

Page: 1 of 75

ELECTROMAGNETIC EMISSIONS **COMPLIANCE REPORT**



Member of SGS Group



Applicant: **HTC Corporation**

No. 88, Sec. 3, Zhongxing Rd. Xindian Dist., New Taipei City

231, Taiwan

Product Name: VIVE Headset

Brand Name: VIVE

Model No.: 2Q7Y100

Model Difference: N/A

Report Number: E2/2021/60089

FCC ID NM82Q7Y100

Issue Date: August 27, 2021

Date of Test: July 7, 2021 ~ August 18, 2021

Date of EUT Received: July 1, 2021

Approved By

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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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



Page: 2 of 75

Revision History						
Report Number	Revision	Description	Issue Date	Revised By		
E2/2021/60089	00	Original	August 27, 2021	Tiffany Kao		

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 Taipei City, Taiwan/新北市五殿區新北建業園區五工路 134 號 台灣檢驗科技股份有限公司 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw



Page: 3 of 75

Contents

1	GENERAL INFORMATION	4
2	SYSTEM TEST CONFIGURATION	6
3	SUMMARY OF TEST RESULTS	9
4	DESCRIPTION OF TEST MODES	10
5	MEASUREMENT UNCERTAINTY	12
6	CONDUCTED EMISSION TEST	13
7	PEAK OUTPUT POWER MEASUREMENT	17
8	EMISSION BANDWIDTH MEASUREMENT	19
9	CONDUCTED BAND EDGES AND SPURIOUS EMISSION MEASUREMENT	23
10	RADIATED BANDEDGE AND SPURIOUS EMISSION MEASUREMENT	29
11	FREQUENCY SEPARATION	65
12	NUMBER OF HOPPING FREQUENCY	66
13	TIME OF OCCUPANCY (DWELL TIME)	68
14	ANTENNA REQUIREMENT	75

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

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 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



Page: 4 of 75

GENERAL INFORMATION

1.1 **Product Description**

Product Name:	VIVE Headset
Brand Name:	VIVE
Model No.:	2Q7Y100
Model Difference:	N/A
Hardware Version:	XG
Firmware Version:	0.27.999.02
EUT Series No.:	5A11X2S00133
Power Supply:	3.85Vdc from Rechargeable Lithium-Ion Polymer Battery or 5V from USB cable

1.2 **RF Specification**

Radio Technology:	BT BR+EDR
Channel number:	79 channels
Modulation type:	GFSK + π/4DQPSK + 8DPSK
Transmit Power:	10.02dBm
Frequency Range:	2.402GHz – 2.480GHz
Dwell Time:	≦ 0.4s

1.3 Antenna Designation

Antenna	Supplier	Antenna	Freq.	Peak Antenna
Type		Model No.	(MHz)	Gain (dBi)
Dipole	Amphenol	2Q7Y100	2402-2480	-1.5

Note: Antenna information is provided by the applicant.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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。

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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 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



Page: 5 of 75

1.4 **Test Methodology of Applied Standards**

FCC Part 15, Subpart C §15.247 FCC KDB 558074 D01 15.247 Meas. Guidance v05r02 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 3		
		Conduction 1		
	No.134, Wu Kung Road, New Taipei	Conducted 1		
	Industrial Park, Wuku District, New	Conducted 2	TW0027	
	Taipei City, Taiwan.	Conducted 3		
		Conducted 4		
		Conducted 5		
SGS Taiwan Ltd.		Conducted 6		
Central RF Lab.	No.2, Keji 1st Rd., Guishan District,	Conduction C		TW3702
(TAF code 3702)		SAC C		1770702
(1711 0000 0702)		SAC D		
		SAC G		
		Conducted A		
	Taoyuan City, Taiwan 333	Conducted B	TW0028	
	lasyaan siig, raman see	Conducted C		
		Conducted D		
		Conducted E		
		Conducted F		
		Conducted G		

Note: Test site name is remarked on the equipment list in each section of this report as an indication where measurements occurred in specific test site and address.

1.6 **Special Accessories**

There is no special accessory 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.

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 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



Page: 6 of 75

SYSTEM TEST CONFIGURATION

EUT Configuration 2.1

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.

Test Procedure 2.3

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.

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 www.sgs.com.tw



Page: 7 of 75

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*9m*6m semi-ane choic 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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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. No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五殿區新北建業園區五工路 134 號 台灣檢驗科技股份有限公司 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw



Page: 8 of 75

2.5 **Test Configuration**

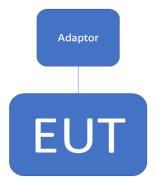
Fig. 2-1 Conducted (Antenna Port) Emission Configuration



Fig 2-2 Radiated Emission



Fig 2-3 Conduction (AC Power Line) Radiated Emission



2.6 Control Unit(s)

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.
1	Bluetooth Test Software	N/A	N/A	N/A
2	Notebook	Lenovo	L420	S0011721
3	Adapter	Sony	AC-0400-TW	3504600
4	Notebook	Lenovo	T470	P0001293

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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。

MRF分月就好・L軟百倍米階頁別規定人株の目具「PIPPLIKをの程序研習が入っており書間に可り、不可能力模模。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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 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



Page: 9 of 75

3 SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result
§15.207(a)	AC Power Line Conducted Emission	Compliant
§15.247(b)(1)	Peak Output Power	Compliant
§15.247(a)(1)	Emission Bandwidth	Compliant
§15.205 §15.209 §15.247(d)	Conducted & Radiated Band Edge and Spurious Emission	Compliant
§15.247(a)(1)	Frequency Separation	Compliant
§15.247(a)(1)(iii)	Number of hopping frequency Time of Occupancy	Compliant
§15.203	Antenna Requirement	Compliant

SGS Taiwan Ltd. No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五殿區新北建業園區五工路 134 號 台灣檢驗科技股份有限公司 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw



Page: 10 of 75

4 DESCRIPTION OF TEST MODES

4.1 Operated in 2400 ~ 2483.5MHz Band

79 channels are provided for Bluetooth

79 Channels are provided for bluetooth							
ITEM	FREQUENCY	ITEM	FREQUENCY	ITEM	FREQUENCY	ITEM	FREQUENCY
1	2402 MHz	21	2422 MHz	41	2442 MHz	71	2462 MHz
2	2403 MHz	22	2423 MHz	42	2443 MHz	72	2463 MHz
3	2404 MHz	23	2424 MHz	43	2444 MHz	73	2464 MHz
4	2405 MHz	24	2425 MHz	44	2445 MHz	74	2465 MHz
5	2406 MHz	25	2426 MHz	45	2446 MHz	75	2466 MHz
6	2407 MHz	26	2427 MHz	46	2447 MHz	76	2467 MHz
7	2408 MHz	27	2428 MHz	47	2448 MHz	77	2468 MHz
8	2409 MHz	28	2429 MHz	48	2449 MHz	78	2469 MHz
9	2410 MHz	29	2430 MHz	49	2450 MHz	79	2470 MHz
10	2411 MHz	30	2431 MHz	50	2451 MHz	70	2471 MHz
11	2412 MHz	31	2432 MHz	51	2452 MHz	71	2472 MHz
12	2413 MHz	32	2433 MHz	52	2453 MHz	72	2473 MHz
13	2414 MHz	33	2434 MHz	53	2454 MHz	73	2474 MHz
14	2415 MHz	34	2435 MHz	54	2455 MHz	74	2475 MHz
15	2416 MHz	35	2436 MHz	55	2456 MHz	75	2476 MHz
16	2417 MHz	36	2437 MHz	56	2457 MHz	76	2477 MHz
17	2418 MHz	37	2438 MHz	57	2458 MHz	77	2478 MHz
18	2419 MHz	38	2439 MHz	58	2459 MHz	78	2479 MHz
19	2420 MHz	39	2440 MHz	59	2460 MHz	79	2480 MHz
20	2421 MHz	40	2441 MHz	60	2461 MHz		

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留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 Taipei City, Taiwan/新北市五殿區新北建業園區五工路 134 號 台灣檢驗科技股份有限公司 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw



Page: 11 of 75

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 The field strength of radiation emission was measured as EUT three orthogonal planes, E1 / E2 / H, are positioned to pre-scan the emission generating the highest one. The worst position is tested and recorded.
- 4 Investigation has been done on all the possible configurations for searching the worst case.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	PACKET TYPE	
RADIATED EMISSION TEST (BELOW 1 GHz)					
Bluetooth	0 to 78	39	GFSK	DH5	
RADIATED EMISSION TEST (ABOVE 1 GHz)					
Bluetooth	0 to 78	0,39,78	GFSK	DH5	

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

ANTNNA PORT CONDUCTED TEST					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	PACKET TYPE	
	Pea	k Output Power, 20dB Band	d Width		
	0 to 78	0,39,78	GFSK	DH5	
Bluetooth	0 to 78	0,39,78	π/4-DQPSK	2DH5	
	0 to 78	0,39,78	8-DPSK	3DH5	
		Band Edge			
Bluetooth	0 to 78	0,78	GFSK/8-DPSK	DH5/3DH5	
		Frequency Separation			
Bluetooth	0 to 78	0,1,2,38,39,40,76,77,78	GFSK/8-DPSK	DH5/3DH5	
		Number of hopping frequer	ncy		
Bluetooth	0 to 78	0 to 78	GFSK/8-DPSK	DH5/3DH5	
Time of Occupancy(Dwell time)					
			GFSK	DH1/DH3/DH5	
Bluetooth	etooth 0 to 78 39	39	π/4-DQPSK	2DH1/2DH3/2DH5	
			8-DPSK	3DH1/3DH3/3DH5	

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 就 + (886.2), 2208, 0488



Page: 12 of 75

MEASUREMENT UNCERTAINTY

Test Items	l	Jncertair	nty
AC Power Line Conducted Emission	+/-	2.34	dB
Peak Output Power	+/-	1	dB
Emission Bandwidth	+/-	1.53	Hz
100 kHz Bandwidth Of Frequency Band Edges	+/-	1.69	dB
Frequency Separation	+/-	1.53	Hz
Number of hopping frequency	+/-	1.53	Hz
Time of Occupancy	+/-	1.53	Hz
Temperature	+/-	0.4	°C
Humidity	+/-	3.5	%
DC / AC Power Source	+/-	1	%

