

Report No.: SZEM201101151203

Page: 1 of 50

TEST REPORT

Application No.: SZEM2011011512CR

Applicant: KRONOZ LLC

Address of Applicant: ROUTE DE VALAVRAN 96 GENTHOD Switzerland

Manufacturer: KRONOZ LLC

Address of Manufacturer: Avenue Louis Casai 18 1209 Geneva Switzerland

Factory: KRONOZ LLC

Address of Factory: Avenue Louis Casai 18 1209 Geneva Switzerland

Equipment Under Test (EUT):

EUT Name: MyScale Model No.: MyScale

Trade Mark: MYKRONOZ. ♣

FCC ID: 2AA7D-MSCL

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

Date of Receipt: 2020-11-13

Date of Test: 2020-11-16 to 2021-01-27

Date of Issue: 2021-01-28

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 issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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

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



Report No.: SZEM201101151203

Page: 2 of 50

	Revision Record						
Version	Chapter	Date	Modifier	Remark			
01		2021-01-28		Original			

Authorized for issue by:		
	Peter Goog	
	Peter Geng/Project Engineer	
	EvicFu	
	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 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) test 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 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.: SZEM201101151203

Page: 3 of 50

Test Summary

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

Radio Spectrum Matter Part						
Item	Standard	Method	Requirement	Result		
Conducted Peak Output Power	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		
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		
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 15.205 & 15.209	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 15.205 & 15.209	Pass		
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		



Unless otherwise agreed 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.: SZEM201101151203

