

Report No.: SZEM210100135602 Page: 1 of 29

TEST REPORT

Application No.:	SZEM2101001356CR
Applicant:	Harman International Industries, Inc.
Address of Applicant:	8500 Balboa Boulevard, Northridge, California, 91329, United States
Manufacturer:	Harman International Industries, Inc.
Address of Manufacturer:	8500 Balboa Boulevard, Northridge, California, 91329, United States
Factory:	ASAP Technology (Jiangxi) Co., Ltd.
Address of Factory:	Ji'an Industrial Park, Ji'an, Jiangxi 343100 China
Equipment Under Test (EUT):
EUT Name:	Wireless Charging Station
Model No.:	ILINSSTAND
Trade Mark:	INFINITYLAB
FCC ID:	APIINFILINSSTAND
Standard(s) :	47 CFR Part 15, Subpart C
Date of Receipt:	2021-01-29
Date of Test:	2021-02-05 to 2021-02-23
Date of Issue:	2021-03-30
Test Result:	Pass*

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

Keny. Ku

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 exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is 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) is re 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.

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.com



Page: 2 of 29

Revision Record						
VersionChapterDateModifierRemark						
01		2021-03-30		Original		

Authorized for issue by:			
	Bonson Wang		
	Benson Wang/Project Engineer	-	
	Eric Fu		
	Eric Fu/Reviewer	-	



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exconsing all their rights and obligations under the transaction documents. 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 refor only to the sample(s) test and sub-aspmle(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: (80-755) 8307 1443, or email: (80-755)

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

Member of the SGS Group (SGS SA)



Page: 3 of 29

Test Summary 2

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

Radio Spectrum Matter Part					
Item	Standard	Method	Requirement	Result	
Conducted Emissions at AC Mains Power Port (150kHz-30MHz)		ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass	
Radiated Emissions (9kHz-30MHz)	47 CFR Part 15, Subpart C	ANSI C63.10 (2013) Section 6.4	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass	
Radiated Emissions (30MHz-1GHz)		ANSI C63.10 (2013) Section 6.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass	
20dB Bandwidth		ANSI C63.10 (2013) Section 6.9.2	47 CFR Part 15, Subpart C 15.215	Pass	
Restricted Bands		ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.205	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 exconsing all their rights and obligations under the transaction documents. 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 refor only to the sample(s) test and sub-aspmle(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: (80-755) 8307 1443, or email: (80-755)

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

Member of the SGS Group (SGS SA)



Report No.: SZEM210100135602

Page: 4 of 29

3 Contents

			Page
1	COV	/ER PAGE	1
2	TES	T SUMMARY	
3	CON	ITENTS	4
4	GEN	IERAL INFORMATION	6
	4.1	DETAILS OF E.U.T.	6
	4.2	DESCRIPTION OF SUPPORT UNITS	6
	4.3	Measurement Uncertainty	-
	4.4		
	4.5		
	4.6 4.7	DEVIATION FROM STANDARDS	
5	EQU	JIPMENT LIST	8
6	RAD	DIO SPECTRUM TECHNICAL REQUIREMENT	10
	6.1	ANTENNA REQUIREMENT	
	6.1.1		
	6.1.2		
7	RAD	DIO SPECTRUM MATTER TEST RESULTS	11
	7.1	Conducted Emissions at AC Mains Power Port (150kHz-30MHz)	
	7.1.1		11
	7.1.2		
	7.1.3		
	7.1.4		
	7.2	RADIATED EMISSIONS (9KHz-30MHz)	
	7.2.1 7.2.2	1	
	7.2.2		
	7.2.4		
	7.3	RADIATED EMISSIONS (30MHz-1GHz)	
	7.3.1	1 E.U.T. Operation	20
	7.3.2	2 Test Mode Description	
	7.3.3		
	7.3.4		
	7.4 <i>7.4.1</i>	20DB BANDWIDTH	
	7.4.1	1	
	7.4.2		
	7.4.4		
	7.5	RESTRICTED BANDS	
	7.5.1	1	27
	7.5.2	2 Test Mode Description	27



	nless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed verleaf, available on request or accessible at <u>http://www.sgs.com/en/Terms-and-Conditions.aspx</u> and, for electronic format documents, ubject to Terms and Conditions for Electronic Documents at <u>http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</u> . ttention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is dvised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of
	lient's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a ansaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced
	xcept in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or ppearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the
	sults shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. (tention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,
Ltd.	remail: CN.Doccheck@sgs.com lo.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn
у.	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.: SZEM210100135602

