



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 1 of 43

TEST REPORT

Application No.:	SZCR2409003662AT
Applicant:	SZ DJI TECHNOLOGY CO., LTD.
Address of Applicant:	Lobby of T2, DJI Sky City, No. 53 Xianyuan Road, Xili Community, Xili Street, Nanshan District, 518055, Shenzhen, China.
Manufacturer:	SZ DJI TECHNOLOGY CO., LTD.
Address of Manufacturer:	Lobby of T2, DJI Sky City, No. 53 Xianyuan Road, Xili Community, Xili Street, Nanshan District, 518055, Shenzhen, China.
Equipment Under Test (EUT):
EUT Name:	Matrice 400
Model No.:	Matrice 400
Trade Mark:	DJI
FCC ID:	SS3-M4002412
Standard(s) :	47 CFR Part 15, Subpart C 15.255
Date of Receipt:	2024-09-27
Date of Test:	2024-10-10 to 2024-11-27
Date of Issue:	2024-11-27
Test Result:	Pass*

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

Keny. XM

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 https://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 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 [Nt.Withing.With_With@edits.Missing.Shates.Guanging.Chine 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.: SZCR240900366206 Page: 2 of 43

	Revision Record					
Version	Chapter	Date	Modifier	Remark		
01		2024-11-27		Original		

Authorized for issue by:		
	Darren Yuan	
	Darren Yuan/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 https://www.sgs.com/en/Terms-and-Conditions. 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 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@egs.com

of email: <u>CN_Docencerk@sgs.com</u> No.1 Workshop, M-10, Midde 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.: SZCR240900366206 Page: 3 of 43

2 Test Summary

Test Item	FCC Rule No.	Test Method	Result	
Antenna Requirement	15.203		PASS	
Transmitter power and Transmitter off- times	15.255(b)(3)	ANSI C63.10-2020 Section 9.2.1/9.2.2	PASS	
Occupied bandwidth	15.215 (c),	ANSI C63.10-2020	DASS	
	15.255 (b)(3)	Section 9.4	PASS	
Radiated spurious emissions below 40	15 OFF (d)(0)	ANSI C63.10-2020	PASS	
GHz	15.255 (d)(2)	Section 9.11	PASS	
Radiated emissions outside assigned	15 255 (d)(2)	ANSI C63.10-2020	PASS	
band and above 40 GHz up to 200 GHz	15.255 (d)(3)	Section 9.10	FA00	
Frequency stability	15.255 (f)	ANSI C63.10-2020	DASS	
	13.233 (1)	Section 9.5	PASS	



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

or email: <u>CN.Doccheck@sgs.com</u> No.1 Workshop, M-10, MiddeSection, 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.: SZCR240900366206 Page: 4 of 43

3 Contents

		Page
1	Cover Page	1
2	Test Summary	3
3	Contents	4
4	General Information	6
	4.1 Details of E.U.T.	6
	4.2 Description of Support Units	
	4.3 Test Environment	6
	4.4 Measurement Uncertainty	
	4.5 Test Location	
	4.6 Test Facility	
	4.7 Deviation from Standards	
	4.8 Abnormalities from Standard Conditions	
5	Equipment List	9
6	Radio Spectrum Technical Requirement	11
Ŭ		
	6.1 Antenna Requirement6.1.1 Test Requirement:	
	6.1.2 Conclusion	
7		
'		
	7.1 Transmitter power and Transmitter off-times	
	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 Occupied Bandwidth	
	7.2 Occupied Bandwidth	
	7.2.2 Test Mode Description	
	7.2.3 Test Setup Diagram	
	7.2.4 Measurement Procedure and Data	
	7.3 Radiated spurious emissions below 40 GHz	
	7.3.1 E.U.T. Operation	16
	7.3.2 Test Mode Description	16
	7.3.3 Test Setup Diagram	
	7.3.4 Measurement Procedure and Data	
	7.4 Radiated emissions outside assigned band and above 40 GHz up to 200 GHz	
	7.4.1 E.U.T. Operation	
	7.4.2 Test Mode Description	
	7.4.3 Test Setup Diagram	
	7.4.4 Measurement Procedure and Data	
	7.5 Frequency Stability	



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 https://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 Cilent's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. **Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: <u>CN.Doccheck@egs.com</u> [N: Wintspi.], WiddeSedm, Stemez Behmidgref, Kanshan Distrid, Shenzha, 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.: SZCR240900366206 Page: 5 of 43

	7.5.1	E.U.T. Operation	
	7.5.2	Test Mode Description	
		Test Setup Diagram	
	7.5.4	Measurement Procedure and Data	34
8	Test S	Setup Photo	35
9	EUT C	Constructional Details (EUT Photos)	35
10	Apper	ndix	



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 https://www.sgs.com/en/Terms-and-Conditions. 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 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@egs.com

or email: <u>CN.Doccheck@sgs.com</u> No.1 Workshop, M-10, Midde 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.com



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 6 of 43

General Information 4

4.1 Details of E.U.T.

Power supply:	Powered by Lithium Ion Rechargeable Battery
	Battery Information
	Model: TB100-20254-48.23
	Nominal Voltage: 48.23VDC
	Rated Capacity: 20254mAh
Operation Frequency:	60GHz-64GHz
Modulation Type:	FMCW
Antenna Type:	Linear Antenna
Antenna Gain:	5dBi

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.
DC power supply	ZHAOXIN	PS-3005D	REF. No.SEA27B01

4.3 Test Environment

Environment Parameter		Selected Values During Tests		ests
Relative Humidity		Ambient		
Value		Temperature(°C) Voltage(V		Voltage(VDC)
NTNV		25		48.23
LTHV		-20		55.46
LTLV		-20		43.40
HTHV		50		55.46
HTLV		50		43.40
Note:				
NV:Normal Voltage LV:Low Extreme Test Voltage HV		HV:High Extreme Test Voltage		
NT:Normal Temperature LT:Low Extreme Test Te		mperature	HT:High Extre	me Test Temperature



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at https://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 exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com">CMIN: CN.Doccheck@sgs.com

No.1 Workshop, M-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.: SZCR240900366206 Page: 7 of 43

4.4 Measurement Uncertainty

Test Item	Measurement Uncertainty	
Conducted Emissions at AC Power Line (150kHz-30MHz)	± 3.1dB	
Transmitter power and power spectral density	± 4.8dB	
Occupied bandwidth	± 3%	
Radiated Spurious Emissions Below 1GHz	\pm 6.0dB for 3m; \pm 5.0dB for 10m	
Radiated Spurious Emissions Above 1GHz	± 4.6dB (1-18GHz);± 4.8dB (Above 18GHz)	

Remark:

The U_{lab} (lab Uncertainty) is less than U_{cispr/ETSI} (CISPR/ETSI 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.

