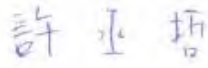




NCC

行動寬頻業務終端設備技術規範試驗報告

產品名稱 : 無線路由器
型號 : NT001
廠牌 : 南瑋
商標 : 
申請者 : 南瑋股份有限公司
申請者地址 : 臺北市北投區榮光里石牌路 1 段 188 號 8 樓
測試標準 : PLMN10 (107 年版)
測試結果 : 符合
接收日期 : 2020/9/7
測試日期 : 2020/9/13~2020/10/20

測試工程師 : 
(許丞哲)
報告審核人 : 
(陳柏均)
報告簽屬人 : 
(柯承志)



本測試報告僅對實驗室所受測之樣品負責

本測試報告非經本公司同意不可局部複製使用

修訂紀錄

Report No.	Version	Description	Issue Date
2009TW0103-T4	1.0	Original Report	2020-10-26

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1. 一般資訊

申請者	南瑋股份有限公司
申請者地址	臺北市北投區榮光里石牌路 1 段 188 號 8 樓
製造商	深圳星恒訊科技有限公司
製造商地址	深圳市寶安區石岩鎮塘頭第三工業區南崗工業園 18A 棟 5 樓
實驗室	台灣曼瑞檢測科技有限公司
實驗室地址	33377 台灣桃園市龜山區復興二路 38 號
實驗室資訊	1. MRT facility is a FCC registered (Reg. No. 291082) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm. 2. MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada. 3. MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC (Designation Number: TW3261), Industry Taiwan, EU and TELEC Rules.
實驗室測試環境條件	溫度 (°C) : 20-35 / 濕度 (%RH) : 30-65

2. 產品描述

2.1 產品資訊

產品名稱	無線路由器
產品型號	NT001
廠牌	南瑋
商標	
支援規格	WLAN: 2.4G: 802.11b/g/n-20/n-40; 5G: 802.11a/n-20/ac-20/n-40/ac-40/ac-80: Band4 WWAN: 3G: Band1,8 4G: FDD Band 1,3,7,8,28; TDD Band 38,41
IMEI 碼	865190044359407
天線樣式	Dipole Antenna
天線規格	MFR: SHENZHEN TUKO TECHNOLOGY CO.,LTD M/N: AW-1004 Gain: Band1: 5.0dBi, Band3: 5.0dBi, Band7: 5.0dBi, Band8: 2.5dBi, Band28: 2.5dBi, Band38: 5.0dBi, Band41: 5.0dBi
TX Frequency	Band1: 1920~1980MHz; Band3: 1710~1785MHz; Band7: 2500~2570MHz; Band8: 885~915MHz, Band28: 703MHz~748MHz Band38: 2570~2620MHz; Band41: 2555~2675MHz
Rx Frequency	Band1: 2110~2170MHz; Band3: 1805~1880MHz; Band7: 2620~2690MHz; Band8: 930~960MHz, Band28: 758MHz~803MHz Band38: 2570~2620MHz; Band41: 2555~2675MHz
是否有照相功能	☐ 有 (聲響 : ☐ 有; ☐ 無) ☒ 無
配件	
電源供應器	MFR: 深圳市納林科技有限公司 Model No: NLB100120W1T4S95 Input: AC 100-240V~50-60Hz , 0.4A Max Output: DC 12V, 1A DC Cable Out: Non-Shielded, 1.5m
網路線	MFR: 南瑋股份有限公司 M/N: N1 Length: 1.6m

2.2 產品規格

Band1 Channel	5M/1922.5MHz(CH 18025);1950MHz(CH 18300);1977.5MHz(CH 18575) 10M/1925MHz(CH 18050); 1950MHz(CH 18300);1975MHz(CH 18550) 15M/1927.5MHz(CH 18075); 1950MHz(CH 18300);1972.5MHz(CH 18525) 20M/1930MHz(CH 18300); 1950MHz(CH 18300);1970MHz(CH 18500)
Band3 Channel	1.4M/1710.7MHz(CH 19207);1747.5MHz(CH 19575);1784.3MHz(CH 19943) 3M/1711.5MHz(CH 19215);1747.5MHz(CH 19575);1783.5MHz(CH 19935) 5M/1712.5MHz(CH 19225);1747.5MHz(CH 19575);1782.5MHz(CH 19925) 10M/1715MHz(CH 19250);1747.5MHz(CH 19575);1780MHz(CH 19900) 15M/1717.5MHz(CH 19275);1747.5MHz(CH 19575);1777.5MHz(CH 19875) 20M/1720MHz(CH 19300);1747.5MHz(CH 19575);1775MHz(CH 19850)
Band7 Channel	5M/2502.5MHz(CH 20775);2535MHz(CH 21100);2567.5MHz(CH 21425) 10M/2505MHz(CH 20800); 2535MHz(CH 21100);2565MHz(CH 21400) 15M/2507.5MHz(CH 20825); 2535MHz(CH 21100);2562.5MHz(CH 21375) 20M/2510MHz(CH 20850); 2535MHz(CH 21100);2560MHz(CH 21350)
Band8 Channel	1.4M/885.7MHz(CH 21507);900MHz(CH 21650);914.3MHz(CH 21793) 3M/886.5MHz(CH21515); 900MHz(CH 21650);913.5MHz(CH 21785) 5M/887.5MHz(CH 21525); 900MHz(CH 21650);912.5MHz(CH 21775) 10M/890MHz(CH 21550); 900MHz(CH 21650);910MHz(CH 21750)
Band28 Channel	3M/704.5MHz(CH 27225), 725.5MHz(CH 27435), 746.5MHz(CH 27645) 5M/705.5MHz(CH 27235), 725.5MHz(CH 27435), 745.5MHz(CH 27635) 10M/708MHz(CH 27260), 725.5MHz(CH 27435), 743MHz(CH 27610) 15M/710.5MHz(CH 27285), 725.5MHz(CH 27435), 740.5MHz(CH 27585) 20M/713MHz(CH 27310), 725.5MHz(CH 27435), 738MHz(CH 27560)
Band38 Channel	5M/2572.5MHz(CH 37775);2595MHz(CH 38000);2617.5MHz(CH 38225) 10M/2575MHz(CH 37800); 2595MHz(CH 38000);2515MHz(CH 38200) 15M/2577.5MHz(CH 37825); 2595MHz(CH 38000);2612.5MHz(CH 38175) 20M/2580MHz(CH 37850); 2595MHz(CH 38000);2610MHz(CH 38150)
Band41 Channel	5M/2557.5MHz(CH 40265);2615MHz(CH 40840);2672.5MHz(CH 41415) 10M/2560MHz(CH 40290); 2615MHz(CH 40840); 2670MHz(CH 41390) 15M/2562.5MHz(CH 40315); 2615MHz(CH 40840); 2667.5MHz(CH 41365) 20M/2565MHz(CH 40340); 2615MHz(CH 40840); 2665MHz(CH 41340)

3. 測試設備明細

輻射干擾 – AC1

儀器名稱	製造商	型號	財產編號	校正週期	有效日期
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00001	1 year	2021/10/5
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2021/3/25
Active Loop Antenna	Schwarzbeck	FMZB 1519B	MRTTWA00002	1 year	2021/4/27
Broadband Horn antenna	SCHWARZBECK	BBHA 9120D	MRTTWA00003	1 year	2021/4/24
Breitband Hornantenna	Schwarzbeck	BBHA 9170	MRTTWA00004	1 year	2021/4/24
Broadband Amplifier	Schwarzbeck	BBV 9721	MRTTWA00006	1 year	2021/4/24
Broadband Preamplifier	SCHWARZBECK	BBV 9718	MRTTWA00005	1 year	2021/4/24
Cable	HUBERSUHNER	SF106	MRTTWE00010	1 year	2021/6/16

傳導測試 – AC1

儀器名稱	製造商	型號	財產編號	校正週期	有效日期
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2021/10/1
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2021/7/14
Wideband Radio Communication Taster	R&S	CMW 500	MRTTWA00041	1 year	2021/1/7
Temperature & Humidity Chamber	TEN BILLION	TTH-B3UP	MRTTWA00036	1 year	2021/6/9

EMI 測試軟體

軟體名稱	製造商	版本
e3	Audix	9.160520a
EMI	Quietek	V3

4. 量測不確定度

輻射干擾量測 (Radiated Spurious Emission)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 9kHz~30MHz: $\pm 3.92\text{dB}$ 30MHz~1GHz: $\pm 4.25\text{dB}$ 1GHz~18GHz: $\pm 4.40\text{dB}$ 18GHz~40GHz: $\pm 4.45\text{dB}$
頻率誤差量測 (Frequency Error)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 78.4\text{Hz}$
傳導功率量測 (Conducted Power)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 0.84\text{dB}$
傳導干擾量測 (Conducted Spurious Emission)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 2.65\text{ dB}$
佔用頻寬量測 (Occupied Bandwidth)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 3.3%
溫度 / 濕度 (Temp. / Humidity)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 0.82^\circ\text{C}/ \pm 3\%$
直流電源 (DC Voltage)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 0.3\%$

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

5. 測試結果

產品名稱 無線路由器
型號 NT001

法規章節	量測項目	限制值	測試結果	測試數據
5.1	功率限制	有效輻射功率(Effective Radiated Power, ERP) 手持式行動臺設備限制為1瓦特(W)。 移動式行動臺設備限制為 2 W。 傳導輸出功率限制值 採 FDD者：23dBm +2.7/-3.2 dB。 採TDD者：23dBm + 2.7/-2.7 dB。	符合	第 5.1 章節
5.2	發射頻譜波罩	需符合行動寬頻行動臺技術規範附表二	符合	第 5.2 章節
5.3	傳導帶外輻射發射	需符合行動寬頻行動臺技術規範附表四	符合	第 5.3 章節
5.4	相鄰頻道洩漏功率比 (ACLR)	$\leq 29.2\text{dB}$	符合	第 5.4 章節
5.5	頻率容許差度	$\pm 0.1\text{PPM}$ 以內	符合	第 5.5 章節
5.6	電波功率密度	僅適用於移動式行動臺設備 700 MHz 頻段為 0.35 毫瓦特/平方公分(mW/cm^2)； 900 MHz 頻段為 0.45 mW/cm^2 ； 1800 MHz 頻段為 0.9 mW/cm^2 ； 2500 MHz 與 2600 MHz 頻段為 1.0 mW/cm^2 。	N/A	第 5.6 章節
5.14	災防告警細胞廣播訊息 接收功能	適用行動臺設備具接取行動寬頻業務經營者提供之 語音服務功能者。 需符合行動寬頻行動臺技術規範附表四	N/A	第 5.7 章節

備註：符合性的判定是基於測試結果符合規範的限制值或客戶的宣告要求，測試結果的判定是不考慮測量不確定度的值。

5.1 功率限制

5.1.1 合格標準

(1) 等效幅射功率(Effective Radiated Power, ERP)

- 手持式行動臺設備限制為 1W。
- 移動式行動臺設備限制為 2W。

(2) 傳導輸出功率限制為

- FDD 為: 23dBm +2.7/-3.2 dB。
- TDD 為: 23dBm +2.7/-2.7 dB。

5.1.2 測試方法

檢測頻道為低、中、高三個頻道，對最低、5MHz 及最高的工作頻寬之 QPSK 調變級數發射模式，均應分別檢測之。(請參照 3GPP 36.521-1 規定測試)。

(1) 等效幅射功率：

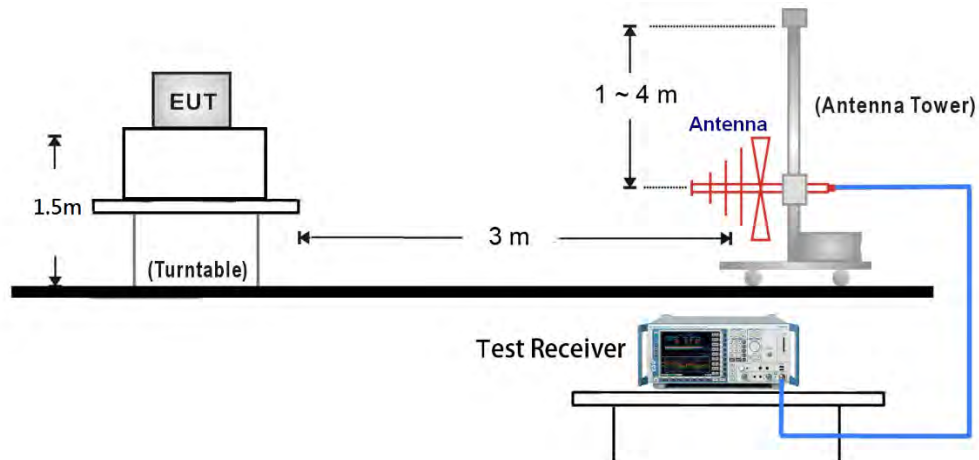
- a. 量測發射功率時，必須使用均方根值等效電壓之儀器量測於任何連續傳輸時段，量測結果須依儀器之反應時間、解析頻寬能力及靈敏度等調整得出正確之發射功率。對每一測量頻率調整儀器足夠之頻率掃描範圍以檢測所欲測量之發射。
- b. 在 1 到 4 米高度內上升下降水平極化之接收天線，將接收天線置於儀器顯示最高讀值時的高度，然後以 360 度轉動測試桌上的受測物，紀錄顯示在儀器上的最高值，以為參考位準。
- c. 以發射天線(不大於 1GHz 為線諧調之偶極天線，1GHz 以上為號角型天線)取代受測物，並與接收天線之同為水平極化。將偶極天線連接至標準之信號產生器，信號產生器設定至前述步驟所得之頻率以及適當之輸出位準。上升、下降接收天線使測試儀器量得最高值，並置於該高度。調整信號產生器之輸出位準以使測試儀器顯示與步驟 2 所得之值相同。紀錄此值以計算結果值。
- d. 若受測物相對於偶極天線(或全向性天線)之天線增益為已知，則 ERP(或 EIRP)可由天線端子之傳導輸出功率與天線增益之積求得。

(2) 傳導輸出功率：

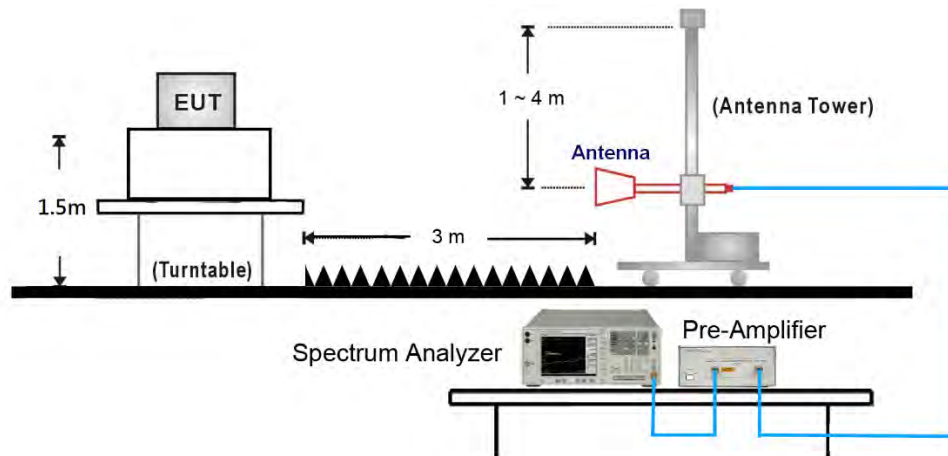
發射機輸出功率的測量藉由模擬基地台調諧頻率至測量頻率並量測其峰值。

5.1.3 實驗方法方塊圖

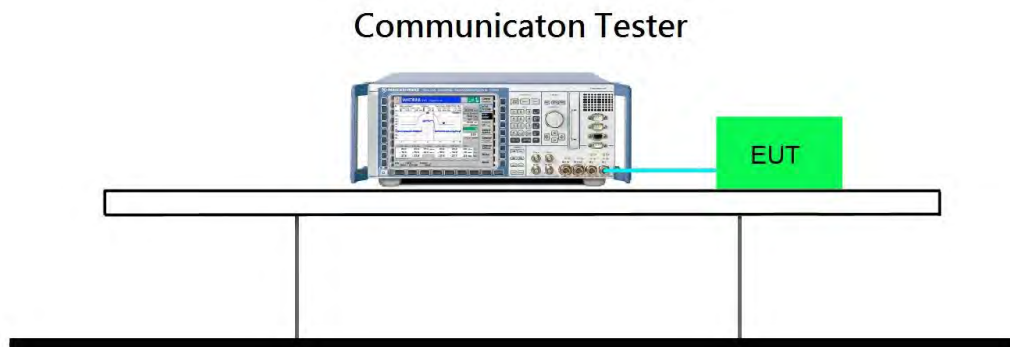
(1) 等效輻射功率 (1G 以下):