Page: 4 of 50

Contents

2 TEST SUMMARY				Page
3 CONTENTS	1	COV	ER PAGE	1
3 CONTENTS	2	TES1	Г SUMMARY	3
4.1 DETAILS OF E.U.T				
4.1 DETAILS OF E.U.T. 6 4.2 DESCRIPTION OF SUPPORT UNITS 6 4.3 MEASUREMENT UNCERTAINTY 6 4.4 TEST LOCATION 7 4.5 TEST FACILITY 7 4.6 DEVIATION FROM STANDARDS 7 4.7 ABNORMALITIES FROM STANDARD CONDITIONS 7 5 EQUIPMENT LIST 6 6 RADIO SPECTRUM TECHNICAL REQUIREMENT 11 6.1 ANTENNA REQUIREMENT 11 6.1.1 Test Requirement: 11 7 RADIO SPECTRUM MATTER TEST RESULTS 12 7.1 CONDUCTED PEAK OUTPUT POWER 12 7.1.1 E.U.T. Operation 12 7.1.2 Test Mode Description 13 7.1.3 Test Subscription and Data 14 7.2.1 E.U.T. Operation 14 7.2.2 Test Mode Description 14 7.2.1 Test Mode Description 14 7.2.2 Test Mode Description 15 7.3.1 Test Subscription 16 7.3.2 Test Mode Descri	3	CON	TENIS	4
4.2 DESCRIPTION OF SUPPORT UNITS 6 4.3 MEASUREMENT UNCERTAINTY 6 4.4 TEST LOCATION 7 4.5 TEST FACILITY 7 4.6 DEVIATION FROM STANDARDS 7 4.7 ABNORMALITIES FROM STANDARD CONDITIONS 7 5 EQUIPMENT LIST 8 6 RADIO SPECTRUM TECHNICAL REQUIREMENT 11 6.1 ANTENNA REQUIREMENT 11 6.1.1 Test Requirement 11 7 RADIO SPECTRUM MATTER TEST RESULTS 12 7.1 CONDUCTED PEAK OUTPUT POWER 12 7.1.1 E.U.T. Operation 11 7.1.2 Test Mode Description 11 7.1.3 Test Setup Diagram 11 7.1.4 Measurement Procedure and Data 11 7.2.2 Test Mode Description 14 7.2.1 E.U.T. Operation 14 7.2.2 Test Mode Description 14 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 16 7.3.1 E.U.T. Ope	4	GEN	ERAL INFORMATION	6
4.3 MEASUREMENT UNCERTAINTY 4.4 TEST LOCATION		4.1	DETAILS OF E.U.T.	6
4.4 TEST LOCATION 4.5 TEST FACILITY 4.6 DEVIATION FROM STANDARDS 4.7 ABNORMALITIES FROM STANDARD CONDITIONS 5 EQUIPMENT LIST 6 RADIO SPECTRUM TECHNICAL REQUIREMENT 6.1 ANTENNA REQUIREMENT 6.1.1 Test Requirement: 7 RADIO SPECTRUM MATTER TEST RESULTS 7.1 CONDUCTED PEAK OUTPUT POWER 7.1.1 E.U.T. Operation 7.1.2 Test Mode Description 7.1.3 Test Setup Diagram 7.1.4 Measurement Procedure and Data 7.2.1 MINIMUM 60B BANDWIDTH 7.2.2 Test Mode Description 7.2.3 Test Setup Diagram 7.2.4 Measurement Procedure and Data 7.3 Test Setup Diagram 7.3 Test Mode Description 7.3 Test Setup Diagram 7.4 CONDUCTED BAND EDGES MEASUREMENT 7.4 CONDUCTED BAND EDGES MEASUREMENT 7.4 Test Mode Description 7.4.3 Test Setup Diagram 7.4.4 Measurement Procedure and Data 7.5 CONDUCTED SPURIOUS EMISSIONS 7.5.1 E.U.T. Operation 7.5.2 Test Mode Description 7.5.3 Test Setup Diagram 7.5.4 Measurement Procedure and Data 7.5.5 Test Mode Description 7.5.6 Test Mode Description 7.5.7 Test Setup Diagram 7.5.8 Test Setup Diagram 7.5.9 Test Setup Diagram 7.5.1 E.U.T. Operation 7.5.2 Test Mode Description 7.5.3 Test Setup Diagram 7.5.4 Test Mode Description 7.5.5 Test Mode Description 7.5.6 Test Mode Description 7.5.7 Test Setup Diagram 7.5.8 Test Setup Diagram 7.5.9 Test Setup Diagram 7.5.1 E.U.T. Operation 7.5.2 Test Mode Description 7.5.3 Test Setup Diagram 7.5.5 Test Mode Description 7.5.6 Test Mode Description 7.5.7 Test Setup Diagram 7.5.7 Test Mode Description 7.5.8 Test Setup Diagram 7.5.9 Test Mode Description 7.5.1 E.U.T. Operation 7.5.2 Test Mode Description 7.5.3 Test Setup Diagram 7.5.5 Test Mode Description 7.5.6 Tes		4.2	DESCRIPTION OF SUPPORT UNITS	6
4.5 TEST FACILITY 4.6 DEVIATION FROM STANDARDS 4.7 ABNORMALITIES FROM STANDARD CONDITIONS 5 EQUIPMENT LIST 6 RADIO SPECTRUM TECHNICAL REQUIREMENT 6.1 ANTENNA REQUIREMENT 6.1.1 Test Requirement: 7 RADIO SPECTRUM MATTER TEST RESULTS 7.1 CONDUCTED PEAK OUTPUT POWER 7.1.1 E.U.T. Operation 7.1.2 Test Mode Description 7.1.3 Test Setup Diagram 7.1.4 Measurement Procedure and Data 7.2 MINIMUM 60B BANDWIDTH 7.2.1 E.U.T. Operation 7.2.2 Test Mode Description 7.3 Test Setup Diagram 7.4 Measurement Procedure and Data 7.5 Measurement Procedure and Data 7.6 Test Mode Description 7.7 Test Setup Diagram 7.7 Test Mode Description 11 7.7 Test Mode Description 11 7.7 Test Mode Description 11 7.7 Test Setup Diagram 11 7.7 Test Setup Diagram 11 7.7 Test Setup Diagram 11 7.7 Test Mode Description 11 7.7 Test Mode Description 11 7.7 Test Setup Diagram 11 7.7				
4.6 DEVIATION FROM STANDARDS 7 4.7 ABNORMALITIES FROM STANDARD CONDITIONS 7 5 EQUIPMENT LIST 8 6 RADIO SPECTRUM TECHNICAL REQUIREMENT 11 6.1 ANTENNA REQUIREMENT 11 6.1.1 Test Requirement: 1 7 RADIO SPECTRUM MATTER TEST RESULTS 12 7.1 CONDUCTED PEAK OUTPUT POWER 12 7.1.1 E.U.T. Operation 12 7.1.2 Test Mode Description 15 7.1.3 Test Setup Diagram 15 7.1.4 Measurement Procedure and Data 15 7.2.1 E.U.T. Operation 16 7.2.2 Test Mode Description 16 7.2.3 Test Setup Diagram 16 7.3.1 E.U.T. Operation 16 7.3.2 Test Mode Description 11 7.3.3 Test Setup Diagram 15 7.3.1 E.U.T. Operation 16 7.3.2 Test Mode Description 16 7.3.3 Test Setup Diagram 15 7.4.1 E.U.T				
4.7 ABNORMALITIES FROM STANDARD CONDITIONS				
5 EQUIPMENT LIST 8 6 RADIO SPECTRUM TECHNICAL REQUIREMENT 11 6.1 ANTENNA REQUIREMENT 12 6.1.1 Test Requirement 15 7 RADIO SPECTRUM MATTER TEST RESULTS 12 7.1 CONDUCTED PEAK OUTPUT POWER 12 7.1.1 E.U.T. Operation 12 7.1.2 Test Mode Description 12 7.1.3 Test Setup Diagram 15 7.1.4 Measurement Procedure and Data 15 7.2.1 E.U.T. Operation 14 7.2.2 Test Mode Description 14 7.2.2 Test Mode Description 14 7.2.4 Measurement Procedure and Data 14 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 15 7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 15 7.3.5 Test Mode Description 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.1				
6 RADIO SPECTRUM TECHNICAL REQUIREMENT 11 6.1 ANTENNA REQUIREMENT 11 6.1.1 Test Requirement: 1' 7 RADIO SPECTRUM MATTER TEST RESULTS 12 7.1 CONDUCTED PEAK OUTPUT POWER 12 7.1.1 E.U.T. Operation 12 7.1.2 Test Mode Description 12 7.1.3 Test Setup Diagram 1' 7.1.4 Measurement Procedure and Data 1' 7.2 MINIMUM 6DB BANDWIDTH 14 7.2.1 E.U.T. Operation 1- 7.2.2 Test Mode Description 1- 7.2.3 Test Setup Diagram 1- 7.2.4 Measurement Procedure and Data 1- 7.3 POWER SPECTRUM DENSITY 16 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 15 7.3.3 Test Setup Diagram 15 7.4.1 E.U.T. Operation 15 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 16 7.4.4 Measurement Procedure and Data 11 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.5 Conducted Spurious Emissions 18 7.5.1		4.7	ABNORMALITIES FROM STANDARD CONDITIONS	7
6.1 ANTENNA REQUIREMENT 11 6.1.1 Test Requirement: 17 7 RADIO SPECTRUM MATTER TEST RESULTS 12 7.1 CONDUCTED PEAK OUTPUT POWER 12 7.1.1 E.U.T. Operation 12 7.1.2 Test Mode Description 12 7.1.3 Test Setup Diagram 13 7.1.4 Measurement Procedure and Data 13 7.2 MINIMUM 6DB BANDWIDTH 14 7.2.1 E.U.T. Operation 14 7.2.2 Test Mode Description 14 7.2.3 Test Setup Diagram 14 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 15 7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 15 7.4 CONDUCTED BAND EDGES MEASUREMENT 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.1 E.U	5	EQU	IPMENT LIST	8
6.1 ANTENNA REQUIREMENT 11 6.1.1 Test Requirement: 17 7 RADIO SPECTRUM MATTER TEST RESULTS 12 7.1 CONDUCTED PEAK OUTPUT POWER 12 7.1.1 E.U.T. Operation 12 7.1.2 Test Mode Description 12 7.1.3 Test Setup Diagram 13 7.1.4 Measurement Procedure and Data 13 7.2 MINIMUM 6DB BANDWIDTH 14 7.2.1 E.U.T. Operation 14 7.2.2 Test Mode Description 14 7.2.3 Test Setup Diagram 14 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 15 7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 15 7.4 CONDUCTED BAND EDGES MEASUREMENT 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.1 E.U	_			
6.1.1 Test Requirement: 1 7 RADIO SPECTRUM MATTER TEST RESULTS 12 7.1 CONDUCTED PEAK OUTPUT POWER 12 7.1.1 E.U.T. Operation 15 7.1.2 Test Mode Description 12 7.1.3 Test Setup Diagram 13 7.1.4 Measurement Procedure and Data 15 7.2 MINIMUM 6DB BANDWIDTH 14 7.2.1 E.U.T. Operation 14 7.2.2 Test Mode Description 14 7.2.3 Test Setup Diagram 14 7.2.4 Measurement Procedure and Data 14 7.3 POWER SPECTRUM DENSITY 15 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 16 7.3.3 Test Setup Diagram 16 7.3.4 Measurement Procedure and Data 11 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5.1 E.U.T. Operation 16 7.5.2 Test Mode Description 18 7.5.3 Test Setup Diagram 17 7.5.1 E.U.T. Operation 18 7.5.2 Test Mode Des	6			
7 RADIO SPECTRUM MATTER TEST RESULTS 12 7.1 CONDUCTED PEAK OUTPUT POWER 12 7.1.1 E.U.T. Operation 12 7.1.2 Test Mode Description 12 7.1.3 Test Setup Diagram 13 7.1.4 Measurement Procedure and Data 15 7.2 MINIMUM 6DB BANDWIDTH 14 7.2.1 E.U.T. Operation 14 7.2.2 Test Mode Description 14 7.2.3 Test Setup Diagram 14 7.2.4 Measurement Procedure and Data 14 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 15 7.3.2 Test Mode Description 15 7.3.4 Measurement Procedure and Data 15 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5 Conducted Spurious Emissions 16 7.5.1 E.U.T. Operation 16 7.5.2 Test Mode Description 18 7.5.3 Test Setup Diagram 17 7.5.3 Test Setup Diagram 19		6.1		
7.1 CONDUCTED PEAK OUTPUT POWER 12 7.1.1 E.U.T. Operation 12 7.1.2 Test Mode Description 12 7.1.3 Test Setup Diagram 13 7.1.4 Measurement Procedure and Data 15 7.2 MINIMUM 6DB BANDWIDTH 14 7.2.1 E.U.T. Operation 14 7.2.2 Test Mode Description 14 7.2.3 Test Setup Diagram 14 7.2.4 Measurement Procedure and Data 14 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 15 7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 15 7.4 CONDUCTED BAND EDGES MEASUREMENT 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.5 CONDUCTED SPURIOUS EMISSIONS 18 7.5.1 E.U.T. Operation 16 7.5.2 Test Mode Description 16 7.5.3		6.1.1	Test Requirement:	11
7.1.1 E.U.T. Operation 12 7.1.2 Test Mode Description 12 7.1.3 Test Setup Diagram 13 7.1.4 Measurement Procedure and Data 15 7.2 MINIMUM 6DB BANDWIDTH 14 7.2.1 E.U.T. Operation 14 7.2.2 Test Mode Description 14 7.2.3 Test Setup Diagram 14 7.2.4 Measurement Procedure and Data 14 7.3 POWER SPECTRUM DENSITY 15 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 15 7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 15 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5.5 CONDUCTED SPURIOUS EMISSIONS 16 7.5.1 E.U.T. Operation 16 7.5.2 Test Mode Description 16 7.5.3 Test Setup Diagram 16 7.5.3 Test Setup Diagram 17 7.5.3 Test Setup Diagram 18 7.5.3 Test Setup Diagram 18 7.5.3 Test Setup Diagram	7	RADI	IO SPECTRUM MATTER TEST RESULTS	12
7.1.1 E.U.T. Operation 12 7.1.2 Test Mode Description 12 7.1.3 Test Setup Diagram 13 7.1.4 Measurement Procedure and Data 15 7.2 MINIMUM 6DB BANDWIDTH 14 7.2.1 E.U.T. Operation 14 7.2.2 Test Mode Description 14 7.2.3 Test Setup Diagram 14 7.2.4 Measurement Procedure and Data 14 7.3 POWER SPECTRUM DENSITY 15 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 15 7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 15 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5.5 CONDUCTED SPURIOUS EMISSIONS 16 7.5.1 E.U.T. Operation 16 7.5.2 Test Mode Description 16 7.5.3 Test Setup Diagram 16 7.5.3 Test Setup Diagram 17 7.5.3 Test Setup Diagram 18 7.5.3 Test Setup Diagram 18 7.5.3 Test Setup Diagram		7.1	CONDUCTED PEAK OUTPUT POWER	12
7.1.3 Test Setup Diagram 13 7.1.4 Measurement Procedure and Data 13 7.2 MINIMUM 6DB BANDWIDTH 14 7.2.1 E.U.T. Operation 14 7.2.2 Test Mode Description 14 7.2.3 Test Setup Diagram 14 7.2.4 Measurement Procedure and Data 14 7.3 POWER SPECTRUM DENSITY 15 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 15 7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 15 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5. CONDUCTED SPURIOUS EMISSIONS 16 7.5.1 E.U.T. Operation 18 7.5.2 Test Mode Description 18 7.5.2 Test Mode Description 18 7.5.3 Test Setup Diagram 19				
7.1.4 Measurement Procedure and Data 13 7.2 MINIMUM 6DB BANDWIDTH 14 7.2.1 E.U.T. Operation 14 7.2.2 Test Mode Description 14 7.2.3 Test Setup Diagram 14 7.2.4 Measurement Procedure and Data 14 7.3 POWER SPECTRUM DENSITY 15 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 15 7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 15 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 16 7.4.4 Measurement Procedure and Data 17 7.5 CONDUCTED SPURIOUS EMISSIONS 16 7.5.1 E.U.T. Operation 16 7.5.2 Test Mode Description 16 7.5.2 Test Mode Description 16 7.5.3 Test Setup Diagram 17 7.5.3 Test Setup Diagram 18 7.5.3 Test Setup Diagram 18 7.5.3 Test Setup Diagram 18 7.5.3 Test Setup Diagram 19 7.5.4 Test Mode Description 18 7.5.5 Test Mode Descr		7.1.2	Test Mode Description	12
7.2 MINIMUM 6DB BANDWIDTH 14 7.2.1 E.U.T. Operation 14 7.2.2 Test Mode Description 14 7.2.3 Test Setup Diagram 14 7.2.4 Measurement Procedure and Data 12 7.3 POWER SPECTRUM DENSITY 15 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 15 7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 15 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 11 7.5.1 E.U.T. Operation 16 7.5.1 E.U.T. Operation 16 7.5.2 Test Mode Description 16 7.5.3 Test Setup Diagram 17 7.5.3 Test Setup Diagram 18 7.5.3 Test Setup Diagram 19		7.1.3	Test Setup Diagram	13
7.2.1 E.U.T. Operation 14 7.2.2 Test Mode Description 14 7.2.3 Test Setup Diagram 14 7.2.4 Measurement Procedure and Data 14 7.3 POWER SPECTRUM DENSITY 15 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 16 7.3.3 Test Setup Diagram 16 7.3.4 Measurement Procedure and Data 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5 CONDUCTED SPURIOUS EMISSIONS 18 7.5.1 E.U.T. Operation 18 7.5.2 Test Mode Description 18 7.5.3 Test Setup Diagram 18				
7.2.2 Test Mode Description 14 7.2.3 Test Setup Diagram 14 7.2.4 Measurement Procedure and Data 14 7.3 POWER SPECTRUM DENSITY 15 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 16 7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 15 7.4 CONDUCTED BAND EDGES MEASUREMENT 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5 CONDUCTED SPURIOUS EMISSIONS 18 7.5.1 E.U.T. Operation 18 7.5.2 Test Mode Description 18 7.5.3 Test Setup Diagram 19		7.2		
7.2.3 Test Setup Diagram 14 7.2.4 Measurement Procedure and Data 14 7.3 POWER SPECTRUM DENSITY 15 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 15 7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 16 7.4 CONDUCTED BAND EDGES MEASUREMENT 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5 CONDUCTED SPURIOUS EMISSIONS 18 7.5.1 E.U.T. Operation 18 7.5.2 Test Mode Description 18 7.5.3 Test Setup Diagram 18 7.5.3 Test Setup Diagram 19			•	
7.2.4 Measurement Procedure and Data 14 7.3 POWER SPECTRUM DENSITY 15 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 16 7.3.3 Test Setup Diagram 16 7.3.4 Measurement Procedure and Data 16 7.4 CONDUCTED BAND EDGES MEASUREMENT 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.5 CONDUCTED SPURIOUS EMISSIONS 18 7.5.1 E.U.T. Operation 18 7.5.2 Test Mode Description 18 7.5.3 Test Setup Diagram 19				
7.3 POWER SPECTRUM DENSITY 15 7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 15 7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 15 7.4 CONDUCTED BAND EDGES MEASUREMENT 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5 CONDUCTED SPURIOUS EMISSIONS 18 7.5.1 E.U.T. Operation 18 7.5.2 Test Mode Description 18 7.5.3 Test Setup Diagram 19		_	, ,	
7.3.1 E.U.T. Operation 15 7.3.2 Test Mode Description 15 7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 15 7.4 CONDUCTED BAND EDGES MEASUREMENT 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5 CONDUCTED SPURIOUS EMISSIONS 18 7.5.1 E.U.T. Operation 18 7.5.2 Test Mode Description 18 7.5.3 Test Setup Diagram 19				
7.3.2 Test Mode Description 15 7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 15 7.4 CONDUCTED BAND EDGES MEASUREMENT 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5 CONDUCTED SPURIOUS EMISSIONS 18 7.5.1 E.U.T. Operation 18 7.5.2 Test Mode Description 18 7.5.3 Test Setup Diagram 19				
7.3.3 Test Setup Diagram 15 7.3.4 Measurement Procedure and Data 15 7.4 CONDUCTED BAND EDGES MEASUREMENT 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5 CONDUCTED SPURIOUS EMISSIONS 18 7.5.1 E.U.T. Operation 18 7.5.2 Test Mode Description 18 7.5.3 Test Setup Diagram 19				
7.3.4 Measurement Procedure and Data 15 7.4 CONDUCTED BAND EDGES MEASUREMENT 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5 CONDUCTED SPURIOUS EMISSIONS 18 7.5.1 E.U.T. Operation 18 7.5.2 Test Mode Description 18 7.5.3 Test Setup Diagram 19		_		
7.4 CONDUCTED BAND EDGES MEASUREMENT 16 7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5 CONDUCTED SPURIOUS EMISSIONS 18 7.5.1 E.U.T. Operation 18 7.5.2 Test Mode Description 18 7.5.3 Test Setup Diagram 19			, 0	
7.4.1 E.U.T. Operation 16 7.4.2 Test Mode Description 16 7.4.3 Test Setup Diagram 17 7.4.4 Measurement Procedure and Data 17 7.5 CONDUCTED SPURIOUS EMISSIONS 18 7.5.1 E.U.T. Operation 18 7.5.2 Test Mode Description 18 7.5.3 Test Setup Diagram 19		_		
7.4.2 Test Mode Description				
7.4.3 Test Setup Diagram			•	
7.4.4 Measurement Procedure and Data177.5 CONDUCTED SPURIOUS EMISSIONS187.5.1 E.U.T. Operation187.5.2 Test Mode Description187.5.3 Test Setup Diagram19				
7.5CONDUCTED SPURIOUS EMISSIONS				
7.5.1 E.U.T. Operation				
7.5.2 Test Mode Description				
7.5.3 Test Setup Diagram19		7.5.2	·	
		7.5.3	•	
		7.5.4		