Page: 5 of 29

		Test Setup Diagram Measurement Procedure and Data	
8	TEST	SETUP PHOTO	29
9	EUT C	CONSTRUCTIONAL DETAILS (EUT PHOTOS)	29



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

Member of the SGS Group (SGS SA)



Page: 6 of 29

4 General Information

4.1 Details of E.U.T.

Power supply:	Powered by adapter:
	Adapter Model: ILADPT33W
	Input: AC 100 - 240V, 50/60Hz, 1,5A;
	Output: DC 21.0V / 2.14A, 44.9W
Cable(s):	DC cable of adapter: 146cm unshielded
Operation frequency:	126.500kHz to 129.000kHz
Modulation Type:	Load Modulation
Antenna Type:	Loop Antenna Remark: The transfer system includes only single primary and secondary coils, the clients that are able to detect and allow coupling only between individual pairs of coils.
Remark:	This device has been tested the worst status of full load and the device has been tested with load at 5W, 7.5W 10W and 15W, the worst case 15W working with primary coil is reported only.

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Mobile Phone	SAMSUNG	SM-G9810	REF. No.SEA16K00
Electronic load	Provided by SGS	N/A	N/A

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Mains Power Port (150kHz-30MHz)	\pm 3.0dB (150kHz to 30MHz)
Radiated Emissions (30MHz-1GHz)	± 4.5dB
Radiated Emissions (9kHz-30MHz)	± 4.5dB
20dB Bandwidth	± 3%
Restricted Bands	± 3%
Demerki	

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 exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is 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

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

Member of the SGS Group (SGS SA)



Page: 7 of 29

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-eDocument.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 exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this ter report fer only to the sample(s) tested and such sample(s) are retained for 30 days only.



Report No.: SZEM210100135602

Page: 8 of 29

5 Equipment List

Conducted Emissions at AC Mains Power Port (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	

Radiated Emissions (30MHz-1GHz)									
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date				
10m Semi-Anechoic Chamber	SAEMC	FSAC1018 SEM001-03		2018-03-31	2021-03-30				
MXE EMI receiver	KEYSIGHT	N9038A	SEM004-16	2020-11-02	2021-11-01				
Trilog-Broadband Antenna	Schwarzbeck	VULB9168	SEM003-18	2019-08-08	2022-08-07				
Pre-amplifier	Pre-amplifier Sonoma Instrument Co		SEM005-04	2020-04-09	2021-04-08				
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2020-08-14	2023-08-13				
Measurement Software	AUDIX	e3 V8.2014-6- 27 N/A		N/A	N/A				
Coaxial Cable	SGS	N/A	SEM029-01	2020-07-10	2021-07-09				

Radiated Emissions (9kHz-30MHz)									
Equipment	Manufacturer	Model No Inventory No		Cal Date	Cal Due Date				
10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2018-03-31	2021-03-30				
MXE EMI receiver	iver KEYSIGHT N9038A SEM004			2020-11-02	2021-11-01				
Trilog-Broadband Antenna	Schwarzbeck	VULB9168	SEM003-18	2019-08-08	2022-08-07				
Pre-amplifier	Pre-amplifier Sonoma Instrument Co 3		SEM005-04	2020-04-09	2021-04-08				
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2020-08-14	2023-08-13				
Measurement Software	AUDIX	e3 V8.2014-6- 27 N/A		N/A	N/A				
Coaxial Cable	SGS	N/A	SEM029-01	2020-07-10	2021-07-09				



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 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 Cilent's instructions, if any. The Company's sole responsibility is to its Cilent and this document does not exoncerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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) itsel and uson 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, Snenzhen, Chin 中国・深圳・科技园中区M-10栋一号厂房 邮纬