(2) 等效輻射功率 (1G 以上):



(3) 傳導輸出功率 :



5.1.4 實驗數據

Band 1 (2100MHz) FDD									
Bandwidth	Channel	Modulation	RB No.	RB Offset	Max Power (Conducted)	Limit (dBm)	Antenna Gain (dBi)	Max Power (ERP) (dBm)	ERP Limit (dBm)
5MHz	18025	QPSK	1	#0	23.50	19.8~25.7	5.0	26.35	30
			8	#0	23.50	19.8~25.7	5.0	26.35	30
	18300	QPSK	1	#0	23.72	19.8~25.7	5.0	26.57	30
			8	#0	23.72	19.8~25.7	5.0	26.57	30
	18575	QPSK	1	#24	23.84	19.8~25.7	5.0	26.69	30
			8	#17	23.84	19.8~25.7	5.0	26.69	30
20MHz	18100	QPSK	1	#0	20.94	19.8~25.7	5.0	23.79	30
			18	#0	20.94	19.8~25.7	5.0	23.79	30
	18300	QPSK	1	#0	21.47	19.8~25.7	5.0	24.32	30
			18	#0	21.42	19.8~25.7	5.0	24.27	30
	18500	QPSK	1	#99	21.39	19.8~25.7	5.0	24.24	30
			18	#82	21.39	19.8~25.7	5.0	24.24	30

Note: ERP= Conducted Power + Antenna Gain(dBi)-2.15

5MHz CH18025 1RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement										
Multi Evaluation PRACH SRS										
FDD	1922.5 MHz	Ref Level: 41.00 dBm	BW: 5.0 MHz	CP: Normal	Meas Subfr/Slot	0 / All				
TX Measurement										
	Current	Average			Extreme		StdDev			
EVM RMS [%] /h	2.18	2.16	2.14	2.17	3.13	3.16	0.18	0.17		
EVM Peak [%] /h	5.22	5.40	5.18	5.27	11.56	12.44	1.14	1.10		
EVM DMRS [%] /h	2.08	2.03	2.20	2.27	3.45	3.58	0.23	0.26		
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
IQ Offset [dBc]	-37.34	-37.36			-35.61		0.19			
IQ Gain Imbalance [dB]	NCAP	NCAP			NCAP		NCAP			
IQ Quadrature Error [°]	NCAP	NCAP			NCAP		NCAP			
Freq Error [Hz]	-42.77	-45.26			64.36		3.88			
Timing Error [Ts]	6.43	5.87			8.45		0.52			
OBW [MHz]	0.42	0.32			4.44		0.07			
	Current	Average			Min	Max	StdDev			
TX Power [dBm]	21.96	21.87			8.24	23.50	0.06			
Peak Power [dBm]	27.11	26.78			13.08	28.65	0.25			
RB Power [dBm]	21.86	21.86			6.99	23.58	0.02			
Statistic Count		Out of Tolerance		Detected Modulation		Detected Channel Type		View Filter Throughput		
20 / 20		0.00 %		OPSK		PUSCH		100.0 %		
PS: Connection Established RRC State: Connected										

5MHz CH18025 8RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement

Multi EvaluationPRACHSRS

FDDFreq: 1922.5 MHzRef Level: 41.00 dBmBW: 5.0 MHzCP: NormalMeas Subfr/Slot0 / All

TX Measurement

	Current	Average	Extreme	StdDev				
EVM RMS [%] /h	2.38	2.33	2.36	2.38	3.13	3.18	0.13	0.12
EVM Peak [%] /h	8.03	7.91	7.75	7.69	11.56	12.44	1.07	1.03
EVM DMRS [%] /h	2.49	2.35	2.43	2.42	3.45	3.58	0.14	0.14
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
IQ Offset [dBc]	-37.55	-37.32	-35.61			0.25		
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP			NCAP		
IQ Quadrature Error [°]	NCAP	NCAP	NCAP			NCAP		
Freq Error [Hz]	-41.34	-46.21	64.36			3.28		
Timing Error [Ts]	5.86	5.45	8.59			0.62		
OBW [MHz]	1.41	1.37	4.44			0.20		
	Current	Average	Min	Max			StdDev	
TX Power [dBm]	21.71	21.72	8.24	23.50			0.04	
Peak Power [dBm]	27.21	27.48	13.08	28.65			0.30	
RB Power [dBm]	12.70	13.69	6.99	23.58			1.70	

Statistic Count20 / 20

Out of Tolerance0.00 %

Detected ModulationOPSK

Detected Channel TypePUSCH

View Filter

Throughput100.0 %

PS: Connection Established
RRC State: Connected

5MHz CH18300 1RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement										
Multi Evaluation PRACH SRS										
FDD	Freq: 1950.0 MHz		Ref Level: 41.00 dBm		BW: 5.0 MHz		CP: Normal		Meas Subfr/Slot: 0 / All	
TX Measurement										
	Current		Average		Extreme				Source	
EVM RMS [%] /h	1.89	1.92	2.04	2.03	2.67	2.69	0.22	0.23		
EVM Peak [%] /h	5.37	5.35	5.60	5.63	13.06	13.10	1.57	1.59		
EVM DMRS [%] /h	2.11	2.27	1.99	2.05	3.90	3.90	0.23	0.25		
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
IQ Offset [dBc]	-38.03		-37.81		-35.14				0.31	
IQ Gain Imbalance [dB]	NCAP		NCAP		NCAP		NCAP			
IQ Quadrature Error [°]	NCAP		NCAP		NCAP		NCAP			
Freq Error [Hz]	27.49		25.02		-58.69				3.68	
Timing Error [Ts]	11.11		11.66		-17.67				0.41	
OBW [MHz]	0.26		0.41		1.44				0.38	
	Current		Average		Min		Max		StdDev	
TX Power [dBm]	22.58		22.45		17.46		23.72		0.26	
Peak Power [dBm]	27.43		27.32		22.73		29.28		0.39	
RB Power [dBm]	22.56		22.03		8.43		22.58		3.07	
Statistic Count Out of Tolerance Detected Modulation Detected Channel Type View Filter Throughput										
20 / 20		0.00 %		QPSK		PUSCH		100.0 %		
PS: Connection Established RRC State: Connected										

5MHz CH18300 8RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement

Multi EvaluationPRACHSRS

FDDFreq: 1950.0 MHzRef Level: 41.00 dBmBW: 5.0 MHzCP: NormalMeas Subfr/Slot0 / All

TX Measurement

	Current	Average	Extreme	Min	Max	StdDev
EVM RMS [%] /h	2.20	2.19	2.21	2.21	2.61	2.60
EVM Peak [%] /h	7.87	7.90	7.82	7.96	13.06	13.10
EVM DMRS [%] /h	1.88	2.01	2.16	2.20	3.90	3.90
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
IQ Offset [dBc]	-38.01	-37.68	-35.14			0.27
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP			NCAP
IQ Quadrature Error [°]	NCAP	NCAP	NCAP			NCAP
Freq Error [Hz]	22.36	22.67	-58.69			3.46
Timing Error [Ts]	12.07	11.91	-17.67			0.95
OBW [MHz]	1.41	1.41	1.44			0.01
	Current	Average	Min	Max		StdDev
TX Power [dBm]	22.20	22.20	17.46	23.72		0.01
Peak Power [dBm]	28.73	28.07	22.73	29.28		0.30
RB Power [dBm]	13.16	13.17	8.43	14.69		0.01

Statistic Count20 / 20

Out of Tolerance0.00 %

Detected ModulationOPSK

Detected Channel TypePUSCH

View FilterThroughput100.0 %

PS:Connection EstablishedRRC State:Connected

5MHz CH18575 1RB#24

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement										
Multi Evaluation PRACH SRS										
FDD	Freq: 1977.5 MHz	Ref Level: 41.00 dBm	BW: 5.0 MHz	CP: Normal	Meas Subfr/Slot	0 / All				
TX Measurement										
	Current	Average	Extreme	Min	Max	StdDev				
EVM RMS [%] /h	1.63	1.58	1.83	1.86	3.13	3.16	0.28	0.26		
EVM Peak [%] /h	3.46	3.40	4.77	4.85	14.26	14.16	1.48	1.35		
EVM DMRS [%] /h	1.69	1.77	1.83	1.86	2.74	2.75	0.25	0.25		
MERR RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MERR Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MERR DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
IQ Offset [dBc]		-37.96		-38.10		-36.79		0.16		
IQ Gain Imbalance [dB]		NCAP		NCAP		NCAP		NCAP		
IQ Quadrature Error [°]		NCAP		NCAP		NCAP		NCAP		
Freq Error [Hz]		40.56		42.74		53.84		3.73		
Timing Error [Ts]		9.62		10.27		-14.99		0.53		
OBW [MHz]		0.35		0.27		0.45		0.08		
	Current	Average	Min	Max	StdDev					
TX Power [dBm]	21.63	21.57	8.18	23.84	0.05					
Peak Power [dBm]	25.66	26.14	12.69	29.76	0.34					
RB Power [dBm]	21.58	21.56	8.20	23.81	0.02					
Statistic Count Out of Tolerance Detected Modulation Detected Channel Type View Filter Throughput										
20 / 20		0.00 %		OPSK		PUSCH		100.0 %		
PS: Connection Established RRC State: Connected										

Band 3 (1800MHz) FDD									
Bandwidth	Channel	Modulation	RB No.	RB Offset	Max Power (Conducted)	Limit (dBm)	Antenna Gain (dBi)	Max Power (ERP) (dBm)	ERP Limit (dBm)
1.4MHz	19207	QPSK	1	#0	24.65	19.8~25.7	5.0	27.50	30
	19575	QPSK	1	#0	24.73	19.8~25.7	5.0	27.58	30
			5	#0	24.73	19.8~25.7	5.0	27.58	30
	19943	QPSK	1	#0	22.44	19.8~25.7	5.0	25.29	30
5MHz	19225	QPSK	1	#0	23.64	19.8~25.7	5.0	26.49	30
			1	#24	24.08	19.8~25.7	5.0	26.93	30
	19575	QPSK	1	#0	22.56	19.8~25.7	5.0	25.41	30
			1	#24	22.59	19.8~25.7	5.0	25.44	30
			8	#0	22.59	19.8~25.7	5.0	25.44	30
	19925	QPSK	1	#0	25.78	19.8~25.7	5.0	28.63	30
			1	#24	25.78	19.8~25.7	5.0	28.63	30
	20MHz	19300	QPSK	1	#0	23.31	19.8~25.7	5.0	26.16
1				#99	23.31	19.8~25.7	5.0	26.16	30
19575		QPSK	1	#0	22.03	19.8~25.7	5.0	24.88	30
			1	#99	22.04	19.8~25.7	5.0	24.89	30
			18	#0	21.86	19.8~25.7	5.0	24.71	30
19850		QPSK	1	#0	21.70	19.8~25.7	5.0	24.55	30
			1	#99	21.70	19.8~25.7	5.0	24.55	30

Note: ERP= Conducted Power + Antenna Gain(dBi)-2.15

1.4MHz CH19207 1RB#0

CMW 500 V 3.7.120 - LTE Measurement - V3.7.70 - TX Measurement									
Multi Evaluation PRACH SRS									
FDD	Freq: 1710.7 MHz	Ref Level: 41.00 dBm	BW: 1.4 MHz	CP: Normal	Meas Subtr/Slot	0	/ All		
TX Measurement									
Detected Allocation	NoRB:	1OffsetRB:		0					
		Current	Average	Extreme				StdDev	
EVM RMS [%] /h		2.84	2.84	3.58	3.59	5.38	5.38	0.50	0.50
EVM Peak [%] /h		8.98	8.96	14.23	14.24	23.65	23.71	3.47	3.50
EVM DMRS [%] /h		2.09	2.17	2.27	2.31	3.27	3.32	0.40	0.39
MErr RMS [%] /h		2.25	2.25	2.90	2.90	4.50	4.50	0.37	0.37
MErr Peak [%] /h		-6.99	-6.99	12.09	12.07	-22.02	-21.98	2.80	2.77
MErr DMRS [%] /h		1.23	1.16	1.76	1.76	2.87	2.88	0.43	0.44
PhErr RMS [%] /h		1.01	1.01	1.24	1.24	1.95	1.96	0.25	0.26
PhErr Peak [%] /h		3.54	3.53	5.12	5.13	10.00	10.03	1.50	1.50
PhErr DMRS [%] /h		0.97	1.04	0.82	0.85	1.43	1.47	0.14	0.16
IQ Offset [dBc]		-41.56	-41.56	-41.58	-41.58	-39.15	-39.15	0.33	
IQ Gain Imbalance [dB]		-----	-----	-----	-----	-----	-----	-----	
IQ Quadrature Error [°]		-----	-----	-----	-----	-----	-----	-----	
Freq Error [Hz]		34.68	36.05	45.89	45.89	45.89	45.89	4.68	
Timing Error [Ts]		-4.86	-4.94	13.56	13.56	13.56	13.56	0.42	
OBW [MHz]		0.19	0.22	0.35	0.35	0.35	0.35	0.03	
		Current	Average	Min	Max	StdDev			
TX Power [dBm]		24.23	24.29	24.10	24.65	0.08			
Peak Power [dBm]		27.74	27.95	27.58	28.42	0.11			
Statistic Count Out of Tolerance Detected Modulation Detected Channel Type View Filter Throughput									
20 / 20 0.00 % QPSK PUSCH 100.0 %									
PS: Connection Established RRC State: Connected									

1.4MHz CH19575 1RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement									
Multi Evaluation PRACH SRS									
FDD	Freq: 1747.5 MHz	Ref Level: 41.00 dBm	BW: 1.4 MHz	CP: Normal	Meas Subtr/Slot	0 / All			
TX Measurement									
	Current		Average		Extreme		StdDev		
EVM RMS [%] /h	1.27	1.29	1.56	1.57	3.73	3.75	0.21	0.21	
EVM Peak [%] /h	3.81	3.88	4.99	4.97	14.64	15.06	1.58	1.59	
EVM DMRS [%] /h	1.33	1.31	1.56	1.58	2.41	2.44	0.18	0.20	
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
IQ Offset [dBc]	-38.91		-38.71		-35.77				0.21
IQ Gain Imbalance [dB]	NCAP		NCAP		NCAP				NCAP
IQ Quadrature Error [°]	NCAP		NCAP		NCAP				NCAP
Freq Error [Hz]	-8.51		-8.77		-18.65				2.53
Timing Error [Ts]	26.18		25.88		41.71				0.22
OBW [MHz]	0.24		0.29		0.45				0.05
	Current		Average		Min	Max		StdDev	
TX Power [dBm]	22.66		22.56		14.39	24.73		0.08	
Peak Power [dBm]	26.48		26.88		18.94	31.00		0.25	
RB Power [dBm]	22.55		22.53		14.37	24.72		0.03	
Statistic Count Out of Tolerance Detected Modulation Detected Channel Type View Filter Throughput									
20 / 20 0.00 % QPSK PUSCH 100.0 %									
PS: Connection Established RRC State: Connected									

