

Report No.: GZCR220400045602

Page: 1 of 61 FCC ID: Z9G-EDF185

TEST REPORT

Application No.: GZCR2204000456AT

Applicant: Edifier International Limited

Address of Applicant: P.O. Box 6264 General Post Office Hong Kong

Manufacturer: Beijing Edifier Technology Co., Ltd.

Address of Manufacturer: 8th floor, ZuoAn Building, NO.68 BeiSiHuanXiLu, Haidian District, Beijing

100080, CHINA

Factory: Dongguan Edifier Technology Co., Ltd.

Address of Factory: No.2 Gongyedong Road, Songshan Lake Sci&Tech Industry Park,

Dongguan, Guangdong 523808, PR.China

Equipment Under Test (EUT):

EUT Name: Bluetooth Headphones

Model No.: EDF800001
Trade Mark: EDIFIER

Standard(s): 47 CFR Part 15, Subpart C 15.247

Date of Receipt: 2022-04-24

Date of Test: 2022-04-25 to 2022-05-05

Date of Issue: 2022-05-10

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

. No.198 Keatu Read, Soemech Park, Guangshou Economic & 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

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



Report No.: GZCR220400045602

Page: 2 of 61

	Revision Record						
Version	Version Chapter Date Modifier Remark						
01		2022-05-10		Original			

Authorized for issue by		
	Cof Vlu	
	Curry Wu/Project Engineer	-
	Ridge Liu	
	Ricky Liu/Reviewer	-



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx.and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the 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 Road, 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



Report No.: GZCR220400045602

Page: 3 of 61

2 Test Summary

Radio Spectrum Technical Requirement						
Item	Standard	Method	Requirement	Result		
Antenna Requirement	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)	Pass		

Radio Spectrum Matter Part							
Item	Standard	Method	Requirement	Result			
Conducted Peak Output Power		ANSI C63.10 (2013) Section 11.9.1.3	47 CFR Part 15, Subpart C 15.247(b)(3)	Pass			
Minimum 6dB Bandwidth		ANSI C63.10 (2013) Section 11.8.1	47 CFR Part 15, Subpart C 15.247a(2)	Pass			
Power Spectrum Density		ANSI C63.10 (2013) Section 11.10.2	47 CFR Part 15, Subpart C 15.247(e)	Pass			
Conducted Band Edges Measurement		ANSI C63.10 (2013) Section 11.13.3.2	47 CFR Part 15, Subpart C 15.247(d)	Pass			
Conducted Spurious Emissions	47 CFR Part 15,	ANSI C63.10 (2013) Section 11.11	47 CFR Part 15, Subpart C 15.247(d)	Pass			
Radiated Emissions which fall in the restricted bands	Subpart C 15.247	ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass			
Radiated Spurious Emissions (Below 1GHz)		ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass			
Radiated Spurious Emissions (Above 1GHz)		ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass			
Duty Cycle		ANSI C63.10 (2013) Section 11.6	KDB 558074 D01 v05r02 section 6	Pass			

Note:

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

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



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is 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: (86-75) 8307 1443.

|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



Report No.: GZCR220400045602

Page: 4 of 61

3 Contents

		P	Page					
1	Cove	r Page	1					
2	Test Summary							
_	1031 (outilities y						
3	Conte	ents	4					
4	Gene	ral Information	6					
-		Details of E.U.T.						
		Description of Support Units						
		Measurement Uncertainty						
		Test Location						
		Test Facility						
		Deviation from Standards						
	4.7	Abnormalities from Standard Conditions	9					
5	Equir	oment List	10					
•	_40							
6	Radio	Spectrum Technical Requirement	14					
	6.1	Antenna Requirement	14					
	6.1.1	Test Requirement:	14					
	6.1.2	Conclusion	14					
7	Radio	Spectrum Matter Test Results	15					
		· Conducted Peak Output Power						
	7.1.1	E.U.T. Operation						
	7.1.2	Test Mode Description						
	7.1.3	Test Setup Diagram						
	7.1.4	Measurement Procedure and Data						
	7.2	Minimum 6dB Bandwidth	17					
	7.2.1	E.U.T. Operation	17					
	7.2.2	Test Mode Description						
	7.2.3	Test Setup Diagram						
	7.2.4	Measurement Procedure and Data						
	7.3 F	Power Spectrum Density						
		Test Mode Description						
	7.3.3	Test Setup Diagram						
	7.3.4	Measurement Procedure and Data						
		Conducted Band Edges Measurement						
	7.4.1	E.U.T. Operation						
	7.4.2	Test Mode Description	19					
	7.4.3	Test Setup Diagram						
	7.4.4	Measurement Procedure and Data						
		Conducted Spurious Emissions						
	7.5.1	E.U.T. Operation						
	7.5.2	Test Mode Description						
	7.5.3 7.5.4	Test Setup Diagram Measurement Procedure and Data						
	7.5.4	ivicasurciniciti Fiocedure and Data	20					



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document sadvised 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) 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



Report No.: GZCR220400045602

Page: 5 of 61

7.6 Radiated Emissions which fall in the restricted bands	
7.6.1 E.U.T. Operation	24
7.6.2 Test Mode Description	
7.6.3 Test Setup Diagram	
7.6.4 Measurement Procedure and Data	
7.7 Radiated Spurious Emissions (Below 1GHz)	
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 Radiated Spurious 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 Duty Cycle	40
7.9.1 E.U.T. Operation	40
7.9.2 Test Mode Description	
7.9.3 Test Setup Diagram	40
7.9.4 Measurement Procedure and Data	
8 Test Setup Photo	41
9 EUT Constructional Details (EUT Photos)	41
10 Appendix	42



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information ocnained 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



Report No.: GZCR220400045602

Page: 6 of 61

4 General Information

4.1 Details of E.U.T.

Power Supply: DC 3.8V/240mAh lithium ion rechargeable battery which can be charged

from USB port.

Cable(s): USB cable 46cm unshielded

Operation Frequency: 2402MHz to 2480MHz

Bluetooth Version: V5.2 Dual mode

Modulation Type: GFSK
Data Rate: 1M/bit
Number of Channels: 40
Channel Spacing: 2MHz

Antenna Type: Chip Antenna

Antenna Gain: 1.5dBi declared by applicant

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
The EUT has been tested	as an independent unit.		



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is 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 testphone: (86-755) 8307 1443.

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



Report No.: GZCR220400045602

Page: 7 of 61

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty	
Conducted Peak Output Power	± 0.75dB	
Minimum 6dB Bandwidth	± 3%	
Power Spectrum Density	± 2.84dB	
Conducted Band Edges Measurement	± 0.75dB	
Conducted Spurious Emissions	± 0.75dB	
Radiated Emissions which fall in the restricted bands	±5.08dB (1GHz-6GHz); ±5.14dB	
Radiated Emissions which fall in the restricted bands	(above 6GHz)	
Radiated Spurious Emissions (Below 1GHz)	±5.06dB (3m);±4.46dB (10m)	
Radiated Spurious Emissions (Above 1GHz)	±5.08dB (1GHz-6GHz); ±5.14dB	
Radiated Spurious Emissions (Above 1912)	(above 6GHz)	
Duty Cycle	± 0.37%	



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information ocnained 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,



Report No.: GZCR220400045602

Page: 8 of 61

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.

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.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issued 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, **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

|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



Report No.: GZCR220400045602

Page: 9 of 61

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information ocnained 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,

Co.,Ltid. No.198 Kezhu Road, Gsentech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 5100663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn

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



Report No.: GZCR220400045602

Page: 10 of 61

5 Equipment List

Conducted Peak Output Power						
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
Power Meter (U2021XA_Ch2)	Agilent Technologies	U2021XA_Ch2	SEM009-02	2021-05-19	2022-05-18	
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15	
6dB Attenuator	HP	8491A	EMC2062	2022-03-29	2024-03-28	
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01	
Test Software	TST	V2.0	GZE100-78	N/A	N/A	

Minimum 6dB Bandwidth							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15		
6dB Attenuator	HP	8491A	EMC2062	2022-03-29	2024-03-28		
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01		
Test Software	TST	V2.0	GZE100-78	N/A	N/A		

Power Spectrum Density						
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15	
6dB Attenuator	HP	8491A	EMC2062	2022-03-29	2024-03-28	
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01	
Test Software	TST	V2.0	GZE100-78	N/A	N/A	

Conducted Band Edges Measurement						
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15	
6dB Attenuator	HP	8491A	EMC2062	2022-03-29	2024-03-28	
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01	
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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information ocnained 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



Report No.: GZCR220400045602

Page: 11 of 61

Conducted Spurious Emissions										
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date					
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15					
6dB Attenuator	HP	8491A	EMC2062	2022-03-29	2024-03-28					
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01					
Test Software	TST	V2.0	GZE100-78	N/A	N/A					