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



Report No.: SZEM210100135602

Page: 9 of 29

20dB 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				
Signal Generator	Signal Generator KEYSIGHT		SEM006-05	2020-09-23	2021-09-22				
Measurement Software	TST	TST PASS V1.0.5	N/A	N/A	N/A				
Coaxial Cable	ble SGS N/A S		SEM031-02	2020-07-10	2021-07-09				
Attenuator	Huber+Suhner	6620_SMA-50- 1	SEM021-09	2020-05-21	2021-05-20				
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2020-03-25	2021-03-24				

Restricted Bands					
Equipment	Manufacturer	Model No	Model No Inventory No		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 Generator	KEYSIGHT	N5173B	SEM006-05	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
Programmable Temperature & Humidity Chamber	nperature & Humidity Industrietechnik		SEM002-15	2020-03-25	2021-03-24

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			



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



Page: 10 of 29

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

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.

6.1.2 Conclusion

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. 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-eDocument.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 exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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 refor only to the 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: CNN posched/@son.com

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 tk (86-755) 26012053 fk (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 tk (86-755) 26012053 fk (86-755) 26710594 sgs.china@sgs.com



Page: 11 of 29

7 Radio Spectrum Matter Test Results

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

Test Requirement47 CFR Part 15, Subpart C 15.207Test Method:ANSI C63.10 (2013) Section 6.2

Limit:

Frequency of omission(MHz)	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.					

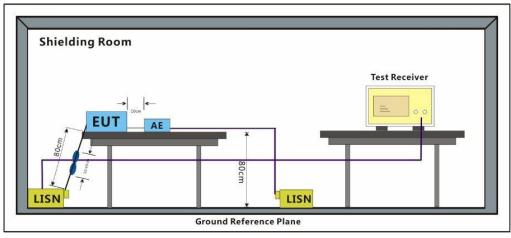
7.1.1 E.U.T. Operation

Operating Enviro	nment:					
Temperature:	25.2 °C	Humidity:	57.6 % RH	Atmospheric Pressure:	1010	mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	03	Discharge mode(WPC): Keep the EUT discharging by WPC function and the worst case which support 15W.

7.1.3 Test Setup Diagram





中国・深圳・科技园中区M-10栋一号厂房

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 exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. 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 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

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

Member of the SGS Group (SGS SA)



Page: 12 of 29

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/50 μ H + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

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



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-enD-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 excente parties to a transaction from exercising all their rights and obligations under the transaction documents. 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 refor only to the sample(s) testing / unsupple(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@csoc.om

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

Member of the SGS Group (SGS SA)

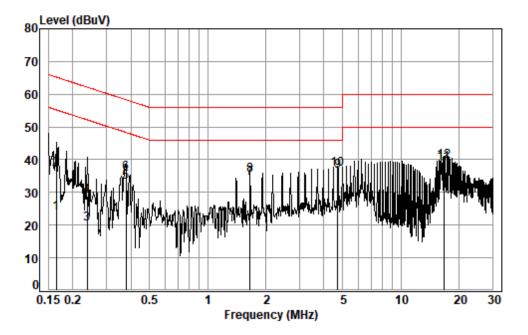
www.sasaroup.com.cn



Report No.: SZEM210100135602

13 of 29 Page:

Test Mode: 03; Line: Live line



Site :	Shielding	Room
Condition:	Line	
Job No. :	01356CR	
Test mode:	03	
		I TON

		Cable	LISN	Read		Limit	0ver	
	Freq	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.1641	0.03	9.71	13.96	23.70	55.25	-31.55	Average
2	0.1641	0.03	9.71	27.47	37.21	65.25	-28.04	QP
3	0.2378	0.04	9.74	10.71	20.49	52.17	-31.68	Average
4	0.2378	0.04	9.74	19.13	28.91	62.17	-33.26	QP
5	0.3771	0.06	9.76	23.31	33.13	48.34	-15.21	Average
6	0.3771	0.06	9.76	25.97	35.79	58.34	-22.55	QP
7	1.6625	0.12	9.80	24.49	34.41	46.00	-11.59	Average
8	1.6625	0.12	9.80	25.32	35.24	56.00	-20.76	QP
9	4.7277	0.16	9.92	26.46	36.54	46.00	-9.46	Average
10	4.7277	0.16	9.92	26.94	37.02	56.00	-18.98	QP
11	16.7380	0.16	10.66	28.17	38.99	50.00	-11.01	Average
12	16.7380	0.16	10.66	28.81	39.63	60.00	-20.37	QP



