

ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART E REQUIREMENT

	OF
Product Name:	PDA Phone
Brand Name:	Sony
Type No.:	PM-0730-BV
Model Difference:	N/A
FCC ID:	PY7PM-0730
Report No.:	EH/2014/10047
Issue Date:	Mar. 12, 2014
FCC Rule Part:	§15.407
Prepared for:	Sony Mobile Communications AB Nya Vattentornet 22188 Lund/Sweden
Prepared by:	SGS Taiwan Ltd. Electronics & Communication Laboratory No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan 24803
antologian (Note: This report shall not be reproduced except in full,



without the written approval of SGS Taiwan Ltd. This document may be altered or revised by SGS Taiwan Ltd. personnel only, and shall be noted in the revision section of the document.

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

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



VERIFICATION OF COMPLIANCE

Applicant:	Sony Mobile Communications AB Nya Vattentornet 22188 Lund/Swede	
Product Name:	PDA Phone	
Brand Name:	Sony	
Type No.:	PM-0730-BV	
Model Difference:	N/A	
FCC ID:	PY7PM-0730	
File Number:	EH/2014/10047	
Date of test:	Jan. 27, 2014 ~ Feb. 18, 2014	
Date of EUT Received:	Jan. 27, 2014	
• h • • • h • • • • • • • • • • • • • •		

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Electronics & Communication Laboratory The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4:2009 & ANSI C63.10: 2009 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 15.407.

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

Test By:	Marcus Tseng	Date:	Mar. 12, 2014
– Prepared By:	Marcus Tseng / Engineer Uroletta Tang	Date:	Mar. 12, 2014
- Approved By:	Violetta Tang / Clerk Time Ch ang	Date:	Mar. 12, 2014

Jim Chang / Supervisor

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



Revision History

Report Number	Revision	Description	Issue Date
EH/2014/10047	Rev.00	Initial creation of document	Mar. 12, 2014

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. <u>SGS Taiwan Ltd.</u> No 134. WuKungNoad.NewTaipelindustrialPark. WukuDistrict NewTaipelicity. Taiwan24803/新 th. 市 充 股區 新 th. 產業 团區 充 工 路 134 發

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.



Table of Contents

1.	GEN	ERAL INFORMATION	5
	1.1.	Product Description	5
2.	SUM	IMARY OF TEST RESULT	
3.	MEA	ASUREMENT UNCERTAINTY	11
4.	ТРС	and DFS MEASUREMENT	12
	4.1.	TPC: Standard Applicable	
	4.2.	DFS: Standard Applicable	

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. <u>SGS Taiwan Ltd.</u> No 134. WuKungNoad.NewTaipelindustrialPark. WukuDistrict NewTaipelicity. Taiwan24803/新 th. 市 充 股區 新 th. 產業 团區 充 工 路 134 發

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.



GENERAL INFORMATION 1.

1.1. Product Description

General:

Product Name:	PDA Phone			
Brand Name:	Sony			
Type No.:	PM-0730-	BV		
Model Difference:	N/A			
Data Cable (USB):	 1.Model No.: EC450, Supplier: K-one Type No.: AI-0700, Length: 100 cm 2.Model No.: EC801, Supplier: Sony Type No.: AI-0401, Length: 100 cm 			
Simple Hands-Free (SHF-White):	Model No. Type No.:	: MH410c, Supplier: Foster Electric AG-1100		
Simple Hands-Free (SHF-Black):	Model No.: MH410c, Supplier: Foster Electric Type No.: CCA-0004017			
Car Charger:	Model No.: AN400, Supplier: Salcomp Type No.: CAA-0003013			
Hi-Fi Wireless Headset:	Model No.: MW600, Supplier: BALDA Type No.: DDA-0002029.B coupling with Simple Hands Free (Model No.: MH755, Supplier: BALDA Type No.: AG-0502)			
Hardware Version:	Α			
Software Version:	18.1.A.0.9			
	3.8Vdc			
	Battery:	Model No.: LIS1546ERPC, Supplier: Sony Type No.: N/A		
Power Supply:	Adapter:	1.Model No.: EP800, Supplier: Salcomp Type No.: CAA-0002016-US		
		2.Model No.: EP880, Supplier: Salcomp Type No.: AC-0400-US		

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. <u>SGS Taiwan Ltd.</u> No 134. WuKungNoad.NewTaipelindustrialPark. WukuDistrict NewTaipelicity. Taiwan24803/新 th. 市 充 股區 新 th. 產業 团區 充 工 路 134 發



Bluetooth_BR+EDR:

Bluetooth Version:	V3.0+HS
Channel number:	79 channels
Modulation type:	Frequency Hopping Spread Spectrum
Transmit Power:	10.04dBm
Frequency Range:	2.402GHz – 2.480GHz
Dwell Time:	<= 0.4s
Antenna Designation:	PIFA Antenna, Gain: -1.34dBi

Bluetooth Low Energy:

Frequency Range:	2402 – 2480MHz
Bluetooth Version:	V4.0 Dual mode
Channel number:	40 channels
Modulation type:	GFSK
Transmit Power:	1.85dBm (Peak)
Antenna Designation:	PIFA Antenna, Gain: -1.34dBi

NFC:

Operating Frequency	13.56MHz
Transmit Power	< 123dBuV/m at 3m.
Number of Channels	1
Antenna Type	Loop Antenna
Modulation Type	ASK, BPSK

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. <u>SGS Taiwan Ltd.</u> No 134. WuKungNoad.NewTaipelindustrialPark. WukuDistrict NewTaipelicity. Taiwan24803/新 th. 市 充 股區 新 th. 產業 团區 充 工 路 134 發



Ant Plus

Operation Frequency:	2402 – 2480MHz
Transmit Power	101.78dBuV/m at 3m.
Channel number:	79
Modulation Type:	GFSK
Antenna Designation:	PIFA Antenna, Gain: -1.34dBi

WLAN 2.4GHz+5.7GHz:

Wi-Fi	Frequency Range	Channels	Rated Power	Modulation Technology	
11b/g	2412-2462	11	b: 20.35dBm g: 21.91dBm	DSSS, OFDM	
11n	HT20 2412-2462	11	HT20: 20.55dBm	OFDM	
11a	5725-5850	5	a: 21.15dBm		
11n (5GHz)	HT20 5725-5850	5	HT20: 20.22dBm	OFDM	
11n (5GHz)	HT40 5725-5850	2	HT40: 19.50dBm		
		PIFA Antenna,			
Antenna	Designation:	2.4GHz Gain: -1.34dBi			
		5GHz Gain: 4.51dBi (5725MHz-5850MHz)			
Modulation type:		CCK, DQPSK, DBPSK for DSSS			
		64QAM, 16QAM, QPSK, BPSK for OFDM			
Transition Rate:		802.11 a: 6/9/12/18/24/36/48/54 Mbps			
		802.11 b: 1/2/5.5/11 Mbps 802.11 g: 6/9/12/18/24/36/48/54 Mbps			
		802.11 g. $0/9/12/10/24/30/48/34 Wops802.11 \text{ n}_20\text{MHz}: 6.5 - 65.0\text{Mbps}$			
		802.11 n_20MHz: 0.5 – 05.0Mbps 802.11 n_40MHz: 13.5 – 135.0Mbps			
		δ02.11 n_40NIHZ: 15.5 – 155.0NIDps			

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms_and_conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. SGS Taiwan Ltd. No.134 WuKungRoad NewTaipelindustrialPark WukuDistrict NewTaipelicity. Taiwan24803/新 th. 市 5 股區 新 th. 走 業 跟區 东 工 路 134 號



WLAN 5GHz:

Wi-Fi	Frequency Range	Channels	Rated Power (Avg)	Rated Power (EIRP)	Modulation Technology
	5150~5250	4	13.96dBm	13.58dBm	
11a	5250~5350	4	13.97dBm	14.07dBm	OFDM
	5470~5725	8	13.99dBm	17.97dBm	
	HT20 5150~5250	4	HT20: 11.49dBm	HT20: 11.11dBm	
11n	HT20 5250~5350	4	HT20: 11.49dBm	HT20: 11.59dBm	OFDM
	HT20 5470~5725	8	HT20: 11.83dBm	HT20: 15.81dBm	
	HT40 5150~5250	2	HT40: 11.41dBm	HT40: 11.03dBm	
11n	HT40 5250~5350	2	HT40: 10.45dBm	HT40: 10.55dBm	OFDM
	HT40 5470~5725	3	HT40: 10.48dBm	HT40: 14.46dBm	
Antenna D	Designation	PIFA Antenna, 5GHz Gain: -0.38dBi (5150MHz-5250MHz) 5GHz Gain: 0.10dBi (5250MHz-5350MHz) 5GHz Gain: 3.98dBi (5470MHz-5725MHz)			Hz)
Modulatio	n type	64QAM, 16QAM, QPSK, BPSK for OFDM			DM
Transition	Rate:	802.11 a: 6/9/12/18/24/36/48/54 Mbps 802.11 n_20MHz: 6.5 – 65.0Mbps 802.11 n_40MHz: 13.5 – 135.0Mbps			

