

ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

	OF
Applicant:	Microsoft Corporation One Microsoft Way, Redmond, WA 98052-6399 USA
Product Name:	Portable Computing Device
Brand Name:	Microsoft
Model No.:	1927
Contains Wi-Fi Module Model No.:	1956
FCC ID:	C3K1927
Contains FCC ID:	C3K1956
IC:	3048A-1927
Contains IC:	3048A-1956
Report Number:	E2/2019/90045
FCC Rule Part:	2 , 22H & 24E & 27B, C & L & 90S
IC Rule Part:	RSS-130, 132, 133, 139, 140, 195, 199
Issue Date:	Mar. 04, 2020
Date of Test:	Sep. 30, 2019 ~ Nov. 19, 2019
Date of EUT Received:	Sep. 30, 2019

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Electronics & Communication Laboratory The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.26-2015 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits.

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

Approved By:

Jay Lin / Asst. Supervisor



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

で解す另有説明, 止報告結果僅對測試之様品頁, 同時此様品僅保留90.trie ふ本報告未經本公司書面許可, 不可能份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. T 1 100 T 1

SGS Taiwan Ltd.	No. 134, WUKUNGROad, New Talpe	industrialPark, wukuDistrict, new LaipeiCity	/,1alWan24803/新北市五股區新北產業園區五工	-路 134 號
台灣檢驗科技股份有限公司	t (886-2) 2299-3279	f (886-2) 2298-0488	www.tw.sgs.com	



Revision History								
Report Number Revision		Description	Issue Date	Remark				
E2/2019/90045	Rev.00	Original.	Mar. 04, 2020	Revised By: Yuri Tsai				

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

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

SGS Taiwan Ltd.	No.134,WuKungRoad,NewTaipe	iIndustrialPark,WukuDistrict,NewTaipeiCit	ty,Taiwan24803/新北市五股區新	沂北產業園區五工路 13	34 號
台灣檢驗科技股份有限公司	t (886-2) 2299-3279	f (886-2) 2298-0488	www.tw.sgs.com		



Contents

1.	GENERAL PRODUCT INFORMATION	4
2.	SYSTEM TEST CONFIGURATION	13
3.	SUMMARY OF TEST RESULTS	16
4.	DESCRIPTION OF TEST MODES	17
5.	MEASUREMENT UNCERTAINTY	32
6.	MAXMUM OUTPUT POWER	33
7.	OCCUPIED BANDWIDTH MEASUREMENT	100
8.	OUT OF BAND EMISSION AT ANTENNA TERMINALS	197
9.	FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT	498
10.	FREQUENCY STABILITY MEASUREMENT	594
11.	PEAK TO AVERAGE RATIO	605

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



1. GENERAL PRODUCT INFORMATION

1.1. Product Description

General:

Portable Con	nputing Device		
Microsoft			
1927			
1956			
EV2			
Windows 10 Pro			
EV2			
19.43.4.4/99.	0.49.7/21.60.1.1		
DRTU 11.194	41.0-10270		
1943-95cfa2-	-c8-00004.05		
	n Rechargeable Lithium-Ion Polymer Battery AC/DC Adapter		
Battery:	Model No.: DYNU01, Supplier: DYNAPACK		
Adapter:	Model No.: 1735, Supplier: LITEON		
	Microsoft 1927 1956 EV2 Windows 10 EV2 19.43.4.4/99 DRTU 11.19 1943-95cfa2 7.66Vdc from or 15V from / Battery:		

Note:

This report is for host FCC ID: C3K1927 which contains the module FCC ID: C3K1956. This report is for host IC: 3048A-1927 which contains the module IC: 3048A-1956.

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

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



1.2. WCDMA / LTE: Cellular Phone Standards Frequency Range

Operating Frequency (MHz)

WCDMA / HSPA+ Band II	1852.4	-	1907.6
WCDMA / HSPA+ Band V	826.4	-	846.6

LTE Band	BW (MHz)	Operation F	requei	ncy (MHz)	LTE Band	BW (MHz)	Operation	Frequer	ncy (MHz)
	1.4	1850.7	-	1909.3	10	5	779.5	-	784.5
	3	1851.5	-	1908.5	13	10		782	
2	5	1852.5	-	1907.5		1.4	1850.7	-	1914.3
2	10	1855.0	-	1905.0		3	1851.5	-	1913.5
	15	1857.5	-	1902.5	25	5	1852.5	-	1912.5
	20	1860.0	-	1900.0	20	10	1855.0	-	1910.0
	1.4	1710.7	-	1754.3		15	1857.5	-	1907.5
	3	1711.5	-	1753.5		20	1860.0	-	1905.0
4	5	1712.5	-	1752.5		1.4	824.7	-	848.3
4	10	1715.0	-	1780.0		3	825.5	-	847.5
	15	1717.5	-	1747.5	26	5	826.5	-	846.5
	20	1720.0	-	1745.0		10	829.0	-	844.0
	1.4	824.7	-	848.3		15	831.5	-	841.5
5	3	825.5	-	847.5		1.4	814.7	-	823.3
5	5	826.5	-	846.5	26 Part90	3	815.5	-	822.5
	10	829.0	-	844.0	20 Fail90	5	816.5	-	821.5
	5	2502.5	-	2567.5		10		819.0	
7	10	2505.0	-	2565.0	30	5	2307.5	-	2312.5
,	15	2507.5	-	2562.5	30	10		2310.0	
	20	2510.0	-	2560.0		5	2572.5	-	2617.5
	1.4	699.7	-	715.3	20	10	2575.0	-	2615.0
10	3	700.5	-	714.5	38	15	2577.5	-	2612.5
12	5	701.5	-	713.5		20	2580.0	-	2610.0
	10	704.0	~	711.0					

LTE Band	BW (MHz)	Operation Frequency (MHz)				
14	5	790.5 - 795.5				
	10	7	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.



LTE Band	BW (MHz)	Operation Frequency (MHz)			LTE Band	BW (MHz)	Operation	Freque	ency (MHz)
	5	2498.5	-	2687.5		1.4	1710.7	-	1779.3
41	10	2501.0	-	2685.0		3	1711.5	-	1778.5
41	15	2503.5	-	2682.5	44	5	1712.5	-	1777.5
	20	2506.0	-	2680.0	66	10	1715.0	-	1775.0
						15	1717.5	-	1772.5
						20	1720.0	-	1770.0

1.3. Antenna Designation

Vendor	Туре	Main / Aux	Antenna Part No.	Modulation	Frequency (MHz)			Peak Anten- na Gain (dBi)
				WCDMA / HSPA Band II	1852.4	2	1907.6	0.7
				WCDMA / HSPA Band V	826.4	1	846.6	-2.5
				LTE Band 2	1850	1	1910	0.7
				LTE Band 4	1710	1	1755	2.4
				LTE Band 5	824	~	849	-2.5
			LTE Band 7	2503	~	2560	1.3	
ADVANCED		nopole Main		LTE Band 12	699	~	716	-2.0
			DQ60AML0001 /	LTE Band 13	777	~	787	-1.9
& ANTEN-	Monopole		AML00-000010	LTE Band 14	788	~	798	-1.9
NA INC.				LTE Band 25	1850	~	1915	0.7
INA INC.				LTE Band 26	824	~	849	-2.5
				LTE Band 26 (Part 90S)	814	~	824	-2.5
				LTE Band 30	2305	~	2315	0.4
				LTE Band 38	2573	~	2610	0.6
				LTE Band 41	2496	~	2690	1.3
				LTE Band 66	1710	~	1780	2.4

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



1.4. WWAN Tune up tolerance:

MPR is excluded from this table.

Bands	WCDMA BII	WCDMA BV	LTE B2	LTE B4	LTE B5	LTE B7	LTE B12	LTE B13
	25	25	25	24.5	25	22.8	25	25
*Full Power	(24 +/- 1dB)	(24 +/- 1dB)	(24 +/- 1dB)	(23.5 +/- 1dB)	(24 +/- 1dB)	(22 + 0.8/- 0.7 dB)	(24 +/- 1dB)	(24 +/- 1dB)
Bands	LTE B14	LTE B25	LTE B26	LTE B30	LTE B38	LTE B41	LTE B66	
	25	25	25	23.5	24.5	24.5	24.5	
*Full Power	(24 +/- 1dB)	(24 +/- 1dB)	(24 +/- 1dB)	(22.5 +/- 1dB)	(23.5 +/- 1dB)	(23.5 +/- 1dB)	(23.5 +/- 1dB)	

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



1.5. Type of Emission & Max ERP/EIRP Power Measurement Result:

	ERP / EIRP (dBm)		W	Type of Emission
WCDMA Band II	25.03 EIRP		0.318	4M13F9W
HSDPA Band II	24.08	EIRP	0.256	4M12F9W
HSUPA Band II	24.07	EIRP	0.255	4M12F9W
WCDMA Band V	19.56	ERP	0.090	4M12F9W
HSDPA Band V	18.59	ERP	0.072	4M12F9W
HSUPA Band V	18.58	ERP	0.072	4M12F9W

LTE	BW	Modulation	ERP /	EIRP	(W)	Type of
Band	DVV	wouldtion	(dB	m)	(vv)	Emission
		QPSK	25.01	EIRP	0.317	1M09G7D
2	1.4	16QAM	24.45	EIRP	0.279	1M10D7W
		64QAM	24.33	EIRP	0.271	1M10D7W
		QPSK	24.81	EIRP	0.303	2M70G7D
2	3	16QAM	24.25	EIRP	0.266	2M70D7W
		64QAM	24.20	EIRP	0.263	2M71D7W
		QPSK	24.80	EIRP	0.302	4M50G7D
2	5	16QAM	24.26	EIRP	0.267	4M51D7W
		64QAM	24.39	EIRP	0.275	4M50D7W
		QPSK	25.07	EIRP	0.321	9M01G7D
2	10	16QAM	24.43	EIRP	0.277	8M96D7W
		64QAM	24.30	EIRP	0.269	8M99D7W
		QPSK	25.06	EIRP	0.321	13M5G7D
2	15	16QAM	24.45	EIRP	0.279	13M5D7W
		64QAM	24.31	EIRP	0.270	13M5D7W
		QPSK	25.09	EIRP	0.323	17M9G7D
2	20	16QAM	24.52	EIRP	0.283	18M0D7W
		64QAM	24.49	EIRP	0.281	17M9D7W

LTE	BW	Modulation	ERP /	EIRP	(W)	Type of
Band	DVV	Modulation	(dB	m)	(vv)	Emission
		QPSK	26.38	EIRP	0.435	1M10G7D
4	1.4	16QAM	25.84	EIRP	0.384	1M10D7W
		64QAM	25.64	EIRP	0.366	1M10D7W
		QPSK	26.36	EIRP	0.433	2M70G7D
4	3	16QAM	25.77	EIRP	0.378	2M70D7W
		64QAM	25.75	EIRP	0.376	2M71D7W
		QPSK	26.35	EIRP	0.432	4M50G7D
4	5	16QAM	25.71	EIRP	0.372	4M51D7W
		64QAM	25.69	EIRP	0.371	4M51D7W
		QPSK	26.36	EIRP	0.433	9M01G7D
4	10	16QAM	25.82	EIRP	0.382	8M96D7W
		64QAM	25.60	EIRP	0.363	8M99D7W
		QPSK	26.35	EIRP	0.432	13M5G7D
4	15	16QAM	25.77	EIRP	0.378	13M5D7W
		64QAM	25.68	EIRP	0.370	13M5D7W
		QPSK	26.39	EIRP	0.436	17M9G7D
4	20	16QAM	25.88	EIRP	0.387	18M0D7W
		64QAM	25.77	EIRP	0.378	18M0D7W

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

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



Report No.: E2/2019/90045 Page 9 of 645

R\//	BW Modulation ERP / EIRP		())()	Type of	
Dvv	WOULIALION	(dB	m)	(vv)	Emission
	QPSK	19.25	ERP	0.084	1M10G7D
1.4	16QAM	18.77	ERP	0.075	1M10D7W
	64QAM	18.68	ERP	0.074	1M10D7W
	QPSK	19.35	ERP	0.086	2M71G7D
3	16QAM	18.74	ERP	0.075	2M70D7W
	64QAM	18.75	ERP	0.075	5M95D7W
	QPSK	19.29	ERP	0.085	4M50G7D
5	16QAM	18.90	ERP	0.078	4M50D7W
	64QAM	18.58	ERP	0.072	4M51D7W
	QPSK	19.48	ERP	0.089	9M00G7D
10	16QAM	18.90	ERP	0.078	8M97D7W
	64QAM	18.76	ERP	0.075	8M99D7W
	3	QPSK 1.4 16QAM 64QAM QPSK 3 16QAM 64QAM QPSK 3 16QAM 64QAM 64QAM 64QAM QPSK 16QAM 64QAM 0PSK 16QAM 16QAM 0PSK 16QAM 0QPSK 16QAM 0QPSK	BW Modulation (dB QPSK 19.25 1.4 16QAM 18.77 64QAM 18.68 QPSK 19.35 3 QPSK 19.35 16QAM 18.74 64QAM 18.74 64QAM 18.75 16QAM 18.75 QPSK 19.29 16QAM 18.90 64QAM 18.58 QPSK 19.48 10 16QAM 18.90	BW Modulation (dBm) QPSK 19.25 ERP 16QAM 18.77 ERP 64QAM 18.68 ERP 0PSK 19.35 ERP 16QAM 18.74 ERP 16QAM 18.74 ERP 64QAM 18.75 ERP 16QAM 18.74 ERP 64QAM 18.75 ERP 16QAM 18.79 ERP 16QAM 18.90 ERP 16QAM 18.58 ERP 16QAM 18.58 ERP 16QAM 18.48 ERP 10 16QAM 18.90 ERP	BW Modulation (dB-) (W) QPSK 19.25 ERP 0.084 1.4 16QAM 18.77 ERP 0.075 64QAM 18.68 ERP 0.074 64QAM 18.68 ERP 0.074 3 QPSK 19.35 ERP 0.086 3 16QAM 18.74 ERP 0.075 64QAM 18.75 ERP 0.075 64QAM 18.75 ERP 0.075 64QAM 18.75 ERP 0.075 5 16QAM 18.90 ERP 0.078 64QAM 18.90 ERP 0.075 5 16QAM 18.90 ERP 0.072 64QAM 18.58 ERP 0.072 64QAM 18.58 ERP 0.089 16QAM 18.90 ERP 0.078

LTE	BW	Modulation	ERP /	EIRP	(W)	Type of
Band	Dvv	wouldtion	(dB	m)	(VV)	Emission
		QPSK	23.92	EIRP	0.247	4M50G7D
7	5	16QAM	22.97	EIRP	0.198	4M51D7W
		64QAM	23.06	EIRP	0.202	4M51D7W
		QPSK	23.88	EIRP	0.244	9M00G7D
7	10	16QAM	23.04	EIRP	0.201	8M96D7W
		64QAM	23.09	EIRP	0.204	8M98D7W
		QPSK	23.86	EIRP	0.243	13M5G7D
7	15	16QAM	23.08	EIRP	0.203	13M4D7W
		64QAM	23.04	EIRP	0.201	13M4D7W
		QPSK	23.99	EIRP	0.251	17M9G7D
7	7 20	16QAM	23.06	EIRP	0.202	18M0D7W
		64QAM	23.05	EIRP	0.202	18M0D7W

LTE	BW	Modulation	ERP /	EIRP	(W)	Type of			
Band	DVV	IVIOUUIALIOIT	(dB	m)	(vv)	Emission			
		QPSK	19.90	ERP	0.098	1M09G7D			
12	1.4	16QAM	19.21	ERP	0.083	1M10D7W			
		64QAM	19.07	ERP	0.081	1M09D7W			
		QPSK	19.97	ERP	0.099	2M70G7D			
12	3	16QAM	19.28	ERP	0.085	2M70D7W			
		64QAM	19.25	ERP	0.084	2M71D7W			
		QPSK	19.99	ERP	0.100	4M51G7D			
12	5	16QAM	19.26	ERP	0.084	4M50D7W			
		64QAM	19.20	ERP	0.083	4M50D7W			
		QPSK	20.17	ERP	0.104	9M02G7D			
12	10	16QAM	19.36	ERP	0.086	8M98D7W			
		64QAM	19.28	ERP	0.085	9M00D7W			
						T (
LTE	BW	Modulation	ERP /		(W)	Type of			
Band			(dB	· ·	0.100	Emission			
10	-	QPSK	20.00	ERP	0.100	4M51G7D			
13	5	16QAM	19.35	ERP	0.086	4M51D7W			
		64QAM	19.20	ERP	0.083	4M51D7W			
		QPSK	20.10	ERP	0.102	8M99G7D			
13	10	16QAM	19.33	ERP	0.086	8M95D7W			
		64QAM	19.18	ERP	0.083	8M97D7W			
LTE	BW	Modulation	ERP /	EIRP	(W)	Type of			
Band	DVV	wouldtion	(dB	/	(**)	Emission			
		QPSK	20.10	ERP	0.102	4M50G7D			
14	5	16QAM	19.46	ERP	0.088	4M50D7W			
		64QAM	19.21	ERP	0.083	4M51D7W			
		QPSK	20.13	ERP	0.103	8M98G7D			
14	10	16QAM	19.54	ERP	0.090	8M93D7W			
					64QAM	19.31	ERP	0.085	8M97D7W

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



Report No.: E2/2019/90045 Page 10 of 645

LTE	עעם	Madulation	ERP /	EIRP	(11)	Type of	LTE			Condu	icted		Type of
Band	BW	Modulation	(dB	m)	(W)	Emission	Band	BW	Modulation	(dB		(W)	Emission
		QPSK	25.12	EIRP	0.325	1M09G7D			QPSK	24.0	,	0.253	1M09G7D
25	1.4	16QAM	24.10	EIRP	0.257	1M10D7W	26 Part			20		0.255	1M109G7D 1M10D7W
		64QAM	24.07	EIRP	0.255	1M10D7W	90	1.4		23.36 22.25			
		QPSK	25.04	EIRP	0.319	2M71G7D			64QAM			0.168	1M09D7W
25	3	16QAM	24.24	EIRP	0.265	2M70D7W	26	0	QPSK	24.		0.257	2M70G7D
		64QAM	23.96	EIRP	0.249	2M70D7W	Part 90	3	16QAM	23.43		0.220	2M70D7W
		QPSK	25.03	EIRP	0.318	4M50G7D	90		64QAM	22.		0.172	2M71D7W
25	5	16QAM	24.19	EIRP	0.262	4M50D7W	26	QPSK 24.07			0.255	4M50G7D	
		64QAM	24.05	EIRP	0.254	4M51D7W	Part	5	16QAM	23.4		0.223	4M50D7W
		QPSK	25.18	EIRP	0.330	9M00G7D	90		64QAM	22.3		0.172	4M51D7W
25	10	16QAM	24.22	EIRP	0.264	8M96D7W	26		QPSK	24.		0.258	8M99G7D
		64QAM	23.95	EIRP	0.248	8M99D7W	Part	10	16QAM	23.		0.207	8M94D7W
		QPSK	25.18	EIRP	0.330	13M5G7D	90		64QAM	22.	13	0.163	8M97D7W
25	15	16QAM	24.17	EIRP	0.261	13M5D7W							T
		64QAM	24.15	EIRP	0.260	13M4D7W	LTE	BW	Modulation	ERP /		(W)	Type of
		QPSK	25.19	EIRP	0.330	17M9G7D	Band			(dB	· /		Emission
25	20	16QAM	24.37	EIRP	0.274	18M0D7W	20	F	QPSK	23.81	EIRP	0.240	4M50G7D
		64QAM	24.20	EIRP	0.263	17M9D7W	30	5	16QAM	22.82	EIRP	0.191	4M50D7W
					-				64QAM	22.71	EIRP	0.187	4M50D7W
LTE	BW	Modulation	ERP /		(W)	Type of		10	QPSK	23.39	EIRP	0.218	9M01G7D
Band			(dB	,		Emission	30	10	16QAM	22.84	EIRP	0.192	8M96D7W
		QPSK	19.23	ERP	0.084	1M10G7D			64QAM	22.90	EIRP	0.195	8M99D7W
26	1.4	16QAM	18.77	ERP	0.075	1M10D7W	LTE			ERP /	FIRD		Type of
		64QAM	18.73	ERP	0.075	1M10D7W	Band	BW	Modulation	(dB		(W)	Emission
		QPSK	19.33	ERP	0.086	2M70G7D	Dana		QPSK	24.57	EIRP	0.286	4M50G7D
26	3	16QAM	18.74	ERP	0.075	2M71D7W	38	5	16QAM	23.65	EIRP	0.232	4M5007D 4M51D7W
		64QAM	18.86	ERP	0.077	2M71D7W	50	0	64QAM	23.53	EIRP	0.232	4M51D7W
	_	QPSK	19.29	ERP	0.085	4M50G7D			QPSK	23.55		0.225	8M97G7D
26	5	16QAM		ERP	0.074	4M51D7W	20	10					
		64QAM	18.84	ERP	0.077	4M51D7W	38	10	16QAM	23.69	EIRP	0.234	8M96D7W
		QPSK	19.33	ERP	0.086	9M01G7D			64QAM	23.54	EIRP	0.226	8M98D7W
26	10	16QAM	18.82	ERP	0.076	8M96D7W		45	QPSK	24.58	EIRP	0.287	13M5G7D
		64QAM	18.76	ERP	0.075	8M98D7W	38	15	16QAM	23.72	EIRP	0.236	13M5D7W
	4-	QPSK	19.40	ERP	0.087	13M5G7D			64QAM	23.50	EIRP	0.224	13M4D7W
26	15	16QAM	18.96	ERP	0.079	13M5D7W			QPSK	24.59	EIRP	0.288	18M2G7D
		64QAM	18.89	ERP	0.077	13M4D7W	38	20	16QAM	23.75	EIRP	0.237	17M9D7W
									64QAM	23.67	EIRP	0.233	17M9D7W

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

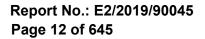


Report No.: E2/2019/90045 Page 11 of 645

LTE Band	BW	Modulation	ERP / (dB		(W)	Type of Emission
		QPSK	25.25	EIRP	0.335	4M51G7D
41	5	16QAM	24.77	EIRP	0.300	4M51D7W
		64QAM	24.68	EIRP	0.294	4M51D7W
		QPSK	25.27	EIRP	0.337	8M98G7D
41	10	16QAM	24.78	EIRP	0.301	8M97D7W
		64QAM	24.72	EIRP	0.296	8M98D7W
		QPSK	25.28	EIRP	0.337	13M5G7D
41	15	16QAM	24.77	EIRP	0.300	13M5D7W
		64QAM	24.76	EIRP	0.299	13M4D7W
		QPSK	25.29	EIRP	0.338	18M0G7D
41	20	16QAM	24.78	EIRP	0.301	17M9D7W
		64QAM	24.79	EIRP	0.301	17M9D7W

LTE Band	BW	Modulation	ERP / EIRP (dBm)		(W)	Type of Emission
Dana		QPSK	26.88	EIRP	0.488	1M10G7D
66	1.4	16QAM	25.89	EIRP	0.388	1M10D7W
		64QAM	25.86	EIRP	0.385	1M10D7W
		QPSK	26.76	EIRP	0.474	2M70G7D
66	3	16QAM	25.84	EIRP	0.384	2M70D7W
		64QAM	25.83	EIRP	0.383	2M71D7W
		QPSK	26.77	EIRP	0.475	4M50G7D
66	5	16QAM	25.84	EIRP	0.384	4M50D7W
		64QAM	25.88	EIRP	0.387	4M51D7W
		QPSK	26.85	EIRP	0.484	9M01G7D
66	10	16QAM	25.89	EIRP	0.388	8M96D7W
		64QAM	25.89	EIRP	0.388	8M99D7W
		QPSK	26.83	EIRP	0.482	13M5G7D
66	15	16QAM	25.86	EIRP	0.385	13M5D7W
		64QAM	25.89	EIRP	0.388	13M5D7W
		QPSK	26.89	EIRP	0.489	18M0G7D
66	20	16QAM	25.87	EIRP	0.386	18M0D7W
		64QAM	25.89	EIRP	0.388	18M0D7W

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





1.6. Test Methodology of Applied Standards

CC 47 CFR Part 2, 22H, 24E, 27C, Part 90S.

ANSI C63.26-2015

KDB971168 D01 Power Meas license Digital System v03r01

KDB941225 D01 SAR test for 3G devices v03r01 (SAR Measurement Procedures for 3G Devices, WCDMA / HSPA) was used for EUT and Base station setting.

TS 151 010-1 is used to set, and measure the output power.

RSS Gen Issue 5 Mar. 2019

RSS-130-issue 2 Feb. 2019, RSS-132 Issue 3 Jan. 2013,

RSS-133 Issue 6 Jan. 2018, RSS-139 Issue 3 Jul. 2015,

RSS-140 Issue 1 Apr. 2018, RSS-195 Issue 2 Apr. 2014.

RSS-199 Issue 3 Dec. 2016

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

1.7. Test Facility

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

FCC Registration Numbers are: TW0002

Canada Registration Number: 4620E-1

1.8. Special Accessories

AC Adapter is used while the test is conducted and there is no other accessory attached. This is the worst case condition.

1.9. Equipment Modifications

There were no modifications incorporated into the EUT.

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

(新手方方) 就明 " 近報告緒末度可測紙之体命見負 " 同时起後命運転留知天 " 本報告未經本公司各面計引 " 不可能拉義。" This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

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



2. SYSTEM TEST CONFIGURATION

2.1. EUT Configuration

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

2.2. EUT Exercise

The EUT (Transmitter) was operated in the continuous transmission mode employed with the simulator of the Base Station that fixates at test default channels to fix the Tx frequency which was for the purpose of the measurements.

2.3. Test Procedure

2.3.1 Conducted Measurement at Antenna Port

According to measurement procured ANSI C63.26-2015, the EUT is placed on a turn table which is 0.8m above ground plane. A low loss of RF cable was used to connect the antenna port of EUT to measurement equipment.

2.3.2 Radiated Emissions

According to measurement procured ANSI C63.26-2015, The EUT is a placed on as turn table, for emission measurements below 1 GHz is 0.8 m above 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 hand-held transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna according to the requirements in Section 8 and 13.

2.4. Measurement Results Explanation Example

For all conducted test items:

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

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

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

documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Note:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor. Following shows an offset computation in physical test.

	RF cable loss (dB)	Attenuation factor(dB)	offset(dB)
Low Band (Below 1GHz)	3.6	10	13.6
High Band (Above 1 GHz)	3.8	10	13.8

2.5. Final Amplifier Voltage and Current Information:

Test Mode	DC voltage (V)	DC current (mA)
WCDMA B2		0.422
WCDMA B5		0.409
LTE Band 2		0.427
LTE Band 4		0.437
LTE Band 5		0.439
LTE Band 7		0.429
LTE Band 12		0.408
LTE Band 13	7.66	0.418
LTE Band 14	7.00	0.415
LTE Band 25		0.443
LTE Band 26		0.438
LTE Band 26 (Part 90S)		0.437
LTE Band 30		0.434
LTE Band 38		0.438
LTE Band 41		0.429
LTE Band 66		0.435

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

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



2.6. Configuration of Tested System

Fig. 2-1 Configuration of Tested System (Fixed Channel-Conducted)

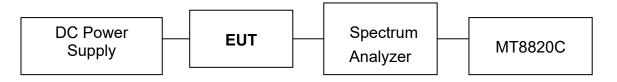


Fig. 2-2 Configuration of Tested System (Fixed Channel-Radiated)



Remote Side



Table 2-1 Equipment Used in

ltem	Equipment	Mfr/Brand	Model/ Type No.	Series No.	Data Cable	Power Cord
1.	Radio Communication Analyer	Anritsu	MT8820C	6201107337	shielded	Un-shielded
2.	DC Power Supply	Agilent	E3640A	MY53140006	shielded	Un-shielded
3.	Notebook	Lenovo	L440	P0000367	shielded	Un-shielded

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

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

台灣檢驗

documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. 咖 134 號 **-** · T 1 101 T 1

科技股份有限公司	t (886-2) 2299-3279	f (886-2) 2298-0488	www.tw.sgs.com
SGS Taiwan Ltd.	No. 134, WUKUNGROad, New Laipelindusi	triaiPark, wukuDistrict, new LaipeiCity, Laiv	Nan24803/新北市五股區新北產業園區五工路 134



3. SUMMARY OF TEST RESULTS

FCC Rules	IC Rules	Description Of Test	Result
§2.1046(a)	RSS-GEN §6.12	RF Power Output	Compliant
§2.1046(a) §22.913(a)(5) §24.232(c) §27.50(a)(3) §27.50(b)(9) §27.50(c)(9) §27.50(c)(10) §27.50(c)(10) §27.50(d)(4) §27.50(h)(2) §90.635 §90.542(a) (6) §90.542(a) (7)	RSS-130 §4.6 RSS-132 §5.4 RSS-133 §6.4 RSS-139 §6.5 RSS-140 §4.3 RSS-195 §5.5 RSS-199 §4.4	ERP/ EIRP measure- ment	Compliant
§2.1049(h)	RSS-GEN §6.7	99% & 26dB Occuupied Bandwidth	Compliant
§2.1051 §22.917(a) §22.917(b) §24.238(a) §27.53(g) §27.53(c) §27.53(h) §27.53(m) §90.543(e)(2)(3) §90.691	RSS-GEN §6.13 RSS-130 §4.7 RSS-132 §5.5 RSS-133 §6.5 RSS-139 §6.6 RSS-140 §4.4 RSS-195 §5.6 RSS-199 §4.5	Out of Band Emissions at Antenna Terminals and Band Edge / Emission mask requirements	Compliant
§2.1053 §22.917(a) §24.238(a) §27.53(a) §27.53(c) §27.53(f) §27.53(g) §27.53(h) §27.53(m)(2) §90.691 §90.543(e)(3) §90.543 (f)	RSS-GEN §6.13 RSS-130 §4.7 RSS-132 §5.5 RSS-133 §6.5 RSS-139 §6.6 RSS-140 §4.4 RSS-195 §5.6 RSS-199 §4.5	Field Strength of Spurious Radiation	Compliant
§27.53(f)	RSS-130 §4.6	Spurious emission in 1559 -1610MHz Band	Compliant
§24.232(d) §27.53(d) (5) §27.50(i) (B)	RSS-130 §4.6.1 RSS-132 §5.4 RSS-133 §6.4 RSS-139 §6.4 RSS-140 §4.3 RSS-195 §5.5 RSS-199 §4.4	Peak to Average Ratio	Compliant
§2.1055(1) §22.355 §24.235 §27.54 §90.213 §90.539 (e)	RSS-130 §4.5 RSS-132 §5.3 RSS-133 §6.3 RSS-139 §6.5 RSS-140 §4.2 RSS-195 §5.4 RSS-199 §4.3	Frequency Stability	Compliant

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



4. DESCRIPTION OF TEST MODES

4.1. The Worst Test Modes and Channel Details

- 1. The EUT has been tested under operating condition.
- 2. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates. EUT set to at the channel with highest output power to investigated spurious emission with stand-up position (H, E1 mode) and lie down position (E2 mode) axis and antenna ports as worst-case scenario. The worst case was found as listed below. Following channel(s) was (were) selected for the final test as listed below:

BAND	RADIATED EMISSION
WCDMA/HSPA Band II	E2 Mode
WCDMA/HSPA Band V	E2 Mode
LTE Band 2	E2 Mode
LTE Band 4	E2 Mode
LTE Band 5	E2 Mode
LTE Band 7	E2 Mode
LTE Band 12	E2 Mode
LTE Band 13	E2 Mode
LTE Band 14	E2 Mode
LTE Band 25	E2 Mode
LTE Band 26	E2 Mode
LTE Band 26 (Part 90S)	E2 Mode
LTE Band 30	E2 Mode
LTE Bnad 38	E2 Mode
LTE Band 41	E2 Mode
LTE Band 66	E2 Mode

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

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

(新手方方) 就明 " 近報告緒末度可測紙之体命見負 " 同时起後命運転留知天 " 本報告未經本公司各面計引 " 不可能拉義。" This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



WCDMA/HSPA MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
ERP / EIRP	4132 to 4233	4132, 4183, 4233	WCDMA/HSPA Band V
EIRP	9262 to 9538	9262, 9400, 9538	WCDMA/HSPA Band II
FREQUENCY	4132 to 4233	4183	WCDMA Band II
STABILITY	9262 to 9538	9400	WCDMA Band V
OCCUPIED	4132 to 4233	4132, 4183, 4233	WCDMA/HSPA Band II
BANDWIDTH	9262 to 9538	9262, 9400, 9538	WCDMA/HSPA Band V
PEAK TO AVERAGE	4132 to 4233	4132, 4183, 4233	WCDMA/HSPA Band II
RATIO	9262 to 9538	9262, 9400, 9538	WCDMA/HSPA Band V
BAND EDGE	4132 to 4233	4132, 4233	WCDMA Band II
BAND EDGE	9262 to 9538	9262, 9538	WCDMA Band V
CONDUCTED	4132 to 4233	4132, 4183, 4233	WCDMA Band II
EMISSION	9262 to 9538	9262, 9400, 9538	WCDMA Band V
RADIATED EMISSION	4132 to 4233	4132, 4183, 4233	WCDMA Band II
RADIATED EMISSION	9262 to 9538	9262, 9400, 9538	WCDMA Band V

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



LTE Band 2 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offest
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
EIRP	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offest
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offest
FREQUENCY STA- BILITY	18650 to 19150	18900	10MHz	QPSK,	Full RB
	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	Full RB
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	Full RB
WIDTH	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	Full RB
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	Full RB
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	Full RB
	18607 to 19193	18607, 18900, 19193	1.4MHz	16QAM	Full RB
	18615 to 19185	18615, 18900, 19185	3MHz	16QAM	Full RB
PEAK TO AVERAGE	18625 to 19175	18625, 18900, 19175	5MHz	16QAM	Full RB
RATIO	18650 to 19150	18650, 18900, 19150	10MHz	16QAM	Full RB
	18675 to 19125	18675, 18900, 19125	15MHz	16QAM	Full RB
	18700 to 19100	18700, 18900, 19100	20MHz	16QAM	Full RB
	18607 to 19193	18607, 19193	1.4MHz	QPSK,	1 RB/ 0,5 RB Offes Full RB
	18615 to 19185	18615, 19185	3MHz	QPSK,	1 RB/ 0,14 RB Offest Full RB
	18625 to 19175	18625, 19175	5MHz	QPSK,	1 RB/ 0,24 RB Offest Full RB
BAND EDGE	18650 to 19150	18650, 19150	10MHz	QPSK,	1 RB/ 0,49 RB Offest Full RB
	18675 to 19125	18675, 19125	15MHz	QPSK,	1 RB/ 0,74 RB Offest Full RB
	18700 to 19100	18700, 19100	20MHz	QPSK,	1 RB/ 0,99 RB Offest Full RB
	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK,	1 RB, 0 RB Offest
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK,	1 RB, 0 RB Offest
CONDUCTED	18625 to 19175	18625, 18900, 19175	5MHz	QPSK,	1 RB, 0 RB Offest
EMISSION	18650 to 19150	18650, 18900, 19150	10MHz	QPSK,	1 RB, 0 RB Offest
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK,	1 RB, 0 RB Offest
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK,	1 RB, 0 RB Offest
RADIATED EMISSION	18700 to 19100	18700, 18900, 19100	20MHz	QPSK	1 RB, 99 RB Offest

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



LTE Band 4 MODE

TEST ITEM	AVAILABLE	TESTED	CHANNEL	MODULATION	MODE
	CHANNEL	CHANNEL	BANDWIDTH		_
	19957 to 19393	19957, 20175, 19393	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	19965 to 22385	19965, 20175, 22385	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offest
EIRP	19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
LIKP	20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offest
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offest
FREQUENCY STA- BILITY	20000 to 20350	20175	10MHz	QPSK,	Full RB
	19957 to 19393	19957, 20175, 19393	1.4MHz	QPSK, 16QAM	Full RB
	19965 to 22385	19965, 20175, 22385	3MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM	Full RB
WIDTH	20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM	Full RB
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM	Full RB
-	20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM	Full RB
	19957 to 19393	19957, 20175, 19393	1.4MHz	16QAM	Full RB
-	19965 to 22385	19965, 20175, 22385	3MHz	16QAM	Full RB
PEAK TO AVERAGE	19975 to 20375	19975, 20175, 20375	5MHz	16QAM	Full RB
RATIO	20000 to 20350	20000, 20175, 20350	10MHz	16QAM	Full RB
	20025 to 20325	20025, 20175, 20325	15MHz	16QAM	Full RB
	20050 to 20300	20050, 20175, 20300	20MHz	16QAM	Full RB
	19957 to 19393	19957, 19393	1.4MHz	QPSK,	1 RB/ 0,5 RB Offes Full RB
	19965 to 22385	19965, 22385	3MHz	QPSK,	1 RB/ 0,14 RB Offest Full RB
	19975 to 20375	19975, 20375	5MHz	QPSK,	1 RB/ 0,24 RB Offest Full RB
BAND EDGE	20000 to 20350	20000, 20350	10MHz	QPSK,	1 RB/ 0,49 RB Offest Full RB
	20025 to 20325	20025, 20325	15MHz	QPSK,	1 RB/ 0,74 RB Offest Full RB
	20050 to 20300	20050, 20300	20MHz	QPSK,	1 RB/ 0,99 RB Offest Full RB
	19957 to 19393	19957, 20175, 19393	1.4MHz	QPSK,	1 RB, 0 RB Offest
	19965 to 22385	19965, 20175, 22385	3MHz	QPSK,	1 RB, 0 RB Offest
CONDUCTED	19975 to 20375	19975, 20175, 20375	5MHz	QPSK,	1 RB, 0 RB Offest
EMISSION	20000 to 20350	20000, 20175, 20350	10MHz	QPSK,	1 RB, 0 RB Offest
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK,	1 RB, 0 RB Offest
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK,	1 RB, 0 RB Offest
RADIATED EMISSION	20050 to 20300	20050, 20175, 20300	20MHz	QPSK,	1 RB, 0 RB Offest

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



LTE Band 5 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	20470 to 20643	20470, 20525, 20643	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offest
ERP / EIRP	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
FREQUENCY STA- BILITY	20450 to 20600	20525	10MHz	QPSK,	Full RB
	20470 to 20643	20470, 20525, 20643	1.4MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	20415 to 20635	20415, 20525, 20635	3MHz	QPSK, 16QAM	Full RB
WIDTH	20425 to 20625	20425, 20525, 20625	5MHz	QPSK, 16QAM	Full RB
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK, 16QAM	Full RB
	20470 to 20643	20470, 20525, 20643	1.4MHz	16QAM	Full RB
PEAK TO AVERAGE	20415 to 20635	20415, 20525, 20635	3MHz	16QAM	Full RB
RATIO	20425 to 20625	20425, 20525, 20625	5MHz	16QAM	Full RB
	20450 to 20600	20450, 20525, 20600	10MHz	16QAM	Full RB
	20470 to 20643	20470, 20643	1.4MHz	QPSK,	1 RB/ 0,5 RB Offes Full RB
	20415 to 20635	20415, 20635	3MHz	QPSK,	1 RB/ 0,14 RB Offest Full RB
BAND EDGE	20425 to 20625	20425, 20625	5MHz	QPSK,	1 RB/ 0,24 RB Offest Full RB
	20450 to 20600	20450, 20600	10MHz	QPSK,	1 RB/ 0,49 RB Offest Full RB
	20470 to 20643	20470, 20525, 20643	1.4MHz	QPSK,	1 RB, 0 RB Offest
CONDUCTED	20415 to 20635	20415, 20525, 20635	3MHz	QPSK,	1 RB, 0 RB Offest
EMISSION	20425 to 20625	20425, 20525, 20625	5MHz	QPSK,	1 RB, 0 RB Offest
	20450 to 20600	20450, 20525, 20600	10MHz	QPSK,	1 RB, 0 RB Offest
RADIATED EMISSION	20450 to 20600	20450, 20525, 20600	10MHz	QPSK	1 RB, 0 RB Offest

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



LTE Band 7 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
	20800 to 21400	20800, 21100, 21400	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
EIRP	20850 to 21375	20850, 21100, 21375	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offest
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offest
FREQUENCY STABILITY	20800 to 21400	21100	10MHz	QPSK	Full RB
	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	20800 to 21400	20800, 21100, 21400	10MHz	QPSK, 16QAM	Full RB
WIDTH	20850 to 21375	20850, 21100, 21375	15MHz	QPSK, 16QAM	Full RB
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK, 16QAM	Full RB
	20775 to 21425	20775, 21100, 21425	5MHz	16QAM	Full RB
PEAK TO AVERAGE	20800 to 21400	20800, 21100, 21400	10MHz	16QAM	Full RB
RATIO	20850 to 21375	20850, 21100, 21375	15MHz	16QAM	Full RB
	20850 to 21350	20850, 21100, 21350	20MHz	16QAM	Full RB
	20775 to 21425	20775, 21100, 21425	5MHz	QPSK	1 RB/ 0,24 RB Offest Full RB
BAND EDGE	20800 to 21400	20800, 21100, 21400	10MHz	QPSK	1 RB/ 0,49 RB Offest Full RB
DAND EDGE	20850 to 21375	20850, 21100, 21375	15MHz	QPSK	1 RB/ 0,74 RB Offest Full RB
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK	1 RB/ 0,99 RB Offest Full RB
	20775 to 21425	20775, 21100, 21425	5MHz	QPSK	1 RB, 0 RB Offest
CONDUCTED	20800 to 21400	20800, 21100, 21400	10MHz	QPSK	1 RB, 0 RB Offest
EMISSION	20850 to 21375	20850, 21100, 21375	15MHz	QPSK	1 RB, 0 RB Offest
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK	1 RB, 0 RB Offest
RADIATED EMISSION	20850 to 21350	20850, 21100, 21350	20MHz	QPSK	1 RB, 0 RB Offest
	20775 to 21425	20775, 21100, 21425	5MHz	QPSK	1 RB/ 0,24 RB Offest 25 RB/ 0 Offset
EMISSION MASK	20800 to 21400	20800, 21100, 21400	10MHz	QPSK	1 RB/ 0,49 RB Offest 50 RB/ 0 Offset
	20850 to 21375	20850, 21100, 21375	15MHz	QPSK	1 RB/ 0,74 RB Offest 75 RB/ 0 Offset
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK	1 RB/ 0,99 RB Offest 100 RB/ 0 Offset

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



LTE Band 12 MODE

TEST ITEM	AVAILABLE Channel	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
ERP / EIRP	23025 to 23165	23025, 23095, 23165	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offest
ERP/EIRP	23035 to 23155	23035, 23095, 23155	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
FREQUENCY STABILITY	23060 to 23130	23095	10MHz	QPSK,	Full RB
	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK, 16QAM	Full RB
OCCUPIED	23025 to 23165	23025, 23095, 23165	3MHz	QPSK, 16QAM	Full RB
BANDWIDTH	23035 to 23155	23035, 23095, 23155	5MHz	QPSK, 16QAM	Full RB
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK, 16QAM	Full RB
	23017 to 23173	23017, 23095, 23173	1.4MHz	16QAM	Full RB
PEAK TO AV-	23025 to 23165	23025, 23095, 23165	3MHz	16QAM	Full RB
ERAGE RATIO	23035 to 23155	23035, 23095, 23155	5MHz	16QAM	Full RB
	23060 to 23130	23060, 23095, 23130	10MHz	16QAM	Full RB
	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK,	1 RB/ 0,5 RB Offes Full RB
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK,	1 RB/ 0,14 RB Offest Full RB
BAND EDGE	23035 to 23155	23035, 23095, 23155	5MHz	QPSK,	1 RB/ 0,24 RB Offest Full RB
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK,	1 RB/ 0,49 RB Offest Full RB
	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK,	1 RB, 0 RB Offest
CONDUCTED	23025 to 23165	23025, 23095, 23165	3MHz	QPSK,	1 RB, 0 RB Offest
EMISSION	23035 to 23155	23035, 23095, 23155	5MHz	QPSK,	1 RB, 0 RB Offest
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK,	1 RB, 0 RB Offest
RADIATED EMISSION	23035 to 23155	23035, 23095, 23155	10MHz	QPSK	1 RB, 49 RB Offest

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



LTE Band 13 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP / EIRP	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
	23230	23230	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
FREQUENCY STABILITY	23230	23230	10MHz	QPSK,	Full RB
OCCUPIED	23205 to 23255	23205, 23230, 23255	5MHz	QPSK, 16QAM	Full RB
BANDWIDTH	23230	23230	10MHz	QPSK, 16QAM	Full RB
PEAK TO AVER-	23205 to 23255	23205, 23230, 23255	5MHz	16QAM	Full RB
AGE RATIO	23230	23230	10MHz	16QAM	Full RB
BAND EDGE	23205 to 23255	23205, 23255	5MHz	QPSK,	1 RB/ 0,24 RB Offest Full RB
DAIND EDGE	23230	23230	10MHz	QPSK,	1 RB/ 0,49 RB Offest Full RB
CONDUCTED	23205 to 23255	23205, 23230, 23255	5MHz	QPSK,	1 RB, 0 RB Offest
EMISSION	23230	23230	10MHz	QPSK,	1 RB, 0 RB Offest
RADIATED EMISSION	23205 to 23255	23230	10MHz	QPSK	1 RB/ 49 RB Offest

LTE Band 14 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
ERP	23305 to 23355	23305,23330,23355	5MHz	QPSK, 16QAM, 64QAM	1 RB/ 0,24 RB Offest
ENF	23330	23330	10MHz	QPSK, 16QAM, 64QAM	1 RB/ 0,49 RB Offest
FREQUENCY STABILITY	23330	23330	10MHz	QPSK	Full RB
OCCUPIED	23305 to 23355	23305,23330,23355	5MHz	QPSK, 16QAM, 64QAM	Full RB
BANDWIDTH	23330	23330	10MHz	QPSK, 16QAM, 64QAM	Full RB
EMISSION	23305 to 23355	23305, 23355	5MHz	QPSK	1 RB/ 0,24 RB Offest Full RB
MASK	23330	23330	10MHz	QPSK	1 RB/ 0,49 RB Offest Full RB
CONDCU-	23305 to 23355	23305,23330,23355	5MHz	QPSK	1 RB, 0 RB Offest
DETED EMIS- SION	23330	23330	10MHz	QPSK	1 RB, 0 RB Offest
EMISSION	23305 to 23355	23305,23330,23355	5MHz	QPSK,	1 RB/ 0,24 RB Offest Full RB
MASK	23330	23330	10MHz	QPSK,	1 RB/ 0,49 RB Offest Full RB
RADIATED EMISSION	23330	23330	10MHz	QPSK	1 RB, 0 RB Offest

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



LTE Band 25 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	26047 to 26683	26047, 26365, 26683	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	26055 to 26675	26055, 26365, 26675	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offest
EIRP	26065 to 26665	26065, 26365, 26665	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
EIRP	26090 to 26640	26090, 26365, 26640	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
	26115 to 26615	26115, 26365, 26615	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offest
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offest
FREQUENCY STA- BILITY	18650 to 19150	18900	10MHz	QPSK,	Full RB
	26047 to 26683	26047, 26365, 26683	1.4MHz	QPSK, 16QAM	Full RB
	26055 to 26675	26055, 26365, 26675	3MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	26065 to 26665	26065, 26365, 26665	5MHz	QPSK, 16QAM	Full RB
WIDTH	26090 to 26640	26090, 26365, 26640	10MHz	QPSK, 16QAM	Full RB
	26115 to 26615	26115, 26365, 26615	15MHz	QPSK, 16QAM	Full RB
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK, 16QAM	Full RB
	26047 to 26683	26047, 26365, 26683	1.4MHz	16QAM	Full RB
	26055 to 26675	26055, 26365, 26675	3MHz	16QAM	Full RB
PEAK TO AVERAGE	26065 to 26665	26065, 26365, 26665	5MHz	16QAM	Full RB
RATIO	26090 to 26640	26090, 26365, 26640	10MHz	16QAM	Full RB
	26115 to 26615	26115, 26365, 26615	15MHz	16QAM	Full RB
	26140 to 26590	26140, 26365, 26590	20MHz	16QAM	Full RB
	26047 to 26683	26047, 26683	1.4MHz	QPSK,	1 RB/ 0,5 RB Offes Full RB
	26055 to 26675	26055, 26675	3MHz	QPSK,	1 RB/ 0,14 RB Offest Full RB
BAND EDGE	26065 to 26665	26065, 26665	5MHz	QPSK,	1 RB/ 0,24 RB Offest Full RB
DAIND EDGE	26090 to 26640	26090, 26640	10MHz	QPSK,	1 RB/ 0,49 RB Offest Full RB
	26115 to 26615	26115, 26615	15MHz	QPSK,	1 RB/ 0,74 RB Offest Full RB
	26140 to 26590	26140, 26590	20MHz	QPSK,	1 RB/ 0,99 RB Offest Full RB
	26047 to 26683	26047, 26365, 26683	1.4MHz	QPSK,	1 RB, 0 RB Offest
	26055 to 26675	26055, 26365, 26675	3MHz	QPSK,	1 RB, 0 RB Offest
CONDUCTED	26065 to 26665	26065, 26365, 26665	5MHz	QPSK,	1 RB, 0 RB Offest
EMISSION	26090 to 26640	26090, 26365, 26640	10MHz	QPSK,	1 RB, 0 RB Offest
	26115 to 26615	26115, 26365, 26615	15MHz	QPSK,	1 RB, 0 RB Offest
	26140 to 26590	26140, 26365, 26590	20MHz	QPSK,	1 RB, 0 RB Offest
RADIATED EMISSION	26090 to 26640	26090, 26365, 26640	20MHz	QPSK,	1 RB, 0 RB Offest

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



LTE Band 26 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	26805 to 27025	26805, 26915, 27025	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offest
ERP / EIRP	26815 to 27015	26815, 26915, 27015	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
	26840 to 26990	26840, 26915, 26990	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
	26865 to 26965	26865, 26915, 26965	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offest
FREQUENCY STA- BILITY	26865 to 26965	26915	15MHz	QPSK,	Full RB
	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	26805 to 27025	26805, 26915, 27025	3MHz	QPSK, 16QAM	Full RB
	26815 to 27015	26815, 26915, 27015	5MHz	QPSK, 16QAM	Full RB
WIDTH	26840 to 26990	26840, 26915, 26990	10MHz	QPSK, 16QAM	Full RB
	26865 to 26965	26865, 26915, 26965	15MHz	QPSK, 16QAM	Full RB
	26797 to 27033	26797, 26915, 27033	1.4MHz	16QAM	Full RB
PEAK TO AVERAGE	26805 to 27025	26805, 26915, 27025	3MHz	16QAM	Full RB
	26815 to 27015	26815, 26915, 27015	5MHz	16QAM	Full RB
RATIO	26840 to 26990	26840, 26915, 26990	10MHz	16QAM	Full RB
	26865 to 26965	26865, 26915, 26965	15MHz	16QAM	Full RB
	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK,	1 RB/ 0,5 RB Offes Full RB
	26805 to 27025	26805, 26915, 27025	3MHz	QPSK,	1 RB/ 0,14 RB Offest Full RB
BAND EDGE	26815 to 27015	26815, 26915, 27015	5MHz	QPSK,	1 RB/ 0,24 RB Offest Full RB
	26840 to 26990	26840, 26915, 26990	10MHz	QPSK,	1 RB/ 0,49 RB Offest Full RB
	26865 to 26965	26865, 26915, 26965	15MHz	QPSK	1 RB/ 0,74 RB Offest
	26797 to 27033	26797, 26915, 27033	1.4MHz	QPSK,	1 RB, 0 RB Offest
CONDUCTED	26805 to 27025	26805, 26915, 27025	3MHz	QPSK,	1 RB, 0 RB Offest
	26815 to 27015	26815, 26915, 27015	5MHz	QPSK,	1 RB, 0 RB Offest
EMISSION	26840 to 26990	26840, 26915, 26990	10MHz	QPSK,	1 RB, 0 RB Offest
	26865 to 26965	26865, 26915, 26965	15MHz	QPSK	1 RB, 0 RB Offest
RADIATED EMISSION	26865 to 26965	26865, 26915, 26965	15MHz	QPSK,	1 RB, 36 RB Offest

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



LTE Band 26 for 90S MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	26697 to 26783	26697, 26740, 26783	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
ERP / EIRP	26705 to 26775	26705, 26740, 26775	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offest
ERP / EIRP	26715 to 26765	26715, 26740, 26765	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
	26740	26740	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
FREQUENCY STA- BILITY	26697 to 26783	26740	1.4MHz	QPSK,	Full RB
	26697 to 26783	26697, 26740, 26783		QPSK, 16QAM	Full RB
OCCUPIED BAND	26705 to 26775	26705, 26740, 26775	3MHz	QPSK, 16QAM	Full RB
WIDTH	26715 to 26765	26715, 26740, 26765	5MHz	QPSK, 16QAM	Full RB
	26740	26740	NEL BANDWIDTH MODULATION 0, 26783 1.4MHz QPSK, 16QAM 0, 26775 3MHz QPSK, 16QAM 0, 26765 5MHz QPSK, 16QAM 0, 26765 5MHz QPSK, 16QAM 0 10MHz QPSK, 16QAM 0 1.4MHz QPSK, 16QAM 0, 26783 1.4MHz QPSK, 16QAM 0, 26775 3MHz QPSK, 16QAM 0, 26775 3MHz QPSK, 16QAM 0, 26765 5MHz 16QAM 0, 26775 3MHz 16QAM 0, 26783 1.4MHz QPSK, 0, 26775 3MHz QPSK, 0, 26775 3MHz QPSK, 0, 26765 5MHz QPSK, 0, 26765 5MHz QPSK, 0, 26775 3MHz QPSK, 0, 26765 5MHz QPSK,	Full RB	
	26697 to 26783	26697, 26740, 26783	1.4MHz	16QAM	Full RB
PEAK TO AVERAGE	26705 to 26775	26705, 26740, 26775	3MHz	16QAM	Full RB
RATIO	26715 to 26765	26715, 26740, 26765	5MHz	16QAM	Full RB
_	26740	26740	10MHz	16QAM	Full RB
	26697 to 26783	26697, 26740, 26783	1.4MHz	QPSK,	1 RB/ 0,5 RB Offes Full RB
	26705 to 26775	26705, 26740, 26775	3MHz	QPSK,	1 RB/ 0,14 RB Offest Full RB
BAND EDGE	26715 to 26765	26715, 26740, 26765	5MHz	QPSK,	1 RB/ 0,24 RB Offest Full RB
	26740	26740	10MHz	QPSK,	1 RB/ 0,49 RB Offest Full RB
	26697 to 26783	26697, 26740, 26783	1.4MHz	QPSK,	1 RB, 0 RB Offest
CONDUCTED	26705 to 26775	26705, 26740, 26775	3MHz	QPSK,	1 RB, 0 RB Offest
EMISSION	26715 to 26765	26715, 26740, 26765	5MHz	QPSK,	1 RB, 0 RB Offest
	26740	26740	10MHz	QPSK,	1 RB, 0 RB Offest
RADIATED EMISSION	26697 to 26783	26697, 26740, 26783	3MHz	QPSK,	1 RB, 0 RB Offest
	26697 to 26783	26697, 26740, 26783	1.4MHz	QPSK,	1 RB/ 0,5 RB Offest 6 RB/ 0 Offset
EMISSION MASK	26705 to 26775	26705, 26740, 26775	3MHz	QPSK,	1 RB/ 0,14 RB Offest 15 RB/ 0 Offset
	26715 to 26765	26715, 26740, 26765	5MHz	QPSK,	1 RB/ 0,24 RB Offest 25 RB/ 0 Offset
	26740	26740	10MHz	QPSK,	1 RB/ 0,49 RB Offest 50 RB/ 0 Offset

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



LTE Band 30 MODE

TEST ITEM	AVAILABLE	TESTED	CHANNEL	MODULATION	MODE
TESTITEM	CHANNEL	CHANNEL	BANDWIDTH	Mobolithion	MODE
ERP	27685 to 27735	27685, 27710, 27735	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
	27710	27710	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
EIRP Power	27685 to 27735	27685, 27710, 27735	5MHz	QPSK, 16QAM	1 RB/ 0 RB Offest
Density	27710	27710	10MHz	QPSK, 16QAM	1 RB/ 0 RB Offest
FREQUENCY STABILITY	27710	27710	10MHz	QPSK,	Full RB
OCCUPIED	27685 to 27735	27685, 27710, 27735	5MHz	QPSK, 16QAM	Full RB
BANDWIDTH	27710	27710	10MHz	QPSK, 16QAM	Full RB
PEAK TO AVER-	27685 to 27735	27685, 27710, 27735	5MHz	16QAM	Full RB
AGE RATIO	27710	27710	10MHz	16QAM	Full RB
BAND EDGE	27685 to 27735	27685, 27710, 27735	5MHz	QPSK,	1 RB/ 0,24 RB Offest Full RB
DAND EDGE	27710	27710	10MHz	QPSK,	1 RB/ 0,49 RB Offest Full RB
CONDUCTED	27685 to 27735	27685, 27710, 27735	5MHz	QPSK,	1 RB, 0 RB Offest
EMISSION	27710	27710	10MHz	QPSK,	1 RB, 0 RB Offest
RADIATED EMISSION	27685 to 27735	27710	10MHz	QPSK	1 RB/ 0 RB Offest
EMISSION	27685 to 27735	27685, 27710, 27735	5MHz	QPSK,	1 RB/ 0,24 RB Offest 25 RB/ 0 Offset
MASK	27710	27710	10MHz	QPSK,	1 RB/ 0,49 RB Offest 50 RB/ 0 Offset

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



LTE Band 38 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	37775 to 38225	37775, 38000, 38225	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
	37800 to 38200	37800 , 38000, 38200	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
EIRP	37825 to 38175	37825 , 38000, 38175	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offest
	37850 to 38150	37850 , 38000, 38150	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offest
FREQUENCY STABILITY	37800 to 38200	37800 , 38000, 38200	10MHz	QPSK	Full RB
	37775 to 38225	37775, 38000, 38225	5MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	37800 to 38200	37800 , 38000, 38200	10MHz	QPSK, 16QAM	Full RB
WIDTH	37825 to 38175	37825 , 38000, 38175	15MHz	QPSK, 16QAM	Full RB
	37850 to 38150	37850 , 38000, 38150	20MHz	QPSK, 16QAM	Full RB
	37775 to 38225	37775, 38000, 38225	5MHz	16QAM	Full RB
PEAK TO AVERAGE	37800 to 38200	37800 , 38000, 38200	10MHz	16QAM	Full RB
RATIO	37825 to 38175	37825 , 38000, 38175	15MHz	16QAM	Full RB
	37850 to 38150	37850 , 38000, 38150	20MHz	16QAM	Full RB
	37775 to 38225	37775, 38000, 38225	5MHz	QPSK	1 RB/ 0,24 RB Offest Full RB
BAND EDGE	37800 to 38200	37800 , 38000, 38200	10MHz	QPSK	1 RB/ 0,49 RB Offest Full RB
DAND EDGE	37825 to 38175	37825 , 38000, 38175	15MHz	QPSK	1 RB/ 0,74 RB Offest Full RB
	37850 to 38150	37850 , 38000, 38150	20MHz	QPSK	1 RB/ 0,99 RB Offest Full RB
	37775 to 38225	37775, 38000, 38225	5MHz	QPSK	1 RB, 0 RB Offest
CONDUCTED	37800 to 38200	37800 , 38000, 38200	10MHz	QPSK	1 RB, 0 RB Offest
EMISSION	37825 to 38175	37825 , 38000, 38175	15MHz	QPSK	1 RB, 0 RB Offest
	37850 to 38150	37850 , 38000, 38150	20MHz	QPSK	1 RB, 0 RB Offest
RADIATED EMISSION	37825 to 38175	37825 , 38000, 38175	20MHz	QPSK	1 RB, 0 RB Offest
	37775 to 38225	37775, 38000, 38225	5MHz	QPSK	1 RB/ 0,24 RB Offest 25 RB/ 0 Offset
EMISSION MASK	37800 to 38200	37800 , 38000, 38200	10MHz	QPSK	1 RB/ 0,49 RB Offest 50 RB/ 0 Offset
	37825 to 38175	37825 , 38000, 38175	15MHz	QPSK	1 RB/ 0,74 RB Offest 75 RB/ 0 Offset
	37850 to 38150	37850 , 38000, 38150	20MHz	QPSK	1 RB/ 0,99 RB Offest 100 RB/ 0 Offset

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



LTE Band 41 MODE

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
	39700 to 41540	39700, 40620, 41540	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
EIRP	39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offest
	39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offest
FREQUENCY STABILITY	39700 to 41540	39700, 40620, 41540	10MHz	QPSK,	Full RB
	39675 to 41565	39675, 40620, 41565	5MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	39700 to 41540	39700, 40620, 41540	10MHz	QPSK, 16QAM	Full RB
WIDTH	39725 to 41515	39725, 40620, 41515	15MHz	QPSK, 16QAM	Full RB
	39750 to 41490	39750, 40620, 41490	20MHz	QPSK, 16QAM	Full RB
	39675 to 41565	39675, 40620, 41565	5MHz	16QAM	Full RB
PEAK TO AVERAGE	39700 to 41540	39700, 40620, 41540	10MHz	16QAM	Full RB
RATIO	39725 to 41515	39725, 40620, 41515	15MHz	16QAM	Full RB
	39750 to 41490	39750, 40620, 41490	20MHz	16QAM	Full RB
	39675 to 41565	39675, 41565	5MHz	QPSK,	1 RB/ 0,24 RB Offest Full RB
	39700 to 41540	39700, 41540	10MHz	QPSK,	1 RB/ 0,49 RB Offest Full RB
BAND EDGE	39725 to 41515	39725, 41515	15MHz	QPSK,	1 RB/ 0,74 RB Offest Full RB
	39750 to 41490	39750, 41490	20MHz	QPSK,	1 RB/ 0,99 RB Offest Full RB
	39675 to 41565	39675, 40620, 41565	5MHz	QPSK,	1 RB, 0 RB Offest
CONDUCTED	39700 to 41540	39700, 40620, 41540	10MHz	QPSK,	1 RB, 0 RB Offest
EMISSION	39725 to 41515	39725, 40620, 41515	15MHz	QPSK,	1 RB, 0 RB Offest
	39750 to 41490	39750, 40620, 41490	20MHz	QPSK,	1 RB, 0 RB Offest
	39675 to 41565	39675, 40620, 41565	5MHz	QPSK,	1 RB/ 0,24 RB Offest 25 RB/ 0 Offset
	39700 to 41540	39700, 40620, 41540	10MHz	QPSK,	1 RB/ 0,49 RB Offest 50 RB/ 0 Offset
EMISSION MASK	39725 to 41515	39725, 40620, 41515	15MHz	QPSK,	1 RB/ 0,74 RB Offest 75 RB/ 0 Offset
	39750 to 41490	39750, 40620, 41490	20MHz	QPSK,	1 RB/ 0,99 RB Offest 100 RB/ 0 Offset
RADIATED EMISSION	39750 to 41490	39750, 40620, 41490	20MHz	QPSK	1 RB, 0 RB Offest

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



LTE Band 66 MODE

TEST ITEM	AVAILABLE	TESTED	CHANNEL	MODULATION	MODE
TESTITEM	CHANNEL	CHANNEL	BANDWIDTH	WODULATION	MODE
	131979 to 132665	131979, 132322, 132665	1.4MHz	QPSK, 16QAM	1 RB/ 0,5 RB Offest
	131987 to 132657	131987, 132322, 132657	3MHz	QPSK, 16QAM	1 RB/ 0,14 RB Offest
	131997 to 132647	131997, 132322, 132647	5MHz	QPSK, 16QAM	1 RB/ 0,24 RB Offest
EIRP	132022 to 132622	132022, 132322, 132622	10MHz	QPSK, 16QAM	1 RB/ 0,49 RB Offest
	132047 to 132597	132047, 132322, 132597	15MHz	QPSK, 16QAM	1 RB/ 0,74 RB Offest
	132072 to 132572	132072, 132322, 132572	20MHz	QPSK, 16QAM	1 RB/ 0,99 RB Offest
FREQUENCY STA- BILITY	18650 to 19150	18900	10MHz	QPSK,	Full RB
	131979 to 132665	131979, 132322, 132665	1.4MHz	QPSK, 16QAM	Full RB
	131987 to 132657	131987, 132322, 132657	3MHz	QPSK, 16QAM	Full RB
OCCUPIED BAND-	131997 to 132647	131997, 132322, 132647	5MHz	QPSK, 16QAM	Full RB
WIDTH	132022 to 132622	132022, 132322, 132622	10MHz	QPSK, 16QAM	Full RB
	132047 to 132597	132047, 132322, 132597	15MHz	QPSK, 16QAM	Full RB
	132072 to 132572	132072, 132322, 132572	20MHz	QPSK, 16QAM	Full RB
	131979 to 132665	131979, 132322, 132665	1.4MHz	16QAM	Full RB
	131987 to 132657	131987, 132322, 132657	3MHz	16QAM	Full RB
PEAK TO AVERAGE	131997 to 132647	131997, 132322, 132647	5MHz	16QAM	Full RB
RATIO	132022 to 132622	132022, 132322, 132622	10MHz	16QAM	Full RB
	132047 to 132597	132047, 132322, 132597	15MHz	16QAM	Full RB
	132072 to 132572	132072, 132322, 132572	20MHz	16QAM	Full RB
	18607 to 19193	18607, 19193	1.4MHz	QPSK,	1 RB/ 0,5 RB Offes Full RB
	18615 to 19185	18615, 19185	3MHz	QPSK,	1 RB/ 0,14 RB Offest Full RB
BAND EDGE	18625 to 19175	18625, 19175	5MHz	QPSK,	1 RB/ 0,24 RB Offest Full RB
DAND EDGE	18650 to 19150	18650, 19150	10MHz	QPSK,	1 RB/ 0,49 RB Offest Full RB
	18675 to 19125	18675, 19125	15MHz	QPSK,	1 RB/ 0,74 RB Offest Full RB
	18700 to 19100	18700, 19100	20MHz	QPSK,	1 RB/ 0,99 RB Offest Full RB
	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK,	1 RB, 0 RB Offest
0.0110110750	18615 to 19185	18615, 18900, 19185	3MHz	QPSK,	1 RB, 0 RB Offest
CONDUCTED	18625 to 19175	18625, 18900, 19175	5MHz	QPSK,	1 RB, 0 RB Offest
EMISSION	18650 to 19150	18650, 18900, 19150	10MHz	QPSK,	1 RB, 0 RB Offest
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK,	1 RB, 0 RB Offest
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK,	1 RB, 0 RB Offest
RADIATED EMISSION	18700 to 19100	18700, 18900, 19100	20MHz	QPSK	1 RB, 0 RB Offest

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



5. MEASUREMENT UNCERTAINTY

Test Items	Uncertainty
RF Power Output	+/- 1.10 dB
ERP/ EIRP measurement	Vertical Polarization = +/- 4.74dB Horizontal Polarization =+/- 4.62dB
99% Occupied Bandwidth	+/- 5.19 Hz
Out of Band Emissions at Antenna Terminals and Band Edge	+/- 0.70 dB
Peak to Average Ratio	+/- 0.70 dB
Frequency Stability vs. Temperature	+/- 5.19 Hz
Frequency Stability vs. Voltage	+/- 5.19 Hz
Temperature	+/- 0.65 °C
Humidity	+/- 4.6 %
DC / AC Power Source	DC= +/- 0.13%, AC=+/- 0.2%

Radiated Spurious Emission:

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

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

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,同時此樣品僅保留到天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_and_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_and_conditions.htm</u> and, for electronic issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



6. MAXMUM OUTPUT POWER

6.1. Standard Applicable

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals.

