

ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT



Applicant:	Murata Manufacturing Co., Ltd.
	10-1, Higashikotari 1-chome Nagaokakyo-shi, Kyoto 617-
	8555 Japan
Manufacturer:	Murata Manufacturing Co., Ltd.
	10-1, Higashikotari 1-chome Nagaokakyo-shi, Kyoto 617-
	8555 Japan
Product Name:	Communication Module
Brand Name:	muRata
Model No.:	LBEE6ZZ1TA
Model Difference:	N/A
Report Number:	TERF2310002626ER
FCC ID	VPYLB1TA
IC:	772C-LB1TA
Date of EUT Received:	eOctober 17, 2023
Date of Test:	October 18, 2023 \sim November 16, 2023
Issue Date:	December 13, 2023

Men Lay

Approved By

Blue Yang

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Central RF Lab 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 comply with FCC rule part §15.247, ISED RSS-247.

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

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

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



Revision History											
Report Number	Revision	Description	Issue Date	Revised By	Remark						
TERF2310002626ER	00	Original	December 13, 2023	Yuri Tsai							

Note:

1 The remark "*" indicates modification of the report upon requests from certification body.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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>http://www.sgs.com.tw/Terms-and-Conditions</u> and for electronic format documents, subject to Terms and Conditions of Electronic Documents at <u>http://www.sgs.com.tw/Terms-and-Conditions</u> and for electronic format defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號



Table of Contents

1	GENERAL INFORMATION	4
2	SYSTEM TEST CONFIGURATION	9
3	SUMMARY OF TEST RESULTS	.12
4	DESCRIPTION OF TEST MODES	.13
5	MEASUREMENT UNCERTAINTY	.16
6	MEASUREMENT EQUIPMENT USED	.17
7	CONDUCTED EMISSION TEST	.19
8	PEAK OUTPUT POWER MEASUREMENT	.23
9	EMISSION BANDWIDTH MEASUREMENT	.60
10	CONDUCTED BAND EDGES AND SPURIOUS EMISSION MEASUREMENT	.80
11	RADIATED BANDEDGE AND SPURIOUS EMISSION MEASUREMENT1	09
12	POWER SPECTRAL DENSITY2	249
13	ANTENNA REQUIREMENT	261

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

t (886-2) 2299-3279

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



GENERAL INFORMATION 1

1.1 **Product Description**

Product Name:	Communication module
Brand Name:	muRata
Model No.:	LBEE6ZZ1TA
Model Difference:	N/A
Hardware Version:	1.0
Firmware Version:	1.0
EUT Series No.:	1002681000005891
Power Supply:	3.3Vdc and 1.8Vdc from the motherboard
Test Software (Name/Version)	DutApiMimoApApp V 2.0.0.86

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

t (886-2) 2299-3279

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



1.2 **RF** Specification

WLAN 2.4GHz

Wi-Fi	Frequency	Channels	Rated Pov	Modulation				
	Range (MHz)	Channels	Peak	Avg.	Technology			
802.11b	2412~2462	11	21.94	18.93	DSSS			
802.11g	2412~2462	11	25.20	17.82	OFDM			
802.11n20	2412~2462	11	25.15	16.84	OFDM			
802.11n40	2422~2452	7	24.80	15.96	OFDM			
802.11ac20	2412~2462	11	25.04	16.81	OFDM			
802.11ac40	2422~2452	7	24.69	15.87	OFDM			
802.11ax20	2412~2462	11	25.25	16.98	OFDMA			
802.11ax40	2422~2452	7	24.89	15.99	OFDMA			
		CCK, DQPSK, DBPSK for DSSS						
		256 QAM, 64QAM, 16QAM, QPSK, BPSK for						
Modulati	on type:	OFDM						
		1024 QAM, 256 QAM , 64QAM, 16QAM, QPSK,						
		BPSK for OFDMA						
		802.11 b: 1/2/5.5/11 Mbps						
		802.11 g: 6/9/12/18/24/36/48/54 Mbps						
		802.11 n_20)MHz:up to 1	44.4Mbps				
Data I	Data:	802.11 n_40MHz:up to 300Mbps						
Dalar		802.11 ac_20MHz:up to 173.4Mbps						
		802.11 ac_40MHz:up to 400Mbps						
		802.11 ax_20MHz:up to 286.8Mbps						
		802.11 ax_40MHz:up to 573.6Mbps						

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

t (886-2) 2299-3279

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

f (886-2) 2298-0488





WLAN 2.4GHz for IC

Wi-Fi	Frequency	Channels	Rated Pov	wer (dBm)	Rated Power	Modulation			
	Range (MHz)	Channels	Peak	Avg.	in dBm (EIRP)	Technology			
802.11b	2412~2462	11	21.94	18.93	18.20	DSSS			
802.11g	2412~2462	11	25.20	17.82	17.09	OFDM			
802.11n20	2412~2462	11	25.15	16.84	16.10	OFDM			
802.11n40	2422~2452	7	24.80	15.96	15.23	OFDM			
802.11ac20	2412~2462	11	25.04	16.81	16.08	OFDM			
802.11ac40	2422~2452	7	24.69	15.87	15.14	OFDM			
802.11ax20	2412~2462	11	25.25	16.98	16.24	OFDMA			
802.11ax40	2422~2452	7	24.89	15.99	15.26	OFDMA			
		CCK, DQPSK, DBPSK for DSSS							
Modulati	on type:	256 QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM							
		1024 QAM, 256 QAM , 64QAM, 16QAM, QPSK, BPSK for OFDMA							
		802.11 b: 1/2/5.5/11 Mbps							
		802.11 g: 6/9/12/18/24/36/48/54 Mbps							
		802.11 n_20MHz:up to 144.4Mbps							
Data I	Pate:	802.11 n_40MHz:up to 300Mbps							
Data	Vale.	802.11 ac_20MHz:up to 173.4Mbps							
		802.11 ac_40MHz:up to 400Mbps							
		802.11 ax_2	•	•					
		802.11 ax_40MHz:up to 573.6Mbps							

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

t (886-2) 2299-3279

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



1.3 **Antenna Designation**

Antenna Type	Supplier	Antenna Part No.	Freq. (MHz)	Peak Antenna Gain (dBi)
PIFA	TE Connectivity	PT00014349	2412-2462	-1.77
Monopole	TE Connectivity	PT00039248	2412-2462	0.105

Note:

- 1. Pre-scanned was done on the above antennas, measurements were demonstrated by using the antenna with the highest gain as the worst case scenarios.
- Antenna information is provided by the applicant. 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.

t (886-2) 2299-3279

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

Report No.: TERF2310002626ER Page: 8 of 261



Test Methodology of Applied Standards 1.4

FCC Part 15, Subpart C §15.247 FCC KDB 558074 D01 15.247 Meas Guidance v05r02 FCC KDB 662911 D01 Multiple Transmitter Output v02r01 RSS-247 issue 3 Aug. 2023 RSS-Gen, issue 5 April, 2018 ANSI C63.10:2013

1.5 **Test Facility**

Laboratory	Test Site Address	Test Site Name	FCC Designa- tion number	IC CAB identifier
		SAC 1		
		SAC 2		
		SAC 3		
	No.134, Wu Kung Road, New Taipei	Conduction 1		
	- · ·	Conducted 1		
	Industrial Park, Wuku District, New	Conducted 2	TW0027	TW3702
	Taipei City, Taiwan.	Conducted 3		
		Conducted 4		
		Conducted 5		
SGS Taiwan Ltd.		Conducted 6		
Central RF Lab.		Conduction C		
		SAC C		
(TAF code 3702)		SAC D		
		SAC G		
	No.2, Keji 1st Rd., Guishan District,	Conducted A		
	NO.2, Reji 1st Ru., Guishan District,	Conducted B	TW0028	
	Taoyuan City, Taiwan 333	Conducted C		
		Conducted D		
		Conducted E		
		Conducted F]	
		Conducted G		

tion where measurements occurred in specific test site and address.

1.6 Special Accessories

There are no special accessories used while test was conducted.

1.7 **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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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.sqs.com.tw
```



SYSTEM TEST CONFIGURATION 2

2.1 **EUT Configuration**

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

2.2 **EUT Exercise**

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

2.3 **Test Procedure**

2.3.1 **Conducted Emissions**

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

2.3.2 **Conducted Test (RF)**

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

2.3.3 **Radiated Emissions**

The EUT is a placed on a turn table. For emissions testing at or below 1 GHz, the table height shall be 0.8 m above the reference ground plane. For emission measurements above 1 GHz, the table height shall be 1.5 m. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.

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

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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

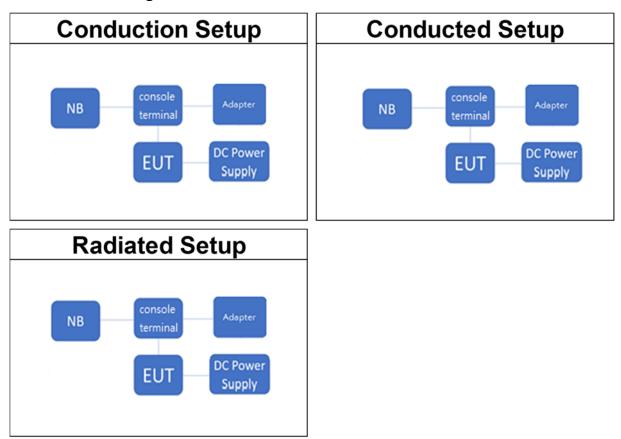
2.4.1 Radiated Emission Test Sites For Measurements From 9 kHz To 30 MHz

Radiated emission below 30MHz is measured in a 9m*6m*6m semi-anechoic chamber, the measurements correspond to those obtained at an open-field test site.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

2.4.2 For all conducted test items:

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



2.5 Test Configuration

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



2.6 Control Unit(s)

AC Power-Line Conducted Emission Test Site: Conduction 1									
EQUIPMENT TYPE MFR		MODEL NUMBER SERIAL NUMBER		LAST CAL.	CAL DUE.				
Notebook	Lenovo	T440p	PB-02Y6RK 14/07	N/A	N/A				
console terminal	GIGABYTE	GB-BSi7-6500	N/A	N/A	N/A				
Adapter	FSP GROUP INC.	FSP065-REBN2	N/A	N/A	N/A				
	C	onducted Emission 1	Fest Site: Conducted	2					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.				
Notebook	Lenovo	T440p	PB-02Y6RK 14/07	N/A	N/A				
console terminal	GIGABYTE	GB-BSi7-6500	N/A	N/A	N/A				
Adapter	FSP GROUP INC.	FSP065-REBN2	N/A	N/A	N/A				
		Radiated Emissio	n Test Site: SAC 3						
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.				
Notebook	Lenovo	T440p	PB-02Y6RK 14/07	N/A	N/A				
console terminal	GIGABYTE	GB-BSi7-6500	N/A	N/A	N/A				
Adapter	FSP GROUP INC.	FSP065-REBN2	N/A	N/A	N/A				

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

除非另有說明,此報告結果僅對測試之樣品負責,同時比樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



SUMMARY OF TEST RESULTS 3

FCC Rules	ISED Rules	Description Of Test	Result
§15.207(a)	RSS-Gen §8.8	AC Power Line Conducted Emission	Compliant
§15.247(b) (3)	RSS-247 §5.4 d	Peak Output Power	Compliant
§15.247(a)(2)	RSS-247 §5.2 a RSS-Gen §6.7	Emission Bandwidth	Compliant
§15.205 §15.209 §15.247(d)	RSS-247 §5.5 RSS-Gen §8.9 RSS-Gen §8.10 RSS-Gen §6.13	Radiated & Conducted Band Edge and Spurious Emission	Compliant
§15.247(e)	RSS-247 §5.2 b	Power Spectral Density	Compliant
§15.203	N/A	Antenna Requirement	Compliant

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

除非另有說明,此報告結果僅對測試之樣品負責,同時比樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

t (886-2) 2299-3279 台灣檢驗科技股份有限公司

Report No.: TERF2310002626ER Page: 13 of 261



DESCRIPTION OF TEST MODES 4

4.1 **Operating Frequencies**

2400~2483.5 MHz

1Hz	401	ЛНz							
Freq. (MHz)	СН	Freq. (MHz)							
2412	3	2422							
2417	4	2427							
2422	5	2432							
2427	6	2437							
2432	7	2442							
2437	8	2447							
2442	9	2452							
2447									
2452									
2457									
2462									
	Freq. (MHz) 2412 2417 2422 2427 2422 2437 2432 2437 2442 2447 2442 2447 2452 2457	Freq. (MHz) CH 2412 3 2412 3 2417 4 2422 5 2422 5 2423 7 2432 7 2437 8 2442 9 2442 1 2437 1 2442 1 2442 1 2442 1 2442 1 24452 1 2457 1							

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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>http://www.sgs.com.tw/Terms-and-Conditions</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document does not exonerate parties to a transaction for exercising all their rights and obligations under the transaction document does not exonerate parties to a transaction forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

f (886-2) 2298-0488



4.2 The Worst Test Modes and Channel Details

- 1. The EUT has been tested under operating condition.
- 2. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.
- 3. Investigation has been done on all the possible configurations for searching the worst case.

The gevin UE is pre-scanned among below modes.

	Modulation Transmission Chain							Single Multi Transmission Transmission Spatial Spatial		ansmission		
v	802.11 b	V	WLAN1	V	WLAN2		WLAN3	WLAN4	v	1TX	V	2TX
v	802.11 g	۷	WLAN1	V	WLAN2		WLAN3	WLAN4	V	1TX	۷	2TX
v	802.11 n	۷	WLAN1	V	WLAN2		WLAN3	WLAN4	V	1TX	۷	2TX
v	802.11 ac	۷	WLAN1	V	WLAN2		WLAN3	WLAN4	V	1TX	۷	2TX
v	802.11 ax	۷	WLAN1	V	WLAN2		WLAN3	WLAN4	V	1TX	۷	2TX

4. Therefore, below summary is the modes of test configuration that yield the highest reading and generate the highest emission chosen to carry out the relevantly mandatory test items.

Conducted					
MODE	AVAILABLE CHANNEL	TESTED MODULATION		DATA RATE (Mbps)	ANTENNA PORT
802.11b	1 to 11	1,6,11	DSSS	1	2TX
802.11g	1 to 11	1,2,3,6,10,11	OFDM	6	2TX
802.11n (HT20)	1 to 11	1,2,3,6,10,11	OFDM	MCS0	2TX
802.11n (HT40)	3 to 9	3,4,5,6,7,8,9	OFDM	MCS0	2TX
802.11ax (HE20)	1 to 11	1,2,3,6,10,11	OFDMA	MCS0	2TX
802.11ax (HE40)	3 to 9	3,4,5,6,7,8,9	OFDMA	MCS0	2TX

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

t (886-2) 2299-3279

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



TRANSMIT RADIATED EMISSION TEST (BELOW 1 GHz)					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11g	1 to 11	6	OFDM	6	2TX

TRANSMIT RADIATED EMISSION TEST (ABOVE 1 GHz)					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11b	1 to 11	1,6,11	DSSS	1	2TX
802.11g	1 to 11	1,2,3,6,10,11	OFDM	6	2TX
802.11n (HT20)	1 to 11	1,2,3,6,10,11	OFDM	MCS0	2TX
802.11n (HT40)	3 to 9	3,4,5,6,7,8,9	OFDM	MCS0	2TX
802.11ax (HE20)	1 to 11	1,2,3,6,10,11	OFDMA	MCS0	2TX
802.11ax (HE40)	3 to 9	3,4,5,6,7,8,9	OFDMA	MCS0	2TX

Note:

The field strength of radiated emission was measured as the EUT positioned in different orthogonal planes (E1/E2/H) based on actual usage of the EUT to pre-scan the emissions for determining the worst case scenario.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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.sqs.com.tw



MEASUREMENT UNCERTAINTY 5

Test Items	Un	certain	ty
AC Power Line Conducted Emission	+/-	2.32	dB
Output Power measurement	+/-	1	dB
Emission Bandwidth	+/-	1.53	Hz
Undesignable radiated emission measurement	+/-	1.68	dB
Peak Power Density	+/-	2.16	dB
Temperature	+/-	0.7	°C
Humidity	+/-	3	%
DC / AC Power Source	+/-	1	%

Radiated Spurious Emission Measurement Uncertainty				
Polarization: Vertical	+/-	2.8	dB	9kHz~30MHz
	+/-	4.82	dB	30MHz - 1000MHz
	+/-	4.37	dB	1GHz - 18GHz
	+/-	4.21	dB	18GHz - 40GHz
	+/-	2.8	dB	9kHz~30MHz
Polarization: Horizontal	+/-	4.54	dB	30MHz - 1000MHz
	+/-	4.37	dB	1GHz - 18GHz
	+/-	4.21	dB	18GHz - 40GHz

Note:

- 1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
- 2. The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

