 of 255

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

Operation Mode :802.11n40 / Band 2 Test Date :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :22/58 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5270 MHz Engineer :Jerry



Unless otherwise stated 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,同時此樣品僅保留卯天。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 be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

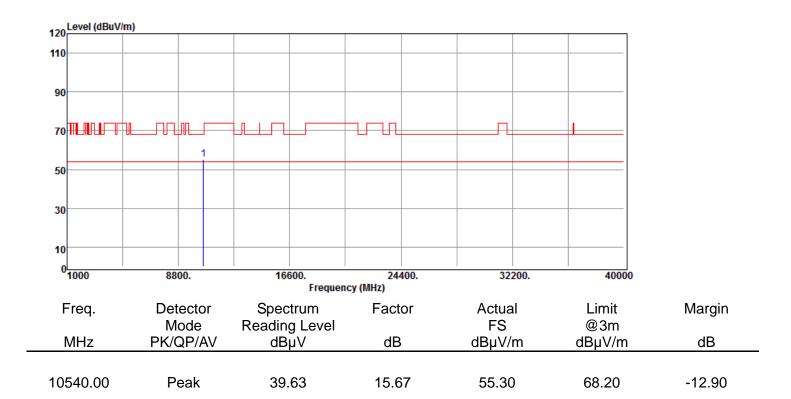


Page: 178 of 255

Operation Mode :802.11n40 / Band 2 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :22/58

EUT Pol Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5270 MHz Engineer :Jerry



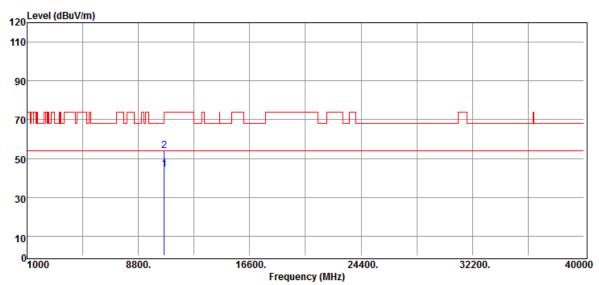
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 179 of 255

Operation Mode :802.11n40 / Band 2 Test Mode :TX CH HIGH **EUT Pol** :H Plan Test Channel :5310 MHz

Test Date :2019-03-12 Temp./Humi. :22/56 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
10620.00	Average	28.52	15.78	44.30	54.00	-9.70
10620.00	Peak	38.12	15.78	53.90	74.00	-20.10

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

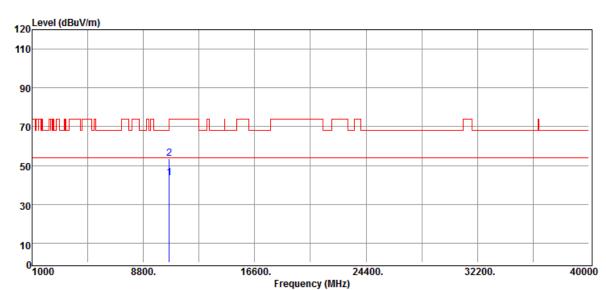


Page: 180 of 255

Operation Mode :802.11n40 / Band 2 **Test Date** :2019-03-12

Test Mode :TX CH HIGH Temp./Humi. :22/56 **EUT Pol** Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5310 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
10620.00	Average	27.77	15.78	43.55	54.00	-10.45
10620.00	Peak	37.60	15.78	53.38	74.00	-20.62

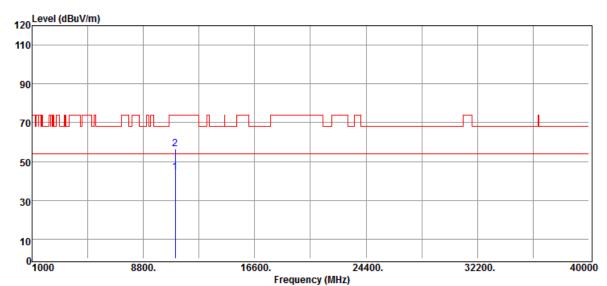
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Page: 181 of 255

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

Operation Mode :802.11n40 / Band 3 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :22/54 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5510 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
11020.00	Average	26.53	17.87	44.40	54.00	-9.60
11020.00	Peak	38.54	17.87	56.41	74.00	-17.59

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 <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is 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

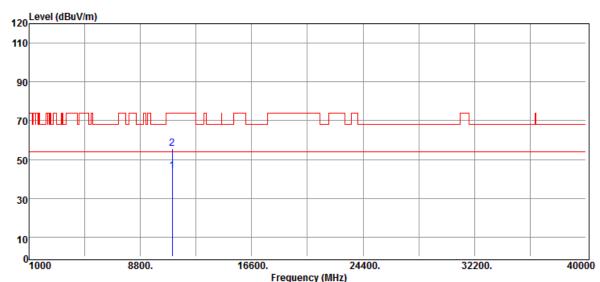


Page: 182 of 255

Operation Mode :802.11n40 / Band 3 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :22/54

EUT Pol Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5510 MHz Engineer :Jerry



			, , ,			
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
11020.00 11020.00	Average Peak	26.01 37.91	17.87 17.87	43.88 55.78	54.00 74.00	-10.12 -18.22
1.020.00	. Jun	07.01		55.76		

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



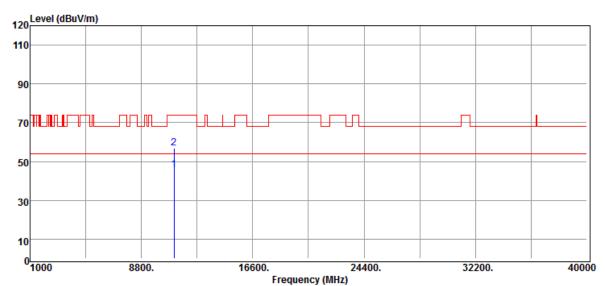
Page: 183 of 255

Operation Mode :802.11n40 / Band 3 Test Mode :TX CH MID **EUT Pol** :H Plan Test Channel :5550 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2019-03-12 :21/54 :VERTICAL

:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
11100.00	Average	28.44	17.25	45.69	54.00	-8.31
11100.00	Peak	39.49	17.25	56.74	74.00	-17.26

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.

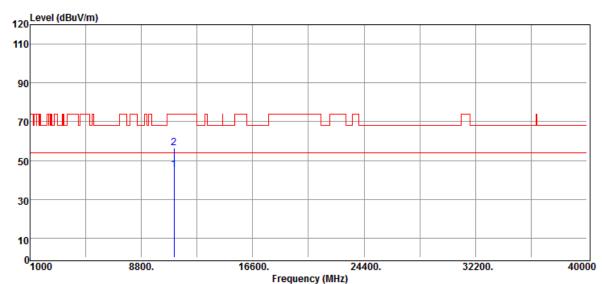


Page: 184 of 255

Operation Mode :802.11n40 / Band 3 **Test Date** :2019-03-12

Test Mode :TX CH MID Temp./Humi. :21/54 **EUT Pol** Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5550 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
11100.00	Average	28.01	17.25	45.26	54.00	-8.74	
11100.00	Peak	39.14	17.25	56.39	74.00	-17.61	

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.



Page: 185 of 255

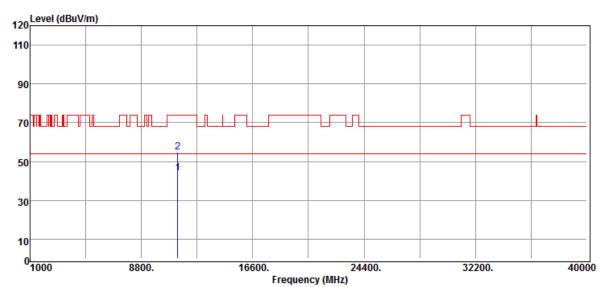
Operation Mode Test Mode **EUT Pol** Test Channel

:802.11n40 / Band 3 :TX CH HIGH

:H Plan :5670 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-12

:21/53 :VERTICAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
11340.00	Average	27.59	16.36	43.95	54.00	-10.05
11340.00	Peak	38.25	16.36	54.61	74.00	-19.39

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 186 of 255

Operation Mode Test Mode

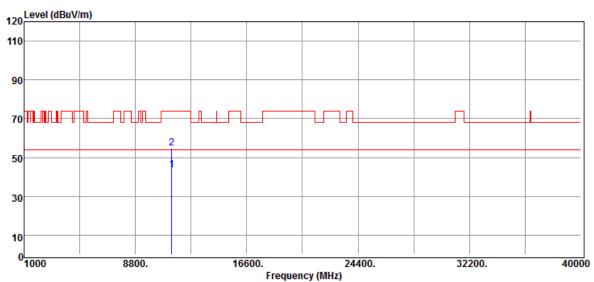
:802.11n40 / Band 3

:TX CH HIGH

EUT Pol :H Plan Test Channel :5670 MHz **Test Date** :2019-03-12 Temp./Humi. :21/53

Antenna Pol. :HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11340.00	Average	27.19	16.36	43.55	54.00	-10.45
11340.00	Peak	38.42	16.36	54.78	74.00	-19.22

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



Page: 187 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

:802.11n40 / Band 3-4

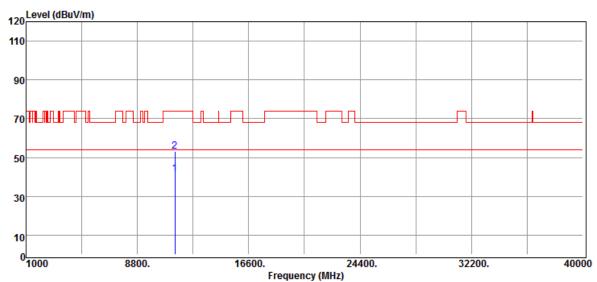
:TX CH MID :H Plan

:5710 MHz

Test Date :2019-03-12 Temp./Humi. :20/55

Antenna Pol. :VERTICAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11420.00	Average	24.79	16.87	41.66	54.00	-12.34
11420.00	Peak	36.13	16.87	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.