Unless otherwise agreed 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) test 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"

中国・深圳・科技园中区M-10栋一号厂房



Report No.: SZEM201101151203

Page: 5 of 50

7	.6 R	ADIATED EMISSIONS WHICH FALL IN THE RESTRICTED BANDS	20
	7.6.1	E.U.T. Operation	20
	7.6.2	Test Mode Description	20
	7.6.3	Test Setup Diagram	
	7.6.4	Measurement Procedure and Data	
7	.7 R	ADIATED SPURIOUS EMISSIONS	26
	7.7.1	E.U.T. Operation	26
	7.7.2	Test Mode Description	
	7.7.3	Test Setup Diagram	27
	7.7.4	Measurement Procedure and Data	28
7	.8 C	CONDUCTED EMISSIONS AT AC POWER LINE (150kHz-30MHz)	37
	7.8.1	E.U.T. Operation	37
	7.8.2	Test Mode Description	37
	7.8.3	Test Setup Diagram	37
	7.8.4	Measurement Procedure and Data	38
8	TEST	SETUP PHOTO	41
9	EUT C	ONSTRUCTIONAL DETAILS (EUT PHOTOS)	41
10	APPE	NDIX	42-50



Unless otherwise agreed 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) test 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 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.: SZEM201101151203

Page: 6 of 50

General Information

Details of E.U.T.

Battery:	Built-in DC 3.7V 3000mAh rechargeable battery
Operation Frequency:	2402MHz to 2480MHz
Modulation Type:	GFSK
Number of Channels:	40
Channel Spacing:	2MHz
Antenna type:	On board antenna
Antenna gain:	0.5dBi

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	Apple	A2167	REF. No.SEA05B04D
USB cable	Supplied by SGS	100cm unshielded	REF. No.:SEA0700

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Power Line (150kHz-30MHz)	± 3.0dB (150kHz to 30MHz)
Conducted Peak Output Power	± 0.75dB
Minimum 6dB Bandwidth	± 3%
Power Spectrum Density	± 2.84dB
Conducted Band Edges Measurement	± 0.75dB
Conducted Spurious Emissions	± 0.75dB
Radiated Emissions which fall in the restricted bands	± 4.5dB (Below 1GHz);± 4.8dB (Above 1GHz)
Radiated Spurious Emissions	± 4.5dB (Below 1GHz);± 4.8dB (Above 1GHz)

Remark:

The U_{lab} (lab Uncertainty) is less than U_{cispr} (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.: SZEM201101151203

Page: 7 of 50

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 iliability, 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@ss.com.



Report No.: SZEM201101151203

Page: 8 of 50

5 Equipment List

Conducted Emissions at AC Power Line (150kHz-30MHz)							
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date		
Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2019-06-13	2022-06-12		
EMI Test Receiver	Rohde&Schwarz	ESCI	SEM004-02	2020-03-24	2021-03-23		
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A		
Coaxial Cable	SGS	N/A	SEM024-01	2020-07-10	2021-07-09		
LISN	Rohde&Schwarz	ENV216	SEM007-01	2020-09-23	2021-09-22		
LISN	ETS-LINDGREN	3816/2	SEM007-02	2020-04-01	2021-03-31		

Conducted Peak Output Power						
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
Shielding Room	SAEMC	MSR733	SEM001-09	2019-06-13	2022-06-12	
DC Power Supply	Rohde & Schwarz	NGSM 32/10	SEM011-04	2020-03-24	2021-03-23	
Spectrum Analyzer	Rohde & Schwarz	FSU43	SEM004-08	2020-04-01	2021-03-31	
Cinnal Consentan	KEYSIGHT	N5173B	SEM006-05	2019-09-24	2020-09-23	
Signal Generator				2020-09-23	2021-09-22	
Measurement Software	TST	TST PASS V1.0.5	N/A	N/A	N/A	
Coaxial Cable	SGS	N/A	SEM031-02	2020-07-10	2021-07-09	
Attenuator	Huber+Suhner	6620_SMA-50- 1	SEM021-09	2020-05-21	2021-05-20	

Minimum 6dB Bandwidth						
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date	
Shielding Room	SAEMC	MSR733	SEM001-09	2019-06-13	2022-06-12	
DC Power Supply	Rohde & Schwarz	NGSM 32/10	SEM011-04	2020-03-24	2021-03-23	
Spectrum Analyzer	Rohde & Schwarz	FSU43	SEM004-08	2020-04-01	2021-03-31	
Cianal Cananatan	KEYSIGHT	N5173B	CEMOOC OF	2019-09-24	2020-09-23	
Signal Generator	KETSIGHT	DC / I CNI	2EIVI000-05	EM006-05 2020-09-23 2	2021-09-22	
Measurement Software	TST	TST PASS V1.0.5	N/A	N/A	N/A	
Coaxial Cable	SGS	N/A	SEM031-02	2020-07-10	2021-07-09	
Attenuator	Huber+Suhner	6620_SMA-50- 1	SEM021-09	2020-05-21	2021-05-20	

Power Spectrum Density					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Shielding Room	SAEMC	MSR733	SEM001-09	2019-06-13	2022-06-12
DC Power Supply	Rohde & Schwarz	NGSM 32/10	SEM011-04	2020-03-24	2021-03-23



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at 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.: SZEM201101151203

Page: 9 of 50

Spectrum Analyzer	Rohde & Schwarz	FSU43	SEM004-08	2020-04-01	2021-03-31
Signal Generator	KEVCICHT	NE172D	SEM006-05	2019-09-24	2020-09-23
Signal Generator	KEYSIGHT N5173E		SEIVI006-05	2020-09-23	2021-09-22
Measurement Software	TST	TST PASS V1.0.5	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-02	2020-07-10	2021-07-09
Attenuator Huber+Suhner		6620_SMA-50- 1	SEM021-09	2020-05-21	2021-05-20

Conducted Band Edges Measurement					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Shielding Room	SAEMC	MSR733	SEM001-09	2019-06-13	2022-06-12
DC Power Supply	Rohde & Schwarz	NGSM 32/10	SEM011-04	2020-03-24	2021-03-23
Spectrum Analyzer	Rohde & Schwarz	FSU43	SEM004-08	2020-04-01	2021-03-31
Cianal Canaratar	KEYSIGHT	N5173B	SEM006-05	2019-09-24	2020-09-23
Signal Generator				2020-09-23	2021-09-22
Measurement Software	TST	TST PASS V1.0.5	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-02	2020-07-10	2021-07-09
Attenuator	Huber+Suhner	6620_SMA-50- 1	SEM021-09	2020-05-21	2021-05-20

