

EMC-TRF-01 Rev 1.1 Report No.: GZCR220600077105

Page: 1 of 392 FCC ID: R3UDSWBT2

# TEST REPORT

Application No.: GZCR2206000771AT

Applicant: DSEA A/S

Address of Applicant: Kongebakken 9, DK-2765 Smørum, Denmark

Manufacturer: DSEA A/S

**Address of Manufacturer:** Kongebakken 9,DK-2765 Smørum, Denmark **Factory:** Dongguan Tai Sing Audio Technology Ltd.

Address of Factory: No. 12, Niujiokeng Road, Dongcheng Street, Dongguan City, Guangdong

Province, China

**Equipment Under Test (EUT):** 

**EUT Name:** Expand Control

Model No.: DSWBT2
Trade Mark: EPOS

Standard(s): 47 CFR Part 15, Subpart E 15.407

**Date of Receipt:** 2022-06-17

**Date of Test:** 2022-08-11 to 2022-10-21

**Date of Issue:** 2022-10-28

Test Result: Pass\*

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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. 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 its 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 30 days only.

\*\*Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, \*\*Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, \*\*Certificate, please contact us at telephone: (86-755) 8307 1443, \*\*Certificate, please contact us at telephone: (86-755) 8307 1443, \*\*Certificate, please contact us at telephone: (86-755) 8307 1443, \*\*Certificate, please contact us at telephone: (86-755) 8307 1443, \*\*Certificate, please contact us at telephone: (86-75

. Mo.198 Keizh Road, Soeritech Part, Guangshou Ecoromic & Technology Development District, Guangshou, Chine 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

<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified above.



EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 2 of 392

	Revision Record						
Version	Version Report No. Date Remark						
01	GZCR220600077105	2022-10-28	Original				

Authorized for issue by		
	Kevin Zhang	
	Kevin Zhang/Project Engineer	
	vius cui	
	Vico Cui/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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

CO.,Ltd. No.198 Kezhu Roat, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn boratory: 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 1.1

Report No.: GZCR220600077105

Page: 3 of 392

# 2 Test Summary

Radio Spectrum Technical Requirement							
Item	Standard	Method	Requirement	Result			
Antenna Requirement	47 CFR Part 15,	N/A	47 CFR Part 15, Subpart C 15.203	Pass			
Transmission in the Absence of Data	Subpart E 15.407	N/A	47 CFR Part 15, Subpart E 15.407 (c)	Pass			

Item	Standard	Method	Requirement	Result
Conducted Emissions at AC Power Line (150kHz-30MHz)		ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)	Pass
Duty Cycle		KDB 789033 II B 1	KDB 789033 D02 II B 1	Pass
99% Bandwidth		KDB 789033 II D	N/A	Pass
26dB Emission bandwidth		KDB 789033 D02 II C 1	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Minimum 6 dB bandwidth (5.725- 5.85 GHz band )		KDB 789033 D02 II C 2	47 CFR Part 15, Subpart E 15.407 (e)	Pass
Maximum Conducted output power		KDB 789033 D02 II E	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Peak Power spectrum density		KDB 789033 D02 II F	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Radiated Emissions (Above 1GHz)	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Radiated Emissions which fall in the restricted bands		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass**
Frequency Stability		ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart E 15.407 (g)	Pass
Non-occupancy period		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass
Channel Move Time		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
Radiated Emissions (Below 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

\$ Co.,Ltd. No.18kkzhu Road, Sobreiche Plank (Langraphou Expansic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn boration: 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 1.1

Report No.: GZCR220600077105

Page: 4 of 392

#### 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.

\*\*: The EUT passed the Radiated Emissions which fall in the restricted bands test after modifications.



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. 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 30 days only.

\*\*Attention:\*To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443.

\*\*Attention:\*To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN\_Doccheck@sgs.com
No.198 Kezhu Road, Szientech Park, Guangzhou Extornole & 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 1.1

Report No.: GZCR220600077105

Page: 5 of 392

### 3 Contents

4	Cava	r Page	Page
1	Cove	· Page	1
2	Test S	Summary	3
3	Conte	ents	5
4	Gene	ral Information	7
		Details of E.U.T.	
		Description of Support Units	
		Measurement Uncertainty	
	-	Test Location	
		Test Facility	
	4.6	Deviation from Standards	g
	4.7	Abnormalities from Standard Conditions	g
5	Equip	oment List	10
_	Dadia	Constant Task visal Bassinas at	4.4
6		Spectrum Technical Requirement	
		Antenna Requirement	
	6.1.1	Test Requirement:	
	6.1.2	Conclusion	
	6.2	Transmission in the Absence of Data  Test Requirement:	
	6.2.2	Conclusion	
7	_	Spectrum Matter Test Results	
′			
		Conducted Emissions at AC Power Line (150kHz-30MHz)	
	7.1.1	E.U.T. Operation	
	7.1.2 7.1.3	Test Mode Description	
	7.1.3	Test Setup Diagram  Measurement Procedure and Data	
		Duty Cycle	
	7.2.1	E.U.T. Operation	
	7.2.2	Test Mode Description	
	7.2.3	Test Setup Diagram	
	7.2.4	Measurement Procedure and Data	
	7.3	99% Bandwidth	22
	7.3.1	E.U.T. Operation	22
	7.3.2	Test Mode Description	22
	7.3.3	Test Setup Diagram	
	7.3.4	Measurement Procedure and Data	
		26dB Emission bandwidth	
	7.4.1	E.U.T. Operation	
	7.4.2	Test Mode Description	
	7.4.3	Test Setup Diagram	
	7.4.4	Measurement Procedure and Data	
	7.5	Minimum 6 dB bandwidth (5.725-5.85 GHz band )	26



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx.and.nf">http://www.sgs.com/en/Terms-and-Conditions.aspx.and.nf</a> relectronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx</a>. 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 ine 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 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443,

SCO.,Ltd. No.188 Kezhu Road, Sciented Park, Guargzhou Economic & Technology Development District, Guargzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn boratory. 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 1.1

# SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch

Report No.: GZCR220600077105

		Page:	6 of 392	
7.5.1	E.U.T. Operation	_		26
7.5.2	Test Mode Description			
7.5.3	Test Setup Diagram			
7.5.4	Measurement Procedure and Data			
	Maximum Conducted output power			
7.6.1	E.U.T. Operation			
7.6.2	Test Mode Description			
7.6.3	Test Setup Diagram			
7.6.4	Measurement Procedure and Data			
7.7 I	Peak Power spectrum density			
7.7.1	E.U.T. Operation			
7.7.2	Test Mode Description			
7.7.3	Test Setup Diagram			
7.7.4	Measurement Procedure and Data			
7.8 I	Radiated Emissions (Above 1GHz)			31
7.8.1	E.U.T. Operation			31
7.8.2	Test Mode Description			31
7.8.3	Test Setup Diagram			32
7.8.4	Measurement Procedure and Data			33
7.9 l	Radiated Emissions which fall in the restricted bands			86
7.9.1	E.U.T. Operation			86
7.9.2	Test Mode Description			87
7.9.3	Test Setup Diagram			88
7.9.4	Measurement Procedure and Data			
7.10 l	Frequency Stability			132
7.10.1	E.U.T. Operation			132
7.10.2	2 Test Mode Description			132
7.10.3	1 3			
7.10.4				
7.11 I	Radiated Emissions (Below 1GHz)			134
7.11.1	E.U.T. Operation			134
7.11.2	2 Test Mode Description			134
7.11.3				
7.11.4	Measurement Procedure and Data			136
8 Test \$	Setup Photo			139
9 EUT (	Constructional Details (EUT Photos)			140



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information ocuation of the company's findings at the end 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 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443,

SCO.,Lid. No.198 Kezhu Roat, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn poratory 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 1.1

Report No.: GZCR220600077105

7 of 392 Page:

### **General Information**

#### 4.1 Details of E.U.T.

Power supply: DC 48 V

Cable(s): LAN ports with LAN cables (shielded, 4.8 m)

Type C ports

Test Voltage: AC 120 V, 60 Hz powered by POE adapter refer in section 4.2

Operation Frequency / Number of channels

U-NII-1: 5180-5240MHz (4 Channels); U-NII-2A: 5260-5320MHz (4 Channels); U-NII-2C: 5500-5700MHz (11 Channels); U-NII-3: 5745-

(20MHz):

5825MHz (5 Channels)

Operation Frequency /

U-NII-1: 5190-5230MHz (2 Channels); U-NII-2A: 5270-5310MHz (2

Number of channels (40MHz):

Channels); U-NII-2C: 5510-5670MHz (5 Channels); U-NII-3: 5755-5795MHz

(2 Channels)

Operation Frequency /

U-NII-1: 5210MHz (1 Channel); U-NII-2A: 5290MHz (1 Channel); U-NII-2C:

802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK); 802.11n: OFDM (BPSK,

Number of channels

(80MHz):

5530-5610MHz (2 Channels); U-NII-3: 5775MHz (1 Channels)

Modulation Type:

Channel Spacing:

QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM,

64QAM, 256QAM)

802.11a/n(HT20)/ac(HT20): 20MHz; 802.11n(HT40)/ac(HT40): 40MHz;

802.11ac(HT80): 80MHz

**DFS Function:** Slave without Radar detection

Without TPC function TPC Function:

**FPC** Antenna Antenna Type:

Antenna Number:

Antenna Gain: 2.68 dBi for ANT1; 2.79 dBi for ANT2

Remark: Two antennas can simultaneous transmission

### 4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Note Book Computer	LENOVO	ThinkPad T490	PF1D1MVJ
USB Cable (1.0m length)	/	/	/
Switching Glgabit Power Supply	Ubiqulti Inc	GP-H480-065G	2124-0110816



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention:\*To be the the authenticity of testing in report securificate, pages contact, and testing the support of the such pages contact, and the support of the such pages contact, and the support of the such pages contact, and the support of the such pages contact and the such pages and the such pages contact and the



EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 8 of 392

### 4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Power Line (150kHz-30MHz)	± 2.76dB
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
Radiated Emissions (Above 1GHz)	±5.12 dB ( 1GHz-6 GHz); ±5.38 dB (6GHz-18GHz); ±5.61(18GHz-40GHz)
Radiated Emissions which fall in the restricted bands	±5.00dB (30MHz-1GHz; 3m);±4.38dB (30MHz-1GHz; 10m);± 5.12dB (1GHz-6GHz);± 5.38dB (6GHz-18GHz);± 5.61dB (18GHz-40GHz)
Frequency Stability	± 7.25 x 10 <sup>-8</sup>
Transmitter Power Control	± 0.75dB
Radiated Emissions (Below 1GHz)	±5.00dB (3m); ±4.38dB (10m)

### 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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

|Mo.1981Kezhu Road, Szientech Park, Quangzhou Economic & Technology Development District, Quangzhou, 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 1.1 Report No.: GZCR220600077105

Page: 9 of 392

### 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

The EUT passed the Radiated Emissions which fall in the restricted bands test after modifications.



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention:\*To be the the authenticity of testing in report securificate, pages contact, and testing the support of the such pages contact, and the support of the such pages contact, and the support of the such pages contact, and the support of the such pages contact and the such pages and the such pages contact and the

Co.,Ltd. No.199 Kezhu Road, Szentech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn oratory. 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 1.1

Report No.: GZCR220600077105

Page: 10 of 392

## 5 Equipment List

Conducted Emissions at AC Power Line (150kHz-30MHz)						
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date	
Coaxial Cable	HangTianXing	2m	EMC0107	2022-08-24	2023-08-23	
Two-Line V-Network	Rohde & Schwarz	ENV216	EMC0118	2021-12-23	2022-12-22	
Shielding Room	ChangZhou ZhongYu	8m x 3m x 3.8m	EMC0306	2022-10-16	2025-10-15	
Two-Line V-Network-GZ	Rohde & Schwarz	ENV216	EMC2135	2022-09-09	2023-09-08	
EMI Test Receiver (9kHz-3.6GHz)	Rohde & Schwarz	ESR3	EMC2221	2022-05-20	2023-05-19	
Test Software E3r	Audix	Ver.6.11812	GZE100-77	N/A	N/A	

Duty Cycle					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-02	2023-11-01
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2022-09-08	2023-09-07
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2022-08-24	2023-08-23
Test Software	TST	V2.0	GZE100-78	N/A	N/A

99% Bandwidth						
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date	
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-02	2023-11-01	
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2022-09-08	2023-09-07	
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2022-08-24	2023-08-23	
Test Software	TST	V2.0	GZE100-78	N/A	N/A	

26dB Emission bandwidth						
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date	
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-02	2023-11-01	
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2022-09-08	2023-09-07	
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2022-08-24	2023-08-23	
Test Software	TST	V2.0	GZE100-78	N/A	N/A	



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information ocntained hereon reflects the Company's findings at the ine 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 30 days only.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443,

SCO.,Lid. No.198 Kezhu Roat, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn poratory 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 1.1

Report No.: GZCR220600077105

Page: 11 of 392

Minimum 6 dB bandwidth (5.725-5.85 GHz band )											
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date						
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-02	2023-11-01						
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2022-09-08	2023-09-07						
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2022-08-24	2023-08-23						
Test Software	TST	V2.0	GZE100-78	N/A	N/A						

Maximum Conducted output power										
Equipment	Inventory No.	Cal Date	Cal Due Date							
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-02	2023-11-01					
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2022-09-08	2023-09-07					
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2022-08-24	2023-08-23					
Test Software	TST	V2.0	GZE100-78	N/A	N/A					

Peak Power spectrum density											
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date						
MI CABLE	SGS-EMC	M8.0	EMC2137	2021-11-02	2023-11-01						
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2022-09-08	2023-09-07						
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2022-08-24	2023-08-23						
Test Software	TST	V2.0	GZE100-78	N/A	N/A						

