

Report No.: GZCR210802080404 Page: 1 of 29 FCC ID: 2AOHHEB5

TEST REPORT

Application No.:	GZCR2108020804AT
Applicant:	Thundercomm Technology Co.,Ltd
Address of Applicant:	Building 4, No. 99, Data Valley Middle Road, Xiantao District, Yubei District,
	Chongqing, China.
Manufacturer:	Thundercomm Technology Co.,Ltd
Address of Manufacturer:	Building 4, No. 99, Middle Road, Xiantao Data, Yubei District, Chongqing
Factory:	ZEGNA DAIDONG LIMITED CORPORATION
Factory of Manufacturer:	No. 41 Gangjian Road, Changping Town, Dongguan City, Guangdong Province, China.
Equipment Under Test (EU	Г):
EUT Name:	EB5 Edge AI Box
Model No.:	EB5
Standard(s) :	47 CFR Part 15, Subpart E 15.407 (h)
	KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02.
	KDB 905462 D03 Client Without DFS New Rules v01r02.
Date of Receipt:	2021-08-02
Date of Test:	2021-08-02 to 2021-08-13
Date of Issue:	2021-08-26
Test Result:	Pass*

* In the configuration tested, the EUT complied with the standards specified above.

oke. Jun

Kobe Jian EMC Laboratory Manager



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document to enter 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 lest report refer only to the sample(s) test and such sample(s) are retained for 30 days on). Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN_Doccheck@ess.com

norman. Crit Decontret as used to the second of the seco



Report No.: GZCR210802080404 Page: 2 of 29

	Revision Record						
Version Chapter Date Modifier Remark							
01		2021-08-26		Original			

Authorized for issue by		
	City Knong	
	Lily Kuang/Project Engineer	
	Ridey Liv	
	Ricky Liu/Reviewer	



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, 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 force. 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 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443,

中国·广州·经济技术开发区科学城科珠路198号

Co.,Ltd. [No.198 Kezhu Rad, Scientech Park, Gangzhou Economic & Technology Development District, Guangzhou, China 51,0663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 3 of 29

2 **Test Summary**

Radio Spectrum Matter Part

ltem	Standard	Method	Requirement	Result		
Non-occupancy period		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass		
Channel Move Time	47 CFR Part 15, Subpart E 15.407	KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass		
Channel Closing Transmission Time		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass		

Note:

E.U.T./EUT means Equipment Under Test.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.

KDB 789033 D02 General U-NII Test Procedures New Rules v02r01.

KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02.



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document. 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 the save point 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 30 days only. Attention: To check the authenticity of testing in prepared accessible are retained for 30 days only. ne: (86-755) 8307 1443

中国·广州·经济技术开发区科学城科珠路198号

No. 198 Keshi karan Kada, Solentech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



EMC-TRF-01 Rev 1.0 Report No.: GZCR210802080404 Page: 4 of 29

3 Contents

	F	⊃age
1	Cover Page	1
2	Test Summary	3
3	Contents	4
л	General Information	5
-		
	4.1 Details of E.U.T.	5
	4.2 Description of Support Units	6
	4.3 Measurement Uncertainty	b
	4.4 Test Location	b 7
	4.5 TEST Facility	7
	4.0 Deviation from Standard Conditions	
	4.7 Abromanities from Standard Conditions	/
5	Equipment List	8
6	Radio Spectrum Matter Test Results	10
	6.1 Non-occupancy period	
	6.1.1 E.U.T. Operation	
	6.1.2 Test Mode Description	
	6.1.3 Test Setup Diagram	12
	6.1.4 Measurement Procedure and Data	13
	6.2 Channel Move Time	14
	6.2.1 E.U.T. Operation	14
	6.2.2 Test Mode Description	15
	6.2.3 Test Setup Diagram	16
	6.2.4 Measurement Procedure and Data	17
	6.3 Channel Closing Transmission Time	18
	6.3.1 E.U.T. Operation	18
	6.3.2 Test Mode Description	19
	6.3.3 Test Setup Diagram	20
	6.3.4 Measurement Procedure and Data	21
7	Test Setup Photo	22
8	EUT Constructional Details (EUT Photos)	23
9	Appendix	
-		
	9.1 DFS Non-occupancy period and Channel Move Time; Channel Closing Transmission Time	24
	9.1.1 TEST KESUIT	



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, 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 fore usercising all their rights and obligations under the transaction document. 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 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,

