

商品電磁相容試驗報告

標準檢驗局指定試驗室認可編號：SL2-IN-E-0071

商品名稱	4G 無線藍牙手持式行動電話機
申請人	HMD Global Oy
生產廠場	詳如申請書
廠牌	NOKIA
規格	5 Vdc, 2 A
型式	TA-1337
系列型式	N/A
依據標準	CNS 13438 乙類資訊技術設備:95 年完整版
試驗結果	合格

報告發行日期：2020年12月10日 報告簽署人：



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

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

目 錄

1. 測試報告證明書	3
2. 一般敘述	4
2.1 申請人資料	4
2.2 待測設備一般敘述	4
2.3 系列機種差異比較	6
2.4 輔助測試之週邊設備描述	6
2.5 測試方法和測試場地	6
2.6 測試配置	7
2.7 測試結果之決定原則	8
2.8 報告符合性聲明	8
3. 傳導干擾電壓量測	9
3.1 傳導干擾電壓量測頻段	9
3.2 傳導干擾電壓量測儀器	9
3.3 MEASUREMENT LEVEL CALCULATION	10
3.4 MEASUREMENT LEVEL CALCULATION	10
3.5 MEASUREMENT LEVEL CALCULATION	10
3.6 MEASUREMENT LEVEL CALCULATION	10
3.7 傳導干擾電壓限制值	11
3.8 傳導干擾電壓量測之結果	12
3.9 電信埠干擾電壓量測之結果	12
3.10 傳導干擾電壓量測之待測設備操作情形	12
3.11 電信埠干擾電壓量測之待測設備操作情形	12
3.12 傳導干擾電壓量測之測試程序	13
3.13 電信埠干擾電壓量測之測試程序	16
3.14 傳導干擾電壓量測之量測記錄	17
3.15 電信埠干擾電壓量測之量測記錄	19
3.16 傳導/電信埠干擾電壓量測之待測設備修改記錄	19
3.17 傳導干擾電壓量測之照片	20
3.18 電信埠干擾電壓量測之照片	20
4. 輻射干擾量測	21
4.1 輻射干擾量測頻段	21
4.2 輻射干擾量測儀器	21
4.3 MEASUREMENT LEVEL CALCULATION	22
4.4 輻射干擾限制值	23
4.5 輻射干擾量測之結果	24
4.6 輻射干擾量測之待測設備操作情形	24
4.7 輻射干擾量測之測試程序	25
4.8 輻射干擾量測之量測記錄	28
4.9 輻射干擾量測之待測設備修改記錄	31
4.10 輻射干擾量測之照片	32
待測產品之外觀照片	34
待測產品之內觀照片	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.
除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

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

1. 測試報告證明書

申請人 : HMD Global Oy
商品名稱 : 4G無線藍牙手持式行動電話機
廠牌 : NOKIA
型式 : TA-1337
系列型式 : N/A
收樣日期 : 2020年10月30日
測試日期 : 2020年11月07日至2020年11月08日
測試規範 : CNS 13438乙類資訊技術設備:95年完整版

在此證明：

1. 台灣檢驗科技股份有限公司・電磁相容實驗室（中華民國經濟部標準檢驗局・電磁相容認可試驗室）收到上述待測設備樣品一台，已在本公司實驗室的標準測試場地完成量測。
2. 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。
3. 由測試結果顯示，此台待測設備確實已符合 CNS 13438 中所規定的乙類資訊技術設備傳導干擾電壓限制值及輻射干擾限制值。
4. 此份報告未經本公司同意，不得部份摘錄複製使用。

報告製作者 : 林唯萱 日期 : 2020年12月10日

報告審核者 : 鄭智豪 日期 : 2020年12月10日

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

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

2. 一般敘述

2.1 申請人資料

申請人名稱 : HMD Global Oy
申請人地址 : Bertel Jungin aukio 9, 02600 ESPOO. FINLAND

2.2 待測設備一般敘述

商品名稱 : 4G無線藍牙手持式行動電話機
型式 : TA-1337
系列型式 : N/A
規格 : 5 Vdc, 2 A
電源供應器 : 廠牌 : NOKIA
型式 : CH-21U
規格 : I/P : AC 100-240V, 50/60Hz, 0.3A
O/P : DC 5V, 2A
電池 : 廠牌 : NOKIA(Ningbo Veken Battery Co., Ltd)
型式 : HQ430
規格 : 3.85V, 4000mAh
廠牌 : NOKIA(GUANGDONG FENGHUA NEW ENERGY
CO., LTD)
型式 : HQ430
規格 : 3.85V, 4000mAh
一供USB Cable : 廠牌 : Saibao
型式 : SHQ-A069A
二供USB Cable : 廠牌 : Liqi
型式 : L56B-052000100
Earphone : 廠牌 : NEW Leader
型式 : NLD-EM300M-07SF

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

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

一供LCD模組	: 廠牌	: SHENZHEN TONGXINGDA TECHNOLOGY CO., LTD
	型式	: TXDY640EAXPXG-6V5(Lens+LCM)
	規格	: 6.39 inch TFT/TRANSMISSIVE
二供LCD模組	: 廠牌	: Shenzhen K&D Technology Co. Ltd
	型式	: KD639M1-40IB-B002
	規格	: 6.39' TFT-LCD
CPU	: 廠牌	: Qualcomm
	型式	: SM-6115-1-NSP752-TR-00-0-AA
記憶體	: 廠牌	: Samsung
	型式	: H9HP53AECMMMDAR-KMM
前鏡頭(16M)	: 廠牌	: 同興達
	型式	: TYCHOYATXD
後鏡頭(48M)	: 廠牌	: 同興達
	型式	: TAFSOHA
線材	:	

Cable Type	Core	Length	Category	Shielding/Non-shielding
USB Cable*2	N/A	1m	N/A	Shielding
Earphone cable	N/A	1.2m	N/A	Non-shielding

- 本產品無電信埠存在，無需執行電信埠傳導干擾之ISN測試。
- 本產品內部之最高頻率：2.4GHz（大於108MHz, 需執行1GHz以上之輻射干擾測試）
- 此產品無同時邊充邊放功能。

其他詳細之規格請參考使用說明書。

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

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

2.3 系列機種差異比較

無。

2.4 輔助測試之週邊設備描述

產品名稱	廠商	型號	序號	檢磁號碼
SIM Card	R&S	CMW-Z05	8952530076180138474	N/A
Micro SD	Transcend	Micro SDHC (Class4)	N/A	D33193
BT Speaker	Creative	MF8090	YFMF8090245R00855Y	T33724
AP	BUFFALO	WZR-HP-G300NH2	44066221202559[[G]]	D33093
GPS Signal Generator	Spectracom	GSG53 GNSS4	200218	N/A
Notebook	DELL	P56F	59WSJ72	R33002
Mouse	Logitech	M-U0026	1738HS05FGU8	T41126RoHS
Radio Communication Analyzer	R&S	CMW500	N/A	N/A

輔助測試之週邊線材描述

Cable Type	Core	Length	Shielding/Non-shielding
USB cable	N/A	1.8m	Shielding
USB cable	N/A	1.5m	Shielding

2.5 測試方法和測試場地

2.5.1 傳導干擾電壓量測和輻射干擾量測完全依照 CNS 13438 的規定執行。

2.5.2 實際的待測系統擺置，請參考報告內容中之測試照片。

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

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

SGS Taiwan Ltd.