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

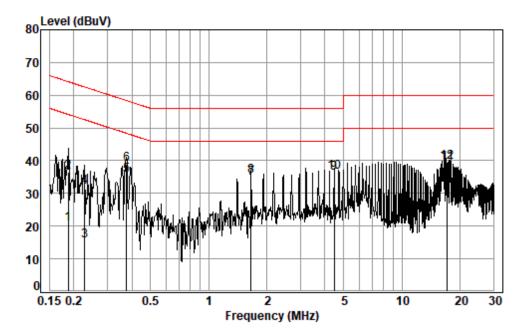
www.sgsgroup.com.cn 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



Report No.: SZEM210100135602

Page: 14 of 29

Test Mode: 03; Line: Neutral Line



Site :	Shielding	Room
Condition:	Neutral	
Job No. :	01356CR	
Test mode:	03	

Shenzhen F

		Cable	LISN	Read		Limit	0ver	
	Freq	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.1874	0.03	9.72	11.05	20.80	54.15	-33.35	Average
2	0.1874	0.03	9.72	26.86	36.61	64.15	-27.54	QP
3	0.2280	0.04	9.73	5.75	15.52	52.52	-37.00	Average
4	0.2280	0.04	9.73	22.26	32.03	62.52	-30.49	QP
5	0.3751	0.06	9.75	25.77	35.58	48.39	-12.81	Average
6	0.3751	0.06	9.75	29.13	38.94	58.39	-19.45	QP
7	1.6625	0.12	9.80	24.85	34.77	46.00	-11.23	Average
8	1.6625	0.12	9.80	25.49	35.41	56.00	-20.59	QP
9	4.4730	0.16	9.91	26.19	36.26	46.00	-9.74	Average
10	4.4730	0.16	9.91	26.46	36.53	56.00	-19.47	QP
11	17.2513	0.16	10.68	28.33	39.17	50.00	-10.83	Average
12	17.2513	0.16	10.68	28.69	39.53	60.00	-20.47	QP





Page: 15 of 29

7.2 Radiated Emissions (9kHz-30MHz)

Test Requirement	47 CFR Part 15, Subpart C 15.205 & 15.209
Test Method:	ANSI C63.10 (2013) Section 6.4
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
CISPR quasi-peak de emission limits in these the peak field strength	limits shown in the above table are ba tector except for the frequency band three bands are based on measureme of any emission shall not exceed the e than 20 dB under any condition of mo	s 9-90kHz, 110-490kHz. Radiated ents employing an average detector, maximum permitted average limits

If field strength is measured at only a single point, then that point shall be at the radial from the EUT that produces the maximum emission at the frequency being measured, as described in 5.4. If that point is closer to the EUT than $\lambda/2\pi$ and the limit distance is greater than $\lambda/2\pi$, the measurement shall be extrapolated to the limit distance by conservatively presuming that the field strength decreases at a 40 dB/decade of distance rate to the $\lambda/2\pi$ distance, and at a 20 dB/decade of distance rate beyond $\lambda/2\pi$. This shall be accomplished using Equation (2):

$$FS_{(10m)} = FS_{(30/300m)} + 40\log\{d_{(near field)}/d_{(10m)}\} + 20\log\{d_{(30/300m)}/d_{(near field)}\}$$
(2)

If the single point measured is at a distance greater than $\lambda/2\pi$, then extrapolation to the limit distance shall be calculated using Equation (3):

$$FS_{(10m)} = FS_{(30/300m)} + 20log\{d_{(30/300m)}/d_{(10m)}\}$$
(3)

If both the single point and the limit distance are equal to or closer to the EUT than $\lambda/2\pi$, then extrapolation to the limit distance shall be calculated using Equation (4):

$$FS_{(10m)} = FS_{(30/300m)} + 40\log\{d_{(30/300m)}/d_{(10m)}\}$$
(4)

Remark:

 $d_{\text{near field}} = 47.77 \ \text{/} \ f_{\text{MHz}}$ where f_{MHz} is the frequency of the emission being measured in MHz.