Radiated Emissions (Above 1GHz)									
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date				
1GHz-26.5 GHz Pre- Amplifier	Agilent	8449B	EMC0521	2021-12-17	2022-12-16				
EMI Test Receiver (10Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-12-17	2022-12-16				
Chamber cable (Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2022-08-24	2024-08-23				
Horn Antenna (1GHz- 18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2022-09-21	2025-09-20				
Horn Antenna (14- 40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27				
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19				
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2022-07-29	2023-07-28				
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A				



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

CO.,Ltd. No.198 Kezhu Roat, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn boratory: 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 1.1

Report No.: GZCR220600077105

Page: 12 of 392

Radiated Emissions which fall in the restricted bands									
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date				
1GHz-26.5 GHz Pre- Amplifier	Agilent	8449B	EMC0521	2021-12-17	2022-12-16				
EMI Test Receiver (10Hz-26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-12-17	2022-12-16				
Chamber cable (Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2022-08-24	2024-08-23				
Horn Antenna (1GHz- 18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2022-09-21	2025-09-20				
Horn Antenna (14- 40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27				
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2020-12-20	2023-12-19				
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A				

Frequency Stability					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
MI CABLE	SGS-EMC	M8.0	EMC2137	2021-11-02	2023-11-01
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2022-09-08	2023-09-07
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2022-08-24	2023-08-23
Test Software	TST	V2.0	GZE100-78	N/A	N/A
Temperature Chamber	GZ GongWen Co.Ltd.	GDJW-100	EMC0039	2022-07-04	2023-07-03

Non-occupancy period										
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date					
MI CABLE	SGS-EMC	0.8M	EMC2137	2021-11-02	2023-11-01					
EXA Signal Analyzer (10Hz-44GHz)	Keysight	N9010A	EMC2138	2022-09-08	2023-09-07					
MXG Vector Signal Generator	Keysight	N5182B	EMC2216	2022-01-14	2023-01-13					
4X4 Power sensor Unit	TST	TSPS2023R	EMC2226	2022-08-24	2023-08-23					
Test Software	TST	V2.0	GZE100-78	N/A	N/A					

General used equipment									
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date				
DMM	Fluke	73	EMC0006	2022-06-24	2023-06-23				



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

CO.,Ltd. No.198 Kezhu Roat, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn boratory: 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 1.1

Report No.: GZCR220600077105

Page: 13 of 392

Radiated Emissions (Below 1GHz)								
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date			
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2022-10-16	2025-10-15			
Chamber cable	HangTianXing	N/A	EMC0542	2022-08-24	2023-08-23			
Amplifier (9kHz-1.3GHz)	HP	8447F	EMC2065	2022-06-21	2023-06-20			
Active Loop Antenna- RED	ETS-Lindgren	6502	EMC2190	2022-04-06	2024-04-05			
EMI Test Receiver (1Hz- 8GHz)	Rohde & Schwarz	ESW8	EMC2220	2022-05-20	2023-05-19			
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A			
Trilog Broadband Antenna (25MHz-1GHz)	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	EMC2174	2022-06-19	2025-06-18			



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

or email: CN.Doccheck@sgs.com \$ Co.,Ltd. No.198 Kezhu Road, Solentech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn boratory. 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 1.1 Report No.: GZCR220600077105

Page: 14 of 392

# 6 Radio Spectrum Technical Requirement

### 6.1 Antenna Requirement

### 6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

#### 6.1.2 Conclusion

Standard Requirement:An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.EUT Antenna:The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the Antenna 1: 2.68 dBi; Antenna 2: 2.79 dBi; the directional gain is: 5.75 dBi.Antenna location: Refer to internal photo.



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention:\*To be the the authenticity of testing in report securificate, pages contact, and testing the support of the such pages contact, and the support of the such pages contact, and the support of the such pages contact, and the support of the such pages contact and the such pages and the such pages contact and the

No.198Kezhu Noad, Sciented Park, Guargzhou Economic & Technology Development District, Guargzhou, 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 1.1 Report No.: GZCR220600077105

Page: 15 of 392

### 6.2 Transmission in the Absence of Data

### 6.2.1 Test Requirement:

47 CFR Part 15, Subpart E 15.407 (c)

### 6.2.2 Conclusion

Standard Requirement: The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met. EUT Details: WIFI chip support automatically discontinue transmission in case of either absence of information to transmit or operational failure, if the chip detect absence of information to transmit or operational failure, it will be automatically shut off.



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

No.198 Kezhu Road, Scientech Park, Quangzhou Economic & Technology Development District, Quangzhou, 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 1.1

Report No.: GZCR220600077105

Page: 16 of 392

## 7 Radio Spectrum Matter Test Results

### 7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)

Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Fraguency of amission/MUT)	Conducted	limit(dB $\mu$ V)			
Frequency of emission(MHz)	Quasi-peak	Average			
0.15-0.5	66 to 56*	56 to 46*			
0.5-5	56	46			
5-30	60	50			
*Decreases with the logarithm of the frequency.					

### 7.1.1 E.U.T. Operation

**Operating Environment:** 

Temperature: 23.1 °C Humidity: 52.6 % RH Atmospheric Pressure: 1006 mbar

#### 7.1.2 Test Mode Description

Pre-scan / Mode Final test Code

Description

Final test 05

TX mode (U-NII-1)\_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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

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), final test modes are considering the modulation and

TX mode (U-NII-2A) Keep the EUT in continuously transmitting mode with

worse data rates. Only the data of worst case is recorded in the report.

Pre-scan 07

Pre-scan

06

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



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention: To check the authenticity of testing inspection report & certificate. Dease contact us at telephone: (86-758) 8307 1443.

\*\*Attention: To check the authenticity of testing inspection report & certificate. Dease contact us at telephone: (86-758) 8307 1443.

No.198 Kezhu Road, Scientech Park, Guangzhou Exonomic & Technology Development District, Guangzhou, China 510663 tt (86-20) 82155555 ft (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 tt (86-20) 82155555 ft (86-20) 82075058 sgs.china@sgs.com



EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

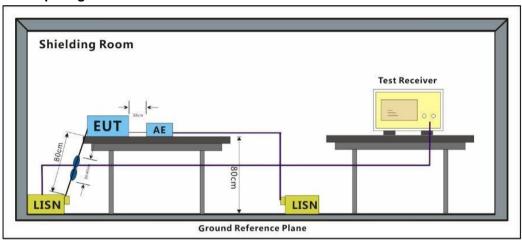
Page: 17 of 392

802.11ac(VHT80), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

TX mode (U-NII-3)\_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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

Pre-scan 08

#### 7.1.3 Test Setup Diagram



#### 7.1.4 Measurement Procedure and Data

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a  $50 \text{ohm}/50 \mu\text{H}$  + 5 ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: Level=Read Level+ Cable Loss+ LISN Factor



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. 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 30 days only.

\*\*Attention:\*To check the authenticity of festing (inspection report & certificate Certifica

Mo.18Kezhu Road, Scientech Park, Gangriphou 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

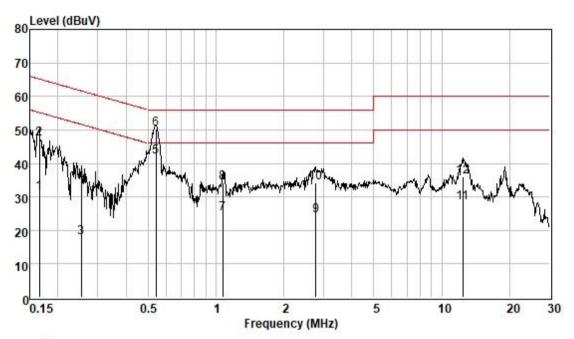


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 18 of 392

Test Mode: 05; Line: Live line



Pol :LINE Mode : Model :

	Frequenc MHz	Read Level dBuV	Cable Loss dB	LISN Factor dB	Measured Level dBuV	Limit Line dBuV	Over Limit dB	Remark
1	0.166	21.48	0.06	9.55	31.09	55.16	-24.07	Average
2	0.166	37.58	0.06	9.55	47.19	65.16	-17.97	QP
3	0.253	8.20	0.06	9.57	17.83	51.64	-33.81	Average
4	0.253	24.51	0.06	9.57	34.14	61.64	-27.50	QP
5	0.544	32.39	0.07	9.59	42.05	46.00	-3.95	Average
6	0.544	40.46	0.07	9.59	50.12	56.00	-5.88	QP
7	1.071	15.29	0.08	9.60	24.97	46.00	-21.03	Average
8	1.071	24.65	0.08	9.60	34.33	56.00	-21.67	QP
9	2.765	14.78	0.14	9.61	24.53	46.00	-21.47	Average
10	2.765	24.52	0.14	9.61	34.27	56.00	-21.73	QP
11	12.384	18.25	0.27	9.80	28.32	50.00	-21.68	Average
12	12.384	26.01	0.27	9.80	36.08	60.00	-23.92	OP



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

of email: CN\_Doccheck@sgs.com
Mo.198/kgnl Road, Soentech Park, Guangshou Comonic & Technology Development District, Guangshou, 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

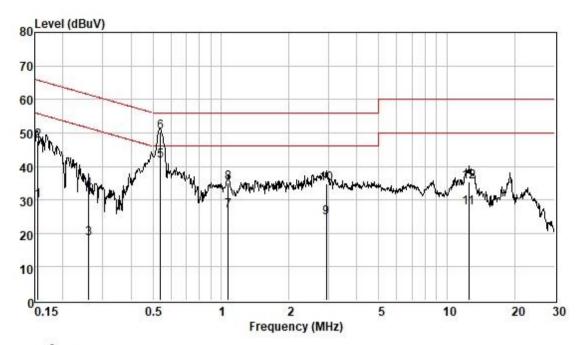


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 19 of 392

Test Mode: 05; Line: Neutral Line



Pol :NEUTRAL

Mode : Model :

	Frequenc MHz	Read Level dBuV	Cable Loss dB	LISN Factor dB	Measured Level dBuV	Limit Line dBuV	Over Limit dB	Remark
1	0.155	20.03	0.06	9.53	29.62	55.74	-26.12	Average
2	0.155	37.89	0.06	9.53	47.48	65.74	-18.26	QP
3	0.260	8.95	0.06	9.56	18.57	51.42	-32.85	Average
4	0.260	23.40	0.06	9.56	33.02	61.42	-28.40	QP
5	0.541	32.09	0.07	9.58	41.74	46.00	-4.26	Average
6	0.541	40.59	0.07	9.58	50.24	56.00	-5.76	QP
7	1.077	17.11	0.08	9.59	26.78	46.00	-19.22	Average
8	1.077	25.37	0.08	9.59	35.04	56.00	-20.96	QP
9	2.931	14.86	0.15	9.61	24.62	46.00	-21.38	Average
10	2.931	25.03	0.15	9.61	34.79	56.00	-21.21	QP
11	12.516	17.51	0.27	9.82	27.60	50.00	-22.40	Average
12	12.516	25.27	0.27	9.82	35.36	60.00	-24.64	QP



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

of email: CN\_Doccheck@sgs.com
Mo.198/kgnl Road, Soentech Park, Guangshou Comonic & Technology Development District, Guangshou, 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.: GZCR220600077105 EMC-TRF-01 Rev 1.1

> 20 of 392 Page:

7.2 Duty Cycle

**Test Requirement** KDB 789033 D02 II B 1 KDB 789033 II B 1 Test Method:

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 27.4 °C Humidity: 47.6 % RH Atmospheric Pressure: 1015 mbar

7.2.2 Test Mode Description

Mode Pre-scan / Final test Code

Description

TX mode (U-NII-1) 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), final test modes are considering the modulation and

worse data rates. Only the data of worst case is recorded in the report.

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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

TX mode (U-NII-3)\_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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

05

Final test

Final test 06

Final test 07

Final test 08

检验检测专用章

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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443. 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

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

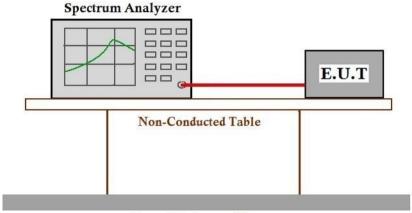


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 21 of 392

### 7.2.3 Test Setup Diagram



Ground Reference Plane

#### 7.2.4 Measurement Procedure and Data

Please Refer to Appendix 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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms



Report No.: GZCR220600077105 EMC-TRF-01 Rev 1.1

> 22 of 392 Page:

7.3 99% Bandwidth

Test Requirement N/A

KDB 789033 II D Test Method:

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 27.4 °C Humidity: 47.6 % RH Atmospheric Pressure: 1015 mbar

7.3.2 Test Mode Description

Mode Pre-scan / Final test Code

Description

TX mode (U-NII-1) 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), final test modes are considering the modulation and

worse data rates. Only the data of worst case is recorded in the report.

