

Report No.: SZCR210602131701

Page: 1 of 17

TEST REPORT

Application No.: SZCR2106021317AT

Applicant: Quectel Wireless Solutions Co., Ltd.

Address of Applicant: Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin

Road, Minhang District, Shanghai,

China 200233

Manufacturer: Quectel Wireless Solutions Co., Ltd.

Address of Manufacturer: Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin

Road, Minhang District, Shanghai,

Equipment Under Test (EUT):

EUT Name: LTE Module **Model No.:** EM05-G

FCC ID: XMR2021EM05G

Trade Mark: Quectel

Standard(s): 47 CFR Part 90 subpart S

Date of Receipt: 2021-06-01

Date of Test: 2021-06-02 to 2021-06-08

Date of Issue: 2021-06-09

Test Result: Pass*

Keny Xu EMC Laboratory Manager



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

Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, remail: VD Dockheck-Ress.com.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳•科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

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



Report No.: SZCR210602131701

Page: 2 of 17

Revision Record								
Version Chapter Date Modifier								
01		2021-06-09		Original				

Authorized for issue by:			
	Leslai		
	Leo Lai/Project Engineer	-	
	Exic Fu		
	Eric Fu/Reviewer	-	



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

Co., Ltd. No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国・深圳・科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZCR210602131701

Page: 3 of 17

Test Summary

Radio Spectrum Matter Part								
Item	Standard	Method	Requirement	Result				
Field strength of spurious radiation	47 CFR Part 90	ANSI C63.26, KDB 971168 D01 v03	§ 90.691	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@sas.com

Co., Ltd. No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国・深圳・科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZCR210602131701

Page: 4 of 17

Contents

			i age
1	CO	VER PAGE	1
2	TES	ST SUMMARY	3
3	CON	NTENTS	4
4	GEN	NERAL INFORMATION	5
	4.1	DETAILS OF E.U.T.	5
	4.2	DESCRIPTION OF SUPPORT UNITS	
	4.3	MEASUREMENT UNCERTAINTY	
	4.4	TEST LOCATION	
	4.5	TEST FACILITY	
	4.6	DEVIATION FROM STANDARDS	
	4.7	ABNORMALITIES FROM STANDARD CONDITIONS	6
5	EQI	JIPMENT LIST	7
6	RAI	DIO SPECTRUM MATTER TEST RESULTS	8
_	6.1	FIELD STRENGTH OF SPURIOUS RADIATION	
	0	1 E.U.T. Operation	
		2 Test Setup Diagram	
		3 Measurement Procedure and Data	
7	TES	ST SETUP PHOTO	17
8	E117	CONSTRUCTIONAL DETAILS (EUT PHOTOS)	17
U	LUI	CONSTITUTE DETAILS (LUT FITOTOS)	I <i>1</i>



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@sas.com

中国・深圳・科技园中区M-10栋一号厂房

Co., Ltd. No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



Report No.: SZCR210602131701

Page: 5 of 17

General Information

4.1 Details of E.U.T.

Power supply:	DC 3.87V by internal rechargeable battery which can be charged by AC/DC adapter
FDD Band 26:	814-849MHz
Antenna Type:	ANT1: Dipole Antenna, ANT2: PIFA Antenna

4.2 Description of Support Units

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

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Band Edge Compliance	0.75dB
Bandwidth	3%
Effective (Isotropic) Radiated Power Output Data	0.75dB
Field strength of spurious radiation	4.5dB below 1GHz; 4.8dB above 1GHz
Frequency stability	7.25 x 10-8
Peak-Average Ratio	0.75dB
Spurious emissions at antenna terminals	0.75dB

Remark:

The Ulab (lab Uncertainty) is less than Ucispr (CISPR Uncertainty), so the test results

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.