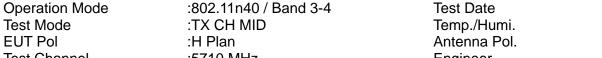
:2019-03-12

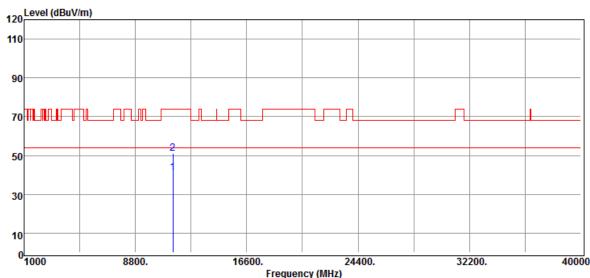
:20/55

Page: 188 of 255

Operation Mode

:HORIZONTAL Test Channel :5710 MHz Engineer :Jerry





Frequency (MHZ)										
	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin			
	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB			
	11420.00	Average	24.17	16.87	41.04	54.00	-12.96			
	11420.00	Peak	34.29	16.87	51.16	74.00	-22.84			

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

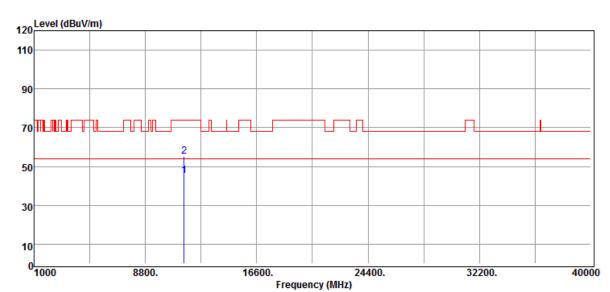
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 189 of 255

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

Operation Mode :802.11n40 / Band 4 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :21/55 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5755 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11510.00	Average	30.03	15.41	45.44	54.00	-8.56
11510.00	Peak	39.69	15.41	55.10	74.00	-18.90

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 <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is 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



Page: 190 of 255

Operation Mode Test Mode

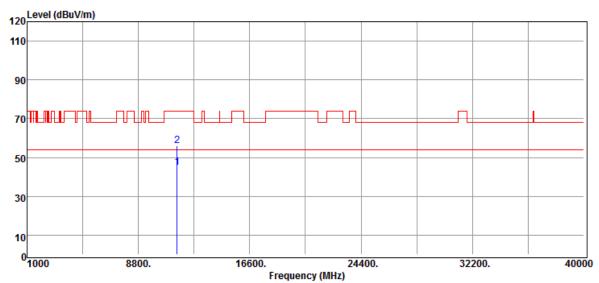
:802.11n40 / Band 4

:TX CH LOW

EUT Pol :H Plan Test Channel :5755 MHz **Test Date** :2019-03-12 Temp./Humi. :21/55

Antenna Pol. :HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
11510.00	Average	29.52	15.41	44.93	54.00	-9.07
11510.00	Peak	40.47	15.41	55.88	74.00	-18.12

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 191 of 255

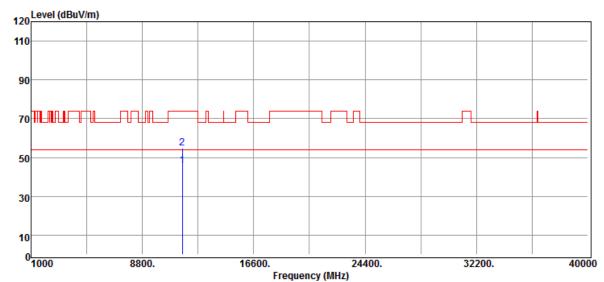
Operation Mode Test Mode **EUT Pol** Test Channel

:802.11n40 / Band 4 :TX CH HIGH

:H Plan :5795 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-12

:21/55 :VERTICAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11590.00	Average	28.73	16.81	45.54	54.00	-8.46
11590.00	Peak	37.96	16.81	54.77	74.00	-19.23

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 192 of 255

Operation Mode Test Mode

:802.11n40 / Band 4

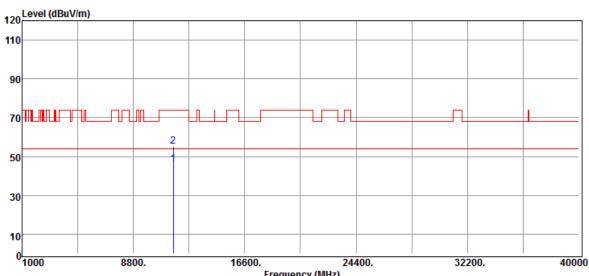
:TX CH HIGH

EUT Pol :H Plan Test Channel :5795 MHz **Test Date** Temp./Humi. Antenna Pol.

:21/55 :HORIZONTAL

:2019-03-12

Engineer :Jerry



Frequency (WHZ)										
	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin			
	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB			
_										
	11590.00	Average	29.42	16.81	46.23	54.00	-7.77			
	11590.00	Peak	38.57	16.81	55.38	74.00	-18.62			

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.

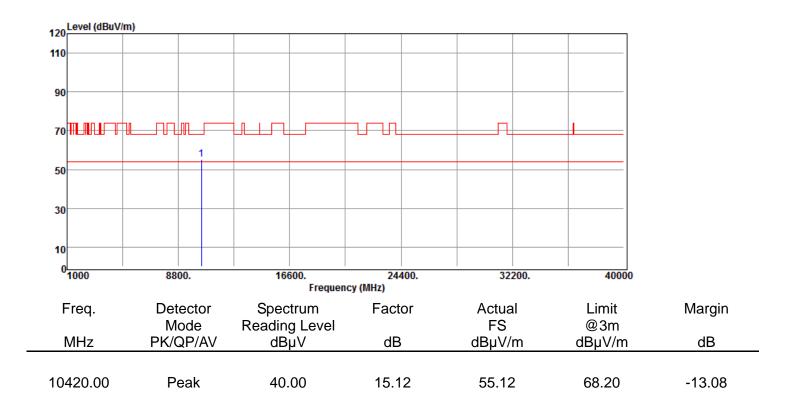
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 193 of 255

Radiated Spurious Emission Measurement Result 802.11ac VHT80, 5150~5250 MHz

Operation Mode :802.11ac80 / Band 1 Test Date :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :22/54 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5210 MHz Engineer :Jerry



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

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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

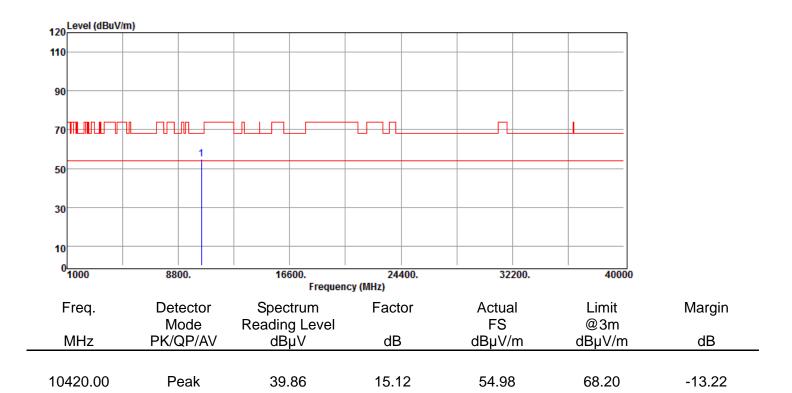


Page: 194 of 255

Operation Mode :802.11ac80 / Band 1 **Test Date** :2019-03-12

Test Mode :TX CH LOW Temp./Humi. :22/54 **EUT Pol** Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5210 MHz Engineer :Jerry



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

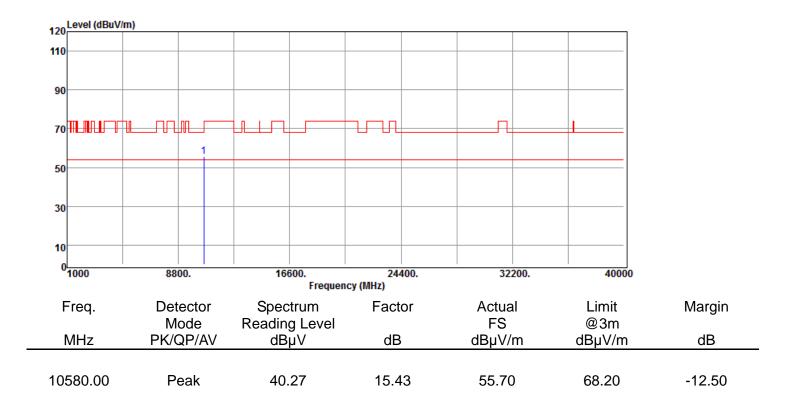
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 195 of 255

Radiated Spurious Emission Measurement Result 802.11ac VHT80, 5250~5350 MHz

Operation Mode :802.11ac80 / Band 2 Test Date :2019-03-12 Test Mode :TX CH HIGH Temp./Humi. :22/56 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5290 MHz Engineer :Jerry



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

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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

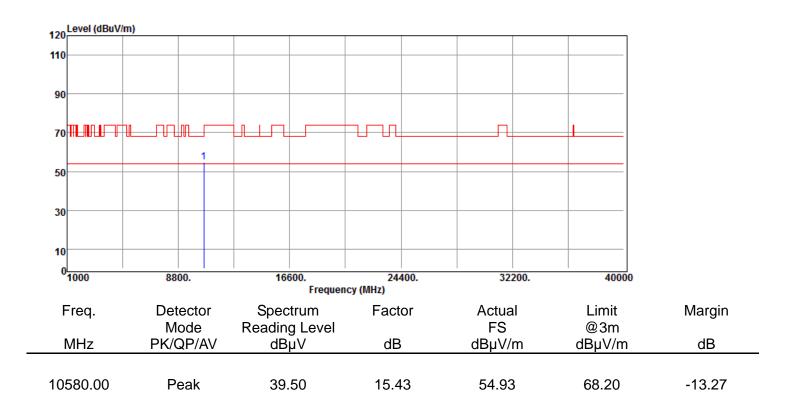


Page: 196 of 255

Operation Mode :802.11ac80 / Band 2 **Test Date** :2019-03-12

Test Mode :TX CH HIGH Temp./Humi. :22/56 **EUT Pol** Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5290 MHz Engineer :Jerry



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

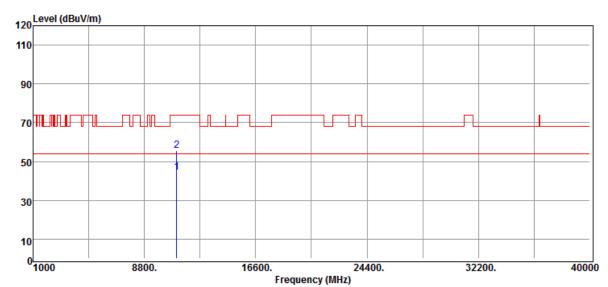
Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized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



