

ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART E REQUIREMENT

	0F
Applicant:	Innolux Corporation
	No. 160, Kesyue Rd. Jhunan Science Park, Miaoli County 350, Tai-
	wan R.O.C.
Product Name:	Intel Dual Band Wireless-AC 8265
Brand Name:	N/A
Model No.:	8265NGW
Model Difference:	N/A
FCC ID:	2AQPW000001
Report Number:	E2/2018/A0015
FCC Rule Part:	§15.407, Cat: NII
Issue Date:	Feb. 11, 2019
Date of Test:	Oct. 11, 2018 ~ Oct. 25, 2018
Date of EUT Received:	Oct. 11, 2018

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Electronics & Communication Laboratory The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10: 2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits.

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

Tested By:

Aken Huana

Aken Huang / Engineer

Approved By:

Jay Lin / Asst. Supervisor



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

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms_and_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sqs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document can be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Revision History

Report Number	Revision	Description	Effected Page	Issue Date	Revised By
E2/2018/A0015	Rev.00	Initial creation of docu- ment	All	Jan. 31, 2019	Elle Chang
E2/2018/A0015	Rev.01	Revised FCC designa- tion number	Page 6	Feb. 11, 2019	Elle Chang

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Contents

	4
SYSTEM TEST CONFIGURATION	7
SUMMARY OF TEST RESULT	9
DESCRIPTION OF TEST MODES	.10
MEASUREMENT UNCERTAINTY	.13
UNDESIRABLE RADIATED EMISSION MEASUREMENT	.14
ANTENNA REQUIREMENT	65
	SYSTEM TEST CONFIGURATION SUMMARY OF TEST RESULT DESCRIPTION OF TEST MODES MEASUREMENT UNCERTAINTY UNDESIRABLE RADIATED EMISSION MEASUREMENT

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.



GENERAL INFORMATION 1

1.1 **Product Description**

General:

Product Name of Host:	Flat Panel Detector		
Brand Name:	N/A		
Model No. of Host:	Yushan V1	4C, Yushan V14G, Yushan F14C, Yushan F14G	
Model Difference:	Yushan V14C, Yushan V14G : Difference in Scintillator Yushan F14C, Yushan F14G : For marketing purpose		
Hardware Version:	N/A		
Software Version:	N/A		
Model No. of BT/WLAN Module:	8265NGW		
Module FCC ID:	2AQPW000001		
Scope:	The test report covers the radiated emissions requirements of the standards referenced in the report to allow system level ap- proval of the module in this specific host.		
Class II Permissive change:	Intel Wirele	ess-AC 8265 INSTALLED IN Flat Panel Detector	
	11.1 / 11.4Vdc from Rechargeable Li-polymer Battery or 24Vdc from AC/DC Adapter		
Power Supply:	Battery:	Model no.: X221AW2-B0G; Supplier: N/A	
	Adapter:	Model no.: MDS-060AAS24 B; Supplier: DELTA ELECTRONICS. INC.	

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.



WLAN 5GHz:

Wi-Fi 802.11	Frequency Range	Channels	Modulation Technology
	5150~5250	4	
	5250~5350	4	OFDM
а	5470~5725	12	OFDM
	5725-5850	5	
	5150~5250	4	
n_HT	5250~5350	4	OFDM
ac_VHT 20M	5470~5725	11	OFDM
	5725-5850	5	
	5150~5250	2	
n_HT ac_VHT	5250~5350	2	OFDM
40M	5470~5725	5	OFDM
	5725-5850	2	
	5150~5250	1	
ac_VHT	5250~5350	1	OFDM
80M	5470~5725	2	
	5725~5850	1	
Modulation type		64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 802.11ac only	
Transition Rate:		802.11 a: 6/9/12/18/24/36/48/54 Mbps 802.11 n_20MHz: 6.5 – 144.4Mbps 802.11 n_40MHz: 13.5 – 300.0Mbps 802.11 ac_20MHz: 6.5 –173.3Mbps 802.11 ac_40MHz: 13.5 –400.0Mbps 802.11 ac_80MHz: 29.3 – 866.7Mbps	

Vendor	Ant. Type	Main / Aux	Part No.	Freq.(MHz)	Peak Gain (dBi)
				5150~5250	-0.70
	Dipole	Main	Main N/A	5250~5350	-0.70
		IVIAILI		5470~5725	-0.70
Taoglas				5725~5850	-0.70
Taoyias				5150~5250	-2.50
	Dipole	Aux	N/A	5250~5350	-2.50
	Aux N/A	N/A	5470~5725	-2.50	
				5725~5850	-2.50

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.

Unless otherwise stated 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,此報告結果僅對測试之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.



1.2 Test Methodology of Applied Standards

FCC Part 15, Subpart E §15.407

FCC KDB 789033 D02 General UNII Test Procedures New Rules V02r01

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10:2013

Note:

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

1.3 Test Facility

SGS Taiwan Ltd. Electronics & Communication Laboratory No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333 (TAF code 0513)

FCC Registration Numbers are: 735305 / TW0002

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.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



2 SYSTEM TEST CONFIGURATION

2.1 EUT Configuration

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

2.2 EUT Exercise

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

2.3 Test Procedure

2.1.1 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.

2.1.2 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.

2.1.3 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.sgs.com/terms_and_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



2.4 Measurement Results Explanation Example For all conducted test items:

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

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

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

Weif So data was stated the results structure in this test report refer only to the sample(s) tester and pector sample(s) are retained to 50 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



2.5 Configuration of Tested System

Fig. 2-1 Radiated Emission Configuration



Table 2-1 Equipment Used in Tested System

ltem	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

SUMMARY OF TEST RESULT 3

FCC Rules	Description Of Test	Result
§15.205 §15.209 §15.407(b)	Undesirable Radiated Emissions	Compliant
§15.203 §15.407(a)	Antenna Requirement	Compliant

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

Unless otherwise stated 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,此報告結果僅對測试之樣品負責,同時此樣品僅保留卽天。本報告未經本公司書面許可,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 elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sqs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Report No.: E2/2018/A0015 Page: 10 of 165



DESCRIPTION OF TEST MODES 4

4.1 Operated in U-NII Bands

Operated band in 5150 MHz ~5250 MHz:

802.11a / n HT20 Mode, 802.11ac VHT20 Mode		
Channel	Frequency	
36	5180	
40	5200	
44	5220	
48	5240	

802.11 n HT40 Mode, 802.11ac VHT40 Mode			
channel	Frequency		
38	5190		
46	5230		

802.11ac VHT80 Mode		
channel	Frequency	
42	5210	

Operated band in 5250 MHz ~5350 MHz:

802.11a / n HT20 Mode, 802.11ac VHT20 Mode			
channel	Frequency		
52	5260		
56	5280		
60	5300		
64	5320		

802.11 n HT40 Mode, 802.11ac VHT40 Mode		
channel	Frequency	
54	5270	
62	5310	

802.11ac	VHT80 Mode
Channel	Frequency
58	5290

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

Contentions stated the results shown in this test report relet only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Operated band in 5470 MHz ~5725 MHz:

802.11a / n HT20 Mode, 802.11ac VHT20 Mode		
Channel	Frequency	
100	5500	
104	5520	
108	5540	
112	5560	
116	5580	
120	5600	
124	5620	
128	5640	
132	5660	
136	5680	
140	5700	

802.11 n HT40 Mode, 802.11ac VHT40 Mode		
channel	Frequency	
102	5510	
110	5550	
118	5590	
126	5630	
134	5670	

802.11ac VHT80 Mode		
channel	Frequency	
106	5530	
122	5610	

Operated band in 5745 MHz ~5850 MHz:

802.11a / n HT20 Mode, 802.11ac VHT20 Mode		
Channel	Frequency	
149	5745	
153	5765	
157	5785	
161	5805	
165	5825	

802.11 n HT40 Mode, 802.11ac VHT40 Mode		
channel	Frequency	
151	5755	
159	5795	

802.11ac VHT80 Mode		
channel	Frequency	
155	5775	

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.



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. **RADIATED EMISSION TEST:**

MODE	FREQUENCY BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
	RADIATED EMISSION TEST (BELOW 1 GHz)					
802.11a	5180~5240	36 to 48	36,44,48	OFDM	6	2TX
802.11ac_VHT80	5210	42	42	OFDM	MCS0	MIMO
802.11a	5260~5320	52 to 64	52,60,64	OFDM	6	2TX
802.11ac_VHT80	5290	58	58	OFDM	MCS0	MIMO
802.11a	5500~5720	100 to 140	100,116,140	OFDM	6	2TX
802.11ac_VHT80	5530~5690	106 to 138	106,122,138	OFDM	MCS0	MIMO
802.11a	5745~5825	149 to 165	149,157,165	OFDM	6	2TX
802.11ac_VHT80	5775	155	155	OFDM	MCS0	MIMO
	R	ADIATED EMIS	SION TEST (ABO	VE 1 GHz)		
802.11a	5180~5240	36 to 48	26 44 49	OFDM	6	2TX
802.11n_HT20	5100~5240	30 10 40	36,44,48	OFDM	MCS8	MIMO
802.11n_HT40	5190~5230	38 to 46	38,46	OFDM	MCS8	MIMO
802.11ac_VHT80	5210	42	42	OFDM	MCS0	MIMO
802.11a	5260~5320	52 to 64	52,60,64	OFDM	6	2TX
802.11n_HT20	5200~5520	52 10 04	52,00,04	OFDM	MCS8	MIMO
802.11n_HT40	5270~5310	54 to 62	54,62	OFDM	MCS8	MIMO
802.11ac_VHT80	5290	58	58	OFDM	MCS0	MIMO
802.11a	5500~5720	100 to 144	100 110 110	OFDM	6	2TX
802.11n_HT20	5500~5720	100 10 144	100,116,140	OFDM	MCS8	MIMO
802.11n_HT40	5510~5710	102 to 142	102,110,134	OFDM	MCS8	MIMO
802.11ac_VHT80	5530~5610	106 to 122	106,122	OFDM	MCS0	MIMO
802.11a	5745~5825	149 to 165	149,157,165	OFDM	6	2TX
802.11n_HT20	5745~5025	143 (0 103	149,107,100	OFDM	MCS8	MIMO
802.11n_HT40	5755~5795	151 to 159	151,159	OFDM	MCS8	MIMO
802.11ac_VHT80	5775	155	155	OFDM	MCS0	MIMO

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 E1 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.

Weif So data was stated the results structure in this test report refer only to the sample(s) tester and pector sample(s) are retained to 50 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

www.tw.sgs.com



MEASUREMENT UNCERTAINTY 5

Test Items	Uncertainty
AC Power Line Conducted Emission	+/- 2.586 dB
26dB & 6dB Emission Bandwidth	+/- 123.36 Hz
The Maximum Output Power Measurement	+/- 0.96 dB
Peak Power Spectral Density Measurement	+/- 1.67 dB
Frequency Stability	+/- 123.36 Hz
Temperature	+/- 0.65 °C
Humidity	+/- 4.6 %
DC / AC Power Source	DC= +/- 0.13%, AC=+/- 0.2%

Radiated Spurious Emission:

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

	9kHz-30MHz: +/-2.87dB
	30MHz - 167MHz: +/- 4.22dB
Measurement uncertainty	167MHz -500MHz: +/- 3.44dB
(Polarization : Horizontal)	0.5GHz-1GHz: +/- 3.39dB
	1GHz - 18GHz: +/- 4.08dB
	18GHz - 40GHz: +/- 4.08dB

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

Unless otherwise stated 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,此報告結果僅對測试之樣品負責,同時此樣品僅保留卽天。本報告未經本公司書面許可,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 elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sqs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.

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



6 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 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	LI	МІТ				
FCC KDB 789033 D02 General UNII Test Procedures New Rules	FIELD STRENGTH AT 3m					
	PK: 74 (dBµV/m)	AV 54 (dBµV/m)				
APPLICABLE TO	EIRP LIMIT	FIELD STRENGTH AT 3m				
15.407(b)(1)						
15.407(b)(2)	PK: -27 (dBm/MHz)	PK: 68.3 (dBµV/m)				
15.407(b)(3)						
15.407(b)(4)(i)	PK:-27 (dBm/MHz) *1 PK:10 (dBm/MHz) *2 PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	PK: 68.2(dBµV/m) *1 PK:105.2 (dBµV/m) *2 PK: 110.8(dBµV/m) *3 PK:122.2 (dBµV/m) *4				
*1 beyond 75 MHz or more above o	f the bandedge.					

*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.

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.

t (886-2) 2299-3279

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

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



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.

Emission level (dBµV/m) = 20 log Emission level (dBµV/m)

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

Weif So data was stated the results structure in this test report refer only to the sample(s) tester and pector sample(s) are retained to 50 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

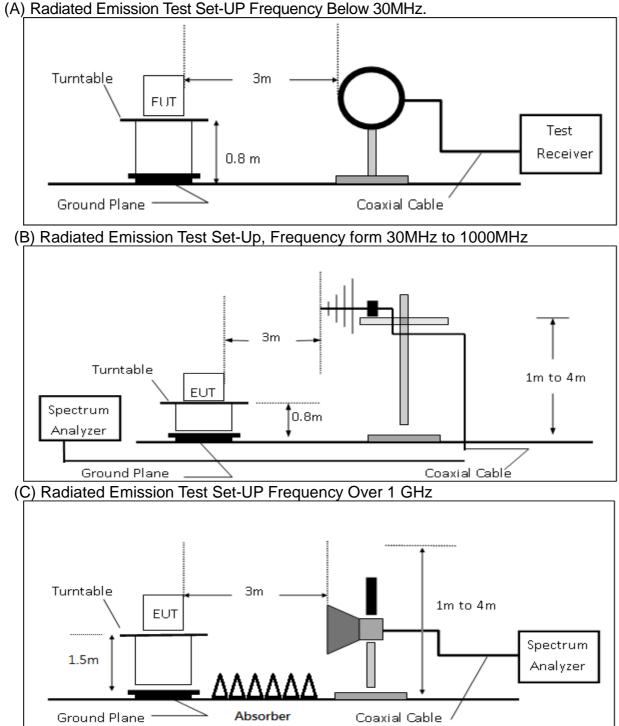


Measurement Equipment Used 11.2

SGS SAC-III										
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due					
Broadband An- tenna	TESEQ	CBL 6112D	35243	2017/11/10	2018/11/09					
Horn Antenna	Schwarzbeck	BBHA9120D	1187	2018/01/04	2019/01/03					
Horn Antenna	SCHWAZBECK	BBHA9170	184	2017/12/12	2018/12/11					
Loop Antenna	ETS.LINDGREN	6502	148045	2018/04/19	2019/04/18					
EMI Test Re- ceiver	R&S	ESU 40	100363	2018/04/11	2019/04/10					
Pre-Amplifier	EMC Instruments	EMC330	980096	2017/12/26	2018/12/25					
Pre-Amplifier	EMC Instruments	EMC0011830	980199	2017/12/26	2018/12/25					
Pre-Amplifier	EMC Instruments	EMC184045B	980135	2017/10/27	2018/10/26					
Attenuator	Marvelous	WATT-218FS-10	RF246	2017/12/26	2018/12/25					
Band Rejection Filter	Micro-Tronics	G015	RF100	2017/12/26	2018/12/25					
Band Rejection Filter	Micro-Tronics	G016	RF101	2017/12/26	2018/12/25					
Band Rejection Filter	Micro-Tronics	G021	RF102	2017/12/26	2018/12/25					
Coaxial Cable	Huber+Suhner	RG 214/U	W21.01	2017/12/26	2018/12/25					
Coaxial Cable	Huber Suhner	EMC106-SM-SM-7200	150703	2017/12/26	2018/12/25					
Coaxial Cable	Huber Suhner	SUCOFLEX 104	MY17388/4	2017/12/26	2018/12/25					
Coaxial Cable	Huber Suhner	RG 214/U	W22.03	2017/12/26	2018/12/25					



11.3 Test SET-UP



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

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



11.4 Measurement Procedure

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

11.5 Field Strength Calculation

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

	FS = RA + AF + CL - AG	
Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	
	S(dBu)/m) = SBA Booding lovel(d)	IPu//) L Eastar(dP)

Actual FS(dB μ V/m) = SPA. Reading level(dB μ V) + Factor(dB) Factor(dB) = Antenna Factor(dB μ V/m) + Cable Loss(dB) – Pre_Amplifier Gain(dB)

11.6 Test Results of Radiated Spurious Emissions form 9 KHz to 30 MHz

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

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

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format document, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is issues and conditions, if any. The Company's notice responsibility is to its Client and this document does not exencise to a transaction from exercising all their rights and obligations under the transaction for exercising all their rights and obligations under the performance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



11.7 Measurement Result

Radiated Spurious Emission Measurement Result

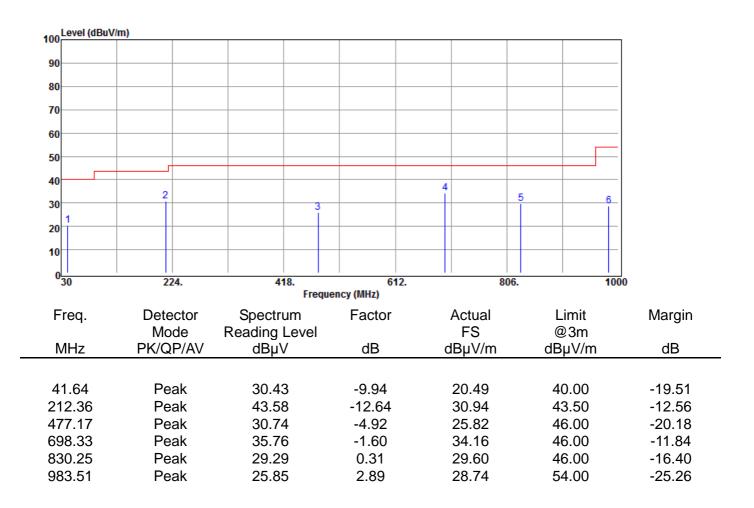
Below 1GHz Worst-Case Data: Operation Mode Test Mode EUT Pol

Test Channel

:802.11a / Band 1 :TX CH MID :H Plan :5200 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-25 :25/60 :VERTICAL :Ashton



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

Weif So data was stated the results structure in this test report refer only to the sample(s) tester and pector sample(s) are retained to 50 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

Report No.: E2/2018/A0015 Page: 20 of 165



Operation Test Mode EUT Pol Test Char	Э		:T: :H	02.11a / E X CH MIE Plan 200 MHz			Test Date Temp./Humi. Antenna Pol. Engineer			:2018-10-25 :25/60 :HORIZONTAL :Ashton	
100 Level	(dBuV/m)							1	1		
90											
80											_
70											_
60											
50											_
40											
30			1		2	3	4			5 6	
20											
10											
0 <mark></mark> 30		22	4.		418. Frequ	6 ⁴ ency (MHz)	12.	8	06.		1000
Freq		Dete	ctor	Spec		Factor		Actual	I	_imit	Margin
•		Mo		Reading				FS		@3m	-
MHz		PK/Q	P/AV	dB	JV	dB	C	lBµV/m	dE	βµV/m	dB
256.9	0	Pea		42.	70	-10.20		32.59		6.00	-13.41
256.9 466.5		Pea		42. 38.		-10.20		32.59 33.49		6.00	-13.41 -12.51
579.9		Pea		29.		-4.93		26.42		6.00	-19.58
663.4		Pea		23.		-2.14		25.87		6.00	-20.13
929.1		Pea		26.		1.69		28.66		6.00	-17.34
973.8		Pea		25.		2.65		28.62		54.00	-25.38

Report No.: E2/2018/A0015 Page: 21 of 165



Test M EUT P		9	:TX :H I	2.11a / Ba CH MID Plan 80 MHz	and 2	Test Date Temp./Humi. Antenna Pol. Engineer				:2018-10-25 :25/60 :VERTICAL :Ashton	
100	_evel (dBuV/m	1)							1		1
90-											
80											
70											
60											
50											
40											
30									5	6	
20			2		3		4		Ĭ		
10	1										
0	30	224	4.	4	18. Frequei	61 ncy (MHz)	2.	8	06.	100	0
F	req.	Deteo	ctor	Spectr	um	Factor		Actual	I	_imit	Margin
	-	Mod		Reading				FS		@3m	-
N	1Hz	PK/QF	P/AV	dBµ	V	dB	C	lBµV/m	dE	3µV/m	dB
54	5.22	Pea	sk	31.9	1	-18.01		13.90		0.00	-26.10
	4.81	Pea		33.2		-10.02		23.22		6.00	-22.78
	9.78	Pea		28.7		-4.42		24.32		6.00	-21.68
	5.05	Pea		27.0		-1.96		25.13		6.00	-20.87
83	0.25	Pea	ak	26.0	6	0.31		26.37	4	6.00	-19.63
91	7.55	Pea	ak	27.8	7	1.49		29.36	4	6.00	-16.64