No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan / 桃園市龜山區科技一路2號

台灣檢驗科技股份有限公司

t (886-2) 2299-3279

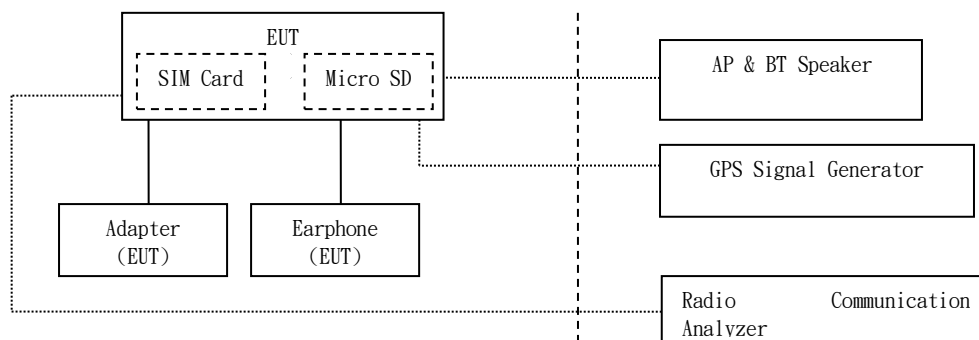
f (886-3) 327-7559

www.sgs.com.tw

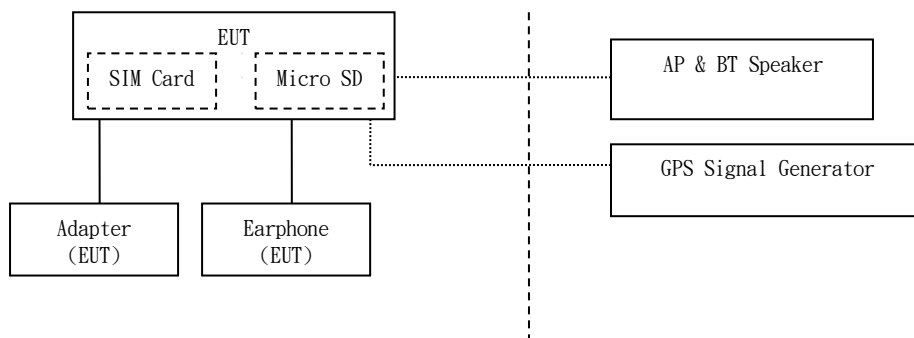
Member of SGS Group

2.6 測試配置

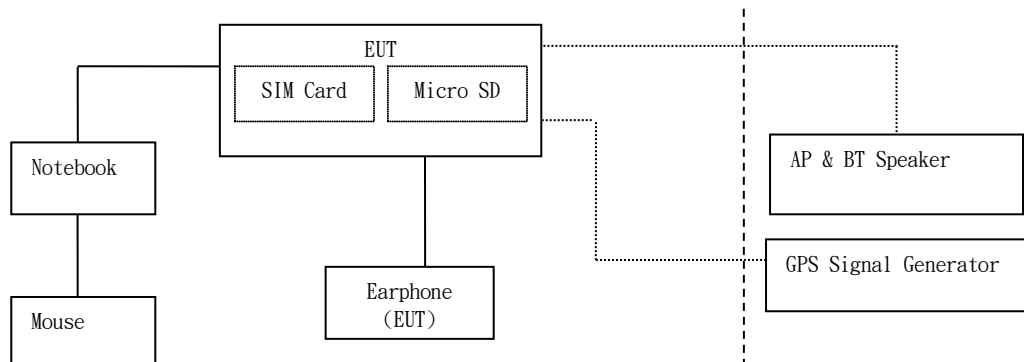
Mode 6 (Below RE)



Mode 18 (CE)



Mode 20 (Above HRE)



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

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

2.7 測試結果之決定原則

量測之結果，參照量測儀器CISPR 16-4-2所規定之不確定度。

應依符合性量測之結果決定是否符合標準之限制值時，不須將量測儀器之不確定度列入考慮。

根據CISPR 16-4-2對於符合性的評定方式，針對干擾值的符合性判定，應按下述方式進行：

若 U_{lab} 小於或等於表1中的 $UCISPR$ ，則：

- 如果測得的干擾位準值不超過所規定的干擾限制值，則判定為符合；
- 如果測得的干擾位準值超過所規定的干擾限制值，則判定為不符合。

若 U_{lab} 大於表1中的 $UCISPR$ ，則：

- 如果測得的干擾位準值加上 $(U_{lab}-UCISPR)$ 後不超過所規定的干擾限制值，則判定為符合；
- 如果測得的干擾位準值加上 $(U_{lab}-UCISPR)$ 後超過所規定的干擾限制值，則判定為不符合。

註：對於本條款規定的符合性評估程序，測得的干擾位準值和干擾限制值都用對數單位表示，例如 $dB(\mu V/m)$

2.8 報告符合性聲明

本報告中的符合性聲明僅基於測試結果，不包括測量不確定度。

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

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

3. 傳導干擾電壓量測

3.1 傳導干擾電壓量測頻段

150 kHz - 30 MHz

3.2 傳導干擾電壓量測儀器

SGS Conducted Emission HWYAY Conducted Room No.A EMC					
EQUIPMENT TYPE	Manufacturer	Model Number	Serial Number	Calibration Date	Calibration Due
EMI Test Receiver	R&S	ESCI 3	101311	2020/7/8	2021/7/7
Coaxial Cables	EMC Instruments Corp	HY-CE-CABLE	HYCE-2000-01	2020/5/19	2021/5/18
Pulse Limiter	Narda S.T.S.	PMM PL01	1110X30602	2020/8/12	2021/8/11
LISN	Schwarzbeck	NSLK 8127	8127-648	2020/7/14	2021/7/13
LISN	Schwarzbeck	NSLK 8128	NSLK8128-300	2020/9/10	2021/9/9
Communication Tester	R&S	CMU200	114273	2020/5/31	2021/5/30
Communication Tester	R&S	CMW500	152303	2020/2/24	2021/2/23
Communication Tester	Anritsu	MT8820C	6201465315	N.C.R.	N.C.R.
Test S/W	Farad	EZ-EMC	Ver. SGS-03A2-3	N.C.R.	N.C.R.

測試場地：桃園市龜山區科技一路2號

傳導干擾之量測不確定度

以擴充不確定度 U_{lab} ($k=2$)計算電源端之傳導干擾之量測不確定度為2.28 dB.

以擴充不確定度CISPR 16-4-2:2011+A1:2014+A2:2018 ($k=2$)計算電源端之傳導干擾之量測不確定度估算值為3.44 dB.

