

SZEMC-TRF-01 Rev. A/1 Report No.: SZCR241100407803

> Page: 1 of 30

# TEST REPORT

**Application No.:** SZCR2411004078AT

Applicant: Shenzhen Xinguodu Technology Co., Ltd.

**Address of Applicant:** 17B JinSong Mansion, Terra Industrial & Trade Park Chegongmiao, Futian

District, Shenzhen, 518040 China

Shenzhen Xinguodu Technology Co., Ltd. Manufacturer:

Address of Manufacturer: 17B JinSong Mansion, Terra Industrial & Trade Park Chegongmiao, Futian

District, Shenzhen, 518040 China

**Equipment Under Test (EUT):** 

**EUT Name: POS Terminal** 

Model No.: KD69-K3, KD69-K3 V28 T51, KD69-K3 V08 R00 T40,

KD69-K3 V28 R00, KD69-K3 V28

Please refer to section 2 of this report which indicates which model was

actually tested and which were electrically identical.

Trade Mark: **NEXGO** 

FCC ID: XDQKD69-01

47 CFR Part 15, Subpart C 15.225 Standard(s):

2024-11-01 Date of Receipt:

2024-11-06 to 2024-11-27 **Date of Test:** 

Date of Issue: 2024-11-28

Test Result: Pass\*

Keny Xu **EMC Laboratory Manager** 

Ceny. Ku



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's indings at the time of its intervention only and within the limits of lent'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@gs.com"

No.1 Workshop, Ili-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编:518057 t (86-755)26012053 f (86-755)26710594 sgs.china@sgs.com

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



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 2 of 30

	Revision Record						
Version	Chapter	Date	Modifier	Remark			
01		2024-11-28		Original			

Authorized for issue by:		
	Calvin Weng	
	Calvin Weng/Project Engineer	-
	Exic Fu	
	Eric Fu/Reviewer	-



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

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

No.1 Workshop, IM-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



SZEMC-TRF-01 Rev. A/1 Report No.: SZCR241100407803

> Page: 3 of 30

## **Test Summary**

Radio Spectrum Technical Requirement						
Item	Standard	Method	Requirement	Result		
Antenna Requirement	47 CFR Part 15, Subpart C 15.225	N/A	47 CFR Part 15, Subpart C 15.203	Pass		

Radio Spectrum Matter Part						
Item	Standard	Method	Requirement	Result		
Conducted Emissions at Mains Terminals (150kHz-30MHz)		ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass		
20dB Bandwidth		ANSI C63.10 (2013) Section 6.9	47 CFR Part 15, Subpart C 15.215	Pass		
Emission Mask	47 CFR Part 15,	ANSI C63.10 (2013) Section 6.4	47 CFR Part 15, Subpart C 15.225(a)&(b)&(C)	Pass		
Frequency tolerance	Subpart C 15.225	ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart C 15.225(e)	Pass		
Radiated Emissions (9kHz-30MHz)		ANSI C63.10 (2013) Section 6.4&6.5	47 CFR Part 15, Subpart C 15.225(d) & 15.209	Pass		
Radiated Emissions (30MHz-1GHz)		ANSI C63.10 (2013) Section 6.4&6.5	47 CFR Part 15, Subpart C 15.225(d) & 15.209	Pass		

### Remark:

Model No.: KD69-K3, KD69-K3\_V28\_T51, KD69-K3\_V08\_R00\_T40, KD69-K3\_V28\_R00,

KD69-K3 V28

Only the model KD69-K3 was tested. According to the declaration from the applicant, the electrical circuit design, PCB layout, components used, internal wiring and functions were identical for all the above models, with only difference on:

KD69-K3\_V28\_T51 is different in that it has more internal cover plates and a larger display size,

KD69-K3\_V28 is different in that the display is larger,

KD69-K3\_V08\_R00\_T40 is different in that it has only one screen and four buttons,

KD69-K3\_V28\_R00 is difference in that the screen size is different from the main configuration.



