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## **Certification Exhibit**

**FCC ID: QZC-REXUAINZ**

**FCC Rule Part: 15.247**

**ACS Project Number: 15-0286**

Manufacturer: Elster Solutions, LLC  
Model: REXUAI-NZ

## **Manual**

# Model REXUAI-NZ PCBA manual

## General

The Model REXUAI-NZ printed circuit board assembly (PCBA) contains a frequency hopping spread spectrum radio operating in the 916.0-927.6 MHz ISM frequency band. It also contains circuitry for electricity metering. When the REXUAI-NZ module is installed in a plastic housing it forms a complete electricity meter. Installations of multiple REXUAI-NZ meters comprise part of an Advanced Metering Infrastructure (AMI) system that utilizes a proprietary network architecture and protocol devised by Elster Solutions.

## Device specifications

Table 1: 900 MHz Radio Specifications

Classification	Frequency Hopping Spread Spectrum	
Maximum Output Power	250 mW	
Frequency Band	916.0 - 927.6 MHz	
Number of Channels	25	
Channel Spacing	400 kHz	
Mode	EA LAN1	EA LAN2
Data Rate	35.5 kbps	142 kbps
20 dB Occupied Bandwidth	250 KHz < BW < 400 KHz	250 KHz < BW < 400 KHz
99% Occupied Bandwidth	250 KHz < BW < 400 KHz	250 KHz < BW < 400 KHz
Max channel dwell time	< 0.4 seconds within a 10 second period	

## FCC and Industry Canada Compliance

The radio module is manufactured directly onto the meter main circuit board, and the module is inserted into the electronic housing of the meter at manufacture. It has no user-serviceable parts.

### USER INFORMATION (PART 15.105)

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 or more of the following measures:

- reorient or relocate the receiving antenna
- increase the separation between the equipment and the 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

If you experience trouble with this equipment, please use the Return Material Authorization (RMA) feature available at the Online Customer Services at [www.elstersolutions.com](http://www.elstersolutions.com). Do not attempt to repair this equipment yourself unless you are replacing the entire module.

### COMPLIANCE STATEMENT (FCC PART 15.19 AND INDUSTRY CANADA)

This device complies with part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s). 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 of the device.

## **ÉNONCÉ DE CONFORMITÉ**

Cet appareil est conforme à la Partie 15 des règles de la FCC et aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'utilisation de cet appareil est soumise aux deux conditions suivantes : (1) Cet appareil ne doit pas provoquer d'interférences nocives et (2) cet appareil doit accepter toutes les interférences reçues notamment celles pouvant provoquer un fonctionnement intempestif de l'appareil.

## **ANTENNA COMPLIANCE**

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.

REXUAI-NZ meter: This radio transmitter 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.

REXUAI-NZ meter: Le présent émetteur radio 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.

- On Board Printed 900 MHz Slot Antenna: 4.1 dBi

## **WARNING (PART 15.21)**

Changes or modifications not expressly approved by Elster could void the user's authority to operate the equipment.

## **RF RADIATION SAFETY GUIDELINES**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated to provide a separation distance of at least 26 cm from all persons.

## **COLLOCATION STATEMENT**

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.