Radiated Emissions which fall in the restricted bands										
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date					
EMI Test Receiver(20Hz- 26.5GHz)	Receiver(20Hz- Rohde & Schwarz		EMC0522	2021-12-17	2022-12-16					
Chamber cable(Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020-09-09	2022-09-08					
Horn Antenna(1GHz- 18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24					
1GHz-26.5 GHz Pre-Amplifier	l Agilent		EMC0521	2021-12-17	2022-12-16					
2.4GHz Filter	2.4GHz Filter Micro-Tronics		EMC2069	2021-12-17	2022-12-16					
966 Anechoic Chamber	Anechoic Chamber C.R.T		EMC2142	2020-12-20	2023-12-19					
MXE EMI Receiver(10Hz-8.4GHz)	Keysight	N9038A	EMC2139	2021-11-01	2022-10-31					
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-16	2022-09-15					
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A					
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2021-07-29	2022-07-28					
Horn Antenna(14- 40GHz)	SCHWARZBECK	BBHA 9170	EMC2041	2020-06-28	2023-06-27					
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2021-08-30	2022-08-29					

Radiated Spurious Emissions (Below 1GHz)										
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date					
EMI Test Receiver(10Hz- 26.5GHz)	Rohde & Schwarz	ESIB26	EMC0522	2021-12-17	2022-12-16					
Chamber cable HangTianXing		N/A	EMC0542	2020-09-09	2022-09-08					
Trilog Broadband Antenna(25MHz-1GHz)- Lab	SCHWARZBECK MESS-ELEKTRONIK	VULB 9168	SEM003-33	2021-09-25	2024-09-24					



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

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



Report No.: GZCR220400045602

Page: 12 of 61

Amplifier(9kHz-1.3GHz)	HP	8447F	EMC2065	2021-05-19	2022-05-18	
High Pass Filter (915MHz)	FSY MICROWAVE	HM1465-9SS	EMC2079	2021-12-17	2022-12-16	
Active Loop Antenna- RED	ETS-Lindgren	6502	EMC2190	2022-04-06	2024-04-05	
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2019-10-20	2022-10-19	
Test Software E3	Test Software E3 Audix		GZE100-61	N/A	N/A	
EMI Test Receiver(1Hz- 8GHz)	Rohde & Schwarz	ESW8	EMC2220	2021-05-26	2022-05-25	

Radiated Spurious Emissions (Above 1GHz)										
Equipment	ent Manufacturer Model No Inventory No				Cal Due Date					
EMI Test Receiver(20Hz- 26.5GHz)	Receiver(20Hz- Rohde & Schwarz		EMC0522	2021-12-17	2022-12-16					
Chamber cable(Above 1GHz)	Scoflex	KMKM-8.0m	EMC0545	2020-09-09	2022-09-08					
Horn Antenna(1GHz- 18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2019-09-25	2022-09-24					
1GHz-26.5 GHz Pre-Amplifier	Agilent		EMC0521	2021-12-17	2022-12-16					
2.4GHz Filter	2.4GHz Filter Micro-Tronics		EMC2069	2021-12-17	2022-12-16					
966 Anechoic Chamber	echoic Chamber C.R.T		EMC2142	2020-12-20	2023-12-19					
MXE EMI Receiver(10Hz-8.4GHz)	We weight		EMC2139	2021-11-01	2022-10-31					
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	EMC2138	2021-09-16	2022-09-15					
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A					
Notch Filter (5150-5880)	Mico-Tronics	BRM50716	EMC2168	2021-07-29	2022-07-28					
Horn Antenna(14- 40GHz)	· I SUBWAR/BELK		EMC2041	2020-06-28	2023-06-27					
Microwave Broadband Preamplifier (18-40GHz)	SCHWARZBECK	BBV 9721	EMC2172	2021-08-30	2022-08-29					

Duty Cycle										
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date					
EXA Signal Analzer(10Hz-44GHz)	Agilent Technologies	N9010A	EMC2138	2021-09-16	2022-09-15					
6dB Attenuator	HP	8491A	EMC2062	2022-03-29	2024-03-28					
MI CABLE	SGS-EMC	0.8M	EMC2136	2021-11-01	2023-11-01					



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Cond

SCO.,Ltd. No.188Kezhu Noat 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



Report No.: GZCR220400045602

Page: 13 of 61

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	2021-07-05	2022-07-05					
DMM	Fluke	73	EMC0007	2021-07-05	2022-07-05					



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information ocnained 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



Report No.: GZCR220400045602

Page: 14 of 61

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)

6.1.2 Conclusion

15.203 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 a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of 15.211, 15.213, 15.217, 15.219, 15.221, or 15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 1.5 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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction 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 others 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 such pages contact and the such pages and the such pages contact and the such pages and the such pages contact and the such pages and t

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



Report No.: GZCR220400045602

Page: 15 of 61

7 Radio Spectrum Matter Test Results

7.1 Conducted Peak Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(3)
Test Method: ANSI C63.10 (2013) Section 11.9.1.3

Limit:

Frequency range(MHz)	Output power of the intentional radiator(watt)
	1 for ≥50 hopping channels
902-928	0.25 for 25≤ hopping channels <50
	1 for digital modulation
	1 for ≥75 non-overlapping hopping channels
2400-2483.5	0.125 for all other frequency hopping systems
	1 for digital modulation
5725-5850	1 for frequency hopping systems and digital modulation

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C Humidity: 50.8 % RH Atmospheric Pressure: 1003 mbar

7.1.2 Test Mode Description

Pre-scan / Mode Final test Code Description

Final test 02 TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with

GFSK modulation.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is 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 unspect gently exercises and such sample(s) are retained for 30 days only.

Attention:*To check the authenticity of testing unspect gently exercises.To a such sample(s) are retained for 30 days only.

Attention:*To check the authenticity of testing unspect gently exercises.To a such sample(s) are retained for 30 days only.

**Total Company and the company

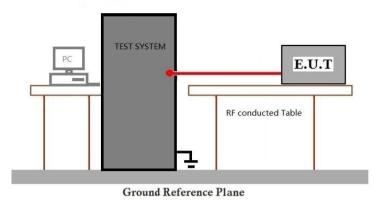
|Mo.1981Kezhu Road, Szientech Park, Quangzhou Economic & Technology Development District, Quangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn
中国・广州・经济技术开发区科学城科珠路198号 邮编: 510663 t (86–20) 82155555 f (86–20) 82075058 sgs.china@sgs.com



Report No.: GZCR220400045602

Page: 16 of 61

7.1.3 Test Setup Diagram



7.1.4 Measurement Procedure and Data

cable loss=0.9dB

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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is 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 testphone: (86-755) 8307 1443.

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



Report No.: GZCR220400045602

Page: 17 of 61

7.2 Minimum 6dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.247a(2)
Test Method: ANSI C63.10 (2013) Section 11.8.1

Limit:

≥500 kHz

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C Humidity: 50.8 % RH Atmospheric Pressure: 1003 mbar

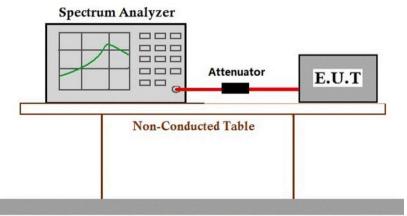
7.2.2 Test Mode Description

Pre-scan / Mode Final test Code Description

Final test 02 TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with

GFSK modulation.

7.2.3 Test Setup Diagram



Ground Reference Plane

7.2.4 Measurement Procedure and Data

cable loss=0.9dB

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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction 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(ezhu Roal, Sciented) Park, Gaungzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn 中国 · 广州 · 经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR220400045602

Page: 18 of 61

7.3 Power Spectrum Density

Test Requirement 47 CFR Part 15, Subpart C 15.247(e)
Test Method: ANSI C63.10 (2013) Section 11.10.2

Limit:

≤8dBm in any 3 kHz band during any time interval of continuous transmission

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C Humidity: 50.8 % RH Atmospheric Pressure: 1003 mbar

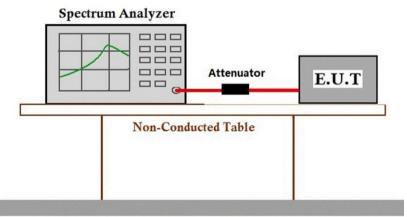
7.3.2 Test Mode Description

Pre-scan / Mode Final test Code Description

Final test 02 TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with

GFSK modulation.

