



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

198 Kezhu Road, Scientech Park, Guangzhou Economic & Technological
Development District, Guangzhou, China 510663
Telephone: +86 (0) 20 82155555
Fax: +86 (0) 20 82075059
Email: ee.guangzhou@sgs.com

Report No.: GZEM190801489603
Page: 1 of 139
FCC ID: PUU-CPLGSTDBLW1T

TEST REPORT

Application No.: GZEM1908014896CR
Applicant: GE Lighting
Address of Applicant: Nele park, Cleveland, OH 44112
Manufacturer: GE Lighting
Address of Manufacturer: Nele park, Cleveland, OH 44112
Factory: Nanchang Innotech Techonology Co.,Ltd
Address of Factory: No.399, Rule Lake Avenue, Nanchang Airport Economic Zone, Nanchang, China

Equipment Under Test (EUT):

FCC ID: PUU-CPLGSTDBLW1T

EUT Name: Smart Plug
Model No.: CPLGSTDBLW1
HVIN: CPLGSTDBLW1T
Trade Mark: GE
Standard(s) : 47 CFR Part 15, Subpart C 15.247
Date of Receipt: 2019-08-07
Date of Test: 2019-08-12 to 2019-08-19
Date of Issue: 2019-08-24

Test Result:	Pass*
---------------------	--------------

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

Kobe Jian

EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.



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: (86-20) 82071443, or email: CN_Doccheck@sgs.com

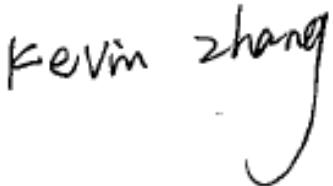
SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Testing & Inspection EEC Laboratory

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利珠路198号

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

Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2019-08-24		Original

Authorized for issue by:			
Tested By		Kevin_Zhang /Project Engineer	2019-08-12 to 2019-08-19
Checked By		Ricky_Liu /Reviewer	2019-08-24
			Date



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, or email: CN_DocCheck@sgs.com

No.198 Kejia Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

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(c)	Pass

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
Minimum 6dB Bandwidth	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.8.1	47 CFR Part 15, Subpart C 15.247a(2)	Pass
Conducted Peak Output Power	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.9.1	47 CFR Part 15, Subpart C 15.247(b)(3)	Pass
Power Spectrum Density	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.10.2	47 CFR Part 15, Subpart C 15.247(e)	Pass
Conducted Band Edges Measurement	47 CFR Part 15, Subpart C 15.247	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, Subpart C 15.247	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	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	Pass
Radiated Spurious Emissions	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	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 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, or email: CN.DocCheck@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory
No.196 Kezhi Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

3 Contents

	Page
1 Cover Page	1
2 Test Summary	3
3 Contents	4
4 General Information	6
4.1 Details of E.U.T	6
4.2 Environment Parameter	6
4.3 Description of Support Units	8
4.4 Measurement Uncertainty	8
4.5 Test Location	8
4.6 Test Facility	9
4.7 Deviation from Standards	10
4.8 Abnormalities from Standard Conditions	10
5 Equipment List	11
6 Radio Spectrum Technical Requirement	15
6.1 Antenna Requirement	15
6.1.1 Test Requirement	15
6.1.2 Conclusion	15
7 Radio Spectrum Matter Test Results	16
7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)	16
7.1.1 E.U.T. Operation	17
7.1.2 Test Setup Diagram	17
7.1.3 Measurement Procedure and Data	17
7.2 Minimum 6dB Bandwidth	20
7.2.1 E.U.T. Operation	20
7.2.2 Test Setup Diagram	20
7.2.3 Measurement Procedure and Data	20
7.3 Conducted Peak Output Power	21
7.3.1 E.U.T. Operation	22
7.3.2 Test Setup Diagram	22
7.3.3 Measurement Procedure and Data	22
7.4 Power Spectrum Density	23
7.4.1 E.U.T. Operation	23
7.4.2 Test Setup Diagram	23
7.4.3 Measurement Procedure and Data	23
7.5 Conducted Band Edges Measurement	24
7.5.1 E.U.T. Operation	25
7.5.2 Test Setup Diagram	25
7.5.3 Measurement Procedure and Data	25
7.6 Conducted Spurious Emissions	26
7.6.1 E.U.T. Operation	27
7.6.2 Test Setup Diagram	27



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: (86-20) 8207 1443, or email: CN_DocCheck@sgs.com

7.6.3	Measurement Procedure and Data	27
7.7	Radiated Emissions which fall in the restricted bands.....	28
7.7.1	E.U.T. Operation.....	29
7.7.2	Test Setup Diagram.....	29
7.7.3	Measurement Procedure and Data	31
7.8	Radiated Spurious Emissions	40
7.8.1	E.U.T. Operation.....	41
7.8.2	Test Setup Diagram.....	41
7.8.3	Measurement Procedure and Data	43
8	Appendix	57
8.1	Appendix 15.247	57

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.

or email: CN_Doccheck@sgs.com
No. 196 Kechu Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | t (86-20) 82155555 | f (86-20) 82075056 | www.sgsagroup.com.cn
中国·广州·经济技术开发区科学城科瑞路198号 | 邮编: 510663 | t (86-20) 82155555 | f (86-20) 82075056 | sgs.china@sgs.com

SGS-CSI Standards Technical Services Co., Ltd
Guangzhou Branch Technical Testing & ETL Laboratory

电话: 510663 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

4 General Information

4.1 Details of E.U.T.

Power Supply:	AC 120V 60Hz
Test Voltage:	AC 120V 60Hz
Cable:	N/A
Antenna Gain	0dBi
Antenna Type	Integrated Antenna
Channel Spacing	5MHz
Modulation Type	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Number of Channels	802.11b/g/n(HT20):11 802.11n(HT40):7
Operation Frequency	802.11b/g/n(HT20): 2412MHz to 2462MHz 802.11n(HT40): 2422MHz to 2452MHz

4.2 Environment Parameter

Environment Parameter	Selected Values During Tests	
Relative Humidity	Ambient	
Value	Temperature(°C)	Voltage(V)
TNVN	25	120
TLVN	0	120
THVN	50	120

Note:

VN: Normal Voltage
TN: Normal Temperature
TL: Low Extreme Test Temperature
TH: High Extreme Test Temperature

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, or email: CN_DocCheck@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory

No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Operation Frequency each of channel (802.11b/g/n HT20)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	5	2432MHz	9	2452MHz		
2	2417MHz	6	2437MHz	10	2457MHz		
3	2422MHz	7	2442MHz	11	2462MHz		
4	2427MHz	8	2447MHz				

Operation Frequency each of channel(802.11n HT40)					
Channel	Frequency	Channel	Frequency	Channel	Frequency
3	2422MHz	6	2437MHz	9	2452MHz
4	2427MHz	7	2442MHz		
5	2432MHz	8	2447MHz		

Using test software was control EUT work in continuous transmitter and receiver mode. And select test channel as below:

For 802.11b/g/n (HT20):

Channel	Frequency
The lowest channel (CH1)	2412MHz
The middle channel (CH7)	2442MHz
The highest channel (CH11)	2462MHz

For 802.11n (HT40):

Channel	Frequency
The lowest channel (CH3)	2422MHz
The middle channel (CH7)	2442MHz
The highest channel (CH9)	2452MHz

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

4.3 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
iPad mini	Apple	A1432	/
Laptop	Apple	A1466	C1MQ2JLNG940
Router	NETGEAR	DGN2200	REF. No. SEA2200

4.4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 5.5 \times 10^{-8}$
2	Duty cycle	$\pm 0.57\%$
3	Occupied Bandwidth	$\pm 3\%$
4	RF Conducted power	$\pm 0.68\text{dB}$
5	RF Power Density	$\pm 1.50\text{dB}$
6	Conducted Spurious Emissions	$\pm 1.04\text{dB}$
7	RF Radiated Power	$\pm 4.5\text{dB}$ (below 1GHz)
		$\pm 4.8\text{dB}$ (above 1GHz)
8	Radiated Spurious Emission Test	$\pm 4.5\text{dB}$ (30MHz-1GHz)
		$\pm 4.8\text{dB}$ (1GHz-18GHz)
9	Temperature	$\pm 0.4^\circ\text{C}$
10	Humidity	$\pm 1.3\%$
11	Supply Voltages	$\pm 1.5\%$
12	Time	$\pm 3\%$

4.5 Test Location

All tests were performed at:

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

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.

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



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch EMC Laboratory
No.198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075059 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) 82075059 sgs.china@sgs.com

4.6 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 C-Tick mark as a result of our NVLAP accreditation.

● 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 2.948 Listed Test Firm(Registration No.: 282399)

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 282399, May 31, 2002.

● 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, Jul 13, 2017.

● Industry Canada (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-10449 and T-11179)

The 10m Semi-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-10449 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 17025:2005, 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 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, or email: CN_DocCheck@sgs.com

No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

4.7 Deviation from Standards

None

4.8 Abnormalities from Standard Conditions

None

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-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: (86-20) 82071443, or email: CN.DocCheck@sgs.com



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

5 Equipment List

Conducted Emissions at AC Power Line (150kHz-30MHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Shielding Room	Zhong Yu	8m x 3m x 3.8m	EMC0306	N/A	N/A
Two-Line V-Netwok	R&S	ENV216	EMC0118	2019-01-11	2020-01-10
LISN	R&S	ENV216	EMC2135	2018-09-21	2019-09-20
EMI Test Receiver	Rohde & Schwarz	ESCS30	EMC0506	2018-11-19	2019-11-18
Coaxial Cable	HangTianXing	2m	EMC0107	2018-09-20	2020-09-19
Voltage Probe	SGS	N/A	EMC0106	2018-04-04	2020-04-03
Conical Metal Housing	SGS-EMC	N/A	EMC0167	2018-04-19	2020-04-18
Test Software E3c	Audix	Ver. 5.4.1221b	GZE100-62	N/A	N/A

Minimum 6dB Bandwidth					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2018-11-19	2019-11-18
6dB Attenuator	HP	8491A	EMC2062	2018-04-04	2020-04-03
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS	0.8M	EMC2136	2017-11-02	2019-11-01
MI CABLE	SGS	0.8M	EMC2137	2017-11-02	2019-11-01

Conducted Peak Output Power					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2018-11-19	2019-11-18
6dB Attenuator	HP	8491A	EMC2062	2018-04-04	2020-04-03
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS	0.8M	EMC2136	2017-11-02	2019-11-01
MI CABLE	SGS	0.8M	EMC2137	2017-11-02	2019-11-01

Power Spectrum Density					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2018-11-19	2019-11-18
6dB Attenuator	HP	8491A	EMC2062	2018-04-04	2020-04-03
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS	0.8M	EMC2136	2017-11-02	2019-11-01
MI CABLE	SGS	0.8M	EMC2137	2017-11-02	2019-11-01



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 <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, or email: CN_DocCheck@sgs.com

SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Science & Technology Development Zone Laboratory
No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (86-20) 82075058 | www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路196号 邮编: 510663 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Conducted Band Edges Measurement

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
MXA Signal Analyzer	AgilentTechnologies	N9020A	SEM004-10	2019-02-24	2020-02-23
ESG Vector Signal Generator	Keysight	E4438C	SEM006-03	2019-04-05	2020-04-04
EXG Analog Signal Generator	AgilentTechnologies	N5171B	SEM006-04	2017-07-26	2020-07-25
Power Meter	AgilentTechnologies	U2021XA_Ch2	SEM009-02	2018-09-20	2019-09-19
Power Meter	AgilentTechnologies	U2021XA_Ch3	SEM009-03	2018-09-20	2019-09-19
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2018-11-19	2019-11-18
6dB Attenuator	HP	8491A	EMC2062	2018-04-04	2020-04-03
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS	0.8M	EMC2136	2017-11-02	2019-11-01
MI CABLE	SGS	0.8M	EMC2137	2017-11-02	2019-11-01

Conducted Spurious Emissions

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EXA Signal Analyzer	AgilentTechnologies	N9010A	EMC2138	2018-11-19	2019-11-18
6dB Attenuator	HP	8491A	EMC2062	2018-04-04	2020-04-03
Test Software JS1120-3	HangTianXing	V2.6	GZE100-69	N/A	N/A
MI CABLE	SGS	0.8M	EMC2136	2017-11-02	2019-11-01
MI CABLE	SGS	0.8M	EMC2137	2017-11-02	2019-11-01

Radiated Emissions which fall in the restricted bands

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver	Rohde & Schwarz	ESIB26	EMC0522	2019-01-20	2020-01-19
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC0056	2019-01-20	2020-01-19
Chamber cable	HangTianXing	N/A	EMC0542	2019-06-28	2021-06-27
Trilog Broadband Antenna 30MHz-1GHz	SCHWARZBECKMESS-ELEKTRONIK	VULB 9160	EMC2025	2016-09-08	2019-09-07
Bi-log Type Antenna	Schaffner -Chase	CBL6112B	EMC0524	2016-09-08	2019-09-07
Bi-log Type Antenna	Schaffner -Chase	CBL6143	EMC0519	2017-05-04	2020-05-03
Horn Antenna 1GHz-18GHz	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2016-09-09	2019-09-08
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2019-01-07	2020-01-08
Amplifier	HP	8447F	EMC2065	2019-05-29	2020-05-28
Pre-Amplifier MH648A	ANRITSU CORP	MH648A	EMC2086	2018-11-19	2019-11-18
Active Loop Antenna	EMCO	6502	EMC0523	2018-03-05	2020-03-04

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, or email: CN_DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

High Pass Filter(915MHz)	FSY MICROWAVE	HM1465-9SS	EMC2079	2019-01-11	2020-01-10
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2019-01-11	2020-01-10
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2018-12-08	2019-12-07
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2017-12-19	2019-12-18
MXE EMI Receiver	Keysight	N9038A	EMC2139	2018-11-19	2019-11-18
EXA Signal Analyzer	Keysight	N9010A	EMC2138	2018-11-19	2019-11-18
Trilog Broadband Antenna 30MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A

Radiated Spurious Emissions					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test Receiver	Rohde & Schwarz	ESIB26	EMC0522	2019-01-20	2020-01-19
EMI Test Receiver	Rohde & Schwarz	ESCI	EMC0056	2019-01-20	2020-01-19
Chamber cable	HangTianXing	N/A	EMC0542	2019-06-28	2021-06-27
Trilog Broadband Antenna 30MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9160	EMC2025	2016-09-08	2019-09-07
Bi-log Type Antenna	Schaffner -Chase	CBL6112B	EMC0524	2016-09-08	2019-09-07
Bi-log Type Antenna	Schaffner -Chase	CBL6143	EMC0519	2017-05-04	2020-05-03
Horn Antenna 1GHz-18GHz	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120D	EMC2026	2016-09-09	2019-09-08
1GHz-26.5 GHz Pre-Amplifier	Agilent	8449B	EMC0521	2019-01-07	2020-01-08
Amplifier	HP	8447F	EMC2065	2019-05-29	2020-05-28
Pre-Amplifier MH648A	ANRITSU CORP	MH648A	EMC2086	2018-11-19	2019-11-18
Active Loop Antenna	EMCO	6502	EMC0523	2018-03-05	2020-03-04
High Pass Filter(915MHz)	FSY MICROWAVE	HM1465-9SS	EMC2079	2019-01-11	2020-01-10
2.4GHz Filter	Micro-Tronics	BRM 50702	EMC2069	2019-01-11	2020-01-10
10m Semi-Anechoic Chamber	ETS	N/A	EMC0530	2018-12-08	2019-12-07
966 Anechoic Chamber	C.R.T	9m x 6m x 6m	EMC2142	2017-12-19	2019-12-18
MXE EMI Receiver	Keysight	N9038A	EMC2139	2018-11-19	2019-11-18
EXA Signal Analyzer	Keysight	N9010A	EMC2138	2018-11-19	2019-11-18
Trilog Broadband Antenna 30MHz-1GHz	SCHWARZBECKME SS-ELEKTRONIK	VULB 9168	SEM003-18	2019-02-22	2022-02-22
Test Software E3	Audix	Ver.6.120110a	GZE100-61	N/A	N/A



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <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, or email: CN_DocCheck@sgs.com

General used equipment					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
DMM	Fluke	73	EMC0006	2019-07-16	2020-07-15
DMM	Fluke	73	EMC0007	2019-07-16	2020-07-15

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: (86-20) 8207 1443, or email: CN_DocCheck@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services EEC Laboratory
No.198 Kechu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

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

6.1.2 Conclusion

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, 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.

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 0dBi.



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: (86-20) 8207 1443, or email: CN_DocCheck@sgs.com

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

No.196 Kechu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

7 Radio Spectrum Matter Test Results

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

Test Requirement 47 CFR Part 15, Subpart C 15.207

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

Limit:

Frequency of emission(MHz)	Conducted limit(dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

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, or email: CN.DocCheck@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory

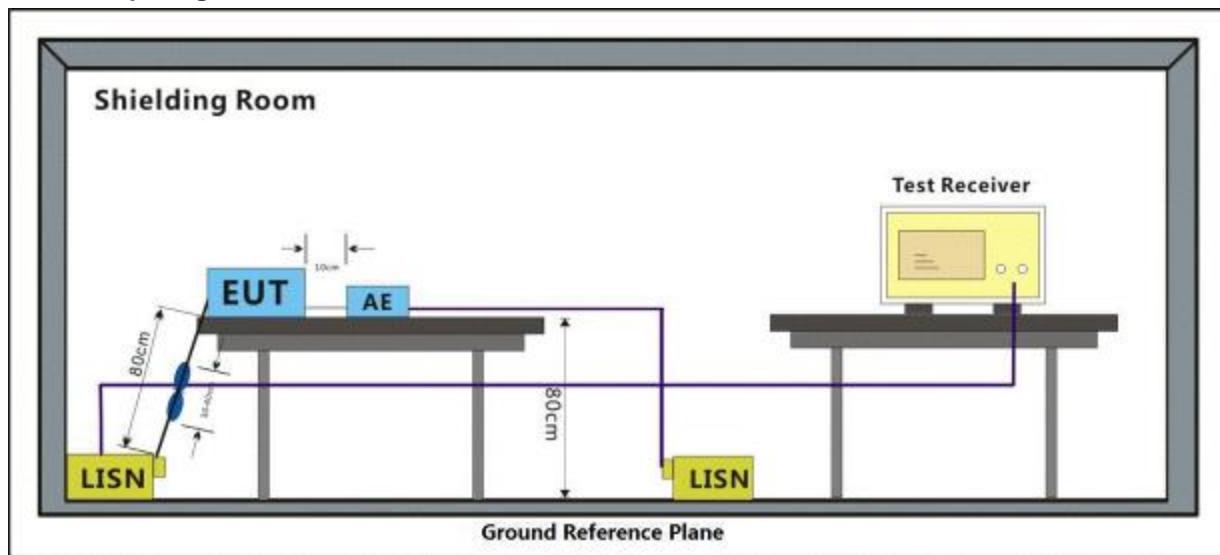
No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (86-20) 82075058 | www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 | 邮编: 510663 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 24.4 °C Humidity: 52 % RH Atmospheric Pressure: 1020 mbar
Test mode d: Wireless Working_Keep the EUT in communication with other device.