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

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

3.3 Measurement Level Calculation

Factor = LISN insertion loss + Cable loss + Pulse Limiter
insertion loss
Measurement Level = Reading Level + Factor
Over (Margin) = Measurement Level - Limit

3.4 Measurement Level Calculation

Factor = ISN insertion loss + Cable loss + Pulse Limiter
insertion loss
Measurement Level = Reading Level + Factor
Over (Margin) = Measurement Level - Limit

3.5. Measurement Level Calculation

ISN (CVP)
Factor = CVP Factor + Cable loss + Pulse Limiter insertion loss
Measurement Level = Reading Level + Factor
Over (Margin) = Measurement Level - Limit

3.6. Measurement Level Calculation

ISN (Current Probe)
Factor = Current Probe Factor + Cable loss + Pulse Limiter
insertion loss
Measurement Level = Reading Level + Factor
Over (Margin) = Measurement Level - Limit

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

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

3.7 傳導干擾電壓限制值

3.7.1 電源端干擾電壓限制值

頻率範圍 (MHz)	甲類資訊設備限制值 dB(μV)		乙類資訊設備限制值 dB(μV)	
	準峰值	平均值	準峰值	平均值
0.15~0.5	79	66	66~56	56~46
0.5~5	73	60	56	46
5~30	73	60	60	50

3.7.2 電信埠干擾電壓限制值

甲類資訊設備限制值

頻率範圍 (MHz)	電壓限制值 (dBuV)		電壓限制值 (dBuA)	
	準峰值	平均值	準峰值	平均值
0.15至0.5	97 至 87	84至74	53至43	40至30
0.5至30.0	87	74	43	30

乙類資訊設備限制值

頻率範圍 (MHz)	電壓限制值 (dBuV)		電壓限制值 (dBuA)	
	準峰值	平均值	準峰值	平均值
0.15 至0.5	84至74	74至64	40至30	30至20
0.5至30.0	74	64	30	20

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

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

3.8 傳導干擾電壓量測之結果

測試結果：合格

最接近限制值的雜訊 : 傳導干擾電壓量測在 N 線 0.5775 MHz
低於限制值 10.78 dB

3.9 電信埠干擾電壓量測之結果

測試結果：合格

最接近限制值的雜訊 : 電信埠干擾電壓量測在 N/A N/A MHz
低於限制值 N/A dB

3.10 傳導干擾電壓量測之待測設備操作情形

Mode 18

1. EUT(一供)裝上SIM Card & SD Card，接上EARPHONE，接USB Cable連接到Adapter開機
2. BT開啟，配對BT SPEAKER，依test mode設定Link
3. WiFi開啟，同NB一同連線WiFi AP(2.4G)，NB ping EUT IP Address
4. NFC開啟，在測試前後拿另一台手機，背靠背驗證NFC功能
5. 架設GPS模擬器，EUT執行GPS Test.app
6. 執行手機1k音源Mp3播放
7. 開始測試

3.11 電信埠干擾電壓量測之待測設備操作情形

無。

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

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

測試模式：

- Mode 1. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+GSM 900 Link
- Mode 2. EUT(一供LCD+一供內存: 4+128)+USB Cable(二供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+GSM 900 Link
- Mode 3. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+GSM 1800 Link
- Mode 4. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+WCDMA B1 Link
- Mode 5. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+WCDMA B8 Link
- Mode 6. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B1 Link
- Mode 7. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B3 Link
- Mode 8. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B5 Link
- Mode 9. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B7 Link
- Mode 10. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B8 Link
- Mode 11. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B20 Link
- Mode 12. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B28 Link
- Mode 13. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B38 Link
- Mode 14. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B41 Link
- Mode 15. EUT(一供LCD+一供內存: 4+128)+Battery Mode(維科)+WiFi Idle+BT Standby+NFC On+GPS On+ LTE Idle
- Mode 16. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+Camera(Front) Record

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

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

- Mode 17. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+Camera(Rear) Record
- Mode 18. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+MP3 Play
- Mode 19. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供) to NB+Earphone+WiFi Link+BT Link+NFC On+GPS On+Copy EUT Data to NB
- Mode 20. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供) to NB+Earphone+WiFi Link+BT Link+NFC On+GPS On+Copy NB Data to EUT
- Mode 21. EUT(二供LCD+二供內存: 4+64)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B1 Link
- Mode 22. EUT(二供LCD+二供內存: 6+64)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B1 Link
- Mode 23. EUT(二供LCD+二供內存: 6+64)+Battery Mode(風華)+WiFi Idle+BT Standby+NFC On+GPS On+LTE Idle

最差模式：

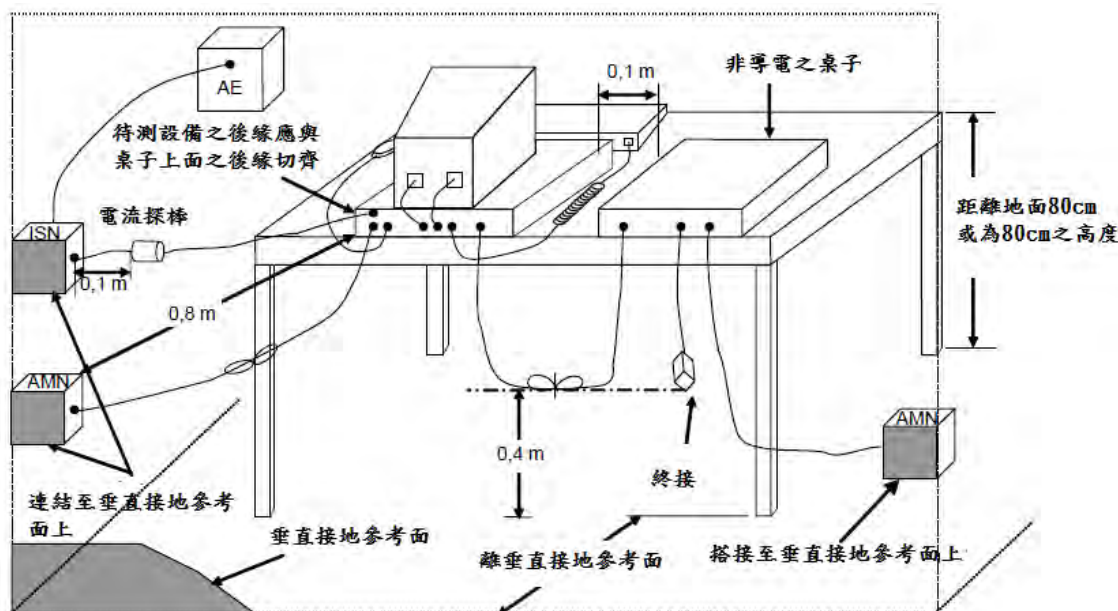
- Mode 18. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+MP3 Play