7.3.3 Test Setup Diagram



Ground Reference Plane

7.3.4 Measurement Procedure and Data

cable loss=0.9dB

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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction 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 others 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 such pages contact and the such pages and the such pages contact and the such pages and the such pages contact and the such pages and t

No.198 Kezhu Road, Scientech Park, Guargahou 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



Report No.: GZCR220400045602

Page: 19 of 61

7.4 Conducted Band Edges Measurement

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)
Test Method: ANSI C63.10 (2013) Section 11.13.3.2

Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c).

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C Humidity: 50.8 % RH Atmospheric Pressure: 1003 mbar

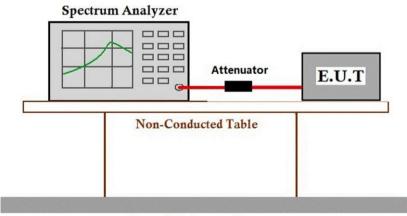
7.4.2 Test Mode Description

Pre-scan / Mode Final test Code Description

Final test 02 TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with

GFSK modulation.

7.4.3 Test Setup Diagram



Ground Reference Plane

7.4.4 Measurement Procedure and Data

cable loss=0.9dB

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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction 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(ezhu Roal, Sciented) Park, Gaungzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn 中国 · 广州 · 经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR220400045602

Page: 20 of 61

7.5 Conducted Spurious Emissions

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)
Test Method: ANSI C63.10 (2013) Section 11.11

Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c).

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C Humidity: 50.8 % RH Atmospheric Pressure: 1003 mbar

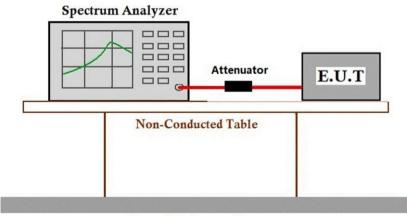
7.5.2 Test Mode Description

Pre-scan / Mode Final test Code Description

Final test 02 TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with

GFSK modulation.

7.5.3 Test Setup Diagram



Ground Reference Plane

7.5.4 Measurement Procedure and Data

cable loss=0.9dB

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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction 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.18(ke/m) food, Goiented) Park, Goarghou Economic & Technology Development District, Guangahou, China 51,0663 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: 51,0663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR220400045602

Page: 21 of 61

7.6 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.10.5

Measurement Distance: 3m

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

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.

7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C Humidity: 52.2 % RH Atmospheric Pressure: 1003 mbar

7.6.2 Test Mode Description

Pre-scan / Mode

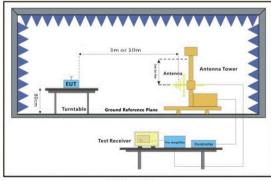
Final test Code

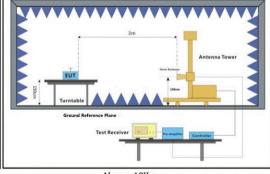
Description

Final test 02

TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with GFSK modulation.

7.6.3 Test Setup Diagram





30MHz-1GHz

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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is 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, **Attention:**To Check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 83071443, **Attention:**To Check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 83071443, **Total Contact us at telephone

No.1981 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



Report No.: GZCR220400045602

Page: 22 of 61

7.6.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. 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.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. 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.
- e. 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.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. 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, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the Highest channel.
- i. 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.
- j. Repeat above procedures until all frequencies measured was complete.

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 2: 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.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction 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.

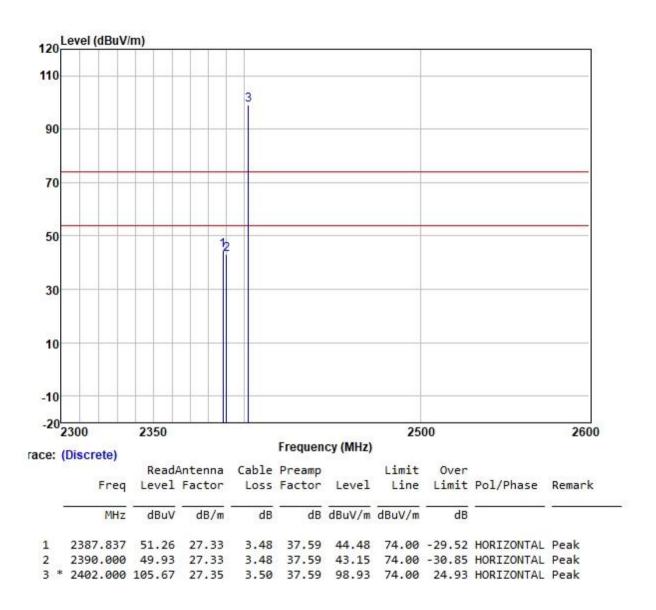
**Attention:*To others the authenticity of testing in report securificate, pages contact, and testing the support of the such pages contact, and the support of the such pages contact and the such pages contact and the such pages and the such pages contact and the such pages and the such pages contact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



Report No.: GZCR220400045602

Page: 23 of 61

Test Mode: 02; Polarity: Horizontal; Modulation: GFSK; ; Channel:Low





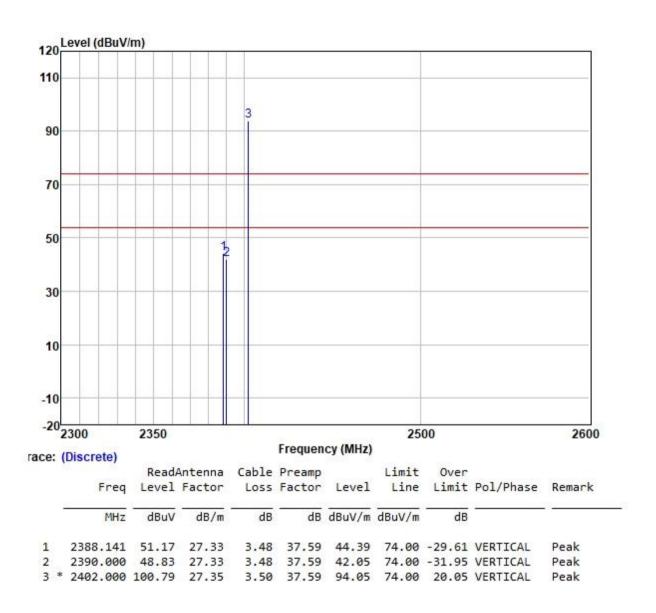
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions/Terms



Report No.: GZCR220400045602

Page: 24 of 61

Test Mode: 02; Polarity: Vertical; Modulation: GFSK; ; 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 http://www.sgs.com/en/Terms-and-Conditions/Terms

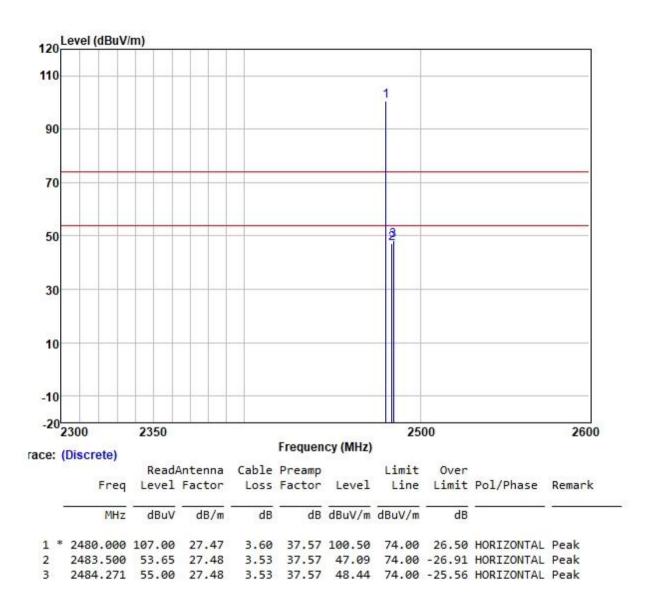
or email: CN_Doccheck@sus_com Mo.198/Earlu Road, Soentech Park, (Quangrou Comonic & Technology Development District, Quangrou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 中国 · 广州 · 经济技术开发区科学城科珠路198号 邮编: 510663 t (86–20) 82155555 f (86–20) 82075058 sgs.china@sgs.com



Report No.: GZCR220400045602

Page: 25 of 61

Test Mode: 02; Polarity: Horizontal; Modulation:GFSK; ; 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 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

