



EMC-TRF-03 Rev 1.0

Report No.: GZCR210802081408

Page: 1 of 11 FCC ID: V5PSK700

# **RF Exposure Evaluation Report**

Application No.:	GZCR2108020814AT
Applicant:	PAX TECHNOLOGY LIMITED
Address of Applicant:	Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour, Hong Kong, China
Manufacturer:	PAX Computer Technology(Shenzhen) Co., Ltd.
Address of Manufacturer:	4/F, No.3 Building, Software Park, Second Central Science-Tech Road, High-Tech industrial Park, Shenzhen, Guangdong, P.R.C.
Equipment Under Test (EUT	):
EUT Name:	Smart Kiosk
Model No.:	SK700
Trade Mark:	PAX
Standards:	47 CFR PART 1.1310
	47 CFR PART 2.1091
	447498 D01 General RF Exposure Guidance v06
Date of Receipt:	2021-06-21
Date of Test:	2021-06-29 to 2021-08-25
Date of Issue:	2021-08-27
Test Result :	PASS*

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

ke. Jun

Kobe Jian EMC Laboratory Manager



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@esg.com

No.198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development Dishict, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn
中国・广州・经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.com



Report No.: GZCR210802081408 Page: 2 of 11

# 2 Version

Revision Record						
Version	Version Chapter Date Modifier					
01		2021-08-27		Original		

Authorized for issue by:		
	CJ Vu	
	Curry Wu/Project Engineer	
	Ridey Lin	
	Ricky Liu/Reviewer	



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limitation client's instructions, if any. The Company's sole responsibility is to its Cilent and this document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger 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: CNLDoccheck@ags.com

CO.LLd. No.198 Kezha Road, Sciented Park, Guargzhou Economic & Technology Development District, Guargzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn boratory. 中国・广州・经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.com



EMC-TRF-03 Rev 1.0

Report No.: GZCR210802081408 Page: 3 of 11

# 3 Contents

	_		_
۲	а	g	е

1	С	OVER PAGE	. 1
2	v	/ERSION	. 2
3	С	CONTENTS	.3
4	G	GENERAL INFORMATION	.4
	4.1	GENERAL DESCRIPTION OF EUT	. 4
	4.2	TEST LOCATION	. 6
	4.3	Test Facility	6
	4.4	DEVIATION FROM STANDARDS	7
	4.5	ABNORMALITIES FROM STANDARD CONDITIONS OTHER INFORMATION REQUESTED BY THE CUSTOMER	7
	4.6	OTHER INFORMATION REQUESTED BY THE CUSTOMER	7
5		RF EXPOSURE EVALUATION	-
	5.1	RF EXPOSURE COMPLIANCE REQUIREMENT	8
	5	5.1.1 Limits 5.1.2 Test Procedure	. 8
	5	5.1.2 Test Procedure	. 8
	4.1.3	3 EUT RF EXPOSURE EVALUATION	9



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-en-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limitation client's instructions, if any. The Company's sole responsibility is to its Cilent and this document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forger 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: CNLDoccheck@ags.com

:Co.Ltd. No.199 Kezhu Road, Skentech Park, Guargzhou Economic & Technology Development District, Guargzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn oratory. 中国・广州・经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.com



EMC-TRF-03 Rev 1.0

Report No.: GZCR210802081408 Page: 4 of 11

# 4 General Information

## 4.1 General Description of EUT

Power supply:	AC100-240V, 50/60Hz, 65W Max
Cable(s):	AC power cable: 1m unshielded cable without ferrite core
Firmware Version:	V0.0.0.X
Hardware Version:	SK700
Sample NO.:	2190000239
For BT:	
Operation Frequency:	2402MHz to 2480MHz
Bluetooth Version:	V5.0 Dual mode
Modulation Type:	GFSK, pi/4DQPSK, 8DPSK
Number of Channels:	79
Channel Spacing:	1MHz
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum(FHSS)
Antenna Type:	PIFA Antenna
Antenna Gain:	1.5dBi
For BLE:	
Operation Frequency:	2402MHz to 2480MHz
Bluetooth Version:	V5.0 Dual mode
Data Rate:	1Mbps, 2Mbps
Modulation Type:	GFSK
Number of Channels:	40
Channel Spacing:	2MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	1.5dBi
For 2.4G WIFI	
Operation Frequency:	802.11b/g/n(HT20): 2412MHz to 2462MHz
Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK)
	802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Number of Channels:	802.11b/g/n(HT20):11
Channel Spacing:	5MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	1.5dBi



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-eDocument.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document to eson result parties to a concrete 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 tier refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing finspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com