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

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

No.1 Workshop, IM-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 4 of 30

#### 3 **Contents**

		Page
1	1 Cover Page	1
2	2 Test Summary	3
3	3 Contents	
3	) Contents	5
4	4 General Information	6
	4.1 Details of E.U.T.	6
	4.2 Description of Support Units	6
	4.3 Measurement Uncertainty	
	4.4 Test Location	
	4.5 Test Facility	
	4.6 Deviation from Standards	
	4.7 Abnormalities from Standard Conditions	7
5	5 Equipment List	8
6	6 Radio Spectrum Technical Requirement	10
٠	6.1 Antenna Requirement	
	6.1.1 Test Requirement:	
	6.1.2 Conclusion	
_		
7	•	
	7.1 Conducted Emissions at Mains Terminals (150kHz-30MHz)	
	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 Data7.2 20dB Bandwidth	
	7.2.1 E.U.T. Operation	
	7.2.2 Test Mode Description	
	7.2.3 Test Setup Diagram	
	7.2.4 Measurement Procedure and Data	
	7.3 Emission Mask	
	7.3.1 E.U.T. Operation	
	7.3.2 Test Mode Description	
	7.3.3 Test Setup Diagram	18
	7.3.4 Measurement Procedure and Data	18
	7.4 Frequency tolerance	20
	7.4.1 E.U.T. Operation	20
	7.4.2 Test Mode Description	
	7.4.3 Test Setup Diagram	
	7.4.4 Measurement Procedure and Data	
	7.5 Radiated Emissions (9kHz-30MHz)	
	7.5.1 E.U.T. Operation	22



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

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

No.1 Workshop, Ni-10, Niddle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 5 of 30

9 E	UT	Constructional Details (EUT Photos)	30
8 T	est	Setup Photo	30
7	.6.4	Measurement Procedure and Data	27
7	.6.3	Test Setup Diagram	27
		Part Mode Description	
		E.U.T. Operation	
		Radiated Emissions (30MHz-1GHz)	
		Measurement Procedure and Data	
		Test Setup Diagram	
7	.5.2	Part Mode Description	22



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

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



SZEMC-TRF-01 Rev. A/1 Report No.: SZCR241100407803

> Page: 6 of 30

### **General Information**

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

Power supply:	DC3.6V by li-ion battery(2600mAh)
	Battery M/N:GX07
	Battery Manufacturer: Huarui Lithium Energy(Shenzhen) Co.,Ltd.
	Recharge input:DC5V/1A
Cable(s):	USB cable: 1.5m unshielded cable without ferrite core
Operation Frequency:	13.56MHz
Modulation Type:	ASK
Antenna Type:	Loop Antenna

Remark: The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

4.2 Description of Support Units

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

### 4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at Mains Terminals (150kHz-30MHz)	± 3.1dB
20dB Bandwidth	± 3%
Emission Mask	± 4.5dB (Below 1GHz)
Frequency tolerance	± 3%
Radiated Emissions (9kHz-30MHz)	± 3.6dB
Radiated Emissions (30MHz-1GHz)	$\pm$ 6.0dB for 3m; $\pm$ 5.0dB for 10m



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

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

No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn

Member of the SGS Group (SGS SA)



SZEMC-TRF-01 Rev. A/1 Report No.: SZCR241100407803

> Page: 7 of 30

### 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, Nanshan District, 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 (Member No. 1937)

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. Shenzhen EMC laboratory 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: CN1336

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

Designation Number: CN1336. Test Firm Registration Number: 787754.

### • 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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 8 of 30

#### 5 **Equipment List**

Conducted Emissions at Mains Terminals (150kHz-30MHz)						
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date	
Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2022-05-14	2025-05-13	
EMI Test Receiver	Rohde&Schwarz	ESR	SZ-WRG-M- 047	2024-01-30	2025-01-29	
Measurement Software	AUDIX	e3 V8.2014-6- 27a	N/A	N/A	N/A	
Coaxial Cable	SGS	N/A	SEM024-01	2024-07-06	2025-07-05	
LISN	Rohde&Schwarz	ENV216	SEM007-01	2024-08-15	2025-08-14	
LISN	ETS-LINDGREN	3816/2	SEM007-02	2024-03-14	2025-03-13	