4.5 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.

4.6 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.



Unless otherwise agreed in writing, this document is issued by available on request or accessible at https://www.sgs.com/e indemnification and jurisdiction issues defined therein. Any hol the Company's findings at the time of its intervention only a responsibility is to its Client and this document does not exone under the transaction documents. This document cannot be reg unauthorized alteration, forgery or falsification of the content or to the fullest extent of the law. Unless otherwise stated the re: sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection or email: CN.Doccheck@csac.com	n/Terms-and-Con Ider of this docum and within the lim arate parties to a tr produced except i appearance of this sults shown in thi	ditions. Attention ent is advised that its of Client's inst ransaction from ex n full, without prior is document is unla s test report refer	is drawn to the lin information contain tructions, if any. Th recreising all their rig r written approval of awful and offenders only to the sample	nitation of liability, ned hereon reflects le Company's sole hts and obligations the Company. Any may be prosecuted (s) tested and such
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, Chin	a 518057 t (86-	–755) 26012053 f ((86-755) 26710594	www.sgsgroup.com.c
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.: SZCR240900366206 Page: 8 of 43

- 4.7 Deviation from Standards None
- 4.8 Abnormalities from Standard Conditions None



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

No.1 Workshop, M-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.: SZCR240900366206 Page: 9 of 43

5 **Equipment List**

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2024-05-11	2027-05-10
EXA Signal Analyzer(10Hz-44GHz)	Keysight	N9010A	SEM004-20	2024-03-30	2025-03-29
Horn Antenna(800MHz- 18GHz)	Rohde&Schwarz	HF907	SEM003-07	2023-07-23	2025-07-22
Microwave system amplifier (0.5GHz- 26.5GHz)	Agilent	83017A	SEM005-25	2024-09-14	2025-09-13
Broad-Band Horn Antenna(15GHz-40GHz)	SCHWARZBECK	BBHA 9170	SEM003-15	2024-08-10	2025-08-09
Programmable Temperature&Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2024-03-19	2025-03-18
Pre-amplifier (26GHz-40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2024-03-15	2025-03-14
Coaxial Cable	SGS	N/A	SEM026-01	2024-07-06	2025-07-05
Waveguide(40-60GHz)	REBES	SWG-19025-FB	06303-01	2023-02-19	2025-02-18
Waveguide(50-75GHz)	REBES	SWG-15025-FB	01525-09	2023-02-19	2025-02-18
Waveguide(75-110GHz)	REBES	SWG-10025-FB	01509-01	2023-02-19	2025-02-18
Waveguide(110- 170GHz)	REBES	SWG-06025-FB	06302-01	2023-02-19	2025-02-18
Waveguide(140- 220GHz)	REBES	SWG-05025-FB	SEM020-12	2023-02-19	2025-02-18
Waveguide Harmonic Mixer(40-60GHz)	REBES	STH-19SF-S1	06937-01	2023-02-19	2025-02-18
Waveguide Harmonic Mixer(50-75GHz)	KEYSIGHT	M1970V	MY51390966	2023-02-19	2025-02-18
Waveguide Harmonic Mixer(75-110GHz)	KEYSIGHT	M1970W	MY51430883	2023-02-19	2025-02-18
Waveguide Harmonic Mixer(110-170GHz)	REBES	STH-06SF-S1	06110-01	2023-02-19	2025-02-18
Waveguide Harmonic Mixer(140-220GHz)	Rohde&Schwarz	HM140-220	SEM020-18	2023-02-19	2025-02-18
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A



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

No.1 Workshop, M-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.: SZCR240900366206 Page: 10 of 43

General used equipment					
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 https://www.sgs.com/en/Terms-and-Conditions. 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 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@egs.com

or email: <u>CN.Doccheck@sgs.com</u> No.1 Workshop, M-10, Midde 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.com



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 11 of 43

6 Radio Spectrum Technical Requirement

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. The best case gain of the antenna is 5dBi.

Antenna location: Refer to internal photos



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

No.1 Wortshop, II-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgs.group.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.cohina@sgs.com



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 12 of 43

Radio Spectrum Matter Test Results 7

Transmitter power and Transmitter off-times 7.1

Test Requirement	47 CFR Part 15C Section 15.255 (b)(3)
Test Method:	ANSI C63.10-2020 Section 9.2.1, 9.2.2

Limit:

The peak EIRP shall not exceed 20 dBm, and The sum of continuous transmitter off-times of at least two milliseconds shall equal at least 16.5 milliseconds within any contiguous interval of 33 milliseconds.

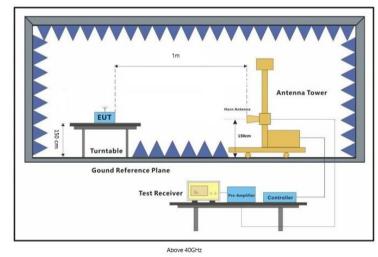
7.1.1 E.U.T. Operation

Operating Environment:						
Temperature:	21.4 °C	Humidity:	52.7 % RH	Atmospheric Pressure:	1020	mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	26	TX mode _ Keep the EUT in continuously transmitting mode

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 <u>https://www.sgs.com/en/Terms-and-Conditions</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 Cilent'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@egs.com

No.1 Workshop, M-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.: SZCR240900366206 Page: 13 of 43

7.1.4 Measurement Procedure and Data

a. For transmitter power test, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 1 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation

b. 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.

c. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to the same hight and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

d. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

e. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

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

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor

Spectrum analyser setting during test.