Radiated Spurious Emission Measurement Uncertainty						
Polarization: Vertical	+/-	2.64	dB	9kHz~30MHz		
	+/-	4.93	dB	30MHz - 1000MHz		
	+/-	4.81	dB	1GHz - 18GHz		
	+/-	4.52	dB	18GHz - 40GHz		
	+/-	2.64	dB	9kHz~30MHz		
Polarization: Horizontal	+/-	4.45	dB	30MHz - 1000MHz		
Folarization. Horizontal	+/-	4.81	dB	1GHz - 18GHz		
	+/-	4.52	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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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。

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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 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



Page: 13 of 75

CONDUCTED EMISSION TEST

Standard Applicable 6.1

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

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

Note

Measurement Equipment Used 6.2

	Radiated Emission Test Site: Conduction C								
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.				
Test Software	audix	e3	Ver. 6.11- 20180419c	N.C.R	N.C.R				
LISN	SCHWARZBEC K Mess- Elektronik	NSLK8127	974	04/19/2021	04/18/2022				
EMI Test Receiver	R&S	ESCI	101342	04/28/2021	04/27/2022				
Coaxial Cable	EC Lab	RF-HY-CAB- 250	RF-HY-CAB- 250-01	03/27/2021	03/26/2022				
Pulse Limiter	EC Lab	VTSD 9561F-N	485	03/27/2021	03/26/2022				
Adapter	Sony	AC-0400- TW	3504600	N.C.R	N.C.R				
USB Cable	сохос	C807M3A03 E1E2	N/A	N.C.R	N.C.R				
USB to Type-c	A-GOOD	USB to Type-c	N/A	N.C.R	N.C.R				

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

6.3 **EUT Setup**

- 1. The conducted emission tests were performed in the test site, using the setup in accordance with the ANSI 63.10:2013.
- 2. The AC/DC Power adaptor of EUT was plug-in LISN. The EUT was placed flushed with the rear of the table.
- 3. The LISN was connected with 120Vac/60Hz power source.

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

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 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 www.sgs.com.tw

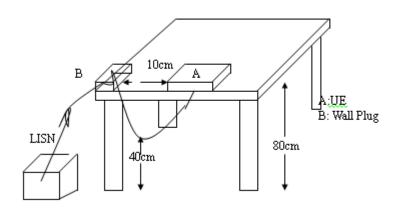
^{1.} The lower limit shall apply at the transition frequencies

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



Page: 14 of 75

6.4 Test SET-UP (Block Diagram of Configuration)



6.5 Measurement Procedure

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

6.6 Measurement Result

Note: Refer to next page for measurement data and plots.

Note2: The * reveals the worst-case results that closet to the limit.

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

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

aiwan 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 **股份有限公司** t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw



Page: 15 of 75

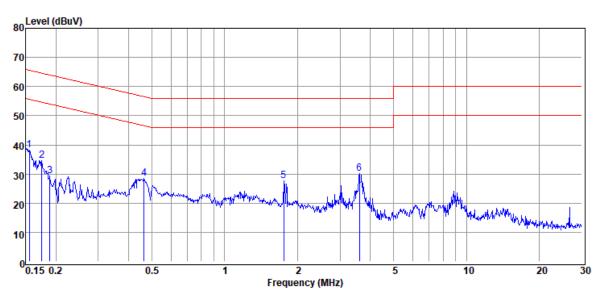
AC POWER LINE CONDUCTED EMISSION TEST DATA

Report Number :E2/2021/60089 Test Site :Conduction Room C

Test Mode :BT Test Date :2021-07-22

Power :120V/60Hz Temp./Humi. :24.0/64

Probe Engineer :Jack Tseng



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit	Margin
MHz	PK/QP/AV	dΒμV	dB	dΒμV	dΒμV	dB
0.16	Peak	27.83	10.30	38.13	65.69	-27.56
0.17	Peak	24.38	10.30	34.68	64.72	-30.04
0.19	Peak	19.01	10.30	29.31	64.06	-34.75
0.46	Peak	18.18	10.31	28.49	56.63	-28.14
1.75	Peak	16.73	11.01	27.74	56.00	-28.26
3.60	Peak	19.30	10.77	30.07	56.00	-25.93

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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 f (886-2) 2298-0488 www.sgs.com.tw



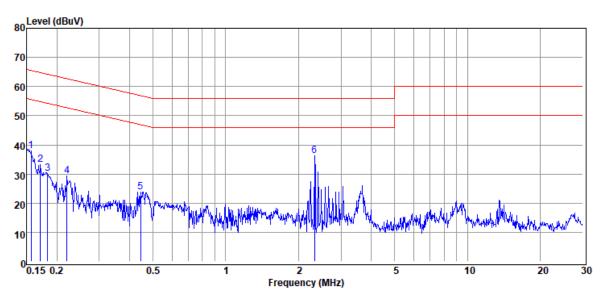
Page: 16 of 75

Report Number :E2/2021/60089 Test Site :Conduction Room C

:BT Test Mode **Test Date** :2021-07-22

Power :120V/60Hz Temp./Humi. :24.0/64

Probe :N Engineer :Jack Tseng



Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit	Margin
PK/QP/AV	dΒμV	dB	dΒμV	dΒμV	dB
Peak	27.65	10.31	37.96	65.65	-27.69
Peak	22.93	10.31	33.24	64.90	-31.66
Peak	20.00	10.30	30.30	64.33	-34.03
Peak	19.03	10.30	29.33	62.79	-33.46
Peak	13.62	10.32	23.94	56.98	-33.04
Peak	25.29	11.07	36.36	56.00	-19.64
	Mode PK/QP/AV Peak Peak Peak Peak Peak	Mode PK/QP/AV Reading Level dBμV Peak 27.65 Peak 22.93 Peak 20.00 Peak 19.03 Peak 13.62	Mode PK/QP/AV Reading Level dBμV dB Peak 27.65 10.31 Peak 22.93 10.31 Peak 20.00 10.30 Peak 19.03 10.30 Peak 13.62 10.32	Mode PK/QP/AV Reading Level dB μV FS dB μV Peak 27.65 10.31 37.96 Peak 22.93 10.31 33.24 Peak 20.00 10.30 30.30 Peak 19.03 10.30 29.33 Peak 13.62 10.32 23.94	Mode Pk/QP/AVReading Level dBμVFS dBμV $dBμV$ Peak27.6510.3137.9665.65Peak22.9310.3133.2464.90Peak20.0010.3030.3064.33Peak19.0310.3029.3362.79Peak13.6210.3223.9456.98

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

台灣檢驗科技股份有限公司

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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 f (886-2) 2298-0488 www.sgs.com.tw



Page: 17 of 75

PEAK OUTPUT POWER MEASUREMENT

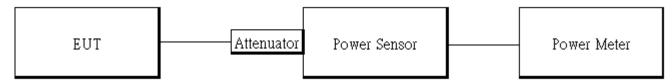
7.1 Standard Applicable

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 hopping channels, The Limit: 1Watt. For all other frequency hopping systems in the 2400 - 2483.5MHz band: The Limit: 0.125 Watts. The power limit for 1Mbps is 1watt, and 2Mbps, 3Mbps and AFH mode are 0.125 watts.

7.2 **Measurement Equipment Used**

Conducted Emission Test Site: Conducted G								
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.			
Power Meter	Anritsu	ML2496A	1512003	07/23/2020	07/22/2021			
Power Sensor	Anritsu	MA2411B	1339378	07/23/2020	07/22/2021			
Power Sensor	Anritsu	MA2411B	1339379	07/23/2020	07/22/2021			
Attenuator	Marvelous	WATT- 218FS-10	RF22	11/19/2020	11/18/2021			
Attenuator	Marvelous	WATT- 218FS-10	RF23	11/19/2020	11/18/2021			
Power Meter	Anritsu	ML2496A	1804002	04/14/2021	04/13/2022			
Power Sensor	Anritsu	MA2411B	1726105	04/14/2021	04/13/2022			
Power Sensor	Anritsu	MA2411B	1726106	04/14/2021	04/13/2022			

7.3 Test Set-up:



7.4 **Measurement Procedure:**

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. The testing follows ANSI C63.10 Measurement Guidelines.
- 3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter or spectrum. (Max Hold, Detector = Peak, RBW >= 20dB bandwidth)
- 4. Record the max. reading.
- 5. Repeat above procedures until all default test channel is completed.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw



Page: 18 of 75

7.5 **Peak & Average Power Measurement Result**

IN Bit mode (i cak).						
СН	Freq. (MHz)	Power set	Peak Output Power (dBm)	Output Power (mW)	Limit (mW)	
Low	2402	8	6.61	4.581	1000	
Mid	2441	8	7.37	5.458	1000	
High	2480	8	7.80	6.026	1000	

_	Bit iiiouo	(· · · · · · · · · · · · · · · · · · ·				
	СН	Freq. (MHz)	Power set	Max. Output include tune up tolerance Power (dBm)	Output Power (mW)	Limit (mW)
	Low	2402	8	6.39	4.350	1000
	Mid	2441	8	6.96	4.960	1000
	High	2480	8	7.64	5.801	1000

2M EDR mode (Peak):

2 2	- (/				
СН	Freq. (MHz)	Power set	Peak Output Power (dBm)	Output Power (mW)	Limit (mW)
Low	2402	8	6.64	4.613	125
Mid	2441	8	7.29	5.358	125
High	2480	8	7.82	6.053	125

2M EDR mod	le (Average):				
СН	Freq. (MHz)	Power set	Max. Avg.Output include tune up tolerance Power (dBm)	Output Power (mW)	Limit (mW)
Low	2402	8	4.10	2.568	125
Mid	2441	8	4.78	3.004	125
High	2480	8	5.49	3.537	125

3M EDR mode (Peak):

СН	Freq. (MHz)	Power set	Peak Output Power (dBm)	Output Power (mW)	Limit (mW)
Low	2402	8	6.99	5.000	125
Mid	2441	8	10.02	10.046	125
High	2480	8	8.08	6.427	125

NOTE: cable loss as 10.65dB that offsets in the spectrum

3M EDR mode (Average):

СН	Freq. (MHz)	Power set	Max. Avg.Output include tune up tolerance Power (dBm)	Output Power (mW)	Limit (mW)
Low	2402	8	4.35	2.720	125
Mid	2441	8	5.45	3.504	125
High	2480	8	5.60	3.627	125

*Note: Max. Output include tune up tolerance Power measured by using average detector.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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。

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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 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



Page: 19 of 75

EMISSION BANDWIDTH MEASUREMENT

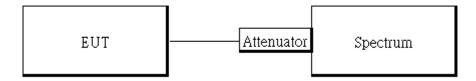
8.1 Standard Applicable

For frequency hopping systems operating in the 2400 MHz-2483.5 MHz no limit for 20dB bandwidth.