Report No.: E2/2018/A0015 Page: 22 of 165



Operation Mo Test Mode EUT Pol Test Channel	:T. :H	02.11a / Band 2 X CH MID Plan 280 MHz	Test Date Temp./Humi. Antenna Pol. Engineer			:2018-10-25 :25/60 :HORIZONTAL :Ashton
100 Level (dBu)	V/m)					7
90						
80						
70						
60						
50						
40						
30	3					
	2	5	6			
20 1 10						
0 <mark>30</mark>	224.	418. Freque	612. ency (MHz)	806.	10	ōo
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	-
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
51.34	Peak	30.58	-16.48	14.10	40.00	-25.90
143.49	Peak	35.12	-12.18	22.94	43.50	-20.56
191.02	Peak	41.94	-13.79	28.15	43.50	-15.35
256.98	Peak	43.43	-10.20	33.23	46.00	-12.77
437.40	Peak	29.73	-5.80	23.93	46.00	-22.07
598.42	Peak	28.14	-3.22	24.92	46.00	-21.08

Report No.: E2/2018/A0015 Page: 23 of 165



Operation Mod Test Mode EUT Pol Test Channel	T: +:	02.11a / Band 3 'X CH MID I Plan 600 MHz		Test Date Temp./Humi. Antenna Pol. Engineer		:2018-10-25 :25/60 :VERTICAL :Ashton
100 Level (dBuV/	m)					-
90						
80						
70						
60						
50						-
40					6	
30	2		3	4 5		-
20						-
10						-
0 <mark></mark> 30	224.	418.	612.	806.	10	00
Freq.	Detector	Spectrum	ency (MHz) Factor	Actual	Limit	Margin
rieq.	Mode	Reading Level	racior	FS	@3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
44.55	Peak	30.39	-12.15	18.24	40.00	-21.76
267.65	Peak	32.63	-10.25	22.38	46.00	-23.62
557.68	Peak	30.26	-3.16	27.10	46.00	-18.90
703.18	Peak	28.31	-1.56	26.75	46.00	-19.25
837.04 966.05	Peak Peak	25.92 27.10	0.46 2.47	26.38 29.57	46.00 54.00	-19.62 -24.43
900.00	Peak	21.10	2.47	29.57	54.00	-24.43

Report No.: E2/2018/A0015 Page: 24 of 165



Operation Moo Test Mode EUT Pol Test Channel	:T: :H	02.11a / Band 3 X CH MID Plan 600 MHz	H MID Temp./Humi. In Antenna Pol.			
100 Level (dBuV	//m)					7
90						-
80						-
70						-
60						-
50						-
40						_
30	2	3	3		5 6	_
20				4		-
10						-
0 <u>-</u> 30	224.	418. Frequ	612. ency (MHz)	806.	10	00
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
N 41 1-	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
151.25	Peak	38.72	-12.78	25.94	43.50	-17.56
278.32	Peak	39.62	-10.21	29.41	46.00	-16.59
498.51	Peak	34.83	-4.24	30.59	46.00	-15.41
682.81	Peak	26.48	-1.83	24.65	46.00	-21.35
835.10	Peak	27.42	0.40	27.82	46.00	-18.18
970.90	Peak	26.29	2.57	28.86	54.00	-25.14

Report No.: E2/2018/A0015 Page: 25 of 165



Test M EUT P		e	:802.11a / Ba :TX CH MID :H Plan :5785 MHz	and 4		Test Date Temp./Humi. Antenna Pol. Engineer			:2018-10-25 :25/60 :VERTICAL :Ashton	
100	Level (dBuV/n	n)						,		_
90-										_
80										_
70-										_
60										_
50										_
40										_
30								5	6	_
20			2		3		•			_
10										_
0	30	224.	4	118. Freque	612 ency (MHz)		8	06.	10	00
F	req.	Detecto	r Specti	rum	Factor		Actual	L	_imit	Margin
-		Mode	Reading				FS		2)3m	
N	1Hz	PK/QP/A	V dBµ	V	dB	(dBµV/m	dE	βµV/m	dB
80	0.44	Peak	42.7	2	-16.84		25.88	4	0.00	-14.12
	3.17	Peak	32.0		-10.16		21.88		6.00	-24.12
50	9.18	Peak	27.9	3	-4.01		23.92	4	6.00	-22.08
	4.15	Peak	27.1		-1.57		25.55		6.00	-20.45
	0.39	Peak	26.7		1.09		27.79		6.00	-18.21
97	5.75	Peak	26.2	21	2.70		28.91	5	4.00	-25.09

Report No.: E2/2018/A0015 Page: 26 of 165



Operation Moo Test Mode EUT Pol Test Channel	:T. :H	02.11a / Band 4 X CH MID Plan 785 MHz	MID Temp./Humi. Antenna Pol.			
100 Level (dBuV	(m)					_
90						_
80						
						_
70						-
60						•
50						-
40						-
30	1	2	3	4	<u> </u>	-
20						-
10						
0 30						
-30	224.	418. Freque	612. ency (MHz)	806.	10	00
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
4.40.40		~~~~	40.44	04.45	10 50	10.05
146.40	Peak	36.86	-12.41	24.45	43.50	-19.05
319.06	Peak	31.97	-9.21	22.76	46.00	-23.24
584.84	Peak	26.64	-3.20	23.44	46.00	-22.56
824.43	Peak	27.37	0.19	27.56	46.00	-18.44
913.67	Peak	25.51	1.42	26.93	46.00	-19.07
973.81	Peak	25.60	2.65	28.25	54.00	-25.75

Report No.: E2/2018/A0015 Page: 27 of 165



Operation Mo Test Mode EUT Pol Test Channel	:T :H	:802.11ac80 / Band 1Test Date:TX CH LOWTemp./Humi.:H PlanAntenna Pol.:5210 MHzEngineer				:2018-10-25 :25/60 :VERTICAL :Ashton
100 Level (dBu	ıV/m)					_
90						
80						
70						
60						
50						
40			5			
30 1	2	3	4		6	
20						
10						
0 <mark></mark> 30	224.	418. Freque	612. ency (MHz)	806.	100	50
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level	i dotoi	FS	@3m	margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
80.44	Peak	42.29	-16.84	25.45	40.00	-14.55
197.81	Peak	40.73	-13.16	27.57	43.50	-15.93
338.46 513.06	Peak Peak	35.98 29.87	-8.34 -3.92	27.64	46.00 46.00	-18.36 -20.05
513.06 596.48	Peak	29.87 35.99	-3.92 -3.21	25.95 32.78	46.00	-20.05 -13.22
928.22	Peak	30.48	1.68	32.16	46.00	-13.84
010.22	. our	00110		02.10		10101

Report No.: E2/2018/A0015 Page: 28 of 165



Test M EUT P		e	:TX :H		LOW	/ Band 1				Test Temp Anter Engir	o./Hur nna P					:2018-10-25 :25/60 :HORIZONTA :Ashton	L
100	Level (dBuV/r	m)												1			
90																	
80																	
70																	
60																	
50														ſ			
40		ſ															
30															6		
20	1			:	2			3			4		5				
10																	
0	30	22	24.		4	18. Freque	ncy (Mi	61 Hz)	2.		1	806.			100	0	
F	req.	Dete	ector	S	pectr			ctor		Ac	tual		L	.imit		Margin	
		Мо		Rea		Level					-S			⊉3m		-	
N	/Hz	PK/Q	P/AV		dΒμ\	V	C	βB		dBl	uV/m		dB	µV/m		dB	-
21	5.82	Pe	ak		28.9	6	-6	.70		22	2.26		Δ	0.00		-17.74	
	6.89	Pe			29.6			.73			.92			6.00		-24.08	
	5.44	Pe			26.8			.17			8.66			6.00		-22.34	
	7.50	Pe			26.1			.21			.95			6.00		-21.05	
88	8.45	Pe	ak		24.8	8	1.	.08		25	5.96		4	6.00		-20.04	
98	3.51	Pe	ak		25.8	3	2.	.89		28	3.72		5	4.00		-25.28	

Report No.: E2/2018/A0015 Page: 29 of 165



Test M EUT F		9	:T> :H	2.11a (CH F Plan 290 MF		nd 2			Ter Ant	st Date np./Hun tenna Po gineer				:2 :\	2018-10-25 25/60 /ERTICAL Ashton
100	Level (dBuV/m	1)									-			_	
90														_	
80														_	
70														_	
<mark>60</mark>											<u> </u>			_	
50		r												_	
40		1						1						_	
30					2	3		÷	5		6			-	
20						_								-	
10														_	
0	30	22	24.	I	418. Fr	equie	6 ncy (MHz)	12.		8	06.		1	000	
F	req.	Dete Mo			ectrum ling Leve	-	Factor		/	Actual FS			.imit 93m		Margin
N	/Hz	PK/Q			dBµV	•	dB		d	BµV/m		-	μV/m		dB
		-			10.07		40.70			00.04			0 50		40.00
)5.57 '3.38		ak ak		13.37 28.82		-12.73 -7.10			30.64 21.72			3.50 6.00		-12.86 -24.28
	87.84		ak		29.68		-4.52			25.16			6.00		-20.84
	6.18		ak		35.98		-3.11			32.87			6.00		-13.13
	1.17		ak		27.72		-2.02			25.70			6.00		-20.30
82	4.43	Pe	ak	2	27.94		0.19			28.13		4	6.00		-17.87

Report No.: E2/2018/A0015 Page: 30 of 165



Test M EUT F		:T) :H	02.11ac80 / Band K CH HIGH Plan 290 MHz	2	Test Date Temp./Humi. Antenna Pol. Engineer		:2018-10-25 :25/60 :HORIZONTAL :Ashton
100	Level (dBuV	/m)					7
90							-
80							-
70							-
60							-
50							-
40							-
30				4 5			-
20	1	2	3				-
10							-
0	30						
	30	224.	418. Frequ	612. uency (MHz)	806.	10	00
F	req.	Detector	Spectrum	Factor	Actual	Limit	Margin
N	ЛНz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
N	/1112	FN/QF/AV	υвμν	UB	ubμv/m	ασμν/π	UD
8	5.29	Peak	37.70	-16.60	21.10	40.00	-18.90
23	80.79	Peak	34.90	-12.41	22.49	46.00	-23.51
	85.99	Peak	28.71	-6.61	22.10	46.00	-23.90
	5.74	Peak	30.28	-3.15	27.13	46.00	-18.87
	21.70	Peak	29.40	-2.84	26.56	46.00	-19.44
91	3.67	Peak	25.77	1.42	27.19	46.00	-18.81

Report No.: E2/2018/A0015 Page: 31 of 165



Test M EUT P		de	:T: :H	02.11ac80 X CH MID Plan 610 MHz	/ Band 3		Te Ai	est Date emp./Hun ntenna P ngineer			:2018-10-25 :25/60 :VERTICAL :Ashton
100	evel (dBuV	/m)						1			
90-											
80-											
70-											
60											
50											
40		2						5	;		
30	1				3			4			
20											
10											
0 <mark>_</mark> 3	50		224.	4	18.	61	2.	8	306.	100]
Fr	req.	D	etector	Spectr		rcy (MHz) Factor		Actual		imit	Margin
	eq.		Mode	Reading		i actor		FS		⊉3m	Margin
M	1Hz	PK	/QP/AV	dBµ'		dB		dBµV/m	dB	µV/m	dB
	2.08		Peak	41.6		-16.03		25.63		3.50	-17.87
	1.99		Peak	43.0		-13.70		29.38		3.50	-14.12
	3.66		Peak	27.1		-4.34		22.80		6.00	-23.20
	4.15		Peak	28.1		-1.57		26.54		6.00	-19.46 -12.51
	5.33 8.15		Peak Peak	33.9 27.7		-0.43 1.16		33.49 28.91		6.00 6.00	-12.51 -17.09
09	0.10	ſ	ean	21.1	5	1.10		20.91	4	0.00	-17.09

Report No.: E2/2018/A0015 Page: 32 of 165



Test M EUT P		9	:T: :H	02.11ac80 K CH MID Plan \$10 MHz	/ Band 3	i	T A	est Date emp./Hum ntenna Po ngineer			:2018-10-25 :25/60 :HORIZONTAL :Ashton
100	.evel (dBuV/m	1)									1
90											
80											
70											
60											
50											
40											
30			2			3		4	5	6	
20	1										
10											
0 <mark>3</mark>	 0	22	4	4	18.	61	2.	8	06.	100]
·						ncy (MHz)		· · ·			
Fr	req.	Dete		Spectr		Factor		Actual		imit	Margin
Μ	IHz	Mo PK/Q		Reading dBµ ^v		dB		FS dBµV/m		⊉3m sµV/m	dB
				•				•		•	
	3.58	Pea		29.4		-11.43		18.00		0.00	-22.00
	2.50	Pea		38.0		-10.30		27.75		6.00	-18.25
	6.04	Pea		27.9		-3.22		24.72		6.00	-21.28
	0.94	Pea		27.1		-1.53		25.66		6.00	-20.34
	7.41	Pea		27.4		0.80		28.23		6.00	-17.77
98	8.36	Pea	ak	27.8	9	3.01		30.90	5	4.00	-23.10

Report No.: E2/2018/A0015 Page: 33 of 165



Test M EUT P		9	:TX :H	2.11ac80 (CH LOW Plan (75 MHz		ŀ		Tem Ante	Date p./Hum enna Po ineer				:2018-10-25 :25/60 :VERTICAL :Ashton	
100 ¹	Level (dBuV/m	1)												
90														
80														
70														
60- 50														
50														
40							4					6		
30	1		2		3				5					
20														
10														
0	30	22	4.	4	18.		12.	I	8	06.	1	100	D	
E	roa	Dete	otor	Speet		ncy (MHz) Factor		٨	ctual		Limit		Morgin	
Г	req.	Mo		Spectr Reading		Factor			FS		@3m		Margin	
Ν	/IHz	PK/QI		dBµ		dB			μV/m	(dBµV/n	n	dB	
	1.94	Pea		29.4		-4.71			4.71		40.00		-15.29	
	3.70	Pea		36.6		-12.15			4.48		46.00		-21.52	
	8.00	Pea		27.6		-5.84			1.77		46.00		-24.23	
	7.82	Pea		32.8		-2.90			9.91		46.00		-16.09	
	57.13	Pea		27.2		-1.42			5.86		46.00		-20.14	
95	5.38	Pea	ак	30.7	9	2.19		3	2.98		46.00		-13.02	

Report No.: E2/2018/A0015 Page: 34 of 165



Operation Me Test Mode EUT Pol Test Channe				ind 4		Te A	est Date emp./Hum ntenna Po ngineer			:2018-10-25 :25/60 :HORIZONTAL :Ashton
100	uV/m)							1	1	1
90										
80										
70										
60										
50										
40				2					5 6	
30 1						3		1	ĨĨ	
20										
10										
0 <mark></mark> 30	22	4.	418.		61	2.	8	06.	100	0
Free	Data	atar		requen	cy (MHz)		Actual		ing it	Morain
Freq.	Dete Mo		Spectrum eading Lev	ല	Factor		Actual FS		_imit ⊉3m	Margin
MHz	PK/QI		dBµV	01	dB		dBµV/m	-	βµV/m	dB
40.67	Pea		30.11		-9.17		20.94		0.00	-19.06
482.02	Pea		41.18		-4.82		36.36		6.00	-9.64
658.56	Pea		26.88		-2.21		24.67		6.00	-21.33
862.26	Pea		26.55		0.84		27.39		6.00	-18.61
944.71	Pea		26.83		1.96		28.79		6.00	-17.21
991.27	Pea	ак	25.33		3.09		28.42	5	4.00	-25.58



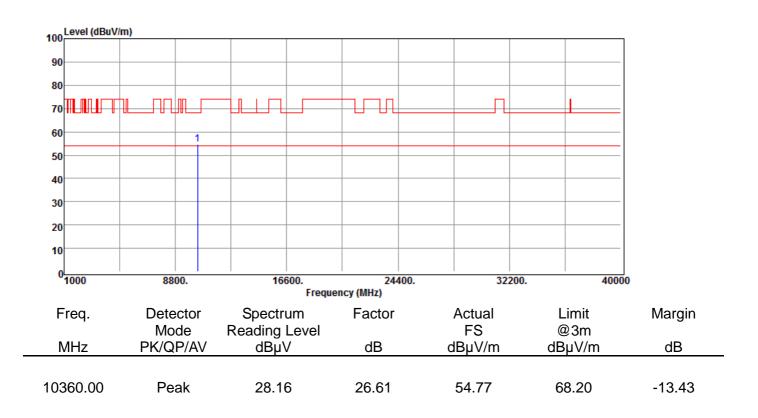
Above 1GHz Worst-Case Data: Radiated Spurious Emission Measurement Result 802.11a, 5150~5250 MHz

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

:802.11a / Band 1 Test Date Temp./Humi. :TX CH LOW :H Plan Antenna Pol. :5180 MHz

Engineer

:2018-10-18 :25/60 :VERTICAL :Enzo



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

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

Report No.: E2/2018/A0015 Page: 36 of 165

:2018-10-18

-11.05



:802.11a / Band 1

Operation Mode

10360.00

Peak

st Mode T Pol st Channel	:H	K CH LOW Plan I80 MHz		Temp./Humi. Antenna Pol. Engineer		:25/60 :HORIZONT :Enzo
100 Level (dBuV/	m)					
90						
80						
70						
60						
50						
40						
30						
20						
10						
0 <mark></mark> 1000	8800.	16600. Freque	24400. ency (MHz)	32200.	40000	i
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB

26.61

Test Date

57.15

68.20

30.54

Report No.: E2/2018/A0015 Page: 37 of 165

:2018-10-18



Operation Mode

Test Mode EUT Pol Test Channel	:TX :H F	CH MID Plan 00 MHz		Temp./Humi. Antenna Pol. Engineer		:25/60 :VERTICAL :Enzo
100 Level (dBuV/	/m)	1 1				1
90						
80						
70		╞╢╧╧┚╎╧═╌╴				
60	1					
50						
40						
30						
20						
10						
0 <mark></mark> 1000	8800.	16600. Freque	24400. ncy (MHz)	32200.	4000	0
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10400.00	Peak	28.32	26.79	55.11	68.20	-13.09

Test Date

:802.11a / Band 1

Report No.: E2/2018/A0015 Page: 38 of 165



0<mark>1000</mark>

8800.

Operation Mode Test Mode EUT Pol Test Channel	:802.11a / Band 1 :TX CH MID :H Plan :5200 MHz	Test Date Temp./Humi. Antenna Pol. Engineer	:2018-10-18 :25/60 :HORIZONTAL :Enzo
100			
90			
80			
70			
60	1		
50			

		Freque	ency (MHz)			-
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10400.00	Peak	28.55	26.79	55.34	68.20	-12.86

24400.

32200.

40000

16600.