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. <u>SGS Taiwan Ltd.</u> No 134. WuKungNoad.NewTaipelindustrialPark. WukuDistrict NewTaipelicity. Taiwan24803/新 th. 市 充 股區 新 th. 產業 团區 充 工 路 134 發



GSM / LTE:

	Operating Frequency		Rated Power		
	GSM/GPRS 850, Class 33	824.2 MHz- 848.8 MHz	33dBm		
	EDGE 850, Class 33	824.2 MHz- 848.8 MHz	27dBm		
Cellular Phone	GSM/GPRS 1900, Class 33	1850.2MHz - 1909.8MHz	30dBm		
Standards Frequency	EDGE 1900, Class 33	1850.2MHz - 1909.8MHz	26dBm		
Range and Power.	5MHz BW LTE-Band 7	2502.5MHz – 2567.5MHz	23dBm		
	10MHz BW LTE-Band 7	2505.0MHz - 2565.0MHz	23dBm		
	15MHz BW LTE-Band 7	2507.5MHz – 2562.5MHz	23dBm		
	20MHz BW LTE-Band 7 2510.0MHz – 2560MHz		23dBm		
Type of Emission:	GSM 850: 250KGXW, GSM 1900: 252KGXW GPRS 850: 244KGXW, GPRS 1900: 248KGXW EDGE 850: 249KG7W, EDGE 1900: 248KG7W 5MHz BW LTE-Band 7: QPSK: 4M51G7D, 16QAM: 4M51D7W 10MHz BW LTE-Band 7: QPSK: 9M01G7D, 16QAM: 8M99D7W 15MHz BW LTE-Band 7: QPSK: 13M5G7D, 16QAM: 13M4D7W 20MHz BW LTE-Band 7: QPSK: 17M9G7D, 16QAM: 17M9D7W				
IMEI:	004402452026218				

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms_e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ap-pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. <u>SGS Taiwan Ltd.</u> No 134. WuKungNoad.NewTaipelindustrialPark. WukuDistrict NewTaipelicity. Taiwan24803/新 th. 市 充 股區 新 th. 產業 团區 充 工 路 134 發

No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號 SGS Taiwan Ltd.



IEEE	802.1	l 1n	S	pec:
------	-------	------	---	------

MCS	MCS Index Nss Modulation		NG	NORDO		NIDEDO		Datarate(Mbps)				
Index		R	NBPSC	NCBPS		NDBPS		800nsGI		400nsGI		
					20MHz	MHz 40MHz 20MHz 40MHz	20MHz	40MHz	20MHz	40MHz		
0	1	BPSK	1/2	1	52	108	26	54	6.5	13.5	7.200	15
1	1	QPSK	1/2	2	104	216	52	108	13.0	27.0	14.400	30
2	1	QPSK	3/4	2	104	216	78	162	19.5	40.5	21.700	45
3	1	16-QAM	1/2	4	208	432	104	216	26.0	54.0	28.900	60
4	1	16-QAM	3/4	4	208	432	156	324	39.0	81.0	43.300	90
5	1	64-QAM	2/3	6	312	648	208	432	52.0	108.0	57.800	120
6	1	64-QAM	3/4	6	312	648	234	486	58.5	121.5	65.000	135
7	1	64-QAM	5/6	6	312	648	260	540	65.0	135.0	72.200	150

Symbol	Explanation
NSS	Number of spatial streams
R	Code rate
NBPSC	Number of coded bite per single carrier
NCBPS	Number of coded bite per symbol
NDBPS	Number of data bite per symbol
GI	Guard interval

This report applies for client device in order to be compliant DFS regulation.

Note: The pertinent information with regards to the parameters of the detected Radar Waveforms is not available and accessible to the end user.

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



SUMMARY OF TEST RESULT 2.

FCC Rules Description Of Test		Result
§15.407(h)	TPC and DFS Measurement	Compliant

MEASUREMENT UNCERTAINTY 3.