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 <u>http://www.sgs.com/en/Terms-and-Conditions.aspx</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>http://www.sgs.com/en/Terms-and-Conditions/Terms-enD-coument.aspx</u>. 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 is 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) 8007 1443, or email: Ch.Doccheck@sgs.com (No.1) Widdle Secton, Science & TechnologyPark, Shenzhen, China 518057 to (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn. http://www.sgs.com/email.science/sci



Report No.: SZEM210100135602

Page: 16 of 29

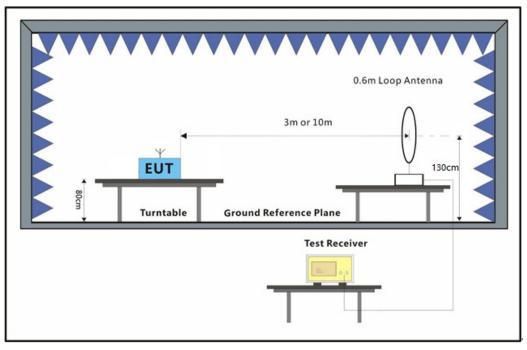
7.2.1 E.U.T. Operation

Operati	ng Environ	iment:					
Temper	ature:	25.1 °C	Humidity:	46.2 % RH	Atmospheric Pressure:	1010	mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	03	Discharge mode(WPC): Keep the EUT discharging by WPC function and the worst case which support 15W.

7.2.3 Test Setup Diagram







Page: 17 of 29

7.2.4 Measurement Procedure and Data

a. All radiated emission measurements in terms of magnetic field strength shall be performed with a shielded loop antenna.

b. For all radiated emission measurements in terms of magnetic field strength, the loop antenna were placed such that:

i. its centre shall be at 1.3 m height above the ground plane;

ii. the projection of its centre onto the ground plane shall be at the specified measurement distance from the projection on the ground plane of the closest point on the boundary of the equipment under test (EUT); and iii. measurements shall be performed with the loop antenna placed vertically, in turn, in two polarizations (the measurement axis specified below is the line segment connecting the projections on the ground plane of the centre of the loop antenna and the centre of the EUT arrangement):

· coaxial (loop plane perpendicular to the ground plane and to the measurement axis); and

· coplanar (loop plane perpendicular to the ground plane and coplanar with the measurement axis).

Only the worst position of coaxial was shown in the report.

Remark 1: 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 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 is 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 refor only to the sample(s) test 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@sos.com**

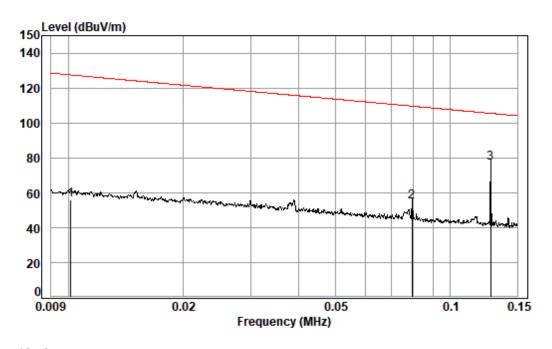
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国 • 深圳 • 科技园中区M-10栋一号厂房 邮编: 518057 t (86–755) 26012053 f (86–755) 26710594 sgs.china@sgs.com



Report No.: SZEM210100135602

18 of 29 Page:

9KHz to 30MHz



Condition: 3m Job No. : 01356CR Test Mode: 03

			Ant					0ver	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
-									
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.010	69.17	18.47	0.01	31.48	56.17	127.49	-71.32	Average
2	0.079	76.03	11.18	0.01	32.50	54.72	109.61	-54.89	Average
3 рр	0.128	98.52	11.02	0.02	32.50	77.06	105.48	-28.42	Average
									-



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-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 excore a transaction from exercising all their rights and obligations under the transaction documents. 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 retaining. Adventue of sol aspaces only. Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: (80-755) 8307 1443, or emai

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

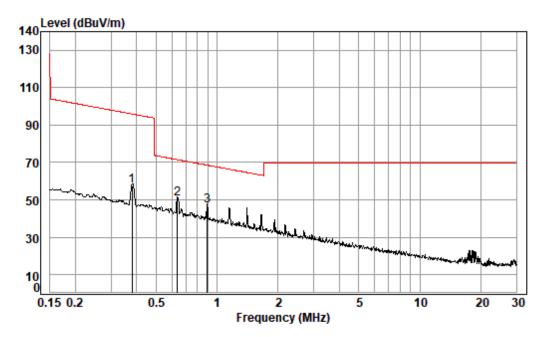
Member of the SGS Group (SGS SA)



SGS-CSTC Standards Technical Services Co., Ltd.