- 1. Place the EUT on the table and set it in the transmitting mode.
- 2. SA set RBW=1MHz, VBW=3*RBW, Detector=Peak Trace: Max Hold, Peak Search.
- 3. During test, the EUT will be rotate for 0 degrees to 360 degrees in X, Y, Z axis to find the maximum reading base on the previous test in different host-specific condition and the worst data was record in the report.

Please Refer to Appendix for Details



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

No.1 Workshop, II-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.: S

Report No.: SZCR240900366206 Page: 14 of 43

7.2 Occupied Bandwidth

Test Requirement	47 CFR Part 15C Section 15.215(c), 15.255 (b)(3)
Test Method:	ANSI C63.10-2020 Section 9.4

Limit:

57-64GHz

7.2.1 E.U.T. Operation

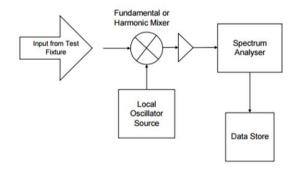
Operating Environment:

Temperature:	21.4 °C	Humidity:	52.7 % RH	Atmospheric Pressure:	1020	mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	26	TX mode _ Keep the EUT in continuously transmitting mode

7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

- 1. Place the EUT on the table and set it in the transmitting mode.
- 2. SA set RBW=1%~5% OBW, or a minimum of 1 MHz if this is not possible due to a large OBW, VBW=3*RBW and Detector=Peak.
- 3. Measure and record the result of 20dB and 99% bandwidth.

Please Refer to Appendix for Details



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>https://www.sgs.com/en/Terms-and-Conditions</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 Cilent's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. **Attention:** To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: **CN_Doccheck@ags.com**

no.nennonsno, μ-l, wnouesecun, collete a leannougy rar, fealmain using callabeli, cullar goung, cullar 518057 t (86-753) 26012053 f (86-755) 26710594 www.sgsgroup.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



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 15 of 43

7.3 Radiated spurious emissions below 40 GHz

Test Requirement	47 CFR Part 15C Section 15.255 (d)(2)
Test Method:	ANSI C63.10-2020 Section 9.11

Limit:

Below 30MHz:

Frequency	Field Strength (µV/m)	Measurement Distance (metres)
9 - 490 kHz	2,400/F (kHz)	300
490 - 1,705 kHz	24,000/F (kHz)	30
1.705-30 MHz	30	30

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.

Above 30MHz:

Frequency (MHz)	Field Strength (µV/m)	Measurement Distance (metres)
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.

Frequency (MHz)	Fi	eld strength at 3 m, dB(uV/r Within restricted bands	n)*
	Peak	Quasi Peak	Average
0.009 - 0.090	148.5 - 128.5	NA	128.5 - 108.5**
0.090 - 0.110	NA	108.5 - 106.8**	NA
0.110 - 0.490	126.8 - 113.8	NA	106.8 - 93.8**
0.490 - 1.705		73.8 - 63.0**	
1.705 - 30.0*		69.5	NIA
30 - 88	NA	40.0	NA
88 - 216		43.5	



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 https://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 Cilent'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 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 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 Worksnop, III-10, Middle Section, Science & lectnology Park, Nairstan District, Sheizzhei, Guangoong, China: 518057 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)



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Doue. 16 of /3

		r age.	
216 - 960		46.0	
Above 960		54.0	
1000 - 200000	74.0	N/A	54.0

*- The limit for 3 m test distance was calculated using the inverse square distance extrapolation factor as follows:

 $LimS2 = LimS1 + 20 \log (S1/S2),$

where S1 and S2 - standard defined and test distance respectively in meters.

**- The limit decreases linearly with the logarithm of frequency.

Note: The above field strength limits applied from the lowest radio frequency generated in the device. without going below 9 kHz up to the tenth harmonic of the highest fundamental frequency but not exceeding 40 GHz for intentional radiators operated below 10 GHz and up to the fifth harmonic of the highest fundamental frequency but not exceeding 200 GHz for intentional radiators operated above 30 GHz.

	Field strength at 1 m, dB(uV/m)*					
Frequency (MHz) Within restricted bands						
	Peak	Quasi Peak	Average			
1000 - 200000	83.5	N/A	63.5			

7.3.1 E.U.T. Operation

Operating Enviro	onment:					
Temperature:	21.4 °C	Humidity:	52.7 % RH	Atmospheric Pressure:	1000	mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	26	TX mode _ Keep the EUT in continuously transmitting mode



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>https://www.sgs.com/en/Terms-and-Conditions</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 Cilent'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@egs.com

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

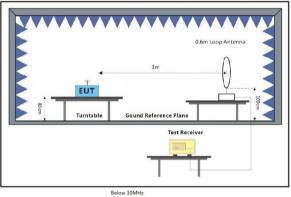
中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编:518057 t(86-755)26012053 f(86-755)26710594 sgs.china@sgs.com



SZEMC-TRF-01 Rev. A/1

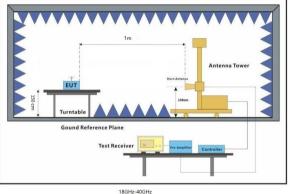
Report No.: SZCR240900366206 Page: 17 of 43

7.3.3 Test Setup Diagram



3m
4ntenna Tower

image: state stat



 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 https://www.sgs.com/en/Terms-and-Conditions. 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 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@egs.com

or email: <u>CN.Doccheck@sgs.com</u> No.1 Workshop, M-10, Midde 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.cchina@sgs.com



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 18 of 43 Page:

7.3.4 Measurement Procedure and Data

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

b. For 1-18GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

c. For 18-40GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 1 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was t tuned to the same hight (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

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

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

Remark 3: Scan from 9kHz to 40GHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.