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.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594

www.sgsgroup.com.cn sgs.china@sgs.com



Report No.: SZCR210602131701

Page: 6 of 17

4.4 Test Location

All tests were performed at:

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

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.5 Test Facility

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

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

VCCI

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC -Designation Number: CN1178

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-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 imspection report & certificate, please contact us at telephone: (86-75) 8307 1443, Attention: To check the authenticity of testing imspection report & certificate, please contact us at telephone: (86-75) 8307 1443,

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZCR210602131701

Page: 7 of 17

Equipment List 5

Field strength of spurious radiation								
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2021-03-26	2024-03-25			
EXA Signal Analyzer (10Hz-44GHz)	Agilent Technologies Inc	N9010A	SEM004-12	2021-02-01	2022-01-31			
Horn Antenna (800MHz-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2021-04-14	2024-04-13			
Horn Antenna (15-40GHz)	Schwarzbeck	BBHA 9170	SEM003-15	2020-11-14	2023-11-13			
Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	SEM004-11	2020-09-23	2021-09-22			
Pre-amplifier (26- 40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2021-03-24	2022-03-23			
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A			
Coaxial Cable	SGS	N/A	SEM026-01	2020-07-10	2021-07-09			

General used equipment								
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date			
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	ZJ1-2B	SEM002-04	2020-09-15	2021-09-14			
Humidity/ Temperature Indicator	Mingle	N/A	SEM002-08	2020-09-15	2021-09-14			
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2021-03-30	2022-03-29			



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@sas.com

Co., Ltd. No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国・深圳・科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



Report No.: SZCR210602131701

Page: 8 of 17

Radio Spectrum Matter Test Results 6

6.1 Field strength of spurious radiation

Test Requirement

Test Method: ANSI C63.26, KDB 971168 D01 v03

Limit:

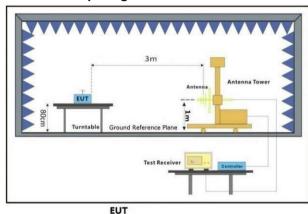
For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation; frequency greater than 37.5KHz, ≤ -13dBm(LTE band 26a)

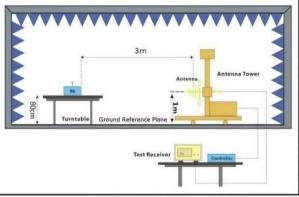
6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C Humidity: 49.3 % RH Atmospheric Pressure: 1050 mbar

6.1.2 Test Setup Diagram





Substiute Antenna+Signal Generator

6.1.3 Measurement Procedure and Data



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.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594

www.sgsgroup.com.cn sgs.china@sgs.com



Report No.: SZCR210602131701

Page: 9 of 17

ANT1, LTE Band 26 (814 to 824MHz), 1.4M

Low

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1628.14	-57.96	-13	-44.96	-61.29	0.52	6	Horizontal	Pass
2442.21	-58.14	-13	-45.14	-61.26	0.53	5.8	Horizontal	Pass
3256.28	-51.07	-13	-38.07	-54.47	0.65	6.2	Horizontal	Pass
1628.14	-59.45	-13	-46.45	-62.78	0.52	6	Vertical	Pass
2442.21	-54.84	-13	-41.84	-57.96	0.53	5.8	Vertical	Pass
3256.28	-48.35	-13	-35.35	-51.75	0.65	6.2	Vertical	Pass

Frequenc y (MHz)	ERP(d Bm)	Limit(dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenn a Gain (dBi)	Polarization (H/V)	Result
1636.74	-60.53	-13	-47.53	-63.86	0.52	6	Horizontal	Pass
2455.11	-57.85	-13	-44.85	-60.97	0.53	5.8	Horizontal	Pass
3273.48	-46.57	-13	-33.57	-49.97	0.65	6.2	Horizontal	Pass
1636.74	-58.51	-13	-45.51	-61.84	0.52	6	Vertical	Pass
2455.11	-53.28	-13	-40.28	-56.4	0.53	5.8	Vertical	Pass
3273.48	-49.48	-13	-36.48	-52.88	0.65	6.2	Vertical	Pass

Frequenc y (MHz)	ERP(d Bm)	Limit(dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenn a Gain (dBi)	Polarization (H/V)	Result
1645.34	-60.89	-13	-47.89	-64.22	0.52	6	Horizontal	Pass
2468.01	-57.68	-13	-44.68	-60.8	0.53	5.8	Horizontal	Pass
3290.68	-53.6	-13	-40.6	-57	0.65	6.2	Horizontal	Pass
1645.34	-58.68	-13	-45.68	-62.01	0.52	6	Vertical	Pass
2468.01	-57.25	-13	-44.25	-60.37	0.53	5.8	Vertical	Pass
3290.68	-49.95	-13	-36.95	-53.35	0.65	6.2	Vertical	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@sas.com