```
www.sqs.com.tw
```

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



MEASUREMENT EQUIPMENT USED 6

	AC Power-Line Conducted Emission Test Site: Conduction 1				
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EMI Test Receiver	R&S	ESR 7	102525	02/18/2023	02/17/2024
DC Power Supply	HILA	DP-3003N	11233K0716024	03/17/2023	03/16/2024
Pulse Limiter	SCHWARZBECK	VTSD 9561F-N	793	06/22/2023	06/21/2024
LISN	SCHWARZBECK	NSLK 8127	01040	09/06/2023	09/05/2024
LISN	SCHWARZBECK	NSLK 8127	01041	10/26/2023	10/25/2024
Coaxial Cables	EMC Instruments Corp.	EMCCFD300-BM- BM-3000	161207	06/22/2023	06/21/2024
Test Software	audix	e3	Ver. 9 210322	N.C.R	N.C.R

6.1 **Emission from AC power line**

Note: Tested date for Emission from AC power line on 11/03/2023.

6.2 **Condcuted Measurement**

Conducted Emission Test Site: Conducted 2					
EQUIPMENT TYPE	MFR MODEL NUMBER		SERIAL NUMBER	LAST CAL.	CAL DUE.
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY59071541	07/13/2023	07/12/2024
Test Software	SGS	Radio Test Software	Ver. 21	N.C.R	N.C.R
Power Meter	Anritsu	ML2496A	2132007	09/25/2023	09/24/2024
Power Sensor	Anritsu	MA2411B	1911391	09/25/2023	09/24/2024
Power Sensor	Anritsu	MA2411B	1911392	09/25/2023	09/24/2024
DC Power Supply	Agilent	E3640A	MY52410006	12/26/2022	12/25/2023
Attenuator	Mini-Circuits	BW-S10W2+	4	12/13/2022	12/12/2023
DC Block	Mini-Circuits	BLK-18-S+	1	12/13/2022	12/12/2023

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

t (886-2) 2299-3279

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



6.3 **Radiated Measurement**

	Radiated Emission Test Site: SAC 3				
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Horn Antenna	RF SPIN	DRH0844	LE2D05A0844	07/03/2023	07/02/2024
Horn Antenna	SCHWARZBECK	BBHA9120D	1441	09/23/2023	09/22/2024
Bi-log Antenna	SCHWARZBECK	VULB9168	378	08/09/2023	08/08/2024
Loop Antenna	ETS.LINDGREN	6502	0014303	05/23/2023	05/22/2024
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY63440386	01/17/2023	01/16/2024
EMI Test Receiver	R&S	ESCI 7	100759	08/21/2023	08/20/2024
DC Power Supply	HILA	DP-3003N	11233K0716024	03/17/2023	03/16/2024
Pre-Amplifier	EMC Instruments	EMC118A45SEE	980868	08/31/2023	08/30/2024
Pre-Amplifier	EMC Instruments	EMC184045B	980135	08/31/2023	08/30/2024
Pre-Amplifier	HP	8447D	2944A07676	08/31/2023	08/30/2024
Attenuator	Mini-Circuit	BW-S10W2+	4	12/13/2022	12/12/2023
Filter 2400-2483.5 MHz	EWT	EWT-14-0166	M1	12/13/2022	12/12/2023
High Pass Filter	WI	WHKX4.0/18G-10SS	22	12/13/2022	12/12/2023
Coaxial Cables	EMCl+Huber Suhner	EMC107-SM-SM- 1000+EMC107-SM- EMCI+Huber SM-1500+EMC107-		08/31/2023	08/30/2024
Coaxial Cables	Huber Suhner	SUCOFLEX 102	RX Cable 18G-40G MY2630/2+805062/ 2	08/31/2023	08/30/2024
Site Cal	SGS	SAC 3	N/A	08/31/2023	08/30/2024
Test Software	audix	e3	Ver. 9.210616	N.C.R	N.C.R

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

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

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

f (886-2) 2298-0488



CONDUCTED EMISSION TEST 7

7.1 Standard Applicable

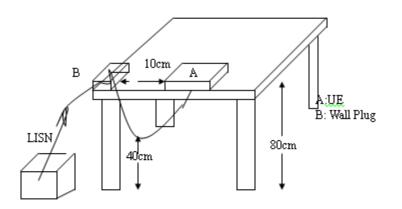
Frequency range within 150kHz to 30MHz shall not exceed the Limit table as below.

Frequency range		mits 3uV)		
MHz	Quasi-peak	Average		
0.15 to 0.50	66 to 56	56 to 46		
0.50 to 5	56	46		
5 to 30	60	50		
Note				
1.The lower limit shall apply at the transition frequencies				
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.				

7.2 EUT Setup:

- 1. The conducted emission tests were performed in the test site, using the setup in accordance with the ANSI C63.10:2013.
- 2. The AC/DC Power adaptor of EUT was plug-in LISN. The EUT was placed flushed with the rear of the table.
- 3. The LISN was connected with 120Vac/60Hz power source.

7.3 **Test Setup**



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



7.4 **Measurement Procedure**

- 1. The EUT was placed on a table which is 0.8m above ground plane.
- 2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 3. Repeat above procedures until all phases of power being supplied by given UE are completed

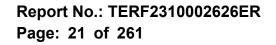
7.5 **Measurement Result**

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

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

t (886-2) 2299-3279

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

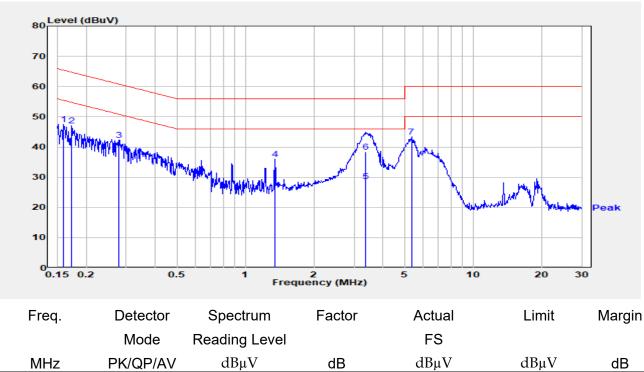


SGS

AC POWER LINE CONDUCTED EMISSION TEST DATA

Report Number	:TERF2310002626ER
Operation Mode	:WLAN 2.4G
Power	:120V/60Hz
Probe	:L
Note:	:

Test Site :Conduction 1 Test Date :2023-11-03 Temp./Humi. :24.9°C/63% Engineer :Nick Lin



MHz	PK/QP/AV	dBµV	dB	dBμV	dBμV	dB
0.159	Peak	37.40	10.13	47.53	65.52	-17.98
0.173	Peak	36.91	10.13	47.04	64.81	-17.78
0.279	Peak	32.13	10.14	42.27	60.85	-18.58
1.352	Peak	25.82	10.20	36.02	56.00	-19.98
3.381	Average	18.26	10.27	28.53	46.00	-17.47
3.381	QP	28.03	10.27	38.30	56.00	-17.70
5.362	Peak	32.97	10.35	43.32	60.00	-16.68

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

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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134號 SGS Taiwan Ltd.

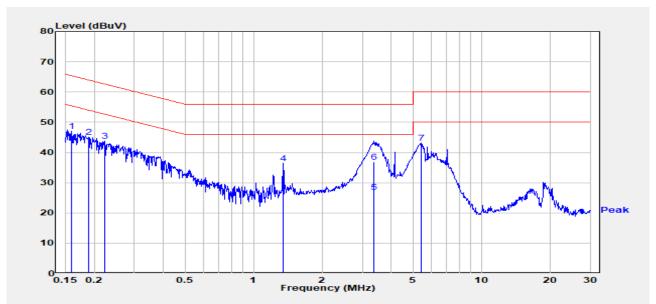
f (886-2) 2298-0488

www.sqs.com.tw



Report Number	:TERF2310002626ER
Operation Mode	:WLAN 2.4G
Power	:120V/60Hz
Probe	:N
Note:	:

Test Site	:Conduction 1
Test Date	:2023-11-03
Temp./Humi.	:24.9℃/63%
Engineer	:Nick Lin



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS		
MHz	PK/QP/AV	dBµV	dB	dBμV	dBµV	dB
0.158	Peak	36.99	10.12	47.11	65.56	-18.45
0.189	Peak	35.00	10.12	45.12	64.06	-18.94
0.223	Peak	33.60	10.12	43.73	62.70	-18.97
1.352	Peak	26.20	10.19	36.39	56.00	-19.61
3.364	Average	16.55	10.28	26.83	46.00	-19.17
3.364	QP	26.64	10.28	36.92	56.00	-19.08
5.419	Peak	32.82	10.36	43.18	60.00	-16.82

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留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>http://www.sgs.com.tw/Terms-and-Conditions</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

t (886-2) 2299-3279

f (886-2) 2298-0488

www.sqs.com.tw



8 PEAK OUTPUT POWER MEASUREMENT

8.1 Standard Applicable

8.1.1 Duty Cycle

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

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

8.1.2 FCC

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

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

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

8.1.3 ISED

For systems using digital modulation in the 2400-2483.5 MHz bands, the limit for peak output power is 1Watt and the e.i.r.p. shall not exceed 4 W (ISED only).

Note:

As per section F. 2). e). (ii) of FCC KDB 662911 D01

If antenna gains are not equal and each transmit antenna is driven by only one spatial stream, directional gain may be calculated by either of the following formulas.

• DirectionalGain =
$$10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream; NSS = the number of independent spatial streams of data;

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。

SGS Taiwan Ltd.	No.134,Wu Kung Road, New	Taipei Industrial Park, Wuku District, New Taip	per City, Taiwan/新北市	五股區新北產業園區五工路 134
台灣檢驗科技股份有限公司	t (886-2) 2299-3279	f (886-2) 2298-0488	www.sgs.com.tw	



NANT = the total number of antennas

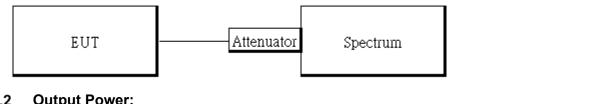
 $g_{i,k} = 10^{G_{k/20}}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

 G_k is the gain in dBi of the kth antenna.

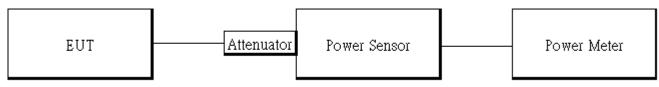
The antenna gain is not greater than 6 dBi. Therefore, reduction of power is not required.

8.2 Test Setup

8.2.1 **Duty Cycle**



8.2.2 **Output Power:**



8.3 Measurement Procedure

8.3.1 **Duty Cycle:**

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

8.3.2 **Output Power**

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

Power Meter:

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

- 4. Record the max. Reading as observed from Spectrum or Power Meter.
- 5. MIMO mode: offset is set with "measure and add 10 Log (N)" to measurement for MIMO mode. Offset = cable loss + 10 log (N), where N is number of transmitting antenna, cable loss is specified below.

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

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

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

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



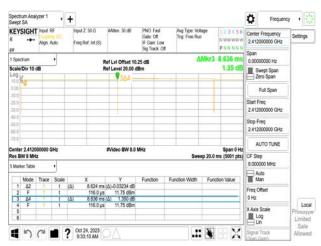
8.4 Measurement Result

8.4.1 **Duty Cycle:**

Mode		Duty Cycle (%) = Ton / (Ton+Toff)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802	.11b	99.86	0.01	0.12	0.01
802	.11g	98.96	0.05	0.70	0.01
802.1	1n_20	98.82	0.05	0.75	0.01
802.1	1n_40	97.65	0.10	1.51	2.00
802.11	lac_20	98.83	0.05	0.74	0.01
802.11	lac_40	97.82	0.10	1.49	2.00
Mode	RU Config	Duty Cycle (%) = Ton / (Ton+Toff)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
	Full	98.58	0.06	0.96	0.01
802.11ax 20	26-Tone RU	82.30	0.85	0.74	1.00
002.11ax_20	52-Tone RU	82.30	0.85	0.74	1.00
	106-Tone RU	82.30	0.85	0.74	1.00
802.11ax 40	Full	97.18	0.12	1.81	2.00
002.11ax_40	242-Tone RU	82.70	0.82	0.74	1.00

8.4.2 **Duty Cycle test plots**

^{802.11}b_20MHz_WLAN1_2412MHz



802.11g_20MHz_WLAN1_2412MHz



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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

t (886-2) 2299-3279 台灣檢驗科技股份有限公司

f (886-2) 2298-0488

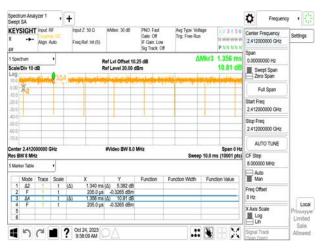
www.sqs.com.tw

Member of SGS Group

Report No.: TERF2310002626ER Page: 26 of 261



802.11n_20MHz_WLAN1_2412MHz



802.11n_40MHz_WLAN1_2422MHz



802.11ac_20MHz_WLAN1_2412MHz



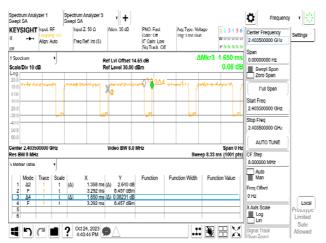
802.11ac_40MHz_WLAN1_2422MHz



802.11ax_20MHz_WLAN1_2412MHz



802.11ax_20MHz_WLAN1_2412MHz_26RU



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sqs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd

t (886-2) 2299-3279 台灣檢驗科技股份有限公司

f (886-2) 2298-0488

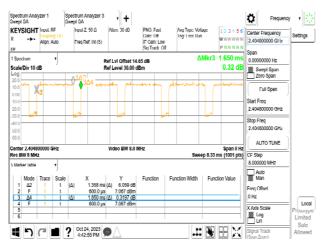
www.sgs.com.tw

Member of SGS Group

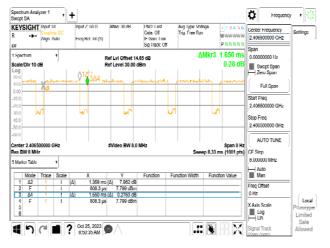
Report No.: TERF2310002626ER Page: 27 of 261



802.11ax_20MHz_WLAN1_2412MHz_52RU



802.11ax_20MHz_WLAN1_2412MHz_106RU



802.11ax_40MHz_WLAN1_2422MHz



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sqs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

802.11ax_40MHz_WLAN1_2422MHz_242RU



No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 f (886-2) 2298-0488 www.sqs.com.tw

t (886-2) 2299-3279 台灣檢驗科技股份有限公司

SGS Taiwan Ltd.

Member of SGS Group



8.4.3 **Output Power**

802.11b	WLAN1
---------	-------

002.1			-			
СН	Freq. (MHz)	Data Rate	Power set	Peak Output Power (dBm)	Limit (dBm)	RESULT
1	2412	1	16.5	18.29	30.00	PASS
6	2437	1	16.5	18.04	30.00	PASS
11	2462	1	17	18.46	30.00	PASS
802.1	1b WLAN	1				
СН	Freq. (MHz)	Data Rate	Power set	Avg. Output Power (dBm)	Limit (dBm)	RESULT
1	2412	1	16.5	15.64	30.00	PASS
6	2437	1	16.5	15.54	30.00	PASS
11	2462	1	17	15.62	30.00	PASS

802.11b WLAN2									
СН	Freq. (MHz)	Data Rate	Power set	Peak Output Power (dBm)	Limit (dBm)	RESULT			
1	2412	1	16	18.61	30.00	PASS			
6	2437	1	16.5	18.29	30.00	PASS			
11	2462	1	17.5	18.56	30.00	PASS			
802.1 ⁻	1b WLAN	2	-						
СН	Freq. (MHz)	Data Rate	Power set	Avg. Output Power (dBm)	Limit (dBm)	RESULT			
1	2412	1	16	15.69	30.00	PASS			
6	2437	1	16.5	15.63	30.00	PASS			
11	2462	1	17.5	15.67	30.00	PASS			

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

除非另有說明,此報告結果僅對測試之樣品負責,同時比樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.





802.1	1b_2TX	-						
СН	Freq. (MHz)	Data Rate	Power set	Peak Output Power (dBm) WLAN1 WLAN2		Total Peak Output Power (dBm)	Limit (dBm)	RESULT
1	2412	1	16.5	18.51	19.31	21.94	30.00	PASS
6	2437	1	17	18.41	18.89	21.67	30.00	PASS
11	2462	1	17.5	18.48	18.93	21.72	30.00	PASS
802.1	1b_2TX							•
СН	Freq. (MHz)	Data Rate	Power set	Po	Dutput wer 3m) WLAN2	Total Avg. Output Power (dBm)	Limit (dBm)	RESULT
1	2412	1	16.5	15.70	16.12	18.92	30.00	PASS
6	2437	1	17	15.59	16.04	18.83	30.00	PASS
11	2462	1	17.5	15.65	16.19	18.93	30.00	PASS

Unless otherwise stated the results shown in this test report reter only to the sample(s) tested and such sample(s) are retained for 90 days only. Mir#JAfabity i, blastar@bl prosecuted to the fullest extent of the law.



802.1	1g WLAN	1				
СН	Freq. (MHz)	Data Rate	Power set	Peak Output Power (dBm)	Limit (dBm)	RESULT
1	2412	6	12.25	20.96	30.00	PASS
2	2417	6	15.5	22.30	30.00	PASS
3	2422	6	16.5	22.44	30.00	PASS
6	2437	6	15.5	21.91	30.00	PASS
10	2457	6	16.25	22.38	30.00	PASS
11	2462	6	13.5	21.76	30.00	PASS
802.1	1g WLAN	1			•	
СН	Freq. (MHz)	Data Rate	Power set	Avg. Output Power (dBm)	Limit (dBm)	RESULT
1	2412	6	12.25	10.92	30.00	PASS
2	2417	6	15.5	13.92	30.00	PASS
3	2422	6	16.5	14.86	30.00	PASS
6	2437	6	15.5	14.57	30.00	PASS
10	2457	6	16.25	14.55	30.00	PASS
11	2462	6	13.5	11.91	30.00	PASS

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents issued by the Company subject to its General Conductors and http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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.sgs.com.tw
```