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>https://www.sgs.com/en/Terms-and-Conditions</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 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@egs.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

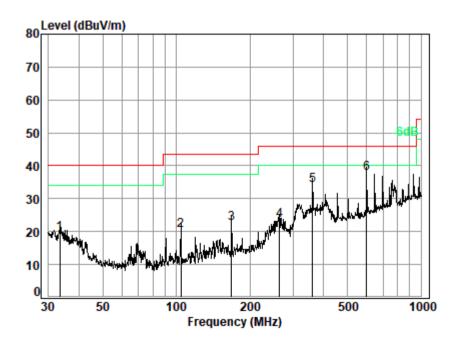
中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编:518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 19 of 43

Test Mode: 26; Polarity: Horizontal



Site : chamber Condition: 3m HORIZONTAL Job No. : 03662AT/03663AT Test Mode: 26

		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	33.445	19.68	0.71	27.78	26.99	19.60	40.00	-20.40	QP
2	104.170	12.22	1.25	27.57	34.61	20.51	43.50	-22.99	QP
3	167.824	13.17	1.62	27.31	35.10	22.58	43.50	-20.92	QP
4	263.819	17.11	2.06	26.90	31.01	23.28	46.00	-22.72	QP
5	360.448	20.23	2.44	27.00	38.46	34.13	46.00	-11.87	QP
<mark>6 q</mark>	599.321	24.42	3.24	27.97	37.92	37.61	46.00	-8.39	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 <u>https://www.sgs.com/en/Terms-and-Conditions</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 Cilent'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@egs.com

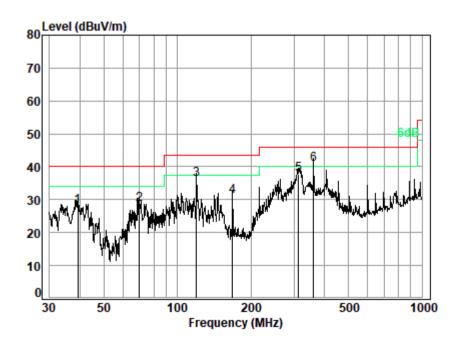
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国・广东・深圳市南山区科技园中区M−10栋1号厂房 邮编:518057



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 20 of 43

Test Mode: 26; Polarity: Vertical



Site : chamber Condition: 3m VERTICAL Job No. : 03662AT/03663AT Test Mode: 26

		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	39.162	16.77	0.77	27.77	38.17	27.94	40.00	-12.06	QP
2	70.090	10.61	1.02	27.68	44.61	28.56	40.00	-11.44	QP
3	119.856	11.11	1.36	27.51	51.09	36.05	43.50	-7.45	QP
4	167.824	13.17	1.62	27.31	43.51	30.99	43.50	-12.51	QP
5	313.276	18.40	2.26	26.80	43.71	37.57	46.00	-8.43	QP
6 q	360.448	20.23	2.44	27.00	45.00	40.67	46.00	-5.33	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 <u>https://www.sgs.com/en/Terms-and-Conditions</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 cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

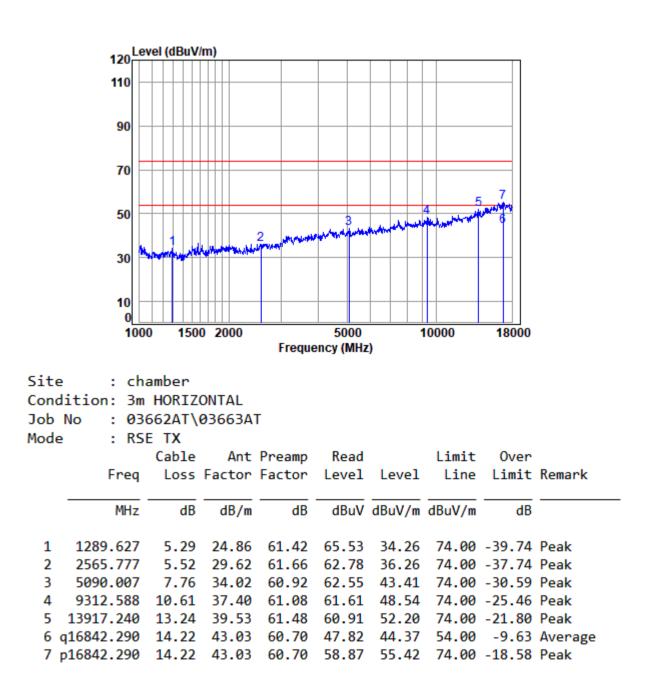
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国・广东・深圳市南山区科技园中区M−10栋1号厂房 邮编:518057



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 21 of 43

Test Mode: 26; Polarity: Horizontal





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>https://www.sgs.com/en/Terms-and-Conditions</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 Cilent'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@egs.com

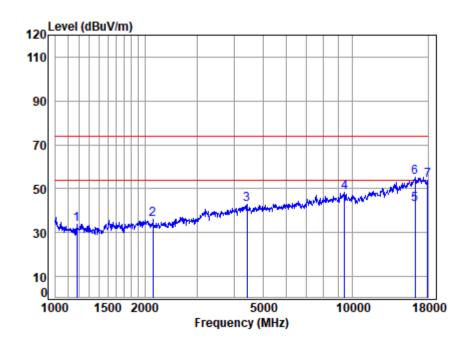
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编:518057



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 22 of 43

Test Mode: 26; Polarity: Vertical



Site :	chamber
Condition:	3m VERTICAL
Job No :	03662AT\03663AT

Mode	:	RSE	ТΧ
------	---	-----	----

our		- 10							
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1179.100	5.52	24.19	61.38	65.28	33.61	74.00	-40.39	Peak
2	2132.462	5.17	28.41	61.63	63.97	35.92	74.00	-38.08	Peak
3	4417.841	7.08	34.59	61.19	62.41	42.89	74.00	-31.11	Peak
4	9420.880	10.63	37.34	61.14	61.42	48.25	74.00	-25.75	Peak
5	q16315.230	14.14	42.00	61.00	47.76	42.90	54.00	-11.10	Average
6	p16315.230	14.14	42.00	61.00	60.24	55.38	74.00	-18.62	Peak
7	17948.050	14.78	44.09	60.11	55.05	53.81	74.00	-20.19	Peak