Conducted Spurious Emissions					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Shielding Room	SAEMC	MSR733	SEM001-09	2019-06-13	2022-06-12
DC Power Supply	Rohde & Schwarz	NGSM 32/10	SEM011-04	2020-03-24	2021-03-23
Spectrum Analyzer	Rohde & Schwarz	FSU43	SEM004-08	2020-04-01	2021-03-31
Signal Congretor	KEYSIGHT	N5173B	SEM006-05	2019-09-24	2020-09-23
Signal Generator	Signal Generator KEYSIGHT N		3EM000-03	2020-09-23	2021-09-22
Measurement Software	TST	TST PASS V1.0.5	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-02	2020-07-10	2021-07-09
Attenuator	Huber+Suhner	6620_SMA-50- 1	SEM021-09	2020-05-21	2021-05-20

Radiated Emissions which fall in the restricted bands/ Radiated Spurious Emissions					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2018-03-13	2021-03-12
EXA Signal Analyzer	Agilent Technologies Inc	N9010A	SEM004-12	2020-04-09	2021-04-08
Horn Antenna	Rohde&Schwarz	HF907	SEM003-07	2018-04-13	2021-04-12



Unless otherwise agreed 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) test 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"

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.: SZEM201101151203

Page: 10 of 50

Pre-Amplifier	Compliance Directions Systems Inc.	PAP-0126	SEM004-11	2020-09-23	2021-09-22
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A
Coaxial Cable	axial Cable SGS		SEM026-01	2020-07-10	2021-07-09
Horn Antenna	Schwarzbeck	BBHA 9170	SEM003-15	2020-11-14	2023-11-13
Pre-Amplifier	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2020-04-01	2021-03-31

Radiated Spurious Emissions					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2020-07-19	2023-07-18
MXE EMI Receiver	Agilent Technologies	N9038A	SEM004-15	2020-11-02	2021-11-01
BiConiLog Antenna	ETS-LINDGREN	3142C	SEM003-02	2019-05-24	2022-05-23
Pre-Amplifier	Agilent Technologies	8447D	SEM005-01	2020-04-01	2021-03-31
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM025-01	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	2020-04-07	2021-04-06



Unless otherwise agreed 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) test 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"

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.: SZEM201101151203

Page: 11 of 50

Radio Spectrum Technical Requirement 6

6.1 Antenna Requirement

6.1.1 Test Requirement:

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

Limit:

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 0.5dBi.

Antenna location: Refer to Internal photos.



Unless otherwise agreed 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: CND poccheck@osc.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 sas.china@sas.com



Report No.: SZEM201101151203

Page: 12 of 50

7 Radio Spectrum Matter Test Results

7.1 Conducted Peak Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(3)
Test Method: ANSI C63.10 (2013) Section 11.9.1

Limit:

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

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 22.5 °C Humidity: 45.6 % RH Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

7.112 100t mode 2000 pto				
Pre-scan / Final test	Mode Code	Description		
Final test	00	TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation.		
Pre-scan	01	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with GFSK modulation.		



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

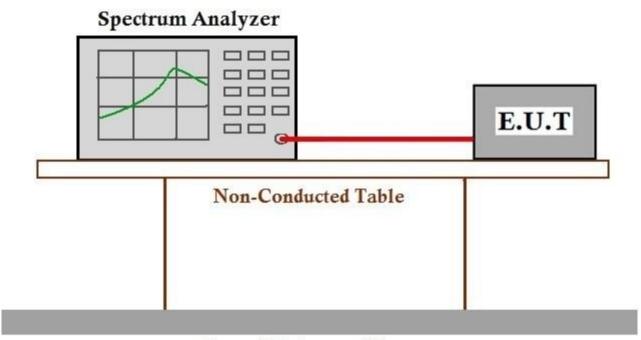
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com.



Report No.: SZEM201101151203

Page: 13 of 50

7.1.3 Test Setup Diagram



Ground Reference Plane

7.1.4 Measurement Procedure and Data

Please Refer To Appendix For Details



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at 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"



Report No.: SZEM201101151203

Page: 14 of 50

7.2 Minimum 6dB Bandwidth

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

Limit:

≥500 kHz

7.2.1 E.U.T. Operation

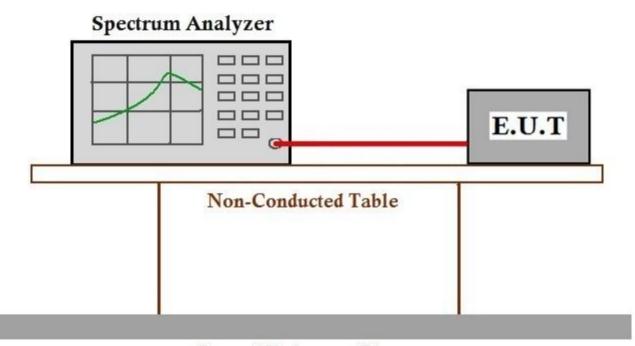
Operating Environment:

Temperature: 22.5 °C Humidity: 45.6 % RH Atmospheric Pressure: 1010 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation.
Pre-scan	01	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with GFSK modulation.

7.2.3 Test Setup Diagram



Ground Reference Plane

7.2.4 Measurement Procedure and Data

Please Refer To Appendix For Details



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at 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.: SZEM201101151203

Page: 15 of 50

7.3 Power Spectrum Density

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

Limit:

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

7.3.1 E.U.T. Operation

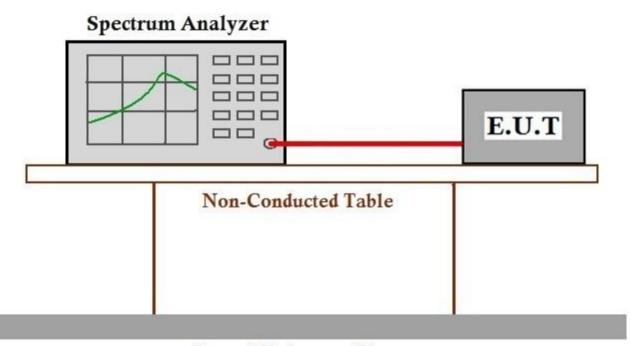
Operating Environment:

Temperature: 22.5 °C Humidity: 45.6 % RH Atmospheric Pressure: 1010 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation.
Pre-scan	01	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with GFSK modulation.

7.3.3 Test Setup Diagram



Ground Reference Plane

7.3.4 Measurement Procedure and Data

Please Refer To Appendix For Details



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



Report No.: SZEM201101151203

Page: 16 of 50

7.4 Conducted Band Edges Measurement

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

Limit:

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

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 22.5 °C Humidity: 45.6 % RH Atmospheric Pressure: 1010 mbar

7.4.2 Test Mode Description

7.4.2 103010	ouc Dc.	Sonption
Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation.
Pre-scan	01	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with GFSK modulation.



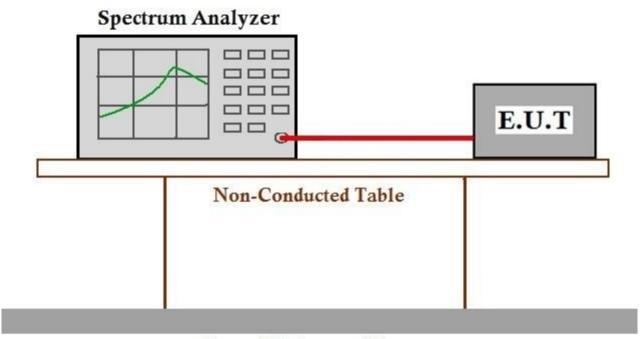
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction 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, Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,



Report No.: SZEM201101151203

Page: 17 of 50

7.4.3 Test Setup Diagram



Ground Reference Plane

7.4.4 Measurement Procedure and Data

Please Refer To Appendix For Details



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at 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"



Report No.: SZEM201101151203

Page: 18 of 50

7.5 Conducted Spurious Emissions

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

Limit:

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

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 22.5 °C Humidity: 45.6 % RH Atmospheric Pressure: 1010 mbar

7.5.2 Test Mode Description

7.0.2 1000	out bu	5011/511011
Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation.
Pre-scan	01	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with GFSK modulation.



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

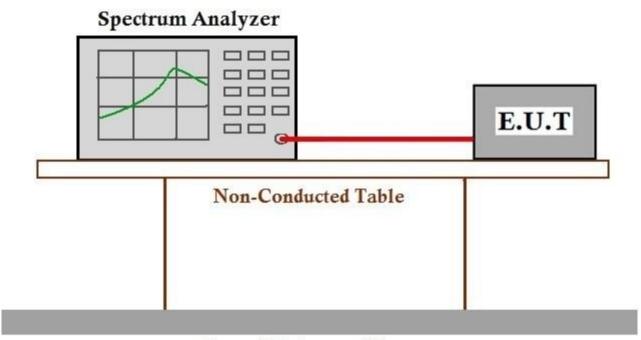
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, **Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1643, **Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1643, *Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1643, ***Total Contact Inspection of the contact Insp



Report No.: SZEM201101151203

Page: 19 of 50

7.5.3 Test Setup Diagram



Ground Reference Plane

7.5.4 Measurement Procedure and Data

Please Refer To Appendix For Details



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at 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"



Report No.: SZEM201101151203

Page: 20 of 50

7.6 Radiated Emissions which fall in the restricted bands

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

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

Measurement Distance: 3m

Limit:

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

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

7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 22.5 °C Humidity: 45.6 % RH Atmospheric Pressure: 1010 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation.
Pre-scan	01	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with GFSK modulation.



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

**Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, **Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-7

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

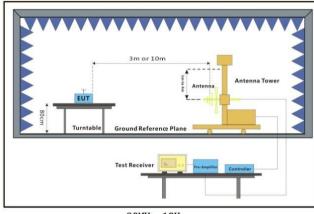
www.sgsgroup.com.cn sgs.china@sgs.com

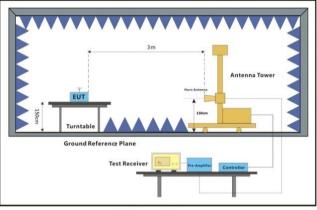


Report No.: SZEM201101151203

Page: 21 of 50

7.6.3 Test Setup Diagram





Above 1GHz 30MHz-1GHz

7.6.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the 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.