ERP/EIRP LIMIT

According to FCC §2.1046

FCC 22.913(a) Mobile station is limited to 7W ERP.

FCC 24.232(b) Mobile and portable stations are limited to 2 W EIRP.

FCC 27.50(a)(3) Mobile and portable stations (hand-held devices) are limited to 250 mW/ 5MHz EIRP.

FCC 27.50(c)(10) Portable stations (hand-held devices) are limited to 3 watts ERP.

FCC 27.50(d)(4) Fixed, mobile, and portable (hand-held) stations are limited to 1W EIRP.

FCC 27, 50(h)(2) Mobile and other user stations. Mobile stations are limited to 2 W EIRP

FCC 90.542(a)

(6) Control stations and mobile stations transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 30 watts ERP.

(7) Portable stations (hand-held devices) transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 3 watts ERP.

FCC 90.635(b) Mobile station is limited to 100W ERP

According to RSS-130 §4.4

It shall not exceed 5 W for portable equipment or for indoor fixed subscriber equipment.

According to RSS-132, section 5.4.

The equivalent isotropically radiated power (e.i.r.p.) for mobile equipment shall not exceed 11.5 watts.

According to RSS-133 §6.4

The peak e.i.r.p. for transmitters operating in the band 1850-1910 MHz shall not exceed the limits 2W given in SRSP-510.

According to RSS 139 §6.4

The average equivalent isotropically radiated power (e.i.r.p.) for fixed, mobile and portable transmitters in the 1710-1755 MHz shall not exceed 1 watt.

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

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

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



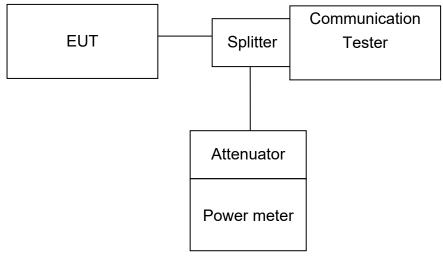
According to RSS-140 §4.3

The equivalent radiated power (e.r.p.) for control and mobile equipment shall not exceed 30 W. The e.r.p. for portable equipment including handheld devices shall not ex-ceed 3 W.

According to RSS-199 §4.4

For mobile subscriber equipment, the e.i.r.p. shall not exceed 2 watts.

6.2. Test Set-up



Note: Measurement setup for testing on Antenna connector

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

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

documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



6.3. Measurement Procedure

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power meter in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the power meter reading. TS 151 010-1 is reference to conduct the test measurement of output power.

The Procedure of KDB941225 (SAR Measurement Procedures for 3G devices, (WCD-

MA/HSPA) was used for EUT and Base station setting. RMC 12.2kps is used for this testing, and KDB 971168 D01 Power Meas License Digital System as the supplemental test methodology to adjust the proper setting obtaining the measurement results

All LTE bands conducted average power is obtained from the simulator telecommunication test set.

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP.

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

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

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



TEST PROCEDURE: ANSI C63.26:2015 KDB 971168 Section 5.6

ERP/EIRP = PMeas + GT-LC

where: ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm);

PMeas = measured transmitter output power or PSD, in dBm or dBW;

GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.2 For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.

6.4. Measurement Equipment Used

Conducted Emission (measured at antenna port) Test Site							
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.		
DC Power Supply	Agilent	E3640A	MY5314000 6	05/31/2019	05/30/2020		
Radio Communica- tion Analyer	Anritsu	MT8820C	6201107337	07/17/2019	07/16/2020		

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

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

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



6.5. Measurement Result

RF Conducted Output Power

WCDMA MODE:

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 V8.4.0 specification. The EUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1/-1). RMC 12.2kps is used for this testing.

Results:

EUT Mode	Freq. (MHz)	СН	Conducted Avg. Power (dBm)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
	1852.4	9262	24.33	0.70	22.88	25.03	33.00	-7.97
WCDMA	1880.0	9400	24.31	0.70	22.86	25.01	33.00	-7.99
	1907.6	9538	24.32	0.70	22.87	25.02	33.00	-7.98
	1852.4	9262	23.32	0.70	21.87	24.02	33.00	-8.98
HSDPA	1880.0	9400	23.28	0.70	21.83	23.98	33.00	-9.02
	1907.6	9538	23.38	0.70	21.93	24.08	33.00	-8.92
	1852.4	9262	23.18	0.70	21.73	23.88	33.00	-9.12
HSUPA	1880.0	9400	23.27	0.70	21.82	23.97	33.00	-9.03
	1907.6	9538	23.37	0.70	21.92	24.07	33.00	-8.93
WCDMA/H	ISUPA/HSI	DPA Ban	d V Result:					
		-						
EUT Mode	Freq. (MHz)	СН	Conducted Avg. Power (dBm)	Antenna Gain (dBi)	ERP (dBm)	EIRP (dBm)	Limit (dBm)	Margin (dB)
	Freq.		Conducted Avg. Power	Gain				U U
	Freq. (MHz)	СН	Conducted Avg. Power (dBm)	Gain (dBi)	(dBm)	(dBm)	(dBm)	(dB)
Mode	Freq. (MHz) 826.4	CH 4132	Conducted Avg. Power (dBm) 24.21	Gain (dBi) -2.50	(dBm) 19.56	(dBm) 21.71	(dBm) 38.50	(dB) -16.79
Mode	Freq. (MHz) 826.4 836.6	CH 4132 4183	Conducted Avg. Power (dBm) 24.21 24.13	Gain (dBi) -2.50 -2.50	(dBm) 19.56 19.48	(dBm) 21.71 21.63	(dBm) 38.50 38.50	(dB) -16.79 -16.87
Mode	Freq. (MHz) 826.4 836.6 846.6	CH 4132 4183 4233	Conducted Avg. Power (dBm) 24.21 24.13 24.08	Gain (dBi) -2.50 -2.50 -2.50	(dBm) 19.56 19.48 19.43	(dBm) 21.71 21.63 21.58	(dBm) 38.50 38.50 38.50	(dB) -16.79 -16.87 -16.92
Mode WCDMA	Freq. (MHz) 826.4 836.6 846.6 826.4	CH 4132 4183 4233 4132	Conducted Avg. Power (dBm) 24.21 24.13 24.08 23.24	Gain (dBi) -2.50 -2.50 -2.50 -2.50	(dBm) 19.56 19.48 19.43 18.59	(dBm) 21.71 21.63 21.58 20.74	(dBm) 38.50 38.50 38.50 38.50	(dB) -16.79 -16.87 -16.92 -17.76
Mode WCDMA	Freq. (MHz) 826.4 836.6 846.6 826.4 836.6	CH 4132 4183 4233 4132 4183	Conducted Avg. Power (dBm) 24.21 24.13 24.08 23.24 23.10	Gain (dBi) -2.50 -2.50 -2.50 -2.50 -2.50	(dBm) 19.56 19.48 19.43 18.59 18.45	(dBm) 21.71 21.63 21.58 20.74 20.60	(dBm) 38.50 38.50 38.50 38.50 38.50	(dB) -16.79 -16.87 -16.92 -17.76 -17.90
Mode WCDMA	Freq. (MHz) 826.4 836.6 846.6 826.4 836.6 846.6	CH 4132 4183 4233 4132 4183 4233	Conducted Avg. Power (dBm) 24.21 24.13 24.08 23.24 23.10 23.13	Gain (dBi) -2.50 -2.50 -2.50 -2.50 -2.50 -2.50	(dBm) 19.56 19.48 19.43 18.59 18.45 18.48	(dBm) 21.71 21.63 21.58 20.74 20.60 20.63	(dBm) 38.50 38.50 38.50 38.50 38.50 38.50	(dB) -16.79 -16.87 -16.92 -17.76 -17.90 -17.87

WCDMA/HSUPA/HSDPA Band II Result:

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

t (886-2) 2299-3279

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

documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law

台灣檢驗科技股份有限公司

Taiwan Ltd.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 f (886-2) 2298-0488



HSDPA Release 6 MODE:

The following 4 Sub-Tests were completed according to the test requirements outlined in section 5.2A of the 3GPP TS34.121-1 V8.4.0 specification. All TX RMS power requirements for Power Class 3 were met according to table 5.2AA.5 and 5.2B.5 All UE channels and power ratio's are set according to table C10.1.4 & C11.1.3 in the 3GPP TS34.121-1 V8.4.0. RMC 12.2kps is used for this testing.

HSDPA SUB-TEST Setting

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH(FOR HSDPA)

Sub-test	βc	βd	β₀ (SF)	β _c /β _d	βнs (Note1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)	RMC (Kbps)
1	2/15	15/15	64	2/15	4/15	0.0	0.0	12.2
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0	12.2
3	15/15	8/15	64	15/8	30/15	1.5	0.5	12.2
4	15/15	4/15	64	15/4	30/15	1.5	0.5	12.2

Note: The recommended HSDPA MPRs are implemented as per following sub-tests.

Mode	Sub test	Avg. Power (dBm) Channel					
	lesi	9262.00	9400.00	9538.00			
	1	23.32	23.28	23.38			
HSDPA II	2	22.79	22.84	22.80			
	3	22.81	22.83	22.85			
	4	22.80	22.72	22.81			

Mode	Sub test	Avg. Power (dBm) Channel						
	ເບຣເ	4132.00	4183.00	4233.00				
	1	23.24	23.10	23.13				
HSDPA V	2	22.74	22.58	22.66				
	3	22.67	22.55	22.65				
	4	22.67	22.58	22.62				

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

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

(新手方方) 就明 " 近報告緒末度可測紙之体命見負 " 同时起後命運転留知天 " 本報告未經本公司各面計引 " 不可能拉義。" This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



HSPA (HSDPA & HSUPA) Release 6 MODE

The following 5 Sub-Tests were completed according to the test requirements outlined in section 5.2A of the 3GPP TS34.121-1 V8.4.0 specification. All TX RMS power requirements for Power Class 3 were met according to table 5.2AA.5 and 5.2B.5 All UE channels and power ratio's are set according to table C11.1.3 in the 3GPP TS34.121-1 V8.4.0. RMC 12.2kps is used for this testing **HSPA SUB-TEST Setting**

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH(FOR HSUPA)

Sub- test	βc	βa	β _d (SF)	βc/βd	βнs	βec	βed	β _{ed} (SF)	β _{ed} (Code s)	CM (dB)	MPR (dB)	AG Index	E-TFCI	RMC (Kbps)
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/22 5	1309/225	4	1	1.0	0.0	20	75	12.2
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67	12.2
3	15/15	9/15	64	15/9	30/15		β _{ed} 1: 47/15 β _{ed} 2: 47/15	4 4	2	2.0	1.0	15	92	12.2
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71	12.2
5	15/15 (Note 4)	15/15 (Note 4)	64	15/15 (Note 4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81	12.2

Note: The recommended HSUPA MPRs are implemented as per following sub-tests.

Mode	Sub test	Avg. Power (dBm) Channel						
	ເບຣເ	9262.00	9400.00	9538.00				
	1	23.18	23.27	23.37				
	2	21.21	21.27	21.23				
HSUPA II	3	22.17	22.24	22.25				
	4	21.24	21.24	21.32				
	5	23.03	23.15	23.11				

		Avg. Power (dBm)						
Mode	Sub test	Channel						
	เธรเ	4132.00	4183.00	4233.00				
	1	23.23	23.16	23.20				
	2	21.22	21.12	21.16				
HSUPA V	3	22.09	22.14	22.15				
	4	21.19	21.13	21.12				
	5	23.22	23.07	22.96				

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

t (886-2) 2299-3279

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction and conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

Taiwan Ltd.



WCDMA/HSDPA/HSUPA band II, V

The EUT output power was controlled by simulator. Set Communication Tester MT8820C function key "UE Power Control" and enter max rated power 24dBm. The EUT is going to be set to max output power to 24dBm. Then record the read (see page 15 for measurement data). The min. power was measures by a function key "minimum power" then record the read. It is -52.3dBm. The power variation can be 0.1dB step by setting.

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

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

(新年方分 机) 「比板 守路 木健 町 利 紙 (本命 世 員) 「同 中比 係 命 理 許 留 切 兄 * 今 林慶 寺 大型 今 後 型 計 引 * 小 9 市 物 後 泉 * This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



LTE Result:

Antenna gain (dBi) 0.7

	gain (ubi)	0.7	TE Band 2_U	plink fr	equency band	l : 1850 to 1910	MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	24.05	24.75	33	-8.25
	18607	1850.7	QPSK	1	5	23.84	24.54	33	-8.46
	10007	1030.7	QI SK	3	2	22.82	23.52	33	-9.48
				6	0	22.20	22.90	33	-10.1
				1	0	24.09	24.79	33	-8.21
	18900	1880	QPSK	1	5	23.86	24.56	33	-8.44
	10700	1000	QUSK	3	2	22.97	23.67	33	-9.33
				6	0	22.32	23.02	33	-9.98
				1	0	24.11	24.81	33	-8.19
	19193	1909.3	QPSK	1	5	24.31	25.01	33	-7.99
	17175	1707.5	QI SIX	3	2	23.05	23.75	33	-9.25
				6	0	22.71	23.41	33	-9.59
				1	0	23.44	24.14	33	-8.86
	18607	1850.7	16QAM	1	5	23.06	23.76	33	-9.24
	10007			3	2	22.12	22.82	33	-10.18
				6	0	21.13	21.83	33	-11.17
			16QAM	1	0	23.28	23.98	33	-9.02
1.4	18900	1880		1	5	23.16	23.86	33	-9.14
1.4	10700	1000	TOCAIN	3	2	21.88	22.58	33	-10.42
				6	0	21.38	22.08	33	-10.92
				1	0	23.75	24.45	33	-8.55
	19193	1909.3	16QAM	1	5	23.12	23.82	33	-9.18
	17175	1707.5	TOCAIN	3	2	22.23	22.93	33	-10.07
				6	0	21.59	22.29	33	-10.71
				1	0	23.16	23.86	33	-9.14
	18607	1850.7	64QAM	1	5	23.01	23.71	33	-9.29
	10007	1050.7	04QAM	3	2	21.91	22.61	33	-10.39
				6	0	21.25	21.95	33	-11.05
				1	0	23.07	23.77	33	-9.23
	18900	1880	64QAM	1	5	23.28	23.98	33	-9.02
	10700	1000		3	2	21.75	22.45	33	-10.55
				6	0	21.28	21.98	33	-11.02
				1	0	23.63	24.33	33	-8.67
	19193	1909.3	64QAM	1	5	23.06	23.76	33	-9.24
	17175	1707.3		3	2	22.22	22.92	33	-10.08
				6	0	21.27	21.97	33	-11.03

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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司

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



0.7 Antenna gain (dBi)

	gain (ubi)	<u> </u>	TE Band 2_U	plink fr	equency band	: 1850 to 1910	MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	24.05	24.75	33	-8.25
	18615	1851.5	QPSK	1	14	23.86	24.56	33	-8.44
	10010	1001.0	QI OK	8	4	22.87	23.57	33	-9.43
				15	0	22.37	23.07	33	-9.93
				1	0	23.83	24.53	33	-8.47
	18900	1880	QPSK	1	14	23.85	24.55	33	-8.45
	10700	1000	QI SIX	8	4	22.83	23.53	33	-9.47
				15	0	22.48	23.18	33	-9.82
				1	0	24.05	24.75	33	-8.25
	19185	1908.5	QPSK	1	14	24.11	24.81	33	-8.19
	1710J	1700.3	UI JK	8	4	23.24	23.94	33	-9.06
				15	0	22.57	23.27	33	-9.73
				1	0	23.20	23.90	33	-9.1
	10615	1851.5	16QAM	1	14	22.81	23.51	33	-9.49
	18615	1001.0	TOQAIVI	8	4	21.91	22.61	33	-10.39
				15	0	21.39	22.09	33	-10.91
			16QAM	1	0	23.22	23.92	33	-9.08
3	18900	1880		1	14	23.23	23.93	33	-9.07
3	10900	1000		8	4	22.04	22.74	33	-10.26
				15	0	21.31	22.01	33	-10.99
				1	0	23.55	24.25	33	-8.75
	19185	1908.5	16QAM	1	14	23.24	23.94	33	-9.06
	19100	1900.0	TOQAIVI	8	4	22.12	22.82	33	-10.18
				15	0	21.64	22.34	33	-10.66
				1	0	23.31	24.01	33	-8.99
	18615	1851.5	64QAM	1	14	22.84	23.54	33	-9.46
	10010	1001.0		8	4	22.10	22.80	33	-10.2
				15	0	21.11	21.81	33	-11.19
				1	0	23.18	23.88	33	-9.12
	10000	1000	640000	1	14	23.12	23.82	33	-9.18
	18900	1880	64QAM	8	4	21.84	22.54	33	-10.46
				15	0	21.23	21.93	33	-11.07
				1	0	23.50	24.20	33	-8.8
	10105	1000 F		1	14	23.32	24.02	33	-8.98
	19185	1908.5	64QAM	8	4	22.23	22.93	33	-10.07
				15	0	21.29	21.99	33	-11.01

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司

t (886-2) 2299-3279

f (886-2) 2298-0488



Report No.: E2/2019/90045 Page 43 of 645

Antenna gain (dBi) 0.7

	gain (ubi)	<u> </u>	TE Band 2_U	plink fr	equency band	: 1850 to 1910	MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.99	24.69	33	-8.31
	18625	1852.5	QPSK	1	24	23.85	24.55	33	-8.45
	10025	1052.5	QI SIX	12	6	22.79	23.49	33	-9.51
				25	0	22.33	23.03	33	-9.97
				1	0	23.96	24.66	33	-8.34
	18900	1880	QPSK	1	24	23.91	24.61	33	-8.39
	10700	1000	QUSK	12	6	22.76	23.46	33	-9.54
				25	0	22.35	23.05	33	-9.95
				1	0	23.99	24.69	33	-8.31
	19175	1907.5	QPSK	1	24	24.10	24.80	33	-8.2
	19175	1907.5	UF 3K	12	6	23.18	23.88	33	-9.12
				25	0	22.51	23.21	33	-9.79
				1	0	23.38	24.08	33	-8.92
	18625	1852.5	16QAM	1	24	22.79	23.49	33	-9.51
	10020	1002.0	TOQAIM	12	6	21.94	22.64	33	-10.36
				25	0	21.28	21.98	33	-11.02
		1000	16QAM	1	0	23.06	23.76	33	-9.24
5	18900			1	24	23.25	23.95	33	-9.05
5	10900	1880		12	6	21.99	22.69	33	-10.31
				25	0	21.30	22.00	33	-11
				1	0	23.56	24.26	33	-8.74
	19175	1907.5	16QAM	1	24	23.33	24.03	33	-8.97
	19175	1907.5	TOQAIVI	12	6	22.23	22.93	33	-10.07
				25	0	21.72	22.42	33	-10.58
				1	0	23.39	24.09	33	-8.91
	18625	1852.5	64QAM	1	24	22.95	23.65	33	-9.35
	10020	1002.0	04QAIVI	12	6	21.85	22.55	33	-10.45
				25	0	21.29	21.99	33	-11.01
				1	0	23.00	23.70	33	-9.3
	10000	1000	64000	1	24	23.13	23.83	33	-9.17
	18900	1880	64QAM	12	6	21.86	22.56	33	-10.44
				25	0	21.13	21.83	33	-11.17
				1	0	23.69	24.39	33	-8.61
	10175	1007 F		1	24	23.14	23.84	33	-9.16
	19175	1907.5	64QAM	12	6	22.00	22.70	33	-10.3
				25	0	21.47	22.17	33	-10.83

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

f (886-2) 2298-0488



Report No.: E2/2019/90045 Page 44 of 645

Antenna gain (dBi)

	yain (ubi)	<u> </u>	TE Band 2_U	plink fr	equency band	: 1850 to 1910	MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	24.05	24.75	33	-8.25
	18650	1855	QPSK	1	49	24.04	24.74	33	-8.26
	10000	1000	er ort	25	12	22.75	23.45	33	-9.55
				50	0	22.26	22.96	33	-10.04
				1	0	24.05	24.75	33	-8.25
	18900	1880	QPSK	1	49	23.96	24.66	33	-8.34
	10700	1000	QUOR	25	12	22.73	23.43	33	-9.57
				50	0	22.34	23.04	33	-9.96
				1	0	24.08	24.78	33	-8.22
	19150	1905	QPSK	1	49	24.37	25.07	33	-7.93
	17130	170J	UP SK	25	12	23.05	23.75	33	-9.25
				50	0	22.71	23.41	33	-9.59
				1	0	23.41	24.11	33	-8.89
	18650	1855	16QAM	1	49	23.00	23.70	33	-9.3
	10000	1000	TOQAIVI	25	12	21.94	22.64	33	-10.36
				50	0	21.37	22.07	33	-10.93
			16QAM	1	0	23.04	23.74	33	-9.26
10	18900	1880		1	49	23.28	23.98	33	-9.02
10	16900	1000		25	12	21.86	22.56	33	-10.44
				50	0	21.41	22.11	33	-10.89
				1	0	23.73	24.43	33	-8.57
	19150	1905	16QAM	1	49	23.34	24.04	33	-8.96
	19150	1900	TOQAIVI	25	12	22.05	22.75	33	-10.25
				50	0	21.52	22.22	33	-10.78
				1	0	23.28	23.98	33	-9.02
	18650	1855	64QAM	1	49	22.86	23.56	33	-9.44
	16000	1000		25	12	21.95	22.65	33	-10.35
				50	0	21.20	21.90	33	-11.1
				1	0	23.09	23.79	33	-9.21
	10000	1000		1	49	23.01	23.71	33	-9.29
	18900	1880	64QAM	25	12	21.88	22.58	33	-10.42
				50	0	21.30	22.00	33	-11
				1	0	23.60	24.30	33	-8.7
	10150	1005		1	49	23.06	23.76	33	-9.24
	19150	1905	64QAM	25	12	22.10	22.80	33	-10.2
				50	0	21.45	22.15	33	-10.85

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

f (886-2) 2298-0488



Antenna gain (dBi) 0.7

Antenna	<u>3- (- /</u>	<u> </u>	TE Band 2_U	lplink fr	equency band	: 1850 to 1910	MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.93	24.63	33	-8.37
	18675	1857.5	QPSK	1	74	23.96	24.66	33	-8.34
	10070	100710		36	18	22.99	23.69	33	-9.31
				75	0	22.30	23.00	33	-10
				1	0	23.90	24.60	33	-8.4
	18900	1880	QPSK	1	74	23.76	24.46	33	-8.54
	10700	1000	QUOR	36	18	22.86	23.56	33	-9.44
				75	0	22.31	23.01	33	-9.99
				1	0	24.06	24.76	33	-8.24
	19125	1902.5	QPSK	1	74	24.36	25.06	33	-7.94
	17125	1702.5	QUSK	36	18	23.15	23.85	33	-9.15
				75	0	22.79	23.49	33	-9.51
				1	0	23.22	23.92	33	-9.08
	18675	1857.5	16QAM	1	74	22.92	23.62	33	-9.38
	10075	1007.0	TUQAINI	36	18	21.98	22.68	33	-10.32
				75	0	21.15	21.85	33	-11.15
			16QAM	1	0	23.13	23.83	33	-9.17
15	18900	1880		1	74	23.07	23.77	33	-9.23
15	10700	1000		36	18	22.00	22.70	33	-10.3
				75	0	21.42	22.12	33	-10.88
				1	0	23.75	24.45	33	-8.55
	19125	1902.5	16QAM	1	74	23.18	23.88	33	-9.12
	19125	1902.0	TOQAIVI	36	18	22.15	22.85	33	-10.15
				75	0	21.69	22.39	33	-10.61
				1	0	23.28	23.98	33	-9.02
	18675	1857.5	64QAM	1	74	23.03	23.73	33	-9.27
	10075	1007.0		36	18	21.99	22.69	33	-10.31
				75	0	21.13	21.83	33	-11.17
				1	0	23.24	23.94	33	-9.06
	10000	1000	440AM	1	74	23.26	23.96	33	-9.04
	18900	1880	64QAM	36	18	21.77	22.47	33	-10.53
				75	0	21.29	21.99	33	-11.01
				1	0	23.61	24.31	33	-8.69
	10105	1000 F	640004	1	74	23.17	23.87	33	-9.13
	19125	1902.5	64QAM	36	18	22.13	22.83	33	-10.17
				75	0	21.51	22.21	33	-10.79

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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號



Antenna gain (dBi)

LTE Band 2_Uplink frequency band : 1850 to 1910 MHz										
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)	
				1	0	24.21	24.91	33	-8.09	
	18700	1860	QPSK	1	99	24.07	24.77	33	-8.23	
	10700	1000	QI SIX	50	25	23.02	23.72	33	-9.28	
				100	0	22.43	23.13	33	-9.87	
				1	0	24.11	24.81	33	-8.19	
	18900	1880	QPSK	1	99	23.98	24.68	33	-8.32	
	10,200	1000	QI SK	50	25	23.00	23.70	33	-9.3	
				100	0	22.99	23.69	33	-9.31	
				1	0	24.27	24.97	33	-8.03	
	19100	1900	QPSK	1	99	24.39	25.09	33	-7.91	
	19100	1900	ULDK	50	25	23.25	23.95	33	-9.05	
				100	0	22.80	23.50	33	-9.5	
				1	0	23.49	24.19	33	-8.81	
	18700	1860	16QAM	1	99	23.07	23.77	33	-9.23	
	10700	1000	TOQAIVI	50	25	22.14	22.84	33	-10.16	
				100	0	21.39	22.09	33	-10.91	
				1	0	23.33	24.03	33	-8.97	
20	18900	1880	16QAM	1	99	23.34	24.04	33	-8.96	
20	10900	1000	TOQAIVI	50	25	22.04	22.74	33	-10.26	
				100	0	21.46	22.16	33	-10.84	
				1	0	23.82	24.52	33	-8.48	
	19100	1900	16QAM	1	99	23.36	24.06	33	-8.94	
	19100	1900	TOQAIN	50	25	22.27	22.97	33	-10.03	
				100	0	21.79	22.49	33	-10.51	
				1	0	23.46	24.16	33	-8.844	
	18700	1860	64QAM	1	99	23.04	23.74	33	-9.264	
	10700	1000		50	25	22.11	22.81	33	-10.194	
				100	0	21.36	22.06	33	-10.944	
				1	0	23.30	24.00	33	-9.004	
	18900	1880	64QAM	1	99	23.31	24.01	33	-8.994	
	10700	1000		50	25	22.01	22.71	33	-10.294	
				100	0	21.43	22.13	33	-10.874	
				1	0	23.79	24.49	33	-8.514	
	19100	1900	64QAM	1	99	23.33	24.03	33	-8.974	
	19100	1900		50	25	22.24	22.94	33	-10.064	
				100	0	21.52	22.22	33	-10.78	

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



Antenna gain (dBi)

	gain (dBi)	2.4 L	TE Band 4_U	lplink f	requenc	cy band : 1710	to 1755 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.98	26.38	30	-3.62
	10057	1710 7		1	5	23.91	26.31	30	-3.69
	19957	1710.7	QPSK	3	2	22.77	25.17	30	-4.83
				6	0	22.37	24.77	30	-5.23
				1	0	23.94	26.34	30	-3.66
	20175	1700 F		1	5	23.43	25.83	30	-4.17
	20175	1732.5	QPSK	3	2	22.96	25.36	30	-4.64
				6	0	22.48	24.88	30	-5.12
				1	0	23.92	26.32	30	-3.68
	20202	1754.0		1	5	23.83	26.23	30	-3.77
	20393	1754.3	QPSK	3	2	22.52	24.92	30	-5.08
				6	0	22.50	24.90	30	-5.1
				1	0	22.24	24.64	30	-5.36
	10057	1710 7	1/0414	1	5	23.19	25.59	30	-4.41
19957	1710.7	16QAM	3	2	22.14	24.54	30	-5.46	
			6	0	21.46	23.86	30	-6.14	
			1	0	23.44	25.84	30	-4.16	
1 /	20175	1732.5	16QAM	1	5	22.68	25.08	30	-4.92
1.4	20175	1/32.5		3	2	21.97	24.37	30	-5.63
				6	0	21.56	23.96	30	-6.04
				1	0	23.09	25.49	30	-4.51
	20202	1754.0	1/0414	1	5	22.91	25.31	30	-4.69
	20393	1754.3	16QAM	3	2	21.37	23.77	30	-6.23
				6	0	21.47	23.87	30	-6.13
				1	0	22.01	24.41	30	-5.59
	10057	1710 7		1	5	23.24	25.64	30	-4.36
	19957	1710.7	64QAM	3	2	21.97	24.37	30	-5.63
				6	0	21.38	23.78	30	-6.22
				1	0	23.16	25.56	30	-4.44
	20175	1700 5		1	5	22.63	25.03	30	-4.97
	20175	1732.5	64QAM	3	2	21.85	24.25	30	-5.75
				6	0	21.36	23.76	30	-6.24
				1	0	22.94	25.34	30	-4.66
	20202	1751 0	64000	1	5	22.94	25.34	30	-4.66
	20393	1754.3	64QAM	3	2	21.21	23.61	30	-6.39
				6	0	21.40	23.80	30	-6.2

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

t (886-2) 2299-3279



Antenna gain (dBi)

Antenna	LTE Band 4_Uplink frequency band : 1710 to 1755 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)			
				1	0	23.96	26.36	30	-3.64			
	19965	1711.5	QPSK	1	14	23.87	26.27	30	-3.73			
	19900	1711.3	UPSK	8	4	22.83	25.23	30	-4.77			
				15	0	22.55	24.95	30	-5.05			
				1	0	23.95	26.35	30	-3.65			
	20175	1732.5	QPSK	1	14	23.57	25.97	30	-4.03			
	20175	1/32.3	UPSK	8	4	23.00	25.40	30	-4.6			
				15	0	22.58	24.98	30	-5.02			
				1	0	23.91	26.31	30	-3.69			
	2020E	1750 F	ODCK	1	14	23.77	26.17	30	-3.83			
	20385	1753.5	QPSK	8	4	22.35	24.75	30	-5.25			
				15	0	22.57	24.97	30	-5.03			
				1	0	21.98	24.38	30	-5.62			
	100/F	1711 E	140014	1	14	23.34	25.74	30	-4.26			
	19965	1711.5	16QAM	8	4	22.13	24.53	30	-5.47			
			15	0	21.51	23.91	30	-6.09				
				1	0	23.37	25.77	30	-4.23			
2	20175	1700 5	1/0114	1	14	22.66	25.06	30	-4.94			
3	20175	1732.5	16QAM	8	4	21.95	24.35	30	-5.65			
				15	0	21.31	23.71	30	-6.29			
				1	0	23.27	25.67	30	-4.33			
	2020E	1750 F	140014	1	14	22.90	25.30	30	-4.7			
	20385	1753.5	16QAM	8	4	21.36	23.76	30	-6.24			
				15	0	21.36	23.76	30	-6.24			
				1	0	22.06	24.46	30	-5.54			
	19965	1711.5	64QAM	1	14	23.25	25.65	30	-4.35			
	19900	C.111	04QAIVI	8	4	22.11	24.51	30	-5.49			
				15	0	21.33	23.73	30	-6.27			
				1	0	23.35	25.75	30	-4.25			
		440414	1	14	22.62	25.02	30	-4.98				
	20175	1732.5	64QAM	8	4	21.89	24.29	30	-5.71			
				15	0	21.35	23.75	30	-6.25			
				1	0	22.98	25.38	30	-4.62			
	2020E	17525		1	14	22.73	25.13	30	-4.87			
	20385 1753.5	64QAM	8	4	21.31	23.71	30	-6.29				
				15	0	21.27	23.67	30	-6.33			

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_edocument.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to IS Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document is unlawful and offenders may be prosecuted to the fullest extent of the law. SC Taiwan Ltd. INo.134 WuKungRoad NewTaipelindustrialPark WukuDistrict NewTaipelCity. Taiwan24803/新 北市 五 股區 新 北產 業 团區 五 工 路 134 號

台灣檢驗科技股份有限公司

Taiwan Ltd.

t (886-2) 2299-3279

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 f (886-2) 2298-0488



Antenna gain (dBi)

Antenna	LTE Band 4_Uplink frequency band : 1710 to 1755 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)			
				1	0	23.85	26.25	30	-3.75			
	10075	1710 E	ODCK	1	24	23.89	26.29	30	-3.71			
	19975	1712.5	QPSK	12	6	22.89	25.29	30	-4.71			
				25	0	22.38	24.78	30	-5.22			
				1	0	23.95	26.35	30	-3.65			
	20175	1732.5	QPSK	1	24	23.38	25.78	30	-4.22			
	20175	1732.0	QPSK	12	6	23.04	25.44	30	-4.56			
				25	0	22.62	25.02	30	-4.98			
				1	0	23.94	26.34	30	-3.66			
	20275	17E0 E	QPSK	1	24	23.84	26.24	30	-3.76			
	20375	1752.5	QPSK	12	6	22.43	24.83	30	-5.17			
				25	0	22.35	24.75	30	-5.25			
				1	0	22.05	24.45	30	-5.55			
	10075	1710 F	1/0 4 44	1	24	23.21	25.61	30	-4.39			
	19975	1712.5	16QAM	12	6	22.18	24.58	30	-5.42			
				25	0	21.29	23.69	30	-6.31			
				1	0	23.31	25.71	30	-4.29			
F	20175	1700 5	1/0444	1	24	22.68	25.08	30	-4.92			
5	20175	1732.5	16QAM	12	6	21.91	24.31	30	-5.69			
				25	0	21.42	23.82	30	-6.18			
				1	0	23.07	25.47	30	-4.53			
	20275	17F0 F	1/0414	1	24	22.82	25.22	30	-4.78			
	20375	1752.5	16QAM	12	6	21.39	23.79	30	-6.21			
				25	0	21.27	23.67	30	-6.33			
				1	0	21.98	24.38	30	-5.62			
	10075	1710 F		1	24	23.09	25.49	30	-4.51			
	19975	1712.5	64QAM	12	6	22.11	24.51	30	-5.49			
				25	0	21.44	23.84	30	-6.16			
				1	0	23.29	25.69	30	-4.31			
	20175	1700 F		1	24	22.71	25.11	30	-4.89			
	20175	1732.5	64QAM	12	6	21.83	24.23	30	-5.77			
				25	0	21.22	23.62	30	-6.38			
				1	0	23.04	25.44	30	-4.56			
	20275	1750 5		1	24	22.71	25.11	30	-4.89			
	20375 1752.5	64QAM	12	6	21.27	23.67	30	-6.33				
				25	0	21.19	23.59	30	-6.41			

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

f (886-2) 2298-0488



Antenna gain (dBi)

	yaiii (udi)	L	TE Band 4_U	lplink 1	requenc	y band : 1710	to 1755 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.91	26.31	30	-3.69
	20000	1715	QPSK	1	49	23.88	26.28	30	-3.72
	20000	1715	UFSK	25	12	22.93	25.33	30	-4.67
				50	0	22.37	24.77	30	-5.23
				1	0	23.96	26.36	30	-3.64
	20175	1732.5	QPSK	1	49	23.40	25.80	30	-4.2
	20175	1/32.3	UPSK	25	12	23.03	25.43	30	-4.57
				50	0	22.59	24.99	30	-5.01
				1	0	23.91	26.31	30	-3.69
	20375	1750	QPSK	1	49	23.86	26.26	30	-3.74
	20375	1750	UPSK	25	12	22.36	24.76	30	-5.24
				50	0	22.28	24.68	30	-5.32
				1	0	22.15	24.55	30	-5.45
	20000	1715	1/0414	1	49	23.41	25.81	30	-4.19
	20000	1715	16QAM	25	12	22.04	24.44	30	-5.56
				50	0	21.46	23.86	30	-6.14
			- 1/0114	1	0	23.42	25.82	30	-4.18
10	20175	1700 F		1	49	22.71	25.11	30	-4.89
10	20175	1732.5	16QAM	25	12	22.11	24.51	30	-5.49
				50	0	21.43	23.83	30	-6.17
				1	0	23.18	25.58	30	-4.42
	20275	1750	1/0414	1	49	23.05	25.45	30	-4.55
	20375	1750	16QAM	25	12	21.36	23.76	30	-6.24
				50	0	21.54	23.94	30	-6.06
				1	0	22.00	24.40	30	-5.6
	20000	1715	(10 114	1	49	23.14	25.54	30	-4.46
	20000	1715	64QAM	25	12	21.98	24.38	30	-5.62
				50	0	21.41	23.81	30	-6.19
				1	0	23.20	25.60	30	-4.4
	20175	00475		1	49	22.76	25.16	30	-4.84
	20175	1732.5	64QAM	25	12	22.01	24.41	30	-5.59
				50	0	21.16	23.56	30	-6.44
				1	0	23.09	25.49	30	-4.51
	00075	1750	(10 114	1	49	22.72	25.12	30	-4.88
	20375	20375 1750 64	64QAM	25	12	21.37	23.77	30	-6.23
				50	0	21.27	23.67	30	-6.33

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司

t (886-2) 2299-3279

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



Antenna gain (dBi)

Antenna	gain (abi)	L	TE Band 4_U	lplink f	frequence	cy band : 1710	to 1755 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.95	26.35	30	-3.65
	00005	4747 5	0001/	1	74	23.95	26.35	30	-3.65
	20025	1717.5	QPSK	36	18	22.84	25.24	30	-4.76
				75	0	22.54	24.94	30	-5.06
				1	0	23.95	26.35	30	-3.65
	20175	1700 F	ODCK	1	74	23.62	26.02	30	-3.98
	20175	1732.5	QPSK	36	18	22.98	25.38	30	-4.62
				75	0	22.47	24.87	30	-5.13
				1	0	23.89	26.29	30	-3.71
	20225	1747.5	QPSK	1	74	23.67	26.07	30	-3.93
	20325	1/4/.5	QPSK	36	18	22.37	24.77	30	-5.23
				75	0	22.40	24.80	30	-5.2
				1	0	22.17	24.57	30	-5.43
	20025	1717.5	16QAM	1	74	23.37	25.77	30	-4.23
	20025	C.111	TOQAIVI	36	18	22.21	24.61	30	-5.39
				75	0	21.52	23.92	30	-6.08
				1	0	23.22	25.62	30	-4.38
15	20175	1732.5	16QAM	1	74	22.82	25.22	30	-4.78
10	20175	1732.3	TOQAIVI	36	18	21.99	24.39	30	-5.61
				75	0	21.37	23.77	30	-6.23
				1	0	23.02	25.42	30	-4.58
	20325	1747.5	16QAM	1	74	23.00	25.40	30	-4.6
	20323	1747.3	TUQAIN	36	18	21.43	23.83	30	-6.17
				75	0	21.41	23.81	30	-6.19
				1	0	21.89	24.29	30	-5.71
	20025	1717.5	64QAM	1	74	23.20	25.60	30	-4.4
	20025	1717.5		36	18	22.00	24.40	30	-5.6
				75	0	21.18	23.58	30	-6.42
				1	0	23.28	25.68	30	-4.32
	20175	1732.5	64QAM	1	74	22.61	25.01	30	-4.99
	201/J	T/JZ.J		36	18	21.78	24.18	30	-5.82
				75	0	21.35	23.75	30	-6.25
				1	0	23.17	25.57	30	-4.43
	20325	1747 5	64QAM	1	74	22.96	25.36	30	-4.64
	20323	0325 1747.5 640		36	18	21.42	23.82	30	-6.18
				75	0	21.38	23.78	30	-6.22

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



2.4 Antenna gain (dBi)

LTE Band 4_Uplink frequency band : 1710 to 1755 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)		
				1	0	23.90	26.30	30	-3.7		
	20050	1700	ODCK	1	99	23.96	26.36	30	-3.64		
	20050	1720	QPSK	50	25	23.06	25.46	30	-4.54		
				100	0	22.63	25.03	30	-4.97		
				1	0	23.95	26.35	30	-3.65		
	20175	1720 F	QPSK	1	99	23.65	26.05	30	-3.95		
	20175	1732.5	QPSK	50	25	23.12	25.52	30	-4.48		
				100	0	22.64	25.04	30	-4.96		
				1	0	23.99	26.39	30	-3.61		
	20200	1745	ODCK	1	99	23.90	26.30	30	-3.7		
	20300	1745	QPSK	50	25	22.53	24.93	30	-5.07		
				100	0	22.58	24.98	30	-5.02		
				1	0	22.28	24.68	30	-5.32		
	20050	1700	1/0414	1	99	23.41	25.81	30	-4.19		
	20050	1720	16QAM	50	25	22.26	24.66	30	-5.34		
			100	0	21.58	23.98	30	-6.02			
			16QAM	1	0	23.48	25.88	30	-4.12		
20	20175	1732.5		1	99	22.95	25.35	30	-4.65		
20	20175	1732.3	TOQAIVI	50	25	22.13	24.53	30	-5.47		
				100	0	21.57	23.97	30	-6.03		
				1	0	23.28	25.68	30	-4.32		
	20300	1745	16QAM	1	99	23.10	25.50	30	-4.5		
	20300	1740	TOQAIVI	50	25	21.59	23.99	30	-6.01		
				100	0	21.54	23.94	30	-6.06		
				1	0	22.17	24.57	30	-5.43		
	20050	1720	64QAM	1	99	23.30	25.70	30	-4.3		
	20030	1720		50	25	22.15	24.55	30	-5.45		
				100	0	21.47	23.87	30	-6.13		
				1	0	23.37	25.77	30	-4.23		
	20175	1720 ⊑	64QAM	1	99	22.84	25.24	30	-4.76		
	20175	1732.5	04QAIVI	50	25	22.02	24.42	30	-5.58		
				100	0	21.46	23.86	30	-6.14		
				1	0	23.17	25.57	30	-4.43		
	20200	17/5	6400	1	99	22.99	25.39	30	-4.61		
	20300 1745	64QAM	50	25	21.48	23.88	30	-6.12			
		1745		100	0	21.43	23.83	30	-6.17		

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司

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



Report No.: E2/2019/90045 Page 53 of 645

Antenna gain (dBi)

	gain (ubi)		LTE Ban	d 5_Up	link frequency	cy band : 824 to 849 MHz					
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)	
				1	0	23.88	19.23	21.38	38.45	-17.07	
	20407	824.7	QPSK	1	5	23.90	19.25	21.40	38.45	-17.05	
	20407	024.7	QI SIX	3	2	23.10	18.45	20.60	38.45	-17.85	
				6	0	22.83	18.18	20.33	38.45	-18.12	
				1	0	23.89	19.24	21.39	38.45	-17.06	
	20525	836.5	QPSK	1	5	23.84	19.19	21.34	38.45	-17.11	
	20323	030.5	QLOK	3	2	22.95	18.30	20.45	38.45	-18	
				6	0	22.81	18.16	20.31	38.45	-18.14	
				1	0	23.68	19.03	21.18	38.45	-17.27	
	20643	848.3	QPSK	1	5	23.82	19.17	21.32	38.45	-17.13	
	20045	040.5	UF JK	3	2	22.87	18.22	20.37	38.45	-18.08	
				6	0	22.97	18.32	20.47	38.45	-17.98	
				1	0	23.27	18.62	20.77	38.45	-17.68	
	20407	824.7	16QAM	1	5	23.42	18.77	20.92	38.45	-17.53	
	20407	024.7	TOQAIN	3	2	22.01	17.36	19.51	38.45	-18.94	
				6	0	21.80	17.15	19.30	38.45	-19.15	
				1	0	23.41	18.76	20.91	38.45	-17.54	
1.4	20525	836.5	16QAM	1	5	23.10	18.45	20.60	38.45	-17.85	
1.4	20525	030.0	TOQAIN	3	2	21.91	17.26	19.41	38.45	-19.04	
				6	0	22.02	17.37	19.52	38.45	-18.93	
				1	0	23.27	18.62	20.77	38.45	-17.68	
	20643	040.2	16QAM	1	5	23.28	18.63	20.78	38.45	-17.67	
	20043	848.3	TOQAIVI	3	2	22.05	17.40	19.55	38.45	-18.9	
				6	0	21.86	17.21	19.36	38.45	-19.09	
				1	0	23.28	18.63	20.78	38.45	-17.67	
	20407	0247	(1000	1	5	23.30	18.65	20.80	38.45	-17.65	
	20407	824.7	64QAM	3	2	21.70	17.05	19.20	38.45	-19.25	
				6	0	21.81	17.16	19.31	38.45	-19.14	
				1	0	23.08	18.43	20.58	38.45	-17.87	
	205.25	024 F	(1000	1	5	23.02	18.37	20.52	38.45	-17.93	
	20525	836.5	64QAM	3	2	21.81	17.16	19.31	38.45	-19.14	
				6	0	21.70	17.05	19.20	38.45	-19.25	
				1	0	23.33	18.68	20.83	38.45	-17.62	
	20442	040.2		1	5	23.02	18.37	20.52	38.45	-17.93	
	20643	040.3	848.3 64QAM	3	2	21.68	17.03	19.18	38.45	-19.27	
				6	0	21.74	17.09	19.24	38.45	-19.21	

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



Antenna gain (dBi)

	yain (ubi)	-2.0	LTE Ban	d 5_Up	link frequency	band : 824 to 849 MHz					
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)	
				1	0	23.94	19.29	21.44	38.45	-17.01	
	20415	825.5	QPSK	1	14	23.93	19.28	21.43	38.45	-17.02	
	20413	023.3	QI JK	8	4	22.84	18.19	20.34	38.45	-18.11	
				15	0	22.97	18.32	20.47	38.45	-17.98	
				1	0	24.00	19.35	21.50	38.45	-16.95	
	20525	836.5	QPSK	1	14	23.60	18.95	21.10	38.45	-17.35	
	20525	030.5	QI SIX	8	4	23.04	18.39	20.54	38.45	-17.91	
				15	0	23.04	18.39	20.54	38.45	-17.91	
				1	0	23.84	19.19	21.34	38.45	-17.11	
	20635	847.5	QPSK	1	14	23.76	19.11	21.26	38.45	-17.19	
	20033	077.0	QI SIX	8	4	22.93	18.28	20.43	38.45	-18.02	
				15	0	22.89	18.24	20.39	38.45	-18.06	
				1	0	23.39	18.74	20.89	38.45	-17.56	
	20/15	825 5	16QAM	1	14	23.27	18.62	20.77	38.45	-17.68	
	20413	20415 825.5	TOQAM	8	4	22.03	17.38	19.53	38.45	-18.92	
				15	0	21.81	17.16	19.31	38.45	-19.14	
				1	0	23.34	18.69	20.84	38.45	-17.61	
3	20525	836.5	16QAM	1	14	23.32	18.67	20.82	38.45	-17.63	
5	20323	030.5		8	4	21.81	17.16	19.31	38.45	-19.14	
				15	0	21.86	17.21	19.36	38.45	-19.09	
				1	0	23.29	18.64	20.79	38.45	-17.66	
	20635	847.5	16QAM	1	14	23.16	18.51	20.66	38.45	-17.79	
	20033	047.5		8	4	22.03	17.38	19.53	38.45	-18.92	
				15	0	21.98	17.33	19.48	38.45	-18.97	
				1	0	23.40	18.75	20.90	38.45	-17.55	
	20415	825.5	64QAM	1	14	23.31	18.66	20.81	38.45	-17.64	
	20415	025.5		8	4	21.92	17.27	19.42	38.45	-19.03	
				15	0	21.87	17.22	19.37	38.45	-19.08	
				1	0	23.26	18.61	20.76	38.45	-17.69	
	20525	924 E 640AM	1	14	23.07	18.42	20.57	38.45	-17.88		
	20020	030.3	836.5 64QAM	8	4	21.70	17.05	19.20	38.45	-19.25	
				15	0	21.66	17.01	19.16	38.45	-19.29	
				1	0	23.20	18.55	20.70	38.45	-17.75	
	20635	847.5	64QAM	1	14	23.05	18.40	20.55	38.45	-17.9	
	20035	047.0		8	4	21.80	17.15	19.30	38.45	-19.15	
				15	0	21.83	17.18	19.33	38.45	-19.12	

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



Report No.: E2/2019/90045 Page 55 of 645

Antenna gain (dBi)

Antenna	ga (a.2.i)	-2.0	LTE Ban	d 5_Up	link frequency	band : 824 to	849 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.94	19.29	21.44	38.45	-17.01
	20425	826.5	QPSK	1	24	23.85	19.20	21.35	38.45	-17.1
	20425	020.0	UF SK	12	6	22.94	18.29	20.44	38.45	-18.01
				25	0	22.95	18.30	20.45	38.45	-18
				1	0	23.92	19.27	21.42	38.45	-17.03
	20525	836.5	QPSK	1	24	23.84	19.19	21.34	38.45	-17.11
	20323	030.5	UF SK	12	6	22.78	18.13	20.28	38.45	-18.17
				25	0	23.07	18.42	20.57	38.45	-17.88
				1	0	23.70	19.05	21.20	38.45	-17.25
	20625	846.5	QPSK	1	24	23.72	19.07	21.22	38.45	-17.23
	20020	040.0	QPSK	12	6	22.76	18.11	20.26	38.45	-18.19
				25	0	23.02	18.37	20.52	38.45	-17.93
				1	0	23.48	18.83	20.98	38.45	-17.47
	20425	826.5	16QAM	1	24	23.38	18.73	20.88	38.45	-17.57
	20425	820.0	TOQAIVI	12	6	21.89	17.24	19.39	38.45	-19.06
			25	0	22.02	17.37	19.52	38.45	-18.93	
				1	0	23.55	18.90	21.05	38.45	-17.4
F	20525	836.5	140014	1	24	23.22	18.57	20.72	38.45	-17.73
5	20525	830.0	16QAM	12	6	21.89	17.24	19.39	38.45	-19.06
				25	0	21.88	17.23	19.38	38.45	-19.07
				1	0	23.37	18.72	20.87	38.45	-17.58
	20625	846.5	16QAM	1	24	23.31	18.66	20.81	38.45	-17.64
	20025	040.0	TOQAIVI	12	6	22.02	17.37	19.52	38.45	-18.93
				25	0	21.73	17.08	19.23	38.45	-19.22
				1	0	23.14	18.49	20.64	38.45	-17.81
	20425	826.5	64QAM	1	24	23.06	18.41	20.56	38.45	-17.89
	20420	020.0		12	6	21.79	17.14	19.29	38.45	-19.16
				25	0	21.87	17.22	19.37	38.45	-19.08
				1	0	23.23	18.58	20.73	38.45	-17.72
	20525	024 E	02/ F / 40 AM	1	24	23.17	18.52	20.67	38.45	-17.78
	20020	836.5	64QAM	12	6	21.80	17.15	19.30	38.45	-19.15
				25	0	21.79	17.14	19.29	38.45	-19.16
				1	0	23.15	18.50	20.65	38.45	-17.8
	204.25	846.5 64QAM	1	24	23.00	18.35	20.50	38.45	-17.95	
	20625		12	6	21.86	17.21	19.36	38.45	-19.09	
				25	0	21.65	17.00	19.15	38.45	-19.3

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

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



Report No.: E2/2019/90045 Page 56 of 645

Antenna gain (dBi)

Antenna	<u>, , , , , , , , , , , , , , , , , , , </u>	-2.5	LTE Ban	d 5_Up	link frequency	band : 824 to	849 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	24.13	19.48	21.63	38.45	-16.82
	20450	829	QPSK	1	49	24.02	19.37	21.52	38.45	-16.93
	20430	027	QI SIX	25	12	23.13	18.48	20.63	38.45	-17.82
				50	0	23.08	18.43	20.58	38.45	-17.87
				1	0	24.04	19.39	21.54	38.45	-16.91
	20525	836.5	QPSK	1	49	23.86	19.21	21.36	38.45	-17.09
	20323	030.3	UI JK	25	12	23.07	18.42	20.57	38.45	-17.88
				50	0	23.07	18.42	20.57	38.45	-17.88
				1	0	23.93	19.28	21.43	38.45	-17.02
	20600	844	QPSK	1	49	23.88	19.23	21.38	38.45	-17.07
	20000	044	ULDK	25	12	23.03	18.38	20.53	38.45	-17.92
				50	0	23.06	18.41	20.56	38.45	-17.89
				1	0	23.55	18.90	21.05	38.45	-17.4
	20450	829	16QAM	1	49	23.50	18.85	21.00	38.45	-17.45
	20400	029	TOQAIVI	25	12	22.10	17.45	19.60	38.45	-18.85
				50	0	22.09	17.44	19.59	38.45	-18.86
				1	0	23.55	18.90	21.05	38.45	-17.4
10	20525	027 5	1/0414	1	49	23.38	18.73	20.88	38.45	-17.57
10	20525	836.5	16QAM	25	12	22.01	17.36	19.51	38.45	-18.94
				50	0	22.04	17.39	19.54	38.45	-18.91
				1	0	23.49	18.84	20.99	38.45	-17.46
	20600	844	1/0414	1	49	23.33	18.68	20.83	38.45	-17.62
	20000	844	16QAM	25	12	22.09	17.44	19.59	38.45	-18.86
				50	0	22.02	17.37	19.52	38.45	-18.93
				1	0	23.41	18.76	20.91	38.45	-17.54
	20450	000	(10 114	1	49	23.36	18.71	20.86	38.45	-17.59
	20450	829	64QAM	25	12	21.96	17.31	19.46	38.45	-18.99
				50	0	21.95	17.30	19.45	38.45	-19
				1	0	23.36	18.71	20.86	38.45	-17.59
	20525	20525 836.5 64QAM	1	49	23.24	18.59	20.74	38.45	-17.71	
	20525		25	12	21.87	17.22	19.37	38.45	-19.08	
				50	0	21.90	17.25	19.40	38.45	-19.05
				1	0	23.35	18.70	20.85	38.45	-17.6
	20/00	044		1	49	23.19	18.54	20.69	38.45	-17.76
	20600 844 6	64QAM	25	12	21.95	17.30	19.45	38.45	-19	
			50	0	21.88	17.23	19.38	38.45	-19.07	

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

Member of SGS Group



Antenna gain (dBi)

	yain (ubi)	1.5 L	TE Band 7_U	plink f	requence	cy band : 2500	to 2570 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.44	23.74	33	-9.26
	20775	2502.5	QPSK	1	24	22.25	23.55	33	-9.45
	20775	2302.3	UP SK	12	6	21.36	22.66	33	-10.34
				25	0	21.17	22.47	33	-10.53
				1	0	22.62	23.92	33	-9.08
	21100	2535	QPSK	1	24	22.41	23.71	33	-9.29
	21100	2000	UF 3K	12	6	21.26	22.56	33	-10.44
				25	0	21.34	22.64	33	-10.36
				1	0	22.49	23.79	33	-9.21
	21375	2567.5	QPSK	1	24	22.48	23.78	33	-9.22
	21375	2007.0	QPSK	12	6	21.48	22.78	33	-10.22
				25	0	21.43	22.73	33	-10.27
				1	0	21.50	22.80	33	-10.2
	20775	2502.5	16QAM	1	24	21.67	22.97	33	-10.03
	20775	2002.0	TOQAIVI	12	6	20.24	21.54	33	-11.46
				25	0	20.19	21.49	33	-11.51
				1	0	21.64	22.94	33	-10.06
5	21100	2535	16QAM	1	24	21.28	22.58	33	-10.42
С	21100	2030	TOQAIVI	12	6	20.43	21.73	33	-11.27
				25	0	20.23	21.53	33	-11.47
				1	0	21.57	22.87	33	-10.13
	21275	2567.5	1/0414	1	24	21.53	22.83	33	-10.17
	21375	2007.0	16QAM	12	6	20.44	21.74	33	-11.26
				25	0	20.26	21.56	33	-11.44
				1	0	21.37	22.67	33	-10.33
	20775	2502.5		1	24	21.64	22.94	33	-10.06
	20775	2502.5	64QAM	12	6	20.42	21.72	33	-11.28
				25	0	20.24	21.54	33	-11.46
				1	0	21.30	22.60	33	-10.4
	01100	2525	(10 114	1	24	21.53	22.83	33	-10.17
	21100	2535	64QAM	12	6	20.36	21.66	33	-11.34
				25	0	20.25	21.55	33	-11.45
				1	0	21.41	22.71	33	-10.29
	01075		(40 444	1	24	21.76	23.06	33	-9.94
	21375	2567.5 64QAM	64QAM	12	6	20.45	21.75	33	-11.25
				25	0	20.38	21.68	33	-11.32