802.1	1g WLAN	2				
СН	Freq. (MHz)	Data Rate	Power set	Peak Output Power (dBm)	Limit (dBm)	RESULT
1	2412	6	12	21.52	30.00	PASS
2	2417	6	14.5	22.31	30.00	PASS
3	2422	6	15.5	22.46	30.00	PASS
6	2437	6	15.5	22.41	30.00	PASS
10	2457	6	16	22.43	30.00	PASS
11	2462	6	13.25	21.87	30.00	PASS
802.1	1g WLAN	2			•	-
СН	Freq. (MHz)	Data Rate	Power set	Avg. Output Power (dBm)	Limit (dBm)	RESULT
1	2412	6	12	10.98	30.00	PASS
2	2417	6	14.5	13.98	30.00	PASS
3	2422	6	15.5	14.98	30.00	PASS
6	2437	6	15.5	14.58	30.00	PASS
10	2457	6	16	14.56	30.00	PASS
11	2462	6	13.25	11.98	30.00	PASS

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,同時比樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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.sgs.com.tw
```



802.1	1g_2TX							
СН	Freq. (MHz)	Data Rate	Power set	Po (dl	Output wer 3m) WLAN2	Total Peak Output Power (dBm)	Limit (dBm)	RESULT
1	2412	6	12	20.45	21.56	24.05	30.00	PASS
2	2417	6	15	21.55	22.38	25.00	30.00	PASS
3	2422	6	16	21.78	22.47	25.15	30.00	PASS
6	2437	6	15.5	21.93	22.43	25.20	30.00	PASS
10	2457	6	16	21.85	22.45	25.17	30.00	PASS
11	2462	6	13	21.19	21.91	24.58	30.00	PASS
802.1	1g_2TX							
СН	Freq. (MHz)	Data Rate	Power set	Po	Dutput wer 3m) WLAN2	Total Avg. Output Power (dBm)	Limit (dBm)	RESULT
1	2412	6	12	10.20	11.63	13.98	30.00	PASS
2	2417	6	15	13.16	14.25	16.74	30.00	PASS
3	2422	6	16	14.41	15.18	17.82	30.00	PASS
6	2437	6	15.5	14.58	14.87	17.73	30.00	PASS
10	2457	6	16	14.43	14.61	17.53	30.00	PASS
11	2462	6	13	11.53	12.37	14.98	30.00	PASS

除非另有說明,此報告結果僅對測試之樣品負責,同時比樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

www.sgs.com.tw



802.1	802.11n_HT_20M WLAN1									
СН	Freq. (MHz)	Data Rate	Power set	Peak Output Power (dBm)	Limit (dBm)	RESULT				
1	2412	MCS0	12.5	20.57	30.00	PASS				
2	2417	MCS0	13	21.37	30.00	PASS				
3	2422	MCS0	15.5	22.01	30.00	PASS				
6	2437	MCS0	14.5	22.11	30.00	PASS				
10	2457	MCS0	15	22.19	30.00	PASS				
11	2462	MCS0	12.25	21.03	30.00	PASS				
802.1	1n_HT_20	M WLAN1								
СН	Freq. (MHz)	Data Rate	Power set	Avg. Output Power (dBm)	Limit (dBm)	RESULT				
1	2412	MCS0	12.5	10.87	30.00	PASS				
2	2417	MCS0	13	11.52	30.00	PASS				
3	2422	MCS0	15.5	13.88	30.00	PASS				
6	2437	MCS0	14.5	13.60	30.00	PASS				
10	2457	MCS0	15	13.68	30.00	PASS				
11	2462	MCS0	12.25	10.78	30.00	PASS				

t (886-2) 2299-3279

Unless otherwise stated the results shown in this test report reter only to the sample(s) tested and such sample(s) are retained for 90 days only. Mir#JAfabity i, blastar@bl prosecuted to the fullest extent of the law.



802.1	1n_HT_20	OM WLAN2				
СН	Freq. (MHz)	Data Rate	Power set	Peak Output Power (dBm)	Limit (dBm)	RESULT
1	2412	MCS0	11.5	21.15	30.00	PASS
2	2417	MCS0	12	21.53	30.00	PASS
3	2422	MCS0	14.5	22.28	30.00	PASS
6	2437	MCS0	14.5	22.34	30.00	PASS
10	2457	MCS0	14.5	22.39	30.00	PASS
11	2462	MCS0	11.5	21.17	30.00	PASS
802.1	1n_HT_20	OM WLAN2				-
СН	Freq. (MHz)	Data Rate	Power set	Avg. Output Power (dBm)	Limit (dBm)	RESULT
1	2412	MCS0	11.5	10.93	30.00	PASS
2	2417	MCS0	12	11.53	30.00	PASS
3	2422	MCS0	14.5	13.99	30.00	PASS
6	2437	MCS0	14.5	13.82	30.00	PASS
10	2457	MCS0	14.5	13.71	30.00	PASS
11	2462	MCS0	11.5	10.92	30.00	PASS

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



802.11n_HT20M_2TX Peak Output **Total Peak** Power Freq. Data Power Limit СН **Output Power** RESULT (MHz) Rate set (dBm) (dBm) (dBm) WLAN1 WLAN2 2412 MCS0 12 20.28 21.70 24.06 30.00 PASS 1 21.56 2 2417 MCS0 24.12 30.00 PASS 12 20.61 MCS0 PASS 3 2422 15 21.69 22.36 25.05 30.00 6 2437 MCS0 14.5 21.67 22.41 25.07 30.00 PASS 10 MCS0 15 PASS 2457 21.82 22.43 25.15 30.00 MCS0 30.00 PASS 11 2462 12 20.21 21.37 23.84 802.11n_HT20M_2TX Avg. Output Total Avg. Data Power Limit Freq. Power **Output Power** СН RESULT (MHz) Rate (dBm) set (dBm) (dBm) WLAN1 WLAN2 13.92 2412 MCS0 12 10.31 11.44 30.00 PASS 1 MCS0 PASS 2 2417 12 10.24 11.59 13.98 30.00 3 2422 MCS0 15 13.39 14.22 30.00 PASS 16.84 MCS0 PASS 2437 14.5 13.62 13.98 16.82 30.00 6 10 2457 MCS0 13.43 13.79 16.63 30.00 PASS 15 11 2462 MCS0 12 10.43 11.36 13.93 30.00 PASS

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

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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.sqs.com.tw
```



802.1	1n_HT_40	M WLAN1				
СН	Freq. (MHz)	Data Rate	Power set	Peak Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	10.5	19.29	30.00	PASS
4	2427	MCS0	14.25	21.20	30.00	PASS
5	2432	MCS0	14.25	21.21	30.00	PASS
6	2437	MCS0	14.5	21.85	30.00	PASS
7	2442	MCS0	14.25	21.71	30.00	PASS
8	2447	MCS0	13	21.29	30.00	PASS
9	2452	MCS0	11.75	20.95	30.00	PASS
802.1	1n_HT_40	M WLAN1			-	-
СН	Freq. (MHz)	Data Rate	Power set	Avg. Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	10.5	8.80	30.00	PASS
4	2427	MCS0	14.25	12.62	30.00	PASS
5	2432	MCS0	14.25	12.84	30.00	PASS
6	2437	MCS0	14.5	13.53	30.00	PASS
7	2442	MCS0	14.25	12.79	30.00	PASS
8	2447	MCS0	13	11.56	30.00	PASS
9	2452	MCS0	11.75	10.79	30.00	PASS

t (886-2) 2299-3279

Unless otherwise stated the results shown in this test report reter only to the sample(s) tested and such sample(s) are retained for 90 days only. Mir#JAfabity i, blastar@bl prosecuted to the fullest extent of the law.

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

www.sgs.com.tw



802.1	1n_HT_40	M WLAN2				
СН	Freq. (MHz)	Data Rate	Power set	Peak Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	9.5	19.56	30.00	PASS
4	2427	MCS0	13.25	21.61	30.00	PASS
5	2432	MCS0	13.25	21.75	30.00	PASS
6	2437	MCS0	14	22.25	30.00	PASS
7	2442	MCS0	13.5	21.76	30.00	PASS
8	2447	MCS0	12	21.58	30.00	PASS
9	2452	MCS0	11	21.13	30.00	PASS
802.1	1n_HT_40	M WLAN2			•	
СН	Freq. (MHz)	Data Rate	Power set	Avg. Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	9.5	8.89	30.00	PASS
4	2427	MCS0	13.25	12.63	30.00	PASS
5	2432	MCS0	13.25	12.86	30.00	PASS
6	2437	MCS0	14	13.59	30.00	PASS
7	2442	MCS0	13.5	12.81	30.00	PASS
8	2447	MCS0	12	11.58	30.00	PASS
9	2452	MCS0	11	10.83	30.00	PASS

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





802.11n HT40M 2TX Peak Output **Total Peak** Freq. Data Power Power Limit СН RESULT **Output Power** (MHz) Rate (dBm) set (dBm) (dBm) WLAN1 WLAN2 MCS0 PASS 3 2422 9.75 18.61 19.58 22.13 30.00 4 2427 MCS0 12.5 20.59 21.68 24.18 30.00 PASS MCS0 PASS 5 2432 13 21.20 21.93 24.59 30.00 PASS MCS0 6 2437 13.25 21.19 22.31 24.80 30.00 MCS0 PASS 7 2442 13 20.87 21.81 24.38 30.00 8 2447 MCS0 11.25 20.43 21.65 24.09 30.00 PASS MCS0 PASS 9 2452 11 20.12 21.67 23.97 30.00 802.11n_HT40M_2TX Avg. Output Total Avg. Freq. Data Power Power Limit CH **Output Power** RESULT (MHz) Rate (dBm) set (dBm) (dBm) WLAN1 WLAN2 9.35 3 2422 MCS0 9.75 30.00 PASS 8.33 11.88 MCS0 PASS 4 12.5 10.98 12.77 14.98 30.00 2427 5 MCS0 13.29 PASS 2432 13 11.74 15.60 30.00 MCS0 PASS 13.25 30.00 6 2437 12.05 13.69 15.96 MCS0 PASS 7 2442 13.34 15.67 30.00 13 11.84 MCS0 PASS 8 2447 11.25 10.11 11.65 13.96 30.00 9 2452 MCS0 9.86 11.21 13.60 30.00 PASS 11

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

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



802.1	1ac_VHT_	20M WLAN1				
СН	Freq. (MHz)	Data Rate	Power set	Peak Output Power (dBm)	Limit (dBm)	RESULT
1	2412	MCS0	12.25	20.54	30.00	PASS
2	2417	MCS0	12.75	21.34	30.00	PASS
3	2422	MCS0	15.5	21.95	30.00	PASS
6	2437	MCS0	14.5	21.87	30.00	PASS
10	2457	MCS0	15	22.16	30.00	PASS
11	2462	MCS0	12.5	20.99	30.00	PASS
802.1	1ac_VHT_	20M WLAN1		·	•	
СН	Freq. (MHz)	Data Rate	Power set	Avg. Output Power (dBm)	Limit (dBm)	RESULT
1	2412	MCS0	12.25	10.80	30.00	PASS
2	2417	MCS0	12.75	11.51	30.00	PASS
3	2422	MCS0	15.5	13.89	30.00	PASS
6	2437	MCS0	14.5	13.49	30.00	PASS
10	2457	MCS0	15	13.50	30.00	PASS
11	2462	MCS0	12.5	10.76	30.00	PASS

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



802.1	1ac_VHT_	20M WLAN2				
СН	Freq. (MHz)	Data Rate	Power set	Peak Output Power (dBm)	Limit (dBm)	RESULT
1	2412	MCS0	11.5	20.97	30.00	PASS
2	2417	MCS0	11.75	21.51	30.00	PASS
3	2422	MCS0	15	22.27	30.00	PASS
6	2437	MCS0	14.25	22.24	30.00	PASS
10	2457	MCS0	14.5	22.35	30.00	PASS
11	2462	MCS0	11.5	21.02	30.00	PASS
802.1	1ac_VHT_	20M WLAN2			•	
СН	Freq. (MHz)	Data Rate	Power set	Avg. Output Power (dBm)	Limit (dBm)	RESULT
1	2412	MCS0	11.5	10.82	30.00	PASS
2	2417	MCS0	11.75	11.52	30.00	PASS
3	2422	MCS0	15	13.99	30.00	PASS
6	2437	MCS0	14.25	13.80	30.00	PASS
10	2457	MCS0	14.5	13.71	30.00	PASS
11	2462	MCS0	11.5	10.89	30.00	PASS

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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.



1002.1	1ac_VHT2	2TX						
СН	Freq. (MHz)	Data Rate	Power set	Peak Output Power (dBm) WLAN1 WLAN2		Total Peak Output Power (dBm)	Limit (dBm)	RESULT
1	2412	MCS0	12	20.20	21.62	23.98	30.00	PASS
2	2417	MCS0	12	20.41	21.56	24.03	30.00	PASS
3	2422	MCS0	15	21.71	22.32	25.04	30.00	PASS
6	2437	MCS0	14.5	21.63	22.25	24.96	30.00	PASS
10	2457	MCS0	15	21.61	22.37	25.02	30.00	PASS
11	2462	MCS0	12	19.95	21.08	23.56	30.00	PASS
802.1	1ac_VHT2	OM_2TX						
				Avg. Output Power (dBm)				
СН	Freq. (MHz)	Data Rate	Power set	Po (dl	wer 3m)	Total Avg. Output Power (dBm)	Limit (dBm)	RESULT
	(MHz)	Rate	set	Po (de WLAN1	wer 3m) WLAN2	Output Power (dBm)	(dBm)	
1	(MHz) 2412	Rate MCS0	set	Po (df WLAN1 10.30	wer 3m) WLAN2 11.43	Output Power (dBm) 13.91	(dBm) 30.00	PASS
1 2	(MHz) 2412 2417	Rate MCS0 MCS0	set 12 12	Po (dE WLAN1 10.30 10.23	wer 3m) WLAN2 11.43 11.58	Output Power (dBm) 13.91 13.97	(dBm) 30.00 30.00	PASS PASS
1 2 3	(MHz) 2412 2417 2422	Rate MCS0 MCS0 MCS0	set 12 12 15	Po (df WLAN1 10.30 10.23 13.38	wer 3m) WLAN2 11.43 11.58 14.15	Output Power (dBm) 13.91 13.97 16.79	(dBm) 30.00 30.00 30.00	PASS PASS PASS
1 2 3 6	(MHz) 2412 2417 2422 2437	Rate MCS0 MCS0 MCS0 MCS0	set 12 12 15 14.5	Po (dE WLAN1 10.30 10.23 13.38 13.63	wer 3m) WLAN2 11.43 11.58 14.15 13.96	Output Power (dBm) 13.91 13.97 16.79 16.81	(dBm) 30.00 30.00 30.00 30.00	PASS PASS PASS PASS
1 2 3	(MHz) 2412 2417 2422	Rate MCS0 MCS0 MCS0	set 12 12 15	Po (df WLAN1 10.30 10.23 13.38	wer 3m) WLAN2 11.43 11.58 14.15	Output Power (dBm) 13.91 13.97 16.79	(dBm) 30.00 30.00 30.00	PASS PASS PASS

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



802.1	1ac_VHT_	40M WLAN1				
СН	Freq. (MHz)	Data Rate	Power set	Peak Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	10.5	19.18	30.00	PASS
4	2427	MCS0	14	21.11	30.00	PASS
5	2432	MCS0	14.25	21.19	30.00	PASS
6	2437	MCS0	15	21.82	30.00	PASS
7	2442	MCS0	14.5	21.69	30.00	PASS
8	2447	MCS0	13	21.21	30.00	PASS
9	2452	MCS0	11.75	20.76	30.00	PASS
802.1	1ac_VHT_	40M WLAN1			-	-
СН	Freq. (MHz)	Data Rate	Power set	Avg. Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	10.5	8.79	30.00	PASS
4	2427	MCS0	14	12.59	30.00	PASS
5	2432	MCS0	14.25	12.74	30.00	PASS
6	2437	MCS0	15	13.52	30.00	PASS
7	2442	MCS0	14.5	12.77	30.00	PASS
8	2447	MCS0	13	11.55	30.00	PASS
9	2452	MCS0	11.75	10.63	30.00	PASS

t (886-2) 2299-3279

Unless otherwise stated the results shown in this test report reter only to the sample(s) tested and such sample(s) are retained for 90 days only. Mir#JAfabity i, blastar@bl prosecuted to the fullest extent of the law.