中国·广州·经济技术开发区科学城科珠路198号

S Co., Ltd. No. 198 Kadru Rad, Sciented Park, Gargabue Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 5 of 29

General Information 4

4.1 Details of F.U.T.

Power supply:	Adapter						
	Model: HKA09019047-6U						
	Input: AC $100-240V$ 50/60Hz 1 5A						
	Output: DC 19.0V	4.74A. 90.06W					
Test voltage:	AC 120V. 60Hz or	AC 240V. 50Hz					
	Note: Both nomina	al AC 120V. 60Hz and AC 24	0 V. 50Hz are require	ed for testina in			
	accordance with F test result(AC 120	CC KDB174176, this report V, 60Hz);	only shows the result	ts of the worst			
Cable(s):	DC cable:145cm v	with a ferrite core					
	AC cable:137cm ι	Inshielded					
Internal Source:	More than 108MH	Z					
Operation Frequency:	Band	Mode	Frequency Range(MHz)	Number of channels			
	UNII Band I	802.11a/n/ax(HT20)	5180-5240	4			
		802.11n/ax(HT40)	5190-5230	2			
		802.11ac/ax(HT80)	5210	1			
	UNII Band II-A	802.11a/n/ax(HT20)	5260-5320	4			
		802.11n/ax(HT40)	5270-5310	2			
		802.11ac/ax(HT80)	5290	1			
	UNII Band II-C	802.11a/n/ax(HT20)	5500-5700	11			
		802.11n/ax(HT40)	5510-5670	5			
		802.11ac/ax(HT80)	5530-5610	2			
	UNII Band III	802.11a/n/ax(HT20)	5745-5825	5			
		802.11n/ax(HT40)	5755-5795	2			
		802.11ac/ax(HT80)	5775	1			
Modulation Type:	802.11a: OFDM (E	BPSK, QPSK, 16QAM, 64QA	M)				
	802.11n: OFDM (E	802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM)					
	802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)						
	802.11ax: OFDM (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)						
DFS Function:	Slave without radar detection						
TPC Function:	Not support						
Antenna Type:	Monopole Antenna						
Antenna Gain:	Antenna1: 2.4dBi.	Antenna2: 2.4dBi					
-	Note: MIMO for 802.11n/ac/ax.						



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, 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 fore usercising all their rights and obligations under the transaction document. 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 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,

中国 · 广州 · 经济技术开发区科学城科珠路198号

Co.,Ltd. [No.198 Kezhu Rad, Scientech Park, Gangzhou Economic & Technology Development District, Guangzhou, China 51,0663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 6 of 29

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Mobile Phone	SAMSUNG	SM-G9810	RFCN309Q9QF
Note Book PC	LENOVO	Lenovo Xiaoxinchao 5000	PF0TLJX7
Wireless Router	Honor	HiRouter-CD30	AWTEQ20C04001295

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Power Line (150kHz- 30MHz)	3.12dB
Duty Cycle	± 0.37%
99% Bandwidth	± 3%
26dB Emission bandwidth	± 3%
Minimum 6 dB bandwidth (5.725-5.85 GHz band)	± 3%
Maximum Conducted output power	± 0.75dB
Peak Power spectrum density	± 2.84dB
	5.06dB (30MHz-1GHz;3m)
Padiated Emissions	4.46dB (30MHz-1GHz;10m)
Radiated Emissions	5.08dB (1GHz-6GHz)
	5.14dB (above 6GHz)
	5.06dB (30MHz-1GHz;3m)
Padiated Emissions which fall in the restricted hands	4.46dB (30MHz-1GHz;10m)
Radiated Emissions which fail in the restricted bands	5.08dB (1GHz-6GHz)
	5.14dB (above 6GHz)
Frequency Stability	± 7.25 x 10 ⁻⁸

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory, 198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059 No tests were sub-contracted.



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx. 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 limitato Cilent's instructions, if any. The Company's sole responsibility is to its Cilent and 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 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or certificate, please contact us at telephone: (86-755) 8307 1443, or certificate, please contact us at telephone: (86-755) 8307 1443, or certificate, please contact us at telephone: (86-755) 8307 1443, or certificate, please contact us at telephone: (86-755) 8307 1443, or certificate, please contact us at telephone: (86-755) 8307 1443, or certificate, please contact us at telephone: (86-755) 8307 1443, or certificate, please contact us at telephone: (86-755) 8307 1443, or certificate, please contact us at telephone: (86-755) 8307 1443, or certificate, please contact us at telephone: (86-75

No.19% kezhu Road, Skentech Park, Guargzhou Economic & Technology Development District, Guargzhou, Chira 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn 中国・广州・经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com Member of the SGS Group (SGS SA)



Report No.: GZCR210802080404 Page: 7 of 29

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• NVLAP (Lab Code: 200611-0)

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP. NIST, or any agency of the Federal Government.