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



Antenna gain (dBi)

BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)	
				1	0	22.36	23.66	33	-9.34	
	20800	2505	QPSK	1	49	22.52	23.82	33	-9.18	
	20000	2303	UF SK	25	12	21.56	22.86	33	-10.14	
				50	0	21.30	22.60	33	-10.4	
				1	0	22.57	23.87	33	-9.13	
	21100	2535	QPSK	1	49	22.36	23.66	33	-9.34	
	21100	2000	ULDV	25	12	21.19	22.49	33	-10.51	
				50	0	21.62	22.92	33	-10.08	
				1	0	22.45	23.75	33	-9.25	
	21350	2565	QPSK	1	49	22.58	23.88	33	-9.12	
	21300	2000	UPSK	25	12	21.40	22.70	33	-10.3	
				50	0	21.47	22.77	33	-10.23	
				1	0	21.51	22.81	33	-10.19	
	20000	2505	1/0414	1	49	21.70	23.00	33	-10	
	20800	2505	16QAM	25	12	20.45	21.75	33	-11.25	
				50	0	20.26	21.56	33	-11.44	
				1	0	21.39	22.69	33	-10.31	
10	21100	2525	1/0414	1	49	21.74	23.04	33	-9.96	
10	21100	2535	16QAM	25	12	20.43	21.73	33	-11.27	
				50	0	20.28	21.58	33	-11.42	
				1	0	21.51	22.81	33	-10.19	
	21250		1/0414	1	49	21.62	22.92	33	-10.08	
	21350	2565	16QAM	25	12	20.58	21.88	33	-11.12	
				50	0	20.36	21.66	33	-11.34	
				1	0	21.65	22.95	33	-10.05	
	20000	25.05	(10 114	1	49	21.79	23.09	33	-9.91	
	20800	2505	64QAM	25	12	20.34	21.64	33	-11.36	
				50	0	20.46	21.76	33	-11.24	
				1	0	21.72	23.02	33	-9.98	
	01100	0505		1	49	21.69	22.99	33	-10.01	
	21100	2535	64QAM	25	12	20.27	21.57	33	-11.43	
				50	0	20.44	21.74	33	-11.26	
				1	0	21.67	22.97	33	-10.03	
		a= · -		1	49	21.76	23.06	33	-9.94	
	21350	2565	64QAM	25	12	20.38	21.68	33	-11.32	
				50	0	20.32	21.62	33	-11.38	

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



Antenna gain (dBi) 1.3

LTE Band 7_Uplink frequency band : 2500 to 2570 MHz									
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.38	23.68	33	-9.32
	20825	2507.5	QPSK	1	74	22.51	23.81	33	-9.19
	20025	2307.3	QI SIX	36	18	21.31	22.61	33	-10.39
				75	0	21.42	22.72	33	-10.28
				1	0	22.50	23.80	33	-9.2
	21100	2535	QPSK	1	74	22.35	23.65	33	-9.35
	21100	2000	QI SK	36	18	21.47	22.77	33	-10.23
				75	0	21.33	22.63	33	-10.37
				1	0	22.56	23.86	33	-9.14
	21375	2562.5	QPSK	1	74	22.44	23.74	33	-9.26
	21375	2002.0	ULDK	36	18	21.64	22.94	33	-10.06
				75	0	21.50	22.80	33	-10.2
				1	0	21.35	22.65	33	-10.35
	20825	2507.5	16QAM	1	74	21.78	23.08	33	-9.92
	20025	2507.5		36	18	20.59	21.89	33	-11.11
			75	0	20.20	21.50	33	-11.5	
				1	0	21.46	22.76	33	-10.24
15	21100	2535	16QAM	1	74	21.65	22.95	33	-10.05
15	21100	2000	TOQAIVI	36	18	20.22	21.52	33	-11.48
				75	0	20.51	21.81	33	-11.19
				1	0	21.60	22.90	33	-10.1
	21375		16QAM	1	74	21.67	22.97	33	-10.03
	21375	2562.5	TOQAIVI	36	18	20.60	21.90	33	-11.1
				75	0	20.55	21.85	33	-11.15
				1	0	21.61	22.91	33	-10.09
	20025		(10 114	1	74	21.74	23.04	33	-9.96
	20825	2507.5	64QAM	36	18	20.28	21.58	33	-11.42
				75	0	20.11	21.41	33	-11.59
				1	0	21.50	22.80	33	-10.2
	01100	25.25	(10 114	1	74	21.73	23.03	33	-9.97
	21100	2535	64QAM	36	18	20.40	21.70	33	-11.3
				75	0	20.47	21.77	33	-11.23
				1	0	21.56	22.86	33	-10.14
	01075			1	74	21.61	22.91	33	-10.09
	21375	2562.5	64QAM	36	18	20.46	21.76	33	-11.24
				75	0	20.56	21.86	33	-11.14

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



Antenna gain (dBi)

LTE Band 7_Uplink frequency band : 2500 to 2570 MHz									
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	22.65	23.95	33	-9.05
	20850	2510	QPSK	1	99	22.44	23.74	33	-9.26
	20030	2310	QLOK	50	25	21.47	22.77	33	-10.23
				100	0	21.43	22.73	33	-10.27
				1	0	22.69	23.99	33	-9.01
	21100	2535	QPSK	1	99	22.51	23.81	33	-9.19
	21100	2000	QLOK	50	25	21.45	22.75	33	-10.25
				100	0	21.57	22.87	33	-10.13
				1	0	22.68	23.98	33	-9.02
	21350	2560	QPSK	1	99	22.68	23.98	33	-9.02
	21550	2300	QLOK	50	25	21.63	22.93	33	-10.07
				100	0	21.54	22.84	33	-10.16
				1	0	21.65	22.95	33	-10.05
	20850	2510	16QAM	1	99	21.76	23.06	33	-9.94
	20030	2510		50	25	20.58	21.88	33	-11.12
				100	0	20.50	21.80	33	-11.2
				1	0	21.55	22.85	33	-10.15
20	21100	2535	16001	1	99	21.52	22.82	33	-10.18
20	21100	2000	16QAM	50	25	20.54	21.84	33	-11.16
				100	0	20.41	21.71	33	-11.29
				1	0	21.61	22.91	33	-10.09
	21350	2560	16QAM	1	99	21.54	22.84	33	-10.16
	21550	2500	TOQAIVI	50	25	20.56	21.86	33	-11.14
				100	0	20.60	21.90	33	-11.1
				1	0	21.55	22.85	33	-10.15
	20850	2510	64QAM	1	99	21.67	22.97	33	-10.03
	20030	2510		50	25	20.60	21.90	33	-11.1
				100	0	20.46	21.76	33	-11.24
				1	0	21.75	23.05	33	-9.95
	21100	25.25	4000	1	99	21.65	22.95	33	-10.05
	21100	2535	64QAM	50	25	20.54	21.84	33	-11.16
				100	0	20.53	21.83	33	-11.17
				1	0	21.72	23.02	33	-9.98
	21250	25/0		1	99	21.57	22.87	33	-10.13
	21350	2560	64QAM	50	25	20.56	21.86	33	-11.14
				100	0	20.42	21.72	33	-11.28

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



-2

Report No.: E2/2019/90045 Page 61 of 645

Antenna gain (dBi)

LTE Band 12_Uplink frequency band : 699 to 716 MHz										
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.76	19.61	21.76	34.77	-13.01
	23017	699.7	QPSK	1	5	23.92	19.77	21.92	34.77	-12.85
	23017	077.7	UF JK	3	2	23.11	18.96	21.11	34.77	-13.66
				6	0	23.09	18.94	21.09	34.77	-13.68
				1	0	23.84	19.69	21.84	34.77	-12.93
	23095	707.5	QPSK	1	5	24.05	19.90	22.05	34.77	-12.72
	23073	101.5		3	2	22.85	18.70	20.85	34.77	-13.92
				6	0	22.86	18.71	20.86	34.77	-13.91
				1	0	23.82	19.67	21.82	34.77	-12.95
	23173	715.5	QPSK	1	5	23.65	19.50	21.65	34.77	-13.12
	23173	715.5		3	2	23.02	18.87	21.02	34.77	-13.75
				6	0	22.79	18.64	20.79	34.77	-13.98
				1	0	22.97	18.82	20.97	34.77	-13.8
	23017	699.7	16QAM	1	5	23.36	19.21	21.36	34.77	-13.41
	23017	077.7	TOQAM	3	2	22.01	17.86	20.01	34.77	-14.76
				6	0	21.92	17.77	19.92	34.77	-14.85
			5 16QAM	1	0	22.82	18.67	20.82	34.77	-13.95
1.4	23095	707.5		1	5	23.24	19.09	21.24	34.77	-13.53
1.4	23095	707.5	TOQAIM	3	2	22.04	17.89	20.04	34.77	-14.73
				6	0	22.11	17.96	20.11	34.77	-14.66
				1	0	23.11	18.96	21.11	34.77	-13.66
	23173	715.5	16QAM	1	5	23.16	19.01	21.16	34.77	-13.61
	23175	715.5		3	2	21.87	17.72	19.87	34.77	-14.9
				6	0	21.95	17.80	19.95	34.77	-14.82
				1	0	23.04	18.89	21.04	34.77	-13.73
	23017	699.7	64QAM	1	5	23.16	19.01	21.16	34.77	-13.61
	23017	077.7		3	2	21.66	17.51	19.66	34.77	-15.11
				6	0	22.06	17.91	20.06	34.77	-14.71
				1	0	22.97	18.82	20.97	34.77	-13.8
	23095	707.5	64QAM	1	5	23.15	19.00	21.15	34.77	-13.62
	23073	101.5		3	2	21.94	17.79	19.94	34.77	-14.83
				6	0	21.93	17.78	19.93	34.77	-14.84
				1	0	23.16	19.01	21.16	34.77	-13.61
	23173	715.5	64QAM	1	5	23.22	19.07	21.22	34.77	-13.55
	23173	710.0		3	2	21.74	17.59	19.74	34.77	-15.03
				6	0	21.80	17.65	19.80	34.77	-14.97

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

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



-2

Antenna gain (dBi)

	LTE Band 12_Uplink frequency						716 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.66	19.51	21.66	34.77	-13.11
	22025	700 F	QPSK	1	14	23.95	19.80	21.95	34.77	-12.82
	23025	700.5	UPSK	8	4	22.98	18.83	20.98	34.77	-13.79
				15	0	23.11	18.96	21.11	34.77	-13.66
				1	0	23.62	19.47	21.62	34.77	-13.15
	23095	707.5	QPSK	1	14	24.12	19.97	22.12	34.77	-12.65
	23093	707.5	UF 3K	8	4	22.84	18.69	20.84	34.77	-13.93
				15	0	22.86	18.71	20.86	34.77	-13.91
				1	0	23.75	19.60	21.75	34.77	-13.02
	23165	714.5	QPSK	1	14	23.86	19.71	21.86	34.77	-12.91
	23100	/14.0	UFJK	8	4	23.05	18.90	21.05	34.77	-13.72
				15	0	22.92	18.77	20.92	34.77	-13.85
				1	0	23.09	18.94	21.09	34.77	-13.68
	22025	23025 700.5	16QAM	1	14	23.27	19.12	21.27	34.77	-13.5
	23025 700.5	700.5		8	4	21.97	17.82	19.97	34.77	-14.8
				15	0	22.07	17.92	20.07	34.77	-14.7
				1	0	23.00	18.85	21.00	34.77	-13.77
3	23095	707.5	16QAM	1	14	23.43	19.28	21.43	34.77	-13.34
5	23073	101.5	TOCAIN	8	4	22.20	18.05	20.20	34.77	-14.57
				15	0	22.03	17.88	20.03	34.77	-14.74
				1	0	23.15	19.00	21.15	34.77	-13.62
	23165	714.5	16QAM	1	14	23.14	18.99	21.14	34.77	-13.63
	23103	714.5	TOCAIN	8	4	21.88	17.73	19.88	34.77	-14.89
				15	0	21.97	17.82	19.97	34.77	-14.8
				1	0	22.81	18.66	20.81	34.77	-13.96
	23025	700.5	64QAM	1	14	23.17	19.02	21.17	34.77	-13.6
	23023	700.5		8	4	21.74	17.59	19.74	34.77	-15.03
				15	0	22.05	17.90	20.05	34.77	-14.72
				1	0	22.84	18.69	20.84	34.77	-13.93
	22005	707 5	64QAM	1	14	23.40	19.25	21.40	34.77	-13.37
	23073	23095 707.5		8	4	21.85	17.70	19.85	34.77	-14.92
				15	0	21.97	17.82	19.97	34.77	-14.8
				1	0	23.05	18.90	21.05	34.77	-13.72
	23165	714.5	64QAM	1	14	23.30	19.15	21.30	34.77	-13.47
	23103	714.0		8	4	21.73	17.58	19.73	34.77	-15.04
				15	0	21.94	17.79	19.94	34.77	-14.83

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



-2

Report No.: E2/2019/90045 Page 63 of 645

Antenna gain (dBi)

Antenna	<u> </u>	-2	LTE Band	l 12_Up	olink frequency	y band : 699 to	716 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.63	19.48	21.63	34.77	-13.14
	23035	701.5	QPSK	1	24	23.98	19.83	21.98	34.77	-12.79
	23033	701.5	UF JK	12	6	23.04	18.89	21.04	34.77	-13.73
				25	0	23.08	18.93	21.08	34.77	-13.69
				1	0	23.68	19.53	21.68	34.77	-13.09
	23095	707.5	QPSK	1	24	24.14	19.99	22.14	34.77	-12.63
	23073	101.5		12	6	22.98	18.83	20.98	34.77	-13.79
				25	0	23.02	18.87	21.02	34.77	-13.75
				1	0	23.88	19.73	21.88	34.77	-12.89
	23155	713.5	QPSK	1	24	23.85	19.70	21.85	34.77	-12.92
	23133	715.5	QUUIK	12	6	23.10	18.95	21.10	34.77	-13.67
				25	0	22.97	18.82	20.97	34.77	-13.8
				1	0	23.11	18.96	21.11	34.77	-13.66
	23035	701.5	16QAM	1	24	23.23	19.08	21.23	34.77	-13.54
	23033	701.5	TOCAM	12	6	21.98	17.83	19.98	34.77	-14.79
				25	0	21.87	17.72	19.87	34.77	-14.9
				1	0	23.02	18.87	21.02	34.77	-13.75
5	23095	707.5	16QAM	1	24	23.41	19.26	21.41	34.77	-13.36
5	23073	101.5		12	6	22.07	17.92	20.07	34.77	-14.7
				25	0	22.01	17.86	20.01	34.77	-14.76
				1	0	23.17	19.02	21.17	34.77	-13.6
	23155	713.5	16QAM	1	24	23.41	19.26	21.41	34.77	-13.36
	20100	710.0	1002/101	12	6	21.98	17.83	19.98	34.77	-14.79
				25	0	22.07	17.92	20.07	34.77	-14.7
				1	0	22.95	18.80	20.95	34.77	-13.82
	23035	701.5	64QAM	1	24	23.10	18.95	21.10	34.77	-13.67
	23033	701.5		12	6	21.67	17.52	19.67	34.77	-15.1
				25	0	21.87	17.72	19.87	34.77	-14.9
				1	0	22.89	18.74	20.89	34.77	-13.88
	23095	707.5	64QAM	1	24	23.35	19.20	21.35	34.77	-13.42
	23073	101.3		12	6	21.85	17.70	19.85	34.77	-14.92
				25	0	21.93	17.78	19.93	34.77	-14.84
				1	0	22.96	18.81	20.96	34.77	-13.81
	23155	713.5	64QAM	1	24	23.25	19.10	21.25	34.77	-13.52
	20100	, 10.0		12	6	21.79	17.64	19.79	34.77	-14.98
				25	0	21.78	17.63	19.78	34.77	-14.99

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

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



Antenna	gain (dBi)	-2								
			LTE Band	d 12_Up	link frequency	y band : 699 to		-		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.86	19.71	21.86	34.77	-12.91
	23060	704	QPSK	1	49	24.14	19.99	22.14	34.77	-12.63
	23000	704	UFSK	25	12	23.14	18.99	21.14	34.77	-13.63
				50	0	23.20	19.05	21.20	34.77	-13.57
				1	0	23.87	19.72	21.87	34.77	-12.9
	23095	707.5	QPSK	1	49	24.32	20.17	22.32	34.77	-12.45
	23090	707.5	UFSK	25	12	23.14	18.99	21.14	34.77	-13.63
				50	0	23.13	18.98	21.13	34.77	-13.64
				1	0	24.04	19.89	22.04	34.77	-12.73
	23130	711	QPSK	1	49	23.90	19.75	21.90	34.77	-12.87
	23130	/ 1 1	UPSK	25	12	23.13	18.98	21.13	34.77	-13.64
				50	0	23.00	18.85	21.00	34.77	-13.77
				1	0	23.15	19.00	21.15	34.77	-13.62
	22040	704	14000	1	49	23.42	19.27	21.42	34.77	-13.35
	23060	704	16QAM	25	12	22.02	17.87	20.02	34.77	-14.75
				50	0	22.16	18.01	20.16	34.77	-14.61
			1/0114	1	0	23.07	18.92	21.07	34.77	-13.7
10	2200E	707 E		1	49	23.51	19.36	21.51	34.77	-13.26
10	23095	707.5	16QAM	25	12	22.22	18.07	20.22	34.77	-14.55
				50	0	22.13	17.98	20.13	34.77	-14.64
				1	0	23.24	19.09	21.24	34.77	-13.53
	22120	711	14000	1	49	23.42	19.27	21.42	34.77	-13.35
	23130	711	16QAM	25	12	22.09	17.94	20.09	34.77	-14.68
				50	0	22.07	17.92	20.07	34.77	-14.7
				1	0	23.07	18.92	21.07	34.77	-13.7
	22040	704		1	49	23.34	19.19	21.34	34.77	-13.43
	23060	704	64QAM	25	12	21.94	17.79	19.94	34.77	-14.83
				50	0	22.08	17.93	20.08	34.77	-14.69
				1	0	22.99	18.84	20.99	34.77	-13.78
	22005	707 5		1	49	23.43	19.28	21.43	34.77	-13.34
	23095	707.5	64QAM	25	12	22.14	17.99	20.14	34.77	-14.63
				50	0	22.05	17.90	20.05	34.77	-14.72
				1	0	23.16	19.01	21.16	34.77	-13.61
	00100	711		1	49	23.34	19.19	21.34	34.77	-13.43
	23130	711	64QAM	25	12	22.01	17.86	20.01	34.77	-14.76
				50	0	21.99	17.84	19.99	34.77	-14.78

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



Report No.: E2/2019/90045 Page 65 of 645

-1.9 Antenna gain (dBi)

	gain (ubi)	-1.7	LTE Ban	d 13_U	lplink fre	equency band	: 777 to 787 M	Hz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.74	19.69	21.84	34.77	-12.93
	23205	779.5	QPSK	1	24	23.91	19.86	22.01	34.77	-12.76
	20200	117.0		12	6	22.82	18.77	20.92	34.77	-13.85
				25	0	22.92	18.87	21.02	34.77	-13.75
				1	0	23.85	19.80	21.95	34.77	-12.82
	23230	782	QPSK	1	24	24.01	19.96	22.11	34.77	-12.66
	20200	702	2. 0.1	12	6	22.83	18.78	20.93	34.77	-13.84
				25	0	23.03	18.98	21.13	34.77	-13.64
				1	0	23.96	19.91	22.06	34.77	-12.71
	23255	784.5	QPSK	1	24	24.05	20.00	22.15	34.77	-12.62
	20200	10110	er ort	12	6	22.92	18.87	21.02	34.77	-13.75
				25	0	23.10	19.05	21.20	34.77	-13.57
				1	0	23.10	19.05	21.20	34.77	-13.57
	23205 779.5	16QAM	1	24	23.18	19.13	21.28	34.77	-13.49	
		117.5		12	6	22.22	18.17	20.32	34.77	-14.45
				25	0	22.06	18.01	20.16	34.77	-14.61
				1	0	23.40	19.35	21.50	34.77	-13.27
5	23230	782	16QAM	1	24	23.16	19.11	21.26	34.77	-13.51
Ũ	20200	102	100/101	12	6	22.14	18.09	20.24	34.77	-14.53
				25	0	22.02	17.97	20.12	34.77	-14.65
				1	0	23.23	19.18	21.33	34.77	-13.44
	23255	784.5	16QAM	1	24	23.22	19.17	21.32	34.77	-13.45
	20200	704.5	100/101	12	6	22.09	18.04	20.19	34.77	-14.58
				25	0	22.05	18.00	20.15	34.77	-14.62
				1	0	23.16	19.11	21.26	34.77	-13.51
	23205	779.5	64QAM	1	24	23.10	19.05	21.20	34.77	-13.57
	20200	117.5	040/10	12	6	21.93	17.88	20.03	34.77	-14.74
				25	0	21.79	17.74	19.89	34.77	-14.88
				1	0	23.25	19.20	21.35	34.77	-13.42
	23230 782	64QAM	1	24	23.21	19.16	21.31	34.77	-13.46	
			12	6	21.92	17.87	20.02	34.77	-14.75	
				25	0	21.80	17.75	19.90	34.77	-14.87
				1	0	23.11	19.06	21.21	34.77	-13.56
	23255	784.5	64QAM	1	24	23.09	19.04	21.19	34.77	-13.58
	20200	, LT.J		12	6	22.08	18.03	20.18	34.77	-14.59
				25	0	21.81	17.76	19.91	34.77	-14.86

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.



-1.9 Antenna gain (dBi)

	<u>3- (-)</u>		LTE Ban	d 13_U	lplink fre	equency band	: 777 to 787 MI	Ηz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.99	19.94	22.09	34.77	-12.68
	23230	782	QPSK	1	49	24.15	20.10	22.25	34.77	-12.52
	23230	782	UPSK	25	12	23.11	19.06	21.21	34.77	-13.56
				50	0	23.21	19.16	21.31	34.77	-13.46
				1	0	23.37	19.32	21.47	34.77	-13.3
10	23230	782	16QAM	1	49	23.38	19.33	21.48	34.77	-13.29
10	23230	102	TOQAIVI	25	12	22.23	18.18	20.33	34.77	-14.44
				50	0	22.14	18.09	20.24	34.77	-14.53
				1	0	23.22	19.17	21.32	34.77	-13.45
	23230 782	64001	1	49	23.23	19.18	21.33	34.77	-13.44	
		64QAM	25	12	22.08	18.03	20.18	34.77	-14.59	
				50	0	21.99	17.94	20.09	34.77	-14.68

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.



-1.9

Report No.: E2/2019/90045 Page 67 of 645

Antenna gain (dBi)

	gain (abl)		LTE Band	d 14_U	lplink fre	equency band	: 788 to 798 MI	Ηz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.98	19.93	22.08	34.77	-12.69
	23305	790.5	QPSK	1	24	24.15	20.10	22.25	34.77	-12.52
	20000		QI OK	12	6	23.16	19.11	21.26	34.77	-13.51
				25	0	23.11	19.06	21.21	34.77	-13.56
				1	0	23.88	19.83	21.98	34.77	-12.79
	23330	793	QPSK	1	24	24.12	20.07	22.22	34.77	-12.55
	20000		2. 0.1	12	6	23.16	19.11	21.26	34.77	-13.51
				25	0	23.10	19.05	21.20	34.77	-13.57
				1	0	23.82	19.77	21.92	34.77	-12.85
	23355	795.5	QPSK	1	24	24.08	20.03	22.18	34.77	-12.59
	20000	170.0	QI OK	12	6	23.13	19.08	21.23	34.77	-13.54
				25	0	23.16	19.11	21.26	34.77	-13.51
				1	0	23.29	19.24	21.39	34.77	-13.38
	23305	23305 790.5	16QAM	1	24	22.87	18.82	20.97	34.77	-13.8
	23305 790.5	770.0		12	6	22.27	18.22	20.37	34.77	-14.4
				25	0	21.88	17.83	19.98	34.77	-14.79
				1	0	23.32	19.27	21.42	34.77	-13.35
5	23330	793	16QAM	1	24	22.94	18.89	21.04	34.77	-13.73
Ũ	20000	175	100/101	12	6	22.06	18.01	20.16	34.77	-14.61
				25	0	22.08	18.03	20.18	34.77	-14.59
				1	0	23.51	19.46	21.61	34.77	-13.16
	23355	795.5	16QAM	1	24	22.96	18.91	21.06	34.77	-13.71
	20000	775.5	100/101	12	6	22.14	18.09	20.24	34.77	-14.53
				25	0	22.06	18.01	20.16	34.77	-14.61
				1	0	23.24	19.19	21.34	34.77	-13.43
	23305	790.5	64QAM	1	24	22.88	18.83	20.98	34.77	-13.79
	2000	770.5		12	6	21.69	17.64	19.79	34.77	-14.98
				25	0	22.04	17.99	20.14	34.77	-14.63
				1	0	23.20	19.15	21.30	34.77	-13.47
	23330 793	703	64QAM	1	24	22.71	18.66	20.81	34.77	-13.96
		175		12	6	21.94	17.89	20.04	34.77	-14.73
			25	0	21.80	17.75	19.90	34.77	-14.87	
				1	0	23.26	19.21	21.36	34.77	-13.41
	23355	795.5	64QAM	1	24	22.96	18.91	21.06	34.77	-13.71
	20000	170.0		12	6	22.04	17.99	20.14	34.77	-14.63
				25	0	21.69	17.64	19.79	34.77	-14.98

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



-1.9 Antenna gain (dBi)

	<u>3- (-)</u>		LTE Band	d 14_U	lplink fre	equency band	: 788 to 798 MI	Ηz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	24.12	20.07	22.22	34.77	-12.55
	23330	793	QPSK	1	49	24.18	20.13	22.28	34.77	-12.49
	23330	793	UPSK	25	12	23.21	19.16	21.31	34.77	-13.46
		_		50	0	23.17	19.12	21.27	34.77	-13.5
				1	0	23.59	19.54	21.69	34.77	-13.08
10	23330	793	16QAM	1	49	23.24	19.19	21.34	34.77	-13.43
10	23330	193	TOQAIVI	25	12	22.28	18.23	20.38	34.77	-14.39
				50	0	22.15	18.10	20.25	34.77	-14.52
				1	0	23.36	19.31	21.46	34.77	-13.31
	23330 793	640AM	1	49	23.01	18.96	21.11	34.77	-13.66	
		173	64QAM	25	12	22.05	18.00	20.15	34.77	-14.62
				50	0	21.92	17.87	20.02	34.77	-14.75

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.



Antenna gain (dBi) 0.7

7 antonna	Interna gain (dBl) 0.7 LTE Band 25_Uplink frequency band : 1850 to 1915 MHz BW LIL Erequency RB RB Conducted EIRP EIRP											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)			
				1	0	24.42	25.12	33	-7.88			
	2/047	1050 7	ODCK	1	5	24.03	24.73	33	-8.27			
	26047	1850.7	QPSK	3	2	22.73	23.43	33	-9.57			
				6	0	22.91	23.61	33	-9.39			
				1	0	24.03	24.73	33	-8.27			
	2/2/5	1000 F		1	5	23.81	24.51	33	-8.49			
	26365	1882.5	QPSK	3	2	22.73	23.43	33	-9.57			
				6	0	22.93	23.63	33	-9.37			
				1	0	24.25	24.95	33	-8.05			
	27702	1014.0		1	5	24.09	24.79	33	-8.21			
	26683	1914.3	QPSK	3	2	22.92	23.62	33	-9.38			
				6	0	23.00	23.70	33	-9.3			
				1	0	23.21	23.91	33	-9.09			
	2/047	1050.7	1/04/4	1	5	23.09	23.79	33	-9.21			
	26047 1850.7	1850.7	16QAM	3	2	21.82	22.52	33	-10.48			
				6	0	21.70	22.40	33	-10.6			
			1	0	23.40	24.10	33	-8.9				
1.4	26365	1882.5	1/0004	1	5	23.21	23.91	33	-9.09			
1.4	20300	1002.0	16QAM	3	2	21.76	22.46	33	-10.54			
				6	0	21.67	22.37	33	-10.63			
				1	0	23.37	24.07	33	-8.93			
	26683	1914.3	16QAM	1	5	23.23	23.93	33	-9.07			
	20003	1914.3	TOQAIVI	3	2	22.15	22.85	33	-10.15			
				6	0	22.02	22.72	33	-10.28			
				1	0	23.04	23.74	33	-9.26			
	26047	1850.7	640AM	1	5	22.97	23.67	33	-9.33			
	26047	1000.7	64QAM	3	2	21.76	22.46	33	-10.54			
				6	0	21.61	22.31	33	-10.69			
				1	0	23.37	24.07	33	-8.93			
	2424E	1000 F	64000	1	5	22.93	23.63	33	-9.37			
	26365	1882.5	64QAM	3	2	21.50	22.20	33	-10.8			
				6	0	21.52	22.22	33	-10.78			
				1	0	22.95	23.65	33	-9.35			
	26602	1014.2	64000	1	5	23.14	23.84	33	-9.16			
	26683	1914.3	64QAM	3	2	21.99	22.69	33	-10.31			
				6	0	21.71	22.41	33	-10.59			

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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號



Antenna gain (dBi)

	yaili (udi)	0.7	TE Band 25_l	Jplink	frequen	cy band : 1850	to 1915 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
	26055		QPSK	1	0	24.25	24.95	33	-8.05
		1851.5		1	14	23.79	24.49	33	-8.51
				8	4	22.70	23.40	33	-9.6
				15	0	22.78	23.48	33	-9.52
	26365		QPSK	1	0	24.00	24.70	33	-8.3
		1882.5		1	14	23.98	24.68	33	-8.32
		1882.5		8	4	22.65	23.35	33	-9.65
				15	0	22.83	23.53	33	-9.47
		1913.5	QPSK	1	0	24.34	25.04	33	-7.96
	26675			1	14	24.21	24.91	33	-8.09
	20075			8	4	23.19	23.89	33	-9.11
				15	0	22.94	23.64	33	-9.36
			16QAM	1	0	23.15	23.85	33	-9.15
	24055	10E1 E		1	14	22.99	23.69	33	-9.31
	26055	1851.5		8	4	21.95	22.65	33	-10.35
1				15	0	21.83	22.53	33	-10.47
		1882.5	16QAM	1	0	23.54	24.24	33	-8.76
2	26365			1	14	23.11	23.81	33	-9.19
3				8	4	21.91	22.61	33	-10.39
				15	0	21.80	22.50	33	-10.5
	26675	1913.5	16QAM	1	0	23.33	24.03	33	-8.97
				1	14	23.43	24.13	33	-8.87
				8	4	22.17	22.87	33	-10.13
				15	0	21.87	22.57	33	-10.43
	26055	1851.5	64QAM	1	0	23.03	23.73	33	-9.27
				1	14	22.99	23.69	33	-9.31
				8	4	21.57	22.27	33	-10.73
				15	0	21.59	22.29	33	-10.71
	26365	1882.5	64QAM	1	0	23.26	23.96	33	-9.04
				1	14	23.09	23.79	33	-9.21
				8	4	21.60	22.30	33	-10.7
				15	0	21.46	22.16	33	-10.84
	26675	1913.5	64QAM	1	0	23.19	23.89	33	-9.11
				1	14	23.23	23.93	33	-9.07
				8	4	21.84	22.54	33	-10.46
				15	0	21.94	22.64	33	-10.36

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.



Antenna gain (dBi) 0.7

LTE Band 25_Uplink frequency band : 1850 to 1915 MHz									
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
	26065			1	0	24.33	25.03	33	-7.97
		1852.5	QPSK	1	24	23.84	24.54	33	-8.46
		1602.0	QF3K	12	6	22.90	23.60	33	-9.4
				25	0	22.84	23.54	33	-9.46
	26365	1882.5	QPSK	1	0	23.87	24.57	33	-8.43
				1	24	24.07	24.77	33	-8.23
		1002.0		12	6	22.73	23.43	33	-9.57
				25	0	22.88	23.58	33	-9.42
			QPSK	1	0	24.26	24.96	33	-8.04
	26665	1912.5		1	24	24.22	24.92	33	-8.08
	20003	1912.0		12	6	23.16	23.86	33	-9.14
				25	0	22.88	23.58	33	-9.42
		1852.5	16QAM	1	0	23.27	23.97	33	-9.03
	26065			1	24	23.15	23.85	33	-9.15
	20005			12	6	21.95	22.65	33	-10.35
				25	0	21.70	22.40	33	-10.6
	26365	1882.5	16QAM	1	0	23.49	24.19	33	-8.81
5				1	24	23.19	23.89	33	-9.11
5				12	6	21.90	22.60	33	-10.4
				25	0	21.78	22.48	33	-10.52
	26665	1912.5	16QAM	1	0	23.32	24.02	33	-8.98
				1	24	23.23	23.93	33	-9.07
				12	6	22.12	22.82	33	-10.18
				25	0	21.90	22.60	33	-10.4
	26065	1852.5	64QAM	1	0	23.22	23.92	33	-9.08
				1	24	22.95	23.65	33	-9.35
				12	6	21.56	22.26	33	-10.74
				25	0	21.71	22.41	33	-10.59
	26365	1882.5	64QAM	1	0	23.35	24.05	33	-8.95
				1	24	23.05	23.75	33	-9.25
				12	6	21.67	22.37	33	-10.63
				25	0	21.64	22.34	33	-10.66
	26665	1912.5	64QAM	1	0	23.14	23.84	33	-9.16
				1	24	23.24	23.94	33	-9.06
				12	6	21.87	22.57	33	-10.43
				25	0	21.90	22.60	33	-10.4

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

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

Taiwan Ltd.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 f (886-2) 2298-0488



Antenna gain (dBi) 0.7

LTE Band 25_Uplink frequency band : 1850 to 1915 MHz									
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	24.44	25.14	33	-7.86
	26090	1855	QPSK	1	49	23.82	24.52	33	-8.48
	20090	1855	QPSK	25	12	22.75	23.45	33	-9.55
				50	0	22.92	23.62	33	-9.38
	26365			1	0	23.87	24.57	33	-8.43
		1882.5	QPSK	1	49	23.93	24.63	33	-8.37
	20300	1002.0	QPSK	25	12	22.71	23.41	33	-9.59
				50	0	22.95	23.65	33	-9.35
			QPSK	1	0	24.48	25.18	33	-7.82
	26640	1010		1	49	24.07	24.77	33	-8.23
	20040	1910		25	12	23.11	23.81	33	-9.19
				50	0	23.00	23.70	33	-9.3
		1855	16QAM	1	0	23.35	24.05	33	-8.95
	24000			1	49	23.20	23.90	33	-9.1
	26090			25	12	21.74	22.44	33	-10.56
				50	0	21.80	22.50	33	-10.5
		1882.5	16QAM	1	0	23.52	24.22	33	-8.78
10	26365			1	49	23.20	23.90	33	-9.1
10				25	12	21.83	22.53	33	-10.47
				50	0	21.87	22.57	33	-10.43
	26640	1910	16QAM	1	0	23.10	23.80	33	-9.2
				1	49	23.32	24.02	33	-8.98
				25	12	22.18	22.88	33	-10.12
				50	0	22.01	22.71	33	-10.29
		1855	64QAM	1	0	23.07	23.77	33	-9.23
	26090			1	49	22.80	23.50	33	-9.5
	20090			25	12	21.68	22.38	33	-10.62
				50	0	21.65	22.35	33	-10.65
	26365	1882.5	64QAM	1	0	23.25	23.95	33	-9.05
				1	49	22.96	23.66	33	-9.34
				25	12	21.62	22.32	33	-10.68
				50	0	21.69	22.39	33	-10.61
	26640	1910	64QAM	1	0	22.94	23.64	33	-9.36
				1	49	22.98	23.68	33	-9.32
				25	12	22.00	22.70	33	-10.3
				50	0	21.93	22.63	33	-10.37

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對测试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document is unlawful and offenders may be prosecuted to the fullest extent of the law. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

Taiwan Ltd.

f (886-2) 2298-0488



LTE Band 25_Uplink frequency band : 1850 to 1915 MHz BW UI Frequency RB RB Conducted EIRP Margin										
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)	
				1	0	24.48	25.18	33	-7.82	
	26115	1857.5	QPSK	1	74	23.89	24.59	33	-8.41	
	20113	1037.3	UI JK	36	18	22.87	23.57	33	-9.43	
				75	0	22.85	23.55	33	-9.45	
				1	0	23.91	24.61	33	-8.39	
	26365	1882.5	QPSK	1	74	23.96	24.66	33	-8.34	
	20303	1002.0	UF SK	36	18	22.59	23.29	33	-9.71	
				75	0	22.83	23.53	33	-9.47	
				1	0	24.46	25.16	33	-7.84	
	26615	1907.5	QPSK	1	74	24.16	24.86	33	-8.14	
	20015	1907.5	ULDK	36	18	23.03	23.73	33	-9.27	
			16QAM	75	0	23.07	23.77	33	-9.23	
				1	0	23.14	23.84	33	-9.16	
	2411E	1857.5		1	74	23.14	23.84	33	-9.16	
	26115	C.1007.0		36	18	21.91	22.61	33	-10.39	
				75	0	21.70	22.40	33	-10.6	
				1	0	23.47	24.17	33	-8.83	
15	26365	1882.5	16QAM	1	74	23.16	23.86	33	-9.14	
15	20305	1882.5	TOQAIVI	36	18	21.62	22.32	33	-10.68	
				75	0	21.86	22.56	33	-10.44	
				1	0	23.11	23.81	33	-9.19	
	27715	1007 F	1/0414	1	74	23.43	24.13	33	-8.87	
	26615	1907.5	16QAM	36	18	22.02	22.72	33	-10.28	
				75	0	22.09	22.79	33	-10.21	
				1	0	23.03	23.73	33	-9.27	
	2411E	10E7 E	64000	1	74	23.00	23.70	33	-9.3	
	26115	1857.5	64QAM	36	18	21.75	22.45	33	-10.55	
				75	0	21.76	22.46	33	-10.54	
				1	0	23.45	24.15	33	-8.85	
	2/2/5	1000 F		1	74	22.97	23.67	33	-9.33	
	26365	1882.5	64QAM	36	18	21.61	22.31	33	-10.69	
				75	0	21.70	22.40	33	-10.6	
				1	0	23.01	23.71	33	-9.29	
	2//15	1007 5		1	74	23.08	23.78	33	-9.22	
	26615	1907.5	64QAM	36	18	21.79	22.49	33	-10.51	
				75	0	21.75	22.45	33	-10.55	

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

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



LTE Band 25_Uplink frequency band : 1850 to 1915 MHz BW UL Frequency Line RB RB Conducted EIRP EIRP Margin										
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)	
				1	0	24.49	25.19	33	-7.81	
	26140	1860	QPSK	1	99	24.05	24.75	33	-8.25	
	20140	1800	QPSK	50	25	22.94	23.64	33	-9.36	
				100	0	22.98	23.68	33	-9.32	
				1	0	24.14	24.84	33	-8.16	
	26365	1882.5	QPSK	1	99	24.08	24.78	33	-8.22	
	20300	1002.0	QPSK	50	25	22.88	23.58	33	-9.42	
				100	0	22.97	23.67	33	-9.33	
				1	0	24.48	25.18	33	-7.82	
	26590	1905	QPSK	1	99	24.26	24.96	33	-8.04	
	20090	1900	QPSK	50	25	23.21	23.91	33	-9.09	
			[100	0	23.16	23.86	33	-9.14	
			16QAM	1	0	23.40	24.10	33	-8.9	
	26140	1860		1	99	23.22	23.92	33	-9.08	
	20140	1000		50	25	21.99	22.69	33	-10.31	
				100	0	21.99	22.69	33	-10.31	
				1	0	23.67	24.37	33	-8.63	
20	26365	1882.5	16QAM	1	99	23.27	23.97	33	-9.03	
20	20300	1002.0	TOQAIVI	50	25	21.91	22.61	33	-10.39	
				100	0	21.88	22.58	33	-10.42	
				1	0	23.39	24.09	33	-8.91	
	26590	1905	16QAM	1	99	23.44	24.14	33	-8.86	
	20090	1900	TOQAIVI	50	25	22.19	22.89	33	-10.11	
				100	0	22.15	22.85	33	-10.15	
				1	0	23.23	23.93	33	-9.07	
	26140	1860	64QAM	1	99	23.05	23.75	33	-9.25	
	20140	1000		50	25	21.82	22.52	33	-10.48	
				100	0	21.82	22.52	33	-10.48	
				1	0	23.50	24.20	33	-8.8	
	2624E	1000 E	64000	1	99	23.10	23.80	33	-9.2	
	26365 1882.5 64QA	04QAIVI	50	25	21.74	22.44	33	-10.56		
		(500 1005 (40.004	100	0	21.71	22.41	33	-10.59		
			1	0	23.22	23.92	33	-9.08		
	24500		1	99	23.27	23.97	33	-9.03		
	26590 1905 64QAM	50	25	22.02	22.72	33	-10.28			
				100	0	21.98	22.68	33	-10.32	

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對测试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document is unlawful and offenders may be prosecuted to the fullest extent of the law. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號

Taiwan Ltd.



-2.5

Antenna gain (dBi)

Antenna	<u>J' (' /</u>	-2.0	LTE Band	d 26_Up	olink frequency	y band : 824 to	849 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.83	19.18	21.33	38.45	-17.12
	26797	824.7	QPSK	1	5	23.88	19.23	21.38	38.45	-17.07
	20191	024.7	UFJK	3	2	23.15	18.50	20.65	38.45	-17.8
				6	0	23.08	18.43	20.58	38.45	-17.87
				1	0	23.75	19.10	21.25	38.45	-17.2
	26915	836.5	QPSK	1	5	23.70	19.05	21.20	38.45	-17.25
	20713	030.3	UI JK	3	2	22.99	18.34	20.49	38.45	-17.96
				6	0	22.85	18.20	20.35	38.45	-18.1
				1	0	23.87	19.22	21.37	38.45	-17.08
	27033	848.3	QPSK	1	5	23.75	19.10	21.25	38.45	-17.2
	27033	040.5	UI JK	3	2	22.76	18.11	20.26	38.45	-18.19
				6	0	22.81	18.16	20.31	38.45	-18.14
				1	0	23.08	18.43	20.58	38.45	-17.87
	26797	824.7	16QAM	1	5	23.34	18.69	20.84	38.45	-17.61
	20191	024.7	TOQAIVI	3	2	21.94	17.29	19.44	38.45	-19.01
				6	0	22.10	17.45	19.60	38.45	-18.85
				1	0	23.19	18.54	20.69	38.45	-17.76
1.4	26915	836.5	16QAM	1	5	22.92	18.27	20.42	38.45	-18.03
1.4	20910	030.0	TOQAIVI	3	2	22.01	17.36	19.51	38.45	-18.94
				6	0	21.81	17.16	19.31	38.45	-19.14
				1	0	23.42	18.77	20.92	38.45	-17.53
	27033	848.3	16QAM	1	5	22.51	17.86	20.01	38.45	-18.44
	27033	040.3	TOQAIVI	3	2	22.05	17.40	19.55	38.45	-18.9
				6	0	22.04	17.39	19.54	38.45	-18.91
				1	0	22.87	18.22	20.37	38.45	-18.08
	26797	824.7	64QAM	1	5	23.26	18.61	20.76	38.45	-17.69
	20191	024.7		3	2	21.99	17.34	19.49	38.45	-18.96
				6	0	21.86	17.21	19.36	38.45	-19.09
				1	0	23.11	18.46	20.61	38.45	-17.84
	26915	836.5	64QAM	1	5	22.70	18.05	20.20	38.45	-18.25
	20710	030.0		3	2	21.79	17.14	19.29	38.45	-19.16
				6	0	21.94	17.29	19.44	38.45	-19.01
				1	0	23.38	18.73	20.88	38.45	-17.57
	27033	040.2	64QAM	1	5	22.58	17.93	20.08	38.45	-18.37
	27033	848.3	04QAIVI	3	2	22.01	17.36	19.51	38.45	-18.94
				6	0	22.06	17.41	19.56	38.45	-18.89

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



Antenna	5am (a=1)	-2.0	LTE Band	d 26_Up	link frequency	y band : 824 to	849 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.87	19.22	21.37	38.45	-17.08
	26805	825.5	QPSK	1	14	23.87	19.22	21.37	38.45	-17.08
	20005	020.0		8	4	23.00	18.35	20.50	38.45	-17.95
				15	0	23.04	18.39	20.54	38.45	-17.91
				1	0	23.98	19.33	21.48	38.45	-16.97
	26915	836.5	QPSK	1	14	23.77	19.12	21.27	38.45	-17.18
	20713	030.5	QI SIX	8	4	22.93	18.28	20.43	38.45	-18.02
				15	0	22.93	18.28	20.43	38.45	-18.02
				1	0	23.74	19.09	21.24	38.45	-17.21
	27025	847.5	QPSK	1	14	23.58	18.93	21.08	38.45	-17.37
	27025	047.5	UI JK	8	4	22.87	18.22	20.37	38.45	-18.08
				15	0	23.02	18.37	20.52	38.45	-17.93
				1	0	22.86	18.21	20.36	38.45	-18.09
	26805	825.5	16QAM	1	14	23.39	18.74	20.89	38.45	-17.56
	20005	025.5	TOQAIVI	8	4	22.12	17.47	19.62	38.45	-18.83
			15	0	21.82	17.17	19.32	38.45	-19.13	
				1	0	23.26	18.61	20.76	38.45	-17.69
3	26915	836.5	16OAM	1	14	22.92	18.27	20.42	38.45	-18.03
5	20715	030.5	16QAM	8	4	21.88	17.23	19.38	38.45	-19.07
				15	0	22.10	17.45	19.60	38.45	-18.85
				1	0	23.28	18.63	20.78	38.45	-17.67
	27025	847.5	16QAM	1	14	22.53	17.88	20.03	38.45	-18.42
	27025	047.5	TOQAIVI	8	4	21.98	17.33	19.48	38.45	-18.97
				15	0	21.99	17.34	19.49	38.45	-18.96
				1	0	22.86	18.21	20.36	38.45	-18.09
	26805	825.5	64QAM	1	14	23.51	18.86	21.01	38.45	-17.44
	20005	025.5		8	4	21.90	17.25	19.40	38.45	-19.05
				15	0	22.00	17.35	19.50	38.45	-18.95
				1	0	23.02	18.37	20.52	38.45	-17.93
	26015	836 F	640AM	1	14	22.91	18.26	20.41	38.45	-18.04
	26915 836.5 64QAM		8	4	22.01	17.36	19.51	38.45	-18.94	
				15	0	21.84	17.19	19.34	38.45	-19.11
				1	0	23.45	18.80	20.95	38.45	-17.5
	27025	847.5	64QAM	1	14	22.54	17.89	20.04	38.45	-18.41
	21020	047.0		8	4	21.79	17.14	19.29	38.45	-19.16
				15	0	21.98	17.33	19.48	38.45	-18.97

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



-2.5 Antenna gain (dBi)

Antenna	<u></u>	-2.3	LTE Band	1 26_Up	link frequency	/ band : 824 to	849 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.83	19.18	21.33	38.45	-17.12
	26815	826.5	QPSK	1	24	23.89	19.24	21.39	38.45	-17.06
	20015	020.5	QI SIX	12	6	23.02	18.37	20.52	38.45	-17.93
				25	0	22.87	18.22	20.37	38.45	-18.08
				1	0	23.94	19.29	21.44	38.45	-17.01
	26915	836.5	QPSK	1	24	23.79	19.14	21.29	38.45	-17.16
	20713	030.3	QI JK	12	6	22.97	18.32	20.47	38.45	-17.98
				25	0	22.95	18.30	20.45	38.45	-18
				1	0	23.78	19.13	21.28	38.45	-17.17
	27015	846.5	QPSK	1	24	23.62	18.97	21.12	38.45	-17.33
	27015	040.5	QI JK	12	6	22.81	18.16	20.31	38.45	-18.14
				25	0	22.83	18.18	20.33	38.45	-18.12
				1	0	23.07	18.42	20.57	38.45	-17.88
	26815	826.5	16QAM	1	24	23.33	18.68	20.83	38.45	-17.62
	20010	020.0	TOQAIM	12	6	21.97	17.32	19.47	38.45	-18.98
				25	0	21.89	17.24	19.39	38.45	-19.06
				1	0	23.32	18.67	20.82	38.45	-17.63
5	26915	836.5	16QAM	1	24	23.00	18.35	20.50	38.45	-17.95
5	20910	030.0	TOQAIM	12	6	22.03	17.38	19.53	38.45	-18.92
				25	0	21.96	17.31	19.46	38.45	-18.99
				1	0	23.25	18.60	20.75	38.45	-17.7
	27015	846.5	16QAM	1	24	22.65	18.00	20.15	38.45	-18.3
	27015	040.0	TOQAIM	12	6	22.03	17.38	19.53	38.45	-18.92
				25	0	21.92	17.27	19.42	38.45	-19.03
				1	0	22.88	18.23	20.38	38.45	-18.07
	26815	826.5	64QAM	1	24	23.49	18.84	20.99	38.45	-17.46
	20010	020.0		12	6	22.09	17.44	19.59	38.45	-18.86
				25	0	21.80	17.15	19.30	38.45	-19.15
				1	0	23.20	18.55	20.70	38.45	-17.75
	2401E	024 E	64QAM	1	24	22.93	18.28	20.43	38.45	-18.02
	26915	836.5		12	6	22.02	17.37	19.52	38.45	-18.93
				25	0	21.81	17.16	19.31	38.45	-19.14
				1	0	23.32	18.67	20.82	38.45	-17.63
	27015	014 E	64000	1	24	22.63	17.98	20.13	38.45	-18.32
	27015	846.5	64QAM	12	6	21.96	17.31	19.46	38.45	-18.99
				25	0	21.78	17.13	19.28	38.45	-19.17

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



-2.5 Antenna gain (dBi)

Antenna	<u>, , , , , , , , , , , , , , , , , , , </u>	-2.5	LTE Band	1 26_Up	link frequency	y band : 824 to	849 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.80	19.15	21.30	38.45	-17.15
	26840	829	QPSK	1	49	23.95	19.30	21.45	38.45	-17
	20040	02.7	QI JK	25	12	22.96	18.31	20.46	38.45	-17.99
				50	0	23.04	18.39	20.54	38.45	-17.91
				1	0	23.87	19.22	21.37	38.45	-17.08
	26915	836.5	QPSK	1	49	23.76	19.11	21.26	38.45	-17.19
	20713	030.3	QI JK	25	12	22.80	18.15	20.30	38.45	-18.15
				50	0	22.98	18.33	20.48	38.45	-17.97
				1	0	23.98	19.33	21.48	38.45	-16.97
	26990	844	QPSK	1	49	23.64	18.99	21.14	38.45	-17.31
	20770	044	UF SK	25	12	22.97	18.32	20.47	38.45	-17.98
				50	0	23.05	18.40	20.55	38.45	-17.9
				1	0	23.05	18.40	20.55	38.45	-17.9
	26840	829	16QAM	1	49	23.46	18.81	20.96	38.45	-17.49
	20040	029	TOQAIVI	25	12	22.10	17.45	19.60	38.45	-18.85
				50	0	22.08	17.43	19.58	38.45	-18.87
				1	0	23.20	18.55	20.70	38.45	-17.75
10	26915	024 E	16QAM	1	49	22.93	18.28	20.43	38.45	-18.02
10	20910	836.5	TOQAIVI	25	12	22.07	17.42	19.57	38.45	-18.88
				50	0	21.80	17.15	19.30	38.45	-19.15
				1	0	23.47	18.82	20.97	38.45	-17.48
	26990	844	16QAM	1	49	22.54	17.89	20.04	38.45	-18.41
	20990	044	TOQAIVI	25	12	22.06	17.41	19.56	38.45	-18.89
				50	0	22.09	17.44	19.59	38.45	-18.86
				1	0	23.01	18.36	20.51	38.45	-17.94
	26840	829	64QAM	1	49	23.40	18.75	20.90	38.45	-17.55
	20040	029		25	12	21.93	17.28	19.43	38.45	-19.02
				50	0	22.02	17.37	19.52	38.45	-18.93
				1	0	23.09	18.44	20.59	38.45	-17.86
	24015	024 E	(1000	1	49	22.91	18.26	20.41	38.45	-18.04
	26915 836.5	64QAM	25	12	21.82	17.17	19.32	38.45	-19.13	
				50	0	21.97	17.32	19.47	38.45	-18.98
				1	0	23.41	18.76	20.91	38.45	-17.54
	24000	044		1	49	22.50	17.85	20.00	38.45	-18.45
	26990	844	64QAM	25	12	21.71	17.06	19.21	38.45	-19.24
				50	0	22.08	17.43	19.58	38.45	-18.87

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



-2.5

Report No.: E2/2019/90045 Page 79 of 645

Antenna gain (dBi)

Antenna	<u> </u>	-2.5	LTE Band	d 26_Up	link frequency	y band : 824 to	849 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	24.05	19.40	21.55	38.45	-16.9
	26865	831.5	QPSK	1	74	24.03	19.38	21.53	38.45	-16.92
	20000	001.0	QUOR	36	18	23.20	18.55	20.70	38.45	-17.75
				75	0	23.09	18.44	20.59	38.45	-17.86
				1	0	24.04	19.39	21.54	38.45	-16.91
	26915	836.5	QPSK	1	74	24.00	19.35	21.50	38.45	-16.95
	20713	000.0	QI SIX	36	18	23.09	18.44	20.59	38.45	-17.86
				75	0	23.03	18.38	20.53	38.45	-17.92
				1	0	23.99	19.34	21.49	38.45	-16.96
	26965	841.5	QPSK	1	74	23.87	19.22	21.37	38.45	-17.08
	20705	041.5	QI SIX	36	18	23.03	18.38	20.53	38.45	-17.92
				75	0	23.06	18.41	20.56	38.45	-17.89
				1	0	23.11	18.46	20.61	38.45	-17.84
	26865	831.5	16QAM	1	74	23.61	18.96	21.11	38.45	-17.34
	20005	031.5	TOQAM	36	18	22.16	17.51	19.66	38.45	-18.79
			75	0	22.12	17.47	19.62	38.45	-18.83	
				1	0	23.33	18.68	20.83	38.45	-17.62
15	26915	836.5	16QAM	1	74	23.04	18.39	20.54	38.45	-17.91
15	20713	030.3		36	18	22.14	17.49	19.64	38.45	-18.81
				75	0	22.10	17.45	19.60	38.45	-18.85
				1	0	23.54	18.89	21.04	38.45	-17.41
	26965	841.5	16QAM	1	74	22.80	18.15	20.30	38.45	-18.15
	20903	041.5	TOQAM	36	18	22.08	17.43	19.58	38.45	-18.87
				75	0	22.15	17.50	19.65	38.45	-18.8
				1	0	23.04	18.39	20.54	38.45	-17.91
	26865	831.5	64QAM	1	74	23.54	18.89	21.04	38.45	-17.41
	20005	001.0		36	18	22.09	17.44	19.59	38.45	-18.86
				75	0	22.05	17.40	19.55	38.45	-18.9
				1	0	23.26	18.61	20.76	38.45	-17.69
	26015	836 F	64QAM	1	74	22.97	18.32	20.47	38.45	-17.98
	26915 836.5 6		36	18	22.07	17.42	19.57	38.45	-18.88	
				75	0	22.03	17.38	19.53	38.45	-18.92
				1	0	23.47	18.82	20.97	38.45	-17.48
	26965	841.5	64QAM	1	74	22.73	18.08	20.23	38.45	-18.22
	20900	041.0		36	18	22.01	17.36	19.51	38.45	-18.94
				75	0	22.08	17.43	19.58	38.45	-18.87

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



-2.5

Antenna gain (dBi)

	gain (abi)	F	Part 90S_LTE	Band	26_Upli	nk frequency b	oand : 814 to 8	24 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.94	19.29	21.44	50	-28.56
	26697	814.7	QPSK	1	5	23.97	19.32	21.47	50	-28.53
	20077	014.7	QI SIX	3	2	23.93	19.28	21.43	50	-28.57
				6	0	22.93	18.28	20.43	50	-29.57
				1	0	23.94	19.29	21.44	50	-28.56
	26740	819	QPSK	1	5	23.92	19.27	21.42	50	-28.58
	20740	017	QI SIX	3	2	24.03	19.38	21.53	50	-28.47
				6	0	23.00	18.35	20.50	50	-29.5
				1	0	23.78	19.13	21.28	50	-28.72
	26783	823.3	QPSK	1	5	23.80	19.15	21.30	50	-28.7
	20703	020.0	QI SIX	3	2	23.98	19.33	21.48	50	-28.52
		$\left \right $		6	0	22.93	18.28	20.43	50	-29.57
		0117		1	0	23.04	18.39	20.54	50	-29.46
	26697	697 814.7	16QAM	1	5	23.06	18.41	20.56	50	-29.44
	20077			3	2	22.94	18.29	20.44	50	-29.56
				6	0	22.03	17.38	19.53	50	-30.47
				1	0	23.30	18.65	20.80	50	-29.2
1.4	26740	819	16QAM	1	5	23.36	18.71	20.86	50	-29.14
1.4	20740	017	TOQAIVI	3	2	23.08	18.43	20.58	50	-29.42
				6	0	22.08	17.43	19.58	50	-30.42
				1	0	23.05	18.40	20.55	50	-29.45
	26783	823.3	16QAM	1	5	23.01	18.36	20.51	50	-29.49
	20703	023.3	TOQAIVI	3	2	23.04	18.39	20.54	50	-29.46
				6	0	21.99	17.34	19.49	50	-30.51
				1	0	21.87	17.22	19.37	50	-30.63
	26697	814.7	64QAM	1	5	22.11	17.46	19.61	50	-30.39
	20097	014.7		3	2	21.96	17.31	19.46	50	-30.54
				6	0	20.92	16.27	18.42	50	-31.58
				1	0	22.12	17.47	19.62	50	-30.38
	26740 819 6	640000	1	5	22.18	17.53	19.68	50	-30.32	
		64QAM	3	2	22.25	17.60	19.75	50	-30.25	
			6	0	20.99	16.34	18.49	50	-31.51	
			1	0	22.23	17.58	19.73	50	-30.27	
	24702	011 1	40000	1	5	22.15	17.50	19.65	50	-30.35
	26783	823.3	64QAM	3	2	22.23	17.58	19.73	50	-30.27
				6	0	20.94	16.29	18.44	50	-31.56

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



-2.5 Antenna gain (dBi)

	gain (dBi)	-2.5 F	Part 90S_LTE	Band	26_Uplii	nk frequency b	and : 814 to 82	24 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.97	19.32	21.47	50	-28.53
	26705	815.5	QPSK	1	14	23.95	19.30	21.45	50	-28.55
	20705	010.0	UFSK	8	4	23.06	18.41	20.56	50	-29.44
				15	0	23.00	18.35	20.50	50	-29.5
				1	0	24.10	19.45	21.60	50	-28.4
	26740	819	QPSK	1	14	24.08	19.43	21.58	50	-28.42
	20740	017	UF JK	8	4	23.11	18.46	20.61	50	-29.39
				15	0	23.06	18.41	20.56	50	-29.44
				1	0	24.02	19.37	21.52	50	-28.48
	26775	822.5	QPSK	1	14	24.03	19.38	21.53	50	-28.47
	20775	022.3	UF JK	8	4	23.07	18.42	20.57	50	-29.43
				15	0	23.03	18.38	20.53	50	-29.47
				1	0	23.15	18.50	20.65	50	-29.35
	26705	815 5	16QAM	1	14	23.19	18.54	20.69	50	-29.31
	26705 815.5	TOQAIVI	8	4	22.04	17.39	19.54	50	-30.46	
				15	0	22.08	17.43	19.58	50	-30.42
				1	0	23.43	18.78	20.93	50	-29.07
3	26740	819	16QAM	1	14	23.38	18.73	20.88	50	-29.12
5	20740	017	TOCAN	8	4	22.23	17.58	19.73	50	-30.27
				15	0	22.15	17.50	19.65	50	-30.35
				1	0	23.16	18.51	20.66	50	-29.34
	26775	822.5	16QAM	1	14	23.08	18.43	20.58	50	-29.42
	20775	022.5	TOCAM	8	4	22.17	17.52	19.67	50	-30.33
				15	0	22.08	17.43	19.58	50	-30.42
				1	0	22.12	17.47	19.62	50	-30.38
	26705	815.5	64QAM	1	14	22.08	17.43	19.58	50	-30.42
	20703	013.5		8	4	21.12	16.47	18.62	50	-31.38
				15	0	21.07	16.42	18.57	50	-31.43
				1	0	22.22	17.57	19.72	50	-30.28
	26740	Q10	640AM	1	14	22.23	17.58	19.73	50	-30.27
	26740 819 64QAN		8	4	21.17	16.52	18.67	50	-31.33	
			15	0	21.10	16.45	18.60	50	-31.4	
			1	0	22.36	17.71	19.86	50	-30.14	
	26775	822.5	64QAM	1	14	22.30	17.65	19.80	50	-30.2
	20775	022.0		8	4	21.08	16.43	18.58	50	-31.42
				15	0	21.08	16.43	18.58	50	-31.42

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



	yallı (udi)	-2.5 F	Part 90S_LTE	Band	26_Uplii	nk frequency b	oand : 814 to 82	24 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	24.07	19.42	21.57	50	-28.43
	26715	816.5	QPSK	1	24	24.05	19.40	21.55	50	-28.45
	20/10	010.0	QI SIX	12	6	23.09	18.44	20.59	50	-29.41
				25	0	23.05	18.40	20.55	50	-29.45
				1	0	24.00	19.35	21.50	50	-28.5
	26740	819	QPSK	1	24	24.00	19.35	21.50	50	-28.5
	20710	017		12	6	23.17	18.52	20.67	50	-29.33
				25	0	23.16	18.51	20.66	50	-29.34
				1	0	24.00	19.35	21.50	50	-28.5
	26765	821.5	QPSK	1	24	24.02	19.37	21.52	50	-28.48
	20700	021.3	QI SIX	12	6	23.10	18.45	20.60	50	-29.4
				25	0	23.05	18.40	20.55	50	-29.45
				1	0	23.07	18.42	20.57	50	-29.43
	26715	816.5	16QAM	1	24	23.05	18.40	20.55	50	-29.45
	26715 816.5	TOQAM	12	6	22.09	17.44	19.59	50	-30.41	
				25	0	22.10	17.45	19.60	50	-30.4
				1	0	23.03	18.38	20.53	50	-29.47
5	26740	819	16QAM	1	24	22.88	18.23	20.38	50	-29.62
5	20740	017	1002/101	12	6	22.16	17.51	19.66	50	-30.34
				25	0	22.13	17.48	19.63	50	-30.37
				1	0	23.48	18.83	20.98	50	-29.02
	26765	821.5	16QAM	1	24	23.41	18.76	20.91	50	-29.09
	20703	021.5	TOCAM	12	6	22.11	17.46	19.61	50	-30.39
				25	0	22.13	17.48	19.63	50	-30.37
				1	0	21.88	17.23	19.38	50	-30.62
	26715	816.5	64QAM	1	24	22.03	17.38	19.53	50	-30.47
	20713	010.5	04QAM	12	6	21.12	16.47	18.62	50	-31.38
				25	0	21.10	16.45	18.60	50	-31.4
				1	0	22.28	17.63	19.78	50	-30.22
	26740	26740 810	640AM	1	24	22.36	17.71	19.86	50	-30.14
	26740 819 64QAM		12	6	21.16	16.51	18.66	50	-31.34	
			25	0	21.17	16.52	18.67	50	-31.33	
			1	0	22.02	17.37	19.52	50	-30.48	
	26765	821.5	64QAM	1	24	22.13	17.48	19.63	50	-30.37
	20705	021.0		12	6	21.18	16.53	18.68	50	-31.32
				25	0	21.18	16.53	18.68	50	-31.32

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



-2.5

Antenna gain (dBi)

	Part 90S_LTE Band 26_Uplink frequency band : 814 to 824 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	ERP Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)		
				1	0	24.12	19.47	21.62	50	-28.38		
	26740	819	QPSK	1	49	23.93	19.28	21.43	50	-28.57		
	20740	819	UFSK	25	12	23.16	18.51	20.66	50	-29.34		
				50	0	23.05	18.40	20.55	50	-29.45		
					1	0	23.05	18.40	20.55	50	-29.45	
10	26740	819	16QAM	1	49	23.15	18.50	20.65	50	-29.35		
10	20740	019	TOQAIVI	25	12	22.14	17.49	19.64	50	-30.36		
				50	0	22.17	17.52	19.67	50	-30.33		
				1	0	22.13	17.48	19.63	50	-30.37		
	26740 819	640AM	1	49	22.01	17.36	19.51	50	-30.49			
		64QAM	25	12	21.15	16.50	18.65	50	-31.35			
					0	21.11	16.46	18.61	50	-31.39		

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



Antenna	gain (abi)	0.4 L	TE Band 30_l	Jplink fr	equency ban	d : 2305 to 2315	5 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.25	23.65	24	-0.35
	27685	2307.5	QPSK	1	24	23.17	23.57	24	-0.43
	27003	2307.3	QI SIX	12	6	22.02	22.42	24	-1.58
				25	0	22.16	22.56	24	-1.44
				1	0	23.41	23.81	24	-0.19
	27710	2310	QPSK	1	24	23.09	23.49	24	-0.51
	27710	2310	UI JK	12	6	22.06	22.46	24	-1.54
				25	0	22.06	22.46	24	-1.54
				1	0	23.22	23.62	24	-0.38
	27735	2312.5	QPSK	1	24	23.21	23.61	24	-0.39
	21135	2312.5	UF 3K	12	6	22.18	22.58	24	-1.42
				25	0	22.16	22.56	24	-1.44
				1	0	22.29	22.69	24	-1.31
	27605	2207 F	16QAM	1	24	22.27	22.67	24	-1.33
	27685 2307.5	TOQAM	12	6	21.06	21.46	24	-2.54	
				25	0	21.04	21.44	24	-2.56
			16QAM	1	0	22.25	22.65	24	-1.35
5	27710	2310		1	24	22.40	22.80	24	-1.2
5	27710	2310		12	6	21.19	21.59	24	-2.41
				25	0	21.13	21.53	24	-2.47
				1	0	22.19	22.59	24	-1.41
	27735	2312.5	16QAM	1	24	22.42	22.82	24	-1.18
	21135	2312.0	TOQAIVI	12	6	21.02	21.42	24	-2.58
				25	0	21.13	21.53	24	-2.47
				1	0	22.14	22.54	24	-1.46
	27685	2307.5	64QAM	1	24	22.28	22.68	24	-1.32
	27005	2307.3		12	6	21.01	21.41	24	-2.59
				25	0	21.05	21.45	24	-2.55
				1	0	22.16	22.56	24	-1.44
	27710	2210	40000	1	24	22.28	22.68	24	-1.32
	27710	2310	64QAM	12	6	21.03	21.43	24	-2.57
				25	0	21.07	21.47	24	-2.53
				1	0	22.06	22.46	24	-1.54
	1771E	2210 E	40000	1	24	22.31	22.71	24	-1.29
	27735	2312.5	64QAM	12	6	21.15	21.55	24	-2.45
				25	0	21.09	21.49	24	-2.51

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.



