

第三代行動通信終端設備(WCDMA)試驗報告

申請廠商	碩泰網通股份有限公司 臺北市內湖區瑞光路578號3樓
製造廠商	Sierra Wireless, Inc.
產品名稱	Wireless Module (WCDMA/LTE FDD700/900/1800/2600、TDD2570-2620/250-2690MHz)
廠牌	AirPrime
型號	MC7430
發射功率	WCDMA / HSDPA FDD: 23.13 dBm, Class 3
工作頻率	WCDMA / HSDPA FDD 1頻段: 發射頻率範圍1920MHz至1980MHz 接收頻率範圍2110MHz至2170MHz
天線型式/增益	PIFA Antenna, Supplier: Master Wave Part No.: N/A, Gain: 2.5 dBi

實驗室資訊

台灣檢驗科技股份有限公司 電子通訊實驗室

新北市新北產業園區五工路134號

認證有效期間：104年06月14日起至107年06月13日止

認可頻率範圍：PLMN08

受理日期 民國106年07月20日

完成日期 民國106年11月09日

張俊卿



Testing Laboratory

0513

報告簽署人

張俊卿 簽章

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測試標準

國家通訊傳播委員會電信技術規範【陸地行動 08】(PLMN08)

民國 104 年 12 月 22 日版本

待測裝置已於台灣檢驗科技股份有限公司電子通訊實驗室，依據國家通訊傳播委員會於中華民國一百零四年十二月頒佈之第三代行動通信終端設備技術規範【陸地行動 08】(PLMN08)。

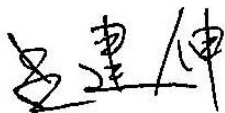
台灣檢驗科技股份有限公司根據此條文規範項目測試，測試各項數據皆能符合此規範規定之限度值。

台灣檢驗科技股份有限公司依第三代行動通信終端設備技術規範【陸地行動 08】(PLMN08)製作測試結果報告，測試結果評判為合格。

備註：

1. 報告中所描述之測試結果和待測設備的架構組合，均根據實際量測情況作詳實的記錄，且本測試報告僅對上述待測設備樣品負責。
2. 此份報告未經本公司同意，不得部份摘錄複製使用。
3. 此裝置為 MC7430，適用於 Pepwave/Peplink/Pismo Wireless Product (商標：PEPWAVE / 型號：MAX BR1 MK2)

測試人員：

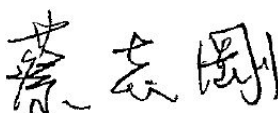


日期：

11/24/2017

呂建伸 / 工程師

報告製作：

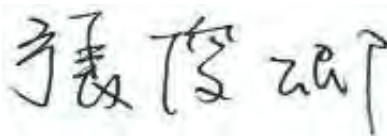


日期：

11/24/2017

蔡志剛 / 工程師

報告審核：



日期：

11/24/2017

張俊卿 / 副理

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測試實驗室資料:

實驗室認可登錄 : 中華民國實驗室認證體系

認可編號 : TAF 0513, 認可範圍PLMN08

測試場地 : 新北市新北產業園區五工路134號

實驗室名稱 : 台灣檢驗科技股份有限公司
電子通訊實驗室

實驗室地址 : 桃園市龜山區(華亞科技園區)科技一路2號

電話 : 886-2-22993939

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實驗室之量測不確定度

量測項目	量測不確定度 (擴充不確定度)		
傳導干擾量測	電源線	0.15-30MHz	2.586 dB
輸出功率(傳導方式)	WCDMA		1.19 dB
頻率誤差量測	WCDMA		283 Hz
傳導輻射	150K-40GHz		3.779 dB

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1 WCDMA FDD 行動電話機檢測紀錄表(一)

項次	檢驗項目/合格標準	檢驗數據	結果判定
2.	最大發射輸出功率 Power class 1 : 33dBm +1/-3dB Power class 2 : 27dBm +1/-3dB Power class 3 : 24dBm +1/-3dB Power class 4 : 21dBm +2/-2dB	參考 5.5 節之量測結果	合格

註：1. 檢驗項目2,3,4,5,6,7及8項之測試頻道為低、中、高三個頻道，測試方法依據3GPP TS34.121,最新版本之相關規定。

2. 檢驗項目9須於待測設備操作、空閒模式（輻射干擾）及充電模式（電源端傳導干擾）下測試（無則免測）。

表一之一：

量測濾波器中心載波頻率偏移量 Δf (MHz)	在偏移中心載波頻率時其相對於載波功率之最大允許值 (dBc)	量測頻寬
2.5 – 3.5	$\left\{ -35 - 15 \cdot \left(\frac{\Delta f}{\text{MHz}} - 2.5 \right) \right\} \text{dBc}$	30 kHz
3.5 – 7.5	$\left\{ -35 - 1 \cdot \left(\frac{\Delta f}{\text{MHz}} - 3.5 \right) \right\} \text{dBc}$	1 MHz
7.5 – 8.5	$\left\{ -39 - 10 \cdot \left(\frac{\Delta f}{\text{MHz}} - 7.5 \right) \right\} \text{dBc}$	1 MHz
8.5 – 12.5	-49 dBc	1 MHz