1.4MHz CH19575 5RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement									
Multi Evaluation PRACH SRS									
FDD	Freq: 1747.5 MHz	Ref Level: 41.00 dBm	BW: 1.4 MHz	CP Normal	Meas Subtr/Slot	0	/ All		
TX Measurement									
	Current	Average	Extreme	StdDev					
EVM RMS [%] /h	2.22	2.20	2.16	2.16	3.73	3.75	0.17	0.17	
EVM Peak [%] /h	9.82	9.73	8.96	8.80	16.00	16.02	2.39	2.44	
EVM DMRS [%] /h	1.79	1.77	1.88	1.87	2.47	2.49	0.20	0.20	
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
IQ Offset [dBc]	-38.08	-38.91	-35.77	0.72					
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
IQ Quadrature Error [°]	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
Freq Error [Hz]	-14.13	-18.18	-28.71	2.69					
Timing Error [Ts]	28.88	28.77	41.71	0.24					
OBW [MHz]	0.90	0.87	0.90	0.09					
	Current	Average	Min	Max	StdDev				
TX Power [dBm]	22.39	22.39	14.39	24.73	0.04				
Peak Power [dBm]	28.02	27.94	18.94	31.00	0.26				
RB Power [dBm]	15.40	15.82	14.37	24.72	1.09				
Statistic Count Out of Tolerance Detected Modulation Detected Channel Type View Filter Throughput									
20 / 20 0.00 % QPSK PUSCH 100.0 %									
PS: Connection Established RRC State: Connected									

1.4MHz CH19943 1RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement

Multi Evaluation

PRACH

SRS

FDD

Freq: 1784.3 MHz

Ref Level: 39.80 dBm

BW: 1.4 MHz

CP: Normal

Meas Subtr/Slot

0 / All

TX Measurement

	Current	Average	Extreme	StdDev
EVM RMS [%] /h	2.01	2.00	1.69	1.70
EVM Peak [%] /h	5.54	5.56	5.87	5.91
EVM DMRS [%] /h	1.70	1.72	1.61	1.63
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP
IQ Offset [dBc]	-39.01	-38.94	-37.50	0.28
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP	NCAP
IQ Quadrature Error [°]	NCAP	NCAP	NCAP	NCAP
Freq Error [Hz]	-32.04	-30.87	-40.01	2.88
Timing Error [Ts]	22.19	21.96	33.35	0.33
OBW [MHz]	0.21	0.25	0.90	0.06
	Current	Average	Min	Max
TX Power [dBm]	21.34	21.39	20.95	22.44
Peak Power [dBm]	25.99	25.92	25.57	28.16
RB Power [dBm]	21.30	21.31	13.99	21.35

Statistic Count

Out of Tolerance

Detected Modulation

Detected Channel Type

View Filter

Throughput

20 / 20

0.00 %

QPSK

PUSCH

100.0 %

PS:

Connection Established

RRC State

Connected

5MHz CH19225 1RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement									
Multi Evaluation PRACH SRS									
FDD	Freq: 1712.5 MHz	Ref Level: 41.00 dBm	BW: 5.0 MHz		CP: Normal	Meas Subtr/Slot	0 / All		
TX Measurement									
	Current	Average		Extreme		StdDev			
EVM RMS [%] /h	4.67	4.68	3.84	3.83	4.96	4.92	0.79	0.81	
EVM Peak [%] /h	14.09	13.87	13.24	13.28	23.11	23.06	4.78	4.88	
EVM DMRS [%] /h	3.40	3.52	2.65	2.69	3.77	3.94	0.68	0.73	
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
IQ Offset [dBc]	-41.33	-41.36		-39.71		0.31			
IQ Gain Imbalance [dB]	NCAP	NCAP		NCAP		NCAP			
IQ Quadrature Error [°]	NCAP	NCAP		NCAP		NCAP			
Freq Error [Hz]	37.01	31.44		45.46		4.38			
Timing Error [Ts]	11.48	11.80		13.39		0.52			
OBW [MHz]	0.24	0.30		1.42		0.05			
	Current	Average		Min	Max	StdDev			
TX Power [dBm]	23.45	23.51		23.10	23.64	0.08			
Peak Power [dBm]	27.12	27.14		26.68	28.12	0.22			
RB Power [dBm]	23.44	23.47		14.08	23.56	0.06			
Statistic Count Out of Tolerance Detected Modulation Detected Channel Type View Filter Throughput									
20 / 20		0.00 %		QPSK		PUSCH		100.0 %	
PS: Connection Established PRC State: Connected									

20MHz CH19575 1RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.129 - TX Measurement

Multi Evaluation **PRACH** **SRS**

FDD Freq: 1747.5 MHz Ref Level: -11.00 dBm BW: 20.0 MHz CP: Normal Meas Subt/Slot: 0 / All

TX Measurement

	Current			Average		LastTime		Status	
EVM RMS [%] /h	1.47	1.49	1.39	1.38	1.73	1.68	0.13	0.13	
EVM Peak [%] /h	3.50	3.22	3.28	3.28	5.63	5.63	0.59	0.63	
EVM DMRS [%] /h	1.27	1.27	1.40	1.37	1.81	1.76	0.17	0.16	
Merr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
Merr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
Merr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
IQ Offset [dBc]		-39.40		-39.57		-38.73		0.47	
IQ Gain Imbalance [dB]		NCAP		NCAP		NCAP		NCAP	
IQ Quadrature Error [°]		NCAP		NCAP		NCAP		NCAP	
Freq Error [Hz]		30.01		32.42		41.86		3.59	
Timing Error [Ts]		-7.17		-21.78		-70.90		14.38	
OBW [MHz]		0.28		0.32		0.45		0.07	
		Current		Average		Min		Max	
TX Power [dBm]		21.63		21.77		21.49		22.03	
Peak Power [dBm]		26.59		26.84		26.45		27.41	
RB Power [dBm]		21.60		21.77		21.59		21.99	

Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter: Throughput: 100.0 %

PS: Connection Established RRC State: Connected

20MHz CH19575 18RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement

Multi Evaluation PRACH SRS

FDD Freq: 1747.5 MHz Ref Level: 41.00 dBm BW: 20.0 MHz CP: Normal Meas Subfr/Slot 2 / All

TX Measurement	Current			Average		Max		Min		StdDev
EVM RMS [%] /h	1.49	1.53	1.51	1.51	1.63	1.63	0.04	0.05		
EVM Peak [%] /h	4.98	5.05	5.50	5.30	7.37	7.34	0.75	0.57		
EVM DMRS [%] /h	1.21	1.24	1.38	1.37	1.67	1.66	0.11	0.10		
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
IQ Offset [dBc]		-37.56		-37.52		-36.67		0.34		
IQ Gain Imbalance [dB]		NCAP		NCAP		NCAP		NCAP		
IQ Quadrature Error [°]		NCAP		NCAP		NCAP		NCAP		
Freq Error [Hz]		35.79		35.02		43.69		4.48		
Timing Error [Ts]		2.38		1.09		-36.93		1.60		
OBW [MHz]		3.19		3.18		3.19		0.01		
		Current		Average		Min		Max		StdDev
TX Power [dBm]		21.46		21.46		21.44		21.86		0.04
Peak Power [dBm]		27.70		27.79		27.28		28.11		0.21
RB Power [dBm]		8.91		8.91		8.89		9.31		0.04

Statistic Count 20 / 20 Out of Tolerance 0.00 % Detected Modulation QPSK Detected Channel Type PUSCH View Filter Throughput (10.0 %)

PS: Connection Established RSR Status: Connected

20MHz CH19850 1RB#99

LTE Measurement - X3.530.23 - Base V 3.5.120 - TX Measurement

Multi Evaluation PRACH SRS

FDD Freq: 1775.0 MHz Ref Level: 41.00 dBm BW: 20.00 MHz CP: Normal Meas Subfr/Slot: 0 / All

TX Measurement

	Current	Average	Min	Max	StdDev
EVM RMS [%] /h	1.39	1.54	1.36	1.93	1.95
EVM Peak [%] /h	3.81	5.60	3.81	7.96	8.56
EVM DMRS [%] /h	1.49	1.43	1.32	1.89	2.04
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP
IQ Offset [dBc]	-38.30	-38.37		-37.44	0.79
IQ Gain Imbalance [dB]	NCAP	NCAP		NCAP	NCAP
IQ Quadrature Error [°]	NCAP	NCAP		NCAP	NCAP
Freq Error [Hz]	20.20	21.57		37.31	3.86
Timing Error [Ts]	4.70	3.21		-67.56	0.54
OBW [MHz]	0.43	0.34		0.43	0.07
	Current	Average	Min	Max	StdDev
TX Power [dBm]	20.66	20.85	20.45	21.70	0.41
Peak Power [dBm]	25.85	25.87	24.98	27.25	0.52
RB Power [dBm]	20.55	20.83	20.54	21.62	0.41

Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %

PS: Connection Established RRC State: Connected

Band 7 (2600MHz) FDD									
Bandwidth	Channel	Modulation	RB No.	RB Offset	Max Power (Conducted)	Limit (dBm)	Antenna Gain (dBi)	Max Power (ERP) (dBm)	ERP Limit (dBm)
5MHz	20775	QPSK	1	#0	21.10	19.8~25.7	5.0	23.95	30
	21100	QPSK	1	#0	22.50	19.8~25.7	5.0	25.35	30
			8	#0	22.50	19.8~25.7	5.0	25.35	30
	21425	QPSK	1	#0	22.01	19.8~25.7	5.0	24.86	30
20MHz	20850	QPSK	1	#0	23.85	19.8~25.7	5.0	26.70	30
			1	#99	23.85	19.8~25.7	5.0	26.70	30
	21100	QPSK	1	#0	21.90	19.8~25.7	5.0	24.75	30
			1	#99	22.64	19.8~25.7	5.0	25.49	30
			18	#0	22.64	19.8~25.7	5.0	25.49	30
			18	#99	22.64	19.8~25.7	5.0	25.49	30
	21350	QPSK	1	#0	23.48	19.8~25.7	5.0	26.33	30
			1	#99	21.97	19.8~25.7	5.0	24.82	30

Note: ERP= Conducted Power + Antenna Gain(dBi)-2.15

Band 8 (900MHz) FDD									
Bandwidth	Channel	Modulation	RB No.	RB Offset	Max Power (Conducted)	Limit (dBm)	Antenna Gain (dBi)	Max Power (ERP) (dBm)	ERP Limit (dBm)
1.4MHz	21507	QPSK	1	#0	23.67	19.8~25.7	2.5	24.02	30
	21650	QPSK	1	#0	23.67	19.8~25.7	2.5	24.02	30
			5	#0	23.59	19.8~25.7	2.5	23.94	30
	21793	QPSK	1	#0	24.45	19.8~25.7	2.5	24.80	30
5MHz	21525	QPSK	1	#0	23.34	19.8~25.7	2.5	23.69	30
			1	#24	23.35	19.8~25.7	2.5	23.70	30
	21650	QPSK	1	#0	23.56	19.8~25.7	2.5	23.91	30
			1	#24	23.52	19.8~25.7	2.5	23.87	30
			8	#0	23.57	19.8~25.7	2.5	23.92	30
	21775	QPSK	1	#0	25.22	19.8~25.7	2.5	25.57	30
			1	#24	25.22	19.8~25.7	2.5	25.57	30
10MHz	21550	QPSK	1	#0	24.18	19.8~25.7	2.5	24.53	30
			1	#49	24.26	19.8~25.7	2.5	24.61	30
	21650	QPSK	1	#0	24.22	19.8~25.7	2.5	24.57	30
			1	#49	24.22	19.8~25.7	2.5	24.57	30
			12	#0	22.99	19.8~25.7	2.5	23.34	30
	21750	QPSK	1	#0	23.85	19.8~25.7	2.5	24.20	30
			1	#49	23.85	19.8~25.7	2.5	24.20	30

Note: ERP= Conducted Power + Antenna Gain(dBi)-2.15

10MHz CH21650 1RB#0

Multi Evaluation | **PRACH** | **SRS**

TX Measurement

	Current	Average	Min	Max	StdDev
EVM RMS [%] /h	1.85	1.87	1.40	1.99	0.33
EVM Peak [%] /h	8.63	8.93	4.77	9.76	2.07
EVM DMRS [%] /h	0.95	1.01	0.94	1.27	0.15
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP
IQ Offset [dBc]	-11.14	-10.65	-14.83	-9.90	
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP	NCAP	
IQ Quadrature Error [°]	NCAP	NCAP	NCAP	NCAP	
Freq Error [Hz]	3.16	1.36	-6.68	1.42	
Timing Error [Ts]	8.96	8.95	-23.41	0.18	
OBW [MHz]	0.19	0.32	0.56	0.10	
TX Power [dBm]	23.72	23.65	6.99	24.22	0.18
Peak Power [dBm]	28.52	28.29	11.69	29.90	0.25
RB Power [dBm]	23.75	23.66	7.07	24.21	0.17

Statistic Count: 20 / 20 | Out of Tolerance: 0.00 % | Detected Modulation: QPSK | Detected Channel Type: PUSCH | View Filter Throughput: 100.0 %

10MHz CH21650 12RB#0

LTE Measurement - X3.5.30.23 - Base V 2.15.12 - TX Measurement

Multi Evaluation PRACH SRS

FDX Freq: 900.0 MHz Ref Level: 41.00 dBm BW: 10.0 MHz CP: Normal Meas Subtr/Slot: 2 / All

TX Measurement

	Current		Average		Lastme		Stdev	
EVM RMS [%] /h	1.16	1.16	1.17	1.17	1.42	1.41	0.10	0.10
EVM Peak [%] /h	5.56	5.52	6.24	6.32	11.61	11.68	1.85	1.83
EVM DMRS [%] /h	0.84	0.92	0.91	0.91	1.21	1.20	0.08	0.08
MERR RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
MERR Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
MERR DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP
IQ Offset [dBc]		-47.38		-47.00		-43.97		0.72
IQ Gain Imbalance [dB]		NCAP		NCAP		NCAP		NCAP
IQ Quadrature Error [°]		NCAP		NCAP		NCAP		NCAP
Freq Error [Hz]		1.59		3.36		26.89		1.99
Timing Error [Ts]		5.25		5.37		7.14		0.25
OBW [MHz]		2.13		2.12		2.13		0.01
		Current		Average		Min		Max
TX Power [dBm]		22.96		22.92		22.50		22.99
Peak Power [dBm]		28.59		28.56		27.99		29.24
RB Power [dBm]		12.18		12.13		11.72		12.18

Statisc Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %

PS: Connection Established (RRC State: Connected)

10MHz CH21750 1RB#49

LTE Measurement - X3.530.23 - Base V 3.5.120 - TX Measurement

Multi Evaluation **PRACH** **SRS**

FDD Freq: 910.0 MHz Ref. Level: 41.00 dBm BW: 10.0 MHz CP: Normal Meas Subtr/Slot: 0 / All

TX Measurement

	Current	Average	Extreme	StdDev
EVM RMS [%] 1h	2.19	1.38	3.35	0.37
EVM Peak [%] 1h	9.66	4.51	22.48	2.02
EVM DMRS [%] 1h	1.22	1.00	1.34	0.16
MER RMS [%] 1h	NCAP	NCAP	NCAP	NCAP
MER Peak [%] 1h	NCAP	NCAP	NCAP	NCAP
MER DMRS [%] 1h	NCAP	NCAP	NCAP	NCAP
PhErr Peak [%] 1h	NCAP	NCAP	NCAP	NCAP
PhErr DMRS [%] 1h	NCAP	NCAP	NCAP	NCAP
PhErr DMRS [%] 1h	NCAP	NCAP	NCAP	NCAP
IQ Offset [dBc]	-37.60	-38.04	-36.58	0.67
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP	NCAP
IQ Quadrature Error [°]	NCAP	NCAP	NCAP	NCAP
Freq Error [Hz]	7.77	4.55	7.98	2.10
Timing Error [Ts]	7.50	7.32	-24.69	0.30
OBW [MHz]	0.38	0.34	0.51	0.05
	Current	Average	Min	Max
TX Power [dBm]	23.07	23.22	6.94	23.85
Peak Power [dBm]	27.76	27.67	11.14	28.86
RB Power [dBm]	23.14	23.17	6.89	23.77