ACMA

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian/New Zealand Regulatory Compliance Mark (RCM).

SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

CNAS (Lab Code: L0167)

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2018 accreditation criteria for testing laboratories (identical to

ISO/IEC 17025:2017 General Requirements) for the Competence of Testing Laboratories.

• FCC Recognized Accredited Test Firm(Registration No.: 486818)

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818.

• ISED (Registration No.: 4620B, CAB identifier: CN0052)

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

VCCI (Registration No.: R-12460, C-12584, G-20107 and T-11179)

The 10m Semi-anechoic chamber, 966 Anechoic Chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-12460, C-12584, G-20107 and T-11179 respectively.

• CBTL (Lab Code: TL129)

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2017, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx. 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 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 andfender 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 30 days only. Attention: To check the authenticity of testing lang unspression report face contraction are contraction as contraction and such as the prosecute of the document is and the prosecute of the source of the source of the other of the other prosecute of the source of the

中国·广州·经济技术开发区科学城科珠路198号

No. 198 Keshi karan Kada, Solentech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



EMC-TRF-01

Report No.: GZCR210802080404 Page: 8 of 29

Equipment List 5

Non-occupancy period						
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01	
ESG Vector Signal Generator(250kHz- 6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11	
EXG Analog Signal	Agilent	NE171D		2020-07-14	2021-07-13	
Generator(9kHz-3GHz)	Technologies	DITICN	SEM006-04	2021-07-12	2022-07-11	
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18	
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18	
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16	
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14	
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A	
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01	
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01	
VARIABLE ATTENUATOR	TAMAGAWA ELECTRONICS CO.LTD	TRA-801	EMC02077	/	/	
BENCHTOP ATTEMUATOR	JFW INDUSTRIES INC.	50BR-068 SMA	EMC02076	/	/	

Channel Move Time					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal	Agilent	N0020A	SEM004 10	2021 02 02	2022 02 01
Analyzer(10Hz-8.4GHz)	Technologies	N9020A	3EIVI004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz- 6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal	Agilent	N5171B	SEM006-04	2020-07-14	2021-07-13
Generator(9kHz-3GHz)	Technologies			2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, 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 fore usercising all their rights and obligations under the transaction document. 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 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, S Co., Ltd. No. 198 Kadru Rad, Sciented Park, Gargabue Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn

中国·广州·经济技术开发区科学城科珠路198号

邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



EMC-TRF-01 Rev 1.0 Report No.: GZCR210802080404 Page: 9 of 29

Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01
VARIABLE ATTENUATOR	TAMAGAWA ELECTRONICS CO.LTD	TRA-801	EMC02077	/	/
BENCHTOP ATTEMUATOR	JFW INDUSTRIES INC.	50BR-068 SMA	EMC02076	/	/

Channel Closing Transmission Time					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer(10Hz-8.4GHz)	Agilent Technologies	N9020A	SEM004-10	2021-03-02	2022-03-01
ESG Vector Signal Generator(250kHz- 6GHz)	Keysight	E4438C	SEM006-03	2021-03-12	2022-03-11
EXG Analog Signal	Agilent	N5171D	SEM006 04	2020-07-14	2021-07-13
Generator(9kHz-3GHz)	Technologies	DITICH	SEIM006-04	2021-07-12	2022-07-11
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18
Power Meter (U2021XA_Ch3)	Agilent Technologies	U2021XA_Ch3	SEM009-03	2021-05-19	2022-05-18
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2020-09-17	2021-09-16
6dB Attenuator	HP	8491A	EMC2062	2020-04-15	2022-04-14
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS-EMC	0.8M	EMC2136	2019-11-02	2021-11-01
MI CABLE	SGS-EMC	0.8M	EMC2137	2019-11-02	2021-11-01
VARIABLE ATTENUATOR	TAMAGAWA ELECTRONICS CO.LTD	TRA-801	EMC02077	/	1
BENCHTOP ATTEMUATOR	JFW INDUSTRIES INC.	50BR-068 SMA	EMC02076	/	/