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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

TX mode (U-NII-3)\_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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

Final test 05

Final test 06

Final test 07

Final test 08

检验检测专用章

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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

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 中国·广州·经济技术开发区科学城科珠路198号

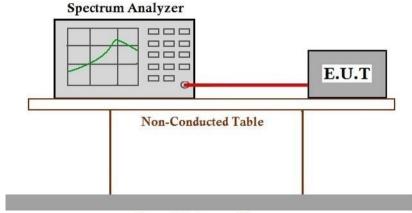


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 23 of 392

### 7.3.3 Test Setup Diagram



Ground Reference Plane

#### 7.3.4 Measurement Procedure and Data

Please Refer to Appendix 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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

of email: CN\_Doccheck@sgs.com
Mo.198/kgnl Road, Soentech Park, Guangshou Comonic & Technology Development District, Guangshou, 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 1.1 Report No.: GZCR220600077105

Page: 24 of 392

### 7.4 26dB Emission bandwidth

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: KDB 789033 D02 II C 1

### 7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 27.4 °C Humidity: 47.6 % RH Atmospheric Pressure: 1015 mbar

#### 7.4.2 Test Mode Description

Pre-scan / Mode Final test Code

#### Description

TX mode (U-NII-1)\_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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

TX mode (U-NII-3)\_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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

Final test 05

Final test 06

Final test 07

Final test 08

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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

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

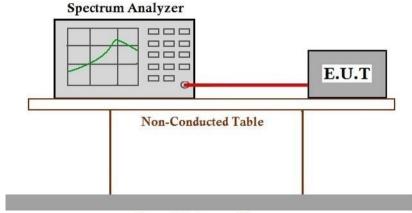


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 25 of 392

### 7.4.3 Test Setup Diagram



Ground Reference Plane

#### 7.4.4 Measurement Procedure and Data

Please Refer to Appendix 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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms



EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 26 of 392

### 7.5 Minimum 6 dB bandwidth (5.725-5.85 GHz band )

Test Requirement 47 CFR Part 15, Subpart E 15.407 (e)

Test Method: KDB 789033 D02 II C 2

Limit:

Frequency band(MHz)	Limit
5725-5850	≥500 kHz

### 7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 27.4 °C Humidity: 47.6 % RH Atmospheric Pressure: 1015 mbar

### 7.5.2 Test Mode Description

Pre-scan / Mode Final test Code

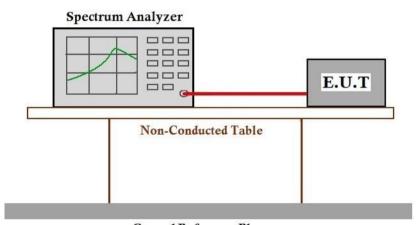
08

### Description

TX mode (U-NII-3)\_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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

### 7.5.3 Test Setup Diagram

Final test



**Ground Reference Plane** 

#### 7.5.4 Measurement Procedure and Data

Please Refer to Appendix 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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

or email: <u>CN.Doccheck@sgs.com</u> No.198 Kezhu Road, Scientech Park, Guangzhou Exonomic & 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 1.1

Report No.: GZCR220600077105

Page: 27 of 392

### 7.6 Maximum Conducted output power

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: KDB 789033 D02 II E

Limit:

Frequency band(MHz)		Limit
5150-5250		≤1W(30dBm) for master device
		≤250mW(24dBm) for client device
5250-5350		≤250mW(24dBm) for client device or 11dBm+10logB*
5470-5725		≤250mW(24dBm) for client device or 11dBm+10logB*
5725-5850		≤1W(30dBm)
Remark:	* Where B is the 26dB emission bandwidth in MHz.	
		onducted output power must be measured over any interval of smission using instrumentation calibrated in terms of an rms-le.

#### 7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 27.4 °C Humidity: 47.6 % RH Atmospheric Pressure: 1015 mbar

### 7.6.2 Test Mode Description

Pre-scan / Mode Final test Code

#### Description

Final test 05

TX mode (U-NII-1)\_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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

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

06

Final test

Final test 07

检验检测专用章

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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

No.198 Kezhu Road, Scientech Park, Guangzhou Exonomic & Technology Development District, Guangzhou, China 510663 tt (86-20) 82155555 ft (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 tt (86-20) 82155555 ft (86-20) 82075058 sgs.china@sgs.com



EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

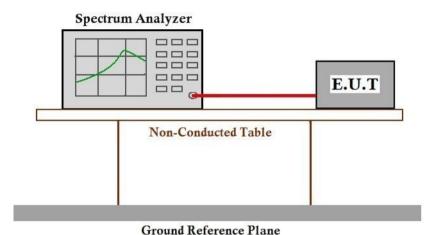
Page: 28 of 392

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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

TX mode (U-NII-3)\_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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

Final test 08

#### 7.6.3 Test Setup Diagram



#### 7.6.4 Measurement Procedure and Data

Note: Since the verify power the same operating range bandwidth and smaller power can be covered by the higher power.

Please Refer to Appendix 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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

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



EMC-TRF-01 Rev 1.1 Report No.: GZCR220600077105

Page: 29 of 392

### 7.7 Peak Power spectrum density

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: KDB 789033 D02 II F

Limit:

Frequency band(MHz)		Limit	
5150-5250		≤17dBm in 1MHz for master device	
		≤11dBm in 1MHz for client device	
5250-5350		≤11dBm in 1MHz for client device	
5470-5725		≤11dBm in 1MHz for client device	
5725-5850		≤30dBm in 500 kHz	
Remark:	The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test.		

### 7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 27.4 °C Humidity: 47.6 % RH Atmospheric Pressure: 1015 mbar

### 7.7.2 Test Mode Description

Pre-scan /	Mode	
Final test	Code	

### **Description**

Final test 05

TX mode (U-NII-1)\_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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

Final test 06

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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

Final test 07

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), final test modes are considering the modulation and



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

No.198 Kezhu Road, Scientech Park, Guargahou Economic & Technology Development District, Guargahou, 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



EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

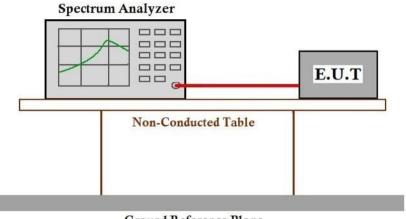
Page: 30 of 392

worse data rates. Only the data of worst case is recorded in the report.

TX mode (U-NII-3)\_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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

**Final test** 08

### 7.7.3 Test Setup Diagram



Ground Reference Plane

#### 7.7.4 Measurement Procedure and Data

Please Refer to Appendix 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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

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 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 1.1

Report No.: GZCR220600077105

Page: 31 of 392

### 7.8 Radiated Emissions (Above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: KDB 789033 D02 II G

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1GHz	500	3

- \*(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
- (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

#### 7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 23.1 °C Humidity: 52.4 % RH Atmospheric Pressure: 1006 mbar

#### 7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	TX mode (U-NII-1)_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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	06	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;



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

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 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 1.1

Report No.: GZCR220600077105

Page: 32 of 392

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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

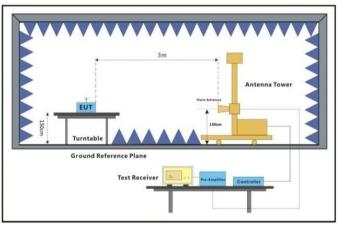
TX mode (U-NII-2C)\_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst 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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

TX mode (U-NII-3)\_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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

Final test 07

Final test 08

### 7.8.3 Test Setup Diagram



Above 1GHz



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Comments 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 30 days only.

Attention: To check the authericity of testing inspection groups.

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 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 1.1 Report No.: GZCR220600077105

Page: 33 of 392

#### 7.8.4 Measurement Procedure and Data

- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

#### Remark:

- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
- 4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
- 5: For WLAN radiated test, according to the conducted power and verify test the SISO & MIMO mode, the worst-case is SISO mode for 802.11a, MIMO mode for 802.11n/ac, therefore, all final test are performed in SISO & MIMO mode and reported.



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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention:\*To be the the authenticity of testing in report securificate, pages contact, and testing the support of the such pages contact, and the support of the such pages contact, and the support of the such pages contact, and the support of the such pages contact and the such pages and the such pages contact and the

or email: CN. Doccheck@sgs\_com Mo.18Kehu Road, Sciented Park, Guarghou Economic & Technology Development District, Guangahou, 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

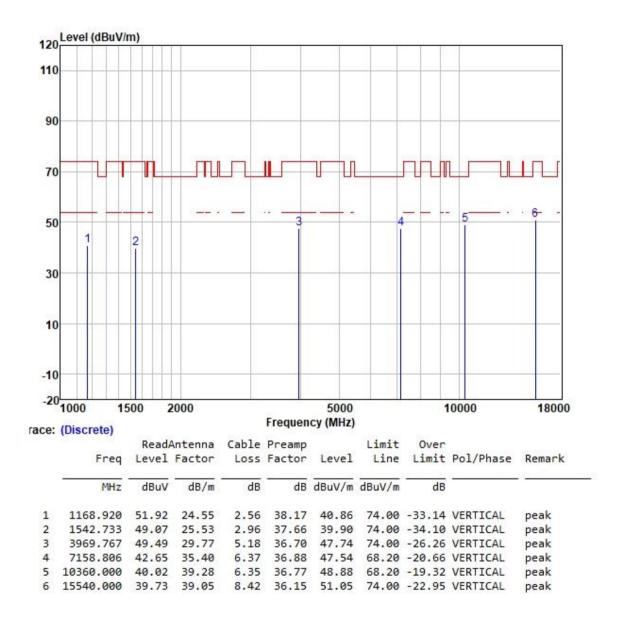


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 34 of 392

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

Mr.198/czhu Road, Scientech Park (Augustou Economic & Technology Development District, Guargatou, 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

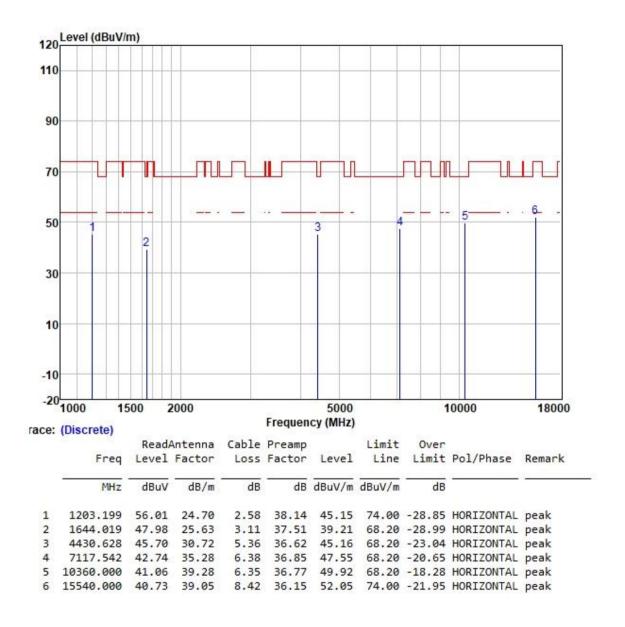


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 35 of 392

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

or email: CN. <u>Doccheck@sqs.com</u> M:198/Earlu Rodg, Scientch Park (Rounghou Economic & Technology Development District, Guargahou, 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

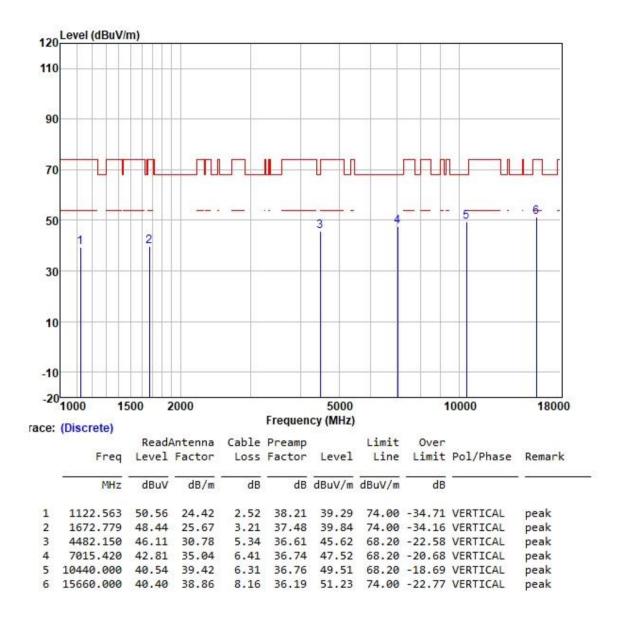


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 36 of 392

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

Mr.198/czhu Road, Scientech Park (Augustou Economic & Technology Development District, Guargatou, 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

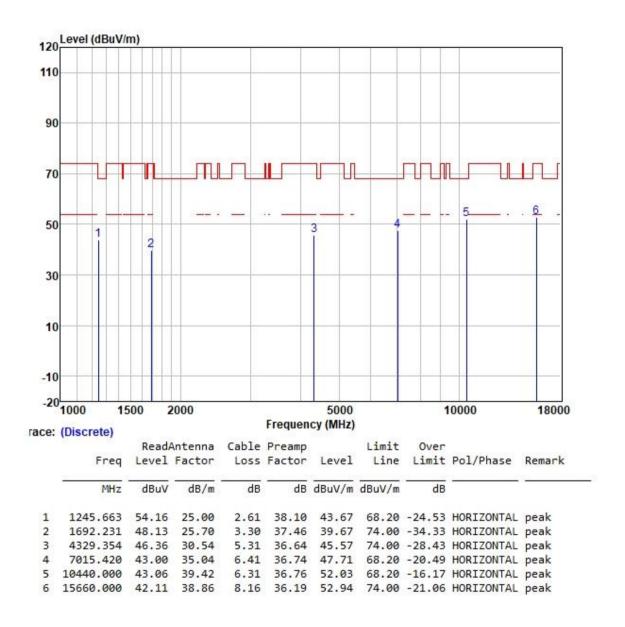


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 37 of 392

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

Mr.198/czhu Road, Scientech Park (Augustou Economic & Technology Development District, Guargatou, 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