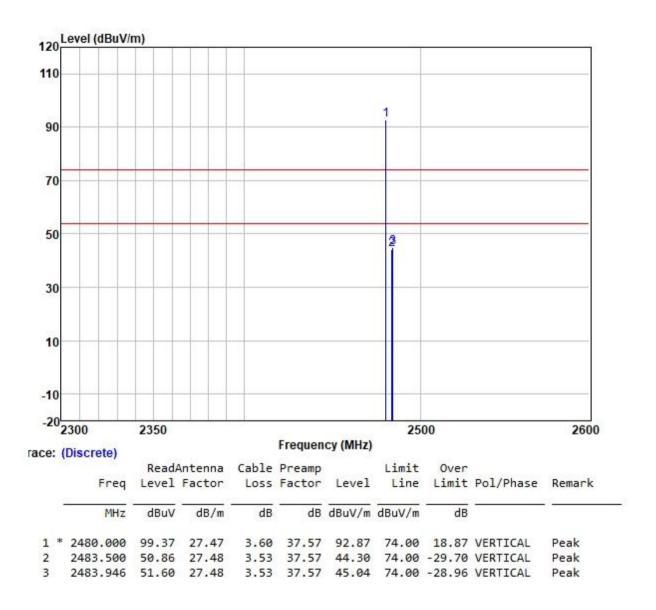
or email: CN_Doccheck@sgs.com
No.198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn
中国・广州・经济技术开发区科学城科珠路198号 邮编: 510663 t (86–20) 82155555 f (86–20) 82075058 sgs.china@sgs.com



Report No.: GZCR220400045602

Page: 26 of 61

Test Mode: 02; Polarity: Vertical; Modulation:GFSK; ; 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 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



Report No.: GZCR220400045602

Page: 27 of 61

7.7 Radiated Spurious Emissions (Below 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209 Test Method: ANSI C63.10 (2013) Section 6.4,6.5,6.6

Measurement Distance:

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		

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.

7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 21.6 °C Atmospheric Pressure: 1003 mbar Humidity: 53.2 % RH

7.7.2 Test Mode Description

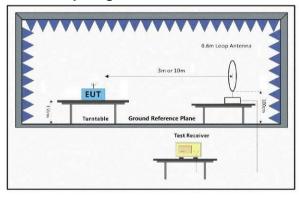
Mode Pre-scan /

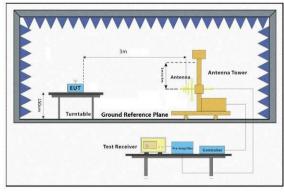
Description Final test Code

TX mode(1Mbps) Keep the EUT in continuously transmitting mode with Final test 02

GFSK modulation.

7.7.3 Test Setup Diagram







Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction 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.199 Kezhu Road, Scientech Park, Quangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR220400045602

Page: 28 of 61

7.7.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 or 10 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, quasi-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) Through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report.
- 2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

3) Scan from 9kHz to 1 GHz, the disturbance below 30MHz 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.



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

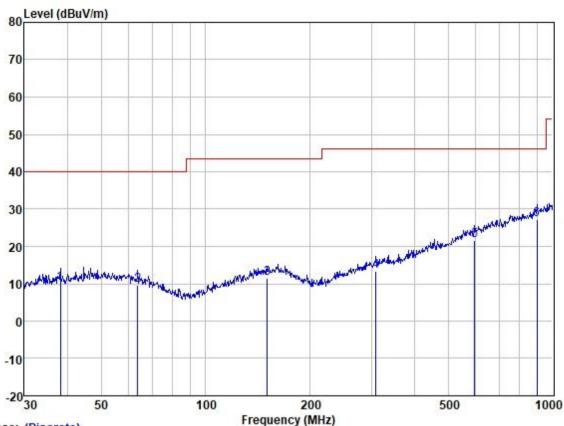
Attention: To check the authenticity of testing inspection great deserging and contents and the sample (s) 12 of 1



Report No.: GZCR220400045602

Page: 29 of 61

Test Mode: 02; Polarity: Horizontal



Trace: (Discrete)

Site : SGS Job : Model : Power : Test Mode : 02

	Freq				C. C	Measured Level			Pol/ Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	***	
1	38.078	23.44	12.83	1.09	27.18	10.18	40.00	-29.82	HORIZONTAL	QP
2	63.759	23.22	12.33	1.32	27.15	9.72	40.00	-30.28	HORIZONTAL	QP
3	150.538	22.84	13.34	2.24	26.83	11.59	43.50	-31.91	HORIZONTAL	QP
4	309.998	23.21	13.46	3.23	26.60	13.30	46.00	-32.70	HORIZONTAL	QP
5	595.133	25.00	19.57	5.10	28.20	21.47	46.00	-24.53	HORIZONTAL	QP
6	900.147	24.84	23.32	6.92	27.85	27.23	46.00	-18.77	HORIZONTAL	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 http://www.sgs.com/en/Terms-and-Conditions/Terms

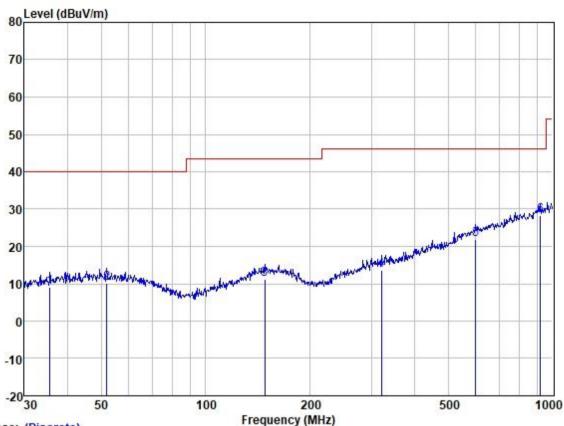
of email: CN_Doccheck@sgs.com
Mo.198/kgnl Road, Soentech Park, (Quanghou Comonic & Technology Development District, Quanghou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn
中国 ·广州 ·经济技术开发区科学城科珠路198号 邮编: 510663 t (86–20) 82155555 f (86–20) 82075058 sgs.china@sgs.com



Report No.: GZCR220400045602

Page: 30 of 61

Test Mode: 02; Polarity: Vertical



Trace: (Discrete)

Site : SGS Job : Model : Power : Test Mode : 02

	Freq					Measured Level			Pol/ Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		·
1	35.624	22.56	12.58	1.07	27.18	9.03	40.00	-30.97	VERTICAL	QP
2	51.843	22.64	13.57	1.16	27.17	10.20	40.00	-29.80	VERTICAL	QP
3	147.921	22.49	13.30	2.22	26.85	11.16	43.50	-32.34	VERTICAL	QP
4	321.061	23.29	13.76	3.32	26.67	13.70	46.00	-32.30	VERTICAL	QP
5	599.321	25.22	19.79	5.14	28.21	21.94	46.00	-24.06	VERTICAL	QP
6	922.516	25.35	23.78	7.01	27.82	28.32	46.00	-17.68	VERTICAL	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 http://www.sgs.com/en/Terms-and-Conditions/Terms

of email: CN_Doccheck@sgs.com
Mo.198/kgnl Road, Soentech Park, (Quanghou Comonic & Technology Development District, Quanghou, 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.: GZCR220400045602

Page: 31 of 61

7.8 Radiated Spurious Emissions (Above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209 Test Method: ANSI C63.10 (2013) Section 6.4,6.5,6.6

Measurement Distance: 3m

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

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: 23.5 °C Atmospheric Pressure: 1003 mbar Humidity: 52.2 % RH

7.8.2 Test Mode Description

Mode Pre-scan / Description Final test Code

TX mode(1Mbps) Keep the EUT in continuously transmitting mode with Final test 02

GFSK modulation.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction 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 others 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 such pages contact and the such pages and the such pages contact and the such pages and the such pages contact and the such pages and t

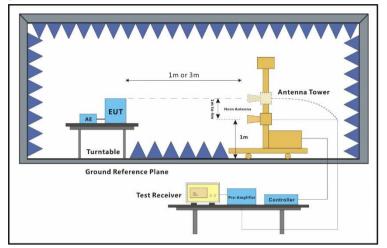
No.199 Kezhu Road, Scientech Park, Quangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR220400045602

Page: 32 of 61

7.8.3 Test Setup Diagram





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions/Terms

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 Kerbu Read, Sventech Park, Quangrhou Comonic & Technology Development District, Quangrhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn

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



Report No.: GZCR220400045602

Page: 33 of 61

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 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, quasi-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) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

- 2) Scan from 1GHz to 25GHz, 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) 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.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction 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.