General used equipment						
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
	Eluko	72	EMC0006	2020-07-07	2021-07-06	
Diviivi	Fluke	73 EMC0006		2021-07-05	2022-07-05	
DMM	Fluke	73	EMC0007	2020-07-07	2021-07-06	
				2021-07-05	2022-07-05	



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, 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 fore usercising all their rights and obligations under the transaction document. 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 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,

中国·广州·经济技术开发区科学城科珠路198号

S Co., Ltd. No. 198 Kadru Rad, Sciented Park, Gargabue Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 10 of 29

Radio Spectrum Matter Test Results 6

Non-occupancy period 6.1

Test Requirement	KDB 905462 D02 Section 5.1
Test Method:	KDB 905462 D02 Section 7.8.3

Applicability Master Device or client with Radar Detection	Client without Radar Detection
Master Device or client with Radar Detection	Client without Radar Detection
Vaa	
162	Not required
Yes	Not required
Yes	Yes
Yes	Yes
Yes	Not required
	Yes

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

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 a Channel move (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 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

6.1.1 E.U.T. Operation

Operating Environment:

24.7 °C Temperature:

Humidity: 46.3 % RH

Atmospheric Pressure: 1010 mbar



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx. 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 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 andfender 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 30 days only. Attention: To check the authenticity of testing lang unspression report face contraction are contraction as contraction and such as the prosecute of the document is and the prosecute of the source of the source of the other of the other prosecute of the source of the N.199 Kebit Med. Skattetch Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn

中国·广州·经济技术开发区科学城科珠路198号

邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 11 of 29

6.1.2	Test Mode I	Descripti	ion		
	Pre-scan / Final test	Mode Code	Description		
	Final test	03	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE40); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE40); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE80). Only the data of worst case is recorded in the report.		
	Final test	04	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE40); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE80). Only the data of worst case is recorded in the report.		



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, 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 force. 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 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443,

中国·广州·经济技术开发区科学城科珠路198号

S Co., Ltd. No. 198 Kadru Rad, Sciented Park, Gargabue Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 12 of 29

6.1.3 Test Setup Diagram



DFS slave without radar detection



UUT

(Client)

Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document. 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 inalwful 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 30 days only. Attention: To check the authenticity of testing unspecificate negative accurate us at telephone: (86-755) 83071443. ne: (86-755) 8307 1443

中国·广州·经济技术开发区科学城科珠路198号

No. 198 Keshin Read, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

Analyzer

10 dB internal Attenuation)

(with



Report No.: GZCR210802080404 Page: 13 of 29

6.1.4 Measurement Procedure and Data

1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.

2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.

3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.

4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.

5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.

6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.

7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) =S (12000ms) / B (4000); where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: C (ms)= N X Dwell (0.3ms); where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.

8) Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Please Refer To Appendix FCC U-II BANDS Test Results for SISO Mode For Details.



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx. 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 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 andfender 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 30 days only. Attention: To check the authenticity of testing lang unspression report face contraction are contraction as contraction and such as the prosecute of the document is and the prosecute of the source of the source of the other of the other prosecute of the source of the

中国·广州·经济技术开发区科学城科珠路198号

No. 198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 14 of 29

6.2 Channel Move Time

Test Requirement Test Method:

KDB 905462 D02 Section 5.1 KDB 905462 D02 Section 7.8.3

I imit [.]	
LIIIII.	

Test item	Limit	Applicability		
		Master Device or client with Radar Detection	Client without Radar Detection	
Non-occupancy period	Minimum 30 minutes	Yes	Not required	
Channel Availability Check Time	60 seconds	Yes	Not required	
Channel Move Time	10 seconds	Yes	Yes	
	See Note 1.			
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.	Yes	Yes	
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.	Yes	Not required	

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

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 a Channel move (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 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

6.2.1 E.U.T. Operation

Operating Environment:

Temperature:	24.7 °C
i omporataro.	21.7 0

Humidity: 46.3 % RH

Atmospheric Pressure: 1010 mbar



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx. Attention is drawn to the limitation or 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 cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or faisification of the content or appearance of this document is stated there subfaced and such sample(s) are retained for 30 days only. Attention: To cherk the authenticity of testing in reports excriting the same for sole of 30 days only.