7.1.2 Test Setup Diagram



7.1.3 Measurement Procedure and Data

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

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

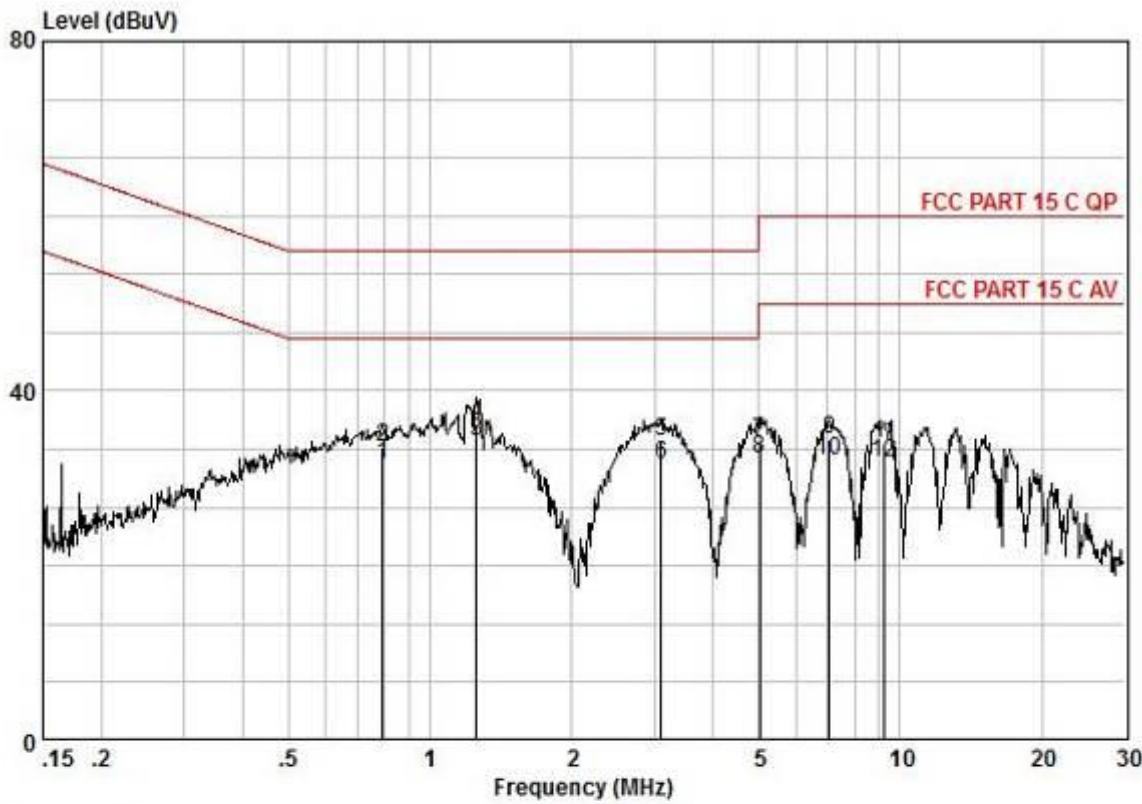


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: (86-20) 8307 1443, or email: CN.DocCheck@sgs.com

No.196 Kezhi Road, Science Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:d; Line:Live Line



Pol No	Model	LIVE						
Frequency MHz	read level dBuV	Cable Loss dB	LISN Factor dB	Measured level dBuV	Limit Line dBuV	Over limit dB	Remark	
0.79	21.85	0.10	9.68	31.63	46.00	-14.37	AVERAGE	
0.79	23.84	0.10	9.68	33.62	56.00	-22.38	QP	
1.26	24.36	0.10	9.68	34.14	46.00	-11.86	AVERAGE	
1.26	26.47	0.10	9.68	36.25	56.00	-19.75	QP	
3.11	24.27	0.20	9.69	34.16	56.00	-21.84	QP	
3.11	21.65	0.20	9.69	31.54	46.00	-14.46	AVERAGE	
5.03	24.41	0.20	9.72	34.33	60.00	-25.67	QP	
5.03	22.32	0.20	9.72	32.24	50.00	-17.76	AVERAGE	
7.06	24.39	0.30	9.74	34.43	60.00	-25.57	QP	
7.06	22.03	0.30	9.74	32.07	50.00	-17.93	AVERAGE	
9.25	23.98	0.30	9.75	34.03	60.00	-25.97	QP	
9.25	21.88	0.30	9.75	31.93	50.00	-18.07	AVERAGE	

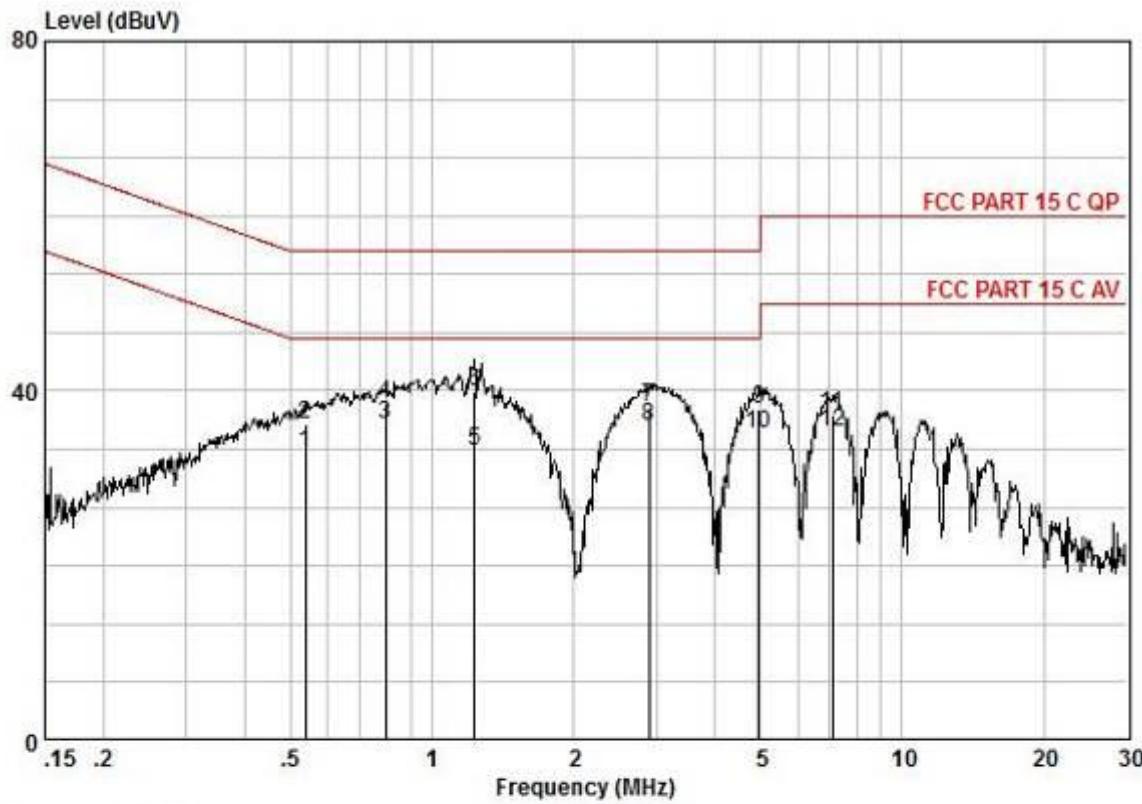
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: (86-20) 82071443, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:d; Line:Neutral Line



Pol No	Model	NEUTRAL						
Frequency MHz	read level dBuV	Cable Loss dB	LISN Factor dB	Measured level dBuV	Limit Line dBuV	Over limit dB	Remark	
0.54	23.13	0.10	9.60	32.83	46.00	-13.17	AVERAGE	
0.54	26.39	0.10	9.60	36.09	56.00	-19.91	QP	
0.80	26.50	0.10	9.61	36.21	46.00	-9.79	AVERAGE	
0.80	28.83	0.10	9.61	38.54	56.00	-17.46	QP	
1.23	23.41	0.10	9.61	33.12	46.00	-12.88	AVERAGE	
1.23	30.12	0.10	9.61	39.83	56.00	-16.17	QP	
2.90	28.44	0.19	9.62	38.25	56.00	-17.75	QP	
2.90	26.15	0.19	9.62	35.96	46.00	-10.04	AVERAGE	
4.95	28.07	0.20	9.65	37.92	56.00	-18.08	QP	
4.95	25.21	0.20	9.65	35.06	46.00	-10.94	AVERAGE	
7.10	27.19	0.30	9.69	37.18	60.00	-22.82	QP	
7.10	25.31	0.30	9.69	35.30	50.00	-14.70	AVERAGE	

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

7.2 Minimum 6dB Bandwidth

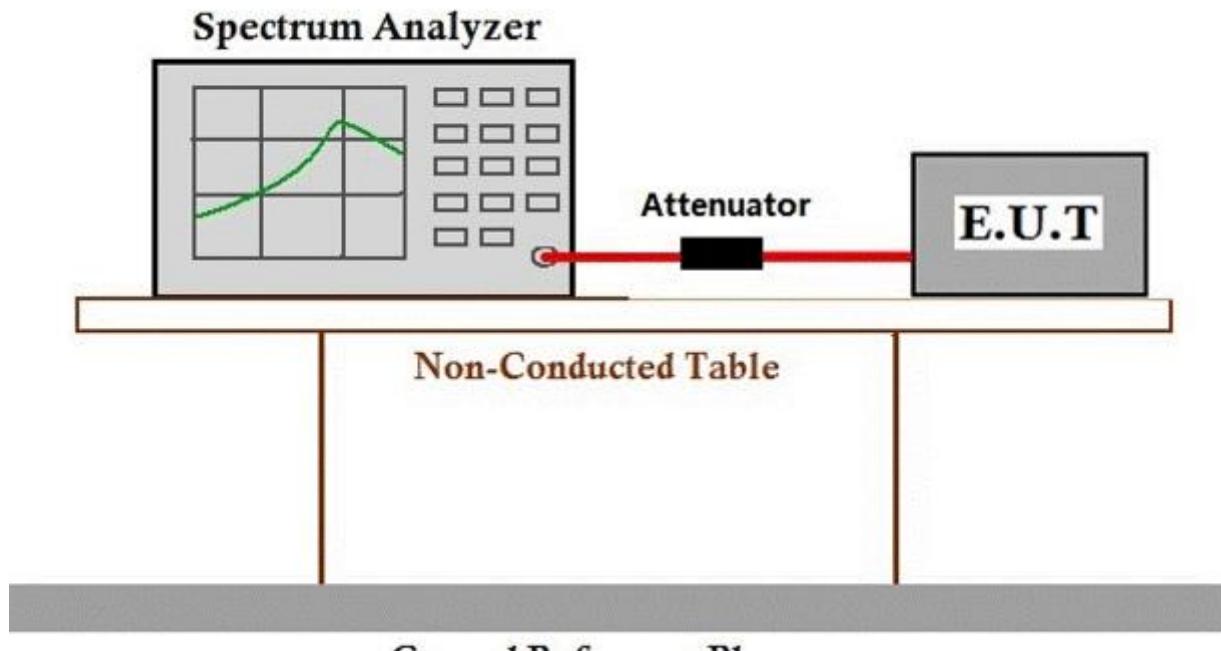
Test Requirement 47 CFR Part 15, Subpart C 15.247a(2)
 Test Method: ANSI C63.10 (2013) Section 11.8.1
 Limit: ≥ 500 kHz

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25.3 °C Humidity: 55.5 % RH Atmospheric Pressure: 1020 mbar
 Test mode c:TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.

7.2.2 Test Setup Diagram



7.2.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247

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, or email: CN_DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

7.3 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

Limit:

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

or email: CN_Doccheck@sgs.com
No.196 Kochu Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | t (86-20) 82155555 | f (86-20) 82075056 | www.sgsagroup.com.cn
中国·广州·经济技术开发区科学城科瑞路198号 | 邮编: 510663 | t (86-20) 82155555 | f (86-20) 82075056 | sgs.china@sgs.com

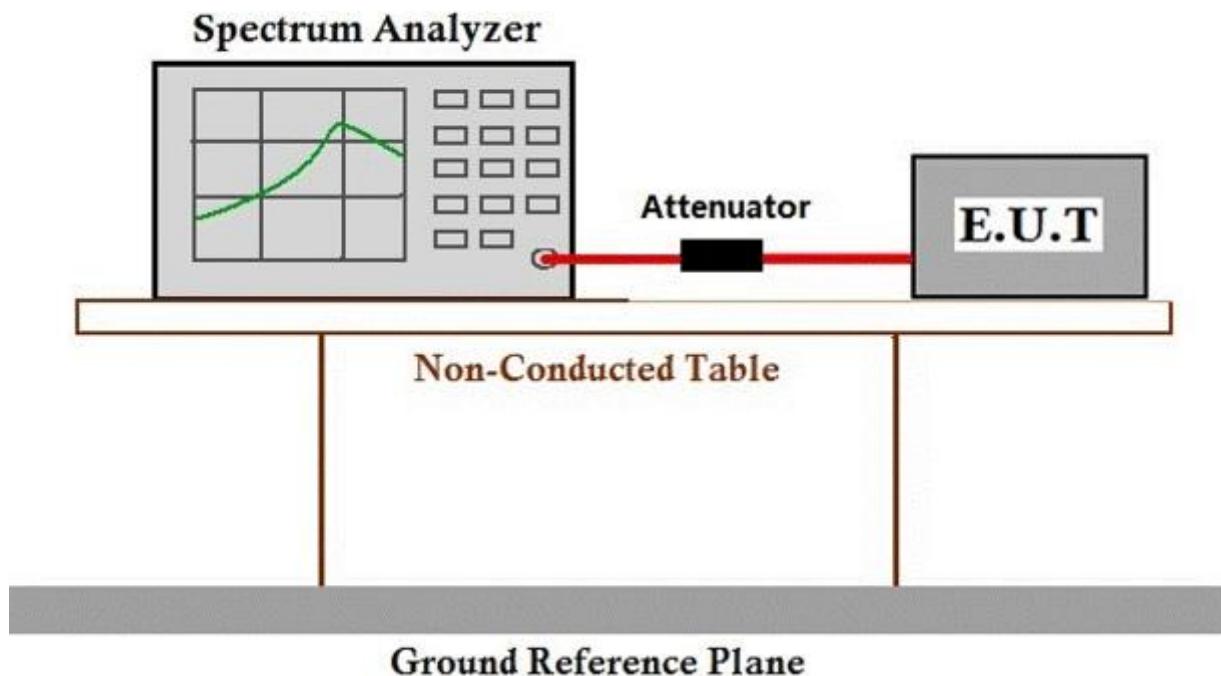
SGS-CSI Standards Technical Services Co., Ltd
Guangzhou R&D Test Services Center (C1) laboratory

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 25.3 °C Humidity: 55.5 % RH Atmospheric Pressure: 1020 mbar
Test mode c:TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.

7.3.2 Test Setup Diagram



7.3.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Hi-Tech Park, Shenzhen, China 518063 | (86-20) 82155555 | (86-20) 82075058 | www.sgs.com.cn
中国·广州·经济技术开发区科学城科珠路198号 | 邮编: 510663 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

7.4 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: $\leq 8\text{dBm}$ in any 3 kHz band during any time interval of continuous transmission

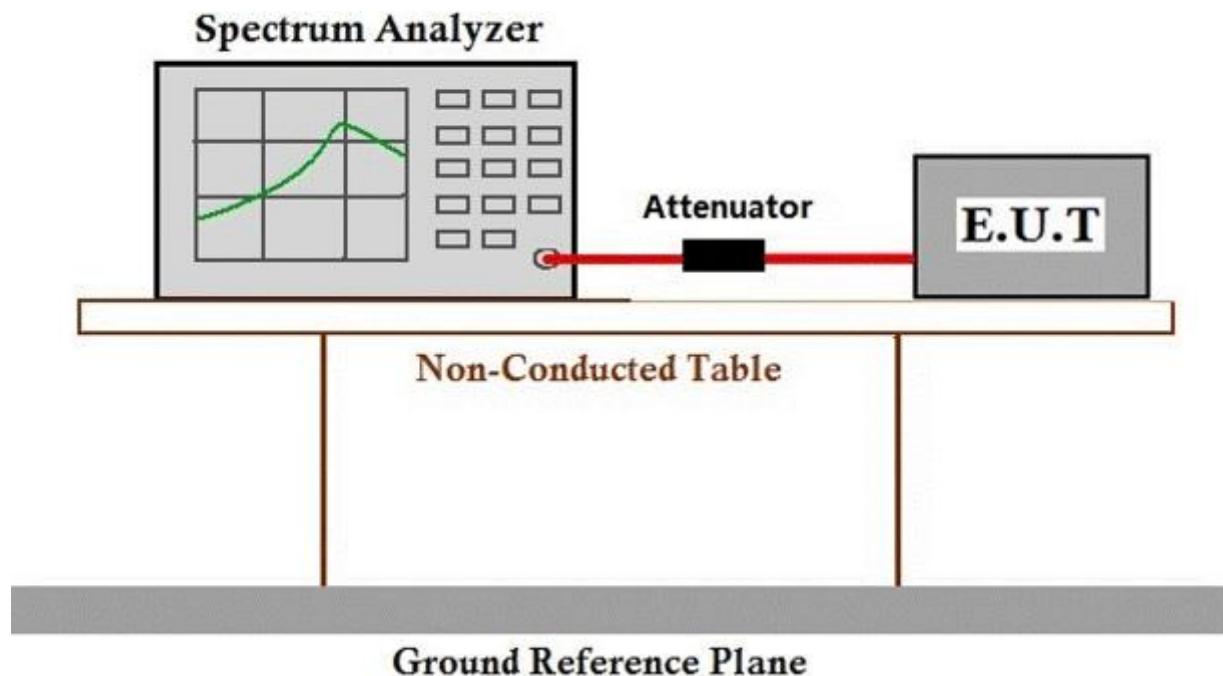
7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 25.3 °C Humidity: 55.5 % RH Atmospheric Pressure: 1020 mbar

Test mode c:TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.

7.4.2 Test Setup Diagram



7.4.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247

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, or email: CN.Docccheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

7.5 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)).



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.

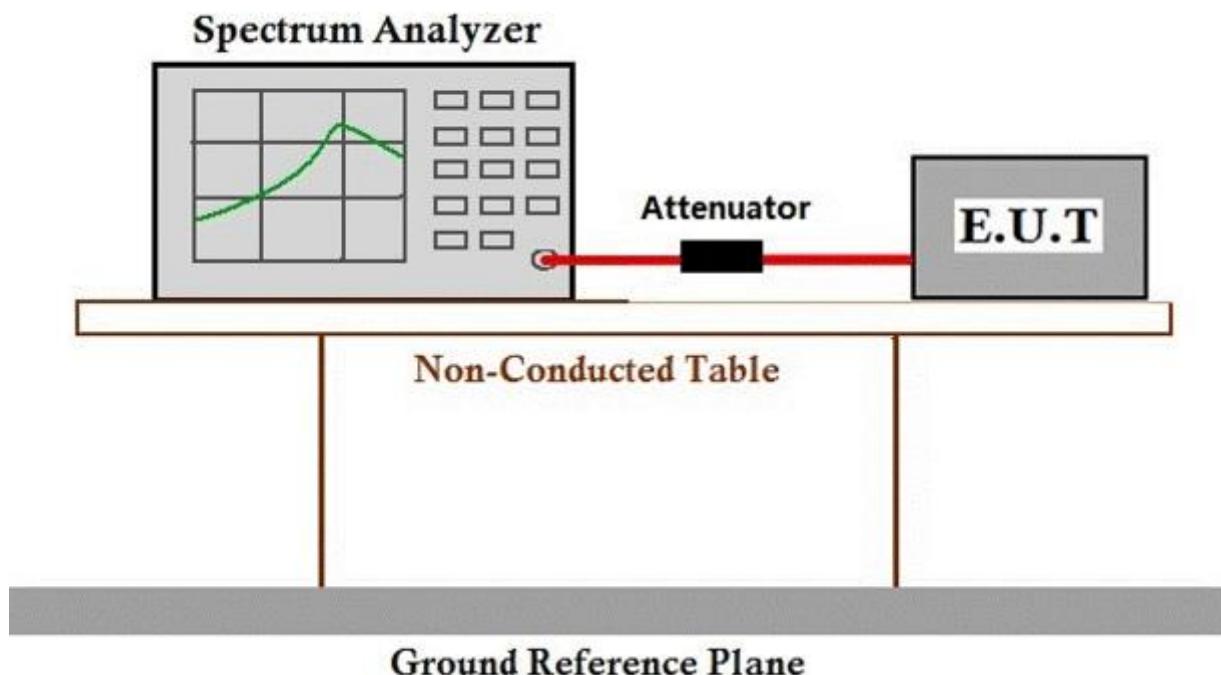
Results shown in this test report refer only to the sample(s) tested and other sample(s) are retained for 30 days only.
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755)83071443, or email: CN.Doccheck@sgs.com
No.196 Kechu Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20)82155555 | (86-20)82075056 | www.sgsgroup.com.cn
中国·广州-经济技术开发区科学城科瑞路198号 | 邮编: 510663 | (86-20)82155555 | (86-20)82075056 | sgs_china@sgs.com

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 25.3 °C Humidity: 55.5 % RH Atmospheric Pressure: 1020 mbar
Test mode c:TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.

7.5.2 Test Setup Diagram



7.5.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (86-20) 82075058 | www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路196号 | 邮编: 510663 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

7.6 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))

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-Dокумент.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.

Results shown in this test report refer only to the sample(s) tested and other 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.196 Kechu Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20)82155555 | (86-20)82075056 | www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科瑞路198号 | 邮编: 510663 | (86-20)82155555 | (86-20)82075056 | sgs_china@sgs.com

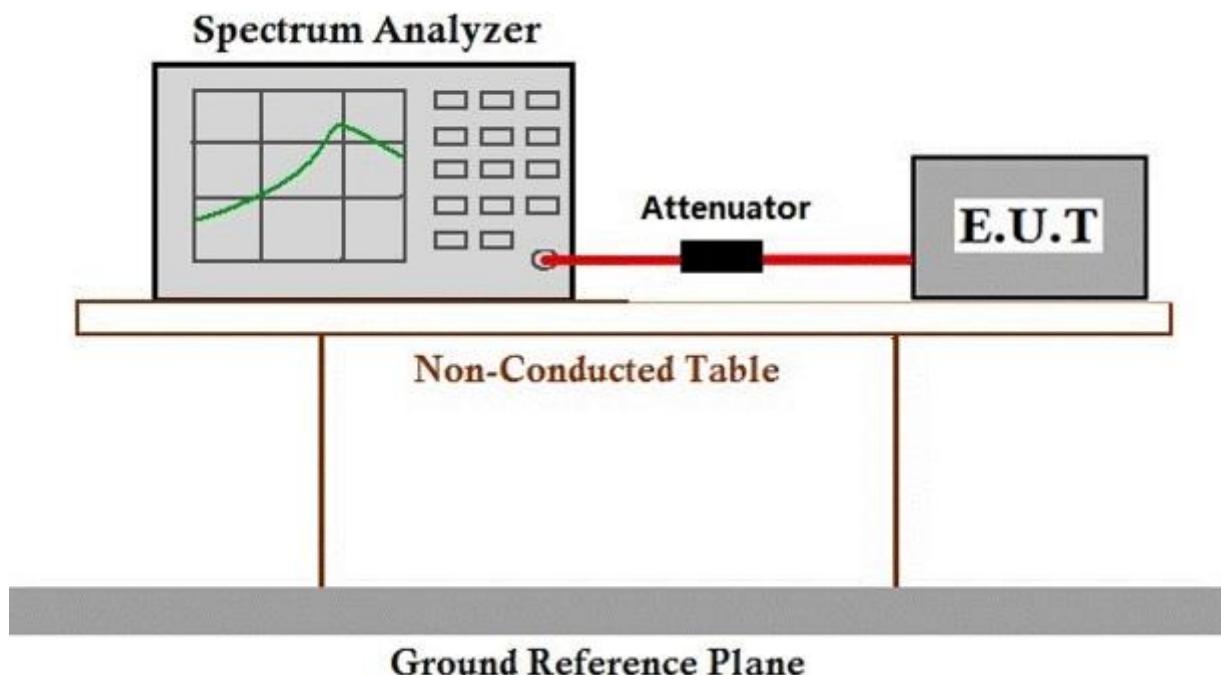
SGS-CSI Standards Technical Services Co., Ltd.
Guangzhou Branch CEC Laboratory

7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 25.3 °C Humidity: 55.5 % RH Atmospheric Pressure: 1020 mbar
Test mode c:TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.