802.1	1ac_VHT_	40M WLAN2				
СН	Freq. (MHz)	Data Rate	Power set	Peak Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	9.5	19.51	30.00	PASS
4	2427	MCS0	13	21.59	30.00	PASS
5	2432	MCS0	13.25	21.72	30.00	PASS
6	2437	MCS0	14.5	22.21	30.00	PASS
7	2442	MCS0	13.5	21.71	30.00	PASS
8	2447	MCS0	12	21.54	30.00	PASS
9	2452	MCS0	11	21.05	30.00	PASS
802.1	1ac_VHT_	40M WLAN2			•	
СН	Freq. (MHz)	Data Rate	Power set	Avg. Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	9.5	8.88	30.00	PASS
4	2427	MCS0	13	12.61	30.00	PASS
5	2432	MCS0	13.25	12.78	30.00	PASS
6	2437	MCS0	14.5	13.56	30.00	PASS
7	2442	MCS0	13.5	12.79	30.00	PASS
8	2447	MCS0	12	11.56	30.00	PASS
9	2452	MCS0	11	10.81	30.00	PASS

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





802.11ac VHT40M 2TX

002.1								
СН	Freq. (MHz)	Data Rate	Power set	Po	Output wer 3m) WLAN2	Total Peak Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	9.75	18.49	19.53	22.05	30.00	PASS
4	2427	MCS0	12.5	20.51	21.71	24.16	30.00	PASS
5	2432	MCS0	13	21.15	21.90	24.55	30.00	PASS
6	2437	MCS0	13.25	21.01	22.26	24.69	30.00	PASS
7	2442	MCS0	13	20.93	21.75	24.37	30.00	PASS
8	2447	MCS0	11.25	20.38	21.63	24.06	30.00	PASS
9	2452	MCS0	11	20.07	21.67	23.95	30.00	PASS
802.11	lac_VHT4	0M_2TX						
СН	Freq. (MHz)	Data Rate	Power set	Po	Dutput wer 3m) WLAN2	Total Avg. Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	9.75	8.32	9.21	11.79	30.00	PASS
4	2427	MCS0	12.5	11.04	12.68	14.94	30.00	PASS
5	2432	MCS0	13	11.70	13.27	15.56	30.00	PASS
6	2437	MCS0	13.25	11.97	13.61	15.87	30.00	PASS
7	2442	MCS0	13	11.77	13.33	15.63	30.00	PASS
8	2447	MCS0	11.25	10.10	11.64	13.94	30.00	PASS
9	2452	MCS0	11	9.83	11.20	13.57	30.00	PASS

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

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



802.11ax_HE_20M WLAN1 Peak Output Freq. Data Power Limit CH **RU** Config Power RESULT (MHz) Rate set (dBm) (dBm) PASS full 12.25 20.96 30.00 PASS 26/0 9 17.76 30.00 MCS0 1 2412 PASS 52/37 9 17.83 30.00 PASS 106/53 9 17.67 30.00 PASS 2417 MCS0 12.75 21.79 30.00 2 full PASS 3 MCS0 22.05 2422 full 15 30.00 PASS 6 2437 MCS0 full 14.5 22.12 30.00 PASS 10 2457 MCS0 15 22.25 30.00 full PASS full 12 21.07 30.00 PASS 26/8 9 18.01 30.00 MCS0 11 2462 52/40 9 PASS 18.11 30.00 PASS 106/54 9 18.08 30.00 802.11ax_HE_20M WLAN1 Avg. Output Freq. Data Power Limit **RU** Config CH RESULT Power (MHz) Rate set (dBm) (dBm) PASS full 12.25 10.89 30.00 7.26 PASS 26/0 9 30.00 2412 MCS0 1 52/37 9 6.98 PASS 30.00 9 PASS 106/53 7.45 30.00 2 2417 MCS0 full 12.75 11.54 30.00 PASS 2422 MCS0 13.70 PASS 3 full 15 30.00 PASS 2437 MCS0 30.00 6 full 14.5 13.68 PASS 2457 MCS0 15 13.72 30.00 10 full PASS full 12 10.84 30.00 PASS 26/8 9 7.40 30.00 11 2462 MCS0 52/40 PASS 9 7.50 30.00 106/54 9 7.67 PASS 30.00

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.

t (886-2) 2299-3279

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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.sqs.com.tw
```



802.11ax HE 20M WLAN2 Peak Output Limit Freq. Data Power CH **RU** Config Power RESULT (MHz) (dBm) Rate set (dBm) 11.25 21.53 PASS full 30.00 PASS 26/0 18.74 30.00 9 MCS0 2412 1 PASS 52/37 9 18.80 30.00 9 PASS 106/53 18.87 30.00 PASS 2417 MCS0 11.75 21.95 30.00 2 full MCS0 PASS 3 2422 full 14.5 22.31 30.00 PASS 2437 MCS0 14.5 22.39 30.00 6 full 10 2457 MCS0 14.5 22.52 30.00 PASS full PASS full 11 21.19 30.00 PASS 9 26/8 18.28 30.00 11 MCS0 2462 PASS 52/40 9 18.27 30.00 PASS 106/54 9 18.28 30.00 802.11ax_HE_20M WLAN2 Avg. Output Freq. Data Power Limit **RU** Config CH Power RESULT (MHz) Rate set (dBm) (dBm) PASS 11.25 10.97 30.00 full PASS 26/0 9 8.34 30.00 MCS0 1 2412 9 PASS 52/37 8.47 30.00 106/53 9 8.59 30.00 PASS PASS 2 2417 MCS0 full 11.75 11.56 30.00 PASS 3 2422 MCS0 14.5 13.90 30.00 full PASS 6 2437 MCS0 full 14.5 13.89 30.00 10 PASS 2457 MCS0 full 14.5 13.97 30.00 PASS full 11 10.95 30.00 PASS 9 26/8 8.45 30.00 MCS0 11 2462 52/40 9 PASS 8.40 30.00 PASS 106/54 9 8.58 30.00

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

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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

f (886-2) 2298-0488





802.11ax_HE20M_2TX Peak Output **Total Peak** Freq. Data Power Limit Power CH **RU** Config **Output Power** RESULT (MHz) (dBm) Rate set (dBm) (dBm) WLAN1 WLAN2 PASS full 11.75 20.41 21.69 24.11 30.00 PASS 26/0 9 17.82 18.83 21.36 30.00 MCS0 1 2412 PASS 52/37 9 17.93 18.83 21.41 30.00 PASS 106/53 9 17.68 18.95 21.37 30.00 PASS 2 2417 MCS0 24.33 full 11.75 20.54 21.98 30.00 PASS 3 2422 MCS0 full 14.5 21.67 22.41 25.07 30.00 PASS 2437 MCS0 full 14.5 21.79 22.42 25.13 30.00 6 10 2457 MCS0 full 15 21.84 22.61 25.25 30.00 PASS PASS full 12 20.42 21.25 23.87 30.00 PASS 26/8 9 18.06 18.33 21.21 30.00 MCS0 11 2462 PASS 52/40 9 18.19 18.28 21.25 30.00 106/54 9 18.09 18.30 21.21 30.00 PASS 802.11ax_HE20M_2TX Avg. Output Total Avg. Freq. Data Power Power Limit СН **RU** Config **Output Power** RESULT (MHz) Rate (dBm) set (dBm) (dBm) WLAN1 WLAN2 13.94 PASS full 11.75 10.35 11.44 30.00 7.28 8.39 30.00 PASS 26/0 9 10.88 1 2412 MCS0 52/37 9 PASS 7.35 8.48 10.96 30.00 106/53 9 7.55 8.66 11.15 30.00 PASS 2 2417 MCS0 full 11.75 10.24 11.61 13.99 30.00 PASS MCS0 14.5 13.54 14.35 PASS 3 2422 full 16.98 30.00 PASS 6 2437 MCS0 full 14.5 13.81 14.01 16.92 30.00 10 2457 MCS0 full 15 13.62 13.98 16.82 30.00 PASS PASS full 12 10.69 11.25 13.99 30.00 9 PASS 26/8 7.48 8.51 11.03 30.00 11 2462 MCS0 9 PASS 52/40 7.55 8.48 11.05 30.00 106/54 9 7.73 8.62 11.20 30.00 PASS

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

t (886-2) 2299-3279

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



Limit

802.11ax_HE_40M WLAN1 Data Power Freq. **DII** Config

СН	Freq. (MHz)	Data Rate	RU Config	Power set	Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	full	9.75	19.31	30.00	PASS
5	2722	101030	242/61	9	17.87	30.00	PASS
4	2427	MCS0	full	13.75	21.26	30.00	PASS
5	2432	MCS0	full	14	21.51	30.00	PASS
6	2437	MCS0	full	14.75	21.93	30.00	PASS
7	2442	MCS0	full	14	21.72	30.00	PASS
8	2447	MCS0	full	12.5	21.35	30.00	PASS
9	2452	MCS0	full	11.75	20.96	30.00	PASS
	2452	101030	242/62	9	18.54	30.00	PASS
802.1	1ax_HE_4	OM WLA	N1		• •		
СН	Freq. (MHz)	Data Rate	RU Config	Power set	Avg. Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	full	9.75	8.83	30.00	PASS
	2422	101030	242/61	9	7.57	30.00	PASS
4	2427	MCS0	full	13.75	12.64	30.00	PASS
5	2432	MCS0	full	14	12.91	30.00	PASS
6	2437	MCS0	full	14.75	13.58	30.00	PASS
7	2442	MCS0	full	14	12.95	30.00	PASS
8	2447	MCS0	full	12.5	11.58	30.00	PASS
9	2452	MCS0	full	11.75	10.84	30.00	PASS
Ĺ	ZTJZ	101050	242/62	9	8.11	30.00	PASS

Peak Output

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

t (886-2) 2299-3279

除非另有說明,此報告結果僅對測試之樣品負責,同時比樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document does not exonerate parties to a transaction for exercising all their rights and obligations under the transaction document does not exonerate parties to a transaction forgery 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.sgs.com.tw
```



802.11ax HE 40M WLAN2

002.1				T			
СН	Freq. (MHz)	Data Rate	RU Config	Power set	Peak Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	full	9.25	19.62	30.00	PASS
5	2422	101030	242/61	9	18.86	30.00	PASS
4	2427	MCS0	full	12.5	21.64	30.00	PASS
5	2432	MCS0	full	13	21.87	30.00	PASS
6	2437	MCS0	full	13.75	22.30	30.00	PASS
7	2442	MCS0	full	13	21.79	30.00	PASS
8	2447	MCS0	full	11.5	21.63	30.00	PASS
9	2452	MCS0	full	10.75	21.15	30.00	PASS
7	2452	101030	242/62	9	20.73	30.00	PASS
802.1	1ax_HE_4	OM WLA	N2				
СН	Freq. (MHz)	Data Rate	RU Config	Power set	Avg. Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	full	9.25	8.91	30.00	PASS
3	2422	101030	242/61	9	8.80	30.00	PASS
4	2427	MCS0	full	12.5	12.66	30.00	PASS
5	2432	MCS0	full	13	12.94	30.00	PASS
6	2437	MCS0	full	13.75	13.61	30.00	PASS
7	2442	MCS0	full	13	12.97	30.00	PASS
8	2447	MCS0	full	11.5	11.60	30.00	PASS
9	2452	MCS0	full	10.75	10.88	30.00	PASS
Í	2752	101000	242/62	9	9.47	30.00	PASS

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

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



802.1	1ax_HE40	M_2TX							
СН	Freq. (MHz)	Data Rate	RU Config	Power set	Po (dl	Output wer 3m) WLAN2	Total Peak Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	full	9.5	18.56	19.65	22.15	30.00	PASS
5	2722		242/61	9	17.86	18.87	21.40	30.00	PASS
4	2427	MCS0	full	12	20.62	21.68	24.19	30.00	PASS
5	2432	MCS0	full	13	21.24	21.94	24.61	30.00	PASS
6	2437	MCS0	full	13	21.28	22.41	24.89	30.00	PASS
7	2442	MCS0	full	13	21.04	21.82	24.46	30.00	PASS
8	2447	MCS0	full	11	20.41	21.69	24.11	30.00	PASS
9	2452	MCS0	full	10.5	20.16	21.65	23.98	30.00	PASS
	2452	WIC50	242/62	9	18.55	20.83	22.85	30.00	PASS
802.1	1ax_HE40	M_2TX							
СН	Freq. (MHz)	Data Rate	RU Config	Power set	Po (dl	Output wer 3m) WLAN2	Total Avg. Output Power (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	full	9.5	8.66	9.23	11.97	30.00	PASS
	2722	WIC50	242/61	9	7.63	8.88	11.32	30.00	PASS
4	2427	MCS0	full	12	11.15	12.67	14.99	30.00	PASS
5	2432	MCS0	full	13	12.05	13.59	15.90	30.00	PASS
6	2437	MCS0	full	13	12.09	13.68	15.97	30.00	PASS
7	2442	MCS0	full	13	12.16	13.66	15.99	30.00	PASS
8	2447	MCS0	full	11	10.18	11.61	13.97	30.00	PASS
9	2452	MCS0	full	10.5	10.08	11.65	13.95	30.00	PASS
I Í I	2102		242/62	9	8.13	9.67	11.98	30.00	PASS

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



802 11h WI AN1

002.11												
СН	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT					
1	2412	1	15.64	-1.77	13.87	36	PASS					
6	2437	1	15.54	-1.77	13.77	36	PASS					
11	2462	1	15.62	-1.77	13.85	36	PASS					

802.11	b WLAN2						
СН	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
1	2412	1	15.69	0.105	15.79	36	PASS
6	2437	1	15.63	0.105	15.73	36	PASS
11	2462	1	15.67	0.105	15.77	36	PASS

802.11	802.11b_2TX											
СН	Freq. (MHz)	Data Rate	Po	Dutput wer WLAN2	Total Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT			
1	2412	1	15.70	16.12	18.92	-0.732	18.19	36	PASS			
6	2437	1	15.59	16.04	18.83	-0.732	18.10	36	PASS			
11	2462	1	15.65	16.19	18.93	-0.732	18.20	36	PASS			

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

除非另有說明,此報告結果僅對測試之樣品負責,同時比樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

f (886-2) 2298-0488



802.11	lg WLAN1						
СН	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
1	2412	6	10.92	-1.77	9.15	36	PASS
2	2417	6	13.92	-1.77	12.15	36	PASS
3	2422	6	14.86	-1.77	13.09	36	PASS
6	2437	6	14.57	-1.77	12.80	36	PASS
10	2457	6	14.55	-1.77	12.78	36	PASS
11	2462	6	11.91	-1.77	10.14	36	PASS

802.11	g WLAN2						
СН	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
1	2412	6	10.98	0.105	11.08	36	PASS
2	2417	6	13.98	0.105	14.08	36	PASS
3	2422	6	14.98	0.105	15.08	36	PASS
6	2437	6	14.58	0.105	14.68	36	PASS
10	2457	6	14.56	0.105	14.66	36	PASS
11	2462	6	11.98	0.105	12.08	36	PASS