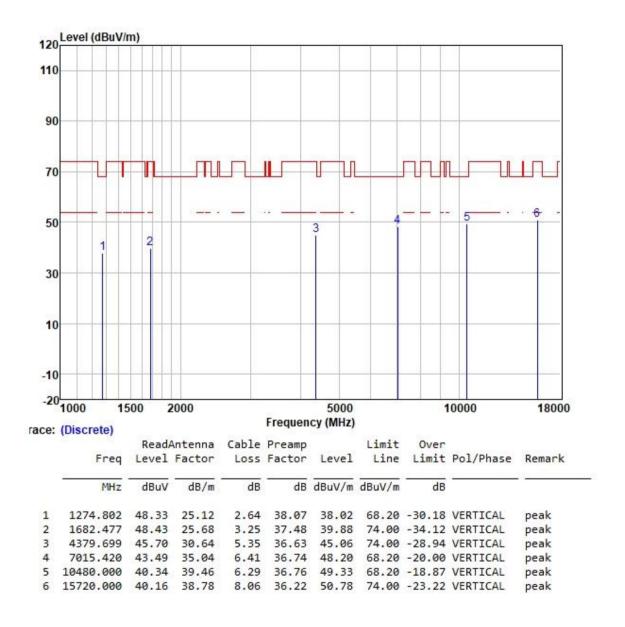


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 38 of 392

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

or email: CN. <u>Doccheck@sqs.com</u> M:198/Earlu Rodg, Scientel Park (Rounghou Economic & Technology Development District, Guargahou, 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

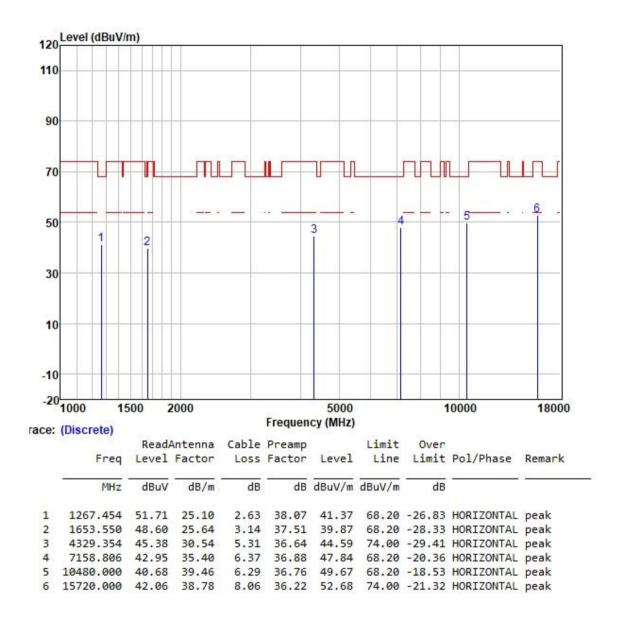


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 39 of 392

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN\_Doccheck@sgs.com

No.198 Kezhu Road, Scientech Park, Guangzhou Exormic & 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

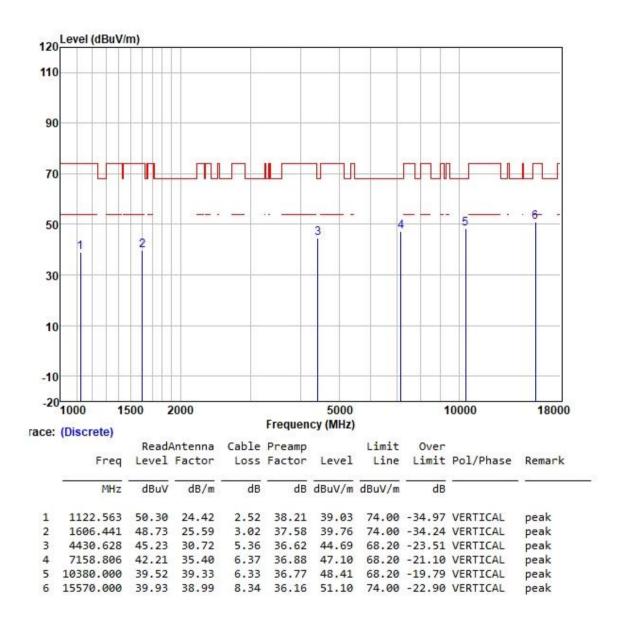


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 40 of 392

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

or email: CN. <u>Doccheck@sqs.com</u> M:198/Earlu Rodg, Scientel Park (Rounghou Economic & Technology Development District, Guargahou, 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

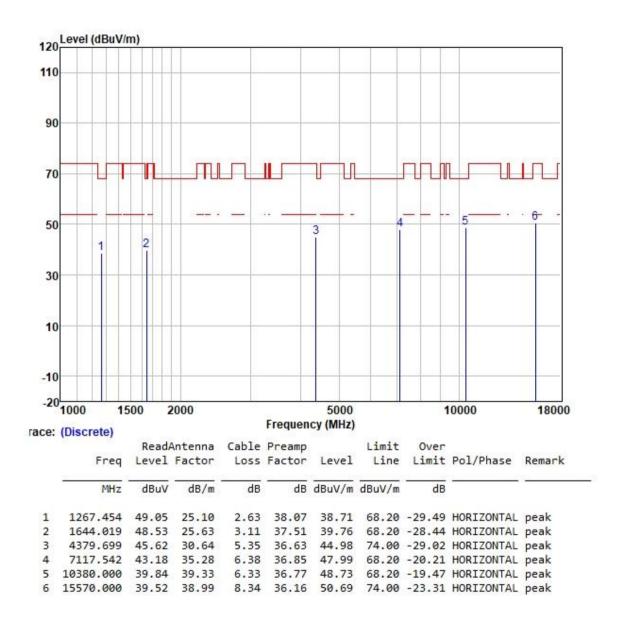


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 41 of 392

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. 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 special 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 30 days only.

Attention: To check the authenticity of testing inspection report & certificate ease contact us at telephone: (86-755) 8307 1443.

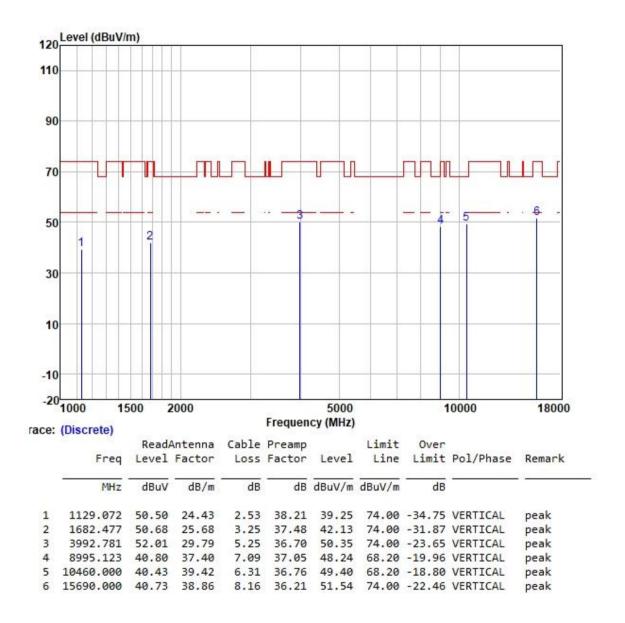


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 42 of 392

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

or email: CN.Doccheck@sgs.com 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 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

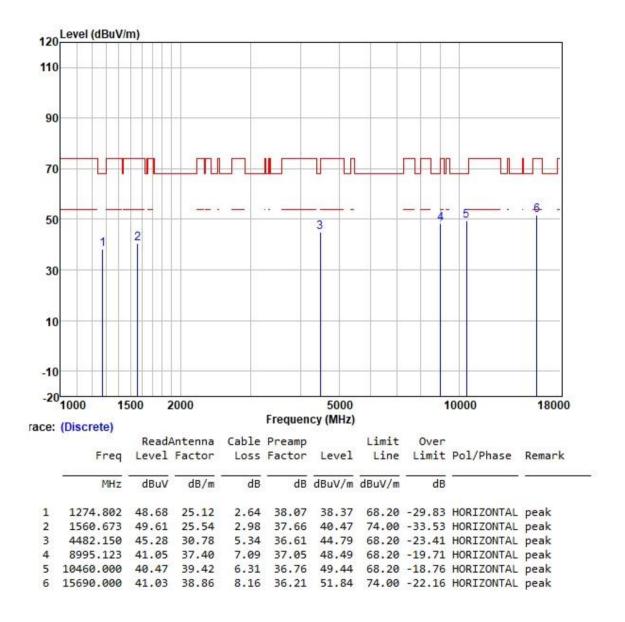


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 43 of 392

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

No.198 Kezhu Road, Scientech Park, Quangzhou Economic & Technology Development District, Quangzhou, 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

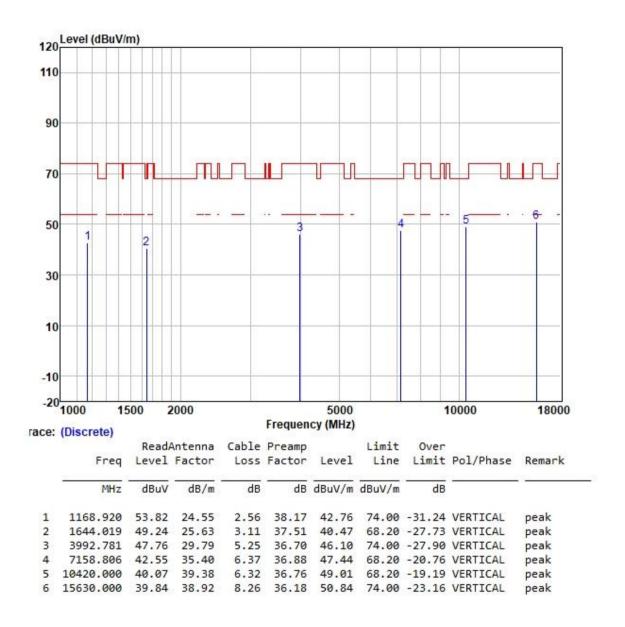


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 44 of 392

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

No.198 Kezhu Road, Scientech Park, Quangzhou Economic & Technology Development District, Quangzhou, 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

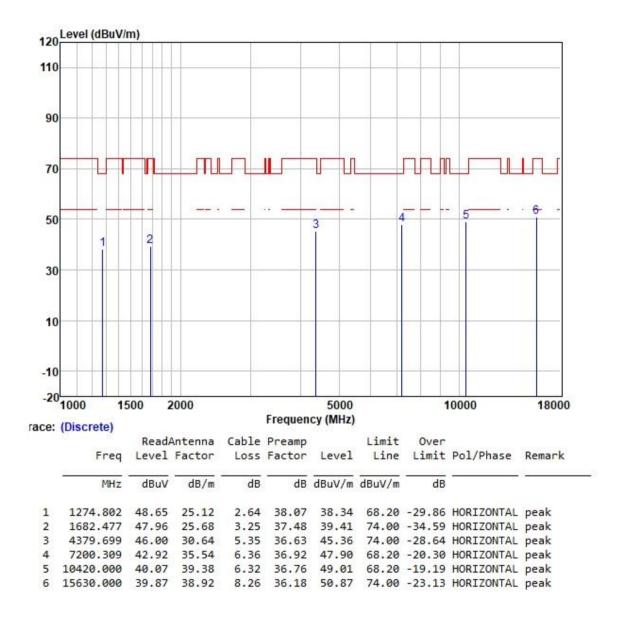


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 45 of 392

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

Mr.198/czhu Road, Scientech Park (Augustou Economic & Technology Development District, Guargatou, 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

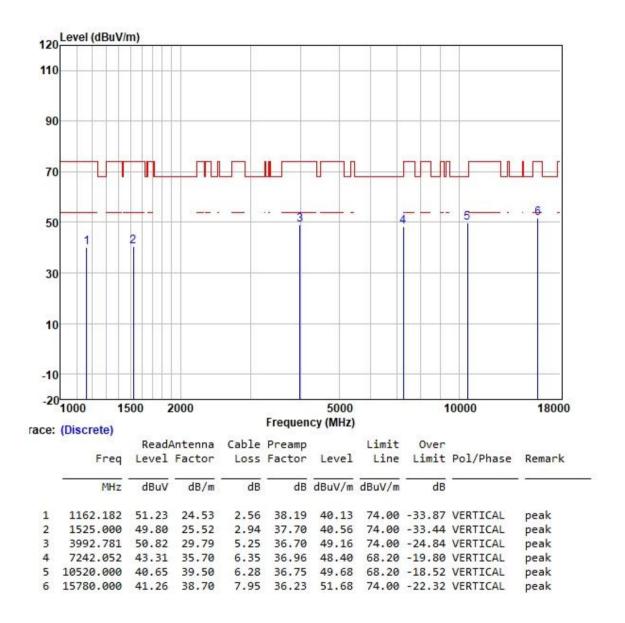


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 46 of 392

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

Mr.198/czhu Road, Scientech Park (Augustou Economic & Technology Development District, Guargatou, 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