7.6.2 Test Setup Diagram



7.6.3 Measurement Procedure and Data

The detailed test data see: Appendix 15.247

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, or email: CN_DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (86-20) 82075058 | www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路196号 | 邮编: 510663 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

7.7 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.247(d)

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.



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: (86-20) 8207 1443, or email: CN.DocCheck@sgs.com

7.7.1 E.U.T. Operation

Operating Environment:

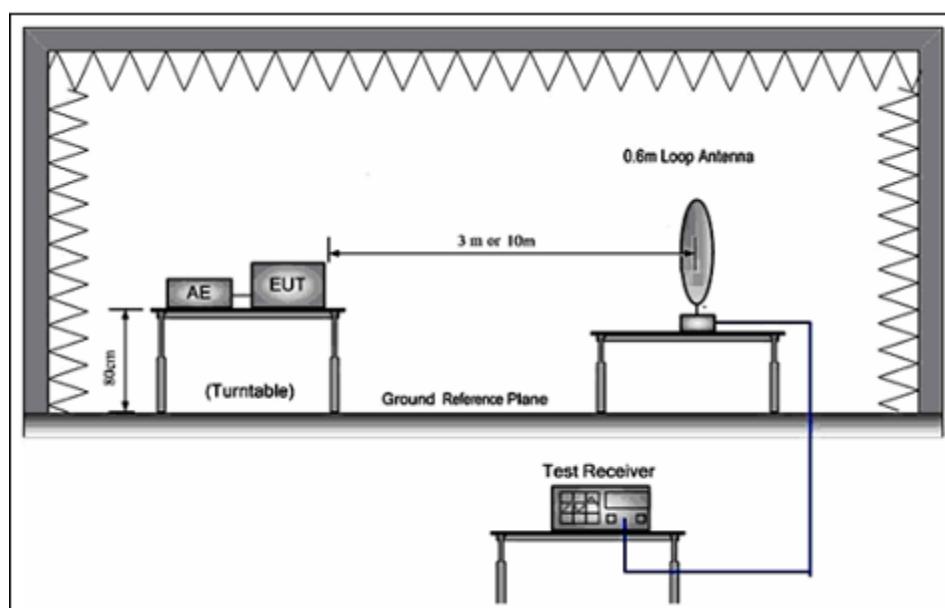
Temperature: 23.1 °C Humidity: 53.2 % RH Atmospheric Pressure: 1020 mbar

Test mode

c:TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.

7.7.2 Test Setup Diagram

9kHz to 30MHz



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.

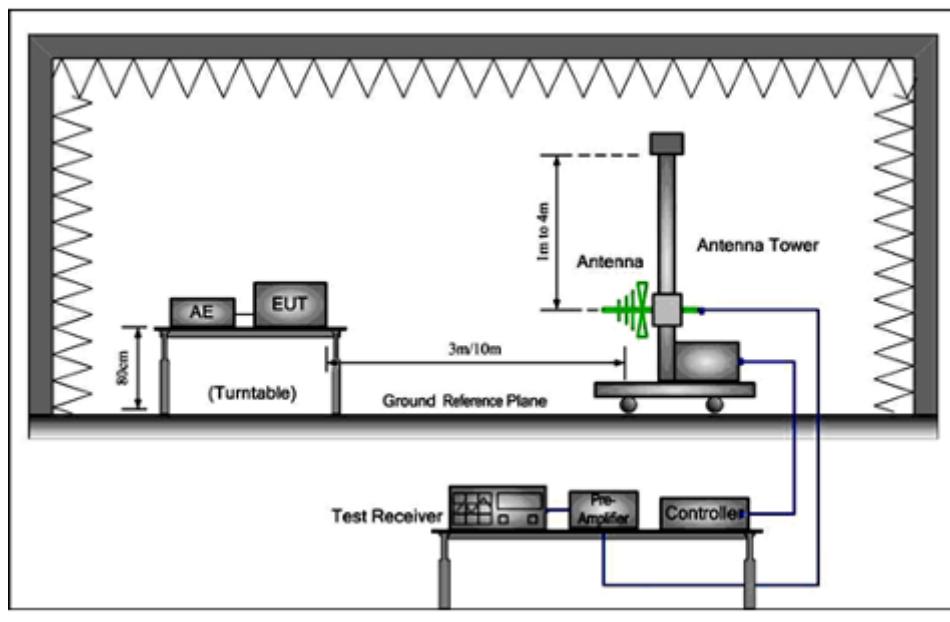
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN_DocCheck@sgs.com



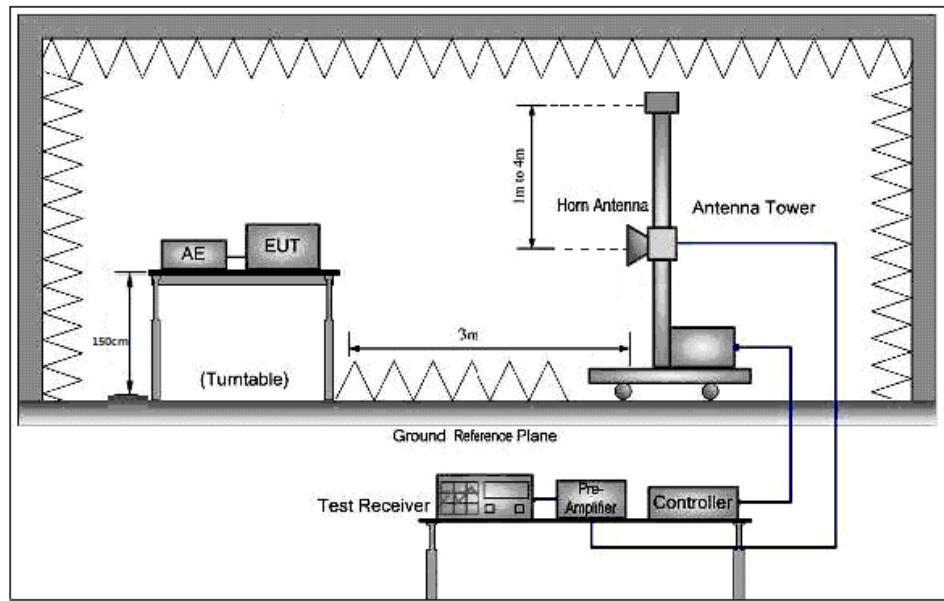
SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory

No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

30MHz to 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) 8307 1443, or email: CN_DocCheck@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory
No.196 Kefu Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

7.7.3 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 middle 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.

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <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-Dокумент.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, results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

SGS-CST Standards Technical Services Co., Ltd
Guangzhou Branch Testing Service Co., Ltd EEC Laboratory

No. 196 Kezhi Road, Science Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075056 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路196号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075056 sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	33.37	26.25	3.32	37.44	25.50	54.00	-28.50	HORIZONTAL	Average
2	2310.000	45.74	26.25	3.32	37.44	37.87	74.00	-36.13	HORIZONTAL	Peak
3	2390.000	34.04	26.43	3.48	37.42	26.53	54.00	-27.47	HORIZONTAL	Average
4	2390.000	45.67	26.43	3.48	37.42	38.16	74.00	-35.84	HORIZONTAL	Peak
5	2483.500	32.84	26.58	3.53	37.40	25.55	54.00	-28.45	HORIZONTAL	Average
6	2483.500	45.58	26.58	3.53	37.40	38.29	74.00	-35.71	HORIZONTAL	Peak
7	2500.000	34.61	26.60	3.40	37.39	27.22	54.00	-26.78	HORIZONTAL	Average
8	2500.000	47.26	26.60	3.40	37.39	39.87	74.00	-34.13	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	33.51	26.25	3.32	37.44	25.64	54.00	-28.36	VERTICAL	Average
2	2310.000	44.59	26.25	3.32	37.44	36.72	74.00	-37.28	VERTICAL	Peak
3	2390.000	32.71	26.43	3.48	37.42	25.20	54.00	-28.80	VERTICAL	Average
4	2390.000	45.64	26.43	3.48	37.42	38.13	74.00	-35.87	VERTICAL	Peak
5	2483.500	34.42	26.58	3.53	37.40	27.13	54.00	-26.87	VERTICAL	Average
6	2483.500	45.25	26.58	3.53	37.40	37.96	74.00	-36.04	VERTICAL	Peak
7	2500.000	34.16	26.60	3.40	37.39	26.77	54.00	-27.23	VERTICAL	Average
8	2500.000	46.19	26.60	3.40	37.39	38.80	74.00	-35.20	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (86-20) 82075058 | www.sgsgroup.com.cn

中国·广州·经济技术开发区科学城科利珠路198号

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

Mode:c; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	31.53	26.25	3.32	37.44	23.66	54.00	-30.34	HORIZONTAL	Average
2	2310.000	44.52	26.25	3.32	37.44	36.65	74.00	-37.35	HORIZONTAL	Peak
3	2390.000	33.70	26.43	3.48	37.42	26.19	54.00	-27.81	HORIZONTAL	Average
4	2390.000	46.26	26.43	3.48	37.42	38.75	74.00	-35.25	HORIZONTAL	Peak
5	2483.500	34.08	26.58	3.53	37.40	26.79	54.00	-27.21	HORIZONTAL	Average
6	2483.500	46.12	26.58	3.53	37.40	38.83	74.00	-35.17	HORIZONTAL	Peak
7	2500.000	32.01	26.60	3.40	37.39	24.62	54.00	-29.38	HORIZONTAL	Average
8	2500.000	45.80	26.60	3.40	37.39	38.41	74.00	-35.59	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	34.27	26.25	3.32	37.44	26.40	54.00	-27.60	VERTICAL	Average
2	2310.000	44.80	26.25	3.32	37.44	36.93	74.00	-37.07	VERTICAL	Peak
3	2390.000	33.21	26.43	3.48	37.42	25.70	54.00	-28.30	VERTICAL	Average
4	2390.000	44.92	26.43	3.48	37.42	37.41	74.00	-36.59	VERTICAL	Peak
5	2483.500	32.38	26.58	3.53	37.40	25.09	54.00	-28.91	VERTICAL	Average
6	2483.500	45.40	26.58	3.53	37.40	38.11	74.00	-35.89	VERTICAL	Peak
7	2500.000	33.11	26.60	3.40	37.39	25.72	54.00	-28.28	VERTICAL	Average
8	2500.000	46.29	26.60	3.40	37.39	38.90	74.00	-35.10	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	33.45	26.25	3.32	37.44	25.58	54.00	-28.42	HORIZONTAL	Average
2	2310.000	44.21	26.25	3.32	37.44	36.34	74.00	-37.66	HORIZONTAL	Peak
3	2390.000	32.52	26.43	3.48	37.42	25.01	54.00	-28.99	HORIZONTAL	Average
4	2390.000	44.88	26.43	3.48	37.42	37.37	74.00	-36.63	HORIZONTAL	Peak
5	2483.500	33.92	26.58	3.53	37.40	26.63	54.00	-27.37	HORIZONTAL	Average
6	2483.500	45.37	26.58	3.53	37.40	38.08	74.00	-35.92	HORIZONTAL	Peak
7	2500.000	32.52	26.60	3.40	37.39	25.13	54.00	-28.87	HORIZONTAL	Average
8	2500.000	45.39	26.60	3.40	37.39	38.00	74.00	-36.00	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	35.23	26.25	3.32	37.44	27.36	54.00	-26.64	VERTICAL	Average
2	2310.000	45.25	26.25	3.32	37.44	37.38	74.00	-36.62	VERTICAL	Peak
3	2390.000	35.34	26.43	3.48	37.42	27.83	54.00	-26.17	VERTICAL	Average
4	2390.000	45.84	26.43	3.48	37.42	38.33	74.00	-35.67	VERTICAL	Peak
5	2483.500	34.11	26.58	3.53	37.40	26.82	54.00	-27.18	VERTICAL	Average
6	2483.500	45.33	26.58	3.53	37.40	38.04	74.00	-35.96	VERTICAL	Peak
7	2500.000	33.94	26.60	3.40	37.39	26.55	54.00	-27.45	VERTICAL	Average
8	2500.000	46.36	26.60	3.40	37.39	38.97	74.00	-35.03	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	44.75	26.25	3.32	37.44	36.88	54.00	-17.12	HORIZONTAL	Average
2	2310.000	44.47	26.25	3.32	37.44	36.60	74.00	-37.40	HORIZONTAL	Peak
3	2390.000	34.70	26.43	3.48	37.42	27.19	54.00	-26.81	HORIZONTAL	Average
4	2390.000	45.91	26.43	3.48	37.42	38.40	74.00	-35.60	HORIZONTAL	Peak
5	2483.500	31.59	26.58	3.53	37.40	24.30	54.00	-29.70	HORIZONTAL	Average
6	2483.500	44.66	26.58	3.53	37.40	37.37	74.00	-36.63	HORIZONTAL	Peak
7	2500.000	33.38	26.60	3.40	37.39	25.99	54.00	-28.01	HORIZONTAL	Average
8	2500.000	45.41	26.60	3.40	37.39	38.02	74.00	-35.98	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	45.21	26.25	3.32	37.44	37.34	54.00	-16.66	VERTICAL	Average
2	2310.000	44.29	26.25	3.32	37.44	36.42	74.00	-37.58	VERTICAL	Peak
3	2390.000	32.49	26.43	3.48	37.42	24.98	54.00	-29.02	VERTICAL	Average
4	2390.000	44.80	26.43	3.48	37.42	37.29	74.00	-36.71	VERTICAL	Peak
5	2483.500	31.76	26.58	3.53	37.40	24.47	54.00	-29.53	VERTICAL	Average
6	2483.500	45.14	26.58	3.53	37.40	37.85	74.00	-36.15	VERTICAL	Peak
7	2500.000	35.16	26.60	3.40	37.39	27.77	54.00	-26.23	VERTICAL	Average
8	2500.000	44.71	26.60	3.40	37.39	37.32	74.00	-36.68	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (86-20) 82075058 | www.sgsgroup.com.cn

中国·广州·经济技术开发区科学城科利珠路198号

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

Mode:c; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	33.10	26.25	3.32	37.44	25.23	54.00	-28.77	HORIZONTAL	Average
2	2310.000	45.22	26.25	3.32	37.44	37.35	74.00	-36.65	HORIZONTAL	Peak
3	2390.000	33.42	26.43	3.48	37.42	25.91	54.00	-28.09	HORIZONTAL	Average
4	2390.000	44.49	26.43	3.48	37.42	36.98	74.00	-37.02	HORIZONTAL	Peak
5	2483.500	33.94	26.58	3.53	37.40	26.65	54.00	-27.35	HORIZONTAL	Average
6	2483.500	45.15	26.58	3.53	37.40	37.86	74.00	-36.14	HORIZONTAL	Peak
7	2500.000	34.67	26.60	3.40	37.39	27.28	54.00	-26.72	HORIZONTAL	Average
8	2500.000	46.27	26.60	3.40	37.39	38.88	74.00	-35.12	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	33.75	26.25	3.32	37.44	25.88	54.00	-28.12	VERTICAL	Average
2	2310.000	44.96	26.25	3.32	37.44	37.09	74.00	-36.91	VERTICAL	Peak
3	2390.000	32.14	26.43	3.48	37.42	24.63	54.00	-29.37	VERTICAL	Average
4	2390.000	44.68	26.43	3.48	37.42	37.17	74.00	-36.83	VERTICAL	Peak
5	2483.500	31.54	26.58	3.53	37.40	24.25	54.00	-29.75	VERTICAL	Average
6	2483.500	45.23	26.58	3.53	37.40	37.94	74.00	-36.06	VERTICAL	Peak
7	2500.000	30.22	26.60	3.40	37.39	22.83	54.00	-31.17	VERTICAL	Average
8	2500.000	44.70	26.60	3.40	37.39	37.31	74.00	-36.69	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	32.40	26.25	3.32	37.44	24.53	54.00	-29.47	HORIZONTAL	Average
2	2310.000	46.92	26.25	3.32	37.44	39.05	74.00	-34.95	HORIZONTAL	Peak
3	2390.000	32.62	26.43	3.48	37.42	25.11	54.00	-28.89	HORIZONTAL	Average
4	2390.000	46.43	26.43	3.48	37.42	38.92	74.00	-35.08	HORIZONTAL	Peak
5	2483.500	34.27	26.58	3.53	37.40	26.98	54.00	-27.02	HORIZONTAL	Average
6	2483.500	46.86	26.58	3.53	37.40	39.57	74.00	-34.43	HORIZONTAL	Peak
7	2500.000	30.55	26.60	3.40	37.39	23.16	54.00	-30.84	HORIZONTAL	Average
8	2500.000	46.87	26.60	3.40	37.39	39.48	74.00	-34.52	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	32.96	26.25	3.32	37.44	25.09	54.00	-28.91	VERTICAL	Average
2	2310.000	44.65	26.25	3.32	37.44	36.78	74.00	-37.22	VERTICAL	Peak
3	2390.000	33.54	26.43	3.48	37.42	26.03	54.00	-27.97	VERTICAL	Average
4	2390.000	45.17	26.43	3.48	37.42	37.66	74.00	-36.34	VERTICAL	Peak
5	2483.500	33.47	26.58	3.53	37.40	26.18	54.00	-27.82	VERTICAL	Average
6	2483.500	45.06	26.58	3.53	37.40	37.77	74.00	-36.23	VERTICAL	Peak
7	2500.000	32.83	26.60	3.40	37.39	25.44	54.00	-28.56	VERTICAL	Average
8	2500.000	45.61	26.60	3.40	37.39	38.22	74.00	-35.78	VERTICAL	Peak

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, or email: CN_DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	30.94	26.25	3.32	37.44	23.07	54.00	-30.93	HORIZONTAL	Average
2	2310.000	46.22	26.25	3.32	37.44	38.35	74.00	-35.65	HORIZONTAL	Peak
3	2390.000	31.76	26.43	3.48	37.42	24.25	54.00	-29.75	HORIZONTAL	Average
4	2390.000	45.09	26.43	3.48	37.42	37.58	74.00	-36.42	HORIZONTAL	Peak
5	2483.500	30.28	26.58	3.53	37.40	22.99	54.00	-31.01	HORIZONTAL	Average
6	2483.500	45.78	26.58	3.53	37.40	38.49	74.00	-35.51	HORIZONTAL	Peak
7	2500.000	30.19	26.60	3.40	37.39	22.80	54.00	-31.20	HORIZONTAL	Average
8	2500.000	45.28	26.60	3.40	37.39	37.89	74.00	-36.11	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	34.06	26.25	3.32	37.44	26.19	54.00	-27.81	VERTICAL	Average
2	2310.000	46.54	26.25	3.32	37.44	38.67	74.00	-35.33	VERTICAL	Peak
3	2390.000	33.14	26.43	3.48	37.42	25.63	54.00	-28.37	VERTICAL	Average
4	2390.000	45.78	26.43	3.48	37.42	38.27	74.00	-35.73	VERTICAL	Peak
5	2483.500	32.90	26.58	3.53	37.40	25.61	54.00	-28.39	VERTICAL	Average
6	2483.500	45.72	26.58	3.53	37.40	38.43	74.00	-35.57	VERTICAL	Peak
7	2500.000	31.62	26.60	3.40	37.39	24.23	54.00	-29.77	VERTICAL	Average
8	2500.000	45.84	26.60	3.40	37.39	38.45	74.00	-35.55	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	32.01	26.25	3.32	37.44	24.14	54.00	-29.86	HORIZONTAL	Average
2	2310.000	45.41	26.25	3.32	37.44	37.54	74.00	-36.46	HORIZONTAL	Peak
3	2390.000	34.09	26.43	3.48	37.42	26.58	54.00	-27.42	HORIZONTAL	Average
4	2390.000	46.41	26.43	3.48	37.42	38.90	74.00	-35.10	HORIZONTAL	Peak
5	2483.500	30.84	26.58	3.53	37.40	23.55	54.00	-30.45	HORIZONTAL	Average
6	2483.500	46.95	26.58	3.53	37.40	39.66	74.00	-34.34	HORIZONTAL	Peak
7	2500.000	32.13	26.60	3.40	37.39	24.74	54.00	-29.26	HORIZONTAL	Average
8	2500.000	48.16	26.60	3.40	37.39	40.77	74.00	-33.23	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	2310.000	31.71	26.25	3.32	37.44	23.84	54.00	-30.16	VERTICAL	Average
2	2310.000	44.38	26.25	3.32	37.44	36.51	74.00	-37.49	VERTICAL	Peak
3	2390.000	33.88	26.43	3.48	37.42	26.37	54.00	-27.63	VERTICAL	Average
4	2390.000	45.84	26.43	3.48	37.42	38.33	74.00	-35.67	VERTICAL	Peak
5	2483.500	33.07	26.58	3.53	37.40	25.78	54.00	-28.22	VERTICAL	Average
6	2483.500	45.37	26.58	3.53	37.40	38.08	74.00	-35.92	VERTICAL	Peak
7	2500.000	32.17	26.60	3.40	37.39	24.78	54.00	-29.22	VERTICAL	Average
8	2500.000	45.44	26.60	3.40	37.39	38.05	74.00	-35.95	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

7.8 Radiated Spurious Emissions

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.247(d)

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.



