

## Certificate

of  
Radio Equipment in JAPAN

No: 201-180907 / 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 Specified Radio equipment (ordinance of MPT N° 37,1981)

Product description: **45 Series Pluggable module**  
Trademark: **Laird**  
Type designation: **MSD45N**  
Hardware / Software version: **1.0 / 23.3.3.5**

Manufacturer: **Laird Technologies**  
Address: **W66N220 Commerce Court, Cedarburg**  
City: **53012 Wisconsin**  
Country: **United States**

This certificate is granted to:

Name: **Laird Technologies**  
Address: **W66N220 Commerce Court, Cedarburg**  
City: **53012 Wisconsin**  
Country: **United States**

This certificate has THREE Annexes.

Zevenaar, 24 December 2018

**CAB**



David Chen  
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:



#### Remarks and observations

The following conditions are applicable:

Radio module

Antennas for IEEE 802.11a/b/g/n:

Listed are 7 PCB Dipole, 3 Dipole and 1 PIFA antenna with max antenna peak gain 2.79 dBi at 2.4 GHz and 4 dBi at 5 GHz.

## Documentation lodged for this type-examination

### Test Reports:

- International Certification Corp.: JR371704-06AC, 20 December 2018
- International Certification Corp.: JR371704-06AN, 20 December 2018

### 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

Radio equipment specified in:

Item 19, Paragraph 1, Article 2

Item 19-2, Paragraph 1, Article 2

Item 19-3, Paragraph 1, Article 2

Item 19-3-2, Paragraph 1, Article 2

## 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: 14M1 G1D
- Maximum output power: 8.5 mW/MHz rated

### IEEE 802.11g

- Operating frequency range: 2412-2472 MHz (13 channels)
- ITU designation: 18M8 D1D,G1D
- Maximum output power: 4 mW/MHz rated

### IEEE 802.11n 20 MHz

- Operating frequency range: 2412-2472 MHz (13 channels)
- ITU designation: 19M4 D1D,G1D
- Maximum output power: 4 mW/MHz rated

### IEEE 802.11b ch14

- Operating frequency range: 2484-2484 MHz
- ITU designation: 20M6 G1D
- Maximum output power: 4 mW/MHz rated

### IEEE 802.11a

- Operating frequency range: 5180-5240 MHz (4 channels)
- ITU designation: 17M7 D1D,G1D
- Maximum output power: 4 mW/MHz rated

### IEEE 802.11n 20 MHz

- Operating frequency range: 5180-5240 MHz (4 channels)
- ITU designation: 18M3 D1D,G1D
- Maximum output power: 4 mW/MHz rated

### IEEE 802.11a

- Operating frequency range: 5260-5320 MHz (4 channels)
- ITU designation: 17M1 D1D,G1D
- Maximum output power: 4 mW/MHz rated

### IEEE 802.11n 20 MHz

- Operating frequency range: 5260-5320 MHz (4 channels)
- ITU designation: 18M3 D1D,G1D
- Maximum output power: 4 mW/MHz rated

### IEEE 802.11a

- Operating frequency range: 5500-5700 MHz (11 channels)
- ITU designation: 18M5 D1D,G1D
- Maximum output power: 5.5 mW/MHz rated

### IEEE 802.11n 20 MHz

- Operating frequency range: 5500-5700 MHz (11 channels)
- ITU designation: 18M8 D1D,G1D
- Maximum output power: 5.5 mW/MHz rated

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

- Product description: 45 Series Pluggable module
- Trademark: Laird
- Type designation: MSD45N
- Hardware version: 1.0
- Software version: 23.3.3.5