Antenna gain (dBi)

		LI	E Band 30_L	Jplink f	requency band	d : 2305 to 231	5 MHz			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)	
				1	0	22.99	23.39	24	-0.61	
	27710	2210	ODSK	1	49	22.96	23.36	24	-0.64	
	27710	2310	2310	QPSK	25	12	22.20	22.60	24	-1.4
				50	0	22.23	22.63	24	-1.37	
				1	0	22.44	22.84	24	-1.16	
10	27710	2310	16QAM	1	49	22.43	22.83	24	-1.17	
10	27710	2310	TOQAIM	25	12	21.22	21.62	24	-2.38	
				50	0	21.26	21.66	24	-2.34	
				1	0	22.21	22.61	24	-1.39	
	27710	2210	64QAM	1	49	22.50	22.90	24	-1.1	
	27710	7710 2310	64QAM	25	12	21.12	21.52	24	-2.48	
					50	0	21.03	21.43	24	-2.57

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



Report No.: E2/2019/90045 Page 86 of 645

Antenna gain (dBi)

	LTE Band 38_Uplink frequency band : 2570 to 2620 MHz												
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)				
				1	0	23.97	24.57	33	-8.43				
	37775	2572.5	QPSK	1	24	23.54	24.14	33	-8.86				
	31113	2072.0	UFSK	12	6	22.63	23.23	33	-9.77				
				25	0	22.74	23.34	33	-9.66				
				1	0	23.70	24.30	33	-8.7				
	38000	2595	QPSK	1	24	23.66	24.26	33	-8.74				
	30000	2090	UFSK	12	6	22.43	23.03	33	-9.97				
				25	0	22.69	23.29	33	-9.71				
				1	0	23.59	24.19	33	-8.81				
	38225	2617.5	QPSK	1	24	23.45	24.05	33	-8.95				
	30223	2017.3	UPSK	12	6	22.39	22.99	33	-10.01				
				25	0	22.54	23.14	33	-9.86				
			16QAM	1	0	23.02	23.62	33	-9.38				
	37775	2572.5		1	24	22.60	23.20	33	-9.8				
	37775	2372.3		12	6	21.72	22.32	33	-10.68				
				25	0	21.76	22.36	33	-10.64				
		2595	16QAM	1	0	23.05	23.65	33	-9.35				
5	38000			1	24	22.77	23.37	33	-9.63				
5	30000	2090	TOQAIVI	12	6	21.48	22.08	33	-10.92				
				25	0	21.67	22.27	33	-10.73				
				1	0	22.89	23.49	33	-9.51				
	38225	2617.5	16QAM	1	24	22.57	23.17	33	-9.83				
	30223	2017.3	TOQAIVI	12	6	21.43	22.03	33	-10.97				
				25	0	21.72	22.32	33	-10.68				
				1	0	22.87	23.47	33	-9.53				
	37775	2572.5	64QAM	1	24	22.62	23.22	33	-9.78				
	37775	2372.3		12	6	21.67	22.27	33	-10.73				
				25	0	21.65	22.25	33	-10.75				
				1	0	22.82	23.42	33	-9.58				
	38000	2595	64QAM	1	24	22.77	23.37	33	-9.63				
	30000	Z0 7 0		12	6	21.41	22.01	33	-10.99				
				25	0	21.52	22.12	33	-10.88				
				1	0	22.93	23.53	33	-9.47				
	38225	2617.5	64QAM	1	24	22.73	23.33	33	-9.67				
	30223	2017.0		12	6	21.49	22.09	33	-10.91				
				25	0	21.53	22.13	33	-10.87				

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

t (886-2) 2299-3279

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司

f (886-2) 2298-0488



Antenna gain (dBi)

Antenna	LTE Band 38_Uplink frequency band : 2570 to 2620 MHz												
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)				
				1	0	23.97	24.57	33	-8.43				
	37800	2575	QPSK	1	49	23.37	23.97	33	-9.03				
	37000	2070	UF 3K	25	12	22.85	23.45	33	-9.55				
				50	0	22.53	23.13	33	-9.87				
				1	0	23.62	24.22	33	-8.78				
	38000	2595	QPSK	1	49	23.47	24.07	33	-8.93				
	30000	2090	UPSK	25	12	22.57	23.17	33	-9.83				
				50	0	22.56	23.16	33	-9.84				
				1	0	23.63	24.23	33	-8.77				
	38200	2615	QPSK	1	49	23.43	24.03	33	-8.97				
	30200	2015	UPSK	25	12	22.43	23.03	33	-9.97				
				50	0	22.48	23.08	33	-9.92				
				1	0	23.09	23.69	33	-9.31				
	37800 2575	2575	16QAM	1	49	22.66	23.26	33	-9.74				
		2575	TOQAIN	25	12	21.62	22.22	33	-10.78				
				50	0	21.70	22.30	33	-10.7				
		8000 2595	95 16QAM	1	0	22.81	23.41	33	-9.59				
10	38000			1	49	22.77	23.37	33	-9.63				
10	38000	2090	TOQAIVI	25	12	21.62	22.22	33	-10.78				
				50	0	21.65	22.25	33	-10.75				
				1	0	22.79	23.39	33	-9.61				
	38200	2615	16QAM	1	49	22.67	23.27	33	-9.73				
	30200	2015	TOQAIVI	25	12	21.45	22.05	33	-10.95				
				50	0	21.63	22.23	33	-10.77				
				1	0	22.89	23.49	33	-9.51				
	37800	2575	64QAM	1	49	22.48	23.08	33	-9.92				
	37800	2070	04QAIVI	25	12	21.52	22.12	33	-10.88				
				50	0	21.62	22.22	33	-10.78				
				1	0	22.94	23.54	33	-9.46				
	38000	2595	64QAM	1	49	22.62	23.22	33	-9.78				
	30000	2090		25	12	21.41	22.01	33	-10.99				
				50	0	21.49	22.09	33	-10.91				
				1	0	22.81	23.41	33	-9.59				
	20200	0 ∠ 1⊑		1	49	22.53	23.13	33	-9.87				
	38200	2615	64QAM	25	12	21.50	22.10	33	-10.9				
				50	0	21.51	22.11	33	-10.89				

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

t (886-2) 2299-3279



0.6 Antenna gain (dBi)

LTE Band 38_Uplink frequency band : 2570 to 2620 MHz												
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)			
				1	0	23.98	24.58	33	-8.42			
	37825	2577.5	QPSK	1	74	23.31	23.91	33	-9.09			
	37023	2077.0	UPSK	36	19	22.77	23.37	33	-9.63			
				75	0	22.62	23.22	33	-9.78			
				1	0	23.54	24.14	33	-8.86			
	38000	2595	QPSK	1	74	23.67	24.27	33	-8.73			
	38000	2090	UPSK	36	19	22.43	23.03	33	-9.97			
				75	0	22.48	23.08	33	-9.92			
				1	0	23.70	24.30	33	-8.7			
	20175	2412 E	QPSK	1	74	23.36	23.96	33	-9.04			
	38175	2612.5	QPSK	36	19	22.68	23.28	33	-9.72			
				75	0	22.45	23.05	33	-9.95			
			16QAM	1	0	23.12	23.72	33	-9.28			
	37825	0F77 F		1	74	22.63	23.23	33	-9.77			
		2577.5	16QAM	36	19	21.54	22.14	33	-10.86			
				75	0	21.50	22.10	33	-10.9			
		2505	1/0414	1	0	22.95	23.55	33	-9.45			
45	20000			1	74	22.89	23.49	33	-9.51			
15	38000	2595	16QAM	36	19	21.55	22.15	33	-10.85			
				75	0	21.40	22.00	33	-11			
				1	0	22.88	23.48	33	-9.52			
	20175	0/10 F	1/0 4 44	1	74	22.76	23.36	33	-9.64			
	38175	2612.5	16QAM	36	19	21.46	22.06	33	-10.94			
				75	0	21.44	22.04	33	-10.96			
				1	0	22.90	23.50	33	-9.5			
	27025	0F77 F	(10 114	1	74	22.72	23.32	33	-9.68			
	37825	2577.5	64QAM	36	19	21.61	22.21	33	-10.79			
				75	0	21.55	22.15	33	-10.85			
				1	0	22.81	23.41	33	-9.59			
		2505	(40.454	1	74	22.54	23.14	33	-9.86			
	38000	2595	64QAM	36	19	21.52	22.12	33	-10.88			
				75	0	21.32	21.92	33	-11.08			
				1	0	22.89	23.49	33	-9.51			
	20175	0/10 F		1	74	22.70	23.30	33	-9.7			
	38175	2612.5	64QAM	36	19	21.35	21.95	33	-11.05			
				75	0	21.47	22.07	33	-10.93			

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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

f (886-2) 2298-0488



	_	L1	FE Band 38_l	Jplink	frequen	cy band : 2570	to 2620 MHz		-
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.99	24.59	33	-8.41
	37850	2580	QPSK	1	99	23.56	24.16	33	-8.84
	57050	2000	QI SIX	50	25	22.87	23.47	33	-9.53
				100	0	22.80	23.40	33	-9.6
				1	0	23.83	24.43	33	-8.57
	38000	2595	QPSK	1	99	23.72	24.32	33	-8.68
	30000	2373	UP SK	50	25	22.70	23.30	33	-9.7
				100	0	22.75	23.35	33	-9.65
				1	0	23.78	24.38	33	-8.62
	38150	2610	QPSK	1	99	23.58	24.18	33	-8.82
	30100	2010	UPSK	50	25	22.69	23.29	33	-9.71
				100	0	22.69	23.29	33	-9.71
			16QAM	1	0	23.15	23.75	33	-9.25
	27050	2580		1	99	22.81	23.41	33	-9.59
	37850	2000		50	25	21.83	22.43	33	-10.57
				100	0	21.79	22.39	33	-10.61
			1/0444	1	0	23.06	23.66	33	-9.34
20	20000			1	99	22.90	23.50	33	-9.5
20	38000	2595	16QAM	50	25	21.75	22.35	33	-10.65
				100	0	21.69	22.29	33	-10.71
				1	0	23.06	23.66	33	-9.34
	00150	0/10		1	99	22.84	23.44	33	-9.56
	38150	2610	16QAM	50	25	21.70	22.30	33	-10.7
				100	0	21.73	22.33	33	-10.67
				1	0	23.07	23.67	33	-9.33
	07070	0500		1	99	22.73	23.33	33	-9.67
	37850	2580	64QAM	50	25	21.75	22.35	33	-10.65
				100	0	21.71	22.31	33	-10.69
				1	0	22.98	23.58	33	-9.42
	0.0000	0505		1	99	22.82	23.42	33	-9.58
	38000	2595	64QAM	50	25	21.67	22.27	33	-10.73
				100	0	21.61	22.21	33	-10.79
				1	0	22.98	23.58	33	-9.42
				1	99	22.76	23.36	33	-9.64
	38150	2610	64QAM	50	25	21.62	22.22	33	-10.78
				100	0	21.69	22.29	33	-10.71

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not excente parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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. Authors and the company and the law. SGS Taiwan Ltd. Authors and the company and the company of f(886 2) 2708 0488 WMWM tw sns com

台灣檢驗科技股份有限公司

t (886-2) 2299-3279

f (886-2) 2298-0488



Antenna gain (dBi)

LTE Band 41_Uplink frequency band : 2496 to 2690 MHz												
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)			
				1	0	23.79	25.09	33	-7.91			
	39675	2498.5	QPSK	1	24	23.75	25.05	33	-7.95			
	37073	2470.5	QI SK	12	6	22.46	23.76	33	-9.24			
				25	0	22.72	24.02	33	-8.98			
				1	0	23.52	24.82	33	-8.18			
	40620	2593	QPSK	1	24	23.45	24.75	33	-8.25			
	40020	2373	UP SK	12	6	22.46	23.76	33	-9.24			
				25	0	22.42	23.72	33	-9.28			
				1	0	23.94	25.24	33	-7.76			
	41565	2687.5	QPSK	1	24	23.95	25.25	33	-7.75			
	41000	2007.3	UPSK	12	6	22.75	24.05	33	-8.95			
				25	0	22.68	23.98	33	-9.02			
				1	0	23.01	24.31	33	-8.69			
	39675	2498.5	16QAM	1	24	22.78	24.08	33	-8.92			
	39075	2498.0	TOQAIVI	12	6	21.70	23.00	33	-10			
				25	0	21.52	22.82	33	-10.18			
		2593	16QAM	1	0	23.04	24.34	33	-8.66			
5	404.20			1	24	22.81	24.11	33	-8.89			
Э	40620	2093		12	6	21.63	22.93	33	-10.07			
				25	0	21.68	22.98	33	-10.02			
				1	0	23.47	24.77	33	-8.23			
	41E/E	2687.5	140014	1	24	23.43	24.73	33	-8.27			
	41565	2087.3	16QAM	12	6	21.81	23.11	33	-9.89			
				25	0	21.85	23.15	33	-9.85			
				1	0	21.68	22.98	33	-10.02			
	20775	2400 E		1	24	22.86	24.16	33	-8.84			
	39675	2498.5	64QAM	12	6	21.69	22.99	33	-10.01			
				25	0	21.39	22.69	33	-10.31			
				1	0	22.92	24.22	33	-8.78			
	407.00	25.02		1	24	22.67	23.97	33	-9.03			
	40620	2593	64QAM	12	6	21.41	22.71	33	-10.29			
				25	0	21.61	22.91	33	-10.09			
				1	0	23.38	24.68	33	-8.32			
	14515		(40 454	1	24	23.21	24.51	33	-8.49			
	41565	2687.5	64QAM	12	6	21.56	22.86	33	-10.14			
				25	0	21.64	22.94	33	-10.06			

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

台灣檢驗科技股份有限公司

t (886-2) 2299-3279

f (886-2) 2298-0488

www.tw.sgs.com



Antenna	gain (dBi)	1.3							
	_	L1	re Band 41_L	Jplink f	requency band	l : 2496 to 2690			
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	23.77	25.07	33	-7.93
	39700	2501	QPSK	1	49	23.67	24.97	33	-8.03
	07700	2001	QI OK	25	12	22.40	23.70	33	-9.3
				50	0	22.59	23.89	33	-9.11
				1	0	23.70	25.00	33	-8
	40620	2593	QPSK	1	49	23.48	24.78	33	-8.22
	40020	2070	QI OK	25	12	22.52	23.82	33	-9.18
				50	0	22.36	23.66	33	-9.34
				1	0	23.93	25.23	33	-7.77
	41540	2685	QPSK	1	49	23.97	25.27	33	-7.73
	1010	2005		25	12	22.73	24.03	33	-8.97
				50	0	22.82	24.12	33	-8.88
				1	0	22.77	24.07	33	-8.93
	39700	2501	16QAM	1	49	22.94	24.24	33	-8.76
	37700	2301		25	12	21.75	23.05	33	-9.95
				50	0	21.70	23.00	33	-10
		2593	16QAM	1	0	22.99	24.29	33	-8.71
10	40620			1	49	22.81	24.11	33	-8.89
10	40020	2373	TOQAIN	25	12	21.62	22.92	33	-10.08
				50	0	21.52	22.82	33	-10.18
				1	0	23.48	24.78	33	-8.22
	41540	2685	16QAM	1	49	23.47	24.77	33	-8.23
	41340	2005		25	12	21.71	23.01	33	-9.99
				50	0	21.81	23.11	33	-9.89
				1	0	22.80	24.10	33	-8.9
	39700	2501	64QAM	1	49	22.79	24.09	33	-8.91
	37700	2301		25	12	21.61	22.91	33	-10.09
				50	0	21.50	22.80	33	-10.2
				1	0	22.94	24.24	33	-8.76
	40620	2593	64QAM	1	49	22.52	23.82	33	-9.18
	40020	2373		25	12	21.52	22.82	33	-10.18
				50	0	21.41	22.71	33	-10.29
				1	0	23.42	24.72	33	-8.28
	41540	2685	64QAM	1	49	23.27	24.57	33	-8.43
	41040	2003	UHUHIVI	25	12	21.55	22.85	33	-10.15
				50	0	21.70	23.00	33	-10

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



1.3 Antenna gain (dBi)

	LTE Band 41_Uplink frequency band : 2496 to 2690 MHz												
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)				
				1	0	23.82	25.12	33	-7.88				
	39725	2503.5	QPSK	1	74	23.55	24.85	33	-8.15				
	07720	2000.0		36	18	22.50	23.80	33	-9.2				
				75	0	22.55	23.85	33	-9.15				
				1	0	23.62	24.92	33	-8.08				
	40620	2593	QPSK	1	74	23.46	24.76	33	-8.24				
	40020	2373	QUSK	36	18	22.52	23.82	33	-9.18				
				75	0	22.48	23.78	33	-9.22				
				1	0	23.98	25.28	33	-7.72				
	41515	2682.5	QPSK	1	74	23.98	25.28	33	-7.72				
	41313	2002.3	UP SK	36	18	22.72	24.02	33	-8.98				
				75	0	22.90	24.20	33	-8.8				
				1	0	23.00	24.30	33	-8.7				
	39725	2503.5	16QAM	1	74	22.68	23.98	33	-9.02				
	39723	2005.0	TOQAIVI	36	18	21.78	23.08	33	-9.92				
				75	0	21.63	22.93	33	-10.07				
		2593	16QAM	1	0	23.00	24.30	33	-8.7				
15	40620			1	74	22.82	24.12	33	-8.88				
15	40020		TOQAIVI	36	18	21.64	22.94	33	-10.06				
				75	0	21.54	22.84	33	-10.16				
				1	0	23.41	24.71	33	-8.29				
	41515	2682.5	16QAM	1	74	23.47	24.77	33	-8.23				
	41010	2002.0	TOQAIVI	36	18	21.67	22.97	33	-10.03				
				75	0	21.76	23.06	33	-9.94				
				1	0	22.67	23.97	33	-9.03				
	39725	2503.5	64QAM	1	74	22.60	23.90	33	-9.1				
	39723	2005.0		36	18	21.61	22.91	33	-10.09				
				75	0	21.45	22.75	33	-10.25				
				1	0	22.80	24.10	33	-8.9				
	10400	2593	64000	1	74	22.60	23.90	33	-9.1				
	40620	2093	64QAM	36	18	21.59	22.89	33	-10.11				
				75	0	21.50	22.80	33	-10.2				
				1	0	23.46	24.76	33	-8.24				
	11E1E	2402 F	64000	1	74	23.36	24.66	33	-8.34				
	41515	2682.5	64QAM	36	18	21.67	22.97	33	-10.03				
				75	0	21.71	23.01	33	-9.99				

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



Antenna gain (dBi)

Antenna	LTE Band 41_Uplink frequency band : 2496 to 2690 MHz											
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)			
				1	0	23.84	25.14	33	-7.86			
	39750	2506	QPSK	1	99	23.77	25.07	33	-7.93			
	07700	2000	er ort	50	25	22.65	23.95	33	-9.05			
				100	0	22.74	24.04	33	-8.96			
				1	0	23.75	25.05	33	-7.95			
	40620	2593	QPSK	1	99	23.49	24.79	33	-8.21			
	10020	2070	QUOR	50	25	22.72	24.02	33	-8.98			
				100	0	22.64	23.94	33	-9.06			
				1	0	23.99	25.29	33	-7.71			
	41490	2680	QPSK	1	99	23.98	25.28	33	-7.72			
	41470	2000	U SK	50	25	22.95	24.25	33	-8.75			
				100	0	22.98	24.28	33	-8.72			
				1	0	23.02	24.32	33	-8.68			
	39750	2506	16QAM	1	99	22.96	24.26	33	-8.74			
	37730	2300	TUQAIN	50	25	21.80	23.10	33	-9.9			
				100	0	21.72	23.02	33	-9.98			
		2593	16QAM	1	0	23.06	24.36	33	-8.64			
20	40620			1	99	22.89	24.19	33	-8.81			
20	40020	2095		50	25	21.71	23.01	33	-9.99			
				100	0	21.70	23.00	33	-10			
				1	0	23.45	24.75	33	-8.25			
	41490	2680	16QAM	1	99	23.48	24.78	33	-8.22			
	41490	2000	TOQAIVI	50	25	21.94	23.24	33	-9.76			
				100	0	21.93	23.23	33	-9.77			
				1	0	22.93	24.23	33	-8.77			
	39750	2506	64QAM	1	99	22.87	24.17	33	-8.83			
	39730	2000		50	25	21.71	23.01	33	-9.99			
				100	0	21.63	22.93	33	-10.07			
				1	0	22.97	24.27	33	-8.73			
	10400	2502	64001	1	99	22.80	24.10	33	-8.9			
	40620	2593	64QAM	50	25	21.62	22.92	33	-10.08			
				100	0	21.61	22.91	33	-10.09			
				1	0	23.46	24.76	33	-8.24			
	41 400	24.00		1	99	23.49	24.79	33	-8.21			
	41490	2680	64QAM	50	25	21.85	23.15	33	-9.85			
				100	0	21.84	23.14	33	-9.86			

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

t (886-2) 2299-3279



2.4 Antenna gain (dBi)

	LTE Band 66_Uplink frequency band : 1710 to 1780 MHz												
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)				
				1	0	24.48	26.88	30	-3.12				
	121070	1710.7	QPSK	1	5	24.09	26.49	30	-3.51				
	131979	1710.7	QPSK	3	2	23.20	25.60	30	-4.4				
				6	0	22.83	25.23	30	-4.77				
				1	0	24.00	26.40	30	-3.6				
	122222	1745	QPSK	1	5	24.12	26.52	30	-3.48				
	132322	1745	QPSK	3	2	23.15	25.55	30	-4.45				
				6	0	22.95	25.35	30	-4.65				
				1	0	24.42	26.82	30	-3.18				
	100//5	1779.3	QPSK	1	5	24.07	26.47	30	-3.53				
	132665	1/19.3	QPSK	3	2	23.13	25.53	30	-4.47				
				6	0	23.00	25.40	30	-4.6				
			16QAM	1	0	23.43	25.83	30	-4.17				
	131979	1710 7		1	5	23.41	25.81	30	-4.19				
	131979	1710.7		3	2	22.20	24.60	30	-5.4				
				6	0	21.85	24.25	30	-5.75				
		1745	16QAM	1	0	23.44	25.84	30	-4.16				
1.4	10000			1	5	23.13	25.53	30	-4.47				
1.4	132322	1745		3	2	22.31	24.71	30	-5.29				
				6	0	21.76	24.16	30	-5.84				
				1	0	23.49	25.89	30	-4.11				
	100//5	1770.0	1/0414	1	5	23.45	25.85	30	-4.15				
	132665	1779.3	16QAM	3	2	22.23	24.63	30	-5.37				
				6	0	21.80	24.20	30	-5.8				
				1	0	23.44	25.84	30	-4.16				
	101070	1710 7		1	5	23.30	25.70	30	-4.3				
	131979	1710.7	64QAM	3	2	22.04	24.44	30	-5.56				
				6	0	21.68	24.08	30	-5.92				
				1	0	23.46	25.86	30	-4.14				
	100000	1745		1	5	23.23	25.63	30	-4.37				
	132322	1745	64QAM	3	2	22.24	24.64	30	-5.36				
				6	0	21.62	24.02	30	-5.98				
				1	0	23.38	25.78	30	-4.22				
	100//5	1770.0		1	5	23.27	25.67	30	-4.33				
	132665	1779.3	64QAM	3	2	22.13	24.53	30	-5.47				
				6	0	21.81	24.21	30	-5.79				

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.

t (886-2) 2299-3279



Antenna gain (dBi)

	LTE Band 66_Uplink frequency band : 1710 to 1780 MHz												
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)				
				1	0	24.36	26.76	30	-3.24				
	101007	1711 Г	ODCK	1	14	24.08	26.48	30	-3.52				
	131987	1711.5	QPSK	8	4	23.20	25.60	30	-4.4				
				15	0	22.79	25.19	30	-4.81				
				1	0	24.06	26.46	30	-3.54				
	132322	1745	QPSK	1	14	24.10	26.50	30	-3.5				
	132322	1740	QPSK	8	4	23.30	25.70	30	-4.3				
				15	0	22.92	25.32	30	-4.68				
				1	0	24.27	26.67	30	-3.33				
	132657	1778.5	QPSK	1	14	24.22	26.62	30	-3.38				
	132037	1770.0	QPSK	8	4	23.21	25.61	30	-4.39				
				15	0	22.86	25.26	30	-4.74				
			16QAM	1	0	23.39	25.79	30	-4.21				
	131987	1711.5		1	14	23.42	25.82	30	-4.18				
	131907	1711.0		8	4	22.03	24.43	30	-5.57				
				15	0	21.72	24.12	30	-5.88				
		1745	16QAM	1	0	23.33	25.73	30	-4.27				
3	132322			1	14	23.34	25.74	30	-4.26				
5	132322			8	4	22.24	24.64	30	-5.36				
				15	0	21.76	24.16	30	-5.84				
				1	0	23.42	25.82	30	-4.18				
	132657	1778.5	16QAM	1	14	23.44	25.84	30	-4.16				
	132037	1770.5	TOQAIN	8	4	22.15	24.55	30	-5.45				
				15	0	22.03	24.43	30	-5.57				
				1	0	23.41	25.81	30	-4.19				
	131987	1711.5	64QAM	1	14	23.43	25.83	30	-4.17				
	131707	1711.5		8	4	22.15	24.55	30	-5.45				
				15	0	21.58	23.98	30	-6.02				
				1	0	23.40	25.80	30	-4.2				
	132322	1745	64QAM	1	14	23.09	25.49	30	-4.51				
	192922	1740		8	4	22.07	24.47	30	-5.53				
				15	0	21.78	24.18	30	-5.82				
				1	0	23.41	25.81	30	-4.19				
	132657	1778.5	64QAM	1	14	23.34	25.74	30	-4.26				
	132037	1770.0		8	4	22.18	24.58	30	-5.42				
				15	0	21.73	24.13	30	-5.87				

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

Member of SGS Group



LTE Band 66_Uplink frequency band : 1710 to 1780 MHz												
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)			
				1	0	24.23	26.63	30	-3.37			
	131997	1712.5	QPSK	1	24	24.05	26.45	30	-3.55			
	131777	1712.5	UP SK	12	6	23.11	25.51	30	-4.49			
				25	0	22.71	25.11	30	-4.89			
				1	0	24.05	26.45	30	-3.55			
	132322	1745	QPSK	1	24	23.95	26.35	30	-3.65			
	132322	1745	UF 3K	12	6	23.38	25.78	30	-4.22			
				25	0	22.96	25.36	30	-4.64			
				1	0	24.37	26.77	30	-3.23			
	132647	1777.5	QPSK	1	24	24.07	26.47	30	-3.53			
	132047	1777.5	UF 3K	12	6	23.34	25.74	30	-4.26			
				25	0	23.00	25.40	30	-4.6			
			16QAM	1	0	23.42	25.82	30	-4.18			
	131997 171	1710 F		1	24	23.40	25.80	30	-4.2			
		1712.5	TOQAIVI	12	6	22.21	24.61	30	-5.39			
				25	0	21.69	24.09	30	-5.91			
		2 1745	745 16QAM	1	0	23.38	25.78	30	-4.22			
5	132322			1	24	23.21	25.61	30	-4.39			
C	132322	1740	TOQAIVI	12	6	22.09	24.49	30	-5.51			
				25	0	21.94	24.34	30	-5.66			
				1	0	23.40	25.80	30	-4.2			
	132647	1777.5	16QAM	1	24	23.44	25.84	30	-4.16			
	132047	1777.5	TOQAIVI	12	6	22.31	24.71	30	-5.29			
				25	0	21.92	24.32	30	-5.68			
				1	0	23.43	25.83	30	-4.17			
	121007	1710 E	440AM	1	24	23.45	25.85	30	-4.15			
	131997	1712.5	64QAM	12	6	22.01	24.41	30	-5.59			
				25	0	21.80	24.20	30	-5.8			
				1	0	23.43	25.83	30	-4.17			
	122222	1745	64000	1	24	23.07	25.47	30	-4.53			
	132322	1745	64QAM	12	6	22.19	24.59	30	-5.41			
				25	0	21.67	24.07	30	-5.93			
				1	0	23.48	25.88	30	-4.12			
	122/17	1777 F		1	24	23.31	25.71	30	-4.29			
	132647	1777.5	64QAM	12	6	22.07	24.47	30	-5.53			
				25	0	21.78	24.18	30	-5.82			

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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger y ratisfication 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. Mo.134, Wu/KungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

f (886-2) 2298-0488



	yallı (ubi)	2.4 L	FE Band 66_l	Jplink	frequen	cy band : 1710	to 1780 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	24.32	26.72	30	-3.28
	132022	1715	QPSK	1	49	24.22	26.62	30	-3.38
	132022	1715	UF 3K	25	12	23.00	25.40	30	-4.6
				50	0	22.73	25.13	30	-4.87
				1	0	24.20	26.60	30	-3.4
	132322	1745	QPSK	1	49	24.09	26.49	30	-3.51
	132322	1745	UF 3K	25	12	23.31	25.71	30	-4.29
				50	0	22.81	25.21	30	-4.79
				1	0	24.45	26.85	30	-3.15
	132622	1775	QPSK	1	49	24.19	26.59	30	-3.41
	132022	1775	UF 3K	25	12	23.17	25.57	30	-4.43
				50	0	23.01	25.41	30	-4.59
				1	0	23.45	25.85	30	-4.15
	122022	1715	16QAM	1	49	23.45	25.85	30	-4.15
	132022	. 1715	TOQAIM	25	12	22.25	24.65	30	-5.35
				50	0	21.70	24.10	30	-5.9
			16QAM	1	0	23.49	25.89	30	-4.11
10	132322	1745		1	49	23.32	25.72	30	-4.28
10	132322	1740		25	12	22.32	24.72	30	-5.28
				50	0	21.80	24.20	30	-5.8
				1	0	23.48	25.88	30	-4.12
	132622	1775	16QAM	1	49	23.43	25.83	30	-4.17
	132022	1775	TOQAIVI	25	12	22.19	24.59	30	-5.41
				50	0	21.81	24.21	30	-5.79
				1	0	23.40	25.80	30	-4.2
	122022	1715	440AM	1	49	23.49	25.89	30	-4.11
	132022	1715	64QAM	25	12	21.93	24.33	30	-5.67
				50	0	21.70	24.10	30	-5.9
				1	0	23.38	25.78	30	-4.22
	122222	1745	440AM	1	49	23.20	25.60	30	-4.4
	132322	1745	64QAM	25	12	22.09	24.49	30	-5.51
				50	0	21.76	24.16	30	-5.84
				1	0	23.47	25.87	30	-4.13
	122/22	1775		1	49	23.36	25.76	30	-4.24
	132622	1775	64QAM	25	12	21.93	24.33	30	-5.67
				50	0	21.91	24.31	30	-5.69

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



	yain (ubi)	2.4 L	FE Band 66_l	Jplink	frequen	cy band : 1710	to 1780 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	24.37	26.77	30	-3.23
	132047	1717.5	QPSK	1	74	24.03	26.43	30	-3.57
	152047	1717.5	QI SIX	36	18	23.18	25.58	30	-4.42
				75	0	22.82	25.22	30	-4.78
				1	0	24.21	26.61	30	-3.39
	132322	1745	QPSK	1	74	23.91	26.31	30	-3.69
	132322	1745	UP SK	36	18	23.14	25.54	30	-4.46
				75	0	22.86	25.26	30	-4.74
				1	0	24.43	26.83	30	-3.17
	132597	1772.5	QPSK	1	74	24.15	26.55	30	-3.45
	132397	1772.0	UPSK	36	18	23.21	25.61	30	-4.39
				75	0	23.09	25.49	30	-4.51
				1	0	23.46	25.86	30	-4.14
	132047	1717.5	1/04/4	1	74	23.43	25.83	30	-4.17
	132047	1/17.5	16QAM	36	18	22.08	24.48	30	-5.52
				75	0	21.87	24.27	30	-5.73
				1	0	23.40	25.80	30	-4.2
15	10000	1745	1/0414	1	74	23.23	25.63	30	-4.37
15	132322	1745	16QAM	36	18	22.17	24.57	30	-5.43
				75	0	22.03	24.43	30	-5.57
				1	0	23.42	25.82	30	-4.18
	100507	1770 F	1/0414	1	74	23.35	25.75	30	-4.25
	132597	1772.5	16QAM	36	18	22.19	24.59	30	-5.41
				75	0	22.00	24.40	30	-5.6
				1	0	23.49	25.89	30	-4.11
	1000.47	1717 5	(10 114	1	74	23.44	25.84	30	-4.16
	132047	1717.5	64QAM	36	18	22.03	24.43	30	-5.57
				75	0	21.59	23.99	30	-6.01
				1	0	23.44	25.84	30	-4.16
	100000	4745	(10 11	1	74	23.02	25.42	30	-4.58
	132322	1745	64QAM	36	18	22.15	24.55	30	-5.45
				75	0	21.66	24.06	30	-5.94
				1	0	23.47	25.87	30	-4.13
	100505	4770 5		1	74	23.35	25.75	30	-4.25
	132597	1772.5	64QAM	36	18	22.15	24.55	30	-5.45
				75	0	21.92	24.32	30	-5.68

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.



	yain (ubi)	2.4 L	FE Band 66_l	Jplink	frequen	cy band : 1710	to 1780 MHz		
BW (MHz)	UL Channel	Frequency (MHz)	Modulation	RB Size	RB Offset	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Limit (dBm)	Margin (dB)
				1	0	24.49	26.89	30	-3.11
	132072	1720	QPSK	1	99	24.24	26.64	30	-3.36
	132072	1720	UF SK	50	25	23.21	25.61	30	-4.39
				100	0	22.95	25.35	30	-4.65
				1	0	24.28	26.68	30	-3.32
	132322	1745	QPSK	1	99	24.15	26.55	30	-3.45
	132322	1745	ULDK	50	25	23.39	25.79	30	-4.21
				100	0	23.00	25.40	30	-4.6
				1	0	24.47	26.87	30	-3.13
	132572	1770	QPSK	1	99	24.23	26.63	30	-3.37
	132372	1770	ULDK	50	25	23.43	25.83	30	-4.17
				100	0	23.12	25.52	30	-4.48
				1	0	23.46	25.86	30	-4.14
	122072	1720	16QAM	1	99	23.41	25.81	30	-4.19
	132072	1720	16QAM	50	25	22.31	24.71	30	-5.29
				100	0	21.98	24.38	30	-5.62
			16QAM	1	0	23.41	25.81	30	-4.19
20	132322	1745		1	99	23.37	25.77	30	-4.23
20	132322	1740		50	25	22.36	24.76	30	-5.24
				100	0	22.03	24.43	30	-5.57
				1	0	23.44	25.84	30	-4.16
	132572	1770	16QAM	1	99	23.47	25.87	30	-4.13
	132372	1770	TOQAIVI	50	25	22.34	24.74	30	-5.26
				100	0	22.06	24.46	30	-5.54
				1	0	23.44	25.84	30	-4.16
	100070	1700		1	99	23.39	25.79	30	-4.21
	132072	1720	64QAM	50	25	22.19	24.59	30	-5.41
				100	0	21.86	24.26	30	-5.74
				1	0	23.49	25.89	30	-4.11
	10000	1745	(10 114	1	99	23.25	25.65	30	-4.35
	132322	1745	64QAM	50	25	22.24	24.64	30	-5.36
				100	0	21.91	24.31	30	-5.69
				1	0	23.42	25.82	30	-4.18
	100570	1770		1	99	23.45	25.85	30	-4.15
	132572	1770	64QAM	50	25	22.22	24.62	30	-5.38
				100	0	21.94	24.34	30	-5.66

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

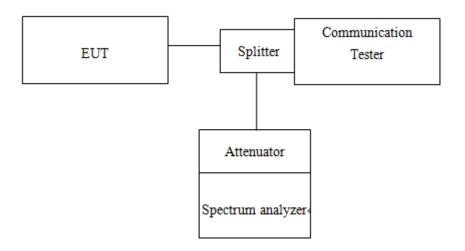


7. OCCUPIED BANDWIDTH MEASUREMENT

7.1. Standard Applicable

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power.

7.2. Test Set-up



7.3. Measurement Procedure

99% &26dB Bandwidth with detector peak

The EUT's output RF connector was connected with a short cable to the spectrum analyzer, RBW was set to about 1% of emission BW, VBW= 3 times RBW, -26dBc display line was placed on the screen (or 26dB bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace. Then set RBW to 99% bandwidth, RBW= 1%, VBW= 3 RBW, with span > 2 * Signal BW, set % Power = 99%.

99% Bandwidth with detector sample

The EUT's output RF connector was connected with a short cable to the spectrum analyzer, RBW was set to about $1\% \sim 5\%$ of emission BW, VBW= 3 times RBW, -20dBc display line was placed on the screen (or 20dB bandwidth). Set RBW to 99% bandwidth, RBW= $1\% \sim 5\%$, VBW= 3 RBW, with span > 2 * Signal BW, set % Power = 99%.

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

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

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



7.4. Measurement Equipment Used

Conduc	cted Emission (m	neasured at a	antenna port)	Test Site	
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.
TYPE		NUMBER	NUMBER	CAL.	
Spectrum Analyzer	KEYSIGHT	N9010A	MY57120200	03/06/2019	03/05/2020
DC Power Supply	Agilent	E3640A	MY53140006	05/31/2019	05/30/2020
Radio Communica- tion Analyer	Anritsu	MT8820C	6201107337	07/17/2019	07/16/2020
Attenuator	Marvelous	MVE2213-1 0	RF31	12/25/2018	12/24/2019
Splitter	Marvelous	MVE8576	RF38	12/25/2018	12/24/2019
DC Block	PASTERNACK	PE8210	RF81	12/25/2018	12/24/2019
Coaxial Cables	Woken	00100A1F1 A185C	RF220	12/25/2018	12/24/2019

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

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



7.5. Measurement Result

Erog		99	9% BW (MH	lz)	26 dB BW (MHz)			
Freq. (MHz)	СН	WCDMA II	HSDPA II	HSUPA II	WCDMA II	HSDPA II	HSUPA II	
1852.40	9262	4.11950	4.11550	4.10760	4.678	4.672	4.665	
1880.00	9400	4.12990	4.12120	4.11070	4.668	4.670	4.681	
1907.60	9538	4.12330	4.11540	4.12010	4.659	4.675	4.662	

Freq.		99	9% BW (MH	lz)	26 dB BW (MHz)			
(MHz)	СН	WCDMA	HSDPA	HSUPA	WCDMA	HSDPA	HSUPA	
(11112)		V	V	V	V	V	V	
826.40	4132	4.12450	4.11810	4.11850	4.686	4.681	4.700	
836.60	4183	4.12320	4.12180	4.12010	4.686	4.686	4.687	
846.60	4233	4.11580	4.09900	4.11110	4.692	4.655	4.662	

	LTE BAND 2 Channel bandwidth: 1.4MHz											
Freq.	СН	99	9% BW (MI	Hz)	26 dB BW (MHz)							
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
1850.7	18607	1.0946	1.0980	1.0947	1.236	1.240	1.237					
1880.0	18900	1.0946	1.0943	1.0961	1.237	1.236	1.242					
1909.3	19193	1.0939	1.0968	1.0974	1.234	1.239	1.238					

	LTE BAND 2 Channel bandwidth: 3MHz										
Freq.	СН	99	99% BW (MHz)			26 dB BW (MHz)					
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM				
1851.5	18615	2.7014	2.6988	2.7081	2.986	3.014	3.011				
1880.0	18900	2.6996	2.7021	2.7065	2.995	3.009	3.016				
1908.5	19185	2.6994	2.7000	2.7078	3.012	3.010	3.011				

	LTE BAND 2 Channel bandwidth: 5MHz											
Freq.	СН	99	9% BW (MI	Hz)	26	dB BW (M	Hz)					
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
1852.5	18625	4.4981	4.5041	4.4983	4.993	4.957	4.973					
1880.0	18900	4.4995	4.5050	4.5005	4.992	4.994	4.967					
1907.5	19175	4.4990	4.5007	4.4972	5.009	4.979	4.973					

	LTE BAND 2 Channel bandwidth: 10MHz											
Freq.	СН	99	% BW (MH	lz)	26 dB BW (MHz)							
(MHz)	CII	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
1855.0	18650	9.0088	8.9584	8.9825	9.824	9.730	9.851					
1880.0	18900	9.0078	8.9627	8.9891	9.826	9.803	9.821					
1905.0	19150	8.9999	8.9533	8.9857	9.818	9.780	9.856					

	LTE BAND 2 Channel bandwidth: 15MHz											
Freq.	СН	99	9% BW (MI	Hz)	26	26 dB BW (MHz)						
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
1857.5	18675	13.470	13.446	13.462	14.637	14.733	14.699					
1880.0	18900	13.471	13.457	13.486	14.631	14.725	14.721					
1902.5	19125	13.468	13.461	13.477	14.729	14.778	14.696					

	LTE BAND 2 Channel bandwidth: 20MHz											
Freq.	СН	99% BW (MHz) 26 dB B					Hz)					
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
1860.0	18700	17.910	17.943	17.930	19.431	19.484	19.373					
1880.0	18900	17.926	17.964	17.940	19.441	19.518	19.476					
1900.0	19100	17.931	17.960	17.941	19.519	19.524	19.583					

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留的天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not excenerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery 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/kungRoad, NewTaipeiIndustrialPark, WukuDistrict, NewTaipeiCity, Taiwan24803/新北市五股區新北產業園區五工路 134 號

	J
台灣檢驗科技股份有限公司	t (886-2) 2299-3279

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



	LTE BAND 4 Channel bandwidth: 1.4MHz											
Freq.	СН	99	99% BW (MHz)			26 dB BW (MHz)						
(MHz)	CII	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
1710.7	19957	1.0962	1.0970	1.0948	1.239	1.245	1.235					
1732.5	20175	1.0948	1.0973	1.0965	1.240	1.236	1.237					
1754.3	20393	1.0964	1.0982	1.0964	1.241	1.244	1.237					

	LTE BAND 4 Channel bandwidth: 5MHz											
Freq.	СН	99% BW (MHz)			26 dB BW (MHz)							
(MHz)	Сп	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
1712.5	19957	4.5039	4.5061	4.5103	5.004	4.987	4.981					
1732.5	20175	4.5033	4.5056	4.5071	4.991	4.970	4.993					
1752.5	20375	4.5011	4.5021	4.5063	5.001	4.965	4.980					

	LTE BAND 4 Channel bandwidth: 15MHz											
Freq.	СН	99	99% BW (MHz)			26 dB BW (MHz)						
(MHz)	Сп	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
1717.5	20025	13.494	13.483	13.458	14.715	14.754	14.776					
1732.5	20175	13.479	13.451	13.450	14.759	14.746	14.694					
1747.5	20325	13.494	13.475	13.463	14.713	14.635	14.694					

	LTE BAND 5 Channel bandwidth: 1.4MHz											
Freq.	СН	99	9% BW (MHz)		26 dB BW (MHz)							
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
824.7	20407	1.0946	1.0958	1.0950	1.238	1.240	1.236					
836.5	20525	1.0937	1.0946	1.0949	1.234	1.240	1.235					
848.3	20643	1.0951	1.0956	1.0941	1.237	1.235	1.233					

	LTE BAND 5 Channel bandwidth: 5MHz											
Freq.	СН	99	99% BW (MHz)			26 dB BW (MHz)						
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
826.5	20425	4.5015	4.5049	4.5130	4.986	4.964	4.996					
836.5	20525	4.5017	4.5022	4.5023	4.979	5.005	4.956					
846.5	20625	4.4994	4.4965	4.5066	4.981	5.000	4.934					

·												
	LTE BAND 7 Channel bandwidth: 5MHz											
Freq.	СН	99	99% BW (MHz)			26 dB BW (MHz)						
(MHz)	СН	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
2502.5	20775	4.4948	4.5078	4.4985	4.979	4.985	4.920					
2535.0	21100	4.5006	4.5006	4.5054	4.991	4.984	4.989					
2567.5	21425	4.5013	4.4991	4.5106	4.985	4.995	5.008					

	LTE BAND 7 Channel bandwidth: 15MHz											
Freq.	СН	99	99% BW (MHz) 26 dB BW (M			dB BW (M	Hz)					
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
2507.5	20825	13.454	13.419	13.376	14.571	14.656	14.124					
2535.0	21100	13.470	13.435	13.420	14.652	14.647	14.707					
2562.5	21375	13.470	13.444	13.445	14.665	14.655	14.709					

	LTE BAND 4 Channel bandwidth: 3MHz											
Freq.	СН	99% BW (MHz)			26 dB BW (MHz)							
(MHz)	CII	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
1711.5	19965	2.6999	2.7018	2.7060	3.001	3.021	2.997					
1732.5	20175	2.6959	2.7023	2.7039	2.991	3.002	2.994					
1753.5	20385	2.6985	2.7033	2.7030	2.996	3.015	2.994					

LTE BAND 4 Channel bandwidth: 10MHz										
Freq.	СН	99	99% BW (MHz)			26 dB BW (MHz)				
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM			
1715.0	20000	9.0145	8.9648	8.9799	9.818	9.753	9.835			
1732.5	20175	9.0003	8.9570	8.9890	9.822	9.804	9.808			
1750.0	20350	9.0040	8.9606	8.9756	9.843	9.755	9.825			

LTE BAND 4 Channel bandwidth: 20MHz									
Freq.	СН	99	99% BW (MHz)			26 dB BW (MHz)			
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM		
1720.0	20050	17.938	17.975	17.998	19.533	19.503	19.505		
1732.5	20175	17.918	17.943	17.934	19.484	19.577	19.557		
1745.0	20300	17.942	17.965	17.944	19.526	19.550	19.509		

	LTE BAND 5 Channel bandwidth: 3MHz										
Freq.	СН	99	99% BW (MHz)		26	26 dB BW (MHz)					
(MHz)	Сп	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM				
825.5	20415	2.7097	2.7043	2.7032	2.956	3.012	3.004				
836.5	20525	2.7001	2.6980	2.7032	2.996	3.000	2.986				
847.5	20635	2.6977	2.7015	5.9488	3.004	3.000	6.000				

		LTE BAN	ID 5 Chanr	el bandwid	dth: 10MH	Z	
Freq.	СН	99% BW (MHz)			26 dB BW (MHz)		
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
829.0	20450	8.9990	8.9681	8.9695	9.832	9.793	9.838
836.5	20525	9.0026	8.9517	8.9732	9.796	9.773	9.822
844.0	20600	8.9860	8.9556	8.9865	9.839	9.760	9.840

	LTE BAND 7 Channel bandwidth: 10MHz											
Freq.	СН	99	99% BW (MHz) 26 dB BW (MH									
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
2505.0	20800	8.9963	8.9492	8.9717	9.740	9.785	9.794					
2535.0	21100	8.9968	8.9540	8.9768	9.799	9.794	9.821					
2565.0	21400	9.0044	8.9572	8.9654	9.868	9.760	9.820					

	LTE BAND 7 Channel bandwidth: 20MHz										
Fr	eq.	СН	99	9% BW (Mł	26	6 dB BW (MHz)					
(M	Hz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM			
251	10.0	20850	17.924	17.915	17.917	19.504	19.461	19.331			
253	35.0	21100	17.897	17.897	17.888	19.436	19.349	19.488			
256	60.0	21350	17.928	17.957	17.952	19.506	19.462	19.529			

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對测试之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document is unlawful and offenders may be prosecuted to the fullest extent of the law. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 aiwan Ltd.

台灣檢驗科技股份有限公司

t (886-2) 2299-3279

f (886-2) 2298-0488

www.tw.sgs.com



Report No.: E2/2019/90045 Page 104 of 645

				-							
LTE BAND 12 Channel bandwidth: 1.4MHz											
Freq.	СН	99	9% BW (MI	MHz) 26 dB BW (MHz)			Hz)				
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM				
699.7	23017	1.0927	1.0974	1.0946	1.224	1.237	1.236				
707.5	23095	1.0926	1.0957	1.0946	1.236	1.237	1.234				
715.3	23173	1.0943	1.0963	1.0942	1.235	1.240	1.238				

	LTE BAND 12 Channel bandwidth: 5MHz											
Freq.	СН	99% BW (MHz) 26 dB BW (MHz)										
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
701.5	23035	4.5075	4.5020	4.4959	4.961	4.958	4.969					
707.5	23095	4.5105	4.5038	4.5034	4.990	5.000	4.957					
713.5	23155	4.5084	4.4983	4.4955	4.960	4.984	4.962					

	LTE BAND 13 Channel bandwidth: 5MHz											
Freq.	СН	99	99% BW (MHz) 26 dB BW (MHz)									
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
779.5	23205	4.4883	4.4902	4.4946	4.946	4.910	4.950					
782.0	23230	4.5094	4.5067	4.5095	4.965	4.989	4.965					
784.5	23255	4.5000	4.5075	4.5069	4.997	4.962	4.982					

	LTE BAND 12 Channel bandwidth: 3MHz											
Freq.	СН	99	% BW (MH	lz)	26 dB BW (MHz)							
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
700.5	23025	2.6990	2.6990	2.7088	2.997	3.008	3.015					
707.5	23095	2.7006	2.6972	2.7073	2.997	2.963	3.003					
714.5	23165	2.6973	2.6974	2.7032	2.994	3.007	2.950					

	LTE BAND 12 Channel bandwidth: 10MHz											
Freq.	СН	99	99% BW (MHz) 26 dB BW (MHz)									
(MHz)	Сп	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
704.0	23060	8.9950	8.9501	8.9677	9.799	9.758	9.793					
707.5	23095	9.0133	8.9794	9.0030	9.852	9.803	9.830					
711.0	23130	9.0164	8.9654	8.9837	9.857	9.753	9.867					

LTE BAND 13 Channel bandwidth: 10MHz									
Freq.	СН	99	9% BW (MI	Hz)	26	dB BW (M	Hz)		
(MHz)	Сп	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM		
782.0	23230	8.987	8.952	8.967	9.722	9.751	9.819		

	LTE BAND 14 Channel bandwidth: 5MHz											
Freq.	СН	99% BW (MHz)			26 dB BW (MHz)							
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
790.5	23305	4.4969	4.5012	4.4970	4.985	4.966	4.955					
793.0	23330	4.4998	4.4977	4.5000	4.963	4.982	4.955					
795.5	23355	4.5003	4.5049	4.5135	4.987	4.968	4.982					

	LTE BAND 14 Channel bandwidth: 10MHz										
Freq.											
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM				
793.0	23330	8.975	8.934	8.968	9.789	9.790	9.751				

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

26 dB BW (MHz)



	LTE BAND 25 Channel bandwidth: 1.4MHz											
Freq.	СН	99	9% BW (MI	Hz)	26 dB BW (MHz)							
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
1850.7	26047	1.0948	1.0968	1.0972	1.239	1.237	1.233					
1882.5	26365	1.0948	1.0940	1.0961	1.240	1.241	1.236					
1914.3	26683	1.0946	0.0000	0.0000	1.237	0.000	0.000					

1	LTE DAND 25 Channel handwidth, 2MI Iz									
	LTE BAND 25 Channel bandwidth: 3MHz									
	Freq.	СН	99% BW (MHz) 26 dB BW (MHz							
	(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM		
	1851.5	26055	2.7009	2.6992	2.7045	3.003	3.017	3.004		
	1882.5	26365	2.6988	2.7009	2.7048	2.995	3.013	2.991		
	1913.5	26675	26675 2.7061 2.7008 2.7034 3.016 3.011							

LTE BAND 25 Channel bandwidth: 10MHz

99% BW (MHz)

Freq.