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: (86-20) 8207 1443, or email: CN.DocCheck@sgs.com

7.8.1 E.U.T. Operation

Operating Environment:

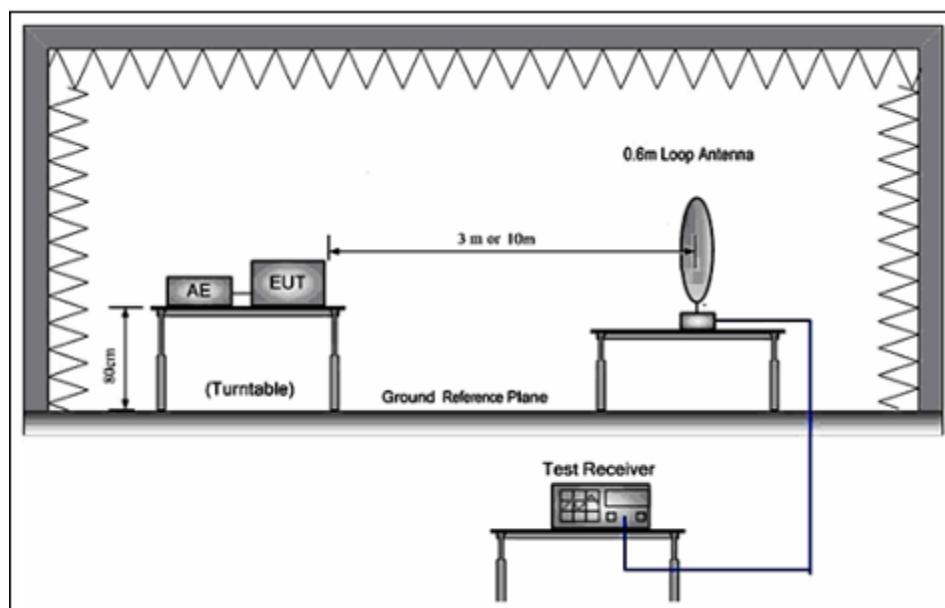
Temperature: 23.1 °C Humidity: 52.3 % RH Atmospheric Pressure: 1020 mbar

Test mode

c:TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40). Only the data of worst case is recorded in the report.

7.8.2 Test Setup Diagram

9kHz to 30MHz



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.

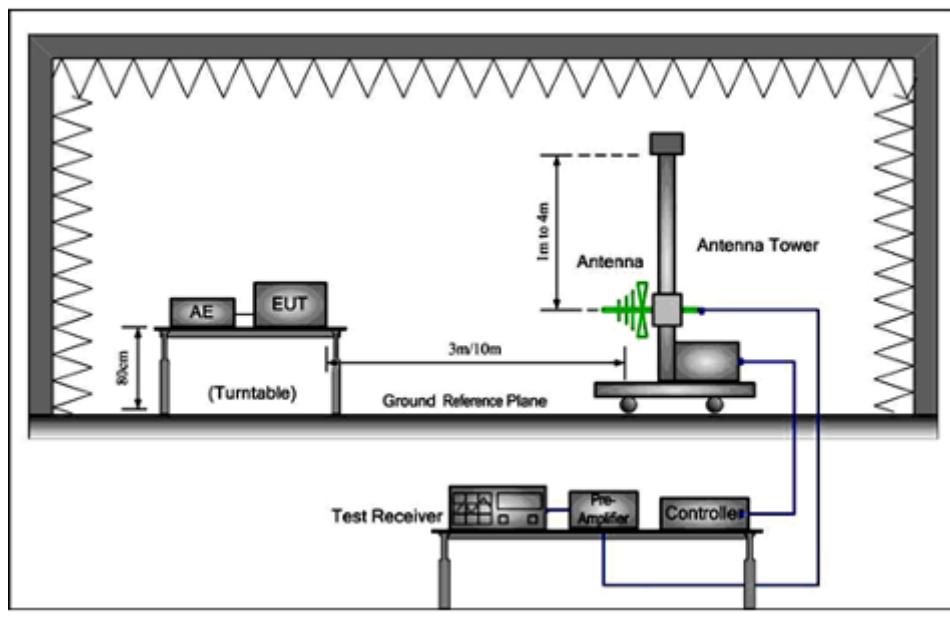
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN_DocCheck@sgs.com



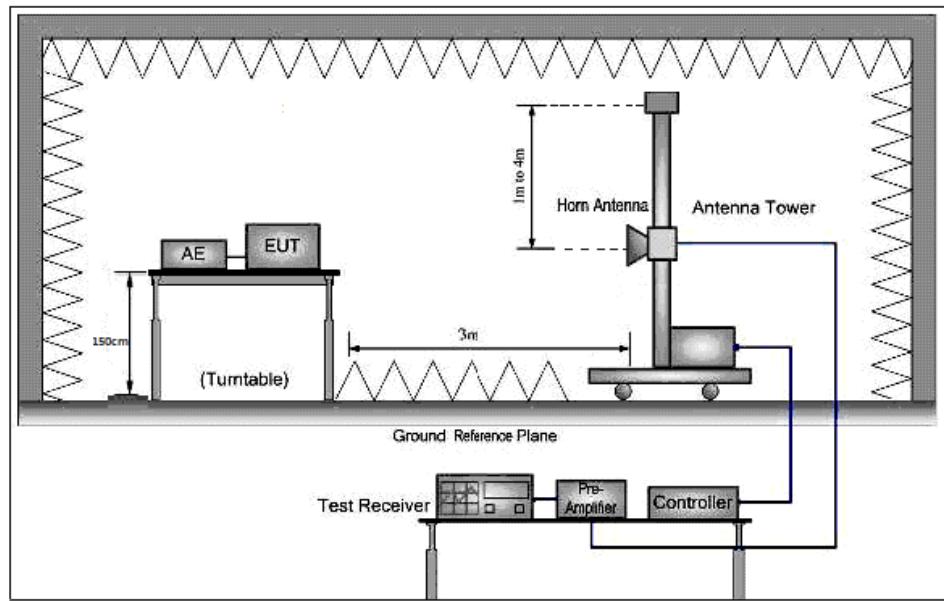
SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory

No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

30MHz to 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: (86-20) 82071443, or email: CN.DocCheck@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory
No.196 Kechu Road, Science Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

7.8.3 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 middle 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) For emission below 1GHz, 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 25GHz, the disturbance above 18GHz and 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.

4) 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



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, or email: CN.DocCheck@sgs.com

SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services EEC Laboratory

No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Limit	Over	Limit	Pol/Phase	Remark
	Level	Factor	Loss	Factor						
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	46.340	24.73	14.29	0.70	26.50	13.22	40.00	-26.78	HORIZONTAL	QP
2	71.581	23.91	12.36	0.90	26.44	10.73	40.00	-29.27	HORIZONTAL	QP
3	171.393	25.07	13.07	1.39	26.44	13.09	43.50	-30.41	HORIZONTAL	QP
4	350.477	24.12	15.29	1.94	27.22	14.13	46.00	-31.87	HORIZONTAL	QP
5	531.964	26.62	18.70	2.45	27.46	20.31	46.00	-25.69	HORIZONTAL	QP
6	906.482	27.16	23.45	3.13	27.01	26.73	46.00	-19.27	HORIZONTAL	QP

Mode:c; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Limit	Over	Limit	Pol/Phase	Remark
	Level	Factor	Loss	Factor						
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	3935.493	37.19	29.37	4.60	36.90	34.26	54.00	-19.74	VERTICAL	Average
2	3935.493	45.51	29.37	4.60	36.90	42.58	74.00	-31.42	VERTICAL	Peak
3	4824.016	36.48	30.82	5.42	36.94	35.78	54.00	-18.22	VERTICAL	Average
4	4824.016	50.23	30.82	5.42	36.94	49.53	74.00	-24.47	VERTICAL	Peak
5	6322.136	37.41	33.68	5.95	36.99	40.05	54.00	-13.95	VERTICAL	Average
6	6322.136	45.00	33.68	5.95	36.99	47.64	74.00	-26.36	VERTICAL	Peak
7	7236.052	37.43	35.55	6.03	36.93	42.08	54.00	-11.92	VERTICAL	Average
8	7236.052	47.54	35.55	6.03	36.93	52.19	74.00	-21.81	VERTICAL	Peak
9	9648.432	37.89	37.54	7.06	37.08	45.41	54.00	-8.59	VERTICAL	Average
10	9648.432	45.55	37.54	7.06	37.08	53.07	74.00	-20.93	VERTICAL	Peak
11	12060.130	33.13	39.46	8.17	37.17	43.59	54.00	-10.41	VERTICAL	Average
12	12060.130	43.57	39.46	8.17	37.17	54.03	74.00	-19.97	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:Low

Freq	ReadAntenna		Cable Preamp		Limit Level	Line	Over Limit	Pol/Phase	Remark
	Level	Factor	Loss	Factor					
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	57.191	24.81	14.18	0.80	26.49	13.30	40.00	-26.70	VERTICAL QP
2	153.200	24.63	13.52	1.31	26.44	13.02	43.50	-30.48	VERTICAL QP
3	287.990	24.27	13.71	1.76	26.71	13.03	46.00	-32.97	VERTICAL QP
4	492.469	25.67	18.04	2.39	27.46	18.64	46.00	-27.36	VERTICAL QP
5	665.804	26.19	21.05	2.77	27.34	22.67	46.00	-23.33	VERTICAL QP
6	875.247	25.54	23.22	3.10	27.14	24.72	46.00	-21.28	VERTICAL QP

Mode:c; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:Low

Freq	ReadAntenna		Cable Preamp		Limit Level	Line	Over Limit	Pol/Phase	Remark
	Level	Factor	Loss	Factor					
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	3693.033	37.42	28.47	4.55	36.93	33.51	54.00	-20.49	HORIZONTAL Average
2	3693.033	45.34	28.47	4.55	36.93	41.43	74.00	-32.57	HORIZONTAL Peak
3	4824.016	40.22	30.82	5.42	36.94	39.52	54.00	-14.48	HORIZONTAL Average
4	4824.016	51.82	30.82	5.42	36.94	51.12	74.00	-22.88	HORIZONTAL Peak
5	5535.047	39.57	31.92	6.37	36.99	40.87	54.00	-13.13	HORIZONTAL Average
6	5535.047	46.22	31.92	6.37	36.99	47.52	74.00	-26.48	HORIZONTAL Peak
7	7236.052	37.82	35.55	6.03	36.93	42.47	54.00	-11.53	HORIZONTAL Average
8	7236.052	46.89	35.55	6.03	36.93	51.54	74.00	-22.46	HORIZONTAL Peak
9	9648.689	37.81	37.54	7.06	37.08	45.33	54.00	-8.67	HORIZONTAL Average
10	9648.689	44.79	37.54	7.06	37.08	52.31	74.00	-21.69	HORIZONTAL Peak
11	12060.610	34.91	39.46	8.17	37.17	45.37	54.00	-8.63	HORIZONTAL Average
12	12060.610	44.77	39.46	8.17	37.17	55.23	74.00	-18.77	HORIZONTAL Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:middle

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor		Line	Limit		
1	3935.493	34.26	29.37	4.60	36.90	31.33	54.00	-22.67	HORIZONTAL	Average
2	3935.493	44.87	29.37	4.60	36.90	41.94	74.00	-32.06	HORIZONTAL	Peak
3	4884.151	36.94	30.95	5.52	36.95	36.46	54.00	-17.54	HORIZONTAL	Average
4	4884.151	51.36	30.95	5.52	36.95	50.88	74.00	-23.12	HORIZONTAL	Peak
5	6322.136	37.15	33.68	5.95	36.99	39.79	54.00	-14.21	HORIZONTAL	Average
6	6322.136	44.14	33.68	5.95	36.99	46.78	74.00	-27.22	HORIZONTAL	Peak
7	7326.262	35.12	35.74	6.13	36.92	40.07	54.00	-13.93	HORIZONTAL	Average
8	7326.262	45.00	35.74	6.13	36.92	49.95	74.00	-24.05	HORIZONTAL	Peak
9	9768.684	36.94	37.74	7.01	37.09	44.60	54.00	-9.40	HORIZONTAL	Average
10	9768.684	45.30	37.74	7.01	37.09	52.96	74.00	-21.04	HORIZONTAL	Peak
11	12210.130	32.96	39.21	8.08	37.06	43.19	54.00	-10.81	HORIZONTAL	Average
12	12210.130	44.97	39.21	8.08	37.06	55.20	74.00	-18.80	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:middle

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor		Line	Limit		
1	3856.668	37.43	29.19	4.60	36.91	34.31	54.00	-19.69	VERTICAL	Average
2	3856.668	46.28	29.19	4.60	36.91	43.16	74.00	-30.84	VERTICAL	Peak
3	4884.948	40.32	30.95	5.52	36.95	39.84	54.00	-14.16	VERTICAL	Average
4	4884.948	50.53	30.95	5.52	36.95	50.05	74.00	-23.95	VERTICAL	Peak
5	5763.617	37.18	32.12	6.15	37.00	38.45	54.00	-15.55	VERTICAL	Average
6	5763.617	45.74	32.12	6.15	37.00	47.01	74.00	-26.99	VERTICAL	Peak
7	7326.267	39.16	35.74	6.13	36.92	44.11	54.00	-9.89	VERTICAL	Average
8	7326.267	46.58	35.74	6.13	36.92	51.53	74.00	-22.47	VERTICAL	Peak
9	9768.432	35.20	37.74	7.01	37.09	42.86	54.00	-11.14	VERTICAL	Average
10	9768.432	46.18	37.74	7.01	37.09	53.84	74.00	-20.16	VERTICAL	Peak
11	12210.130	35.25	39.21	8.08	37.06	45.48	54.00	-8.52	VERTICAL	Average
12	12210.130	44.44	39.21	8.08	37.06	54.67	74.00	-19.33	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:b; bandwidth:20MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor		Line	Limit		
1	4133.699	35.22	29.62	4.60	36.90	32.54	54.00	-21.46	HORIZONTAL	Average
2	4133.699	45.67	29.62	4.60	36.90	42.99	74.00	-31.01	HORIZONTAL	Peak
3	4924.490	40.63	31.01	5.60	36.95	40.29	54.00	-13.71	HORIZONTAL	Average
4	4924.490	50.85	31.01	5.60	36.95	50.51	74.00	-23.49	HORIZONTAL	Peak
5	6106.616	37.48	32.63	6.14	37.00	39.25	54.00	-14.75	HORIZONTAL	Average
6	6106.616	44.81	32.63	6.14	37.00	46.58	74.00	-27.42	HORIZONTAL	Peak
7	7386.461	36.17	35.85	6.19	36.92	41.29	54.00	-12.71	HORIZONTAL	Average
8	7386.461	46.65	35.85	6.19	36.92	51.77	74.00	-22.23	HORIZONTAL	Peak
9	9848.540	34.91	37.82	6.99	37.09	42.63	54.00	-11.37	HORIZONTAL	Average
10	9848.540	44.83	37.82	6.99	37.09	52.55	74.00	-21.45	HORIZONTAL	Peak
11	12310.610	34.61	39.03	8.01	36.97	44.68	54.00	-9.32	HORIZONTAL	Average
12	12310.610	44.93	39.03	8.01	36.97	55.00	74.00	-19.00	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:b; bandwidth:20MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor		Line	Limit		
1	4062.629	36.51	29.55	4.60	36.90	33.76	54.00	-20.24	VERTICAL	Average
2	4062.629	45.20	29.55	4.60	36.90	42.45	74.00	-31.55	VERTICAL	Peak
3	4924.490	36.52	31.01	5.60	36.95	36.18	54.00	-17.82	VERTICAL	Average
4	4924.490	49.74	31.01	5.60	36.95	49.40	74.00	-24.60	VERTICAL	Peak
5	6106.616	37.04	32.63	6.14	37.00	38.81	54.00	-15.19	VERTICAL	Average
6	6106.616	45.08	32.63	6.14	37.00	46.85	74.00	-27.15	VERTICAL	Peak
7	7386.741	37.42	35.85	6.19	36.92	42.54	54.00	-11.46	VERTICAL	Average
8	7386.741	46.29	35.85	6.19	36.92	51.41	74.00	-22.59	VERTICAL	Peak
9	9848.710	36.15	37.82	6.99	37.09	43.87	54.00	-10.13	VERTICAL	Average
10	9848.710	45.50	37.82	6.99	37.09	53.22	74.00	-20.78	VERTICAL	Peak
11	12310.750	34.94	39.03	8.01	36.97	45.01	54.00	-8.99	VERTICAL	Average
12	12310.750	44.60	39.03	8.01	36.97	54.67	74.00	-19.33	VERTICAL	Peak

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, or email: CN_DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor		Line	Limit		
1	3757.637	37.42	28.82	4.58	36.92	33.90	54.00	-20.10	HORIZONTAL	Average
2	3757.637	45.64	28.82	4.58	36.92	42.12	74.00	-31.88	HORIZONTAL	Peak
3	4824.887	39.14	30.82	5.42	36.94	38.44	54.00	-15.56	HORIZONTAL	Average
4	4824.887	46.04	30.82	5.42	36.94	45.34	74.00	-28.66	HORIZONTAL	Peak
5	6071.417	37.61	32.51	6.16	37.00	39.28	54.00	-14.72	HORIZONTAL	Average
6	6071.417	45.37	32.51	6.16	37.00	47.04	74.00	-26.96	HORIZONTAL	Peak
7	7236.646	38.18	35.55	6.03	36.93	42.83	54.00	-11.17	HORIZONTAL	Average
8	7236.646	45.95	35.55	6.03	36.93	50.60	74.00	-23.40	HORIZONTAL	Peak
9	9648.151	37.84	37.54	7.06	37.08	45.36	54.00	-8.64	HORIZONTAL	Average
10	9648.151	45.93	37.54	7.06	37.08	53.45	74.00	-20.55	HORIZONTAL	Peak
11	12060.760	33.14	39.46	8.17	37.17	43.60	54.00	-10.40	HORIZONTAL	Average
12	12060.760	44.70	39.46	8.17	37.17	55.16	74.00	-18.84	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor		Line	Limit		
1	3280.326	37.41	27.90	4.04	36.99	32.36	54.00	-21.64	VERTICAL	Average
2	3280.326	46.23	27.90	4.04	36.99	41.18	74.00	-32.82	VERTICAL	Peak
3	4824.453	37.48	30.82	5.42	36.94	36.78	54.00	-17.22	VERTICAL	Average
4	4824.453	44.89	30.82	5.42	36.94	44.19	74.00	-29.81	VERTICAL	Peak
5	5535.047	39.64	31.92	6.37	36.99	40.94	54.00	-13.06	VERTICAL	Average
6	5535.047	45.98	31.92	6.37	36.99	47.28	74.00	-26.72	VERTICAL	Peak
7	7236.914	38.43	35.55	6.03	36.93	43.08	54.00	-10.92	VERTICAL	Average
8	7236.914	45.22	35.55	6.03	36.93	49.87	74.00	-24.13	VERTICAL	Peak
9	9648.430	36.78	37.54	7.06	37.08	44.30	54.00	-9.70	VERTICAL	Average
10	9648.430	45.41	37.54	7.06	37.08	52.93	74.00	-21.07	VERTICAL	Peak
11	12060.750	34.81	39.46	8.17	37.17	45.27	54.00	-8.73	VERTICAL	Average
12	12060.750	44.41	39.46	8.17	37.17	54.87	74.00	-19.13	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (86-20) 82075058 | www.sgsgroup.com.cn

中国·广州·经济技术开发区科学城科利珠路198号

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

Mode:c; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:middle

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor		Line	Limit		
1	3890.255	37.16	29.27	4.60	36.91	34.12	54.00	-19.88	HORIZONTAL	Average
2	3890.255	46.48	29.27	4.60	36.91	43.44	74.00	-30.56	HORIZONTAL	Peak
3	4884.151	37.94	30.95	5.52	36.95	37.46	54.00	-16.54	HORIZONTAL	Average
4	4884.151	47.24	30.95	5.52	36.95	46.76	74.00	-27.24	HORIZONTAL	Peak
5	6583.209	34.19	34.40	5.84	36.98	37.45	54.00	-16.55	HORIZONTAL	Average
6	6583.209	46.13	34.40	5.84	36.98	49.39	74.00	-24.61	HORIZONTAL	Peak
7	7326.034	38.67	35.74	6.13	36.92	43.62	54.00	-10.38	HORIZONTAL	Average
8	7326.034	46.41	35.74	6.13	36.92	51.36	74.00	-22.64	HORIZONTAL	Peak
9	9768.432	35.25	37.74	7.01	37.09	42.91	54.00	-11.09	HORIZONTAL	Average
10	9768.432	45.81	37.74	7.01	37.09	53.47	74.00	-20.53	HORIZONTAL	Peak
11	12210.210	35.41	39.21	8.08	37.06	45.64	54.00	-8.36	HORIZONTAL	Average
12	12210.210	44.87	39.21	8.08	37.06	55.10	74.00	-18.90	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:middle