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

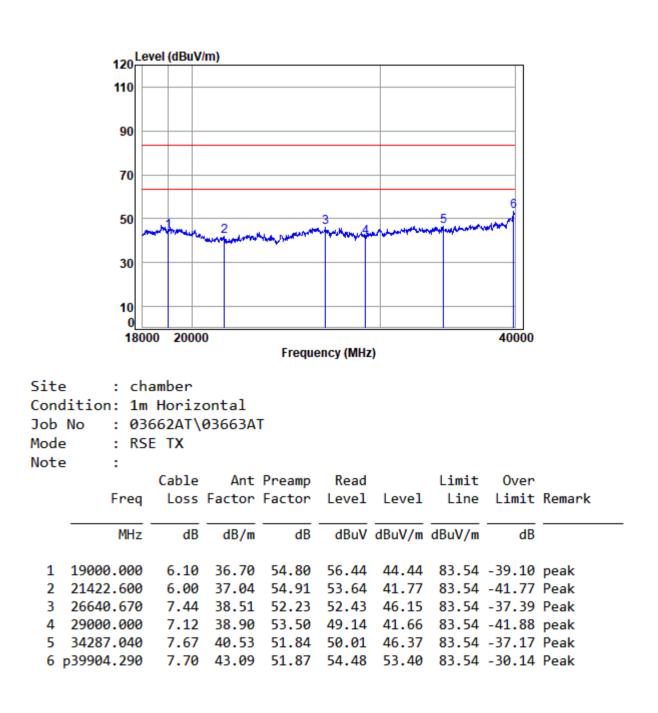
or email: <u>CIL Decenteer Westa</u>s <u>Economy</u> Park, Nashan Distrid, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86–755) 26012053 f (86–755) 26710594 sgs.china@sgs.com



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 23 of 43

Test Mode:26; Polarity: Horizontal





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>https://www.sgs.com/en/Terms-and-Conditions</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 Cilent'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@egs.com

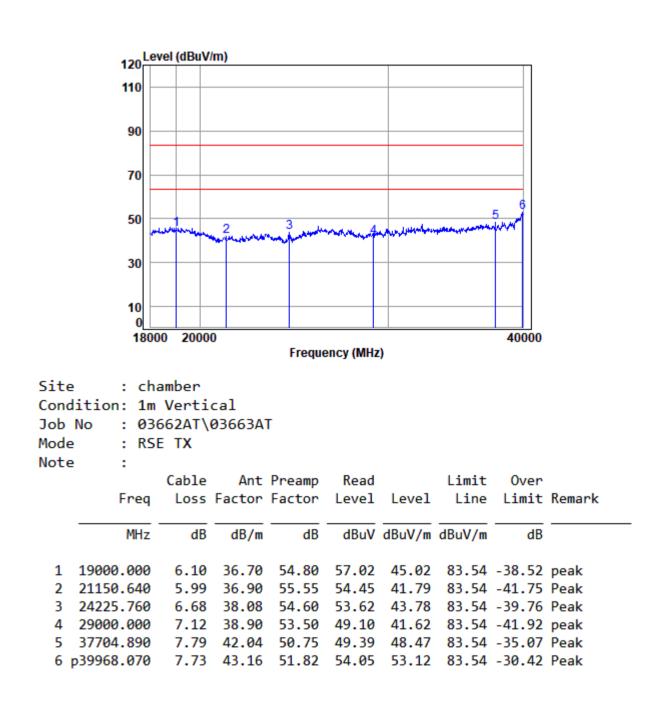
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn 中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编:518057



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 24 of 43

Test Mode: 26; Polarity: Vertical





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>https://www.sgs.com/en/Terms-and-Conditions</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 Cilent'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@egs.com

or email: <u>CN.Doccheck@sgs.com</u> Wo1Workshop, M-10, Midde 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.cohina@sgs.com

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.: SZCR240900366206 Page: 25 of 43

7.4 Radiated emissions outside assigned band and above 40 GHz up to 200 GHz

Test Requirement 47 CFR Part 15C Section 15.255 (d)(3) Test Method: ANSI C63.10-2020 Section 9.10

Limit:

Above 40GHz:

Frequency (GHz)	Power density at 3 m distance (pW/cm2)	Distance (m)	Field strength (dBuV/m)*, peak	Field strength (dBuV/m)*, average
40 - 200	90	3.0	105.31	85.31
40 - 200	90	1.0	114.85**	94.85**

* - Field strength was calculated per equation (26) of ANSI C63.10-2013 section 9 as follows: E=sqrt(PDx377), where PD is the power density at the distance specified by the limit in W/m2, Efield strength in V/m.

**- The limit for other test distance was calculated using the inverse distance extrapolation factor as follows:

LimS2 = LimS1 + 20 log (S1/S2), where S1 and S2 - standard defined and test distance respectively in meters.

7.4.1 E.U.T. Operation

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

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	26	TX mode _ Keep the EUT in continuously transmitting mode



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>https://www.sgs.com/en/Terms-and-Conditions</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 Cilent'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@egs.com

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

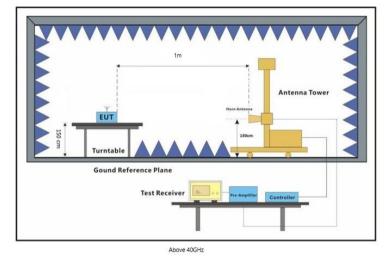
中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编:518057 t(86-755)26012053 f(86-755)26710594 sgs.china@sgs.com



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 26 of 43

7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

a. For above 40GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 1 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation

b. 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.

c. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to the same hight (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.

d. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

e. 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.

f. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

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

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 2: For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>https://www.sgs.com/en/Terms-and-Conditions</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 Cilent's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. **Attention:** To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: **CN_Doccheck@ags.com**

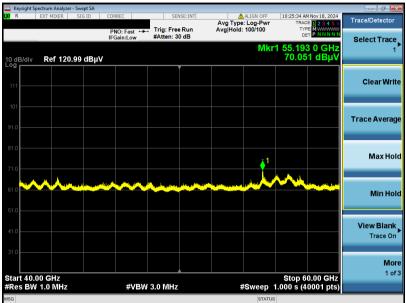
min monimum, min muture durating, can an initial using can allowing, can allowing, can allowing and allowing can allowing can allowing can allowing can allowing can allow a set of the set of the