EMC-TRF-03 Rev 1.0

Report No.: GZCR210802081408 Page: 5 of 11

For 5G WIFI

Operation Frequency (20MHz):	U-NII-1: 5180-5240MHz; U-NII-2A: 5260-5320MHz; U-NII-2C: 5500-5700MHz; U-NII-3: 5745-5825MHz
Operation Frequency (40MHz):	U-NII-1: 5190-5230MHz; U-NII-2A: 5270-5310MHz; U-NII-2C: 5510-5670MHz; U-NII-3: 5755-5795MHz U-NII-1: 5210MHz;
Operation Frequency (80MHz):	U-NII-2A: 5290MHz; U-NII-2C: 5530-5610MHz; U-NII-3: 5775MHz
Modulation Type:	802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Channel Spacing:	802.11a/n(HT20)/ac(HT20): 20MHz; 802.11n(HT40)/ac(HT40): 40MHz; 802.11ac(HT80): 80MHz
DFS Function:	Slave without Radar detection
TPC Function:	Without TPC function
Antenna Type:	PIFA Antenna
Antenna Gain:	1.5dBi
For WCDMA:	
Operation Frequency Band:	UMTS FDD Band II/IV/V
Modulation Type:	QPSK for WCDMA
Supported Channel Bandwidth:	5MHz for WCDMA
UMTS Power Class:	Level 3
Antenna Type:	PIFA antenna
Antenna Gain:	WCDMA band II: 0.8dBi; band IV: 0.8dBi; band V: 0.5dBi
For LTE:	
LTE Operation Frequency Band:	LTE FDD Band 2, 4, 5, 12, 13, 17
Modulation Type:	QPSK, 16QAM
LTE Power Class:	Level 3
Antenna Type:	
Antonna Type.	PIFA Antenna LTE band 2: 0.8dBi; band 4: 0.8dBi; band 5: 0.5dBi; band 12:



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-eDocument.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document to eson result parties to a concrete 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 tier refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing finspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com



EMC-TRF-03 Rev 1.0

Report No.: GZCR210802081408 Page: 6 of 11

## 4.2 Test Location

All tests were performed at: SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou Branch EMC Laboratory,

198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District,

Guangzhou, China 510663 Tel: +86 20 82155555 Fax: +86 20 82075059

## 4.3 Test Facility

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

## • NVLAP (Lab Code: 200611-0)

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0. The report must not be used by the client to claim product certification, approval, or endorsement by

NVLAP, NIST, or any agency of the Federal Government.

#### • ACMA

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian/New Zealand Regulatory Compliance Mark (RCM).

## • SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO

Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

## CNAS (Lab Code: L0167)

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2018 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2017 General Requirements) for the Competence of Testing Laboratories.

## • FCC Recognized Accredited Test Firm(Registration No.: 486818)

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been accredited and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation Number: CN5016, Test Firm Registration Number: 486818.

## • ISED (Registration No.: 4620B, CAB identifier: CN0052)

SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Innovation Science and Economic Development Canada for Wireless Device Testing laboratories to test to Canadian radio



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, 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 solid responsibility is to its Client and this document to even reate 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 feer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing finapection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com



EMC-TRF-03 Rev 1.0

Report No.: GZCR210802081408 Page: 7 of 11

equipment requirements. Registration No. 4620B, CAB identifier: CN0052.

## • VCCI (Registration No.: R-12460, C-12584, G-20107 and T-11179)

The 10m Semi-anechoic chamber, 966 Anechoic Chamber and Shielded Room of SGS-CSTC

Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for

Voluntary Control Measures with Registration No.: R-12460, C-12584, G-20107 and T-11179

respectively.

#### • CBTL (Lab Code: TL129)

SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2017, the Basic Rules, IECEE 01 and Rules of procedure IECEE 02, and the relevant IECEE CB-Scheme Operational documents.

## 4.4 Deviation from Standards

None.

## 4.5 Abnormalities from Standard Conditions

None.

## 4.6 Other Information Requested by the Customer

None.



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

No.198 Kezh Reat, Sciented Park, Guargzhou Economic & Technology Development District, Guargzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn
中国・广州・经济技术开发区科学城科珠路198号
邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com



Report No.: GZCR210802081408 Page: 8 of 11

## 5 **RF Exposure Evaluation**

## 5.1 RF Exposure Compliance Requirement

## 5.1.1 Limits

According to FCC Part1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in part1.1307(b)

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
(A) Lim	its for Occupational	/Controlled Exposur	res	
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f2)	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) Limits 1	or General Populati	on/Uncontrolled Exp	oosure	
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

F= Frequency in MHz

Friis Formula

Friis transmission formula:  $Pd = (Pout^{*}G)/(4^{*} Pi^{*} R 2)$ 

Where

Pd = power density in mW/cm2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

Pd id the limit of MPE, 1 mW/cm2. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

## 5.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.gs.com/en/Terms-and-Conditions.aspx">http://www.gs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.gs.com/en/Terms-and-Conditions/Terms-en-Document.aspx">http://www.gs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only. Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@gs.com</a>. Ltd. [Ne.18k/kah/kad, Samkoh Zomrick Temology DevelopmentDishid, Guarghou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn



Report No.: GZCR210802081408 Page: 9 of 11

## 4.1.3 EUT RF Exposure Evaluation

For Stand alone:

#### For BT:

Antenna Gain: 1.5dBi

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.41 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

Frequency (MHz)	Max Conducted Output Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )	Limit (mW/cm²)	MPE ratio	Result
2402	8.60	7.24	0.0020	1.0000	0.0020	PASS

Note: Refer to report No. GZCR210802081401 for EUT test Max Conducted Output Power value. The distance r (4th column) calculated from the Fries transmission formula is far greater than 20 cm separation requirement.