802.11	g_2TX								
СН	Freq. (MHz)	Data Rate		Dutput wer	Total Avg. Output Power	Antenna Gain	EIRP (dBm)	Limit (dBm)	RESULT
	(0012)	Kuto	WLAN1	WLAN2	(dBm)	(dBi)	(abili)	(abili)	
1	2412	6	10.20	11.63	13.98	-0.732	13.25	36	PASS
2	2417	6	13.16	14.25	16.74	-0.732	16.01	36	PASS
3	2422	6	14.41	15.18	17.82	-0.732	17.09	36	PASS
6	2437	6	14.58	14.87	17.73	-0.732	17.00	36	PASS
10	2457	6	14.43	14.61	17.53	-0.732	16.79	36	PASS
11	2462	6	11.53	12.37	14.98	-0.732	14.24	36	PASS

除非另有說明,此報告結果僅對測試之樣品負責,同時比樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

t (886-2) 2299-3279

f (886-2) 2298-0488



802.11	In_HT_20	M WLAN1					
СН	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
1	2412	MCS0	10.87	-1.77	9.10	36	PASS
2	2417	MCS0	11.52	-1.77	9.75	36	PASS
3	2422	MCS0	13.88	-1.77	12.11	36	PASS
6	2437	MCS0	13.60	-1.77	11.83	36	PASS
10	2457	MCS0	13.68	-1.77	11.91	36	PASS
11	2462	MCS0	10.78	-1.77	9.01	36	PASS

802.11	In_HT_20	M WLAN2					
СН	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
1	2412	MCS0	10.93	0.105	11.04	36	PASS
2	2417	MCS0	11.53	0.105	11.64	36	PASS
3	2422	MCS0	13.99	0.105	14.10	36	PASS
6	2437	MCS0	13.82	0.105	13.93	36	PASS
10	2457	MCS0	13.71	0.105	13.82	36	PASS
11	2462	MCS0	10.92	0.105	11.03	36	PASS

802.11	802.11n_HT20M_2TX											
СН	Freq. (MHz)	Data Rate	Po	Dutput wer WLAN2	Total Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT			
1	2412	MCS0	10.31	11.44	13.92	-0.732	13.19	36	PASS			
2	2417	MCS0	10.24	11.59	13.98	-0.732	13.25	36	PASS			
3	2422	MCS0	13.39	14.22	16.84	-0.732	16.10	36	PASS			
6	2437	MCS0	13.62	13.98	16.82	-0.732	16.08	36	PASS			
10	2457	MCS0	13.43	13.79	16.63	-0.732	15.89	36	PASS			
11	2462	MCS0	10.43	11.36	13.93	-0.732	13.20	36	PASS			

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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

f (886-2) 2298-0488



802.11n HT 40M WLAN1

СН	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT				
3	2422	MCS0	8.80	-1.77	7.03	36	PASS				
4	2427	MCS0	12.62	-1.77	10.85	36	PASS				
5	2432	MCS0	12.84	-1.77	11.07	36	PASS				
6	2437	MCS0	13.53	-1.77	11.76	36	PASS				
7	2442	MCS0	12.79	-1.77	11.02	36	PASS				
8	2447	MCS0	11.56	-1.77	9.79	36	PASS				
9	2452	MCS0	10.79	-1.77	9.02	36	PASS				

802.11	n_HT_40	M WLAN2					
СН	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	8.89	0.105	9.00	36	PASS
4	2427	MCS0	12.63	0.105	12.74	36	PASS
5	2432	MCS0	12.86	0.105	12.97	36	PASS
6	2437	MCS0	13.59	0.105	13.70	36	PASS
7	2442	MCS0	12.81	0.105	12.92	36	PASS
8	2447	MCS0	11.58	0.105	11.69	36	PASS
9	2452	MCS0	10.83	0.105	10.94	36	PASS

802.11	In_HT40N	I_2TX							
СН	Freq. (MHz)	Data Rate	Po	Dutput wer WLAN2	Total Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	8.33	9.35	11.88	-0.732	11.15	36	PASS
4	2427	MCS0	10.98	12.77	14.98	-0.732	14.25	36	PASS
5	2432	MCS0	11.74	13.29	15.60	-0.732	14.87	36	PASS
6	2437	MCS0	12.05	13.69	15.96	-0.732	15.23	36	PASS
7	2442	MCS0	11.84	13.34	15.67	-0.732	14.94	36	PASS
8	2447	MCS0	10.11	11.65	13.96	-0.732	13.23	36	PASS
9	2452	MCS0	9.86	11.21	13.60	-0.732	12.87	36	PASS

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

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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

f (886-2) 2298-0488



802.11	ac_VHT_2	20M WLAN1					
СН	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
1	2412	MCS0	10.80	-1.77	9.03	36	PASS
2	2417	MCS0	11.51	-1.77	9.74	36	PASS
3	2422	MCS0	13.89	-1.77	12.12	36	PASS
6	2437	MCS0	13.49	-1.77	11.72	36	PASS
10	2457	MCS0	13.50	-1.77	11.73	36	PASS
11	2462	MCS0	10.76	-1.77	8.99	36	PASS

802.11	ac_VHT_2	20M WLAN2					
СН	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
1	2412	MCS0	10.82	0.105	10.93	36	PASS
2	2417	MCS0	11.52	0.105	11.63	36	PASS
3	2422	MCS0	13.99	0.105	14.10	36	PASS
6	2437	MCS0	13.80	0.105	13.91	36	PASS
10	2457	MCS0	13.71	0.105	13.82	36	PASS
11	2462	MCS0	10.89	0.105	11.00	36	PASS

802.11	802.11ac_VHT20M_2TX								
СН	Freq. (MHz)	Data Rate	Po	Dutput wer WLAN2	Total Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
1	2412	MCS0	10.30	11.43	13.91	-0.732	13.18	36	PASS
2	2417	MCS0	10.23	11.58	13.97	-0.732	13.24	36	PASS
3	2422	MCS0	13.38	14.15	16.79	-0.732	16.06	36	PASS
6	2437	MCS0	13.63	13.96	16.81	-0.732	16.08	36	PASS
10	2457	MCS0	13.39	13.73	16.57	-0.732	15.84	36	PASS
11	2462	MCS0	10.56	11.06	13.83	-0.732	13.10	36	PASS

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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

f (886-2) 2298-0488



802.11ac VHT 40M WLAN1

СН	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT			
3	2422	MCS0	8.79	-1.77	7.02	36	PASS			
4	2427	MCS0	12.59	-1.77	10.82	36	PASS			
5	2432	MCS0	12.74	-1.77	10.97	36	PASS			
6	2437	MCS0	13.52	-1.77	11.75	36	PASS			
7	2442	MCS0	12.77	-1.77	11.00	36	PASS			
8	2447	MCS0	11.55	-1.77	9.78	36	PASS			
9	2452	MCS0	10.63	-1.77	8.86	36	PASS			

802.11	ac_VHT_4	40M WLAN2					
СН	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	8.88	0.105	8.99	36	PASS
4	2427	MCS0	12.61	0.105	12.72	36	PASS
5	2432	MCS0	12.78	0.105	12.89	36	PASS
6	2437	MCS0	13.56	0.105	13.67	36	PASS
7	2442	MCS0	12.79	0.105	12.90	36	PASS
8	2447	MCS0	11.56	0.105	11.67	36	PASS
9	2452	MCS0	10.81	0.105	10.92	36	PASS

802.11	ac_VHT4	DM_2TX							
СН	Freq. (MHz)	Data Rate	Po	Output wer WLAN2	Total Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
3	2422	MCS0	8.32	9.21	11.79	-0.732	11.06	36	PASS
4	2427	MCS0	11.04	12.68	14.94	-0.732	14.21	36	PASS
5	2432	MCS0	11.70	13.27	15.56	-0.732	14.83	36	PASS
6	2437	MCS0	11.97	13.61	15.87	-0.732	15.14	36	PASS
7	2442	MCS0	11.77	13.33	15.63	-0.732	14.89	36	PASS
8	2447	MCS0	10.10	11.64	13.94	-0.732	13.21	36	PASS
9	2452	MCS0	9.83	11.20	13.57	-0.732	12.84	36	PASS

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

除非另有說明,此報告結果僅對測試之樣品負責,同時比樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

f (886-2) 2298-0488

t (886-2) 2299-3279



802.11	ax_HE_2	om wlan	N1					
СН	Freq. (MHz)	Data Rate	RU Config	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit	RESULT
			full	10.89	-1.77	9.12	36	PASS
1	2412	MCS0	26/0	7.26	-1.77	5.49	36	PASS
'	2712	10000	52/37	6.98	-1.77	5.21	36	PASS
			106/53	7.45	-1.77	5.68	36	PASS
2	2417	MCS0	full	11.54	-1.77	9.77	36	PASS
3	2422	MCS0	full	13.70	-1.77	11.93	36	PASS
6	2437	MCS0	full	13.68	-1.77	11.91	36	PASS
10	2457	MCS0	full	13.72	-1.77	11.95	36	PASS
			full	10.84	-1.77	9.07	36	PASS
11	2462	MCS0	26/8	7.40	-1.77	5.63	36	PASS
	2402	IVICS0	52/40	7.50	-1.77	5.73	36	PASS
			106/54	7.67	-1.77	5.90	36	PASS

802.11	ax_HE_2	OM WLAI	N2					
СН	Freq. (MHz)	Data Rate	RU Config	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit	RESULT
			full	10.97	0.105	11.08	36	PASS
1	2412	MCS0	26/0	8.34	0.105	8.44	36	PASS
	1 2412 100.	101000	52/37	8.47	0.105	8.57	36	PASS
			106/53	8.59	0.105	8.69	36	PASS
2	2417	MCS0	full	11.56	0.105	11.67	36	PASS
3	2422	MCS0	full	13.90	0.105	14.01	36	PASS
6	2437	MCS0	full	13.89	0.105	14.00	36	PASS
10	2457	MCS0	full	13.97	0.105	14.08	36	PASS
			full	10.95	0.105	11.06	36	PASS
11	2462	MCS0	26/8	8.45	0.105	8.55	36	PASS
	2402	NICSU	52/40	8.40	0.105	8.50	36	PASS
			106/54	8.58	0.105	8.68	36	PASS