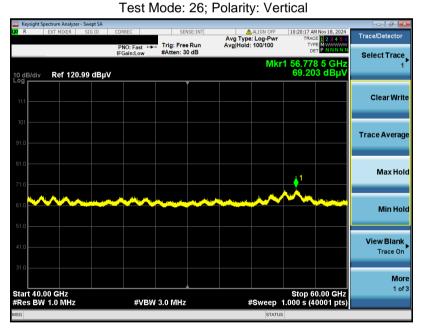


Test Mode: 26; Polarity: Horizontal

SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 27 of 43





Frequency (GHz)	Distance (M)	PK Value (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Polarization	Result
55.193	1	70.051	114.85	94.85	н	PASS
55.778	1	69.203	114.85	94.85	V	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 <u>https://www.sgs.com/en/Terms-and-Conditions</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 Cilent'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@egs.com

ts Technical Sec 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 Laboratory

检验检测专用章 ection & Testing Services

Alcal Services

Shenzhen Bra

No.1 Workshop, M-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.: SZCR240900366206 Page: 28 of 43



Test Mode: 26; Polarity: Horizontal

Test Mode: 26; Polarity: Vertical

Keysight Spectrum Analyzer - Swept SA					
X RL EXT MIXER SIG ID Start Freq 64.00000000) GHz	Avg Type	Log-Pwr T		race/Detector
	PNO: Fast +++ Trig: Free IFGain:Low Atten: 30				Select Trace
10 dB/div Ref 126.99 dBµ	v		Mkr1 70.7 74.4	81 1 GHz 459 dBµV	1
117					Clear Write
107					Frace Average
87.0					Max Hold
77.0	Versetter overselitetetetetetetetetetetetetetetetetetet	1 A Sumble Indiana and	feldetade til a det av state attendet av se		MaxHold
57.0					Min Hold
47.0					View Blank Trace On
37.0					More
Start 64.000 GHz #Res BW 1.0 MHz	#VBW 3.0 MHz	#	Stop Sweep 1.000 s	75.000 GHz (30001 pts)	1 of 3
ISG			STATUS		

Frequency (GHz)	Distance (M)	PK Value (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Polarization	Result
70.098	1	74.447	114.85	94.85	Н	PASS
70.781	1	74.459	114.85	94.85	V	PASS



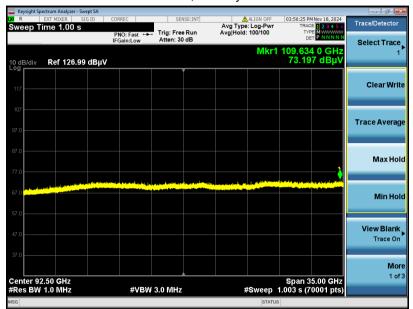
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>https://www.sgs.com/en/Terms-and-Conditions</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction 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 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, II-10, Midde Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.group.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.cohina@sgs.com



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 29 of 43

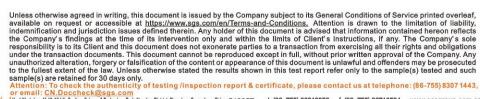


Test Mode: 26; Polarity: Horizontal

Test Mode: 26; Polarity: Vertical

	ectrum Analyzer	- Swept SA					-			- 0 ×
X/R	EXT MIXER	SIG ID	CORREC	SEN	ISE:INT		ALIGN OFF	TRA	M Nov 18, 2024	Trace/Detector
			PNO: Fast ↔ IFGain:Low	Trig: Free Atten: 30	Run dB	Avg Hold	: 100/100	TY D		Select Trace
10 dB/div	Ref 126.	99 dBµV					Mkr1	109.51 73.64	5 5 GHz 17 dBµV	1
117										Clear Write
107										
97.0										Trace Average
87.0										Max Hold
77.0							. India . Inc	يروح وفا فوودون	\	Max Hold
67.0										Min Hole
47.0										View Blank
37.0										Trace On
Center 92								Span (35.00 GHz	Mon 1 of 5
#Res BW	1.0 MHz		#VBW	/ 3.0 MHz			#Sweep	1.003 s (7	'0001 pts)	
ISG							STATU	s		

Frequency (GHz)	Distance (M)	PK Value (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Polarization	Result
109.634	1	73.197	114.85	94.85	Н	PASS
109.515	1	73.647	114.85	94.85	V	PASS







SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 30 of 43



Test Mode: 26; Polarity: Horizontal

Test Mode: 26; Polarity: Vertical

	ectrum Analyzer -									- 0 -
U R	EXT MIXER	SIG ID	CORREC	SE	NSE:INT		ALIGN OFF		CE 1 2 3 4 5 6	Trace/Detector
			PNO: Fast ← IFGain:Low	Trig: Free Atten: 30		Avg Hold	: 100/100	T) E		Select Trace
10 dB/div	Ref 126.	99 dBµV	,				Mkr1		4 5 GHz 05 dBμV	1
117										Clear Writ
107 97.0										Trace Averag
7.0								∳ ¹		Max Hol
67.0 										Min Hol
i7.0 i7.0										View Blank Trace On
37.0										Mor
tart 110 Res BW	.00 GHz 1.0 MHz		#VBI	A/ 3.0 MHz			#Sweep	Stop 14 1.000 s (40.00 GHz 60001 pts)	1 of
SG							STATU	s		

Frequency (GHz)	Distance (M)	PK Value (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Polarization	Result
134.720	1	77.122	114.85	94.85	Н	PASS
134.764	1	77.105	114.85	94.85	V	PASS





Attention: to check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 830/1443, or email: CM.Doccheck@sgs.com No.1 Workshop, M-10, Midde&cdin, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.group.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.: SZCR240900366206 Page: 31 of 43



Test Mode: 26; Polarity: Horizontal

Test Mode: 26; Polarity: Vertical



Frequency (GHz)	Distance (M)	PK Value (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Polarization	Result
157.189	1	78.284	114.85	94.85	Н	PASS
156.533	1	78.457	114.85	94.85	V	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 <u>https://www.sgs.com/en/Terms-and-Conditions</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 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: <u>CN. Doccheck@ess.com</u>