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

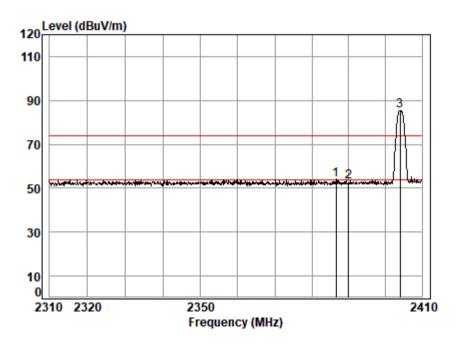
Attention:To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, **Attention:**To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, **Attention:**To check the authenticity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



Report No.: SZEM201101151203

Page: 22 of 50

Test Mode: 00; Polarity: Horizontal; Modulation: GFSK; Channel: Low



Condition: 3m HORIZONTAL Job No : 11512CR/11513CR Mode : 2402 Band edge

: BLE

		_							
	Freq			Preamp Factor					Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
L	2386.522	5.05	29.98	48.02	66.97	53.98	74.00	-20.02	peak
)	2390.000	5.05	29.98	48.02	65.74	52.75	74.00	-21.25	peak
3	* 2402.000	5.06	30.03	48.02	98.18	85.25	74.00	11.25	peak



1 2 3

Unless otherwise agreed 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 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

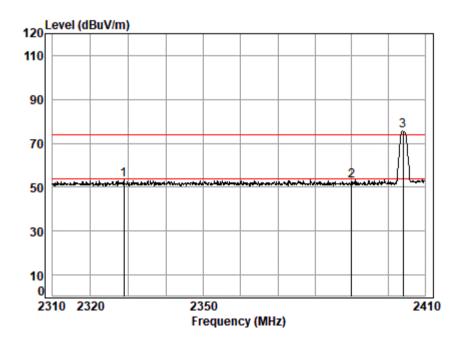
sgs.china@sgs.com 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZEM201101151203

Page: 23 of 50

Test Mode: 00; Polarity: Vertical; Modulation: GFSK; Channel: Low



Condition: 3m VERTICAL

Job No : 11512CR/11513CR Mode : 2402 Band edge

: BLE

		_							
	Freq			Preamp Factor					Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
L	2328.774	5.01	29.76	48.03	66.72	53.46	74.00	-20.54	peak
)	2390.000	5.05	29.98	48.02	65.94	52.95	74.00	-21.05	peak
3	* 2402.000	5.06	30.03	48.02	88.47	75.54	74.00	1.54	peak



1 2 3

Unless otherwise agreed 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.

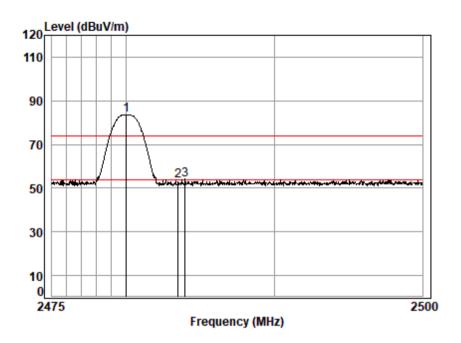
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com.



Report No.: SZEM201101151203

Page: 24 of 50

Test Mode: 00; Polarity: Horizontal; Modulation: GFSK; Channel: High



Condition: 3m HORIZONTAL Job No : 11512CR/11513CR Mode : 2480 Band edge

· RIF

	. DLI	_							
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
l p	2480.000	5.12	30.30	48.01	96.15	83.56	74.00	9.56	peak
2	2483.500	5.12	30.32	48.01	65.91	53.34	74.00	-20.66	peak
3	2483.971	5.12	30.32	48.01	66.33	53.76	74.00	-20.24	peak



1 2 3

Unless otherwise agreed 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 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

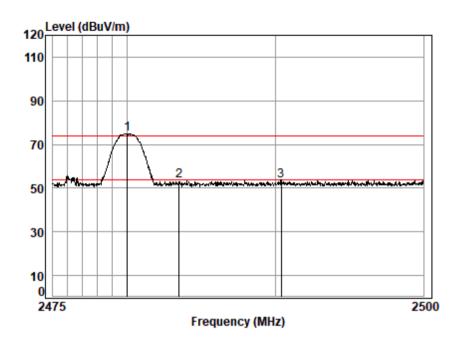
邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZEM201101151203

Page: 25 of 50

Test Mode: 00; Polarity: Vertical; Modulation:GFSK; Channel:High



Condition: 3m VERTICAL Job No : 11512CR/11513CR

Mode : 2480 Band edge

: BLF

		_							
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
L p	2480.000	5.12	30.30	48.01	87.41	74.82	74.00	0.82	peak
2	2483.500	5.12	30.32	48.01	66.14	53.57	74.00	-20.43	peak
3	2490.370	5.12	30.35	48.01	66.14	53.60	74.00	-20.40	peak



1 2 3

Unless otherwise agreed 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 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.: SZEM201101151203

Page: 26 of 50

7.7 Radiated Spurious Emissions

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

Limit:

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

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

7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 25.5 °C Humidity: 51.2 % RH Atmospheric Pressure: 1010 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode with GFSK modulation.
Pre-scan	01	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with GFSK modulation.



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

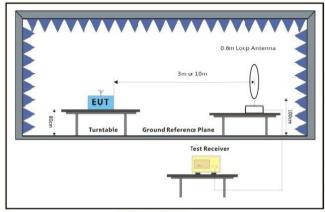
sas.china@sas.com

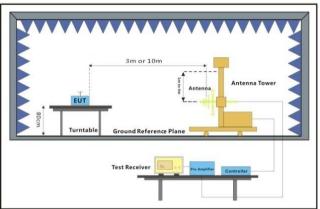


Report No.: SZEM201101151203

Page: 27 of 50

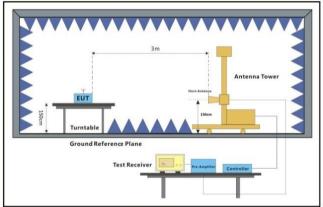
7.7.3 Test Setup Diagram





Below 30MHz

30MHz-1GHz



Above 1GHz



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

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

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.: SZEM201101151203

Page: 28 of 50

7.7.4 Measurement Procedure and Data

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

- b. 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 in the report.



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

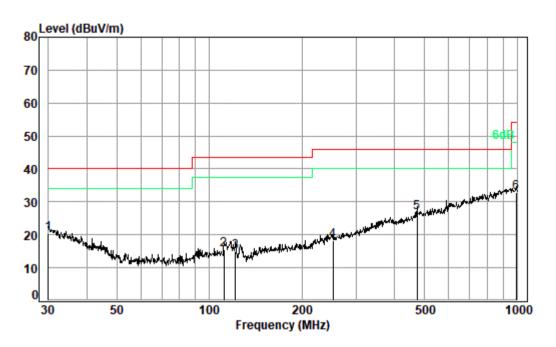
邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZEM201101151203

Page: 29 of 50

Test Mode: 00; Polarity: Horizontal



Condition: 3m HORIZONTAL

Job No. : 11512CR

Test Mode: 00

		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	30.00	0.60	23.00	27.74	24.65	20.51	40.00	-19.49	QP
2	111.74	1.12	13.57	27.54	28.45	15.60	43.50	-27.90	QP
3	121.55	1.13	12.92	27.48	28.46	15.03	43.50	-28.47	QP
4	252.06	1.66	18.18	26.99	25.31	18.16	46.00	-27.84	QP
5 pp	473.83	2.45	23.87	27.70	28.00	26.62	46.00	-19.38	QP
6	993.01	3.59	29.70	26.69	26.11	32.71	54.00	-21.29	OP



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at 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 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

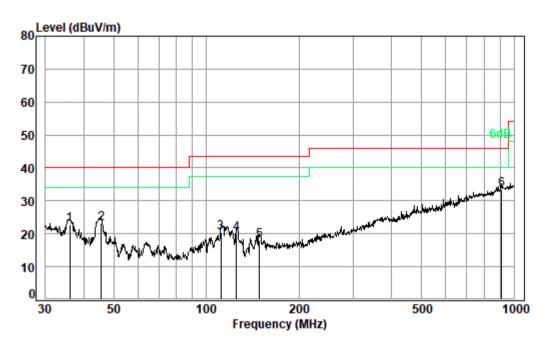
邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZEM201101151203

Page: 30 of 50

Test Mode: 00; Polarity: Vertical



Condition: 3m VERTICAL Job No. : 11512CR

Test Mode: 00

		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
_									
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	36.00	0.66	19.70	27.72	30.11	22.75	40.00	-1/.25	QР
2	45.53	0.70	15.74	27.69	34.35	23.10	40.00	-16.90	QP
3	111.74	1.12	13.57	27.54	33.27	20.42	43.50	-23.08	QP
4	125.45	1.13	12.72	27.46	33.58	19.97	43.50	-23.53	QP
5	148.96	1.16	14.57	27.34	29.64	18.03	43.50	-25.47	QP
6 pp	912.86	3.51	29.09	27.10	27.93	33.43	46.00	-12.57	OP



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

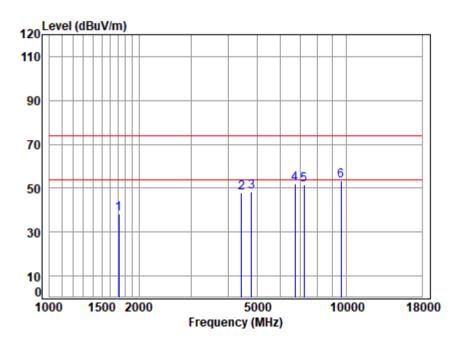
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,



Report No.: SZEM201101151203

Page: 31 of 50

Test Mode: 00; Polarity: Horizontal; Modulation: GFSK; Channel:Low



Site : chamber

Condition: 3m HORIZONTAL Job No : 11512CR/11513CR

Mode : 2402 TX SE

Note : BLE

		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1712.651	3.44	26.72	40.07	48.33	38.42	74.00	-35.58	peak
2	4432.531	6.70	33.48	41.81	49.45	47.82	74.00	-26.18	peak
3	4804.000	7.10	33.97	42.14	49.62	48.55	74.00	-25.45	peak
4	6717.762	8.40	35.73	41.89	49.92	52.16	74.00	-21.84	peak
5	7206.000	8.74	36.07	41.50	48.27	51.58	74.00	-22.42	peak
6	9608.000	10.81	37.67	37.76	42.69	53.41	74.00	-20.59	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.s.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.