Page: 197 of 255

Radiated Spurious Emission Measurement Result 802.11ac VHT80, 5470~5725 MHz

Operation Mode :802.11ac80 / Band 3 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :22/56 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5530 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
11060.00	Average	26.92	17.50	44.42	54.00	-9.58
11060.00	Peak	38.28	17.50	55.78	74.00	-18.22

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

除非另有說明,此報告結果僅對測試之樣品負責、同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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

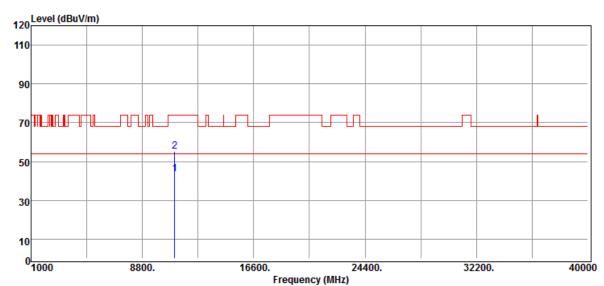


Page: 198 of 255

Operation Mode :802.11ac80 / Band 3 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :22/56

EUT Pol Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5530 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11060.00	Average	26.12	17.50	43.62	54.00	-10.38
11060.00	Peak	37.71	17.50	55.21	74.00	-18.79

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



Page: 199 of 255

Operation Mode Test Mode **EUT Pol**

Test Channel

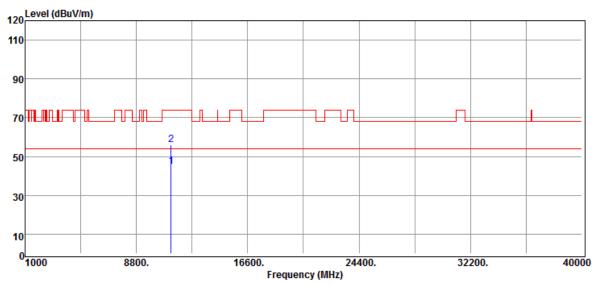
:802.11ac80 / Band 3

:TX CH MID :H Plan :5610 MHz

Test Date Temp./Humi. Antenna Pol. :2019-03-12

:22/55 :VERTICAL

Engineer :Jerry



			riequelic	y (MITZ)				
	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
-								_
	11220.00	Average	28.44	16.53	44.97	54.00	-9.03	
	11220.00	Peak	39.42	16.53	55.95	74.00	-18.05	

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

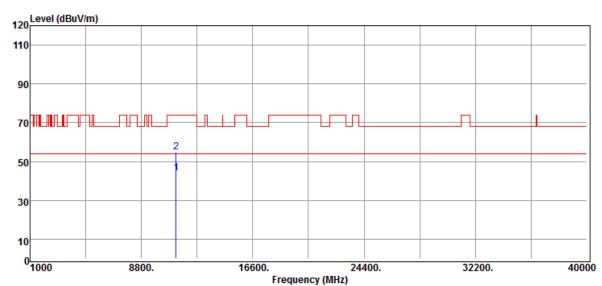


Page: 200 of 255

Operation Mode :802.11ac80 / Band 3 **Test Date** :2019-03-12

Test Mode :TX CH MID Temp./Humi. :22/55 **EUT Pol** Antenna Pol. :H Plan :HORIZONTAL

Test Channel :5610 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
11220.00	Average	27.59	16.53	44.12	54.00	-9.88
11220.00	Peak	38.31	16.53	54.84	74.00	-19.16

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.

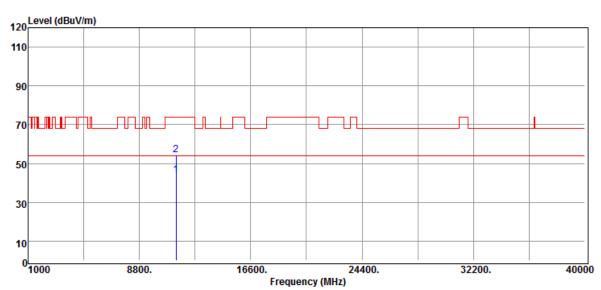
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 201 of 255

Operation Mode :802.11ac80 / Band 3 Test Mode :TX CH HIGH **EUT Pol** :H Plan Test Channel :5690 MHz

Test Date :2019-03-12 Temp./Humi. :21/55 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
11380.00	Average	27.43	16.48	43.91	54.00	-10.09
11380.00	Peak	38.02	16.48	54.50	74.00	-19.50

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.



Page: 202 of 255

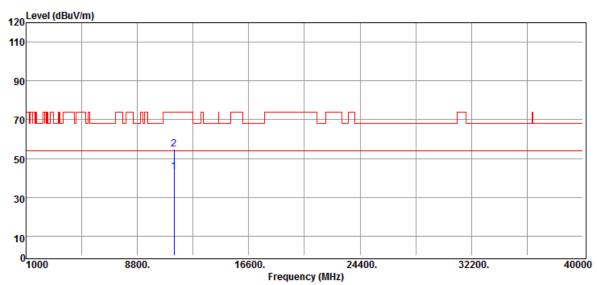
Operation Mode :802.11ac80 / Band 3 Test Mode

:TX CH HIGH **EUT Pol** :H Plan Test Channel :5690 MHz

Test Date :2019-03-12 Temp./Humi. :21/55

Antenna Pol. :HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11380.00	Average	26.57	16.48	43.05	54.00	-10.95
11380.00	Peak	38.34	16.48	54.82	74.00	-19.18

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.

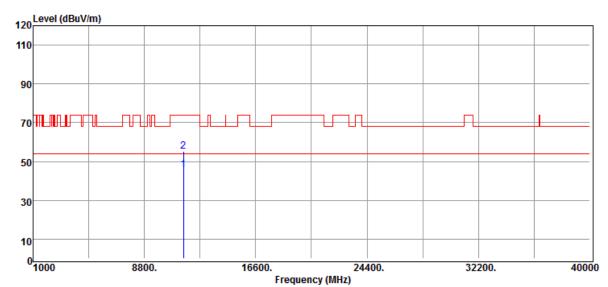
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 203 of 255

Radiated Spurious Emission Measurement Result 802.11ac VHT80, 5725~5850 MHz

Operation Mode :802.11ac80 / Band 4 **Test Date** :2019-03-12 Test Mode :TX CH LOW Temp./Humi. :22/57 **EUT Pol** :H Plan Antenna Pol. :VERTICAL Test Channel :5775 MHz Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
11550.00	Average	29.91	15.82	45.73	54.00	-8.27
11550.00	Peak	39.45	15.82	55.27	74.00	-18.73

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

除非另有說明,此報告結果僅對測試之樣品負責、同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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



Page: 204 of 255

Operation Mode

:802.11ac80 / Band 4

Test Mode

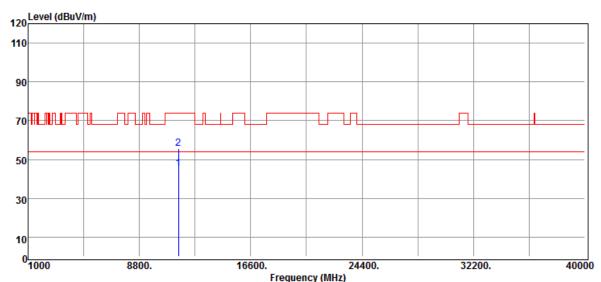
:TX CH LOW

EUT Pol Test Channel :H Plan :5775 MHz **Test Date** Temp./Humi.

:22/57 Antenna Pol. :HORIZONTAL

:2019-03-12

Engineer :Jerry



,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,									
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin			
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB			
11550.00 11550.00	Average Peak	29.25 39.98	15.82 15.82	45.07 55.80	54.00 74.00	-8.93 -18.20			

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

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its 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



:2019-03-09

Page: 205 of 255

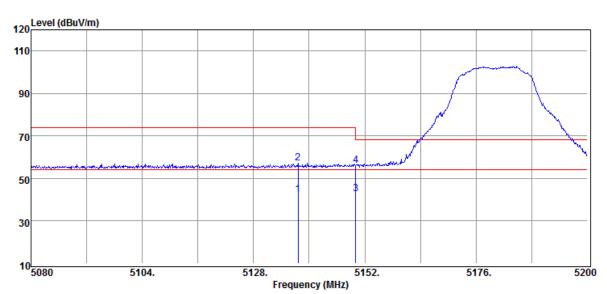
Band edge falling to restricted band

802.11a mode

Operation Mode :802.11a / Band 1 **Test Date**

Test Mode :BE CH LOW Temp./Humi. :25/70 **EUT Pol** :H Plan Antenna Pol. :VERTICAL

Test Channel :5180 MHz Engineer :Enzo



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμ̈V	dB	dBµV/m	dBµV/m	dB
5137.60	Average	37.67	4.58	42.25	54.00	-11.75
5137.60	Peak	52.77	4.58	57.35	74.00	-16.65
5150.00	Average	38.07	4.55	42.62	54.00	-11.38
5150.00	Peak	51.34	4.55	55.89	68.20	-12.31

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 206 of 255

Operation Mode Test Mode

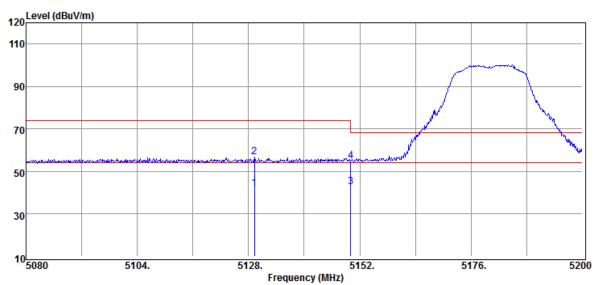
:802.11a / Band 1 :BE CH LOW

EUT Pol :H Plan Test Channel :5180 MHz **Test Date** Temp./Humi. Antenna Pol.