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

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

3.13 電信埠干擾電壓量測之測試程序

1. 待測物為桌上型產品，將待測物及測試週邊擺放在高 80 公分之木頭測試桌上，測試桌下及後方各放置於一至少長 2 米寬 2 米之接地平面，且桌下之接地平面須超過待測物的邊緣至少 0.5 米。
2. 若待測物為落地型產品，將待測物及測試週邊擺放於一至少長 2 米寬 2 米之接地平面，且待測物與此接地平面間須有 3 至 12 釐米之絕緣。
3. 傳導干擾電壓量測完全依照 CNS 13438 的規定執行之。將待測物電源接至第一個電源抗模擬網路 (LISN) 之電源插座，由其提供電源給待測物，其他測試週邊電源則接第二個電源抗模擬網路 (LISN)。
4. 電信埠上使用 ISN 進行測試，ISN 測試設備須要距離待測物 80 公分，且須連結至接地參考面上，至於待測設備之其他單元，則至少須距離 ISN 80 公分以上。
5. 實際的待測系統擺置，請參考 3.18 節之實際測試照片。
6. 量測待測物高密度區域 (LAN) 輻射，只需建立一個 10% 使用網路的區域網路 (LAN)，並維持 250ms 以上時間。
7. 測試設置 (配置框圖) 如下所示意：



測試模式：

無。

最差模式：

無。

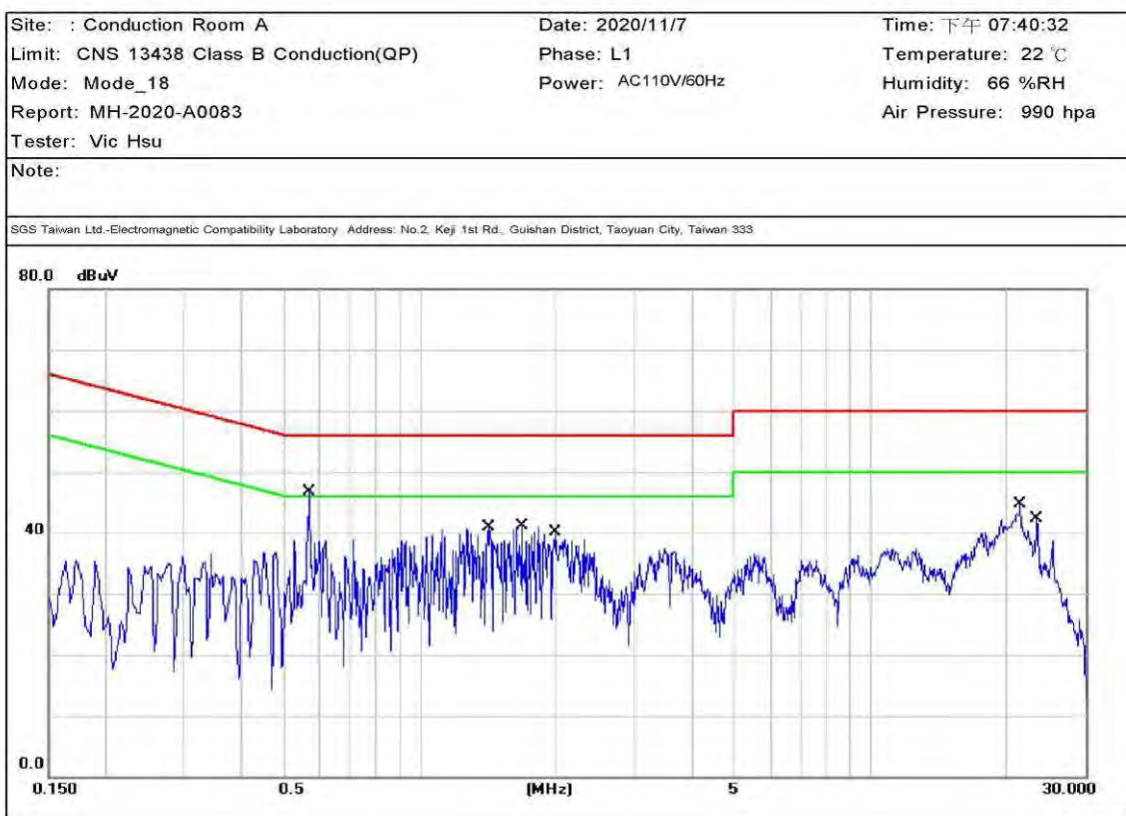
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

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

3.14 傳導干擾電壓量測之量測記錄

型式: TA-1337

Mode_18_L



No.	Mk	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	*	0.5685	43.54	0.01	43.55	56.00	-12.45	QP	
2		0.5685	32.71	0.01	32.72	46.00	-13.28	AVG	
3		1.4190	36.69	0.07	36.76	56.00	-19.24	QP	
4		1.4190	25.44	0.07	25.51	46.00	-20.49	AVG	
5		1.6890	38.01	0.10	38.11	56.00	-17.89	QP	
6		1.6890	25.50	0.10	25.60	46.00	-20.40	AVG	
7		2.0040	34.89	0.14	35.03	56.00	-20.97	QP	
8		2.0040	23.27	0.14	23.41	46.00	-22.59	AVG	
9		21.5385	36.20	0.76	36.96	60.00	-23.04	QP	
10		21.5385	21.85	0.76	22.61	50.00	-27.39	AVG	
11		23.4465	30.58	0.85	31.43	60.00	-28.57	QP	
12		23.4465	17.33	0.85	18.18	50.00	-31.82	AVG	

*:Maximum data x:Over limit !:over margin

Page: 1

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

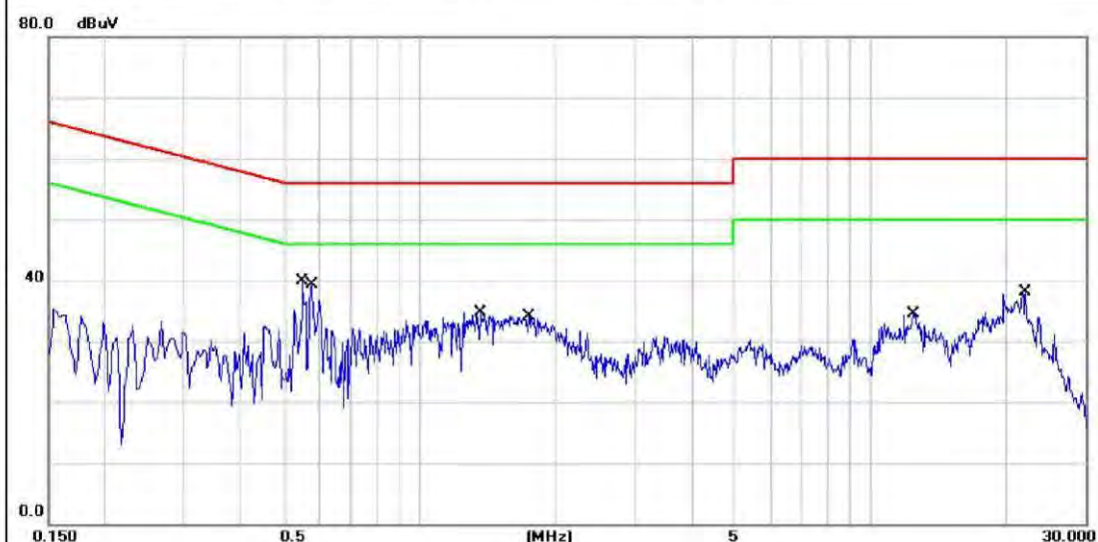
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com.tw/Terms-and-Conditions> and for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com.tw/Terms-and-Conditions>.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

Mode_18_N

Site: : Conduction Room A	Date: 2020/11/7	Time: 下午 07:47:50
Limit: CNS 13438 Class B Conduction(QP)	Phase: N	Temperature: 22 °C
Mode: Mode_18	Power: AC110V/60Hz	Humidity: 66 %RH
Report: MH-2020-A0083		Air Pressure: 990 hpa
Tester: Vic Hsu		

Note:

SGS Taiwan Ltd.-Electromagnetic Compatibility Laboratory Address: No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333.