СН

		LTE BAI	ND 25 Cha	nnel bandv	vidth: 5MF	łz	
Freq.	СН	99% BW (MHz)			26 dB BW (MHz)		
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1852.5	26065	4.4990	4.5018	4.5108	4.974	4.975	4.991
1882.5	26365	4.5011	4.5005	4.5074	5.007	4.984	4.981
1912.5	26665	4.5018	4.5048	4.5105	4.995	5.003	4.996

	LTE BAND 25 Channel bandwidth: 15MHz											
Freq.	СН	99	9% BW (MI	Hz)	26	26 dB BW (MHz)						
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
1857.5	26115	13.472	13.449	13.433	14.673	14.759	14.671					
1882.5	26365	13.455	13.457	13.447	14.722	14.805	14.756					
1907.5	26615	13.479	13.436	13.439	14.723	14.687	14.633					
		LTE BAN	D 26 Chan	nel bandwi	idth: 1.4M	Hz						
Freq.	СН	99	9% BW (Mł	Hz)	26	dB BW (M	Hz)					
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
824.7	26797	1.0945	1.0960	1.0948	1.244	1.242	1.238					
836.5	836.5 26915 1.0943 1.1006				1.339	1.252	1.233					
848.3	27033	1.0953	1.1012	1.0950	1.234	1.257	1.232					

	LTE BAND 26 Channel bandwidth: 5MHz										
Freq.	СН	99	9% BW (MI	Hz)	26 dB BW (MHz)						
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM				
826.5	26815	4.5039	4.5062	4.5057	4.966	4.991	4.980				
836.5	26915	4.5017	4.5058	4.4990	4.982	4.969	4.981				
846.5	27015	4.5011	4.4984	4.5090	4.984	4.963	4.966				

846.5	2/015	4.5011	4.4984	4.5090	4.984	4.963	4.966	844.0
								. <u>.</u>
		LTE BAN	ID 26 Char	nnel bandw	idth: 15M	Hz		
Freq.	СН	99	9% BW (Mł	Hz)	26	dB BW (M	Hz)	
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	
831.5	26865	13.472	13.454	11.697	14.718	14.735	12.407	
836.5	26915	13.450	13.437	13.431	14.676	14.735	14.773	
841.5	26965	13.486	13.460	13.432	14.664	14.666	14.761	

	(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
	1855.0	26090	8.9820	8.9570	8.9850	9.802	9.749	9.802
	1882.5	26365	8.9999	8.9582	8.9858	9.847	9.781	9.820
	1910.0	26640	8.9947	8.9590	8.9769	9.843	9.755	9.836
	LTE BAND 25 Channel bandwidth: 20MHz							
Erea 99% BW (MHz) 26 dB BW (MHz)							IHz)	

		ETE DI IN	D EO Ollall	nor barram		12	
Freq.	СН	99	99% BW (MHz)			dB BW (M	Hz)
(MHz)	UI	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1860.0	26140	17.9140	17.9280	17.9070	19.468	19.433	19.466
1882.5	26365	17.9270	17.9580	17.9450	19.496	19.489	19.485
1905.0	26590	17.8820	17.9310	17.9310	19.382	19.505	19.442
LTE BAND 26 Channel bandwidth: 3MHz							
Freq. 99% BW (MHz) 26 dB BW (MHz)							lz)

Freq.	СН	99% BW (MHz)			26 dB BW (MHz)			
(MHz)		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	
825.5	26805	2.7022	2.7023	2.7053	3.001	3.016	2.990	
836.5	26915	2.6968	2.7085	2.7033	2.996	2.991	2.995	
847.5	27025	2.6961	2.6998	2.7035	3.000	3.012	2.993	

Γ	LTE BAND 26 Channel bandwidth: 10MHz									
	Freq.	СН	99% BW (MHz)			26 dB BW (MHz)				
	(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM		
	829.0	26840	9.0090	8.9623	8.9833	9.843	9.793	9.823		
	836.5	26915	8.9943	8.9564	8.9715	9.804	9.728	9.806		
	844.0	26990	9.0069	8.9472	8.9790	9.850	9.774	9.800		

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

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



Report No.: E2/2019/90045 Page 106 of 645

LTE BAND 26 for part 90S Channel bandwidth: 1.4MHz								
	Freq.	СН	99	9% BW (MI	dB BW (M	B BW (MHz)		
	(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
	814.7	26697	1.0913	1.0977	1.0936	1.238	1.243	1.246
	819.0	26740	1.0886	1.0977	1.0935	1.234	1.243	1.244
	823.3	26783	1.0895	1.0972	1.0933	1.237	1.240	1.242

	LTE	BAND 26	for part 90	S Channel	bandwidt	h: 5MHz	
Freq. (MHz)	СН	99	9% BW (MI	Hz)	26 dB BW (MHz)		
(MHz)	Сп	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
816.5	26715	4.5002	4.4967	4.5028	4.991	4.983	4.963
819.0	26740	4.4947	4.5028	4.5051	4.977	4.948	4.982
821.5	26765	4.5005	4.5021	4.5088	4.993	4.980	4.978

LTE BAND 26 for part 90S Channel bandwidth: 3MHz								
Freq.	СН	99% BW (MHz)			26 dB BW (MHz)			
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	
815.5	26705	2.7009	2.7029	2.7055	3.016	3.003	2.998	
819.0	26740	2.6949	2.7012	2.7025	2.988	3.015	2.988	
822.5	26775	2.6972	2.6987	2.6996	2.991	3.008	2.986	

LTE BAND 26 for part 90S Channel bandwidth: 10MHz									
Freq.	СН	99% BW (MHz)			26 dB BW (MHz)				
(MHz)		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM		
819.0	26740	8.9944	8.9448	8.9655	9.787	9.767	9.799		

	LTE BAND 30 Channel bandwidth: 5MHz										
Freq.	СН	99	9% BW (M⊦	Hz)	26 dB BW (MHz)						
(MHz)	CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM				
2307.5	27685	4.4964	4.5013	4.4936	4.980	4.985	4.974				
2310.0	27710	4.4991	4.5042	4.4975	5.014	4.998	4.978				
2312.5	27735	4.5001	4.4968	4.4946	4.980	4.987	4.956				
		LTE BAI	ND 38 Cha	nnel band	width: 5M	Hz	-				
Freq.	СН	99	9% BW (MI	Hz)	26 dB BW (MHz)						
(MHz)	CH	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM				
2572.5	37775	4.5039	4.5044	4.4991	4.989	4.975	4.946				
2595.0	38000	4.5044	4.5064	4.5073	4.980	4.978	4.952				
2617.5	38225	4.5048	4.5060	4.4970	4.985	4.940	4.938				

	LTE BAND 38 Channel bandwidth: 15MHz										
Freq.	СН	99% BW (MHz)			26 dB BW (MHz)						
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM				
2577.5	37825	13.450	13.470	13.442	14.621	14.717	14.702				
2595.0	38000	13.497	13.464	13.444	14.649	14.814	14.657				
2612.5	38175	13.478	13.476	13.437	14.614	14.766	14.715				

	LTE BAND 41 Channel bandwidth: 5MHz										
Freq.	СН	99% BW (MHz)			26 dB BW (MHz)						
(MHz)	Сп	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM				
2498.5	39675	4.5067	4.5088	4.5127	5.040	5.002	5.286				
2593.0	40620	4.5021	4.5029	4.5068	4.967	4.980	4.953				
2687.5	41565	4.5100	4.5048	4.5121	5.039	5.071	5.000				

	LTE BAND 41 Channel bandwidth: 15MHz										
Freq. (MHz)	СН	99% BW (MHz)			26 dB BW (MHz)						
(MHz)	СН	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM				
2503.5	39725	13.487	13.488	13.422	14.665	14.723	14.670				
2593.0	40620	13.477	13.473	13.439	14.596	14.723	14.665				
2682.5	41515	13.481	13.469	13.409	14.634	14.675	14.720				

LTE BAND 30 Channel bandwidth: 10MHz										
Freq.	CU	99% BW (MHz)			26 dB BW (MHz)					
(MHz)	СН	QPSK	16QAM	64QAM	16QAM	QPSK	64QAM			
2310.0	27710	9.0089	8.9573	8.9894	9.849	9.766	9.792			

	LTE BAND 38 Channel bandwidth: 10MHz										
Freq.	СН	99% BW (MHz)			26 dB BW (MHz)						
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM				
2575.0	37800	8.9744	8.9574	8.9733	9.720	9.730	9.827				
2595.0	38000	8.9623	8.9569	8.9819	9.762	9.759	9.771				
2615.0	38200	8.9639	8.9565	8.9772	9.731	9.765	9.810				

LTE BAND 38 Channel bandwidth: 20MHz								
Freq.	Freq. (MHz) CH	99% BW (MHz)			26 dB BW (MHz)			
(MHz)		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	
2580.0	37850	18.236	17.938	17.914	37.579	19.430	19.448	
2595.0	38000	18.116	17.925	17.923	36.905	19.449	19.411	
2610.0	38150	17.923	17.909	17.902	19.371	19.493	19.404	

	LTE BAND 41 Channel bandwidth: 10MHz									
Freq.	СН	99% BW (MHz)			26 dB BW (MHz)					
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM			
2501.0	39700	8.9647	8.9659	8.9738	9.751	9.675	9.784			
2593.0	40620	8.9783	8.9652	8.9773	9.758	9.759	9.777			
2685.0	41540	8.9839	8.9614	8.9734	9.783	9.773	9.814			

LTE BAND 41 Channel bandwidth: 20MHz									
Freq. (MHz)	СН	99% BW (MHz)			26 dB BW (MHz)				
(MHz)	Сп	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM		
2506.0	39750	17.952	17.897	17.902	19.422	19.523	19.429		
2593.0	40620	17.936	17.926	17.907	19.353	19.461	19.541		
2680.0	41490	17.886	17.832	17.851	19.331	19.333	19.224		

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

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

SGS Taiwan Ltd.	1. No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園					
台灣檢驗科技股份有限公司	t (886-2) 2299-3279	f (886-2) 2298-0488	www.tw.sgs.com			

Member of SGS Group

Report No.: E2/2019/90045 Page 107 of 645



	LTE BAND 66 Channel bandwidth: 1.4MHz											
Γ	Freq.	СН	99	9% BW (MI	Hz)	26 dB BW (MHz)						
	(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM				
I	1710.7	131979	1.0950	1.0948	1.0948	1.239	1.240	1.238				
ſ	1745.0	132322	1.0947	1.0985	1.0950	1.240	1.242	1.237				
ſ	1779.3	132665	1.0944	1.0986	1.0986	1.241	1.244	1.244				

	LTE BAND 66 Channel bandwidth: 3MHz										
	Freq.	СН	99	9% BW (Mł	26	6 dB BW (MHz)					
1	(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM			
	1711.5	131987	2.7045	2.7007	2.7054	3.005	3.004	2.993			
	1745.0	132322	2.6995	2.7012	2.7019	2.992	3.011	2.988			
	1778.5	132657	2.6988	2.6974	2.6990	3.009	3.017	3.001			

	LTE BAND 66 Channel bandwidth: 5MHz											
Freq.	СН	99	9% BW (MI	Hz)	26 dB BW (MHz)							
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM					
1712.5	131997	4.4949	4.5027	4.5031	4.992	4.967	4.979					
1745.0	132322	4.4974	4.4989	4.5077	4.984	4.957	4.983					
1777.5	132647	4.5038	4.5035	4.5140	4.976	5.005	5.004					

LTE BAND 66 Channel bandwidth: 10MHz										
Freq.	СН	99	9% BW (Mł	Hz)	26	dB BW (M	Hz)			
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM			
1715.0	132022	9.0115	8.9639	8.9837	9.816	9.752	9.831			
1745.0	132322	8.9997	8.9551	8.9904	9.839	9.787	9.833			
1775.0	132622	9.0003	8.9612	8.9873	9.828	9.765	9.788			

		LTE BAN	ID 66 Char	nel bandw	idth: 15M	Hz		LTE BAND 66 Channel bandwidth: 20MHz							
Freq.	СН	99	9% BW (Mł	Hz)	26	dB BW (M	Hz)	Freq.	СН	99	9% BW (MI	Hz)	26	dB BW (M	Hz)
(MHz)	СП	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	(MHz)	z) CIT	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1717.5	132047	13.5030	13.4950	13.4610	14.727	14.788	14.671	1720.0	132072	17.9580	17.9970	17.9580	19.482	19.435	19.666
1745.0	132322	13.4850	13.4920	13.4520	14.669	14.708	14.707	1745.0	132322	17.9170	17.9880	17.9520	19.462	19.453	19.584
1772.5	132597	13.4510	13.4550	13.4280	14.662	14.752	14.685	1770.0	132572	17.8870	17.9310	17.9240	19.394	19.469	19.352

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

Report No.: E2/2019/90045 Page 108 of 645

WCDMA_B2_LowCH9262-1852.4

Center Fre	FL and bits of the set of the s											
10 dB/div												
		and and a second			-meineren son son son son son son son son son so		~	h	Center Free 1 852400000 GH			
-50.0 Center 1.8 #Res BW 4				#VBW 150	ĸĦz			oan 6 MHz ep 2.6 ms	CF Ster			
Occup	led Bar		195 MHz	Total F	Power		Auto Mai					
			8.666 kHz 4.678 MHz	% of O x dB	99.0 -26.0	00 %. 0 dB		OH				
CRIM						#7#102		-				

Radio Std: None nter Freg 1.852400000 GHz Center Freq 1.852400000 GHz Trig: Free Run AvgiHold: 50/50 Radio Device: BTS Ref Offset 13.8 dB Ref 30.00 dBm Center Fre 52400000 GH 1.852 GH CF Ste #VBW 150 kHz Total Power 32.1 dBm **Occupied Bandwidth** 4.1155 MHz Freq Offse OH 6.699 kHz Transmit Freq Error % of OBW Power 99.00 % x dB Bandwidth 4.672 MHz x dB -26.00 dB

HSDPA_B2_LowCH9262-1852.4

WCDMA B2 MidCH9400-1880 Radio Std: None nter Freq 1.880000000 GHz Frequency Center F Trig: Fre 0 GHz Radio Device: BTS Ref Offset 13.8 dB Ref 30.00 dBm Center Fre hone er 1.88 GHz BW 47 kHz Span 6 MH veep 2.6 m CF Step #VBW 150 kHz Occupied Bandwidth Total Power 33.1 dBm 4.1299 MHz Freq Offs % of OBW Power Transmit Freq Error 3.613 kHz 99.00 % OF x dB Bandwidth 4.668 MHz x dB -26.00 dB

WCDMA_B2_HighCH9538-1907.6

PL PL	At 50 G			Fred: 1.90760			111-02:28 AM				
Center Fre	None se: BTS	Frequency									
10 dB/div	Ref Officet 13.8 dB div Ref 30.00 dBm										
20.0	- Anna		min		romm		man	_	Center Freq 1 907600000 GHz		
9.00 -10.0 -20.0	\mathbb{Z})	m			
46.0	•			-							
-60.0				-		_					
Center 1.9 #Res BW 4			#	VBW 150 K	Hz			2.6 ms	CF Step 600.000 kHz		
Occupi	led Bandw			Total P	Power 33.1 dBm				Auto Man		
		4.1233 M	ЛНZ						Freq Offset		
Transmit Freq Error -1.127 kl x dB Bandwidth 4.659 Mi				% of OBW Power 99.00 % x dB -26.00 dB				- 6	0 Hz		
ERC)						1943	03				

HSDPA B2 MidCH9400-1880

Center Fre	at 1990	DC			reg: 1.88000	0000 (14+			1 PM Nev 13, 2019	Frequency
Center Fre	1.08000		GainLow		Run	AvgiHold	50/50		evice: BTS	
10 dB/div	Ref Offset Ref 30.0	- 0								
20.0	-	-	man	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		min	-m-	~		Center Fred 1 880000000 GHz
9.00	1									
30.0	1		-	_			_		him	1.1
46 0 80 0		-		_						
60.0 Center 1.8	0.044						_		ipan 6 MHz	
Res BW 4				#VE	SW 1501	Hz	_		ep 2.6 ms	CF Step 600.000 kHz
Occupi	ed Band		12 M		Total P	ower	32.	2 dBm		Auto Man
	Freq Offset									
Transmi	Hz	1000	BW Powe		9.00 %					
x dB Ba	ndwidth		4.670 M	Hz	x dB		-26	.00 dB		
eine)							117×10	14	_	

HSDPA_B2_HighCH9538-1907.6

Evenport Seath	At Star	Noed BW/		31333101			11:54 PM Nev 13, 2019					
	Center Freg 1.907600000 GHz Center freg 1.90760000 GHz Radio Std: None Trig Free Num AvgiHold: 50/50 Radio Device: BTS											
10 dB/div	Ref Offset Ref 30.00											
200 100 -000 -001 -000							Jun	Center Fred 1 907600000 GH:				
-46 D -80 D -60 O												
Center 1.9 #Res BW 4				VBW 150	Hz	5	Span 6 MHz Sweep 2.6 ms	CF Step 600.000 kHz				
Occup	ed Band		4 MHz	Total P	ower	33.1 dB	m	Auto Mar Freq Offset				
			2.285 kHz 1.675 MHz									
wino.						10/105						

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

t (886-2) 2299-3279

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

台灣檢驗科技股份有限公司

Taiwan Ltd.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 f (886-2) 2298-0488

www.tw.sgs.com Member of SGS Group

Report No.: E2/2019/90045 Page 109 of 645

HSUPA_B2_LowCH9262-1852.4

Research Search	0 - 101/100	Collaborat BW/			ana an				0 PH Nev 13, 2019	
Center Fre	ig 1.8524		SHZ NFGalmLow	Trig: F	Center Freq: 1,852400000 GHz Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB				itd: None Device: BTS	Frequency
10 dB/div	Ref Offse Ref 30.								0	
200		man				hann	- the state of the	-		Center Fr 1 852400000 G
9.00 -10.0 -20.0	\langle						_		100	
-30.0	~							-	v w	
-60.0							_			
Center 1.8 #Res BW 4				#	VBW 150 H	Hz	_		Span 6 MHz eep 2.6 ms	CF St 600.000 k
Occup	led Ban				Total P	ower	32.0	dBm		Auto M
D.m.			076 M							Freq Offs
	it Freq Ei ndwidth	rror	57: 4.665 I		% of OI x dB	BW Powe		9.00 % .00 dB		0
Milo							-1×10		-	

WCDMA_B5_LowCH4132-826.4

Center Fre	q 826.40000	0 MHz	Cente Trig	Center Freq: 826.400000 MHz Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB			Std: None Device: BTS	Frequency	
10 dB/div	Ref Offset 13. Ref 30.00 d								
200 100 020	han	mener		some manage				Center Free 826.400000 MH	
200			-				In		
-30.0 -46.0 -80.0									
-60.0			-				-		
Center 826 #Res BW 4		-	#	VBW 150 k	Hz		Span 6 MHz eep 2.6 ms	CF Step 600.000 kH	
Occupi	ed Bandwi	dth 4.1245 N	Hz	Total P	ower	33.0 dBm		Auto Mai	
	it Freq Error ndwidth	4.869 4.686		% of OE x dB	W Power	99.00 % -26.00 dB		OH	
100						00105			

HSUPA B2 MidCH9400-1880 Radio Std: None ter Freg 1.880000000 GHz Frequency Radio Device: BTS Ref Offset 13.8 dB Ref 30.00 dBm Center Fre er 1.88 GHz BW 47 kHz Span 6 MH veep 2.6 m CF Step #VBW 150 kHz Sweep Occupied Bandwidth Total Power 31.8 dBm 4.1107 MHz Freq Offs Transmit Freq Error 2.162 kHz % of OBW Power 99.00 % OF x dB Bandwidth 4.681 MHz x dB -26.00 dB

HSUPA_B2_HighCH9538-1907.6

Keywatt: Seathart Heavier - Occilar	e SW			
Center Freg 1.9076000	Trip	ter Freq. 1.907600000 GHz : Free Run AvgiHold t en: 30 dB	50/50 Radio Device: B	Frequency
Ref Offset 13. 10 dB/div Ref 30.00 d				
Log 300 100 000 000 300 300 400 300 400 4	pagara Mana pana	man to the		Center Frec 1 907600000 GH;
-60.0 Center 1.908 GHz			Span 6	MHZ
#Res BW 47 kHz		#VBW 150 kHz	Sweep 2.0	6 ms CF Step 600.000 kHz
Occupied Bandwi	dth 4.1201 MHz	Total Power	31.9 dBm	Freg Offset
Transmit Freq Error x dB Bandwidth	-7.718 kHz 4.662 MHz	% of OBW Power x dB	99.00 % -26.00 dB	0 Hz
Milo			=F#105	

WCDMA_B5_MidCH4183-836.6

Center Fre	eq 836,600000	THE LE T	enter Freq: 836.60 rig: Free Run Atten: 30 dB	Radio S	td: None	Frequency	
10 dB/div	Ref Offset 13.6 d Ref 30.00 dBr						
200	Jam		an a	- Brenner and	and the second second		Center Fred 836.600000 MHz
200	$\langle $					the	
46 D 90 Q							
Center 836 #Res BW 4			#VBW 150	kHz		span 6 MHz sep 2.6 ms	CF Step 600.000 kH
Occupi	led Bandwid 4.	th 1232 MHz	Total F	ower	33.0 dBm		Auto Mar Freq Offset
	it Freq Error ndwidth	-1.614 kHz 4.686 MHz		BW Power	99.00 % -26.00 dB	i- d	0 Ha
eine.					178105		

WCDMA_B5_HighCH4233-846.6

Center Fre			lz FGalmiLnw	Center F	Center Freq: 848.600000 MHz Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB			Radio	37 AM Nov 13, 2019 Std: None Device: BTS	Frequency
10 dB/div	Ref Offse Ref 30.0									
200		m		an an an Anna Anna Anna Anna Anna Anna		****	rpara	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Center Fred 846.600000 MHz
200	X								han	
48 D 80 Q 60.0										
Center 84				#V	BW 150 k	Hz			Span 6 MHz /eep 2.6 ms	CF Step
Occup	led Band		158 MH	Ηz	Total P	ower	33.	1 dBm		Auto Mar Freq Offse
	it Freq Er ndwidth		-7.138 H 4.692 M	kHz	% of Of x dB	BW Powe		9.00 % .00 dB		0 Hz
eo i							1000	08		

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

t (886-2) 2299-3279

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

S Taiwan Ltd.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 f (886-2) 2298-0488

www.tw.sgs.com

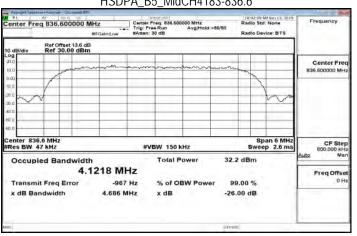
Report No.: E2/2019/90045 Page 110 of 645

HSDPA_B5_LowCH4132-826.4

	serri-Asso/asr - Ok	COMPANY STW									
Center Fre	q 826.40	0000 M	Hz #FGain:Low	Center Trig: F	Freq: 826.40 ree Run : 30 dB	AvgiHold	60/60	Radio S	td: None	Frequency	,
10 dB/div	Ref Offse Ref 30.0)		
200 100 0.00		~~~	m							Center 1 826.400000	
10.0	f				-		_		han	1	
30.0 40.0					-						
-60.0							_				
Center 826 #Res BW 4		-		#	VBW 150	kHz	_		ipan 6 MHz ep 2.6 ms	CF 1 600.000	kH
Occupi	ed Band				Total I	Power	32	.6 dBm		Auto	Ma
		4.1	181 MI	Ηz						Freq O	
Transmi x dB Ba	it Freq Er ndwidth	тог	1.615 4.681 M		% of C x dB	BW Powe		99.00 % 5.00 dB			OH
eiro)							1000	108			

Radio Std: None nter Freq 826,400000 MHz Center Freq: 826.400000 MHz Trig: Free Run AvgiHold: 50/50 Radio Device: BTS Ref Offset 13.6 dB Ref 30.00 dBm Center Fre 826.400000 MH 826.4 MH CF Step #VBW 150 kHz Total Power 31.9 dBm **Occupied Bandwidth** 4.1185 MHz Freq Offse OH 1.240 kHz Transmit Freq Error % of OBW Power 99.00 % dB Bandwidth 4.700 MHz x dB -26.00 dB

HSUPA_B5_LowCH4132-826.4



HSDPA B5 MidCH4183-836.6

HSDPA_B5_HighCH4233-846.6

PL:	- AT 22 G				1945-161				M No. 12, 2019	Frequency
Center Fre	eq 846,600		Z FGain:Low		Freq: 846,600 se Run 30 dB	AvgiHold	50/60	Radio Std Radio Dev	- the rise	rioquency
10 dB/div	Ref Offset Ref 30.00]	
200		nom	mon			mm	min	~		Center Fred 846.600000 MHz
200									- n	-
30.0					-					1.0
60.0 Center 84					-		-		an 6 MHz	CF Step
Res BW	47 kHz			#V	BW 150	Hz		Swee	p 2.6 ms	600.000 kHz Auto Mar
Occup	led Band		90 MH	z	Total P	ower	32	2 dBm		Freq Offset
	it Freq Err	or	-8.185 kl 4.655 Mi		% of O x dB	BW Powe		9.00 % 5.00 dB	- 6	0 Ha
00								0*		

HSUPA B5 MidCH4183-836.6



HSUPA_B5_HighCH4233-846.6

Center Fre	q 846.6000	00 MHz		846.600000 MHz	ald: 50/50	Radio Std	- Garne	Frequency
10 dB/div	rice: BTS							
20.0	Ref 30.00			urman have				Center Free 846.600000 MH
-10.0							~	
46 D 80 Q 60 O								
Center 846 #Res BW 4			#VBN	150 kHz			an 6 MHz p 2.6 ms	CF Ster 600.000 kH
Occupi	ed Bandw	dth 4.1111 Mi		otal Power	32	.2 dBm		Auto Mar Freq Offse
Transmi x dB Bar	t Freq Erro ndwidth	-7.949 I 4.662 N		of OBW Por dB		99.00 % 6.00 dB		он
dire.						ne.		

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

t (886-2) 2299-3279

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

台灣檢驗科技股份有限公司

Taiwan Ltd.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 f (886-2) 2298-0488

www.tw.sgs.com



Report No.: E2/2019/90045 Page 111 of 645

Band2_1_4MHz_QPSK_6_0_Main_LowCH18607-1850.7

Superstrained	Ar Story Cocupied BW	-		10.27 .2117		ALIGN BUTT	101-18-14	PM Gel 23, 2014	0.2.2
Center Fre	eq 1.850700000	GHz MFGaintLow	Center F	req: 1,85070	AvgiHald		Radio St		Frequency
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm							0	
200		1~	~~~~~~		~~~				Center Free 1 850700000 GH
-10 0	Jummeranthe	A				Jungh	ann.	mar	
40 Ú 80 Q									
Center 1.8 #Res BW			#V	BW 91 kł	łz			pan 3 MHz ep 3.2 ms	CF Step 300.000 kH
Occup	ied Bandwidth 1.0	946 M	Ηz	Total P	ower	31.	8 dBm		Auto Ma
	it Freq Error andwidth	-997 1.236 M	Hz	OBW P x dB	ower		9.00 % .00 dB		OH
60						-7810	5		

Band2_1_4MHz_QPSK_6_0_Main_MidCH18900-1880

Sector Space	Mr Dong DC	7	319.31	ALIGN-BUTC		M Oct 23, 2014	022
Center Fre	eq 1.880000000	Trin Trin	tter Freq: 1,880000 g: Free Run ten: 30 dB		Radio Sto Radio De	None	Frequency
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm					-1	
20.0		1-m			-		Center Freq 1 88000000 GHz
-10 D	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	A		hum	1		
48 D -80 D	varmen Warden					MIN A A MIN	1000
Center 1.8 #Res BW			#VBW 91 kHz	,		an 3 MHz p 3.2 ms	CF Step 300.000 kHz
Occup	ied Bandwidth	946 MHz	Total Po	wer 31	.7 dBm		Auto Man
	hit Freq Error andwidth	-1.458 kHz 1.237 MHz	OBW Po x dB		99.00 %. 5.00 dB		Freq Offset 0 Hz
MIN				1004	105	-	

Band2_1_4MHz_QPSK_6_0_Main_HighCH19193-1909.3

R R	eq 1.909300000	CH-		Freq: 1.90930	0000 GHz	W10% MULT	Radio Std:	Oct 23, 2619	Frequency		
Joner Pr	eq 1.909300000	MFGain:Low		ee Run	AvgiHold	d: 60/60	Radio Devi				
10 dB/div											
.0g 20.0 10.0		-	~~~~	-n					Center Freq 1 909300000 GHz		
200		4				have	mm				
0.0. 8.0 0.0				-							
enter 1.5	909 CH2						ena	n 3 MHz			
Res BW			#V	BW 91 kH	łz			3.2 ms	CF Step 300.000 kH		
Occup	led Bandwidt	h 0939 MI	Hz	Total P	ower	32.	1 dBm	1.11	Auto Man		
	nit Freq Error andwidth	-2.027 1.234 N	kHz	OBW P x dB	ower		9.00 % .00 dB		Freq Offset 0 Hz		
0							14.	_			

Band2_1_4MHz_16QAM_6_0_Main_LowCH18607-1850.7

Center Fre	g 1.850700000 i	GHz	Center I	Freq: 1,850700 ee Run 30 dB	000 GHz AvgiHol	4: 60/60	Radio Std		Frequer	ncy
10 dB/div	Ref Offset 138 dB Ref 30.00 dBm									
20.0 10.0		~~~~			~~~~	1			Cente 1 8507000	
	man	/				hower	W-Num	man		
30.01 401.0 401.0										
Center 1.8			#V	BW 91 kH	,			an 3 MHz p 3.2 ms		F Step
	ed Bandwidth	980 MH		Total Po	_	30.8	3 dBm	P 012 110	Auto	Mar
	it Freq Error ndwidth	4.805 k 1.240 M		OBW Po x dB	wer		00 dB			OH

Band2_1_4MHz_16QAM_6_0_Main_MidCH18900-1880

Center Freq 1	.88000000	0 GHz MEGainLow	Trig: F	Freq: 1.8800 Free Run 1: 30 dB	AvgiHo	1d: 50/50	Radio Std	(* teams	Frequency	
10 dB/div R	tef Offset 13.8 tef 30.00 dB									
200 100		F							Center F 1.880000000	
10 D		A	-			X				
30 0 10-70-101-57 40 0 50 0	monten	100 ⁰		-	-	White	- Mi ^{llin} orage ^a	and the second second		
60.0										
Center 1.88 G Res BW 30 k			#	VBW 91 ki	Hz	_		an 3 MHz p 3.2 ms	CF 5 300.000	kHz
Occupied				Total F	ower	30.0	5 dBm		Auto	Man
	1	.0943 N	ЛНz						Freq Of	
Transmit F			5 kHz MHz	OBW F	ower		00 dB			0 Hz
									_	
-							-			-

Band2_1_4MHz_16QAM_6_0_Main_HighCH19193-1909.3

Center Freg 1.909300000 GHz Center Freg 100300000 GHz Radio Std: None #FGaint.twi #Atten: 30 dD Radio Std: None Radio Std: None									None	Frequ	ency
10 dB/div	Ref Offset 13 Ref 30.00								0		
200			~~~~								ter Freq
10.0 20.0		\sim					James				
46.0 50.0											
Center 1.90 #Res BW 3	09 GHz 10 kHz				VBW 91 k	Hz			an 3 MHz p 3.2 ms		CF Step
Occupi	ed Bandw		68 M	Hz	Total F	ower	30.9	9 dBm		Auto	Man q Offset
	Transmit Freq Error 3.809 k k dB Bandwidth 1.239 M						99.00 % -26.00 dB			0 Hz	
_											

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

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

S Taiwan Ltd.



Report No.: E2/2019/90045 Page 112 of 645

Band2_1_4MHz_64QAM_6_0_Main_LowCH18607-1850.7

R	g 1.850700000 (GHz	Center Freq: 1850700000 GHz Radio Std: No Trig: Free Run AvgiHold: 50/80 #Atten: 30 dB Radio Device:				None	Frequency
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm					_		
200 100		from	n					Center Fred 1 850700000 GH;
	mannen	4			times	ma	mar	
40 0 40 0 60 0								
Center 1.8 #Res BW 3			#VBW	91 kHz			an 3 MHz p 3.2 ms	CF Step 300.000 kH
Occupi	ed Bandwidth			tal Power	29.	6 dBm		Auto Mar
Transmi x dB Bar	t Freq Error	947 MH 617 1.237 Mi	Hz OE	W Power IB		9.00 % .00 dB		Freq Offsel 0 Hz
eico)					11410	5		

Band2_1_4MHz_64QAM_6_0_Main_MidCH18900-1880

Avgeogent Speaker	Ar 20 G				ana m		#105-#Ung	63-39:141	14 04 23, 2914	-	
Center Fre	q 1.88000		Gain:Low		Freq. 1.88000 ree Run 30 dB	AvgiHab	d: 60/60	Radio Sto	(* traine	Frequ	lency
10 dB/div	Ref Offset Ref 30.0								-1		
20.0			Jum		m			-			oter Freq
-10 D		and					L			-	
-30.0 -40.0 -80.0	and the case							himan	A CONTRACT		
-60.0 Center 1,8	8 GHz							St	an 3 MHz		CF Step
#Res BW 3	IO KHZ			#1	/BW 91 kH	łz			p 3.2 ms		0.000 kHz Man
Occupi	ed Band	width			Total P	ower	29.	6 dBm		Auto	Man
1.0961 M				Ηz						Fre	qOffset
Transmi	Transmit Freq Error 1.031		1.031	Hz	OBW P	ower	9	9.00 %		1	0 Hz
x dB Ba	ndwidth		1.242 N	Hz	x dB		-26	.00 dB			
Miko							-7436	15			-

Band2_1_4MHz_64QAM_6_0_Main_HighCH19193-1909.3

R	AL 20 0 00			Fred: 1.90930	0000 (511-	ALIGN AUTO	Radio Std	M Gel 23, 2014	Frequency
Center Fr	eq 1.909300000	MFIGalmLnw		ee Run	AvgiHald	1 60/60	Radio De	e ceene	C. States of a
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm		_					()	
200		portion	nnin	mm	my		-		Center Freq 1.909300000 GHz
0.00 -10.0 -20.0		A				1			
40.0	man	~		-			anan n	John Maria	
-60.0			-	-					
Center 1.9 #Res BW			#1	'BW 91 kH	łz			an 3 MHz p 3.2 ms	CF Step 300.000 kHz
Occup	ied Bandwidth			Total P	ower	29.	8 dBm		Auto Man
	1.0	974 M	Hz						Freq Offset
Transm	Transmit Freq Error 1.0		kHz	OBW P	ower	9	9.00 %		0 Hz
x dB Ba	andwidth	1.238 M	IHz	x dB		-26	.00 dB		
eiro)							15	-	

Band2_3MHz_QPSK_15_0_Main_LowCH18615-1851.5

Center Fre	iq 1.85150000	MFGalmLow	Center Freq: 1.851500000 GHz Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB				Radio Sto Radio De	e trene	Fe	quency
10 dB/div	Ref Offset 13.8 c Ref 30.00 dB					2.00		- 0		
200 100 0.20			~~~~~~~			~				enter Freq 500000 GHz
10 0 20 0 30 0	hand					1	-man	~~~~		
80.0										
Center 1.8 #Res BW (-	#VE	SW 1801	Hz		Sweep	an 6 MHz 1.533 ms		CF Step 600.000 kH
Occupi	led Bandwid	th .7014 MH	17	Total P	ower	31.	9 dBm		Auto	Man
	it Freq Error ndwidth	868 2.986 M	Hz	OBW P x dB	ower		9.00 % .00 dB			freq Offsel 0 Hi

Band2_3MHz_QPSK_15_0_Main_MidCH18900-1880

5 m		MFGainLow #At	g: Free Run tten: 30 dB	AvgiHold: 56/50	Radio Std: None Radio Device: BTS	Frequency		
0 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm							
og 200 200 200 200 200 200 200 20				/	-	Center Freq 1 880000000 GHz		
Center 1.88 Res BW 62			#VBW 180 kH	iz .	Span 6 MH Sweep 1.533 m			
Occupie	ed Bandwidth 2.6	5996 MHz	Total Po	wer 33	2.0 dBm	Auto Man		
			451 Hz OBW Power 2.995 MHz x dB			0 Hz		

Band2_3MHz_QPSK_15_0_Main_HighCH19185-1908.5

Center Fr	ng 1.908500000	Trip	er Freq: 1,908500000 GHz Free Run AvgiHal m: 30 dB	Ra d: 50/50	dio Std: None dio Device: BTS	Frequency		
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm			2. m ⁻ 2.				
Log 200 10.0 0.00 -10.0 -20.0 -30.0 -40.0 -80.0					~~~~	Center Freq 1 908500000 GHz		
Center 1.9			#VBW 180 kHz	Sv	Span 6 MHz Veep 1.533 ms	CF Step		
Occup	led Bandwidti 2.0	h 6994 MHz	Total Power	32.4 dE	3m	Auto Man		
						99.00 -26.00		0 Hz

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

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

台灣檢驗科技股份有限公司

Report No.: E2/2019/90045 Page 113 of 645

Band2_3MHz_16QAM_15_0_Main_LowCH18615-1851.5

R	ag 1.85150000	And and a second second	Trig: F	Freq: 1.851500 Free Run 1: 30 dB	Frequency				
10 dB/div	Ref Offset 13.8 Ref 30.00 df							0	
200 100		man				1			Center Fred 1.851500000 GH
0.00 -10.0 20.0		/				1	-		
-30 0. -40 0 -80 0									
Genter 1.8	12 042							oan 6 MHz	
#Res BW			#	VBW 180 kH	łz			1.533 ms	CF Step 600.000 kHz
Occup	led Bandwid		Total Po	wer	31.	2 dBm		Auto Man	
	Transmit Freq Error 3.202				wer	99.00 % -26.00 dB			Freq Offset 0 Hz
60							e		

Band2_3MHz_16QAM_15_0_Main_MidCH18900-1880

Avenue Space	AT 20 G			1.00	197 - 197		ALTON-MUT	101-10-08	PM Oct 23, 2014	
Center Fre	q 1.880000	0000 G	Hz FGalisLow	Center Fr	eq 1.88000	AvgiHala		Radio Ste		Frequency
10 dB/div	Ref Offset 1 Ref 30.00									
20.0		1	mannan	and the second			2			Center Freq 1.880000000 GHz
-10 D		/								
-30.0		-								· · · · ·
-60.0 Center 1.8 #Res BW 6				#VE	SW 1801	Hz			an 6 MHz 1.533 ms	CF Step
Occupi	ied Bandy			-	Total P	ower	31	.4 dBm		Auto Man
	Transmit Freq Error 4.531		4.531 MH 3.009 M	KHZ OBW Power		ower	99.00 % -26.00 dB			Freq Offset 0 Hz
MIRO	_				-	_	-	105	-	

Band2_3MHz_16QAM_15_0_Main_HighCH19185-1908.5

Averant Span	All Decklored B	W/	1. 383 101	# 105 at		10/123.2019	
Center Fre	ng 1.90850000	o Griz	enter Freq. 1,90850 fig: Free Run Atten: 30 dB		Radio Sto Radio De	t: None	Frequency
0 dB/div	Ref Offset 13.8 d Ref 30.00 dB			e 2.00			
200 10.0 0.00		mann					Center Fred 1 908500000 GH
00	mand				how		
6 0 0 0					-		
enter 1.9 Res BW			#VBW 180 k	Hz		an 6 MHz 1.533 ms	CF Step 600.000 kH
Occup	led Bandwid 2	th .7000 MHz	Total P	ower 3	1.6 dBm		Auto Mar Freq Offset
	Transmit Freq Error 3.210 x dB Bandwidth 3.010 (99.00 % 26.00 dB		0 82
0					041025	-	

Band2_3MHz_64QAM_15_0_Main_LowCH18615-1851.5

Occupied Bandwidth Total Power 31.3 dBm 2.7081 MHz Freq offs	Center Fred	1.851500000		Center Freq. 1.8515 Trig: Free Run #Atten: 30 dB		60/60	Radio Std	e trente	Freque	ncy
300 Center Fr 100 183 100 183 100 183 100 183 100 183 100 183 100 183 110 183 110 183 110 183 110 110 110<								- 0		
20 0 400 20 0 400 20 0 400 20 0 400 20 0 400 20 0 400 20 0 400 20 0 400 20 0 400 20 0 400 20 0 500 20 0 500 20 0 500 20 0 500 20 0 500	20.0		p			7				
ers	200	m				1	m			
Center 1.832 GHz Span 6 MHz Span 6 MHz GF Sti Res BW 62 KHz #VBW 180 KHz Sweep 1.533 ms Occupied Bandwidth Total Power 31.3 dBm 2.7081 MHz Freq Offs Transmit Freq Error 6.874 kHz OBW Power 99.00 %	40.0					-				
Occupied Bandwidth Total Power 31.3 dBm Auto M 2.7081 MHz Freq Offs Transmit Freq Error 6.874 kHz OBW Power 99.00 %	Center 1.85			#VBW 180	kHz	1				
Transmit Freq Error 6.874 kHz OBW Power 99.00 %	Occupie				Power	31.3	dBm	1.1.1	Auto	Mar
				kHz OBW Power					Freq	0 Hz

Band2_3MHz_64QAM_15_0_Main_MidCH18900-1880

Center Fre	q 1.880000000	Trip	tter Freq. 1.880000000 GHz ; Free Run AvgiHol ten: 30 dB	k104-4010	Radio Sto	to the file	Frequency			
Ref Offset 13.8 dB 10 dB/div Ref 30.00 dBm										
2000 1000 1000 2000 2000 2000 3000 4000	/	providence		1	-am	www.	Center Fr 1.880000000 G			
Center 1.8			#VBW 180 kHz			an 6 MHz 1.533 ms	CF St			
Occupi	ed Bandwidth 2.7	7065 MHz	Total Power	31.	l dBm		Auto M			
	it Freq Error ndwidth	6.798 kHz 3.016 MHz	OBW Power x dB		9.00 % 00 dB		0			
				-	_					

Band2_3MHz_64QAM_15_0_Main_HighCH19185-1908.5

Center Fr	enter Freg 1.908500000 GHz Enter Freg 1.908500000 GHz Trig Free Run AvgiHold: 50:50 Atto: 30 dB RetiainZune RetiainZu											
10 dB/div	0											
200 100 0.00				1				ter Freq				
-10 0	m			1	wm		_					
-46 0 -80 0												
Center 1.9 #Res BW			#VBW 180 kHz			oan 6 MHz 1.533 ms	600	CF Step				
Occup	led Bandwidtl 2.1	h 7078 MHz	Total Power	31.0	5 dBm		Auto	Man g Offset				
	hit Freq Error andwidth	4.895 kHz 3.011 MHz	OBW Power x dB		9.00 % 00 dB			0 Hz				

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

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

台灣檢驗科技股份有限公司

Report No.: E2/2019/90045 Page 114 of 645

Band2_5MHz_QPSK_25_0_Main_LowCH18625-1852.5

Center Fre	q 1.85250000	0 GHz MFGaintaw	Center F		0000 GHz AvgiHold	1>60/50	Radio St	refor 22, 2019 d: None evice: BTS	Frequency
10 dB/div	Ref Offset 13.8 Ref 30.00 dB					2.40			
200-000-000		france				1			Center Freq 1 852500000 GHz
-10 D	manner		-					minian	
40 0 80 0									
Center 1.8			#V	BW 300 k	Hz			an 10 MHz Jeep 1 ms	CF Step
Occup	ied Bandwid	th .4981 MH	łz	Total P	ower	32.	2 dBm		Auto Mar
	it Freq Error Indwidth	3.249 k 4.993 M		OBW P	ower		9.00 % .00 dB		0 Hz
00						=1x10	в		·

Band2_5MHz_QPSK_25_0_Main_MidCH18900-1880

Center Fre	ig 1.880000000 i	GHz #FGeinLow	Center Fre Trig: Free #Atten: 30	0000 GHz AvgiHol	d: 66/60	Radio St	PH Cd 22, 2019 Id: None evice: BTS	Frequency	
10 dB/div									
200-000					~~~~	2			Center Freq 1.880000000 GHz
-10 D				_					-
-30.0 -40.0 -80.0	the second the second				-		-		12
-60.0 Center 1.8								an 10 MHz	
WRes BW	ied Bandwidth		_	W 300 H		-	32.5 dBm	veep 1 ms	1.000000 MHz Auto Man
	4.4	995 MH	z						Freq Offset
	it Freq Error ndwidth	6.460 ki 4.992 Mi		OBW P	ower		99.00 % 26.00 dB		0 Hz
elec.							1=105		

Band2_5MHz_QPSK_25_0_Main_HighCH19175-1907.5

Center Freq 1.907500000 GHz Center Freq 1.907500000 GHz BirGainLaw MirGainLaw Attain State											Frequency	
Ref Offset 13.8 dB 0 dB/div Ref 30.00 dBm 												
20.0 10.0 0.00		1		~		~~~	·····	~				Center Freq 1 907500000 GHz
-10 0 -20 0 -30 0	~~~~	nt.					_		7			
48 0 80 0 60 0		_										
Center 1.9 #Res BW				-	#VE	SW 300 K	Hz				an 10 MHz /eep 1 ms	CF Step
Occup	oled Bandy		990	мн	z	Total P	ower		32.0	5 dBm		Auto Man Freg Offset
			4.5	4.510 kHz 5.009 MHz						9.00 % 00 dB		0 Hz
60									-1-14	-		

Band2_5MHz_16QAM_25_0_Main_LowCH18625-1852.5

Center Fre	q 1.852500000		Center Freq: 1.8525 Trig: Free Run #Atten: 30 dB		60/60	Radio Sto	e cene	Frequency
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm						- 0	
00 00		min			1			Center Freq 1 852500000 GHz
10.0	man				1	m		
40 D 40 D								
Center 1.8 Res BW 1			#VBW 300	kHz			an 10 MHz eep 1 ms	CF Step
Occupi	ed Bandwidt		Total I	Power	31.3	3 dBm		Auto Man
Transmi x dB Ba	t Freq Error	5.870 kH 4.957 MH	Z OBW	Power		9.00 % 00 dB		
53 GH 00 kH ed B	lz łz Bandwidti 4.1 q Error	5041 MH	Total I Z z OBW I	Power	31.3	Spa Sw 3 dBm 9.00 %	an 10 MHz	1.000000 MHz

Band2_5MHz_16QAM_25_0_Main_MidCH18900-1880

Center Fre	Frequency					
10 dB/div						
-00 200 100 000 100 200 200 200 200 200 2						Center Freq 1.88000000 GHz
Center 1.8			#VBW 300 kHz		Span 10 MHz Sweep 1 ms	CF Step
Occup	ed Bandwidt 4.	h 5050 MHz	Total Power	31.	4 dBm	Auto Man
	it Freq Error ndwidth	7.257 kHz 4.994 MHz	OBW Power x dB		9.00 % .00 dB	0 Hz
						-

Band2_5MHz_16QAM_25_0_Main_HighCH19175-1907.5

Denter Fre	None None	Frequency								
10 dB/div										
20.0 10.0 0.00		/	-	~~^~			7			Center Freq 1.907500000 GHz
20 0	and the growing the second	1					1	m	mor	
48 D 90 D 60 D		_								
Center 1.9 Res BW				#VI	300 k	Hz			n 10 MHz eep 1 ms	CF Step
Occup	led Bandv		007 MH	łz	Total P	ower	31.6	5 dBm		Auto Man Freq Offset
	it Freq Erro Indwidth	or	4.849 k 4.979 M		OBW P	ower		9.00 % 00 dB		0 Hz

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

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

台灣檢驗科技股份有限公司



Report No.: E2/2019/90045 Page 115 of 645

Band2_5MHz_64QAM_25_0_Main_LowCH18625-1852.5

Superstrained	Nert Analyzer - Occupied BW	C 7		1.111		ALTON-HUTO	00-00-48	PM Gel 22, 2019	022
Center Freq 1.852500000 GHz Trig Free Run AvgHold >50/50 #FGaint_rw #Merr: 30 dB Radio Devic									Frequency
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm				0	2		()	
20.0 10.0		finner	nime		-	2			Center Free 1.852500000 GH
0.00 -10.0 -20.0	/								
30.0	mon					150	when	www.m	
80.0				_			-		
Center 1.8 #Res BW			#VB	N 300 H	Hz			an 10 MHz eep 1 ms	CF Ste
Occup	led Bandwidt	h 4983 MH		Total P	ower	31	4 dBm		Auto Ma
	it Freq Error Indwidth	20.00	Hz	OBW P k dB	ower		9.00 % 5.00 dB		Freq Offse 0 H
80						1000	05	_	

Band2_5MHz_64QAM_25_0_Main_MidCH18900-1880

September 1	Ar Sectored	DWY	1.949			10%-AUTO	08-02/15	PH Cr1 22, 2019	Frequency				
Center Fre	enter Freg 1.88000000 GHz Center Freg 1.88000000 GHz Radio Std: None Trig: Free Run Avg Hald>50/50 BFFGainLaw #Atten: 30 dB Radio Device: BTS												
10 dB/div	Ref Offset 13.8 dB 0 dB/div Ref 30.00 dBm 												
200		James	mm	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	,	1			Center Freq 1.880000000 GHz				
-20 0 -30.0 -40.0	mon					L							
Center 1.8 #Res BW			#VBN	N 300 KI	Hz			an 10 MHz eep 1 ms	CF Step				
Occup	led Bandwid	th .5005 MH		Total Po	ower	31.3	3 dBm		Auto Man				
and the second second		10.881 k 4.967 M	Hz	OBW Pa x dB	wer		9.00 % 00 dB		Freq Offset 0 Hz				
ARING				-		-1810							

Band2_5MHz_64QAM_25_0_Main_HighCH19175-1907.5

Center Fr	eq 1.907500	0000 G	Hz	Trig: 1	Freq: 1,9075 Free Run 1: 30 dB	00000 GHz AvgiHald	1: 50/50	Radio St	d: None evice: BTS	Frequency
10 dB/div	Ref Offset 1 Ref 30.00	3.8 dB dBm							0	
200 200 0.00 0.00		1			5.000-To		1			Center Freq 1.807500000 GHz
		~	-	-				mun	and the second sec	
48 0 80 0 60 0		_	-							
Center 1.9 #Res BW					VBW 300	kHz			an 10 MHz /eep 1 ms	CF Step
Occup	ied Bandv		972 N	Hz	Total I	ower	3	1.6 dBm		Auto Man
	nit Freq Erro andwidth		7.423 4.973	kHz	OBW F	ower		99.00 % 26.00 dB		Freq Offset 0 Hz
60							-	105		

Band2_10MHz_QPSK_50_0_Main_LowCH18650-1855

Center Fre	ng 1.855000000		Center Freq: 1.8550 Trig: Free Run #Atten: 30 dB		50/50	Radio Ste	d: None vice: BTS	Frequency
10 dB/div	- 0							
20.0 10.0 0.00			9		7			Center Freq 1 855000000 GHz
-10 0 -20 0 -30 0	mont				Lo	han	~~~	
46 0 -80 0 -60 0								
Center 1.8 #Res BW 2			#VBW 620	kHz	1	Spa Sw	an 20 MHz leep 1 ms	CF Step 2.000000 MH
Occup	led Bandwidt 9.	h 0088 MH:	Total F	ower	31.6	5 dBm		Auto Man Freq Offset
	it Freq Error ndwidth	25.429 kH 9.824 MH		ower		9.00 % 00 dB		0 Hz

Band2_10MHz_QPSK_50_0_Main_MidCH18900-1880

Averaget Speet	nim Anulyan - Occupied BV,	1.		10.00		#105-#UTG	Inter-sheet	PM 0d 22, 2019	322
	q 1.88000000	GHz MEGaliniLow	Center F	Center Freq: 1.880000000 GHz			Radio Std: None Radio Device: BTS		Frequency
10 dB/div	Ref Offset 13.8 di Ref 30.00 dBm					a		0	
200			Manna			1			Center Free 1.880000000 GH
-10.0						K	and the second		
-30.0. -48.0 -80.0									
Center 1.8	IS GHZ		_				Sn	an 20 MHz	1
#Res BW			#V	BW 620 P	Hz			eep 1 ms	CF Step 2.000000 MH Auto Mar
Occup	ied Bandwidt 9.	h 0078 MH	łz	Total P	ower	31.	8 dBm		FreqOffset
	it Freq Error Indwidth	19.256 k 9.826 M		OBW P x dB	ower		9.00 % .00 dB		0 H
(celle							15		

Band2_10MHz_QPSK_50_0_Main_HighCH19150-1905

Center Fre	PL Provide State S										
10 dB/div											
200		pro-	-	~~~~	1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	7			Center Freq 1 905000000 GHz		
10 D	comment		-	_	_	1					
48 B 50 D			_								
Center 1.9 Res BW			#VBV	V 620 K	Hz			n 20 MHz eep 1 ms	CF Step 2.000000 MH		
Occup	led Bandwidt 8.	h 9999 MH		Total Po	ower	32	0 dBm		Auto Mar Freq Offset		
	it Freq Error Indwidth	3.930 ki 9.818 Mi		OBW Pa	ower		9.00 % 5.00 dB		0 Hi		
_											

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

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

台灣檢驗科技股份有限公司

Report No.: E2/2019/90045 Page 116 of 645

Band2_10MHz_16QAM_50_0_Main_LowCH18650-1855

Center Fre	Frequency						
10 dB/div							
20.0		prosent and the second	er na marine	m	-		Center Freq 1 855000000 GHz
0.00 -\0.0 -20.0					man		
-30.0 -40.0	man						
-60.0							1
Center 1.8 #Res BW			#VBW 620 kHz			an 20 MHz /eep 1 ms	CF Step 2.000000 MHz
Occup	led Bandwidt		Total Pow	er 3	1.1 dBm	1	Auto Man
	8.	9584 MHz					Freq Offset
	and the second second	19.124 kHz	OBW Pow		99.00 %		0 Hz
x dB Ba	indwidth	9.730 MHz	x dB	-2	26.00 dB		1.1
wiic)					102		

Band2_10MHz_16QAM_50_0_Main_MidCH18900-1880

Averant Speet	Ar Story Cocupied By	N.L.			ALIGN-NUTG	104 8 7 74	PM Oct 22, 2014	Frequency				
Center Fre	enter Freq 1.880000000 GHz Center Freq 1.880000000 GHz Radio Std: None Trig: Freq AvgiHold:>50/50 Radio Device: BT3											
10 dB/div												
20.0		mon		mannes	-	-	-	Center Freq 1 880000000 GHz				
-10.0 -20.0	montemport	4			1	-	vana -					
-30,0 -40 D -50 D			-									
Genter 1.8	29 GH7					Sn	an 20 MHz	1				
#Res BW			#VBW	620 kHz		Sv	veep 1 ms	2.000000 MHz				
Occup	led Bandwidt 8.	h 9627 MH		tal Power	31.	0 dBm		Auto Man Freq Offset				
	Transmit Freq Error 15.9 x dB Bandwidth 9.80					9.00 % 5.00 dB		0 Hz				
MIRO					=Y#1	0.m		-				

Band2_10MHz_16QAM_50_0_Main_HighCH19150-1905

Center Fre	R arr arr										
10 dB/div											
200		framerica	n		~			Center Freq 1 905000000 GHz			
10.0	manna				1		Manual				
30,0 48 0 80 0											
Center 1.9			#VBW 620	KH7		Spa	an 20 MHz eep 1 ms	CF Step			
	ied Bandwid		Total F		31.	5 dBm	cop ma	2.000000 MHz Auto Man			
	8.95 Transmit Freq Error x dB Bandwidth			ower		9.00 % .00 dB		Freq Offset 0 Hz			
80						6	-				

Band2_10MHz_64QAM_50_0_Main_LowCH18650-1855

Center Fre	q 1.855000000	GHz	Center Freq: 1.85500000 GHz Trig: Freq Run Avg Hold: 50/50 #Atten: 30 dB				Radio St	d: None	Frequency
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm	an Calification							
200 100 000 -00 200 200 30.0 						1	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Center Freq 1 85500000 GHz
Center 1.85			#VBI	N 620 K	(Hz			an 20 MHz /eep 1 ms	CF Step
Occupi	ed Bandwidth 8.9	825 MH		Total P	ower	3	1.2 dBm		Auto Mar
Transmi x dB Bar	t Freq Error ndwidth	3.787 ki 9.851 Mi		OBW P k dB	ower		99.00 % 26.00 dB		0 Hz

Band2_10MHz_64QAM_50_0_Main_MidCH18900-1880

enter Fre	ng 1.88000000	o onz	Center Freq 1.88000000 GHz Trig: Free Run AvgHold: 50/50 #Atten: 30 dB			Radio Sto	to the file	Frequency
0 dB/div								
00 00 100		frame		miniem	7			Center Free 1.880000000 GH
00 0.0					1		-man-	
6 D D D D								
enter 1.8 Res BW			#VBW 620	kHz			eep 1 ms	CF Step 2.000000 MH
Occup	led Bandwid R	ith .9891 MHz	Total F	ower	30.1	3 dBm		Auto Mar
	it Freq Error Indwidth	6.809 kHz 9.821 MHz	OBW P	ower		9.00 % 00 dB		он
-								

Band2_10MHz_64QAM_50_0_Main_HighCH19150-1905

R Center Fr	Frequency				
0 dB/div					
- 0 g 2000 1000 0.00 - 100 - 100					Center Freq 1 905000000 GHz
SD 0 Center 1.9			#VBW 620 kHz	Span 20 MHz Sweep 1 ms	CF Step
	led Bandwid	th 9857 MHz	Total Pov	4 dBm	Auto Man
	hit Freq Error andwidth	-717 H 9.856 MH		9.00 % .00 dB	0 Hz

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.

Report No.: E2/2019/90045 Page 117 of 645

Band2_15MHz_QPSK_75_0_Main_LowCH18675-1857.5

RE	ng 1.85750000	Lawrence L			0000 GHz AvgiHold	>50/50	Radio St	thi dat 22, 2019 d: None tvice: BTS	Frequency
10 dB/div									
200		James							Center Free 1 857500000 GH
0.00 -10.0 -20.0	n munt	/					man	-	
-30.0. -40.0 -80.0									
Genter 1.8	58 GHz						Sn	an 30 MHz	-
#Res BW	300 kHz		#VE	SW 910 k			Sw	eep 1 ms	CF Step 3.000000 MH
Occup	led Bandwid	th 3.470 MH	z	Total P	ower	32.0) dBm		Freq Offse
	it Freq Error indwidth	34.458 ki 14.64 Mi		OBW P	ower		9.00 % 00 dB		0 H
60						=7.810	-		

Band2_15MHz_QPSK_75_0_Main_MidCH18900-1880

Averaget Space	Nert Analyzer - Occupied BW	-	1.0	102-107		ALIGN-4070	104-00100	PH Ort 22, 2019	020
Center Fre	q 1.880000000	GHz MFGalmLow	Center F	req: 1.88000 e Run	0000 GHz AvgiHali		Radio St		Frequency
10 dB/div									
20.0		free and the second	n er makron			-			Center Freq 1.880000000 GHz
-10.0	mand					1	Participation of	******	
-30.0. -46.0					_				
-80.0			_						
Center 1.8 #Res BW			#VE	3W 910 K	Hz			an 30 MHz /eep 1 ms	CF Step 3.000000 MHz
Occup	ied Bandwidt 13	.471 MH	17	Total P	ower	31	.8 dBm		Auto Man
and the second second	Transmit Freq Error 27.427 x dB Bandwidth 14.63			OBW P x dB	ower		99.00 % 5.00 dB		Freq Offset 0 Hz
Niko						-1743	105		

Band2_15MHz_QPSK_75_0_Main_HighCH19125-1902.5

Center Fr	enter Freg 1.902500000 GHz Center Freg 1.902500000 GHz Radio Std: None Trig: Free Run AvgiHold: 50/50 Radio Std: None											
		MFC	SaintLnw	#Atten: 3	Q dB	0.00		_	Radio De	vice: BTS	_	
0 dB/div Ref 30.00 dBm												
.0g 200 10.0		r	-				2				Center Freq 1.902500000 GHz	
10.00		Д					1	-				
20 0					-				-			
80.0	-											
Center 1.9 Res BW				#VE	3W 910 k	Hz	_			an 30 MHz /eep 1 ms	CF Step 3.000000 MHz	
Occup	ied Bandwi				Total P	ower	- 1	32.3	dBm		Auto Man	
	1	13.4	68 MH	Ηz							Freq Offset	
Transm	nit Freq Error		35.241	Hz	OBW P	ower		99	.00 %		0 Hz	
x dB Ba	andwidth		14.73 N	Hz	x dB			-26.0	00 dB			
00								14105				

Band2_15MHz_16QAM_75_0_Main_LowCH18675-1857.5

Center Freq 1.	857500000	GHz MFGain:Low	Center Fr			-50/50	Radio St	d: None avice: BTS	Frequency
O dB/div Re	0								
.09 200 100		marina		******		1	-		Center Freq 1 857500000 GHz
10 0 20 0						1	and and	un marine	
30.0. 40.0 90.0									
Center 1.858 G			#VE	W 910 K	Hz			an 30 MHz /eep 1 ms	CF Step
Occupied		446 MH	17	Total P	ower	31.	0 dBm		Auto Man
Transmit Fr x dB Bandw	eq Error	12.900 ki 14.73 M	Hz	OBW P x dB	ower		9.00 % .00 dB		Freq Offset 0 Hz

Band2_15MHz_16QAM_75_0_Main_MidCH18900-1880

Center Fre	ng 1.880000000	GHz MEGainLow	Center F				/50	Radio St	t: None vice: BTS	Frequency
10 dB/div	Ref Offset 13.8 dl Ref 30.00 dBm						_		- 0	
.og 20.0 10.0		panne	Provinsion of the Provinsion o			~	_			Center Freq 1.88000000 GHz
10	monorman						han	a warm	meyround	
0.0. 6 D 0.0			-		-		_			
enter 1.8	8 GHz							Spi	an 30 MHz	
Res BW			#V	BW 910 K		_	_	SW	eep 1 ms	CF Step 3.000000 MH
Occup	led Bandwidt 13	h 8.457 MH	Iz	Total P	ower		31.0	dBm		FreqOffset
	it Freq Error Indwidth	8.746 k 14.73 M		OBW P x dB	ower			00 % 00 dB		0 Hz

Band2_15MHz_16QAM_75_0_Main_HighCH19125-1902.5

Representation	HE DOLD	Ý.		12.30		ALTON HUT	04:37:591	M Gel 22, 2014	
Center Fre	q 1.902500000	MFGaintow		req: 1,90250 e Run 10 dB	0000 GHz AvgiHold	60/60	Radio Std Radio De	(trans	Frequency
10 dB/div	Ref Offset 13.8 d Ref 30.00 dBn					2.00			
- 09 200 100 0.00		Junuana	runn nahr		and the second se	~			Center Freq 1.902500000 GHz
10 0 20 0 ~ WW	manna		_		-	1		Manapara	
48 0 90 0			-				-		
Center 1.90 Res BW 3			#VE	BW 910 K	Hz			eep 1 ms	CF Step 3.000000 MH
Occupi	ed Bandwidt 13	h 3.461 MH	łz	Total P	ower	31	.1 dBm		Auto Mar Freq Offset
Transmi x dB Bar	it Freq Error ndwidth	709 14.78 M		OBW P x dB	ower		99.00 % 5.00 dB		0 Hz
_									

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

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

台灣檢驗科技股份有限公司

Report No.: E2/2019/90045 Page 118 of 645

Band2_15MHz_64QAM_75_0_Main_LowCH18675-1857.5

Center Fre	ng 1.857500000	MFGainLow	Center Fre			60/60	Radio St	rvice: BTS	Frequency
10 dB/div	Ref Offset 13.8 d Ref 30.00 dBr							- 0	
20.0		rommen	www.		*.74	-			Center Freq 1 857500000 GHz
0.00		4	_			1			
30.0	minned			-		1	Mianika	manuar	
60.0			-					-	
Center 1.8 #Res BW			#VB	W 910 k	Hz	_		an 30 MHz leep 1 ms	CF Step 3.000000 MH
Occup	led Bandwidt	th 3.462 MH		Total P	ower	30.	9 dBm		Auto Mar
	it Freq Error Indwidth	23.664 k 14.70 M	Hz	OBW P x dB	ower		9.00 % .00 dB		Freq Offset 0 Hz
00								-	

Band2_15MHz_64QAM_75_0_Main_MidCH18900-1880

RL I	N			Freq 1.88000		ALLIST: BUTU		Moder 22, 2014	Frequency
Center Fre	eq 1.880000000	MEGaintinw		ree Run	AvgiHold	60/60		evice: BTS	
10 dB/div	Ref Offset 13.8 d Ref 30.00 dBn					2.4		0	
200- 100-		mana	in		ر می مور باز ^{عر} در ا	-			Center Freq 1.88000000 GHz
0.00 -10.0		4	-			1			
-30.0			-				- Marine	representation	
-80 0			-	-			-		
Center 1.8 #Res BW			#1	/BW 910 k	Hz			an 30 MHz veep 1 ms	CF Step 3.000000 MHz
Occup	led Bandwidt			Total P	ower	30.	9 dBm		Auto Man
D		3.486 MH		-		1.0	2.0		Freq Offset
	it Freq Error Indwidth	32.988 H 14.72 M		OBW P	ower		9.00 % .00 dB		
(crim)						-1416	6		

Band2_15MHz_64QAM_75_0_Main_HighCH19125-1902.5

Center Fre	eq 1.902500	000 G	Hz	Center I	Freq 1,90250		1/10/		Radio St	d: None	Frequency
			FGalitizaw	Trig: Fr #Atten:		AvgiHold	1: 60/6	0	Radio De	vice: BTS	
10 dB/div	Ref Offset 13 Ref 30.00									0	
.0g 200 100		r	•			m	1				Center Freq 1.902500000 GHz
9.00 10 D		1			-		1	1			
20.0 30.0					-		H	. yer	m	warman and	
40 D 50 D		-						_	-		-
Center 1.9				111	BW 910 H		11	_	Sp	an 30 MHz /eep 1 ms	CF Step
	led Bandw	idth			Total P			31.4	dBm	reep ima	3.000000 MHz Auto Man
		13.4	477 MH	lz							Freq Offset
	hit Freq Erro	ŕ	24.028 k		OBW P	ower			00 dB		0 Hz
10									-	-	-

Band2_20MHz_QPSK_100_0_Main_LowCH18700-1860

Center Fre	ng 1.860000000	G112	Center Freq 1.88 Trig: Free Run #Atten: 30 dB	AvgiHold	1: 50/50	Radio St	d: None vice: BTS	Frequency
10 dB/div	Ref Offset 13.8 dl Ref 30.00 dBm				2.45		0	
20.0 10.0 0.00		harrow	an a		-			Center Freq 1 86000000 GHz
10 0 20 0 30 0	amount				L		Amaria	
401 D 401 D 60. 0								
Center 1.8 #Res BW			#VBW 1.2	MHz		Sp. Sw	an 40 MHz leep 1 ms	CF Step 4.000000 MH
Occup	led Bandwidt 17	h .910 MH		Power	31.	8 dBm		Auto Mar Freq Offset
	it Freq Error ndwidth	33.847 kH 19.43 MH	Z OBW	Power		9.00 % .00 dB		OH

Band2_20MHz_QPSK_100_0_Main_MidCH18900-1880

Center Fre	q 1.880000000	Tri	tter Freq. 1.8800000 g: Free Run ten: 30 dB	AvgiHold: 50/50	Radio Std: None Radio Device: BTS	Frequency
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm			2.10		
200 200 100 0.00		promonen	~*************************************	-		Center Freq 1.880000000 GHz
10 0 20 0	monut			<u> </u>	and and and a second	
an n						
Center 1.8 Res BW 3	8 GHz 890 kHz		#VBW 1.2 MH	Iz	Span 40 MHz Sweep 1 ms	
Occupi	ed Bandwidth 17	.926 MHz	Total Po	wer 31	.7 dBm	Auto Man
Transmi x dB Ba	t Freq Error	45.433 kHz 19.44 MHz	OBW Po x dB		99.00 % 5.00 dB	0H
					-	

Band2_20MHz_QPSK_100_0_Main_HighCH19100-1900

Center Fre	aq 1.900000000	GHz MEGainsLow			0000 GHz AvgiHald	1: 50/50	Radio Std	e trane	Frequency
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm					2.00		-1	
200 100 020				invin					Center Fred 1.900000000 GH
10 0 20 0 20 0	unand							Theorem 1	
30.0. 40 D								and draw	
50.0 									
Res BW			#VE	SW 1.2 M	IHz		Spa Swi	eep 1 ms	CF Step 4.000000 MH
Occup	ied Bandwidt 17	h .931 MH	7	Total P	ower	32.3	dBm		Auto Mar
Transm	it Freq Error	22.048 ki	5	OBW P	ower	99	.00 %		Freq Offse
x dB Ba	ndwidth	19.52 M	Hz	x dB		-26.	00 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.