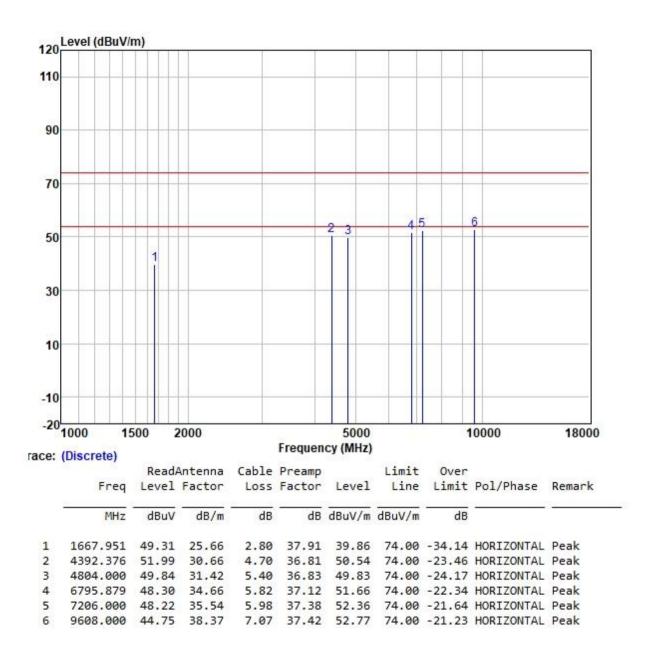
**Attention:*To others the authenticity of testing in report securificate, pages contact, and testing the support of the such pages contact, and the support of the such pages contact and the such pages contact and the such pages and the such pages contact and the such pages and the such pages contact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



Report No.: GZCR220400045602

Page: 34 of 61

Test Mode: 02; Polarity: Horizontal; Modulation: GFSK; ; 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 http://www.sgs.com/en/Terms-and-Conditions/Terms

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

Co_Ltd_No.199 Kezhu Road, Szentech Park, Guarghou Exonomic& Technology Development District, Guargahou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn

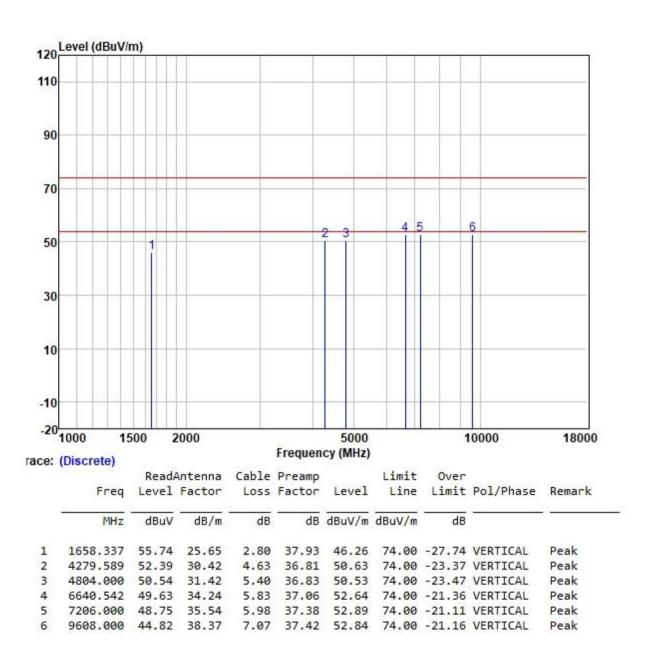
邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR220400045602

Page: 35 of 61

Test Mode: 02; Polarity: Vertical; Modulation: GFSK; ; Channel:Low





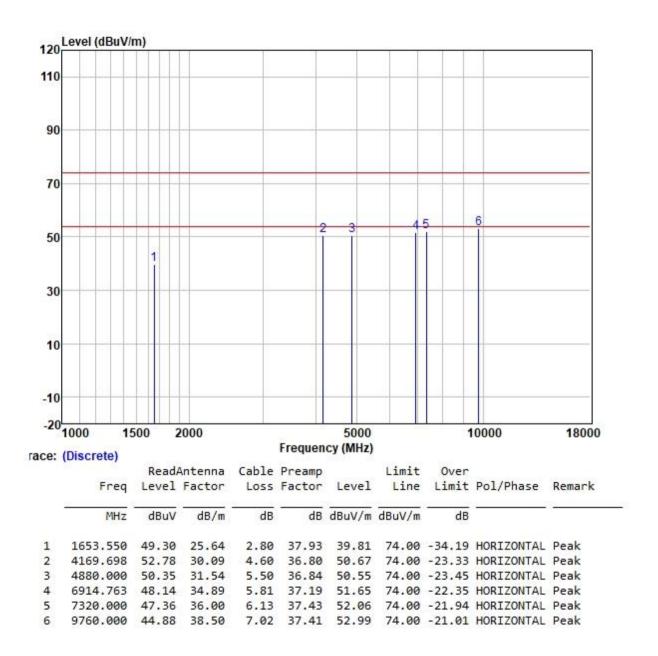
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions/Terms



Report No.: GZCR220400045602

Page: 36 of 61

Test Mode: 02; Polarity: Horizontal; Modulation:GFSK; ; 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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is 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 testphone: (86-755) 8307 1443.

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

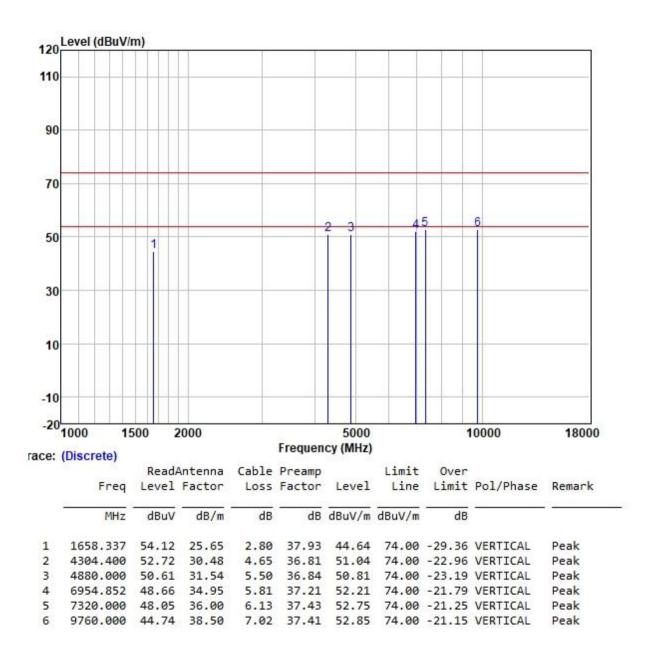
or email: CN.Doccheck@sgs.com Co.,Lid No.198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgs.group.com.cn oratory. 中国・广州・经济技术开发区科学城科珠路198号 邮编: 510663 t (86–20) 82155555 f (86–20) 82075058 sgs.china@sgs.com



Report No.: GZCR220400045602

Page: 37 of 61

Test Mode: 02; Polarity: Vertical; Modulation:GFSK; ; 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 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

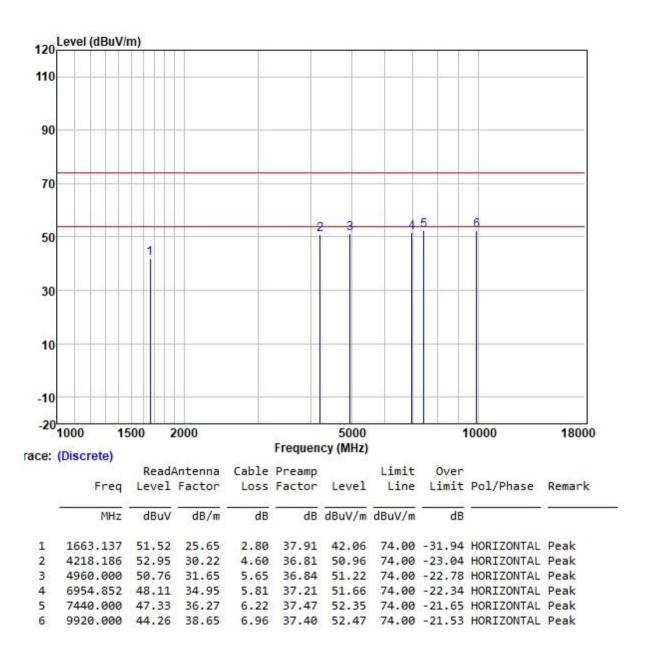
Co_Ltid_No.198 Kezhu Road, Scenetch Park, Guargahou Exonomic& Technology Development District, Guargahou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn



Report No.: GZCR220400045602

Page: 38 of 61

Test Mode: 02; Polarity: Horizontal; Modulation:GFSK; ; 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 http://www.sgs.com/en/Terms-and-Conditions/Terms