Co., Ltd. No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZCR210602131701

Page: 10 of 17

LTE Band 26 (814 to 824MHz), 3M

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1628.3	-61.99	-13	-48.99	-65.32	0.52	6	Horizontal	Pass
2442.45	-58.58	-13	-45.58	-61.7	0.53	5.8	Horizontal	Pass
3256.6	-49.96	-13	-36.96	-53.36	0.65	6.2	Horizontal	Pass
1628.3	-60.58	-13	-47.58	-63.91	0.52	6	Vertical	Pass
2442.45	-54.38	-13	-41.38	-57.5	0.53	5.8	Vertical	Pass
3256.6	-49.59	-13	-36.59	-52.99	0.65	6.2	Vertical	Pass

Frequenc y (MHz)	ERP(d Bm)	Limit(dB m)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenn a Gain (dBi)	Polarization (H/V)	Result
1635.3	-60.59	-13	-47.59	-63.92	0.52	6	Horizontal	Pass
2452.95	-59.31	-13	-46.31	-62.43	0.53	5.8	Horizontal	Pass
3270.6	-50.46	-13	-37.46	-53.86	0.65	6.2	Horizontal	Pass
1635.3	-60.5	-13	-47.5	-63.83	0.52	6	Vertical	Pass
2452.95	-54.73	-13	-41.73	-57.85	0.53	5.8	Vertical	Pass
3270.6	-50.55	-13	-37.55	-53.95	0.65	6.2	Vertical	Pass

Frequenc y (MHz)	ERP(d Bm)	Limit(dB m)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenn a Gain (dBi)	Polarization (H/V)	Result
1642.3	-62.76	-13	-49.76	-66.09	0.52	6	Horizontal	Pass
2463.45	-56.71	-13	-43.71	-59.83	0.53	5.8	Horizontal	Pass
3284.6	-53.35	-13	-40.35	-56.75	0.65	6.2	Horizontal	Pass
1642.3	-61.9	-13	-48.9	-65.23	0.52	6	Vertical	Pass
2463.45	-58.67	-13	-45.67	-61.79	0.53	5.8	Vertical	Pass
3284.6	-54.04	-13	-41.04	-57.44	0.65	6.2	Vertical	Pass



Co., Ltd. No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZCR210602131701

Page: 11 of 17

LTE Band 26 (814 to 824MHz), 5M

Low

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1628.5	-63.34	-13	-50.34	-66.67	0.52	6	Horizontal	Pass
2442.75	-60.81	-13	-47.81	-63.93	0.53	5.8	Horizontal	Pass
3257	-54.75	-13	-41.75	-58.15	0.65	6.2	Horizontal	Pass
1628.5	-61.29	-13	-48.29	-64.62	0.52	6	Vertical	Pass
2442.75	-58.78	-13	-45.78	-61.9	0.53	5.8	Vertical	Pass
3257	-52.72	-13	-39.72	-56.12	0.65	6.2	Vertical	Pass

Frequenc y (MHz)	ERP(d Bm)	Limit(dB m)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenn a Gain (dBi)	Polarization (H/V)	Result
1633.5	-62.23	-13	-49.23	-65.56	0.52	6	Horizontal	Pass
2450.25	-57.91	-13	-44.91	-61.03	0.53	5.8	Horizontal	Pass
3267	-52.25	-13	-39.25	-55.65	0.65	6.2	Horizontal	Pass
1633.5	-58.12	-13	-45.12	-61.45	0.52	6	Vertical	Pass
2450.25	-54.44	-13	-41.44	-57.56	0.53	5.8	Vertical	Pass
3267	-48.37	-13	-35.37	-51.77	0.65	6.2	Vertical	Pass

Frequenc y (MHz)	ERP(d Bm)	Limit(dB m)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenn a Gain (dBi)	Polarization (H/V)	Result
1638.5	-60.66	-13	-47.66	-63.99	0.52	6	Horizontal	Pass
2457.75	-58.76	-13	-45.76	-61.88	0.53	5.8	Horizontal	Pass
3277	-53.31	-13	-40.31	-56.71	0.65	6.2	Horizontal	Pass
1638.5	-59.17	-13	-46.17	-62.5	0.52	6	Vertical	Pass
2457.75	-57.7	-13	-44.7	-60.82	0.53	5.8	Vertical	Pass
3277	-49.89	-13	-36.89	-53.29	0.65	6.2	Vertical	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@sas.com