表一之二：

頻率範圍	最大允許值 (Traffic mode)	最大允許值 (Idle mode)	測量方式
$9 \text{ kHz} \leq f < 150 \text{ kHz}$	-36 dBm /1 kHz	----	Conducted
$150 \text{ kHz} \leq f < 30 \text{ MHz}$	-36 dBm /10 kHz	----	Conducted
$30 \text{ MHz} \leq f < 1000 \text{ MHz}$	-36 dBm /100 kHz	-57 dBm /100 kHz	Conducted
$1 \text{ GHz} \leq f < 12.75 \text{ GHz}$	-30 dBm /1 MHz	-47 dBm /1 MHz	Conducted

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表一之三：

頻率範圍	測量頻寬	最大允許值
925 MHz < f < 935 MHz	100 kHz	-67 dBm
935 MHz < f < 960 MHz	100 kHz	-79 dBm
1805 MHz < f < 1880 MHz	100 kHz	-71 dBm
1893.5 MHz < f < 1919.6 MHz	300 kHz	-41 dBm

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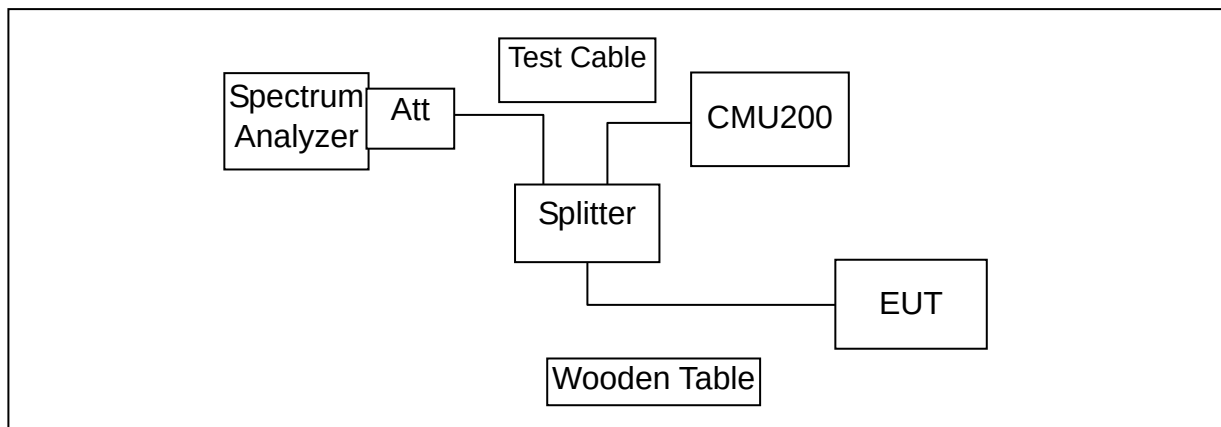
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2 最大發射輸出功率之量測

2.1 適用標準:

參考 PLMN08, 3.1.1 節規定

2.2 測試配置:



2.2 量測儀器設備:

Conducted Emission Test Site					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Power Meter	Anritsu	ML2495A	1005007	12/15/2016	12/14/2017
Power Sensor	Anritsu	MA2411B	917032	12/15/2016	12/14/2017
EXA Spectrum Analyzer	Agilent	N9030A	MY53120760	03/21/2017	03/20/2018
DC Block	Mini-Circuits	BLK-18-S+	1	01/05/2017	01/04/2018
Coaxial Cable	HUBER+SUHNER	SUCOFLEX 102	23670/2	01/05/2017	01/04/2018
Attenuator	Mini-Circuit	BW-S10W2+	2	01/05/2017	01/04/2018
Splitter	Agilent	11636B	N/A	01/05/2017	01/04/2018
DC Power Supply	Agilent	E3640A	MY52410006	11/21/2016	11/20/2017
Temperature Chamber	TERCHY	MHG-120LF	911009	05/19/2017	05/18/2018
Radio Communication Analyser	Anritsu	MT8820C	6201465317	01/03/2017	01/02/2018

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2.3 測試方法:

參考 3GPP TS34.121, 5.2.4 節規定

2.4 量測結果:

廠牌: AirPrime

型號: MC7430

環境溫度: 24°C

環境濕度: 65%

實測 power 值:

UMTS B1	WCDMA	Original Module Power	tolerance
	AV(dBm)	AV(dBm)	±2
CH 9612	24.45	24.5	-0.05
CH 9750	24.51	24.5	0.01
CH 9888	24.41	24.5	-0.09

~ End of Report ~

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