No.	Mk	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1		0.5505	38.76	0.01	38.77	56.00	-17.23	QP	
2		0.5505	31.08	0.01	31.09	46.00	-14.91	AVG	
3		0.5775	39.90	0.01	39.91	56.00	-16.09	QP	
4	*	0.5775	35.21	0.01	35.22	46.00	-10.78	AVG	
5		1.3605	31.37	0.07	31.44	56.00	-24.56	QP	
6		1.3605	23.61	0.07	23.68	46.00	-22.32	AVG	
7		1.7520	32.04	0.12	32.16	56.00	-23.84	QP	
8		1.7520	22.74	0.12	22.86	46.00	-23.14	AVG	
9		12.5024	28.39	0.45	28.84	60.00	-31.16	QP	
10		12.5024	18.86	0.45	19.31	50.00	-30.69	AVG	
11		22.0920	28.58	0.68	29.26	60.00	-30.74	QP	
12		22.0920	15.42	0.68	16.10	50.00	-33.90	AVG	

*:Maximum data x:Over limit !:over margin

Page: 1

- 註：1. 準峰值已符合平均值的限制值，不須量測平均值。
2. 其它頻率的干擾值對限制值而言非常低，所以未記錄。

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

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

SGS Taiwan Ltd.

No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan / 桃園市龜山區科技一路2號

台灣檢驗科技股份有限公司

t (886-2) 2299-3279

f (886-3) 327-7559

www.sgs.com.tw

Member of SGS Group



3.15 電信埠干擾電壓量測之量測記錄

無。

3.16 傳導/電信埠干擾電壓量測之待測設備修改記錄

無修改記錄。

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

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

4. 輻射干擾量測

4.1 輻射干擾量測頻段

30 MHz - 6000 MHz

4.2 輻射干擾量測儀器

Below 1GHz

SGS Radiated_Below_1GHz HWAYA 10m EMC					
EQUIPMENT TYPE	Manufacturer	Model Number	Serial Number	Calibration Date	Calibration Due
EMI Test Receiver	R&S	ESCI 7	100950	2019/12/11	2020/12/10
EMI Test Receiver	R&S	ESCI 3	101343	2020/2/17	2021/2/16
Broadband Antenna	SCHWAZBECK	VULB9168	9168-628	2020/9/8	2021/9/7
Broadband Antenna	SCHWAZBECK	VULB9168	9168-629	2020/9/14	2021/9/13
Pre Amplifier	EMC Instruments Corp.	EMC330	980178	2020/3/31	2021/3/30
Pre Amplifier	EMC Instruments Corp.	EMC330	980179	2020/3/31	2021/3/30
Coaxial Cable	EMC Instruments	EMCCFD400-NM-NM	150917	2020/9/18	2021/9/17
Coaxial Cable	EMC Instruments	EMCCFD400-NM-NM	150919	2020/9/18	2021/9/17
Coaxial Cable	EMC Instruments	EMCCFD400-NM-NM	150820	2020/9/18	2021/9/17
Coaxial Cable	EMC Instruments	EMCCFD400-NM-NM	150918	2020/9/18	2021/9/17
Coaxial Cable	EMC Instruments	EMCCFD400-NM-NM	150821	2020/9/18	2021/9/17
Coaxial Cable	EMC Instruments	EMCCFD400-NM-NM	150822	2020/9/18	2021/9/17
Universal Digital Radio Communication Tester	R&S	CMU 200	114273	2020/5/31	2021/5/30
Wideband Radio Communication Tester	R&S	CMW 500	152303	2020/2/24	2021/2/23
Radio Communication Analyzer	Anritsu	MT8820C	6201465315	N.C.R.	N.C.R.
Controller	MF	MF7802	N/A	N.C.R.	N.C.R.
Controller	MF	MF7802	N/A	N.C.R.	N.C.R.
Antenna Master	MF	N/A	N/A	N.C.R.	N.C.R.
Antenna Master	MF	N/A	N/A	N.C.R.	N.C.R.
Antenna Master	MF	N/A	N/A	N.C.R.	N.C.R.
Turn Table	MF	N/A	N/A	N.C.R.	N.C.R.
Site NSA	SGS	10M Chamber	10M SAC	2019/12/31	2020/12/30
Test S/W	Farad	EZ-EMC	Ver. SGS 10m-03A2-3	N.C.R.	N.C.R.

測試場地：桃園市龜山區科技一路2號

輻射干擾之量測不確定度

以擴充不確定度 U_{lab} ($k=2$)計算輻射干擾之量測不確定度為4.43 dB.(30MHz-1000MHz)

以擴充不確定度CISPR 16-4-2:2011+A1:2014+A2:2018 ($k=2$)計算輻射干擾之量測不確定度估算值為6.32 dB.(30MHz-1000MHz)

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

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

SGS Taiwan Ltd.

No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan / 桃園市龜山區科技一路2號

台灣檢驗科技股份有限公司

t (886-2) 2299-3279

f (886-3) 327-7559

www.sgs.com.tw

Member of SGS Group

Above 1GHz

SGS Radiated Above 1GHz HWAYA 966A EMC					
EQUIPMENT TYPE	Manufacturer	Model Number	Serial Number	Calibration Date	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY48250064	2020/4/6	2021/4/5
EMI Test Receiver	R&S	ESR 7	101459	2020/2/24	2021/2/23
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA9120D285	2020/4/29	2021/4/28
Pre Amplifier	EMC Instruments Corp.	EMC012645B	980216	2020/4/25	2021/4/24
Coaxial Cable	JUNFLOW	MWX221-NMSNMS	J0778929	2020/4/23	2021/4/22
Coaxial Cable	Huber+Suhner	SUCCOFLEX 104PEA	30255/4PEA	2020/4/23	2021/4/22
Coaxial Cable	EMC Instruments	EMC104-SM-SM	140927	2020/4/23	2021/4/22
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	520415/2	2020/6/5	2021/6/4
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	MY 2153/2	2020/6/5	2021/6/4
Universal Digital Radio Communication Tester	R&S	CMU 200	114273	2020/5/31	2021/5/30
Wideband Radio Communication Tester	R&S	CMW 500	152303	2020/2/24	2021/2/23
Radio Communication Analyzer	Anritsu	MT8820C	6201465315	N.C.R.	N.C.R.
Controller	MF	MF7802	N.C.R.	N.C.R.	N.C.R.
Antenna Master	MF	N/A	N/A	N.C.R.	N.C.R.
Turn Table	MF	N/A	N/A	N.C.R.	N.C.R.
Site VSWR	SGS	966 Chamber A	SAC-A	2020/1/12	2021/1/11
Test S/W	Farad	EZ-EMC	Ver. SGS-03A2-3	N.C.R.	N.C.R.