Statistical Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %

PS: Connection Established RRC State: Connected

Band 28 (700MHz) FDD									
Bandwidth	Channel	Modulation	RB No.	RB Offset	Max Power (Conducted)	Limit (dBm)	Antenna Gain (dBi)	Max Power (ERP)	Limit (dBm)
3MHz	27225	QPSK	1	#0	23.16	19.8~25.7	2.5	23.51	30
			4	#0	22.97	19.8~25.7	2.5	23.32	30
	27435	QPSK	1	#0	24.19	19.8~25.7	2.5	24.54	30
			4	#0	23.93	19.8~25.7	2.5	24.28	30
	27645	QPSK	1	#14	24.63	19.8~25.7	2.5	24.98	30
			4	#11	24.63	19.8~25.7	2.5	24.98	30
5MHz	27235	QPSK	1	#0	23.98	19.8~25.7	2.5	24.33	30
			8	#0	24.00	19.8~25.7	2.5	24.35	30
	27435	QPSK	1	#0	24.50	19.8~25.7	2.5	24.85	30
			8	#0	24.50	19.8~25.7	2.5	24.85	30
	27635	QPSK	1	#24	24.93	19.8~25.7	2.5	25.28	30
			8	#17	24.93	19.8~25.7	2.5	25.28	30
20MHz	27310	QPSK	1	#0	22.79	19.8~25.7	2.5	23.14	30
			18	#0	22.79	19.8~25.7	2.5	23.14	30
	27435	QPSK	1	#0	21.87	19.8~25.7	2.5	22.22	30
			18	#0	21.87	19.8~25.7	2.5	22.22	30
	27560	QPSK	1	#99	22.57	19.8~25.7	2.5	22.92	30
			18	#82	22.57	19.8~25.7	2.5	22.92	30

Note: ERP= Conducted Power + Antenna Gain(dBi)-2.15

3MHz CH27225 1RB#0

CMW 500 V.3.7.120 - LTE Measurement - V3.7.70 - TX Measurement

Multi Evaluation | **PRACH** | **SRS**

FDD Freq: 704.5 MHz Ref. Level: 41.00 dBm BW: 3.0 MHz CP: Normal Meas Subfr/Slot: 0 / All

TX Measurement

Detected Allocation	NoRB:	1OffsetRB:			0			StdDev
		Current	Average	Extreme	Current	Average	Extreme	
EVM RMS [%] /h		0.84	0.86	0.82	0.93	1.29	1.33	0.13
EVM Peak [%] /h		3.20	2.47	2.55	3.08	6.27	6.13	0.99
EVM DMRS [%] /h		0.92	0.86	0.75	0.69	1.06	0.94	0.12
MErr RMS [%] /h		0.66	0.63	0.55	0.61	0.90	0.89	0.13
MErr Peak [%] /h		-3.04	-1.90	2.00	2.19	-4.27	-4.38	0.86
MErr DMRS [%] /h		0.58	0.74	0.48	0.51	0.66	0.79	0.08
PhErr RMS [%] /h		0.30	0.34	0.34	0.40	0.54	0.58	0.05
PhErr Peak [%] /h		0.73	-1.23	1.06	1.47	-2.88	-2.91	0.36
PhErr DMRS [%] /h		0.41	0.25	0.33	0.27	0.52	0.40	0.07
IQ Offset [dBc]		-46.53			-46.27		-45.30	0.60
IQ Gain Imbalance [dB]		---			---		---	
IQ Quadrature Error [%]		---			---		---	
Freq Error [Hz]		-5.76			-1.90		-5.76	1.54
Timing Error [Ts]		-4.52			-4.09		-5.09	2.20
OBW [MHz]		0.30			0.26		0.31	0.05
		Current			Average	Min	Max	StdDev
TX Power [dBm]		23.10			23.09	23.02	23.16	0.05
Peak Power [dBm]		28.06			27.67	27.47	28.64	0.20

Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %

PS: Connection Established RRC State: Connected

3MHz CH27225 4RB#0

CMW 500 V3.7.1.20 - LTE Measurement - V3.7.0 - TX Measurement

Multi EvaluationPRACHSRS

FDD Freq: 704.5 MHz Ref. Level: 41.00 dBm BW: 3.0 MHz CP: Normal Meas Subfr/Slot: 0 / All

TX Measurement

Detected Allocation	NoRB:	4056RB:				StdDev	
		Current	Average	Extreme			
EVM RMS [%] I/h	0.87	0.98	0.86	0.92	1.05	1.16	0.07
EVM Peak [%] I/h	3.93	5.37	3.40	4.05	6.73	10.17	0.55
EVM DMRS [%] I/h	0.91	0.84	0.74	0.75	1.11	1.02	0.11
MErr RMS [%] I/h	0.58	0.69	0.55	0.61	0.76	0.81	0.05
MErr Peak [%] I/h	-3.14	-5.06	2.64	3.51	-6.18	-7.86	0.50
MErr DMRS [%] I/h	0.57	0.48	0.49	0.50	0.70	0.73	0.06
PhErr RMS [%] I/h	0.38	0.40	0.38	0.40	0.46	0.49	0.03
PhErr Peak [%] I/h	-1.60	-2.19	1.45	1.74	-2.64	-3.90	0.20
PhErr DMRS [%] I/h	0.41	0.40	0.32	0.32	0.52	0.51	0.06
IQ Offset [dBc]		-46.39		-46.56		-43.77	0.59
IQ Gain Imbalance [dB]							
IQ Quadrature Error [°]							
Freq Error [Hz]		12.25		13.75		17.22	1.77
Timing Error [Ts]		-3.73		-3.13		-4.38	0.44
OSW [MHz]		0.71		0.70		0.83	0.02
		Current		Average		Min	Max
TX Power [dBm]		22.93		22.93		22.90	22.97
Peak Power [dBm]		28.65		28.57		28.08	28.07

Statistic Count: 20 / 20

Out of Tolerance: 0.00 %

Detected Modulation: QPSK

Detected Channel Type: PUSCH

View Filter Throughput: 100.0 %

PS: Connection Established
RRC State: Connected

3MHz CH27435 1RB#0

CMW 500 V 3.7.120 - LTE Measurement - V3.7.10 - TX Measurement

Multi Evaluation **PRACH** **SRS**

FDD Freq: 725.5 MHz Ref Level: 41.00 dBm BW: 3.0 MHz CP: Normal Meas Subfr/Slot: 0 / All

TX Measurement

Detected Allocation	NoRB: 1			10OffsetRB: 0			0			StdDev	
	Current	Average	Extreme	Current	Average	Extreme	Current	Average	Extreme		
EVM RMS [%] /h	2.37	2.33	2.70	2.70	3.95	3.97	0.65	0.66			
EVM Peak [%] /h	7.18	7.34	8.74	8.79	13.89	13.49	2.56	2.49			
EVM DMRS [%] /h	1.25	1.42	1.39	1.55	2.17	2.20	0.37	0.34			
MErr RMS [%] /h	1.89	1.92	2.18	2.19	3.35	3.39	0.60	0.61			
MErr Peak [%] /h	-6.25	-6.46	8.19	8.09	-13.71	-13.36	2.76	2.63			
MErr DMRS [%] /h	1.07	1.05	1.13	1.19	1.94	1.91	0.35	0.33			
PhErr RMS [%] /h	0.83	0.77	0.93	0.91	1.26	1.32	0.18	0.19			
PhErr Peak [%] /h	3.49	3.28	3.69	3.52	6.37	6.37	1.06	1.18			
PhErr DMRS [%] /h	0.37	0.55	0.47	0.57	0.70	0.98	0.12	0.14			
IQ Offset [dBc]	-44.65			-44.10			-42.78				0.41
IQ Gain Imbalance [dB]	---			---			---				
IQ Quadrature Error [°]	---			---			---				
Freq Error [Hz]	1.96			4.92			9.57				2.23
Timing Error [Ts]	3.09			2.88			-4.82				1.42
OBW [MHz]	0.28			0.32			0.36				0.03
	Current			Average			Min			Max	
TX Power [dBm]	24.04			24.06			23.87			24.19	
Peak Power [dBm]	28.08			28.07			27.76			28.35	

Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %

PS: Connection Established RRC State: Connected

3MHz CH27435 4RB#0

CMW 500 V3.7.120 - LTE Measurement - V3.7.70 - TX Measurement

Multi EvaluationPRACHSRS

FDD Freq: 725.5 MHz Ref. Level: 41.00 dBm BW: 3.0 MHz CP: Normal Meas Subfr/Slot: 0 / All

TX Measurement

Detected Allocation	NoRB:	4056RB:				StdDev		
		Current	Average		Extreme			
EVM RMS [%] I/h	1.96	1.97	2.47	2.47	3.42	3.40	0.51	0.49
EVM Peak [%] I/h	7.72	7.77	12.41	12.22	23.57	23.37	5.60	5.59
EVM DMRS [%] I/h	1.30	1.30	1.52	1.58	1.94	1.93	0.21	0.21
MErr RMS [%] I/h	1.63	1.63	2.12	2.11	3.15	3.12	0.53	0.51
MErr Peak [%] I/h	-7.71	-7.77	11.78	11.71	-22.80	-22.80	5.49	5.48
PhErr RMS [%] I/h	0.97	0.87	1.02	1.08	1.37	1.44	0.14	0.16
PhErr Peak [%] I/h	0.63	0.64	0.73	0.74	0.92	0.93	0.07	0.07
PhErr DMRS [%] I/h	2.84	2.87	3.44	3.40	6.51	6.63	0.79	0.82
IQ Offset [dBc]	0.50	0.55	0.64	0.66	0.88	0.87	0.10	0.10
IQ Gain Imbalance [dB]	-44.51			-45.17		-43.89		0.72
IQ Quadrature Error [°]								
Freq Error [Hz]		8.45		5.22		8.71		2.03
Timing Error [Ts]		0.29		0.39		0.93		0.22
OBW [MHz]		0.71		0.72		0.76		0.01
		Current		Average		Min		Max
TX Power [dBm]		23.92		23.92		23.88		23.93
Peak Power [dBm]		28.23		28.45		28.67		28.96

Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %

PS: Connection Established RRC State: Connected

3MHz CH27645 1RB#14

LTE Measurement - X3.530.23 - Base V 3.5.120 - TX Measurement

Multi Evaluation PRACH SRS

FDX Freq: 746.5 MHz Ref Level: 41.00 dBm BW: 3.0 MHz CP: Normal Meas Subfr/Slot: 0 / All

TX Measurement

	Current		Average		Min		Max		StdDev
EVM RMS [%] /h	1.88	1.92	1.99	2.03	2.99	3.01	0.25	0.24	
EVM Peak [%] /h	6.68	6.69	6.64	6.67	18.02	17.97	1.42	1.44	
EVM DMRS [%] /h	1.01	1.04	1.20	1.44	1.65	1.88	0.20	0.26	
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
IQ Offset [dBc]	-42.35		-42.62		-40.27				0.39
IQ Gain Imbalance [dB]	NCAP		NCAP		NCAP				NCAP
IQ Quadrature Error [°]	NCAP		NCAP		NCAP				NCAP
Freq Error [Hz]	0.51		-0.21		18.00				1.49
Timing Error [Ts]	14.32		14.12		14.81				1.36
OBW [MHz]	0.38		0.32		2.67				0.05
	Current		Average		Min		Max		StdDev
TX Power [dBm]	23.70		23.64		22.23		24.63		0.05
Peak Power [dBm]	27.78		27.58		27.17		29.96		0.12
RB Power [dBm]	23.68		23.66		10.47		23.76		0.11

Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %

PS: Connection Established
PRC State: Connected

3MHz CH27645 4RB#11

LTE Measurement - X3.5.30.23 - Base V 3.5.120 - TX Measurement

Multi Evaluation

PRACH

SRS

FDX

Freq: 746.5 MHz

Ref Level: 41.00 dBm

BW: 3.0 MHz

CP: Normal

Meas SubB/SLOT: 0 / All

TX Measurement		Current		Average		Extreme		StdDev	
EVM RMS [%] /h	3.55	3.59	3.25	3.29	4.82	4.85	0.29	0.30	
EVM Peak [%] /h	12.61	12.83	13.49	13.51	20.85	21.78	2.80	2.75	
EVM DMRS [%] /h	2.45	2.36	2.27	2.23	2.86	2.86	0.21	0.19	
MER RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MER Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MER DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
IQ Offset [dBc]		-43.99		-42.42		-40.27		0.69	
IQ Gain Imbalance [dB]		NCAP		NCAP		NCAP		NCAP	
IQ Quadrature Error [°]		NCAP		NCAP		NCAP		NCAP	
Freq Error [Hz]		6.87		5.74		18.00		1.59	
Timing Error [Ts]		7.89		8.04		14.83		0.20	
OBW [MHz]		0.72		0.72		2.67		0.01	
		Current		Average		Min		Max	
TX Power [dBm]		23.49		23.51		22.23		24.63	
Peak Power [dBm]		27.62		27.80		26.74		29.96	
RB Power [dBm]		17.47		17.50		10.47		23.96	

Statistic Count

Out of Tolerance

Detected Modulation

Detected Channel Type

View Filter Throughput

20 / 20

0.00 %

QPSK

PUSCH

100.0 %

PS:

Connection Established

RRC State: Connected

5MHz CH27235 1RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement									
FDD Freq: 746.5MHz Ref Level: 41.00 dBm BW: 3.0 MHz CP: Normal Meas Subfr/Slot: 0 / All									
TX Measurement									
	Current	Average	Extreme	StdDev					
EVM RMS [%] /h	1.98	2.05	2.24	2.27	3.25	3.24	0.39	0.37	
EVM Peak [%] /h	7.15	7.42	6.96	7.00	13.49	13.54	1.93	1.99	
EVM DMRS [%] /h	1.50	1.69	1.36	1.54	1.76	2.03	0.22	0.24	
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
IQ Offset [dBc]	-43.28	-43.64	-43.12						0.37
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP						NCAP
IQ Quadrature Error [°]	NCAP	NCAP	NCAP						NCAP
Freq Error [Hz]	1.26	1.67	5.11						1.46
Timing Error [Ts]	12.10	12.11	12.64						0.19
OBW [MHz]	0.27	0.29	0.38						0.03
Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %									
PS: Connection Established RRC State: Connected									

5MHz CH27235 8RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement									
FDD Freq: 746.5MHz Ref Level: 41.00 dBm BW: 3.0 MHz CP: Normal Meas Subfr/Slot: 0 / All									
TX Measurement									
	Current	Average	Extreme	StdDev					
EVM RMS [%] /h	1.64	1.67	1.69	3.25	3.27	0.13	0.13		
EVM Peak [%] /h	7.66	7.60	8.61	8.45	16.17	16.19	2.11	2.11	
EVM DMRS [%] /h	1.10	1.08	1.16	1.21	1.90	2.22	0.07	0.09	
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
IQ Offset [dBc]	-42.20	-42.31	-40.86						0.75
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP						NCAP
IQ Quadrature Error [°]	NCAP	NCAP	NCAP						NCAP
Freq Error [Hz]	3.49	2.36	8.41						1.59
Timing Error [Ts]	8.67	8.53	12.64						0.18
OBW [MHz]	1.41	1.41	1.44						0.01
Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %									
PS: Connection Established RRC State: Connected									

5MHz CH27435 1RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement									
FDD Freq: 725.5MHz Ref Level: 41.00 dBm BW: 5.0 MHz CP: Normal Meas Subfr/Slot: 0 / All									
TX Measurement									
	Current	Average	Extreme	StdDev					
EVM RMS [%] /h	3.32	3.29	3.96	3.94	5.57	5.56	0.64	0.63	
EVM Peak [%] /h	9.37	9.46	13.23	13.24	20.28	26.86	3.81	3.80	
EVM DMRS [%] /h	1.96	1.82	2.10	2.38	3.48	3.42	0.38	0.41	
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
IQ Offset [dBc]	-45.88	-46.60	-42.43						0.52
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP						NCAP
IQ Quadrature Error [°]	NCAP	NCAP	NCAP						NCAP
Freq Error [Hz]	-11.63	-14.31	-29.30						2.25
Timing Error [Ts]	15.83	15.89	18.44						0.43
OBW [MHz]	0.28	0.30	4.44						0.03
Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %									
PS: Connection Established RRC State: Connected									