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,同時比樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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.sgs.com.tw
```





802.11	ax_HE20	M_2TX								
СН	Freq. (MHz)	Data Rate	RU Config	Po	Output wer WLAN2	Total Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit	RESULT
			full	10.35	11.44	13.94	-0.732	13.21	36	PASS
1	2412	MCS0	26/0	7.28	8.39	10.88	-0.732	10.14	36	PASS
	2412	101030	52/37	7.35	8.48	10.96	-0.732	10.23	36	PASS
			106/53	7.55	8.66	11.15	-0.732	10.41	36	PASS
2	2417	MCS0	full	10.24	11.61	13.99	-0.732	13.26	36	PASS
3	2422	MCS0	full	13.54	14.35	16.98	-0.732	16.24	36	PASS
6	2437	MCS0	full	13.81	14.01	16.92	-0.732	16.19	36	PASS
10	2457	MCS0	full	13.62	13.98	16.82	-0.732	16.08	36	PASS
			full	10.69	11.25	13.99	-0.732	13.26	36	PASS
11	2462	MCS0	26/8	7.48	8.51	11.03	-0.732	10.30	36	PASS
''	2702	101030	52/40	7.55	8.48	11.05	-0.732	10.31	36	PASS
			106/54	7.73	8.62	11.20	-0.732	10.47	36	PASS

802.11	ax_HE_4	om wlai	N1					
СН	Freq. (MHz)	Data Rate	RU Config	Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit	RESULT
3	2422	MCS0	full	8.83	-1.77	7.06	36	PASS
	2722	101000	242/61	7.57	-1.77	5.80	36	PASS
4	2427	MCS0	full	12.64	-1.77	10.87	36	PASS
5	2432	MCS0	full	12.91	-1.77	11.14	36	PASS
6	2437	MCS0	full	13.58	-1.77	11.81	36	PASS
7	2442	MCS0	full	12.95	-1.77	11.18	36	PASS
8	2447	MCS0	full	11.58	-1.77	9.81	36	PASS
9	2452	MCS0	full	10.84	-1.77	9.07	36	PASS
Ĺ	2102	101000	242/62	8.11	-1.77	6.34	36	PASS

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



802.11ax_HE_40M WLAN2

CH	CH Freq. Data (MHz) Rate		RU Config	Avg. Output Power (dBm)	Antenna Gain	EIRP (dBm)	Limit	RESULT
			(dBi)		0.02	27	DACC	
3	2422	MCS0	full	8.91	0.105	9.02	36	PASS
			242/61	8.80	0.105	8.91	36	PASS
4	2427	MCS0	full	12.66	0.105	12.77	36	PASS
5	2432	MCS0	full	12.94	0.105	13.05	36	PASS
6	2437	MCS0	full	13.61	0.105	13.72	36	PASS
7	2442	MCS0	full	12.97	0.105	13.08	36	PASS
8	2447	MCS0	full	11.60	0.105	11.71	36	PASS
9	2452	MCS0	full	10.88	0.105	10.99	36	PASS
Ĺ	2752	10050	242/62	9.47	0.105	9.58	36	PASS

802.11ax_HE40M_2TX											
СН	Freq. (MHz)	Data Rate	RU Config	Po	Dutput wer WLAN2	Total Avg. Output Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit	RESULT	
3	2422	MCS0	full	8.66	9.23	11.97	-0.732	11.24	36	PASS	
3	2422	NIC30	242/61	7.63	8.88	11.32	-0.732	10.58	36	PASS	
4	2427	MCS0	full	11.15	12.67	14.99	-0.732	14.26	36	PASS	
5	2432	MCS0	full	12.05	13.59	15.90	-0.732	15.17	36	PASS	
6	2437	MCS0	full	12.09	13.68	15.97	-0.732	15.24	36	PASS	
7	2442	MCS0	full	12.16	13.66	15.99	-0.732	15.26	36	PASS	
8	2447	MCS0	full	10.18	11.61	13.97	-0.732	13.24	36	PASS	
9	2452	MCS0	full	10.08	11.65	13.95	-0.732	13.22	36	PASS	
	2732	101030	242/62	8.13	9.67	11.98	-0.732	11.25	36	PASS	

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

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,同時比樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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.: TERF2310002626ER Page: 60 of 261

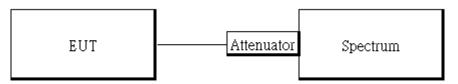


EMISSION BANDWIDTH MEASUREMENT 9

9.1 Standard Applicable

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

9.2 **Test Setup**



9.3 **Measurement Procedure:**

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

9.3.1 6dB BW measurements

- 1. The testing follows the Measurement Procedure of the KDB 558074 D01.
- Set the spectrum analyzer as RBW= 100 kHz, VBW = 3 X RBWSpan= 2 to 5 times of the OBW, Sweep=auto, Detector = Peak, and Max hold.
- 3. Mark the upper and lower frequencies of -6dB.
- 4. Repeat above procedures until all test default channel is completed.

99% BW measurements 9.3.2

- 1. The testing follows the Measurement Procedure of the RSS-Gen section 6.7.
- 2. Set the spectrum analyzer as RBW= 1 % to 5% of 99%, VBW \geq 3 X RBW. Span= large enough to capture all products of the modulation process Sweep=auto, Detector = Peak, and Max hold.
- 3. Mark the upper and lower frequencies of 99%. 4. Repeat above procedures until all test default channel is completed.

9.4 Measurement Result:

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

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



9.4.1 6dB BW measurements

802 11h WI AN1

802.11b WLAN1				802.11b WLAN2			
Freq.	6dB BW	Limit	Result	Freq.	6dB BW	Limit	Result
(MHz)	(kHz)	(kHz)	Result	(MHz)	(kHz)	(kHz)	Result
2412	10100	≧ 500	PASS	2412	10110	≧ 500	PASS
2437	10110	≧ 500	PASS	2437	10120	≧ 500	PASS
2462	10110	≧ 500	PASS	2462	10110	≧ 500	PASS

802.11g WLAN1

Freq.	6dB BW	Limit	Result
(MHz)	(kHz)	(kHz)	Result
2412	16390	≧ 500	PASS
2437	16390	≧ 500	PASS
2462	16410	≧ 500	PASS

(MHz)

802.11g WLAN2

Freq.

Result (kHz) (kHz) ≥ 500 2412 16420 PASS 2437 16410 ≥ 500 PASS 2462 ≥ 500 16420 PASS

6dB BW

Limit

802.11n_HT_20M WLAN1

Freq.	6dB BW	Limit	Result	
(MHz)	(kHz)	(kHz)	Result	
2412	17550	≧ 500	PASS	
2437	17370	≧ 500	PASS	
2462	17570	≧ 500	PASS	

802.11n_HT_20M WLAN2

Freq.	6dB BW	Limit	Result			
(MHz)	(kHz)	(kHz)	Result			
2412	17590	≧ 500	PASS			
2437	17600	≧ 500	PASS			
2462	17590	≧ 500	PASS			

802.11n_HT_40M WLAN1

Result	Limit	6dB BW	Freq.
Result	(kHz)	(kHz)	(MHz)
PASS	≧ 500	35690	2422
PASS	≧ 500	35770	2437
PASS	≧ 500	35740	2452
 PASS PASS	≧ 500 ≧ 500	35690 35770	2422 2437

802.11n_HT_40M WLAN2

	Freq.	6dB BW	Limit	Result
	(MHz)	(kHz)	(kHz)	RESUIL
S	2422	35710	≥ 500	PASS
S	2437	35770	≧ 500	PASS
S	2452	35660	≧ 500	PASS

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

t (886-2) 2299-3279

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

f (886-2) 2298-0488



802.11ax_HE_20M WLAN1

802.11ax_	HE_	_20M	WL	.AN2
-----------	-----	------	----	------

Freq. (MHz)	RU Config	6dB BW Limit (kHz) (kHz)		Result
	full	18540	≧ 500	PASS
2412	26/0	2050	≧ 500	PASS
2412	52/37	4065	≧ 500	PASS
	106/53	8233	≧ 500	PASS
2437	full	18430	≧ 500	PASS
	full	18450	≧ 500	PASS
2462	26/8	2040	≧ 500	PASS
2402	52/40	4037	≧ 500	PASS
	106/54	8271	≧ 500	PASS

	—			
Freq.	RU	6dB BW	Limit	Result
(MHz)	Config	(kHz)	(kHz)	Result
	full	18280	≧ 500	PASS
2412	26/0	2044	≧ 500	PASS
2412	52/37	4041	≧ 500	PASS
	106/53	8250	≧ 500	PASS
2437	full	18550	≧ 500	PASS
	full	18350	≧ 500	PASS
2462	26/8	2042	≧ 500	PASS
2402	52/40	4045	≧ 500	PASS
	106/54	8261	≧ 500	PASS

802.11ax_HE_40M WLAN1

802.11ax_HE_40M WLAN2

Freq.	RU	6dB BW	Limit	Result	Freq.	RU	6dB BW	Limit	Result
(MHz)	Config	(kHz)	(kHz)	Result	(MHz)	Config	(kHz)	(kHz)	Result
2422	full	37340	≧ 500	PASS	2422	full	37090	≧ 500	PASS
2422	242/61	18860	≧ 500	PASS	2422	242/61	18860	≧ 500	PASS
2437	full	37530	≧ 500	PASS	2437	full	37330	≧ 500	PASS
2452	full	37210	≧ 500	PASS	2452	full	36980	≧ 500	PASS
2492	242/62	18870	≧ 500	PASS	2452	242/62	18860	≧ 500	PASS

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

t (886-2) 2299-3279

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>http://www.sgs.com.tw/Terms-and-Conditions</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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.: TERF2310002626ER Page: 63 of 261

802.11b_20MHz_WLAN2_2412MHz



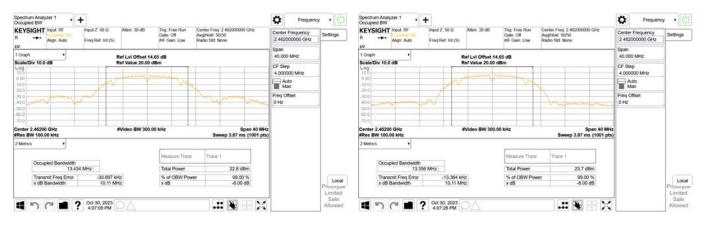


802.11b_20MHz_WLAN1_2462MHz

802.11b_20MHz_WLAN1_2412MHz

SGS

802.11b_20MHz_WLAN2_2462MHz



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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd

f (886-2) 2298-0488

Report No.: TERF2310002626ER Page: 64 of 261

802.11g_20MHz_WLAN2_2412MHz



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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd

台灣檢驗科技股份有限公司

SGS

802.11g_20MHz_WLAN1_2412MHz

f (886-2) 2298-0488

Occupied Band

Transr x dB B

1

Local

Limi Sa

st Freq Error

vidth 16.458 MHz

-9.884 kHz

Measure Trace

% of OBW Power x dB

Trace 1

22.3 d

99.00 % -6.00 dB

.: 💽 🗄 🗙

Local

Limited Sale

Member of SGS Group

t (886-2) 2299-3279

Measure Trace

% of OBW Power x dB

Occupied Bandwidth 16.530 MHz

1 5 C 1 2 Ct 30, 2023 4:24:10 PM

-8.415 kHz 16.41 MHz

Transmit Freq Error x dB Bandwidth

Trace 1

21.5

99.00 %

.: 💽 🗄 🗙

Report No.: TERF2310002626ER Page: 65 of 261

802.11n_20MHz_WLAN2_2412MHz



Trace 1

Measure Trace

% of OBW Power x dB

Occupied Bandwidth 17.574 MHz

1.04:49 AM

-7.150 kHz

Transmit Freq Error x dB Bandwidth

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

Span 40 M p 3.87 ms (1001 p

17.6

99.00 %

.: 💽 🗄 🗙

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留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>http://www.sgs.com.tw/Terms-and-Conditions</u> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sqs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

Local

Limi Sa

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

Occupied Bandwidth 17.601 MHz

nit Freq Error

S C 1 .005:10 AM

Transr x dB B

1

-1.092 kHz

t (886-2) 2299-3279 台灣檢驗科技股份有限公司

SGS

802.11n_20MHz_WLAN1_2412MHz

f (886-2) 2298-0488

www.sqs.com.tw

Measure Trace

% of OBW Power x dB

Trace 1

18.4 0

99.00 % -6.00 dB

.: 💽 🗄 🗙

Local

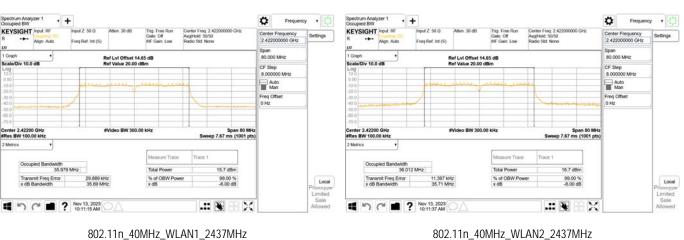
Limited Sale

Report No.: TERF2310002626ER Page: 66 of 261

802.11n_40MHz_WLAN2_2422MHz

SGS

802.11n_40MHz_WLAN1_2422MHz



ø 1 14 ø . rum Analy Frequency trum Anal Frequency tout Z: 50 0 Center Freq 2.43 AvgPloid 50/50 Bade 50/50 nout Z: 50 O Attin: 30 dB Trig Free Run Gate: Off #IF Gain: Low Trig: Free Run Gate: Off #IF Gain: Low Center Fr Avg/Hold Center F 2.43700 Cente 2.43 uency Settings Freq Ref. Int (S) Align: Aut Freq Ref. Int (S) Span 80.000 MH Span 80.000 MHz Ref Lvi Offset 14.65 di Ref Value 20.00 dBm Ref Lvi Offset 14.65 di Ref Value 20.00 dBm Scale/Div 10.0 dB cale/Div 10.0 dB CF Step 8.000000 MH CF Step 8.000000 MHz Auto Man Auto Man Freq Offset 0 Hz Freq Offset 0 Hz enter 2.43700 GH Res BW 100.00 H Span 80 N ep 7.67 ms (1001 p Res BW 10 Span 80 7.67 ms (1001 Measure Trace Trace Measure Trace Trace Occupied Bandwidth 35.943 MHz Occupied Bandwidth 36.109 MHz Total F 19.5 (Total Pr 21.3 d % of OBW Power x dB Transmit Freq Error x dB Bandwidth % of OBW Pow x dB 728 Hz 35.77 MHz -647 Hz 35.77 MHz 99.00 % -6.00 dB nit Freq Error 99.00 % -6.00 dB Local Transr x dB B Local Limited Sale Nov 13, 2023 Nov 13, 2023 10:17:38 AM .: 💽 🗄 🗙 .: 💽 🗄 🗙 -

802.11n_40MHz_WLAN1_2452MHz

802.11n_40MHz_WLAN2_2452MHz



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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd

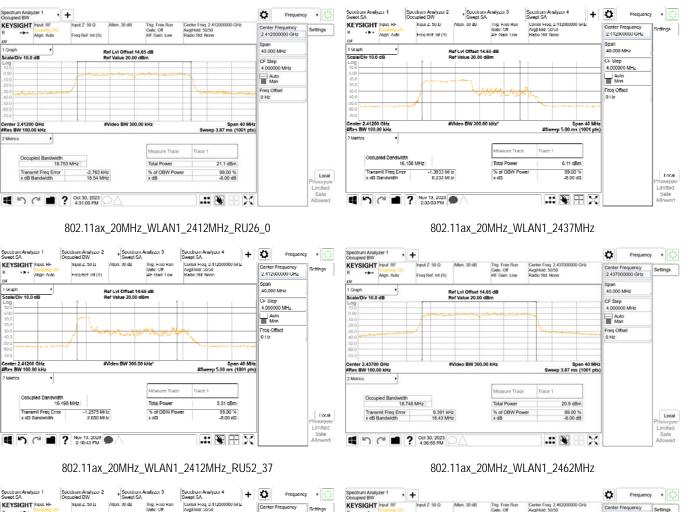
f (886-2) 2298-0488

Report No.: TERF2310002626ER Page: 67 of 261

802.11ax_20MHz_WLAN1_2412MHz_RU106_53



802.11ax_20MHz_WLAN1_2412MHz



Speedrum Anelyzer 1 Swept SA Contor Frog. 2.41200 Avgitteld: 50/50 Radio Std: None KEYSIGHT Input. RF Ing. Froo Run Gate: Off Trig Free Gale Off attF Gain Cente 2.462 Settings AvgiHold 2.41200000 Align: Auto reg Ref. Inf (S) Non Auto Free Ref. Int (S) Span 40.000 MHz Span 40.000 MHz 1 Graph Scele/Div 10.0 dB Ref LvI Offset 14.65 dB Ref Value 20.00 dBm Ref Lvi Offset 14.65 dB Ref Value 20.00 dBm cale/Div 10.0 dB CF- Step 4.000000 MHz CF Step 4.000000 MHz Auto Man Auto Man Freq Offset 0 Hz Froq Offact 0 I Iz Center 2.41200 GHz #Res BW 100.00 kHz Video BW 300.00 kHz Span 40 #Sweep 5.00 ms (1001 Measure Trace Measure Trace Trace 1 Trace (Occupied Bandwidth 18.799 MHz Occupied Bandwidth 15.729 MHz 5.71 dBm Thital D 21.5 d Transmit Freq Error % of ODW Po 99.00 % % of OBW Power x dB Transmit Freq Error x dB Bandwidth -6.804 kHz 99.00 % -6.00 dB (Local Local Limited Sale Limited Sale 1 5 C 1 222204 PM C I C 2023 .:: 🕷 -- 🔀 1