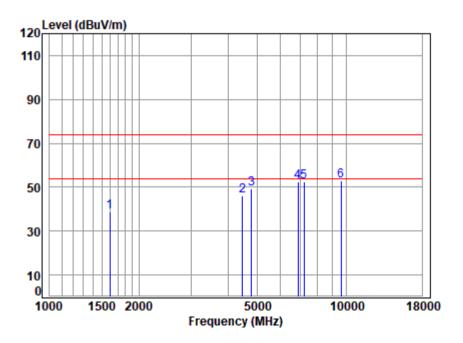
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@ags.com.



Report No.: SZEM201101151203

Page: 32 of 50

Test Mode: 00; Polarity: Vertical; Modulation:GFSK; Channel:Low



Site : chamber Condition: 3m VERTICAL

Job No : 11512CR/11513CR

Mode : 2402 TX SE

Note : BLE

1000									
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1597.181	3.35	26.24	40.01	49.18	38.76	74.00	-35.24	peak
2	4469.214	6.73	33.55	41.85	47.66	46.09	74.00	-27.91	peak
3	4804.000	7.10	33.97	42.14	50.32	49.25	74.00	-24.75	peak
4	6876.981	8.48	35.83	41.78	50.12	52.65	74.00	-21.35	peak
5	7206.000	8.74	36.07	41.50	49.02	52.33	74.00	-21.67	peak
6	9608,000	10.81	37.67	37.76	42.07	52.79	74.00	-21.21	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.

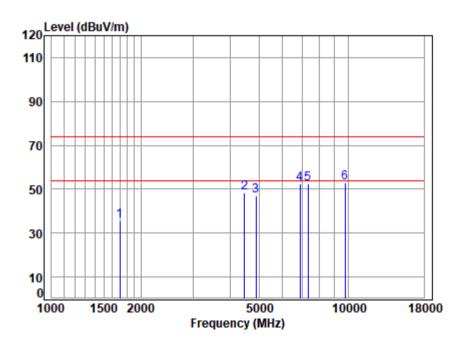
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com



Report No.: SZEM201101151203

Page: 33 of 50

Test Mode: 00; Polarity: Horizontal; Modulation:GFSK; Channel:middle



Site : chamber

Condition: 3m HORIZONTAL Job No : 11512CR/11513CR

Mode : 2440 TX SE

Note : BLE

1000										
		Cable	Ant	Preamp	Read		Limit	0ver		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		
1	1698.650	3.43	26.66	40.06	45.35	35.38	74.00	-38.62	peak	
2	4469.214	6.73	33.55	41.85	50.06	48.49	74.00	-25.51	peak	
3	4880.000	7.18	34.06	42.20	48.14	47.18	74.00	-26.82	peak	
4	6874.906	8.48	35.83	41.78	49.74	52.27	74.00	-21.73	peak	
5	7320.000	8.84	36.16	41.40	48.91	52.51	74.00	-21.49	peak	
6	9760.000	10.76	37.76	37.50	41.96	52.98	74.00	-21.02	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.

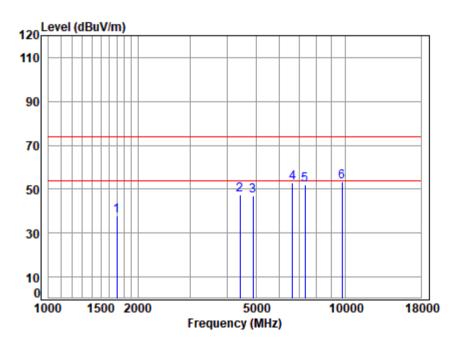
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com



Report No.: SZEM201101151203

Page: 34 of 50

Test Mode: 00; Polarity: Vertical; Modulation:GFSK; Channel:middle



Site : chamber Condition: 3m VERTICAL

Job No : 11512CR/11513CR

Mode : 2440 TX SE

Note : BLE

WCC.										
		Cable	Ant	Preamp	Read		Limit	0ver		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
										_
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		
1	1697.129	3.43	26.66	40.06	47.98	38.01	74.00	-35.99	peak	
2	4417.841	6.68	33.46	41.80	48.99	47.33	74.00	-26.67	peak	
3	4880.000	7.18	34.06	42.20	47.94	46.98	74.00	-27.02	peak	
4	6640.542	8.36	35.69	41.94	50.71	52.82	74.00	-21.18	peak	
5	7320.000	8.84	36.16	41.40	48.41	52.01	74.00	-21.99	peak	
6	9760.000	10.76	37.76	37.50	42,20	53.22	74.00	-20.78	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.

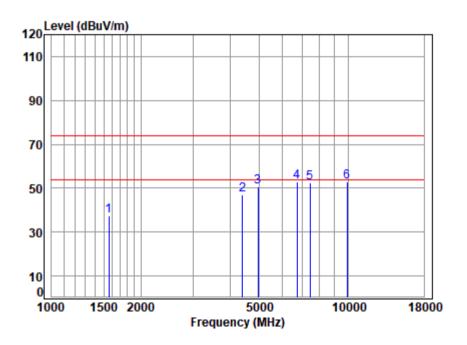
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com"



Report No.: SZEM201101151203

Page: 35 of 50

Test Mode: 00; Polarity: Horizontal; Modulation:GFSK; Channel:High



Site : chamber

Condition: 3m HORIZONTAL Job No : 11512CR/11513CR

Mode : 2480 TX SE

Note : BLE

1000										
		Cable	Ant	Preamp	Read		Limit	0ver		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		
1	1560.673	3.31	26.08	39.99	48.09	37.49	74.00	-36.51	peak	
2	4405.090	6.67	33.44	41.79	48.73	47.05	74.00	-26.95	peak	
3	4960.000	7.26	34.15	42.27	51.60	50.74	74.00	-23.26	peak	
4	6717.762	8.40	35.73	41.89	50.48	52.72	74.00	-21.28	peak	
5	7440.000	8.96	36.25	41.29	48.39	52.31	74.00	-21.69	peak	
6	9920,000	10.71	37.85	37.23	41.78	53.11	74.00	-20.89	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.

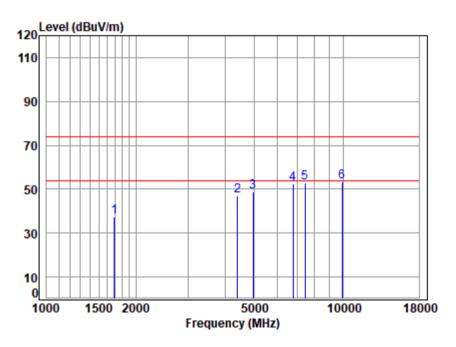
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com



Report No.: SZEM201101151203

Page: 36 of 50

Test Mode: 00; Polarity: Vertical; Modulation: GFSK; Channel: High



Site : chamber Condition: 3m VERTICAL Job No : 11512CR/11513CR

Mode : 2480 TX SE

Note : BLE

1000										
		Cable	Ant	Preamp	Read		Limit	0ver		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
										_
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		
4	4602 224	2 42	26.64	40.00	47.60	37.63	74.00	26.20		
1	1692.231	3.42	26.64	40.06	47.62	37.62	74.00	-36.38	реак	
2	4405.090	6.67	33.44	41.79	48.88	47.20	74.00	-26.80	peak	
3	4960.000	7.26	34.15	42.27	49.60	48.74	74.00	-25.26	peak	
4	6776.265	8.43	35.77	41.85	49.92	52.27	74.00	-21.73	peak	
5	7440.000	8.96	36.25	41.29	48.98	52.90	74.00	-21.10	peak	
6	9920,000	10.71	37.85	37.23	41.84	53.17	74.00	-20.83	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



Report No.: SZEM201101151203

Page: 37 of 50

7.8 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:

Fraguency of emission/MUT	Conducted limit(dBµV)						
Frequency of emission(MHz)	Quasi-peak	Average					
0.15-0.5	66 to 56*	56 to 46*					
0.5-5	56	46					
5-30	60	50					
*Decreases with the logarithm of the frequency.							
Detector: Peak for pre-scan (9kHz	Detector: Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz						

7.8.1 E.U.T. Operation

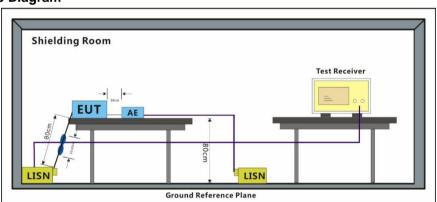
Operating Environment:

Temperature: 21.4 °C Humidity: 53.7 % RH Atmospheric Pressure: 1010 mbar

7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with GFSK modulation.