中国·广州·经济技术开发区科学城科珠路198号

N.199 Kebit Real Sciented Flark, Guangzhu Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 15 of 29

6.2.2	2.2 Test Mode Description			
	Pre-scan / Final test	Mode Code	Description	
	Final test	03	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE40	
	Final test	04	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE40); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE80). Only the data of worst case is recorded in the report.	



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, 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 fore exercising all their rights and obligations under the transaction document. 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 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,

中国 · 广州 · 经济技术开发区科学城科珠路198号

s Co., Ltd. No. 198 Kezhu Read, Scientech Park, Galarghou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 16 of 29

6.2.3 Test Setup Diagram

UUT

(Client)

检验检测专用章 ction & Testing Service

ds Techni

Guanozho

aboratory



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document. 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 inalwful 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 30 days only. Attention: To check the authenticity of testing unspecificate negative accurate us at telephone: (86-755) 83071443. ne: (86-755) 8307 1443

DFS slave without radar detection

中国·广州·经济技术开发区科学城科珠路198号

No. 198 Keshin Read, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

Analyzer

10 dB internal Attenuation)

(with



Report No.: GZCR210802080404 Page: 17 of 29

6.2.4 Measurement Procedure and Data

1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.

2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.

3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.

4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.

5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.

6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.

7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) =S (12000ms) / B (4000); where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: C (ms)= N X Dwell (0.3ms); where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.

8) Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Please Refer To Appendix _ FCC U-II BANDS Test Results for SISO Mode For Details.



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx. 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 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 andfender 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 30 days only. Attention: To check the authenticity of testing lang unspression report face contraction are contraction as contraction and such as the prosecute of the document is and the prosecute of the source of the source of the other of the other prosecute of the source of the

中国·广州·经济技术开发区科学城科珠路198号

No. 198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 18 of 29

6.3 Channel Closing Transmission Time

Test Requirement Test Method:

KDB 905462 D02 Section 5.1 KDB 905462 D02 Section 7.8.3

Test item	Limit	Applicability		
		Master Device or client with Radar Detection	Client without Radar Detection	
Non-occupancy period	Minimum 30 minutes	Yes	Not required	
Channel Availability Check Time	60 seconds	Yes	Not required	
Channel Move Time	10 seconds See Note 1.	Yes	Yes	
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.	Yes	Yes	
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.	Yes	Not required	

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

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 a Channel move (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 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

6.3.1 E.U.T. Operation

Operating Environment:

Temperature:	24.7 °C
i omporataro.	21.7 0

Humidity: 46.3 % RH

Atmospheric Pressure: 1010 mbar



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx. Attention is drawn to the limitation or 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 cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or faisification of the content or appearance of this document is stated there sults shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing lang unspecificate excent of as a contractive of as 5007.1443.

中国·广州·经济技术开发区科学城科珠路198号

No. 198 Keshin Read, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 19 of 29

6.3.2	Test Mode I	Descripti	ion		
	Pre-scan / Final test	Mode Code	Description		
	Final test	03	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE40); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE40); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE80). Only the data of worst case is recorded in the report.		
	Final test	04	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE40); data rate @ MCS0 is the worst case of IEEE 802.11ac(HE80). Only the data of worst case is recorded in the report.		



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, 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 fore exercising all their rights and obligations under the transaction document. 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 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,

中国·广州·经济技术开发区科学城科珠路198号

S Co., Ltd. No. 198 Kadru Rad, Sciented Park, Gargabue Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 20 of 29

6.3.3 Test Setup Diagram



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document. 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 inalwful 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 30 days only. Attention: To check the authenticity of testing unspecificate negative accurate us at telephone: (86-755) 83071443. ne: (86-755) 8307 1443

DFS slave without radar detection



UUT

(Client)

中国·广州·经济技术开发区科学城科珠路198号

No. 198 Keshin Read, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

Analyzer

10 dB internal Attenuation)

(with



Report No.: GZCR210802080404 Page: 21 of 29

6.3.4 Measurement Procedure and Data

1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.

2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.

3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.

4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.

5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.

6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.

7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) =S (12000ms) / B (4000); where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: C (ms)= N X Dwell (0.3ms); where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.

8) Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Please Refer To Appendix_FCC U-II BANDS Test Results for SISO Mode For Details.