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: <u>CN.Doccheck@sgs.com</u> Nox 110x4spk, UM dide exdto, Searce Itematogy Patk, Nashan Distrid, 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MI-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.: SZCR240900366206 Page: 32 of 43



Test Mode: 26; Polarity: Horizontal

Test Mode: 26; Polarity: Vertical

R R	EXT MIXER				0.00	ICC. INT		ALIGN OFF	02:00-50 5	MN	_	- 0
ĸ	EXT MIXER	SIG ID	CORREC		SEI	NSE:INT	Ανα Τν	pe: Log-Pwr	03:08:50 F	M Nov 18, 2024	Trac	e/Detector
			PNO: Fa IFGain:L		Trig: Free Atten: 30			ld: 100/100	TY		Se	lect Trace
dB/div	Ref 126.	.99 dBµ\	1					Mkr	176.15 76.78	7 7 GHz 31 dBµV		1
17											Auto	Detecto Peak <u>Ma</u>
J7												Prese Detectors
.0												Clear Tra
.0	<mark>≬</mark> 1							il a damadah ini	t our or still a	g and a land three in t		
.0											Clea	r All Trace
.0												Pres All Trace
.0												Mo
	0.00 GHz		#	VBW 3	3.0 MHz			#Sweep 1	Stop 22	20.00 GHz 20001 pts)		2 of

Frequency (GHz)	Distance (M)	PK Value (dBuV/m)	PK Limit (dBuV/m)	AV Limit (dBuV/m)	Polarization	Result
207.132	1	75.850	114.85	94.85	н	PASS
176.157	1	76.781	114.85	94.85	V	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 <u>https://www.sgs.com/en/Terms-and-Conditions</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 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

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, M-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.: SZCR240900366206 Page: 33 of 43

7.5 Frequency Stability

Test Requirement	47 CFR Part 15C Section 15.255 (f)
Test Method:	ANSI C63.10-2020 Section 9.5

Limit:

Frequency (GHz)	Limit
57 - 64	The signal must be contained within assigned frequency band.

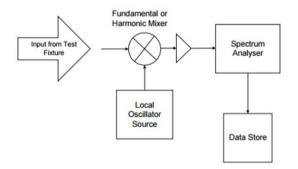
7.5.1 E.U.T. Operation

Operating Enviror	nment:					
Temperature:	21.4 °C	Humidity:	47.4 % RH	Atmospheric Pressure:	1020	mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	26	TX mode _ Keep the EUT in continuously transmitting mode

7.5.3 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 <u>https://www.sgs.com/en/Terms-and-Conditions</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 cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.1 Workshop, M-10, Middle Section, Science & Technology Park, 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.: SZCR240900366206 Page: 34 of 43

7.5.4 Measurement Procedure and Data

- 1. Temperature conditions:
- a) The RF output port of the EUT was connected to Frequency Meter;
- b) Set the working Frequency in the middle channel;
- c) record the 20°C and norminal voltage frequency value as reference point;
- d) vary the temperature from 0°C to 40°C with step 10°C

e) when reach a temperature point, keep the temperature banlance at least 1 hour to make the product working in this status;

f) read the frequency at the relative temperature.

- 2. Voltage conditions:
- a) record the 20°C and norminal voltage frequency value as reference point;
- b) vary the voltage from -15% norminal voltage to +15% voltage;

read the frequency at the relative voltage.

Remark: Manufacturer declared that the minimum temperature for normal operation of this product is $0^\circ\!\mathbb{C}.$

Please Refer to Appendix for Details



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



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 35 of 43

Test Setup Photo 8

Refer to Appendix - Test Setup Photo for SZCR2409003662AT

EUT Constructional Details (EUT Photos) 9

Refer to Appendix – External and Internal Photos for SZCR2409003662AT



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>https://www.sgs.com/en/Terms-and-Conditions</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 cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.1 Workshop, M-10, Middle Section, Science & Technology Park, 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.: SZCR240900366206 Page: 36 of 43

10 Appendix

1. Transmitter power and Transmitter off-times



Peak Power- Horizontal

Peak Power- Vertical





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>https://www.sgs.com/en/Terms-and-Conditions</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 Cilent'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@egs.com

No.1 Workshop, M-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.: SZCR240900366206 Page: 37 of 43

Frequency (GHz)	Polarity	dBuV/m @ 1m	Mesured EIRP (dBm)	Desensitization Factor(dB)	Final EIRP (dBm)	EIRP Limit (dBm)	Result	Remark
63.288	Horizontal	115.814	11.044	0.716	11.760	20	Pass	peak
	Vertical	96.835	-7.935	0.716	-7.219	20	Pass	peak

Remark:

 $E[dB\mu V/m] = E[RP[dBm] - 20 \log(d[meters]) + 104.77, where E = field strength and d = distance at which field$ strength limit is specified in the rules

 $EIRP[dBm] = E[dB\mu V/m] + 20 \log(d[meters]) - 104.77$

Final EIRP[dBm]=Mesured EIRP[dBm]+ Desensitization Factor[dB]

The FMCW Desensitization factor

FMCW Witdh(MHz)	T _{chirp} (us)	RBW(MHz)	Desensitization Factor(lin)	Desensitization Factor(dB)
3807.7	63	1	0.848	0.716

FMCW desensitization factor =-10*Log(α)=-10*Log(0.848)= 0.716dB

$$\alpha = \frac{1}{\sqrt[4]{1 + \left(\frac{2\ln(2)}{\pi}\right)^2 \left(\frac{F_s}{T_s B^2}\right)^2}}$$

where α is the reduction in amplitude Fs is the FMCW Chirp Bandwidth Ts is the FMCW Chirp Time B is the 3 dB IF Bandwidth = RBW



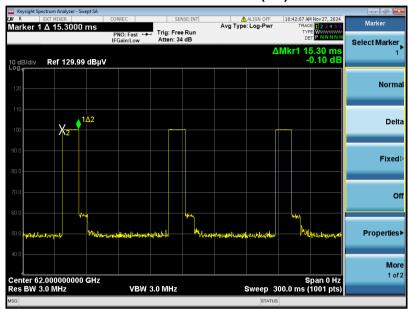
Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>https://www.sgs.com/en/Terms-and-Conditions</u>. Attention is drawn to the limitation of liability, indemnification and jurisdiction 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 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@egs.com