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sqs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

f (886-2) 2298-0488

Report No.: TERF2310002626ER Page: 68 of 261

802.11ax_20MHz_WLAN2_2412MHz



802.11ax_20MHz_WLAN1_2462MHz_RU26_8



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

Span 40 #Sweep 5.00 ms (1001

6.35 dBm

99.00 %

Trace

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

Video BW 300.00 kHz

1.6335 Milz

Measure Trace

% of ODW Poy

Total P

Center 2.46201 GHz #Res BW 100.00 kHz

Occupied Bandwidth 15.723 MHz

📲 🏷 (?) 🔳 ? Nov 13, 2028 🗩

Transmit Freq Error

f (886-2) 2298-0488

Center 2.41200 0 #Res BW 100.00

(Local

Limited Sale

Occupied Bandwidth 15.960 MHz

nit Freq Error

4 5 C 1 2:30:14 FM

www.sqs.com.tw

Span 40 MHz #Sweep 5.00 ms (1001 pts)

7.08 dBn

99.00 %

Local

Limited Sale

Trace

sasure Trace

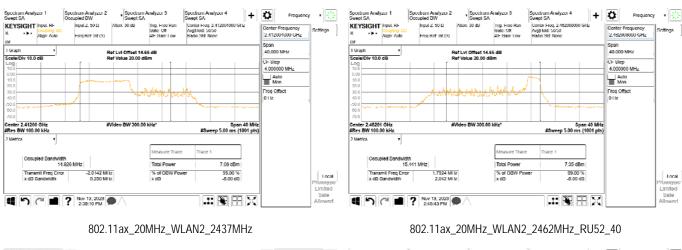
% of OBW Power

Total P

802.11ax_20MHz_WLAN2_2462MHz_RU26_8



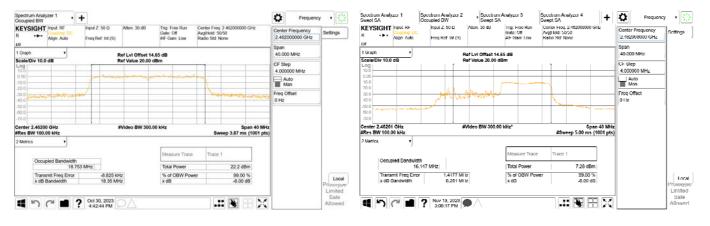
802.11ax_20MHz_WLAN2_2412MHz_RU106_53





802.11ax_20MHz_WLAN2_2462MHz

802.11ax_20MHz_WLAN2_2462MHz_RU106_54



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

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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

f (886-2) 2298-0488

www.sqs.com.tw

Member of SGS Group

Report No.: TERF2310002626ER Page: 70 of 261

802.11ax_40MHz_WLAN1_2452MHz

SGS

802.11ax_40MHz_WLAN1_2422MHz



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sqs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

Limi Sa

1

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

C C 1 C 2023

1 5 C 1 2023 4:55:03 PM

f (886-2) 2298-0488

www.sqs.com.tw

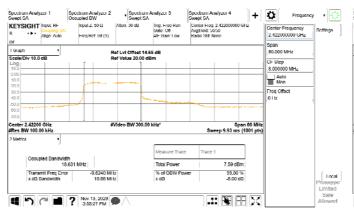
Limited Sale

.: 💽 🗄 🗙

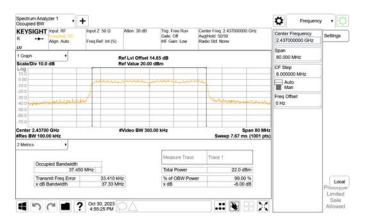
Report No.: TERF2310002626ER Page: 71 of 261



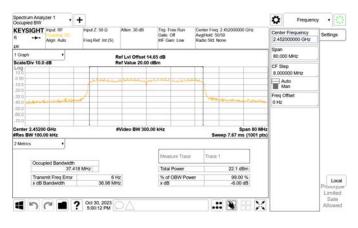
802.11ax_40MHz_WLAN2_2422MHz_RU242_61



802.11ax_40MHz_WLAN2_2437MHz



802.11ax_40MHz_WLAN2_2452MHz



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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號

t (886-2) 2299-3279 台灣檢驗科技股份有限公司

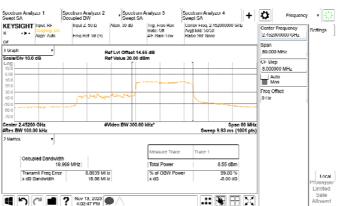
SGS Taiwan Ltd.

f (886-2) 2298-0488

www.sqs.com.tw

Member of SGS Group

802.11ax_40MHz_WLAN2_2452MHz_RU242_62



Report No.: TERF2310002626ER Page: 72 of 261



9.4.2 99% Bandwidth

802.11b WLAN1

Freq. (MHz)	99% BW (MHz)
2412	13.232
2437	13.658
2462	13.473

802.11g WLAN1

Freq. (MHz)	99% BW (MHz)
2412	16.858
2437	16.809
2462	16.902

802.11n_HT20M WLAN1

Freq. (MHz)	99% BW (MHz)
2412	17.662
2437	17.697
2462	17.670

802.11n HT40M WLAN1

Freq.	99% BW
(MHz)	(MHz)
2422	36.232
2437	36.222
2452	36.174

802.11ax_HE20M WLAN1

Freq. (MHz)	RU Config	99% BW (MHz)
2412	full	18.809
2437	full	18.792
2462	full	18.823

802.11b WLAN2

Freq. (MHz)	99% BW (MHz)
2412	13.334
2437	13.355
2462	13.359

802.11g WLAN2

Freq. (MHz)	99% BW (MHz)
2412	16.699
2437	16.700
2462	16.723

802.11n_HT20M WLAN2

Freq.	99% BW
(MHz)	(MHz)
2412	17.683
2437	17.782
2462	17.698

802.11n_HT40M WLAN2

Freq.	99% BW
(MHz)	(MHz)
2422	36.177
2437	36.298
2452	36.199

802.11ax_HE20M WLAN2

Freq. (MHz)	RU Config	99% BW (MHz)
2412	full	18.791
2437	full	18.809
2462	full	18.800

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

t (886-2) 2299-3279

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

f (886-2) 2298-0488



802.11ax_HE40M WLAN1

Freq.	RU	99% BW
(MHz)	Config	(MHz)
2422	full	37.603
2437	full	37.586
2452	full	37.582

802.11ax_HE40M WLAN2

Freq.	RU	99% BW
(MHz)	Config	(MHz)
2422	full	37.563
2437	full	37.573
2452	full	37.549

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

t (886-2) 2299-3279

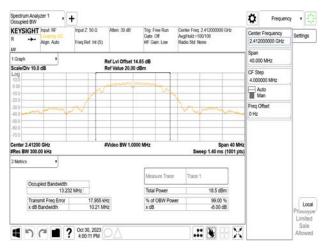
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>http://www.sgs.com.tw/Terms-and-Conditions</u> and for electronic format documents, subject to Terms and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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

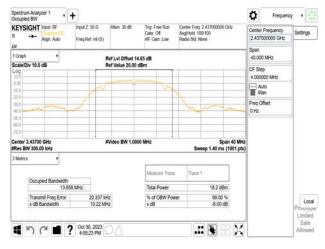
Report No.: TERF2310002626ER Page: 74 of 261



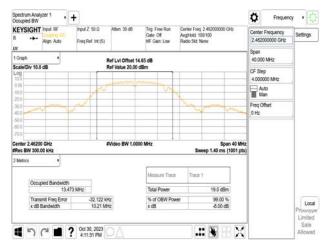
802.11b_20MHz_WLAN1_2412MHz



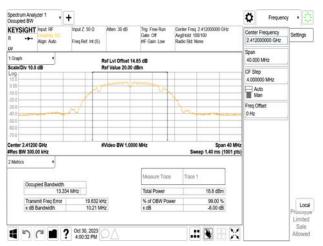
802.11b_20MHz_WLAN1_2437MHz



802.11b_20MHz_WLAN1_2462MHz



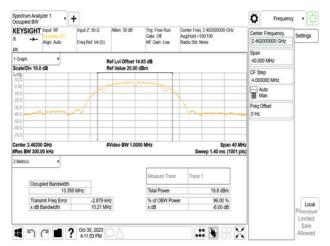
802.11b_20MHz_WLAN2_2412MHz



802.11b_20MHz_WLAN2_2437MHz



802.11b_20MHz_WLAN2_2462MHz



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sqs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

f (886-2) 2298-0488

www.sqs.com.tw

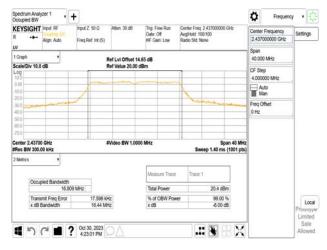
Report No.: TERF2310002626ER Page: 75 of 261



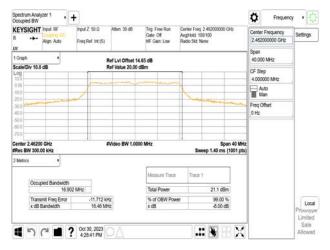
802.11q_20MHz_WLAN1_2412MHz



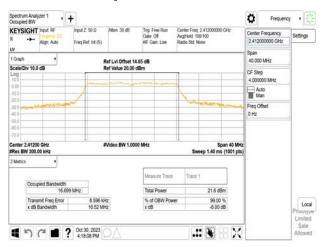
802.11g_20MHz_WLAN1_2437MHz



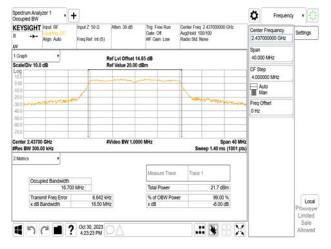
802.11g_20MHz_WLAN1_2462MHz



802.11g_20MHz_WLAN2_2412MHz



802.11g_20MHz_WLAN2_2437MHz



802.11g_20MHz_WLAN2_2462MHz

Spectrum Analyzer 1 Occupied BW Ö Frequency . · + KEYSIGHT Input RF Input Z 50 D Trig: Free Run Gate: Off #IF Gain: Low Atten 30 dB Center Freq 2.452000000 GHz 2.462000000 GHz Settings Avg/Hold Alian Auto Freq Ref. Int (S) DI 40.000 MHz Ref LvI Offset 14.65 dB Ref Value 20.00 dBm Scale/Div 10.0 dB CF Step 4.000000 MHz Auto Freq Offset 0 Hz Span 40 Mi Sweep 1.40 ms (1001 pt ¢ 2.46200 to BW 1.0000 MH es B Aeasure Trace Trace 1 Occupied Bandwidth 16.723 MHz Total Power 22.0 dBm % of OBW Powe x dB Transmit Freq Error x dB Bandwirth 6.490 kHz 16.49 MHz 99.00 % -6.00 dB Local Limite Sale C C 10, 2023 .:: 💘 🖂 X

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sqs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

t (886-2) 2299-3279 台灣檢驗科技股份有限公司

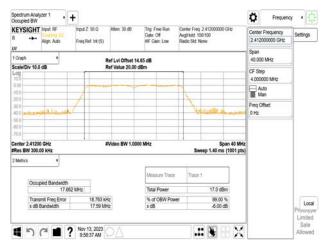
f (886-2) 2298-0488

www.sqs.com.tw

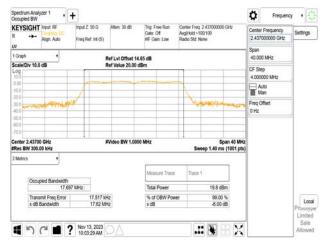
Report No.: TERF2310002626ER Page: 76 of 261



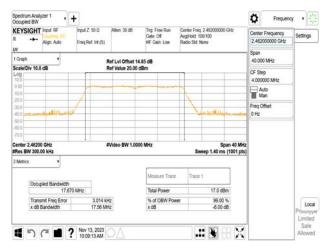
802.11n_20MHz_WLAN1_2412MHz



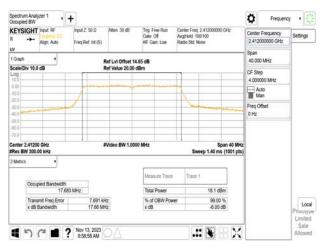
802.11n_20MHz_WLAN1_2437MHz



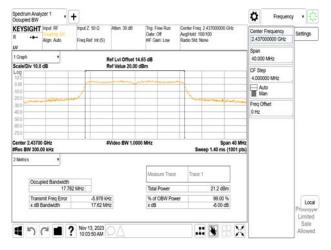
802.11n_20MHz_WLAN1_2462MHz



802.11n_20MHz_WLAN2_2412MHz



802.11n_20MHz_WLAN2_2437MHz



802.11n_20MHz_WLAN2_2462MHz

Spectrum Analyzer 1 Occupied BW Ö Frequency . · + KEYSIGHT Input RF Input Z 50 D Trig: Free Run Gate: Off #IF Gain: Low Atten 30 dB Center Freq 2 452000000 GHz Center Frequency 2.462000000 GHz Settings Avg|Hold Alian Auto Freq Ref. Int (S) DT. 40.000 MHz Ref Lvi Offset 14.65 dB Ref Value 20.00 dBm Scale/Div 10.0 dB CF Step 4.000000 MHz Auto Freq Offset 0 Hz r 2.46200 0 BW 300.00 to BW 1.0000 MH n 40 M Span 40 M Sweep 1.40 ms (1001 pl es B Aeasure Trace Trace 1 Occupied Bandwidth 17.698 MHz Total Power 17.9 dBm % of OBW Powe x dB Transmit Freq Error x dB Bandwirth 4.751 kHz 17.69 MHz 99.00 % -6.00 dB Local Limite Sale 1 5 C 1 ? Nov 13, 2023 10.09:34 AM .: 🗑 🕂 X

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

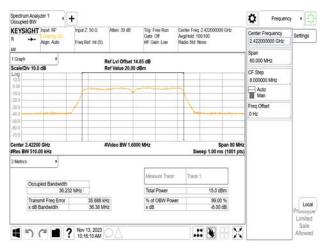
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

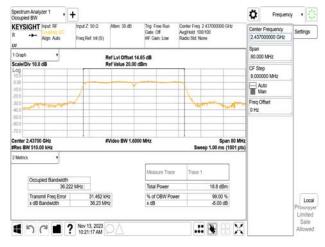
Report No.: TERF2310002626ER Page: 77 of 261



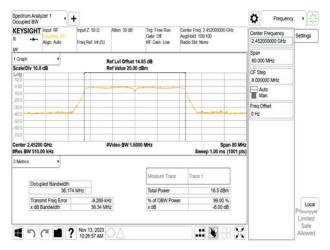
802.11n_40MHz_WLAN1_2422MHz



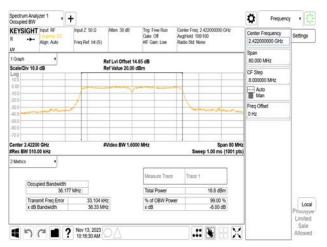
802.11n_40MHz_WLAN1_2437MHz



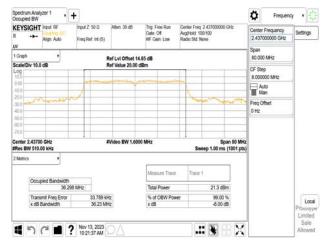
802.11n_40MHz_WLAN1_2452MHz



802.11n_40MHz_WLAN2_2422MHz



802.11n_40MHz_WLAN2_2437MHz



802.11n_40MHz_WLAN2_2452MHz

Spectrum Analyzer 1 Occupied BW Ö Frequency . · + KEYSIGHT Input RF Input Z 50 D Trig: Free Run Gate: Off #IF Gain: Low Atten 30 dB Center Freq 2 452000000 GHz Center Frequency 2.452000000 GHz Settings AvgiHold Alian Auto Freq Ref. Int (S) DT. 80.000 MHz Ref LvI Offset 14.65 dB Ref Value 20.00 dBm Scale/Div 10.0 dB CF Step 8.000000 MHz Auto Freq Offset 0 Hz Span 80 M Sweep 1.00 ms (1001 p ¢ 2.45200 to BW 1.6000 MH es Bl N 510.0 Aeasure Trace Trace 1 Occupied Bandwidth 36.199 MHz Total Power 18.8 dBm % of OBW Powe x dB Transmit Freq Error x dB Bandwirth 99.00 % -6.00 dB Local Limite Sale 1 S C 1 2023 .: 🗑 🕂 X

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sqs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

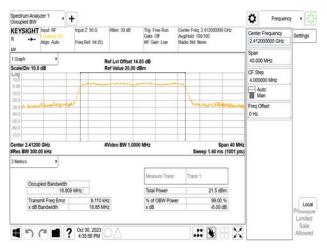
No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

www.sqs.com.tw

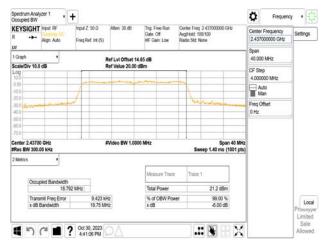
Report No.: TERF2310002626ER Page: 78 of 261



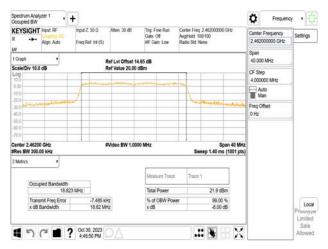
802.11ax_20MHz_WLAN1_2412MHz



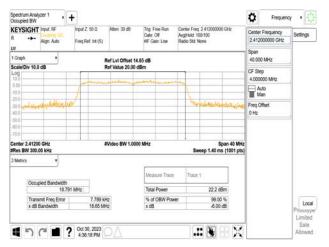
802.11ax_20MHz_WLAN1_2437MHz



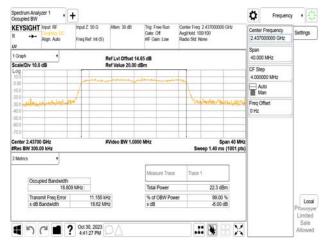
802.11ax_20MHz_WLAN1_2462MHz



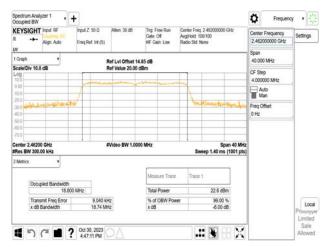
802.11ax_20MHz_WLAN2_2412MHz



802.11ax_20MHz_WLAN2_2437MHz



802.11ax_20MHz_WLAN2_2462MHz



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sqs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

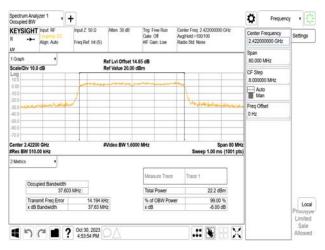
f (886-2) 2298-0488

www.sqs.com.tw

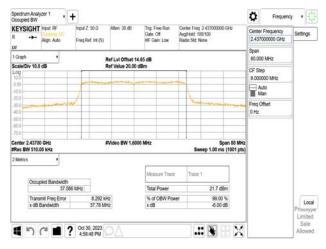
Report No.: TERF2310002626ER Page: 79 of 261



802.11ax_40MHz_WLAN1_2422MHz



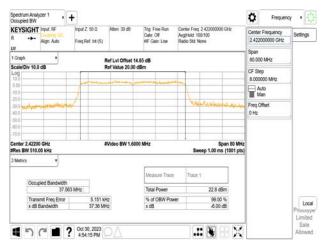
802.11ax_40MHz_WLAN1_2437MHz



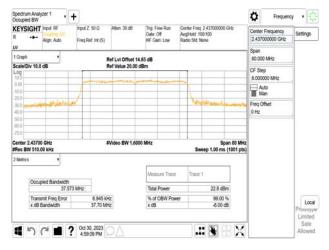
802.11ax_40MHz_WLAN1_2452MHz



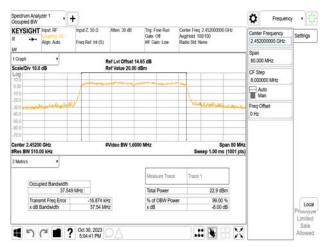
802.11ax_40MHz_WLAN2_2422MHz



802.11ax_40MHz_WLAN2_2437MHz



802.11ax_40MHz_WLAN2_2452MHz



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

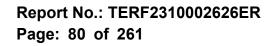
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

t (886-2) 2299-3279 台灣檢驗科技股份有限公司

f (886-2) 2298-0488

www.sqs.com.tw





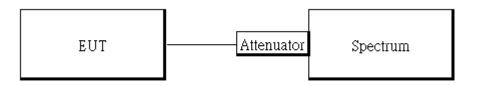
10 CONDUCTED BAND EDGES AND SPURIOUS EMISSION MEASUREMENT

10.1 Standard Applicable

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a) & RSS-Gen §8.10, must also comply with the radiated emission limits specified in §15.209(a) & RSS-Gen §8.9.

10.2 Test Setup



10.3 Measurement Procedure

10.3.1 Reference Level of Emission Limit:

- 1. Set analyzer center frequency to DTS channel center frequency.
- 2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance .
- 3. Set the span to 1.5 times the DTS channel bandwidth.
- 4. Set the RBW = 100kHz & VBW = 300 kHz.
- 5. Detector = peak.
- 6. Sweep time = auto couple.
- 7. Trace mode = max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum amplitude level.
- 10. MIMO mode: offset is set following "measure and add 10 Log (N)" on spectrum to measure for MIMO mode. Offset = cable loss + 10 log (N), where N is number of transmitting antenna.

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fulles extent of the law.