Test Items	Uncertainty
TPC and DFS Measurement	+/- 123.36 Hz
Temperature	+/- 0.8 °C
Humidity	+/- 4.7 %
DC / AC Power Source	DC= +/- 1%, AC=+/- 0.2%

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

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



4. TPC and DFS MEASUREMENT

4.1. TPC: Standard Applicable

According to \$15.407(h)(1), Transmit power control (TPC). U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

4.1.1. Result: N/A, The output power is less than 500mW.

4.2. DFS: Standard Applicable

According to §15.407(h)(2), Radar Detection Function of Dynamic Frequency Selection (DFS). U-NII devices operating in the 5.25-5.35 GHz and 5.47-5.725 GHz bands shall employ a DFS radar detection. According to RSS 210 A9.3), Note: For the band 5600-5650 MHz, no operation is permitted. Until further notice, devices subject to this annex shall not be capable of transmitting in the band 5600-5650 MHz. This restriction is for the protection of Environment Canada weather radars operating in this band. Devices operating in the bands 5250-5350 MHz, 5470-5600 MHz and 5650-5725 MHz band shall comply with the following:

(a) Devices shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems (see Note below). The minimum DFS radar signal detection threshold is -62 dBm for devices with a maximum e.i.r.p. less than 200 mW, and -64 dBm for devices with a maximum e.i.r.p. of 200 mW to 1 W. The detection threshold power is the received power, averaged over a 1-microsecond reference to a 0 dBi antenna. The DFS process shall provide a uniform spreading of the loading over all the available channels.

Note: Test procedures for demonstrating compliance with the DFS radar detection requirements set out in this section are being evaluated by Industry Canada. As an interim measure, the Department will, until further notice, accept utilization of the DFS test procedures published by the U.S. Federal Communications Commission (FCC)3 to demonstrate compliance with the requirements of this section.

(b) Operational requirements: the requirement for channel availability check time applies in the master operational mode. The requirement for channel move time applies in both the master and slave operational modes.

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。

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sqs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sqs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law.
<u>SGS Taiwan Ltd.</u> No.134,WuKungRoad,NewTaipeiIndustrialPark,WukuDistrict,NewTaipeiCity,Taiwan24803/新北市五股區新北產業園區五工路 134 號



- (i) In-service monitoring: an LE-LAN device should be able to monitor the operating channel to check that a co-channel radar has not moved or started operation within range of the LE-LAN device.
 During in-service monitoring, the LE-LAN radar detection function continuously searches for radar signals between normal LE-LAN transmissions.
- (ii) Channel availability check time: the device shall check if there is a radar system already operating on the channel before it initiates a transmission on a channel and when it moves to a channel. The device may start using the channel if no radar signal with a power level greater than the interference threshold value specified in A9.3 (a) above is detected within 60 seconds.
- (iii) Channel move time: after a radar's signal is detected, the device shall cease all transmissions on the operating channel within 10 seconds. Transmission during this period shall consist of normal traffic for a maximum of 200 ms after detection of the radar signal. Intermittent management and control signals may also be sent during the remaining time to facilitate vacating the operating channel.
- (iv)Channel closing time: the maximum channel closing time is 260 ms. (v) Non-occupancy period: a channel that has been flagged as containing a radar signal, either by a channel availability check or in-service monitoring, is subject to a 30-minute non-occupancy period where the channel cannot be used by the LE-LAN device. The non-occupancy period starts from the time that the radar signal is detected.

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

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



4.2.1. Limit

Table 1: Applicability of DFS requirements prior to use of a channel

	Operational Mode			
Requirement	Master	Client(without radar detection)	Client(with radar detection)	
Non-occupancy Period	Yes	Yes	Yes	
DFS Detection Thresh- old	Yes	Not required	Yes	
Channel Availability Check Time	Yes	Not required	Not required	
Uniform Spreading	Yes	Not required	Not required	

Table 2: Applicability of DFS requirements during normal operation

	Operational Mode				
Requirement	Master	Client(without radar detection)	Client(with radar detection)		
Cannel Closing Transmis- sion time	Yes	Yes	Yes		
Channel Move time	Yes	Yes	Yes		

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



Table 3: Interference Threshold values, Master or Client incorporating In-Service Monitoring

Maximum Transmit Power	Value
	(see note)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 dBm

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

Table 4: DFS Response requirement values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 80% of the 99% power bandwidth See Note 3.

Note 1: The instant that the *Channel Move Time* and the *Channel Closing Transmission Time* begins is as follows:

- For the Short pulse radar Test Signals this instant is the end of the Burst.
- For the Frequency Hopping radar Test Signal, this instant is the end of the last radar *Burst* generated.
- For the Long Pulse radar Test Signal this instant is the end of the 12 second period defining the radar transmission.

Note 2: The *Channel Closing Transmission Time* is comprised of 200 milliseconds starting at the beginning of the *Channel Move Time* plus any additional intermittent control signals required to facilitate *Channel* changes (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the *U-NII Detection Bandwidth* detection test, radar type 1 is used and for each frequency step the minimum percentage of detection is 90%. Measurements are performed with no data traffic.