測試場地：桃園市龜山區科技一路2號
 輻射干擾之量測不確定度
 以擴充不確定度U_{lab} (k=2)計算輻射干擾之量測不確定度為4.90 dB.(1-6GHz)
 以擴充不確定度CISPR 16-4-2:2011+A1:2014+A2:2018 (k=2)計算輻射干擾之量測不確定度估算值為5.18 dB.(1-6GHz)

4.3 Measurement Level Calculation

$$\text{Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

$$\text{Measurement Level} = \text{Reading Level} + \text{Factor}$$

$$\text{Over (Margin)} = \text{Measurement Level} - \text{Limit}$$

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

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

4.4 輻射干擾限制值

頻率範圍(MHz)	甲類資訊設備限制值dB(μ V/m)	乙類資訊設備限制值dB(μ V/m)
30~230	40	30
230~1000	47	37

甲類資訊技術設備在 3m 量測距離時之輻射干擾限制值

頻率範圍 GHz	平均限制值 dB(μ V/m)	峰值限制值 dB(μ V/m)
1 to 3	56	76
3 to 6	60	80

備考：在頻率的轉換點，應採用較嚴之限制值。

乙類資訊技術設備在 3m 量測距離時之輻射干擾限制值

頻率範圍 GHz	平均限制值 dB(μ V/m)	峰值限制值 dB(μ V/m)
1 to 3	50	70
3 to 6	54	74

備考：在頻率的轉換點，應採用較嚴之限制值。

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

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

4.5 輻射干擾量測之結果

測試結果：合格

最接近限制值的雜訊 : 輻射干擾量測在 垂直 30.0000 MHz
低於限制值 9.46 dB

4.6 輻射干擾量測之待測設備操作情形

Mode 6

1. EUT(一供)裝上SIM Card & SD Card，接上EARPHONE，接test mode指定USB Cable連接到Adapter開機
2. BT開啟，配對BT SPEAKER，依test mode設定Link
3. WiFi開啟，同NB一同連線WiFi AP(2.4G)，NB ping EUT IP Address
4. NFC開啟，在測試前後拿另一台手機，背靠背驗證NFC功能
5. 架設GPS模擬器，EUT執行GPS Test.app
6. 架設基地台，依test mode設定(LTE B1) Link
7. 開始測試

Mode 20

1. EUT(一供)裝上SIM Card & SD Card，接上EARPHONE，接USB Cable連接到NB開機
2. BT開啟，配對BT SPEAKER，依test mode設定Link
3. WiFi開啟，同NB一同連線WiFi AP(2.4G)，NB ping EUT IP Address
4. NFC開啟，在測試前後拿另一台手機，背靠背驗證NFC功能
5. 架設GPS模擬器，EUT執行GPS Test.app
6. NB執行與手機的資料讀寫，將NB的資料寫到手機內
7. 開始測試

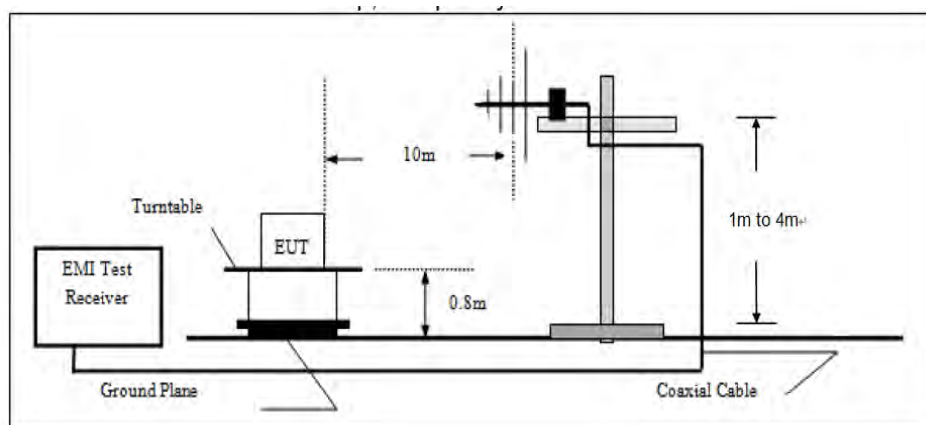
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

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

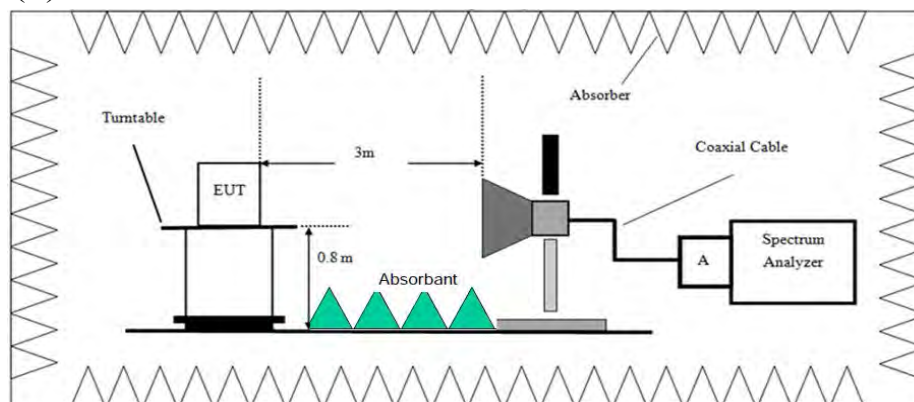
4.7 輻射干擾量測之測試程序

1. 待測物為桌上型產品，將待測物及測試週邊擺放在高 80 公分之木頭旋轉測試桌上，測試桌下放放置 CNS 13438 要求之接地平面。
2. 若待測物為落地型產品，將待測物及測試週邊擺放於一至少長 2 米寬 2 米之接地平面，且待測物與此接地平面間須有 3 至 12 釐米之絕緣。
3. 輻射干擾量測完全依照 CNS 13438 的規定執行之。將待測物電源線接至開放測試場地上提供待測物電源之專用電源插座。
4. 天線距離待測物 10 米(for 30-1000MHz)及 3 米(for 1GHz 以上)。實際的待測系統擺置，請參考 4.10 節中之測試照片。
5. 升降天線高度 (1 至 4 米) 及旋轉測試桌角度 360 度，量測天線設定在水平及垂直二種極性，待測物之雜訊強度。依據待測物產品規格，量測下列測試模式：
6. 測試設置 (配置框圖) 如下所示意：

