

Type Certification

No: 18-210537

for Specified Radio Equipment in Japan

PHOENIX TESTLAB GmbH, operating as a Registered Certification Body (RCB ID: 204) with respect to Japan, declares that the listed product complies with the Technical Regulations Conformity Certification of Specified Radio Equipment (ordinance of MPT No. 37, 1981), Article 2, Paragraph 1, Item 19 and Item 19-2-2.

Product description: **RAMP Wireless Modules**

Trademark / Model name: **Laird Technologies / RM024-P10-C**

Family name: --

Serial No: --

Software Release No: --

Type of emissions: F1D

Frequency and power: 2404 - 2466.92 MHz; 43 ch; 0.75 mW/MHz (Item 19)

2404 - 2466.92 MHz; 43 ch; 0.75 mW/MHz (Item 19-2-2)

Manufacturer: Laird Technologies

Address: W66N220 Commerce Court

City: Cedarburg, Wisconsin 53012

Country: USA

This certificate is granted to:

Certificate holder: **Laird Technologies**

Address: **W66N220 Commerce Court**

City: **Cedarburg, Wisconsin 53012**

Country: **USA**

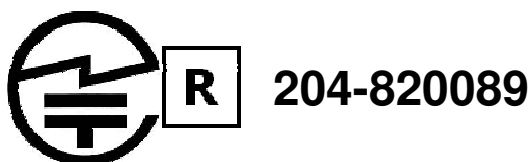
This certificate has 2 annexes.

Blomberg, Mar. 9, 2018
Place, Date

PHOENIX TESTLAB GmbH
Königswinkel 10
32825 Blomberg
Tel. 0 52 35 / 95 00-0
Fax 0 52 35 / 95 00-10

Detlef Lachmund

- The validity of this certificate is limited to products, which are equal to the one examined in the type-examination.
- When 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 one conditions 1 or 2 are applicable:

- One of the following antennas to be used for operation under item 19:
 - Dipole Antenna, Nearson S151FC-6-PX-2450S, with a maximum gain of 5 dBi for the 2.4 GHz band
 - Dipole Antenna, Nearson S181FL-6-PX-2450S, with a maximum gain of 2 dBi for the 2.4 GHz band
 - Wave Stubby Antenna, BT-Stubby 2.4 GHz 1/4 W, with a maximum gain of 0 dBi for the 2.4 GHz band
 - Wave Antenna, MOTOMAG24, with a maximum gain of 1.8 dBi for the 2.4 GHz band
 - Dipole Antenna, Nearson ANT-2.4-CW-RCT-SS, with a maximum gain of 2.2 dBi for the 2.4 GHz band
 - Elevated feed mobile Antenna, MEFC24005, with a maximum gain of 5 dBi for the 2.4 GHz band
 - Unity Gain End Fed Dipole Antenna, PA0545LMR4005, with a maximum gain of 5 dBi for the 2.4 GHz band
- One of the following antennas to be used for operation under item 19-2-2:
 - Dipole Antenna, Antenna Factor ANT-2.4-CW-RCT-SS, with a maximum gain of 2.2 dBi for the 2.4 GHz band
 - Dipole Antenna, Antenna Factor ANT-2.4-CW-RCT-RP, with a maximum gain of 2.2 dBi for the 2.4 GHz band

Documentation lodged for the type examination:

Test reports:

- Sporton International Inc.: JR310503-01, May. 2, 2014
- Sporton International Inc.: JR310504, Feb. 7, 2013

Product documentation:

- Block Diagram
- Bill of Materials
- Photos
- User Manual
- Circuit Diagram
- Placement Drawings
- Antenna Specifications

Technical standards and specifications

The product complies with:

- Ordinance Regulating Radio Equipment
 - Chapter I, General Provisions
 - Chapter II, Transmitting Equipment
 - Chapter III, Receiving Equipment
 - Chapter IV, Article 49.20

Technical features and characteristics:

- Modulation method:
FHSS (MSK)

Please note the following points:

1. A person (including a legal person) who was granted the Type Certification (hereafter referred to as “certification dealer” is obliged to prepare and maintain the examination records by Radio Law, Article 38-25, Paragraph 2 and Certification Regulations.
2. Please report to us without delay if any item in the application for this Type Certification is to be changed. The Type Certification will become invalid if there is any discrepancy between the contents of the application documents and the fact.
3. Please keep all records of complaints against this certified equipment (all those reported to suppliers), and provide them to us for our reference upon request.
4. Please take necessary measures against any complaints concerning insufficiency of the equipment or service that influences conformity with technical regulations. Please keep all records of measures you have taken and provide them to us for our reference.
5. Market research can be conducted concerning this Type Certification. In such a case, the necessary testing tools should be submitted upon request.

◆ **Radio Law, Article 38-25**

1. A person who was granted the Type Certification (hereafter referred to as “certification dealer”) by a registered certification agency shall, when dealing a specified radio equipment based on the construction type pertaining to said Type Certification (hereafter referred to as “certified construction type”), ensure that said radio equipment confirms to said certified construction type).
2. A certification dealer shall conduct an examination on the specified radio equipment stated in the preceding paragraph, and prepare and maintain the examination records in accordance with the applicable ministerial ordinance of the Ministry of Internal Affairs and Communications.

◆ **Certification Regulations, Article 19**

1. The items of examination record specified under Article 38-25, Paragraph 2 of Radio Law shall include followings:
 - 1) Type Certification number pertaining to the examination
 - 2) Date and location that the examination took place
 - 3) Name of the person who conducted and is in charge of the examination
 - 4) Name of the specified Radio Equipment which was examined
 - 5) Method of Examination
 - 6) Result of Examination
2. The examination record in the preceding paragraph must be stored for 10 years.
3. The examination record in the preceding paragraph can be stored by using the recording media of electromagnetic record. In this case, the stored electromagnetic record must be able to be displayed at once with computer or other devices when necessary.