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

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the performance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Table 5: Radar Test Waveforms

Short Pulse Radar

	•				
Radar	Pulse Width	PRI	Number	Minimum	Minimum
Туре	(µsec)	(µsec)	of Pulses	Percentage of	Trials
				Successful	
				Detection	
1	1	1428	18	60%	30
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

Long Pulse Radar

Radar Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Number of Pulses per <i>Burst</i>	Number of <i>Bursts</i>	Minimum Percentage of Successful	Minimum Trials
5	50-100	5-20	1000- 2000	1-3	8-20	Detection 80%	30

Frequency Hopping Radar

Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Trials
6	1	333	9	.333	300	70%	30

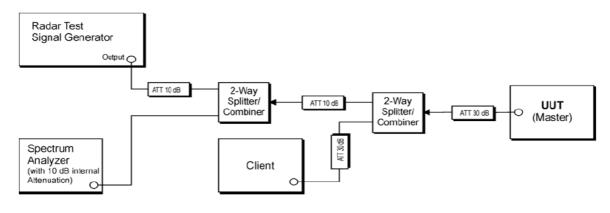
The applicant of this given application confirms that information regarding the parameters of the detected Radar Waveforms is not available to the end user.

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

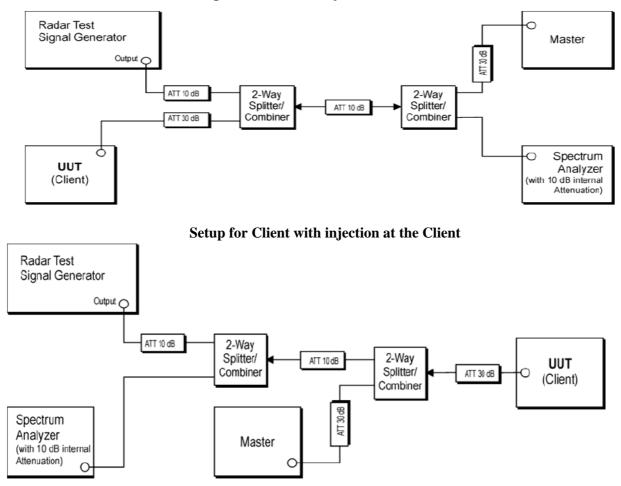


4.2.2. Test Setup

Setup for Master with injection at the Master



Setup for Client with injection at the Master



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

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not 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.



Conducted Emission Test Site											
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.						
ТҮРЕ		NUMBER	NUMBER	CAL.							
Signal Generator	Agilent	E4438C	MY45093613	07/30/2013	07/29/2014						
Spectrum Analyzer	Agilent	E4446A	MY51100003	05/30/2013	05/29/2014						
DC Block	Mini-Circuits	BLK-18-S+	1	02/28/2013	02/27/2014						
Attenuator	Mini-Circuit	BW-S10W2+	002	02/28/2013	02/27/2014						
Power Splitter	Mini-Circuits	ZN2PD-9G-S+	N/A	02/28/2013	02/27/2014						
Power Splitter	Mini-Circuits	ZN2PD-9G-S+	N/A	02/28/2013	02/27/2014						
Attenuator	Agilent	8495B	3308A22470	02/28/2013	02/27/2014						
Attenuator	HP	8494B	2812A170605	02/28/2013	02/27/2014						

4.2.3. Test Equipment Used:

4.2.4. Description of EUT:

EUT operates over the 5250-5350MHz and 5470-5725MHz ranges and EUT is a slave device (client equipment) w/o radar detection and DFS capability. EUT has a gain of 2.70dBi in the 5GHz Band.

EUT has no TPC mechanism implemented with no adjustment of lowest, and highest power, but the level of power emission stays at fixed level.

The EUT utilizes the 802.11a architecture, with a nominal channel bandwidth of 20MHz WLAN traffic is generated by streaming the mpeg file from the master to slave in full monitor video mode using the media player.

The rated output power of the master unit is >23dBm(EIRP).therefore the required interference threshold level is -62dBm.after correction for antenna gain and procedural adjustments, the required conducted threshold at the antenna port is -62dBm, and the master device as employed for the applicable DFS test is CISCO router whose FCC ID= LDK102061

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

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

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



FCC ID: PY7PM-0730

While calibrate the path on antenna port of DFS test equipment (master), measurements equipments (spectrum) is ensured to be 50 Ohms, and therefore verification on antenna gain measurement can be ignored.