:25/70 :HORIZONTAL

:2019-03-09

Engineer :Enzo



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
5129.32	Average	37.27	4.65	41.92	54.00	-12.08
5129.32	Peak	52.05	4.65	56.70	74.00	-17.30
5150.00	Average	38.33	4.55	42.88	54.00	-11.12
5150.00	Peak	50.18	4.55	54.73	68.20	-13.47

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

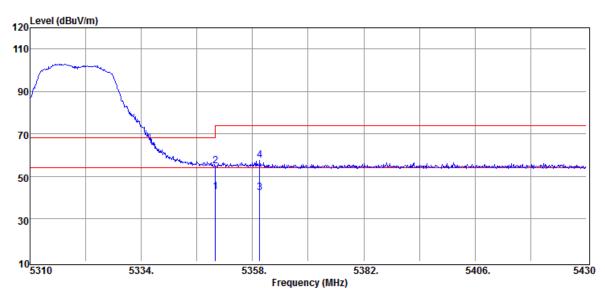


Page: 207 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

:802.11a / Band 2 :BE CH HIGH

:H Plan :5320 MHz **Test Date** :2019-03-09 Temp./Humi. :25/70 Antenna Pol. :VERTICAL Engineer :Enzo



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	37.52	5.19	42.71	54.00	-11.29
5350.00	Peak	49.69	5.19	54.88	68.20	-13.32
5359.56	Average	37.05	5.22	42.27	54.00	-11.73
5359.56	Peak	52.24	5.22	57.46	74.00	-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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 208 of 255

Operation Mode Test Mode **EUT Pol**

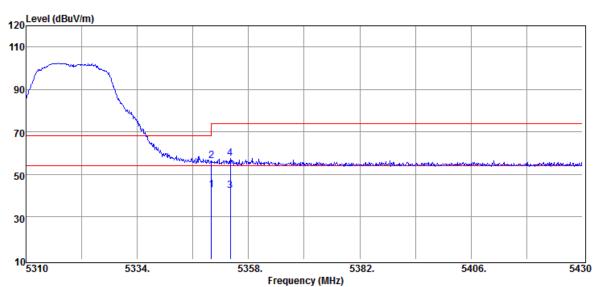
Test Channel

:802.11a / Band 2 :BE CH HIGH

:H Plan :5320 MHz **Test Date** :2019-03-09 Temp./Humi. :25/70

Antenna Pol. :HORIZONTAL

Engineer :Enzo



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
5350.00	Average	37.61	5.19	42.80	54.00	-11.20	
5350.00	Peak	51.09	5.19	56.28	68.20	-11.92	
5354.04	Average	37.25	5.20	42.45	54.00	-11.55	
5354.04	Peak	52.50	5.20	57.70	74.00	-16.30	

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

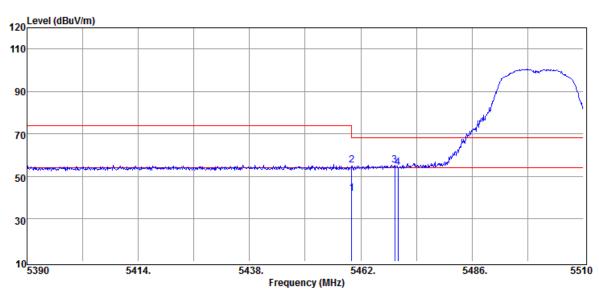
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 209 of 255

Operation Mode :802.11a / Band 3 Test Mode :BE CH LOW **EUT Pol** :H Plan Test Channel :5500 MHz

Test Date :2019-03-11 Temp./Humi. :23/56 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
5460.00	Average	36.62	5.54	42.16	54.00	-11.84
	•			_		_
5460.00	Peak	49.70	5.54	55.24	68.20	-12.96
5469.32	Peak	49.92	5.52	55.44	68.20	-12.76
5470.00	Peak	48.73	5.52	54.25	68.20	-13.95

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.

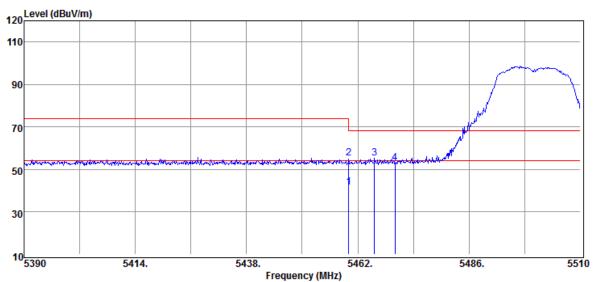


Page: 210 of 255

Operation Mode :802.11a / Band 3 **Test Date** :2019-03-11 Test Mode :BE CH LOW Temp./Humi. :23/56

EUT Pol Antenna Pol. :H Plan :HORIZONTAL





	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
	5460.00	Average	36.13	5.54	41.67	54.00	-12.33	
	5460.00	Peak	49.88	5.54	55.42	68.20	-12.78	
	5465.60	Peak	49.85	5.52	55.37	68.20	-12.83	
	5470.00	Peak	47.52	5.52	53.04	68.20	-15.16	

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

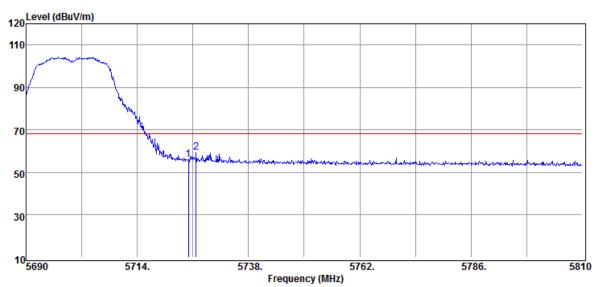


Page: 211 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

:802.11a / Band 3 :BE CH HIGH

:H Plan :5700 MHz **Test Date** :2019-03-11 Temp./Humi. :23/55 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB	
5725.00	Peak	49.37	6.55	55.92	68.20	-12.28	
5726.72	Peak	52.78	6.54	59.32	68.20	-8.88	

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



Page: 212 of 255

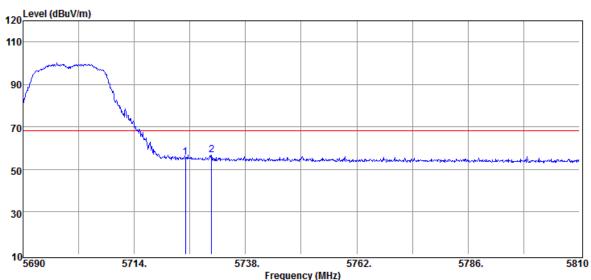
Operation Mode Test Mode **EUT Pol**

:802.11a / Band 3 :BE CH HIGH

:H Plan Test Channel :5700 MHz **Test Date** :2019-03-11 Temp./Humi. :23/55

Antenna Pol. :HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5725.00	Peak	49.20	6.55	55.75	68.20	-12.45
5730.68	Peak	50.38	6.53	56.91	68.20	-11.29

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 213 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

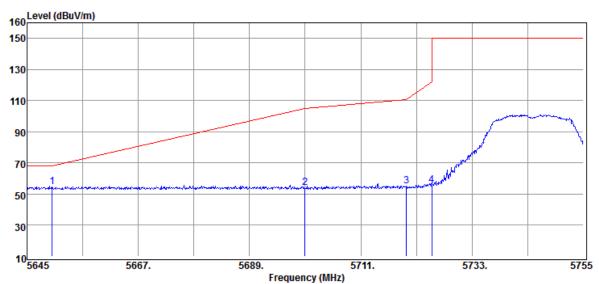
:802.11a / Band 4 :BE CH LOW :H Plan

:5745 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2019-03-11 :22/56 :VERTICAL

:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	48.80	5.91	54.71	68.20	-13.49
5700.00	Peak	47.66	6.43	54.09	105.20	-51.11
5720.00	Peak	48.58	6.55	55.13	110.80	-55.67
5725.00	Peak	49.27	6.55	55.82	122.20	-66.38

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 214 of 255

Operation Mode Test Mode **EUT Pol**

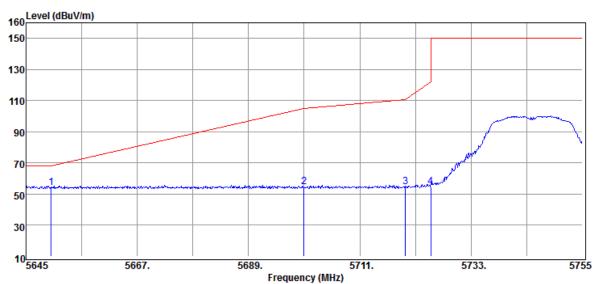
:802.11a / Band 4 :BE CH LOW

:H Plan Test Channel :5745 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:22/56

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
5650.00	Peak	48.21	5.91	54.12	68.20	-14.08
5700.00	Peak	48.37	6.43	54.80	105.20	-50.40
5720.00	Peak	48.12	6.55	54.67	110.80	-56.13
5725.00	Peak	48.25	6.55	54.80	122.20	-67.40

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

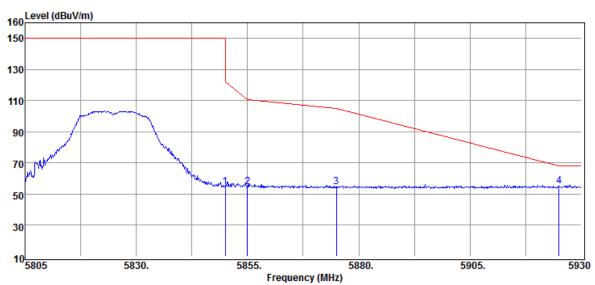


Page: 215 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

:802.11a / Band 4 :BE CH HIGH

:H Plan :5825 MHz **Test Date** :2019-03-11 Temp./Humi. :22/56 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
5850.00	Peak	48.47	6.41	54.88	122.20	-67.32
5855.00	Peak	48.38	6.43	54.81	110.80	-55.99
5875.00	Peak	47.95	6.49	54.44	105.20	-50.76
5925.00	Peak	48.53	6.44	54.97	68.20	-13.23

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 216 of 255

Operation Mode Test Mode **EUT Pol**

Test Channel

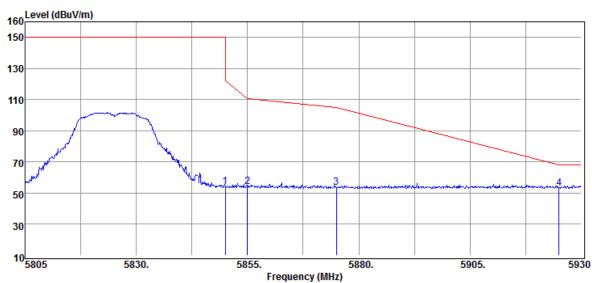
:802.11a / Band 4 :BE CH HIGH

:H Plan :5825 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:22/55

:HORIZONTAL

Engineer :Jerry



	Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
	MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
	5850.00	Peak	47.61	6.41	54.02	122.20	-68.18	
	5855.00	Peak	47.79	6.43	54.22	110.80	-56.58	
	5875.00	Peak	47.23	6.49	53.72	105.20	-51.48	
	5925.00	Peak	46.79	6.44	53.23	68.20	-14.97	

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

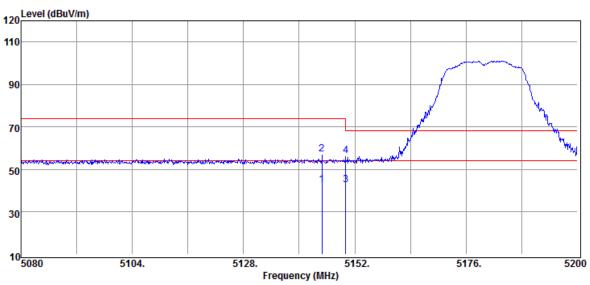


Page: 217 of 255

802.11n20 mode

:802.11n20 / Band 1 Operation Mode Test Mode :BE CH LOW **EUT Pol** :H Plan **Test Channel** :5180 MHz

Test Date :2019-03-11 Temp./Humi. :23/55 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
5144.92	Average	38.11	4.55	42.66	54.00	-11.34
5144.92	Peak	52.77	4.55	57.32	74.00	-16.68
5150.00	Average	38.18	4.55	42.73	54.00	-11.27
5150.00	Peak	51.95	4.55	56.50	68.20	-11.70

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.