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.

Report No.: E2/2019/90045 Page 119 of 645

Band2_20MHz_16QAM_100_0_Main_LowCH18700-1860

Center Fre	ng 1.860000000	MFGainLow		86000000 GHz AvgiHal	d: 60/60	Radio St	d: None vice: BTS	Frequency
10 dB/div	Ref Offset 13.8 d Ref 30.00 dBr							
200		pourser			un	-		Center Fred 1.860000000 GHz
0.00 -10.0 -20.0					\mathbb{A}		-	
30.0 40.0	Pig-ray - Company and Shafe						-torners	
80.0			-	_				
Center 1.8 #Res BW 3			#VBW 1	.2 MHz			an 40 MHz leep 1 ms	CF Step 4.000000 MH
Occup	ied Bandwidt	th 7.943 MH	1.77	al Power	30.	8 dBm		Auto Mar Freq Offset
	it Freq Error ndwidth	13.716 k 19.48 M	Hz OB	W Power B		9.00 % .00 dB		OHz
00					=7810			

Band2_20MHz_16QAM_100_0_Main_MidCH18900-1880

RL I	HE SEG.	DC .		1.00.000	Freq. 1.88000		411/04/00/10	Radio St	PM Oct 22, 2019	Frequency
Center Fre	ng 1.880000		FGainLow	Trig: F	ree Run :: 30 dB	AvgiHala	d: 60/60		evice: BTS	
10 dB/div	Ref Offset 1 Ref 30.00						2.40		0	
200 100			•				-	-		Center Freq 1.88000000 GHz
-10.0		Л			-				1.99	
-30.0										
-50.0	-	_		-				-	-	
Center 1.8 #Res BW				#	VBW 1.2 N	1Hz			an 40 MHz Veep 1 ms	CF Step 4.000000 MH
Occup	led Bandy		S		Total P	ower	31.	3 dBm		Auto Mar
		17.	964 MI	Ηz						Freq Offset
Transm	it Freq Erro	or	21.898	KHz	OBW P	ower	9	9.00 %		0 Hz
x dB Ba	Indwidth		19.52 M	IHz	x dB		-26	.00 dB		1.1.1
wiro i								15		

Band2_20MHz_16QAM_100_0_Main_HighCH19100-1900

RL	g 1.9000000				Teg: 1,90000	0000 (74-	1010	te etima	Radio St	PM Oct 22, 2014	Frequency
Jenter Fre	id 1.9000000		ain:Low		ee Run	AvgiHal	d: 60	60		evice: BTS	C. and the
10 dB/div	Ref Offset 13.8 Ref 30.00 de							_		- 0	
.og 20.0 10.0		r	- point of			minne	-	_			Center Freq 1 90000000 GHz
0.00 10 0 10 0		Л		_	-			1			
20 0 - 10 0 30 0 40 0			-		-			Serie	m	herester	
91 () 50 ()				-	-				-		
enter 1.9 Res BW				#V	BW 1.2 M	IHz	-			an 40 MHz /eep 1 ms	CF Step 4.000000 MH
Occup	led Bandwid				Total P	ower		31.	2 dBm		Auto Mar
	it Freq Error Indwidth		50 MH 12.624 k 19.52 M	Hz	OBW P x dB	ower			9.00 % .00 dB		Freq Offset 0 Hz
								=7810	_		

Band2_20MHz_64QAM_100_0_Main_LowCH18700-1860

BL are line or l
10 delative Ref 30.00 dBm 200
200 000 000 000 000 000 000 000
40.0
60.0
Center 1.86 GHz Span 40 MHz CFS #Res BW 390 kHz #VBW 1.2 MHz Sweep 1 ms 4.000000
Occupied Bandwidth Total Power 30.8 dBm
17.930 MHz Freq off Transmit Freq Error 21.539 kHz OBW Power 99.00 %
x dB Bandwidth 19.37 MHz x dB -26.00 dB

Band2_20MHz_64QAM_100_0_Main_MidCH18900-1880

enter Fre	ng 1.880000000	GHz	AvgiHald	Radio Std: None 60/50 Radio Device: BTS				Frequency		
0 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm		()							
00 100		mannen	B			1		-		Center Fred 1 880000000 GH
n n						1	have	in sure in a	-	
6.0. 6.0.										
enter 1.8 Res BW			#VE	SW 1.2 M	IHz	1			an 40 MHz /eep 1 ms	CF Step
Occup	led Bandwidt	.940 MH	Total Power			31.1 dBm				Auto Ma
	Transmit Freq Error 27.341 kHz k dB Bandwidth 19.48 MHz		z OBW Power		99.00 % -26.00 dB				Freq Offse	

Band2_20MHz_64QAM_100_0_Main_HighCH19100-1900

Supermit Space	Hr Stor Cocupaed BW	1.	2 282.20		ALTON AUTO		M Oct 22, 2019	32.00			
Center Fr	enter Freg 1.90000000 GHz Center Freg 1.90000000 GHz Radio Std: None Trig: Fres Runn AvgiHold: 50/50 Radio Device: BTS Radio Device: BTS										
10 dB/div	Ref Offset 13.8 df Ref 30.00 dBm				2.00						
200		Jammina			1			Center Freq 1 90000000 GHz			
-10 D -20 D					1	man	-				
40 D 80 D 60 D											
Center 1.9 #Res BW			#VBW 1.21	WHZ			an 40 MHz eep 1 ms	CF Step 4.000000 MH3			
Occup	led Bandwidt 17	h .941 MHz	Total I	31.7 dBm			Freq Offset				
			5.207 kHz OBW Power 19.58 MHz x dB			9.00 % 00 dB		0 Hz			

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

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

台灣檢驗科技股份有限公司



Report No.: E2/2019/90045 Page 120 of 645

Band4_1_4MHz_QPSK_6_0_Main_LowCH19957-1710.7

Average Seat	HIT DEC DC	-		102 201		ALION HUTCH	100.000.000	14 04 23, 2019	322	
Center Fre	Center Freg 1.710700000 GHz Center Freg 1.71070000 OH: Radio Std: None Trig: Free Run AvgiHold 60/50 Radio Device: BTS Refisient_nw #Atten: 30 dB Radio Device: BTS									
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm							0		
200 100		1-	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		many				Center Free 1,710700000 GH	
-10.0		Á				Im	n			
-30.0 -40.0 -80.0										
-60.0 Center 1.7	11 GHz						Sp	an 3 MHz		
#Res BW			#V	BW 91 kH	Iz			p 3.2 ms	CF Step 300.000 kH	
Occup	ied Bandwidth 1.0	962 MH	łz	Total P	ower	31.	5 dBm		FreqOffset	
Transmit Freq Error -1.535 x dB Bandwidth 1.239 /		-1.535 k 1.239 M				99.00 % -26.00 dB			0 H	
ceix						19810			-	

Band4_1_4MHz_QPSK_6_0_Main_MidCH20175-1732.5

R	erent Analyzer - Occupied BW	-		Freq 1,73250	0000 (14-	W10% HUND	Radio Ste	M Gel 23, 2019	Frequency			
Center Fre	enter Freg 1.732500000 GHz Cate Freg 1.73250000 GHz Radio Std: None Trig: Free Run Avg Hold: 50/60 Radio Device: BTS											
10 dB/div	Ref Offset 13.8 dB 10 dB/div Ref 30.00 dBm Log											
10.0		-	-		mony				Center F 1.732500000 0			
0.00 -10.0 -20.0		A				L						
-30.0						- Concerne						
-60.0 Center 1.7	33 642					-		oan 3 MHz				
#Res BW			#	/BW 91 kH	Hz			ep 3.2 ms	CF S 300.000	kHz		
Occup	led Bandwidth	1		Total P	ower	31.5 dBm			Auto	Man		
	1.0	0948 M	Hz						Freq Off	offset		
Transmit Freq Error -1.637 k			OBW P	ower		9.00 %			Hz			
x dB Ba	indwidth	1.240 1	WHZ	x dB		-26.	00 dB		1			
wiik)						-1410			-	_		

Band4_1_4MHz_QPSK_6_0_Main_HighCH20393-1754.3

R	NI 1910 DC	The second secon		1012-101		41101/01/10	04:51:27 PM		Frequency
Center Fre	eq 1.754300000 G	Hz FGaintow			AvgiHald	1: 60/60	Radio Std: I		Frequency
10 dB/div	= -0								
200		from	~~~~	* www.w	m			_	Center Freq 1,754300000 GHz
10 0 20 0	mannan	4				L			-
40 0 90 0									
Center 1.7 #Res BW			#VI	3W 91 KH	IZ			n 3 MHz 3.2 ms	CF Step 300.000 kHz
Occup	led Bandwidth			Total P	ower	31.	5 dBm		Auto Man
Transmit Freq Error -1.75		964 MH -1.752 k 1.241 M	kHz OBW Power				9.00 % .00 dB		Freq Offset 0 Hz
80						-1930	15		

Band4_1_4MHz_16QAM_6_0_Main_LowCH19957-1710.7

Enter Freq 1.710700000 GHz Center Freq 1.710700000 GHz Read Soft None Bit Galacture Attain 2.710700000 GHz Read Soft None Bit Galacture Attain 2.7107 Content Freq 1.710700000 GHz Read Soft None Bit Galacture Attain 2.7107 Content Freq 1.710700000 GHz Read Soft None Bit Galacture Attain 2.7107 Content Freq 1.710700000 GHz Read Soft None Bit Galacture Attain 2.7107 Content Freq 1.710700000 GHz Read Soft None Read Soft None Soft None Soft None Soft None Soft None Soft None Soft None Read Soft None Soft None Soft None Soft None Soft None Soft None Read Soft None S									
Ref Offset 13.8 dB Ref 30.00 dBm									
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	/					~~~~			
11 GHz			W of the						F Step
ed Bandwidth				-	30.5		p 3.2 ms	Auto	Mar
it Freq Error	4.178 k	Hz	OBW Po x dB	ower				Freq	0 Hz
	rg 1.710700000 Ref 0ffset 138 dB Ref 30.00 dBm 10 dBm 11 GHz 11 GHz 10 kHz 12 db Hz 12 db Hz	et	ref office 138 dB Ref 00.00 dBm Ref 0.00 dBm 11 GHz 10 kHz 10 kHz 10 kHz 10 gHz 10 gHz	Bit Die Ge         Bit Die	ref office use of the second s	Bit Die Gest         Descard         Aussian         Aussian	Bit Die Gel     Description     Alle State       19.1.7107000000 GHz     Trig Frank Run     Augihalei. 6050     Radio State       BrGainLaw     Trig Frank Run     Augihalei. 6050     Radio State       Ref Officet 138 dB     Ref officet 138 dB     Ref officet 138 dB     Radio State       10 GHz     State: 30 dB     State: 30 dB     State: 30 dB       11 GHz     SVBW 91 kHz     State       10 KHz     SVBW 91 kHz     State       10 KHz     Total Power     30.5 dBm       1.0970 MHz     It Freq Error     4.178 kHz     OBW Power     99.00 %	et also un de la control de la	regulation of the second secon

# Band4_1_4MHz_16QAM_6_0_Main_MidCH20175-1732.5

Center Freq 1.732500000	None None Ice: BTS	Frequency				
10 dB/div Ref 0ffset 13.8 dl						
Log 300 100 000 000 300 300 300 300			have	1		Center Freq 1.732500000 GHz
60.0 60.0 Center 1.733 GHz #Res BW 30 kHz		#VBW 91 kHz			an 3 MHz p 3.2 ms	CF Step
Occupied Bandwidt 1.	h 0973 MHz	Total Power	30.4	5 dBm		Auto Man Freq Offset
Transmit Freq Error x dB Bandwidth	4.815 kHz 1.235 MHz	OBW Power x dB	99.00 % -26.00 dB			0 Hz
				-	-	-

#### Band4_1_4MHz_16QAM_6_0_Main_HighCH20393-1754.3

Center Fre	g 1.754300000	GHz Ce	nter Freq: 1,754300000 GH	41109 eUra	Radio Std: None		ency					
- ontor Tre	Trig: FreeRun Avg Hold: 50/50 MFGainsLow #Atten: 30 dB Radio Device: BTS											
10 dB/div												
200		June				Cent 1,754300	ter Freq					
-10 0	man			L	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~							
-46.0												
Center 1.7 #Res BW 3			#VBW 91 kHz		Span 3 Sweep 3.3	a manual la l	CF Step					
Occupi	led Bandwidth	982 MHz	Total Power	30.3	dBm	Auto	Man					
Transmi	Transmit Freq Error 4.57		OBW Power	99.00 %		Fie	0 Hz					
x dB Ba	ndwidth	1.244 MHz	x dB	-26.0	0 dB	1						

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.



# Report No.: E2/2019/90045 Page 121 of 645

# Band4_1_4MHz_64QAM_6_0_Main_LowCH19957-1710.7

Second Sector	Ar Stor DC	-		11:22 -21/1		ALION HUTCH	104.481301	PM Gel 23, 2019	
Center Fre	Center Freg 1.710700000 GHz Center Freg 1.710700000 GHz Radio Std: None Trig: Free Run AvgiHold >50/50 Radio Device: BTS								
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm							0	
20.0 10.0 0.00		from	in in		m				Center Freq 1,710700000 GHz
-10.0	m	4				h	m	VM-menma	
-46 D -60 0									
Center 1.7 #Res BW			#V	BW 91 kH	łz			an 3 MHz p 3.2 ms	CF Step 300.000 kHz
Occup	led Bandwidti 1.(	h 0948 MI	Ηz	Total P	ower	29,	5 dBm		Auto Man Freq Offset
	it Freq Error Indwidth	1.217 I 1.235 N		OBW P x dB	ower		9.00 % .00 dB		OHz
CRIM				-		=7870	5		

# Band4_1_4MHz_64QAM_6_0_Main_MidCH20175-1732.5

R	30 D 00 10	1		Fred: 1,73250		ALIGN ALITIC	Radio St	PM Oct 23, 2019	Frequ	eney
Center Fr	eq 1.732500000 0	SHZ NFISain:Low		ee Run	AvgiHol	d >50/50		vice: BTS	Toda	
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm							()		
20.0		Jam	m	m	m		-			ter Freq
-10 D	- Annorth	A	_			Im				
-30.0 -40.0	manner		-							
-60.0			_							
Center 1.7 #Res BW			#V	BW 91 kH	łz			pan 3 MHz ep 3.2 ms	300	CF Step
Occup	ied Bandwidth			Total P	ower	29.	5 dBm		Auto	Man
	1.0	965 MH	z						Fre	q Offset
Transm	Transmit Freq Error 1.292 k			OBW P	ower	9	9.00 %		1	0 Hz
x dB Ba	andwidth	1.237 M	Hz	x dB		-26	.00 dB			
WIRD							15			_

#### Band4_1_4MHz_64QAM_6_0_Main_HighCH20393-1754.3

R R	there wanted an Occupied BW	T	2003/201		ALION HUTCH	04.52:09 PH	04 23, 2019	3 2 24
Center Fr	eg 1.754300000 (		Center Freq: 1,7543 Frig: Free Run Atten: 30 dB	AvgiHold	66/60	Radio Std: I		Frequency.
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm							
200 100		James	min	may				Center Freq 1.754300000 GHz
-10 0					1			-
-30.0							50	
-60.0 Center 1.1	754 GHz					Spa	n 3 MHz	CF Step
#Res BW	30 kHz		#VBW 91 k		-	Sweep	3.2 ms	Auto Man
Occup	bled Bandwidth 1.0	964 MH2	Total F	ower	29.4 dBm			Freq Offset
	Transmit Freq Error 1.412 x dB Bandwidth 1.237 t				99.00 % -26.00 dB			0 Hz
Wilk)					=7+10	e	-	-

## Band4_3MHz_QPSK_15_0_Main_LowCH19965-1711.5

Center Fre	Frequ	ency							
10 dB/div	Ref Officet 13.8 dB Ref 30.00 dBm								
20.0 10.0 0.00	,			man	1			Cent 1.711500	ter Fred
200	manut				1	·			
40 0 80 0									
Center 1.7 #Res BW 6			#VBW 1	80 kHz			an 6 MHz 1.533 ms	600	CF Step .000 kH
Occup	ied Bandwidti 2.6	999 MH	Tot Z	31.9 dBm			Auto Freq C		
	it Freq Error ndwidth	783 H 3.001 MH		W Power B		9.00 % 00 dB		1	0 Ha

## Band4_3MHz_QPSK_15_0_Main_MidCH20175-1732.5

enter Fre	Frequency	1										
10 dB/div		Ref Offset 13.8 dB Ref 30.00 dBm										
000 000 000 000 200 200 200			umumer (nar	min	$\overline{\mathbf{A}}$	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Center F 1.732500000				
40 0 40 0 60 0 Center 1.7	'33 GHz		#VBW 180	kHz			oan 6 MHz 1.533 ms	CF S				
Occup	ied Bandwidt 2.	h 6959 MHz	Total I	ower	31.1	3 dBm			Mat			
	Transmit Freq Error 431 x dB Bandwidth 2.991 M				99.00 %. -26.00 dB			1	0 Ha			
1						_						

#### Band4_3MHz_QPSK_15_0_Main_HighCH20385-1753.5

Center Fre	Frequency						
10 dB/div	Ref Offset 13.8 d Ref 30.00 dBn			2.00		0	
200 200 100 0.00				m			Center Freq 1,753500000 GHz
10 0 20 0 30 0	m			1	m		
40.0 -90.0 -60.0							
Center 1.7 #Res BW			#VBW 180 kHz	_		an 6 MHz 1.533 ms	CF Step 600.000 kHz
Occup	led Bandwidt 2.	h 6985 MHz	Total Power	31.	6 dBm		Auto Man
	ilt Freq Error andwidth	1.214 kHz 2.996 MHz	OBW Power x dB		9.00 % .00 dB		0 Hz

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

t (886-2) 2299-3279

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

S Taiwan Ltd.



# Report No.: E2/2019/90045 Page 122 of 645

# Band4_3MHz_16QAM_15_0_Main_LowCH19965-1711.5

P R Center Fre	Frequency						
10 dB/div							
200-000-000		man					Center Fred 1.711500000 GH
-10.0				1		mm	
30.0. 40.0 80.0							
Center 1.7 #Res BW			#VBW 180 kHz			an 6 MHz 1.533 ms	CF Step
Occup	led Bandwidt	h 7018 MHz	Total Powe	er 31.	4 dBm		Auto Ma
	hit Freq Error andwidth		OBW Powe x dB		9.00 % .00 dB		0 H
(R)					15		

### Band4_3MHz_16QAM_15_0_Main_MidCH20175-1732.5

R E	eq 1.73250000	O CH+		Freq 1,732500	000 GHz	ALTON BUTT	Radio St	MOG 23, 2014	Frequency
center Pro	eq 1.73250000	MFGain:Low	Trig: F	ree Run 1: 30 dB	AvgiHold	1 60/60		vice: BTS	
10 dB/div	Ref Offset 13.8 c Ref 30.00 dB							0	
200		from	m			1			Center Freq 1.732500000 GHz
0.00 -10.0		4	-				-		
-20.0	mont		-			4			1.1
-50.0				-					
Center 1.7 #Res BW			#	VBW 180 kł	łz			oan 6 MHz 1.533 ms	CF Step
Occup	led Bandwid			Total Pc	wer	31	1 dBm		Auto Man
	2 hit Freq Error andwidth	.7023 M 4.308 3.002 f	kHz	OBW Po x dB	wer		9.00 % 5.00 dB		Freq Offset 0 Hz
MIRO						10.01	05		

#### Band4_3MHz_16QAM_15_0_Main_HighCH20385-1753.5

R	troom Angenyam - Occupied etc. 20-03, DC		1	-are-ar-197				M Gel 23, 2619	Frequency	
Center Fre	enter Freg 1.753500000 GHz Center Freg 1.753500000 GHz Radio Std: None Trij: Free Run AvgiHold: 56/50 Radio Device: BTS									
0 dB/div	Ref Offset 13.8 Ref 30.00 di									
10.0		m	mmm			2	-		Center Freq 1,753500000 GHz	
0.00 0.0 0.0										
0.0	maniner			-				actions de		
90.0										
enter 1.7 Res BW				VBW 180 k	Hz			an 6 MHz 1.533 ms	CF Step 600.000 kHz	
Occup	led Bandwi		DALL-	Total P	ower	30	.8 dBm		Auto Man	
	andwidth	3	3 MHz .745 kHz 015 MHz	OBW Pe x dB	ower		99.00 % 6.00 dB		Freq Offsel	
0							105			

#### Band4_3MHz_64QAM_15_0_Main_LowCH19965-1711.5

Ref         and         control         Conter Freq         Conter Freq </th <th>Frequency</th> <th>equency</th>										Frequency	equency		
10 dB/div	Ref Offset 1 Ref 30.00												
200 100 020		,	~	m	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			-					enter Freq 500000 GHz
-10 D		1							1	- march			
30.0													
-60 0								1					
Center 1.71 #Res BW 6		-			#VE	3W 180	kHz		-		an 6 MHz 1.533 ms		CF Step
Occupi	ed Bandv			0 M	Hz	Total F	Power		30.0	) dBm		Auto	Man Freg Offset
Transmi	t Freq Erro	or		5.417	kHz	OBW F	ower		99	9.00 %			0 Hz
x dB Bar	ndwidth		2	.997 N	MHz	x dB			-26.	00 dB		1	

## Band4_3MHz_64QAM_15_0_Main_MidCH20175-1732.5

Center Freq 1.732500000 GHz Center Freq 1.732500000 GHz Radio Serie Serie August 1.732500000 GHz Radio Device BTS Radio Device BTS										Frequency
10 dB/div										
20.0 10.0 0.00		1	m	~~~~	•		-			Center Fred 1.732500000 GH
10 0 20 0 30 0		/					1			
48.9 90.0		_		-						
Center 1.7 Res BW (				#V	BW 180 k	Hz			an 6 MHz 1.533 ms	CF Step 600.000 kHz
Occup	led Bandw				Total P	ower	3	0.0 dBm		Auto Mar
	Transmit Freq Error 7.846 k					ower	99.00 % -26.00 dB			Freq Offsel 0 H
							-	1145		

#### Band4_3MHz_64QAM_15_0_Main_HighCH20385-1753.5

Center Fr	Frequency						
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm			2.		0	
200 100 020 -100 -200		/~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					Center Freq 1.753500000 GHz
-30.0	m				der me	m	
Center 1.7 #Res BW			#VBW 180 kHz		Sweep	an 6 MHz 1.533 ms	CF Step 600.000 kHz
Occup	ied Bandwidti 2.1	h 7030 MHz	Total Powe	r 29.	7 dBm		Auto Man Freq Offset
	hit Freq Error andwidth	4.428 kHz 2.994 MHz	OBW Powe x dB		9.00 % .00 dB		0 Hz

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.



# Report No.: E2/2019/90045 Page 123 of 645

# Band4_5MHz_QPSK_25_0_Main_LowCH19975-1712.5

Avenue Spect	AF 250 D	BW/	- 1.	anaun		#104 #UTG	04:24:51 PM	2/1 23 2019	22.00	
Center Fre	q 1.71250000	MEGainsLow	Center Trig: F	Freq: 1,71250 ree Run : 30 dB	AvgiHal		Radio Std: None Radio Device: BTS		Frequency	
10 dB/div	Ref Offset 13.8 Ref 30.00 dE					2		- 0		
200 100		/	~			7			Center Fred 1.712500000 GH:	
-10.0	~~~~~	4				1				
30.0 40.0 80.0										
Center 1.7				VBW 300 K	cHz			10 MHz	CF Step	
Occup	ied Bandwid	ith .5039 MI	Hz	Total P	ower	32.2	2 dBm		Auto Mar	
	it Freq Error Indwidth	2.905 ) 5.004 N	Hz	OBW P x dB	ower		9.00 % 00 dB		0H:	
eic)							-	-		

## Band4_5MHz_QPSK_25_0_Main_MidCH20175-1732.5

R R	AL DECK	W.	313.311		ALION HUTCH	04:27:51	PM Oct 23, 2019	
Center Fre	Frequency							
10 dB/div								
20.0		1			7			Center Freq 1,732500000 GHz
-10 0	minund				1		inan	
-46.0 -50.0								
Center 1.7 #Res BW			#VBW 300	kHz		Spa	an 10 MHz eep 1 ms	CF Step
Occup	led Bandwid 4	th .5033 MH		Power	31.	3 dBm		Auto Man Freg Offset
	lit Freq Error Indwidth	6.873 ki 4.991 Mi	z OBW	Power		9.00 % .00 dB		0 Hz
MIK)					-1410			-

#### Band4_5MHz_QPSK_25_0_Main_HighCH20375-1752.5

Center Fr	eq 1.752500000	GHz	Center I	req: 1,75250		4109 ento	Radio St	PM 021 23, 2019 d: None	Frequency
		#FGain:Low	#Atten:		AvgiHold	1: 50/50	Radio De	evice: BTS	
10 dB/div	Ref Offset 13.8 d Ref 30.00 dBr							0	
200		/				7			Center Freq 1.752500000 GHz
-10.0	monominal	/				1	marin	mannen	
40 0 50 0									
Center 1.7 #Res BW			#V	BW 300 k	Hz			an 10 MHz /eep 1 ms	CF Step
Occup	led Bandwid			Total P	ower	32	1 dBm		Auto Man
	4. hit Freq Error andwidth	5011 MH 2.668 k 5.001 M	Hz	OBW P x dB	ower		9.00 % 5.00 dB		Freq Offset 0 Hz
603						1041	05	-	

#### Band4_5MHz_16QAM_25_0_Main_LowCH19975-1712.5

Center Fre	ng 1.7125000		Center Freq: 1,712500000 GHz Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB				Radio Device: BTS		Frequency
10 dB/div	Ref Offset 13.8 Ref 30.00 di								
200 100		frame	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			1			Center Freq 1.712500000 GHz
-10 0					-	1		-un	
-30.0. -40.0 -80.0									
Center 1.7								an 10 MHz	CF Step
Res BW	led Bandwie	dth	#VI	Total P		31.	Sw 0 dBm	eep 1 ms	1.000000 MHz Auto Man
Occup		4.5061 MI	Ηz						FreqOffset
	it Freq Error Indwidth	3.091 ) 4.987 N		OBW P	ower		9.00 % .00 dB		0 Hz

# Band4_5MHz_16QAM_25_0_Main_MidCH20175-1732.5

Center Fre	Frequency								
10 dB/div	- 0								
100 000 100 000 200 200 200				m			····	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Center Freq 1,732500000 GHz
400 500 600 Center 1.7 #Res BW 1				VBW 300 F	Hz			n 10 MHz ep 1 ms	CF Step
Occup	led Bandwi	_{dth} 4.5056 N	IHz	Total P	ower	31.	) dBm		Auto Man Freq Offset
	it Freq Error ndwidth	7.419 4.970		OBW P x dB	ower		9.00 % 00 dB		0 Hz
-									

#### Band4_5MHz_16QAM_25_0_Main_HighCH20375-1752.5

Center Fr	Frequency											
10 dB/div		Ref Offiset 13.8 dB Ref 30.00 dBm										
200		1				~			Center Freq 1.752500000 GHz			
10 0 20 0	man			-		1	man	mmm				
40.0 80.0		_										
Center 1.7			#	VBW 300	kHz	11		n 10 MHz eep 1 ms	CF Step			
Occup	led Bandwi	dth 4.5021	MHz	Total I	Power	31	.0 dBm		Auto Man			
	lit Freq Error Indwidth		88 kHz 5 MHz	OBW I x dB	Power		99.00 % 5.00 dB		0 Hz			
_												

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

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

台灣檢驗科技股份有限公司



# Report No.: E2/2019/90045 Page 124 of 645

# Band4_5MHz_64QAM_25_0_Main_LowCH19975-1712.5

R Center Fre	Frequency								
10 dB/div	Ref Offset 13.8 dl Ref 30.00 dBn								
200		m		*		1			Center Fred 1.712500000 GH
20.0	-					her		-	
30.0. 40 D 50 D			_	_					
Center 1.7 Res BW			#VB	W 300 H	Hz			an 10 MHz leep 1 ms	CF Step
Occup	led Bandwidt	^ь 5103 МН	-	Total P	ower	30.0	5 dBm		Auto Ma
		-5.380 ki 4.981 Mi	łz	OBW P x dB	ower		9.00 % 00 dB		Freq Offse 0H
00									

## Band4_5MHz_64QAM_25_0_Main_MidCH20175-1732.5

New Sectors	HE STORES	w .		ana am			04:32:401	PM Gel 23, 2019	Frequency		
Center Fr	Center Freq 1.732500000 GHz Center Freq 1.73250000 GHz Radio Std: None Trij: Free Rin AvgiHold >50/50 Radio Device: BTS										
10 dB/div	Ref Offset 13.8 d Ref 30.00 dBr							()			
200 100 0.00 -10.0		mm	~~~		~~~	1			Center Freq 1,732500000 GHz		
-20.0 -30.0 -40.0 -40.0 -60.0						3	-	m			
Center 1.7 #Res BW			#\	/BW 300 kH	łz		Spa Sw	eep 1 ms	CF Step 1.000000 MH		
Occup	ied Bandwidt 4.	th 5071 MH	łz	Total Po	wer	30.	5 dBm		Auto Man Freq Offset		
	hit Freq Error andwidth	123 4.992 M		OBW Po x dB	wer		9.00 % .00 dB		0 Hz		
(initial)				-			15				

#### Band4_5MHz_64QAM_25_0_Main_HighCH20375-1752.5

N R	eq 1.75250	0000 0	U		Teg 1,75250	0000 GHz	W104 etc		td: None	Frequency	
center Pr	eq 1.75250		FGalin:Lnw		Run	AvgiHold	60/60		evice: BTS		
10 dB/div		Ref 30.00 dBm									
20.0 10.0		1		~~~~^^	-		7			Center Freq 1.752500000 GHz	
0.00 -10.0 -20.0		1							1		
30.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	m	-	-					manon.		
50.0 50.0	-	-		_							
Center 1.3 Res BW				#V	BW 300 H	Hz			oan 10 MHz weep 1 ms	CF Step 1.000000 MHz	
Occup	oled Band		063 MH	17	Total P	ower	3	0.4 dBm		Auto Man Freg Offset	
	nit Freq Erra andwidth		-143 4.980 M	Hz	OBW P x dB	ower		99.00 % 26.00 dB		0 Hz	
80							-	witte			

#### Band4_10MHz_QPSK_50_0_Main_LowCH20000-1715

Center Fre	Frequency								
10 dB/div	Ref Offset 13.8 Ref 30.00 dB		2						
20.0 10.0 0.00		ream	n det angele						Center Fred 1,715000000 GH
10 0 20 0						1		ann m	
40 D 40 D									
Center 1.71 WRes BW 2			#V	BW 620 k	Hz			an 20 MHz Jeep 1 ms	CF Step 2.000000 MH
Occupi	ed Bandwic 9	ith .0145 Mi	Ηz	Total P	ower	31	4 dBm		Auto Mar Freq Offse
Transmi x dB Bar	t Freq Error ndwidth	9.502 ) 9.818 N		OBW Po x dB	ower		9.00 % 5.00 dB		0 Hz

#### Band4_10MHz_QPSK_50_0_Main_MidCH20175-1732.5

Center Fre	Frequency					
10 dB/div						
200 100 0.00			anarona anarona			Center Freq 1,732500000 GHz
10 D	man	(		1		
40.0 40.0						
Center 1.7			#VBW 620 kHz	1	Span 20 MHz Sweep 1 ms	
Occup	led Bandwidt		Total Power	31.4	4 dBm	Auto Man
	9.1 it Freq Error ndwidth	24.863 KHz 9.822 MHz	OBW Power x dB		9.00 % 00 dB	Freq Offset 0 Hz
				=1810	_	

## Band4_10MHz_QPSK_50_0_Main_HighCH20350-1750

R Center Fre	Frequency							
10 dB/div	Ref Offset 13.8 dl Ref 30.00 dBm				2.46		()	
200 100		r	anonalor ano		7			Center Freq 1.750000000 GHz
-10.0	mont	/			L			
46 0 -90 0								
Center 1.7 #Res BW			#VBW 620	kHz			an 20 MHz eep 1 ms	CF Step 2.000000 MH
Occup	led Bandwidt 9.	h 0040 MH		Power	31.4	4 dBm		Auto Man Freq Offset
	it Freq Error Indwidth	6.434 kH 9.843 MH		Power		9.00 % 00 dB		0 Hz

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.

# Report No.: E2/2019/90045 Page 125 of 645

# Band4_10MHz_16QAM_50_0_Main_LowCH20000-1715

R R Center Fre	Frequency							
10 dB/div	Ref Offset 13.8 dl Ref 30.00 dBn				2		- 0	
200		promisian	ananina inita	- consistent and a strange	7			Center Fred 1,715000000 GHz
9.00 10.0 20.0	monnel				La		and the second	
30.0 46.0								
60.0								1
Center 1.7 #Res BW 2		-	#VBW 62	20 kHz			an 20 MHz /eep 1 ms	CF Step 2.000000 MH
Occup	led Bandwidt			I Power	30.	6 dBm		Auto Mar
	8.	9648 MH	z					Freq Offsel
	it Freq Error ndwidth	16.945 kH 9.753 MH		V Power		9.00 % .00 dB		0 H
00								

# Band4_10MHz_16QAM_50_0_Main_MidCH20175-1732.5

RI	30 0.02	1 m		Freq: 1,73250		ALTON: BUTT	Radio St	PM Oct 23, 2619	Frequency		
Center Fre	Center Freq 1.732500000 GHz Trij: Free Rin AvgiHold: 50/80 #Filielm.Low #Atten: 30 dB Radio Device: BTS										
10 dB/div											
200 100		phinner	~~~~		-main	7			Center Freq 1.732500000 GHz		
-10.0	Manananan			-				mum			
-46 0 -80 0											
Center 1.7 #Res BW			#V	BW 620 1	Hz			an 20 MHz /eep 1 ms	CF Step 2.000000 MHz		
Occup	led Bandwid	th .9570 Mi	47	Total P	ower	30	.6 dBm		Auto Man		
	o hit Freq Error andwidth	20.713 ) 9.804 N	Hz	OBW P x dB	ower		99.00 % 5.00 dB		Freq Offset 0 Hz		
NIKI						-	105				

#### Band4_10MHz_16QAM_50_0_Main_HighCH20350-1750

Center Fr	enter Freq 1.750000000 GHz enter Freq 1.75000000 GHz affcale_tow Atten: 30 db											
10 dB/div		Ref 0ffset 13.8 dB Ref 30.00 dBm										
200		p			mit	maine	5	-	-		Center Freq 1.75000000 GHz	
9.00 10.0 20.0		1		-				1				
30.0	manner			-				-	man	andread		
50.0				-								
Center 1.1 Res BW				#VBW	620	Hz				an 20 MHz leep 1 ms	CF Step 2.000000 MHz	
Occup	oled Bandw		06 MH2		otal P	ower		29.3	7 dBm		Auto Man Freq Offset	
	nit Freq Errol andwidth		14.262 kH 9.755 MH	z O	BW P dB	ower			9.00 % .00 dB		0 Hz	
iic)								#P#10				

#### Band4_10MHz_64QAM_50_0_Main_LowCH20000-1715

Center Free	Frequency								
10 dB/div	Ref Offset 13.8 d Ref 30.00 dBr								
200 200 100 0.00						m			Center Fred 1,715000000 GH
10.00 10.00 20.0	mand	/				1			
30.0. 40 0			-		-		-		
60.0									1
Center 1.71 #Res BW 2		-	#V	BW 620 P	Hz	-		an 20 MHz /eep 1 ms	CF Step 2.000000 MH
Occupi	ed Bandwidt 8	th 9799 Mi	Hz	Total P	ower	30	1 dBm		Auto Man
	t Freq Error	8.349	kHz	OBW P	ower		9.00 %		Freq Offsel 0 Ha
x dB Bar	dwidth	9.835 M	ЛНZ	x dB		-26	5.00 dB		

# Band4_10MHz_64QAM_50_0_Main_MidCH20175-1732.5

Center Fre	TS					
10 dB/div	Ref Offset 13.8 di Ref 30.00 dBn			3.00		-0
.0g 200 100 0.00		Jamam	manniam	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Center Freq 1.732500000 GHz
10.0	umment				-	
90 Q						_
Center 1.7			#VBW 620 kHz		Span 20 Sweep	Cr atep
	led Bandwidt		Total Pow		0 dBm	Auto Mar
	8.	9890 MHz				Freq Offset
	it Freq Error ndwidth	12.385 kHz 9.808 MHz	OBW Pow x dB		9.00 % .00 dB	0 Hz
-						

# Band4_10MHz_64QAM_50_0_Main_HighCH20350-1750

R Center Fre	ag 1.750000000	Triz.	nter Freq: 1,750000000 GHz g: Free Run AvgiHe tten: 30 dB	ALTON AUTO E ald: 50/50	Radio Device: BTS	Frequency
10 dB/div	Ref Offset 13.8 di Ref 30.00 dBn					
20.0 10.0			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	mag		Center Freq 1.75000000 GHz
10 0 20 0 30 0	mand			1	www.	
40.0 40.0 90.0						
Center 1.7			#VBW 620 kHz		Span 20 MH Sweep 1 m	
Occup	led Bandwidt	h 9756 MHz	Total Power	29.1	3 dBm	Auto Man
	It Freq Error 5.250 kH ndwidth 9.825 MH		OBW Power x dB		9.00 % 00 dB	Freq Offset 0 Hz

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.



# Report No.: E2/2019/90045 Page 126 of 645

# Band4_15MHz_QPSK_75_0_Main_LowCH20025-1717.5

R R	HI COLUMN B	W.		anaran			04-09-47	PM Oct 23, 2019	0.2.00
Center Fre	g 1.71750000	MFGalmLow	Trig: F	Freq: 1,71750 Free Run 1: 30 dB	AvgiHald		Radio Sto		Frequency
10 dB/div	Ref Offset 13.8 c Ref 30.00 dB						_		
200 100		paranew				2		-	Center Free 1.717500000 GH
-10.0		<u> </u>		-	-	$\mathbf{\Lambda}$			
-30.0			-	-			-		1.00
46 D 80 D				-					
-60.0									1
Center 1.7 #Res BW			#	VBW 9101	kHz	_		eep 1 ms	CF Step 3.000000 MH Auto Mar
Occup	led Bandwid	th 3.494 M	147	Total P	ower	31.	5 dBm		
	it Freq Error	30.24	2 kHz	and a second second second second			9.00 %		Freq Offse
x dB Ba	indwidth	14.71	MHz	x dB		-26	.00 dB		1
wiico i							15	-	

#### Band4_15MHz_QPSK_75_0_Main_MidCH20175-1732.5

Center Fre	ng 1.732500000	GHz	Center	Freq: 1,73250	AvgiHold	>50/50	Radio Sto	t: None	Frequency
1.1.1.1.1.1.1		MFISain:Low	#Atten:		(in the second		Radio De	vice: BTS	
10 dB/div	Ref Offset 13.8 di Ref 30.00 dBn				2	2		0	
200						-			Center Freq 1.732500000 GHz
-10 0									
-30.0			_						
-80 0							-		
Center 1.7 #Res BW			#\	/BW 910 k	Hz		Spa Sw	eep 1 ms	CF Step 3.000000 MHz
Occup	led Bandwidt			Total P	ower	31.	9 dBm	-	Auto Man
	13	8.479 MH	1z						Freq Offset
Transm	it Freq Error	46.372 k	Hz	OBW P	ower	9	9.00 %		0 Hz
x dB Ba	indwidth	14.76 M	Hz	x dB		-26	i.00 dB		1
ANING							05		

# Band4_15MHz_QPSK_75_0_Main_HighCH20325-1747.5

Center Fr	eq 1.74750000	0 GH	iz Saln:Low	Center F		AvgiHold	60/60	Radio St	evice: BTS	Frequency.
10 dB/div	Ref Offset 13.8 Ref 30.00 dE		_							Center Freq 1.747500000 GHz
200		m	manan		umen m	iman	-			
100 200 300				_			1	-	-	
46 0 90 0 60 0										
Center 1.7 Res BW				#VI	BW 910 k	Hz			an 30 MHz veep 1 ms	CF Step 3.000000 MHz
Occup	ied Bandwid		94 MH	17	Total P	ower	3	1.3 dBm		Auto Mar
	hit Freq Error andwidth	14.900 k 14.71 M	Hz	OBW Power x dB			99.00 % 26.00 dB		Freq Offset 0 Hz	
(mo)							10	105		

#### Band4_15MHz_16QAM_75_0_Main_LowCH20025-1717.5

Center Fre	ng 1.71750000		Z SalmLow	Center Fr			50/60	Radio St	d: None evice: BTS	Frequency
10 dB/div	Ref Offset 13.8 Ref 30.00 df									
200-000		m	~~~~		**********		1			Center Freq 1.717500000 GHz
10 0 20 0	man	£					Low		Server Pro	
-30.0. -46.0 -90.0										
60.0 Center 1.7	118 CH2							-	an 30 MHz	
#Res BW		_		#VE	SW 910 K	Hz			eep 1 ms	CF Step 3.000000 MHz
Occupi	ied Bandwid		83 MH	łz	Total P	ower	30.	9 dBm		Auto Man Freq Offset
Transm	it Freq Error		6.152 k		OBW P	ower	9	9.00 %		0 Hz
x dB Ba	indwidth		14.75 M	Hz	x dB		-26	.00 dB		

# Band4_15MHz_16QAM_75_0_Main_MidCH20175-1732.5

RI	Frequency									
Center Fr	Center Freg 1.732500000 GHz Trig: Free Run Avg Hold>80:50 RefGelnLnw #Atten: 30 dB Radio Device: BTS									
10 dB/div	Ref Offset 13. Ref 30.00 d						2		0	
20.0		f	·				7			Center Freq 1.732500000 GHz
0.00 10.0 20.0		1		_			6	man	m	
30.0. 46.0		-						-		
60.0										
Center 1.3 #Res BW				#V	BW 910 P	Hz			an 30 MHz /eep 1 ms	CF Step 3.000000 MHz
Occup	ied Bandwi				Total P	ower	29	9 dBm		Auto Man
13.451 MHz										Freq Offset
	Transmit Freq Error 13.409 kH x dB Bandwidth 14.75 MH							99.00 % 5.00 dB		0 Hz

#### Band4_15MHz_16QAM_75_0_Main_HighCH20325-1747.5

R	ng 1.7475000	000 G	Hz FGalistow	Center		0000 GHz AvgiHold	4105 AUTO 60/50	Radio St	rH oct 23, 2614 d: None vice: BTS	Frequency
10 dB/div	Ref Offset 13. Ref 30.00 c								1	
20.0 10.0 0.00		1	10-100,000-0000	the state of the s	a resultion of		-			Center Freq 1.747500000 GHz
10 0 20 0 30 0	~~~~~	1					In	-	duran	
400 900		_						-		
Center 1.7 Res BW 3			-	#V	BW 910 k	Hz			an 30 MHz eep 1 ms	CF Step 3.000000 MH
Occup	led Bandw		475 MI	Ηz	Total P	ower	30.	5 dBm		Auto Man Freq Offset
	it Freq Error ndwidth	-	-10.171   14.64 N		OBW P x dB	ower		9.00 % .00 dB		0 Hz

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.

# Report No.: E2/2019/90045 Page 127 of 645

# Band4_15MHz_64QAM_75_0_Main_LowCH20025-1717.5

R R	HI DOCUDER	W.		ar uttr		42104-1			M Gct 23, 2619	Frequency	
Center Fre	Center Freq 1.717500000 GHz Center Freq 1.71500000 GHz Radio Std: None Trig: Free Run Avgilhold: 50/50 Radio Device: BTS										
10 dB/div	Ref Offset 13.8 d Ref 30.00 dBn										
20.0		por		فليبتخسبها س		2			-	Center Free 1,717500000 GH	
0.00 -10.0	1	1	_				-				
-30.0	and the second second second second		-					-			
-40 D -80 Q			-				-				
Center 1.7						11	_		n 30 MHz	CF Step	
#Res BW Occup	led Bandwidt	th		W 910 k Total P		13	30.4	dBm	eep 1 ms	3.000000 MH Auto Mar	
	13	3.458 MH	z							FreqOffse	
	it Freq Error	7.484 ki		OBW P	ower			9.00 %		0H	
x dB Ba	indwidth	14.78 M	Hz	x dB			-26.0	0 dB			
(initial)							1=105			-	

# Band4_15MHz_64QAM_75_0_Main_MidCH20175-1732.5

Center Fre	Center Freq 1.732500000 GHz Center 172500000 GHz Ratio Driver BTS BitGlinLow RAter: 30 dB											
10 dB/div	Ref Offset 13.8 Ref 30.00 dE	dB 3m										
200 100		Jun		- Annon		-			Center Freq 1.732500000 GHz			
0.00 -10.0 -20.0	mar mar and	/				La	Al-secon,					
-30.0				-								
-60.0 Center 1.7	33 GH7			-			Sna	an 30 MHz	-			
#Res BW			#	VBW 910 k	Hz			eep 1 ms	CF Step 3.000000 MHz Auto Mar			
Occup	led Bandwid			Total P	ower	30	1 dBm		Auto Mar			
	1	3.450	MHz						Freq Offset			
Transm	it Freq Error	18 kHz	OBW P	ower	5	9.00 %		0 Hz				
x dB Ba	indwidth	14.	69 MHz	x dB		-26	5.00 dB					
NIK						100	ue.					

#### Band4_15MHz_64QAM_75_0_Main_HighCH20325-1747.5

Center Fre	iq 1.747500	0000 G	Hz	Center	Freq 1,747500		ALLON-BUTTO	Radio St	PM 08 23, 2019 d: None	Frequency
			FGalmLow	#Atten:	ao Run 30 dB	AvgiHab	d >60/50	Radio De	evice: BTS	
10 dB/div										
20.0					- marine marine	-				Center Freq
0.00	-	A					1	-		1,747300000 0112
20.0		~	-		-		1		and and the second	
30,0 48.0		_	-							
60.0		-	-						-	
enter 1.7 Res BW				#1	/BW 910 k	Hz			an 30 MHz Veep 1 ms	CF Step 3.000000 MHz
Occup	led Bandy	width	0.775		Total Po	ower	29	9 dBm		Auto Man
		13.4	463 MH	١z						Freq Offset
Transm	3.810	Hz	OBW Po	ower	9	9.00 %		0 Hz		
x dB Ba	indwidth		14.69 M	Hz	x dB		-26	5.00 dB		
80								02		

#### Band4_20MHz_QPSK_100_0_Main_LowCH20050-1720

Center Fre	q 1.72000000	MEGalmilinw	Center	Freq: 1,72000 ee Run 30 dB	0000 GHz AvgiHold	1>50/50	Radio Ste	t: None vice: BTS	Frequency
10 dB/div	Ref Offset 13.8 dl Ref 30.00 dBn					2			
20.0 10.0		Jamas	A		***	7			Center Freq 1.720000000 GHz
0.00 -10.0 -20.0		1				1		Manner	-
-30.0									
-60.0							-		
Center 1.73 #Res BW 3			#V	BW 1.2 M	IHz	_		an 40 MHz eep 1 ms	CF Step 4.000000 MHz
Occupi	ed Bandwidt	th 7.938 MH	47	Total P	ower	31.	6 dBm		Auto Man
Transmi	it Freq Error	29.246 k	0.4	OBW P	ower	9	9.00 %		Freq Offsel 0 Hz
x dB Ba	ndwidth	19.53 M	Hz	x dB		-26	.00 dB		

# Band4_20MHz_QPSK_100_0_Main_MidCH20175-1732.5

enter Fre	ng 1.732500000	Trig	Freq: 1,732500000 GHz Free Run AvgiHali in: 30 dB	d: 60/60	Radio Std: None Radio Device: BTS	Frequency
0 dB/div	Ref Offset 13.8 dl Ref 30.00 dBm			2.00		
.00 200 100				-		Center Fred 1,732500000 GH
				h	minin	-
a n n n						
enter 1.7 Res BW			VBW 1.2 MHz		Span 40 MH Sweep 1 m	
Occup	ied Bandwidt 17	h .918 MHz	Total Power	32.0	) dBm	Auto Mar Freq Offse
	it Freq Error indwidth	43.572 kHz 19.48 MHz	OBW Power x dB		9.00 % 00 dB	0 H
_						

#### Band4_20MHz_QPSK_100_0_Main_HighCH20300-1745

Center Fre	eq 1.745000000	GHz	Center Freq: 1,7450	AvgiHold	ALLON ALLON	Radio St	PM GEI 23, 2914 d: None	Frequency			
11111	mFiSain1.nw #Atten: 30 dB Radio Device: BTS										
10 dB/div	0										
.0g 200 100		minim		water		-		Center Fred 1,745000000 GH			
9.00 10.0								_			
20 0 30 0 40 0	and the second second second						mar				
80.0			-				-				
Center 1.7 Res BW			#VBW 1.2	MHz			an 40 MHz eep 1 ms	CF Step 4.000000 MH			
Occup	led Bandwidt	h .942 MH:	Total	Power	31.4	4 dBm		Auto Man			
Transm	nit Freq Error	16.815 kH		Power	99	9.00 %		Freq Offsel 0 Hz			
x dB Ba	andwidth	19.53 MH	z xdB		-26.	00 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.

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.

# Report No.: E2/2019/90045 Page 128 of 645

# Band4_20MHz_16QAM_100_0_Main_LowCH20050-1720

Center Fre	eq 1.720000000	GHz MFGainLow			AvgiHold	66/60	Radio St	d: None vice: BTS	Frequency
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm					2.00			
20.0		p			amberry.	-			Center Freq 1.720000000 GHz
9.00 -10.0 -20.0	mand					L		-	
-30.0									
Genter 1.7	2 045							an 40 MHz	1
#Res BW			#VE	SW 1.2 N	IHz	_		eep 1 ms	CF Step 4.000000 MHz
Occup	led Bandwidt	.975 MH	7	Total P	ower	30.	7 dBm	1.1	Auto Man
		16.359 k 19.50 M	kHz OBW Power				9.00 % 6.00 dB		Freq Offset 0 Hz
MIRO						= Y = 1	0.5		

# Band4_20MHz_16QAM_100_0_Main_MidCH20175-1732.5

R	It 20 G, DC		1.2162(20)	and the second second	ALLON: AUTO		PM Oct 23, 2619	Frequency			
Center Fr	enter Freg 1.732500000 GHz Center Freg 1.732500000 GHz Radio Std: None Trig: Free Run Avg Hald: 50/80 Radio Device: BTS										
10 dB/div	Ref Offset 13.8 d Ref 30.00 dBn				2.00	_					
200 100 0.00		h			1			Center Freq 1.732500000 GHz			
-10 0 -20 0 -30 0	-					m	man				
-46 D -50 Q			-								
Center 1.7 #Res BW			#VBW 1.2	MHz			an 40 MHz eep 1 ms	CF Step 4.000000 MHz			
Occup	led Bandwidt	h 7.943 MHz		Power	31.	l dBm		Auto Man			
	nit Freq Error andwidth	24.507 kHz 19.58 MHz	OBW	Power		9.00 % 00 dB		Freq Offset 0 Hz			
(crite						_					

#### Band4_20MHz_16QAM_100_0_Main_HighCH20300-1745

R R	their Analyse - Occa	Aprese struct	- T		ana mi		ALION BUT	04:07:55	PM Gd 23, 2019	100 K 84
Center Fr	eq 1.745000		Hz FGalmLow	Trig: F	Freq: 1,74500 Free Run 1: 30 dB	AvgiHal	d: 60/60	Radio St Radio De	d: None zvice: BTS	Frequency.
Ref Offset 13.8 dB 10 dB/div Ref 30.00 dBm										
20.0		1				-	2	-	-	Center Freq 1.745000000 GHz
9.00 -10.0 -20.0		1					1	n		
-30.0	and the second second	_						-		
-60.0	-	-	-					-		
Center 1. #Res BW				#	VBW 1.2 N	IHZ			an 40 MHz /eep 1 ms	CF Step 4.000000 MHz
Occup	led Bandy		965 M	Hz	Total P	ower	30	.9 dBm		Auto Ma
	Transmit Freq Error 3.519 k x dB Bandwidth 19.55 M				Hz OBW Power			99.00 % 6.00 dB		Freq Offset 0 Hz
(oily)							100	105		

# Band4_20MHz_64QAM_100_0_Main_LowCH20050-1720

R	g 1.7200000	00 G	Hz Gain:Low	Center Fr			60/60	Radio St	rice: BTS	Frequency.
10 dB/div	Ref Offset 13.8 Ref 30.00 di		_						0	
200 100		r	annahingten	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Lizzantradia	و در سیاست	1			Center Free 1.720000000 GH
0.00 -10.0 -20.0		1					tran	-	California and a second	
30.0 Antonia (1974) 48.0		-								
-60.0 -60.0								-		
Center 1.73 #Res BW 3		-		#VE	3W 1.2 M	Hz			an 40 MHz eep 1 ms	CF Step 4.000000 MH
Occupi	ed Bandwi		98 MI	47	Total P	ower	30.5	5 dBm		Auto Mar
Transmi	it Freq Error		24.135		OBW P	ower	99	9.00 %		Freq Offset 0 Ha
x dB Ba	ndwidth		19.50 N	IHz	x dB		-26.	00 dB		1

# Band4_20MHz_64QAM_100_0_Main_MidCH20175-1732.5

a R Denter Fre	ig 1.732500000	GHz MFGalmLow	Center F	Center Free, 1,732500000 GHz Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB					None None vice: BTS	Frequency
10 dB/div	Ref Offset 13.8 d Ref 30.00 dBn						_		- 0	
.og 200 100 0.00		man	-Maing-	*		-	<u></u>			Center Freq 1,732500000 GHz
10.0 21.0	mand						Lun	mann.	-	
90.0 10.0 10.0					-					
50.0										
enter 1.7 Res BW 3			#V	BW 1.2 M	IHz		_		eep 1 ms	CF Step 4.000000 MH
Occupi	led Bandwidt			Total P	ower		30.5	dBm		Auto Mar
	17 It Freq Error ndwidth	51.054 MI 51.054 I 19.56 M	Hz	OBW P x dB	ower			00 % 00 dB		Freq Offset 0 H

# Band4_20MHz_64QAM_100_0_Main_HighCH20300-1745

Frequency	Adio Std: None adio Device: BTS	aUna D	Center Freq: 1,745000000 GHz					nter Freg 1.745000000 GHz					
			-				_		Ref Offset Ref 30.0	dB/div			
Center Fre 1.745000000 GH			-	erman	anna	the Rost Income	- min	/		9 10 10			
					-			1		00 10			
	- Changed Constrainty of the								-	0			
	_				-	-	-	_		α.			
CF Ste 4.000000 MH	Span 40 MHz Sweep 1 ms			MHz	BW 1.2	#\				enter 1.7 Res BW			
Auto Ma	Bm	30.2		Power	Total	łz	44 MI		ed Band	Occup			
OH	0 %	99.		Power	OBW		8.823	or	t Freq Err				
	dB	-26.0			x dB	Hz	19.51 N		ndwidth	x dB Ba			

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

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

台灣檢驗科技股份有限公司



# Report No.: E2/2019/90045 Page 129 of 645

# Band5_1_4MHz_QPSK_6_0_Main_LowCH20407-824.7

Registry         Constraint         Constrain										
10 D		A				t				
40.0 80.0			_	-						
Center 824			#VB	W 91 kł	łz	-		an 3 MHz p 3.2 ms	CF Step	
Occup	led Bandwidth	946 MH	7	Total P	ower	28.	0 dBm		Auto Ma	
		-2.255 kl	Hz	OBW P x dB	ower		9.00 % .00 dB		Freq Offse 0H	
00							в			

#### Band5_1_4MHz_QPSK_6_0_Main_MidCH20525-836.5

Avenue Space	AP 2010 DC			a near stirl		ALION-1070	02-59-51	PM Oct 24, 2019	32	24
Center Fre	eq 836.500000 M	Hz #FGaint.nw	Center	Freq: 836.500	AvgiHol		Radio Sto		Frequency	
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm							-1		
200 10.0 0.00		m	i		~~~~				Center F 836.500000	
-10.0	manather	4				La	man	more		
-46 B -60 0										
Center 83 #Res BW			#V	/BW 91 kH	łz			oan 3 MHz ep 3.2 ms	CF S 300.000	<b>kH</b>
Occup	led Bandwidth	937 MI	Hz	Total P	ower	28.3	3 dBm		Auto Freg Off	Man
	lit Freq Error Indwidth	-1.404   1.234 N	kHz	OBW P x dB	ower		9.00 % .00 dB			0 Hz
MIRO						=Y#10				_

#### Band5_1_4MHz_QPSK_6_0_Main_HighCH20643-848.3

Center Fre	g 848.300			Center Fr	eq. 848.300		WTOP NOUT	Radio Std: /		Frequency
1			GaintLow	#Atten: 3	e Run 0 dB	AvgiHold	60/60	Radio Devic	BTS	
10 dB/div	Ref Offset Ref 30.00	13.6 dB 0 dBm							= -0	
200				-	minim	my				Center Fred 848.300000 MHz
-10.0	mound	mal					1			
48.0 -48.0 -50.0	wh where	KO YW						and my hard	an see f	
Center 848 #Res BW		-		#VE	SW 91 KH	łz	-		n 3 MHz 3.2 ms	CF Step 300.000 kHz
Occup	ied Band		50 M		Total P	ower	25.	6 dBm		Auto Mar
	it Freq Err ndwidth		-472 1.206 M	Hz	OBW P	ower		9.00 %. .00 dB		Freq Offsel 0 Hi
eiro i							= Delo	5		

#### Band5_1_4MHz_16QAM_6_0_Main_LowCH20407-824.7

R	AL DOLD, DC			1021-3107		4105 4070		Oct 24, 2014		
Center Fre	q 824.700000 N	MFGain:Low			AvgiHol	id: 60/60	Radio Std: None Radio Device: BTS		ried	uency
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm						_	= -0		
200 200 100 020				m						nter Fred
va n 20 0		/				N		_		
30.0 48.0						Janone		m		
60.0			_						-	-
Center 824 #Res BW 3		· · · · · ·	#VE	BW 91 KH	z			n 3 MHz 3.2 ms		CF Step
Occupi	ed Bandwidth	958 MH		Total P	ower	27.7	dBm		Auto	Mar
Transmi	I.U	4.280 k		OBW P	ower	99	9.00 %		Fr	eq Offse 0 Hi
x dB Ba	ndwidth	1.240 M	Hz	x dB		-26.	00 dB			

# Band5_1_4MHz_16QAM_6_0_Main_MidCH20525-836.5

Center Fre	q 836.5000		Z Gain:Low	Center Trig: F	Freq: 836.500 ree Run 30 dB		id: 50/50	Radio Std		Frequ	ency
10 dB/div	Ref Offset 1 Ref 30.00								0		
200				an-							ter Freq 1000 MHz
	execcentra	mail	/		-		howard	antar antar	many		
-48.8 -50.0 -60.0											
Center 836 #Res BW 3				#	/BW 91 ki	Hz			an 3 MHz p 3.2 ms	300	CF Step
Occupi	ed Bandv		46 M	Hz	Total P	ower	27.3	dBm		Auto	Man q Offset
Transmi x dB Bar	t Freq Erro ndwidth	or	3.829 1.240 I		OBW P x dB	ower		9.00 % 00 dB			0 Hz

#### Band5_1_4MHz_16QAM_6_0_Main_HighCH20643-848.3

0 dB/div .og 20.0	Ref Offset 13.6 dB Ref 30.00 dBm				Center Freq 848.300000 MHz Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB					
20.0								= -0		
9.00 10.0 20.0				~~~						iter Freq 0000 MHz
30 0						h				
Center 848. Res BW 30			#VB	N 91 KH	z			n 3 MHz 3.2 ms	300	CF Step
Occupie	ed Bandwidth 1.0	956 MH		Total P	ower	27.7	dBm		Auto Fre	Man q Offset
Transmit x dB Ban	Freq Error dwidth	3.036 ki 1.235 Mi		OBW Pe	ower		00 % 00 dB			0 Hz

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.