Report No.: SZEM210100135602

Page: 19 of 29



Condition: 3m Job No. : 01356CR Test Mode: 03

	Freq		Ant Factor						Remark
_	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 av 2 pp 3	0.637	71.66		0.58	32.50	50.58	71.52	-20.94	-



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

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



Page: 20 of 29

7.3 Radiated Emissions (30MHz-1GHz)

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

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 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.

7.3.1 E.U.T. Operation

Operating Enviro	nment:					
Temperature:	25.1 °C	Humidity:	46.2 % RH	Atmospheric Pressure:	1010	mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	03	Discharge mode(WPC): Keep the EUT discharging by WPC function and the worst case which support 15W.



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-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 excenter aprites to a transaction from exercising all their rights and obligations under the transaction documents. This document is 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 refor only to the sample(s) lested 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@ass.com

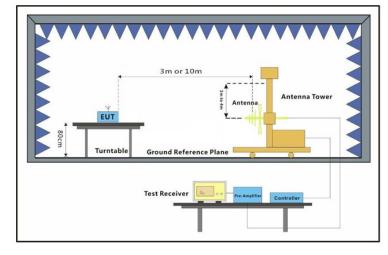
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国 · 深圳 · 科技园中区M-10栋一号厂房 邮编: 518057 t (86–755) 26012053 f (86–755) 26710594 sgs.china@sgs.com



Report No.: SZEM210100135602

Page: 21 of 29

7.3.3 Test Setup Diagram



7.3.4 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. Repeat above procedures until all frequencies measured was complete.

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 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. 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 exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this ter report refer only to the sample(s) tested and such sample(s) tere 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: (N.Doccheck@ess.com").

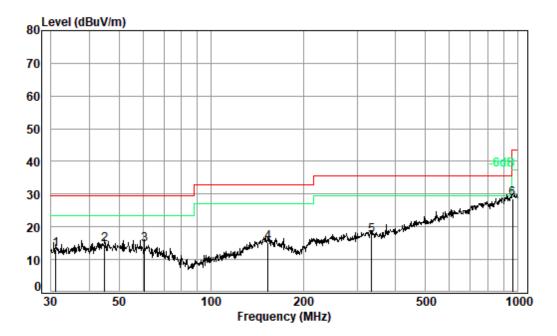
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国 • 深圳 • 科技园中区M-10栋一号厂房 邮编: 518057 t (86–755) 26012053 f (86–755) 26710594 sgs.com



Report No.: SZEM210100135602

Page: 22 of 29

Test Mode: 03; Polarity: Horizontal



Condition: 10m HORIZONTAL Job No. : 01356CR Test Mode: 03

	Freq		Preamp Factor						Remark
_	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	31.071	18.65	32.50	0.88	26.04	13.07	29.50	-16.43	QP
2	44.901	20.39	32.50	0.95	25.67	14.51	29.50	-14.99	QP
3	60.492	19.10	32.49	1.05	26.84	14.50	29.50	-15.00	QP
4	153.200	20.07	32.42	1.50	26.09	15.24	33.00	-17.76	QP
5	333.687	20.50	32.36	2.27	26.98	17.39	35.60	-18.21	QP
6 pp	965.542	29.98	31.00	3.60	25.93	28.51	43.50	-14.99	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-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 Cilent's instructions, if any. The Company's sole responsibility is to its Cilent and this document does not excense the company. Any nauthorized alteration, forgery or faisification 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 refor only to the sample(s) test restation, forgery or faisification of 30 days only. Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CNLOBCCheck@esps.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

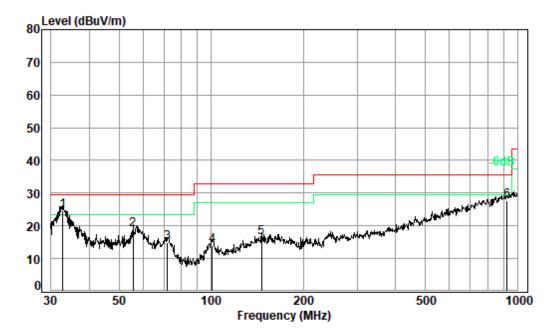
f (86–755) 26710594 www.sgsgroup.com.cn f (86–755) 26710594 sgs.china@sgs.com



