RF EXPOSURE REPORT



Report No.: 17070321-FCC-H2 Supersede Report No.: N/A

Applicant	SMT TELECOMM HK LIMITED		
Product Name	Mobile Phone		
Model No.	X325		
Serial No.	N/A		
Test Standard	FCC 2.1093:2016		
Test Date	April 27 to May 10, 2017		
Issue Date	May 11, 2017		
Test Result	Pass Fail		
Equipment complied with the specification			
Equipment did not comply with the specification			
LOVEN LUO David Huang			
Loren Lu Test Engir			

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Test result presented in this test report is applicable to the tested sample only

Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

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Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

Accreditations for Conformity Assessment

Country/Region	Scope
USA	EMC, RF/Wireless, SAR, Telecom
Canada	EMC, RF/Wireless, SAR, Telecom
Taiwan	EMC, RF, Telecom, SAR, Safety
Hong Kong	RF/Wireless, SAR, Telecom
Australia	EMC, RF, Telecom, SAR, Safety
Korea	EMI, EMS, RF, SAR, Telecom, Safety
Japan	EMI, RF/Wireless, SAR, Telecom
Singapore	EMC, RF, SAR, Telecom
Europe	EMC, RF, SAR, Telecom, Safety



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1. Report Revision History

Report No.	Report Version	Description	Issue Date
17070321-FCC-H2	NONE	Original	May 11, 2017

2. Customer information

Applicant Name	SMT TELECOMM HK LIMITED
Applicant Add	Unit C 8/F, CHARMHILL CTR 50 HILLWOOD RD TST KL
Manufacturer	SMT TELECOMM HK LIMITED
Manufacturer Add	Unit C 8/F, CHARMHILL CTR 50 HILLWOOD RD TST KL

3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES
	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park
Lab Address	South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China
	518108
FCC Test Site No.	718246
IC Test Site No.	4842E-1
Test Software	Radiated Emission Program-To Shenzhen v2.0



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4. Equipment under Test (EUT) Information

Description of EUT: Mobile Phone

Main Model: X325

Serial Model: N/A

Date EUT received: April 26, 2017

Test Date(s): April 27 to May 10, 2017

UMTS-FDD Band V: -2.22 dBi

UMTS-FDD Band II: -1.14 dBi Antenna Gain:

Bluetooth/WIFI/BLE: 2.93 dBi

GPS: -1.14 dBi

Antenna Type: PIFA antenna

Number of Channels:

UMTS-FDD: QPSK

802.11b/g/n: DSSS, OFDM

Type of Modulation: Bluetooth: GFSK, π /4DQPSK, 8DPSK

BLE: GFSK GPS:BPSK

UMTS-FDD Band V TX: 826.4 ~ 846.6 MHz; RX: 871.4 ~ 891.6 MHz

UMTS-FDD Band II TX:1852.4 ~ 1907.6 MHz;

RX: 1932.4 ~ 1987.6 MHz

RF Operating Frequency (ies): WIFI: 802.11b/g/n(20M): 2412-2462 MHz

WIFI: 802.11n(40M): 2422-2452 MHz Bluetooth& BLE: 2402-2480 MHz

GPS: 1575.42 MHz

UMTS-FDD Band V: 102CH UMTS-FDD Band II: 277CH

WIFI:802.11b/g/n(20M): 11CH

WIFI :802.11n(40M): 7CH

Bluetooth: 79CH

BLE: 40CH



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GPS:1CH

Port: USB Port, Earphone Port

Adapter:

Model: PC325

Input: AC100-240V~50/60Hz,0.15A

Output: DC 5.0V-500mA

Input Power: Battery:

Model: BPX325

Voltage: 3.7V/4.44Wh

Battery Capacity:1200mAh, Charging Limit Voltage: 4.2V

Trade Name: N/A

FCC ID: 2AIMEX325B



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5. FCC §2.1093 - Radiofrequency radiation exposure evaluation: portable devices.

5.1 RF Exposure

Standard Requirement:

According to §15.247 (i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] $\cdot [\sqrt{f_{(GHz)}}] \le 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, 16 where

- f_(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation¹⁷
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is ≤ 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

result = $P\sqrt{F}/D$

P= Maximum turn-up power in mW

F= Channel frequency in GHz

D= Minimum test separation distance in mm



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5.2 Test Result

Bluetooth Mode:

Modulation	СН	Freque ncy	Conducted Power	Tune Up Power	Max Tune Up Power	Max Tune Up Power	Result	Limit
		(MHz)	(dBm)	(dBm)	(dBm)	(mW)		
GFSK	Low	2402	5.399	5±1	6	3.981	1.23	3
	Mid	2441	5.631	5±1	6	3.981	1.24	3
	High	2480	5.451	5±1	6	3.981	1.25	3
π /4 DQPSK	Low	2402	5.185	5±1	6	3.981	1.23	3
	Mid	2441	5.357	5±1	6	3.981	1.24	3
	High	2480	5.160	5±1	6	3.981	1.25	3
8-DPSK	Low	2402	5.176	5±1	6	3.981	1.23	3
	Mid	2441	5.391	5±1	6	3.981	1.24	3
	High	2480	5.210	5±1	6	3.981	1.25	3

BLE Mode:

Modulation	СН	Freq (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
GFSK	Low	2402	-1.812	-2±1	-1	0.794	0.25	3
	Mid	2440	-2.189	-2±1	-1	0.794	0.25	3
	High	2480	-2.747	-2±1	-1	0.794	0.25	3

Result: Compliance

No SAR measurement is required.