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Report No.: E2/2018/A0015 Page: 39 of 165

:2018-10-18



Operation Mode

Fest Mode EUT Pol Fest Channel	:T) :H	X CH HIGH Plan 240 MHz		Temp./Humi. Antenna Pol. Engineer		:25/60 :VERTICAL :Enzo
100 Level (dBuV/m	n)]
90						
80						
70	╘══╛╢┞╣╢╘═╛┈		┼┶┵┶┽			
60 50						
40						
30						
20						
10						
0 <mark>1000</mark>	8800.	16600. Freque	24400. ency (MHz)	32200.	4000	0
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10480.00	Peak	28.73	27.16	55.89	68.20	-12.31

Test Date

:802.11a / Band 1

Report No.: E2/2018/A0015 Page: 40 of 165

:2018-10-18

-12.83



:802.11a / Band 1

Operation Mode

10480.00

Peak

Test Mode EUT Pol Test Channel	:T: :H	X CH HIGH Plan 240 MHz		Temp./Humi. Antenna Pol. Engineer		:25/60 :HORIZONTAL :Enzo
100 Level (dBuV	//m)		1			1
90						
80						
70				R_	I	
60	1					
50						
40						
30						
20						
10						
0 <mark></mark> 1000	8800.	16600. Freque	24400. ency (MHz)	32200.	4000])0
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB

27.16

Test Date

55.37

68.20

28.21



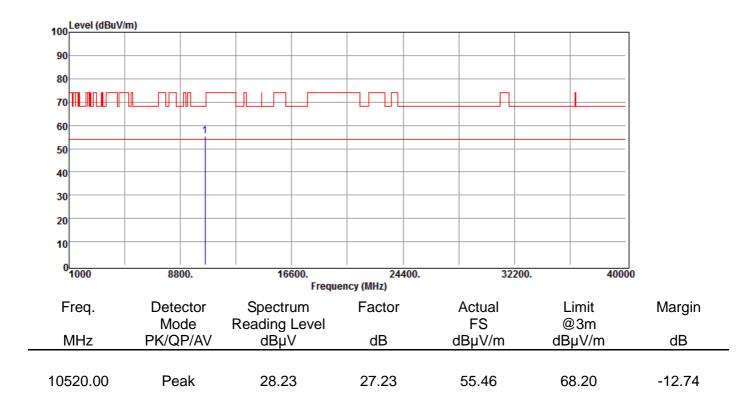
Radiated Spurious Emission Measurement Result 802.11a, 5250MHz-5350MHz

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

:802.11a / Band 2 :TX CH LOW :H Plan :5260 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-18 :25/60 :VERTICAL :Enzo



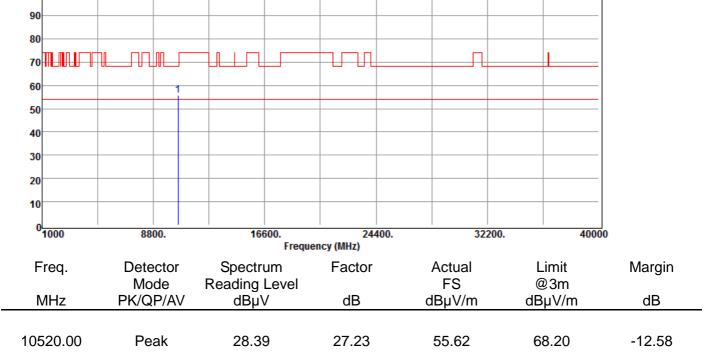
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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

Report No.: E2/2018/A0015 Page: 42 of 165



Operation Mode	:802.11a / Band 2	Test Date	:2018-10-18
Test Mode	:TX CH LOW	Temp./Humi.	:25/60
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5260 MHz	Engineer	:Enzo
100 Level (dBuV/m)			



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

Unless otherwise stated 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,此報告結果僅對測试之樣品負責,同時此樣品僅保留別天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Report No.: E2/2018/A0015 Page: 43 of 165

:2018-10-18

-12.86



Operation Mode

10560.00

Peak

Test Mode EUT Pol Test Channel	:H	X CH MID I Plan 280 MHz		Temp./Humi. Antenna Pol. Engineer		:25/60 :VERTICAL :Enzo
100 Level (dBuV	/m)					1
90						
80						
70				Π		
60	1					
50						
40						
30						
20						
10						
0 <mark>1000</mark>	8800.	16600. Freque	24400. ency (MHz)	32200.	4000	0
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB

27.21

Test Date

55.34

68.20

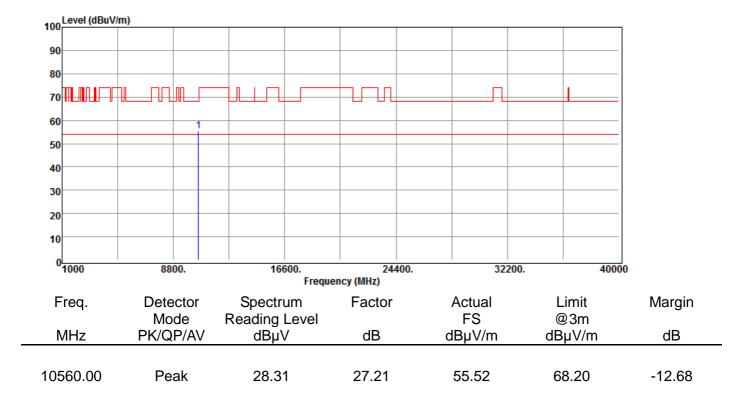
:802.11a / Band 2

28.13

Report No.: E2/2018/A0015 Page: 44 of 165



EUT Pol:H PlanAntenna Pol.:HORIZONTALTest Channel:5280 MHzEngineer:Enzo				:2018-10-18 :25/60 :HORIZONTAL :Enzo
---	--	--	--	---



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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留卽天。本報告未經本公司書面許可,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 elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sqs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Report No.: E2/2018/A0015 Page: 45 of 165

:2018-10-18



Operation Mode

est Mode UT Pol est Channel	:TX CH HIGH :H Plan :5320 MHz	Temp./Humi. Antenna Pol. Engineer	:25/60 :VERTICAL :Enzo
100 Level (dBuV/m)			7
90			-
80			
60	2		-
50			-
40			-
30			-
20			
10			
0 <mark>1000</mark>	8800. 16600.	24400. 32200. 400	00

Test Date

:802.11a / Band 2

		Freque	ency (MHZ)			
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10640.00	Average	17.67	27.20	44.87	54.00	-9.13
10640.00	Peak	28.00	27.20	55.20	74.00	-18.80

Report No.: E2/2018/A0015 Page: 46 of 165



Operation Mode	:802.11a / Band 2	Test Date	:2018-10-19
Test Mode	:TX CH HIGH	Temp./Humi.	:25/60
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5320 MHz	Engineer	:Enzo

100 Level (dBuV	/m)					
90						
80						
70				<u>_</u>	I	
60	2					
50						
40						
30						
20						
10						
0 <mark></mark> 1000	8800.	16600. Freque	24400. ency (MHz)	32200	. 40000	I.
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10640.00	Average	17.42	27.20	44.62	54.00	-9.38
10640.00	Peak	28.50	27.20	55.70	74.00	-18.30



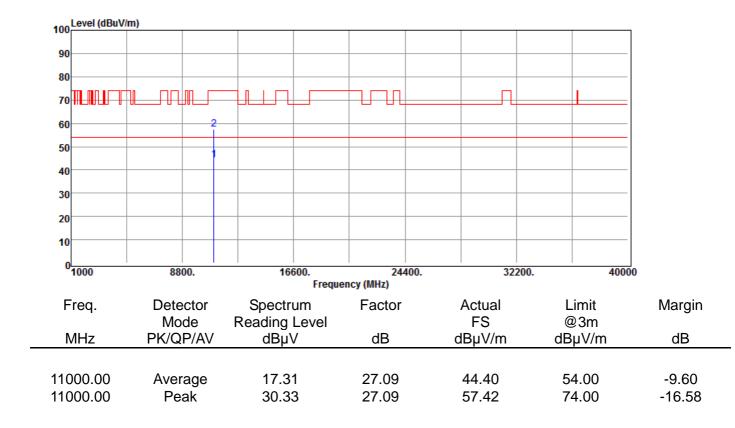
Radiated Spurious Emission Measurement Result 802.11a, 5470~5725 MHz

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

:802.11a / Band 3 :TX CH LOW :H Plan :5500 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-19 :25/60 :VERTICAL :Enzo



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

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

Report No.: E2/2018/A0015 Page: 48 of 165



Operation Mode:802.11a / BandTest Mode:TX CH LOWEUT Pol:H PlanTest Channel:5500 MHz	3 Test Date Temp./Humi. Antenna Pol. Engineer	:2018-10-19 :25/60 :HORIZONTAL :Enzo
---	--	---

90 90	100 Level (dBuV	/m)					
70 <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>							
60 2	80						
50 1	70		╶┧╽╧┟╱╏╧╍╌		<u>_</u>		
40 <t< td=""><td>60</td><td>2</td><td></td><td></td><td></td><td></td><td></td></t<>	60	2					
30 <td< td=""><td>50</td><td>1</td><td></td><td></td><td></td><td></td><td></td></td<>	50	1					
20 Image: Constraint of the second seco	40						
10 10 10 10000 10000 10000 10000 10000 100000 100000 1000000 1000000 10000	30						
0 8800. 16600. 24400. 32200. 40000 Frequency (MHz) Frequency (MHz) Frequency (MHz) 40000 Freq. Detector Spectrum Factor Actual Limit Margi Mode Reading Level FS @ 3m MHz PK/QP/AV dBµV dB dBµV/m dB 11000.00 Average 17.43 27.09 44.52 54.00 -9.48	20						
Frequency (MHz) Freq. Detector Spectrum Factor Actual Limit Margi Mode Reading Level FS @3m MHz PK/QP/AV dBµV dB dBµV/m dB 11000.00 Average 17.43 27.09 44.52 54.00 -9.48	10						
Mode Reading Level FS @3m MHz PK/QP/AV dBμV dB dBμV/m dBμV/m dB 11000.00 Average 17.43 27.09 44.52 54.00 -9.48	0 <mark></mark>	8800.			32200). 40000	
MHz PK/QP/AV dBμV dB dBμV/m dBμV/m dB 11000.00 Average 17.43 27.09 44.52 54.00 -9.48	Freq.			Factor			Margir
8	MHz			dB			dB
Ū						- /	• • •
11000.00 Peak 29.29 27.09 56.38 74.00 -17.6	11000.00 11000.00	Average Peak	17.43 29.29	27.09 27.09	44.52 56.38	54.00 74.00	-9.48 -17.62

Report No.: E2/2018/A0015 Page: 49 of 165



0<mark>1000</mark>

Freq.

MHz

11200.00

11200.00

8800.

Detector

Mode

PK/QP/AV

Average

Peak

16600.

Spectrum

Reading Level

dBµV

17.38

28.78

Operation Mod Test Mode EUT Pol Test Channel	:TX (:H P	.11a / Ba CH MID lan 0 MHz	ind 3	Te An	st Date mp./Hum tenna Po gineer		:2018-10-19 :25/60 :VERTICAL :Enzo	
100								
90								

24400.

Factor

dB

26.57

26.57

Frequency (MHz)

32200.

Actual

FS

dBµV/m

43.95

55.35

40000

Margin

dB

-10.05

-18.65

Limit

@3m

dBµV/m

54.00

74.00

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.

Unless otherwise stated 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,此報告結果僅對測试之樣品負責,同時此樣品僅保留別天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Report No.: E2/2018/A0015 Page: 50 of 165



Operation Mode:802.11a / Band 3Test DateTest Mode:TX CH MIDTemp./HumEUT Pol:H PlanAntenna PolTest Channel:5600 MHzEngineer	
--	--

100 Level (dBuV/	m)					
90						
80						
70					I	
60	2					
50	1					
40						
30						
20						
10						
0 <mark>1000</mark>	8800.	16600. Freque	24400. ency (MHz)	32200	. 4000	0
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11200.00	Average	17.41	26.57	43.98	54.00	-10.02
11200.00	Peak	29.14	26.57	55.71	74.00	-18.29

Report No.: E2/2018/A0015 Page: 51 of 165

:2018-10-19



Operation Mode

Fest Mode EUT Pol Fest Channel	:H F	:H Plan Antenna Pol. :VER			:25/60 :VERTICAL :Enzo
100 Level (dBuV	/m)				
90					
80					
70					
60	2				
50					
40					
30					
20					
10					
0 ^L 1000	8800.	16600.	24400.	32200.	40000

Test Date

:802.11a / Band 3

Frequency (MHz)									
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin			
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB			
11400.00	Average	17.68	26.07	43.75	54.00	-10.25			
11400.00	Peak	29.16	26.07	55.23	74.00	-18.77			

Report No.: E2/2018/A0015 Page: 52 of 165



Operation Mode	:802.11a / Band 3	Test Date	:2018-10-19
Test Mode	:TX CH HIGH	Temp./Humi.	:25/60
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5700 MHz	Engineer	:Enzo

100 Level (dBuV/	/m)					
90						
80						
70				<u></u>		
60	2					
50						
40						
30						
20						
10						
0 <mark></mark>	8800.	16600. Freque	24400. ency (MHz)	32200). 40000)
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11400.00	Average	17.22	26.07	43.29	54.00	-10.71
11400.00	Peak	28.88	26.07	54.95	74.00	-19.05



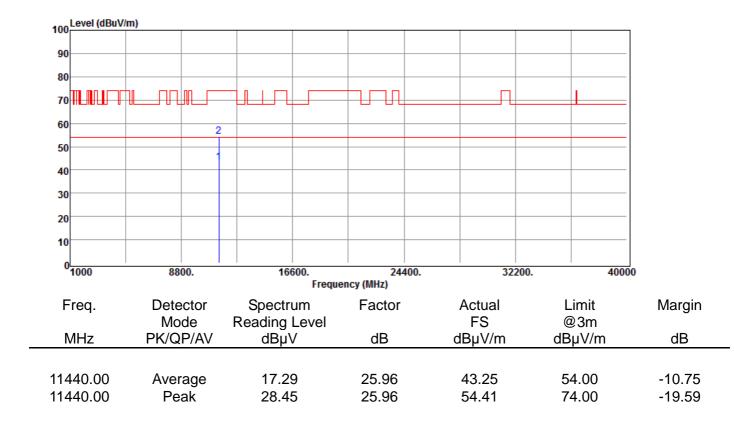
Radiated Spurious Emission Measurement Result 802.11a, 5725~5850 MHz

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

:802.11a / Band 3-4 :TX CH 144 :H Plan :5720 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-19 :25/60 :VERTICAL :Enzo



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

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

Report No.: E2/2018/A0015 Page: 54 of 165



Operation Mode	:802.11a / Band 3-4	Test Date
Test Mode	:TX CH 144	Temp./Humi.
EUT Pol	:H Plan	Antenna Pol.
Test Channel	:5720 MHz	Engineer

:2018-10-19 :25/60 :HORIZONTAL :Enzo

100 Level (dBuV	/m)					7
90						
80						
70		╶┧┖┶┙╌			 	
60	2					
50	1					
40						
30						
20						
10						
0 <mark></mark>	8800.	16600. Frequ	24400. ency (MHz)	32200	. 4000)0
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
11440.00	Average	17.29	25.96	43.25	54.00	-10.75
11440.00	Peak	30.00	25.96	55.96	74.00	-18.04

Report No.: E2/2018/A0015 Page: 55 of 165

:2018-10-19

-17.64



Operation Mode

11490.00

Peak

Test Mode EUT Pol Test Channel	:H:	K CH LOW Plan ′45 MHz	Temp./Humi. Antenna Pol. Engineer			:25/60 :VERTICAL :Enzo
100 Level (dBuV	/ m)					7
90						
80						
70		╶╞╢╾┟╱╏┿╼┚╴╴╴		Π		
60	2					
50						
40						
30						
20						
10						
0L 1000	8800.	16600. Freque	24400. ncy (MHz)	32200.	4000	00
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11400.00	Average	17.20	25.83	42.02	54.00	10.07
11490.00	Average	17.20	20.03	43.03	54.00	-10.97

25.83

56.36

Test Date

:802.11a / Band 4

30.53

74.00

Report No.: E2/2018/A0015 Page: 56 of 165

40000

Margin

dB

-10.91

-18.72

Limit

@3m

dBµV/m

54.00

74.00

32200.

Actual

FS

dBµV/m

43.09

55.28



0<mark>1000</mark>

Freq.

MHz

11490.00

11490.00

8800.

Detector

Mode

PK/QP/AV

Average

Peak

16600.

Spectrum

Reading Level

dBµV

17.26

29.45

Operation Mode Test Mode EUT Pol Test Channel	:802.11a / Band 4 :TX CH LOW :H Plan :5745 MHz	Test Date Temp./Humi. Antenna Pol. Engineer	:2018-10-19 :25/60 :HORIZONTAL :Enzo
90			

24400.

Factor

dB

25.83

25.83

Frequency (MHz)

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留卽天。本報告未經本公司書面許可,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 elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sqs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Report No.: E2/2018/A0015 Page: 57 of 165

:2018-10-19



Operation Mode

est Mode EUT Pol est Channel	:TX CH MI :H Plan :5785 MHz		Temp./Humi. Antenna Pol. Engineer	:25/60 :VERTICAL :Enzo
100 Level (dBuV/m))			
90				
80				
70	═╾┚┚┶╢╾┎╼╼╼╞╢╾┷╧			
60	2			
50				
40				
30				
20				
10				
0 <mark>1000</mark>	8800.	16600.	24400. 32200.	40000

Test Date

:802.11a / Band 4

1000	0000.	Freque	ency (MHz)	52200.	4000		
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB	
11570.00	Average	17.34	25.87	43.21	54.00	-10.79	
11570.00	Peak	28.71	25.87	54.58	74.00	-19.42	

Report No.: E2/2018/A0015 Page: 58 of 165



Operation Mo Test Mode EUT Pol Test Channe	Т: Н:	02.11a / Band 4 X CH MID Plan 785 MHz		Test Date Temp./Humi. Antenna Pol. Engineer		:2018-10-19 :25/60 :HORIZONTAL :Enzo
100 Level (dBu	ıV/m)					_
90						
80						
70						
60		2				
50						
40						
30						
20						
10						
0 <mark></mark> 1000	8800.	16600. Freque	24400. ency (MHz)	32200.	4000	 DO
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
11570.00 11570.00	Average Peak	17.18 29.38	25.87 25.87	43.05 55.25	54.00 74.00	-10.95 -18.75
11070.00	r can	20.00	20.07	00.20	17.00	-10.70

Report No.: E2/2018/A0015 Page: 59 of 165



Operation Moc Test Mode EUT Pol Test Channel	:Т Н:	02.11a / Band 4 X CH HIGH Plan 825 MHz		Test Date Temp./Humi. Antenna Pol. Engineer		:2018-10-19 :25/60 :VERTICAL :Enzo
100 Level (dBuV/	(m)					_
90						
80						
70						
60		2				
50						-
40						-
30						
20						
10						
0 <mark>0</mark>	8800.	16600.	24400.	3220	0. 400	 00
		Freque	ncy (MHz)			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
		• p		p	p	
11650.00	Average	17.15	25.94	43.09	54.00	-10.91
11650.00	Peak	29.95	25.94	55.89	74.00	-18.11

Report No.: E2/2018/A0015 Page: 60 of 165



Operation Mo Test Mode EUT Pol Test Channel	Т: Н:	02.11a / Band 4 X CH HIGH Plan 825 MHz		Test Date Temp./Humi. Antenna Pol. Engineer		:2018-10-19 :25/60 :HORIZONTAL :Enzo
100 Level (dBu	V/m)					
90 80						-
80 70						-
60						
		2				
50						
40						-
30						-
20						-
10						
0 ^L 1000	8800.	16600. Freque	24400. ency (MHz)	32200.	400	_ 00
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
11650.00	Average	17.22	25.94	43.16	54.00	-10.84
11650.00	Peak	29.84	25.94	55.78	74.00	-18.22



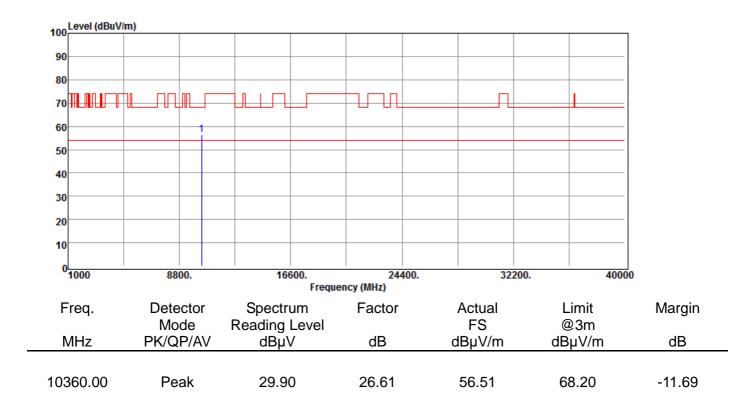
Radiated Spurious Emission Measurement Result 802.11n HT20, 5150~5250 MHz

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

:802.11n20 / Band 1 :TX CH LOW :H Plan :5180 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :VERTICAL :Ashton



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

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

Report No.: E2/2018/A0015 Page: 62 of 165



Operation Mode Test Mode	:802.11n20 / Band 1 :TX CH LOW	Test Date Temp./Humi.
EUT Pol	:H Plan	Antenna Pol.
Test Channel	:5180 MHz	Engineer

:2018-10-22 :25/60 :HORIZONTAL :Ashton

100 Level (dBuV	/m)					1	7
90							-
80							
70						I	
60		1					-
50							-
40							
30							-
20							-
10							-
0 <mark></mark>	8800		16600. Frequ	24400 ency (MHz)). 322	00. 400	00
Freq.	Detec Mod		Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP	/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10360.00	Peal	k	32.29	26.61	58.90	68.20	-9.30

