

## Certificate

of  
Radio Equipment in JAPAN

No: 201-170349 / 00

Telefication, operating as Conformity Assessment Body (CAB ID Number: 201) with respect to Japan, declares that the listed product complies with the Technical Regulations Conformity Certification of Terminal equipment (ordinance of MPT N° 31,1984)

Product description: **4G WIFI Router**

Trademark: **Maestro**

Type designation: **E228#1JL**

Variants: --

Manufacturer: **Guangzhou Telefield Ltd.**

Address: **No.1 Industry Area, Zhuliao Town, Baiyun Zone**

City: **Guangzhou, Guangdong**

Country: **China**

This statement is granted to:

Name: **M&F Technologies Limited**

Address: **Flat A & B, 9F, Wing Cheong Factory Building, 121 King Lam Street, Cheung Sha Wan**

City: **Hong Kong**

Country: **China**

This statement has THREE Annexes.

Zevenaar, 15 March 2017

**CAB**




Marcus Jansen  
Senior Product Assessor



- The validity of this Certificate is limited to products, which are equal to the one examined in the type-examination
- When the manufacturer (or holder of this certificate) is placing the product on the Japanese market, the product must be affixed with the following Specified Radio Equipment marking:



 201-170349

#### Remarks and observations

The following conditions are applicable:

LTE FDD Band 1:

RB restrictions for 15 MHz channel bandwidth with  $f_c = 1932.5$  MHz

The maximum length of continuous Resource Block used is 30 RBs with bandwidth 5.40 MHz in 1927.19MHz-1937.81 MHz

RB restrictions for 20 MHz channel bandwidth with  $f_c = 1930$  MHz

The maximum length of continuous Resource Block used is 24 RBs with bandwidth 4.32 MHz in 1925.32 MHz-1934.68 MHz

Antennas for IEEE 802.11b/g/n:

Dipole antenna, max gain of 3.8 dBi at 2.4 GHz

Antennas for LTE:

Dipole antenna, max gain of 2.5 dBi at LTE Bands

## Documentation lodged for this type-examination

### Test Reports:

- Sporton International (Kunshan) Inc.: JR720702A, 01 March 2017
- DSP RESEARCH, INC.: 751020044430, 05 November 2015

### Product Documentation:

- Assembly drawings
- Bill of materials
- Block diagram
- Electrical diagrams
- Antenna specifications
- Internal photos
- External photos
- Manual

## Technical Standards and Specifications

The product shows no non-compliances with:

- Equipment Radio Regulations: 2008 (including amendments)

Chapter I, General Provisions

Chapter II, Transmitting equipment

Chapter III, Receiving Equipment

Chapter IV, section 4.17 article 49.20

Chapter IV, section 4.4.5 article 49.6.9

Radio equipment specified in:

Item (19) of article 2, paragraph 1

item (11)-19 of article 2, paragraph 1

## Technical features and characteristics

The product includes the following features and characteristics:

### IEEE 802.11b

- Operating frequency range: 2412-2472 MHz (13 channels)
- ITU designation: 12M3G1D
- Maximum output power: 5.0 mW/MHz rated

### IEEE 802.11g

- Operating frequency range: 2412-2472 MHz (13 channels)
- ITU designation: 16M8D1D,G1D
- Maximum output power: 4.0 mW/MHz rated

### IEEE 802.11n 20 MHz

- Operating frequency range: 2412-2472 MHz (13 channels)
- ITU designation: 17M7D1D,G1D
- Maximum output power: 4.0 mW/MHz rated

### IEEE 802.11n 40 MHz

- Operating frequency range: 2422-2462 MHz (9 channels)
- ITU designation: 36M5D1D,G1D
- Maximum output power: 2.0 mW/MHz rated

### LTE FDD Band 1

- Operating frequency range: 1927.2-1977.5 MHz (100kHz interval 504 waves)
- ITU designation: 5M00 D1A,D1B,D1C,D1D,D1E,D1F,D1X,D7W,G1A,G1B,G1C,G1D,G1E,G1F,G1X,G7W
- Maximum output power: 23 dBm rated

### LTE FDD Band 1

- Operating frequency range: 1934.7-1975.0 MHz (100kHz interval 404 waves)
- ITU designation: 10M0 D1A,D1B,D1C,D1D,D1E,D1F,D1X,D7W,G1A,G1B,G1C,G1D,G1E,G1F,G1X,G7W
- Maximum output power: 23 dBm rated

### LTE FDD Band 1

- Operating frequency range: 1942.2-1972.5 MHz (100kHz interval 304 waves)
- ITU designation: 15M0 D1A,D1B,D1C,D1D,D1E,D1F,D1X,D7W,G1A,G1B,G1C,G1D,G1E,G1F,G1X,G7W
- Maximum output power: 23 dBm rated

### LTE FDD Band 1

- Operating frequency range: 1949.7-1970.0 MHz (100kHz interval 204 waves)
- ITU designation: 20M0 D1A,D1B,D1C,D1D,D1E,D1F,D1X,D7W,G1A,G1B,G1C,G1D,G1E,G1F,G1X,G7W
- Maximum output power: 23 dBm rated

### LTE FDD Band 19

- Operating frequency range: 832.5-842.5 MHz (100kHz interval 101 waves)
- ITU designation: 5M00 D1A,D1B,D1C,D1D,D1E,D1F,D1X,D7W,G1A,G1B,G1C,G1D,G1E,G1F,G1X,G7W
- Maximum output power: 23 dBm rated

### LTE FDD Band 19

- Operating frequency range: 835.0-840.0 MHz (100kHz interval 51 waves)
- ITU designation: 10M0 D1A,D1B,D1C,D1D,D1E,D1F,D1X,D7W,G1A,G1B,G1C,G1D,G1E,G1F,G1X,G7W
- Maximum output power: 23 dBm rated

### LTE FDD Band 19

- Operating frequency range: 837.5 MHz (1 wave)
- ITU designation: 15M0 D1A,D1B,D1C,D1D,D1E,D1F,D1X,D7W,G1A,G1B,G1C,G1D,G1E,G1F,G1X,G7W
- Maximum output power: 23 dBm rated



**LTE FDD Band 21**

- Operating frequency range: 1450.4-1460.4 MHz (100kHz interval 101 waves)
- ITU designation: 5M00 D1A,D1B,D1C,D1D,D1E,D1F,D1X,D7W,G1A,G1B,G1C,G1D,G1E,G1F,G1X,G7W
- Maximum output power: 23 dBm rated

**LTE FDD Band 21**

- Operating frequency range: 1452.9-1457.9 MHz (100kHz interval 51 waves)
- ITU designation: 10M0 D1A,D1B,D1C,D1D,D1E,D1F,D1X,D7W,G1A,G1B,G1C,G1D,G1E,G1F,G1X,G7W
- Maximum output power: 23 dBm rated

**LTE FDD Band 21**

- Operating frequency range: 1455.4 MHz (1 wave)
- ITU designation: 15M0 D1A,D1B,D1C,D1D,D1E,D1F,D1X,D7W,G1A,G1B,G1C,G1D,G1E,G1F,G1X,G7W
- Maximum output power: 23 dBm rated



The product as described in this Certificate includes the following type designations:

- Product description: 4G WIFI Router
- Trademark: Maestro
- Type designation: E228#1JL