NOKIA

Nokia Industrial MulteFire Router Quick Guide

Document ID: DN1000075882

This is a quick reference guide for Nokia MulteFire Industrial Router installations.

Nokia MulteFire Industrial Router is designed for indoor/outdoor installations on walls and poles.

Important Notice on Product Safety:

This product may present safety risks due to laser, electricity, heat, and other sources of danger.

Only trained and qualified personnel may install, operate, maintain, or otherwise handle this product and only after having carefully read the safety information applicable to this product.

The safety information is provided in the Safety Information section in the “Legal, Safety and Environmental Information” part of this document or documentation set.

Nokia Solutions and Networks is continually striving to reduce the adverse environmental effects of its products and services. We would like to encourage you as our customers and users to join us in working towards a cleaner, safer environment. Please recycle product packaging and follow the recommendations for power use and proper disposal of our products and their components.

If you should have questions regarding our Environmental Policy or any of the environmental services we offer, please contact us at Nokia Solutions and Networks for any additional information.

Issue 01, Approval date: June 2021

Notice:

The operating temperature range of the device is from -40 C (-40 F) to 70 C (158 F).

NOKIA

Contents

1. Before you start

This guide provides instructions on Nokia Industrial MulteFire Router installation. The Nokia Industrial MulteFire Router unit is designed to be installed on walls and poles, for both, indoor and outdoor deployments.

Notice: The unit should be located away from any RF radiation sources, out of direct sun exposure, and away from areas of potential salt spray

CAUTION! Risk of personal injury.

Ensure that the wall/pole and selected fasteners can sustain the device under required circumstances. Evaluation of the wall/pole structure and fastening hardware type should be done by a structural engineer.

Notice: Nokia Industrial MulteFire Router equipment must be installed by trained and qualified service personnel in accordance with all local codes and requirements.

Notice: Nokia Industrial MulteFire Router equipment is intended for installation in a restricted access location or equivalent.

Notice: The Nokia Industrial MulteFire Router interface panel should always face the ground. Any other installation position might cause overheating and possible damage of the unit.

Notice: Avoid installing the device near windows to avoid external interference. It should also be installed away from any potential sources of moisture, including heating or cooling ducts.

Notice: When installing the mounting bracket onto a vertical pole or a wall, ensure the antennas are on top side of the unit.

NOTE: These installation instructions are meant to provide installation guidelines only. In all cases local codes and requirements must be followed.

2. Contents of delivery

Items:

- 2 x Omni-directional Antennas (included in box)
- 1 x MulteFire Router (included in box)
- 1 x Power Supply / Cable (included in box)
- 1 x Wall Mounting Bracket (provided by Nokia)
- OPTIONAL: 1 x Pole Mounting Bracket (3TG00291AA)

1 x Wall Mounting Bracket (provided by Nokia)

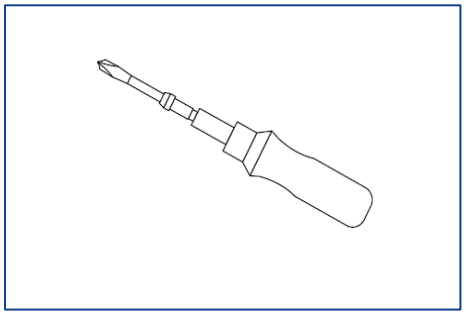
1 x MulteFire Router (included in box)

2 x Omni-directional Antennas (included in box)

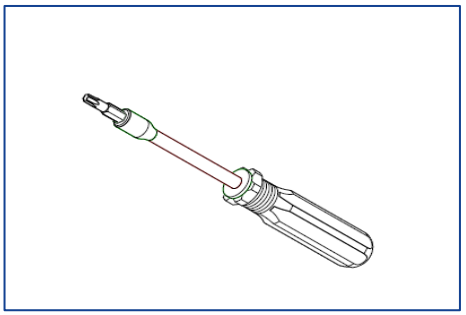
1 x Power Supply / Cable (included in box)