Report No.: E2/2018/A0015 Page: 63 of 165



Operation Mod Test Mode EUT Pol Test Channel	ר: א:	802.11n20 / Band 1 TX CH MID H Plan 5200 MHz		Test Date Temp./Humi. Antenna Pol. Engineer		:2018-10-22 :25/60 :VERTICAL :Ashton
100 Level (dBuV/ 90	m)					
80						
70						
60						
50						
40						
30						
20						
10						
0 ^L 1000	8800.	16600. Freque	24400. ncy (MHz)	32200.	4000	0
Freq.	Detector	Spectrum	Factor	Actual FS	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
10400.00	Peak	29.62	26.79	56.41	68.20	-11.79

Report No.: E2/2018/A0015 Page: 64 of 165



Operation Mode Test Mode EUT Pol Test Channel	:802.11n20 / Band 1 :TX CH MID :H Plan :5200 MHz	Test Date Temp./Humi. Antenna Pol. Engineer
	.0200 101 12	Engineer
Test Channel	:5200 MHZ	Engineer

:2018-10-22 :25/60 :HORIZONTAL :Ashton

100 Level (dBuV/	m)					
90						
80						
70					I	
60						
50						
40						
30						
20						
10						
0 <mark></mark>	8800.	16600. Freque	24400. ency (MHz)	32200.	40000)
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10400.00	Peak	30.39	26.79	57.18	68.20	-11.02

Report No.: E2/2018/A0015 Page: 65 of 165



Operation Moc Test Mode EUT Pol Test Channel	:	802.11n20 / Band 1 TX CH HIGH H Plan 5240 MHz		Test Date Temp./Humi. Antenna Pol. Engineer		:2018-10-22 :25/60 :VERTICAL :Ashton
100 Level (dBuV/	/m)					1
90						
80						
70				∩	I	
60	1					
50						
40						
30						
20						
10						
0 ^L 1000	8800.	16600. Freque	24400. ncy (MHz)	32200.	4000	0
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level ′ dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
10480.00	Peak	29.76	27.16	56.92	68.20	-11.28

Report No.: E2/2018/A0015 Page: 66 of 165



Operation Mode	:802.11n20 / Band 1	Test Date			
Test Mode	:TX CH HIGH	Temp./Humi.			
EUT Pol	:H Plan	Antenna Pol.			
Test Channel	:5240 MHz	Engineer			
Level (dRu\//m)					

:2018-10-22 :25/60 :HORIZONTAL :Ashton

100 Level (dBuV/	/m)					-
90						-
80						-
70			╪┶╾╜┞	₽		_
60	1					-
50						-
40						-
30						-
20						-
10						-
0 <mark></mark> 1000	8800.	16600. Freque	2440 ency (MHz)	0. 322	200. 400	00
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
0480.00	Peak	30.12	27.16	57.28	68.20	-10.92



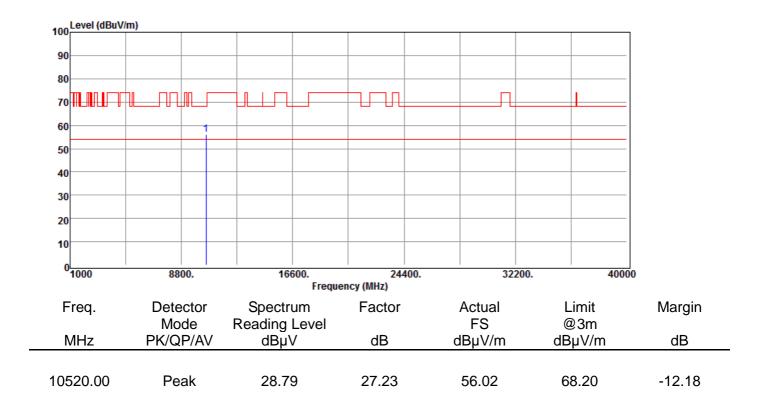
Radiated Spurious Emission Measurement Result 802.11n HT20, 5250~5350 MHz

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

:802.11n20 / Band 2 :TX CH LOW :H Plan :5260 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :VERTICAL :Ashton



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

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

Report No.: E2/2018/A0015 Page: 68 of 165

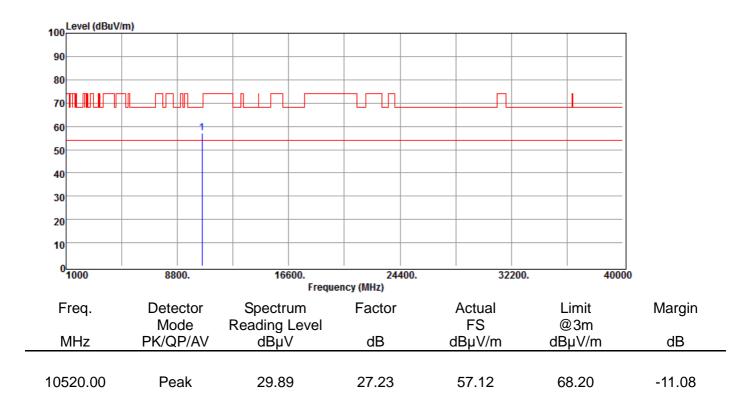


Operation Mode Test Mode EUT Pol **Test Channel**

:802.11n20 / Band 2 :TX CH LOW :H Plan :5260 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :HORIZONTAL :Ashton



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

Contentions stated the results shown in this test report relet only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

Report No.: E2/2018/A0015 Page: 69 of 165

·2018-10-22



Operation Mode

Test EUT	Operation Mode:802.111207 BandTest Mode:TX CH MIDEUT Pol:H PlanTest Channel:5280 MHz					Temp./Humi. Antenna Pol. Engineer					
10	0 Level (dBuV/m)			1		I	I		7	
9	0									-	
8	0									-	
7	° <mark>₩Ŀ₩!ĿĿ╶ℾ⁻₩</mark>								1	-	
6	0		1							-	
5	0									-	
4	0									-	
3	0									-	
2	0									-	
1										-	
	0 <mark>1000</mark>	8800. 16600. 24400. 32200. 40000 Frequency (MHz)							00		
	Freq.	Detecto			Factor		Actual		_imit	Margin	
	MHz	Mode PK/QP/A	Reading ₩ dBµ		dB	C	FS JBµV/m		@3m 3µV/m	dB	
10	560.00	Peak	30.7	6	27.21		57.97	6	8.20	-10.23	

Test Date

·802 11n20 / Band 2

Report No.: E2/2018/A0015 Page: 70 of 165

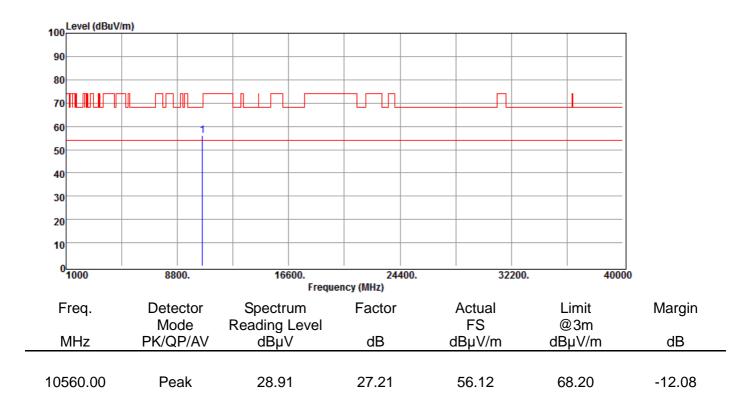


Operation Mode Test Mode EUT Pol **Test Channel**

:802.11n20 / Band 2 :TX CH MID :H Plan :5280 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :HORIZONTAL :Ashton



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

Contentions stated the results shown in this test report relet only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

Report No.: E2/2018/A0015 Page: 71 of 165

:2018-10-22



Operation Mode

Test Mode EUT Pol Test Channel			:H	TX CH HIGH H Plan 5320 MHz	Temp./Humi. Antenna Pol. Engineer					:25/60 :VERTICAL :Ashton	
10	Level (dBuV	/m)									
90	D										-
8	D										-
7	₀ <mark>₩Ŀ₩ĿĿ</mark> Ţ							Π			=
6	D		2								_
50	0										-
40	D										-
30	0										-
20	0										-
10	0										-
(0 <mark>1000</mark>	88	00.	166	00.	244	400.	32	200.	400	
					Freque	ncy (MHz)					
ł	Freq.		ector	Spectru		Factor		Actual		Limit	Margin
	MHz		ode P/AV	Reading L dBµV		dB		FS dBµV/m		⊉3m sµV/m	dB
10	640.00	Ave	rage	18.36	5	27.20		45.56	5	4.00	-8.44
	640.00		ak	30.00		27.20		57.20		4.00	-16.80

Test Date

:802.11n20 / Band 2

Report No.: E2/2018/A0015 Page: 72 of 165

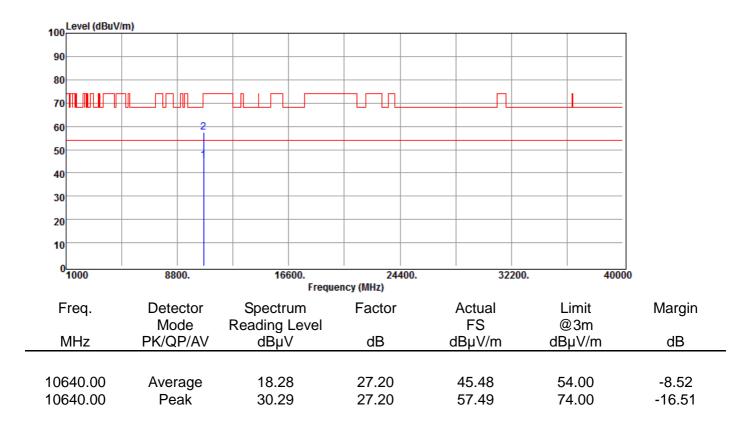


Operation Mode Test Mode EUT Pol **Test Channel**

:802.11n20 / Band 2 :TX CH HIGH :H Plan :5320 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :HORIZONTAL :Ashton



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

contexts otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



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

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

:802.11n20 / Band 3 :TX CH LOW :H Plan :5500 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :VERTICAL :Ashton

100 Level (dBuV/	m)					
90						
80						
70						
60	2					
50						
40						
30						
20						
10						
0 1000	8800.	16600.	24400.	32200	. 4000	0
		Frequ	ency (MHz)			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
		ubhi	UD	υσμν/π	ασμν/π	ųВ
11000.00	Avorage	18.59	27.09	45.68	54.00	-8.32
11000.00	Average Peak	30.21	27.09	45.68 57.30	54.00 74.00	-0.32 -16.70
11000.00	1 Jun	00.21	21.00	01.00	7 1.00	10.70

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.

Unless otherwise stated 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,此報告結果僅對測试之樣品負責,同時此樣品僅保留卽天。本報告未經本公司書面許可,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 elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sqs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Report No.: E2/2018/A0015 Page: 74 of 165



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

:802.11n20 / Band 3 :TX CH LOW :H Plan :5500 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :HORIZONTAL :Ashton

100 Level (dBuV/	m)					
90						
80						
70					I	
60	2					
50						
40						
30						
20						
10						
0 <mark></mark>	8800.	16600. Freque	24400. ency (MHz)	3220	0. 4000	0
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
11000.00	Average	18.50	27.09	45.59	54.00	-8.41
11000.00	Peak	30.75	27.09	57.84	74.00	-16.16

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

Report No.: E2/2018/A0015 Page: 75 of 165

:2018-10-22



Operation Mode

	Test Mode EUT Pol Test Channel	:T) :H	X CH MID Plan 600 MHz		Temp./Humi. Antenna Pol. Engineer		:25/60 :VERTICAL :Ashton
	100 Level (dBuV/m	1)					7
	90						-
	80						_
	70		╶┧┖┶┚└┶┚		Π	I	_
	60	2					-
	50						-
	40						-
	30						-
	20						-
	10						-
	0 <mark></mark>	8800.	16600. Freque	24400. ncy (MHz)	32200.	400	00
	Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
-	MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
	11200.00	Average	18.23	26.57	44.80	54.00	-9.20
	11200.00	Peak	29.90	26.57	56.47	74.00	-17.53

Test Date

:802.11n20 / Band 3

Report No.: E2/2018/A0015 Page: 76 of 165

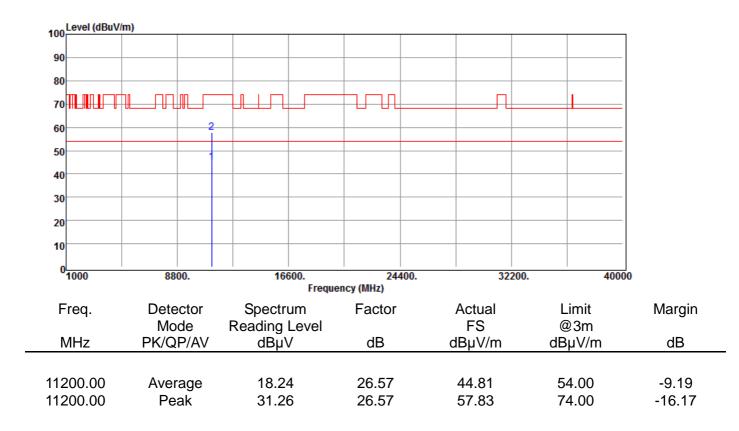


Operation Mode Test Mode EUT Pol **Test Channel**

:802.11n20 / Band 3 :TX CH MID :H Plan :5600 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :HORIZONTAL :Ashton



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

Report No.: E2/2018/A0015 Page: 77 of 165

:2018-10-22



Operation Mode

Test Mode EUT Pol Test Channe	T: +:	Y CH HIGH Plan 700 MHz		Temp./Humi. Antenna Pol. Engineer				
100 Level (dB	uV/m)					٦		
90						-		
80						-		
70	┲╢╧═┍┎┧╢╧═╴					=		
60		2				-		
50						-		
40						-		
30						-		
20						-		
10						-		
0 <mark></mark>	8800.	16600. Freque	24400. ency (MHz)	32200	. 400	00		
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin		
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB		
11400.00	Average	18.57	26.07	44.64	54.00	-9.36		
11400.00	Peak	29.51	26.07	55.58	74.00	-18.42		

Test Date

:802.11n20 / Band 3

Report No.: E2/2018/A0015 Page: 78 of 165



Operation Test Mod EUT Pol Test Cha	le		:T: :H	02.11n20 / X CH HIGF Plan 700 MHz			Test Date Temp./Humi. Antenna Pol. Engineer					
100	el (dBuV/m)								1	1	_	
90											_	
80											_	
70											_	
60			2								_	
50											-	
40			[_	
30											_	
20											-	
10											-	
0	0	880	00.	16	600.	244	400.	32	200.	400	00	
					Freque	ncy (MHz)						
Fred	q .	Dete		Spectr		Factor		Actual		_imit	Margin	
MH	Z	Moo PK/QI		Reading dBµ		dB		FS dBµV/m		@3m 3µV/m	dB	
				•				•		•		
11400		Aver		18.4		26.07		44.51		54.00	-9.49	
11400	.00	Pea	ak	29.8	8	26.07		55.95	7	4.00	-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.

Unless otherwise stated 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,此報告結果僅對測试之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Radiated Spurious Emission Measurement Result 802.11n HT20,

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

:802.11n20 / Band 3-4 :TX CH 144 :H Plan :5720 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :VERTICAL :Ashton

100 Level (dBuV/	m)					
90						
80						
70				Γ		
60	2					
50						
40						
30						
20						
10						
0 <mark></mark>	8800.	16600. Frequ	24400. ency (MHz)	32200	. 4000	0
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11440.00	Average	18.33	25.96	44.29	54.00	-9.71
11440.00	Peak	29.07	25.96	55.03	74.00	-18.97

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.

Unless otherwise stated 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,此報告結果僅對測试之樣品負責,同時此樣品僅保留卽天。本報告未經本公司書面許可,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 elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sqs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Report No.: E2/2018/A0015 Page: 80 of 165



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

:802.11n20 / Band 3-4 :TX CH 144 :H Plan :5720 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :HORIZONTAL :Ashton

100 Level (dBuV/	m)					
90						
80						
70						
60	2					
50						
40						
30						
20						
10						
0 <mark></mark> 1000	8800.	16600. Frequ	24400. ency (MHz)	32200	. 4000	0
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
				-	-	
11440.00	Average	18.47	25.96	44.43	54.00	-9.57
11440.00	Peak	28.10	25.96	54.06	74.00	-19.94

Report No.: E2/2018/A0015 Page: 81 of 165



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

:802.11n20 / Band 5 :TX CH LOW :H Plan :5745 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :VERTICAL :Ashton

100 Level (dBu	V/m)					1
90						
80						
70	╔╢╧╌╎╌┾╢╧╌╴			Ω		
60	2					
50						
40						
30						
20						
10						
0 <mark></mark> 1000	8800.	16600. Frequ	24400. ency (MHz)	32200	. 4000])0
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11490.00	Average	18.39	25.83	44.22	54.00	-9.78
11490.00	Average Peak	29.23	25.83 25.83	44.22 55.06	54.00 74.00	-9.78 -18.94

Report No.: E2/2018/A0015 Page: 82 of 165

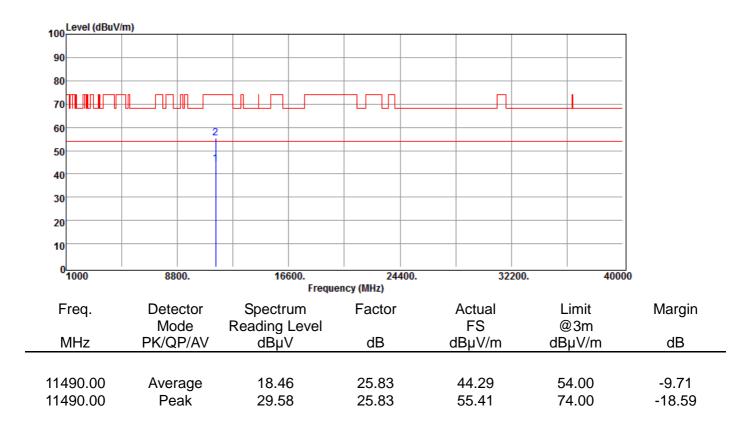


Operation Mode Test Mode EUT Pol **Test Channel**

:802.11n20 / Band 5 :TX CH LOW :H Plan :5745 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :HORIZONTAL :Ashton



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

Report No.: E2/2018/A0015 Page: 83 of 165

:2018-10-22

-9.49

-18.26



Operation Mode

11570.00

11570.00

Average

Peak

est Mode UT Pol est Channel	:T) :H	K CH MID Plan 785 MHz		:25/60 :VERTICAI :Ashton		
100 Level (dBuV/n	1)		1			7
90						_
80						_
70				R_		_
60	2					-
50						-
40						-
30						-
20						-
10						-
0	8800.	16600. Freque	24400. ency (MHz)	32200). 400	00
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB

25.87

25.87

Test Date

44.51

55.74

54.00

74.00

:802.11n20 / Band 5

18.64

29.87

Report No.: E2/2018/A0015 Page: 84 of 165



Operation Mod Test Mode EUT Pol Test Channel	:T: :H	02.11n20 / Band 5 X CH MID Plan 785 MHz		Test Date Temp./Humi Antenna Po Engineer		:2018-10-22 :25/60 :HORIZONTAL :Ashton
100 Level (dBuV/	m)					_
90						_
80						_
70						_
60		2				_
50						-
40						_
30						_
20						-
10						-
0 <mark></mark> 1000	8800.	16600. Freque	24400 ncy (MHz)	. 322	200. 400	
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
11570.00 11570.00	Average Peak	18.59 28.58	25.87 25.87	44.46 54.45	54.00 74.00	-9.54 -19.55

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Report No.: E2/2018/A0015 Page: 85 of 165



Operation Mode :802.11n20 / Band 5 Test Mode :TX CH HIGH EUT Pol :H Plan **Test Channel** :5825 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :VERTICAL :Ashton

100 Level (dBuV/	/m)					
90						
80						
70						
60	2					
50						
40						
30						
20						
10						
0						
0 ^L 1000	8800.	16600. Frequ	24400. ency (MHz)	32200	. 4000	0
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11650.00	Average	18.68	25.94	44.62	54.00	-9.38
11650.00	Peak	29.75	25.94	55.69	74.00	-18.31

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

Report No.: E2/2018/A0015 Page: 86 of 165



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

:802.11n20 / Band 5 :TX CH HIGH :H Plan :5825 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :HORIZONTAL :Ashton