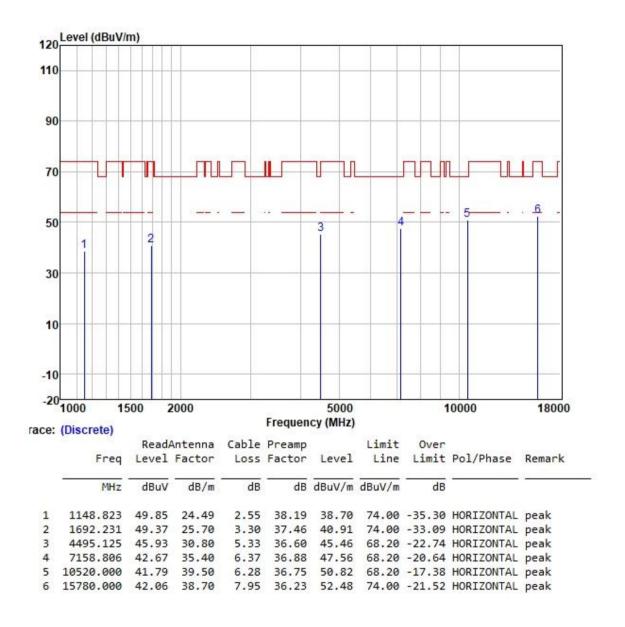


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 47 of 392

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

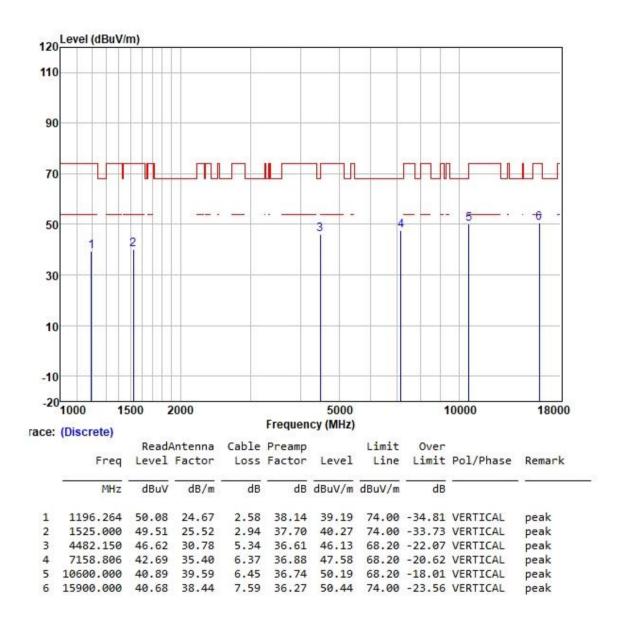


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 48 of 392

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

No.198 Kezhu Road, Scientech Park, Quangzhou Economic & Technology Development District, Quangzhou, 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

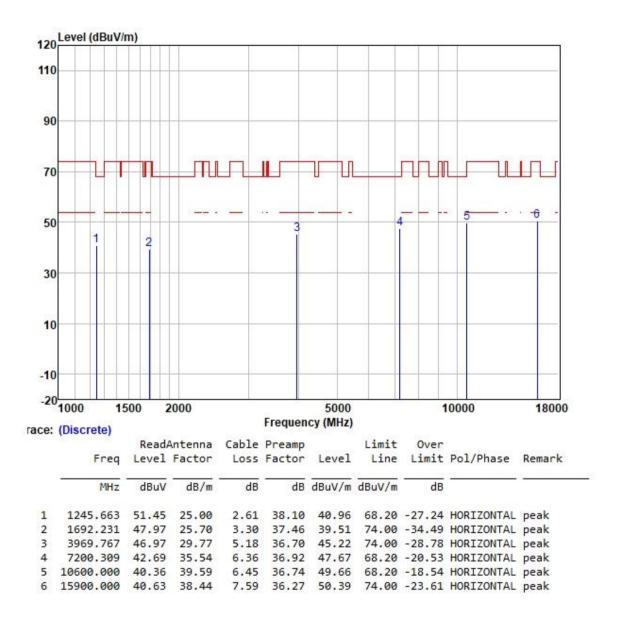


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 49 of 392

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN\_Doccheck@sgs.com

No.198 Kezhu Road, Scientech Park, Guangzhou Exormic & 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

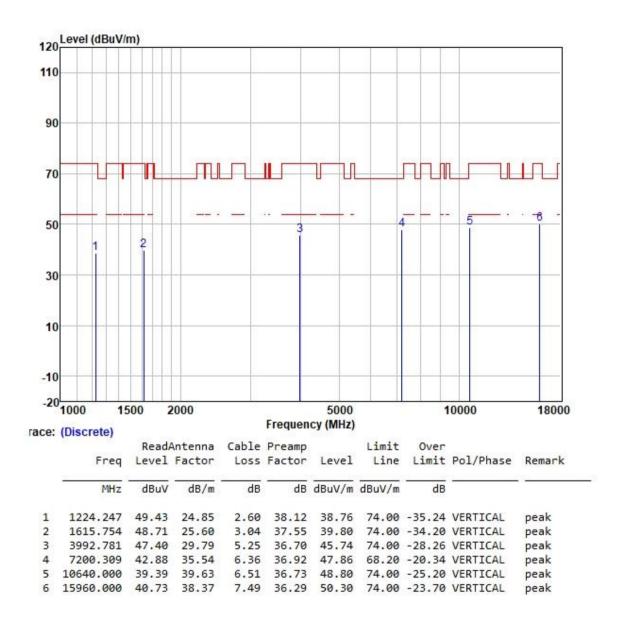


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 50 of 392

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

or email: CN. <u>Doccheck@sqs.com</u> M:198/Earlu Rodg, Scientel Park (Rounghou Economic & Technology Development District, Guargahou, 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

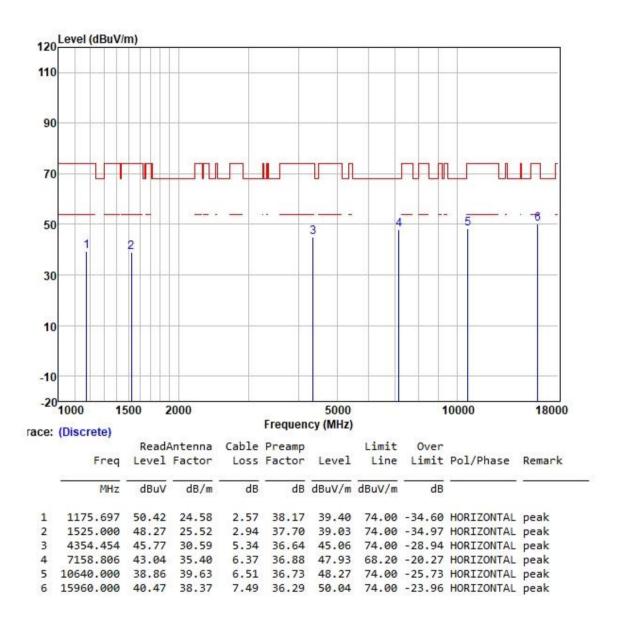


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 51 of 392

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

or email: CN.Doccheck@sgs.com 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 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

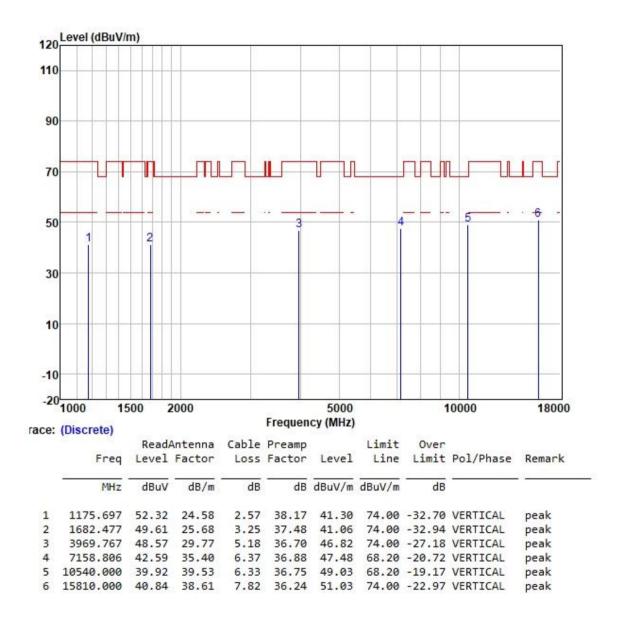


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 52 of 392

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

Mr.198/czhu Road, Scientech Park (Augustou Economic & Technology Development District, Guargatou, 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

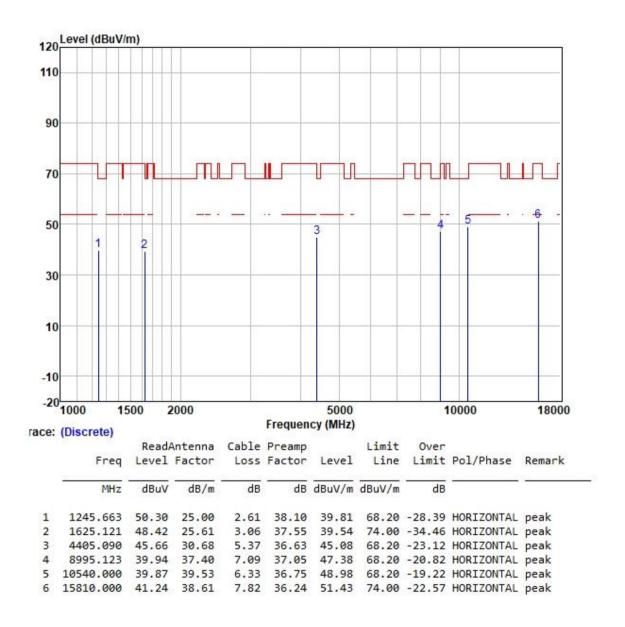


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 53 of 392

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

or email: CN. <u>Doccheck@sqs.com</u> M:198/Earlu Rodg, Scientel Park (Rounghou Economic & Technology Development District, Guargahou, 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

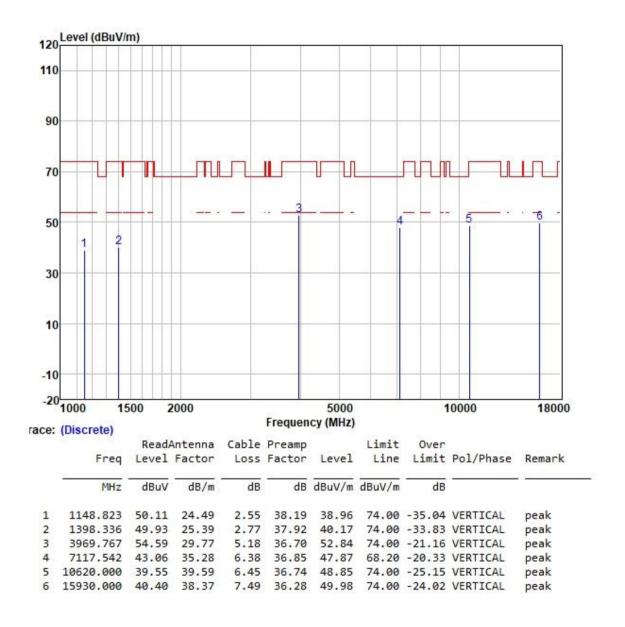


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 54 of 392

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

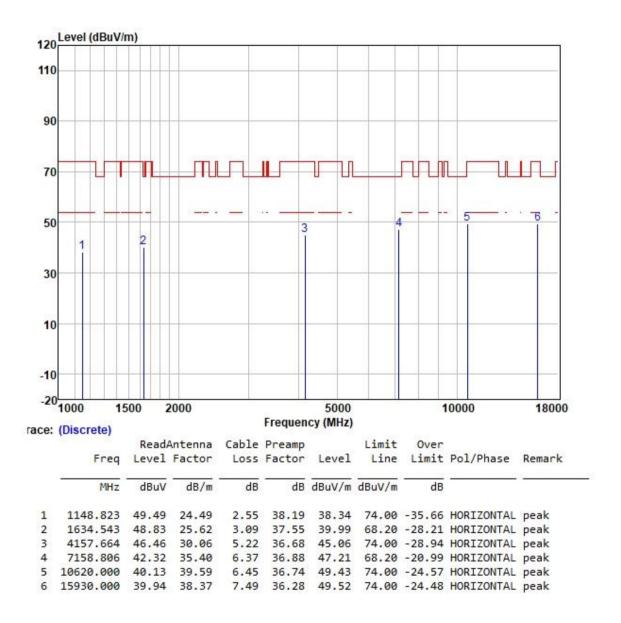


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 55 of 392

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

Mr.198/czhu Road, Scientech Park (Augustou Economic & Technology Development District, Guargatou, 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

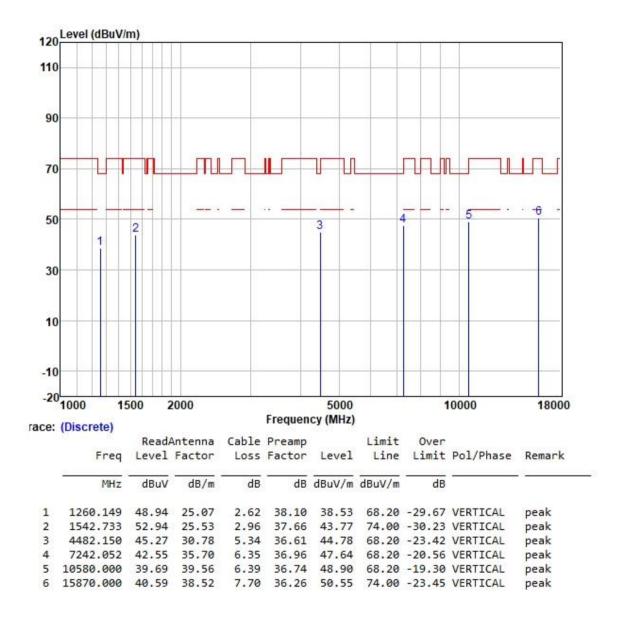


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 56 of 392

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

Mr.198/czhu Road, Scientech Park (Augustou Economic & Technology Development District, Guargatou, 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