Page: 218 of 255

Operation Mode Test Mode **EUT Pol**

Test Channel

:802.11n20 / Band 1

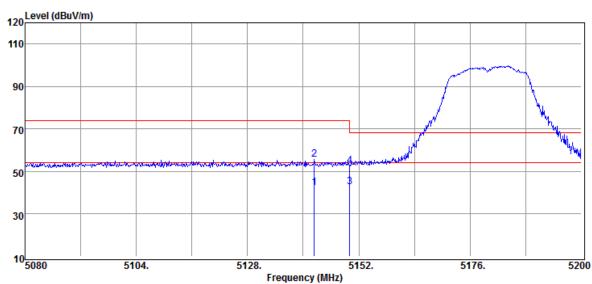
:BE CH LOW

:H Plan :5180 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:23/55

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5142.40	Average	37.82	4.55	42.37	54.00	-11.63
5142.40	Peak	51.14	4.55	55.69	74.00	-18.31
5150.00	Average	38.05	4.55	42.60	54.00	-11.40
5150.00	Peak	48.13	4.55	52.68	68.20	-15.52

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 219 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

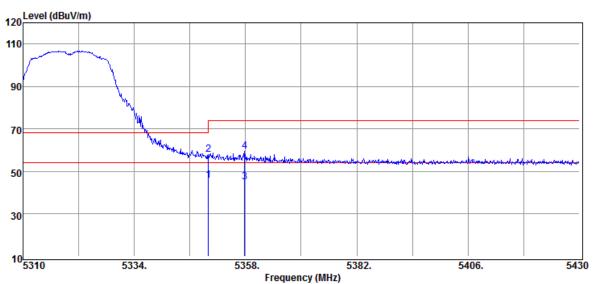
:802.11n20 / Band 2

:BE CH HIGH

:H Plan :5320 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:23/53 :VERTICAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
5350.00	Average	40.51	5.19	45.70	54.00	-8.30
5350.00	Peak	52.89	5.19	58.08	68.20	-10.12
5357.76	Average	39.99	5.21	45.20	54.00	-8.80
5357.76	Peak	54.35	5.21	59.56	74.00	-14.44

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



Page: 220 of 255

Operation Mode Test Mode **EUT Pol**

Test Channel

:802.11n20 / Band 2

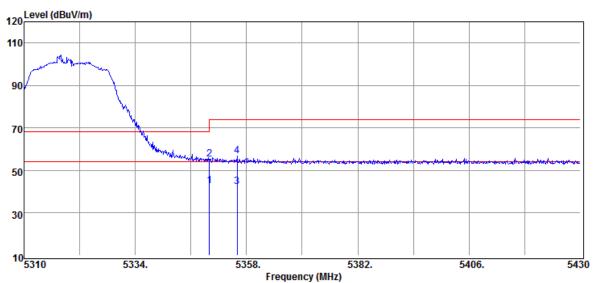
:BE CH HIGH

:H Plan :5320 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:23/53

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
5350.00	Average	37.51	5.19	42.70	54.00	-11.30	
5350.00	Peak	49.92	5.19	55.11	68.20	-13.09	
5355.96	Average	37.25	5.21	42.46	54.00	-11.54	
5355.96	Peak	51.72	5.21	56.93	74.00	-17.07	

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

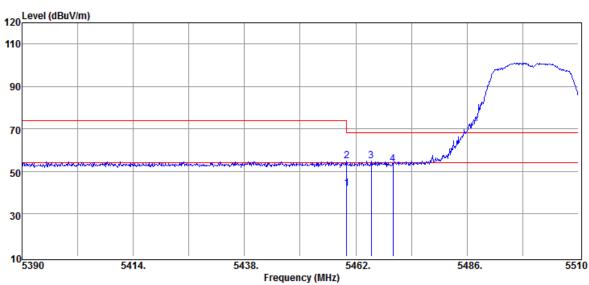
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 221 of 255

Operation Mode :802.11n20 / Band 3 Test Mode :BE CH LOW **EUT Pol** :H Plan Test Channel :5500 MHz

Test Date :2019-03-11 Temp./Humi. :23/54 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	36.40	5.54	41.94	54.00	-12.06
5460.00	Peak	49.29	5.54	54.83	68.20	-13.37
5465.36	Peak	49.42	5.52	54.94	68.20	-13.26
5470.00	Peak	47.97	5.52	53.49	68.20	-14.71

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.



Page: 222 of 255

Operation Mode Test Mode **EUT Pol**

Test Channel

:802.11n20 / Band 3

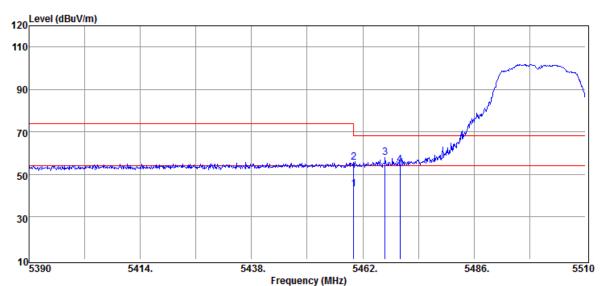
:BE CH LOW

:H Plan :5500 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:23/54

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	37.47	5.54	43.01	54.00	-10.99
5460.00	Peak	50.25	5.54	55.79	68.20	-12.41
5466.80	Peak	52.37	5.53	57.90	68.20	-10.30
5470.00	Peak	48.91	5.52	54.43	68.20	-13.77

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 223 of 255

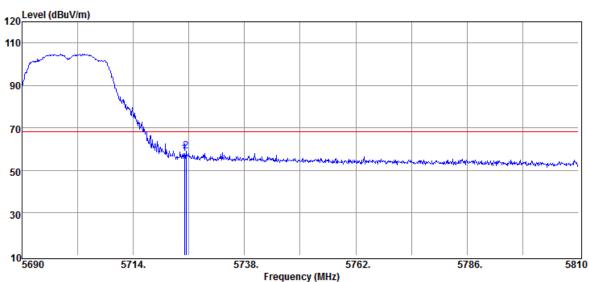
Operation Mode Test Mode **EUT Pol** Test Channel

:802.11n20 / Band 3 :BE CH HIGH

:H Plan

:5700 MHz

Test Date :2019-03-11 Temp./Humi. :22/55 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
 MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
5725.00	Peak	51.50	6.55	58.05	68.20	-10.15
5725.40	Peak	52.57	6.55	59.12	68.20	-9.08

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 224 of 255

Operation Mode Test Mode **EUT Pol**

Test Channel

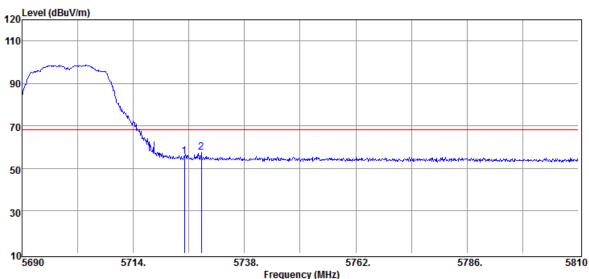
:802.11n20 / Band 3

:BE CH HIGH

:H Plan :5700 MHz **Test Date** :2019-03-11 Temp./Humi. :23/55

Antenna Pol. :HORIZONTAL

Engineer :Jerry



			, , ,				
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
5725.00	Peak	49.17	6.55	55.72	68.20	-12.48	
5728.64	Peak	51.00	6.54	57.54	68.20	-10.66	

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 225 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

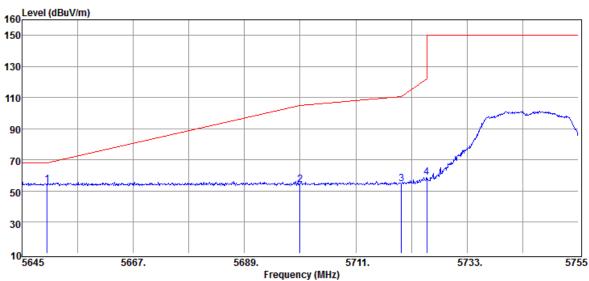
:802.11n20 / Band 4

:BE CH LOW

:H Plan :5745 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:23/54 :VERTICAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
5650.00	Peak	48.41	5.91	54.32	68.20	-13.88	
5700.00	Peak	47.88	6.43	54.31	105.20	-50.89	
5720.00	Peak	48.18	6.55	54.73	110.80	-56.07	
5725.00	Peak	52.09	6.55	58.64	122.20	-63.56	

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 226 of 255

Operation Mode Test Mode **EUT Pol**

:802.11n20 / Band 4

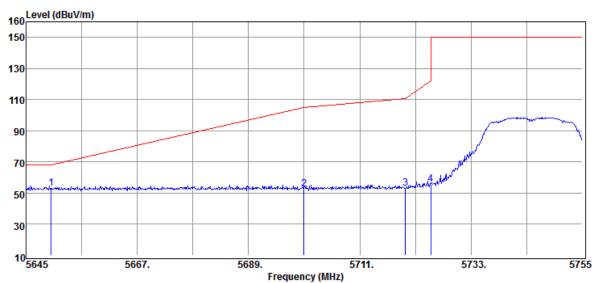
:BE CH LOW

:H Plan Test Channel :5745 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:23/54