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor		Line	Limit		
1	3556.843	37.54	28.03	4.44	36.95	33.06	54.00	-20.94	VERTICAL	Average
2	3556.843	46.49	28.03	4.44	36.95	42.01	74.00	-31.99	VERTICAL	Peak
3	4884.151	37.41	30.95	5.52	36.95	36.93	54.00	-17.07	VERTICAL	Average
4	4884.151	46.10	30.95	5.52	36.95	45.62	74.00	-28.38	VERTICAL	Peak
5	6249.464	38.69	33.30	6.02	36.99	41.02	54.00	-12.98	VERTICAL	Average
6	6249.464	45.52	33.30	6.02	36.99	47.85	74.00	-26.15	VERTICAL	Peak
7	7326.034	37.84	35.74	6.13	36.92	42.79	54.00	-11.21	VERTICAL	Average
8	7326.034	45.45	35.74	6.13	36.92	50.40	74.00	-23.60	VERTICAL	Peak
9	9768.432	34.69	37.74	7.01	37.09	42.35	54.00	-11.65	VERTICAL	Average
10	9768.432	44.93	37.74	7.01	37.09	52.59	74.00	-21.41	VERTICAL	Peak
11	12210.620	35.19	39.21	8.08	37.06	45.42	54.00	-8.58	VERTICAL	Average
12	12210.620	43.75	39.21	8.08	37.06	53.98	74.00	-20.02	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:g; bandwidth:20MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	3890.255	34.18	29.27	4.60	36.91	31.14	54.00	-22.86	HORIZONTAL	Average
2	3890.255	45.68	29.27	4.60	36.91	42.64	74.00	-31.36	HORIZONTAL	Peak
3	4924.490	37.48	31.01	5.60	36.95	37.14	54.00	-16.86	HORIZONTAL	Average
4	4924.490	46.26	31.01	5.60	36.95	45.92	74.00	-28.08	HORIZONTAL	Peak
5	5932.638	36.48	32.26	6.00	37.00	37.74	54.00	-16.26	HORIZONTAL	Average
6	5932.638	45.05	32.26	6.00	37.00	46.31	74.00	-27.69	HORIZONTAL	Peak
7	7386.741	34.69	35.85	6.19	36.92	39.81	54.00	-14.19	HORIZONTAL	Average
8	7386.741	44.94	35.85	6.19	36.92	50.06	74.00	-23.94	HORIZONTAL	Peak
9	9848.540	34.69	37.82	6.99	37.09	42.41	54.00	-11.59	HORIZONTAL	Average
10	9848.540	44.51	37.82	6.99	37.09	52.23	74.00	-21.77	HORIZONTAL	Peak
11	12310.520	35.50	39.03	8.01	36.97	45.57	54.00	-8.43	HORIZONTAL	Average
12	12310.520	45.23	39.03	8.01	36.97	55.30	74.00	-18.70	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:g; bandwidth:20MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	3790.361	37.18	28.97	4.60	36.92	33.83	54.00	-20.17	VERTICAL	Average
2	3790.361	45.10	28.97	4.60	36.92	41.75	74.00	-32.25	VERTICAL	Peak
3	4924.887	37.42	31.01	5.60	36.95	37.08	54.00	-16.92	VERTICAL	Average
4	4924.887	45.00	31.01	5.60	36.95	44.66	74.00	-29.34	VERTICAL	Peak
5	5763.617	39.84	32.12	6.15	37.00	41.11	54.00	-12.89	VERTICAL	Average
6	5763.617	45.10	32.12	6.15	37.00	46.37	74.00	-27.63	VERTICAL	Peak
7	7386.914	37.42	35.85	6.19	36.92	42.54	54.00	-11.46	VERTICAL	Average
8	7386.914	45.15	35.85	6.19	36.92	50.27	74.00	-23.73	VERTICAL	Peak
9	9848.450	36.44	37.82	6.99	37.09	44.16	54.00	-9.84	VERTICAL	Average
10	9848.450	45.39	37.82	6.99	37.09	53.11	74.00	-20.89	VERTICAL	Peak
11	12310.950	35.11	39.03	8.01	36.97	45.18	54.00	-8.82	VERTICAL	Average
12	12310.950	44.98	39.03	8.01	36.97	55.05	74.00	-18.95	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor		Line	Limit		
1	3619.064	37.15	28.20	4.51	36.94	32.92	54.00	-21.08	HORIZONTAL	Average
2	3619.064	45.45	28.20	4.51	36.94	41.22	74.00	-32.78	HORIZONTAL	Peak
3	4824.016	36.19	30.82	5.42	36.94	35.49	54.00	-18.51	HORIZONTAL	Average
4	4824.016	45.86	30.82	5.42	36.94	45.16	74.00	-28.84	HORIZONTAL	Peak
5	5763.617	37.84	32.12	6.15	37.00	39.11	54.00	-14.89	HORIZONTAL	Average
6	5763.617	45.30	32.12	6.15	37.00	46.57	74.00	-27.43	HORIZONTAL	Peak
7	7236.114	37.95	35.55	6.03	36.93	42.60	54.00	-11.40	HORIZONTAL	Average
8	7236.114	45.81	35.55	6.03	36.93	50.46	74.00	-23.54	HORIZONTAL	Peak
9	9648.151	33.62	37.54	7.06	37.08	41.14	54.00	-12.86	HORIZONTAL	Average
10	9648.151	45.31	37.54	7.06	37.08	52.83	74.00	-21.17	HORIZONTAL	Peak
11	12060.270	34.84	39.46	8.17	37.17	45.30	54.00	-8.70	HORIZONTAL	Average
12	12060.270	41.27	39.46	8.17	37.17	51.73	74.00	-22.27	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor		Line	Limit		
1	3455.508	37.84	27.90	4.20	36.96	32.98	54.00	-21.02	VERTICAL	Average
2	3455.508	46.06	27.90	4.20	36.96	41.20	74.00	-32.80	VERTICAL	Peak
3	4824.760	37.18	30.82	5.42	36.94	36.48	54.00	-17.52	VERTICAL	Average
4	4824.760	45.05	30.82	5.42	36.94	44.35	74.00	-29.65	VERTICAL	Peak
5	5599.412	36.18	31.96	6.30	36.99	37.45	54.00	-16.55	VERTICAL	Average
6	5599.412	45.27	31.96	6.30	36.99	46.54	74.00	-27.46	VERTICAL	Peak
7	7236.646	37.90	35.55	6.03	36.93	42.55	54.00	-11.45	VERTICAL	Average
8	7236.646	45.78	35.55	6.03	36.93	50.43	74.00	-23.57	VERTICAL	Peak
9	9648.349	37.68	37.54	7.06	37.08	45.20	54.00	-8.80	VERTICAL	Average
10	9648.349	44.96	37.54	7.06	37.08	52.48	74.00	-21.52	VERTICAL	Peak
11	12060.950	36.93	39.46	8.17	37.17	47.39	54.00	-6.61	VERTICAL	Average
12	12060.950	43.89	39.46	8.17	37.17	54.35	74.00	-19.65	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:middle

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor		Line	Limit		
1	3790.361	34.17	28.97	4.60	36.92	30.82	54.00	-23.18	HORIZONTAL	Average
2	3790.361	44.75	28.97	4.60	36.92	41.40	74.00	-32.60	HORIZONTAL	Peak
3	4884.151	36.94	30.95	5.52	36.95	36.46	54.00	-17.54	HORIZONTAL	Average
4	4884.151	45.84	30.95	5.52	36.95	45.36	74.00	-28.64	HORIZONTAL	Peak
5	6488.754	37.28	34.25	5.85	36.98	40.40	54.00	-13.60	HORIZONTAL	Average
6	6488.754	45.03	34.25	5.85	36.98	48.15	74.00	-25.85	HORIZONTAL	Peak
7	7326.838	37.84	35.74	6.13	36.92	42.79	54.00	-11.21	HORIZONTAL	Average
8	7326.838	45.96	35.74	6.13	36.92	50.91	74.00	-23.09	HORIZONTAL	Peak
9	9768.371	36.94	37.74	7.01	37.09	44.60	54.00	-9.40	HORIZONTAL	Average
10	9768.371	45.26	37.74	7.01	37.09	52.92	74.00	-21.08	HORIZONTAL	Peak
11	12210.470	34.69	39.21	8.08	37.06	44.92	54.00	-9.08	HORIZONTAL	Average
12	12210.470	44.39	39.21	8.08	37.06	54.62	74.00	-19.38	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:middle

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor		Line	Limit		
1	3790.361	34.13	28.97	4.60	36.92	30.78	54.00	-23.22	VERTICAL	Average
2	3790.361	45.42	28.97	4.60	36.92	42.07	74.00	-31.93	VERTICAL	Peak
3	4884.887	37.18	30.95	5.52	36.95	36.70	54.00	-17.30	VERTICAL	Average
4	4884.887	45.84	30.95	5.52	36.95	45.36	74.00	-28.64	VERTICAL	Peak
5	5797.032	36.29	32.16	6.10	37.00	37.55	54.00	-16.45	VERTICAL	Average
6	5797.032	44.65	32.16	6.10	37.00	45.91	74.00	-28.09	VERTICAL	Peak
7	7326.741	36.28	35.74	6.13	36.92	41.23	54.00	-12.77	VERTICAL	Average
8	7326.741	45.64	35.74	6.13	36.92	50.59	74.00	-23.41	VERTICAL	Peak
9	9768.151	38.64	37.74	7.01	37.09	46.30	54.00	-7.70	VERTICAL	Average
10	9768.151	45.09	37.74	7.01	37.09	52.75	74.00	-21.25	VERTICAL	Peak
11	12210.210	34.69	39.21	8.08	37.06	44.92	54.00	-9.08	VERTICAL	Average
12	12210.210	44.43	39.21	8.08	37.06	54.66	74.00	-19.34	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (86-20) 82075058 | www.sgsgroup.com.cn

中国·广州·经济技术开发区科学城科利珠路198号

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

Mode:c; Polarization:Horizontal; Modulation:n; bandwidth:20MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	4027.554	35.28	29.52	4.60	36.90	32.50	54.00	-21.50	HORIZONTAL	Average
2	4027.554	45.63	29.52	4.60	36.90	42.85	74.00	-31.15	HORIZONTAL	Peak
3	4924.490	36.69	31.01	5.60	36.95	36.35	54.00	-17.65	HORIZONTAL	Average
4	4924.490	45.80	31.01	5.60	36.95	45.46	74.00	-28.54	HORIZONTAL	Peak
5	6414.167	35.71	34.03	5.89	36.99	38.64	54.00	-15.36	HORIZONTAL	Average
6	6414.167	44.82	34.03	5.89	36.99	47.75	74.00	-26.25	HORIZONTAL	Peak
7	7386.888	35.46	35.85	6.19	36.92	40.58	54.00	-13.42	HORIZONTAL	Average
8	7386.888	45.13	35.85	6.19	36.92	50.25	74.00	-23.75	HORIZONTAL	Peak
9	9848.432	35.42	37.82	6.99	37.09	43.14	54.00	-10.86	HORIZONTAL	Average
10	9848.432	45.58	37.82	6.99	37.09	53.30	74.00	-20.70	HORIZONTAL	Peak
11	12310.710	34.21	39.03	8.01	36.97	44.28	54.00	-9.72	HORIZONTAL	Average
12	12310.710	44.65	39.03	8.01	36.97	54.72	74.00	-19.28	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:n; bandwidth:20MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	3890.255	34.71	29.27	4.60	36.91	31.67	54.00	-22.33	VERTICAL	Average
2	3890.255	45.57	29.27	4.60	36.91	42.53	74.00	-31.47	VERTICAL	Peak
3	4924.490	34.64	31.01	5.60	36.95	34.30	54.00	-19.70	VERTICAL	Average
4	4924.490	44.93	31.01	5.60	36.95	44.59	74.00	-29.41	VERTICAL	Peak
5	6249.464	35.28	33.30	6.02	36.99	37.61	54.00	-16.39	VERTICAL	Average
6	6249.464	44.88	33.30	6.02	36.99	47.21	74.00	-26.79	VERTICAL	Peak
7	7386.518	39.75	35.85	6.19	36.92	44.87	54.00	-9.13	VERTICAL	Average
8	7386.518	45.21	35.85	6.19	36.92	50.33	74.00	-23.67	VERTICAL	Peak
9	9848.151	39.66	37.82	6.99	37.09	47.38	54.00	-6.62	VERTICAL	Average
10	9848.151	45.32	37.82	6.99	37.09	53.04	74.00	-20.96	VERTICAL	Peak
11	12310.130	34.19	39.03	8.01	36.97	44.26	54.00	-9.74	VERTICAL	Average
12	12310.130	45.03	39.03	8.01	36.97	55.10	74.00	-18.90	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	3935.493	34.16	29.37	4.60	36.90	31.23	54.00	-22.77	HORIZONTAL	Average
2	3935.493	45.68	29.37	4.60	36.90	42.75	74.00	-31.25	HORIZONTAL	Peak
3	4844.016	38.34	30.88	5.45	36.94	37.73	54.00	-16.27	HORIZONTAL	Average
4	4844.016	46.17	30.88	5.45	36.94	45.56	74.00	-28.44	HORIZONTAL	Peak
5	6322.136	35.98	33.68	5.95	36.99	38.62	54.00	-15.38	HORIZONTAL	Average
6	6322.136	44.49	33.68	5.95	36.99	47.13	74.00	-26.87	HORIZONTAL	Peak
7	7266.114	37.48	35.60	6.06	36.92	42.22	54.00	-11.78	HORIZONTAL	Average
8	7266.114	45.53	35.60	6.06	36.92	50.27	74.00	-23.73	HORIZONTAL	Peak
9	9688.430	39.68	37.61	7.04	37.08	47.25	54.00	-6.75	HORIZONTAL	Average
10	9688.430	46.24	37.61	7.04	37.08	53.81	74.00	-20.19	HORIZONTAL	Peak
11	12110.220	36.49	39.37	8.14	37.15	46.85	54.00	-7.15	HORIZONTAL	Average
12	12110.220	43.97	39.37	8.14	37.15	54.33	74.00	-19.67	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:Low

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	Level	Factor	Loss	Factor	Level		Line	Limit		
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	3757.637	35.28	28.82	4.58	36.92	31.76	54.00	-22.24	VERTICAL	Average
2	3757.637	44.96	28.82	4.58	36.92	41.44	74.00	-32.56	VERTICAL	Peak
3	4844.888	36.29	30.88	5.45	36.94	35.68	54.00	-18.32	VERTICAL	Average
4	4844.888	46.15	30.88	5.45	36.94	45.54	74.00	-28.46	VERTICAL	Peak
5	6377.195	38.52	33.91	5.91	36.99	41.35	54.00	-12.65	VERTICAL	Average
6	6377.195	44.43	33.91	5.91	36.99	47.26	74.00	-26.74	VERTICAL	Peak
7	7266.788	38.51	35.60	6.06	36.92	43.25	54.00	-10.75	VERTICAL	Average
8	7266.788	44.95	35.60	6.06	36.92	49.69	74.00	-24.31	VERTICAL	Peak
9	9688.497	35.64	37.61	7.04	37.08	43.21	54.00	-10.79	VERTICAL	Average
10	9688.497	45.13	37.61	7.04	37.08	52.70	74.00	-21.30	VERTICAL	Peak
11	12110.950	35.14	39.37	8.14	37.12	45.53	54.00	-8.47	VERTICAL	Average
12	12110.950	43.62	39.37	8.14	37.12	54.01	74.00	-19.99	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:middle

Freq	ReadAntenna		Cable Preamp		Level	Limit Line	Over Limit	Pol/Phase	Remark
	Level	Factor	Loss	Factor					
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4062.629	34.68	29.55	4.60	36.90	31.93	54.00	-22.07	HORIZONTAL Average
2	4062.629	45.86	29.55	4.60	36.90	43.11	74.00	-30.89	HORIZONTAL Peak
3	4884.151	40.33	30.95	5.52	36.95	39.85	54.00	-14.15	HORIZONTAL Average
4	4884.151	45.41	30.95	5.52	36.95	44.93	74.00	-29.07	HORIZONTAL Peak
5	6377.195	37.69	33.91	5.91	36.99	40.52	54.00	-13.48	HORIZONTAL Average
6	6377.195	45.43	33.91	5.91	36.99	48.26	74.00	-25.74	HORIZONTAL Peak
7	7326.006	37.94	35.74	6.13	36.92	42.89	54.00	-11.11	HORIZONTAL Average
8	7326.006	45.63	35.74	6.13	36.92	50.58	74.00	-23.42	HORIZONTAL Peak
9	9768.257	38.61	37.74	7.01	37.09	46.27	54.00	-7.73	HORIZONTAL Average
10	9768.257	45.19	37.74	7.01	37.09	52.85	74.00	-21.15	HORIZONTAL Peak
11	12210.210	36.94	39.21	8.08	37.06	47.17	54.00	-6.83	HORIZONTAL Average
12	12210.210	43.81	39.21	8.08	37.06	54.04	74.00	-19.96	HORIZONTAL Peak

Mode:c; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:middle

Freq	ReadAntenna		Cable Preamp		Level	Limit Line	Over Limit	Pol/Phase	Remark
	Level	Factor	Loss	Factor					
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	3757.637	36.97	28.82	4.58	36.92	33.45	54.00	-20.55	VERTICAL Average
2	3757.637	45.52	28.82	4.58	36.92	42.00	74.00	-32.00	VERTICAL Peak
3	4884.396	36.97	30.95	5.52	36.95	36.49	54.00	-17.51	VERTICAL Average
4	4884.396	44.87	30.95	5.52	36.95	44.39	74.00	-29.61	VERTICAL Peak
5	6285.695	38.67	33.51	5.98	36.99	41.17	54.00	-12.83	VERTICAL Average
6	6285.695	45.25	33.51	5.98	36.99	47.75	74.00	-26.25	VERTICAL Peak
7	7326.788	37.41	35.74	6.13	36.92	42.36	54.00	-11.64	VERTICAL Average
8	7326.788	45.33	35.74	6.13	36.92	50.28	74.00	-23.72	VERTICAL Peak
9	9768.151	38.94	37.74	7.01	37.09	46.60	54.00	-7.40	VERTICAL Average
10	9768.151	45.52	37.74	7.01	37.09	53.18	74.00	-20.82	VERTICAL Peak
11	12210.100	35.64	39.21	8.08	37.06	45.87	54.00	-8.13	VERTICAL Average
12	12210.100	44.44	39.21	8.08	37.06	54.67	74.00	-19.33	VERTICAL Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

Mode:c; Polarization:Horizontal; Modulation:n; bandwidth:40MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor		Line	Limit		
1	3890.255	37.41	29.27	4.60	36.91	34.37	54.00	-19.63	HORIZONTAL	Average
2	3890.255	45.79	29.27	4.60	36.91	42.75	74.00	-31.25	HORIZONTAL	Peak
3	4904.948	38.95	30.97	5.55	36.95	38.52	54.00	-15.48	HORIZONTAL	Average
4	4904.948	45.53	30.97	5.55	36.95	45.10	74.00	-28.90	HORIZONTAL	Peak
5	6106.616	37.42	32.63	6.14	37.00	39.19	54.00	-14.81	HORIZONTAL	Average
6	6106.616	44.39	32.63	6.14	37.00	46.16	74.00	-27.84	HORIZONTAL	Peak
7	7356.262	39.68	35.78	6.15	36.92	44.69	54.00	-9.31	HORIZONTAL	Average
8	7356.262	45.78	35.78	6.15	36.92	50.79	74.00	-23.21	HORIZONTAL	Peak
9	9808.497	34.94	37.79	7.00	37.09	42.64	54.00	-11.36	HORIZONTAL	Average
10	9808.497	44.91	37.79	7.00	37.09	52.61	74.00	-21.39	HORIZONTAL	Peak
11	12260.900	35.28	39.15	8.06	37.03	45.46	54.00	-8.54	HORIZONTAL	Average
12	12260.900	44.04	39.15	8.06	37.03	54.22	74.00	-19.78	HORIZONTAL	Peak

Mode:c; Polarization:Vertical; Modulation:n; bandwidth:40MHz; Channel:High

Freq	ReadAntenna		Cable		Preamp	Level	Limit	Over	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor		Line	Limit		
1	3890.255	37.46	29.27	4.60	36.91	34.42	54.00	-19.58	VERTICAL	Average
2	3890.255	46.71	29.27	4.60	36.91	43.67	74.00	-30.33	VERTICAL	Peak
3	4904.151	34.18	30.97	5.55	36.95	33.75	54.00	-20.25	VERTICAL	Average
4	4904.151	44.92	30.97	5.55	36.95	44.49	74.00	-29.51	VERTICAL	Peak
5	5813.812	36.98	32.17	6.07	37.00	38.22	54.00	-15.78	VERTICAL	Average
6	5813.812	44.73	32.17	6.07	37.00	45.97	74.00	-28.03	VERTICAL	Peak
7	7356.015	37.46	35.78	6.15	36.92	42.47	54.00	-11.53	VERTICAL	Average
8	7356.015	45.04	35.78	6.15	36.92	50.05	74.00	-23.95	VERTICAL	Peak
9	9808.540	34.70	37.79	7.00	37.09	42.40	54.00	-11.60	VERTICAL	Average
10	9808.540	44.91	37.79	7.00	37.09	52.61	74.00	-21.39	VERTICAL	Peak
11	12260.350	35.68	39.15	8.06	37.03	45.86	54.00	-8.14	VERTICAL	Average
12	12260.350	45.55	39.15	8.06	37.03	55.73	74.00	-18.27	VERTICAL	Peak