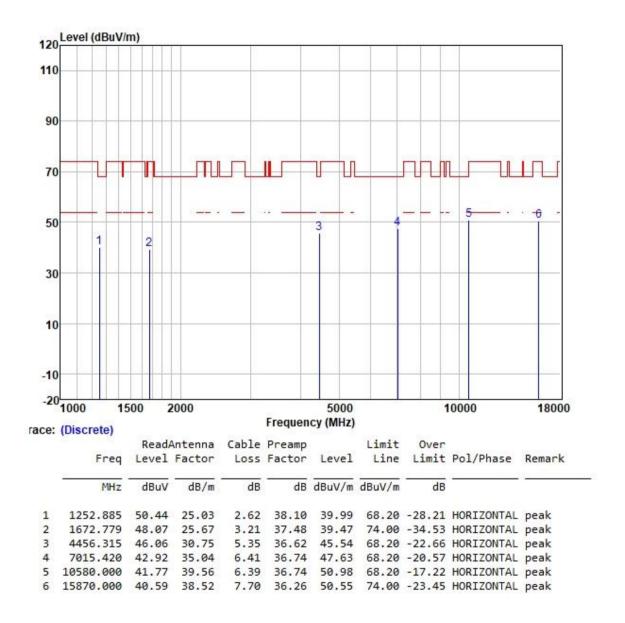


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 57 of 392

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

M:198/Earlu Road, Scientech Park (Augnaphus Comornic & Technology Development District, Guargabou, 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

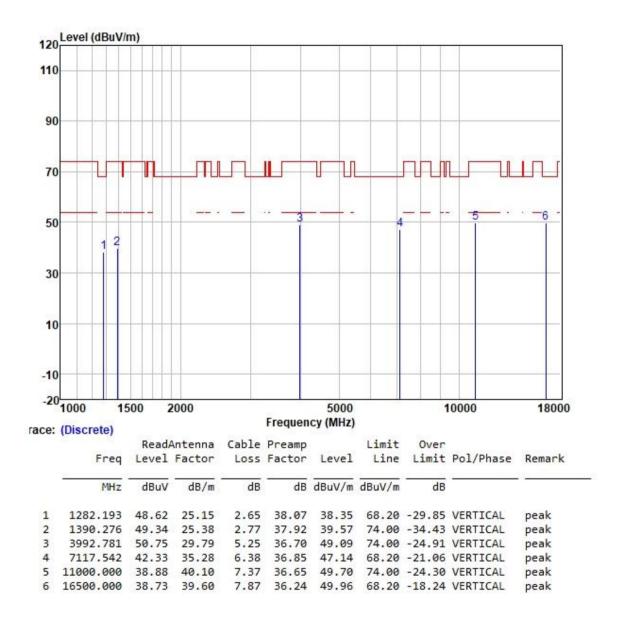


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 58 of 392

Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

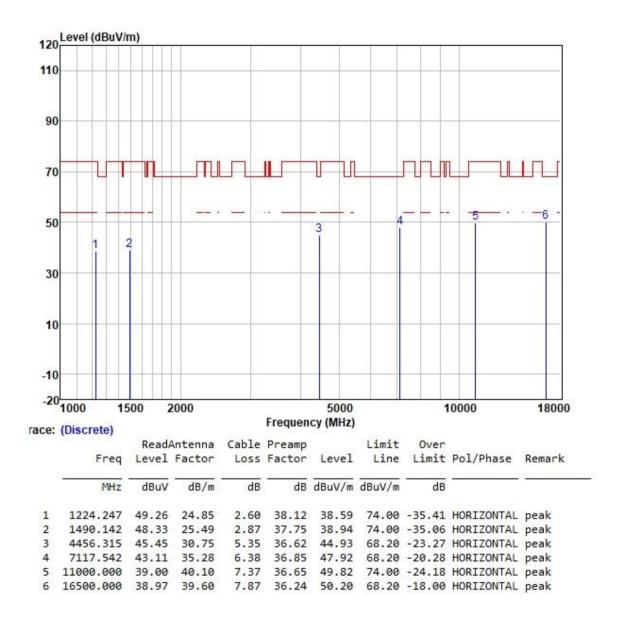


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 59 of 392

Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

M:198/Earlu Road, Scientech Park (Augnaphus Comornic & Technology Development District, Guargabou, 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

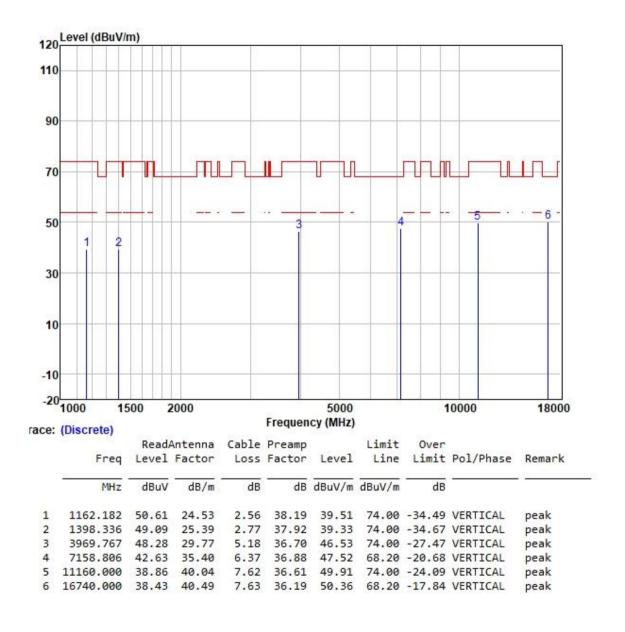


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 60 of 392

Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

M:198/Earlu Road, Scientech Park (Augnaphus Comornic & Technology Development District, Guargabou, 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

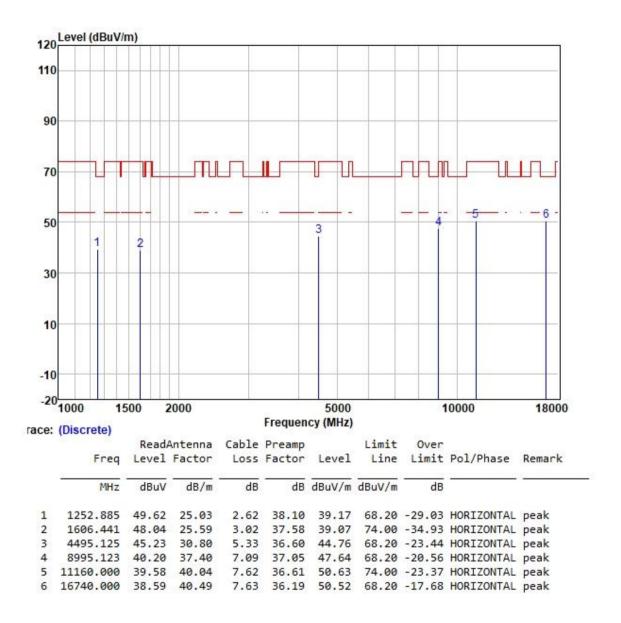


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 61 of 392

Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN\_Doccheck@sgs.com

No.198 Kezhu Road, Scientech Park, Guangzhou Exormic & 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

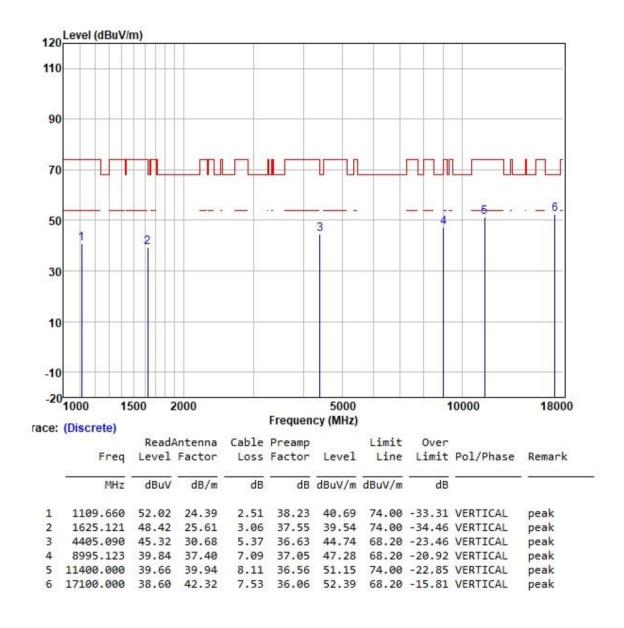


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 62 of 392

Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

No.198 Kezhu Road, Scientech Park, Quangzhou Economic & Technology Development District, Quangzhou, 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

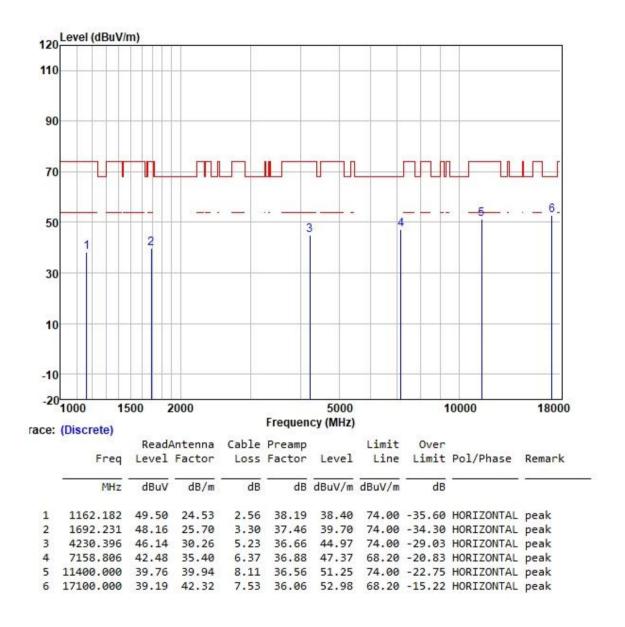


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 63 of 392

Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

M:198/Earlu Road, Scientech Park (Augnaphus Comornic & Technology Development District, Guargabou, 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

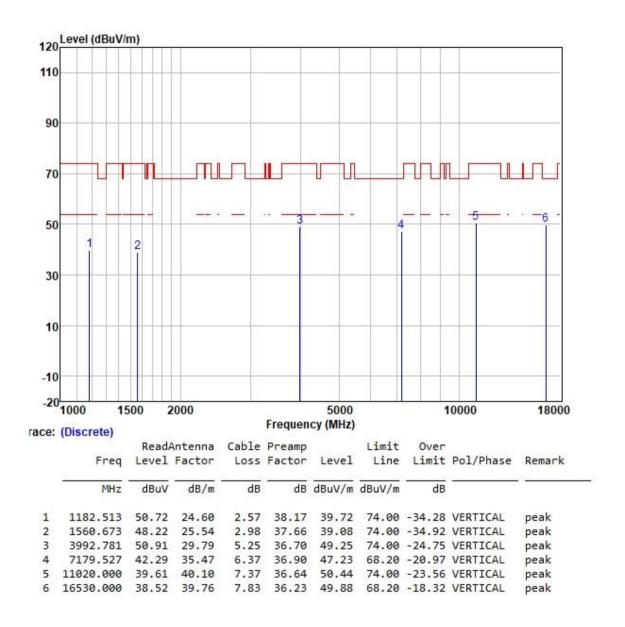


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 64 of 392

Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. 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 special 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 30 days only.

Attention: To check the authenticity of testing inspection report & certificate ease contact us at telephone: (86-755) 8307 1443.

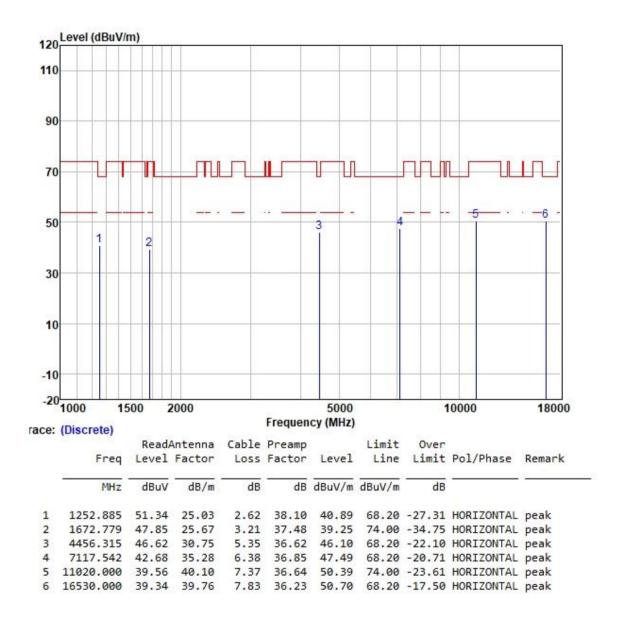


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 65 of 392

Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

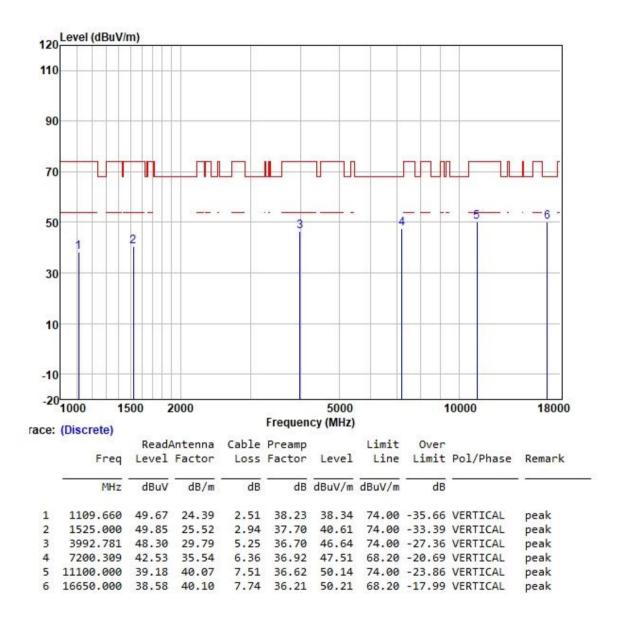


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 66 of 392

Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:middle





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

No.198 Kezhu Road, Scientech Park, Quangzhou Economic & Technology Development District, Quangzhou, 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