7.8.3 Test Setup Diagram





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

**Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, **Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-7

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.: SZEM201101151203

Page: 38 of 50

7.8.4 Measurement Procedure and Data

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 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

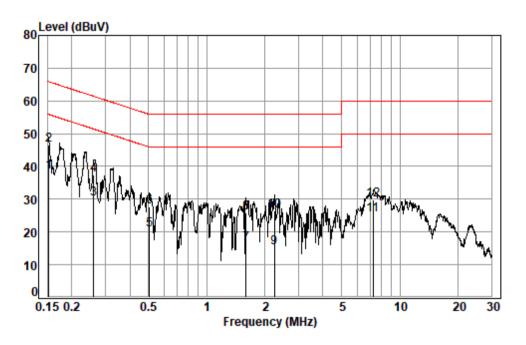




Report No.: SZEM201101151203

Page: 39 of 50

Test Mode: 01; Line: Live line



: Shielding Room

Condition: Line Job No. : 11512CR

Test mode: 01

e5 t	mode. OI							
		Cable	LISN	Read		Limit	0ver	
	Freq	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
_	0.4504		0.70		20.24		47.50	
1	0.1524	0.03	9.70	28.61	38.34	55.8/	-1/.53	Average
2	0.1524	0.03	9.70	36.68	46.41	65.87	-19.46	QP
3	0.2603	0.05	9.74	20.34	30.13	51.42	-21.29	Average
4	0.2603	0.05	9.74	27.60	37.39	61.42	-24.03	QP
5	0.5047	0.07	9.77	10.74	20.58	46.00	-25.42	Average
6	0.5047	0.07	9.77	17.73	27.57	56.00	-28.43	QP
7	1.6020	0.12	9.80	6.50	16.42	46.00	-29.58	Average
8	1.6020	0.12	9.80	15.85	25.77	56.00	-30.23	QP
9	2.2486	0.13	9.82	5.12	15.07	46.00	-30.93	Average
10	2.2486	0.13	9.82	16.37	26.32	56.00	-29.68	QP
11	7.2903	0.16	10.05	14.96	25.17	50.00	-24.83	Average
12	7.2903	0.16	10.05	19.58	29.79	60.00	-30.21	QP



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

**Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, **Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-755) 8307 1443, **Certificate, please contact us at telephone: (86-7

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

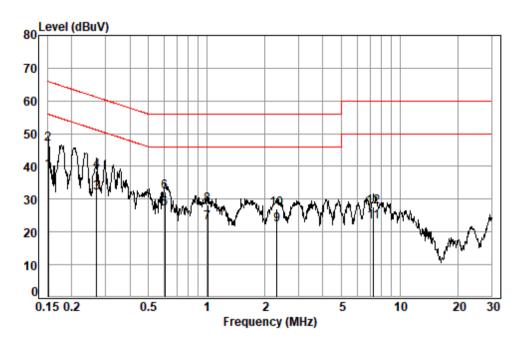
邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZEM201101151203

Page: 40 of 50

Test Mode: 01; Line: Neutral Line



: Shielding Room

Condition: Neutral Job No. : 11512CR

Test mode: 01

	Frea	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.1516	0.03	9.71	28.83	38.57	55.91	-17.34	Average
2	0.1516	0.03	9.71	37.08	46.82	65.91	-19.09	QP
3	0.2701	0.05	9.73	22.17	31.95	51.12	-19.17	Average
4	0.2701	0.05	9.73	28.97	38.75	61.12	-22.37	QP
5	0.6075	0.08	9.77	17.36	27.21	46.00	-18.79	Average
6	0.6075	0.08	9.77	22.29	32.14	56.00	-23.86	QP
7	1.0103	0.10	9.78	13.00	22.88	46.00	-23.12	Average
8	1.0103	0.10	9.78	18.33	28.21	56.00	-27.79	QP
9	2.3090	0.13	9.82	12.28	22.23	46.00	-23.77	Average
10	2.3090	0.13	9.82	17.23	27.18	56.00	-28.82	QP
11	7.3290	0.16	10.06	12.76	22.98	50.00	-27.02	Average
12	7.3290	0.16	10.06	17.43	27.65	60.00	-32.35	QP



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.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 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.: SZEM201101151203

Page: 41 of 50

8 Test Setup Photo

Please refer to setup photos.

9 EUT Constructional Details (EUT Photos)

Please refer to external and internal photos for details.



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

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at 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 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.: SZEM201101151203

Page: 42 of 50

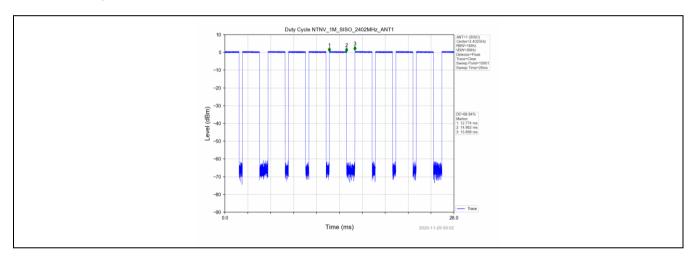
10 Appendix

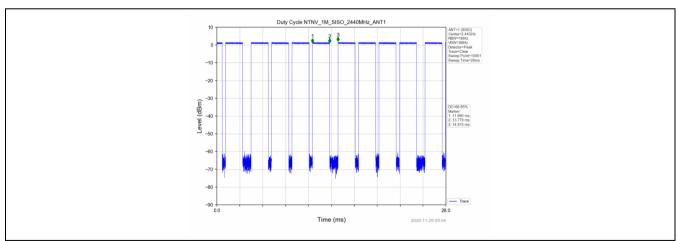
1. Duty Cycle

1.1 Test Result

Test Mode	Channel Frequency(MHz)	TX Type	ANT No.	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
	2402	SISO	1	2.088	3.124	66.84	1.75
1M	2440	SISO	1	2.089	3.125	66.85	1.75
	2480	SISO	1	2.092	3.125	66.94	1.74

1.2 Test Graph







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

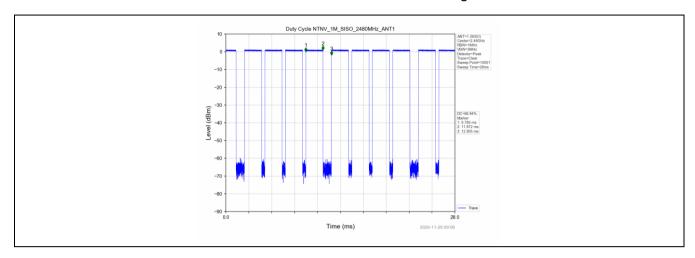
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

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



Report No.: SZEM201101151203

Page: 43 of 50



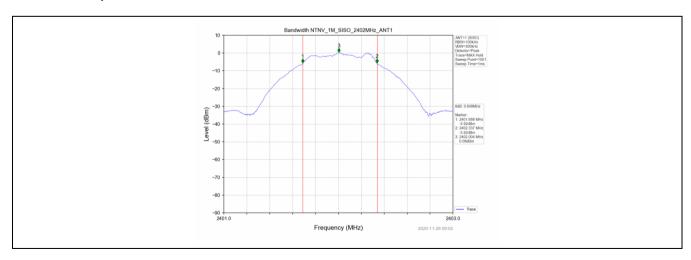
2. Bandwidth

2.1 Test Result

Toot Mode	Toot Made Frequency TV T		ANT No	6dB Ba	Verdict	
Test Mode (MHz)		TX Type	ANT No.	Test Result (MHz)	Limits (MHz)	verdict
	2402	SISO	1	0.649	≥0.5	PASS
1M	2440	SISO	1	0.641	≥0.5	PASS
	2480	SISO	1	0.647	≥0.5	PASS

Toot Mode	Frequency	TX Type	ANT No	99% Occupied Bandwidth		
Test Mode (MHz)		тл туре	ANT No.	Test Result (MHz)		
	2402	SISO	1	1.021	Only for Report Use	
1M	2440	SISO	1	1.023	Only for Report Use	
	2480	SISO	1	1.020	Only for Report Use	

2.2 Test Graph - 6dB Bandwidth





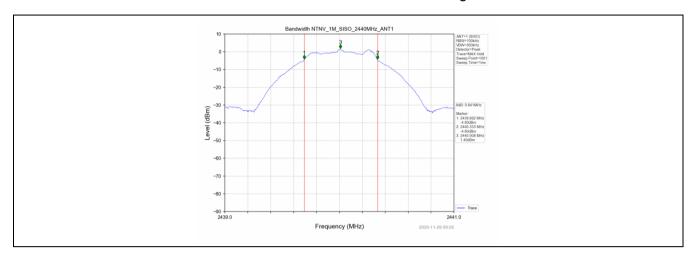
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 中国・深圳・科技园中区M-10栋一号厂房

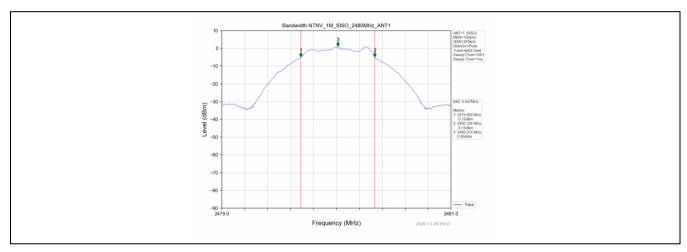
邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



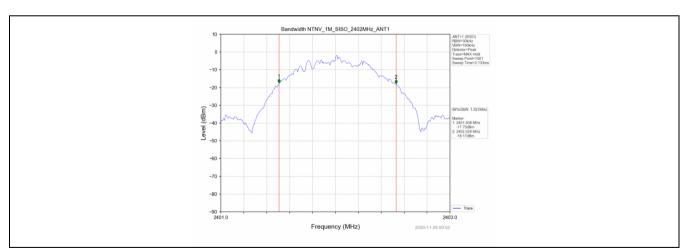
Report No.: SZEM201101151203

Page: 44 of 50





2.3 Test Graph - 99% Occupied Bandwidth





Unless otherwise agreed 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, **Testilia **Testi

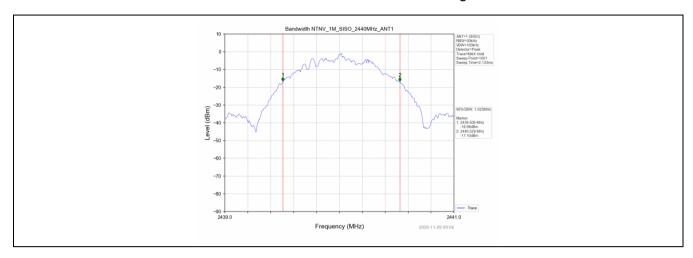
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 中国・深圳・科技园中区M-10栋一号厂房