Conducted test was performed with appropriate adjustment, and calibration to ensure power from DFS simulator injects to antenna port of DFS test equipment (DFS) is -62dBm

Message or files that is used for communication between Master and Client:

IP based system:

For the required channel loading, the full motion, 30 frames per second MPEG video file from http://ntiacsd.ntia.doc.gov/dfs/ was streamed from a network on a test bench (server of the storage to down-load the mandatory format of Video file), via the DFS Master device, to the UE (mobile phone).

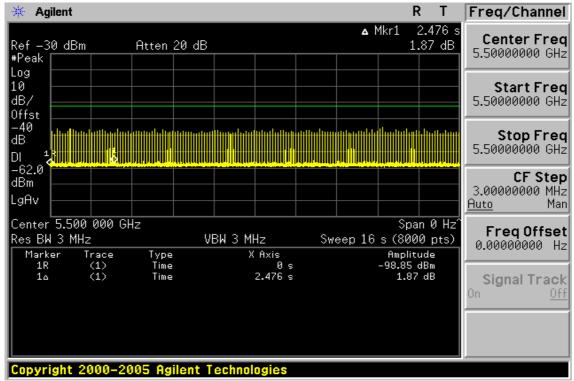
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not 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.



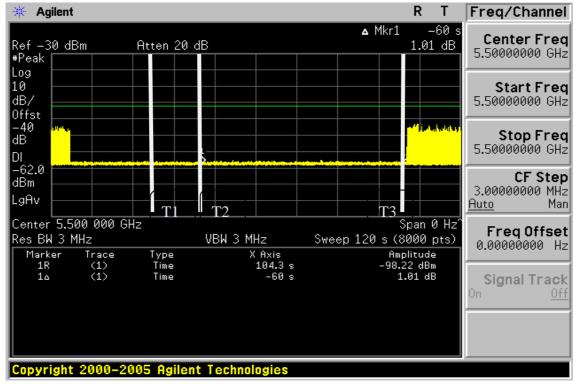
4.2.5. Test results

The time of power-on cycle (2.476s):



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





The time of channel availability check (60s)

Where T1~T2 indicates the time to power up, where T2~T3 represents the channel availability time.

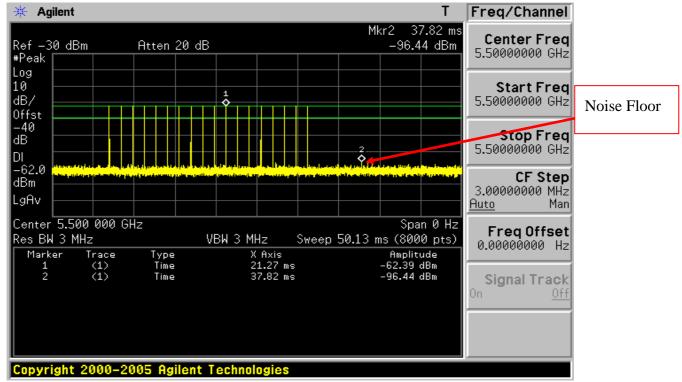
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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



Calibration plots for each of the required radar waveforms

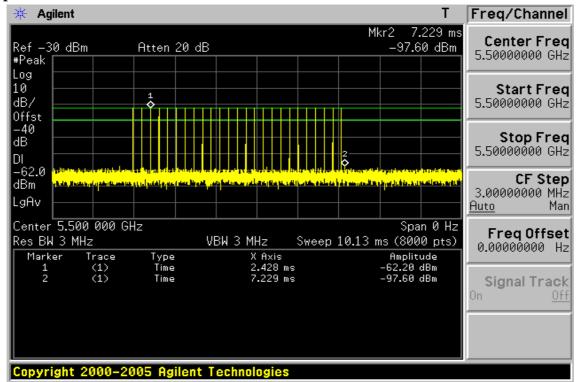
Radar type 1



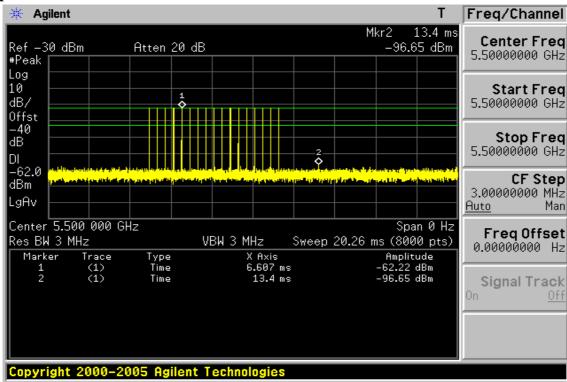
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf,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