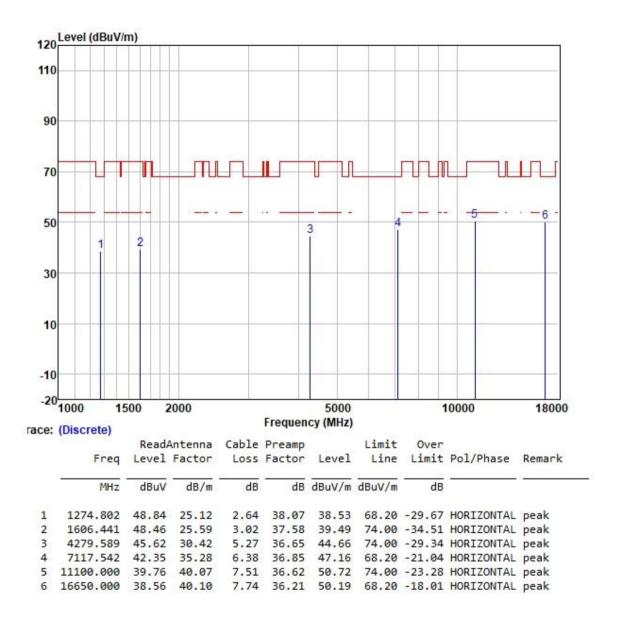


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 67 of 392

Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:middle





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

or email: CN. <u>Doccheck@sqs.com</u> M:198/Earlu Rodg, Scientel Park (Rounghou Economic & Technology Development District, Guargahou, 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

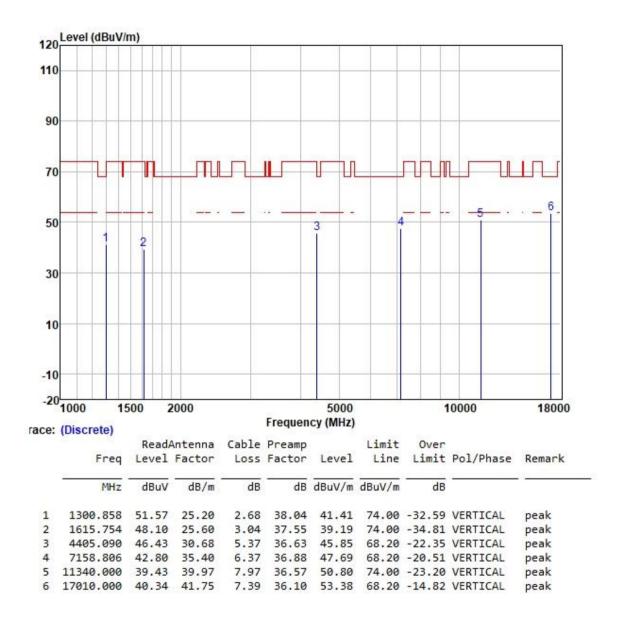


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 68 of 392

Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

No.198 Kezhu Road, Scientech Park, Quangzhou Economic & Technology Development District, Quangzhou, 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

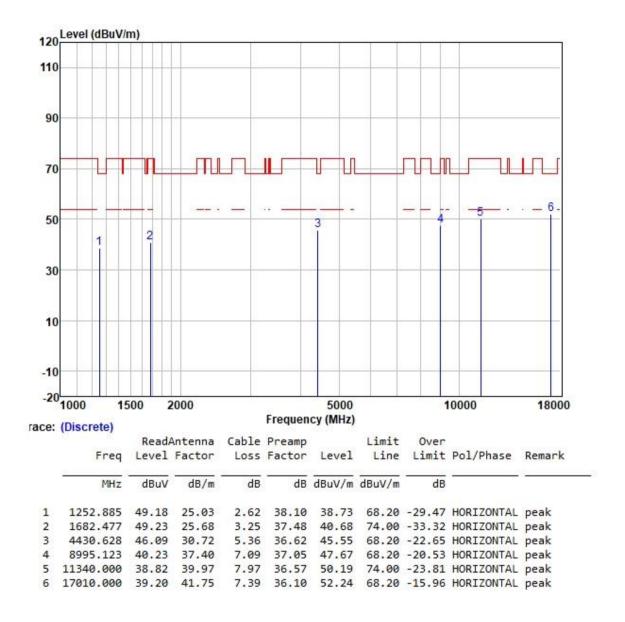


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 69 of 392

Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. 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 special 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 30 days only.

Attention: To check the authenticity of testing inspection report & certificate ease contact us at telephone: (86-755) 8307 1443.

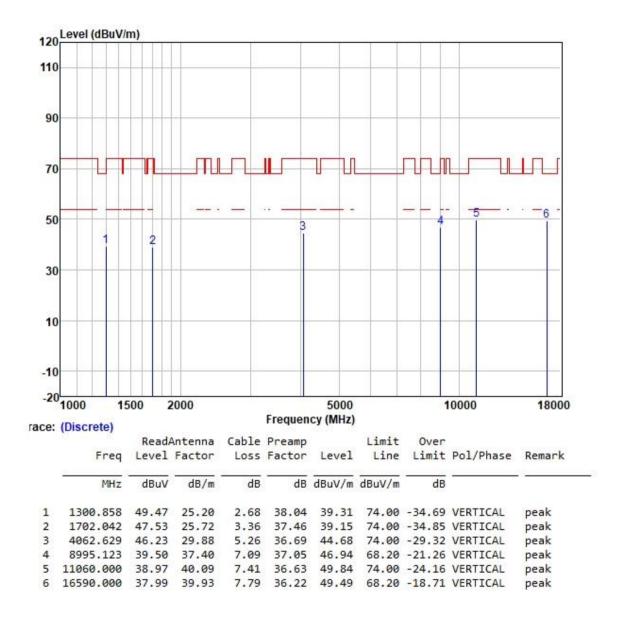


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 70 of 392

Test Mode: 07; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

M:198/Earlu Road, Scientech Park (Augnaphus Comornic & Technology Development District, Guargabou, 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

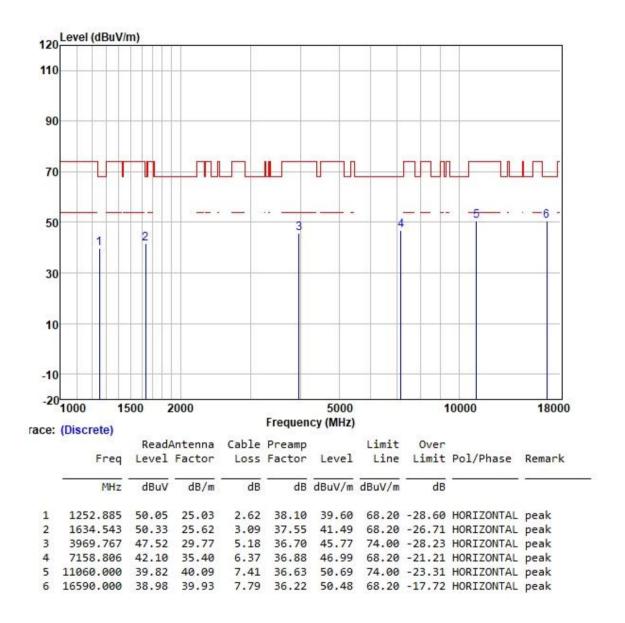


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 71 of 392

Test Mode: 07; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. 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 special 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 30 days only.

Attention: To check the authenticity of testing inspection report & certificate ease contact us at telephone: (86-755) 8307 1443.

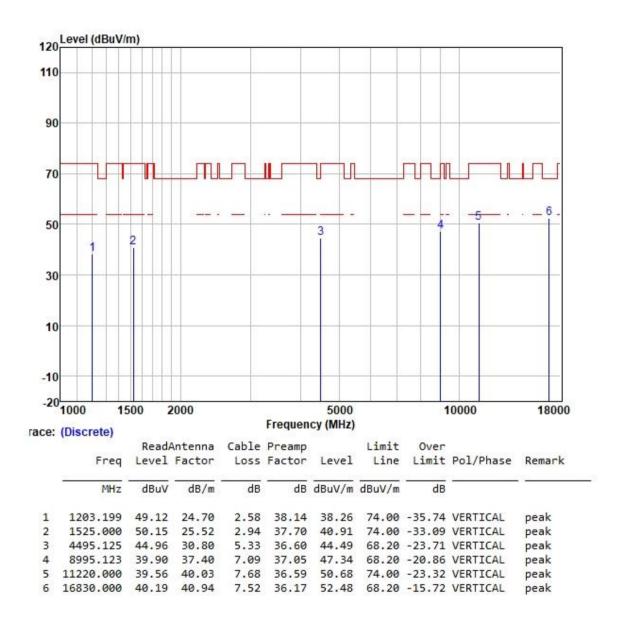


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 72 of 392

Test Mode: 07; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

or email: CN. <u>Doccheck@sqs.com</u> M:198/Earlu Rodg, Scientel Park (Rounghou Economic & Technology Development District, Guargahou, 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

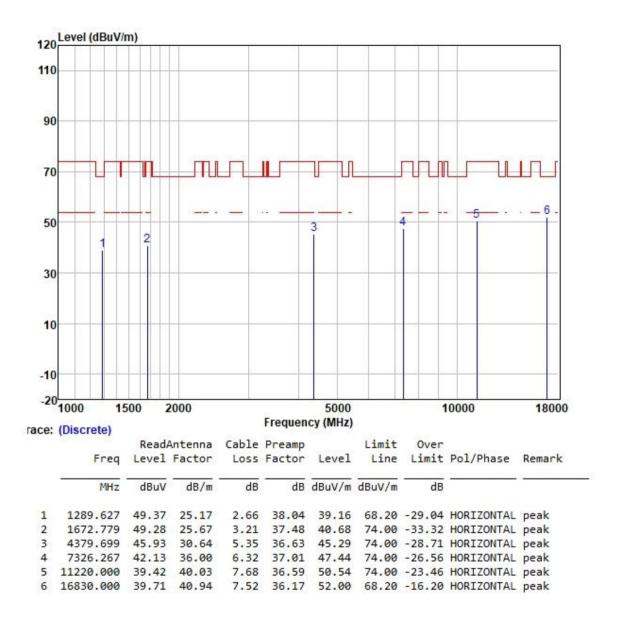


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 73 of 392

Test Mode: 07; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. 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 special 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 30 days only.

Attention: To check the authenticity of testing inspection report & certificate ease contact us at telephone: (86-755) 8307 1443.