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
5650.00	Peak	47.05	5.91	52.96	68.20	-15.24	
5700.00	Peak	46.31	6.43	52.74	105.20	-52.46	
5720.00	Peak	46.60	6.55	53.15	110.80	-57.65	
5725.00	Peak	49.33	6.55	55.88	122.20	-66.32	

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 227 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

:802.11n20 / Band 4

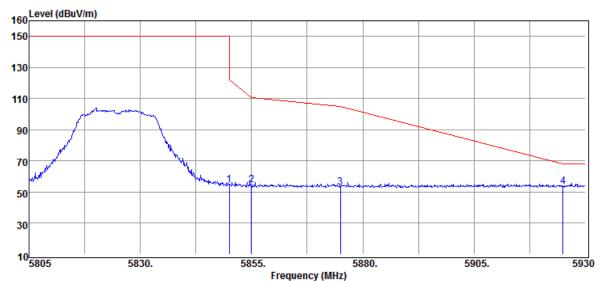
:BE CH HIGH

:H Plan :5825 MHz **Test Date** Temp./Humi. Antenna Pol. Engineer

:2019-03-11

:22/55

:VERTICAL :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
5850.00	Peak	48.10	6.41	54.51	122.20	-67.69	
5855.00	Peak	48.09	6.43	54.52	110.80	-56.28	
5875.00	Peak	46.83	6.49	53.32	105.20	-51.88	
5925.00	Peak	47.40	6.44	53.84	68.20	-14.36	

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 228 of 255

Operation Mode Test Mode **EUT Pol**

Test Channel

:802.11n20 / Band 4

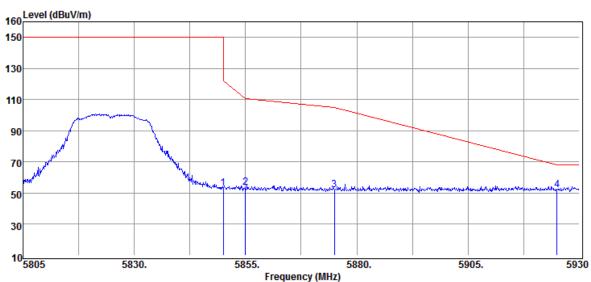
:BE CH HIGH

:H Plan :5825 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:22/54

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB	
5850.00	Peak	46.77	6.41	53.18	122.20	-69.02	
5855.00	Peak	47.42	6.43	53.85	110.80	-56.95	
5875.00	Peak	45.32	6.49	51.81	105.20	-53.39	
5925.00	Peak	45.49	6.44	51.93	68.20	-16.27	

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

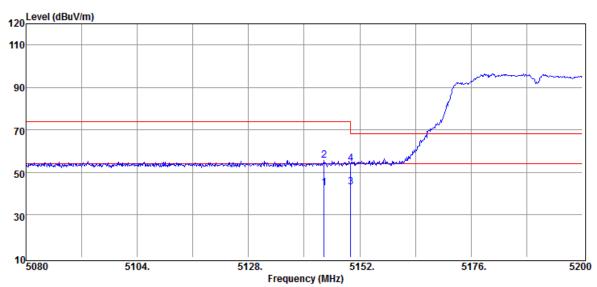


Page: 229 of 255

802.11n40 mode

:802.11n40 / Band 1 **Operation Mode** Test Mode :BE CH LOW **EUT Pol** :H Plan Test Channel :5190 MHz

Test Date :2019-03-11 Temp./Humi. :22/53 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB	
5144.32	Average	38.18	4.55	42.73	54.00	-11.27	
5144.32	Peak	51.19	4.55	55.74	74.00	-18.26	
5150.00	Average	38.60	4.55	43.15	54.00	-10.85	
5150.00	Peak	49.56	4.55	54.11	68.20	-14.09	

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 230 of 255

Operation Mode Test Mode **EUT Pol**

Test Channel

:802.11n40 / Band 1

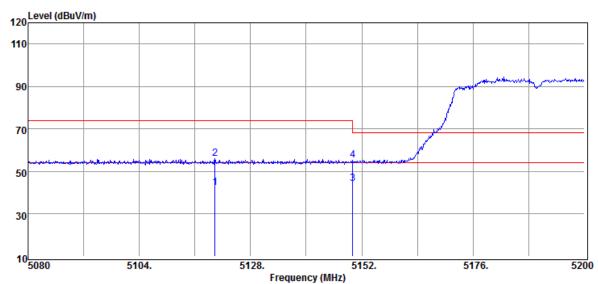
:BE CH LOW

:H Plan :5190 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:22/53

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5120.32	Average	37.70	4.74	42.44	54.00	-11.56
5120.32	Peak	51.42	4.74	56.16	74.00	-17.84
5150.00	Average	39.59	4.55	44.14	54.00	-9.86
5150.00	Peak	50.64	4.55	55.19	68.20	-13.01

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 231 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

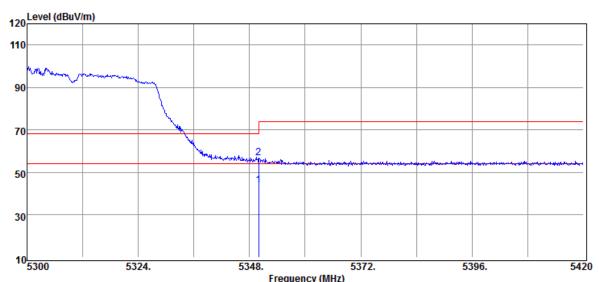
:802.11n40 / Band 2

:BE CH HIGH

:H Plan :5310 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:22/55 :VERTICAL

Engineer :Jerry



		· · · · · · · ·	, (2)				
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
5350.00	Average	38.81	5.19	44.00	54.00	-10.00	
5350.00	Peak	51.66	5.19	56.85	68.20	-11.35	

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 232 of 255

Operation Mode Test Mode **EUT Pol**

Test Channel

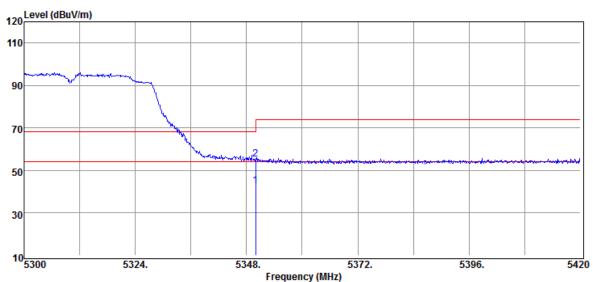
:802.11n40 / Band 2

:BE CH HIGH

:H Plan :5310 MHz **Test Date** :2019-03-11 Temp./Humi. :22/55

Antenna Pol. :HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB	
5350.00	Average	37.56	5.19	42.75	54.00	-11.25	
5350.00	Peak	50.20	5.19	55.39	68.20	-12.81	

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.

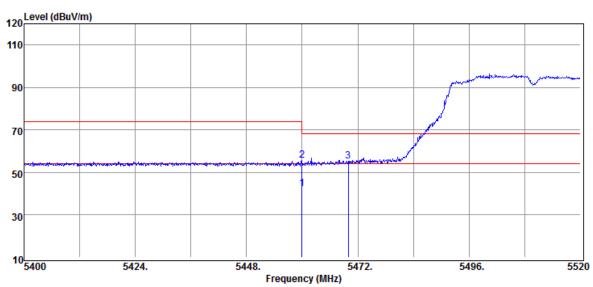
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 233 of 255

Operation Mode :802.11n40 / Band 3 Test Mode :BE CH LOW **EUT Pol** :H Plan Test Channel :5510 MHz

Test Date :2019-03-11 Temp./Humi. :22/55 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
5460.00	Average	36.74	5.54	42.28	54.00	-11.72
5460.00	Peak	50.03	5.54	55.57	68.20	-12.63
5469.96	Peak	49.70	5.52	55.22	68.20	-12.98

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 234 of 255

Operation Mode Test Mode

Test Channel

EUT Pol

:802.11n40 / Band 3

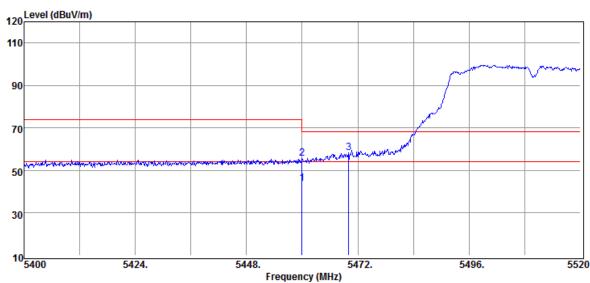
:BE CH LOW

:H Plan :5510 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:22/55

:HORIZONTAL

Engineer :Jerry



		The second secon				
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	38.23	5.54	43.77	54.00	-10.23
5460.00	Peak	50.25	5.54	55.79	68.20	-12.41
5470.00	Peak	52.96	5.52	58.48	68.20	-9.72

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 235 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

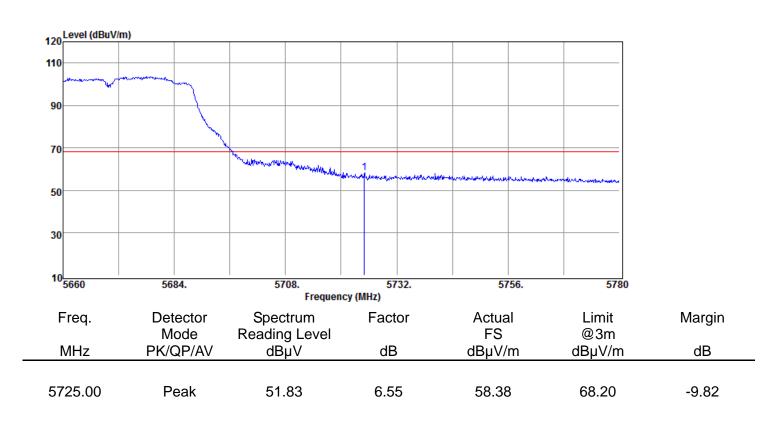
:802.11n40 / Band 3

:BE CH HIGH

:H Plan :5670 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:22/56 :VERTICAL

Engineer :Jerry



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



:2019-03-11

Page: 236 of 255

Operation Mode Test Mode **EUT Pol**

Test Channel

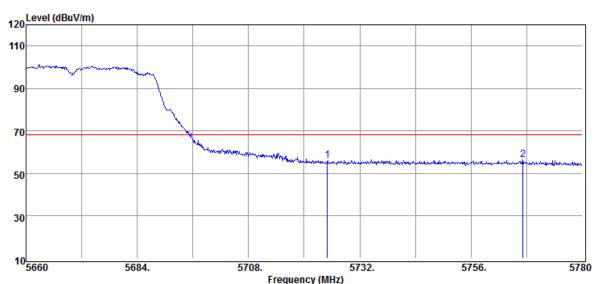
:802.11n40 / Band 3

:BE CH HIGH

:H Plan :5670 MHz **Test Date** Temp./Humi.

