


# RF EXPOSURE REPORT



Report No.: 17070865-FCC-H2-V1

Supersede Report No.: N/A

Applicant	Mobiwire Mobiles (Ningbo) Co.,Ltd	
Product Name	Mobile phone	
Model No.	N552	
Serial No.	N/A	
Test Standard	FCC 2.1093:2016	
Test Date	September 09 to 18, 2017	
Issue Date	September 27, 2017	
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>Loren Luo</i>	<i>David Huang</i>	
Loren Luo 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:

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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

Test Report	17070865-FCC-H2-V1
Page	3 of 10

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# CONTENTS

1. REPORT REVISION HISTORY .....	5
2. CUSTOMER INFORMATION.....	5
3. TEST SITE INFORMATION .....	5
4. EQUIPMENT UNDER TEST (EUT) INFORMATION .....	6
5. FCC §2.1093 - RADIOFREQUENCY RADIATION EXPOSURE EVALUATION: PORTABLE DEVICES.	8
5.1 RF EXPOSURE.....	8
5.2 TEST RESULT .....	9

## 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 Multi-slot class data	September 27, 2017

## 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
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.	535293
IC Test Site No.	4842E-1
Test Software	Radiated Emission Program-To Shenzhen v2.0

## 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
Antenna Gain:	GSM850: -3dBi PCS1900: -1dBi UMTS-FDD Band V: -3dBi UMTS-FDD Band II: -0.5dBi LTE Band IV: -2dBi WIFI: 1dBi Bluetooth/BLE: 1dBi GPS: 1dBi
Antenna Type:	PIFA antenna
Type of Modulation:	GSM / GPRS: GMSK EGPRS: GMSK,8PSK UMTS-FDD: QPSK LTE Band: QPSK, 16QAM 802.11b/g/n: DSSS, OFDM Bluetooth: GFSK, $\pi$ /4DQPSK, 8DPSK BLE: GFSK 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 LTE Band IV TX: 1710.7 ~ 1754.3 MHz; RX : 2110.7~ 2154.3 MHz 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

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 Power:

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

Output: DC 5.0V,1000mA

Battery:

Spec: 3.85V, 3000mAh,11.55Wh

Trade Name :

NOBLEX

GPRS/EGPRS Multi-slot class

8/10/11/12

FCC ID:

2ADA4N552

## 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*  $\leq 50$  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  $\leq 7.5$  for 10-g extremity SAR,<sup>16</sup> where

- $f_{(\text{GHz})}$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum *test separation distance* is  $\leq 50$  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	Frequency (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
GFSK	Low	2402	2.483	3±1	4	2.512	0.78	3
	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	CH	Frequency (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
802.11b	Low	2412	8.64	8.6±1	9.6	9.120	2.83	3
	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
802.11n (20M)	Low	2412	8.81	8.6±1	9.6	9.120	2.83	3
	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

**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	-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.