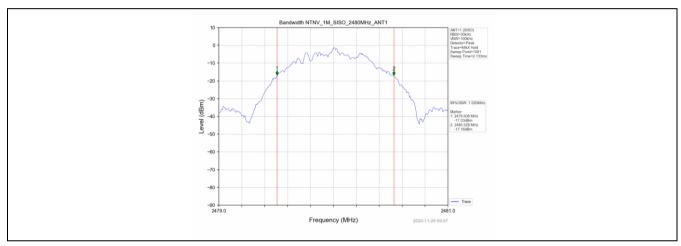
邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZEM201101151203

Page: 45 of 50





3. Maximum Conducted Output Power

3.1 Test Result

Test Mode	Frequency (MHz)	Тх Туре	Measured Peak Output Power (dBm)	Limits (dBm)	Verdict	
	(1711 12)		Ant 1			
	2402	SISO	0.60	30	PASS	
1M	2440	SISO	1.56	30	PASS	
	2480	SISO	1.27	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: (86-755) 8307 1443, **Testilia **Testi

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

sgs.china@sgs.com

Member of the SGS Group (SGS SA)

中国·深圳·科技园中区M-10栋一号厂房

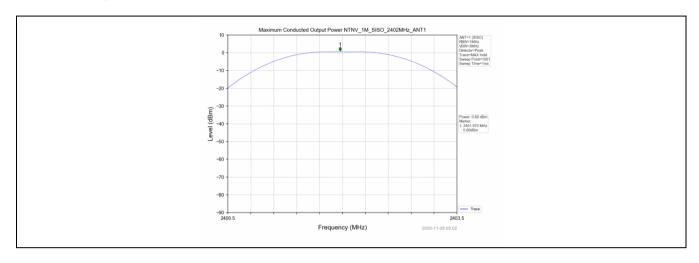
邮编: 518057 t (86-755) 26012053 f (86-755) 26710594

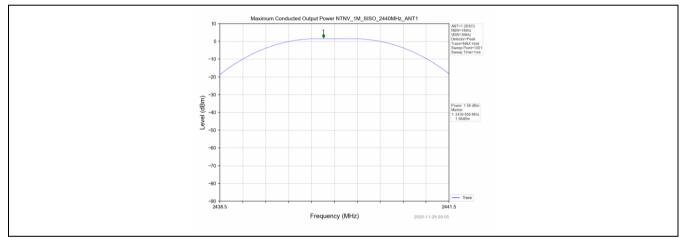


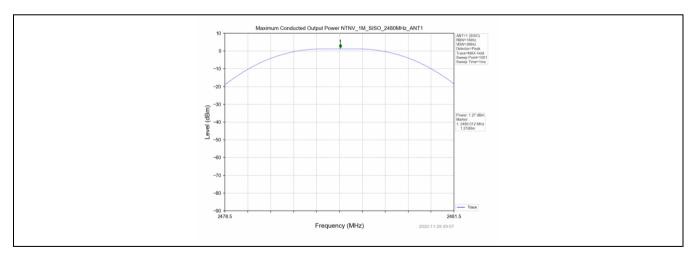
Report No.: SZEM201101151203

Page: 46 of 50

3.2 Test Graph









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

No.1 Morkshop, 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・科技図中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



Report No.: SZEM201101151203

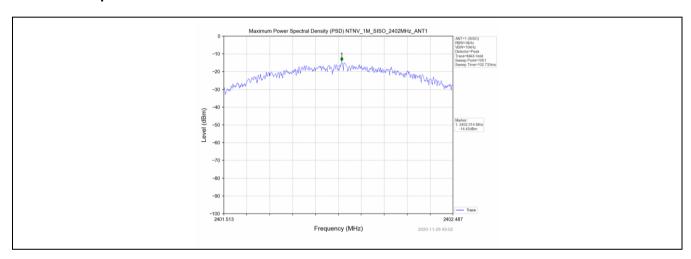
Page: 47 of 50

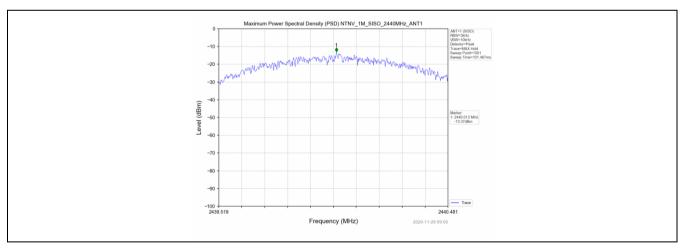
4. Maximum Power Spectral Density (PSD)

4.1 Test Result

Test Mode	Frequency (MHz)	Тх Туре	Maximum Power Spectral Density (dBm/3KHz) Ant 1	Limits (dBm/3kHz)	Verdict
	2402	SISO	-14.45	≤8	PASS
1M	2440	SISO	-13.37	≤8	PASS
	2480	SISO	-14.03	≤8	PASS

4.2 Test Graph







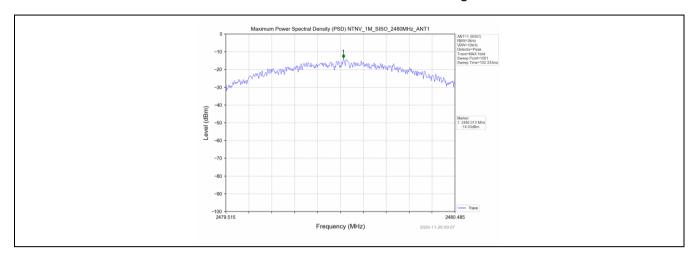
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 中国・深圳・科技园中区M-10栋一号厂房

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



Report No.: SZEM201101151203

Page: 48 of 50

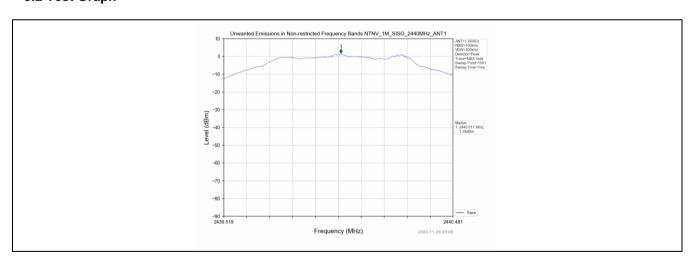


5. Unwanted Emissions in Non-restricted Frequency Bands

5.1 Test Result

Test Mode	Frequency (MHz)	ТХ Туре	ANT No.	Spurious Conducted Emission (dBm)	Limits (dBm)	Verdict
	2402	SISO	1	Refer to test graph	-18.62	PASS
1M	2440	SISO	1	Refer to test graph	-18.62	PASS
	2480	SISO	1	Refer to test graph	-18.62	PASS

5.2 Test Graph





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

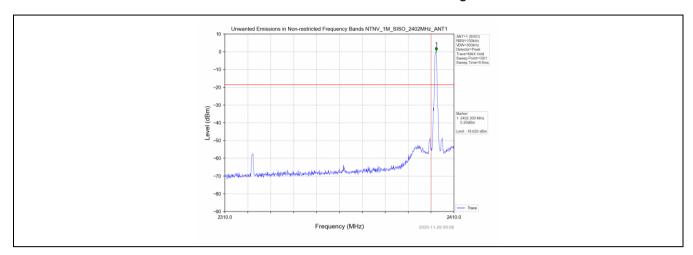
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 中国・深圳・科技园中区M-10栋一号厂房

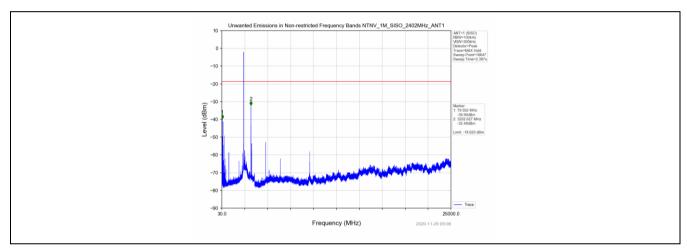
邮编: 518057 t (86-755) 26012053 f (86-755) 26710594

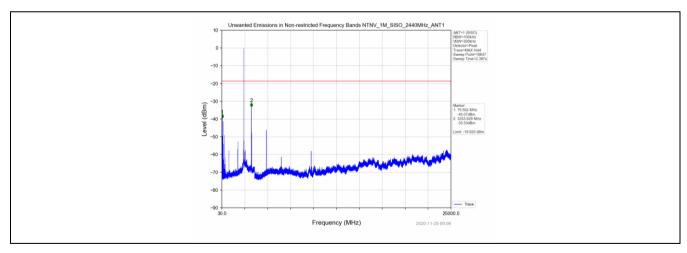


Report No.: SZEM201101151203

Page: 49 of 50









Unless otherwise agreed 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,

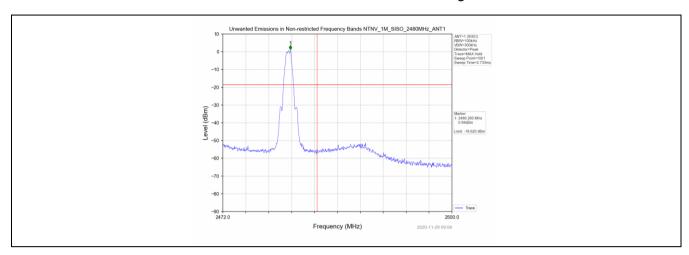
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国·深圳·科技园中区M-10栋一号厂房

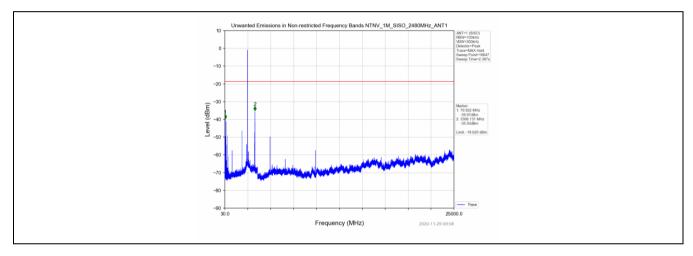
邮编: 518057 t (86-755) 26012053 f (86-755) 26710594



Report No.: SZEM201101151203

Page: 50 of 50





- End of the Report -



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