

# RJ-1302 USER MANUAL

|              |              |
|--------------|--------------|
| <b>MODEL</b> | RJ-1302      |
| <b>BRAND</b> | VIZMONET     |
| <b>FCCID</b> | VJA-RJ1302   |
| <b>ICID</b>  | 7382A-RJ1302 |

RJ-1302 is an IEEE 802.11b/g/n 902 MHz ~ 928 MHz Radio platform engineered for carrier class long range high data capacity applications. With superior TX power efficient RF design, the product supports high TX Power offering best-in class EVM performance at higher modulation schemes. This facilitates to achieve long range without compromising on data throughput. With well-engineered RX Design, RJ-1302 offers ultra-low receive sensitivity to achieve long range.

This module shall be integrated into OEM Wireless Products such as Outdoor Access Points and Mesh networking devices etc., which are typically used at a distance of more than 20 cm away from human body.

## INSTALLATION INSTRUCTIONS

1. Ensure that the Power is shut down before integrating the Module into the host system
2. Ensure that the antenna port is connected to the antenna that is designated to be used with this module
3. Follow appropriate ESD precautionary measures

## TECHNICAL SPECIFICATION

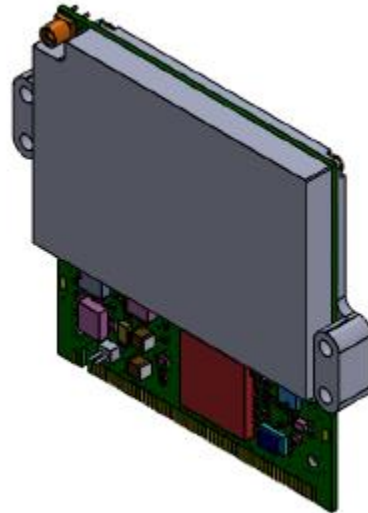
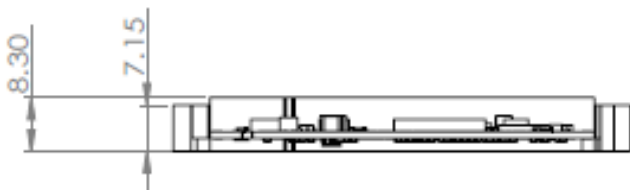
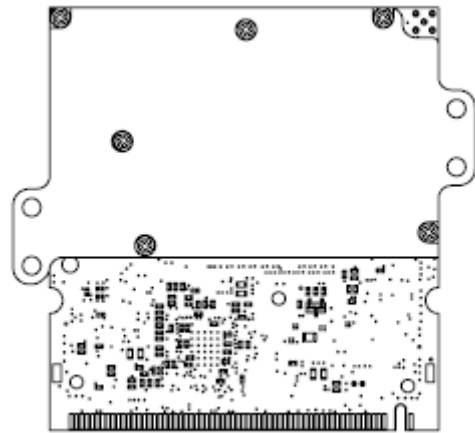
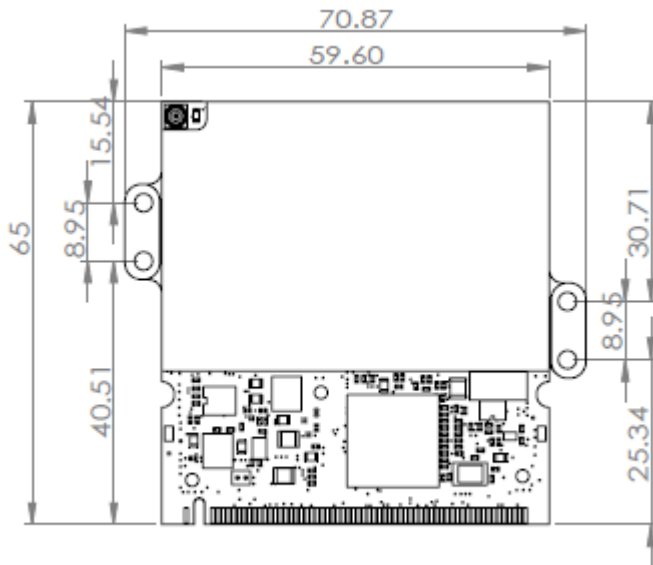
| RADIO MODULE – GENERAL INFO   |  |
|---|--|
| Chipset Info  | Atheros AR9223-AC1A  |
| Operating Frequency Range   | 902 MHz ~ 928 MHz  |
| Security  | WPA, WPA2, AES-CCM & TKIP Encryption, 802.1x, 64/128/152bit WEP  |
| Data Rates<br>Legacy 11g up to 54 Mbps<br>11n HT20-1S up to 65 Mbps | 6Mbps, 9Mbps, 12Mbps, 24Mbps, 36Mbps, 48Mbps,54Mbps<br>(Legacy IEEE802.11g)<br>1 Mbps,2 Mbps,5.5 Mbps,11 Mbps (Legacy IEEE 802.11b)<br>MCS0,MCS1,MCS2,MCS3,MCS4,MCS5,MCS6,MCS7 –IEEE 802.11n HT20<br>Single Stream |
| Channel Bandwidth   | 5 MHz/10 MHz/20 MHz  |
| INTERFACE SPECIFICATIONS  |  |
| Interface   | PCI 32 bit,33 MHz, mini PCI Form Factor  |
| Operating Voltage   | 3.3V   |
| RF Antenna connector  | Single MMCX, VERTICAL  |