## For BLE:

Antenna Gain: 1.5dBi

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.41 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

Frequency (MHz)	Max Conducted Output Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )	Limit (mW/cm²)	MPE ratio	Result
2402	6.85	4.84	0.0015	1.0000	0.0015	PASS

Note: Refer to report No. GZCR210802081402 for EUT test Max Conducted Output Power value.

The distance r (4th column) calculated from the Fries transmission formula is far greater than 20 cm separation requirement.

#### For 2.4G WIFI:

Antenna Gain: 1.5dBi

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.41 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

Frequency (MHz)	Max Conducted Output Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm²)	Limit (mW/cm²)	MPE ratio	Result
2437	15.86	38.55	0.0108	1.0000	0.0108	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>http://www.sgs.com/en/Terms-and-Conditions.aspx</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>http://www.sgs.com/en/Terms-and-Conditions.aspx</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>http://www.sgs.com/en/Terms-and-Conditions.aspx</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>http://www.sgs.com/en/Terms-and-Conditions.rems-e-Document.aspx</u>. 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 client's instructions, if any. The Company's sole responsibility is to its Client and 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: (86-75) 8307 1443, or email: CN. Doccheck@sgs.com or ema



Report No.: GZCR210802081408 Page: 10 of 11

Note: Refer to report No. GZCR210802081403 for EUT test Max Conducted Output Power value. The distance r (4th column) calculated from the Fries transmission formula is far greater than 20 cm separation requirement.

#### For 5G:

Antenna Gain: 1.5dBi

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.41 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

Frequency (MHz)	Max Conducted Output Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm²)	Limit (mW/cm²)	MPE ratio	Result
5500	12.19	16.56	0.0047	1.0000	0.0047	PASS

Note: Refer to report No. GZCR210802081404 for EUT test Max Conducted Output Power value.

The distance r (4th column) calculated from the Fries transmission formula is far greater than 20 cm separation requirement.

#### For WCDMA:

Antenna Gain: 0.8dBi for band 2, 4; 0.5dBi for band 5

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.20 for band 2, 4; 1.12 for band 5 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

Operation Band	Max Conducted Output Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm²)	Limit (mW/cm²)	MPE ratio	Result
2	24	251.19	0.0601	1.0000	0.0601	PASS
4	23	199.53	0.0477	1.0000	0.0477	PASS
5	23	199.53	0.0445	0.5509	0.0808	PASS

Note: Refer to report No. GZCR210802081406 for EUT test Max Conducted Output Power value.

The distance r (4th column) calculated from the Fries transmission formula is far greater than 20 cm separation requirement.

## For LTE:

Antenna Gain: 0.8dBi for band 2, 4; 0.5dBi for band 5, 12, 13, 17





EMC-TRF-03 Rev 1.0

Report No.: GZCR210802081408 Page: 11 of 11

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.20 for band 2, 4; 1.12 for band 5, 12, 13, 17 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

Operation Band	Max Conducted Output Power (dBm)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm <sup>2</sup> )	Limit (mW/cm²)	MPE ratio	Result
2	24	251.19	0.0601	1.0000	0.0601	PASS
4	23	199.53	0.0477	1.0000	0.0477	PASS
5	23	199.53	0.0445	0.5509	0.0808	PASS
12	23	199.53	0.0445	0.4665	0.0954	PASS
13	23	199.53	0.0445	0.5197	0.0856	PASS
17	23	199.53	0.0445	0.4710	0.0945	PASS

Note: Refer to report No. GZCR210802081407 for EUT test Max Conducted Output Power value. The distance r (4th column) calculated from the Fries transmission formula is far greater than 20 cm separation requirement.

#### For Maximum Simultaneous Transmission:

Operation	MPE	Limit	Result	
mode	ratio			
BT+WCDMA	0.0828	1.0000	PASS	
BT+LTE	0.0974	1.0000	PASS	
WIFI+WCDMA	0.0916	1.0000	PASS	
WIFI+LTE	0.1062	1.0000	PASS	

Remark:

1. For the operation mode above, BT refers to maximum power of classical BT and BLE, and WIFI refers to the maximum power in 2.4G band and 5GHz band. In this case, power for classical BT is greater than BLE, and WIFI in 2.4GHz band is greater than that in 5GHz band, therefore, the maximum ones were taken for final MPE ratio consideration.

2. For WCDMA & LTE, the maximum power including tune up was taken into consideration.

- End of the Report -



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is 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: (86-75) 8307 1443, or email: CN\_Doccheck@sas.com