# Report No.: E2/2019/90045 Page 130 of 645

# Band5_1_4MHz_64QAM_6_0_Main_LowCH20407-824.7

Center Free	q 824.700000 I	MHz MFGain:Low	Center	Freq: 824.700 ree Run 30 dB	000 MHz AvgiHal	d: 60/60	Radio De		Frequency
10 dB/div	Ref Offset 13.6 dl Ref 30.00 dBn							0	
200 100 020		-	i	-nn					Center Freq 824.700000 MHz
-10 D	and the second	A				ha	200000	arnon	-
46 0 46 0 46 0									1
Center 824. #Res BW 3			#1	/BW 91 kH	łz			an 3 MHz p 3.2 ms	CF Step 300.000 kHz
Occupi	ed Bandwidt 1.	h 0950 N	IHz	Total P	ower	28.3	2 dBm		Auto Man Freg Offset
Transmi x dB Bar	t Freq Error ndwidth	-12 1.236		OBW P x dB	ower		9.00 % .00 dB		0 Hz
00						=7=10			

### Band5_1_4MHz_64QAM_6_0_Main_MidCH20525-836.5

Center Fre	ng 836.500000 MH	Tri	tter Freq. 836,500000 MH Free Run Avgit ten: 30 dB	#210% #UTG F fold: 50/50	Radio Dev		Frequency
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm					0	
200		Jamman	nimentaria.	7			Center Freq 836.500000 MHz
-10 0 -20 0 -30 0	manna			losino	man	man	
-46.0							
Center 836 #Res BW 3			#VBW 91 kHz			an 3 MHz p 3.2 ms	CF Step 300.000 kHz
Occupi	led Bandwidth		Total Power	28.	4 dBm		Auto Man
	1.09	949 MHz					Freq Offset
	it Freq Error ndwidth	-600 Hz 1.235 MHz	OBW Power x dB		9.00 % .00 dB		0 Hz
NIKO				- 7-36	12		

#### Band5_1_4MHz_64QAM_6_0_Main_HighCH20643-848.3

R	- NF - 10 - 10-		Fred: 848.300000 MHz	ALLONE BUTT	Radio Std	M Oct 24, 2014	Frequency
Center Fre	ng 848,300000 MF	Trig		ld: 50/50	Radio Std		. codation by
0 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm					= -0	
20.0 10.0		pomo	minana,	X			Center Fred 848.300000 MHz
	mannen			Ima	Ader	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
							1
enter 84 Res BW			WBW 91 kHz			an 3 MHz p 3.2 ms	CF Step 300.000 kH
Occup	led Bandwidth	941 MHz	Total Power	28.	0 dBm	101	Auto Mar
		-507 Hz 1.233 MHz	OBW Power x dB		9.00 % .00 dB		Freq Offsel 0 H:
0					15		

#### Band5_3MHz_QPSK_15_0_Main_LowCH20415-825.5

Center Fre	q 825.500000 N	MFGain:Low	Center F	req: 825.500 e Run 10 dB	000 MHz AvgiHold	1>50/50	Radio Sto Radio De		Frequency	1
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm							0		
200 100 0.00		- maine	, , , , , , , , , , , , , , , , , , ,	-		~			Center Fr 825.500000 N	
-10 D -20 D -30.0	www.		_			7	har some	in mos		
-48 B 2 ¹⁷ 40 7 1/10 -80 0	www.www		-				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	40-79° ** Y		
Center 825 #Res BW 6			#VE	BW 180 k	Hz			an 6 MHz 1.533 ms	CF St 600.000	(H)
Occupi	ed Bandwidth	7097 MH	-	Total P	ower	20	5.4 dBm		Links.	Aan
Transmi x dB Bar	t Freq Error	1.479 ki 2.956 Mi	Hz	OBW P	ower		99.00 %. 6.00 dB		Freq Off	Hz
							1111			

## Band5_3MHz_QPSK_15_0_Main_MidCH20525-836.5

Center Fre	Enter Free 836.5500000 MHz Content 836.500000 MHz Radio Set None BifGaleLaw SAtten: 30 dB AvgHold:-50150 Radio Device: BTS									
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm				2.00		()			
20.0 10.0 0.00 -10.0		,						Cent 836.500	er Freq 000 MHz	
-30.0 -46.0 -80.0	m				1		Vannon			
Genter 830 #Res BW			#VBW 180	kHz			an 6 MHz 1.533 ms		F Step	
Occup	led Bandwidth 2.7	7001 MHz	Total I	Power	27.9	dBm		Auto	Man	
	lit Freq Error Indwidth	852 Hz 2.996 MHz		Power		00 % 00 dB			0 Hz	
-						_		-		

#### Band5_3MHz_QPSK_15_0_Main_HighCH20635-847.5

Center Fr	enter Freg 847,5000000 MHz Center Freg 845,50000 MHz Radio 84 Anne Britishi Law Holm Radio 84 Anne Radio 24 Anne R										
10 dB/div		Ref 0ffset 13.6 dB Ref 30.00 dBm									
200		,		-			Center 847.500000				
10 0 20 0				1	_						
40.0 80.0						~~~~~					
Center 84 #Res BW			#VBW 180 kHz		Spa Sweep	an 6 MHz 1.533 ms	600.00				
Occup	led Bandwidth 2.6	977 MHz	Total Power	28.2	dBm		Auto Freq O	Man			
	nit Freq Error andwidth	-508 Hz 3.004 MHz	OBW Power x dB		00 % 00 dB			0 Hz			

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.

# Report No.: E2/2019/90045 Page 131 of 645

# Band5_3MHz_16QAM_15_0_Main_LowCH20415-825.5

R	eq 825,50000		Trig: F	Freq. 825.500 Tree Run :: 30 dB		10% AUNO 50/60	Radio Ste	vice: BTS	Frequency
10 dB/div	Ref Offset 13.6 Ref 30.00 di							0	
200 100		par	~~~~~	~~~~~					Center Free 825.500000 MH
-10 D						$\langle$			-
-30.0 -40.0 -50.0	and the second								
Center 82:				VBW 180 P	(Hz			oan 6 MHz 1.533 ms	CF Step
	led Bandwi	dth 2.7043		Total P		28.	5 dBm		Auto Mar
	it Freq Error Indwidth	1.9	191712 133 kHz 12 MHz	OBW P x dB	ower		9.00 % 5.00 dB		Freq Offse 0 H
00						= 1 = 1	05		

## Band5_3MHz_16QAM_15_0_Main_MidCH20525-836.5

Avenue Space	Mr Store Document		3103.211		ALTON AUTO	07-41-021	PM Oct 24, 2019	020
Center Fr	eq 836,500000 N	1112 To 12	Center Freq: 836.500000 MHz Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB				I: None vice: BTS	Frequency
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm							
200 100 0.00					1			Center Freq 836.500000 MHz
-10.0					Z			
-46 0 -80 0 -60 0								
Center 83 #Res BW			#VBW 1801	kHz			oan 6 MHz 1.533 ms	CF Step 600.000 kHz
Occup	led Bandwidtl 2.0	h 6980 MHz	Total F	ower	29.0	0 dBm	1.51	Auto Man
	hit Freq Error andwidth	1.677 kHz 3.000 MHz		ower		9.00 % .00 dB		0 Hz
CRIM					=7.810			

#### Band5_3MHz_16QAM_15_0_Main_HighCH20635-847.5

N R	MP 200 DC	ALL:	ter Freg: 847.500000 MHz	ALTON: HUTUS	Radio Std	Model 24, 2019	Frequency
Center Fr	eq 847.500000 !	Trip	FreeRun AvgiHol en: 30 dB	d: 60/60	Radio De		
10 dB/div	Ref Offset 13.6 dl Ref 30.00 dBn	B		2. M			
200		promo		2			Center Freq 847.500000 MHz
10 D							
40 0 50 0						- Constant	1.0
Center 84 #Res BW			#VBW 180 kHz			an 6 MHz 1.533 ms	CF Step 600.000 kHz
Occup	led Bandwidt	h 7015 MHz	Total Power	28.3	dBm	1	Auto Man
	Z. hit Freq Error andwidth		OBW Power x dB		.00 % 00 dB		Freq Offset 0 Hz
80							

#### Band5_3MHz_64QAM_15_0_Main_LowCH20415-825.5

0 dB/div	Ref Offset 13 Ref 30.00				Center Freq 825,500000 MHz Center Freq 825,500000 MHz Trig: Free Non AvgiHold 60/80 #FGaint_nw #Atten: 30 dB Radio Device: BTS										
		ubiii													
10.0		1	min				2				otoo MH				
20 0		1		-											
30.0	m	5	-		-		h	m	ann						
an 0.		-	-		-	-	-	-							
Center 825.5 Res BW 62				#VE	W 180 K	Hz			an 6 MHz 1.533 ms	6	CF Step				
Occupie	d Bandw		032 MI	4.7	Total P	ower	28	7 dBm		Auto	Mar				
Transmit	Freq Error	7.1.1	6.444		OBW P	ower	9	9.00 %		Fr	eq Offse				
x dB Ban	dwidth		3.003 N	Hz	x dB		-26	5.00 dB							

# Band5_3MHz_64QAM_15_0_Main_MidCH20525-836.5

Center Fre	Frequency							
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm							
200		,		in	7			Center Freq 836.500000 MHz
200							mas	
40.0 40.0 90.0								
Center 83	6.5 MHz 62 kHz		#VBW 1801	kHz			an 6 MHz 1.533 ms	CF Step
	led Bandwidth		Total F		28.	9 dBm		600.000 kHz Auto Man
	2.7 hit Freq Error andwidth	7032 MHz 8.267 kHz 2.986 MHz	OBW F x dB	ower		9.00 % .00 dB		Freq Offset 0 Hz
						_		

#### Band5_3MHz_64QAM_15_0_Main_HighCH20635-847.5

R Center Fro	Freq	uency								
10 dB/div	0									
Log         200           100         000           000         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         0000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100         000           100		~~~~							nter Freq 00000 MHz	
Center 84 #Res BW			#V	BW 180 KH	z			an 6 MHz 1.533 ms	Auto	CF Step
	ied Bandwidth 5.9	h 9488 MH 149 I		OBW Por			dBm			eq Offset 0 Hz
	andwidth	6.000 M		x dB	and a		00 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.

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

台灣檢驗科技股份有限公司

# Report No.: E2/2019/90045 Page 132 of 645

# Band5_5MHz_QPSK_25_0_Main_LowCH20425-826.5

Center Fre	Frequency									
10 dB/div										
200 100		-					~			Center Fred 826.500000 MH;
-10 D		1				-	$\left  \right $	- marture		
30.0							II.			
Center 820				111	BW 300 H	cH7			an 10 MHz eep 1 ms	CF Step
	led Bandv		015 MI		Total P		28	3.2 dBm		1.000000 MHz Auto Mar
	it Freq Erro Indwidth		3.232 ) 4.986 N	Hz	OBW P x dB	ower		99.00 % 6.00 dB		Freq Offset 0 Hz
00							100	105		

## Band5_5MHz_QPSK_25_0_Main_MidCH20525-836.5

Center Fre	Frequency							
10 dB/div	Ref Offset 14 dB Ref 30.00 dBm							
200-000-000		hanne			~			Center Freq 836.500000 MHz
-10 0 -20 0								
-30.0								
Center 83			#VBW 300	kHz		Spa	an 10 MHz eep 1 ms	CF Step
Occup	led Bandwidt 4.1	h 5017 MHz	Total I	ower	28.0	6 dBm		Auto Man
	it Freq Error indwidth	2.332 kHz 4.979 MHz		ower		9.00 % .00 dB		0 Hz
(calk					=7810			

#### Band5_5MHz_QPSK_25_0_Main_HighCH20625-846.5

Center Fr	74, 2019 Te Frequence BTS	JY .					
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm		-0.				
20.0		,		~		Center 846.50000	
10 0 20 0				$\sum$			
40 D 90 D							
Center 84 #Res BW			#VBW 300 kHz		Span 10 Sweep	0 MHz CF 1 ms 1,00000	Step
Occup	bled Bandwidt	h 4994 MHz	Total Power	28.4	dBm	Auto	Man
	nit Freq Error andwidth	1.801 kHz 4.981 MHz	OBW Power x dB		9.00 % 00 dB	FreqC	0 Hz
80				- Partos		-	

#### Band5_5MHz_16QAM_25_0_Main_LowCH20425-826.5

000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000         000 <th>Center Fre</th> <th>Nore: BTS</th> <th>Frequency</th>	Center Fre	Nore: BTS	Frequency						
200         Center f           000         Center f           0000         Center f           0000         Center f           0000         Center f     <									
CFS 26.5 MHz Symposition Sympositic Symposite Sympositic Sympositic Sympositic Sympositic Sympositi	200 100 000 		/		 	1			Center Fre 826.500000 MH
Income         Income<	40 D 60.0								
4.5049 MHz Transmit Freq Error 5.216 kHz OBW Power 99.00 %	Res BW 1	100 kHz	ith	#VI		28.	Swe		CF Ste 1.000000 MH Auto Ma
Transmit Freq Error 5.216 KHZ OBW Power 99.00 %	Cocup.			łz					FreqOffse
and the second					ower				OF

# Band5_5MHz_16QAM_25_0_Main_MidCH20525-836.5

Center Fr	Frequency					
0 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm				1	
.09 200 100 9.00 10.0	/		www.www.ww			Center Freq 836.500000 MHz
20.0 30.0 40.0	mand			h		
sñ n 60.0						
Center 83 Res BW			#VBW 300 kHz		Span 10 MHz Sweep 1 ms	CF Step
Occup	led Bandwidt	h 5022 MHz	Total Power	28.	8 dBm	Auto Man
	4.3 hit Freq Error andwidth	6.172 kHz 5.005 MHz	OBW Power x dB		9.00 % .00 dB	Freq Offset 0 Hz
-						-

#### Band5_5MHz_16QAM_25_0_Main_HighCH20625-846.5

Center Fr	Frequency					
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm					
20.0 10.0 0.00		/		1		Center Freq 846.500000 MHz
-10 0				- Im		
40.0 50.0						
Center 84 #Res BW			#VBW 300 kHz	1.1	Span 10 MHz Sweep 1 ms	1.000000 MHz
Occup	led Bandwidt 4.4	h 4965 MHz	Total Power	28.1	dBm	Auto Man Freq Offset
	lit Freq Error Indwidth	5.571 kHz 5.000 MHz	OBW Power x dB		9.00 % 00 dB	0 Hz

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

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

台灣檢驗科技股份有限公司

# Report No.: E2/2019/90045 Page 133 of 645



# Band5_5MHz_64QAM_25_0_Main_LowCH20425-826.5

Center Fre	eq 826.5000		1z FGalmLow	Center		AvgiHolo	1: 60/60	Radio St	Mod 24, 2019 d: None vice: BTS	Frequency
10 dB/div										
-40 0		/			<u>~~~~</u>					Center Free 826 500000 MH
Center 820				#1	/BW 300	kH7	1		an 10 MHz eep 1 ms	CF Step
	led Bandw				Total		28	.8 dBm	oop This	1.000000 MHi Auto Mar
Transm x dB Ba	130 MH -1.181 k 4.996 M	181 kHz OBW Power			99.00 % -26.00 dB			Freq Offset 0 Hz		
alito.							- 141	05		

## Band5_5MHz_64QAM_25_0_Main_MidCH20525-836.5

R	Construction         Construction<											
10 dB/div	Ref Offset 13 Ref 30.00 c											
200 100		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		- vonne	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	2			Center Freq 836.500000 MHz			
-10 D							1	man				
-30.0	- and -							- harman				
-60.0 Center 83 #Res BW				#VE	300 K	(Hz			an 10 MHz leep 1 ms	CF Step		
	led Bandw		023 Mł		Total P		28	.6 dBm		Auto Man		
	lit Freq Error Indwidth		6.744 k 4.956 M	Hz	OBW P x dB	ower		9.00 % 5.00 dB		Freq Offset 0 Hz		
NRO I							1093	05				

## Band5_5MHz_64QAM_25_0_Main_HighCH20625-846.5

R	HI SEG	DC 1			31232-240		44,10% #UTO		PM (0cl 24, 2019	Frequency	
Center Fr	eq 846.5000		HZ IFGainsLow	Trig: F	Center Freq: 846,500000 MHz Trig: Free Run AvgiHold > 50/50 #Atten: 30 dB				d: None rvice: BTS	requency	
10 dB/div		Ref Offset 13.6 dB Ref 30.00 dBm									
200 100		1		~~~~		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~			Center Freq 846.500000 MHz	
-10 0 -20 0		1					X				
-30.0								the contraction of the second	and the second		
-60.0 Center 84	6 6 MH-							Pa	an 10 MHz		
#Res BW				#	/BW 300 k	Hz		SW	eep 1 ms	CF Step 1.000000 MHz	
Occup	led Bandy	width			Total P	ower	28	.1 dBm		Auto Man	
		4.5	066 MH	1z						Freq Offset	
	nit Freq Erro			OBW P	ower	5	99.00 %		0 Hz		
x dB Ba	andwidth		4.934 M	Hz	x dB		-20	6.00 dB			
ceite							100	105		-	

# Band5_10MHz_QPSK_50_0_Main_LowCH20450-829

Center Fre	Frequency								
10 dB/div	Ref Offset 13.6 d Ref 30.00 dBr								
20.0 10.0 0.00					-				Center Freq 829.000000 MHz
10 0 20 0 30 0	manul	/	_			Z		-	
40 0 -80 0 -60 0			_						
Center 829 #Res BW 2			#VI	BW 620 k	Hz		Sp: Sw	an 20 MHz eep 1 ms	CF Step 2.000000 MHz
Occupi	ed Bandwid 8	th 9990 MH	17	Total P	ower	28	3.1 dBm		Auto Man
Transmi x dB Bar	t Freq Error	15.879 ki 9.832 Mi	Hz	OBW P x dB	ower		99.00 % 6.00 dB		Freq Offset 0 Hz

## Band5_10MHz_QPSK_50_0_Main_MidCH20525-836.5

Center Fred	g 836.500		HZ IFGaintLow	Center Freq: 838.500000 MHz Trig: Freq: 838.500000 MHz Trig: Freq: 84.500000 MHz AvgiHald: 50/50 #Atten: 30 dB			Radio Std: None Radio Device: BTS		Frequency	
10 dB/div	Ref Offset Ref 30.00									
.0g 200		1		-1m	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	erry and a s				Center Freq 836.500000 MHz
10 D		1		_			1			-
30.0 mmmmmm 48.0	- marine						~~~~		and the co	
60.0				_						
Center 836. Res BW 20		-		#V	BW 620 k	Hz	-		eep 1 ms	CF Step 2.000000 MHz
Occupie	ed Band		h		Total P	ower	28.	1 dBm		Auto Man
9.0026 MHz Transmit Freg Error 5.915 kH										Freq Offset
x dB Ban	1.1.1.1.1.1.1	or	5.915 kH 9.796 MH		OBW P	ower		9.00 % .00 dB		

# Band5_10MHz_QPSK_50_0_Main_HighCH20600-844

R Center Fro	Madra4, 2019 : None rice: BTS	Frequency								
10 dB/div	Ref Offset 13.6 dl Ref 30.00 dBn					= -0				
20.0 10.0 0.00			em in	-attan	1			Center Freq 844.000000 MHz		
20 0 30 0	imm				L	-Caranasan	min			
-50.0 -60.0 Center 84							n 20 MHz	CF Step		
#Res BW Occup	led Bandwidt		#VBW 6201 Total P		28.	Swe I dBm	eep 1 ms	2.000000 MHz Auto Mar		
	8. Ilt Freq Error Indwidth	Freq Error 15.086 kH				ower		9.00 % 00 dB		Freq Offset 0 Hz
								-		

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

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

S Taiwan Ltd.

# Report No.: E2/2019/90045 Page 134 of 645

# Band5_10MHz_16QAM_50_0_Main_LowCH20450-829

Center Fre	Frequency								
10 dB/div									
200 100		provementer and			nintation		-		Center Freq 829.000000 MHz
-10.0						1			
-30.0							e e proprio	الحضيم والمعصر	
-60.0			_			-			
Center 829 #Res BW 2			#VE	SW 620 H	Hz			an 20 MHz veep 1 ms	CF Step 2.000000 MHz
Occupi	ed Bandwid 8.	th 9681 MI	Ηz	Total P	ower	28.	4 dBm		Auto Man Freq Offset
Transm x dB Ba	t Freq Error		Hz	Hz OBW Power			9.00 % .00 dB		0 Hz
CHIN						=1×10	15		

# Band5_10MHz_16QAM_50_0_Main_MidCH20525-836.5

R R	HP 200 DC	W/		ana atr		ALIGN #UTG		PM Gct 24, 2019	
Center Fre	rq 836.500000	MEGainLow	Trig F	Freq: 836.500 ree Run : 30 dB	AvgiHold	60/60	Radio St Radio De	d: None svice: BTS	Frequency
10 dB/div									
200		1		www.		-			Center Freq 836.500000 MHz
-10.0									1
-30,0 -4/05			-	-		~	wann	MAR MARCHINE	1
-sn ()	-		-				-	-	
-60.0								-	
Center 838 #Res BW			#	VBW 6201	KHZ			an 20 MHz /eep 1 ms	CF Step 2.000000 MH
Occup	led Bandwid			Total P	ower	28.	4 dBm		Auto Mar
	8	.9517 N	/Hz						Freq Offsel
Transm	it Freq Error	11.623	2 kHz	OBW P	ower	9	9.00 %		0 H
x dB Ba	ndwidth	9.773	MHz	x dB		-26	.00 dB		1
wiic							15		

#### Band5_10MHz_16QAM_50_0_Main_HighCH20600-844

Center Fr	eq 844.00	0000 MH	Hz IFGaint.nw			AvgiHold	60/50	Radio St	rMod 24, 2614 d: None svice: BTS	Frequency		
10 dB/div												
200 100 0.00		1				ww	7			Center Freq 844.000000 MHz		
100 200 300		-					1	- Anna anna				
50.0 Center 84	4 1445	-						Pa	an 20 MHz			
Res BW				#V	BW 620 k	Hz			eep 1 ms	CF Step 2.000000 MHz		
Occup	ied Band	width			Total P	ower	28	.4 dBm		Auto Man		
		8.9	556 MH	z						Freq Offset		
	hit Freq Er andwidth	тог	6.949 ki 9.759 Mi		OBW Pe x dB	ower		99.00 % 6.00 dB		0 Hz		
80							100	1625		-		

#### Band5_10MHz_64QAM_50_0_Main_LowCH20450-829

Denter Fre	ag 829,000000 I	MHZ	Center Freq: 829.000000 MHz Trig: Freq: 829.000000 MHz Trig: Freq: Run AvgiHold: 50/50 #Atten: 30 dB			Radio Std: None Radio Device: BTS		Frequency	
10 dB/div	Ref Officet 13.6 dB Ref 30.00 dBm								
20.0 10.0 0.00			- Maria					Center Fred 829.000000 MH	
10.0 20.0		1							
30 0	minut				Values	- marca	- and a second		
e0.0 e0.0									
Res BW			#VBW	620 kHz			ep 1 ms	CF Step 2.000000 MH	
Occup	ied Bandwidt 8.	h 9695 MH		otal Power	28.3	3 dBm		Auto Man Freq Offset	
	it Freq Error ndwidth	13.021 ki		BW Power		00 dB		08	

# Band5_10MHz_64QAM_50_0_Main_MidCH20525-836.5

Center Fre	Frequency					
10 dB/div						
000 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 1						Center Free 836 500000 MH
center 836			VBW 620 kHz		Span 20 MHz Sweep 1 ms	CF Step 2.000000 MH
Occup	led Bandwidth	9732 MHz	Total Power	28.	5 dBm	Auto Mar
			KHz OBW Power		9.00 % 00 dB	Freq Offse 0 H
				=1910		

# Band5_10MHz_64QAM_50_0_Main_HighCH20600-844

enter Fre	eq 844.000000 M	1112	ig: Free Run Av	MHz rgiHold: 50/50	Radio Device: BTS	Frequency
10 dB/div						
20.0 10.0 0.00			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			Center Freq 844,000000 MHz
10 0 20 0	lund	1			warmen land and	
40 0 40 0 60 0						
Center 844 Res BW 2			#VBW 620 kHz		Span 20 MHz Sweep 1 ms	2.000000 MH
Occup	ied Bandwidt 8.9	^h 9865 MHz	Total Powe	er 28,	2 dBm	Auto Mar Freq Offse
	it Freq Error ndwidth	3.314 kHz 9.840 MHz			9.00 % .00 dB	0 Hz

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.



# Report No.: E2/2019/90045 Page 135 of 645

# Band7_5MHz_QPSK_25_0_Main_LowCH20775-2502.5

Report Spatte	Ar 20 G 12			3133311		igh aung	1011031-00	PH 0/1 24, 2019	
Center Fre	Frequency								
10 dB/div									
20.0 10.0 0.00									Center Fred 2.502500000 GH
20.0 30.0 AND AA	minute					te			
40 0 60 0					_				
Center 2.50 #Res BW 1				VBW 300 KH	Iz			an 10 MHz eep 1 ms	CF Step
Occupi	ed Bandwi	dth 4.4948	MHz	Total Power		29.4	dBm		Auto Ma
Transmi x dB Bar		85 kHz 79 MHz	OBW Po x dB	wer		9.00 % .00 dB		0 Hz	
(call)						=18102	6		

#### Band7_5MHz_QPSK_25_0_Main_MidCH21100-2535

Section Sector	elent Analyzer - Occupee										0.200
Center Freq 2,535000000 GHz Center Freq 2,535000000 GHz Trip Free Run AvgHeld 5650 Ratio Stati None Ratio Stati None											Frequency
10 dB/div											
200		-	mann		pro-alia_	anine and	N	-			Center Freq 2.535000000 GHz
0.00 -10.0 -20.0		r						k			
-30.0 -48.0 -80.0	nnom	1						born	www	a the the	
-60.0 Center 2.5											1
#Res BW				#VE	SW 300 H	Hz				n 10 MHz ep 1 ms	CF Step 1.000000 MHz
Occup	led Bandwi		004 MH	łz	Total P	ower		27.3	dBm		Freq Offset
	Transmit Freq Error 13.560 x dB Bandwidth 4.921							99.00 % -26.00 dB			0 Hz
Mile								14105		-	

## Band7_5MHz_QPSK_25_0_Main_HighCH21425-2567.5

R	eq 2.567500000	CU: Cer	ter Freq. 2.58750		NTOP NOUT	Radio St	PH 04 24, 2019	Frequency			
Center Fr	eq 2.567500000	Trip	; Free Run ten: 30 dB	AvgiHold	66/60		vice: BTS				
10 dB/div	Ref Offset 14 dB Ref 30.00 dBn										
200 100				mini	1			Center Freq 2.567500000 GHz			
-10 0 -20 0					1						
40.0			-				m				
-60.0											
Center 2.5 #Res BW			#VBW 300 H	Hz		Sp	an 10 MHz Jeep 1 ms	CF Step 1.000000 MHz			
Occup	led Bandwidt		Total P	ower	29.	4 dBm		Auto Man			
	4.	5013 MHz						Freq Offset			
	nit Freq Error	4.313 kHz	OBW P	ower	9	9.00 %		0 Hz			
x dB Ba	andwidth	4.985 MHz	x dB		-26	6.00 dB					
CHIN						ues.		-			

#### Band7_5MHz_16QAM_25_0_Main_LowCH20775-2502.5

Center Freq	Frequency									
		MEG	alin:Low	#Atten: 3	IQ dB		1	Radio Dev	ice: BTS	
10 dB/div	Ref Offset 14 dB Ref 30.00 dBm									_
20.0 10.0		m	ma	~~~~			~			Center Fred 2.502500000 GHz
0.00 -10.0		/		_			A			
20.0 30.0 40.0	manne	/	_				1	manna	m	1
50.0				-						
Center 2.503 #Res BW 10				#VI	BW 300 P	Hz			n 10 MHz ep 1 ms	CF Step
Occupied Bandwidth 4.5078 Mi Transmit Freq Error 7.472 F				Contraction of the second s			2	9.0 dBm		Auto Ma
								99.00 %		Freq Offset
x dB Band	dwidth		4.985 M	Hz	x dB		-	26.00 dB		
										-

## Band7_5MHz_16QAM_25_0_Main_MidCH21100-2535

Center Freq 2.535000000 GHz Enter Freq 2.53500000 GHz MFGale.two MFGale.two Kenter Freq 2.53500000 GHz Redio Device BTS Redio Device BTS								
Ref Offset 14 dB 10 dB/div Ref 30.00 dBm								
	minin		~~		s	Center Freq 2.535000000 GHz		
manna			1	man				
5 GHz D0 kHz		VBW 300 kHz				CF Step		
		Total Power	29.2	2 dBm	Au	Freq Offset		
Freq Error dwidth	1.525 kHz 4.984 MHz	OBW Power x dB				0 Hz		
	Ref Offset 14 dB Ref 30.00 dBm 5 GHz boo kHz bod Bandwidth 4,5 Freq Error	Ref Offset 14 dB Ref 30.00 dBm 5 GHz 5 GHz 8 dBandwidth 4.5006 MHz Freq Error 1.525 kHz	Ref 00%set 14 dB Ref 30.00 dBm 5 GHz #VBW 300 kHz 5 GHz #VBW 300 kHz bd Bandwidth Total Power 4.5006 MHz Freq Error 1.525 kHz OBW Power	Ref 00%st 14 dB Ref 30.00 dBm           Sef 00.00 dBm           Sef 00.	Ref 00%set 14 dB Ref 30.00 dBm 5 GHz SVEW 300 kHz Span 10 5 GHZ SVEW 30 KHZ SVEW 30 5 GHZ SV	Ref 00%set 14 dB Ref 30.00 dBm 5 GHz 5		

#### Band7_5MHz_16QAM_25_0_Main_HighCH21425-2567.5

Frequency.	None	Center Freq 2, 567500000 GHz     Center Freq 2, 56750000 GHz     Center Freq 2, 56750000 GHz     Set None     Ref Official Low     Ref Official 1d B     Ref Official 1d B     Ref Official 1d B     Ref 30.00 GBm								
	= -0									
Center Freq 2.567500000 GHz			1					/		00 200 100 200
			1					ant		20.0 30.0
										so.0
CF Step	ep 1 ms			Hz	VBW 300	#				Res BW
Auto Man Freq Offset		dBm	29.2	ower	Total P	Hz	991 MI		led Band	Occup
0 82		0.00 % 00 dB		ower	OBW P x dB		5.215 ) 4.995 M	ror	it Freq Er ndwidth	

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.



# Report No.: E2/2019/90045 Page 136 of 645

## Band7_5MHz_64QAM_25_0_Main_LowCH20775-2502.5

September Space	All Str. Cock		-		1.00	ear awr		ALION AUTO	Lar Lanima	PM 02124, 2014	322
Center Freq 2,502500000 GHz Center Freq 2,6030000 GHz Radio Std: None Trig Free Run Avgihald: 60/60 Radio Device: BTS								Frequency			
Ref Offset 14 dB 10 dB/div Ref 30.00 dBm Log									-1		
20.0			r	~~~~~~		manun		2			Center Free 2.502500000 GH
-10 D		1									
-30.0 -40.0 -80.0	n manual	and .							mene	a construction of	
Center 2.5		-			#VE	SW 300 H	Hz			an 10 MHz eep 1 ms	CF Step
Occup	led Bandy			85 M	47	Total P	ower	28	.6 dBm		Auto Ma
	it Freq Erro	1.25		5.657 4.920 M	KHZ	OBW P x dB	ower		99.00 %. 5.00 dB		Freq Offse 0 H
eino)								101	05		

## Band7_5MHz_64QAM_25_0_Main_MidCH21100-2535

Center Fre	Frequency							
10 dB/div								
200		m		in	~			Center Freq 2.535000000 GHz
-10 0						- 13		
-30.0 Arcaca -40.0	and a mare		_		- bo			
-60.0 Center 2.5							n 10 MHz	CF Step
#Res BW	100 kHz led Bandwidth		#VBW 300	kHz Power	20.3	Swe 3 dBm	ep 1 ms	1.000000 MHz Auto Man
Occup		054 MH		ower	2.0.0	, abin		Freq Offset
	it Freq Error Indwidth	-1.444 kH 4.989 MH		Power		9.00 % 00 dB		0 Hz
eine)						-		

#### Band7_5MHz_64QAM_25_0_Main_HighCH21425-2567.5

R	II 300 DE	CH- CH	ter Freq 2 587500000 GH	WTOP-MOUT	Radio Std: No		Frequency
Center Fr	eq 2.567500000	Trig		old >50/50	Radio Device:		
10 dB/div	-0						
.og 20.0 10.0		James	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~		2	Center Freq
9.00 10.0 20.0				1			
30.0 40.0						~~~	
center 2.	A69 CH3				Span 1		2.7
Res BW			#VBW 300 kHz	_	Sweep	1 ms	CF Step 1.000000 MHz
Occup	oled Bandwidt	th	Total Power	29.	5 dBm	Aut	g Man
	4.	5106 MHz					Freq Offset
	nit Freq Error andwidth	-1.366 kHz 5.008 MHz	OBW Power x dB		9.00 % .00 dB		0 Hz
100							

# Band7_10MHz_QPSK_50_0_Main_LowCH20800-2505

Center Freq 2,505000000 GHz Center Freq 2,50500000 GHz Trig Free Run Avgitteld.>50/50									Frequency
Ref Offset 14 dB 10 dB/div Ref 30.00 dBm Log									
200 100 020		parment	manna	4n-un-	an and the second	~			Center Free 2.505000000 GH
vn n 20 0	1	1				1			
30.0 40.0 40.0	mannen						-	montenne	
60.0			_						
Res BW			#VB	W 6201	Hz			an 20 MHz eep 1 ms	CF Step 2.000000 MH
Occup	led Bandwidt	h 9963 MH		Total P	ower	28.	6 dBm		Auto Mar
Transm	it Freq Error			OBW P	ower	9	9.00 %		Freq Offse 0 H
x dB Ba	indwidth	9.740 M	Hz	x dB		-26	8b 00.		

#### Band7_10MHz_QPSK_50_0_Main_MidCH21100-2535

enter Fre	q 2.53500000		Center Freq 2,535000 rig: Free Run lAtten: 30 dB	000 GHz AvgiHold >50/50	Radio Device: BTS	Frequency
0 dB/div						
10		m	~~~~~			Center Free 2,53500000 GH
D Annon	wal-mont			- L	m	
0.0						
enter 2.5 Res BW 2		<u></u>	#VBW 620 kH	łz	Span 20 MHz Sweep 1 ms	CF Step 2.000000 MH
Occupi	ed Bandwid		Total Po	wer 29	5 dBm	Auto Ma
	Transmit Freq Error 2.967 kH					Freq Offse 0 H
-						-

## Band7_10MHz_QPSK_50_0_Main_HighCH21400-2565

R	telen Anjunyan - Occupied Dw RF Dir G DC		ter Fred: 2.585000000 GH:	ALIGN HUTTS	Radio Std: None	Frequency
Center Fr	Frequency					
10 dB/div						
200 100 0.00						Center Freq 2.56500000 GHz
10 0 20 0 30 0	/			1	man	-
40 D 80 D 60 0						
Center 2.4 #Res BW			#VBW 620 kHz		Span 20 MH Sweep 1 m	
Occup	led Bandwidt 9.	h 0044 MHz	Total Power	29.5	5 dBm	Auto Man
	hit Freq Error andwidth	18.661 kHz 9.868 MHz	OBW Power x dB		9.00 % 00 dB	0 Hz

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.

# Report No.: E2/2019/90045 Page 137 of 645



# Band7_10MHz_16QAM_50_0_Main_LowCH20800-2505

Center Freq 2.505000000 GHz Center Freq 2.50500000 GHz Radio Device: BTS Refer for a figure Run Arghteid 6650 Refer for a figure Run Arghteid 6650 Radio Device: BTS									Frequency	
Ref Offset 14 dB 10 dB/div Ref 30.00 dBm								- 0	Center Freq 2.505000000 GHz	
200-000-000										
-10.0		1					L	- The same		
-30.0 -40.0 -90.0	-northerest									1
-60.0 Center 2.5	05 GHz							Sn	an 20 MHz	-
#Res BW				#V	BW 620 k	Hz			eep 1 ms	2.000000 MH
Occup	led Band				Total P	ower	29.	6 dBm		Auto Mar
		8.9	492 MI	Hz						Freq Offset
Transm	it Freq Err	or	18.247	KHz	OBW P	ower	9	9.00 %		0 Hz
x dB Ba	indwidth		9.785 N	IHz	x dB		-26	8b 00.		
eiro i							-1416	e		

# Band7_10MHz_16QAM_50_0_Main_MidCH21100-2535

Ref Offset 14 dB         Ref Offset 14 dB         Ref Offset 14 dB         Ref Offset 14 dB									Frequency
10 D 20 Q		/							-
-30.0 -46.0 -60.0									-
-60.0 Center 2.5								an 20 MHz	CF Step
Res BW	200 kHz led Bandwidt	b	#VE	Total P		29.	Sw 5 dBm	eep 1 ms	2.000000 MHz Auto Man
occup		9540 MH	z						Freq Offset
	ilt Freq Error Indwidth	6.920 ki 9.794 Mi		OBW P x dB	ower		9.00 % .00 dB		0 Hz
60							e		

#### Band7_10MHz_16QAM_50_0_Main_HighCH21400-2565

Center Fre	q 2.56500000	0 GHz	Center Trig F	Freq: 2.585000		- 80150	Radio St	Millione d: None	Frequency
	a de la construcción de la constru	#FGain1.nw	#Atter	n: 30 dB	C.C. C.		Radio De	vice: BTS	
10 dB/div Ref 30.00 dBm									
20.0		minim		min	minimum	2			Center Freq
0.00		A		1		A	-		2.0000000 0112
20 0	man	4				1	manne	-	
30.0			-		_		-	- Child	
60.0			-		-			_	
enter 2.5 Res BW				VBW 620 k	Hz			an 20 MHz leep 1 ms	CF Step 2.000000 MHz
Occup	led Bandwid	th		Total Po	ower	29	.6 dBm	-	Auto Man
	8	.9572 N	IHz						Freq Offset
Transm	it Freq Error	18.160	kHz	OBW Po	wer	1	99.00 %		0 Hz
x dB Ba	indwidth	9.760	MHz	x dB		-2	6.00 dB		
90						100	144*	_	

# Band7_10MHz_64QAM_50_0_Main_LowCH20800-2505

A R Center Free	Frequency						
10 dB/div	= 0						
-09 20.0 10.0 0.00 	harmon				man	vel-man prove	Center Free 2.505000000 GH
60.0 Center 2.50 #Res BW 2			#VBW 620 kHz		Spai	n 20 MHz ep 1 ms	CF Step
Occupi	ed Bandwidth 8.9	9717 MHz	Total Power	29.3	2 dBm		Auto Mar
Transmi x dB Bar	t Freq Error ndwidth	13.380 kHz 9.794 MHz	OBW Power x dB		9.00 % .00 dB		011
					_		-

# Band7_10MHz_64QAM_50_0_Main_MidCH21100-2535

Center Fre	eq 2.535000000	UTIZ Tri	Center Free; 2,535000000 GHz Trig: Free Run AvgiHald: 50/50 #Atten: 30 dB				Nor 24, 2019 : None rice: BTS	Frequency			
10 dB/div	Ref Offset 14 dB Ref 30.00 dBm										
- 0 g 20 0 10 0 9 00 			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	*********				Center Free 2.535000000 GH			
30 0 <b>*******</b> ***************************					()	Annie de Carey d					
Center 2.5 Res BW	35 GHz 200 kHz		#VBW 6201	Hz			n 20 MHz ep 1 ms	CF Step 2.000000 MH			
Occup	led Bandwidti 8.9	h 9768 MHz	Total F	ower	29.3	2 dBm		Auto Man Freq Offset			
	lit Freq Error Indwidth	930 Hz 9.821 MHz				9.00 % .00 dB		0 Hz			

#### Band7_10MHz_64QAM_50_0_Main_HighCH21400-2565

R Center Fre	BTS					
10 dB/div	Ref Offset 14 dB Ref 30.00 dBm			2.00		
.0g 200 100 0.00		Jammerow	manin			Center Fre 2.56500000 Gł
n n m 0						
80.0 0.00 80.0 90.0	- toto				and an and a second	and the second
50.0			-			
enter 2.5 Res BW 2			#VBW 620 kH	z	Span 2 Sweep	1 ms 2.000000 MH
Occupi	ed Bandwidt	h 9654 MHz	Total Pov	ver 29	0 dBm	Auto Mi
Transm	it Freq Error	12.400 kHz	OBW Pov	Ver 9	9.00 %	Freq Offs 01
x dB Ba	ndwidth	9.820 MHz	x dB	-26	5.00 dB	1

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.

# Report No.: E2/2019/90045 Page 138 of 645

# Band7_15MHz_QPSK_75_0_Main_LowCH20825-2507.5

Center Fre	q 2.50750	0000 0	GHZ	Center F		0000 GHz AvgiHald	66/60	Radio St	Million 24, 2019 d: None evice: BTS	Frequency
10 dB/div	Ref Offset 1 Ref 30.00								0	
20.0			mannama	www.www	~e~~		-			Center Free 2.507500000 GH
0.00 -10.0		1					1			
30.0 40.0	www.alter	~						anger and an and an	in manue of	
-60.0	-	_		_	-			-		
Center 2.50 #Res BW 3				#VI	BW 9101	Hz			an 30 MHz Veep 1 ms	CF Step 3.000000 MH
Occupi	ed Bandy		454 M	łz	Total P	ower	29.	4 dBm		Auto Mar Freq Offset
Transmi x dB Bar	t Freq Erro ndwidth	or	17.406 ) 14.57 N	kHz OBW Power				9.00 % 6.00 dB		011
00								05	_	

# Band7_15MHz_QPSK_75_0_Main_MidCH21100-2535

Center Fre	q 2.535000		Hz	Trig: F	Freq: 2,5350	00000 GHz AvgiHak	#LIG% #UNG	Radio Sto		Frequency
			FGainLow	#Atter	1: 30 dB		1	Radio De	vice: BTS	
10 dB/div	Ref Offset 1 Ref 30.00						2.145		()	
200 100			hourse				-			Center Freq 2.535000000 GHz
0.00		1	-							
30.0	mon	and a					7.00		Several mary	
48 D -80 D										
-60.0	1				-					
Center 2.5 #Res BW			-	#	VBW 9101	kHz	_		an 30 MHz eep 1 ms	CF Step 3.000000 MH
Occup	led Bandy				Total F	ower	31.	0 dBm	-	Auto Mar
		13.	470 M	Hz						Freq Offset
Transm	it Freq Erro	or	28.217	kHz	OBW P	ower	91	9.00 %		0 Hz
x dB Ba	indwidth		14.65 1	Hz	x dB		-26	8b 00.		
							=7810	14		

#### Band7_15MHz_QPSK_75_0_Main_HighCH21375-2562.5

Center Fr	R Grind Freq 2.56250000 GHz Bit GainLaw Attach 2 States 2000 0 GHz Rif GainLaw Attach 2 States 2 Sta											
10 dB/div	Ref Offset 14 dB Ref 30.00 dBr											
200		mannelin	wind	and the second the second					Center Freq 2.56250000 GHz			
10.00		4				1	-					
20 0 30 0 48 0	monort		-	-	-	100	Maryman	minin	10.00			
su 0					-		-					
enter 2.			#V	BW 910 k	Hz	-		an 30 MHz Jeep 1 ms	CF Step 3.000000 MHz			
Occup	led Bandwid			Total Po	ower	31.	1 dBm		Auto Man			
	1:	3.470 M	Hz						Freq Offset			
	hit Freq Error andwidth	29.795 14.66 I		OBW Power x dB			9.00 % 5.00 dB		0 Hz			
10						- F = 1	05					

# Band7_15MHz_16QAM_75_0_Main_LowCH20825-2507.5

	If Analyzer - Occupe				10:27:197		410	s ettra	111:39:38	AM CH 24, 2019	
Center Freq	2.5075000		Hz FGalmLow	Center Freq: 2,507500000 GHz Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB					Radio St Radio De	d: None rvice: BTS	Frequency
10 dB/div	Ref Offset 14 Ref 30.00 c									- 0	
20.0 10.0		-	man	er or on the state	minim	manus	-				Center Free 2.507500000 GH
0.00 -10.0		1	-					1		-	
20.0 30.0		2					-	liner	- Welskynk, haary	warming	
en n en n			-								
Center 2.508 Res BW 30				#V	BW 9101	kHz				an 30 MHz /eep 1 ms	CF Step 3.000000 MH
Occupie	d Bandw		419 MI	1	Total P	ower		29.1	dBm		Auto Mar
Transmit	Freq Error	18.807		OBW P	ower		99	.00 %		Freq Offse 0 H	
x dB Ban	dwidth		14.66 N	Hz	x dB			-26.	00 dB		

# Band7_15MHz_16QAM_75_0_Main_MidCH21100-2535

Center Fre	q 2,53500000	o one T	enter Freq: 2,53500 rig: Free Run Atten: 30 dB		>50/50	Radio St	d: None avice: BTS	Frequency
10 dB/div	Ref Offset 14 dE Ref 30.00 dB						0	
30 0. 48 0	us de statement	Parrie	interior programme				at Manan	Center Freq 2.535000000 GHz
Center 2.5			#VBW 910 k		Sp	an 30 MHz /eep 1 ms	CF Step	
	led Bandwid		Total P		30.	1 dBm	rep ma	3.000000 MHz Auto Man
	1 It Freq Error Indwidth	3.435 MHz -7.303 kHz 14.65 MHz	OBW P	ower		9.00 % .00 dB		Freq Offsel 0 Hz
						-		-

#### Band7_15MHz_16QAM_75_0_Main_HighCH21375-2562.5

Center Fre	Reference Free 2.652500000 GHz Protor Free 2.652500000 GHz Reference Free 2.652500000 GHz Reference Free 2.65250000 GHz Reference Free 2.652500000 GHz Reference Free 2.65250000 GHz Reference Free 2.652500000 GHz Reference Free 2.652500000 GH										
0 dB/div	Ref Offset 14 dB Ref 30.00 dBn	n					= 0				
200 200 100		mana			-			Center Fred 2.562500000 GH			
	-				In	mm					
10.0 11 D			-				- Andrew Contraction				
50.0			-					-			
Res BW			#VBW 910	kHz			an 30 MHz eep 1 ms	CF Step 3.000000 MH			
Occup	ied Bandwidt	h 3.444 MHz	Total I	Power	30.3	2 dBm		Auto Mar			
Transm	it Freq Error	16.904 kHz		Power	99	.00 %		Freq Offse			
x dB Ba	ndwidth	14.66 MHz	x dB		-26.	00 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.

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.

# Report No.: E2/2019/90045 Page 139 of 645



# Band7_15MHz_64QAM_75_0_Main_LowCH20825-2507.5

Center	enter Freq 2,507500000 GHz Center Freq 2,60760000 DHz Radio Skinov Tratili Minoz August Ballo Skinov Radio Device: BTS Bit Gala Law Manne 30 dB										
10 dB/di	Ref Offse										
20.0			A	Anna	****			m			Center Free 2.507500000 GH
0.00		1							hone a		
-30,0		u_w	Ħ	_			-			mainener	
-60.0											·
	2.508 GHz W 300 kHz	_			#VE	SW 9101	Hz			an 30 MHz /eep 1 ms	CF Step 3.000000 MHz
Occ	upled Ban					Total P	ower	25	9.6 dBm		Auto Mar
		13	.37	6 MI	Hz						Freq Offset
Tran	smit Freq E	rror	1	9.321	KHz	OBW P	ower		99.00 %		0 Hz
x dB	Bandwidth		4	14.12 N	IHz	x dB		-2	6.00 dB		1
CHINA								100	105		

## Band7_15MHz_64QAM_75_0_Main_MidCH21100-2535

Averant Spect	et I store of	W		anautri		ALION HUTCH	Testanan a	M 0/1 24, 2019	020			
Center Fre	enter Freq 2,535000000 GHz Trig: Freq 2,535000000 GHz Articlini.ow Articlini.ow Articlini.ow Conter Freq: 2,53500000 GHz ArgiHold: 60/80 Radio Stel: None Radio Stel: None											
10 dB/div	Ref Offset 14 dB Ref 30.00 dBn	n						-1				
200		form		mon	monen	-	-		Center Free 2.535000000 GH			
9.00 -10.0 -20.0		/			-							
-30.0	Malannariantar	-		-			-					
-60.0							-					
Center 2.5 #Res BW		_	#	VBW 910 K	Hz			eep 1 ms	CF Step 3.000000 MH			
Occup	led Bandwidt	h 3.420 MI	1-	Total P	ower	29.	0 dBm		Auto Mar			
	lit Freq Error Indwidth	14.110   14.71 N	Hz	OBW P x dB	ower		9.00 % .00 dB		Freq Offset 0 H:			
eic)							15					

#### Band7_15MHz_64QAM_75_0_Main_HighCH21375-2562.5

Renter Fr	eq 2.56250000	GHZ		Freq 2.582500		WTO/CHOLO	Radio St	d: None	Frequency			
or the second se	eq Liverouve	mFiSalm1.nw		ree Run 1: 30 dB	AvgiHold	1>50/50	Radio De	vice: BTS				
0 dB/div	Ref Offset 14 dB o dB/div Ref 30.00 dBm oor											
.og 200		porma	minina	simper the second					Center Free 2.562500000 GHz			
0.00 (1.1) (1.1)		A	-		-		-					
000 mm	an some some and the					200	malder Rom		1.0			
n 0 0.0			-				-					
enter 2.5 Res BW			1	VBW 910 kł	Hz			an 30 MHz Jeep 1 ms	CF Step 3.000000 MHz			
Occup	led Bandwid	th		Total Po	wer	29.	0 dBm		Auto Man			
	1	3.445 M	Hz					1.1	Freq Offset			
Transm	nit Freq Error	24.995	KHz	OBW Po	wer	9	9.00 %		0 Hz			
x dB Ba	andwidth	14.71 M	IHz	x dB		-26	i.00 dB					
10							05					

# Band7_20MHz_QPSK_100_0_Main_LowCH20850-2510

Center Free	z alm±nw	0000 GHz AvgiHold	10: 50/50		Radio Std: None Radio Device: BTS		Frequency				
10 dB/div	Ref Offset 14 c	Bm								0	
20.0		100	and the states of the	entrainerista de		-	1				Center Free 2.510000000 GH
0.00 -10.0 -20.0		Л					1	400	-	1	
30.0 40.0				-							
60.0			-								1
Center 2.51 #Res BW 3		-		#VE	SW 1.2 M	Hz		_		eep 1 ms	CF Step 4.000000 MH
Occupi	ed Bandwi		24 MI	47	Total P	ower		30.9	dBm		Auto Mar
Transmi	t Freq Error	17.924 MH Freq Error 24.442 kH			OBW P	ower		99.00 %			Freq Offse
x dB Bar	ndwidth		19.50 N	IHz	x dB			-26.	00 dB		

#### Band7_20MHz_QPSK_100_0_Main_MidCH21100-2535

n R Center Fre	eq 2,535000000	MFGainLow	Center F Trig: Fre	enter Fred, 2,535000000 GHz rig: Free Run AvgiHald: 50/50 Atten: 30 dB			Radio Std: None Radio Device: BTS		Frequency
10 dB/div	Ref Offset 14 dB Ref 30.00 dBn								
200 100		manum	-			-			Center Freq 2.535000000 GHz
20.0		4				1			
30.0. 40 D 90 D									
60.0			_				1		-
Res BW		_	#V	BW 1.2 M	Hz			an 40 MHz /eep 1 ms	CF Step 4.000000 MHz
Occup	led Bandwidt			Total P	ower	31.	3 dBm		Auto Man
17.897 MHz Transmit Freg Error 18.164 kHz							9.00 %		Freq Offset 0 Hz
	indwidth	19.44 M		x dB	unci		.00 dB		
							_		

## Band7_20MHz_QPSK_100_0_Main_HighCH21350-2560

Center Free	R eff Carlas and Carla										
10 dB/div											
.0g 200 100		from	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			1			Center Fred 2.560000000 GH		
	monund	/	-				-	- Changer			
80 0. 16 D											
so a	CHI							an 40 MHz	1		
Res BW 3			#VE	SW 1.2 M	Hz	_		eep 1 ms	CF Ster 4.000000 MH		
Occupie	ed Bandwidt	h 7.928 MH	17	Total P	ower	31.	5 dBm		Auto Mar		
Transmit	t Freq Error	48.747 ki		OBW P	ower	9	9.00 %		Freq Offse		
x dB Ban	ndwidth	19.51 M	Hz	x dB		-26	.00 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.

t (886-2) 2299-3279

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

S Taiwan Ltd.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 f (886-2) 2298-0488

www.tw.sgs.com

# Report No.: E2/2019/90045 Page 140 of 645

# Band7_20MHz_16QAM_100_0_Main_LowCH20850-2510

Center Fre	Frequency									
10 dB/div										
200			, in a constant	ossim	inneliteranist	mhanna	~~~			Center Fred 2.510000000 GH;
-10.0		1					1			
-30.0	hope with marker	N.Y. WYN	-	-	-		nuu	the second second second		
-sn n -so n				-				-		
Center 2.5 #Res BW 3				#1	/BW 1.2 N	THZ			an 40 MHz veep 1 ms	CF Step
Occupi	ed Band	width	C		Total P	ower	27	9 dBm		Auto Mar
		17.	852 M	Ηz						Freq Offset
Transmi	t Freq Err	or	48.446	Hz	OBW P	ower	9	9.00 %		0 Hz
x dB Ba	ndwidth		19.03 M	IHz	x dB		-26	.00 dB		-
VIIC							= ¥ * 1	05		

# Band7_20MHz_16QAM_100_0_Main_MidCH21100-2535

Center Fre	rq 2.53500000	MFGaint	Trig: F	Freq: 2,5350 Free Run 1: 30 dB		50/60	Radio St	d: None vice: BTS	Frequency		
10 dB/div	Ref Offset 14 d Ref 30.00 dE										
200 100		James			-	-			Center Free 2.535000000 GH		
0.00 -10.0		A		-			-	1			
-30.0	and a start of the							internet and			
-50.0				-			-				
Center 2.5 #Res BW				VBW 1.2 M	лнz			an 40 MHz leep 1 ms	CF Step 4.000000 MH		
Occup	led Bandwid			Total F	ower	30.	1 dBm		Auto Mar		
Transm	It Freg Error	7.897	MHZ 029 kHz	OBW F	ower	9	9.00 %		Freq Offsel		
	ndwidth		35 MHz	x dB			.00 dB				
						= 7.87					

#### Band7_20MHz_16QAM_100_0_Main_HighCH21350-2560

RI	01 D DE 10	1 1	er Fred, 2 56000000 GHz		10:31 AM (3ct 24, 2019	Frequency
Center Fr	eq 2.56000000	Trip	Free Run AvgiHol m: 30 dB	d: 50/50	io Std: None Io Device: BTS	requirer
10 dB/div						
20.0		parminter		-		Center Freq 2.56000000 GHz
0.00 10 D		A		1	_	
20 0 <b></b>	and the second s			the second	and the second	1
50 g						
enter 2.			#VBW 1.2 MHz		Span 40 MHz Sweep 1 ms	CF Step
Occup	led Bandwid		Total Power	30.2 dB	m	Auto Man
Transmit Freq Error 21.050 k		7.957 MHz 21.050 kHz 19.46 MHz	OBW Power x dB	99.00 -26.00 d		Freq Offset 0 Hz
10				10105	_	

#### Band7_20MHz_64QAM_100_0_Main_LowCH20850-2510

Avgeoget Spantes	HT - Occupied BW		2197.W		ALION AUTO	111-14121.4	M Oct 24, 2014	
Center Fred	q 2.51000000	GHz MFGalmLow		510000000 GHz	ld >50/50	Radio Std	None	Frequency
10 dB/div	Ref Offset 14 dB Ref 30.00 dBm				2.45	-	-0	
200		manner	mandanaamaan	annen	m			Center Free 2.51000000 GH
0.00 -00.0 -20.0	1				N		_	
30.0 40.0	in manufactured				hine	muner	and the start of the	
60.0				_		-	-	
Center 2.51 #Res BW 3			#VBW	I.2 MHz			n 40 MHz ep 1 ms	CF Ster 4.000000 MH
Occupie	ed Bandwidth	917 MH		tal Power	27.	9 dBm		Auto Mar
Transmit	Freq Error	11.534 ki	5	W Power	9	9.00 %		Freq Offse 0 Hi
x dB Ban	ndwidth	19.33 MI	Hz x d	в	-26	.00 dB		
					-			

# Band7_20MHz_64QAM_100_0_Main_MidCH21100-2535

Center Fre	q 2,535000000	Trip	er Freq. 2,535000000 GHz Free Run AvgiHe m: 30 dB	ald: 50/50	Radio Std: None Radio Device: BTS	Frequency
0 dB/div						
.0g 200				-		Center Freq 2.535000000 GHz
	mont			the	-	
0.0 8 0 0 0						
0.0						
enter 2.53 Res BW 3			VBW 1.2 MHz		Span 40 MHz Sweep 1 ms	4.000000 MH
Occupi	ed Bandwidt		Total Power	29.	1 dBm	Auto Mar
		.888 MHz				Freq Offset
Transmi x dB Bar	t Freq Error ndwidth	15.843 kHz 19.49 MHz	OBW Power x dB		9.00 %. .00 dB	0 H
					-	

#### Band7_20MHz_64QAM_100_0_Main_HighCH21350-2560

enter Fr	eq 2.560000		Hz HSalmLow	Trig: F	Center Free Run AvgHold: 50/50 #Atten: 30 dB				Millione d: None vice: BTS	Frequency
0 dB/div										
.0g 20.0 10.0		,		matricular	minia		-		Center Free 2.560000000 GH	
n n		1	-		-		1	-	-	
0.0		-post		-	-	-	-	notomic.	mana	
a n n 9		_			-					
0.0		-								1
enter 2. Res BW			_	#	VBW 1.2 M	IHz	_		an 40 MHz eep 1 ms	CF Ste 4.000000 MH
Occup	led Bandy				Total P	ower	29,	2 dBm		Auto Ma
-			952 M		-					Freq Offse
	hit Freq Erro andwidth	or	45.601 19.53 I		OBW P	ower		9.00 % .00 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.

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.