Radar type 2



Radar type 3

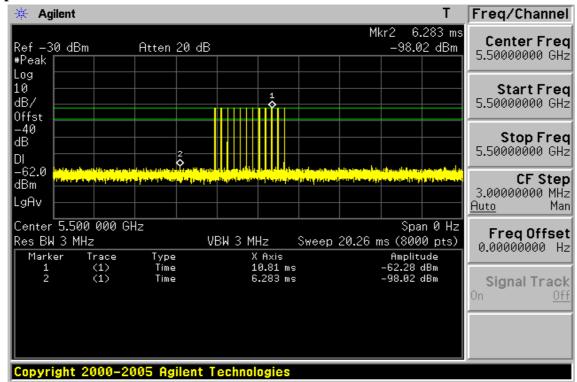


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

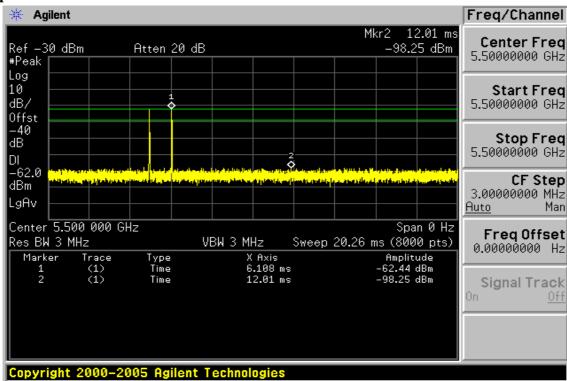
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for so days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf,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



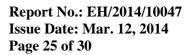
Radar type 4



Radar type 5

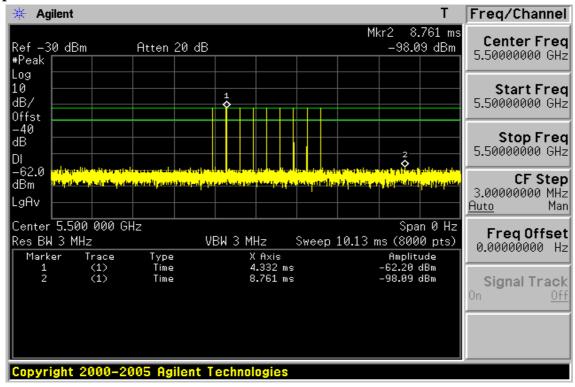


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf,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





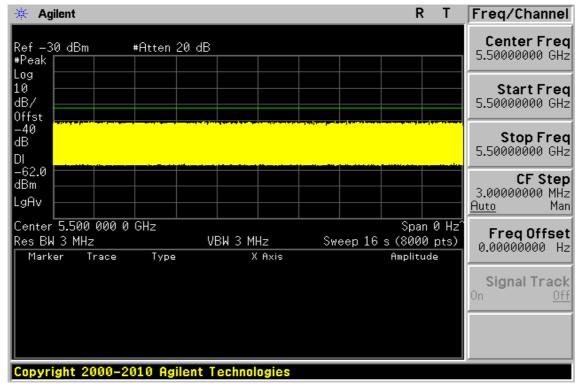
Radar type 6



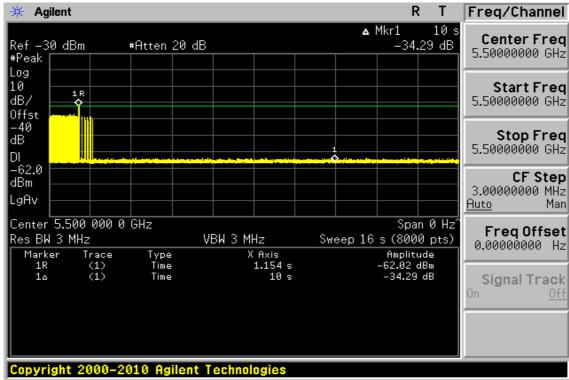
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf,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