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, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com

8 Appendix

8.1 Appendix 15.247

1.6dB Bandwidth

Test Mode	Test Channel	Ant	OBW[MHz]	EBW[MHz]	Limit	Verdict
11B	2412	Ant1	14.821	10.07	0.5	PASS
11B	2442	Ant1	14.815	10.07	0.5	PASS
11B	2462	Ant1	14.827	10.07	0.5	PASS
11G	2412	Ant1	16.444	16.52	0.5	PASS
11G	2442	Ant1	16.443	16.52	0.5	PASS
11G	2462	Ant1	16.443	16.51	0.5	PASS
11N20SISO	2412	Ant1	17.641	17.68	0.5	PASS
11N20SISO	2442	Ant1	17.644	17.68	0.5	PASS
11N20SISO	2462	Ant1	17.639	17.68	0.5	PASS
11N40SISO	2422	Ant1	35.799	36.35	0.5	PASS
11N40SISO	2442	Ant1	35.798	36.34	0.5	PASS
11N40SISO	2452	Ant1	35.801	36.35	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 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: (86-20) 8207 1443, or email: CN_DocCheck@sgs.com

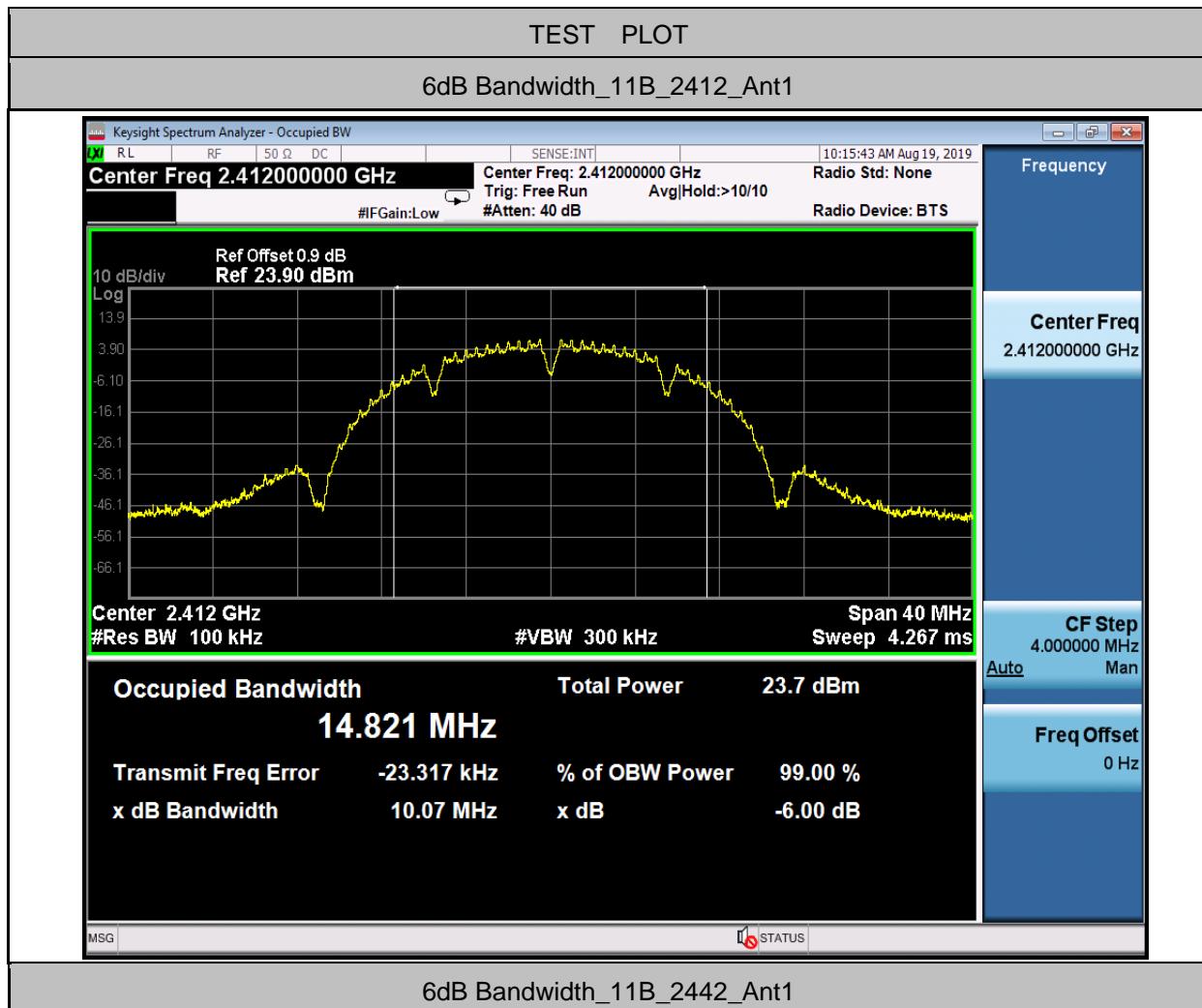


SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services EEC Laboratory

No.196 Kezhi Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com



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: (86-20) 82155555, (86-20) 82075058 or email: CN.DocCheck@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory

No.196 Kechu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com



6dB Bandwidth_11B_2462_Ant1

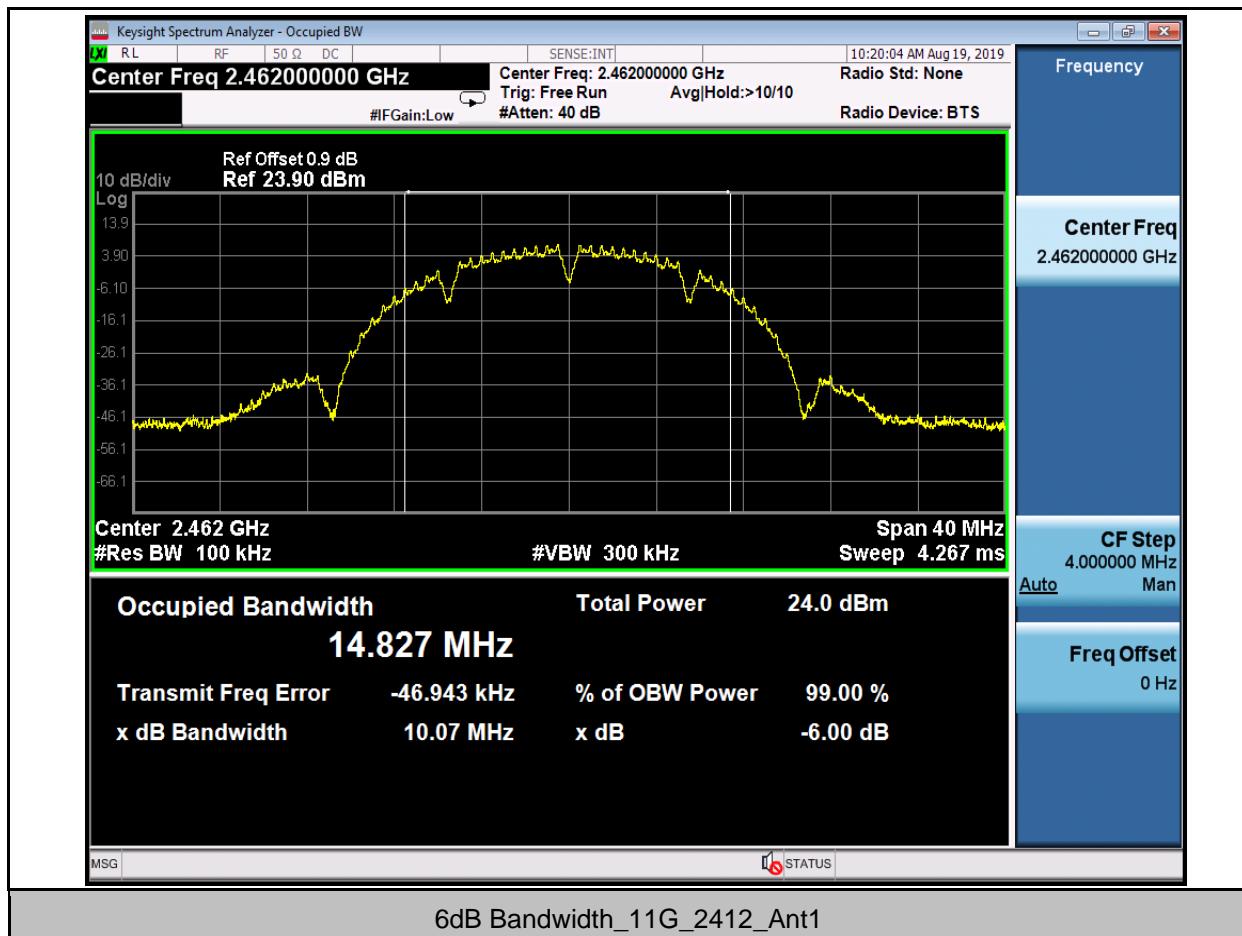
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: (86-20) 82155555, or email: CN_DocCheck@sgs.com



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

No.196 Kezhi 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



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: (86-20) 8207 1443, or email: CN.DocCheck@sgs.com

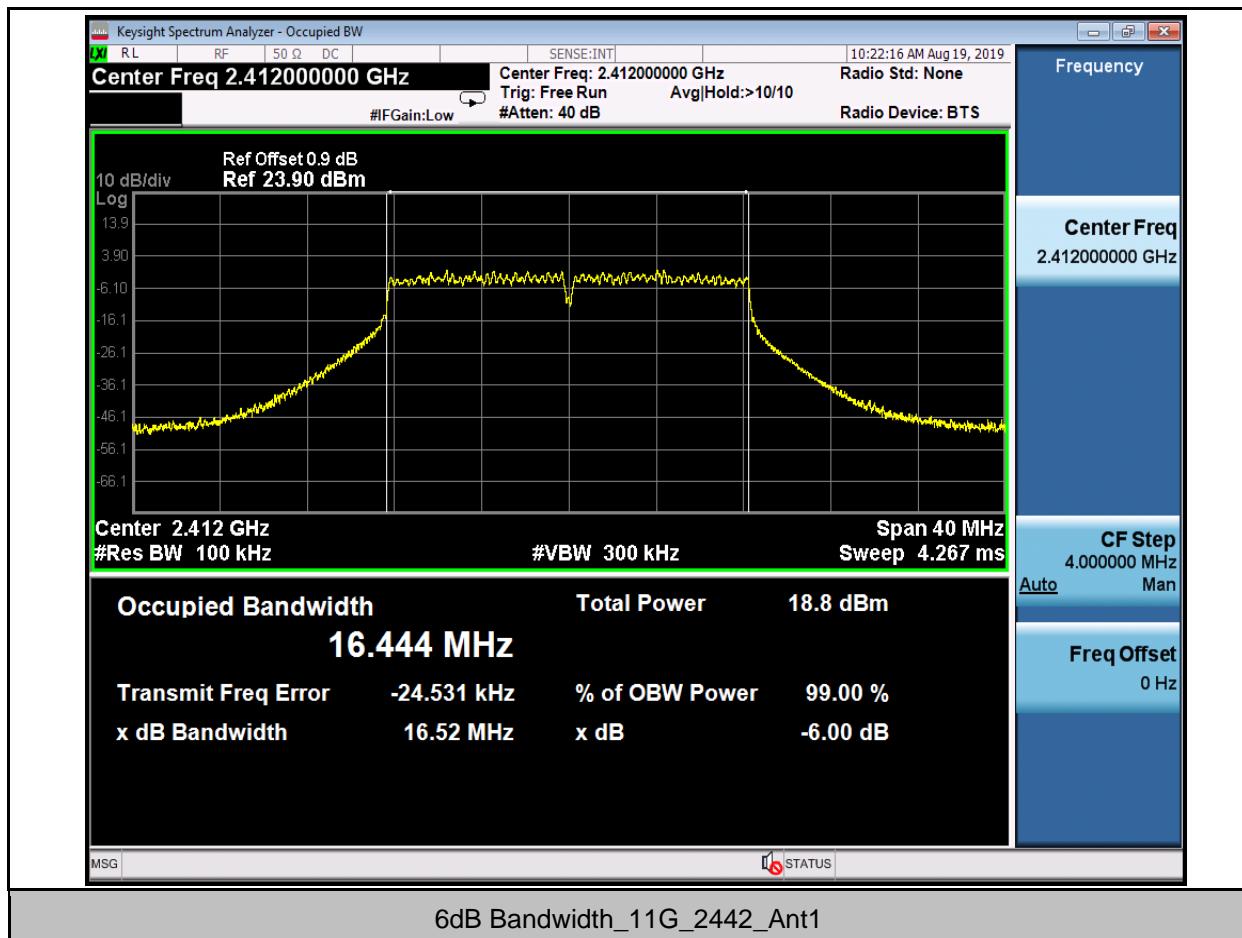


SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory

No.196 Kezhi 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



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.

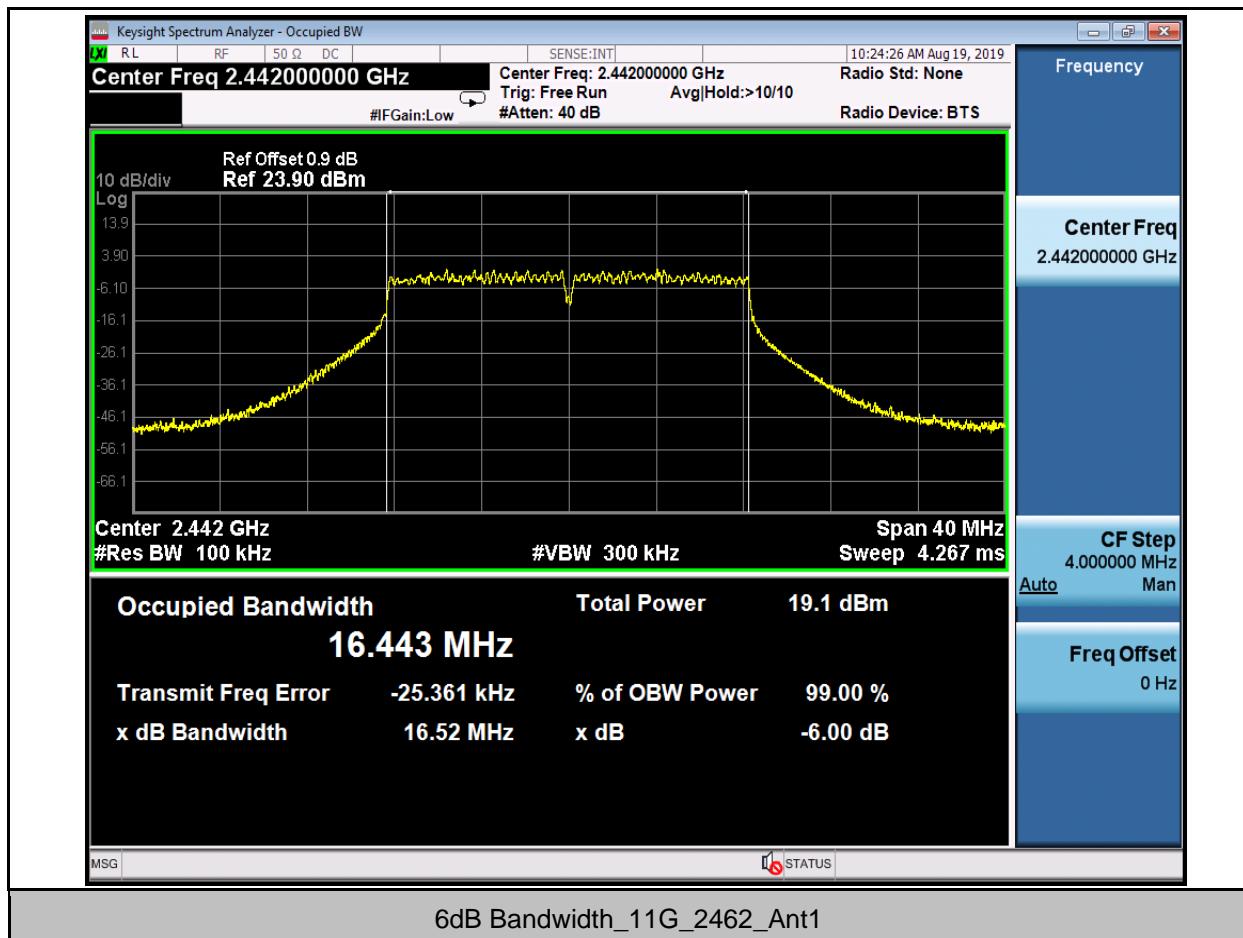
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-20) 8207 1443, or email: CN_DocCheck@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory

No.196 Kechu 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



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: (86-20) 82155555, or email: CN_DocCheck@sgs.com

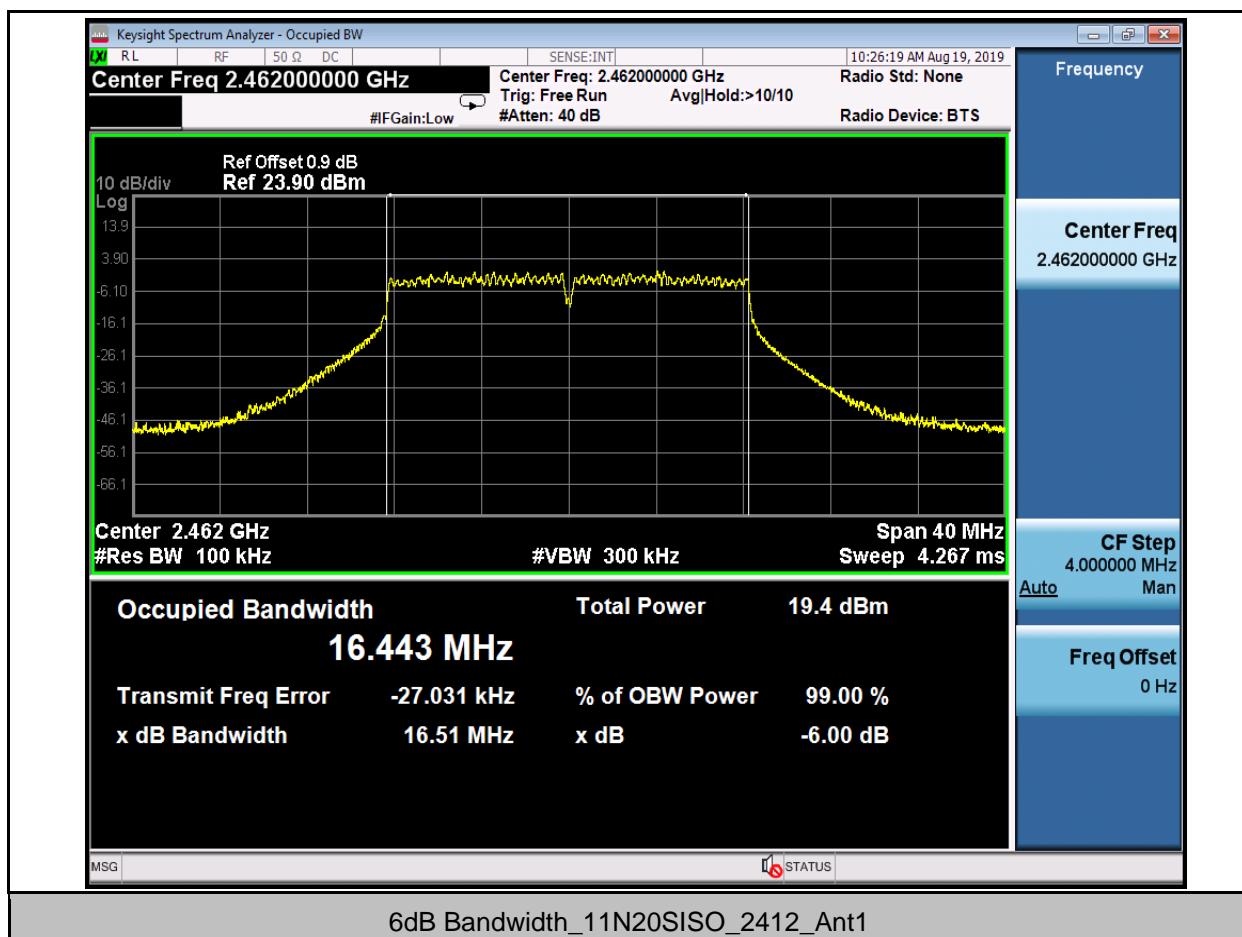


SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory

No.196 Kechu 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



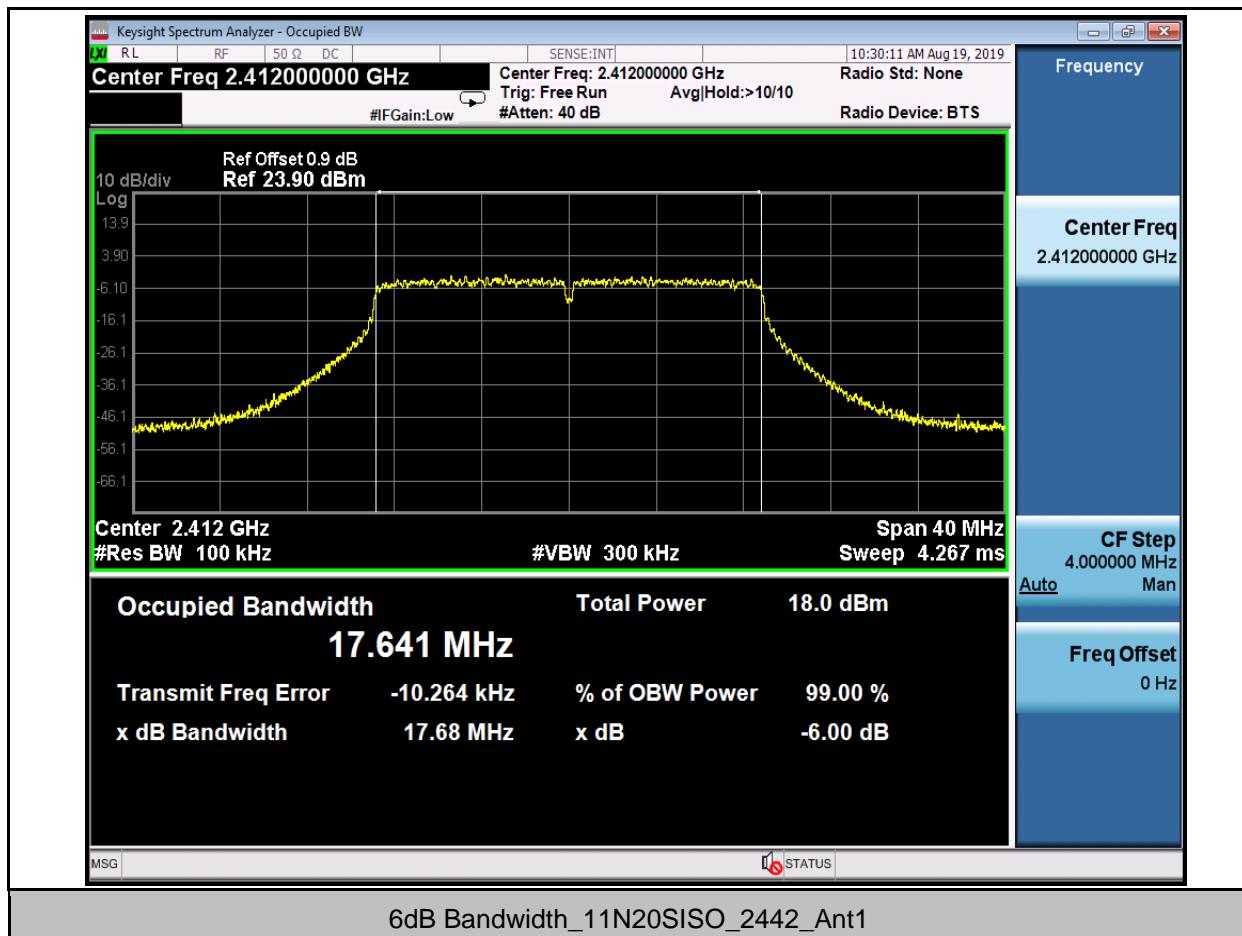
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: (86-20) 82155555, or email: CN_DocCheck@sgs.com