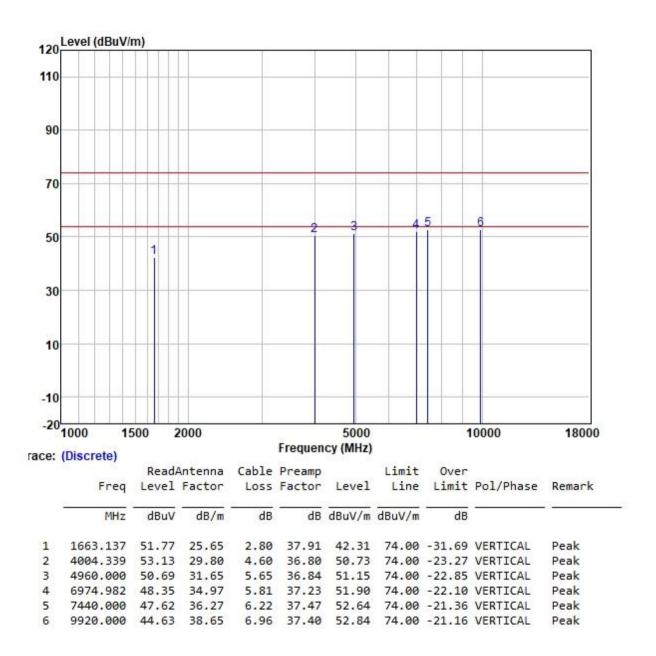
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN_Doccheck@sgs.com
| No.198 Kerbu Read, Sventech Park, Quangrhou Comonic & Technology Development District, Quangrhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn



Report No.: GZCR220400045602

Page: 39 of 61

Test Mode: 02; Polarity: Vertical; Modulation:GFSK; ; 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 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 Kerbu Read, Sventech Park, Quangrhou Comonic & Technology Development District, Quangrhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn



Report No.: GZCR220400045602

Page: 40 of 61

7.9 Duty Cycle

Test Requirement KDB 558074 D01 v05r02 section 6
Test Method: ANSI C63.10 (2013) Section 11.6

7.9.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C Humidity: 50.8 % RH Atmospheric Pressure: 1003 mbar

7.9.2 Test Mode Description

Pre-scan / Mode Final test Code

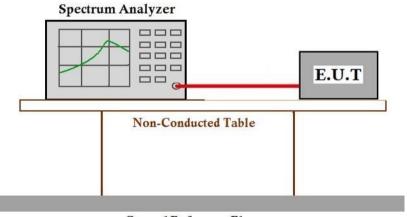
Description

Final test 02

TX mode(1Mbps)_Keep the EUT in continuously transmitting mode with

GFSK modulation.

7.9.3 Test Setup Diagram



Ground Reference Plane

7.9.4 Measurement Procedure and Data

cable loss=0.9dB

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 http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction 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.

|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



Report No.: GZCR220400045602

Page: 41 of 61

8 Test Setup Photo

Refer to Appendix - Test Setup Photo for GZCR2204000456AT

9 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for GZCR2204000456AT



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is 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 / respect secretificate, pages contacts was telespone; (86-755) 8307 1443.

Mr.198/czhu Road, Scientech Park (Augusphus Comomic & 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



Report No.: GZCR220400045602

Page: 42 of 61

10 Appendix

1. Duty Cycle

1.1 Ant1

1.1.1 Test Result

	Ant1						
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
		2402	0.419	0.625	67.04	1.74	0.02
1M	SISO	2440	0.419	0.625	67.04	1.74	0.02
		2480	0.419	0.625	67.04	1.74	0.02

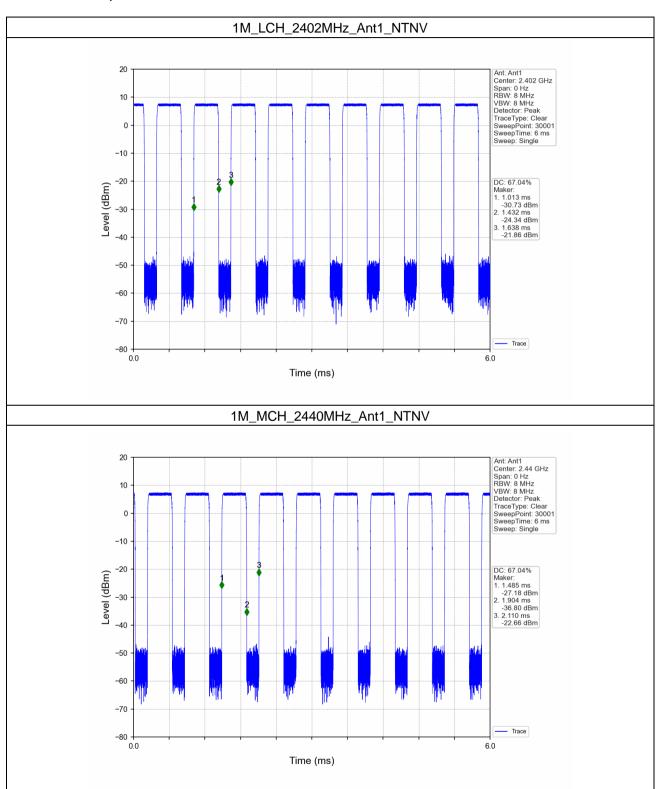




Report No.: GZCR220400045602

Page: 43 of 61

1.1.2 Test Graph



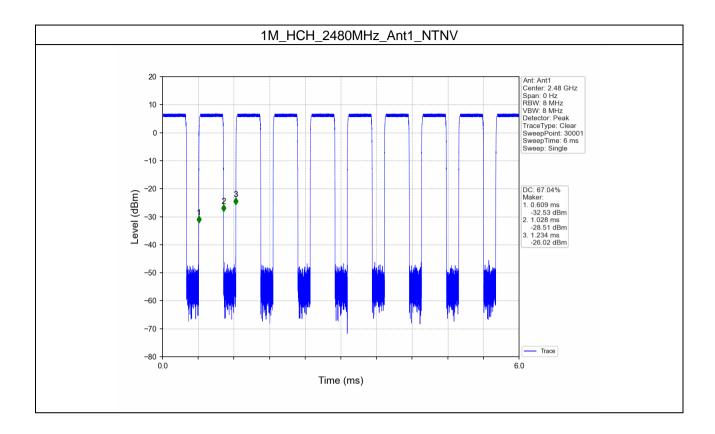


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions/Terms



Report No.: GZCR220400045602

Page: 44 of 61





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions/Terms

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

SCO_Ltd.|No.198KezhuRoa, Sciented Park, Guarghou Exonomic & Technology Development District, Guargzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn



Report No.: GZCR220400045602

Page: 45 of 61

2. Bandwidth

2.1 OBW

2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz) Result	Verdict
		2402	1	1.023	Pass
1M	SISO	2440	1	1.025	Pass
		2480	1	1.025	Pass



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information ocnained 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.

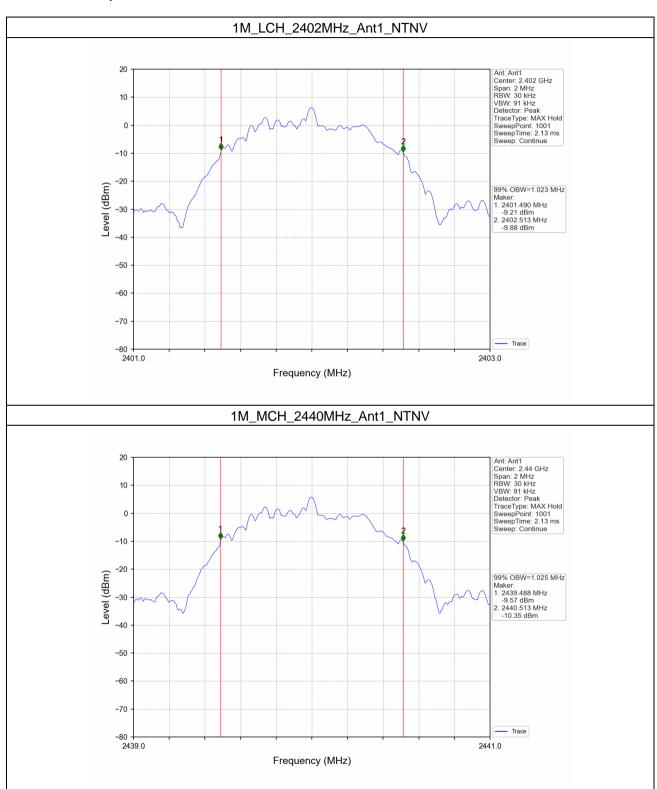
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443,