8.2 **Measurement Equipment Used**

Conducted Emission Test Site: Conducted G								
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.			
Spectrum Analyzer	KEYSIGHT	N9010B	MY60240506	06/18/2021	06/17/2022			
Attenuator	Marvelous	WATT- 218FS-10	RF23	11/19/2020	11/18/2021			
DC Block	PASTERNAC K	PE8210	RF151	11/19/2020	11/18/2021			
Test Software	SGS Taiwan	Radio Test Software	Ver.21	N/A	N/A			

8.3 **Test Set-up**



8.4 Measurement Procedure

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. The testing follows ANSI C63.10:2013.
- 3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 4. Set the spectrum analyzer as

RBW= 1 % to 5% of OBW.

VBW = 3 X RBW

Span= 2 to 5 times of the OBW,

Sweep=auto,

台灣檢驗科技股份有限公司

Detector = Peak, and Max hold for 20dB Bandwidth test.

- 5. Mark the peak frequency and -20dB (upper and lower) frequency
- 6. Repeat above procedures until all test default channel is completed

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw



Page: 20 of 75

8.5 20dB Bandwidth

GFSK

СН	20 dB BW (MHz)	2/3 BW (MHz)
Low	0.9371	0.62
Mid	0.9371	0.62
High	0.9383	0.63

π/4-DQPSK

СН	20 dB BW (MHz)	2/3 BW (MHz)
Low	1.281	0.85
Mid	1.279	0.85
High	1.280	0.85

8-DPSK

СН	20 dB BW (MHz)	2/3 BW (MHz)		
Low	1.296	0.86		
Mid	1.293	0.86		
High	1.295	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. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留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 Taipei City, Taiwan/新北市五殿區新北建業園區五工路 134 號 台灣檢驗科技股份有限公司 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw



Page: 21 of 75

OBW 20dB_GFSK_1M_DH5_2402MHz OBW 20dB 4DQPSK 2M DH5 2402MHz Spectrum Analyzer 1 Frequency • Frequency • ٥ Trig: Free Run Gate: Off #IF Gain: Low Trig Free Run Gate: Off #IF Gain: Low KEYSIGHT Input RF KEYSIGHT Input RF Settings Settings 1 Graph 1 Graph Scale/Div 10.0 dB Scale/Div 10.0 dB Auto Man Auto Man Freq Offset 0 Hz Freq Offset 0 Hz Occupied Bandw Occupied Bandw 847.62 kHz vidth 1.1723 MHz Total Powe 13.7 dBm Total Power 12.1 dBm Transmit Freq Error x dB Bandwidth % of OBW Power x dB % of OBW Power x dB Transmit Freq Error x dB Bandwidth 4 9 C 1 ? Jul 07, 2021 .: 🗑 - X ■ 9 C ■ ? Jul 07, 2021 ● .: W - X OBW 20dB_GFSK_1M_DH5_2441MHz OBW 20dB_4DQPSK_2M_DH5_2441MHz ectrum Analyzer 1 cupied BW Frequency • ٥ Frequency • . + ٥ KEYSIGHT Input RF Trig Free Run Gate: Off stE Gain: Low KEYSIGHT Input RF Atten: 30 dB Trig Free Run Gate: Off attF Gain Low 2.441000000 GH 2.441000000 GHz 3,0000 MHz Ref Lvl Offset 10.65 dB Ref Value 30.00 dBm 3,0000 MHz Ref Lvl Offset 10.65 dB Ref Value 30.00 dRm Scale/Div 10.0 dB Scale/Div 10.0 dB CF Step 300.000 kHz CF Step 300,000 kHz Auto Man Auto Man Freq Offset 0 Hz Freq Offset 0 Hz Occupied Bandwidth 847.78 kHz Occupied Bandwidth 1,1717 MHz % of OBW Power x dB % of OBW Power x dB 99.00 % -20.00 dB 99.00 % -20.00 dB 1 5 C 1 ? Jul 07, 2021 .: ¥ × X 1 5 C 1 ? Jul 07, 2021 .: W .. X OBW 20dB_GFSK_1M_DH5_2480MHz OBW 20dB_4DQPSK_2M_DH5_2480MHz ٥ Frequency • ٥ Input Z: 50 Q Corrections: Off Freq Ref: Int (S) KEYSIGHT Input RF Input Z 50 0 Corrections: Off Freq Ref: Int (S) KEYSIGHT Input RF 3.0000 MH Ref LvI Offset 10.65 dB Ref Value 30.00 dBm Ref Lvl Offset 10.65 dB Ref Value 30.00 dBm Scale/Div 10.0 dB CF Step CF Step 300,000 kHz 300.000 kHz Auto Man Auto Man Freq Offset 0 Hz Freq Offset 0 Hz #Video RW 100 00 kHz #Video RW 100.00 kH #Res BW 30.000 kHz Sweep 3.20 ms (10 Sweep 3.20 ms (1) Occupied Bandwidth 1.1748 MHz Total Power 15.4 dBm Total Power 14.0 dBm Transmit Freq Error x dB Bandwidth nsmit Freq Error % of OBW Power x dB % of OBW Power x dB

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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

1 5 C 1 ? Jul 07, 2021

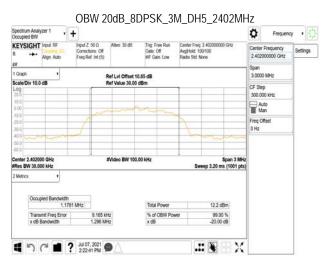
.: W - X

1 5 C 1 ? Jul 07, 2021

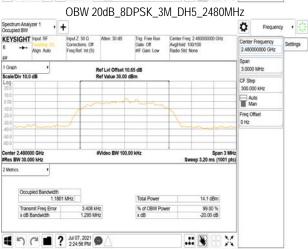
.:: 🔻 🖁 💥



Page: 22 of 75







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



Page: 23 of 75

9 CONDUCTED BAND EDGES AND SPURIOUS EMISSION MEASUREMENT

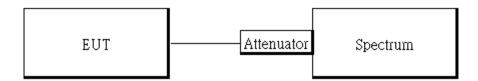
9.1 Standard Applicable

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), must also comply with the radiated emission limits specified in §15.209(a).

9.2 Measurement Equipment Used

Conducted Emission Test Site: Conducted G							
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.		
Spectrum Analyzer	KEYSIGHT	N9010B	MY60240506	06/18/2021	06/17/2022		
Attenuator	Marvelous	WATT- 218FS-10	RF23	11/19/2020	11/18/2021		
DC Block	PASTERNAC K	PE8210	RF151	11/19/2020	11/18/2021		
Test Software	SGS Taiwan	Radio Test Software	Ver.21	N/A	N/A		

9.3 Test SET-UP



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

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. No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北建業園區五工路 134 號台灣檢験科技股份有限公司 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw



Page: 24 of 75

9.4 **Measurement Procedure**

9.4.1 Conducted Band Edge:

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. The testing follows ANSI C63.10:2013.
- 3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 4. Set center frequency of spectrum analyzer = operating frequency.
- 5. Set the spectrum analyzer as RBW=100 kHz, VBW=300 kHz, Sweep = auto
- 6. Mark Peak, 2.3999GHz and 2.4836GHz and record the max. level.
- 7. Repeat above procedures until all frequency measured were complete.

9.4.2 Conducted Spurious Emission:

- 1. To connect Antenna Port of EUT to Spectrum.
- 2. The testing follows ANSI C63.10:2013.
- 3. Set RBW = 100 kHz & VBW = 300 kHz, Detector = Peak, Sweep = Auto
- 4. Allow trace to fully stabilize.
- 5. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.
- 6. Repeat above procedures until all default test channel measured were complete.

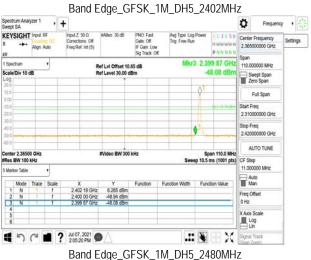
9.5 **Measurement Result**

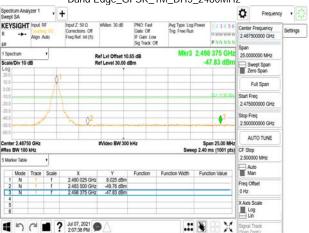
See next page for test plots.