# Report No.: E2/2019/90045 Page 141 of 645

# Band12_1_4MHz_QPSK_6_0_Main_LowCH23017-699.7

Center Fre	eq 699,700000 N	IHZ MFGalmLow	Center F Trig: Fre	Center Freq: 639,700000 MHz Trig: Freq: 639,700000 MHz Trig: Freq: Run AvgiHold: 50/50 #Atten: 30 dB				M Oct 25, 2014 1: None vice: BTS	Frequency
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm							0	
20.0 10.0 0.00		Jam		محصيصميم	-ww-Joor				Center Freq 699.700000 MHz
10 0 20 0 30 0	marydorne	1			-	frim	mm	mm	
40 0 60.0									
Center 699 #Res BW 3			#VE	3W 91 kH	٩z			an 3 MHz p 3.2 ms	CF Step 300.000 kH
Occup	ied Bandwidti 1.(	944 M	Hz	Total P	ower	25.5	i dBm		Auto Mar Freq Offset
	it Freq Error ndwidth	2.205		OBW P x dB	ower		9.00 %. 00 dB		0 H
80						= FRIDE	-		-

## Band12_1_4MHz_QPSK_6_0_Main_MidCH23095-707.5

Avenuent Spect	event Analyzer - Occupied By		313.111	ALIGN-AUTO	110-00-05 44	04 25, 2014	Frequency					
Center Fre	enter Freq 707.500000 MHz Center Freq. 707.500000 MHz Trig: Frea nn AvgiHald-50/50 ant/Gaint_nw Adten: 30 dB Radio Device: BTS											
10 dB/div												
20.0				X			Center Freq 707.500000 MHz					
-10 0 -20 0				$\mathbf{\lambda}$								
-46 D	man			ma	~~~~~	~~~~~	1.000					
Center 70 #Res BW			#VBW 91 kHz			an 3 MHz 3.2 ms	CF Step 300.000 kHz					
Occup	led Bandwidt		Total Power	27.4	dBm		Auto Man					
Transmit Freq Error -9		-918 Hz -918 Hz 1.236 MHz	OBW Power x dB		9.00 %. 00 dB		Freq Offset 0 Hz					
MIRO				#7×105	-	-						

#### Band12_1_4MHz_QPSK_6_0_Main_HighCH23173-715.3

Reprodit Spectrosen Anusyan - Occup			anarami			Internet AM	04 25, 2019	
Center Freq 715.3000	DO MHz	Center Trig: F	Freq: 715.300 Free Run 1: 30 dB	000 MHz AvgiHold		Radio Std: 1	None	Frequency
10 dB/div Ref 30.00		_		= -0				
200	1-	mann	mm					Center Freq 715.300000 MHz
. 10 10 20 0 30 0 0000 000 000 000 000 000 000 00	n				him	mahand	t-martin	
-50 0	_							
Center 715.3 MHz #Res BW 30 kHz		#	VBW 91 kH	z			n 3 MHz 3.2 ms	CF Step 300.000 kHz
Occupied Bandw	idth		Total P	ower	27.	8 dBm		Auto Man
	1.0943 N	Hz						Freq Offset
Transmit Freq Erro x dB Bandwidth	-1.012 1.235		OBW P	ower		9.00 % .00 dB		0 Hz
NING .						в		-

#### Band12_1_4MHz_16QAM_6_0_Main_LowCH23017-699.7

Center Fred	Center Freg 699.700000 MHz Trig Free Nen AvgiHold: 50/50 #FGaint_nw #Atten: 30 dB Radio 20/50 Radio Device: BTS										quency
Ref Offset 13.6 dB 10 dB/div Ref 30.00 dBm											
20.0		ſ		m	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	m					enter Fred 700000 MHz
ND D.	hand	ww					hum	myrom.	Man Ar		
40 0 60.0											
Center 699. #Res BW 30		-		#VB	W 91 KH	łz		Swee	an 3 MHz p 3.2 ms	1.0	CF Step 300.000 kH
Occupie	ed Bandwid 1		4 MHz		Total P	ower	28.4	dBm		Auto	Mar Teg Offsel
Transmit x dB Ban	Freq Error dwidth		.550 kHz 237 MHz		OBW P	ower		9.00 % 00 dB		1	0 HI
											_

# Band12_1_4MHz_16QAM_6_0_Main_MidCH23095-707.5

Center Fre	R Carlie Freq 707.5500000 MHz Carlie Freq 707.500000 MHz Carlie Freq 707.500000 MHz Solve Real Solve Real Solve Real Solve Real Solve Real Device BTS										
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm										
200		Juman					Center Freq 707.500000 MHz				
20.0	n - ngere			1 m	more	~~					
48 D 90 D 60 0											
Center 70 Res BW			VBW 91 kHz		Span Sweep	3 MHz 3.2 ms	CF Step 300.000 kHz				
Occup	led Bandwidth	957 MHz	Total Power	27.6	5 dBm		Auto Man				
	lit Freq Error andwidth	4.264 kHz 1.237 MHz	OBW Power x dB		9.00 %. 00 dB		Freq Offset 0 Hz				
					_						

#### Band12_1_4MHz_16QAM_6_0_Main_HighCH23173-715.3

Center Fre	R State 2017 15.300000 MHz Center Freq 715.30000 MHz Center Freq 715.30000 MHz Trig Free Run AvgHald 5010 Radio Stati None Atten: 30 dB Radio Device: BTS											
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm					0						
200 200 0.00 			~~~~~~				Center Freq 715.300000 MHz					
20 0 30 0 46 0 50 0				1	non							
-60.0 Center 71: #Res BW			#VBW 91 kHz			pan 3 MHz ep 3.2 ms	CF Step 300.000 kHz					
Occup	ied Bandwidti 1.(	963 MHz	Total Power	27.4	4 dBm		Auto Man Freq Offset					
	lit Freq Error Indwidth	3.665 kHz 1.240 MHz	OBW Power x dB		9.00 % .00 dB		0 Hz					

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

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

台灣檢驗科技股份有限公司



# Report No.: E2/2019/90045 Page 142 of 645

# Band12_1_4MHz_64QAM_6_0_Main_LowCH23017-699.7

R	ar 199,700000 N		Center F		AvgiHol	ALTON HUMO d: 60/60	Radio Std: Radio Dev	(terne	Frequency
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm								
200-00-000		J	m	m	m				Center Fred 699.700000 MHz
10 0 20 0		1				tim	m		
40 D 80 D 60 0									
Center 69 #Res BW			#VE	3W 91 kH	łz			an 3 MHz p 3.2 ms	CF Step 300.000 kH
Occup	led Bandwidti 1.(	0946 MH	łz	Total P	ower	28.0	) dBm		Auto Mar Freq Offset
	lit Freq Error Indwidth	52 1.236 M		OBW P x dB	ower		9.00 % 00 dB		0 Hz
60						=Y#10	_		

#### Band12_1_4MHz_64QAM_6_0_Main_MidCH23095-707.5

Center Fre	enter Freq 707.5500000 MHz Caritie Freq 707.550000 MHz Radio Seri None BEGaleLaw Matter 30 00 AvgHald 5040 Radio Device: B15										
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm										
200 100 0.00		1	ninn					Center Freq 707.500000 MHz			
-10.0		4			In	m	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
-48.0 -80.0 -60.0											
Center 70 #Res BW			#VBW 9	1 kHz		Sp Swee	an 3 MHz p 3.2 ms	CF Step 300.000 kHz			
Occup	ied Bandwidti 1.(	946 MH		al Power	27.1	8 dBm		Auto Man Freg Offset			
	lit Freq Error Indwidth	278 H 1.234 MH	Z OB	W Power B		9.00 % .00 dB		OHz			
ANING					=1×10			-			

#### Band12_1_4MHz_64QAM_6_0_Main_HighCH23173-715.3

Center Fre	eq 715.300000 Mi	Hz	Center F	req. 715.300		4210% #UTG	Radio Std	None None	Frequency
		NFGain:Low	#Atten: 3	a Run 30 dB	AvgiHold	60/60	Radio Dev	ice: BTS	
10 dB/div	Ref 30.00 dBm								
200		from	~~~		way				Center Freq 715.300000 MHz
-10.0 -20.0	man	4				L	mann		
40.0 80.0									
Center 71 Res BW			#VI	BW 91 kH	łz			an 3 MHz p 3.2 ms	CF Step 300.000 kHz
Occup	ied Bandwidth	942 MH	4.7	Total P	ower	27.	7 dBm		Auto Man
	it Freq Error andwidth	-697 1.238 M	Hz	OBW P x dB	ower		9.00 % .00 dB		Freq Offset 0 Hz
60						- 1476	e.	-	

### Band12_3MHz_QPSK_15_0_Main_LowCH23025-700.5

Center Fre	q 700,500000 N		Center Freq. 700.500000 MHz Trig: Free Run AvgiHald: 50/50 #Atten: 30 dB				Radio Sto Radio De	e trente	Frequency	
10 dB/div	Ref 0ffset 13.6 dB Ref 30.00 dBm									
20.0 10.0 0.00				~~~~	m	1				nter Fred 00000 MH:
10 0 21 0 30 0						1			-	
30.0										
Center 700			#VE	W 1801	(Hz		Sweep	an 6 MHz 1.533 ms		CF Step
	ed Bandwidth	, 5990 MH		Total P		31.	8 dBm	1	Auto	Mar
	t Freq Error	1.743 kH	łz	OBW P	ower		9.00 %		Fr	eq Offse 0 H
x dB Bar	ndwidth	2.997 MF	łz	x dB		-26	.00 dB			
-									-	

#### Band12_3MHz_QPSK_15_0_Main_MidCH23095-707.5

Center Fre	R 200 C 200											
Ref Officet 13.6 dB 10 dB/div Ref 30.00 dBm Log												
-10 0 -10 0 -10 0 -20 0 -30 0		/	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	m	m.	www.	Center Fr 707.500000 M					
48 0 50 0 60 0 Center 70 #Res BW			#VBW 180 kHz			an 6 MHz 1.533 ms	CF St0					
Occup	led Bandwidti 2.1	7006 MHz	Total Power	r 31.	8 dBm		Auto M					
	lit Freq Error Indwidth	805 Hz 2.997 MHz	OBW Power x dB		9.00 % .00 dB		0					
1				-	-							

#### Band12_3MHz_QPSK_15_0_Main_HighCH23165-714.5

	enter Freq 714.5500000 MHz Center Freq 714.550000 MHz MFGainLow MFGainLow MFGainLow											
10 dB/div	-1											
200 100 0.00		hann	~~~	m	min	my -				enter Freq 500000 MHz		
-10.0 -20.0 -30.0	m					7	h	nor an				
-48.0 -50.0												
Center 714. #Res BW 62			#VE	SW 180 P	Hz			an 6 MHz 1.533 ms	-	CF Step		
Occupie	ed Bandwidti 2.6	973 MH	z	Total P	ower	3	1.5 dBm		Auto	Man reg Offsel		
Transmit x dB Ban	Freq Error adwidth	-1.115 kl 2.994 Mi		OBW P x dB	ower		99.00 % 6.00 dB			0 Hz		

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

t (886-2) 2299-3279

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

S Taiwan Ltd.

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 f (886-2) 2298-0488

www.tw.sgs.com



# Report No.: E2/2019/90045 Page 143 of 645

# Band12_3MHz_16QAM_15_0_Main_LowCH23025-700.5

Center Fre	aq 700.500000 I	T	Center Freq. 700.500000 MHz Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB				None None vice: BTS	Frequency
10 dB/div	Ref Offset 13.6 d Ref 30.00 dBn							
200		man	and the second s	mm	2			Center Fred 700.500000 MH
0.00 -10.0 -20.0					1	m	m	
30.0 40.0 80.0								
conter 70	0.5 MHz						an 6 MHz	
#Res BW			#VBW 180	kHz	_		1.533 ms	CF Step 600.000 kHz
Occup	led Bandwidt		Total	Power	31.	0 dBm		Auto Mar
		6990 MHz						Freq Offset
	it Freq Error Indwidth	5.132 kHz 3.008 MHz		Power		9.00 % .00 dB		0 H2
603					=7×10			

## Band12_3MHz_16QAM_15_0_Main_MidCH23095-707.5

R	10 , 20 G DC		2102	707.500000	12	TOP BUILD	Radio Sto	M Oct 25, 2019	Freque	ency		
Center Fre	enter Freq 707.500000 MHz Center Freq. 707.500000 MHz Radio Std: Kone Trig: Free Run AvgiHaid: 50/50 Radio Device: BTS											
10 dB/div	Ref Offset 13.6 dl Ref 30.00 dBm											
20.0		mon			rn					ter Freq 000 MHz		
-10.00 -20.0	1					1			-			
-30,0			-		_		the second	um.	1			
-60.0					-	-			_			
Center 70 #Res BW			#VBV	V 180 kHz	-			an 6 MHz 1.533 ms	600	CF Step		
Occup	led Bandwidt			otal Pow	er	31.3	dBm		Auto	Man		
	2.1 hit Freq Error andwidth	6972 MH 1.689 ki 2.963 Mi	Hz C	BW Pow	er		9.00 %. 00 dB		Free	q Offset 0 Hz		
MIRO							_					

#### Band12_3MHz_16QAM_15_0_Main_HighCH23165-714.5

R	All 20 G DC			ana		ALCON HUTCH		MM (Del 25, 2019	Frequency
Center Fr	eq 714.50000	MFGainLow	Trig: I	r Freq: 714.5000 Free Run 1: 30 dB	AvgiHold	60/60	Radio Sto Radio De		Frequency
0 dB/div									
00 100 100		m				7			Center Freq 714.500000 MHz
n n 0 0		4		-		1			
0.0 0.0 0.0									
enter 71 Res BW				VBW 180 k	HZ			an 6 MHz 1.533 ms	CF Step
	led Bandwi	dth		Total Po		31.	1 dBm		Auto Man
	1	2.6974 N	IHz					1.1	Freq Offset
	hit Freq Error andwidth	2.480 3.007		OBW Po x dB	ower		9.00 % 5.00 dB		0 Hz
R3						- F#10	05		

#### Band12_3MHz_64QAM_15_0_Main_LowCH23025-700.5

	700.500000 M	MEGainsLow	Center Freq: 700.500000 MHz Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB				Radio Sto Radio De	to tree the	Frequency	
0 dB/div	Ref 0ffset 13.6 dB Ref 30.00 dBm									
00 00 00		pomon				7	-			enter Freq 500000 MHz
	mand						mm	~~~~~		
90,0. 18 D										
50. a							-			- 24
enter 700.8 Res BW 62			#VE	3W 180 H	Hz		Sweep	an 6 MHz 1.533 ms		CF Step 600.000 kH
Occupie	d Bandwidth	088 MH	_	Total P	ower	30	.9 dBm		Auto	Mar
Transmit	Z.1 Freq Error	6.064 kH	St	OBW P	ower	1	99.00 %			req Offsel 0 Ha
x dB Ban	dwidth	3.015 MH	łz	x dB		-2	6.00 dB			

#### Band12_3MHz_64QAM_15_0_Main_MidCH23095-707.5

R Center Fre	eq 707.500000 N	Trig	er Freq. 707.500000 MHz Free Run AvgiHo en: 30 dB	Radio Std: None Radio Device: BTS		Frequency	
0 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm					-1	
		provence and the second se		1			Center Freq 707.500000 MHz
	mind			~	han	~~~	
sā τι 50.0							
enter 70 Res BW			#VBW 180 kHz			an 6 MHz 1.533 ms	CF Step 600.000 kHz
Occup	led Bandwidt	h 7073 MHz	Total Power	31.0	) dBm		Auto Mar
Transmit Freq Error 5.214 kHz x dB Bandwidth 3.003 MHz		5.214 kHz	OBW Power x dB		9.00 % 00 dB		0 H
					_		-

#### Band12_3MHz_64QAM_15_0_Main_HighCH23165-714.5

Center Fre	Frequency						
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm			2.		-1	
200			-in-monthom	-			Center Fre 714.500000 MH
-10.0 -20.0 -30.0	mont			1	-	ker marga	
-48 D -80 D -60 D							
Center 714 #Res BW 6			#VBW 180 kHz			an 6 MHz 1.533 ms	CF Step
Occup	led Bandwidt 2.	h 7032 MHz	Total Power	31.	1 dBm		Auto Ma
Transmit Freq Error x dB Bandwidth		6.367 kHz 2.950 MHz	OBW Power x dB		9.00 % .00 dB		0H

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

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

台灣檢驗科技股份有限公司



# Report No.: E2/2019/90045 Page 144 of 645

# Band12_5MHz_QPSK_25_0_Main_LowCH23035-701.5

Average Seat	Nerri Analyzer - Occupied By	Y.	319.31	-	ALION HUND	00.40.07.4	404 25, 2019	022
Center Fre	q 701.500000 I	MHZ	Center Freq. 701.500000 MHz Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB			Radio Std: None Radio Device: BTS		Frequency
10 dB/div	Ref Offset 13.6 dl Ref 30.00 dBn						= 0	
200 100		mon			-			Center Free 701.500000 MH
-10.0	mant	/			1 L	·~~~~	run	
-40 D -80 D								
Center 70 #Res BW		11 1	#VBW :	300 kHz			n 10 MHz ep 1 ms	CF Ste
Occupied Bandwidth 4,5075 Mi			4,>	Total Power		8 dBm		Auto Ma
		9.738 k 4.961 M			99.00 % -26.00 dB			08
eire)					-7×10	5		-

## Band12_5MHz_QPSK_25_0_Main_MidCH23095-707.5

R	M (200 Pg 707,5000	00 MH	łz FGalistow	Center Freq: 707.500000 MHz Trig: Freq: Rin AvgiHold:>50/50 #Atten: 30 dB			Radio St	Mi oci 25, 2019 d: None svice: BTS	Frequency	
10 dB/div	Ref Offset 1 Ref 30.00								- 0	
200 100		1	-m-sm							Center Freq 707.500000 MHz
9.00 -10.0	mature	1		_			1	(nimme	minun	
-30.0				_					minun	
-60.0	-	-						-		_
Center 70 #Res BW				#V	BW 300 k	Hz		Sp Sw	an 10 MHz /eep 1 ms	CF Step
Occup	Occupied Bandwidth 4,5105 MH				Total Power		31.	8 dBm		Auto Ma
	Transmit Freq Error 7.112 k x dB Bandwidth 4.990 M						9.00 % .00 dB		0 Hz	
60								15		

## Band12_5MHz_QPSK_25_0_Main_HighCH23155-713.5

NR i	N 20 0 00			a martine		44,10% #011		MI (021 25, 2019	Frequency
Center Fr	eq 713.50000	MFGain:Low	Trig: Fr	Center Freq: 713.500000 MHz Trig: Free Run AvgiHald: 50/50 #Atten: 30 dB			Radio Sto Radio De	t: None vice: BTS	( coquerto y
10 dB/div	Ref Offset 13.6 Ref 30.00 di							(	
20.0		form				1			Center Freq 713.500000 MHz
20.0	~~~~~	4				1		·	
30.0. 48.0 80.0									
Center 71	3.5 MHz						Spa	n 10 MHz	
#Res BW	100 kHz		#1	/BW 300 k	Hz	_		eep 1 ms	CF Step 1.000000 MHz Auto Man
Occup	led Bandwi		Total P	ower	32	.0 dBm		Auto Man	
	4	1.5084 N	IHz						Freq Offset
	Transmit Freq Error 11.664 ) x dB Bandwidth 4.960 N					99.00 % -26.00 dB			0 Hz
eiro)						100	pue:	-	

# Band12_5MHz_16QAM_25_0_Main_LowCH23035-701.5

Center Free	q 701.500000 I	Center Freq: 701.500000 MHz Trig: Freq: 701.500000 MHz Trig: Freq: Run AvgiHold: 50/50 #Atten: 30 dB		Radio Device: BTS		Frequency			
10 dB/div	Ref 0ffset 13.6 dB Ref 30.00 dBm								
200			mm	wm	~~~~	2			Center Fred 701.500000 MH;
10 D						1	-		
40.0	non-strivent fort							~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
ep 0 eu 0				-					
Center 701. #Res BW 1			#VE	SW 300 H	Hz			ep 1 ms	CF Step 1.000000 MH
			Total Power			30.8 dBm 99.00 %			Auto Mar
		7.963 ki			Freq Offse				
x dB Ban	ndwidth	4.958 M	łz	x dB		-2	5.00 dB		

## Band12_5MHz_16QAM_25_0_Main_MidCH23095-707.5

enter Fre	q 707.500000	Time Ti	enter Freq. 707.50000 rig: Free Run Atten: 30 dB	AvgiHold: 50/50	Radio Std: None Radio Device: BTS	Frequency
0 dB/div	Ref Offset 13.6 e Ref 30.00 dB			2.16	1	
200 100 020			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	mm		Center Free 707.500000 MH
	mand				- men man	
n n 0 a						
enter 707 Res BW			#VBW 300 kH	z	Span 10 MHz Sweep 1 ms	CF Ste 1.000000 MH
Occupied Bandwidth 4.5038 MHz						Auto Mar Freq Offse
		1.157 kHz 5.000 MHz			9.00 % .00 dB	он
-						

# Band12_5MHz_16QAM_25_0_Main_HighCH23155-713.5

R Center Fre	Frequency						
10 dB/div	0						
200 200 0.00 0.00		/			1		Center Freq 713.500000 MHz
20 0 30 0 40 0					~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	3
50.0 Center 713							
Res BW 1			#VBW	300 kHz		Span 10 Mi Sweep 1 n	1.000000 MHz
Occup	ed Bandwid 4	ith .4983 MH		otal Power	31.3	dBm	Auto Man Freq Offset
	it Freq Error ndwidth	9.838 k 4.984 M		BW Power BB		9.00 % 00 dB	0 Hz

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

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

台灣檢驗科技股份有限公司



# Report No.: E2/2019/90045 Page 145 of 645

# Band12_5MHz_64QAM_25_0_Main_LowCH23035-701.5

Any optimization revealed bit         Apple filter         Apple filter									Frequency
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm							0	
200-000-000		porman	n-min-			2			Center Fred 701.500000 MHz
-10.0				-		1		-	-
-30.0				_					
Center 70								an 10 MHz	CF Step
	led Bandwidth		#VBW 300 kHz Total Power			Sweep 1 m 31.0 dBm			1.000000 MHz Auto Mar
Transmit Freq Error 11.028 )		4959 MH 11.028 ki 4.969 Mi	28 kHz OBW Powe		ower		99.00 % 5.00 dB		Freq Offset 0 Ha
00						1000	05		

## Band12_5MHz_64QAM_25_0_Main_MidCH23095-707.5

R R	NI 200 DO	1.	313.111		ALION-MUTCH	09-44124	AM CH 25, 2019	020
Center Fre	ng 707.500000 M		Center Freq: 707.500000 MHz Trig: Free Run AvgiHold >50/50 #Atten: 30 dB			Radio St		Frequency
10 dB/div	Ref Offset 13.6 dl Ref 30.00 dBm		0					
200 100 0.00	,							Center Freq 707.500000 MHz
-10.0	man				1	an m	-	100
-48 0 -80 0 -60.0								
Center 70 #Res BW			#VBW 300	kHz			an 10 MHz eep 1 ms	CF Step 1.000000 MHz
Occup	led Bandwidt 4.	h 5034 MH		Power	31.	1 dBm		Freq Offset
		6.417 kH 4.957 MH			99.00 % -26.00 dB			0 Hz
NIC					-7810	6		

# Band12_5MHz_64QAM_25_0_Main_HighCH23155-713.5

R	NT 20 G	Desc DW			10.22.2117		42104-00		AM (3c) 25, 2019	
Center Fre	eq 713.5000	Trig: Fr	Center Freq: 713.500000 MHz Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB				td: None evice: BTS	Frequency		
10 dB/div		Ref Offset 13.6 dB Ref 30.00 dBm								
20.0		1	-	min			m	-	_	Center Freq 713.500000 MHz
0.00 -10.0 -20.0	www	1	-				1		-	
30,0 40.0		-						-		
60.0										
Center 71 #Res BW		-		#V	BW 300 H	Hz		St.	an 10 MHz Veep 1 ms	CF Step 1.000000 MHz
Occup	led Bandy	width			Total Power			0.9 dBm		Auto Man
		4.4	955 M	Hz						Freq Offset
Transmit Freq Error 11.384 ki			kHz	OBW Power			99.00 %		0 Hz	
x dB Ba	indwidth		4.962 1	WHZ	x dB			26.00 dB		
80								and the second sec		-

# Band12_10MHz_QPSK_50_0_Main_LowCH23060-704

Avenuent Span	MI SEG DC	1		a na stri		#104 aUR	101-01-07	PM Oct 24, 2019	
Center Fr	eq 704.000000 N	Center Freq: 704.000000 MHz Trig: Free Run Avg Hold:>50/50 #Atten: 30 dB			Radio Sto		Frequency		
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm					2		- 0	
20.0 10.0									Center Free 704.000000 MH
0.00 -10.0		( and the second case	men			7	-		
20.0 30.0.	man		_	-		F	-	anna	
-80 0 -60 0									
Center 70 #Res BW			#\	/BW 620 k	Hz			an 20 MHz eep 1 ms	CF Step
Occupied Bandwidth			Total Power			18.0 dBm			Auto Mar
			8.9950 MHz t Freg Error 4.973 kHz OBW Power			99.00 %			Freq Offse 0 H
x dB Ba	andwidth	9.799 M	Hz	x dB		-26	5.00 dB		
and the second se									

# Band12_10MHz_QPSK_50_0_Main_MidCH23095-707.5

R Center Fre	K      File Design Content Freq. 707,500000 MHz     Center Freq. 707,500000 MHz     Center Freq. 707,500000 MHz     Radio Set Nove     Resident And     Set Set Nove     Resident And     Re								
10 dB/div	Ref Offset 13.6 dl Ref 30.00 dBm						()		
200					1			Center Freq 707.500000 MHz	
10.0 20.0	mont		-		two	m			
30,0. 40 0 90 0									
60.0			_						
Res BW			#VBW 620	kHz			eep 1 ms	CF Step 2.000000 MH	
Occup	led Bandwidt		Total F	ower	32.1	1 dBm		Auto Man	
2.00		0133 MHz						Freq Offset	
	nit Freq Error Andwidth	16.825 kHz 9.852 MHz		ower		9.00 % 00 dB			
						_			

#### Band12_10MHz_QPSK_50_0_Main_HighCH23130-711

Center Fre	eq 711.000000 M	Tree Tr	Center Freq: 711.000000 MHz Trig: Freq: Run AvgiHold: 50/50 #Atten: 30 dB			Radio Std: None Radio Device: BTS		Frequency
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm						()	
100 000								Center Free 711.000000 MHz
10 D 20 D	mand		-		1			
90,0. 40 0 90 0								
co.g	1 MHz					Spa	n 20 MHz	CF Ster
Res BW	200 kHz		#VBW 620	kHz		SWe	eep 1 ms	2.000000 MH
Occup	led Bandwidt	h 0164 MHz		Power	32.4	4 dBm		Auto Mar
Transm	it Freq Error	18.530 kHz		Power	99	.00 %		Freq Offse
x dB Ba	indwidth	9.857 MHz	x dB		-26.	00 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.

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.



# Report No.: E2/2019/90045 Page 146 of 645

# Band12_10MHz_16QAM_50_0_Main_LowCH23060-704

enter Fre	q 704.000000 M	Trin Trin	tter Freq: 704.000 g: Free Run ten: 30 dB		60/60	Radio Std: None Frequency Radio Device: BTS		
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm			_			= 0	
200		mpronision more	-	in the second	1			Center Free 704.000000 MHz
9.00 10.0 20.0								
30.0	mannet				3	Anna an an Anna		1.0
ep 0 eu 0			-				-	
Center 704 Res BW 2			#VBW 6201	Hz			ep 1 ms	CF Ste 2.000000 MH
Occupi	ed Bandwidth 8.9	501 MHz	Total P	ower	31.	2 dBm		Auto Mar Freq Offset
Transmi x dB Bar	t Freq Error	5.217 kHz 9.758 MHz	OBW P x dB	ower		9.00 % .00 dB		0 Hi
_								

# Band12_10MHz_16QAM_50_0_Main_MidCH23095-707.5

Average Seat	Mart Analyzer - Occupied BW			ear Juri	_	um vert		PM Oct 24, 2019	
Center Fre	q 707.500000 N	MHZ MF/Sain:Low	Center Fr	eq: 707.500		Radio Std: None			Frequency
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm							- 0	
200 100	0 0 0			mente	www.new	-			Center Free 707.500000 MHz
0.00 -10.0				-		K			
-30.0	many and the sector		_			1	harmon and	the milton	
-46 D -50 Q						-	-		
Center 70			-	W 620 H				an 20 MHz eep 1 ms	CF Step
	ied Bandwidtl	h	#VE	Total P		31	.2 dBm	2.000000 MH	
	8.9	9794 MH	z						Freq Offse
	it Freq Error Indwidth	14.167 kl 9.803 M		OBW P x dB	ower		99.00 % 6.00 dB		ÓH
enc)						100	105	-	

#### Band12_10MHz_16QAM_50_0_Main_HighCH23130-711

R	NI 28 G D	5 I	1	2010-00-03VT		urate etima		HOd 24, 2019	Frequency
Center Fr	eq 711.00000	0 MHz MFGaind	Trig: 1	r Freq: 711.00000 Free Run 1: 30 dB	AvgiHold:	60/60	Radio Std		requency
10 dB/div	Ref Offset 13. Ref 30.00 d							= 0	
20.0 10.0		min		and a second and	m	1			Center Freq 711.000000 MHz
0.00						1	-		
0.0					_				
n () 0.0			_						
enter 71 Res BW			#	VBW 620 kH	z			n 20 MHz ep 1 ms	CF Step 2.000000 MHz Auto Man
Occup	ied Bandwi	dth 3.9654	MHz	Total Po	wer	31.3	3 dBm		
	nit Freq Error andwidth	20.	998 kHz 753 MHz	OBW Po x dB	wer		9.00 % .00 dB	-	Freq Offset 0 Hz
K0						1010	e.		

## Band12_10MHz_64QAM_50_0_Main_LowCH23060-704

100         704.000000 MH           200         704.000000 MH           210         704.000000 MH           2000000 MH         Span 20 MHz           2000000 MH         Sweep 1 ms           2000000 MH         Ma           Auto         Ma           Auto         Ma           8.9677 MHz         Freq Offset	Center Fre	aq 704.000000		Center Freq: 704.000000 MHz R Trig: Free Run Avg/Hold >50/50			Radio St	d: None vice: BTS	Frequency
200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         200         000         Mate         200         Mate         200         Mate         Mat         Mate         Mate         M								()	
Center 704 MHz Res BW 200 kHz Transmit Freq Error 2.037 kHz OBW Power 99.00 %	20.0	io par							Center Freq 704.000000 MHz
arts	-10.0	mound	/			l	have		
Center 704 MHz Span 20 MHz CF Ste #Res BW 200 kHz #VBW 620 kHz Sweep 1 ms Occupied Bandwidth Total Power 30.2 dBm 8.9677 MHz Freq Offse Transmit Freq Error 2.037 kHz OBW Power 99.00 %	40.0								
Occupied Bandwidth Total Power 30.2 dBm Auto 20000 M Me 8.9677 MHz Freq Offse Transmit Freq Error 2.037 kHz OBW Power 99.00 %	Center 704			#VBW 620	-				CF Step
Transmit Freq Error 2.037 kHz OBW Power 99.00 %		led Bandwidt		Total		30.2		eep ma	Auto Man
x dB Bandwidth 9.793 MHz x dB -26.00 dB	Transmit Freq Error 2.037			z OBW Power					Freq Offset 0 Hz
	x dB Ba	indwidth	9.793 MH	iz xdB		-26.	UU dB		

# Band12_10MHz_64QAM_50_0_Main_MidCH23095-707.5

R Center Fre	eq 707.500000 I	Trip	ter Freq. 707.500000 MH Free Run Avgit ten: 30 dB	r Hold: 50/50	Radio Std: None Radio Device: BTS	e Frequency
0 dB/div	Ref Offset 13.6 d Ref 30.00 dBn			2.00		
00 000 000		fam.				Center Free 707.500000 MH
00 0.0	mound			~	man mark	
8 D D D D D						
enter 70 Res BW			#VBW 620 kHz		Span 20 MH Sweep 1 m	
Occup	led Bandwidt	h 0030 MHz	Total Power	30.	0 dBm	Auto Ma
	J. hit Freq Error	6.052 kHz 9.829 MHz	OBW Power		9.00 %.	Freq Offse 0 H
		5.020 1112		-20		
1					-	

# Band12_10MHz_64QAM_50_0_Main_HighCH23130-711

Denter Fre	te en los es estatution de los estatutiones en los estatutiones e								
10 dB/div	Ref Offset 13.6 dl Ref 30.00 dBm					-0			
20.0 10.0 0.00				-			Center Freq 711.000000 MHz		
-10 0 -21 0 -30 0	montand			Jane		m			
48 0 80 0 60 0									
Center 71 #Res BW			#VBW 620 kHz		Span 20 Sweep		CF Step 2.000000 MH		
Occup	led Bandwidt 8.1	h 9837 MHz	Total Power	29.9	dBm	Au	Freq Offset		
	ilt Freq Error andwidth	15.189 kHz 9.867 MHz	OBW Power x dB		9.00 % 00 dB		0 Hz		
						-			

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.



# Report No.: E2/2019/90045 Page 147 of 645

# Band13_5MHz_QPSK_25_0_Main_LowCH23205-779.5

R R Center Fre	enter Freq 779.5000000 MHz Center Freq 779.50000 MHz Center Freq 779.50000 MHz Stat Kone Reals Stat Kone Reals Stat Kone Reals Device BTS Radio Device BTS									
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm									
200 200 0.00				-		Center Free 779.500000 MH				
10 D 20 D 30 D 40 D				1/_	man					
60.0 Center 779	9.5 MHz				Span 10 MHz	CF Step				
Res BW			Total Power	20.4	Sweep 1 ms	1.000000 MH Auto Ma				
Transmit Freq Error 13.202		n 4883 MHz 13.202 kHz 4.946 MHz	Hz OBW Power		9.00 % 00 dB	Freq Offs 01				
00				=7#10						

## Band13_5MHz_QPSK_25_0_Main_MidCH23230-782

Center Fre	enter Freq 782.000000 MHz enter Freq 782.000000 MHz frig: Freq Cast Science enter Freq 782.00000 MHz frig: Freq Freq Cast Science enter Freq Freq 782.00000 MHz frig: Freq Freq Freq Freq Freq Freq Freq Freq									Frequency
10 dB/div	Ref Offset 13.0 Ref 30.00 d		-						0	
200 100		7	~~~~	ochasicoir	-		~			Center Freq 782.000000 MHz
-10 0 -20 0		/							mm	
40.0	m									
Center 78 #Res BW				#V	BW 300 H	Hz	11	Sp	an 10 MHz leep 1 ms	CF Step
Occup	led Bandwi		94 MH	Iz	Total P	ower	2	7.9 dBm		Auto Man Freq Offset
	Transmit Freq Error 4.629 x dB Bandwidth 4.964		4.629 k 4.964 M		OBW Power x dB			99.00 % -26.00 dB		0 Hz
60								with-		

#### Band13_5MHz_QPSK_25_0_Main_HighCH23255-784.5

RI	N 20 0 00		ana un	ALTER-MUTCH		M Gel 25, 2019	Frequency
Center Fr	eq 784.500000 I	Trig	er Freq. 784.500000 MHz Free Run AvgiHala m: 30 dB	d >50/50 Radio Device: BTS			requency
10 dB/div	Ref Offset 13.6 d Ref 30.00 dBn					-1	
200 100 0.00		/ marine		1			Center Freq 784.500000 MHz
000 200 300 0000000000000000000000000000	monormat	/		1	m		
8.0 0.0							
enter 78 Res BW			#VBW 300 kHz			n 10 MHz eep 1 ms	CF Step 1.000000 MHz Auts Man
Occup	bled Bandwidt	h 5000 MHz	Total Power	28.	1 dBm		
		5.984 kHz 4.997 MHz	Hz OBW Power		99.00 % -26.00 dB		Freq Offset 0 Hz
iio)							

# Band13_5MHz_16QAM_25_0_Main_LowCH23205-779.5

Center Free	g 779,500000 N	The T	enter Freq. 779. rig: Free Run Atten: 30 dB	500000 MHz AvgiHali	42,0% 4010 d: 60/60	Radio Std: Radio Dev	Frequency	
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm			= 0				
200 200 000			~~~~	<u> </u>	2			Center Freq 779.500000 MHz
10 0 20 0 30 0 40 0						min	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
60.0 Center 779						Spar	n 10 MHz	CF Step
#Res BW 1			#VBW 30	0 kHz			ep 1 ms	1.000000 MHz Auto Man
Occupi	ed Bandwidti 4.4	902 MHz		Power	28.0	5 dBm		Freq Offset
Transmi x dB Bar	t Freq Error ndwidth	14.031 kHz 4.910 MHz				99.00 % -26.00 dB		0 Hz

# Band13_5MHz_16QAM_25_0_Main_MidCH23230-782

Center Fre	Frequency					
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm					
20.0 10.0 0.00				-		Center Freq 782.000000 MHz
	hand			1	m	
-40 0 -50 0 -60 0				-		
Center 78 #Res BW			#VBW 300 kHz		Span 10 MHz Sweep 1 ms	CF Step 1.000000 MHz
Occup	led Bandwidti 4.5	5067 MHz	Total Power	28.0	) dBm	Auto Man Freq Offset
	it Freq Error 9.753 kHz ndwidth 4.989 MHz				9.00 % 00 dB	0 Hz

#### Band13_5MHz_16QAM_25_0_Main_HighCH23255-784.5

R Center Fre	MICCI 25, 2619 d: None tvice: BTS	Frequency						
10 dB/div	()							
200 200 100 0.00		/			-			Center Freq 784.500000 MHz
10 0 20 0 30 0	mound	/			1/2		man	
46 0 50 0 60.0			_	_				
Center 784 Res BW 1			#VBW 3	00 kHz			an 10 MHz leep 1 ms	CF Step
Occupi	ed Bandwid 4	th .5075 MH		al Power	28.4	4 dBm		Auto Man Freq Offset
Transmi x dB Ba	it Freq Error 5.782 k ndwidth 4.962 M			W Power B	99.00 % -26.00 dB			0 Hz

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

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

台灣檢驗科技股份有限公司

# Report No.: E2/2019/90045 Page 148 of 645

# Band13_5MHz_64QAM_25_0_Main_LowCH23205-779.5

Center Fre	Frequency							
10 dB/div								
200 100		Jammon			1			Center Fred 779.500000 MHz
-10 D	/	/			1	nn	0	
30.0. 40.0 80.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						man	
Genter 779	E MUS					Pa	D 10 MHz	
#Res BW 1			#VBW 300 H	Hz	-		eep 1 ms	CF Step 1.000000 MHz
Occupi	led Bandwidt 4.	h 4946 MHz	Total P	ower	28.3	3 dBm		Auto Mar Freq Offset
Transmit Freq Error x dB Bandwidth		9.030 kHz 4.950 MHz		ower		99.00 % 5.00 dB		0 Hz
60					=7=10	-		

# Band13_5MHz_64QAM_25_0_Main_MidCH23230-782

Center Fre	Frequency					
10 dB/div						
200		man	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~		Center Freq 782.000000 MHz
vn n 20 0	1			how	~~~~	
30.0 40.0 80.0						
-60.0 Center 782					ipan 10 MHz	CF Step
Res BW			VBW 300 kHz Total Power	28.2 dBm	weep 1 ms	1.000000 MHz Auto Man
Occup	led Bandwidt	5095 MHz	Total Power	28.2 dBm		Freg Offset
	it Freq Error ndwidth	5.047 kHz 4.965 MHz	OBW Power x dB	99.00 % -26.00 dB		0 Hz
80				-Faitos		-

# Band13_5MHz_64QAM_25_0_Main_HighCH23255-784.5

Kaungert Spant	Select Analyzer - Occup	ext BW/			313.00		4104.1		Inniaaidh	AM Oct 25, 2019	
Center Fre	eq 784.5000		Z HGain:Low	Center Trig: F	Center Freq: 784.500000 MHz Frig: Free Run AvgiHold: 50/50 Atten: 30 dB				Radio Std: None Radio Device: BTS		Frequency
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm										
.og 200 100		7					-	-			Center Freq 784.500000 MHz
		1						7	m		
0.0	mannen							_			
enter 784	4.6.000			_					Pn	an 10 MHz	
Res BW				#	VBW 300 H	Hz		_		eep 1 ms	CF Step 1.000000 MHz
Occup	led Bandw				Total P	ower		28.3	dBm		Auto Man
		4.50	069 MH	z							Freq Offset
	hit Freq Errol andwidth	r	5.093 k 4.982 M		OBW P x dB	ower			00 % 00 dB		0 Hz
HO)								14102	_		

## Band13_10MHz_QPSK_50_0_Main_LowCH23230-782

R Center Fre	None None None STS	Frequency						
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm							
200			in		2			Center Freq 782.000000 MHz
20 D			_			Anna	man	
30.0 40.0 40.0	and						~	
Center 782			#VBW 620				n 20 MHz eep 1 ms	CF Step
	led Bandwidt		Total I		28.1	dBm	cep mis	2.000000 MHz Auto Mar
Transm	9.0 It Freq Error	24.868 kHz		ower	99	.00 %		Freq Offse 0 H
x dB Ba	ndwidth	9.787 MHz	x dB		-26.	00 dB		

# Band13_10MHz_QPSK_50_0_Main_MidCH23230-782

Center Fre	ng 782.000000 !	-	Center Freq: 782.00 Frig: Free Run Atten: 30 dB	1>50/50	Radio Std		Frequency	
0 dB/div	= -1							
200 100			hancomin		m			Center Fred 782.000000 MHz
00-00-	www.				la	XXXXX_IIMA	unin	
50 60 00	1							
enter 783 Res BW			#VBW 620	kHz			n 20 MHz eep 1 ms	CF Step 2.000000 MH
Occup	led Bandwidt	h 9874 MH:	Total I	Power	28.	3 dBm		Auto Mar
	8.94 Transmit Freq Error x dB Bandwidth		z OBW F z xdB	Power		9.00 % 5.00 dB		Freq Offse 0 H
0								

## Band13_10MHz_QPSK_50_0_Main_HighCH23230-782

Center Fre	None None Ice: BTS	Frequency									
10 dB/div		Ref Offset 13.6 dB Ref 30.00 dBm									
20.0 10.0 0.00			Speak and the second	منبعج	7			Center Freq 782.000000 MHz			
10 D 20 D 30 D					L		malim				
40.0 sn n www. 60.0	award										
Center 782 #Res BW 2			#VBW 620	kHz			n 20 MHz ep 1 ms	CF Step 2.000000 MH			
Occup	ed Bandwidt 8.1	h 9757 MH:	Total F	ower	27.1	l dBm		Auto Man			
Transm x dB Ba	it Freq Error ndwidth	28.365 kH 9.774 MH		ower		9.00 % 00 dB		0 Hz			

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.



# Report No.: E2/2019/90045 Page 149 of 645

# Band13_10MHz_16QAM_50_0_Main_LowCH23230-782

Center Fre	Frequency									
Ref Offset 13.6 dB 10 dB/div Ref 30.00 dBm										
200					-	man	2			Center Fred 782.000000 MHz
0.00 -10.0 -20.0		1					her	m	no-mark	
-30.0 -40.0 -80.0	ment	_								
center 782	2 MHz	1						Sp	an 20 MHz	CF Step
#Res BW 2				#VE	SW 620 k			Sw	eep 1 ms	2.000000 MH
Occupi	ed Bandy		475 MH	Ηz	Total P	ower	28.	3 dBm		Freq Offset
		30.248 k 9.756 M			W Power 3		99.00 % -26.00 dB		0 Hz	
00								e	-	

## Band13_10MHz_16QAM_50_0_Main_MidCH23230-782

Center Fre	Frequency								
10 dB/div	Ref Offset 13.6 Ref 30.00 dB								
200					mann	-			Center Freq 782.000000 MHz
0.00 -10.0 -20.0						line		Marchan .	
-30.0. -46.0 -50.0	man							- rakes	
-60.0 Center 782	2 MH2						Sn	an 20 MHz	
#Res BW			#VBW 620 kHz				Sv	CF Step 2.000000 MHz Auto Man	
Occup	ied Bandwid 8	.9520 MH	łz	Total P	ower	28.3	3 dBm		Freq Offset
	it Freq Error ndwidth	33.615 k 9.751 M		OBW P x dB	ower		9.00 % .00 dB		0 Hz
(inter-						-1410			

#### Band13_10MHz_16QAM_50_0_Main_HighCH23230-782

Center Fre	Center Freq 782.000000 MHz Center Freq 782.00000 MHz Center Freq 782.00000 MHz BitGainclaw MitGainclaw										
10 dB/div											
200					men	-			Center Freq 782.000000 MHz		
-10 D -20 D -30 0		$A \models$				June	~~~	- Annalis			
48 D sn p	man										
Center 78				VBW 620 k	Hz			an 20 MHz /eep 1 ms	CF Step 2.000000 MHz		
Occup	led Bandwi	dth 8.9448 M	H7	Total P	ower	28.	5 dBm		Auto Man		
			kHz MHz	OBW Power			9.00 % .00 dB		Freq Offset 0 Hz		
noi							6				

# Band13_10MHz_64QAM_50_0_Main_LowCH23230-782

R	MI SEG DC			1141.12		ALCON HUND		M Oct 25, 2019	-
Center Fre	q 782.000000 I	MHZ MFGalmLnw	Trig: Fre	Center Freq: 782.000000 MHz Trig: Free Run Avg Hald>50/50 #Atten: 30 dB			Radio Std: None Radio Device: BTS		Frequency
10 dB/div	Ref Offset 13.6 dl Ref 30.00 dBn								
20.0 10.0		fromme	the second			-			Center Free 782.000000 MH
0.20 10.0 20.0	1	ŕ							
-30.0. -40.0			_						1.00
-60.0							-		
Center 782 #Res BW 2			#VE	BW 620 H	Hz	-		eep 1 ms	CF Step 2.000000 MH
Occupi	ed Bandwidt	h 9796 MH	4-	Total P	ower	27.9	dBm		Auto Mar
Transmi	t Freq Error	30.343 k		OBW P	ower	99	.00 %		Freq Offset 0 Ha
x dB Ba	ndwidth	9.774 M	Hz	x dB		-26.	00 dB		1

# Band13_10MHz_64QAM_50_0_Main_MidCH23230-782

Center Fre	q 782.000000 I	1112 · ··· 1	Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB			Radio Std: None Radio Device: BTS		Frequency			
10 dB/div		Ref 0ffset 13.6 dB Ref 30.00 dBm									
20.0 10.0 0.00		James	~~~~~					Center Freq 782.000000 MHz			
10 D		4			1						
30.0. 40.0 50.0	man							-			
co.a	MH7					Sna	n 20 MHz				
Res BW			#VBW 620	kHz	_	SW	eep 1 ms	CF Step 2.000000 MHz			
Occupi	ed Bandwidt	h	Total I	Power	28.2	2 dBm		Auto Man			
	8.	9670 MHz						Freq Offset			
	it Freq Error ndwidth	24.602 kHz 9.819 MHz		Power		9.00 % 00 dB		0 Hz			
					=1810	_					

## Band13_10MHz_64QAM_50_0_Main_HighCH23230-782

Center Fre	None None Ice: BTS	Frequency						
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm	= -0						
20.0 10.0 0.00					-			Center Freq 782.000000 MHz
10 D 20 D 30 0							-	
48 0 80 0 60 0	non-shared a set							
Center 78 Res BW			#VBW 620	kHz			n 20 MHz ep 1 ms	CF Step 2.000000 MH
Occup	led Bandwidt	h 9642 MHz	Total I	ower	28.4	dBm		Auto Man Freq Offset
		23.845 kHz 9.844 MHz	OBW	Power		00 dB		0 Hz

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

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

S Taiwan Ltd.



# Report No.: E2/2019/90045 Page 150 of 645

# Band14_5MHz_QPSK_25_0_Main_LowCH23305-790.5

Center Fre	ng 790,500000 I	Trig	Freq. 790.500000 MHz Free Run AvgiHol n: 30 dB	ld: 60/60	Tri 10:25 Miloci 25, 2019 Radio Std: None Radio Device: BTS	Frequency
10 dB/div	Ref Offset 13.6 dl Ref 30.00 dBn			2.40		
200				~		Center Free 790.500000 MH
10 0 20 0 30 0				L		
46 D						
Center 790 Res BW 1			VBW 300 kHz		Span 10 MHz Sweep 1 ms	CF Step
Occup	led Bandwidt 4.	h 4969 MHz	Total Power	28.4	dBm	Auto Mar
	1	6.705 kHz 4.985 MHz	OBW Power x dB	99.0 -26.0	00 % 0 dB	он
801				#1#105		

### Band14_5MHz_QPSK_25_0_Main_MidCH23330-793

Report Space	Nr Docuper			1.9	ear mri		4104 aU	1 11111-54	AM CH 25, 2019	Frequency
Center Fr	Center Freq 793.000000 MHz Center Freq 793.000000 MHz Radio Std: None Trig: Free Run AvgiHold: 50/50 Radio Device: BTS									
Ref Offset 13.6 dB 10 dB/div Ref 30.00 dBm										
200 100 000				~~~~~			7			Center Freq 793.000000 MHz
-10.0		/								
46.0		-								
Center 79 #Res BW				#VE	300 k	Hz			an 10 MHz eep 1 ms	CF Step 1.000000 MHz
Occup	ied Bandwi		8 MH	z	Total P	ower	28	3.2 dBm		Auto Man Freq Offset
	hit Freq Error andwidth		199 H 4.963 MH		OBW P	ower		99.00 % 6.00 dB		0 Hz
eiro)					-		in	1025		-

#### Band14_5MHz_QPSK_25_0_Main_HighCH23355-795.5

R	N 20.0 DC	10.0	er Freq: 795,500000 MHz	WTOP HILLS	Radio Std: N		Frequency			
Senter Fr	eq 795.500000	Trig	Free Run AvgiHol In: 30 dB	d: 66/60	Radio Device: BTS					
10 dB/div	Ref Offset 13.6 dB 0 dB/div Ref 30.00 dBm 0									
200 100 0.00		Jamma market		-			Center Freq 795.500000 MHz			
10 0 20 0				$\left  \right\rangle$						
30.0				~		m-1-Ymr				
Center 79	5.5 MHz 100 kHz	<u> </u>	#VBW 300 kHz			10 MHz p 1 ms	CF Step			
Occup	led Bandwid		Total Power	28.1	l dBm		Auto Man			
	4.5003 Transmit Freq Error -5.4 x dB Bandwidth 4.9		OBW Power x dB		9.00 % 00 dB		Freq Offset 0 Hz			
ici					-	-				

# Band14_5MHz_16QAM_25_0_Main_LowCH23305-790.5

0 dB/div 0 g 20 0 10 0											
10.0			Ref 30.00 dBm								
0.00		h				1			Center Fred 790.500000 MHz		
nn			_			1		in			
80.0 WC-WAC 80.0	and the st		_			-					
Center 790.5 Res BW 10			#VB	W 300 k	Hz			n 10 MHz eep 1 ms	CF Step		
	d Bandwidth	5012 MH		Total P		28.	l dBm		Auto Mar		
Transmit x dB Ban	Freq Error	9.731 kH	iz	OBW P	ower		00 dB		Freq Offse 0 H		

# Band14_5MHz_16QAM_25_0_Main_MidCH23330-793

enter Fre	Frequency					
0 dB/div	1					
00 00 00			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~		Center Free 793.000000 MH
10	mound			1	m	
0						
enter 793 Res BW		<u> </u>	#VBW 300 kHz		Span 10 MHz Sweep 1 ms	CF Ste
Occup	ied Bandwidt 4.4	h 4977 MHz	Total Power	28.7	dBm	Auto Ma
	it Freq Error Indwidth	3.563 kHz 4.982 MHz	OBW Power x dB		9.00 % 00 dB	он

## Band14_5MHz_16QAM_25_0_Main_HighCH23355-795.5

R Center Fre	None None	Frequency						
10 dB/div	0							
200 200 100 0.00	,				-			Center Freq 795,500000 MHz
-10 0 -20 0 -30 0	mont				1			
-60.0							1	
Center 795 #Res BW 1			#VBW 300	kHz			n 10 MHz ep 1 ms	CF Step 1.000000 MHz
Occupi	ed Bandwidti 4.5	h 5049 MH		Power	28.3	2 dBm		Auto Man Freq Offset
Transmi x dB Bar	t Freq Error ndwidth	-1.697 kH 4.968 MH		Power		9.00 % 00 dB		0 Hz

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.

# Report No.: E2/2019/90045 Page 151 of 645

# Band14_5MHz_64QAM_25_0_Main_LowCH23305-790.5

Center Fre	Frequency									
Ref Offset 13.6 dB 10 dB/div Ref 30.00 dBm Log										
20.0		- /	America	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~		-			Center Fred 790.500000 MH;
vn n 20 0		1					1		m	
40.0 40.0	and the second									
Center 790				#VI	BW 300 H	cHz			an 10 MHz leep 1 ms	CF Step
Occupi	ed Bandv		970 MI		Total P	ower	28.	5 dBm		Auto Mar
	it Freq Erro ndwidth	125.2	4.389 k 4.955 M	Hz	OBW P x dB	ower		9.00 % .00 dB		Freq Offset 0 Hz
00								e		

# Band14_5MHz_64QAM_25_0_Main_MidCH23330-793

Center Fre	enter Freq 793,000000 MHz Center Freq 793,00000 MHz Retire Freq 793,00000 MHz Retire Freq 793,0000 MHz Retire Freq 793,00										
10 dB/div	Ref Offset 13.6 dl Ref 30.00 dBm	ter Offset 13.5 dB Ref 30.00 dBm									
200 100		mm				1			Center Freq 793.000000 MHz		
-10 0 -20 0	1		-			1					
-30,0 -46 0 -90 0	- mouther		-			1	when the hora	outer the sec			
-60.0 Center 79	0.8445							- 40 841			
#Res BW			#VE	SW 300 K	Hz		Sw	eep 1 ms	CF Step 1.000000 MHz		
Occup	led Bandwidt 4.	h 5000 Mi	Hz	Total P	ower	28.	4 dBm		Auto Man Freq Offset		
	it Freq Error Indwidth	-827 4.955 N		OBW P x dB	ower		9.00 % 5.00 dB		0 Hz		
CHINA						- 1943	05				

# Band14_5MHz_64QAM_25_0_Main_HighCH23355-795.5

Representation of the second s	the Cockbeel B	w.		383.00		4/10% #UTG	111-14-21	AM Oct 25, 2019	C 2 8	
Center Fr	eq 795,500000	MHz MEGaintow	Trig: F	Center Freq: 795.500000 MHz Trig: Free Run AvgiHold: 50/50 #Atten: 30 dB			Radio St		Frequency	
10 dB/div		Ref Offset 13.6 dB Ref 30.00 dBm								
.og 200		James	-	· · · · · · · · · · · · · · · · · · ·		-			Center Freq 795.500000 MHz	
20 D	manund					$\backslash$				
30 0 000										
center 79	S & MUT						Pn	an 10 MHz		
Res BW			#	VBW 300 k	Hz	_		eep 1 ms	CF Step 1.000000 MHz	
Occup	led Bandwid	th		Total P	ower	28	5 dBm		Auto Man	
	4.	5135 M	Hz						Freq Offset	
Transm	nit Freq Error	-7.595	kHz	OBW P	ower	9	9.00 %		0 Hz	
x dB Ba	andwidth	4.982 1	MHz	x dB		-26	5.00 dB			
80						= Y = 1	05			

### Band14_10MHz_QPSK_50_0_Main_MidCH23330-793

Center Fre	d: None vice: BTS	Frequency								
10 dB/div	Ref Offset 13.6 dB Ref 30.00 dBm									
20.0						-	-		Center Fred 793.000000 MHz	
vn n 20 0			_					tin j	-	
30.0 40.0 60.0										
60.0 Center 793	3 MHz		_	_			Spa	an 20 MHz	CF Step	
Res BW 2			#VE	BW 620 P	Hz	_	Sw	eep 1 ms	2.000000 MHz Auto Mar	
Occupi	ed Bandwidth			Total P	ower	28.	4 dBm	1.00	Every main	
	8.5 It Freq Error ndwidth	9752 MH 6.774 ki 9.789 Mi	Hz	OBW P x dB	ower		9.00 % .00 dB		Freq Offse 0 H	

# Band14_10MHz_16QAM_50_0_Main_MidCH23330-793

Center Freq 793.000000 MHz					Center Fr	req: 793.000 e Run 0 dB			50	Radio Sto	None None vice: BTS	Frequency	
0 dB/div	Ref Offset 13.6 dB 0 dB/div Ref 30.00 dBm 0 d										-0		
20.0 10.0 0.00			-100	-lating and and		าะระจากการเรา		University				Center 793.00000	
0.0.	Unin mark	hand							h	(	rounny		
								-					
enter 793 Res BW 2					#VE	3W 620 k	Hz				eep 1 ms	CF Step 2.000000 MH	
Occupied Bandwidth 8.9681 MHz				47	Total Power 25.				6 dBm		Auto Mar		
Transmit Freq Error 4.939 kHz			Hz				99.00 %			Freq Offs			
x dB Bandwidth 9.651 f		9.051 M	HZ	iz xdB			-26.00 dB						
													_

#### Band14_10MHz_64QAM_50_0_Main_MidCH23330-793

enter Fre	eq 793.00000		Trig:	r Freq: 793.0000 Free Run n: 30 dB	AvgiHak	1: 50/50	Radio Std Radio Dev	(training)	Frequency	
10 dB/div	Ref Offset 13. Ref 30.00 d							= -0		
200 100		1		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		m			Center Freq 793.000000 MHz	
10.0	and a particular state of the second					1	atter with the second	Paul	-	
40.0 40.0	-Aut									
Center 79 Res BW				VBW 620 k	Hz			n 20 MHz ep 1 ms	CF Step 2.000000 MH	
Occup	led Bandwi	5 MHz	Total P	28	.0 dBm		Auto Man Freq Offset			
		387 Hz 9.751 MHz				9.00 % 5.00 dB		0 Hz		

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.



# Report No.: E2/2019/90045 Page 152 of 645

# Band25_1_4MHz_QPSK_6_0_Main_LowCH26047-1850.7

Averant Speet	Ar Sectored BW		212.01	ALION AUTO 1024	12:53 PM Oct 25, 2019	Frequency			
Center Fre	Center Freq 1850700000 GHz Radio Std: None Trig: Free Run AvgiHold: 50:50 Radio Device: BTS								
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm	-							
200 100 9.00						Center Fred 1.850700000 GH;			
1 T				Lanna					
-40 0 -80 0 -60 0									
Center 1.8 #Res BW			#VBW 91 kHz	S	Span 3 MHz weep 3.2 ms	CF Step 300.000 kH			
Occup	led Bandwidth	948 MHz	Total Power	29.8 dB	m	Auto Mar			
Transmit Freq Error -1.266		-1.266 kHz 1.239 MHz	OBW Power x dB	99.00 -26.00 d	Freq Offset 0 Hz				
Wilko				-Tatlos					

#### Band25_1_4MHz_QPSK_6_0_Main_MidCH26365-1882.5

R R	HI DO D. DC			area atri		ALLON-HUND		M Gel 25, 2019			
Center Fre	eq 1.882500000	GHZ	Trig: F	Freq: 1.8825 ree Run :: 30 dB		ld >50/50	Radio Sto	t: None vice: BTS	Frequ	Jency	
10 dB/div	Ref Offset 13.8 dB Ref 30.00 dBm							1)			
20.0		1~	h				-			nter Freq	
-18.0 -20.0 -30.0 200000	www.white	<u> </u>				ha	him	-			
-48 9 -80 () -60 0											
Center 1.8	85.0 Center 1.883 GHz Span 3 MHz Ress BW 30 KHZ まVBW 91 kHz Sweep 3.2 ms										
Occup	led Bandwidth	1		Total I	Power	29.	29.9 dBm			Man	
	1.0	948 M	Hz						Fre	offset	
		-1.752 1.240		OBW Power x dB		99.00 % -26.00 dB				0 Hz	
NRK)						-7836	15			_	

#### Band25_1_4MHz_QPSK_6_0_Main_HighCH26683-1914.3

RI	N			100.000		WTOP WILLI	02:03,54 PM		Frequency	
Center Fre	eq 1.9143000	00 GHz mFGaintin	Trig F	Freq: 1,91430 Free Run :: 30 dB	AvgiHolo	60/60	Radio Std: I		riequency	
10 dB/div	Ref Offset 13.8 dB 0 dB/div Ref 30.00 dBm 0 d									
200 100		r			my				Center Freq 1.914300000 GHz	
10 D	a watara	A				him				
30,0 48,0 80,0							and a state	alour l		
-60.0 Center 1.9								n 3 MHz	CF Step	
#Res BW			#	#VBW 91 kHz				3.2 ms	300.000 kHz Auto Man	
Occup	led Bandwi	MHz	Total P	ower	30,	2 dBm	- 1	Freq Offset		
		48 kHz 37 MHz				9.00 % .00 dB		0 Hz		
eiro)							5			

#### Band25_1_4MHz_16QAM_6_0_Main_LowCH26047-1850.7

10 dB/div	Ref Offset 13.8 Ref 30.00 dE								ce: BTS		
20.0 10.0								_	= 0		
0.00			~~~~	m							ter Frec
10.0		A			-		1				
30.0 - Aw Mar	marthan	And	-		-		- marty	mont			
80.0		_	-	-	-			-	_		
60.0 Center 1.851									an 3 MHz	-	CF Ster
Res BW 30	kHz			#VB	SW 91 kH	z		Sweep	) 3.2 ms		0.000 kH
Occupied Bandwidth 1.0968 MH				17	Total P	ower	29.4 dBm			Local de la composition de la	
Transmit Freg Error 5.140			The second second second second			99	.00 %		Fre	0 H	
x dB Bandwidth			1.237 M	Hz	iz x dB		-26.00 dB		1		

## Band25_1_4MHz_16QAM_6_0_Main_MidCH26365-1882.5

	1.882500000 0			AvgiHal	d: 50/50	Radio Std		Frequency	
10 dB/div									
Log 200 100 0.00 	arn-almorran	/~~~	~~~	~~~~~~~		L	and the second se	V	Center Freq 1 882500000 GHz
-60.0 Center 1.88 #Res BW 30			#VE	3W 91 kH	łz			an 3 MHz p 3.2 ms	CF Step 300.000 kHz
Occupied Bandwidth 1.0940 MHz			z	Total Power			8 dBm		Auto Man
Transmit Freq Error x dB Bandwidth		3.606 ki 1.241 Mi				99.00 % -26.00 dB			0 Hz
							_	-	-

#### Band25_1_4MHz_16QAM_6_0_Main_HighCH26683-1914.3

R	er Alexandre Occub er 1.914300	000 GH	Z sain:Low	Center F		0000 GHz AvgiHol	4105 AUTO d: 60/60	Radio Std: None Radio Device: BTS		Frequency	
Ref Offset 13.8 dB 10 dB/div Ref 30.00 dBm											
200				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						Cent 1.914300	er Freq 000 GHz
-10.0	mount	mad					poren	ma	mar		
-30.0 -48.0 -50.0			_								
Center 1.9 #Res BW 3				#VI	3W 91 kH	z			an 3 MHz p 3.2 ms		F Step
Occupi	Occupied Bandwidth 1.0985 MHz				Total Power 30			dBm		Auto M	
		4.265 k 1.245 M				99.00 % -26.00 dB				0 Hz	

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

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

台灣檢驗科技股份有限公司

S Taiwan Ltd.