:22/56 Antenna Pol. :HORIZONTAL

Engineer :Jerry



			, , ,				
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
5725.00	Peak	49.50	6.55	56.05	68.20	-12.15	
5767.16	Peak	49.88	6.39	56.27	68.20	-11.93	

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 237 of 255

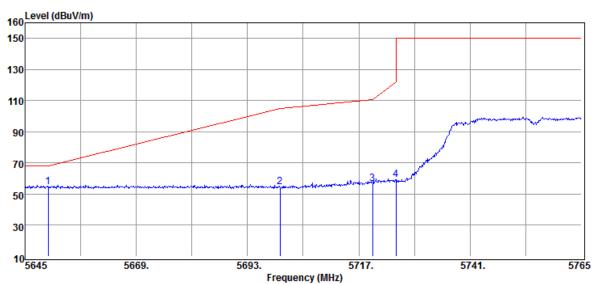
Operation Mode Test Mode **EUT Pol** Test Channel

:802.11n40 / Band 4 :BE CH LOW

:H Plan :5755 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:22/56 :VERTICAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB
5650.00	Peak	48.99	5.91	54.90	68.20	-13.30
5700.00	Peak	48.27	6.43	54.70	105.20	-50.50
5720.00	Peak	50.37	6.55	56.92	110.80	-53.88
5725.00	Peak	52.67	6.55	59.22	122.20	-62.98

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 238 of 255

Operation Mode Test Mode **EUT Pol**

Test Channel

:802.11n40 / Band 4

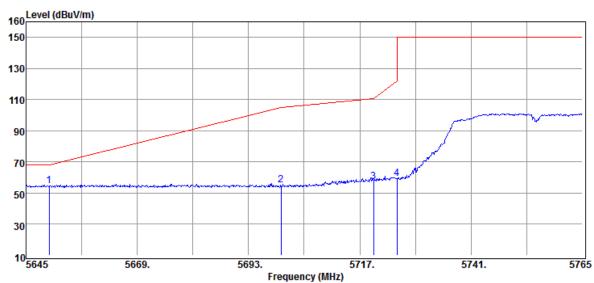
:BE CH LOW

:H Plan :5755 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:22/56

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
							_
5650.00	Peak	48.58	5.91	54.49	68.20	-13.71	
5700.00	Peak	48.60	6.43	55.03	105.20	-50.17	
5720.00	Peak	50.86	6.55	57.41	110.80	-53.39	
5725.00	Peak	52.52	6.55	59.07	122.20	-63.13	

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 239 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

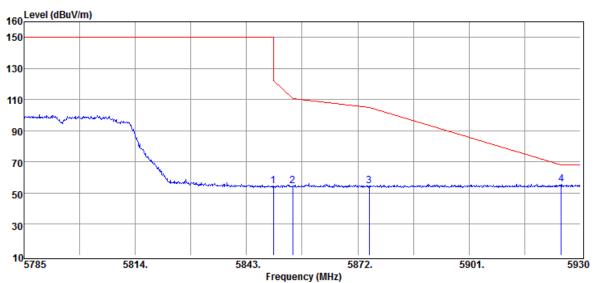
:802.11n40 / Band 4

:BE CH HIGH

:H Plan :5795 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:22/56 :VERTICAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBμV/m	dB	
5850.00	Peak	48.02	6.41	54.43	122.20	-67.77	
5855.00	Peak	48.09	6.43	54.52	110.80	-56.28	
5875.00	Peak	48.03	6.49	54.52	105.20	-50.68	
5925.00	Peak	49.09	6.44	55.53	68.20	-12.67	

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 240 of 255

Operation Mode Test Mode **EUT Pol**

Test Channel

:802.11n40 / Band 4

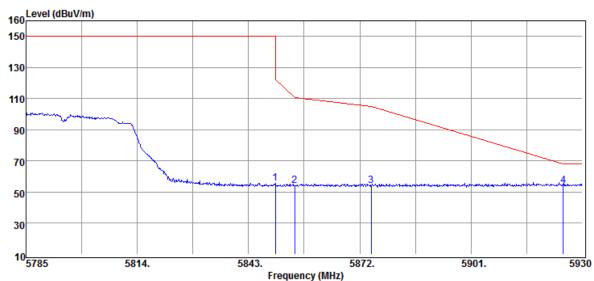
:BE CH HIGH

:H Plan :5795 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:22/56

:HORIZONTAL

Engineer :Jerry



		•					
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB	
5850.00	Peak	49.15	6.41	55.56	122.20	-66.64	
5855.00	Peak	47.86	6.43	54.29	110.80	-56.51	
5875.00	Peak	47.45	6.49	53.94	105.20	-51.26	
5925.00	Peak	47.82	6.44	54.26	68.20	-13.94	

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

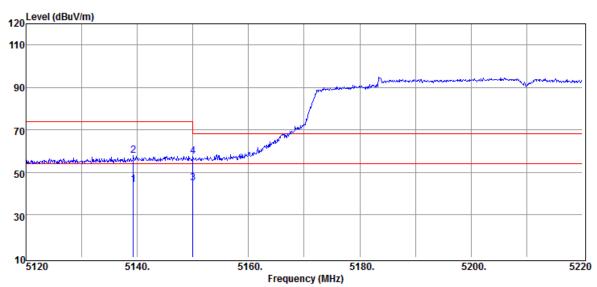


Page: 241 of 255

802.11ac80 mode

:802.11ac80 / Band 1 **Operation Mode** Test Mode :BE CH LOW **EUT Pol** :H Plan Test Channel :5210 MHz

Test Date :2019-03-11 Temp./Humi. :23/56 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
 MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5139.30	Average	39.72	4.56	44.28	54.00	-9.72
5139.30	Peak	53.52	4.56	58.08	74.00	-15.92
5150.00	Average	40.59	4.55	45.14	54.00	-8.86
5150.00	Peak	52.96	4.55	57.51	68.20	-10.69

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



Page: 242 of 255

Operation Mode Test Mode

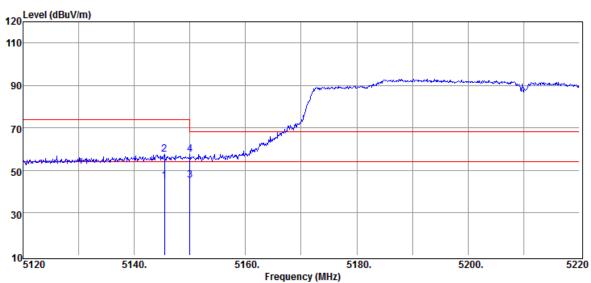
:802.11ac80 / Band 1

:BE CH LOW

EUT Pol :H Plan Test Channel :5210 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11 :23/56

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5145.40	Average	40.53	4.55	45.08	54.00	-8.92
5145.40	Peak	52.94	4.55	57.49	74.00	-16.51
5150.00	Average	40.67	4.55	45.22	54.00	-8.78
5150.00	Peak	52.89	4.55	57.44	68.20	-10.76
	MHz 5145.40 5145.40 5150.00	Mode PK/QP/AV 5145.40 Average 5145.40 Peak 5150.00 Average	Mode PK/QP/AV Reading Level dBμV 5145.40 Average	Mode PK/QP/AV Reading Level dBμV dB 5145.40 Average Ave	MHz Mode PK/QP/AV Reading Level dBμV FS dBμV/m 5145.40 Average	Mode PK/QP/AV Reading Level dBμV FS dBμV/m @3m dBμV/m 5145.40 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.

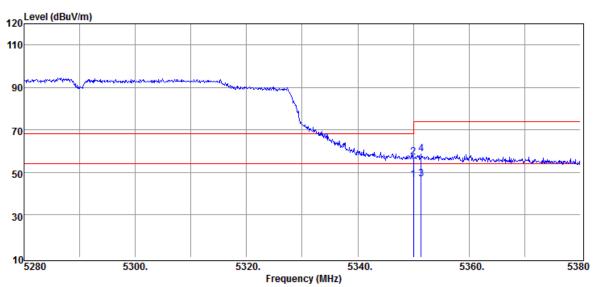
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 243 of 255

Operation Mode :802.11ac80 / Band 2 Test Mode :BE CH HIGH **EUT Pol** :H Plan Test Channel :5290 MHz

Test Date :2019-03-11 Temp./Humi. :23/56 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	41.49	5.19	46.68	54.00	-7.32
5350.00	Peak	52.11	5.19	57.30	68.20	-10.90
5351.40	Average	41.86	5.20	47.06	54.00	-6.94
5351.40	Peak	53.42	5.20	58.62	74.00	-15.38

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 244 of 255

Operation Mode Test Mode **EUT Pol**

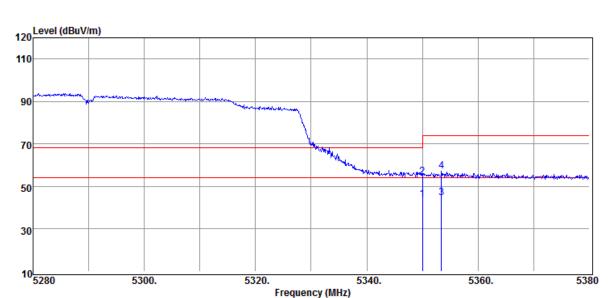
:802.11ac80 / Band 2

:BE CH HIGH

:H Plan Test Channel :5290 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:23/56 :HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	38.84	5.19	44.03	54.00	-9.97
5350.00	Peak	49.28	5.19	54.47	68.20	-13.73
5353.40	Average	39.40	5.20	44.60	54.00	-9.40
5353.40	Peak	51.83	5.20	57.03	74.00	-16.97