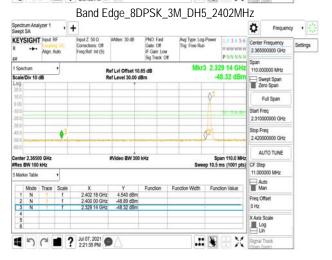
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製



Page: 25 of 75







Band Edge_8DPSK_3M_DH5_2480MHz

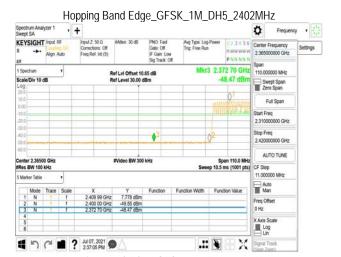


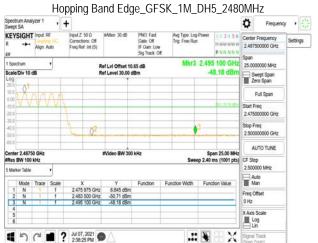
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。

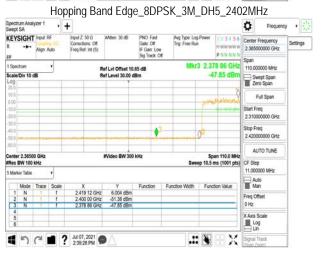
SGS Taiwan Ltd. No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號



Page: 26 of 75







Hopping Band Edge_8DPSK_3M_DH5_2480MHz



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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 Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號



Page: 27 of 75



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

Log Lin

Signal Signal

.:: ₹

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. 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

1 5 C 1 ? Jul 07, 2021

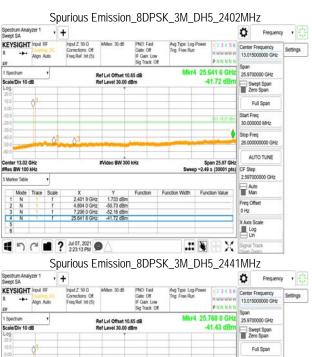
1 5 C 1 ? Jul 07, 2021

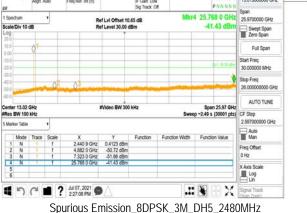
Log Lin

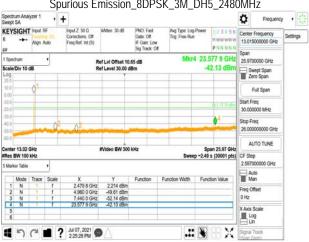
Signal Tro



Page: 28 of 75







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

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 www.sgs.com.tw



Page: 29 of 75

10 RADIATED BANDEDGE AND SPURIOUS EMISSION MEASUREMENT

10.1 Standard Applicable

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands must also comply with the §15.209 and limit as below. And according to §15.33(a) (1), for an intentional radiator operates below 10GHz, the frequency range of measurements: to the tenth harmonic of the highest fundamental frequency or to 40GHz, whichever is lower.

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

Note:

1. The lower limit shall apply at the transition frequencies.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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. No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五段區新北産業園區五工路 134 號 台灣檢験科技股份有限公司 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw



Page: 30 of 75

10.2 **Measurement Equipment Used**

Radiated Emission Test Site: SAC D							
EQUIPMENT TYPE	MFR	MODEL	SERIAL	LAST CAL.	CAL DUE.		
Describered Astronom	TECEO	NUMBER	NUMBER	00/00/2020	00/07/2024		
Broadband Antenna	TESEQ	CBL 6112D	35240	09/08/2020	09/07/2021		
Horn Antenna	Schwarzbeck	BBHA9120D	1341	06/04/2021	06/03/2022		
Horn Antenna	Schwarzbeck	BBHA9170	185	07/30/2020	07/29/2021		
Loop Antenna	ETS.LINDGREN	6502	143303	05/07/2021	05/06/2022		
3m Site NSA	SGS	966 chamber D	N/A	07/12/2021	07/11/2022		
Spectrum Analyzer	KEYSIGHT	N9010A	MY54510568	03/22/2021	03/21/2022		
Pre-Amplifier	EMC Instruments	EMC184045 B	980135	10/27/2020	10/26/2021		
Pre-Amplifier	EMC Instruments	EMC9135	980234	11/19/2020	11/18/2021		
Pre-Amplifier	EMC Instruments	EMC12630S E	980271	11/19/2020	11/18/2021		
Attenuator	Marvelous	WATT- 218FS-10	RF25	11/19/2020	11/18/2021		
High Pass Filter	R&S	F13 HPF 3GHz	RF175	11/19/2020	11/18/2021		
Lowpass Filter	Woken	EWT-56- 0019	RF173	11/19/2020	11/18/2021		
Notch Filter	Woken	EWT-54- 0038	RF178	11/19/2020	11/18/2021		
Coaxial Cable	Huber Suhner	EMC106- SM-SM- 7200	150703	11/19/2020	11/18/2021		
Coaxial Cable	Huber+Suhner	RG 214/U	W21.01	11/19/2020	11/18/2021		
Coaxial Cable	Huber Suhner	SUCOFLEX 104	MY17413/4	11/19/2020	11/18/2021		
Test Software	audix	e3	20923 sgs Ver.9	N.C.R	N.C.R		
USB Cable	сохос	C807M3A03 E1E2	N/A	N.C.R	N.C.R		
Notebook	Lenovo	T470	P0001293	N/A	N/A		
USB to Type-c	A-GOOD	USB to Type-c	N/A	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。

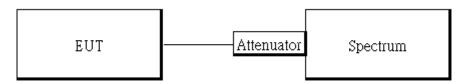
No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號



Page: 31 of 75

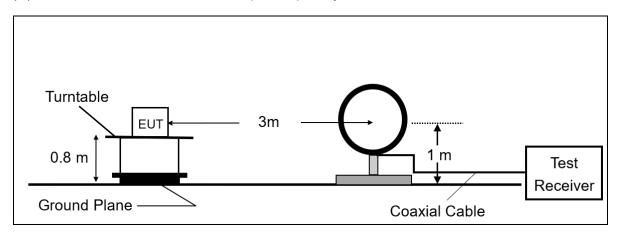
10.3 **Test SET-UP**

10.3.1 Duty Cycle Correction Factor

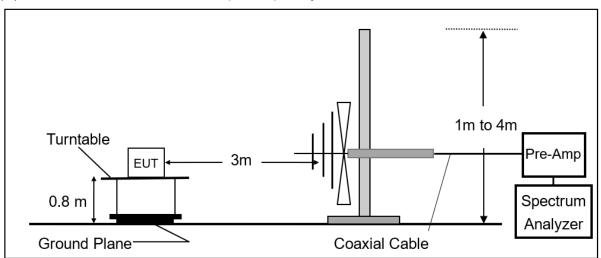


10.3.2 Radiated Emission

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



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



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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。

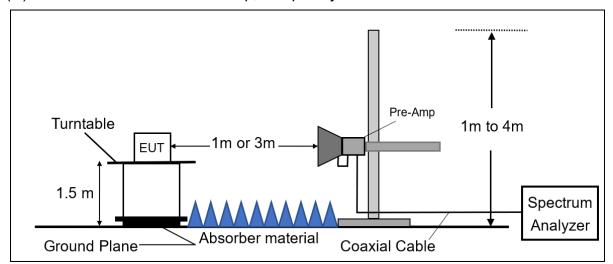
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions. 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 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw



Page: 32 of 75

(C) Radiated Emission Test Set-Up, Frequency Above 1 GHz.



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

SGS Taiwan Ltd. No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五殿區新北建業園區五工路 134 號 台灣檢驗科技股份有限公司 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw



Page: 33 of 75

10.4 **Measurement Procedure**

- The testing follows the Measurement Procedure of ANSI C63.10:2013.
- 2. The EUT was placed on a turn table with 0.8m for frequency< 1GHz and 1.5m for frequency> 1GHz above ground plane.
- 3. The turn table shall rotate 360 degrees to determine the position of maximum emission
- 4. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
- 5. Set the spectrum analyzer as RBW=100 kHz and VBW=300 kHz for Peak Detector (PK) at frequency between 30MHz and 1 GHz.
- 6. Use receiver mode as RBW=120 kHz for Quasi-peak (QP) at frequency between 30MHz and 1 GHz.
- 7. Set the spectrum analyzer as RBW=1 MHz, VBW=3 MHz for Maximum Emission Measurements at frequency above 1 GHz.
- 8. According to C63.10:2013 Section 7.5 Procedure for determining the average value of pulsed emissions with duty cycle correction factor 20 log (Ton/100ms).
- 9. When measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.
- 10. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 11. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 12. Repeat above procedures until all default test channel measured were complete.

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

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 www.sgs.com.tw



Page: 34 of 75

10.5 **Field Strength Calculation**

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

FS = RA + AF + CL - AG

Where FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

The limit of the emission level is expressed in dBuV/m, which converts 20*log(uV/m)

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

Factor(dB) = Antenna Factor(dBµV/m) + Cable Loss(dB) – Pre_Amplifier Gain(dB)

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

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

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



Page: 35 of 75

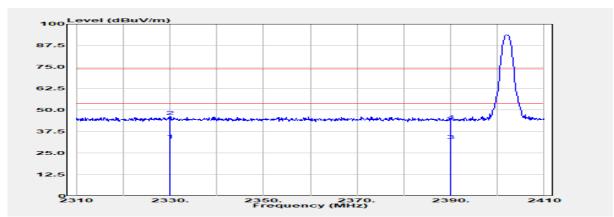
10.7 Measurement Result: 10.7.1 Bandedge Result

Report Number :E2/2021/60089 Test Site :SAC D

Operation Mode :BT BR Test Date :2021-07-21

Test Frequency :2402 MHz Temp./Humi. :20.5/67
Test Mode :BE CH LOW Antenna Pol. :Vertical

EUT Pol :H Plane Engineer :Jack Tseng



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
2329.900	Average	40.21	-7.64	32.58	54.00	-21.42
2329.900	Peak	54.03	-7.64	46.39	74.00	-27.61
2390.000	Average	40.21	-7.89	32.32	54.00	-21.68
2390.000	Peak	51.65	-7.89	43.77	74.00	-30.23

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

所分分前の外上報告の表達的機能を使用している。 本報告本語の大力を関係する。 本報告本語の大力を開始する。 本報告本語の大力を開始する。 本報告本語の大力を表示されている。 本述を表示されている。 本述を述る。 本述

SGS Taiwan Ltd. No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五殿區新北建業園區五工路 134 號 台灣檢驗科技股份有限公司 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw



Page: 36 of 75

Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT BR Test Date :2021-07-21

Test Frequency :2402 MHz Temp./Humi. :20.5/67

Antenna Pol. :Horizontal Test Mode :BE CH LOW

EUT Pol :H Plane :Jack Tseng Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
2371.900	Average	39.91	-7.61	32.30	54.00	-21.70
2371.900	Peak	54.41	-7.61	46.81	74.00	-27.19
2390.000	Average	39.93	-7.89	32.04	54.00	-21.96
2390.000	Peak	50.97	-7.89	43.09	74.00	-30.91