Report No.: GZCR220400045602

Page: 46 of 61

2.1.2 Test Graph





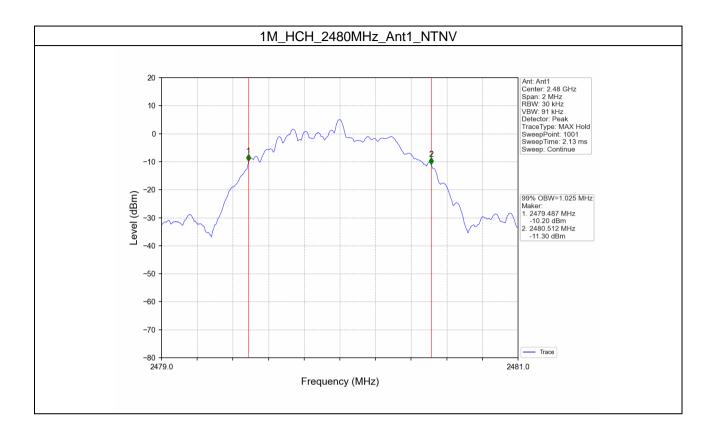
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions/Terms

|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



Report No.: GZCR220400045602

Page: 47 of 61





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information ocnained 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,

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



Report No.: GZCR220400045602

Page: 48 of 61

2.2 6dB BW

2.2.1 Test Result

Mada	TX	Frequency	ANIT	6dB Bandwidth (MHz)		\/
Mode	Type	(MHz)	ANT	Result	Limit	Verdict
1M	SISO	2402	1	0.708	>=0.5	Pass
		2440	1	0.724	>=0.5	Pass
		2480	1	0.730	>=0.5	Pass



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information ocnained 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,

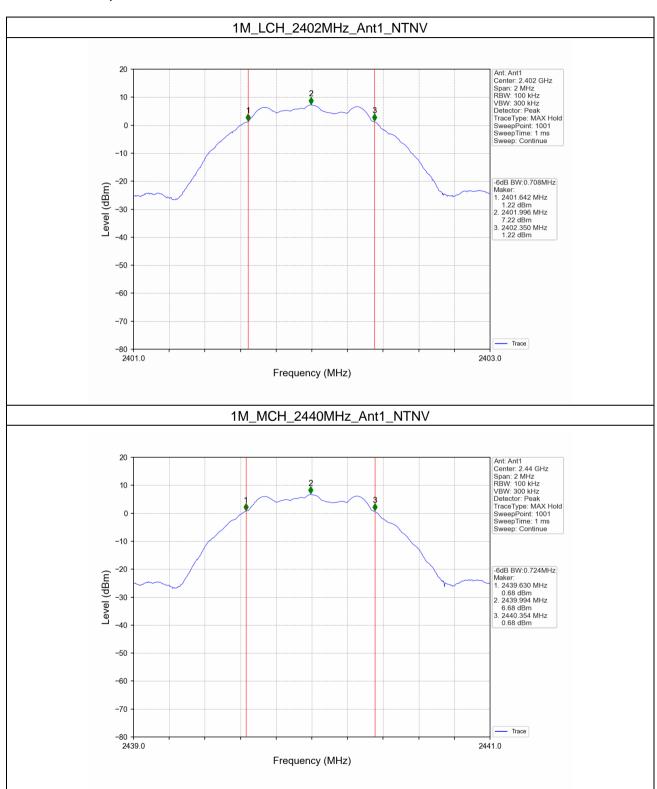
or email: CN.Doccheck@sgs.com \$ Co.,Lid. No.198 Kezhu Road, Soientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075058 www.sgsgroup.com.cn 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86–20) 82155555 f (86–20) 82075058 sgs.china@sgs.com



Report No.: GZCR220400045602

Page: 49 of 61

2.2.2 Test Graph





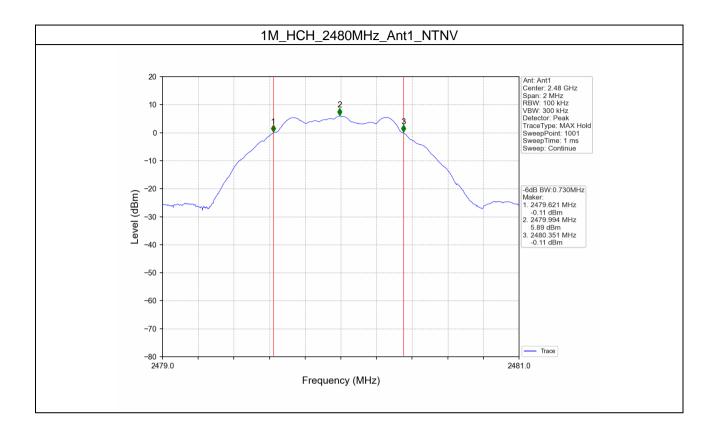
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions/Terms

of email: CN_Doccheck@sgs.com
Mo.198/kgnl Road, Soentech Park, (Quanghou Comonic & Technology Development District, Quanghou, 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.: GZCR220400045602

Page: 50 of 61





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information ocnained 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,

5C.LLUL N.Biskemu Road, Scientich Park, Guangrobin Economic Enderhology Development District, Quangrobin, 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



Report No.: GZCR220400045602

Page: 51 of 61

3. Maximum Conducted Output Power

3.1 Power

3.1.1 Test Result

Made TX		Frequency	Maximum Peak Conduc	Vardiat	
Mode	Туре	(MHz)	ANT1	Limit	Verdict
		2402	1.56	<=30	Pass
1M	SISO	2440	1.01	<=30	Pass
		2480	0.50	<=30	Pass

4. Maximum Power Spectral Density

4.1 PSD

4.1.1 Test Result

Mode	TX	Frequency	Maximum PS	\/andiat	
Mode	Type	(MHz)	ANT1	Limit	Verdict
1M	SISO	2402	-13.67	<=8	Pass
		2440	-14.22	<=8	Pass
		2480	-14.80	<=8	Pass

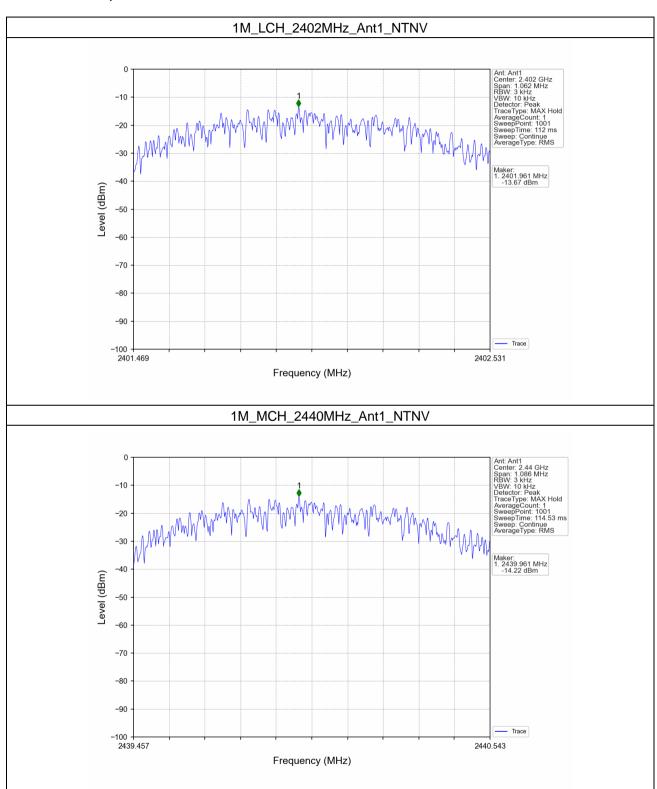




Report No.: GZCR220400045602

Page: 52 of 61

4.1.2 Test Graph





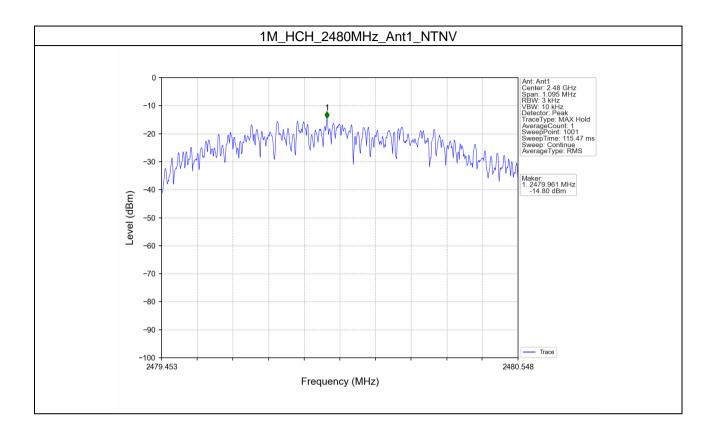
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://www.sgs.com/en/Terms-and-Conditions.aspx, for electronic format documents, subject to Terms and Conditions for Electronic Documents at https://www.sgs.com/en/Terms-and-Conditions/Terms-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the 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 or 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 Secretificate lease contact us at telephone. (86-755) 8307 1443.