5MHz CH27435 8RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement									
FDD Freq: 725.5MHz Ref Level: 41.00 dBm BW: 5.0 MHz CP: Normal Meas Subfr/Slot: 0 / All									
TX Measurement									
	Current	Average	Extreme	StdDev					
EVM RMS [%] /h	3.71	3.72	3.56	3.55	5.57	5.56	0.21	0.21	
EVM Peak [%] /h	18.55	18.49	19.50	18.45	23.80	26.86	3.15	2.50	
EVM DMRS [%] /h	2.44	2.45	2.42	2.42	3.48	3.42	0.09	0.10	
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
IQ Offset [dBc]	-44.25	-46.28	-42.43						1.29
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP						NCAP
IQ Quadrature Error [°]	NCAP	NCAP	NCAP						NCAP
Freq Error [Hz]	4.75	5.25	-29.30						1.80
Timing Error [Ts]	10.60	10.95	18.44						0.26
OBW [MHz]	1.41	1.39	4.44						0.16
Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %									
PS: Connection Established RRC State: Connected									

5MHz CH27635 1RB#24

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement									
FDD Freq: 745.5MHz Ref Level: 41.00 dBm BW: 5.0 MHz CP: Normal Meas Subfr/Slot: 0 / All									
TX Measurement									
	Current	Average	Extreme	StdDev					
EVM RMS [%] /h	3.29	3.34	3.28	3.31	4.13	4.12	0.34	0.32	
EVM Peak [%] /h	11.57	13.06	9.97	10.43	25.00	25.03	1.57	1.73	
EVM DMRS [%] /h	2.00	2.01	2.01	2.04	2.60	2.59	0.24	0.21	
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
IQ Offset [dBc]	-42.56	-42.76	-41.20						0.27
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP						NCAP
IQ Quadrature Error [°]	NCAP	NCAP	NCAP						NCAP
Freq Error [Hz]	10.63	12.63	19.00						1.86
Timing Error [Ts]	13.37	13.59	15.89						0.48
OBW [MHz]	0.23	0.26	1.42						0.06
Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %									
PS: Connection Established RRC State: Connected									

5MHz CH27635 8RB#17

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement									
FDD Freq: 745.5MHz Ref Level: 41.00 dBm BW: 5.0 MHz CP: Normal Meas Subfr/Slot: 0 / All									
TX Measurement									
	Current	Average	Extreme	StdDev					
EVM RMS [%] /h	2.57	2.59	2.50	2.50	4.18	4.17	0.09	0.08	
EVM Peak [%] /h	11.97	12.02	12.73	12.09	25.00	25.03	2.04	1.80	
EVM DMRS [%] /h	1.88	1.86	1.82	1.82	2.60	2.59	0.07	0.07	
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	
IQ Offset [dBc]	-42.87	-43.12	-40.84						0.49
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP						NCAP
IQ Quadrature Error [°]	NCAP	NCAP	NCAP						NCAP
Freq Error [Hz]	14.51	11.09	19.20						1.56
Timing Error [Ts]	13.77	13.65	15.89						0.86
OBW [MHz]	1.41	1.41	1.42						0.01
Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %									
PS: Connection Established RRC State: Connected									

Band 38 (2600MHz) TDD									
Bandwidth	Channel	Modulation	RB No.	RB Offset	Max Power (Conducted)	Limit (dBm)	Antenna Gain (dBi)	Max Power (ERP)	Limit (dBm)
5MHz	37775	QPSK	1	#0	22.85	20.3~25.7	5.0	25.70	30
			8	#0	22.91	20.3~25.7	5.0	25.76	30
	38000	QPSK	1	#0	23.32	20.3~25.7	5.0	26.17	30
			8	#0	23.32	20.3~25.7	5.0	26.17	30
	38225	QPSK	1	#24	22.66	20.3~25.7	5.0	25.51	30
			8	#17	22.66	20.3~25.7	5.0	25.51	30
20MHz	37850	QPSK	1	#0	21.34	20.3~25.7	5.0	24.19	30
			18	#0	21.36	20.3~25.7	5.0	24.21	30
	38000	QPSK	1	#0	21.08	20.3~25.7	5.0	23.93	30
			18	#0	21.08	20.3~25.7	5.0	23.93	30
	38150	QPSK	1	#99	21.47	20.3~25.7	5.0	24.32	30
			18	#82	21.47	20.3~25.7	5.0	24.32	30

Note: ERP= Conducted Power + Antenna Gain(dBi)-2.15

5MHz CH37775 1RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement										
Multi Evaluation PRACH SRS										
TDD	Freq. 2572.5 MHz	Ref Level: 41.00 dBm	BW: 5.0 MHz		CP: Normal	Meas Subfr/Slot		0 / All		
TX Measurement										
	Current	Average		Extreme		StdDev				
EVM RMS [%] /h	3.54	2.88	3.88	3.25	6.65	4.31	1.14	0.63		
EVM Peak [%] /h	16.30	8.37	15.54	10.22	100.00	19.83	7.09	2.09		
EVM DMRS [%] /h	2.46	2.50	2.34	2.42	3.38	3.39	0.43	0.43		
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
IQ Offset [dBc]	-41.74		-41.50		-40.74		0.27			
IQ Gain Imbalance [dB]	NCAP		NCAP		NCAP		NCAP			
IQ Quadrature Error [°]	NCAP		NCAP		NCAP		NCAP			
Freq Error [Hz]	18.61		25.55		40.68		5.74			
Timing Error [Ts]	-147.36		-95.00		-148.05		38.29			
OBW [MHz]	0.39		0.33		4.44		0.06			
	Current	Average		Min	Max	StdDev				
TX Power [dBm]	22.80	22.78		21.67	22.85	0.04				
Peak Power [dBm]	26.28	26.39		26.05	27.18	0.11				
RB Power [dBm]	22.83	22.79		7.70	22.88	0.04				
Statistic Count Out of Tolerance Detected Modulation Detected Channel Type View Filter Throughput										
20 / 20 0.00 % QPSK PUSCH 100.0 %										
PS: Connection Established RRC State: Connected										

5MHz CH37775 8RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement										
Multi Evaluation PRACH SRS										
TDD	Freq: 2572.5 MHz	Ref Level: 41.00 dBm	Bandwidth: 5.0 MHz	CP: Normal	Meas Subfr/Slot: 0 / All					
TX Measurement										
	Current	Average	Extreme	Min	Max	StdDev				
EVM RMS [%] /h	5.93	2.99	4.63	2.90	6.65	4.34	1.54	0.14		
EVM Peak [%] /h	90.08	12.89	51.00	12.83	100.00	19.83	37.72	1.91		
EVM DMRS [%] /h	2.19	2.16	2.33	2.33	3.58	3.70	0.20	0.19		
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
IQ Offset [dBc]	-42.32	-41.82	-40.70			0.38				
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP			NCAP				
IQ Quadrature Error [°]	NCAP	NCAP	NCAP			NCAP				
Freq Error [Hz]	12.59	22.27	41.81			5.59				
Timing Error [Ts]	-73.27	-69.97	-148.69			3.25				
OBW [MHz]	1.41	1.42	4.44			0.02				
	Current	Average	Min	Max	StdDev					
TX Power [dBm]	22.70	22.66	21.67	22.91	0.05					
Peak Power [dBm]	26.71	26.97	25.93	27.30	0.15					
RB Power [dBm]	13.68	13.64	7.70	22.92	0.10					
Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %										
PS: Connection Established RRC State: Connected										

5MHz CH38000 1RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement										
Multi Evaluation		PRACH		SRS						
TDD	Freq: 2595.0 MHz	Ref Level:	41.00 dBm	Bandwidth:	5.0 MHz	CP:	Normal	Meas Subfr/Slot:	0 / All	
TX Measurement										
	Current	Average			Extreme		StdDev			
EVM RMS [%] /h	4.82	3.10	3.55	2.85	6.27	3.45	0.94	0.38		
EVM Peak [%] /h	25.39	10.23	15.35	11.28	92.29	18.49	5.64	1.81		
EVM DMRS [%] /h	2.73	2.72	2.43	2.45	3.64	3.72	0.37	0.36		
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
IQ Offset [dBc]	-43.36		-43.30		-39.98		0.38			
IQ Gain Imbalance [dB]	NCAP		NCAP		NCAP		NCAP			
IQ Quadrature Error [°]	NCAP		NCAP		NCAP		NCAP			
Freq Error [Hz]	25.81		23.35		53.34		4.63			
Timing Error [Ts]	-66.70		-69.77		-553.12		1.86			
OBW [MHz]	0.21		0.30		1.44		0.10			
	Current	Average			Min	Max	StdDev			
TX Power [dBm]	22.24	22.22			17.27	23.32	0.07			
Peak Power [dBm]	26.09	26.03			21.64	29.23	0.11			
RB Power [dBm]	22.22	22.22			8.24	22.23	0.22			
Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %										
PS: Connection Established RRC State: Connected										

5MHz CH38000 8RB#0

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement										
Multi Evaluation			PRACH		SRS					
TDD	Freq: 2595.0 MHz	Ref Level:	41.00 dBm	Bandwidth: 5.0 MHz	CP: Normal	Meas Subfr/Slot:	0	/	All	
TX Measurement										
	Current	Average	Extreme	Min	Max	StdDev				
EVM RMS [%] /h	5.40	2.91	4.57	2.94	6.25	3.16	1.39	0.06		
EVM Peak [%] /h	85.53	11.90	50.93	12.02	91.89	17.81	37.69	1.85		
EVM DMRS [%] /h	2.06	2.05	2.26	2.28	2.95	2.93	0.18	0.22		
MErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
MErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP		
IQ Offset [dBc]	-41.62	-41.56	-39.98			0.37				
IQ Gain Imbalance [dB]	NCAP	NCAP	NCAP			NCAP				
IQ Quadrature Error [°]	NCAP	NCAP	NCAP			NCAP				
Freq Error [Hz]	23.73	31.76	46.31			5.44				
Timing Error [Ts]	-71.79	-72.36	-553.12			0.79				
OBW [MHz]	1.41	1.41	1.44			0.01				
	Current	Average	Min	Max	StdDev					
TX Power [dBm]	22.37	22.33	17.27	23.32	0.04					
Peak Power [dBm]	26.78	26.73	21.64	29.23	0.09					
RB Power [dBm]	13.34	13.30	8.24	14.29	0.04					
Statistic Count: 20 / 20 Out of Tolerance: 0.00 % Detected Modulation: QPSK Detected Channel Type: PUSCH View Filter Throughput: 100.0 %										
PS: Connection Established RRC State: Connected										

20MHz CH38225 1RB#24

LTE Measurement - X3.5.90.23 - Base V 3.5.120 - TX Measurement											
Multi Evaluation PRACH SRS											
TDD	Freq 2617.5 MHz		Ref Level: 41.00 dBm		BW 5.0 MHz		CP Normal		Meas Subfr/Slot		0 / All
TX Measurement											
	Current		Average		Extreme				StdDev		
EVM RMS [%] /h	6.27	5.68	6.93	6.69	8.87	8.44	1.22	1.11			
EVM Peak [%] /h	21.08	14.70	18.62	17.44	29.58	29.66	6.42	6.35			
EVM DMRS [%] /h	4.69	4.80	5.17	5.06	7.42	7.54	0.43	0.45			
MER RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP			
MER Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP			
MER DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP			
PhErr RMS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP			
PhErr Peak [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP			
PhErr DMRS [%] /h	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP	NCAP			
IQ Offset [dBc]	-39.30		-39.41		-38.75		0.20				
IQ Gain Imbalance [dB]	NCAP		NCAP		NCAP		NCAP				
IQ Quadrature Error [°]	NCAP		NCAP		NCAP		NCAP				
Freq Error [Hz]	29.50		31.30		51.68		8.61				
Timing Error [Ts]	-72.73		-71.41		-115.72		6.68				
OBW [MHz]	0.31		0.30		0.47		0.03				
	Current		Average		Min		Max		StdDev		
TX Power [dBm]	22.55		22.49		22.15		22.66		0.04		
Peak Power [dBm]	26.35		26.11		25.64		26.71		0.23		
RB Power [dBm]	22.62		22.50		22.22		22.75		0.07		
Statistic Count Out of Tolerance Detected Modulation Detected Channel Type View Filter Throughput											
20 / 20 0.00 % QPSK PUSCH 100.0 %											
PS: Connection Established RRC State: Connected											

Band 41 (2500MHz) TDD									
Bandwidth	Channel	Modulation	RB No.	RB Offset	Max Power (Conducted)	Limit (dBm)	Antenna Gain (dBi)	Max Power (ERP) (dBm)	ERP Limit (dBm)
5MHz	40265	QPSK	1	#0	23.26	20.3~25.7	5.0	26.11	30
			1	#24	23.39	20.3~25.7	5.0	26.24	30
	41415	QPSK	1	#0	23.08	20.3~25.7	5.0	25.93	30
			1	#24	22.68	20.3~25.7	5.0	25.53	30
20MHz	40340	QPSK	1	#0	22.28	20.3~25.7	5.0	25.13	30
			1	#99	22.39	20.3~25.7	5.0	25.24	30
	41340	QPSK	1	#0	22.37	20.3~25.7	5.0	25.22	30
			1	#99	22.28	20.3~25.7	5.0	25.13	30

Note: ERP= Conducted Power + Antenna Gain(dBi)-2.15

5MHz CH40265 1RB#0

CMW 500 V 3.7.120 - LTE Measurement - V3.7.70 - TX Measurement									
Multi Evaluation PRACH SRS									
TDD	Freq: 2557.5 MHz		Ref. Level: 41.00 dBm		BW: 5.0 MHz		CP: Normal		Meas Subfr./Slot: 0 / All
TX Measurement									
Detected Allocation	NoRB:	1OffsetRB: 0		Current		Average	Extreme	StdDev	
EVM RMS [%] I/h		4.16	3.79	3.88	3.75	4.24	4.06	0.31	0.22
EVM Peak [%] I/h		11.44	10.75	10.62	10.66	13.06	12.77	1.31	1.25
EVM DMRS [%] I/h		3.20	3.38	3.15	3.27	3.63	3.79	0.21	0.22
MErr RMS [%] I/h		3.35	2.96	3.08	2.93	3.49	3.17	0.30	0.18
MErr Peak [%] I/h		-10.99	-10.62	10.28	10.44	-12.75	-12.70	1.54	1.28
MErr DMRS [%] I/h		1.89	2.18	1.83	1.93	2.23	2.22	0.23	0.17
PhErr RMS [%] I/h		1.43	1.37	1.36	1.35	1.50	1.49	0.08	0.09
PhErr Peak [%] I/h		-3.79	-3.39	3.84	3.81	-4.98	-5.23	0.60	0.68
PhErr DMRS [%] I/h		1.48	1.48	1.47	1.52	1.72	1.83	0.12	0.14
IQ Offset [dBc]			-44.72		-44.21		-43.35		0.43
IQ Gain Imbalance [dB]									
IQ Quadrature Error [°]									
Freq Error [Hz]			-55.62		-58.49		-71.83		5.95
Timing Error [Ts]			-2.78		-2.37		-3.84		1.39
OBW [MHz]			0.33		0.33		0.35		0.01
			Current		Average		Min		Max
TX Power [dBm]			23.23		23.19		23.11		23.26
Peak Power [dBm]			26.87		26.98		26.80		27.47
									0.17
Statistic Count	20 / 20	Out of Tolerances	0.00 %	Detected Modulation	QPSK	Detected Channel Type	PUSCH	View Filter	Throughput
PS: Connection Established RRR State: Connected									