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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 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



Page: 37 of 75

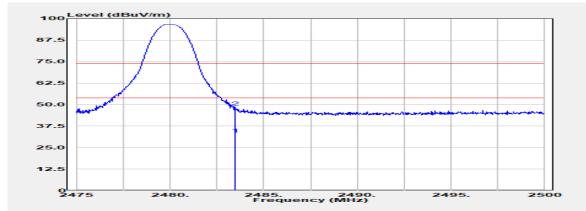
Report Number :E2/2021/60089 Test Site :SAC D

Operation Mode :BT BR Test Date :2021-07-21

Test Frequency :2480 MHz Temp./Humi. :20.5/67

Test Mode :BE CH HIGH Antenna Pol. :Vertical

EUT Pol :H Plane Engineer :Jack Tseng



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
2483.500	Average	40.93	-8.15	32.78	54.00	-21.22
2483.500	Peak	56.70	-8.15	48.54	74.00	-25.46

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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/新北市五殿區新北建業園區五工路 134 號 台灣檢驗科技股份有限公司 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw

Member of SGS Group



Page: 38 of 75

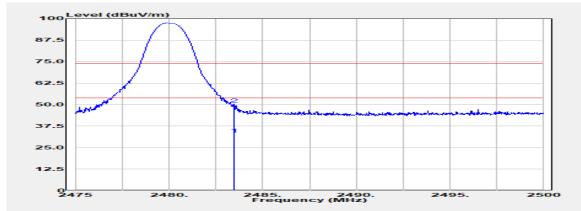
Report Number :E2/2021/60089 Test Site :SAC D

Operation Mode :BT BR Test Date :2021-07-21

Test Frequency :2480 MHz Temp./Humi. :20.5/67

Test Mode :BE CH HIGH Antenna Pol. :Horizontal

EUT Pol :H Plane Engineer :Jack Tseng



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
2483.500	Average	40.98	-8.15	32.82	54.00	-21.18
2483.500	Peak	58.48	-8.15	50.33	74.00	-23.67

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 39 of 75

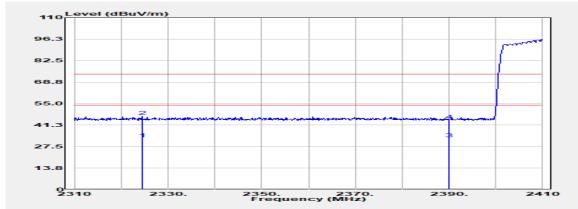
Report Number :E2/2021/60089 Test Site :SAC D

Operation Mode :BT BR HOPPING Test Date :2021-07-21

Test Frequency :2402 MHz Temp./Humi. :20.5/67

Test Mode :BE CH LOW Antenna Pol. :Vertical

EUT Pol :H Plane Engineer :Jack Tseng



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
2324.400	Average	40.16	-7.66	32.50	54.00	-21.50
2324.400	Peak	54.43	-7.66	46.77	74.00	-27.23
2390.000	Average	40.29	-7.89	32.40	54.00	-21.60
2390.000	Peak	52.37	-7.89	44.49	74.00	-29.51

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 40 of 75

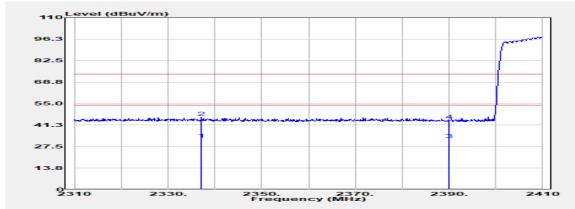
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode :BT BR HOPPING Test Date :2021-07-21

Test Frequency :2402 MHz Temp./Humi. :20.5/67

Antenna Pol. :Horizontal Test Mode :BE CH LOW

EUT Pol :H Plane :Jack Tseng Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
2337.100	Average	39.85	-7.62	32.23	54.00	-21.77
2337.100	Peak	53.82	-7.62	46.20	74.00	-27.80
2390.000	Average	39.91	-7.89	32.03	54.00	-21.97
2390.000	Peak	52.29	-7.89	44.41	74.00	-29.59

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 41 of 75

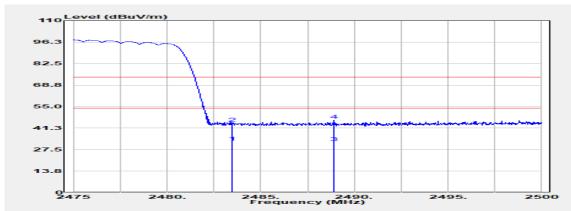
Report Number :E2/2021/60089 Test Site :SAC D

Operation Mode :BT BR HOPPING Test Date :2021-07-21

Test Frequency :2480 MHz Temp./Humi. :20.5/67

Test Mode :BE CH HIGH Antenna Pol. :Vertical

EUT Pol :H Plane Engineer :Jack Tseng



Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
•	Mode	Reading Level		FS	@3m	9
		. •			_	
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
2483.500	Average	40.34	-8.15	32.19	54.00	-21.81
	Average		-0.13			
2483.500	Peak	52.63	-8.15	44.48	74.00	-29.52
2488.925	Average	40.21	-8.17	32.04	54.00	-21.96
2488.925	Peak	54.49	-8.17	46.32	74.00	-27.68

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。

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 42 of 75

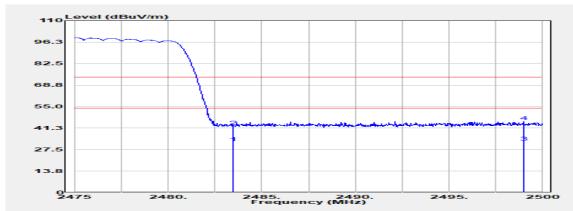
Report Number :E2/2021/60089 Test Site :SAC D

Operation Mode :BT BR HOPPING Test Date :2021-07-21

Test Frequency :2480 MHz Temp./Humi. :20.5/67

Test Mode :BE CH HIGH Antenna Pol. :Horizontal

EUT Pol :H Plane Engineer :Jack Tseng



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
						_
2483.500	Average	40.06	-8.15	31.91	54.00	-22.09
2483.500	Peak	50.73	-8.15	42.58	74.00	-31.42
2499.000	Average	39.91	-7.62	32.29	54.00	-21.71
2499.000	Peak	53.03	-7.62	45.41	74.00	-28.59

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 43 of 75

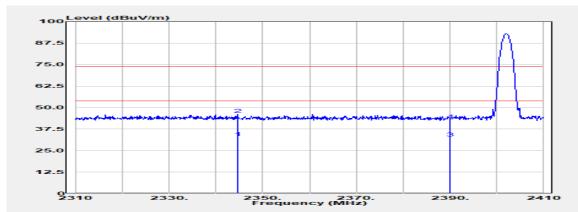
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT EDR Test Date :2021-07-21

Test Frequency :2402 MHz Temp./Humi. :20.5/67

Test Mode :BE CH LOW Antenna Pol. :Vertical

EUT Pol :H Plane :Jack Tseng Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
2344.600	Average	40.18	-7.67	32.51	54.00	-21.49
2344.600	Peak	53.89	-7.67	46.22	74.00	-27.78
2390.000	Average	40.29	-7.89	32.40	54.00	-21.60
2390.000	Peak	50.80	-7.89	42.91	74.00	-31.09

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 44 of 75

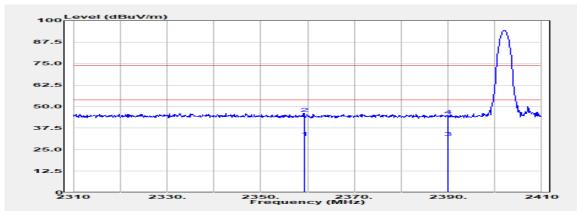
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT EDR Test Date :2021-07-21

Test Frequency :2402 MHz Temp./Humi. :20.5/67

Antenna Pol. :Horizontal Test Mode :BE CH LOW

EUT Pol :H Plane :Jack Tseng Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBμV	dB	dBμV/m	dBμV/m	dB
2359.300	Average	39.91	-7.85	32.06	54.00	-21.94
2359.300	Peak	54.01	-7.85	46.16	74.00	-27.84
2390.000	Average	39.92	-7.89	32.04	54.00	-21.96
2390.000	Peak	52.73	-7.89	44.85	74.00	-29.15

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 45 of 75

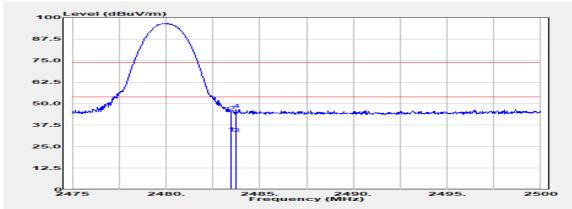
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT EDR Test Date :2021-07-21

Test Frequency :2480 MHz Temp./Humi. :20.5/67

Test Mode :BE CH HIGH Antenna Pol. :Vertical

EUT Pol :H Plane :Jack Tseng Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
2483.500	Average	41.13	-8.15	32.98	54.00	-21.02
2483.500	Peak	53.39	-8.15	45.23	74.00	-28.77
2483.725	Average	40.84	-8.15	32.69	54.00	-21.31
2483.725	Peak	54.81	-8.15	46.66	74.00	-27.34

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 46 of 75

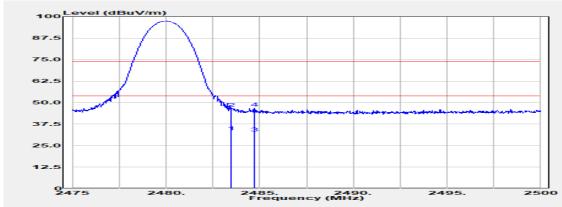
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT EDR Test Date :2021-07-21

Test Frequency :2480 MHz Temp./Humi. :20.5/67

Antenna Pol. :Horizontal Test Mode :BE CH HIGH

EUT Pol :H Plane :Jack Tseng Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
2483.500	Average	41.24	-8.15	33.09	54.00	-20.91
2483.500	Peak	54.88	-8.15	46.72	74.00	-27.28
2484.700	Average	40.48	-8.16	32.32	54.00	-21.68
2484.700	Peak	55.07	-8.16	46.91	74.00	-27.09