100	_evel (dBuV/	m)									-
90											
80											
70										I	
60											
50			2								
40			1								
30											
20											
10											
0	1000	88	00.	160	600. Freque	244 ncy (MHz)	400.	32	200.	4000)0]
F	req.	Dete	ector	Spectr		Factor		Actual	L	imit	Margin
-			de	Reading				FS		⊉3m	
IV	1Hz	PK/Q	P/AV	dBµ\	/	dB	(dBµV/m	dB	βµV/m	dB
116	50.00	Ave	rade	18.7	7	25.94		44.71	5	4.00	-9.29
	50.00		ak	29.5		25.94		55.53		4.00	-18.47

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



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

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

:802.11n40 / Band 1 :TX CH LOW :H Plan :5190 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :VERTICAL :Ashton



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

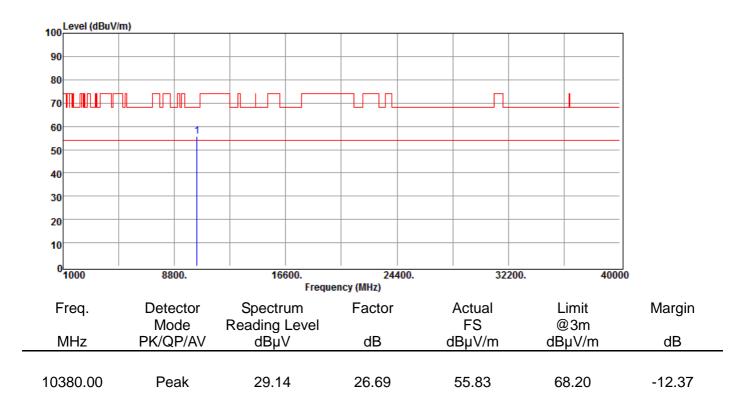
Report No.: E2/2018/A0015 Page: 88 of 165



Те
Ar
En
,

st Date mp./Humi. ntenna Pol. ngineer

:2018-10-22 :25/60 :HORIZONTAL :Ashton



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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留別天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Report No.: E2/2018/A0015 Page: 89 of 165

·2018-10-22



Operation Mode

Test Mode EUT Pol Test Channel	ie :8 :T :H :5	Temp./Humi. Antenna Pol. Engineer		:2018-10-22 :25/60 :VERTICAL :Ashton		
100 Level (dBuV	/m)					1
90						
80						
70				□		
60						
50						
40						
30						
20						
10						
0 ¹ 1000	8800.	16600. Freque	24400. ncy (MHz)	32200.	4000])0
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
10460.00	Peak	28.86	27.06	55.92	68.20	-12.28

Test Date

·802 11n40 / Band 1

Report No.: E2/2018/A0015 Page: 90 of 165

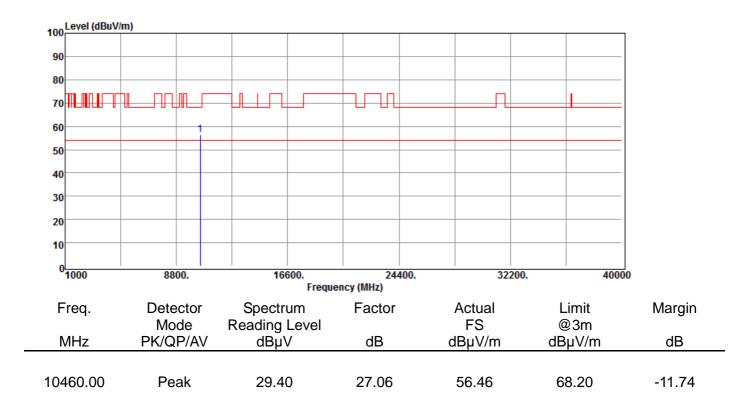


Operation Mode Test Mode EUT Pol **Test Channel**

:802.11n40 / Band 1 :TX CH HIGH :H Plan :5230 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :HORIZONTAL :Ashton



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

Contentions stated the results shown in this test report relet only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



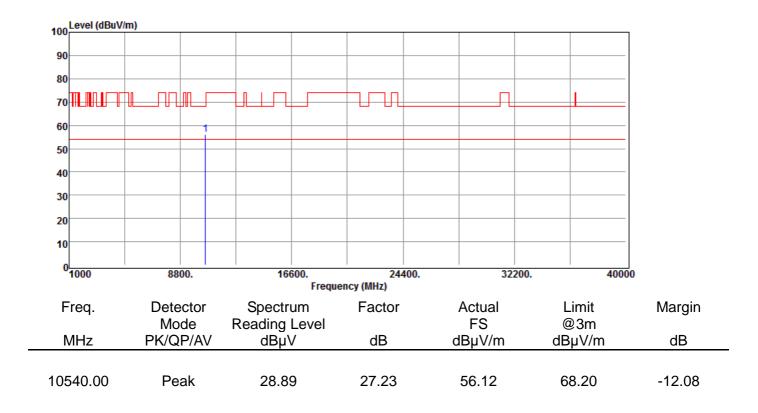
Radiated Spurious Emission Measurement Result 802.11n HT40, 5250~5350 MHz

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

:802.11n40 / Band 2 :TX CH LOW :H Plan :5270 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :VERTICAL :Ashton



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

Report No.: E2/2018/A0015 Page: 92 of 165

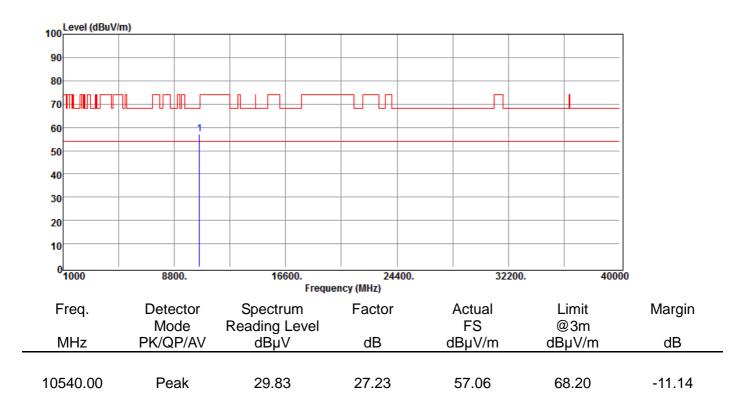


Operation Mode Test Mode EUT Pol **Test Channel**

:802.11n40 / Band 2 :TX CH LOW :H Plan :5270 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :HORIZONTAL :Ashton



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

Contentions stated the results shown in this test report relet only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

Report No.: E2/2018/A0015 Page: 93 of 165

:2018-10-22



Operation Mode

Test Mode EUT Pol Test Channel	:H	X CH HIGH Plan 310 MHz		Temp./Humi. Antenna Pol. Engineer				
100 Level (dBu)	V/m)						_	
90								
80								
70								
60	2							
50								
40								
30								
20								
10								
0	00 8800. 16600. 24400. 32200. 40000 Frequency (MHz)							
Freq.	Detector	Spectrum	Factor	Actu		Limit	Margin	
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµ\		@3m dBµV/m	dB	
10620.00 10620.00	Average Peak	18.34 29.75	27.20 27.20		45.54 56.95		-8.46 -17.05	
10020.00	i cuit	20.10	21.20	50.95		74.00	17.00	

Test Date

:802.11n40 / Band 2

Report No.: E2/2018/A0015 Page: 94 of 165



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

:802.11n40 / Band 2 :TX CH HIGH :H Plan :5310 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-22 :25/60 :HORIZONTAL :Ashton

100	evel (dBuV/n	n)									7
90											
80											
70										_	
60			_2								
50			1								
40											
30											
20											
10											
0											
010	000	8800).	166		244 ency (MHz)	00.	32	200.	4000	Ĵ0
Fre	əq.	Detec	tor	Spectru		Factor		Actual	L	.imit	Margin
	-	Mode		Reading I	Level			FS		∮3m	-
M	Hz	PK/QP/AV dBµV d		dB	С	dBµV/m dBµV/m		µV/m	dB		
	20.00	Avera		18.45		27.20		45.65		4.00	-8.35
1062	20.00	Peal	k	29.78	3	27.20		56.98	74	4.00	-17.02

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有说明,此報告结果僅對测试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. UN 134 WitkinnRoad NewTaineiIndustrialPark WitkinDistrict NewTaineiCity Taiwan24803/新 + 市 五 股 區 新 + 走 素 团 區 五 5 5 5 and 5

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



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

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

:802.11n40 / Band 3 :TX CH LOW :H Plan :5510 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-23 :25/60 :VERTICAL :Enzo

100 Level (dBuV/	(m)					1
90						
80						
70						
60	2					
50						
40						
30						
20						
10						
0						
°1000	8800.	16600. Frequ	24400. ency (MHz)	32200	. 4000	0
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
N 41 I	Mode Reading Level			FS	@3m	
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11020.00	Average	18.24	27.04	45.28	54.00	-8.72
11020.00	Peak	30.69	27.04	57.73	74.00	-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.

Unless otherwise stated 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,此報告結果僅對測试之樣品負責,同時此樣品僅保留卽天。本報告未經本公司書面許可,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 elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sqs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.

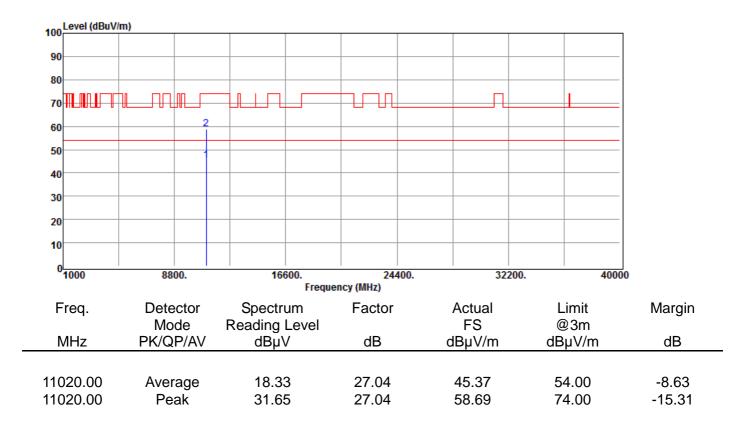
Report No.: E2/2018/A0015 Page: 96 of 165



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

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-23 :25/60 :HORIZONTAL :Enzo



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

Report No.: E2/2018/A0015 Page: 97 of 165

:2018-10-23



Operation Mode

Test EU1	t Mode F Pol t Channel		:TX (:H P	CH MID lan 0 MHz			T A	emp./Hun ntenna Po ngineer			:25/60	TICAL
1	00 Level (dBuV/	(m)				1		1	1		7	
	90										_	
	80										_	
	70							Π			=	
	60		_2								-	
	50		1								-	
	40										-	
	30										-	
	20										-	
	10										-	
	0 <mark></mark> 1000	8800.	1	166		244 ncy (MHz)	400.	32	200.	400	000	
	Freq.	Detecto		Spectru		Factor		Actual		_imit	Ma	argin
	MHz	Mode PK/QP/A		Reading L dBµV		dB		FS dBµV/m		@3m 3µV/m	(dB
	1180.00	Average	Э	18.41		26.62		45.03		54.00		3.97
1	1180.00	Peak		31.47	,	26.62		58.09		'4.00	-1	5.91

Test Date

:802.11n40 / Band 3

Report No.: E2/2018/A0015 Page: 98 of 165

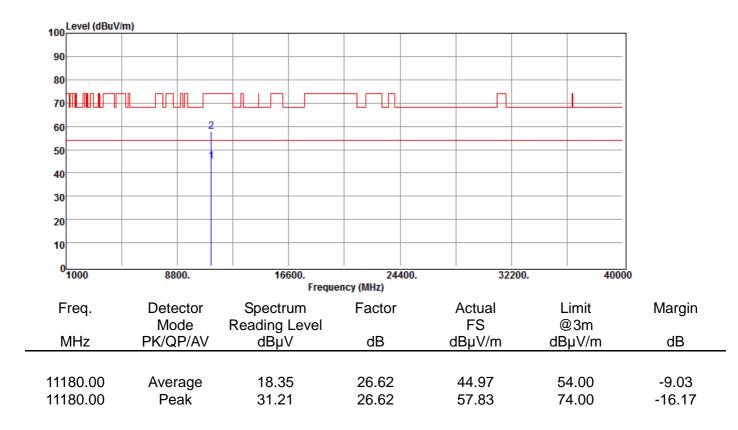


Operation Mode Test Mode EUT Pol **Test Channel**

:802.11n40 / Band 3 :TX CH MID :H Plan :5590 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-23 :25/60 :HORIZONTAL :Enzo



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

Report No.: E2/2018/A0015 Page: 99 of 165

:2018-10-23



Operation Mode

Test EUT Test	Channel	e :TX CH HIGH :H Plan nnel :5670 MHz					T A E	:25/60 :VERTICAL :Enzo			
10	0 Level (dBuV/	m)									7
9	0										-
8	0										-
7	oTLAUL							Π		1	=
6	0		2								-
5	0										-
4	0										-
3	0										_
2	0										-
1	0										-
	01000	00	00.	16	500.	24	100.	32	200.	400	100
	1000			10		ency (MHz)		52	200.	400	
	Freq.		ector	Spectr		Factor		Actual		Limit	Margin
	MHz		ode P/AV	Reading dBµ\		dB		FS dBµV/m		⊉3m βµV/m	dB
	340.00	Ave		18.1		26.21		44.36		4.00	-9.64
11	340.00	Peak 29.8		I	26.21		56.02 74.00		-17.98		

Test Date

:802.11n40 / Band 3

Report No.: E2/2018/A0015 Page: 100 of 165

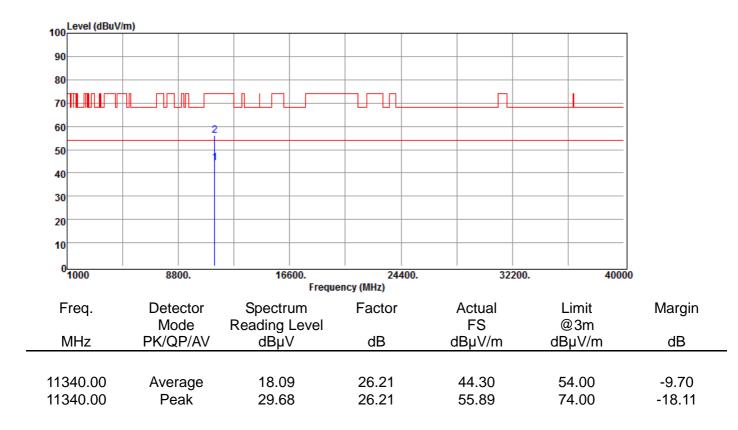


Operation Mode Test Mode EUT Pol **Test Channel**

:802.11n40 / Band 3 :TX CH HIGH :H Plan :5670 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-23 :25/60 :HORIZONTAL :Enzo



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



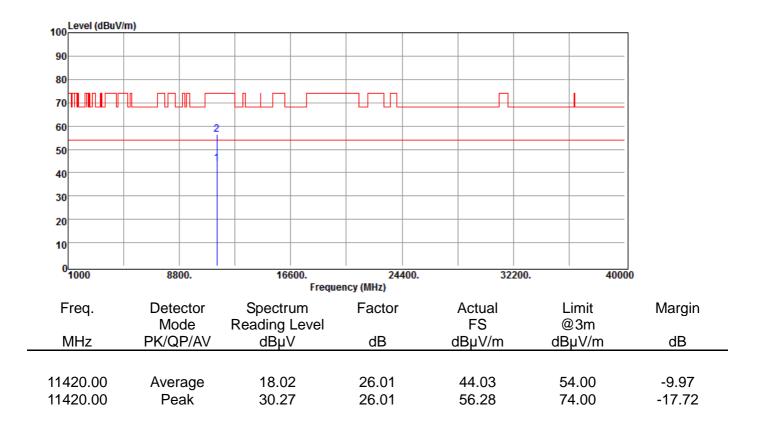
Radiated Spurious Emission Measurement Result 802.11n HT40,

Operation Mode
Test Mode
EUT Pol
Test Channel

:802.11n40 / Band 3-4	Te
:TX CH 142	Te
:H Plan	Ar
:5710 MHz	Er

est Date emp./Humi. ntenna Pol. ngineer

:2018-10-23 :25/60 :VERTICAL :Enzo



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

contexts otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

Report No.: E2/2018/A0015 Page: 102 of 165

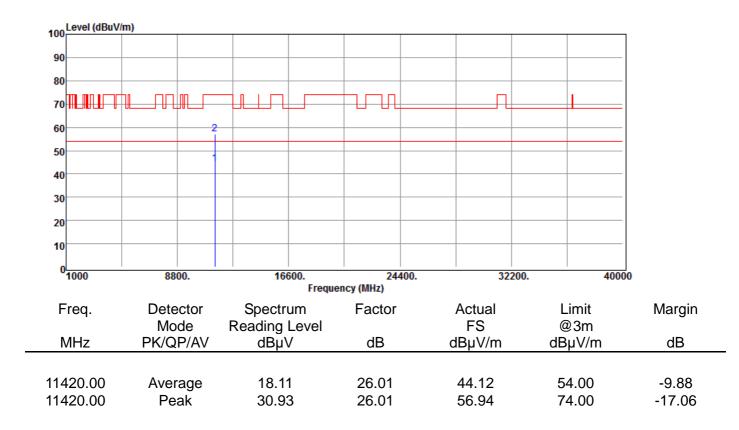


Operation Mode Test Mode EUT Pol **Test Channel**

:802.11n40 / Band 3-4 :TX CH 142 :H Plan :5710 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-23 :25/60 :HORIZONTAL :Enzo



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

Report No.: E2/2018/A0015 Page: 103 of 165

:2018-10-23



Operation Mode

Test Mode TUT Pol Test Channe	: : : :	TX CH LOW H Plan 5755 MHz		Temp./Humi. Antenna Pol. Engineer	ntenna Pol.			
100 Level (dB	uV/m)					7		
90						-		
80						-		
70	┲╖			□		_		
60		2				_		
50						-		
40						-		
30						-		
20						-		
10						_		
0								
0 <mark>1000</mark>	8800.	16600. Frequ	24400. ency (MHz)	32200.	400	00		
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin		
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB		
				•	-			
11510.00	Average	18.19	25.82	44.01	54.00 74.00	-9.99		
11510.00	Peak	Peak 30.99 25.82		56.81	-17.19			

Test Date

:802.11n40 / Band 4

Report No.: E2/2018/A0015 Page: 104 of 165



Operation Mode :802.11n40 / Band 4 Test Mode :TX CH LOW EUT Pol :H Plan **Test Channel** :5755 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-23 :25/60 :HORIZONTAL :Enzo

100 Level (dBuV	/m)					
90						
80						
70			+1-1-1			
60	2					
50						
40						
30						
20						
10						
⁰ 1000	8800.	16600. Freque	24400. ency (MHz)	32200). 4000	0
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11510.00	Average	18.13	25.82	43.95	54.00	-10.05
11510.00	Peak	30.41	25.82	56.23	74.00	-17.77

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. 除非另有说明,此報告结果僅對测试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. UN 134 WitkinnRoad NewTaineiIndustrialPark WitkinDistrict NewTaineiCity Taiwan24803/新 + 市 五 股 區 新 + 走 素 团 區 五 5 5 5 and 5

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

Report No.: E2/2018/A0015 Page: 105 of 165

:2018-10-23



Operation Mode

Test N EUT F		•	:H F	CH HIGH Plan 95 MHz	I		Te Ai Ei	:25/60 :VERTICAL :Enzo			
100	Level (dBuV/	m)				1		1	1	1	7
90											_
80											_
70				┶╢╧╧┙╌				Ω		1	=
60			2								_
50			1								-
40											-
30											-
20											-
10											-
C	1000	8800).	166		244 ncy (MHz)	00.	32	200.	400	000
F	req.	Detec		Spectru		Factor		Actual		_imit	Margin
	MHz	Mode PK/QP		Reading I dBµ∖		dB		FS dBµV/m		⊉3m ⊌µV/m	dB
441	-00.00	A	~~	40.4-	7	05.00		44.00	-	4 00	0.64
	590.00 590.00	Avera Peal	•	18.47 29.96		25.89 25.89		44.36 55.85		4.00 4.00	-9.64 -18.15