20dB Bandwidth					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
DC Power Supply	Zhao Xin	PS-305D	SEM011-13	2024-08-14	2025-08-13
Spectrum Analyzer	Rohde & Schwarz	FSP30	SEM004-06	2024-09-14	2025-09-13
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2024-07-06	2025-07-05
Attenuator	Huber+Suhner	6620_SMA-50- 1	SEM021-09	2024-03-27	2025-03-26

Emission Mask					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2024-03-26	2025-03-25
MXE EMI receiver	KEYSIGHT	N9038A	SEM004-16	2024-08-14	2025-08-13
Trilog-Broadband Antenna	Schwarzbeck	VULB9168	SEM003-18	2023-09-23	2025-09-22
Pre-amplifier	Sonoma Instrument Co	310N	SEM005-04	2024-03-27	2025-03-26
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2023-11-20	2025-11-19
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM029-01	2024-07-06	2025-07-05

Frequency tolerance					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
DC Power Supply	Zhao Xin	PS-305D	SEM011-13	2024-08-14	2025-08-13
Spectrum Analyzer	Rohde & Schwarz	FSP30	SEM004-06	2024-09-14	2025-09-13



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

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

中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编:518057 t(86-755)26012053 f(86-755)26710594 sgs.china@sgs.com

No.1 Workshop, Ni-10, Niddle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 9 of 30

Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2024-07-06	2025-07-05
Attenuator	Huber+Suhner	6620_SMA-50- 1	SEM021-09	2024-03-27	2025-03-26
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2024-03-19	2025-03-18

Radiated Emissions (9kHz-30MHz)						
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date	
10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2024-03-26	2025-03-25	
MXE EMI receiver	KEYSIGHT	N9038A	SEM004-16	2024-08-14	2025-08-13	
Trilog-Broadband Antenna	Schwarzbeck	VULB9168	SEM003-18	2023-09-23	2025-09-22	
Pre-amplifier	Sonoma Instrument Co	310N	SEM005-04	2024-03-27	2025-03-26	
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2023-11-20	2025-11-19	
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A	
Coaxial Cable	SGS	N/A	SEM029-01	2024-07-06	2025-07-05	

Radiated Emissions (30MHz-1GHz)						
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date	
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2023-06-19	2026-06-18	
MXE EMI Receiver	Agilent Technologies	N9038A	SEM004-15	2024-08-14	2025-08-13	
BiConiLog Antenna	ETS-LINDGREN	3142C	SEM003-01	2023-09-16	2025-09-15	
Pre-Amplifier	Agilent Technologies	8447D	SEM005-01	2024-03-14	2025-03-13	
Measurement Software	AUDIX	e3 V8.2014-6- 27	N/A	N/A	N/A	
Coaxial Cable	SGS	N/A	SEM025-01	2024-07-06	2025-07-05	

General used equipmen	t				
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	deli	8838	SEM002-32	2024-07-24	2025-07-23
Humidity/ Temperature Indicator	deli	8838	SEM002-33	2024-07-24	2025-07-23
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2024-03-18	2025-03-17



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

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

No.1 Workshop, Ni-10, Niddle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn



SZEMC-TRF-01 Rev. A/1 Report No.: SZCR241100407803

> Page: 10 of 30

### **Radio Spectrum Technical Requirement** 6

### 6.1 Antenna Requirement

### 6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

### 6.1.2 Conclusion

15.203 requirement:

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

### **EUT Antenna:**

The antenna is integrated on the main PCB and no consideration of replacement.

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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's indings 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@gs.com"

No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn

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



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 11 of 30

#### **Radio Spectrum Matter Test Results** 7

### 7.1 Conducted Emissions at Mains Terminals (150kHz-30MHz)

47 CFR Part 15, Subpart C 15.207 Test Requirement Test Method: ANSI C63.10 (2013) Section 6.2

### Limit:

Fragues (MALT)	Limit (dBuV)			
Frequency range (MHz)	Quasi-peak	Average		
0.15-0.5	66 to 56*	56 to 46*		
0.5-5	56	46		
5-30	60	50		

<sup>\*</sup> Decreases with the logarithm of the frequency.