## OPERATING CENTRE FREQUENCY MAPING

| OP FREQ (MHz) | CH BW (MHz) | STANDARD |
|---------------|-------------|----------|
| 907           | 5/10        | 11g/n    |

|     |         |         |
|-----|---------|---------|
| 912 | 5/10/20 | 11b/g/n |
| 917 | 5/10/20 | 11b/g/n |
| 922 | 5/10    | 11g/n   |

## MECHANICAL DIMENSIONS



## **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 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.

## **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. 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.

### **This device is intended only for OEM integrators under the following conditions:**

- The antenna must be installed such that 20 cm is maintained between the antenna and users, and

- The transmitter module may not be co-located with any other transmitter or antenna,

**IMPORTANT NOTE:**

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

**End Product Labeling**

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users.

The final end product must be labeled in a visible area with the following:

“Contains FCC ID: VJA-RJ1302 and IC ID : 7382A-RJ1302”

**Manual Information to the End User**

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user’s manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning as shown in this manual.

**Industry Canada Statement**

This device complies with Industry Canada’s licence-exempt RSSs. 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. 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.

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance. Le dispositif rencontre l'exemption des limites courantes d'évaluation dans la section 2.5 de RSS 102 et la conformité à l'exposition de RSS-102 rf, utilisateurs peut obtenir l'information canadienne sur l'exposition et la conformité de rf.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body. Cet émetteur ne doit pas être Co-placé ou ne fonctionnant en même temps qu'aucune autre antenne ou émetteur. Cet équipement devrait être installé et actionné avec une distance minimum de 20 centimètres entre le radiateur et votre corps. Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication. Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This radio transmitter (identify the device by certification number, or model number if Category II) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device. Le présent émetteur radio (identifier le dispositif par son numéro de certification ou son numéro de modèle s'il fait partie du matériel de catégorie I) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

The final end product must be labelled in a visible area with the following: The Industry Canada certification label of a module shall be clearly visible at all times when installed in the host device, otherwise the host device must be labelled to display the Industry Canada certification number of the module, preceded by the words "Contains transmitter module", or the word "Contains", or similar wording expressing the same meaning, as follows: Contains transmitter module IC: 7382A-RJ1301 This End equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body. Cet équipement devrait être installé et actionné avec une distance minimum de 20 centimètres entre le radiateur et votre corps.

**Manual Information to the End User**

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning as show in this manual.

L'intégrateur OEM doit être conscient de ne pas fournir des informations à l'utilisateur final sur la façon d'installer ou de supprimer ce module RF dans le manuel de l'utilisateur du produit final qui intègre ce module.