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

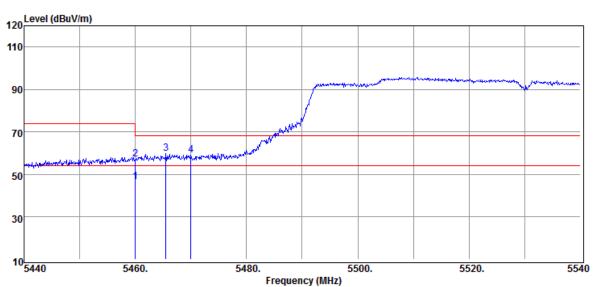
Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 245 of 255

Operation Mode :802.11ac80 / Band 3 Test Mode :BE CH LOW **EUT Pol** :H Plan Test Channel :5530 MHz

Test Date :2019-03-11 Temp./Humi. :23/56 Antenna Pol. :VERTICAL Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	41.00	5.54	46.54	54.00	-7.46
5460.00	Peak	51.75	5.54	57.29	68.20	-10.91
5465.50	Peak	54.26	5.52	59.78	68.20	-8.42
5470.00	Peak	53.45	5.52	58.97	68.20	-9.23

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 246 of 255

Operation Mode Test Mode

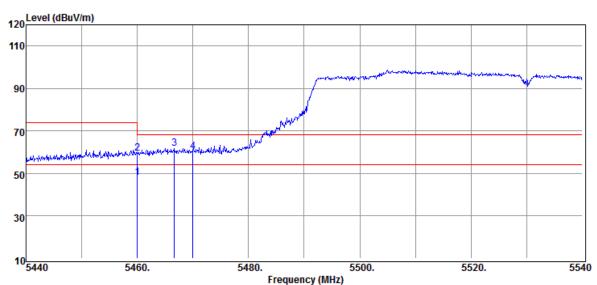
:802.11ac80 / Band 3

:BE CH LOW

EUT Pol :H Plan Test Channel :5530 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11 :23/56

:HORIZONTAL

Engineer :Jerry



		•				
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
5460.00	Average	42.44	5.54	47.98	54.00	-6.02
5460.00	Peak	54.06	5.54	59.60	68.20	-8.60
5466.70	Peak	56.29	5.53	61.82	68.20	-6.38
5470.00	Peak	54.53	5.52	60.05	68.20	-8.15

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.



Page: 247 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

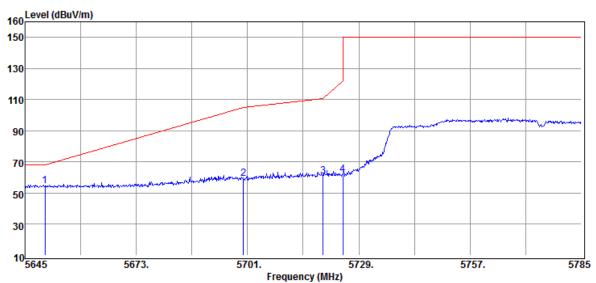
:802.11ac80 / Band 4

:BE CH LOW

:H Plan :5775 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:23/55 :VERTICAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	48.53	5.91	54.44	68.20	-13.76
5700.00	Peak	53.02	6.43	59.45	105.20	-45.75
5720.00	Peak	54.06	6.55	60.61	110.80	-50.19
5725.00	Peak	55.51	6.55	62.06	122.20	-60.14

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 248 of 255

Operation Mode Test Mode

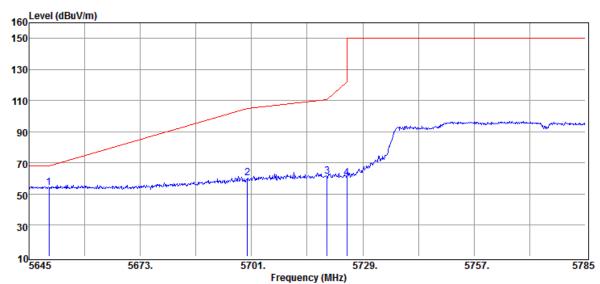
:802.11ac80 / Band 4

:BE CH LOW

EUT Pol :H Plan Test Channel :5775 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11 :23/55

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	48.45	5.91	54.36	68.20	-13.84
5700.00	Peak	53.78	6.43	60.21	105.20	-44.99
5720.00	Peak	54.77	6.55	61.32	110.80	-49.48
5725.00	Peak	54.00	6.55	60.55	122.20	-61.65

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.

Offices unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Page: 249 of 255

Operation Mode Test Mode **EUT Pol** Test Channel

:802.11ac80 / Band 4

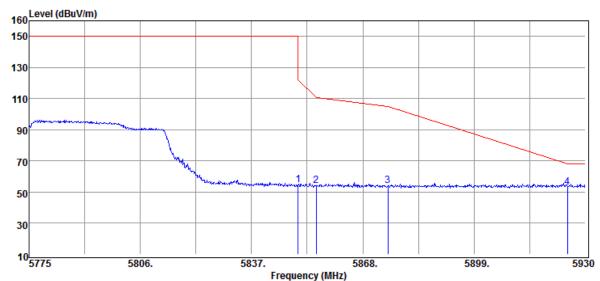
:BE CH HIGH

:H Plan :5775 MHz **Test Date** Temp./Humi. Antenna Pol. Engineer

:2019-03-11

:23/56 :VERTICAL

:Jerry



		•					
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dΒμV	dB	dBµV/m	dBµV/m	dB	
5850.00	Peak	48.28	6.41	54.69	122.20	-67.51	
5855.00	Peak	47.48	6.43	53.91	110.80	-56.89	
5875.00	Peak	47.63	6.49	54.12	105.20	-51.08	
5925.00	Peak	46.78	6.44	53.22	68.20	-14.98	

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.



Page: 250 of 255

Operation Mode Test Mode **EUT Pol**

Test Channel

:802.11ac80 / Band 4

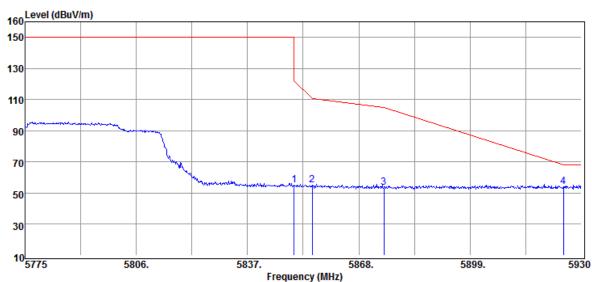
:BE CH HIGH

:H Plan :5775 MHz **Test Date** Temp./Humi. Antenna Pol. :2019-03-11

:23/56

:HORIZONTAL

Engineer :Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBµV/m	dB
						_
5850.00	Peak	48.52	6.41	54.93	122.20	-67.27
5855.00	Peak	48.54	6.43	54.97	110.80	-55.83
5875.00	Peak	47.08	6.49	53.57	105.20	-51.63
5925.00	Peak	47.67	6.44	54.11	68.20	-14.09

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



Page: 251 of 255

12 TRANSMISSION IN THE ABSENCE OF DATA

Standard Applicable 12.1

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

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 controlling 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.



Page: 252 of 255

13 FREQUENCY STABILITY

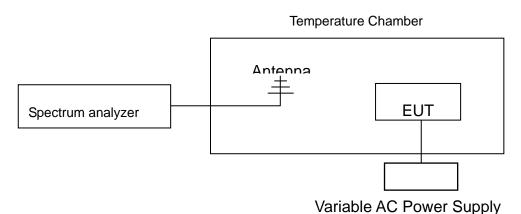
Standard Applicable 13.1

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.

Test SET-UP 13.3



Measurement Equipment Used: 13.4

SGS Conducted Room									
Name of Equip- ment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due				
Spectrum Analyzer	Agilent	N9010A	MY51440113	2018/06/20	2019/06/19				
Attenuator	Marvelous	MVE2213-10	RF31	2019/02/26	2020/02/25				
DC Block	PASTERNACK	PE8210	RF81	2019/02/26	2020/02/25				
Coaxial Cables	Woken	00100A1F1A185C	RF229	2019/02/26	2020/02/25				

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

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留⁹0天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at 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



Page: 253 of 255

13.5 **Measurement Result**

Startup:

Operation Mode	802.11 a	Test Date	2019.03.12
Temperature	:23.1 °C	Test By	Henry
Humidity	: 51%		

Test Temp.(℃)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	∆ Frequency (MHz)
0	8.74	36	5180	5,179.99320	0.00000131
0	6.46	36	5180	5,179.99490	0.00000098
25	7.6	36	5180	5,179.99420	0.00000112
35	8.74	36	5180	5,179.99270	0.00000141
30	6.46	36	5180	5,179.99990	0.00000002

2 Minutes:

Operation Mode	802.11 a	Test Date	2019.03.12
Temperature	:23.1 ℃	Test By	Henry
Humidity	: 51%		

Test Temp.(℃)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	Δ Frequency (MHz)
0	8.74	36	5180	5,179.99380	0.00000120
U	6.46	36	5180	5,179.99650	0.00000068
25	7.6	36	5180	5,179.99180	0.00000158
35	8.74	36	5180	5,179.99330	0.00000129
30	6.46	36	5180	5,179.99290	0.00000137

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



Page: 254 of 255

5 Minutes:

Operation Mode	802.11 a	Test Date	2019.03.12
Temperature	:23.1 °C	Test By	Henry
Humidity	: 51%		

Test Temp.(°C)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	ΔFrequency (MHz)
0	8.74	36	5180	5,179.99130	0.0000168
	6.46	36	5180	5,179.99800	0.0000039
25	7.6	36	5180	5,179.99320	0.00000131
35	8.74	36	5180	5,179.99600	0.00000077
	6.46	36	5180	5,179.99380	0.00000120

10 Minutes:

Operation Mode	802.11 a	Test Date	2019.03.12
Temperature	:23.1 °C	Test By	Henry
Humidity	: 51%		

Test Temp.(°C)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	ΔFrequency (MHz)
0	8.74	36	5180	5,179.99810	0.0000037
	6.46	36	5180	5,179.99560	0.00000085
25	7.6	36	5180	5,179.99870	0.00000025
35	8.74	36	5180	5,179.99850	0.00000029
	6.46	36	5180	5,179.99610	0.00000075

Unless otherwise stated 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 unleavage stated the results shown in this test report reter only to the sample(s) tested and such sample(s) tested and Company's sole responsibility is to its 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 Compliance Certification Services Inc.



Page: 255 of 255

14 ANTENNA REQUIREMENT

Standard Applicable 14.1

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**

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

~ 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 <u>www.sqs.com/terms_and_conditions.htm</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is 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