RF EXPOSURE REPORT



Report No.: 17070865-FCC-H2-V1

Supersede Report No.: N/A

Applicant	Mobiwire M	lobiles (Ningt	oo) Co.,Ltd	
Product Name	Mobile phone			
Model No.	N552			
Serial No.	N/A			
Test Standard	FCC 2.109	3:2016		
Test Date	September	09 to 18, 20	17	
Issue Date	September	27, 2017		
Test Result	Pass	Fail		
Equipment compl	ied with the	specification	V	
Equipment did no	t comply witl	n the specific	ation 🗆	
Loven	Luo	David	Huang	
Loren Lu Test Engir			d Huang cked By	

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

Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

Zone A, Floor 1, Building 2 Wan Ye Long Technology Park
South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China 518108
Phone: +86 0755 2601 4629801 Email: China@siemic.com.cn



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Laboratories Introduction

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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
17070865-FCC-H2	NONE	Original	September 19, 2017
17070865-FCC-H2-V1	V1	Updated the GPRS/ EGPRS	September 27, 2017
17070005-FCC-HZ-V1		Multi-slot class data	

2. Customer information

Applicant Name	Mobiwire Mobiles (Ningbo) Co.,Ltd
Applicant Add	Mobiwire Mobiles,No. 999 Dacheng East Road Fenghua,Zhejiang China
Manufacturer	Mobiwire Mobiles (Ningbo) Co.,Ltd
Manufacturer Add	Mobiwire Mobiles,No. 999 Dacheng East Road Fenghua,Zhejiang China

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.	535293		
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: N552

Serial Model: N/A

Date EUT received: September 08, 2017

Test Date(s): September 09 to 18, 2017

GSM850: -3dBi PCS1900: -1dBi

UMTS-FDD Band V: -3dBi

UMTS-FDD Band II: -0.5dBi Antenna Gain:

LTE Band IV: -2dBi

WIFI: 1dBi

Bluetooth/BLE: 1dBi

GPS: 1dBi

Antenna Type: PIFA antenna

GSM / GPRS: GMSK EGPRS: GMSK,8PSK UMTS-FDD: QPSK

Type of Modulation: LTE Band: QPSK, 16QAM 802.11b/g/n: DSSS, OFDM

Bluetooth: GFSK, π /4DQPSK, 8DPSK

BLE: GFSK GPS:BPSK

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

RF Operating Frequency (ies): UMTS-FDD Band II TX:1852.4 ~ 1907.6 MHz;

RX: 1932.4 ~ 1987.6 MHz

LTE Band IV TX: 1710.7 ~ 1754.3 MHz; RX: 2110.7~ 2154.3 MHz

WIFI: 802.11b/g/n(20M): 2412-2462 MHz



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

GPS: 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): 11CH

WIFI:802.11n(40M): 7CH

Bluetooth: 79CH

BLE: 40CH GPS:1CH

Port: USB Port, Earphone Port

Adapter:

Model: S005UA0500100

Input: AC100-240V~50/60Hz,150mA

Output: DC 5.0V,1000mA

Battery:

Spec: 3.85V, 3000mAh,11.55Wh

Trade Name : NOBLEX

Input Power:

GPRS/EGPRS Multi-slot class 8/10/11/12

FCC ID: 2ADA4N552



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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:

		Freque	Conducted	Tune Up	Max Tune	Max Tune		
Modulation	СН	ncy	Power	Power	Up Power	Up Power	Result	Limit
		(MHz)	(dBm)	(dBm)	(dBm)	(mW)		
	Low	2402	2.483	3±1	4	2.512	0.78	3
GFSK	Mid	2441	3.256	3±1	4	2.512	0.78	3
	High	2480	2.503	3±1	4	2.512	0.79	3
π /4 DQPSK	Low	2402	1.666	2±1	3	1.995	0.62	3
	Mid	2441	2.623	2±1	3	1.995	0.62	3
	High	2480	1.782	2±1	3	1.995	0.63	3
8-DPSK	Low	2402	1.754	2±1	3	1.995	0.62	3
	Mid	2441	2.774	2±1	3	1.995	0.62	3
	High	2480	1.951	2±1	3	1.995	0.63	3

WIFI Mode:

Modulation	СН	Freque ncy (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
	Low	2412	8.64	8.6±1	9.6	9.120	2.83	3
802.11b	Mid	2437	9.19	8.6±1	9.6	9.120	2.85	3
	High	2462	9.44	8.6±1	9.6	9.120	2.86	3
802.11g	Low	2412	9.37	8.6±1	9.6	9.120	2.83	3
	Mid	2437	8.42	8.6±1	9.6	9.120	2.85	3
	High	2462	9.27	8.6±1	9.6	9.120	2.86	3
000 115	Low	2412	8.81	8.6±1	9.6	9.120	2.83	3
802.11n (20M)	Mid	2437	9.36	8.6±1	9.6	9.120	2.85	3
	High	2462	9.26	8.6±1	9.6	9.120	2.86	3
802.11n (40M)	Low	2422	9.22	8.6±1	9.6	9.120	2.84	3
	Mid	2437	9.48	8.6±1	9.6	9.120	2.85	3
	High	2452	9.55	8.6±1	9.6	9.120	2.86	3



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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	-5.272	-4.5±1	-3.5	0.447	0.14	3
	Mid	2440	-3.580	-4.5±1	-3.5	0.447	0.14	3
	High	2480	-4.661	-4.5±1	-3.5	0.447	0.14	3

Result: Compliance

No SAR measurement is required.