Report No.: SZEM210100135602

Page: 23 of 29

Test Mode: 03; Polarity: Vertical



Condition: 10m VERTICAL Job No. : 01356CR Test Mode: 03

	Freq		Preamp Factor						Remark
-	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	32.749	18.97	32.50	0.89	37.29	24.65	29.50	-4.85	QP
2	55.609	19.62	32.49	1.01	30.59	18.73	29.50	-10.77	QP
3	72.084	16.88	32.47	1.10	29.50	15.01	29.50	-14.49	QP
4	100.934	15.49	32.45	1.27	29.58	13.89	33.00	-19.11	QP
5	145.861	20.00	32.42	1.47	27.46	16.51	33.00	-16.49	QP
6	925.756	29.80	31.36	3.50	25.81	27.75	35.60	-7.85	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-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 excore a transaction from exercising all their rights and obligations under the transaction documents. 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 retaining. Adventue of sol aspaces only. Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: (80-755) 8307 1443, or emai www.sgsgroup.com.cn

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 sgs.china@sgs.com



Report No.: SZEM210100135602

Page: 24 of 29

The test was performed at a 10m test site. According to below formulate and the test data at 10m test distance,

 $L_3 / L_{10} = D_{10} / D_3$

Note:

L₃: Level @ 3m distance. Unit: uV/m;

L10: Level @ 10m distance. Unit: uV/m;

D₃: 3m distance. Unit: m

D₁₀: 10m distance. Unit: m

The level at 3m test distance is below:

Frequency (MHz)	Level @ 10m (dBuV/m)	Level @ 10m (uV/m)	Level @ 3m (uV/m)	Level @ 3m (dBuV/m)	Limit @ 3m (dBuV/m)	Margin (dB)	Ant. Polarization
32.75	24.65	17.08	56.93	35.11	40.00	-4.89	V
55.61	18.73	8.64	28.80	29.19	40.00	-10.81	V
72.08	15.01	5.63	18.77	25.47	40.00	-14.53	V
100.93	13.89	4.95	16.50	24.35	43.50	-19.15	V
145.86	16.51	6.69	22.30	26.97	43.50	-16.53	V
925.76	27.75	24.41	81.35	38.21	46.00	-7.79	V
31.07	13.07	4.50	15.01	23.53	40.00	-16.47	Н
44.90	14.51	5.31	17.72	24.97	40.00	-15.03	Н
60.49	14.50	5.31	17.70	24.96	40.00	-15.04	Н
153.20	15.24	5.78	19.27	25.70	43.50	-17.80	Н
333.69	17.39	7.40	24.68	27.85	46.00	-18.15	Н
965.54	28.51	26.64	88.79	38.97	54.00	-15.03	Н



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-end-Conditions/T

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

53 f (86–755) 26710594 www.sgsgroup.com.cn 53 f (86–755) 26710594 sgs.china@sgs.com



Page: 25 of 29

7.4 20dB Bandwidth

Test Requirement	47 CFR Part 15, Subpart C 15.215
Test Method:	ANSI C63.10 (2013) Section 6.9.2
Limit:	For report reference only

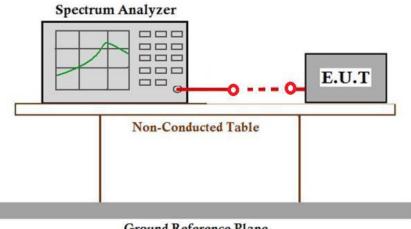
7.4.1 E.U.T. Operation

Operating Enviro	nment:					
Temperature:	25.8 °C	Humidity:	31.0 % RH	Atmospheric Pressure:	1010	mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	03	Discharge mode(WPC): Keep the EUT discharging by WPC function and the worst case which support 15W.