### 7.1.1 E.U.T. Operation

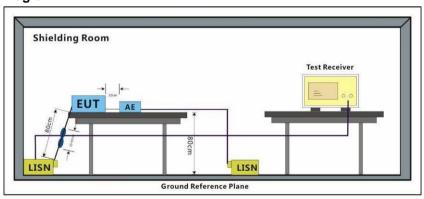
Operating Environment:

Temperature: 22.5 °C Atmospheric Pressure: 1020 mbar Humidity: 44.5 % RH

### 7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode with modulation

### 7.1.3 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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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

No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn



SZEMC-TRF-01 Rev. A/1 Report No.: SZCR241100407803

> 12 of 30 Page:

### 7.1.4 Measurement Procedure and Data

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



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's indings 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@gs.com"

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn

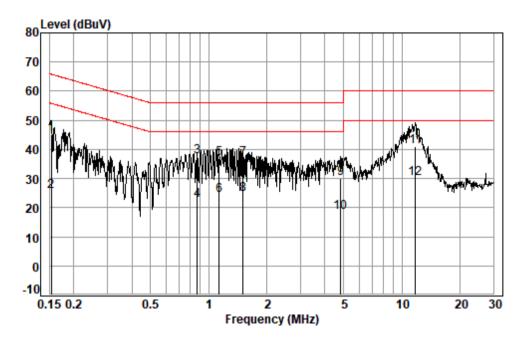


SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 13 of 30

Test Mode: 02; Line: Live line



: Shielding Room

Condition: Line Job No. : 04078AT

Test mode: 02

: KD69-K3

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
-	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.1532	0.06	9.81	35.20	45.07	65.82	-20.75	QP
2	0.1532	0.06	9.81	15.70	25.57	55.82	-30.25	Average
3 *	0.8710	0.09	9.71	27.72	37.52	56.00	-18.48	QP
4	0.8710	0.09	9.71	12.74	22.54	46.00	-23.46	Average
5	1.1352	0.09	9.70	27.23	37.02	56.00	-18.98	QP
6	1.1352	0.09	9.70	14.50	24.29	46.00	-21.71	Average
7	1.5113	0.10	9.68	27.11	36.89	56.00	-19.11	QP
8	1.5113	0.10	9.68	14.66	24.44	46.00	-21.56	Average
9	4.8224	0.12	9.64	20.22	29.98	56.00	-26.02	QP
10	4.8224	0.12	9.64	8.61	18.37	46.00	-27.63	Average
11	11.7446	0.22	9.99	30.86	41.07	60.00	-18.93	QP
12 *	11.7446	0.22	9.99	19.72	29.93	50.00	-20.07	Average