Co., Ltd. No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZCR210602131701

Page: 12 of 17

LTE Band 26 (814 to 824MHz), 10M

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1629	-63.05	-13	-50.05	-66.38	0.52	6	Horizontal	Pass
2443.5	-58.77	-13	-45.77	-61.89	0.53	5.8	Horizontal	Pass
3258	-50.07	-13	-37.07	-53.47	0.65	6.2	Horizontal	Pass
1629	-58.24	-13	-45.24	-61.57	0.52	6	Horizontal	Pass
2443.5	-53.79	-13	-40.79	-56.91	0.53	5.8	Vertical	Pass
3258	-50.39	-13	-37.39	-53.79	0.65	6.2	Vertical	Pass
1629	-63.05	-13	-50.05	-66.38	0.52	6	Vertical	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@sas.com

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZCR210602131701

Page: 13 of 17

ANT2, LTE Band 26 (814 to 824MHz), 1.4M

Low

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1628.14	-59.97	-13	-46.97	-63.3	0.52	6	Horizontal	Pass
2442.21	-53.23	-13	-40.23	-56.35	0.53	5.8	Horizontal	Pass
3256.28	-44.61	-13	-31.61	-48.01	0.65	6.2	Horizontal	Pass
1628.14	-62.08	-13	-49.08	-65.41	0.52	6	Vertical	Pass
2442.21	-58.31	-13	-45.31	-61.43	0.53	5.8	Vertical	Pass
3256.28	-52.52	-13	-39.52	-55.92	0.65	6.2	Vertical	Pass

Frequenc y (MHz)	ERP(d Bm)	Limit(dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenn a Gain (dBi)	Polarization (H/V)	Result
1636.74	-60.17	-13	-47.17	-63.5	0.52	6	Horizontal	Pass
2455.11	-53.71	-13	-40.71	-56.83	0.53	5.8	Horizontal	Pass
3273.48	-51.12	-13	-38.12	-54.52	0.65	6.2	Horizontal	Pass
1636.74	-62.04	-13	-49.04	-65.37	0.52	6	Vertical	Pass
2455.11	-55.56	-13	-42.56	-58.68	0.53	5.8	Vertical	Pass
3273.48	-50.84	-13	-37.84	-54.24	0.65	6.2	Vertical	Pass

Frequenc y (MHz)	ERP(d Bm)	Limit(dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenn a Gain (dBi)	Polarization (H/V)	Result
1645.34	-60.7	-13	-47.7	-64.03	0.52	6	Horizontal	Pass
2468.01	-48.12	-13	-35.12	-51.24	0.53	5.8	Horizontal	Pass
3290.68	-48.65	-13	-35.65	-52.05	0.65	6.2	Horizontal	Pass
1645.34	-60.15	-13	-47.15	-63.48	0.52	6	Vertical	Pass
2468.01	-56.46	-13	-43.46	-59.58	0.53	5.8	Vertical	Pass
3290.68	-53.22	-13	-40.22	-56.62	0.65	6.2	Vertical	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@sas.com

Co., Ltd. No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZCR210602131701

Page: 14 of 17

LTE Band 26 (814 to 824MHz), 3M

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1628.3	-60.8	-13	-47.8	-64.13	0.52	6	Horizontal	Pass
2442.45	-53.88	-13	-40.88	-57	0.53	5.8	Horizontal	Pass
3256.6	-49.48	-13	-36.48	-52.88	0.65	6.2	Horizontal	Pass
1628.3	-62.13	-13	-49.13	-65.46	0.52	6	Vertical	Pass
2442.45	-54.3	-13	-41.3	-57.42	0.53	5.8	Vertical	Pass
3256.6	-47.27	-13	-34.27	-50.67	0.65	6.2	Vertical	Pass

Frequenc y (MHz)	ERP(d Bm)	Limit(dB m)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenn a Gain (dBi)	Polarization (H/V)	Result
1635.3	-58.88	-13	-45.88	-62.21	0.52	6	Horizontal	Pass
2452.95	-51.03	-13	-38.03	-54.15	0.53	5.8	Horizontal	Pass
3270.6	-51.64	-13	-38.64	-55.04	0.65	6.2	Horizontal	Pass
1635.3	-62.41	-13	-49.41	-65.74	0.52	6	Vertical	Pass
2452.95	-57.44	-13	-44.44	-60.56	0.53	5.8	Vertical	Pass
3270.6	-54.83	-13	-41.83	-58.23	0.65	6.2	Vertical	Pass