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx. 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 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 andfender 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 30 days only. Attention: To check the authenticity of testing lang unspression report face contraction are contraction as contraction and such as the prosecute of the document is and the prosecute of the source of the source of the other of the other prosecute of the source of the

中国·广州·经济技术开发区科学城科珠路198号

No. 198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 22 of 29

Test Setup Photo 7

Refer to test setup photos for GZCR2108020804AT



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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 analwful 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 30 days only. Attention, To check the authenticity of testing (inspection report & certificate, please contact us at telephone: (86-755) 8307 1443. ne: (86-755) 8307 1443

中国·广州·经济技术开发区科学城科珠路198号

Co.,Ltd. [No.198 Kezhu Rad, Scientech Park, Gangzhou Economic & Technology Development District, Guangzhou, China 51,0663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 23 of 29

EUT Constructional Details (EUT Photos) 8

Refer to Appendix_ external and internal photos for GZCR2108020804AT



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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 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 to 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 30 days only. Attention: To check the authenticity of testing unspecifien report & certificate, heaves contact us at telephone: (86-755) 8307 1443. ne: (86-755) 8307 1443

中国·广州·经济技术开发区科学城科珠路198号

No. 198 Kezh Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China. 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 24 of 29

Appendix 9

9.1 DFS Non-occupancy period and Channel Move Time; Channel Closing **Transmission Time**

Test Result 9.1.1

Remark:

The antenna port 1 and antenna port 2 support 2x2 MIMO with identical RF transmission, therefor only antenna port 1 tested and record the data.

Only record the worst test result.

Test plots as follows:

Radar Waveform Calibration Result

Radar Type 0





Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document. 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 inalwful 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 30 days only. Attention: To check the authenticity of testing unspecificate negative accurate us at telephone: (86-755) 83071443. one: (86-755) 8307 1443

中国·广州·经济技术开发区科学城科珠路198号

No. 198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 25 of 29

Test Data:

BW/Channel	Test Item	Test data	Limit	Results
80MHz/ 5290MHz	Non-occupancy period	Refer to test point	>30 min	pass
	Channel Move Time	0.3119s	<10 s	Pass
	Channel Closing Transmission Time	0.1089s	<60ms	Pass
	Non-occupancy period	Refer to test point	>30 min	pass
40MHz/	Channel Move Time	0.4474s	<10 s	Pass
55 TOIWIT12	Channel Closing Transmission Time	0.0854s	<60ms	Pass
	Non-occupancy period	Refer to test point	>30 min	pass
20MHz/	Channel Move Time	0.3219s	<10 s	Pass
	Channel Closing Transmission Time	0.0554s	<60ms	Pass



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, 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 fore exercising all their rights and obligations under the transaction document. 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 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, http://www.sgs.com/en/libuentempt.

中国・广州・经济技术开发区科学城科珠路198号

or email: CN. Doccheck@sgs.com \$ C0.,Ltd. No.198 Kezhu Road, Scientech Park, Guangzhou Economic& Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn

邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 26 of 29

EMC-TRF-01

Test plots as follows(5290MHz):







Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document. 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 inalwful 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 30 days only. Attention: To check the authenticity of testing unspecificate negative accurate us at telephone: (86-755) 83071443. one: (86-755) 8307 1443

中国·广州·经济技术开发区科学城科珠路198号

No.198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 27 of 29

EMC-TRF-01

Test plots as follows(5310MHz):







Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document. 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 inalwful 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 30 days only. Attention: To check the authenticity of testing unspecificate negative accurate us at telephone: (86-755) 83071443. one: (86-755) 8307 1443

中国·广州·经济技术开发区科学城科珠路198号

No.198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802080404 Page: 28 of 29

EMC-TRF-01

Test plots as follows(5320MHz):







Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. 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 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 to 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 30 days only. Attention: To check the authenticity of testing unspecifien report & certificate, heaves contact us at telephone: (86-755) 8307 1443. one: (86-755) 8307 1443

中国·广州·经济技术开发区科学城科珠路198号

No.198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Duty Cycle:

Report No.: GZCR210802080404 Page: 29 of 29

0 -20 -40 --60 · -80 -100 -120 1.1.1.1 -140-0.0169864 0.0339864 0.0509864 0.0679864 0.0849864 Load Data Off Set: 30 dB Duty Cycle: 18 % Calculate

- End of the Report -



Unless otherwise agreed in writing, 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/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction document. 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 inalwful 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 30 days only. Attention: To check the authenticity of testing unspecificate negative accurate us at telephone: (86-755) 83071443. one: (86-755) 8307 1443

中国·广州·经济技术开发区科学城科珠路198号

No. 198 Kezh Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China. 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com