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

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

No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn

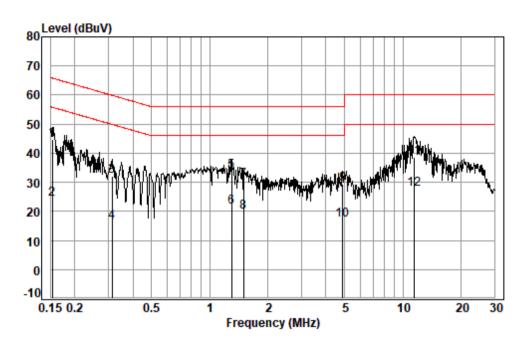


SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 14 of 30

Test Mode: 02; Line: Neutral Line



: Shielding Room

Condition: Neutral Job No. : 04078AT

Test mode: 02

: KD69-K3

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
_	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1 *	0.1532	0.06	9.82	34.96	44.84	65.82	-20.98	QP
2	0.1532	0.06	9.82	14.45	24.33	55.82	-31.49	Average
3	0.3133	0.07	9.78	22.24	32.09	59.88	-27.79	QP
4	0.3133	0.07	9.78	6.42	16.27	49.88	-33.61	Average
5	1.2960	0.09	9.72	24.06	33.87	56.00	-22.13	QP
6	1.2960	0.09	9.72	11.75	21.56	46.00	-24.44	Average
7	1.5033	0.10	9.71	20.76	30.57	56.00	-25.43	QP
8	1.5033	0.10	9.71	10.11	19.92	46.00	-26.08	Average
9	4.8997	0.12	9.66	19.72	29.50	56.00	-26.50	QP
10	4.8997	0.12	9.66	7.34	17.12	46.00	-28.88	Average
11	11.4983	0.22	10.06	28.28	38.56	60.00	-21.44	QP
12 *	11.4983	0.22	10.06	17.50	27.78	50.00	-22.22	Average



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

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

No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 15 of 30

### 7.2 20dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.215 Test Method: ANSI C63.10 (2013) Section 6.9

### 7.2.1 E.U.T. Operation

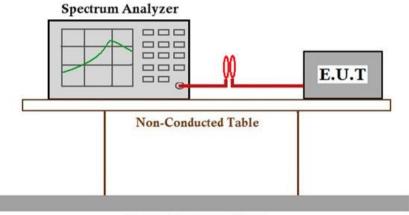
Operating Environment:

23.8 °C Atmospheric Pressure: 1020 mbar Temperature: Humidity: 49.3 % RH

### 7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode with modulation

### 7.2.3 Test Setup Diagram



Ground Reference Plane

### 7.2.4 Measurement Procedure and Data

The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector.



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

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

No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn

中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编:518057

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

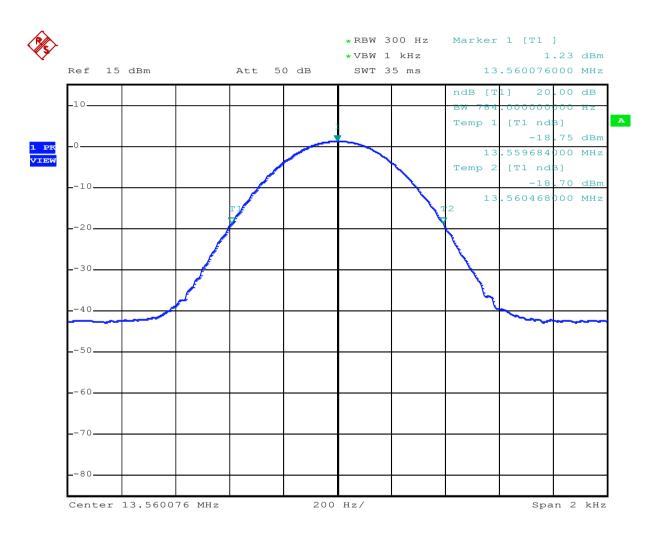


SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 16 of 30

f <sub>L</sub> (MHz)	f <sub>H</sub> (MHz)	f <sub>C</sub> (MHz)	Limit(MHz)	Result
13.559684	13.560468	13.5600760	13.553 to 13.567	PASS





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

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

No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn



SZEMC-TRF-01 Rev. A/1 Report No.: SZCR241100407803

> Page: 17 of 30

### 7.3 Emission Mask

**Test Requirement** 47 CFR Part 15, Subpart C 15.225(a)&(b)&(C)

Test Method: ANSI C63.10 (2013) Section 6.4

Measurement Distance: 3m

Limit:

(a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.

- (b) Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
- (c) Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.
- (d) The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in § 15.209.

#### Below 30MHz

The limit at 3m test distance is below:

$$FS_{\text{limit}} = FS_{\text{max}} - 40 \log \left( \frac{d_{\text{limit}}}{d_{\text{measure}}} \right)$$

where

 $FS_{\text{limit}}$ is the calculation of field strength at the limit distance, expressed in dBµV/m

 $FS_{\text{max}}$ is the measured field strength, expressed in dBµV/m is the distance of the measurement point from the EUT  $d_{\text{measure}}$ is the reference distance or the distance of the  $\lambda/2\pi$  point  $d_{\text{limit}}$ 

The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 124dBuV/m at 3 meters.