5MHz CH40265 1RB#24

CMW 500 V 3.7.120 - LTE Measurement - V3.7.70 - TX Measurement									
Multi Evaluation PRACH SRS									
TDD	Freq: 2557.5 MHz		Ref. Level: 41.00 dBm		BW: 5.0 MHz		CP: Normal		Meas Subfr./Slot: 0 / All
TX Measurement									
Detected Allocation	NoRB:	1OffsetRB: 24		Current		Average	Extreme	StdDev	
EVM RMS [%] I/h		4.22	3.96	3.95	3.81	4.28	4.07	0.26	0.18
EVM Peak [%] I/h		12.49	12.40	11.42	10.98	12.50	12.51	0.66	0.98
EVM DMRS [%] I/h		2.79	2.80	3.11	3.03	3.68	3.58	0.30	0.27
MErr RMS [%] I/h		3.42	3.16	3.21	3.04	3.46	3.27	0.22	0.15
MErr Peak [%] I/h		-11.92	-11.79	11.02	10.47	-12.18	-12.19	0.77	1.14
MErr DMRS [%] I/h		1.53	1.51	1.85	1.78	2.25	2.22	0.19	0.20
PhErr RMS [%] I/h		1.42	1.37	1.33	1.32	1.49	1.45	0.10	0.08
PhErr Peak [%] I/h		-4.01	-4.09	3.73	3.64	-4.75	-4.72	0.54	0.58
PhErr DMRS [%] I/h		1.34	1.35	1.43	1.40	1.70	1.66	0.16	0.14
IQ Offset [dBc]			-44.46		-44.27		-43.70		0.39
IQ Gain Imbalance [dB]									
IQ Quadrature Error [°]									
Freq Error [Hz]			-18.38		-10.23		-20.00		5.34
Timing Error [Ts]			-4.36		-4.29		-4.71		0.20
OBW [MHz]			0.24		0.26		0.28		0.02
			Current		Average		Min		Max
TX Power [dBm]			23.37		23.32		23.24		23.39
Peak Power [dBm]			26.94		26.92		26.80		27.05
									0.06
Statistic Count	20 / 20	Out of Tolerances	0.00 %	Detected Modulation	QPSK	Detected Channel Type	PUSCH	View Filter	Throughput
PS: Connection Established RRR State: Connected									

5MHz CH41415 1RB#0

CMW 500 V 3.7.120 - LTE Measurement - V3.7.70 - TX Measurement									
Multi Evaluation PRACH SRS									
TDD	Freq: 2672.5 MHz		Ref. Level: 41.00 dBm		BW: 5.0 MHz		CP: Normal		Meas Subfr./Slot: 0 / All
TX Measurement									
Detected Allocation	NoRB:	1OffsetRB: 0		Current		Average	Extreme	StdDev	
EVM RMS [%] I/h		3.98	3.59	3.73	3.43	4.16	3.77	0.20	0.26
EVM Peak [%] I/h		14.00	13.91	12.11	9.45	17.46	13.91	3.28	2.28
EVM DMRS [%] I/h		2.70	2.70	2.25	2.31	2.70	2.81	0.33	0.32
MErr RMS [%] I/h		3.42	3.11	3.09	2.94	3.48	3.27	0.19	0.26
MErr Peak [%] I/h		-13.43	-13.35	10.43	9.03	-13.67	-13.64	2.11	2.43
MErr DMRS [%] I/h		2.21	2.22	1.57	1.59	2.21	2.24	0.32	0.33
PhErr RMS [%] I/h		1.19	1.04	1.22	1.02	1.60	1.19	0.19	0.07
PhErr Peak [%] I/h		3.93	-2.92	4.70	3.11	-7.81	-5.29	1.68	0.70
PhErr DMRS [%] I/h		0.90	0.88	0.92	0.96	1.16	1.30	0.15	0.17
IQ Offset [dBc]			-41.06		-41.33		-40.49		0.31
IQ Gain Imbalance [dB]									
IQ Quadrature Error [°]									
Freq Error [Hz]			-70.07		-70.01		-83.91		5.66
Timing Error [Ts]			15.85		15.62		16.47		0.62
OBW [MHz]			0.24		0.28		0.39		0.07
			Current		Average		Min		Max
TX Power [dBm]			22.99		22.99		22.89		23.08
Peak Power [dBm]			26.43		26.21		25.89		26.51
RB Power [dBm]			23.11		23.03		22.92		23.12
Statistic Count	20 / 20	Out of Tolerance	0.00 %	Detected Modulation	QPSK	Detected Channel Type	PUSCH	View Filter	Throughput
PS: Connection Established RRR State: Connected									

5MHz CH41415 1RB#24

CMW 500 V 3.7.120 - LTE Measurement - V3.7.70 - TX Measurement									
Multi Evaluation PRACH SRS									
TDD	Freq: 2672.5 MHz		Ref. Level: 41.00 dBm		BW: 5.0 MHz		CP: Normal		Meas Subfr./Slot: 0 / All
TX Measurement									
Detected Allocation	NoRB:	1OffsetRB: 0		Current		Average	Extreme	StdDev	
EVM RMS [%] I/h		2.94	2.95	3.25	2.73	3.71	3.15	0.30	0.23
EVM Peak [%] I/h		8.17	8.21	12.16	6.81	17.97	8.92	4.81	0.83
EVM DMRS [%] I/h		1.48	1.33	1.64	1.68	2.21	2.18	0.22	0.19
MErr RMS [%] I/h		2.43	2.44	2.53	2.26	2.72	2.65	0.10	0.20
MErr Peak [%] I/h		-8.15	-8.18	9.37	6.34	-12.79	-8.83	2.61	0.78
MErr DMRS [%] I/h		1.01	0.99	1.09	1.15	1.47	1.51	0.14	0.14
PhErr RMS [%] I/h		0.95	0.96	1.19	0.88	1.58	1.00	0.24	0.08
PhErr Peak [%] I/h		-3.87	-3.84	5.45	2.83	-8.21	-4.58	2.01	0.78
PhErr DMRS [%] I/h		0.62	0.51	0.70	0.70	1.03	1.04	0.13	0.12
IQ Offset [dBc]			-40.60		-40.78		-40.12		0.24
IQ Gain Imbalance [dB]									
IQ Quadrature Error [°]									
Freq Error [Hz]			-65.99		-68.12		-80.81		4.69
Timing Error [Ts]			13.95		13.78		16.87		0.91
OBW [MHz]			0.28		0.27		0.28		0.01
			Current		Average		Min		Max
TX Power [dBm]			22.56		22.62		22.54		22.68
Peak Power [dBm]			25.94		26.20		25.85		26.64
RB Power [dBm]			22.59		22.64		22.58		22.69
Statistic Count	20 / 20	Out of Tolerance	0.00 %	Detected Modulation	QPSK	Detected Channel Type	PUSCH	View Filter	Throughput
PS: Connection Established RRR State: Connected									

20MHz CH40340 1RB#0

CMW 500 V 3.7.120 - LTE Measurement - V3.7.70 - TX Measurement									
Multi Evaluation PRACH SRS									
TDD	Freq: 2565.0 MHz		Ref. Level: 40.00 dBm		BW: 20.0 MHz		CP: Normal		Meas Subfr./Slot: 0 / All
TX Measurement									
Detected Allocation	NoRB:	1OffsetRB: 0		Current		Average	Extreme	StdDev	
EVM RMS [%] I/h		2.85	2.90	3.18	2.84	3.52	3.09	0.22	0.16
EVM Peak [%] I/h		7.54	8.03	11.68	7.00	15.76	8.84	3.66	1.06
EVM DMRS [%] I/h		2.20	2.15	2.30	2.34	2.63	2.70	0.24	0.25
MErr RMS [%] I/h		1.67	1.70	2.20	1.74	2.65	1.83	0.43	0.05
MErr Peak [%] I/h		-4.99	-5.29	9.87	5.04	-15.31	-5.99	4.91	0.45
MErr DMRS [%] I/h		1.32	1.27	1.56	1.56	1.98	1.92	0.23	0.23
PhErr RMS [%] I/h		1.33	1.35	1.32	1.29	1.49	1.45	0.10	0.11
PhErr Peak [%] I/h		-3.32	-3.71	3.70	3.59	-4.76	-4.64	0.57	0.53
PhErr DMRS [%] I/h		1.00	0.99	0.97	1.00	1.23	1.27	0.12	0.12
IQ Offset [dBc]			-39.47		-39.73		-39.33		0.26
IQ Gain Imbalance [dB]									
IQ Quadrature Error [°]									
Freq Error [Hz]			-2.56		-8.73		-23.82		7.90
Timing Error [Ts]			-32.36		-32.52		-33.30		0.27
OBW [MHz]			0.26		0.26		0.27		0.01
			Current		Average		Min		Max
TX Power [dBm]			22.27		22.25		22.22		22.28
Peak Power [dBm]			26.99		26.97		26.65		27.49
Statistic Count	20 / 20	Out of Tolerance	0.00 %	Detected Modulation	QPSK	Detected Channel Type	PUSCH	View Filter	Throughput
PS: Attached RRR State: Connected									

20MHz CH40340 1RB#99

CMW 500 V 3.7.120 - LTE Measurement - V3.7.70 - TX Measurement

Multi EvaluationPRACHSRS

TDD Freq: 2565.0 MHz Ref. Level: 40.00 dBm BW: 20.0 MHz CP: Normal Meas Subfr./Slot: 0 / All

TX Measurement

Detected Allocation	NoRB:	1OffsetRB: 99						StdDev	
		Current	Average	Extreme					
EVM RMS [%] I/h		2.56	2.65	2.76	2.41	3.09	2.74	0.22	0.21
EVM Peak [%] I/h		6.26	7.35	11.21	6.26	15.90	8.42	4.23	1.24
EVM DMRS [%] I/h		2.08	2.02	1.95	1.90	2.44	2.40	0.26	0.23
MErr RMS [%] I/h		1.75	1.82	2.13	1.69	2.51	1.99	0.31	0.17
MErr Peak [%] I/h		-6.15	-6.81	10.71	5.64	-15.44	-7.46	4.15	1.26
MErr DMRS [%] I/h		1.37	1.31	1.27	1.24	1.69	1.63	0.18	0.18
PhErr RMS [%] I/h		1.07	1.11	1.01	0.99	1.12	1.11	0.05	0.09
PhErr Peak [%] I/h		-3.00	-3.03	2.76	2.58	-3.31	-3.29	0.35	0.38
PhErr DMRS [%] I/h		0.89	0.88	0.85	0.83	1.20	1.17	0.15	0.12
IQ Offset [dBc]		-38.09			-38.06		-37.56		0.20
IQ Gain Imbalance [dB]		---			---		---		---
IQ Quadrature Error [%]		---			---		---		---
Freq Error [Hz]		14.36			8.98		18.71		6.77
Timing Error [Ts]		-32.75			-32.23		-32.96		0.30
OBW [MHz]		0.36			0.38		0.40		0.02
		Current		Average		Min	Max		StdDev
TX Power [dBm]		22.36		22.36		22.33	22.39		0.03
Peak Power [dBm]		26.84		26.72		26.53	26.87		0.12

Statistical Count

Out of Tolerance

Detected Modulation

Detected Channel Type

View Filter Throughput

20 / 20

0.00 %

QPSK

PUSCH

100.0 %

PS:

Attached State: Connected

20MHz CH41340 1RB#0

CMW 500 V 3.7.120 - LTE Measurement - V3.7.70 - TX Measurement

Multi EvaluationPRACHSRS

TDD Freq: 2665.0 MHz Ref. Level: 41.00 dBm BW: 20.0 MHz CP: Normal Meas Subfr/Slot: 0 / All

TX Measurement

	Current		Average		Extreme		StdDev		
EVM RMS [%] I/h	2.27	2.29	2.97	2.50	3.60	3.12	0.55	0.21	
EVM Peak [%] I/h	7.41	7.44	12.47	7.41	17.75	10.65	4.51	1.28	
EVM DMRS [%] I/h	1.90	1.77	1.84	1.85	2.38	2.40	0.26	0.24	
MErr RMS [%] I/h	1.38	1.40	2.11	1.55	2.70	2.07	0.57	0.14	
MErr Peak [%] I/h	-5.37	-5.44	11.12	5.08	-17.49	-6.95	5.46	0.88	
MErr DMRS [%] I/h	1.36	1.33	1.32	1.32	1.75	1.68	0.19	0.18	
PhErr RMS [°] I/h	1.03	1.05	1.20	1.13	1.39	1.34	0.15	0.10	
PhErr Peak [°] I/h	-3.69	-3.68	4.01	3.71	-5.88	-5.89	0.67	0.79	
PhErr DMRS [°] I/h	0.76	0.67	0.74	0.75	0.98	1.02	0.15	0.13	
IQ Offset [dBc]	-39.78		-40.03		-39.65		0.19		
IQ Gain Imbalance [dB]	---		---		---		---		
IQ Quadrature Error [°]	---		---		---		---		
Freq Error [Hz]	-37.89		-42.30		-51.64		5.36		
Timing Error [Ts]	-15.91		-16.45		-17.59		0.57		
OBW [MHz]	0.26		0.30		0.35		0.05		
	Current		Average		Min		Max		StdDev
TX Power [dBm]	22.28		22.32		22.25		22.37		0.04
Peak Power [dBm]	26.42		26.37		26.18		26.48		0.08
RB Power [dBm]	22.23		22.27		22.20		22.33		0.04

Statistic Count

20 / 20

Out of Tolerance

0.00 %

Detected Modulation

QPSK

Detected Channel Type

PUSCH

View Filter Throughput

100.0 %

PS:

Connection Established

RRC State: Connected

20MHz CH41340 1RB#99

CMW 500 V3.7.120 - LTE Measurement - V3.7.70 - TX Measurement

Multi EvaluationPRACHSRS

TDD Freq: 2665.0 MHz Ref. Level: 41.00 dBm BW: 20.0 MHz CP: Normal Meas Subfr/Slot: 0 / All

TX Measurement

	Current		Average		Extreme		StdDev	
EVM RMS [%] I/h	3.38	2.44	2.84	2.30	3.46	2.57	0.50	0.09
EVM Peak [%] I/h	17.54	5.75	12.86	6.57	17.97	9.91	4.61	1.56
EVM DMRS [%] I/h	1.90	1.93	1.57	1.55	1.96	1.99	0.18	0.20
MErr RMS [%] I/h	2.91	1.98	2.40	1.87	2.94	2.03	0.51	0.08
MErr Peak [%] I/h	-16.71	-5.75	12.36	6.20	-17.47	-8.69	4.53	1.48
MErr DMRS [%] I/h	1.31	1.30	1.01	1.03	1.43	1.50	0.20	0.19
PhErr RMS [°] I/h	1.00	0.82	0.88	0.77	1.07	0.95	0.09	0.06
PhErr Peak [°] I/h	-3.35	-2.09	2.87	2.23	3.64	-3.17	0.47	0.37
PhErr DMRS [°] I/h	0.78	0.81	0.69	0.66	0.86	0.92	0.11	0.10
IQ Offset [dBc]	-40.37		-39.73		-39.17		0.41	
IQ Gain Imbalance [dB]	---		---		---		---	
IQ Quadrature Error [°]	---		---		---		---	
Freq Error [Hz]	-42.31		-43.26		-58.04		6.35	
Timing Error [Ts]	-16.48		-16.51		-17.74		0.66	
OBW [MHz]	0.30		0.33		0.38		0.03	
	Current		Average		Min	Max	StdDev	
TX Power [dBm]	22.27		22.25		22.22	22.28	0.02	
Peak Power [dBm]	26.42		26.19		25.95	26.52	0.16	
RB Power [dBm]	22.23		22.21		22.19	22.23	0.02	

Statistic Count 20 / 20 Out of Tolerance 0.00 % Detected Modulation: QPSK Detected Channel Type PUSCH View Filter Throughput 100.0 %