```
www.sgs.com.tw
```

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



Conducted Band Edge: 10.3.2

- 1. To connect Antenna Port of EUT to Spectrum.
- 2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
- Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 4. Set start to edge frequency, and stop frequency of spectrum analyzer so as to encompass the spectrum to be examined.
- 5. Set the spectrum analyzer as RBW=100 kHz, VBW=300 kHz, Detector = Peak, Sweep = auto
- Mark the highest reading of the emission as the reference level measurement.
- Set DL as the limit = reading on marker of reference level measurement -20dBm.
- Mark the highest readings of the emissions outside of 2400MHz~2483.5MHz.
- 9. Repeat above procedures until all default test channel (low, middle, and high) was complete.
- 10. MIMO mode: offset is set following "measure and add 10 Log (N)" on spectrum to measure for MIMO mode. Offset = cable loss + 10 log (N), where N is number of transmitting 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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Conducted Spurious Emission:

- 1. To connect Antenna Port of EUT to Spectrum
- 2. The testing follows the Measurement Procedure of FCC KDB 558074 D01 DTS Meas. Guidance.
- 3. Set RBW = 100 kHz & VBW= 300 kHz, Detector =Peak, Sweep = Auto.
- 4. Allow trace to fully stabilize.
- 5. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.
- 6. Repeat above procedures until all default test channel measured were complete.
- 7. MIMO mode: offset is set following "measure and add 10 Log (N)" on spectrum to measure for MIMO mode. Offset = cable loss + 10 log (N), where N is number of transmitting antenna.

Note:

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

10.4 Measurement Result

802.11b WI AN1

802.11b WLAN1			802.11b WLAN2		
Reference Level of Limit			Re	ference Lev	/el of Limit
Freq.	PSD	Reference Level of Limit	Freq.	PSD	Reference Level of Limit
(MHz)	(dBm)	(dBm)	(MHz)	(dBm)	(dBm)
2412	5.63	-14.37	2412	6.02	-13.98
2437	5.28	-14.72	2437	6.48	-13.52
2462	6.17	-13.83	2462	6.97	-13.03

802 11α WI ΔΝ1

802.11g WLAN1			802.11g WLAN2			
Re	Reference Level of Limit			Reference Level of Limit		
Freq.	PSD	Reference Level of Limit	Freq.	PSD	Reference Level of Limit	
(MHz)	(dBm)	(dBm)	(MHz)	(dBm)	(dBm)	
2412	2.79	-17.21	2412	3.67	-16.33	
2437	2.64	-17.36	2437	3.85	-16.15	
2462	3.34	-16.66	2462	4.24	-15.76	

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

除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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. 1 No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號

t (886-2) 2299-3279 台灣檢驗科技股份有限公司

f (886-2) 2298-0488

www.sqs.com.tw

Report No.: TERF2310002626ER Page: 83 of 261



802.11n_HT_20M WLAN1

Reference Level of Limit			
Freq.	PSD	Reference Level of Limit	
(MHz)	(dBm)	(dBm)	
2412	-0.43	-20.43	
2437	2.24	-17.76	
2462	-0.57	-20.57	

802.11n HT 20M WLAN2

Reference Level of Limit				
Freq.	PSD	Reference Level of Limit		
(MHz)	(dBm)	(dBm)		
2412	0.44	-19.56		
2437	3.42	-16.58		
2462	0.25	-19.75		

802.11n_HT_40M WLAN1

Reference Level of Limit			
Freq.	PSD	Reference Level of Limit	
(MHz)	(dBm)	(dBm)	
2422	-5.53	-25.53	
2437	-1.87	-21.87	
2452	-4.06	-24.06	

802.11n_HT_40M WLAN2

Reference Level of Limit			
Freq.	PSD	Reference Level of Limit	
(MHz)	(dBm)	(dBm)	
2422	-4.36	-24.36	
2437	-0.11	-20.11	
2452	-2.43	-22.43	

802.11ax_HE_20M WLAN1

Reference Level of Limit				
Freq.	RU	PSD	Reference Level of Limit	
(MHz)	Config	(dBm)	(dBm)	
	full	2.01	-17.99	
2412	26/0	3.88	-16.12	
2412	52/37	1.44	-18.56	
	106/53	-1.41	-21.41	
2437	full	2.00	-18.00	
	full	2.45	-17.55	
2462	26/8	3.93	-16.07	
2402	52/40	0.83	-19.17	
	106/54	-1.71	-21.71	

802.11ax_HE_20M WLAN2

Reference Level of Limit				
Freq.	RU	PSD	Reference Level of Limit	
(MHz)	Config	(dBm)	(dBm)	
	full	2.81	-17.19	
2412	26/0	4.05	-15.95	
2412	52/37	1.72	-18.28	
	106/53	-0.70	-20.70	
2437	full	3.00	-17.00	
	full	3.26	-16.74	
2462	26/8	4.73	-15.27	
2402	52/40	2.14	-17.86	
	106/54	-0.49	-20.49	

802.11ax_HE_40M WLAN1

Reference Level of Limit				
Freq.	RU	PSD	Reference Level of Limit	
(MHz)	Config	(dBm)	(dBm)	
2422	full	-0.57	-20.57	
2722	242/61	-3.29	-23.29	
2437	full	-0.81	-20.81	
2452	full	-0.91	-20.91	
2702	242/62	-2.94	-22.94	

802.11ax_HE_40M WLAN2

Reference Level of Limit				
Freq.	RU	PSD	Reference Level of Limit	
(MHz)	Config	(dBm)	(dBm)	
2422	full	0.33	-19.67	
2722	242/61	-2.38	-22.38	
2437	full	0.34	-19.66	
2452	full	0.40	-19.60	
2452	242/62	-1.72	-21.72	

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

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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

www.sqs.com.tw

Report No.: TERF2310002626ER Page: 84 of 261

SGS

.

802.11b_20MHz_WLAN1_2412MHz



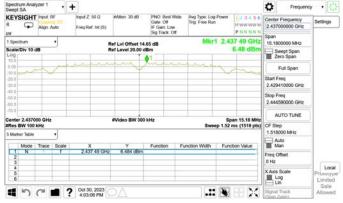
802.11b_20MHz_WLAN1_2437MHz

Spectrum Analyzer 1 Swept SA ø . 2.2 Frequency Spectrum Analyzer 1 Swept SA • + REYSIGHT Input RF R Align Aut neut 2: 50 0 Center 2.4370 Align: Aut Freq Ref. Int (S) 5pan 15.1650000 MHz Ref Lvi Offset 14.65 dE Ref Level 20.00 dBm Scale/Div 10 dl 5.28 d Zero Span Full Span Start Freq 2.4294175 Stop Free 2.444582500 GH AUTO TUNE Span 15.17 M 1.52 ms (1518 enter 2.437000 G Res BW 100 kHz CF Step 1.516500 M Auto Man Function Width Function Va Mode Trace Scale Function X 2.438.495 GHz 5 279 dBm Freq Offset 0 Hz X Axis Scal Local Limite Sale C C 1 C 2023 ΗX .:: 😵 -.

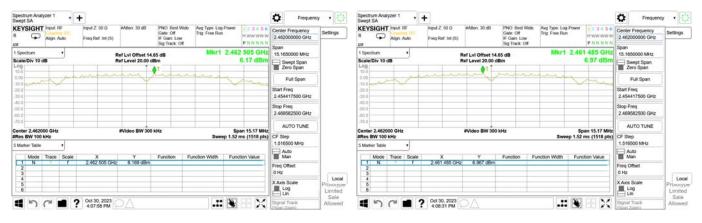
802.11b_20MHz_WLAN1_2462MHz

802.11b_20MHz_WLAN2_2437MHz

802.11b_20MHz_WLAN2_2412MHz



802.11b_20MHz_WLAN2_2462MHz



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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd

f (886-2) 2298-0488

www.sqs.com.tw

Report No.: TERF2310002626ER Page: 85 of 261

802.11q_20MHz_WLAN2_2412MHz

SGS

. +

Input Z: 50 Q

eg Ref. Int (S)

X 2.414 484 GHz

2.790 dBm

Spectrum Analyzer 1 Swept SA

KEYSIGHT Input RF

-

Div 10 di

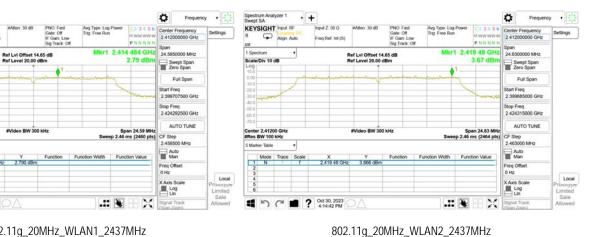
nter 2.41200 es BW 100 kk

.

Mode Trace Scale

C C C 2023

802.11q_20MHz_WLAN1_2412MHz



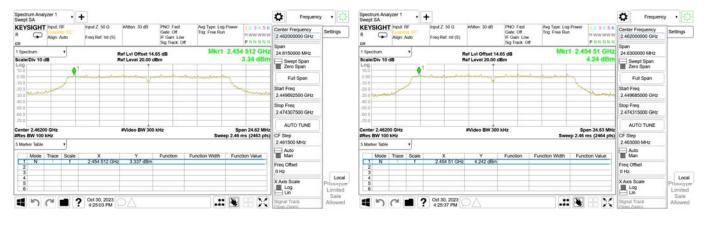
802.11g_20MHz_WLAN1_2437MHz



802.11g_20MHz_WLAN1_2462MHz



802.11g_20MHz_WLAN2_2462MHz



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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd

f (886-2) 2298-0488

www.sqs.com.tw

Report No.: TERF2310002626ER Page: 86 of 261

802.11n_20MHz_WLAN2_2412MHz

. +

Align: Aut

input 2: 50 0

Freq Ref. Int (S)



802.11n_20MHz_WLAN1_2437MHz

802.11n_20MHz_WLAN1_2412MHz

SGS

ectrum Analyzer 1 ept SA ø . 212 Frequency Spectrum Analyzer 1 Swept SA • + REYSIGHT Input RF R Align Aut REYSIGHT Input RF neut 2: 50 0 141100 30.40 Center 2.4370 tings Align: Aut Freq Ref. Int (S) Span 26.0550000 MHz Ref Lvi Offset 14.65 dE Ref Level 20.00 dBm Scale/Div 10 dB 2.24 df Swept Span Zero Span Full Span Start Freq 2.4239725 Stop Fred 2.450027500 GH AUTO TUNE nter 2.4370 es BW 100 CF Step 2.605500 M Auto Man Function Function Width Function Va Mode Trace Scale X 2.439.490 GHz 2 237 dBm Freq Offset 0 Hz X Axis Scal Local Limited Sale 1 5 C 1 2023 ΗX .:: 😵

802.11n_20MHz_WLAN1_2462MHz

Ref Lvi Offset 14.65 dE Ref Level 20.00 dBm cale/Div 10 dB 3.42 d Swept Span Zero Span ٥ Full Span art Freq nou Stop Fred 2.450200000 GHz AUTO TUNE enter 2.43700 tes BW 100 F Ster 2.6400 Auto Man Function Width Function Value Mode Trace Scale Function X 2 444 49 GHz 3.424 dBm Freq Offset 0 Hz Local X Axis Se 5 C I R ? Nov 13, 2023 10:01:14 AM .:: 🖎 🗄 🖂 -

Avg Type Log

٥

Cente 2.437

26.40 0000 MHz . 2%

ttings

Frequency

802.11n_20MHz_WLAN2_2462MHz



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

t (886-2) 2299-3279

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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd

f (886-2) 2298-0488

www.sqs.com.tw

Report No.: TERF2310002626ER Page: 87 of 261

ø

63.54 0000 MHz

Swept Span Zero Span

Full Span

Start Freq 2.395217500 GHz

AUTO TUNE

Stop Fred 2.448782500 GHz

CF Ster

Auto

Freq Offsel 0 Hz

X Axis Sc Log Lin

٥

.:: 🖹 🗄 🔀

Frequency

. 212

Loca

. 2%

Frequency

802.11n_40MHz_WLAN2_2422MHz

Avg Type

Function Width

PNO Fasl Gate Off

Function

Ref Lvi Offset 14.65 dB Ref Level 20.00 dBm

-4.357 dBm

Input Z: 50 Q

reg Ref. Int (S)

X 2.416 995 GHz

P

Mode Trace Scale

Spectrum Analyzer 1 Swept SA

「 C ■ ? Nov 13, 2023 10:13:09 AM

. +



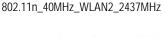
802.11n_40MHz_WLAN1_2422MHz

SGS

802.11n_40MHz_WLAN1_2437MHz

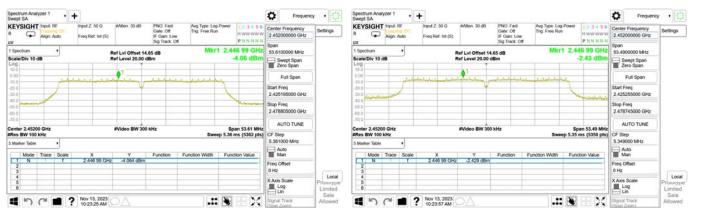


802.11n_40MHz_WLAN1_2452MHz





802.11n_40MHz_WLAN2_2452MHz



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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd

t (886-2) 2299-3279 台灣檢驗科技股份有限公司

f (886-2) 2298-0488

www.sqs.com.tw

Report No.: TERF2310002626ER Page: 88 of 261

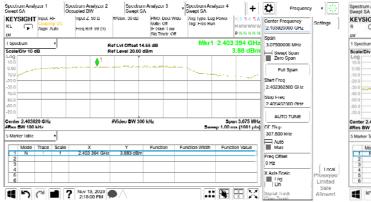
802.11ax_20MHz_WLAN1_2412MHz_RU106_53



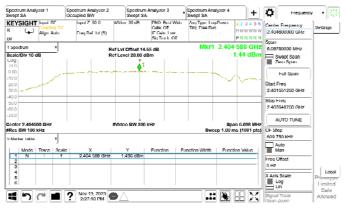
802.11ax_20MHz_WLAN1_2412MHz

SGS

802.11ax_20MHz_WLAN1_2412MHz_RU26_0



802.11ax_20MHz_WLAN1_2412MHz_RU52_37



Spectrum Analyzer 1 Swept SA Spectrum Analyzer 3 Swept SA Spectrum Analyzer 4 Swept SA Ö Spectrum Analyzer 2 Occupied BW + Frequency • PNO: Bost Wido Gate: Off IF Gain: Low Sig Thick: Off input ∠. 50 Ω KEYSIGHT Input R Center Frequ 2.106/0000 Avg Type, Log Trig: Free Run tings P eq Het Int (S Span 12.3495000 MHz 936 GHz Ref Lvi Offset 14.65 dB Ref Level 20.00 dBm 1 Spocburn Scale/Div 10 dB 1.41 dB Swept Span ٢ Full Span Start Freq 2.400525250 Gi Iz Stop Freq 2 412874750 (9H AUTO TUNE Notes BW 300 kH 12.35 N CF Slop Auto Mari Mode Trace Scale X 2.409 836 GHz -1.413 dBr Freq Offse 0 Hz Loca X Axta So Log Limite 4 🖒 (~ 🔳 ? Nov 18, 2028

802.11ax_20MHz_WLAN1_2437MHz



802.11ax_20MHz_WLAN1_2462MHz



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

t (886-2) 2299-3279

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

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd

台灣檢驗科技股份有限公司

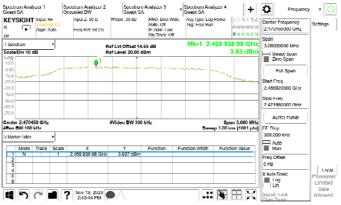
f (886-2) 2298-0488

www.sqs.com.tw

Report No.: TERF2310002626ER Page: 89 of 261



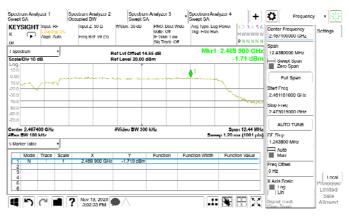
802.11ax_20MHz_WLAN1_2462MHz_RU26_8

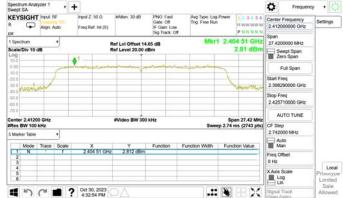


802.11ax_20MHz_WLAN1_2462MHz_RU52_40



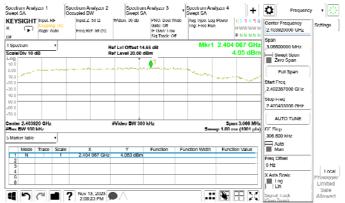
802.11ax_20MHz_WLAN1_2462MHz_RU106_54



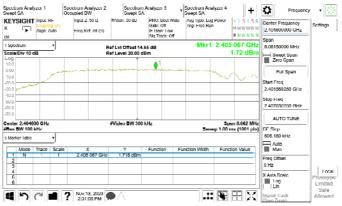


802.11ax_20MHz_WLAN2_2412MHz

802.11ax_20MHz_WLAN2_2412MHz_RU26_0



802.11ax_20MHz_WLAN2_2412MHz_RU52_37



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sqs.com.tw/Terms-and-Conditions. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.

t (886-2) 2299-3279 台灣檢驗科技股份有限公司

f (886-2) 2298-0488

www.sqs.com.tw