### 7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C Humidity: 50.9 % RH Atmospheric Pressure: 1020 mbar

### 7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode with 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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's indings 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@gs.com"

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn

中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编:518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com Member of the SGS Group (SGS SA)

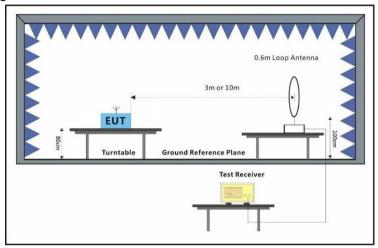


SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 18 of 30

### 7.3.3 Test Setup Diagram



#### 7.3.4 Measurement Procedure and Data

For testing performed with the loop antenna, the center of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specified distance from the EUT. During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane. Only the worst position of vertical was 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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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

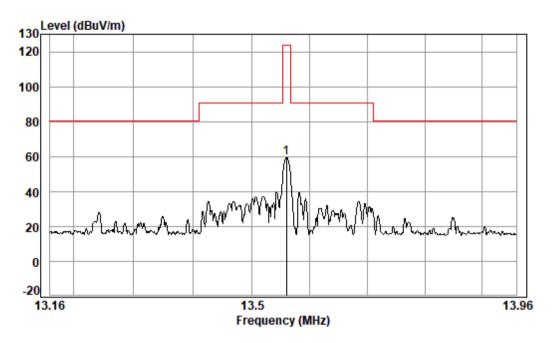
No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 19 of 30



Condition: 3m

Job No. : 04078AT

Test Mode: 02

Ant Cable Preamp Read Limit 0ver Freq Level Factor Loss Factor Level Line Limit Remark dB dBuV/m dBuV/m MHz dBuV dB/m dB dB 8.55 1.16 32.50 59.28 124.00 -64.72 OP 1 pp 13.560 82.07



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

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

No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn

中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编:518057

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



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 20 of 30

### 7.4 Frequency tolerance

Test Requirement 47 CFR Part 15, Subpart C 15.225(e) Test Method: ANSI C63.10 (2013) Section 6.8

Limit:

±0.01%

### 7.4.1 E.U.T. Operation

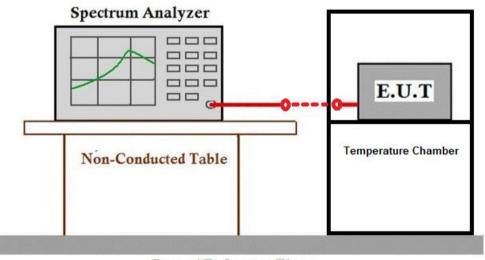
Operating Environment:

Temperature: 23.8 °C Humidity: 49.3 % RH Atmospheric Pressure: 1020 mbar

### 7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode with modulation

### 7.4.3 Test Setup Diagram



Ground Reference Plane

### 7.4.4 Measurement Procedure and Data

The EUT was placed in an environmental test chamber and powered such that control element received normal voltage and the transmitter provided maximum RF output.



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

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

No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn

中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编:518057 Member of the SGS Group (SGS SA)

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



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 21 of 30

Declared Frequency (MHz)	13.56MHz	@10 minutes
--------------------------	----------	-------------

Temperature (°C)	Voltage(Vdc)	Measurement Frequency(MHz)	Frequency Tolerance (%)	Limit (%)	Result
50		13.560066	0.000487		Pass
40		13.560067	0.000494		Pass
30		13.560064	0.000472		Pass
20	3.6	13.560063	0.000465		Pass
10	3.0	13.560066	0.000487	.0.01	Pass
0		13.560066	0.000487	±0.01	Pass
-10		13.560060	0.000442		Pass
-20		13.560062	0.000457		Pass
20	3.3	13.560064	0.000472		Pass
20	4.2	13.560065	0.000479		Pass



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction form 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, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



SZEMC-TRF-01 Rev. A/1 Report No.: SZCR241100407803

> Page: 22 of 30

### 7.5 Radiated Emissions (9kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.225(d) & 15.209

Test Method: ANSI C63.10 (2013) Section 6.4&6.5

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength (microvolts/meter)	Limit (dBuV/m)	Detector	Measurement Distance (meters)
0.009-0.490	2400/F(kHz)	-	-	300
0.490-1.705	24000/F(kHz)	-	-	30
1.705-30	30	-	-	30

#### Note:

At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade).