PS: Connection Established RRC State: Connected

5.2 發射頻譜波罩

5.2.1 合格標準

需符合下表之頻譜波罩規範值

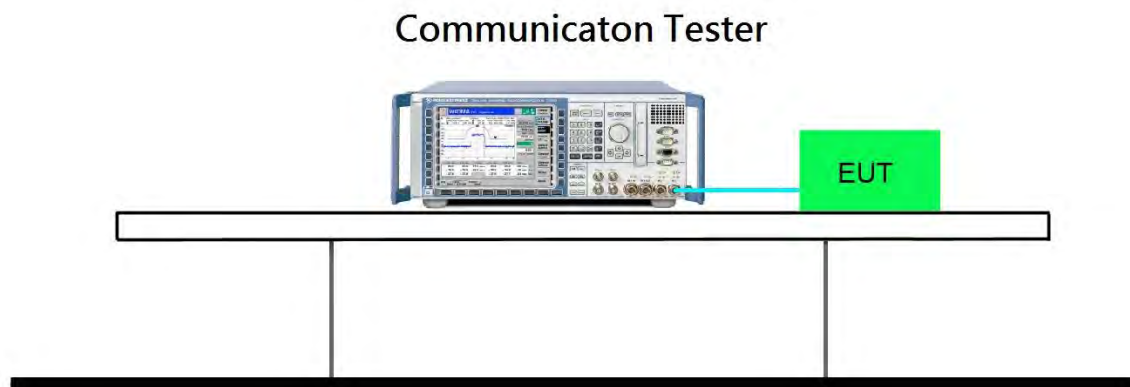
Δf_{OOB} (MHz)	發射限制值(dB)/頻道頻寬						
	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz	解析頻寬
± 0 to 1	-8.5	-11.5	-13.5	-16.5	-18.5	-19.5	30kHz
± 1 to 2.5	-8.5	-8.5	-8.5	-8.5	-8.5	-8.5	1MHz
± 2.5 to 2.8	-23.5	-8.5	-8.5	-8.5	-8.5	-8.5	1MHz
± 2.8 to 5		-8.5	-8.5	-8.5	-8.5	-8.5	1MHz
± 5 to 6		-23.5	-11.5	-11.5	-11.5	-11.5	1MHz
± 6 to 10			-23.5	-11.5	-11.5	-11.5	1MHz
± 10 to 15				-23.5	-11.5	-11.5	1MHz
± 15 to 20					-23.5	-11.5	1MHz
± 20 to 25						-23.5	1MHz

備註： Δf_{OOB} 是發射頻帶外的頻率偏移量 (Δ Frequency of Out-of-band emission)

5.2.2 測試方法

- (1) 頻譜波罩限制值依頻道頻寬及 Δf_{OOB} 而不同，量測時的解析頻寬不小於上表的設定值。
- (2) 檢測頻道為低、中、高三個頻道，對最低、5MHz、10MHz及最高的工作頻寬之調變級數發射模式，均應分別檢測之。
- (3) 其餘相關規定請參照 3GPP 36.521-1。

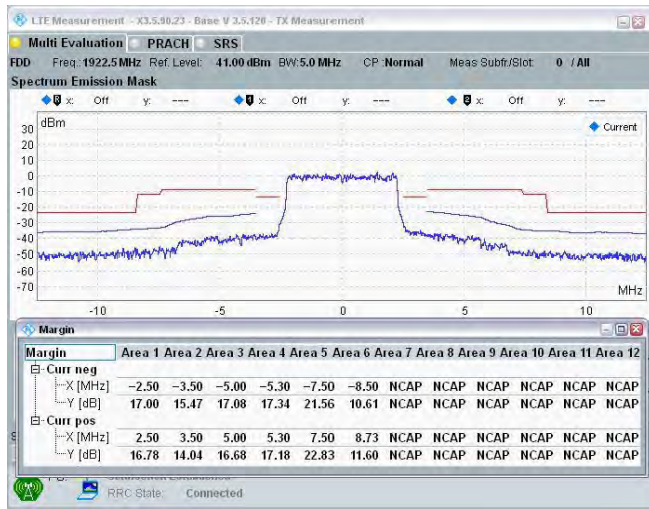
5.2.3 實驗方法方塊圖



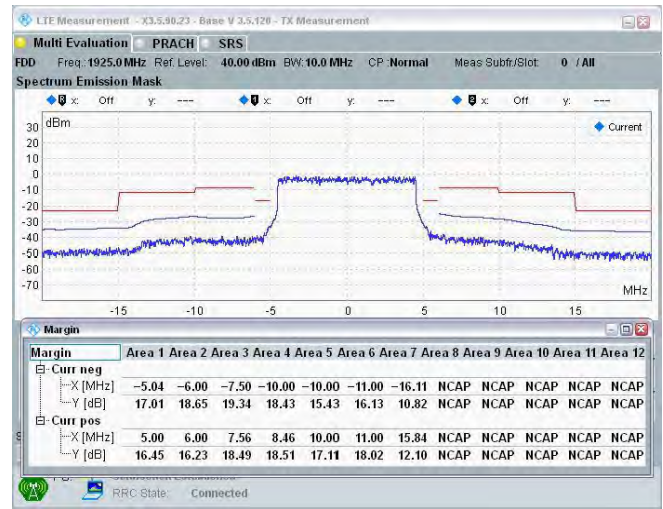
5.2.4 實驗數據

Band 1 (2100MHz)-Full RB														
Modulation	Test CH	CH	ΔF_{OOB} (MHz)	RB No.	RB Offset	MHz / Margin(dB)								
						± 0 to 1	± 1 to 2.5	± 2.5 to 2.8	± 2.8 to 5	± 5 to 6	± 6 to 10	± 10 to 15	± 15 to 20	± 20 to 25
QPSK	LOW	18025	5MHz	25	0	16.78	14.04			21.56	10.61	N/A	N/A	N/A
		18050	10MHz	50	0	16.45	16.23			15.43		10.82	N/A	N/A
		18100	20MHz	100	0	19.83	18.26			18.11				12.93
	MID	18300	5MHz	25	0	12.61	14.32			22.58	11.14	N/A	N/A	N/A
			10MHz	50	0	14.03	16.38			16.15		10.80	N/A	N/A
			20MHz	100	0	21.42	19.53			19.60				11.51
	HIGH	18575	5MHz	25	0	14.25	17.61			22.44	10.55	N/A	N/A	N/A
		18550	10MHz	50	0	16.83	18.83			18.53		10.67	N/A	N/A
		18500	20MHz	100	0	23.06	22.52			19.85				12.08
16-QAM	LOW	18025	5MHz	25	0	14.13	15.09			21.14	10.27	N/A	N/A	N/A
		18050	10MHz	50	0	15.75	16.40			15.49		10.45	N/A	N/A
		18100	20MHz	100	0	19.97	18.67			18.20				11.88
	MID	18300	5MHz	25	0	16.60	13.24			20.75	10.05	N/A	N/A	N/A
			10MHz	50	0	15.44	16.39			15.94		10.69	N/A	N/A
			20MHz	100	0	20.72	19.82			19.44				11.67
	HIGH	18575	5MHz	25	0	12.03	14.14			19.03	10.00	N/A	N/A	N/A
		18550	10MHz	50	0	18.73	18.86			18.12		9.84	N/A	N/A
		18500	20MHz	100	0	23.00	22.38			20.25				12.30