Test Date

:802.11n40 / Band 4

Report No.: E2/2018/A0015 Page: 106 of 165



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. Engineer

:2018-10-23 :25/60 :HORIZONTAL :Enzo



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



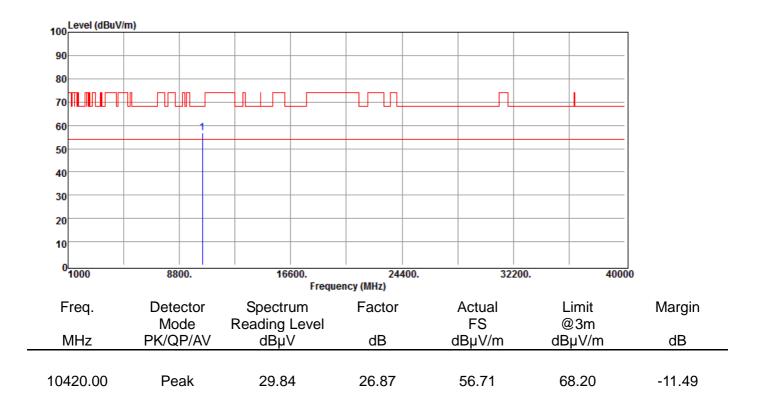
Radiated Spurious Emission Measurement Result 802.11ac VHT80, 5150~5250 MHz

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

:802.11ac80 / Band 1 :TX CH LOW :H Plan :5210 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-23 :25/60 :VERTICAL :Enzo



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

Report No.: E2/2018/A0015 Page: 108 of 165



Operation Mod Test Mode EUT Pol Test Channel	ר: ו:	802.11ac80 / Band ′ ГХ СН LOW I Plan 5210 MHz	1	Test Date Temp./Humi. Antenna Pol. Engineer		:2018-10-23 :25/60 :HORIZONTAL :Enzo
100 Level (dBuV/r	n)					7
90						
80						
70				R		
60						
50						
40						
30						
20						
10						
0L 1000	8800.	16600. Freque	24400. ency (MHz)	32200.	400	_ 00
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
10420.00	Peak	30.01	26.87	56.88	68.20	-11.32



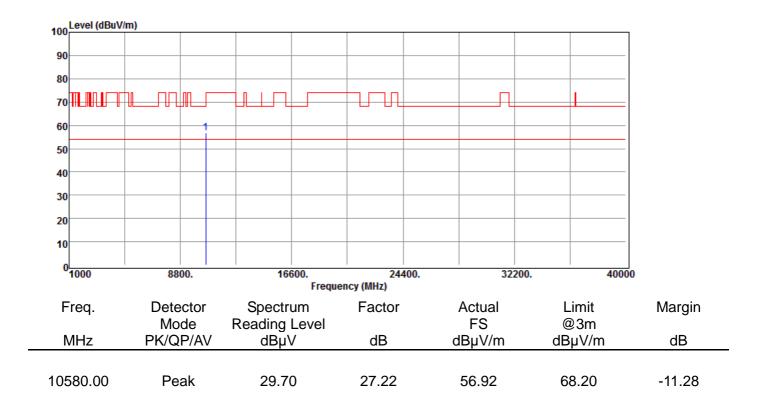
Radiated Spurious Emission Measurement Result 802.11ac VHT80, 5250~5350 MHz

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

:802.11ac80 / Band 2 :TX CH HIGH :H Plan :5290 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-23 :25/60 :VERTICAL :Enzo



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

Report No.: E2/2018/A0015 Page: 110 of 165



Operation Mod Test Mode EUT Pol Test Channel	T: +:	02.11ac80 / Band 2 TX CH HIGH I Plan 290 MHz	2	Test Date Temp./Humi. Antenna Pol. Engineer		
100 Level (dBuV/	m)			1		1
90						
80						
70						
60	1					
50						
40						
30						
20						
10						
0	8800.	16600. Freque	24400. ncy (MHz)	32200.	4000	00
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10580.00	Peak	30.57	27.22	57.79	68.20	-10.41

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.



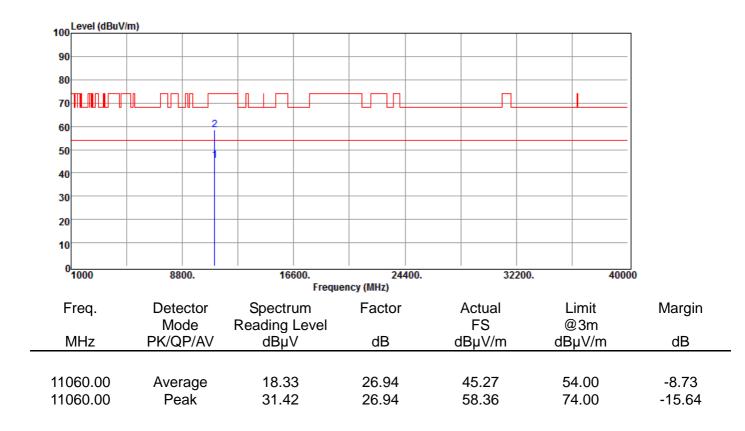
Radiated Spurious Emission Measurement Result 802.11ac VHT80, 5470~5725 MHz

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

:802.11ac80 / Band 3 :TX CH LOW :H Plan :5530 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-23 :25/60 :VERTICAL :Enzo



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

Report No.: E2/2018/A0015 Page: 112 of 165

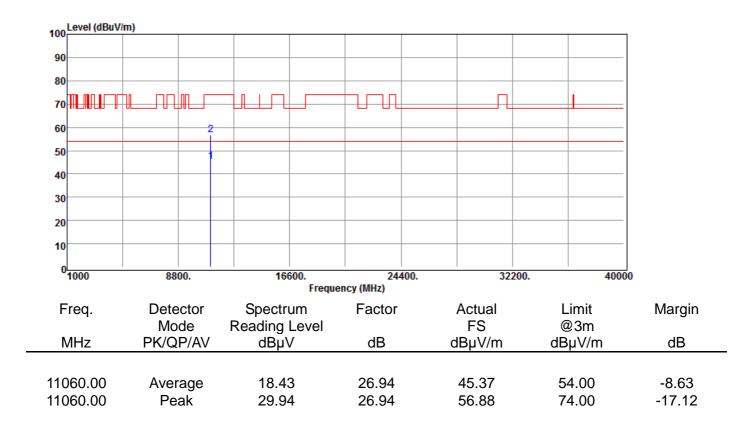


Operation Mode Test Mode EUT Pol **Test Channel**

:802.11ac80 / Band 3 :TX CH LOW :H Plan :5530 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-23 :25/60 :HORIZONTAL :Enzo



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

Report No.: E2/2018/A0015 Page: 113 of 165

·2018-10-23



Operation Mode

st Mode IT Pol	:TX CH MID :H Plan :5610 MHz				Te A	:25/60 :VERTICAL :Enzo			
100 Level (dBuV	/m)			1			1		7
90									_
80									_
70						Π			=
60		2							_
50		1							-
40									-
30									-
20									-
10									-
0 <mark></mark>	8800.	1			00.	32	200.	400	000
Freq.				Factor		Actual			Margin
MHz				dB					dB
11220.00	Averag	e 18.	36	26.52		44.88	5	4.00	-9.12
11220.00	Peak		30	26.52		55.82	7	4.00	-18.18
	st Mode JT Pol st Channel	JT Pol st Channel	st Mode :TX CH MIE IT Pol :H Plan st Channel :5610 MHz	st Mode :TX CH MID JT Pol :H Plan st Channel :5610 MHz	st Mode :TX CH MID JT Pol :H Plan st Channel :5610 MHz	st Mode :TX CH MID Te JT Pol :H Plan A st Channel :5610 MHz E	st Mode :TX CH MID Temp./Hurr JT Pol :H Plan Antenna Pol st Channel :5610 MHz Engineer	st Mode :TX CH MID Temp./Humi. IT Pol :H Plan Antenna Pol. st Channel :5610 MHz Engineer	st Mode :TX CH MID Temp./Humi. IT Pol :H Plan Antenna Pol. st Channel :5610 MHz Engineer

Test Date

·802 11ac80 / Band 3

Report No.: E2/2018/A0015 Page: 114 of 165

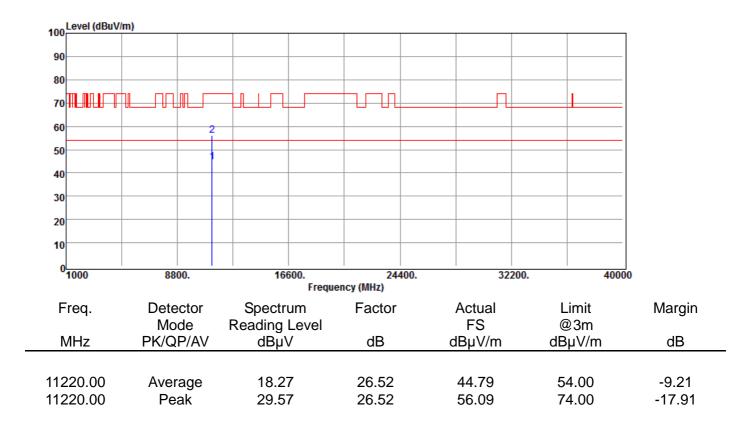


Operation Mode Test Mode EUT Pol **Test Channel**

:802.11ac80 / Band 3 :TX CH MID :H Plan :5610 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-23 :25/60 :HORIZONTAL :Enzo



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

Report No.: E2/2018/A0015 Page: 115 of 165

:2018-10-23



Operation Mode

Test Mode EUT Pol Test Channel	:Т Н:	X CH HIGH I Plan 690 MHz		Temp./Humi. Antenna Pol. Engineer		:25/60 :VERTICAL :Enzo
100 Level (dBuV/	m)					7
90						-
80						-
70				Γ		=
60	2					-
50						-
40						-
30						-
20						-
10						-
0 <mark></mark> 1000	8800.	16600. Frequer	24400. ncy (MHz)	32200	. 400	 00
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
11380.00	Average	18.05	26.11	44.16	54.00	-9.84
11380.00	Peak	29.98	26.11	56.09	74.00	-17.91

Test Date

:802.11ac80 / Band 3

Report No.: E2/2018/A0015 Page: 116 of 165

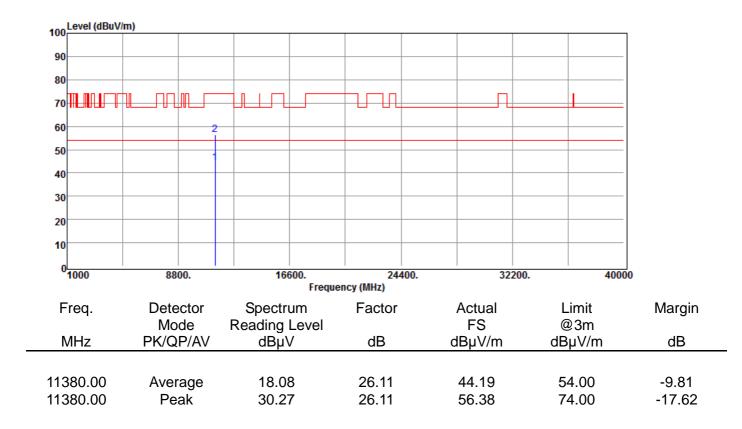


Operation Mode Test Mode EUT Pol **Test Channel**

:802.11ac80 / Band 3 :TX CH HIGH :H Plan :5690 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-23 :25/60 :HORIZONTAL :Enzo



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



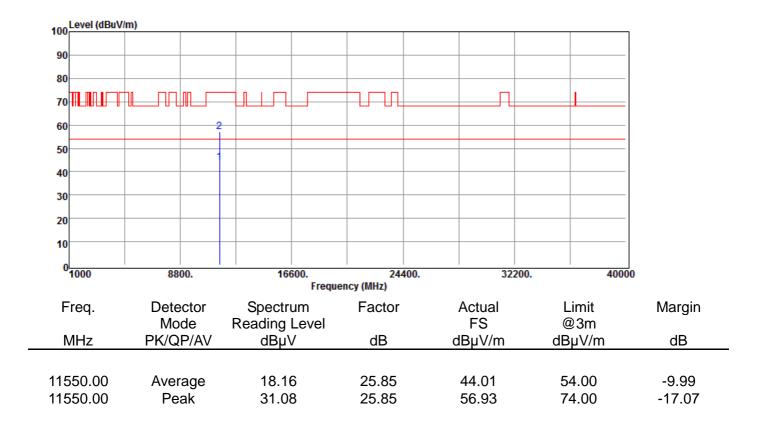
Radiated Spurious Emission Measurement Result 802.11ac VHT80,

Operation Mode
Test Mode
EUT Pol
Test Channel

:802.11ac80 / Band 4 :TX CH LOW :H Plan :5775 MHz

Test Date Temp./Humi. Antenna Pol. Engineer

:2018-10-23 :25/60 :VERTICAL :Enzo



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

Report No.: E2/2018/A0015 Page: 118 of 165



Operation Mode Test Mode EUT Pol Test Channel	:T :H	02.11ac80 / Band 4 X CH LOW Plan 775 MHz		Test Date Temp./Humi. Antenna Pol. Engineer	:2018-10-23 :25/60 :HORIZONTAL :Enzo	
100 Level (dBuV/n	n)					_
90						-
80						-
70						_
60						-
50						-
40						-
30						-
20						-
10						-
0	8800.	16600.	24400.	32200.	400	 00
		Freque	ncy (MHz)			
Freq.	Detector	Spectrum	Factor	Actual FS	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	rs dBµV/m	@3m dBµV/m	dB
		·		•	•	
11550.00	Average	18.23	25.85	44.08	54.00	-9.92
11550.00	Peak	31.24	25.85	57.09	74.00	-16.91



Band edge falling to restricted band

Opera Test M EUT P Test C	ol hannel		:B :H	02.11a / Ba E CH LOW Plan 180 MHz	.OW Temp./Humi. Antenna Pol.					:2018-10-17 :25/60 :VERTICAL :Enzo	
120	Level (dBuV/m)									_
110											_
90-											_
70								and the work		Annual	<u>_</u>
10						24,	an and and				-
50		heelmateria de ta		and the contract of the second s	and a market where the	servin horas	4 m Y				-
50						18					
30-											_
10											_
U _E	5080	51	04.	51	28.		152.	5	176.	52	200
Е.		Data	1	0		ncy (MHz)		Astesl		·	Manada
FI	req.	Dete Mo		Spectr		Factor		Actual FS		_imit @3m	Margin
N	1Hz	PK/Q		Reading dBµ\		dB		го dBµV/m		⊎sm 3µV/m	dB
	11 12			uDµ	v	uВ		ubµv/m	UL	μν/Π	UD
51/	49.36	Aver	ano	31.6	a	13.64		45.33	F	54.00	-8.67
	49.36	Pe		45.9		13.64		43.33 59.57		4.00 4.00	-14.43
	50.00	Aver		31.7		13.65		45.35		54.00	-8.65
	50.00	Pe	0	44.6		13.65		58.31		4.00	-15.69

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.

Unless otherwise stated 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,此報告結果僅對測试之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Report No.: E2/2018/A0015 Page: 120 of 165



Operation Mo Test Mode EUT Pol Test Channel	: E : F : E	802.11a / Band 1 3E CH LOW H Plan 5180 MHz	LOW Temp./Humi. Antenna Pol.			:2018-10-17 :25/60 :HORIZONTAL :Enzo
120 Level (dBu	V/m)					_
110						
90						
				a successful a	Many Manager A.	
70				Jaka Mar		
		mande and and seen to many series	24 and the the man and and the second of the second se	w ^r		
50			β			
30						
10						
0 5080	5104.	5128.	5152.	5176.	520	」 DO
			ency (MHz)			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
N 41 1-	Mode	Reading Level	٩D	FS	@3m	٩D
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
E1 40 20	Average	20.01	12 64		E4 00	0.45
5149.36 5149.36	Average Peak	30.91 45.44	13.64 13.64	44.55 59.08	54.00 74.00	-9.45 -14.92
5149.36 5150.00		45.44 31.07	13.64	59.08 44.72	74.00 54.00	-14.92 -9.28
5150.00	Average Peak	43.49	13.65	44.72 57.14	54.00 74.00	-9.28 -16.86
5150.00	r cak	40.43	13.05	57.14	74.00	-10.00

Report No.: E2/2018/A0015 Page: 121 of 165



Operation Mod Test Mode EUT Pol Test Channel	:B :H	02.11a / Band 2 E CH HIGH I Plan 320 MHz		Test Date Temp./Humi. Antenna Pol. Engineer	:2018-10-17 :25/60 :VERTICAL :Enzo	
120	n)					_
110						_
90	~					-
70	Non and so and					-
		while the particular and the second		******	uni meneral canado a manadesa dan perses	-
50						-
30						-
10						-
^{0L} 5310	5334.	5358. Freque	5382. ency (MHz)	5406.	54	30
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
5350.00 5350.00	Average Peak	31.34 48.95	14.16 14.16	45.50 63.11	54.00 74.00	-8.50 -10.89

Report No.: E2/2018/A0015 Page: 122 of 165



Operation Mode:802.11a / Band 2Test DateTest Mode:BE CH HIGHTemp./Humi.EUT Pol:H PlanAntenna Pol.Test Channel:5320 MHzEngineer	:2018-10-17 :25/60 :HORIZONTAL :Enzo
120 Level (dBuV/m)	
110	
90	
70	
50	handrad management
30	
10	
00 5310 5334. 5358. 5382. 5406.	5430
Frequency (MHz)	
	imit Margin
	23m uV/m dB
MHz PK/QP/AV dBµV dB dBµV/m dBµ	uV/m dB
5350.00 Average 30.89 14.16 45.05 54	4.00 -8.95
5	4.00 -15.02
	4.00 -9.34
5351.16 Peak 46.30 14.17 60.47 74	4.00 -13.53

Report No.: E2/2018/A0015 Page: 123 of 165

:2018-10-18



:802.11a / Band 3

Operation Mode

Test Mode EUT Pol Test Channel	:B :H	E CH LOW Plan 500 MHz		Temp./Humi. Antenna Pol. Engineer	:25/60 :VERTICAL :Enzo	
120 Level (dBuV	/m)		1		1	7
110						-
90						
70			2	34 mar and a start		-
50						-
30						-
10						-
0 ^L 5390	5414.	5438. Freque	5462. ency (MHz)	5486.	. 55	10
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5460.00 5460.00	Average Peak	30.70 45.14	14.31 14.31	45.01 59.45	54.00 74.00	-8.99 -14.55
5469.32 5470.00	Peak Peak	47.82 46.97	14.31 14.31	62.13 61.28	68.20 68.20	-6.07 -6.92

Test Date

Report No.: E2/2018/A0015 Page: 124 of 165

:2018-10-18



:802.11a / Band 3

Operation Mode

Test M EUT F		:BE :H	E CH LOW Plan 500 MHz		Temp./Hun Antenna P Engineer		:25/60 :HORIZONTAL :Enzo
120	Level (dBuV/m	1)					7
110							-
90							t
70					the start and		_
	handerstand		-		And the state of the		-
50				1 3			-
30							-
10							-
0	5390	5414.	5438. Freque	5462. ency (MHz)	5	486. 55	10
F	req.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
N	/IHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
54	55.16	Average	30.61	14.32	44.93	54.00	-9.07
	55.16	Peak	45.53	14.32	59.85	74.00	-14.15
	60.00	Average	30.65	14.31	44.96	54.00	-9.04
	60.00 69.20	Peak Peak	43.51 47.84	14.31 14.31	57.82 62.15	74.00 68.20	-16.18 -6.05
	70.00	Peak	46.67	14.31	60.98	68.20	-7.22

Test Date

Report No.: E2/2018/A0015 Page: 125 of 165



Operation Mode Test Mode EUT Pol Test Channel	:B :H	02.11a / Band 3 E CH HIGH Plan 700 MHz		Test Date Temp./Humi. Antenna Pol. Engineer	:2018-10-18 :25/60 :VERTICAL :Enzo	
120 Level (dBuV/n	n)					_
110						-
90						_
70	Married Married Married					_
	- Andrew Contraction	12		alanterin in a the second and a second		-
50						-
30						-
10						-
0 5690	5714.	5738. Freque	5762. ency (MHz)	5786.	58	 10
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
5725.00 5727.32	Peak Peak	45.96 48.07	14.50 14.50	60.46 62.57	68.20 68.20	-7.74 -5.63

Report No.: E2/2018/A0015 Page: 126 of 165



Operation Mod Test Mode EUT Pol Test Channel	:B :H	02.11a / Band 3 E CH HIGH I Plan 700 MHz		:2018-10-18 :25/60 :HORIZONTAL :Enzo				
120 Level (dBuV/	m)					_		
110						-		
90						-		
70	Construction and a second	2 manufally the new particular second				=		
50			one matter an adden an adden in		helenensensensensensensensensensensensensen	-		
30						_		
10						_		
0 ¹ 5690	5714.	5738. Frequ	5762. ency (MHz)	5786.	58	10		
Freq.	Detector Mode	Spectrum Reading Level	Factor					
MHz	PK/QP/AV	dBµV	dB					
5725.00 5729.00			14.50 14.50	61.12 68.20 63.31 68.20		-7.08 -4.89		