Frequenc y (MHz)	ERP(d Bm)	Limit(dB m)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenn a Gain (dBi)	Polarization (H/V)	Result
1642.3	-61.57	-13	-48.57	-64.9	0.52	6	Horizontal	Pass
2463.45	-53.68	-13	-40.68	-56.8	0.53	5.8	Horizontal	Pass
3284.6	-53.46	-13	-40.46	-56.86	0.65	6.2	Horizontal	Pass
1642.3	-61.64	-13	-48.64	-64.97	0.52	6	Vertical	Pass
2463.45	-54.79	-13	-41.79	-57.91	0.53	5.8	Vertical	Pass
3284.6	-49.98	-13	-36.98	-53.38	0.65	6.2	Vertical	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@sas.com

Co., Ltd. No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZCR210602131701

Page: 15 of 17

LTE Band 26 (814 to 824MHz), 5M

Low

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1628.5	-61.6	-13	-48.6	-64.93	0.52	6	Horizontal	Pass
2442.75	-55.44	-13	-42.44	-58.56	0.53	5.8	Horizontal	Pass
3257	-50.93	-13	-37.93	-54.33	0.65	6.2	Horizontal	Pass
1628.5	-62.16	-13	-49.16	-65.49	0.52	6	Vertical	Pass
2442.75	-57.89	-13	-44.89	-61.01	0.53	5.8	Vertical	Pass
3257	-48.94	-13	-35.94	-52.34	0.65	6.2	Vertical	Pass

Frequenc y (MHz)	ERP(d Bm)	Limit(dB m)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenn a Gain (dBi)	Polarization (H/V)	Result
1633.5	-61.31	-13	-48.31	-64.64	0.52	6	Horizontal	Pass
2450.25	-54.96	-13	-41.96	-58.08	0.53	5.8	Horizontal	Pass
3267	-52.13	-13	-39.13	-55.53	0.65	6.2	Horizontal	Pass
1633.5	-61.89	-13	-48.89	-65.22	0.52	6	Vertical	Pass
2450.25	-58.12	-13	-45.12	-61.24	0.53	5.8	Vertical	Pass
3267	-54.19	-13	-41.19	-57.59	0.65	6.2	Vertical	Pass

Frequenc y (MHz)	ERP(d Bm)	Limit(dB m)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenn a Gain (dBi)	Polarization (H/V)	Result
1638.5	-60.7	-13	-47.7	-64.03	0.52	6	Horizontal	Pass
2457.75	-54.73	-13	-41.73	-57.85	0.53	5.8	Horizontal	Pass
3277	-52.6	-13	-39.6	-56	0.65	6.2	Horizontal	Pass
1638.5	-61.73	-13	-48.73	-65.06	0.52	6	Vertical	Pass
2457.75	-56.2	-13	-43.2	-59.32	0.53	5.8	Vertical	Pass
3277	-52.56	-13	-39.56	-55.96	0.65	6.2	Vertical	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@sas.com

Co., Ltd. No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZCR210602131701

Page: 16 of 17

LTE Band 26 (814 to 824MHz), 10M

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
1629	-60.06	-13	-47.06	-63.39	0.52	6	Horizontal	Pass
	-00.00		-47.00	-03.39	0.52	0	ПОПИОПТАТ	Fa55
2443.5	-52.61	-13	-39.61	-55.73	0.53	5.8	Horizontal	Pass
3258	-46.32	-13	-33.32	-49.72	0.65	6.2	Horizontal	Pass
1629	-62.11	-13	-49.11	-65.44	0.52	6	Horizontal	Pass
2443.5	-56.3	-13	-43.3	-59.42	0.53	5.8	Vertical	Pass
3258	-49.15	-13	-36.15	-52.55	0.65	6.2	Vertical	Pass
1629	-60.06	-13	-47.06	-63.39	0.52	6	Vertical	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@sas.com



Report No.: SZCR210602131701

Page: 17 of 17

7 Test Setup Photo

Please refer to setup photos.

8 EUT Constructional Details (EUT Photos)

Refer to external and internal photos.

- End of the Report -



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