WLAN traffic



Radar Type 1 Channel Move Time

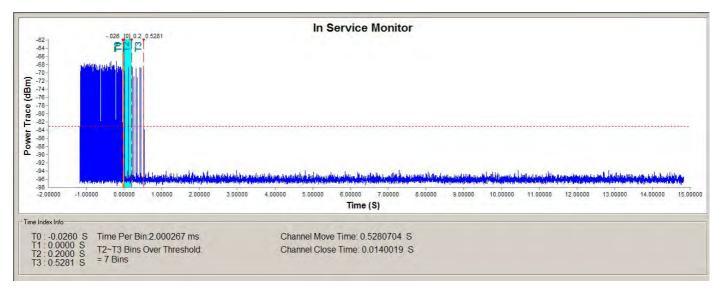


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

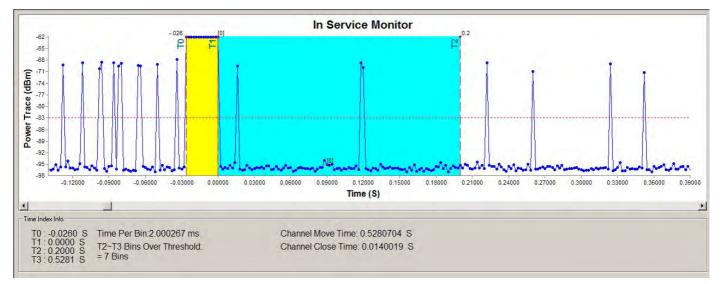
Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for so days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf,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



Radar Type 1 Channel Closing Transmission Time - 1



Radar Type 1 Channel Closing Transmission Time - 2

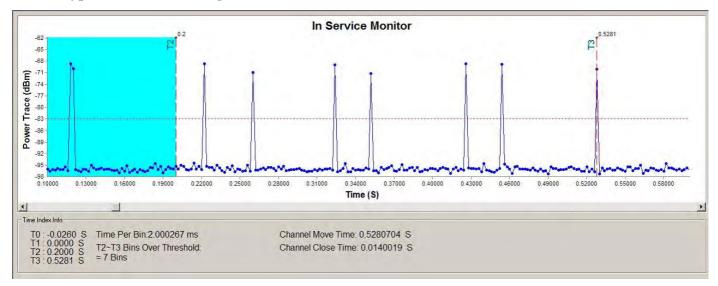


Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。

除非方方就可,近報告題未僅對測測之樣态具真,同時近線治理(新聞別大,心和報告未經本公司書面計可,不可能行程泉。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for elec-tronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document to the forebrook the the future that the there is the terms of terms of terms of terms of terms of the terms of the terms of terms pearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law



Radar Type 1 Channel Closing Transmission Time - 3



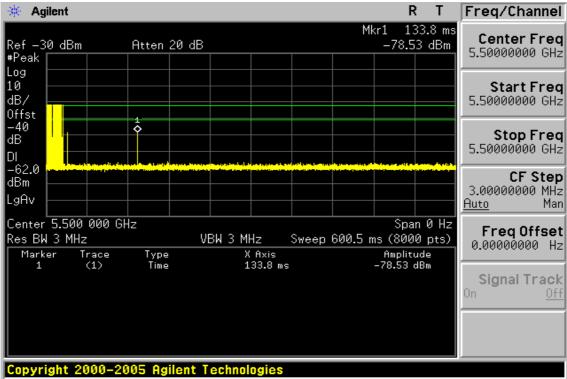
Verdict:

Time per bin: 2.0ms, Total Bins after 200ms: 7Bins, Total time intermittent control remains: 14.0ms. 14.0ms <60ms in the period of 10s.

Unless otherwise stated 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。

除非方方就可, 比較容認未僅對測測之後态具負, 阿哈比線品僅保留別元, 今,報告本题本公司書面計可, 不可命份視見。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document 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.





Radar Type 1 Channel Closing Transmission Time - 4

Verdict:

Note: narrowing the sweep time as the good engineering process for the verification of transmission closing in 200ms

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

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms e-document.htm</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document 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.



🔆 Agilent Freq/Channel R Т ▲ Mkr1 1.8 ks **Center Freq** -33.25 dB Ref -30 dBm #Atten 20 dB 5.50000000 GHz #Peak Log 10 Start Fred 1 R dB/ 5.50000000 GHz Offst 40 Stop Freq dB 10 5.50000000 GHz DI -62.0 **CF Step** dBm 3.00000000 MHz LgAv Man <u>Auto</u> Center 5.500 000 0 GHz Span 0 Hz Freq Offset 0.00000000 Hz Res BW 3 MHz VBW 3 MHz Sweep 2 ks (8000 pts) Trace (1) (1) Marker X Axis 37.5 s Amplitude Type 1R Time -61.09 dBm 1۵ Time 1.8 ks -33.25 dB Signal Track Copyright 2000–2010 Agilent Technologies

Non-occupancy Period (without radar detection)

Verdict:

To verify whether channel is unavailable to be operated in 30 minutes. 1.8ks = 1800s = 1800 s/min /60 = 30 minute

~ End of Report ~

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

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