Report No.: E2/2018/A0015 Page: 127 of 165

·2018-10-18



Operation Mode

[.]802,11a / Band 4

Test Mode EUT Pol Test Channel	:B :H	E CH LOW Plan 745 MHz		Temp./Humi. Antenna Pol. Engineer			
160 150)]	
130						-	
110							
90				Augenetication			
70		an a	2 martin water and the	and a second and a s		-	
50						-	
30 10							
05645	5667.	5689. Freque	5711. 5711. ency (MHz)	5733.	57	55	
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin	
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB	
5650.00	Peak	42.06 42.63	14.42	56.48	68.20	-11.72	
5720.00			14.47 14.49	57.10 64.71	105.20 110.80	-48.10 -46.09	
5725.00	Peak	61.35	14.50	75.85	122.20	-46.35	

Test Date

Report No.: E2/2018/A0015 Page: 128 of 165



Operation Mod Test Mode EUT Pol Test Channel	:B :H	02.11a / Band 4 E CH LOW Plan 745 MHz		Test Date Temp./Humi. Antenna Pol. Engineer	:2018-10-18 :25/60 :HORIZONTAL :Enzo	
160 Level (dBuV/	m)					
150						
130						
110						
90						
				4 Alexandream Contraction		
70			2	m-30 m		
50	mafuntaukan jutun kangkatan kan	and the second	and a share the second s			
30						
10						
0 <mark>5645</mark>	5667.	5689. Freque	5711. ency (MHz)	5733.	575	55
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
1104.	Mode	Reading Level		FS	@3m	margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	41.16	14.42	55.58	68.20	-12.62
5700.00	Peak	42.11	14.47	56.58	105.20	-48.62
5720.00	Peak	49.26 60.85	14.49	63.75	110.80	-47.05
5725.00	5725.00 Peak		14.50	75.35	122.20	-46.85



Operation Mode Test Mode EUT Pol Test Channel	:E :H	02.11a / Band 4 BE CH HIGH I Plan 825 MHz		Test Date Temp./Humi. Antenna Pol. Engineer					
160 Level (dBuV/n	n)								
160						-			
130						-			
110						-			
90									
SU when the second		When we are a second and a second sec							
70		The second second second	Mummun 3		1	-			
50				*****	and the second				
30									
50									
10						-			
0 5805	5830.	5855. Frequ	5880. iency (MHz)	5905.	59	30			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin			
1104.	Mode	Reading Level		FS	@3m	Margin			
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB			
5850.00	Peak	54.70	14.72	69.42	122.20	-52.78			
5855.00	Peak	51.79	14.73	66.52	110.80	-44.28			
5875.00	Peak	43.50	14.78	58.28	105.20	-46.92			
5925.00	Peak	40.22	14.91	55.13	68.20	-13.07			

Report No.: E2/2018/A0015 Page: 130 of 165



Operation Mod Test Mode EUT Pol Test Channel	:B :H	02.11a / Band 4 E CH HIGH Plan 325 MHz		Test Date Temp./Humi. Antenna Pol. Engineer					
160 Level (dBuV/r	n)								
150						.]			
130									
110									
90	- Jun	have and							
70		Maran There and the second							
50			Markmentra June -	and the second	and the state of the second				
50									
30									
10									
0 5805	5830.	5855.	5880.	5905.	59	 30			
		-	ency (MHz)						
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin			
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB			
	FIVQF/AV	ασμν	ub	ασμν/π	ασμν/m	ub			
5850.00	Peak	51.42	14.72	66.14	122.20	-56.06			
5855.00	Peak	50.11	14.73	64.84	110.80	-45.96			
5875.00	Peak	42.74	14.78	57.52	105.20	-47.68			
5925.00	Peak	40.76	14.91	55.67	68.20	-12.53			



802.11n20 HT mode

Operation Mode :802.11n20 / Band 1 Test Date :2018-10-18 Test Mode :BE CH LOW Temp./Humi. :25/60 EUT Pol :H Plan Antenna Pol. :VERTICAL **Test Channel** :5180 MHz Engineer :Ashton 120 Level (dBuV/m) 110 90 70 2 50 30 10 0^L 5080 5128. 5104. 5152. 5176. 5200 Frequency (MHz) Freq. Spectrum Detector Factor Actual Limit Margin **Reading Level** @3m Mode FS MHz PK/QP/AV dBµV dB dBµV/m dBµV/m dB 47.76 54.00 -6.245148.88 Average 34.13 13.63 74.00 5148.88 Peak 51.42 13.63 65.05 -8.95 34.32 47.97 54.00 5150.00 Average 13.65 -6.03 5150.00 Peak 51.13 64.78 74.00 -9.22 13.65

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.

Report No.: E2/2018/A0015 Page: 132 of 165



Operation Test Mo EUT Po Test Ch	bl)	:B :H	02.11n20 / E CH LOW Plan 180 MHz			Temp./Humi. : Antenna Pol. :					:2018-10 :25/60 :HORIZC :Ashton	
Le	vel (dBuV/m)											
										-		7	
110												-	
90												_	
									No. Contraction		Water		
70						2		Web-allander burth				=	
~-P4+		and the second		water an an an an an an an		a de state of the form	⁴¹⁴	1144-0					
50							3					-	
30												-	
10												-	
0 <mark></mark> 50	80	51	04.	51	28. Freque	ncy (MHz	51: 7)	52.	5	5176.	52	200	
Fre	De	Dete	octor	Spectr		Fac			Actual		Limit	Margi	n
110	-y.	Mo		Reading		i uu			FS		@3m	margi	
M	Ηz	PK/Q	P/AV	dBµ		d	В		dBµV/m	C	dBµV/m	dB	
5146		Aver		35.4		13.			49.11		54.00	-4.89	
5146		Pe		54.8		13.			68.51		74.00	-5.49	
5150		Aver		36.6		13.			50.32		54.00	-3.68	
5150	0.00	Pe	ak	53.9	9	13.	65		67.64		74.00	-6.36	5

Report No.: E2/2018/A0015 Page: 133 of 165



Operation Mode Test Mode EUT Pol Test Channel	:Bl :H	02.11n20 / Band 2 E CH HIGH Plan 320 MHz		Test Date Temp./Humi. Antenna Pol. Engineer					
120 Level (dBuV/n	n)								
110									
no manual and a second	many					-			
90						_			
	mar and								
70						_			
	"A What	mounded the war and a second		an and the second and the second s	and the factor of the second second				
50						-			
30						-			
10						-			
0 5310	5334.	5358. Freque	5382. ency (MHz)	5406.	54	30			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin			
	Mode	Reading Level		FS	@3m				
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB			
5350.00	Average	32.82	14.16	46.98	54.00	-7.02			
5350.00	Peak	43.74	14.16	40.98 57.90	54.00 74.00	-16.10			
5352.12	Average	32.98	14.17	47.15	54.00	-6.85			
5352.12	Peak	47.81	14.17	61.98	74.00	-12.02			

Report No.: E2/2018/A0015 Page: 134 of 165



Operation M Test Mode EUT Pol Test Channe	:B :H	02.11n20 / Band 2 E CH HIGH I Plan 320 MHz		:2018-10-18 :25/60 :HORIZONTAL :Ashton			
120 Level (dB	uV/m)	1				-	
110							
90							
	N.						
70	- William	24					
		Martin have a for the first and the for the second and the second					
50							
30							
10							
0 5310	5334.	5358. Freque	5382. ency (MHz)	5406.	54	30	
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin	
-	Mode	Reading Level		FS	@3m	-	
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB	
	_						
5350.00	Average	34.16	14.16	48.32	54.00	-5.68	
5350.00	Peak	52.74	14.16	66.90	74.00	-7.10	
5351.88	Average	34.09	14.17	48.26	54.00	-5.74	
5351.88	Peak	52.73	14.17	66.90	74.00	-7.10	

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.

Unless otherwise stated 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,此報告結果僅對測试之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.

·2018-10-18



Operation Mode

Test Mode EUT Pol Test Channel	:Bl :H	E CH LOW Plan 500 MHz		Temp./Humi. Antenna Pol. Engineer						
120 Level (dBu\	//m)					-				
110					1 million					
90										
70			25	- Carlor Martin						
50		undergebenetis, ann a ha ann an an ann an an air an ann an ann ann an ann ann ann ann a								
30										
10										
0 5390	5414.	5438. Freque	5462. ency (MHz)	5486.	. 55'	10				
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin				
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB				
5458.04	Average	33.48	14.31	47.79	54.00	-6.21				
5458.04	Peak	47.67	14.31	61.98	74.00	-12.02				
5460.00	Average	33.53	14.31	47.84	54.00	-6.16				
5460.00	Peak	45.42	14.31	59.73	74.00	-14.27				
5460.44	Peak	48.08	14.31	62.39	68.20	-5.81				
5470.00	Peak	47.29	14.31	61.60	68.20	-6.60				

Test Date

·802.11n20 / Band 3

Report No.: E2/2018/A0015 Page: 136 of 165



Test M EUT F		e	:BE :H	02.11n20 / E CH LOW Plan 500 MHz		Test Date Temp./Humi. Antenna Pol. Engineer							:2018-10-18 :25/60 :HORIZONTAL :Ashton
120	Level (dBuV/n	n)											
110											~~~	many	
90												,	
70										. A	~		
10	And a second second second	a sea an anna an an an	and have	and a complete state of the state	and an an an and the second	2 mm-stubel	An	holumberald	Genternet	and the			
50							3						
30													
10													
0	5390	54	14.	54	438.		546	62.		54	486.	551] IO
						ncy (MHz))						
F	req.	Dete		Spectr		Fact	or			Actual		Limit	Margin
Ν	ИНz	Mo PK/Q		Reading dBµ		dB	3		d	FS BµV/m		@3m 3µV/m	dB
				I						•		1	
54	58.04	Aver	age	33.0	0	14.3	31			47.31	5	54.00	-6.69
54	58.04	Pe	ak	47.1		14.3				61.43	7	74.00	-12.57
	60.00	Aver		33.1		14.3				47.48		54.00	-6.52
	60.00	Pe		44.4		14.3				58.71		74.00	-15.29
	69.20	Pe		49.9		14.3				64.30		8.20	-3.90
54	70.00	Pe	ак	45.5	ŏ	14.3	51			59.89	ť	68.20	-8.31

Report No.: E2/2018/A0015 Page: 137 of 165



Operation Mod Test Mode EUT Pol Test Channel	:B :H	02.11n20 / Band 3 E CH HIGH I Plan 700 MHz		:2018-10-18 :25/60 :VERTICAL :Ashton			
120 Level (dBuV/i	m)					_	
110							
90	\sim						
70	h h						
50		when a contraction of the contra	hall more a family and the second		un alar an		
30							
10							
0 5690	5714.	5738. Freque	5762. ncy (MHz)	5786.	58	โด	
Freq.	Detector Mode	Spectrum Reading Level	Factor				
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB	
5725.00	Peak	47.16	14.50	61.66	68.20	-6.54	

Report No.: E2/2018/A0015 Page: 138 of 165



Operation Mo Test Mode EUT Pol Test Channel		:802.11n :BE CH :H Plan :5700 Ml			Te Te An En	:2018-10-18 :25/60 :HORIZONTAL :Ashton			
120 Level (dBu	V/m)								
110									
	month								
90	+ $+$ $+$								
	$ $ \mathbb{N}								
70		The state of the s	HA -						
		ALL DECK	" HAN MAN MAN MAN MAN	manter	tertet Brattieren die er von seiter bes	www.ash			
50									
30									
10									
0 5690	5714	4.	5738. Frequ	57 ency (MHz)	62.	57	786.	581	0
Freq.	Detec	tor Sr	ectrum	Factor		Actual	L	imit	Margin
	Mod	le Rea	ding Level			FS		23m	-
MHz			C	lBµV/m	dB	µV/m	dB		
5725.00 Peak		k	50.93	14.50		65.43	6	8.20	-2.77



Operation Mod Test Mode EUT Pol Test Channel	:B :H	02.11n20 / Band 4 E CH LOW Plan 745 MHz		:2018-10-18 :25/60 :VERTICAL :Ashton		
160 Level (dBuV/	m)					_
150						
130						
110					many	
90				3www.margana		
70			Burnenwanter			
50						
30						
10						
0 5645	5667.	5689. Freque	5711. ncy (MHz)	5733.	57	55
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
5650.00	Peak	44.08	14.42	58.50	68.20	-9.70
5700.00	Peak	44.08	14.42	58.50 61.67	105.20	-9.70 -43.53
5720.00	Peak	60.74	14.49	75.23	110.80	-35.57
5725.00	Peak	69.25	14.50	83.75	122.20	-38.45



Operation Mod Test Mode EUT Pol Test Channel	:B :H	02.11n20 / Band 4 E CH LOW Plan 745 MHz		:2018-10-18 :25/60 :HORIZONTAL :Ashton		
160 Level (dBuV	/m)					
160]
130						
130						
110						
				a manufacture		
90				3MM and		
701		and the second s	General mark that	and a hard a		
50	and the second					
30						
10						
0 5645	5667.	5689.	5711.	5733	3. 57	55
_			ncy (MHz)	A / I	1	N
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
		•		•	•	
5650.00	Peak	44.12	14.42	58.54	68.20	-9.66
5700.00	Peak	48.36	14.47	62.83	105.20	-42.37
5720.00	Peak	61.63	14.49	76.12	110.80	-34.68
5725.00	Peak	70.95	14.50	85.45	122.20	-36.75

·2018-10-18



Operation Mode

Test Mode EUT Pol Test Channel	:Bl :H	E CH HIGH Plan 325 MHz		:2018-10-18 :25/60 :VERTICAL :Ashton		
160 Level (dBuV/m)					7
150						-
110						-
90		where a start s				-
70			man annound annound	and a second day of the second day of	4	-
50						-
30						-
05805	5830.	5855. Freque	5880. 5880. ency (MHz)	5905.	59	30
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5850.00	Peak	57.24	14.72	71.96	122.20	-50.24
5855.00 5875.00 5925.00	Peak Peak Peak	53.89 49.04 41.88	14.73 14.78 14.91	68.62 63.82 56.79	110.80 105.20 68.20	-42.18 -41.38 -11.41
JJZJ.00	1 Can	41.00	14.31	50.73	00.20	

Test Date

·802 11n20 / Band 4



Operatior Test Mode EUT Pol Test Char	e	:802.11n20 / Band 4 :BE CH HIGH :H Plan :5825 MHz					Test Date Temp./Humi. Antenna Pol. Engineer						:2018-10-18 :25/60 :HORIZONTAL :Ashton	
Lovol	l (dBu\//m	•												
160 Level		1												
150														
130														
110					\searrow									
	\int		2											
90	A CONTRACTOR OF		1991bard	march and the standard and the standard	1									
70					Wwwwww	-	and where a	3						
									and a second of the second of	and a second second	marketerer	www.mar.	later from the second	
50														
30														
10														
0 5805		59	30.		585	5		59	80.	5	i905.		5930	
5005		50	50.		505	Freque	ncy (MH			J	303.		3330	
Freq		Dete			ectru		Fa	ctor		Actual		Limit		Margin
		Mo		Read				_		FS		@3m		15
MHz		PK/Q	P/AV	C	BμV		d	В		dBµV/m	C	BµV/m		dB
	20	Pe	alı	~	0 50		1 4	70		78.28		122.20		42.02
5850.0 5855.0		Pe Pe		63.56 60.08			14.72 14.73			78.28 74.81		122.20		-43.92 -35.99
5875.0		Pe			1.78			.73		66.56		105.20		-38.64
5925.0		Pe		44.06			14.91			58.97		68.20		-9.23



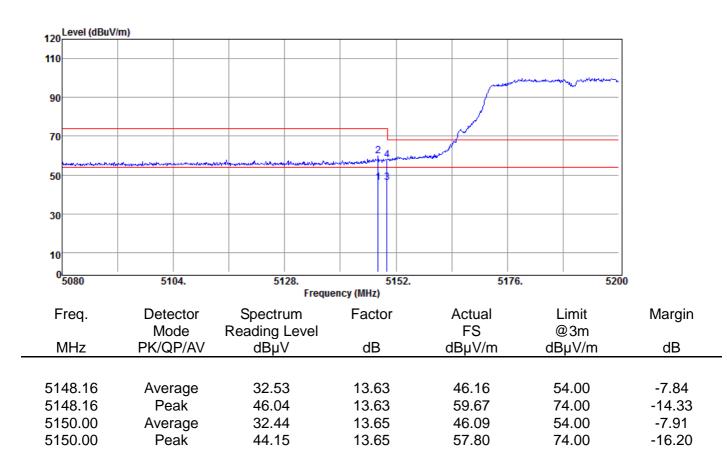
802.11n40 HT mode

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. Engineer

:2018-10-18 :25/60 :VERTICAL :Ashton



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

Report No.: E2/2018/A0015 Page: 144 of 165



Operation M Test Mode EUT Pol Test Channe		:802.11n40 / Band 1 :BE CH LOW :H Plan :5190 MHz				Te Te A E	:2018-10-18 :25/60 :HORIZONTAL :Ashton			
120 Level (dB	uV/m)									
110										
							- por	New March March March		
90										
70							- Andrew C			
70					24		X			
and the state		****	and the second		weregeneration	and the second				
50					3					
30										
10										
0 ^L 5080	510)4.	51	28.		152.	5	176.	520	0
-			0		ncy (MHz)		A <i>i</i> I		,	
Freq.	Dete Mo		Spectr		Factor		Actual FS		₋imit ⊉3m	Margin
MHz	PK/QI		Reading dBµ ^v		dB		dBµV/m	-	⊌om βµV/m	dB
	110/001	// (V	αDμ	v	üÐ		dDp V/III	üE	μν/Π	40
5149.60	Avera	ane	32.5	5	13.64		46.19	5	4.00	-7.81
5149.60	Pea		45.45		13.64		59.09		4.00	-14.91
5150.00	Avera		32.5		13.65		46.16		4.00	-7.84
5150.00	Pea	•		44.54			58.19		4.00	-15.81

Report No.: E2/2018/A0015 Page: 145 of 165



Operation Mod Test Mode EUT Pol Test Channel	:B :H	02.11n40 / Band 2 E CH HIGH Plan 310 MHz		Test Date Temp./Humi. Antenna Pol. Engineer	:2018-10-18 :25/60 :VERTICAL :Ashton	
120 Level (dBuV/i	m)		1			_
110						-
90	-					_
70	<u> </u>	An and a second se				=
50						-
30						-
10						_
0 5300	5324.	5348. Freque	5372. ency (MHz)	5396.	54	 20
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
5350.00 5350.00	Average Peak	32.09 43.45	14.16 14.16	46.25 57.61	54.00 74.00	-7.75 -16.39

Report No.: E2/2018/A0015 Page: 146 of 165



Operation M Test Mode EUT Pol Test Channe		de :802.11n40 / Band 2 :BE CH HIGH :H Plan :5310 MHz				ר ר E	:2018-10-18 :25/60 :HORIZONTAL :Ashton			
120 Level (dB	uV/m)									
120										7
110										
90		m								_
		$ \rangle$								
70										_
			hammen	4 	and the state of the				and and the second	
50				9						_
30										-
10										
0 <mark>5300</mark>	53	24.	534		53 1cy (MHz)	72.	53	396.	5	420
Freq.	Dete	ector	Spectru		Factor		Actual	1	imit	Margin
1104.	Mo		Reading L		i dotoi		FS		⊉3m	Margin
MHz	PK/Q	P/AV	dBµV		dB		dBµV/m	dB	μV/m	dB
5350.00	Aver	•	32.08		14.16		46.24	-	4.00	-7.76
5350.00	Pe		44.38		14.16		58.54		4.00	-15.46
5350.28	Aver	0	32.14		14.17		46.31		4.00	-7.69
5350.28	Pe	ak	45.65		14.17		59.82	7	4.00	-14.18