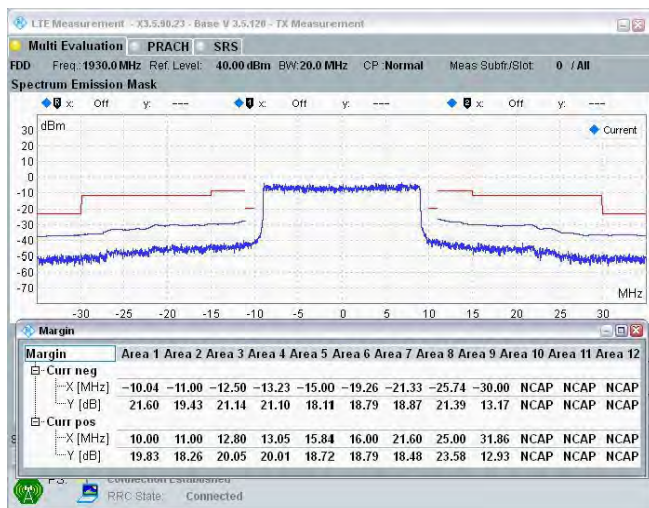
QPSK 5MHz CH18025 25RB#0



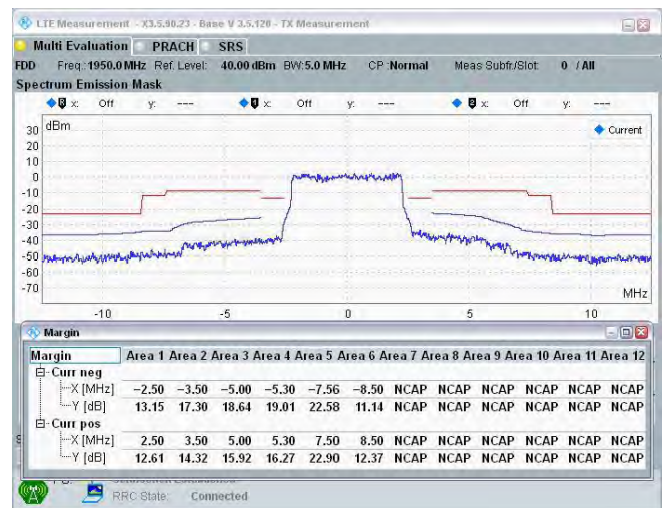
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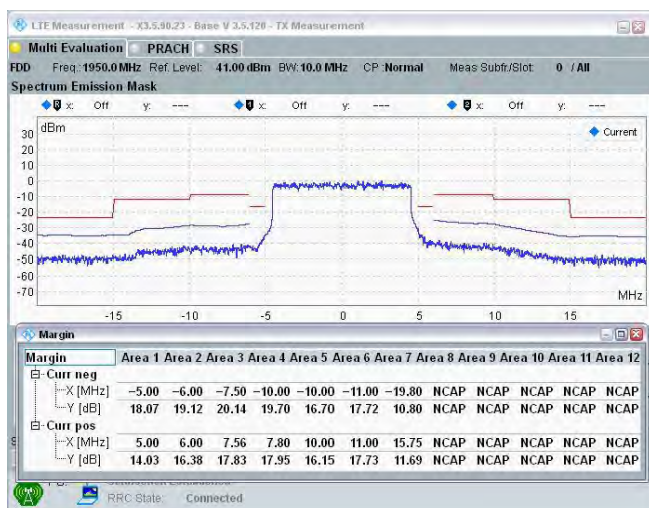
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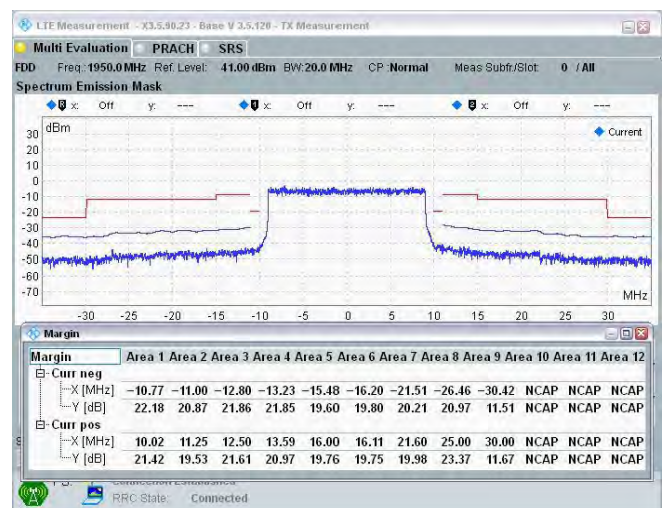
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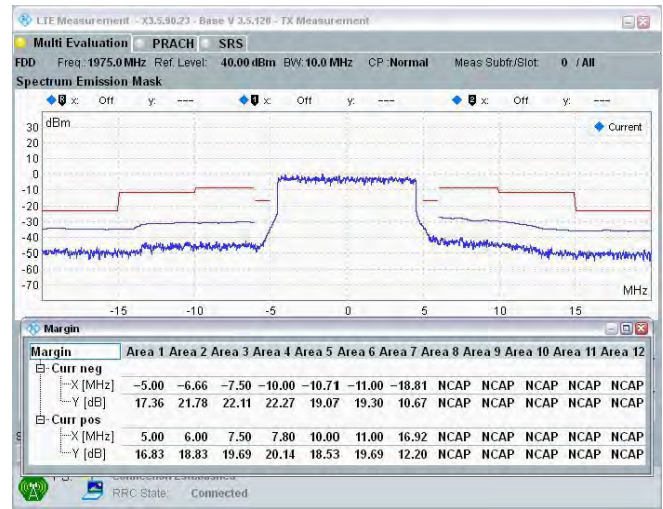
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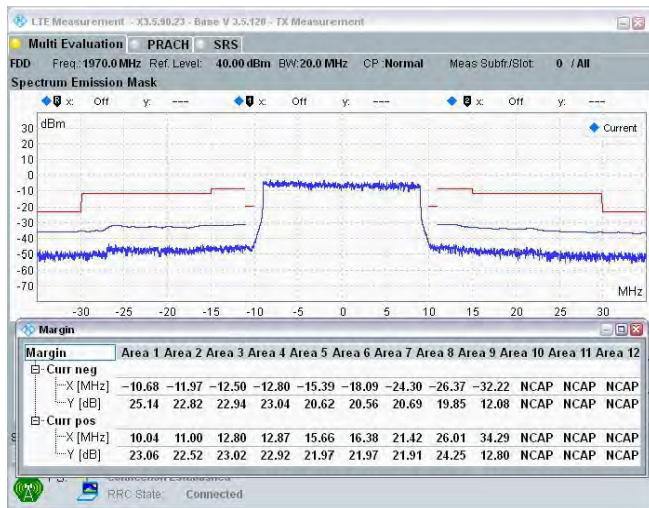
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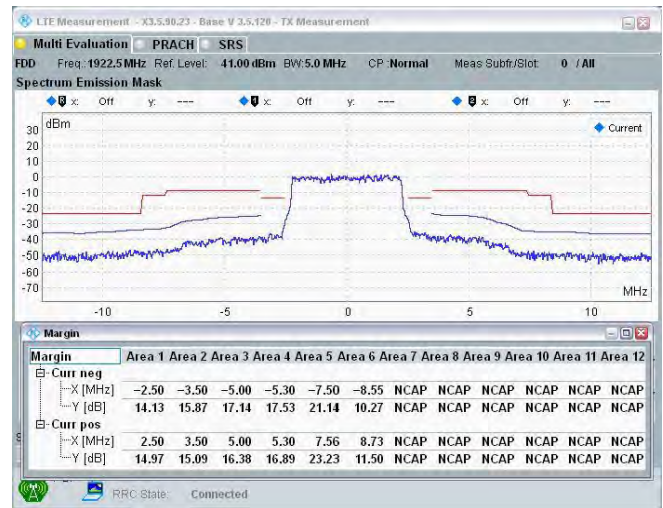
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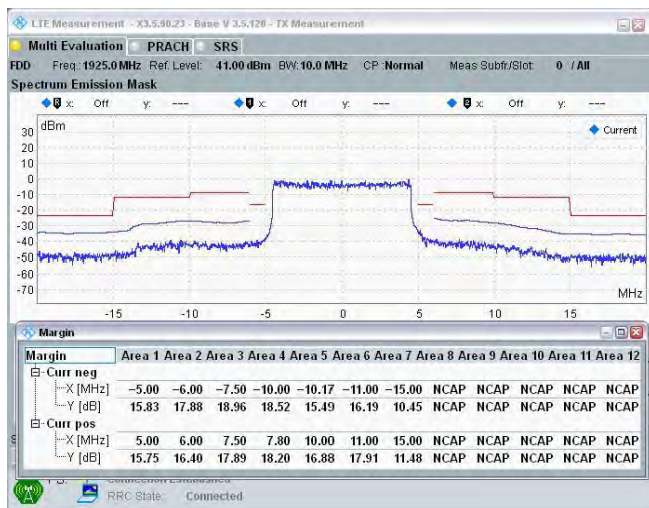
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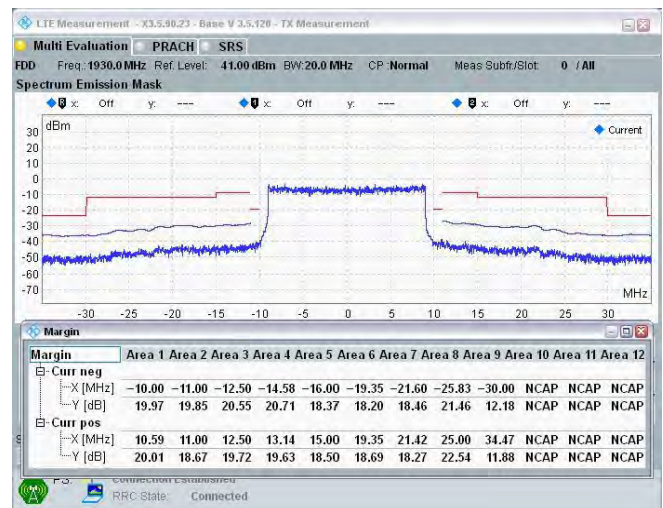
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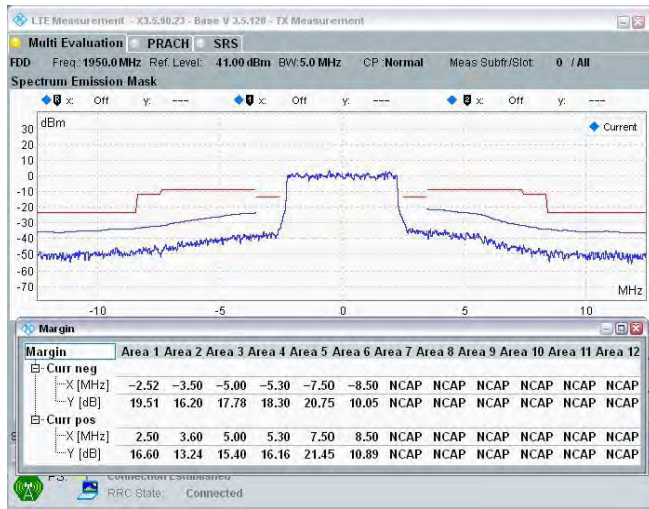
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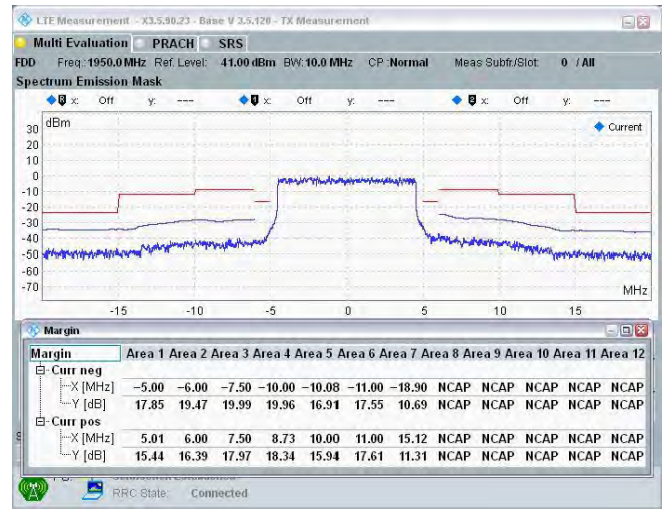
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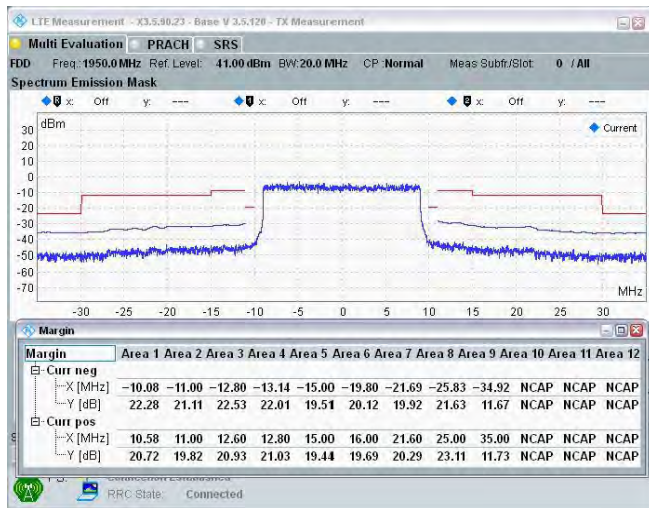
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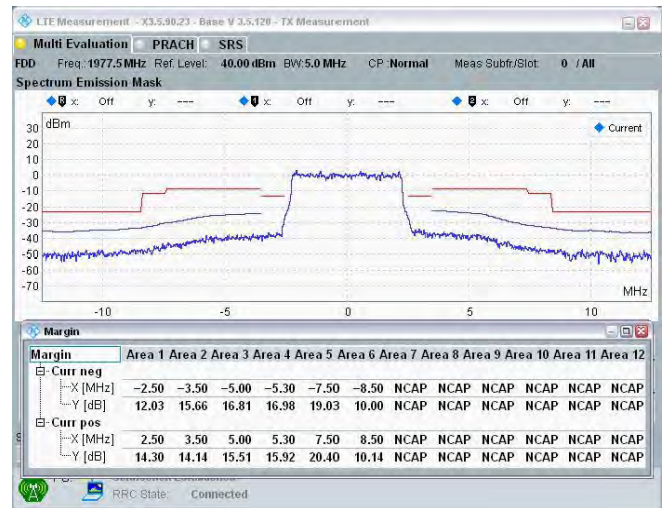
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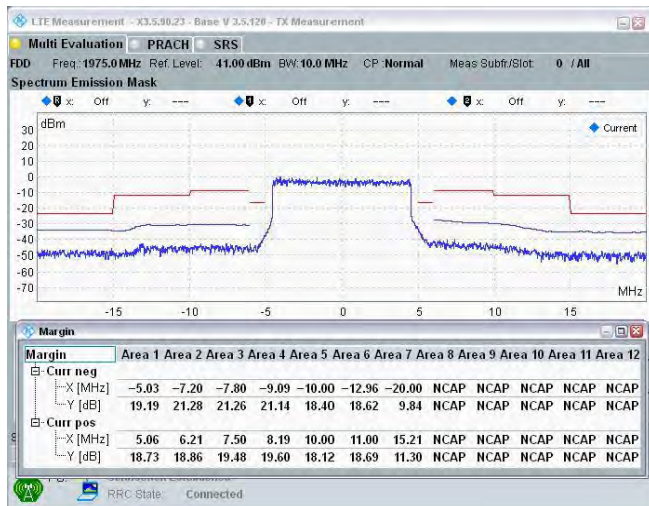
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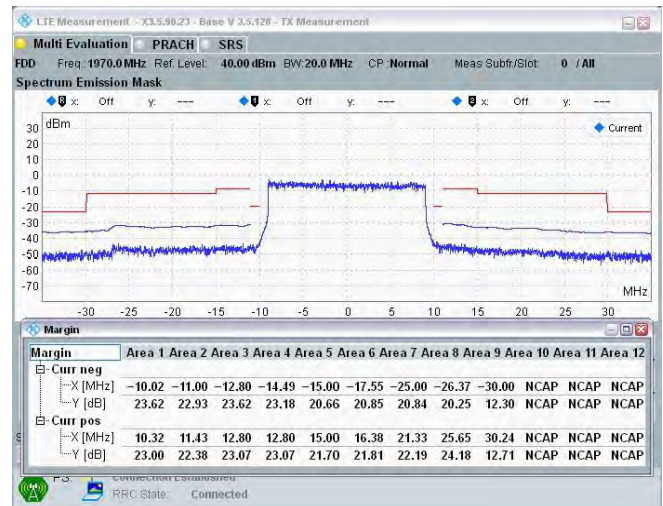
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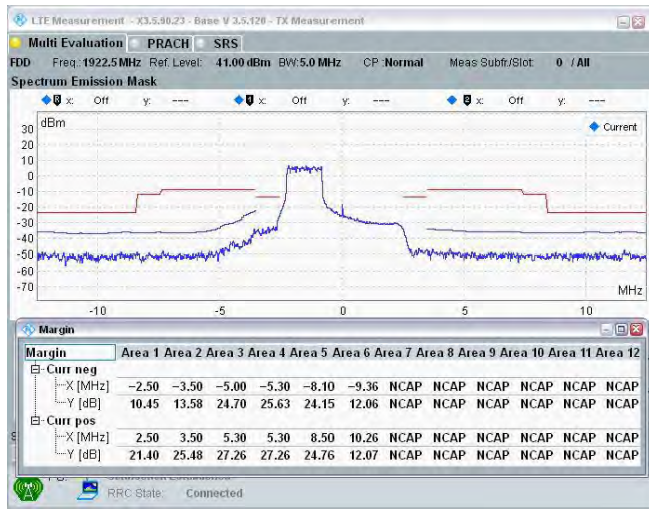


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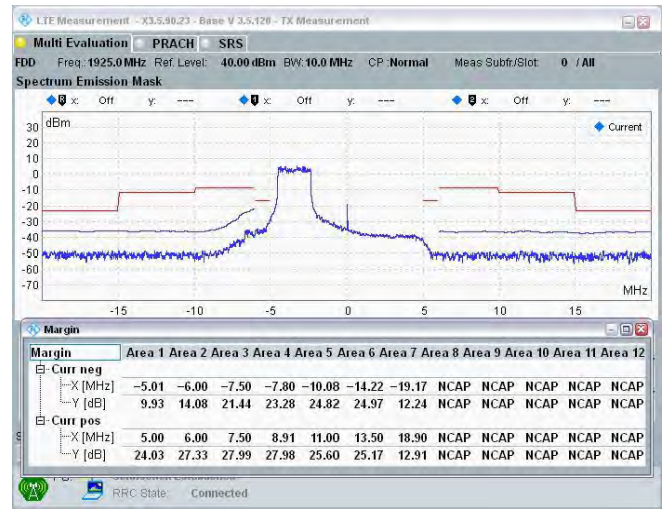


Band 1 (2100MHz)-Partial RB(#0)														
Modulation	Test CH	CH	ΔF_{OOB} (MHz)	RB No.	RB Offset	MHz / Margin(dB)								
						± 0 to 1	± 1 to 2.5	± 2.5 to 2.8	± 2.8 to 5	± 5 to 6	± 6 to 10	± 10 to 15	± 15 to 20	± 20 to 25
QPSK	LOW	18025	5MHz	8	0	10.45	13.58		24.15		12.06	N/A	N/A	N/A
		18050	10MHz	12	0	9.93	14.08		24.82		12.24	N/A	N/A	N/A
		18100	20MHz	18	0	15.79	15.89		23.75					12.92
	MID	18300	5MHz	8	0	10.13	14.63		24.97		12.96	N/A	N/A	N/A
			10MHz	12	0	12.11	14.28		23.54		10.95	N/A	N/A	N/A
			20MHz	18	0	16.95	17.19		22.98					11.71
	HIGH	18575	5MHz	8	0	10.83	15.05		23.39		11.63	N/A	N/A	N/A
		18550	10MHz	12	0	11.24	17.54		24.50		11.62	N/A	N/A	N/A
		18500	20MHz	18	0	19.62	19.55		23.86					12.61
16-QAM	LOW	18025	5MHz	8	0	8.99	12.85		24.53		12.07	N/A	N/A	N/A
		18050	10MHz	12	0	10.49	13.98		23.72		11.36	N/A	N/A	N/A
		18100	20MHz	18	0	16.37	16.22		23.04					11.94
	MID	18300	5MHz	8	0	8.23	12.61		23.60		11.71	N/A	N/A	N/A
			10MHz	12	0	10.21	14.14		23.41		11.07	N/A	N/A	N/A
			20MHz	18	0	18.70	17.58		23.02					11.55
	HIGH	18575	5MHz	8	0	9.23	16.43		24.43		12.64	N/A	N/A	N/A
		18550	10MHz	12	0	12.12	18.13		23.49		10.84	N/A	N/A	N/A
		18500	20MHz	18	0	20.35	19.53		23.84					12.47

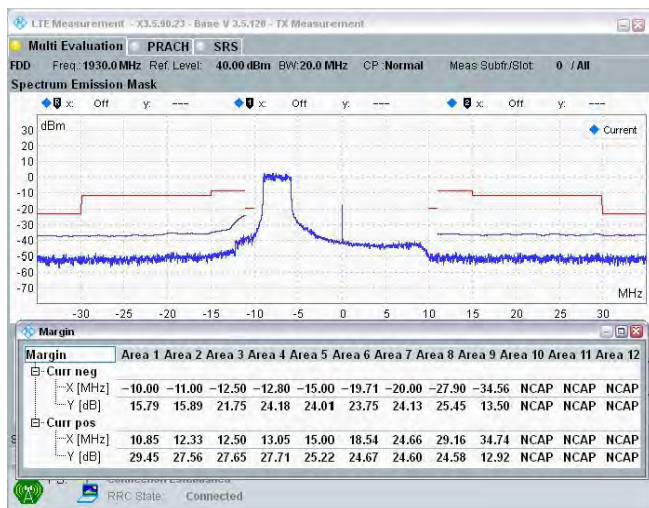
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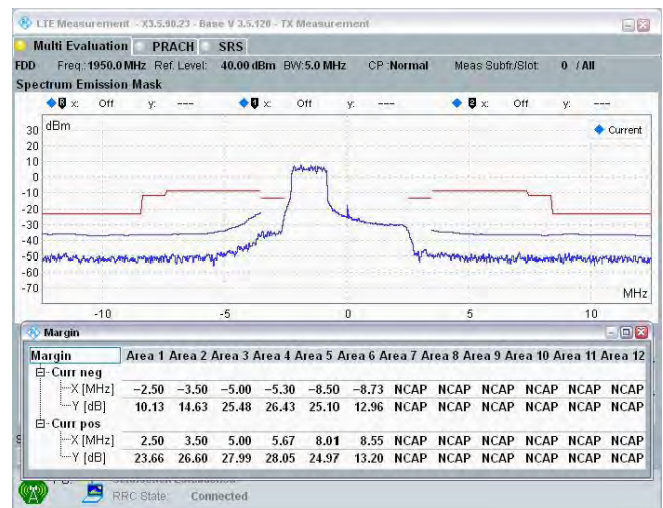
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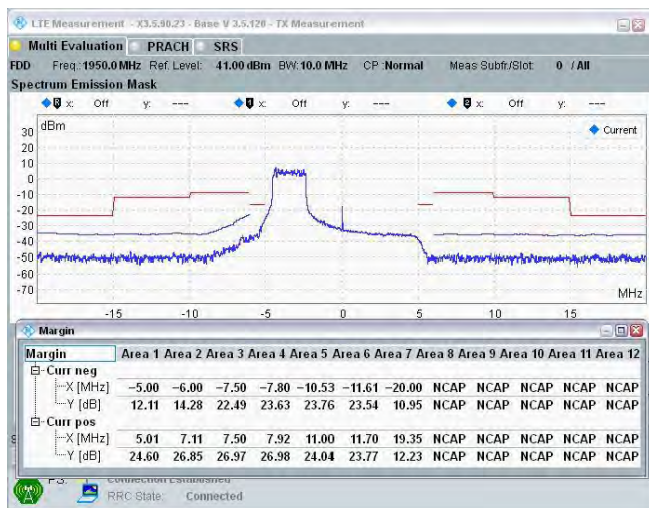
QPSK 20MHz CH18100 18RB#0



QPSK 5MHz CH18300 8RB#0



QPSK 10MHz CH18300 12RB#0



QPSK 20MHz CH18300 18RB#0

