

# Microwave Module Operation Manual

Model : OPMW-WL10525

Company Name : OPTEX CO., LTD.

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## 1. Scope

This module is designed for motion sensing applications.

It consists of Oscillator, Mixer, Filter, detector and 2element Antennas(T), 2element Antennas(R). In addition, It have Frequency adjustment, Maintenance structure and Shield case.

## 2. Note and Warning

The product is wireless device.It can radiation and receive RF signal. These electric equipments are very sensitive for RF signal in airplane,hospital,and place to life relate. The electric equipments almost interference from RF signal if it not shelter enough and flaw in design. In order to avoid damage for life and property,in compliance with standard of ever place and electric equipment to use the product.

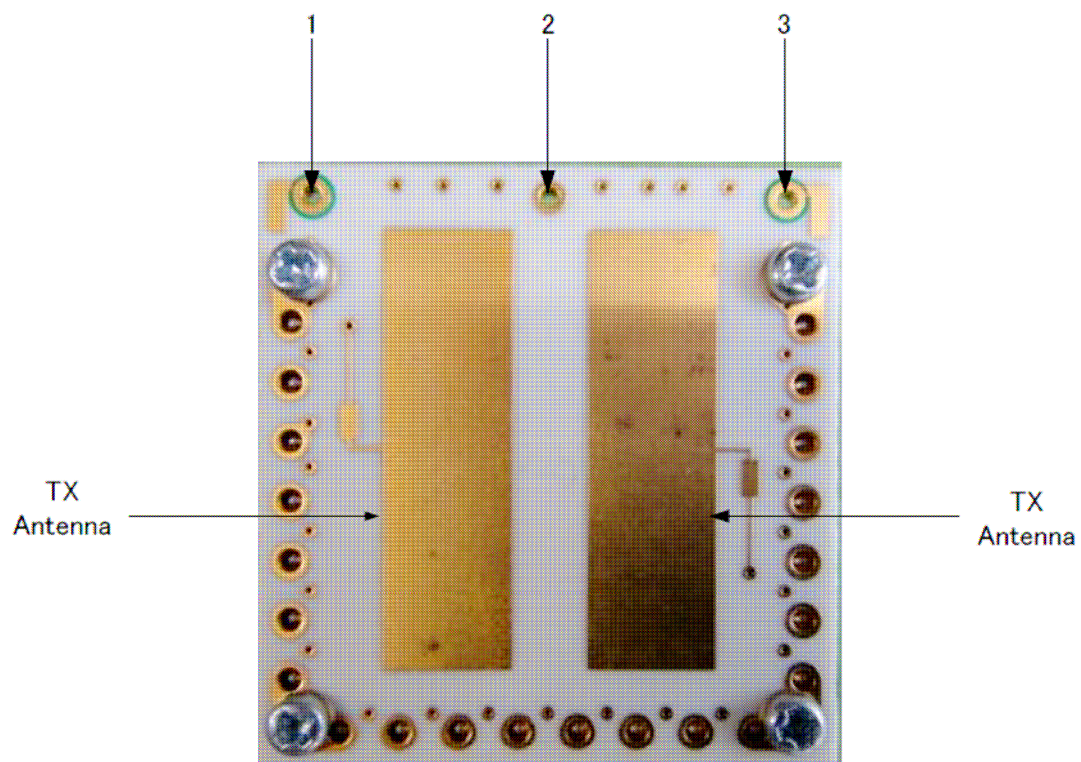
If the product collide,operate improper,and maintain by oneself. We are not indemnification. Place responsibility by oneself.

### 3. Electrical Specification

Operating Voltage	2.2±0.2 V DC
Operating Current	16mA typ. (CW )
Center Frequency	10.525GHz
Frequency Stability	±5 MHz max. (-25 to +60°C)
Output Power	14dBm (E.I.R.P.) max.
Second Harmonic Emission	-30dBm (E.R.P.) max.
Antenna beamwidth (-3dB)	E-Plane 70 deg. nom. H-Plane 40 deg. nom.
Operating Temperature Range	-25°C~+60°C
Storage Temperature Range	-40°C~+85°C

#### 4. Pin Assignment

1. 2.2V
2. GND
3. IF out



## 5. FCC Statement & IC Statement

### FCC Statement

#### **Federal Communication Commission Interference Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

#### **IMPORTANT NOTE:**

This module is intended for OEM integrator. The OEM integrator is still responsible for the FCC compliance requirement of the end product, which integrates this module.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

### **USERS MANUAL OF THE END PRODUCT:**

The end user has to be informed that the FCC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied. The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment. The FCC part 15.19 statement below has to also be available in the manual: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

### **LABEL OF THE END PRODUCT:**

The final end product must be labeled in a visible area with the following " Contains TX FCC ID:DC9OPMWWL ". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of FCC rules.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

## **IC Statement**

### **This Class B digital apparatus complies with Canadian ICES-003.**

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil numérique de la classe B est conforme a la norme NMB-003 du Canada.

This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

### **IMPORTANT NOTE:**

This module is intended for OEM integrator. The OEM integrator is still responsible for the IC compliance requirement of the end product, which integrates this module.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

**USERS MANUAL OF THE END PRODUCT:**

The end user has to be informed that the IC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied. The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment. IC statement is required to be available in the users manual: This Class B digital apparatus complies with Canadian ICES-003. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation..

**LABEL OF THE END PRODUCT:**

The final end product must be labeled in a visible area with the following " Contains TX IC :4012A-OPMWWL ".

Cet appareil numérique de la classe B conforme à la norme NMB-003 du Canada.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.