Report No.: E2/2018/A0015 Page: 147 of 165



Test M EUT F		9	:802.11n40 / Band 3 :BE CH LOW :H Plan :5510 MHz				Test Date Temp./Humi. Antenna Pol. Engineer					:2018-10-18 :25/60 :VERTICAL :Ashton
120	Level (dBuV/n	1)										_
110												
90									$- \int$			
70						1			M			
		alaan ahaalaa ka ahaa ka mada	newson and the second	-	donon-au-archive		56	alan an a	www.			
50						3						
30												
10												
0	5400	54	24.	54	48.		54	472.	5	496.	55	20
					Frequ	ency (M	Hz)					
F	req.	Dete		Spectr		Fa	ctor		Actual		_imit	Margin
		Mo		Reading					FS		@3m	10
N	ЛНz	PK/Q	P/AV	dBµ\	V	(B		dBµV/m	dE	3µV/m	dB
F 4	F7 7 0	A		00.4	•				40.40	-		7 67
	57.72 57.72	Aver Pe		32.1 44.8			.31		46.43 59.20		54.00 74.00	-7.57 -14.80
	57.72 60.00	Aver		44.8 32.1			.31		59.20 46.46		4.00 54.00	-7.54
	60.00 60.00	Pe	0	42.5			.31		40.40 56.88		74.00 74.00	-17.12
	66.48	Pe		45.6			.32		59.98		58.20	-8.22
	70.00	Pe		45.4			.31		59.71		8.20	-8.49

Report No.: E2/2018/A0015 Page: 148 of 165



Test M EUT F		9	:802.11n40 / Band 3 :BE CH LOW :H Plan :5510 MHz				Te Te An En	:2018-10-18 :25/60 :HORIZONTAL :Ashton			
120	Level (dBuV/m	1)									
110											
90								5		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
70						1		and the second s			
10				2		4 56	and the second second	,			
50	2980Ab-Arashia-b-3r	and the second	-totologicalized		all the second	3					
30											
10											
0	5400	54	24.	54	48.		472.	54	496.	552	10
					Freque	ncy (MHz)					
F	req.	Dete		Spectr		Factor		Actual		imit	Margin
	AL 1_	Mo		Reading			_	FS		2)3m	٩D
N	ЛНz	PK/Q	P/AV	dBµ\	V	dB		lBµV/m	0B	βµV/m	dB
5 A	47.52	Avor	0.00	32.1	°	14.31		46.44	F	4.00	-7.56
	47.52 47.52	Aver Pe	•	44.0		14.31		40.44 58.38		4.00 4.00	-15.62
	60.00	Aver		32.1		14.31		46.43		4.00	-7.57
	60.00	Pe		42.4		14.31		56.78		4.00	-17.22
	68.64	Pe		45.4		14.32		59.80		8.20	-8.40
	70.00	Pe		44.5		14.31		58.87		8.20	-9.33



Operation Mod Test Mode EUT Pol Test Channel	:B :H	02.11n40 / Band 3 E CH HIGH Plan 670 MHz		Test Date Temp./Humi. Antenna Pol. Engineer	:2018-10-18 :25/60 :VERTICAL :Ashton	
120 Level (dBuV/	m)					1
110	www.dud.					
90						
70	**	when the stranger and	mun to the second			
50					and for the former and the second and the former former for the second	
30						
10						
0 5660	5684.	5708.	5732. ency (MHz)	5756.	578] 80
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5725.00	Peak	46.63	14.50	61.13	68.20	-7.07



Operation Moo Test Mode EUT Pol Test Channel	:BE :H	2.11n40 / Band 3 E CH HIGH Plan 70 MHz		Test Date Temp./Humi. Antenna Pol. Engineer					
120 Level (dBuV	/m)								
110	- Antonio antonio								
90									
70	<u> </u>	n provident and the second days	hology -	Martine and an active active and a state of the state of					
50					which the manufacture and the maintenance				
30									
10									
0 5660	5684.	5708. Ereque	5732. ency (MHz)	5756.	578	0			
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin			
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB			
5725.00	Peak	50.92	14.50	65.42	68.20	-2.78			



Operation Mod Test Mode EUT Pol Test Channel	:B :H	02.11n40 / Band 4 E CH LOW Plan 755 MHz		Test Date Temp./Humi. Antenna Pol. Engineer				
160 Level (dBuV/i	m)					_		
150						-		
130						-		
110						-		
				and the second sec		-		
90				and a		-		
70		man and the second and the second and the second	- reduced where and	an 4 month		-		
50						-		
30						-		
10						-		
0 5645	5669.	5693.	5717.	5741.	57	65		
			ency (MHz)					
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin		
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB		
1011 12					αθμινιτί			
5650.00	Peak	47.57	14.42	61.99	68.20	-6.21		
5700.00	Peak	50.93	14.47	65.40	105.20	-39.80		
5720.00	Peak	54.77	14.49	69.26	110.80	-41.54		
5725.00	Peak	55.04	14.50	69.54	122.20	-52.66		



Operation Moc Test Mode EUT Pol Test Channel	:B :H	02.11n40 / Band 4 E CH LOW Plan 755 MHz		Test Date Temp./Humi. Antenna Pol. Engineer				
160 Level (dBuV/	m)							
160								
130						-		
110			++-					
90						-		
		2	3	and a second and a second				
70 -	man and a second a	w- way way and a way the second	De-ser-phone with a find a second second			-		
50						-		
30								
10								
0	5669.	5693.	5717.	5741	. 57	65		
5045	5005.		ency (MHz)	5141				
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin		
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB		
	FN/QF/AV	ubµv	UD	ubµv/ш	ασμν/Π	UD		
5650.00	Peak	48.77	14.42	63.19	68.20	-5.01		
5700.00	Peak	53.23	14.47	67.70	105.20	-37.50		
5720.00	Peak	56.28	14.49	70.77	110.80	-40.03		
5725.00	Peak	57.77	14.50	72.27	122.20	-49.93		



Operation Mod Test Mode EUT Pol Test Channel	e	:BI :H	02.11n40 / E CH HIGH Plan ′95 MHz			Te Ar	est Date emp./Hum ntenna Po ngineer		:2018-10-18 :25/60 :VERTICAL :Ashton
160 Level (dBuV/	m)								
150									
130									
110	monnon								
90		Mary Mary							
70			and the second s	men for 2		3			
50						1. Alexandra and an all alexandratic	a contraction of the second second		4
50									
30									
10									
0 5785	58	14.	58	43.		72.	5	901.	5930
Free	Data	otor	Speetr	-	ency (MHz)		Actual	Limit	Morgin
Freq.	Dete Mo		Spectru Reading		Factor		Actual FS	Limit @3m	Margin
MHz	PK/Q		dBµ\		dB	(dBµV/m	dBµV/m	dB
5850.00	Pea		55.89		14.72		70.61	122.20	-51.59
5855.00	Pea		53.04		14.73		67.77	110.80	-43.03
5875.00	Pea		48.15		14.78		62.93	105.20	-42.27
5925.00	Pea	ak	42.43	3	14.91		57.34	68.20	-10.86



Operation Mod Test Mode EUT Pol Test Channel	:E :H	802.11n40 / Band 8E CH HIGH 1 Plan 6795 MHz	4	Test Date Temp./Humi Antenna Po Engineer	:2018-10-18 :25/60 :HORIZONTAL :Ashton	
160 Level (dBuV/	m)					
160	,]
130						
130						
110	Athender					
90		montheast			<u> </u>	
70			- From whomas and a	3		
50				the work and the second second second	4	
50						
30						
10						
05785	5814.	5843.	5872	 2. 590)1. 59	 30
0100			quency (MHz)			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level	10	FS	@3m	
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5850.00	Peak	55.73	14.72	70.45	122.20	-51.75
5855.00	Peak Peak	55.73 54.14	14.72	68.87	122.20	-51.75 -41.93
5855.00 5875.00	Peak Peak	54.14 47.72	14.73	62.50	105.20	-41.93
5925.00	Peak	41.64	14.78	56.55	68.20	-11.65
0020.00	i our		1 1.01	00.00	00.20	11.00



802 11ac80 VHT mode

802.11ac80 VHT modeOperation Mode:802.11AC80 / Band 1							Т		:2018-10-18		
Mode			:BE	E CH LOW							:25/60
									ol.		:VERTICAL
Channel			:52	210 MHZ			E	:Ashton			
Level (dBuV/	m)										_
											_
0							and a farmer and	mone mon		and the second s	-
0											_
- and a Mandalan	2	Lipping/1-16/107	war and the second s	4 manuna	a and a man and a man						
0	-			3							-
0											-
0											-
0 5120		51	40.	5	 60.	51	80.	5	200.	52	20
0120				Ŭ					2001	02	
Freq.						Factor		Actual			Margin
		-						-	-		
	_										
MHz	F	PK/Q	P/AV	dBµ	V	dB		dBµV/m	dB	µV/m	dB
				•				-		-	
133.90		Aver	age	32.6	8	13.59		46.27	54	4.00	-7.73
133.90 133.90		Aver Pe	age ak	32.6 45.6	8 2	13.59 13.59		46.27 59.21	54 74	4.00 4.00	-7.73 -14.79
133.90		Aver	age ak age	32.6	8 2 0	13.59		46.27	54 74 54	4.00	-7.73
	Level (dBuV/	ation Mode Mode Pol Channel	ation Mode Mode Pol Channel	ation Mode :80 Mode :BE Pol :H Channel :52 Level (dBuV/m) 2 2 5120 5140. Freq. Detector Mode	ation Mode :802.11AC80 Mode :BE CH LOW Pol :H Plan Channel :5210 MHz	ation Mode :802.11AC80 / Band Mode :BE CH LOW Pol :H Plan Channel :5210 MHz	ation Mode :802.11AC80 / Band 1 Mode :BE CH LOW Pol :H Plan Channel :5210 MHz Level (dBuV/m) 	ation Mode :802.11AC80 / Band 1 T Mode :BE CH LOW T Pol :H Plan A Channel :5210 MHz E	ation Mode :802.11AC80 / Band 1 Test Date Temp./Hum Pol :H Plan Antenna Pol Channel :5210 MHz Engineer	ation Mode :802.11AC80 / Band 1 Test Date Mode :BE CH LOW Temp./Humi. Pol :H Plan Antenna Pol. Channel :5210 MHz Engineer Level (dBuV/m) 2 2 2 4 5120 5140, 5160, 5180, 5200, Frequency (MHz) Freq. Detector Spectrum Factor Actual L Mode Reading Level FS @	ation Mode :802.11AC80 / Band 1 Test Date Mode :BE CH LOW Temp./Humi. Pol :H Plan Antenna Pol. Channel :5210 MHz Engineer Level (dBuV/m)



Operation Mod Test Mode EUT Pol Test Channel	:Bl :H	02.11AC80 / Band E CH LOW Plan 210 MHz	1	Test Date Temp./Humi. Antenna Pol. Engineer	:2018-10-18 :25/60 :HORIZONTAL :Ashton	
120 Level (dBuV/	m)		1 1			7
110						-
90			mannen		warmen markenand	-
70	2	and the second and the second second				-
50		3				-
30						-
10						
0 5120	5140.	5160.	5180.	5200.	52	
5120	5140.		ency (MHz)	5200.	52.	20
Freq.	Detector	Spectrum	Factor	Actual FS	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	dBµV/m	@3m dBµV/m	dB
5132.80	Average	33.29	13.58	46.87	54.00	-7.13
5132.80	Peak	45.96	13.58	59.54	74.00	-14.46
5150.00	Average	32.53	13.65	46.18	54.00	-7.82
5150.00	Peak	44.11	13.65	57.76	74.00	-16.24

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.

Unless otherwise stated 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,此報告結果僅對測试之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Operation Mod Test Mode EUT Pol Test Channel	:Bl :H	02.11AC80 / Band : E CH HIGH Plan 290 MHz	2	Test Date Temp./Humi. Antenna Pol. Engineer	:2018-10-18 :25/60 :VERTICAL :Ashton	
120 Level (dBuV/	m)		1			
110						-
the second	and a second	mbet - mark the state and				
90						-
70			man			-
			The summer	2 4	and a second and a s	<u>_</u>
50				13		-
30						_
10						-
0 5280	5300.	5320. Freque	5340. ncy (MHz)	5360.	53	80
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	-
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	32.44	14.16	46.60	54.00	-7.40
5350.00	Peak	43.74	14.16	57.90	74.00	-16.10
5352.00	Average	32.38	14.17	46.55	54.00	-7.45
5352.00	Peak	44.50	14.17	58.67	74.00	-15.33

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.

Unless otherwise stated 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,此報告結果僅對測试之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Test M EUT F		de :802.11AC80 / Band 2 :BE CH HIGH :H Plan :5290 MHz				2	Test Date Temp./Humi. Antenna Pol. Engineer				:2018-10-18 :25/60 :HORIZONTAL :Ashton
	Level (dBuV/	/m)									
110											_
90	mannah	Jan and and a start a start a start a start a start a start a st	an and the second second	- Martin and and a second second	at a provide the states						_
90											
70						Marrie Marrie					_
						The Marken	to a standard and the same	Farmentury	un	4	
50								1		3	_
30											_
10											_
0	5280	53	00.	5	3 20.	53	40.	5	360.	53	380
					Freque	ncy (MHz)					
F	req.	Dete		Spectr		Factor		Actual		limit	Margin
	<u> </u>	Mo		Reading				FS		2)3m	٩D
N	ЛНz	PK/Q	P/AV	dBµ'	V	dB		dBµV/m	üВ	βµV/m	dB
FO	50.00	Δικοι		32.1	2	14.16		46.28	E	4.00	-7.72
	50.00 50.00	Aveı Pe	•	42.9		14.16		40.20 57.06		4.00 4.00	-16.94
	73.30	Avei		31.9		14.10		46.21		4.00	-7.79
	73.30	Pe		44.6		14.22		58.82		4.00	-15.18



Operation Moo Test Mode EUT Pol Test Channel	de	:802.11AC80 / Band 3 :BE CH LOW :H Plan :5530 MHz				Te: Te: An En	:2018-10-18 :25/60 :VERTICAL :Ashton			
120 Level (dBuV	/m)							1		-
110										
90						some man	~~~~~		a and the second s	
70	2 4	5	6.							
50	13	n en	and a second and a s							
30										
10										
0 5440	546	0.	54	80. Eroquor	55 1cy (MHz)	00.	55	5 20.	554	40
Freq.	Deteo Moo		Spectro Reading	um	Factor		Actual FS		_imit ⊉3m	Margin
MHz	PK/QF		dBµ\		dB	Ċ	IBµV/m		βμV/m	dB
5457.10	Avera	age	33.06	6	14.31		47.37	5	4.00	-6.63
5457.10	Pea		45.5		14.31		59.82		4.00	-14.18
5460.00 5460.00	Avera Pea		32.98 44.99		14.31 14.31		47.29 59.30		4.00 4.00	-6.71 -14.70
5463.90	Pea		46.44		14.31		60.76		4.00 8.20	-7.44
5470.00	Pea	ak	45.30	C	14.31		59.61	6	8.20	-8.59



Test M EUT F		e		:BE (:H P	CH LOW	/ Band 3 /	3	Te Ar	st Date mp./Hum ntenna Po ngineer			:2018-10-18 :25/60 :HORIZONTAL :Ashton
120	Level (dBuV/n	n)				1	1					-
110												
90							Junior	and the second second		den march	forman	
							/					
70		2	4 !	5 (6	and the second second						
50	www.ahmidthaminaau.l	herenne distantistation of	3	launah-yahad	h - all all all all all all all all all a							
30												
10												
0	5440	54	160.		54	180. Frequer	55 ncy (MHz)	00.	5	520.	554	40
F	req.	Dete	ector		Spectr		Factor		Actual	L	_imit	Margin
	-	Mo	bde		Reading	Level			FS	(2)3m	-
N	/Hz	PK/G)P/A\	/	dBµ\	V	dB	C	dBµV/m	dB	βµV/m	dB
		A			<u>оо г</u>	4	44.04		40.05	-	4.00	745
	53.50 53.50		rage eak		32.5 45.0		14.31 14.31		46.85 59.35		4.00 4.00	-7.15 -14.65
	60.00		rage		32.5		14.31		46.90		4.00	-7.10
	60.00		ak		44.0		14.31		58.35		4.00	-15.65
	65.10		eak		45.6		14.32		59.93		8.20	-8.27
54	70.00	Pe	eak		45.4	4	14.31		59.75	6	8.20	-8.45



Operation Mod Test Mode EUT Pol Test Channel	:B :H	02.11AC80 / Band E CH LOW Plan 775 MHz	4	Test Date Temp./Humi. Antenna Pol. Engineer		:2018-10-18 :25/60 :VERTICAL :Ashton
160 Level (dBuV/	m)					
150						
130						
110						
				- manana - mar		
90						
70		2	3 Anna Sprander	μ ^μ		
50	have been and the second and the second s					
30						
10						
0 5645	5673.	5701.	5729.	5757.	. 578] 85
		Freque	ency (MHz)			
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
N 41 1_	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
	Dook	40.00	14.42	EZ 04	68.20	10.06
5650.00 5700.00	Peak Peak	42.82 48.35	14.42	57.24 62.82	68.20 105.20	-10.96 -42.38
5700.00	Peak Peak	48.35 51.32	14.47	62.82 65.81	105.20	-42.38 -44.99
5725.00	Peak	49.55	14.49	64.05	122.20	-58.15
0120.00	r cuit	-0.00	14.00	07.00	122.20	00.10



Operation Moc Test Mode EUT Pol Test Channel	:B :H	02.11AC80 / Band E CH LOW Plan 775 MHz	4	Test Date Temp./Hur Antenna P Engineer	:2018-10-18 :25/60 :HORIZONTAL :Ashton	
160 Level (dBuV/	m)					
150						-
130						-
110						
90						_
50				amount .		
70	has harris and the second starting on the second	man and a second and a second and a second a s	man Branchard			-
50						_
30						_
50						
10						-
0 5645	5673.	5701. Ereque	572 ency (MHz)	29. 5	5757. 57	85
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
1104.	Mode	Reading Level		FS	@3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	44.27	14.42	58.69	68.20	-9.51
5700.00	Peak	49.28	14.47	63.75	105.20	-41.45
5720.00	Peak	49.44	14.49	63.93	110.80	-46.87
5725.00	Peak	51.66	14.50	66.16	122.20	-56.04



Operation Moo Test Mode EUT Pol Test Channel	le	:802.11AC80 / Band 4 :BE CH HIGH :H Plan :5775 MHz				Test Date Temp./Humi. Antenna Pol. Engineer						:2018-10-18 :25/60 :VERTICAL :Ashton	
160 Level (dBuV	/m)												
160													
130													
110													
90	- marine and												
		- has											
70					-	-	when 3					4	
50					_						alarra da anticipada da anti	—	
30													
10													
0 5775	580			337.		50	68.		5	399.		5930	, ,
5115	500		50	Freque	ency		00.		50			3930	,
Freq.	Dete	ctor	Spectr			Factor			Actual		Limit		Margin
	Mo		Reading						FS		@3m		
MHz	PK/QI	P/AV	dBµ\	V		dB		d	BµV/m		dBµV/m		dB
	5	-1.	50.4	•		4 4 70			00.05		400.00		
5850.00	Pea		52.1	-		14.72			66.85		122.20		-55.35
5855.00	Pea		51.3			14.73			66.05		110.80		-44.75
5875.00	Pea		46.0			14.78			60.86		105.20		-44.34
5925.00	Pea	ак	41.1	3		14.91			56.04		68.20		-12.16



Operation Moc Test Mode EUT Pol Test Channel	:Bl :H	02.11AC80 / Band E CH HIGH Plan 775 MHz	4	Test Date Temp./Humi. Antenna Pol. Engineer		:2018-10-18 :25/60 :HORIZONTAL :Ashton
160 Level (dBuV/	(m)	1				7
150						
130						
110						
90						
70		and a second as a second	2			
50					net and a second s	
30						
10						
0 ^L 5775	5806.	5837. Freque	5868. ency (MHz)	5899.	593	30
Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
MHz	Mode PK/QP/AV	Reading Level dBµV	dB	FS dBµV/m	@3m dBµV/m	dB
5050.00	Deals	50.07	44.70	74.00	100.00	50.54
5850.00	Peak	56.97	14.72	71.69	122.20	-50.51
5855.00	Peak	55.88	14.73	70.61	110.80	-40.19
5875.00	Peak	48.59	14.78	63.37 55 77	105.20	-41.83
5925.00	Peak	40.86	14.91	55.77	68.20	-12.43

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

Unless otherwise stated 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,此報告結果僅對測试之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.



ANTENNA REQUIREMENT 7

7.1 Standard Applicable

According to §15.203, an intentional radiator shall be designed to ensure that no antenna other than furnished by the responsible party shall be used with the device. According to §15.407, If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

7.2 Antenna Connected Construction

The antenna is designed with unique RF connector 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.

Weif So data was stated the results structure in this test report refer only to the sample(s) tester and pector sample(s) are retained to 50 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

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