(A) Below 1000MHz



(B) Above 1 GHz



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

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

測試模式：

- Mode 1. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+GSM 900 Link
- Mode 2. EUT(一供LCD+一供內存: 4+128)+USB Cable(二供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+GSM 900 Link
- Mode 3. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+GSM 1800 Link
- Mode 4. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+WCDMA B1 Link
- Mode 5. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+WCDMA B8 Link
- Mode 6. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B1 Link
- Mode 7. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B3 Link
- Mode 8. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B5 Link
- Mode 9. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B7 Link
- Mode 10. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B8 Link
- Mode 11. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B20 Link
- Mode 12. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B28 Link
- Mode 13. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B38 Link
- Mode 14. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B41 Link
- Mode 15. EUT(一供LCD+一供內存: 4+128)+Battery Mode(維科)+WiFi Idle+BT Standby+NFC On+GPS On+ LTE Idle
- Mode 16. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+Camera(Front) Record

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

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

- Mode 17. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+Camera(Rear) Record
- Mode 18. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+MP3 Play
- Mode 19. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供) to NB+Earphone+WiFi Link+BT Link+NFC On+GPS On+Copy EUT Data to NB
- Mode 20. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供) to NB+Earphone+WiFi Link+BT Link+NFC On+GPS On+Copy NB Data to EUT
- Mode 21. EUT(二供LCD+二供內存: 4+64)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B1 Link
- Mode 22. EUT(二供LCD+二供內存: 6+64)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B1 Link
- Mode 23. EUT(二供LCD+二供內存: 6+64)+Battery Mode(風華)+WiFi Idle+BT Standby+NFC On+GPS On+LTE Idle

最差模式：

Below 1GHz RE Worst case :

- Mode 6. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供)+Adapter+Earphone+WiFi Link+BT Link+NFC On+GPS On+LTE B1 Link

Above 1GHz RE Worst case :

- Mode 20. EUT(一供LCD+一供內存: 4+128)+USB Cable(一供) to NB+Earphone+WiFi Link+BT Link+NFC On+GPS On+Copy NB Data to EUT

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

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

4.8 輻射干擾量測之量測記錄

Below 1GHz

型式: TA-1337
Mode_6_H

Site: SGS 10m Chamber	Date: 2020/11/8	Time: 上午 06:04:38
Limit: CNS 13438 Class B Radiation	Polarization: Horizontal	Temperature: 22 °C
Mode: Mode 6	Power: AC110V/60Hz	Humidity: 67 %RH
Report: File :MH-2020-A0083	Distance: 10m	Air Pressure: 990 hpa
Tester: Moore Cheng		
Note:		

SGS Taiwan Ltd.-Electromagnetic Compatibility Laboratory Address: No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333



No.	Mk	Freq. MHz	Reading (dBuV)	Factor (dB/m)	Measurement (dBuV/m)	Limit (dBuV/m)	Over (dB)	Height (cm)	Degree (deg.)	Detector	Comment
1		766.2300	22.83	1.21	24.04	37.00	-12.96			QP	
2		853.5300	22.97	1.31	24.28	37.00	-12.72			QP	
3		887.4800	23.09	1.80	24.89	37.00	-12.11			QP	
4		913.6700	23.14	2.24	25.38	37.00	-11.62			QP	
5		948.5900	23.03	2.57	25.60	37.00	-11.40			QP	
6	*	980.6000	22.74	2.97	25.71	37.00	-11.29	289	359	QP	

*:Maximum data x:Over limit l:over margin

Page: 1

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

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

SGS Taiwan Ltd.

No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan / 桃園市龜山區科技一路2號

台灣檢驗科技股份有限公司

t (886-2) 2299-3279

f (886-3) 327-7559

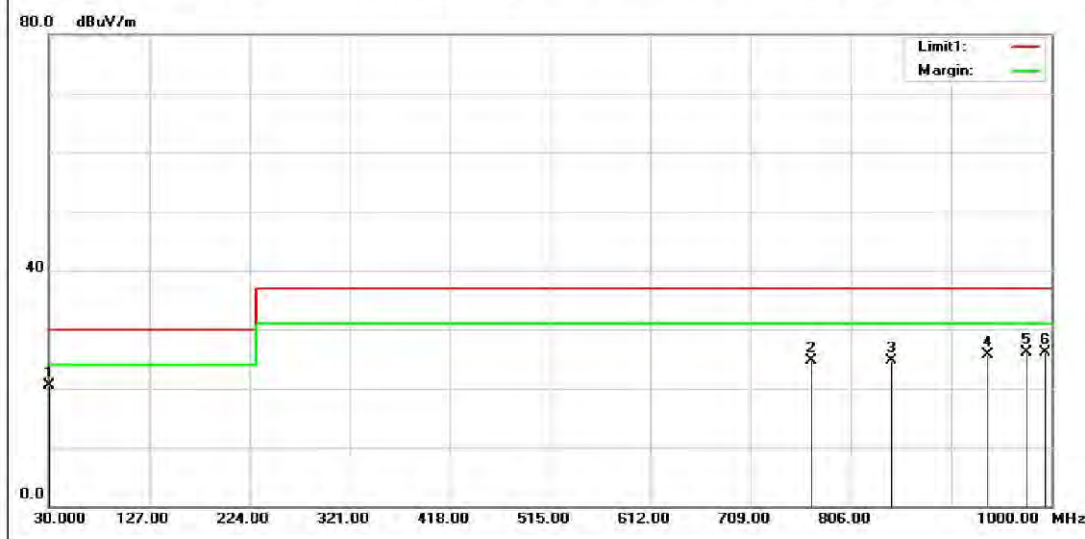
www.sgs.com.tw

Member of SGS Group

Mode_6_V

Site: SGS 10m Chamber	Date: 2020/11/8	Time: 上午 07:02:14
Limit: CNS 13438 Class B Radiation	Polarization: Vertical	Temperature: 22 °C
Mode: Mode 6	Power: AC110V/60Hz	Humidity: 67 %RH
Report: File :MH-2020-A0083	Distance: 10m	Air Pressure: 990 hpa
Tester: Moore Cheng		
Note:		

SGS Taiwan Ltd.-Electromagnetic Compatibility Laboratory Address: No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333



No.	Mk	Freq. MHz	Reading (dBuV)	Factor (dB/m)	Measurement (dBuV/m)	Limit (dBuV/m)	Over (dB)	Height (cm)	Degree (deg.)	Detector	Comment
1	*	30.0000	32.54	-12.00	20.54	30.00	-9.46	110	344	QP	
2		768.1700	23.00	1.62	24.62	37.00	-12.38			QP	
3		845.7700	22.44	2.20	24.64	37.00	-12.36			QP	
4		938.8900	23.02	2.66	25.68	37.00	-11.32			QP	
5		975.7500	23.21	2.90	26.11	37.00	-10.89			QP	
6		994.1800	23.26	2.88	26.14	37.00	-10.86			QP	