Report No.: GZCR220400045602

Page: 53 of 61





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



Report No.: GZCR220400045602

Page: 54 of 61

5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Ref

5.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
		2402	1	1.04
1M	SISO	2440	1	0.33
		2480	1	-0.33

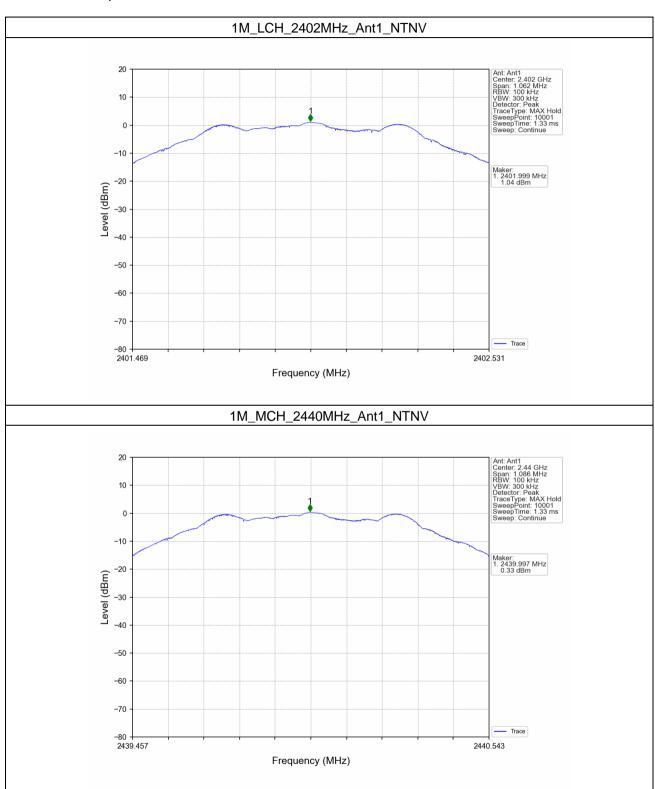




Report No.: GZCR220400045602

Page: 55 of 61

5.1.2 Test Graph





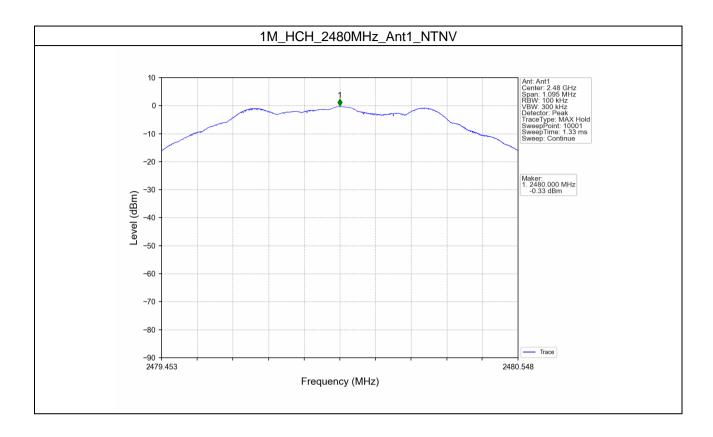
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions/Terms

SCO.,Ltd. No.188Kezhu Noat 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



Report No.: GZCR220400045602

Page: 56 of 61





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information ocnained 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,



Report No.: GZCR220400045602

Page: 57 of 61

5.2 CSE

5.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
		2402	1	1.04	-18.96	Pass
1M	SISO	2440	1	1.04	-18.96	Pass
		2480	1	1.04	-18.96	Pass



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information ocnained 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,

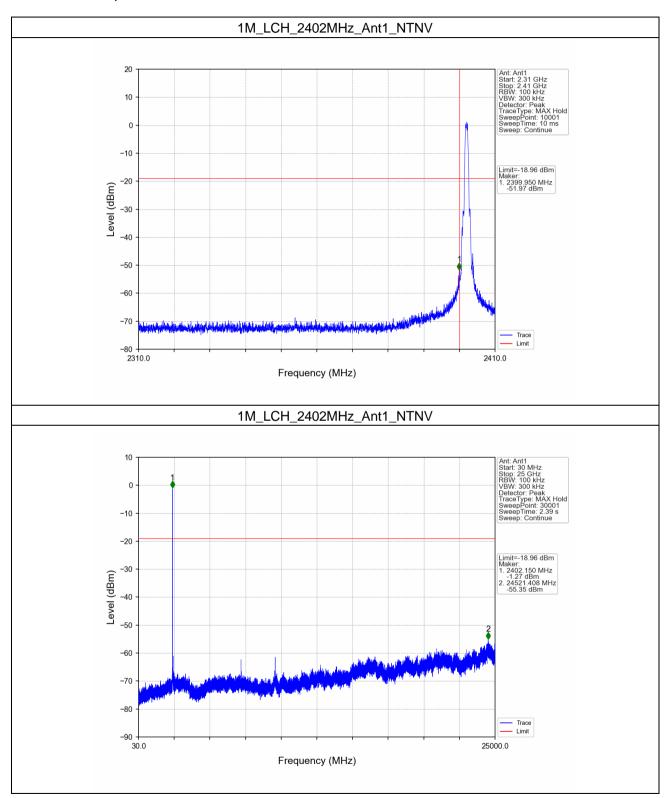
Co.,Ltd. No.199 Kezhu Road, Szentech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn oratory. 中国・广州・经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR220400045602

Page: 58 of 61

5.2.2 Test Graph





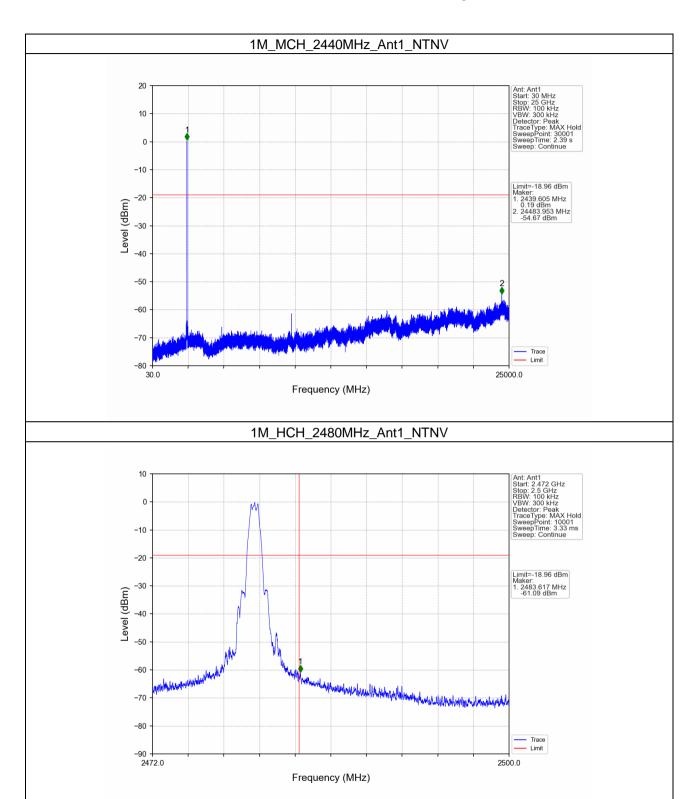
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions/Terms

|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



Report No.: GZCR220400045602

Page: 59 of 61



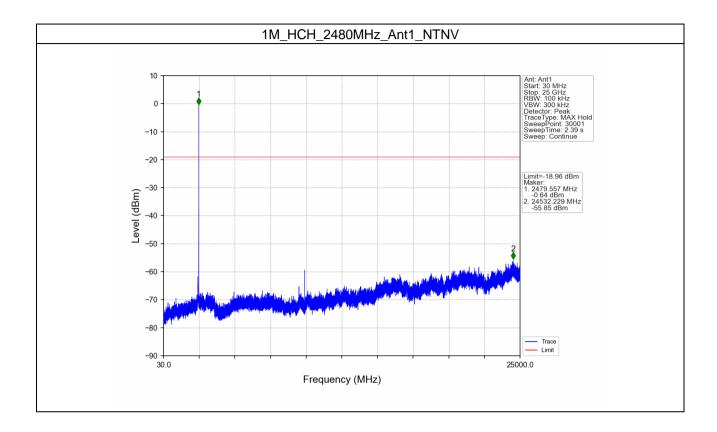


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions/Terms



Report No.: GZCR220400045602

Page: 60 of 61





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions/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



Report No.: GZCR220400045602

Page: 61 of 61

6. Form731

6.1 Form731

6.1.1 Test Result

Lower Freq (MHz)	High Freq (MHz)	MAX Power (W)	MAX Power (dBm)
2402	2480	0.0014	1.56

- End of the Report -



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information ocnained 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,