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 47 of 75

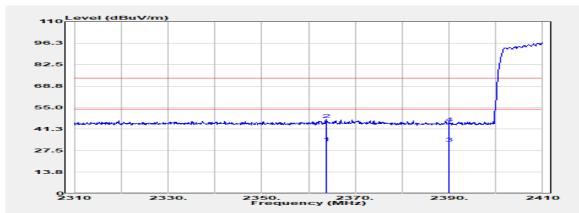
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode :BT EDR HOPPING Test Date :2021-07-21

Test Frequency :2402 MHz Temp./Humi. :20.5/67

Test Mode :BE CH LOW Antenna Pol. :Vertical

EUT Pol :H Plane :Jack Tseng Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
2363.700	Average	40.21	-7.77	32.44	54.00	-21.56
2363.700	Peak	55.16	-7.77	47.39	74.00	-26.61
2390.000	Average	40.22	-7.89	32.33	54.00	-21.67
2390.000	Peak	53.15	-7.89	45.26	74.00	-28.74

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 48 of 75

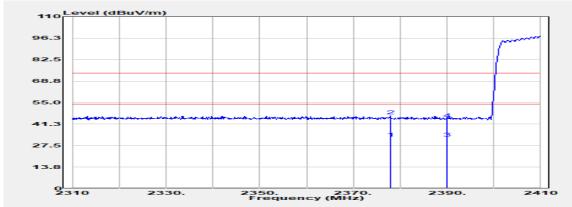
Report Number :E2/2021/60089 Test Site :SAC D

Operation Mode :BT EDR HOPPING Test Date :2021-07-21

Test Frequency :2402 MHz Temp./Humi. :20.5/67

Test Mode :BE CH LOW Antenna Pol. :Horizontal

EUT Pol :H Plane Engineer :Jack Tseng



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBμV	dB	dBμV/m	dBμV/m	dB
2377.900	Average	39.97	-7.59	32.38	54.00	-21.62
2377.900	Peak	54.12	-7.59	46.53	74.00	-27.47
2390.000	Average	40.05	-7.89	32.16	54.00	-21.84
2390.000	Peak	52.58	-7.89	44.69	74.00	-29.31

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 49 of 75

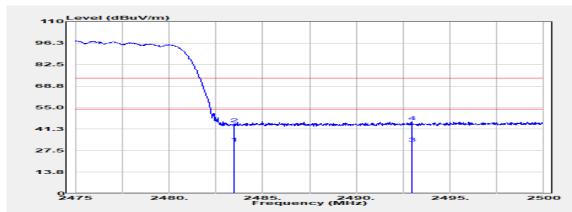
Report Number :E2/2021/60089 Test Site :SAC D

Operation Mode :BT EDR HOPPING Test Date :2021-07-21

Test Frequency :2480 MHz Temp./Humi. :20.5/67

Test Mode :BE CH HIGH Antenna Pol. :Vertical

EUT Pol :H Plane Engineer :Jack Tseng



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBμV	dB	dBμV/m	dBμV/m	dB
2483.500	Average	40.32	-8.15	32.17	54.00	-21.83
2483.500	Peak	52.74	-8.15	44.59	74.00	-29.41
2492.950	Average	40.19	-7.99	32.19	54.00	-21.81
2492.950	Peak	54.17	-7.99	46.18	74.00	-27.82

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 50 of 75

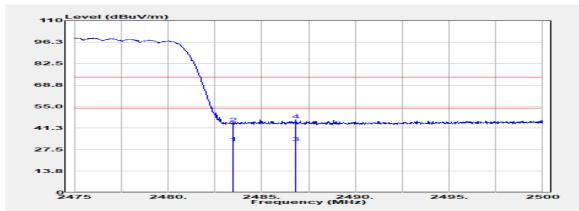
Report Number :E2/2021/60089 Test Site :SAC D

Operation Mode :BT EDR HOPPING Test Date :2021-07-21

Test Frequency :2480 MHz Temp./Humi. :20.5/67

Test Mode :BE CH HIGH Antenna Pol. :Horizontal

EUT Pol :H Plane Engineer :Jack Tseng



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
2483.500	Average	40.08	-8.15	31.92	54.00	-22.08
2483.500	Peak	52.55	-8.15	44.40	74.00	-29.60
2486.825	Average	40.01	-8.16	31.84	54.00	-22.16
2486.825	Peak	54.65	-8.16	46.49	74.00	-27.51

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 51 of 75

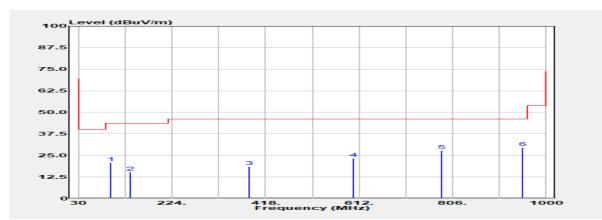
10.7.2 Radiated Spurious Emission

Report Number :E2/2021/60089 Test Site :SAC D

Operation Mode: BT BR Test Date :2021-07-21

Test Frequency :2441 MHz Temp./Humi. :21.8/66 Test Mode :TX CH MID Antenna Pol. :Vertical

EUT Pol :H Plane Engineer :Andy Wang



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
97.900	Peak	43.06	-22.38	20.68	43.50	-22.82
137.670	Peak	32.71	-17.39	15.31	43.50	-28.19
384.050	Peak	32.83	-14.21	18.62	46.00	-27.38
600.360	Peak	32.17	-8.84	23.33	46.00	-22.67
783.690	Peak	34.85	-7.03	27.82	46.00	-18.18
951.500	Peak	35.06	-5.50	29.56	46.00	-16.44

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

MRF分月就好・L軟百倍米階頁別規定人株の目具「PIPPLIKをの程序研習が入っており書間に可り、不可能力模模。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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

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



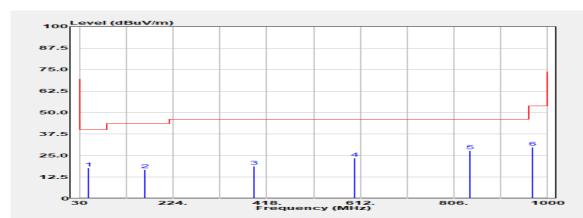
Page: 52 of 75

Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT BR Test Date :2021-07-21

Test Frequency :2441 MHz Temp./Humi. :21.8/66

Antenna Pol. :Horizontal Test Mode :TX CH MID **EUT Pol** :H Plane :Andy Wang Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
48.430	Peak	35.33	-17.64	17.69	40.00	-22.31
166.770	Peak	33.57	-16.87	16.69	43.50	-26.81
391.810	Peak	32.72	-13.88	18.84	46.00	-27.16
600.360	Peak	32.51	-8.84	23.67	46.00	-22.33
838.980	Peak	34.38	-6.50	27.88	46.00	-18.12
967.990	Peak	34.09	-4.22	29.87	54.00	-24.13

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 53 of 75

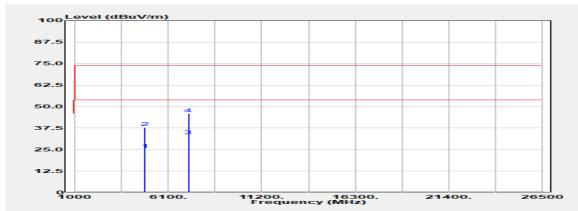
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT BR Test Date :2021-07-21

Test Frequency :2402 MHz Temp./Humi. :21.3/68

Test Mode :TX CH LOW Antenna Pol. :Vertical

EUT Pol :H Plane :Andy Wang Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4804.000	Average	28.13	-3.04	25.09	54.00	-28.91
4804.000	Peak	40.86	-3.04	37.82	74.00	-36.18
7206.000	Average	30.12	2.98	33.10	54.00	-20.90
7206.000	Peak	42.99	2.98	45.97	74.00	-28.03

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 54 of 75

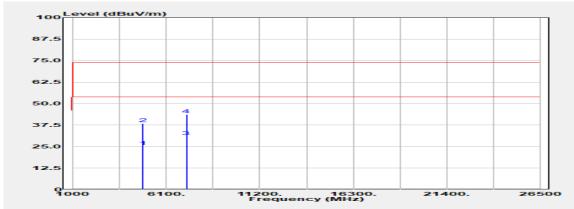
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT BR Test Date :2021-07-21

Test Frequency :2402 MHz Temp./Humi. :21.3/68

Antenna Pol. :Horizontal Test Mode :TX CH LOW

EUT Pol :H Plane :Andy Wang Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4804.000	Average	28.11	-3.04	25.06	54.00	-28.94
4804.000	Peak	41.28	-3.04	38.24	74.00	-35.76
7206.000	Average	27.88	2.98	30.86	54.00	-23.14
7206.000	Peak	40.58	2.98	43.56	74.00	-30.44

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 55 of 75

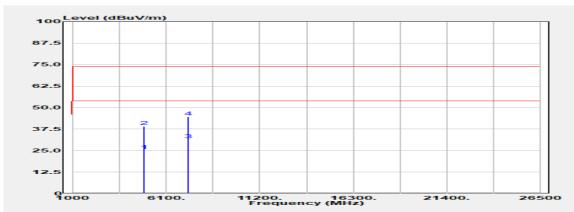
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT BR Test Date :2021-07-21

Test Frequency :2441 MHz Temp./Humi. :21.3/68

Test Mode :TX CH MID Antenna Pol. :Vertical

EUT Pol :H Plane :Andy Wang Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4882.000	Average	28.09	-3.06	25.04	54.00	-28.96
4882.000	Peak	42.05	-3.06	38.99	74.00	-35.01
7323.000	Average	27.93	3.37	31.30	54.00	-22.70
7323.000	Peak	41.23	3.37	44.60	74.00	-29.40

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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 台灣檢驗科技股份有限公司 t (886-2) 2299-3279 www.sgs.com.tw