*:Maximum data x:Over limit !:over margin

Page: 1

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

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

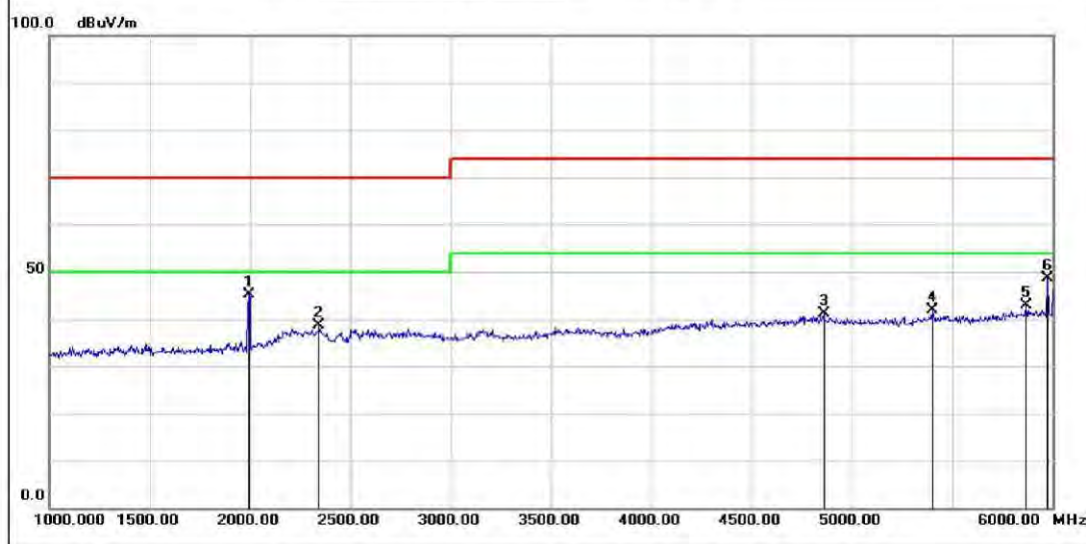
Above 1GHz

型式: TA-1337

Mode_20_H

Site: SGS 966 Chamber A	Date: 2020/11/7	Time: 上午 02:57:35
Limit: CNS 13438 Class B 1G-6G(Peak)	Polarization: Horizontal	Temperature: 22 ℃
Mode: Mode 20	Power: AC 110V/60Hz	Humidity: 63 %RH
Report: MH-2020-A0083	Distance: 3m	Air Pressure: 990 hpa
Tester: Moore Cheng		
Note:		

SGS Taiwan Ltd -Electromagnetic Compatibility Laboratory Address: No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333



No.	Mk	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Measurement (dBuV/m)	Limit (dBuV/m)	Over (dB)	Height (cm)	Degree (deg.)	Detector	Comment
1	*	1995.000	66.83	-21.61	45.22	70.00	-24.78	100	226	peak	
2		2345.000	56.96	-18.37	38.59	70.00	-31.41			peak	
3		4860.000	55.39	-14.22	41.17	74.00	-32.83			peak	
4		5400.000	55.08	-13.24	41.84	74.00	-32.16			peak	
5		5870.000	54.76	-11.77	42.99	74.00	-31.01			peak	
6		5975.000	60.06	-11.41	48.65	74.00	-25.35			peak	

*:Maximum data x:Over limit !:over margin

Page: 1

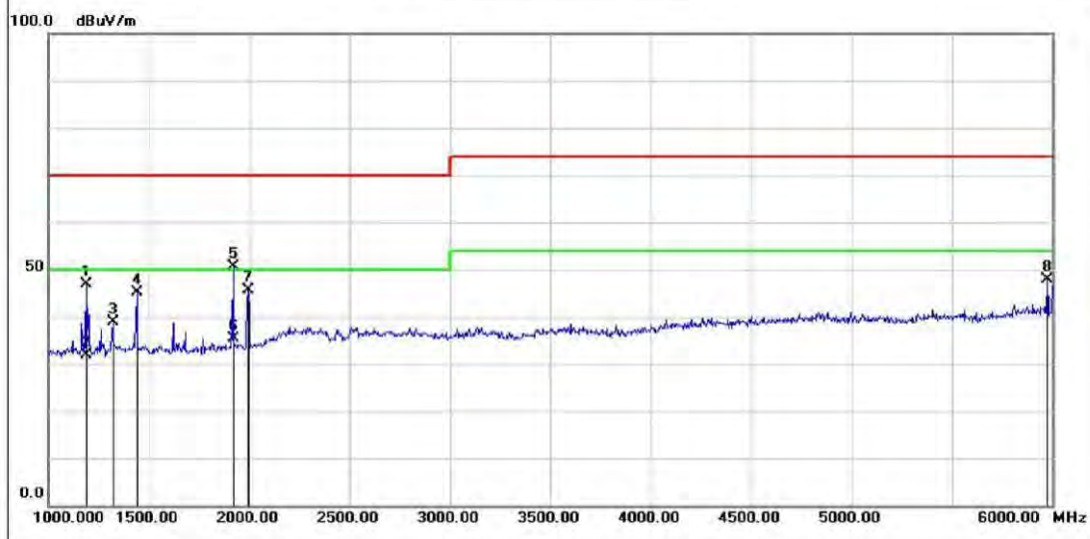
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

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

Mode_20_V

Site: SGS 966 Chamber A	Date: 2020/11/7	Time: 11:02:41:38
Limit: CNS 13438 Class B 1G-6G(Peak)	Polarization: Vertical	Temperature: 22 °C
Mode: Mode 20	Power: AC 110V/60Hz	Humidity: 63 %RH
Report: MH-2020-A0083	Distance: 3m	Air Pressure: 990 hpa
Tester: Moore Cheng		
Note:		

SGS Taiwan Ltd.-Electromagnetic Compatibility Laboratory Address: No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333



No.	Mk	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Measurement (dBuV/m)	Limit (dBuV/m)	Over (dB)	Height (cm)	Degree (deg.)	Detector	Comment
1		1190.000	70.74	-23.77	46.97	70.00	-23.03			peak	
2		1190.000	55.65	-23.77	31.88	50.00	-18.12			AVG	
3		1320.000	61.86	-22.90	38.96	70.00	-31.04			peak	
4		1440.000	67.76	-22.66	45.10	70.00	-24.90			peak	
5		1920.000	72.66	-21.98	50.68	70.00	-19.32	100	128	peak	
6	*	1920.000	57.41	-21.98	35.43	50.00	-14.57	100	128	AVG	
7		1995.000	67.23	-21.61	45.62	70.00	-24.38			peak	
8		5975.000	59.41	-11.41	48.00	74.00	-26.00			peak	

*:Maximum data x:Over limit !:over margin

Page: 1

註：1. 準峰值已符合平均值的限制值，不須量測平均值。

2. 其它頻率的干擾值對限制值而言非常低，所以未記錄。

4.9 輻射干擾量測之待測設備修改記錄

無修改記錄。

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

SGS Taiwan Ltd.

No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan / 桃園市龜山區科技一路2號

台灣檢驗科技股份有限公司

t (886-2) 2299-3279

f (886-3) 327-7559

www.sgs.com.tw

Member of SGS Group