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

No.196 Kechu 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



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: (86-20) 8207 1443, or email: CN_DocCheck@sgs.com

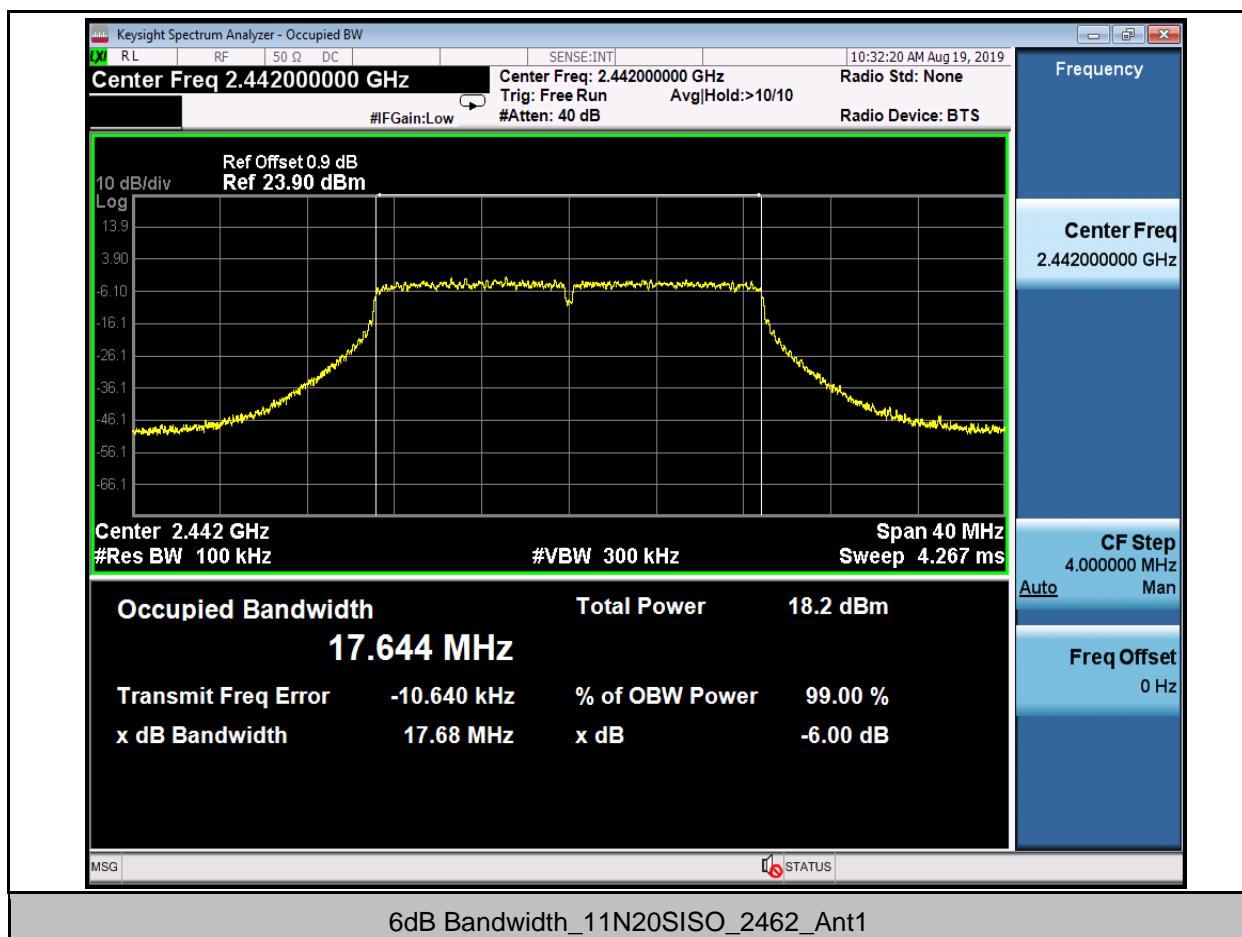


SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch, SGS-CSTC EEC Laboratory

No.196 Kezhi 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



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.

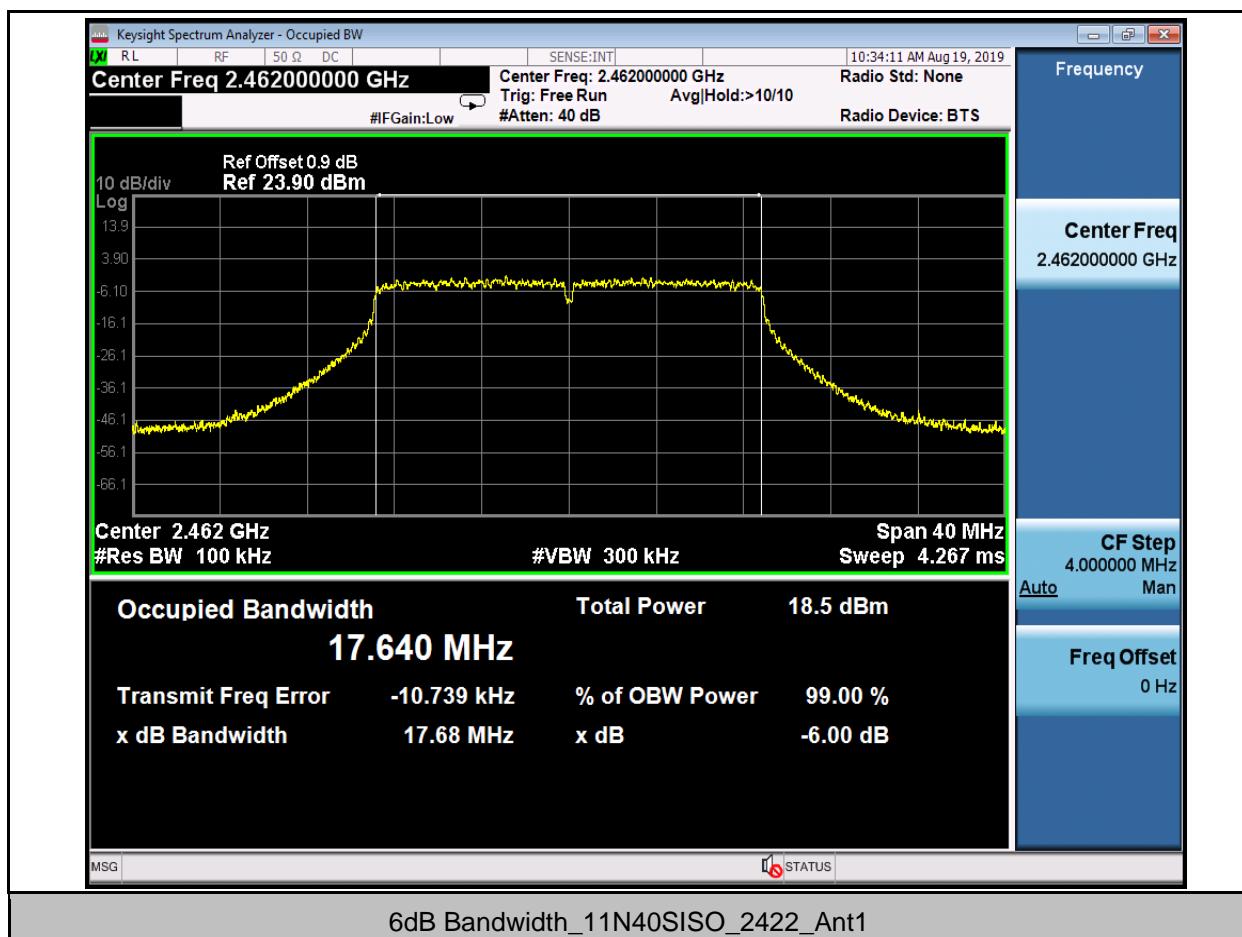
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.DocCheck@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory

No.196 Kezhi 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



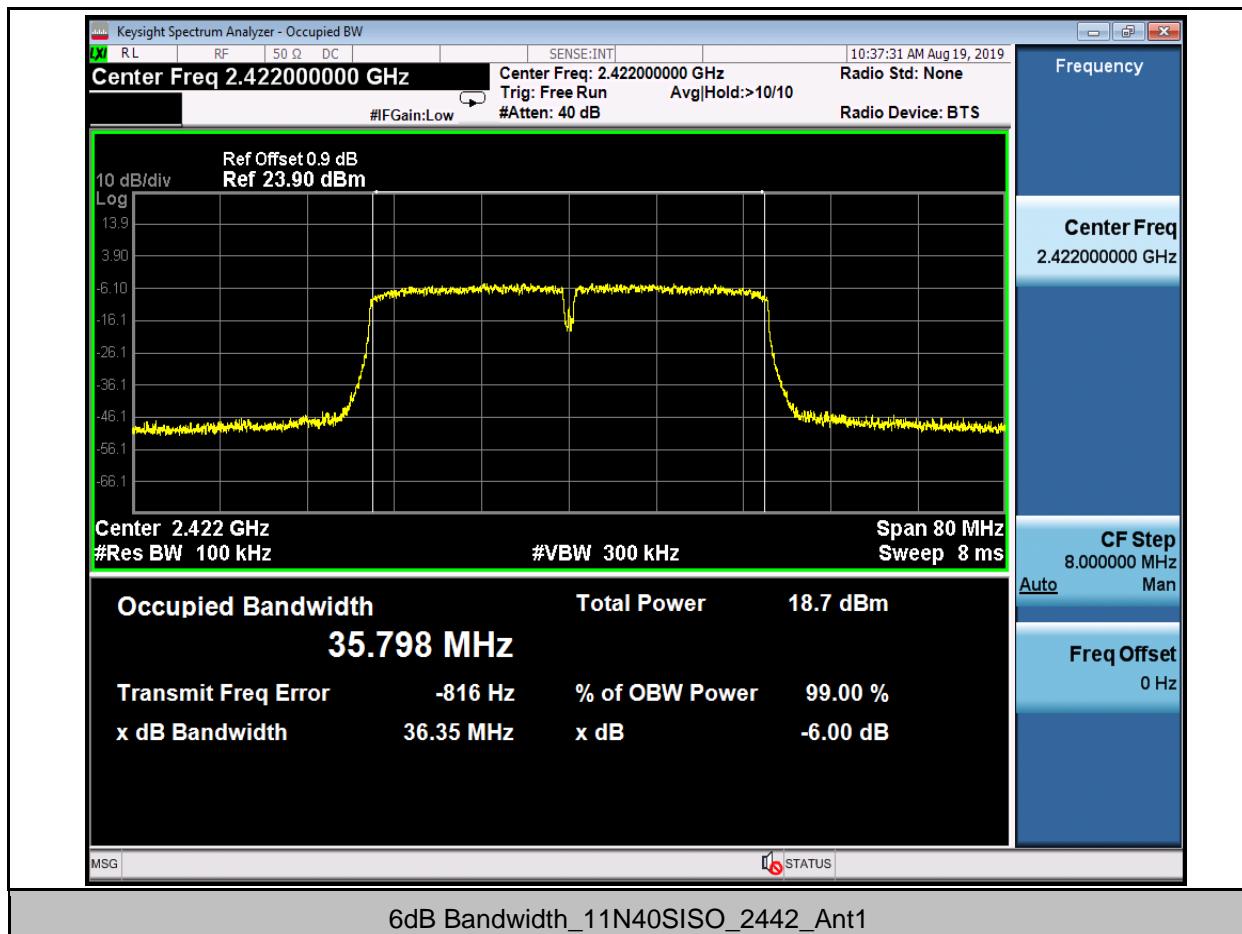
6dB Bandwidth_11N40SISO_2422_Ant1

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, or email: CN_DocCheck@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch, SGS-CSTC EEC Laboratory
No.196 Kezhi Road, Shenzhen 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



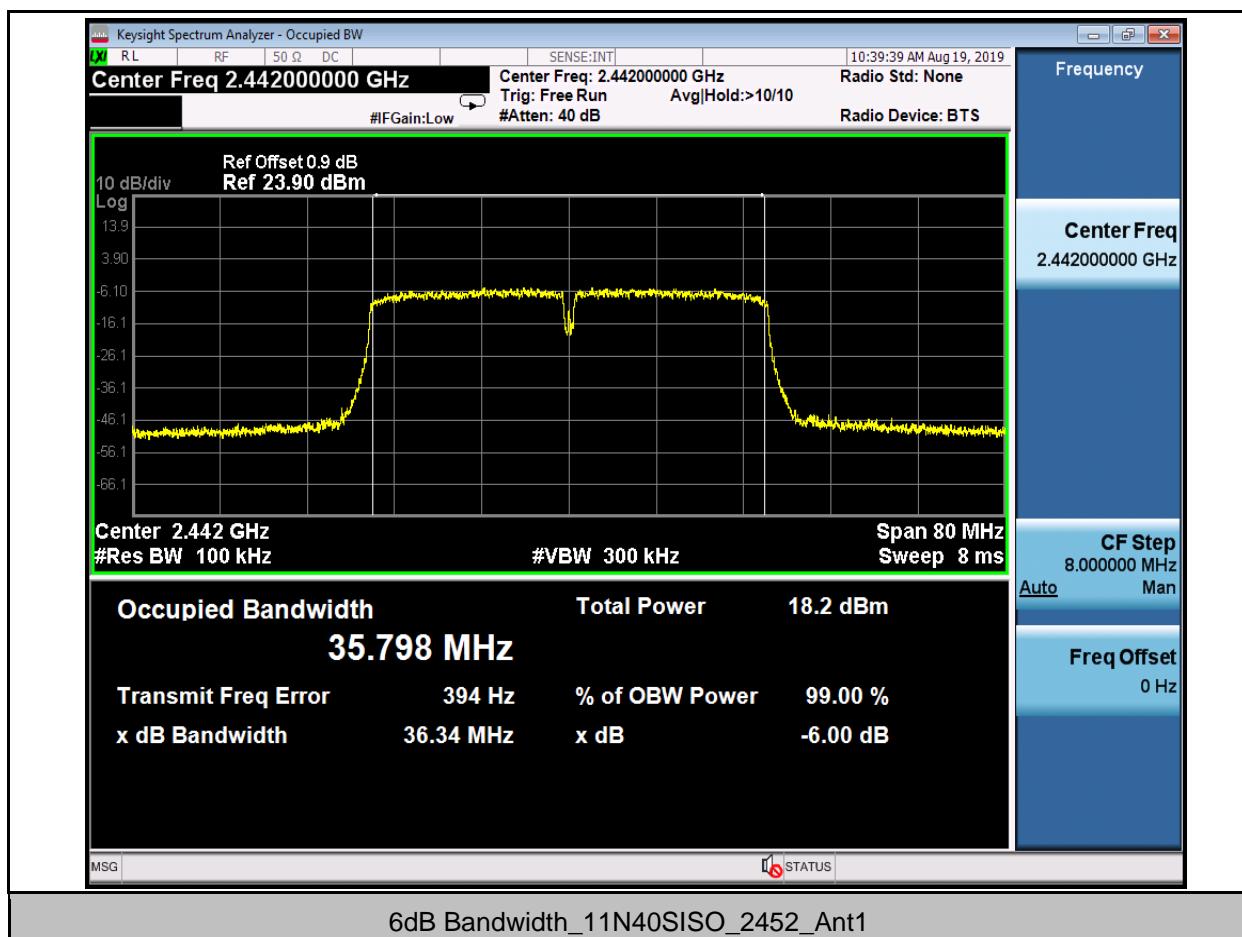
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: (86-20) 8207 1443, or email: CN_DocCheck@sgs.com



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

No.196 Kechu 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



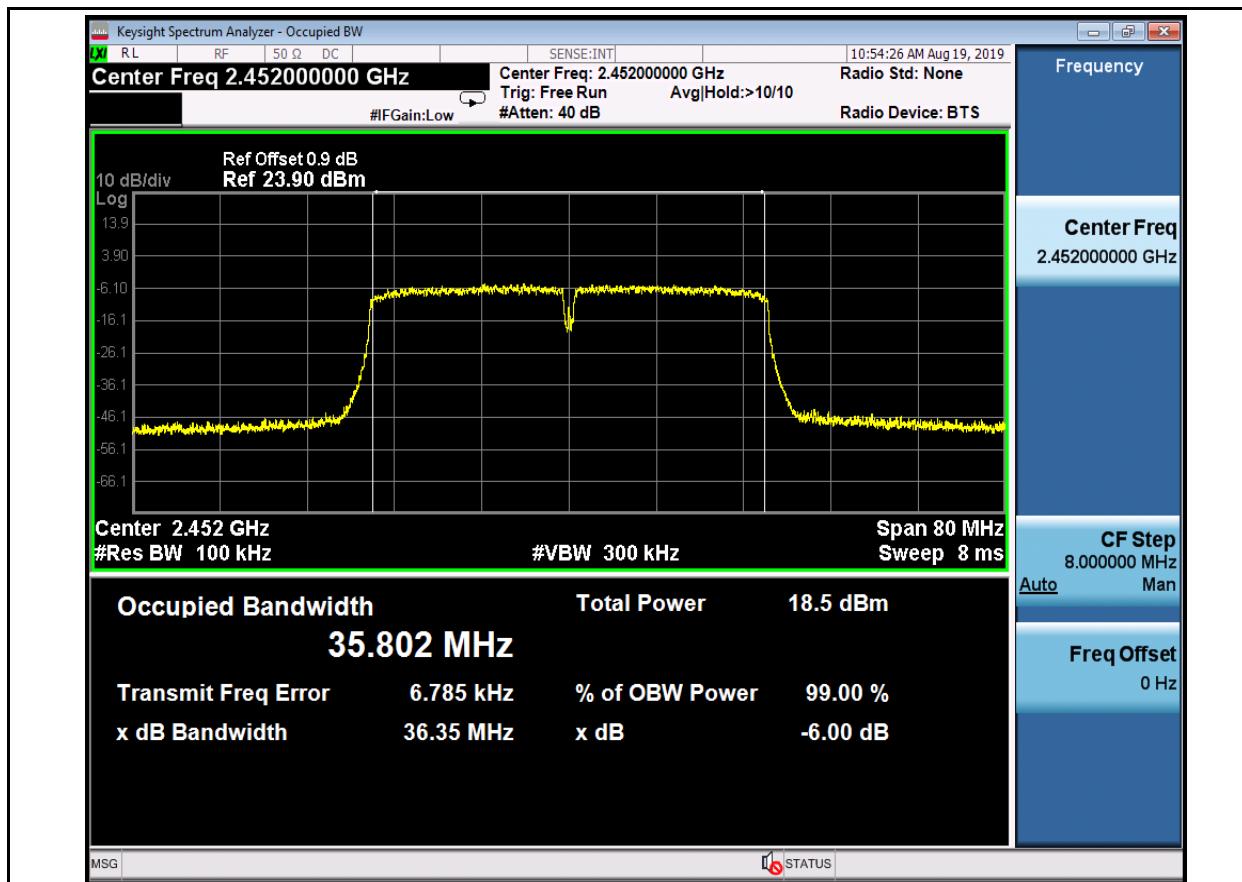
6dB Bandwidth_11N40SISO_2452_Ant1

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: (86-20) 8207 1443, or email: CN_DocCheck@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory
No.196 Kechu 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



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: (86-20) 8207 1443, or email: CN_DocCheck@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory

No.196 Kechu 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

2. Maximum peak conducted output power

Test Mode	Test Channel	Ant	Power[dBm]	Limit[dBm]	Verdict
11B	2412	Ant1	19.52	30	PASS
11B	2442	Ant1	19.64	30	PASS
11B	2462	Ant1	19.75	30	PASS
11G	2412	Ant1	20.23	30	PASS
11G	2442	Ant1	20.52	30	PASS
11G	2462	Ant1	20.76	30	PASS
11N20SISO	2412	Ant1	19.79	30	PASS
11N20SISO	2442	Ant1	19.92	30	PASS
11N20SISO	2462	Ant1	20.16	30	PASS
11N40SISO	2422	Ant1	20.16	30	PASS
11N40SISO	2442	Ant1	19.92	30	PASS
11N40SISO	2452	Ant1	20.17	30	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 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.