7.4.3 Test Setup Diagram



Ground Reference Plane

7.4.4 Measurement Procedure and Data

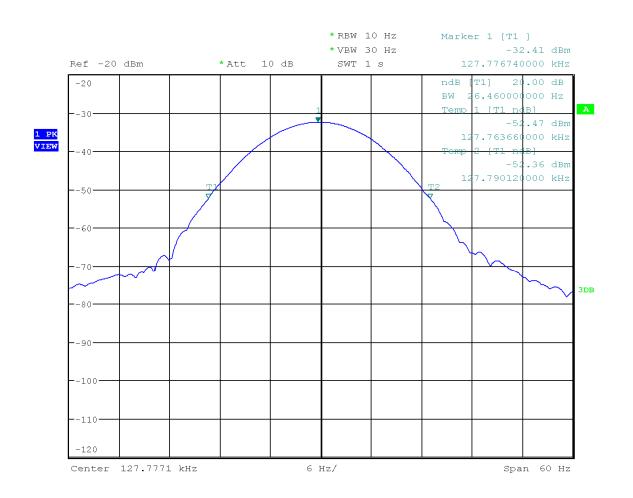




Report No.: SZEM210100135602

Page: 26 of 29

Test Frequency(KHz)	20dB bandwidth (KHz)	Limit (KHz)	Results
127.777	0.026	N/A	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 Cilent's instructions, if any. The Company's sole responsibility is to its Cilent and this document does not exconse the approval of the Company. Any unathorized 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 sub-aspmeticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: (80-755) 8307 1443, or email

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

Member of the SGS Group (SGS SA)



Report No.: SZEM210100135602

Page: 27 of 29

7.5 Restricted Bands

Test Requirement	47 CFR Part 15, Subpart C 15.205
Test Method:	ANSI C63.10 (2013) Section 6.10.5
Limit:	The fundamental wave could not fall in the restricted band 90KHz-110KHz

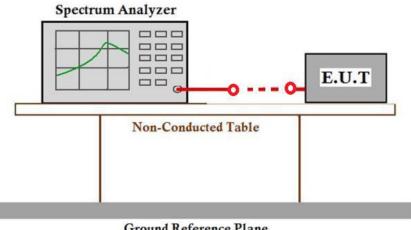
7.5.1 E.U.T. Operation

Operating Enviro	nment:				
Temperature:	25.8 °C	Humidity:	31.0 % RH	Atmospheric Pressure: 1010 m	nbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	03	Discharge mode(WPC): Keep the EUT discharging by WPC function and the worst case which support 15W.

7.5.3 Test Setup Diagram



Ground Reference Plane

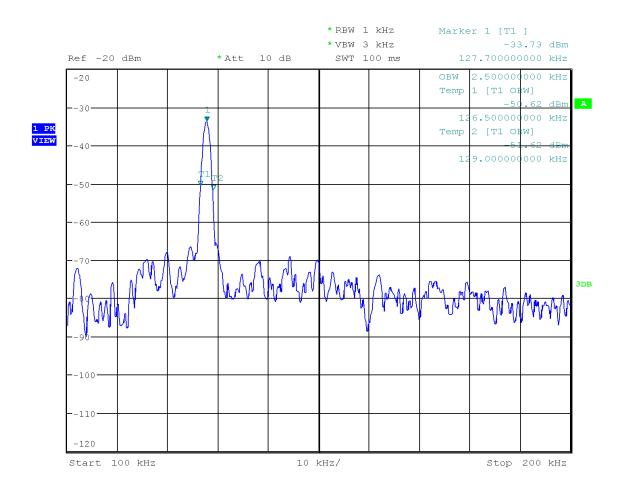
7.5.4 Measurement Procedure and Data





Report No.: SZEM210100135602

Page: 28 of 29



According the test data above, the fundamental wave is not fall in the restricted band 90kHz-110kHz, the field strength also meet the 15.209 requirement, so this test is 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-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 Cilent's instructions, if any. The Company's sole responsibility is to its Cilent and this document does not excense the company. Any nauthorized alteration, forgery or faisification 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 refor only to the sample(s) test restation, forgery or faisification of 30 days only. Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CNLOBCCheck@esps.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



Page: 29 of 29

8 Test Setup Photo

Refer to test setup photos for SZEM2101001356CR.

9 EUT Constructional Details (EUT Photos)

Refer to external and internal photos for SZEM2101001356CR.

- End of the Report -



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

Member of the SGS Group (SGS SA)