Page: 56 of 75

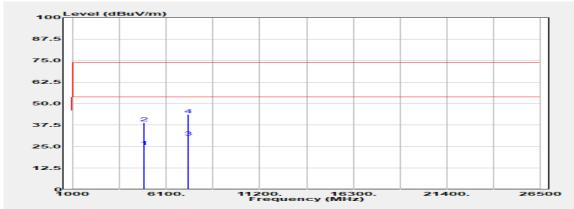
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT BR Test Date :2021-07-21

Test Frequency :2441 MHz Temp./Humi. :21.3/68

Antenna Pol. :Horizontal Test Mode :TX CH MID

EUT Pol :H Plane :Andy Wang Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4882.000	Average	28.00	-3.06	24.94	54.00	-29.06
4882.000	Peak	41.93	-3.06	38.88	74.00	-35.12
7323.000	Average	27.33	3.37	30.70	54.00	-23.30
7323.000	Peak	40.28	3.37	43.65	74.00	-30.35

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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 台灣檢驗科技股份有限公司 t (886-2) 2299-3279 www.sgs.com.tw



Page: 57 of 75

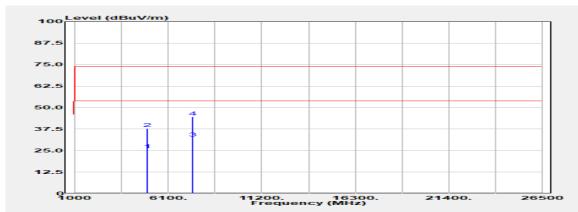
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT BR Test Date :2021-07-21

Test Frequency :2480 MHz Temp./Humi. :21.3/68

Test Mode :TX CH HIGH Antenna Pol. :Vertical

EUT Pol :H Plane :Andy Wang Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4960.000	Average	28.36	-2.87	25.49	54.00	-28.51
4960.000	Peak	40.61	-2.87	37.73	74.00	-36.27
7440.000	Average	28.44	3.85	32.29	54.00	-21.71
7440.000	Peak	40.85	3.85	44.70	74.00	-29.30

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 58 of 75

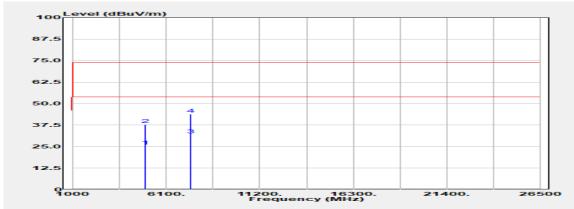
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT BR Test Date :2021-07-21

Test Frequency :2480 MHz Temp./Humi. :21.3/68

Antenna Pol. :Horizontal Test Mode :TX CH HIGH

EUT Pol :H Plane :Andy Wang Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4960.000	Average	28.22	-2.87	25.34	54.00	-28.66
4960.000	Peak	40.65	-2.87	37.78	74.00	-36.22
7440.000	Average	28.03	3.85	31.88	54.00	-22.12
7440.000	Peak	40.12	3.85	43.97	74.00	-30.03

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 59 of 75

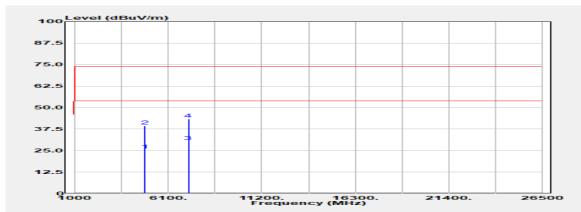
Report Number :E2/2021/60089 Test Site :SAC D

Operation Mode :BT EDR Test Date :2021-07-21

Test Frequency :2402 MHz Temp./Humi. :21.3/68

Test Mode :TX CH LOW Antenna Pol. :Vertical

EUT Pol :H Plane Engineer :Andy Wang



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4804.000	Average	28.37	-3.04	25.32	54.00	-28.68
4804.000	Peak	42.49	-3.04	39.45	74.00	-34.55
7206.000	Average	27.26	2.98	30.24	54.00	-23.76
7206.000	Peak	40.42	2.98	43.41	74.00	-30.59

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 60 of 75

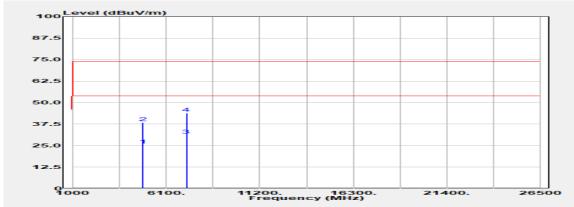
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT EDR Test Date :2021-07-21

Test Frequency :2402 MHz Temp./Humi. :21.3/68

Antenna Pol. :Horizontal Test Mode :TX CH LOW

EUT Pol :H Plane :Andy Wang Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4804.000	Average	28.35	-3.04	25.31	54.00	-28.69
4804.000	Peak	41.51	-3.04	38.47	74.00	-35.53
7206.000	Average	28.13	2.98	31.11	54.00	-22.89
7206.000	Peak	40.83	2.98	43.81	74.00	-30.19

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 61 of 75

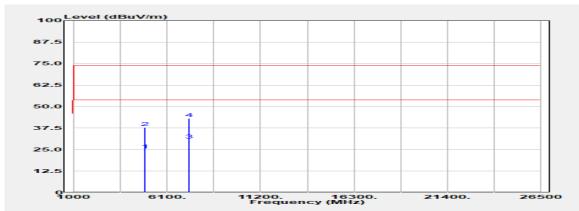
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT EDR Test Date :2021-07-21

Test Frequency :2441 MHz Temp./Humi. :21.3/68

Test Mode :TX CH MID Antenna Pol. :Vertical

EUT Pol :H Plane :Andy Wang Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4882.000	Average	27.90	-3.06	24.84	54.00	-29.16
4882.000	Peak	40.83	-3.06	37.78	74.00	-36.22
7323.000	Average	27.10	3.37	30.47	54.00	-23.53
7323.000	Peak	39.79	3.37	43.16	74.00	-30.84

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 62 of 75

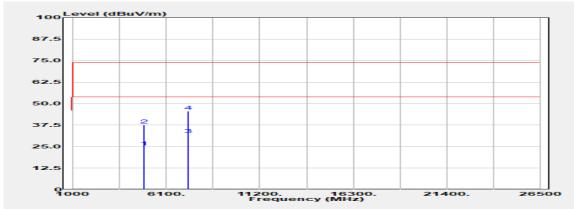
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT EDR Test Date :2021-07-21

Test Frequency :2441 MHz Temp./Humi. :21.3/68

Antenna Pol. :Horizontal Test Mode :TX CH MID

EUT Pol :H Plane :Andy Wang Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4882.000	Average	27.92	-3.06	24.87	54.00	-29.13
4882.000	Peak	40.75	-3.06	37.70	74.00	-36.30
7323.000	Average	28.83	3.37	32.20	54.00	-21.80
7323.000	Peak	42.28	3.37	45.64	74.00	-28.36

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 63 of 75

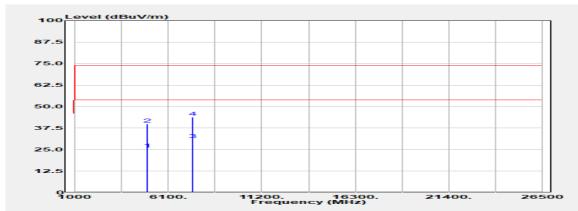
Report Number :E2/2021/60089 Test Site :SAC D

Operation Mode :BT EDR Test Date :2021-07-21

Test Frequency :2480 MHz Temp./Humi. :21.3/68

Test Mode :TX CH HIGH Antenna Pol. :Vertical

EUT Pol :H Plane Engineer :Andy Wang



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4960.000	Average	28.21	-2.87	25.34	54.00	-28.66
4960.000	Peak	42.67	-2.87	39.80	74.00	-34.20
7440.000	Average	26.99	3.85	30.84	54.00	-23.16
7440.000	Peak	40.04	3.85	43.89	74.00	-30.11

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。

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 64 of 75

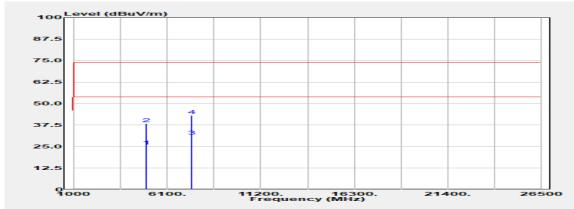
Test Site :SAC D Report Number :E2/2021/60089

Operation Mode: BT EDR Test Date :2021-07-21

Test Frequency :2480 MHz Temp./Humi. :21.3/68

Antenna Pol. :Horizontal Test Mode :TX CH HIGH

EUT Pol :H Plane :Andy Wang Engineer



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dΒμV	dB	dBμV/m	dBμV/m	dB
4960.000	Average	28.17	-2.87	25.30	54.00	-28.70
4960.000	Peak	41.17	-2.87	38.29	74.00	-35.71
7440.000	Average	27.14	3.85	30.99	54.00	-23.01
7440.000	Peak	39.20	3.85	43.05	74.00	-30.95

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

MRF分月就好・L報告包名性買利風之(株田貝貝 「同時以後の理味留物人・本程子会と力音間間可)・不可能力後後。
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. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Page: 65 of 75

11 FREQUENCY SEPARATION

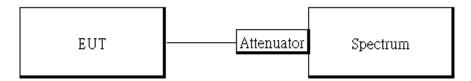
Standard Applicable

Frequency hopping systems shall have hopping channel carrier frequencies separated by minimum of 25 kHz or the 2/3*20dB bandwidth of the hopping channel, whichever is greater.

Measurement Equipment Used

Conducted Emission Test Site: Conducted G						
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.	
Spectrum Analyzer	KEYSIGHT	N9010B	MY60240506	06/18/2021	06/17/2022	
Attenuator	Marvelous	WATT- 218FS-10	RF23	11/19/2020	11/18/2021	
DC Block	PASTERNAC K	PE8210	RF151	11/19/2020	11/18/2021	
Test Software	SGS Taiwan	Radio Test Software	Ver.21	N/A	N/A	

11.3 **Test Set-up**



11.4 **Measurement Procedure**

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. The testing follows ANSI C63.10:2013.
- 3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 4. Set center frequency of spectrum analyzer = middle of hopping channel.
- 5. Set the spectrum analyzer as RBW, VBW=100 kHz, Adjust Span to 5MHz, Sweep = auto.
- 6. Max hold. Mark 3 Peaks of hopping channel and record the 3 peaks frequency.