#### Remark:

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

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

### 7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C Humidity: 50.9 % RH Atmospheric Pressure: 1020 mbar

### 7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode with 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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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

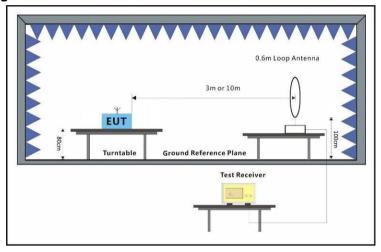
No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn



SZEMC-TRF-01 Rev. A/1 Report No.: SZCR241100407803

> Page: 23 of 30

### 7.5.3 Test Setup Diagram



### 7.5.4 Measurement Procedure and Data

For testing performed with the loop antenna, the center of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specified distance from the EUT. During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane. Only the worst position of vertical was 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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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

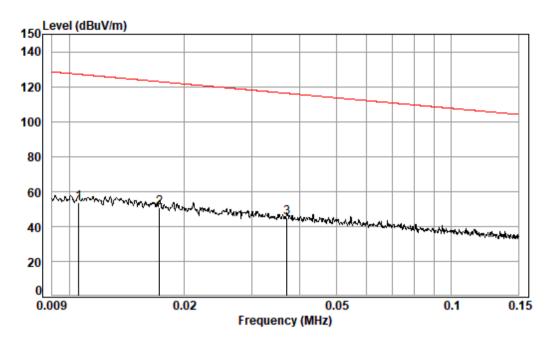
No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 24 of 30



Condition: 3m

Job No. : 04078AT

Test Mode: 02

	Freq		Ant Factor						Remark	
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	0.011	66.82	17.95	0.34	31.47	53.64	127.11	-73.47	Average	
2	0.017	67.43	15.00	0.34	32.00	50.77	122.88	-72.11	Average	
3 рр	0.037	65.27	11.64	0.33	32.43	44.81	116.19	-71.38	Average	



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

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

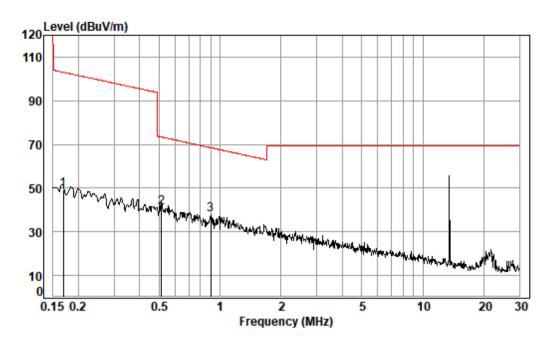
No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 25 of 30



Condition: 3m

Job No. : 04078AT

Test Mode: 02

	Freq		Ant Factor						Remark
_	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 av	0.169	71.14	10.49	0.33	32.50	49.46	103.06	-53.60	Average
2	0.516	62.74	10.37	0.38	32.50	40.99	73.36	-32.37	QP
3 pp	0.899	59.37	10.35	0.44	32.50	37.66	68.49	-30.83	QP



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

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

No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn



SZEMC-TRF-01 Rev. A/1 Report No.: SZCR241100407803

> Page: 26 of 30

### 7.6 Radiated Emissions (30MHz-1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.225(d) & 15.209

Test Method: ANSI C63.10 (2013) Section 6.4&6.5

Measurement Distance: 3m

### Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
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 above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

### 7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 23.2 °C Humidity: 45.8 % RH Atmospheric Pressure: 1020 mbar

### 7.6.2 Test Mode Description

7.0.2 103010	ouc Dc	on paon						
Pre-scan / Final test	Mode Code	Description						
Final test	02	TX mode with 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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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

