

RF EXPOSURE REPORT



Report No.: 16070127-FCC-H2

Supersede Report No.: N/A

Applicant	SUPERSONIC INC	
Product Name	4.5" LTE SMART PHONE	
Model No.	SV-145LTE	
Serial No.	SV-245LTE,SV-345LTE, SC-145LTE	
Test Standard	FCC 2.1093:2014	
Test Date	Feb 04 to Feb 25, 2016	
Issue Date	Feb 25, 2016	
Test Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	
Equipment complied with the specification <input checked="" type="checkbox"/>		
Equipment did not comply with the specification <input type="checkbox"/>		
<i>Winnie Zhang</i>	<i>David Huang</i>	
Winnie Zhang Test Engineer	David Huang Checked By	
This test report may be reproduced in full only 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
16070127-FCC-H2	NONE	Original	Feb 25, 2016

2. Customer information

Applicant Name	SUPERSONIC INC
Applicant Add	6555 BANDINI BOULEVARD COMMERCE CA 90040-3119 USA
Manufacturer	NCBC OVERSEA CO., LIMITED
Manufacturer Add	FLAT/RM A5 9/F SILVERCORP INT' L TOWER 707-713 NATHAN ROAD MONGKOK KLN HONGKONG

3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES
Lab Address	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park 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

4. Equipment under Test (EUT) Information

Description of EUT: 4.5" LTE SMART PHONE

Main Model: SV-145LTE

Serial Model: SV-245LTE,SV-345LTE, SC-145LTE

Date EUT received: Feb 03, 2016

Test Date(s): Feb 04 to Feb 25, 2016

	GSM850: -1 dBi
	PCS1900: 0 dBi
	UMTS-FDD Band V: -1dBi
	UMTS-FDD Band II: 0 dBi
	Bluetooth/BLE: 0 dBi
Antenna Gain:	WIFI: 0 dBi
	LTE Band 2: 0 dBi
	LTE Band 4: 0 dBi
	LTE Band 7: 1 dBi
	LTE Band 17: -1 dBi
	GPS:0 dBi

Type of Modulation:	GSM / GPRS: GMSK
	EGPRS: GMSK,8PSK
	UMTS-FDD: QPSK, 16QAM
	802.11b/g/n: DSSS, OFDM
	Bluetooth: GFSK, $\pi/4$ DQPSK, 8DPSK
	BLE: GFSK
	LTE Band: QPSK, 16QAM
	GPS:BPSK

RF Operating Frequency (ies):

- GSM850 TX: 824.2 ~ 848.8 MHz; RX: 869.2 ~ 893.8 MHz
- PCS1900 TX: 1850.2 ~ 1909.8 MHz; RX: 1930.2 ~ 1989.8 MHz
- 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
- WIFI: 802.11b/g/n(20M): 2412-2472 MHz

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WIFI:802.11n(40M): 2422-2462 MHz
 Bluetooth& BLE: 2402-2480 MHz
 LTE Band 2 TX: 1852.5 ~ 1907.5 MHz; RX : 1932.5 ~ 1987.5 MHz
 LTE Band 4 TX: 1712.5 ~ 1752.5 MHz; RX : 2112.5 ~ 2152.5 MHz
 LTE Band 7 TX: 2502.5 ~ 2567.5 MHz; RX : 2622.5 ~ 2687.5 MHz
 LTE Band 17 TX: 706.5 ~ 713.5 MHz; RX : 736.5 ~ 743.5 MHz
 GPS RX:1575.42 MHz

GSM 850: 124CH
 PCS1900: 299CH
 UMTS-FDD Band V : 102CH
 UMTS-FDD Band II : 277CH

Number of Channels:

WIFI :802.11b/g/n(20M): 13CH
 WIFI :802.11n(40M): 9CH
 Bluetooth: 79CH
 BLE: 40CH
 GPS:1CH

Port:

Power Port, Earphone Port, USB Port

Adapter:

Model: HJ-0501000B2-US

Input: AC 100-240V; 50/60Hz;0.15A

Output: DC 5.0V,1000mA

Input Power:

Battery:

Model: SV-145LTE

Capacity: 1600mAh

Voltage: 4.35V

Trade Name :

SHARPER VIEW

GPRS/EGPRS Multi-slot class

8/10/12

FCC ID:

2AC5R-SV-145LTE

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:

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

- $f_{\text{(GHz)}}$ 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.

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

P= Maximum turn-up power in mW

F= Channel frequency in GHz

D= Minimum test separation distance in mm

5.2 Test Result

Bluetooth Mode:

Modulation	CH	Freq (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
GFSK	Low	2402	0.395	0±1	1	1.259	0.39	3
	Mid	2441	0.394	0±1	1	1.259	0.39	3
	High	2480	0.591	0±1	1	1.259	0.40	3
π /4 DQPSK	Low	2402	-0.386	-1±1	0	1.000	0.31	3
	Mid	2441	-0.218	-1±1	0	1.000	0.31	3
	High	2480	-0.098	-1±1	0	1.000	0.31	3
8-DPSK	Low	2402	-0.293	-1±1	0	1.000	0.31	3
	Mid	2441	-0.109	-1±1	0	1.000	0.31	3
	High	2480	0.028	0±1	1	1.259	0.40	3

WIFI Mode:

Modulation	CH	Freq (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
802.11b	Low	2412	8.40	8.5±1	9.5	8.913	2.77	3
	Mid	2442	8.10	8.5±1	9.5	8.913	2.79	3
	High	2472	8.50	8.5±1	9.5	8.913	2.80	3
802.11g	Low	2412	9.01	8.5±1	9.5	8.913	2.77	3
	Mid	2442	8.84	8.5±1	9.5	8.913	2.79	3
	High	2472	8.70	8.5±1	9.5	8.913	2.80	3
802.11n (20M)	Low	2412	8.67	8.5±1	9.5	8.913	2.77	3
	Mid	2442	8.66	8.5±1	9.5	8.913	2.79	3
	High	2472	8.87	8.5±1	9.5	8.913	2.80	3
802.11n (40M)	Low	2422	8.86	8.5±1	9.5	8.913	2.77	3
	Mid	2442	8.98	8.5±1	9.5	8.913	2.79	3
	High	2462	8.97	8.5±1	9.5	8.913	2.80	3

BLE Mode:

Modulation	CH	Freq (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
GFSK	Low	2402	-2.910	-2±1	-1	0.794	0.25	3
	Mid	2440	-2.721	-2±1	-1	0.794	0.25	3
	High	2480	-2.617	-2±1	-1	0.794	0.25	3

Result: Compliance

No SAR measurement is required.