11.5 Measurement Result

Channel separation (MHz)	Limit	Result
1	≥25 kHz or 2/3 times 20dB bandwidth	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.

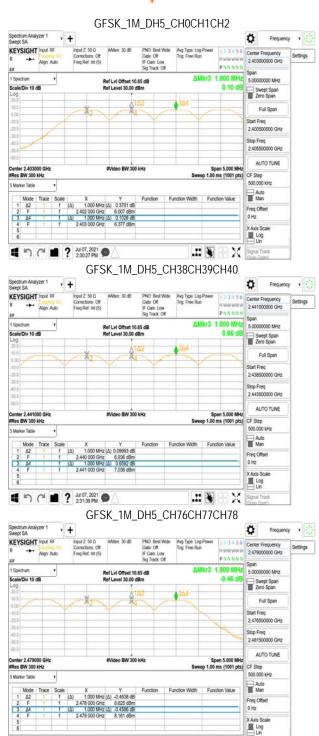
除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製

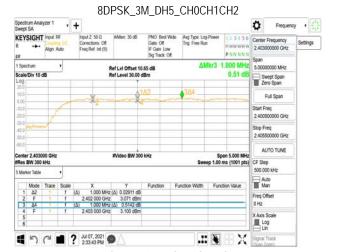
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com.tw/Terms-and-Conditions and for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com.tw/Terms-and-Conditions.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

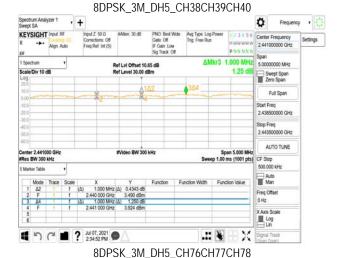
No.134,Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號 t (886-2) 2299-3279 f (886-2) 2298-0488 www.sgs.com.tw

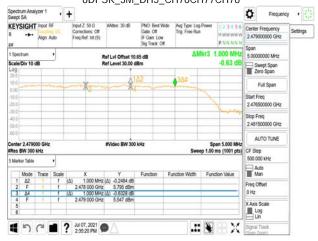


Page: 66 of 75









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

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. 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

1 5 C 1 ? Ju 07, 2021

.:: 🔻



Page: 67 of 75

12 NUMBER OF HOPPING FREQUENCY

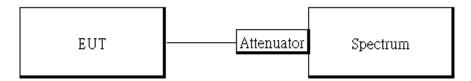
12.1 **Standard Applicable**

Frequency hopping systems operating in the 2400MHz-2483.5 MHz bands shall use at least 15 hopping frequencies.

Measurement Equipment Used 12.2

Conducted Emission Test Site: Conducted G						
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.	
Spectrum Analyzer	KEYSIGHT	N9010B	MY60240506	06/18/2021	06/17/2022	
Attenuator	Marvelous	WATT- 218FS-10	RF23	11/19/2020	11/18/2021	
DC Block	PASTERNAC K	PE8210	RF151	11/19/2020	11/18/2021	
Test Software	SGS Taiwan	Radio Test Software	Ver.21	N/A	N/A	

12.3 **Test Set-up**



12.4 **Measurement Procedure**

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. The testing follows ANSI C63.10:2013.
- 3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 4. Set spectrum analyzer Start=2400MHz, Stop = 2483.5MHz, Sweep = auto.
- 5. Set the spectrum analyzer as RBW=430kHz, VBW=1.5MHz., Detector = Peak
- 6. Max hold, view and count how many channel in the band.

12.5 **Measurement Result**

台灣檢驗科技股份有限公司

Tabular Data of Total Channel Number

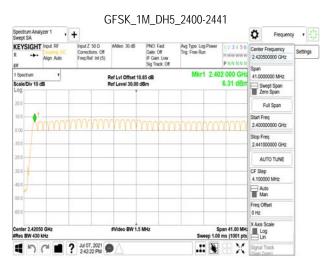
	Channel Number	Limit
2.4 GHz – 2.441 GHz	40	
2.441 GHz – 2.4835 GHz	39	>15
2.4 GHz ~2.4835 GHz	(40+39) = 79	

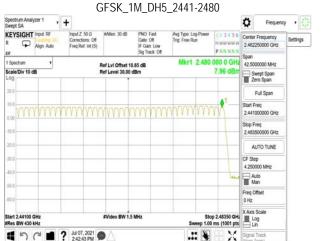
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製

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.

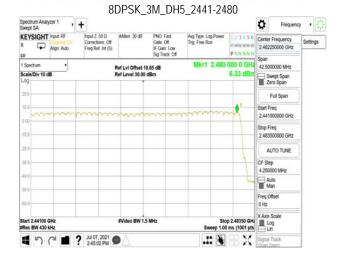


Page: 68 of 75









Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留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 Taipei City, Taiwan/新北市五股區新北產業園區五工路 134 號



Page: 69 of 75

13 TIME OF OCCUPANCY (DWELL TIME)

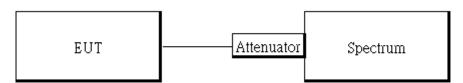
13.1 Standard Applicable

Frequency hopping systems operating in the 2400MHz-2483.5MHz. The average time of occupancy on any frequency shall not greater than 0.4 s within period of 0.4 seconds multiplied by the number of hopping channel employed.

13.2 Measurement Equipment Used

Conducted Emission Test Site: Conducted G						
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.	
Spectrum Analyzer	KEYSIGHT	N9010B	MY60240506	06/18/2021	06/17/2022	
Attenuator	Marvelous	WATT- 218FS-10	RF23	11/19/2020	11/18/2021	
DC Block	PASTERNAC K	PE8210	RF151	11/19/2020	11/18/2021	
Test Software	SGS Taiwan	Radio Test Software	Ver.21	N/A	N/A	

13.3 Test Set-up



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

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.



Page: 70 of 75

13.4 **Measurement Procedure**

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. The testing follows ANSI C63.10:2015.
- 3.Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 4. Set center frequency of spectrum analyzer = operating frequency.
- 5. Set the spectrum analyzer as RBW, VBW=1MHz, 3MHz, Span = 0Hz, Detector = Peak, Adjust Sweep = $2\sim8$ ms.
- 6. Repeat above procedures until all frequency of the interest measured were complete.

Formula Deduced: time occupancy of one time slot X Hopping rate / total slot in one channel / total channel that hops X period of working channels.

Where, standard hopping rate is 1600 hops/s, slot in one channel for DH1, DH3, and DH5 is 2, 4, and 6, respectively.

DH1 consists of single time slot of the uplink, and one slot of the downlink Total Slot: 2 DH3 consists of three time slot of the uplink, and one slot of the downlink. Total Slot: 4 DH5 consists of five time slot of the uplink, and one slot of the downlink. Total Slot: 6

In AFH mode, hopping rate is 800 hop/s with 6 slots in 20 hopping channels with channel hopping rate (800 / 6 / 20) in Occupancy Time Limit (0.4 * 20) (S), Hop Over Occupancy Time comes to (800 / 6 / 20)*(0.4*20) = 53.33

Note: the result of the complete test default channel at 1Mbps is recorded on the test report, 2Mbps, and 3Mbps only records the measurement result at middle channel that reveals no much deviation.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested 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



Page: 71 of 75

13.5 Tabular Result of the Measurement

GFSK (1Mbps)

Channel	PACKET TYPE	Measurement Result (ms)	Limit (ms)	1/T (kHz)	VBW setting (kHz)
	DH1	123.20	400ms	2.597	3.00
Mid	DH3	262.40	400ms	0.610	1.00
	DH5	307.20	400ms	0.347	1.00

π/4 DQPSK (2Mbps)

Channel	PACKET TYPE	Measurement Result (ms)	Limit (ms)	1/T (kHz)	VBW setting (kHz)
	2DH1	123.20	400ms	2.597	3.00
Mid	2DH3	262.40	400ms	0.610	1.00
	2DH5	308.80	400ms	0.345	1.00

8-DPSK (3Mbps)

o Di Git (Gilispo	/				
Channel	PACKET TYPE	Measurement Result (ms)	Limit (ms)	1/T (kHz)	VBW setting (kHz)
	3DH1	123.20	400ms	2.597	3.00
Mid	3DH3	262.40	400ms	0.610	1.00
	3DH5	308.80	400ms	0.345	1.00

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。



Page: 72 of 75

GFSK (1Mbps):

CH Mid DH1 time slot = 0.385 * (1600/2/79) * 31.6 = 123.20 (ms)

> DH3 time slot = (1600/4/79) * 1.640 * 31.6 = 262.40 (ms)

> DH5 time slot = 2.880 * (1600/6/79) * 307.20 (ms) 31.6 =

$\pi/4$ -DQPSK (2Mbps):

CH Mid 2DH1 time slo = (1600/2/79) * 31.6 = 123.20 (ms) 0.385 *

> 2DH3 time slo = (1600/4/79) * 1.640 * 31.6 = 262.40 (ms)

> 2DH5 time slo = 2.895 * (1600/6/79) * 31.6 = 308.80 (ms)

8-DPSK (3Mbps):

CH Mid 3DH1 time slo = (1600/2/79) * 123.20 (ms) 0.385 * 31.6 =

> 3DH3 time slo = (1600/4/79) * 1.640 * 31.6 = 262.40 (ms)

> 3DH5 time slo = 2.895 * (1600/6/79) * 31.6 = 308.80 (ms)

A period time = 0.4 (s) * 79 = 31.6 (s)

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

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.



Page: 73 of 75



Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留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 Taipei City, Taiwan/新北市五股區新北走業園區五工路 134 號



Page: 74 of 75



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



Page: 75 of 75

14 ANTENNA REQUIREMENT

14.1 Standard Applicable

For intentional device, according to §15.203, an intentional radiator shall be designed to ensure that no antenna other than furnished by the responsible party shall be used with the device.

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

14.2 **Antenna Connected Construction**

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

~ End of Report ~

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

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