

RF EXPOSURE REPORT



Report No.: 17070522-FCC-H2

Supersede Report No.: N/A

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| Applicant | MFOURTEL MEXICO S.A. DE C.V. | |
| Product Name | LTE Mobile Phone | |
| Model No. | M4 SS4458-R | |
| Serial No. | N/A | |
| Test Standard | FCC 2.1093:2016 | |
| Test Date | June 27 to July 11, 2017 | |
| Issue Date | July 12, 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"/> |
| Loren Luo | David Huang | |
| 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 |

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1. Report Revision History

| Report No. | Report Version | Description | Issue Date |
|-----------------|----------------|-------------|---------------|
| 17070522-FCC-H2 | NONE | Original | July 12, 2017 |
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2. Customer information

| | |
|------------------|---|
| Applicant Name | MFOURTEL MEXICO S.A. DE C.V. |
| Applicant Add | Av. Ejército Nacional 436 Piso 3 Chapultepec Morales Miguel Hidalgo Distrito Federal 11570. |
| Manufacturer | CK Telecom Limited |
| Manufacturer Add | Technology Road.High-Tech Development Zone. Heyuan, Guangdong,P.R.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. | 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: LTE Mobile Phone

Main Model: M4 SS4458-R

Serial Model: N/A

Date EUT received: June 26, 2017

Test Date(s): June 27 to July 11, 2017

GSM850: -0.5dBi

PCS1900: 1dBi

UMTS-FDD Band V: -0.5dBi

UMTS-FDD Band II: 1dBi

LTE Band II: 1dBi

Antenna Gain: LTE Band IV: 1dBi

LTE Band VII: 1.5dBi

LTE Band XIII: -0.7dBi

WIFI: -0.5dBi

Bluetooth/BLE: -0.5dBi

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, $\pi/4$ DQPSK, 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
UMTS-FDD Band II TX: 1852.4 ~ 1907.6 MHz;
RX: 1932.4 ~ 1987.6 MHz

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| RF Operating Frequency (ies): | LTE Band IV TX: 1710.7 ~ 1754.3 MHz; RX : 2110.7 ~ 2154.3 MHz LTE Band VII TX: 2502.5 ~ 2567.5 MHz; RX : 2622.5 ~ 2687.5 MHz LTE Band XIII TX: 779.5 ~ 784.5MHz; RX : 748.5 ~ 753.5 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
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: A8-501000
Input: AC100-240V~50/60Hz,150mA
Output: DC 5.0V,1000mA
Battery
Model: M3000A
Spec: 3.85V,11.55Wh,3000mAh
Charge Limit: 4.4Vdc

Trade Name : M4

Brand Name: M4

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

FCC ID: CLNSS4458-R

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:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR,}^{16}$ 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 | Frequency (MHz) | Conducted Power (dBm) | Tune Up Power (dBm) | Max Tune Up Power (dBm) | Max Tune Up Power (mW) | Result | Limit |
|---------------|------|-----------------|-----------------------|---------------------|-------------------------|------------------------|--------|-------|
| GFSK | Low | 2402 | 4.418 | 4±1 | 5 | 3.162 | 0.98 | 3 |
| | Mid | 2441 | 3.047 | 4±1 | 5 | 3.162 | 0.99 | 3 |
| | High | 2480 | 4.940 | 4±1 | 5 | 3.162 | 1.00 | 3 |
| $\pi/4$ DQPSK | Low | 2402 | 3.699 | 3.3±1 | 4.3 | 2.692 | 0.83 | 3 |
| | Mid | 2441 | 2.355 | 3.3±1 | 4.3 | 2.692 | 0.84 | 3 |
| | High | 2480 | 4.037 | 3.3±1 | 4.3 | 2.692 | 0.85 | 3 |
| 8-DPSK | Low | 2402 | 3.753 | 3.3±1 | 4.3 | 2.692 | 0.83 | 3 |
| | Mid | 2441 | 2.487 | 3.3±1 | 4.3 | 2.692 | 0.84 | 3 |
| | High | 2480 | 4.260 | 3.3±1 | 4.3 | 2.692 | 0.85 | 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 | 4.251 | 3.9±1 | 4.9 | 3.090 | 0.96 | 3 |
| | Mid | 2440 | 2.913 | 3.9±1 | 4.9 | 3.090 | 0.97 | 3 |
| | High | 2480 | 4.807 | 3.9±1 | 4.9 | 3.090 | 0.97 | 3 |

Result: Compliance

No SAR measurement is required.