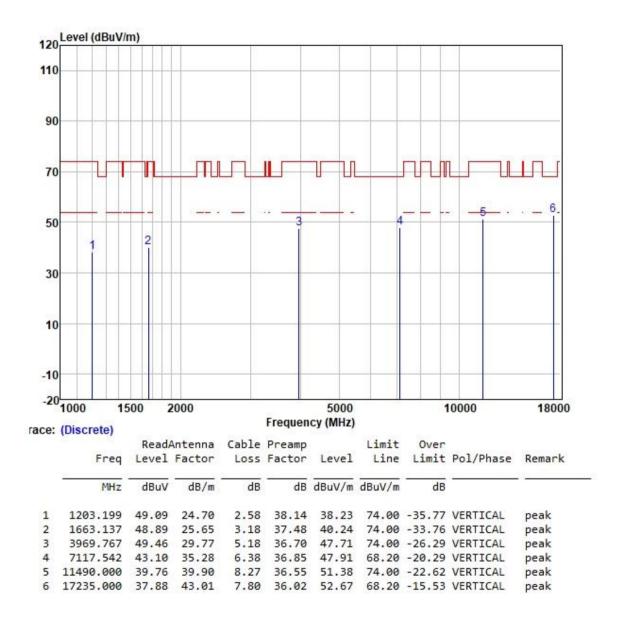


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 74 of 392

Test Mode: 08; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

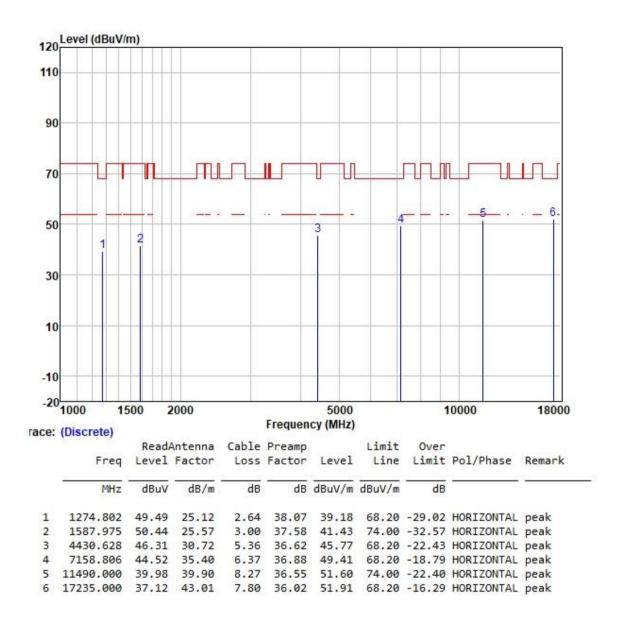


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 75 of 392

Test Mode: 08; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

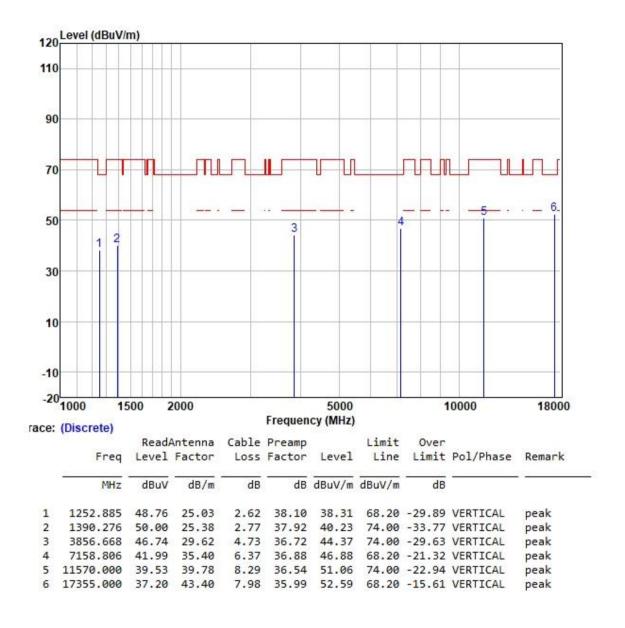


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 76 of 392

Test Mode: 08; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

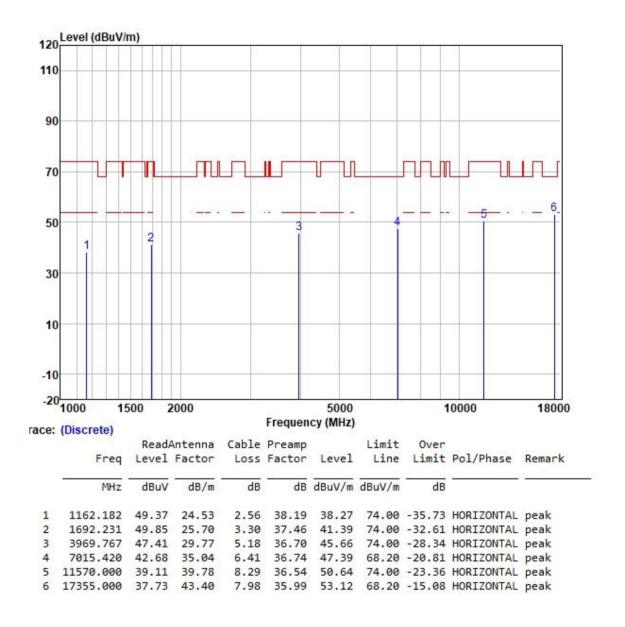


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 77 of 392

Test Mode: 08; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

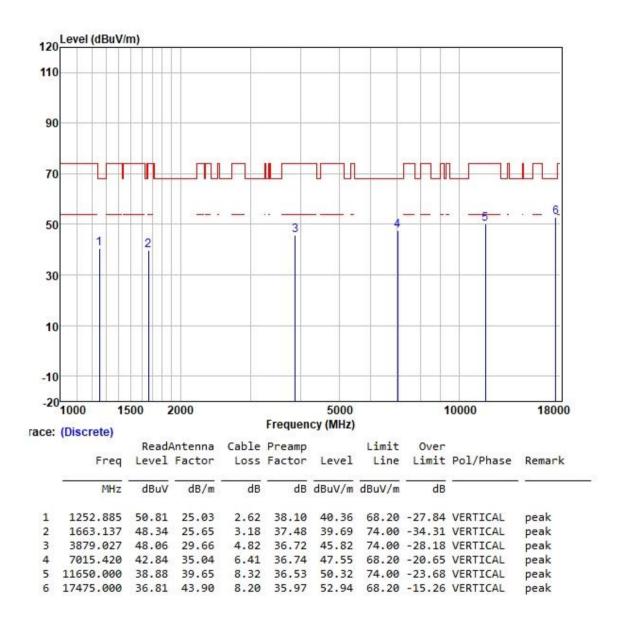


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 78 of 392

Test Mode: 08; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

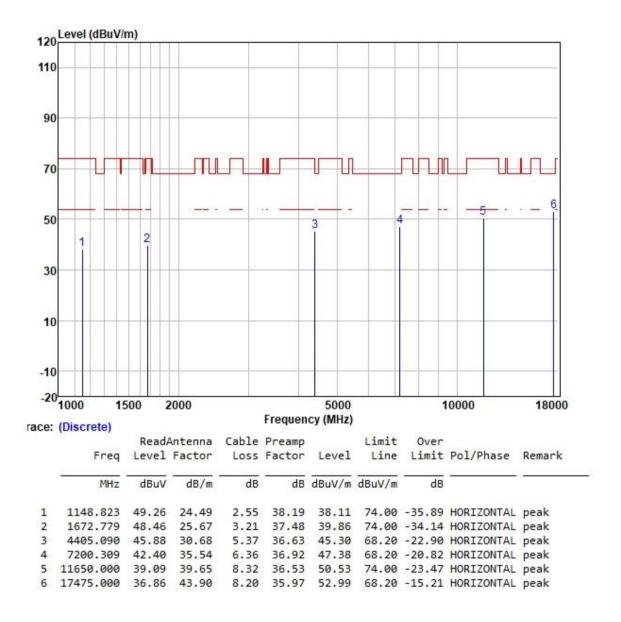


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 79 of 392

Test Mode: 08; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

or email: CN. <u>Doccheck@sqs.com</u> M:198/Earlu Rodg, Scientel Park (Rounghou Economic & Technology Development District, Guargahou, 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

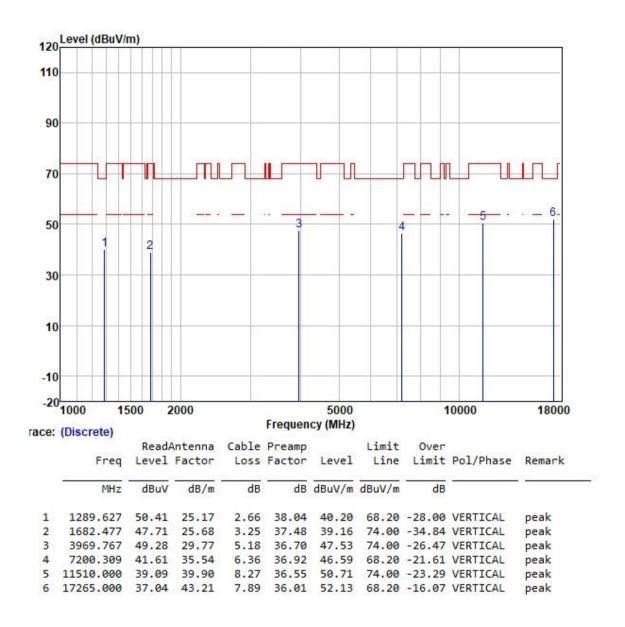


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 80 of 392

Test Mode: 08; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

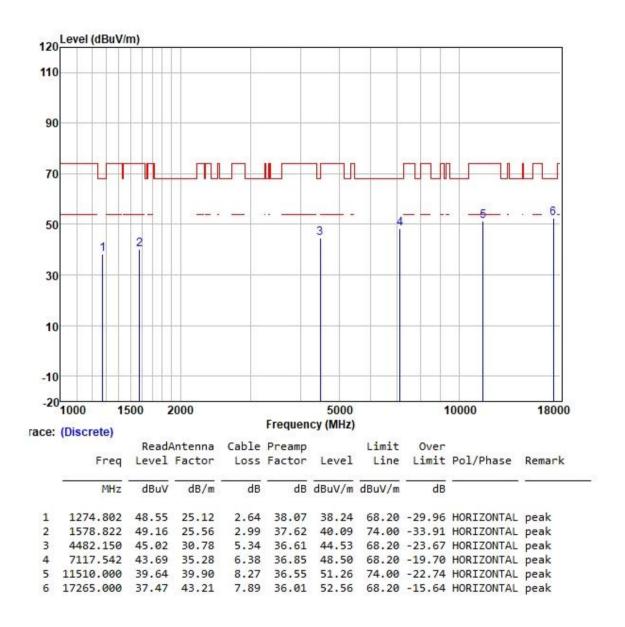


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 81 of 392

Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. 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 special 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 30 days only.

Attention: To check the authenticity of testing inspection report & certificate ease contact us at telephone: (86-755) 8307 1443.

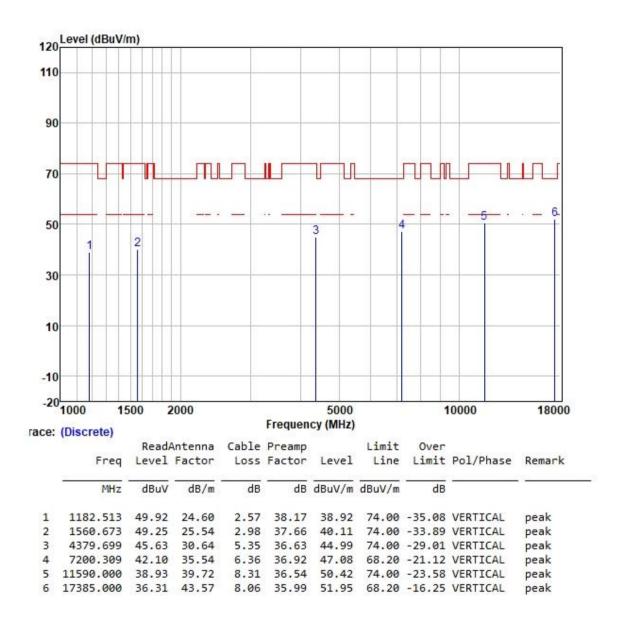


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 82 of 392

Test Mode: 08; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms

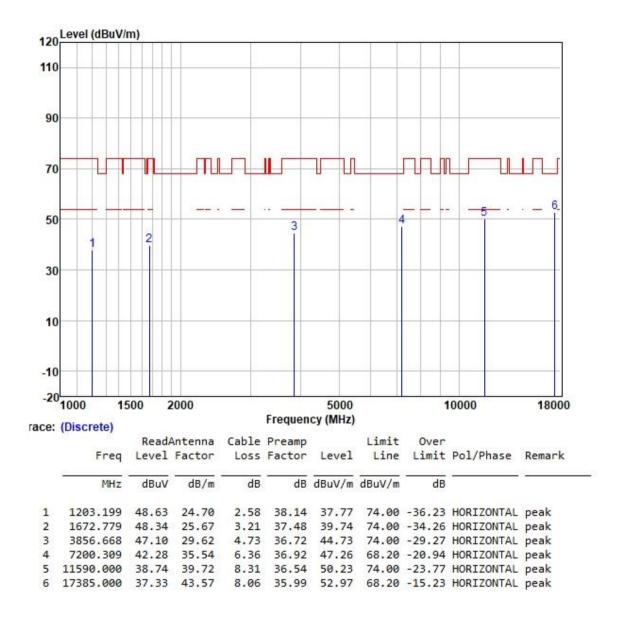


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 83 of 392

Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions/Terms-and-Conditions

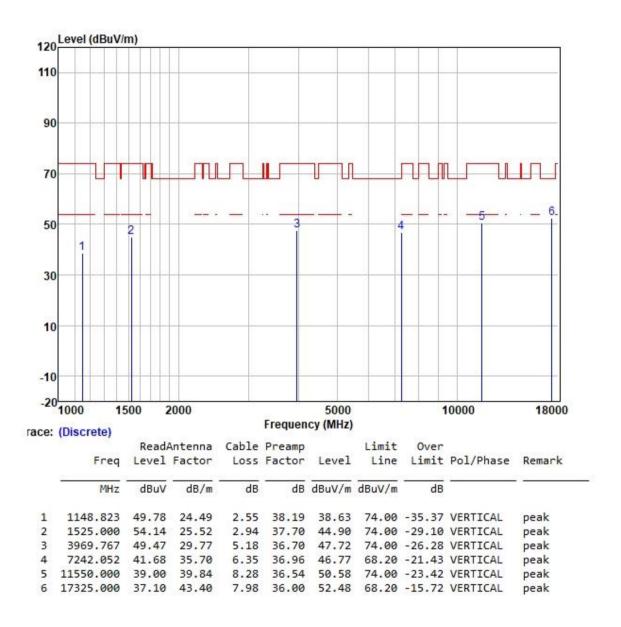


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 84 of 392

Test Mode: 08; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. 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 special 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 30 days only.

Attention: To check the authenticity of testing inspection report & certificate ease contact us at telephone: (86-755) 8307 1443.

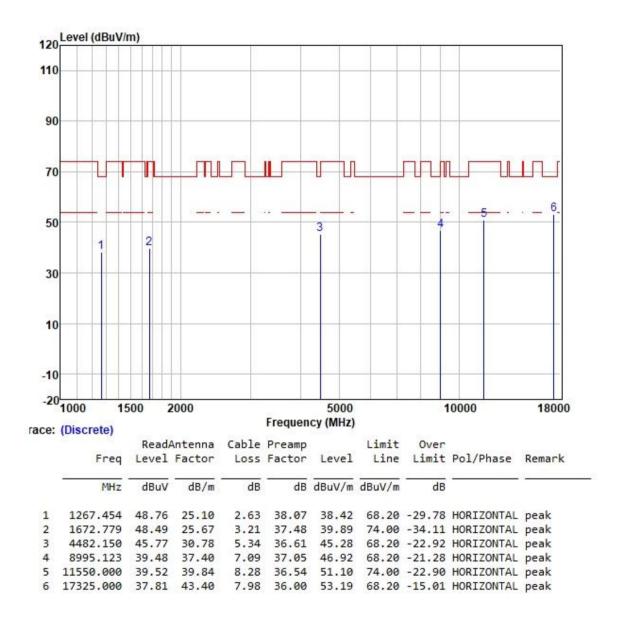


EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 85 of 392

Test Mode: 08; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low





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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms



EMC-TRF-01 Rev 1.1

Report No.: GZCR220600077105

Page: 86 of 392

#### 7.9 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: KDB 789033 D02 II G

Limit:

Frequency (MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

- \*(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
- (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

#### 7.9.1 E.U.T. Operation

**Operating Environment:** 

Temperature: 23.2 °C Humidity: 52.1 % RH Atmospheric Pressure: 1006 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 <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issue 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 30 days only.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.

\*\*Attention: To check the authenticity of testing in report & certificate, please contact us at telephone: (86-758) 8307 1443.