No.1 Workshop, M-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.: SZCR240900366206 Page: 38 of 43



Transmitter off-times (ms)

						ectrum Analyzer - :	
:42:40 AM Nov 27, 2024 TRACE 1 2 3 4 5 6 Marker		INSE:INT		CORREC		Δ 100.00	x/ R Marker 1
DET PNNNN Select Marker			Trig: Free Atten: 34	PNO: Fast +++			
r1 100.0 ms -0.01 dB	ΔMkr1				99 dBµV	Ref 129.9	10 dB/div Log
Norma							-]
							120
Delta		12	<u>_</u> 1∆:				110
						X ₂	100
Fixed							90.0
							80.0
01							70.0
West Contraction of the second s		Hot-			1		60.0
Properties		M			ANN A		50.0 pphatola
Topolaco	hand the state of the second	- Partage	diseries and	randelikefytijkondynopister	and the state of t	e-174, darih	
More							40.0
Span 0 Hz	0				00 GHz	.00000000	
) ms (1001 pts)	Sweep 300.0 m		3.0 MHz	VBW :		.u WiHz	Res BW 3



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>https://www.sgs.com/en/Terms-and-Conditions</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 cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

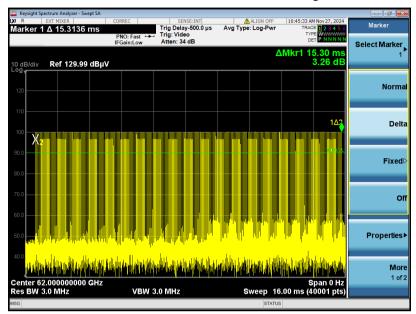
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn

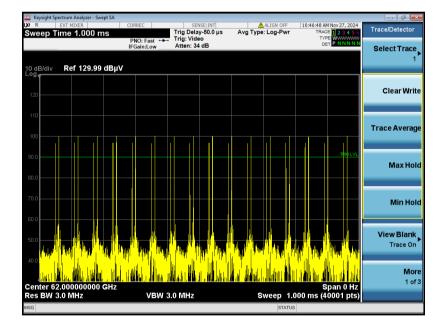
中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编:518057 t(86-755)26012053 f(86-755)26710594 sgs.china@sgs.com



SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 39 of 43







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>https://www.sgs.com/en/Terms-and-Conditions</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 cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

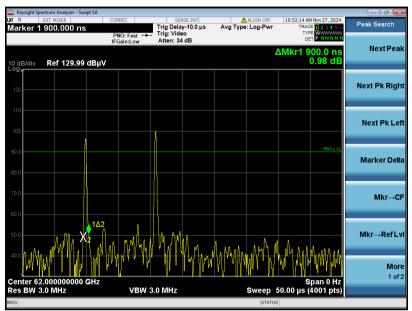
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Narshan District, Shenzhen, Guangdong, China 518057 t (86–755) 26012053 f (86–755) 26710594 www.sgsgroup.com.cn

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.: SZCR240900366206 Page: 40 of 43



Frequency (GHz)	Transmitter off-times (ms)	Limit (ms)	Result
62	32.559	≥16.5	Pass

Note: burst number within 33ms is 490, Dwell time for one burst is 0.9us, total dwell time is 441us.



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>https://www.sgs.com/en/Terms-and-Conditions</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 Cilent'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@egs.com

No.1 Workshop, M-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



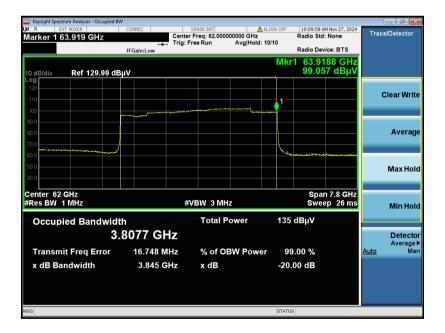
SZEMC-TRF-01 Rev. A/1

Report No.: SZCR240900366206 Page: 41 of 43

2. Occupied bandwidth



99% Occupied Channel Bandwidth





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

No.1 Workshop, M-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.: SZCR240900366206 Page: 42 of 43

Frequency Range (GHz)	99% OCW (GHz)	F∟ (GHz)	Limit (GHz)	Fн (GHz)	Limit (GHz)	Result
60-64	3.8077	60.1124	60	63.9188	64	Pass

Remark: FL: Frequency Low Band Edge, FH: Frequency High Band Edge



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 https://www.sgs.com/en/Terms-and-Conditions. 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 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@egs.com

No.1 Workshop, M-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.: SZCR240900366206 Page: 43 of 43

3. Frequency stability

Frequency Stability vs temperature:

1. Test for 60GHz to 64GHz

Frequency (GHz)	Temperature (°C)	Voltage (V DC)	F∟ (GHz)	Limit (GHz)	Fн (GHz)	Limit (GHz)	Result
	50	48.23	60.1122	60	63.9190	64	Pass
	30	48.23	60.1124	60	63.9188	64	Pass
	20	48.23	60.1124	60	63.9188	64	Pass
60-64	10	48.23	60.1123	60	63.9188	64	Pass
	0	48.23	60.1123	60	63.9189	64	Pass
	-10	48.23	60.1121	60	63.9187	64	Pass
	-20	48.23	60.1120	60	63.9186	64	Pass

Frequency Stability vs voltage:

1. Test for 60GHz to 64GHz

Frequency (GHz)	Voltage (V DC)	Temperature (°C)	F∟ (GHz)	Limit (GHz)	Fн (GHz)	Limit (GHz)	Result
	55.46	20	60.1122	60	63.9189	64	Pass
60-64	48.23	20	60.1124	60	63.9188	64	Pass
	43.40	20	60.1121	60	63.9187	64	Pass

Remark:

FL: Frequency Low Band Edge, FH: Frequency High Band Edge

- 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 <u>https://www.sgs.com/en/Terms-and-Conditions</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 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) 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, 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