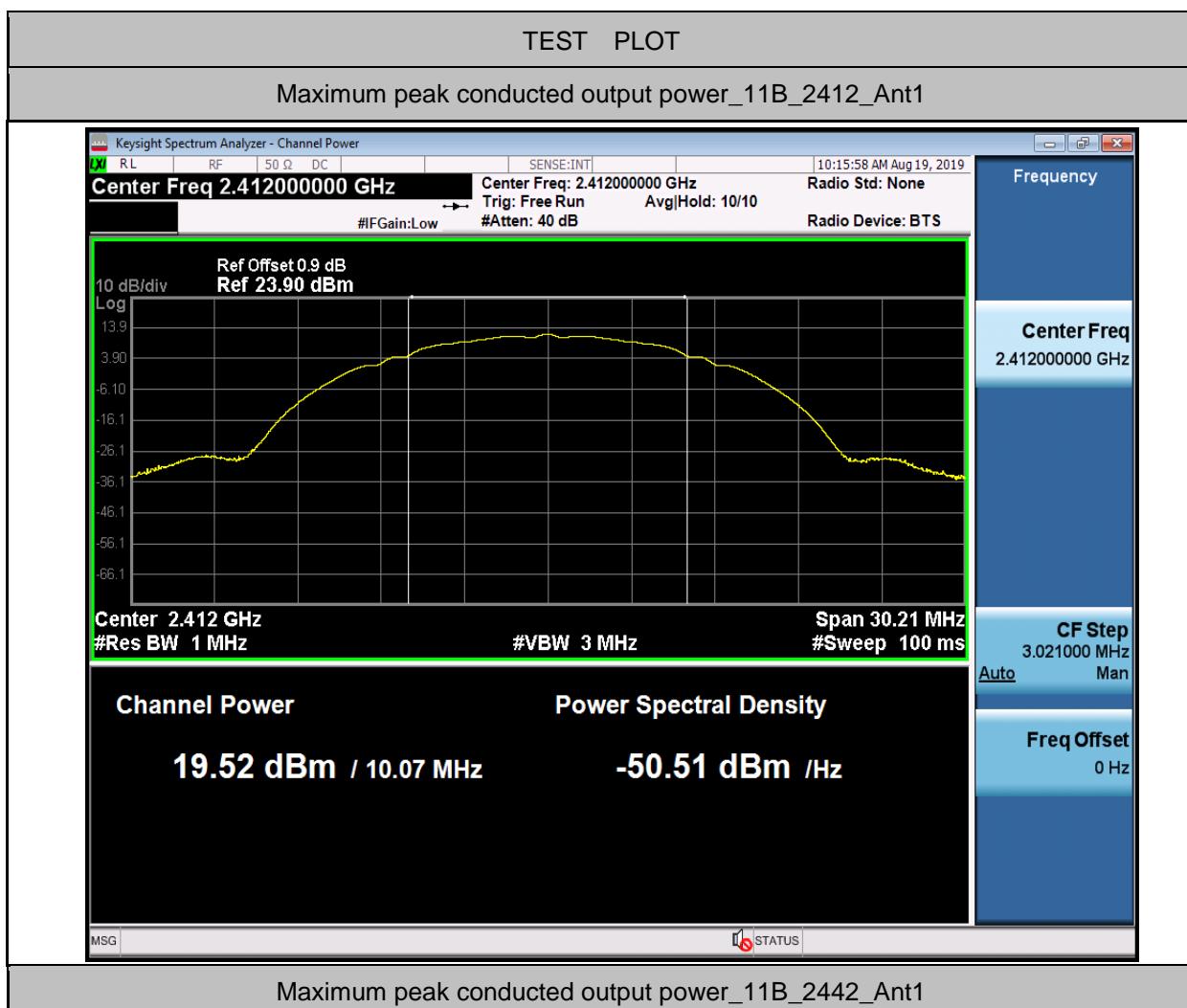
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-20) 8207 1443, or email: CN.DocCheck@sgs.com



No.196 Kezhi Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | (86-20) 82155555 | (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 | (86-20) 82155555 | (86-20) 82075058 | sgs.china@sgs.com



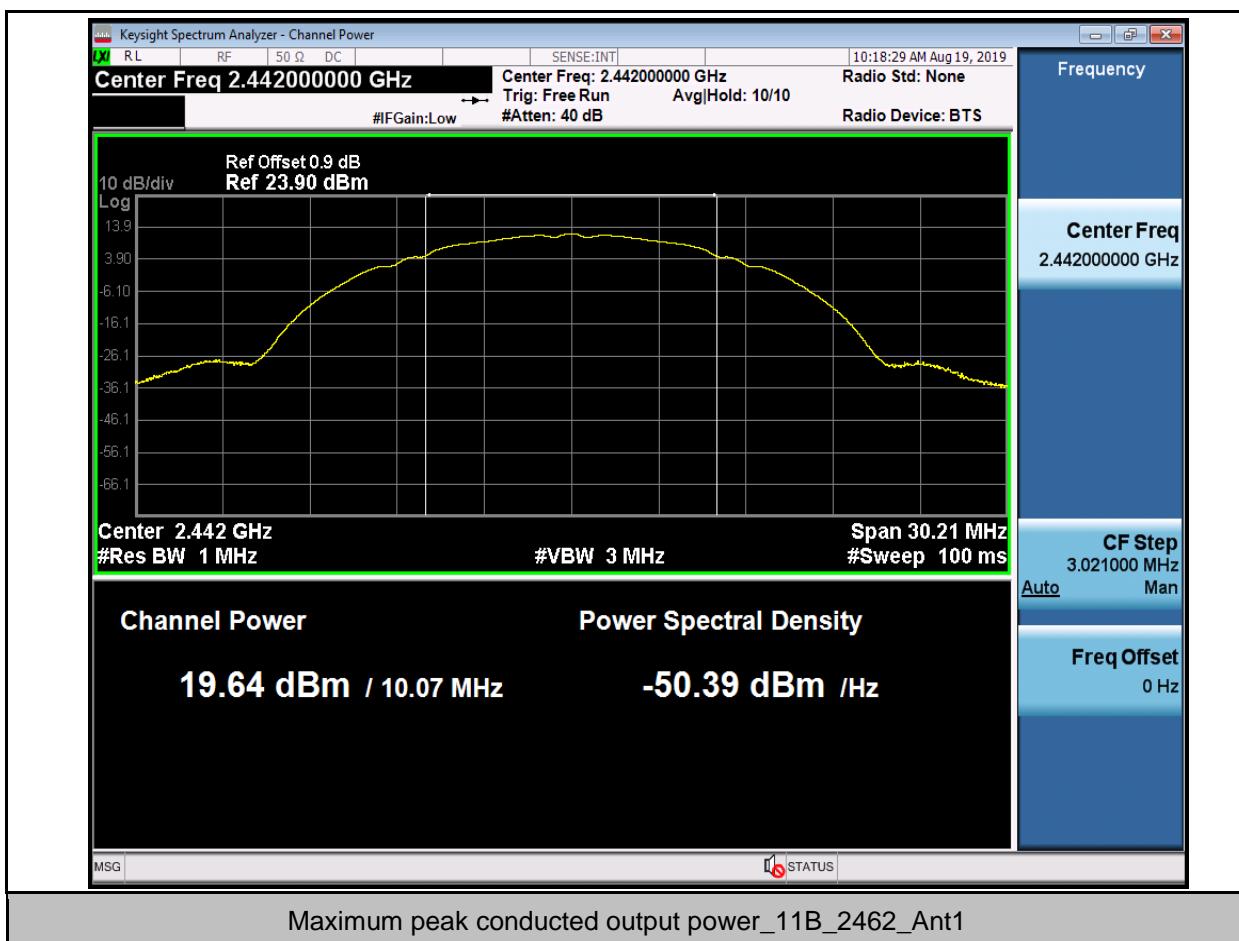
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic 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: (86-20) 8207 1443, or email: CN.DocCheck@sgs.com



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

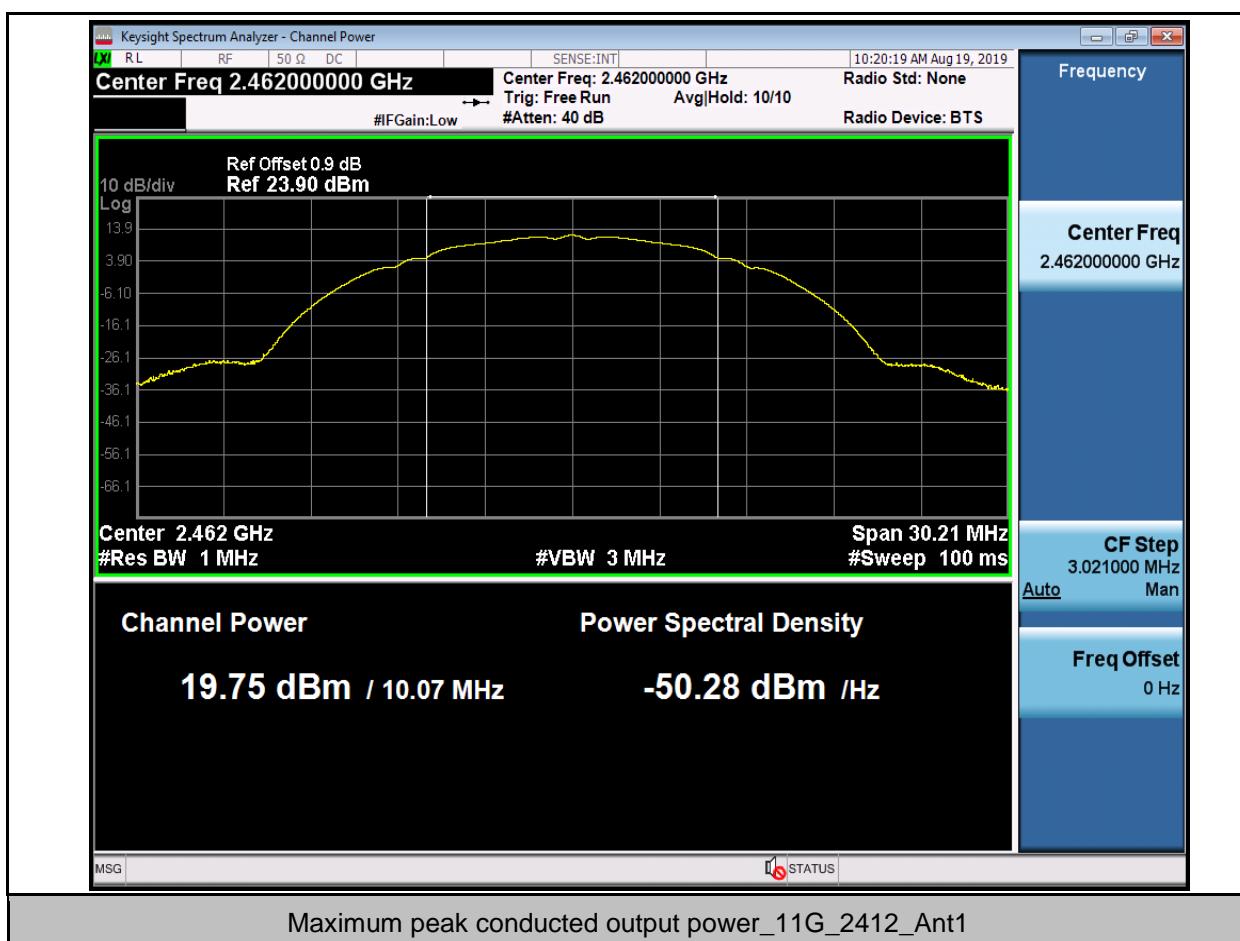
No.196 Kechu Road, Shenzhen Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 | t (86-20) 82155555 | f (86-20) 82075058 | www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 | 邮编: 510663 | t (86-20) 82155555 | f (86-20) 82075058 | sgs.china@sgs.com



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.

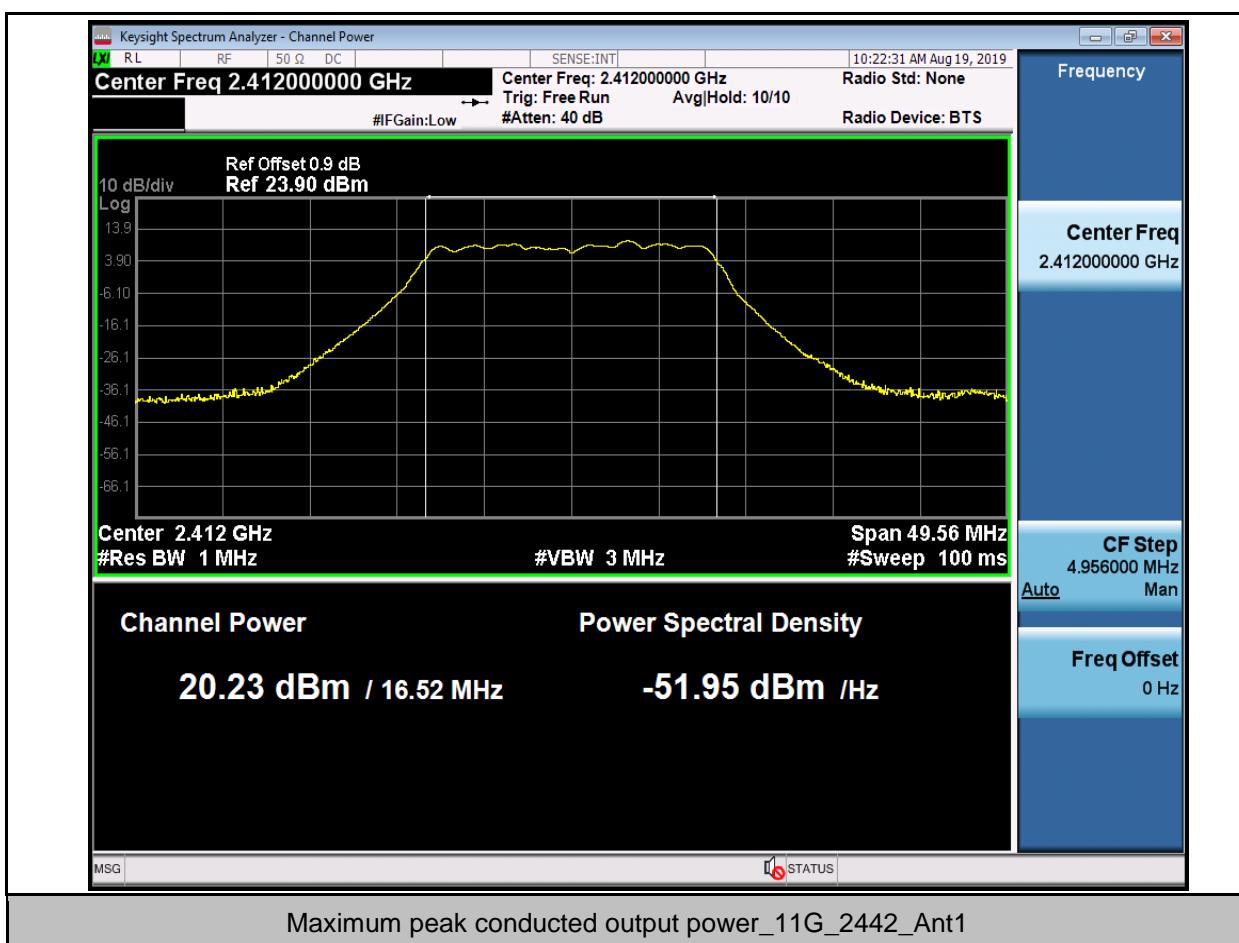
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-20) 8207 1443, or email: CN.DocCheck@sgs.com

No.196 Kezhi 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



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.

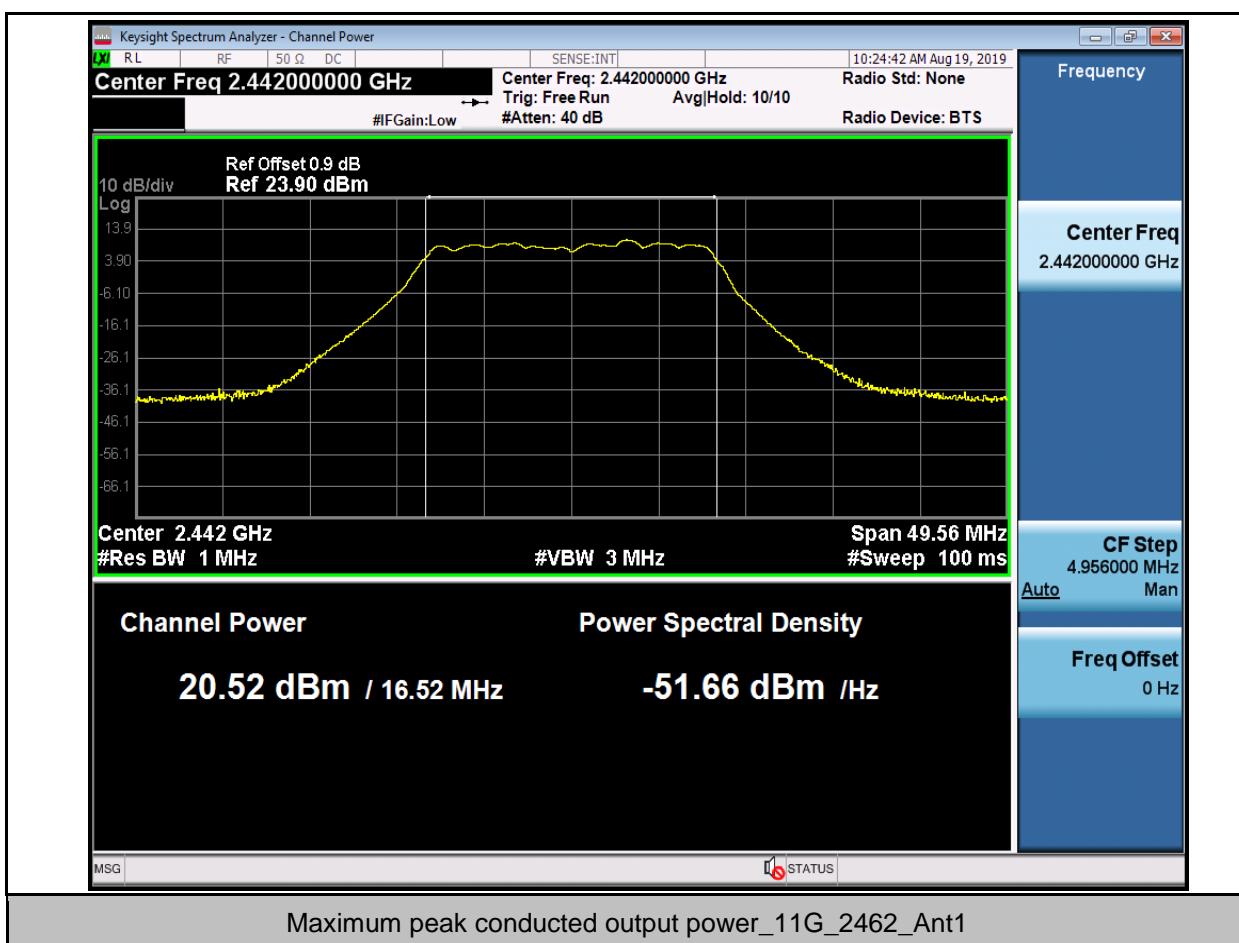
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-20) 8207 1443, or email: CN.DocCheck@sgs.com



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: (86-20) 8207 1443, or email: CN.DocCheck@sgs.com

SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory
No.196 Kezhi 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



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: (86-20) 8207 1443, or email: CN_DocCheck@sgs.com



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Inspection & Testing Services Laboratory

No.196 Kechu 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