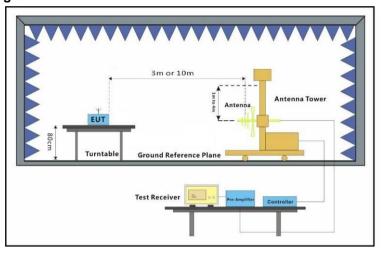
No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn



SZEMC-TRF-01 Rev. A/1 Report No.: SZCR241100407803

> Page: 27 of 30

### 7.6.3 Test Setup Diagram



#### 7.6.4 Measurement Procedure and Data

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



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's indings 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@gs.com"

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn

中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编:518057

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

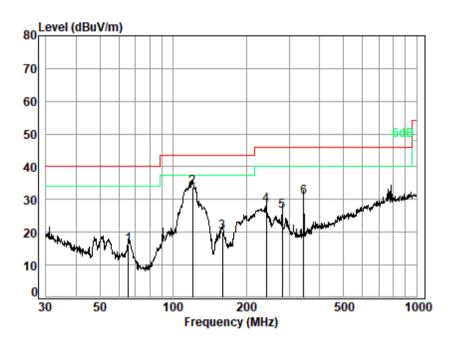


SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 28 of 30

Test Mode: 02; Polarity: Horizontal



Site : chamber

Condition: 3m HORIZONTAL

Job No. : 04078AT

Test Mode: 02

		Ant	Cable	Preamp	Read		Limit	0ver	
	Freq	Factor	Loss	Factor	Level	Level	Line	Limit	Remark
-	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	65.573	10.97	0.99	27.69	31.76	16.03	40.00	-23.97	QP
2 q	120.277	11.09	1.36	27.50	48.81	33.76	43.50	-9.74	QP
3	159.784	13.59	1.59	27.34	32.37	20.21	43.50	-23.29	QP
4	241.676	17.08	1.97	26.99	36.11	28.17	46.00	-17.83	QP
5	281.008	16.91	2.13	26.83	34.25	26.46	46.00	-19.54	QP
6	344.386	19.47	2.38	26.93	35.79	30.71	46.00	-15.29	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 <a href="https://www.sgs.com/en/Terms-and-Conditions">https://www.sgs.com/en/Terms-and-Conditions</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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

No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn

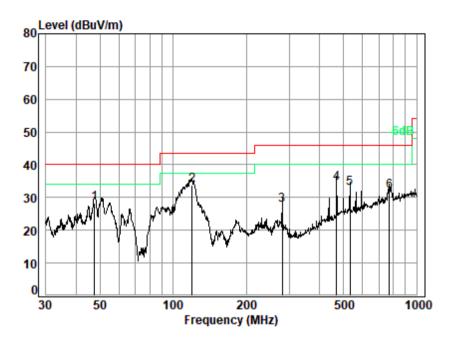


SZEMC-TRF-01 Rev. A/1

Report No.: SZCR241100407803

Page: 29 of 30

Test Mode: 02; Polarity: Vertical



Site : chamber

Condition: 3m VERTICAL

Job No. : 04078AT

Test Mode: 02

		Ant	Cable	Preamp	Read		Limit	0ver	
	Freq	Factor	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	47.492	13.47	0.84	27.74	41.62	28.19	40.00	-11.81	QP
2	q 119.436	11.12	1.36	27.51	48.93	33.90	43.50	-9.60	QP
3	281.008	16.91	2.13	26.83	35.58	27.79	46.00	-18.21	QP
4	468.876	22.12	2.82	27.44	36.90	34.40	46.00	-11.60	QP
5	531.964	23.33	3.03	27.69	34.06	32.73	46.00	-13.27	QP
6	774.158	26.84	3.78	27.54	28.98	32.06	46.00	-13.94	OP



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

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

No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn



SZEMC-TRF-01 Rev. A/1 Report No.: SZCR241100407803

> Page: 30 of 30

#### **Test Setup Photo** 8

Refer to Appendix - Test Setup Photo for SZCR2411004078AT

#### **EUT Constructional Details (EUT Photos)** 9

Refer to External and Internal Photos for SZCR2411004078AT

- End of the Report -



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

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

No.1 Workshop, Ib-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn