



Repeater User's Manual

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Reviewers

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1. FCC Information:

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

IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons during normal operation.

Note: The antenna for this device must not be co-located within 20 cm of any other transmitting antenna.

"NOTE: 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 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.

2. IC Information

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 device complies with Industry Canada licence-exempt RSS standard(s). 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.

IMPORTANT NOTE: To comply with Industry Canada exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons during normal operation.

Important: Selon les normes de Industrie Canada d'exposition aux champs de radiofréquences, l'antenne utilisée pour ce transmetteur doit être placée pour maintenir une distance de séparation de 20 cm au moins de tous les personnes pendant l'utilisation

Note: The antenna for this device must not be co-located within 20 cm of any other transmitting antenna.

L'antenne pour cet appareil doit être positionnée au moins de 20 cm de n'importe quelle autre antenne d'émission.

3. Authorized Antennas

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.

Cet émetteur a été approuvé par Industrie Canada et FCC à opérer avec les types d'antenne indiqués ci-dessous avec l'amplification maximale admissible et impédance d'antenne pour chaque type d'antenne indiqué. Il est strictement interdit d'utiliser les types d'antenne qui ne sont pas sur la liste avec une amplification plus de celle de ce type d'antenne.

Antenna	Gain	Impedance
Nearson S161AH-915R	3dBi	50 ohm
Mueller Custom Helical Antenna Part Number 145-0007-006	1.5dBi	50 ohm
Mueller Custom Monopole antenna Part Number A13039-Tinned	2.5dBi	50 ohm
Mueller Custom PCB Inverted F Antenna Part Number 850-0102-001	4.8dbi	50 ohm
PCTEL Omnidirectional Antenna MFB9153	3dBi	50 ohm
Laird Model B8965C Closed collinear	5dBi	50 ohm

4. Introduction

The Mueller Repeater Limited Module is intended for indoor & outdoor use within an Automatic Metering Infrastructure (AMI) & control device.

The repeaters main function is to allow remote access to Mueller Systems RF enabled AMI devices for the purpose of data collection, configuration and management.

The Repeater Module can only be installed in Mueller Systems equipment and is not available for sale as a separate product.

The contents of this installation manual are intended for technically qualified personnel who have been trained and are technically qualified in basic electrical principles.

5. Supported Products

- Field Radio
- MiBridge
- MiHub 1.5XR
- Maintenance radio

6. Maintenance

There are no user serviceable items within a Repeater Module. No cleaning is required.

7. Product Labeling

7.1. Product Identification

This label is affixed to the repeater module.

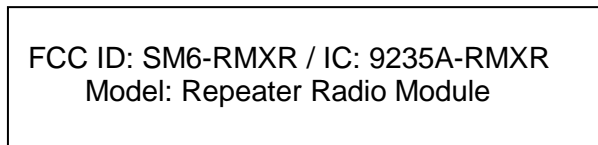


Figure 1- Product Identification Label

7.2. Product Identification

This label is affixed to the side of any enclosure containing the repeater module and indicates the FCC ID of the installed radio module.