3. Preparing the installation

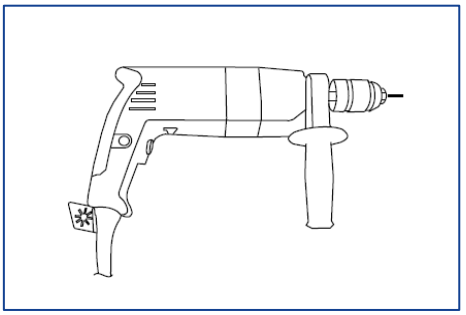
Installation tools and materials



1 x Philips #2 Screwdriver



1 x 4 mm Hex Driver



1 x Drill

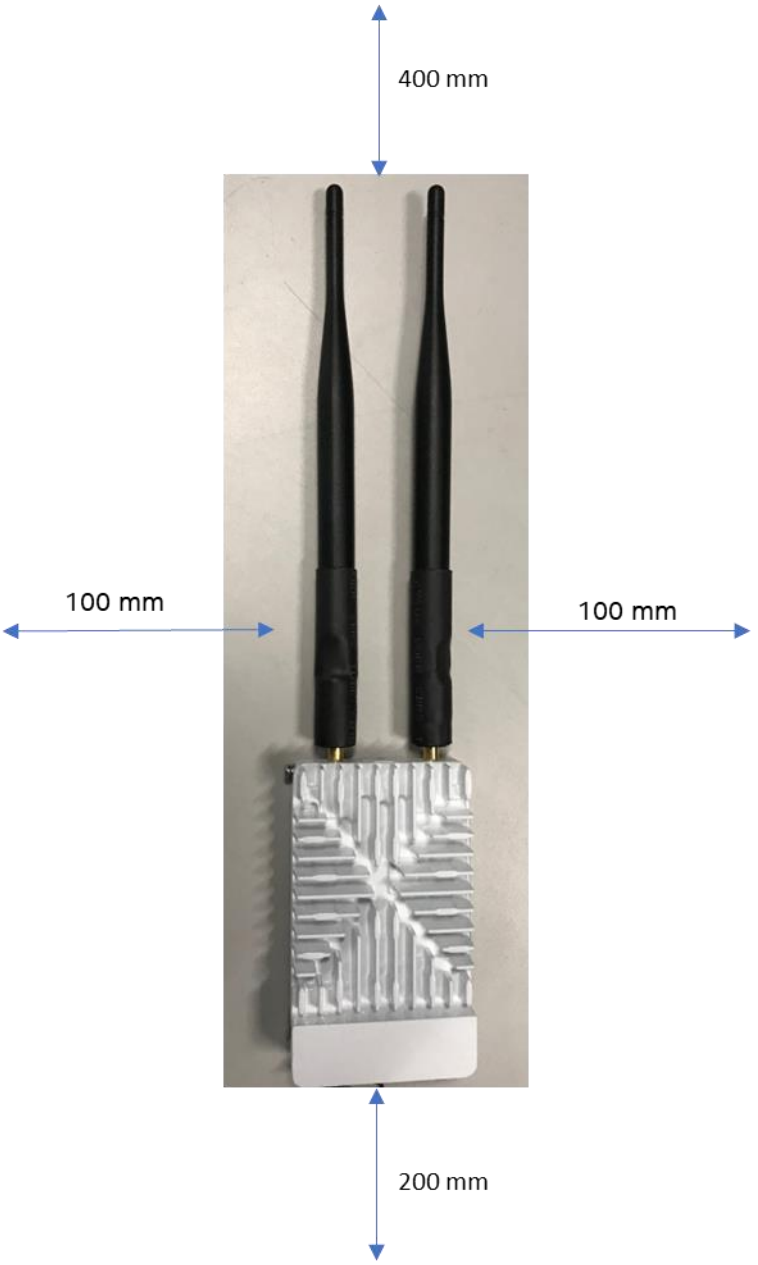
Materials:

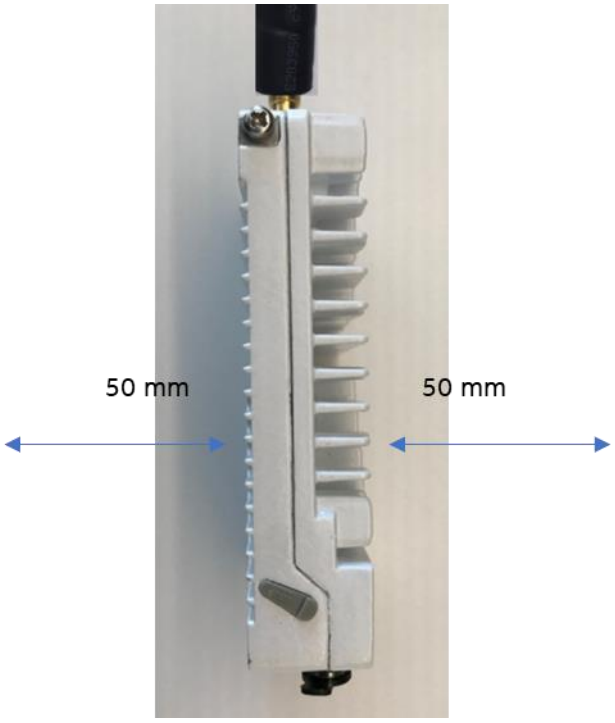
- 2x 8.7mm (or 11/32”) nylon cable ties to attach MulteFire Router to the Wall Mounting Bracket (should be IEC62275 Type 2 or equivalent)
- 2x M6 bolts or screws to mount the Wall Mounting Bracket on a wall

Optional Items:

- OPTIONAL: 1 x Pole Mounting Bracket (3TG00291AA)
- 2x M5 bolts to attach the Wall Mounting Bracket to the Pole Mounting Bracket
- 2x Steel Band Straps to mount Pole Mounting Bracket on a pole (not included)

Clearances





NOTE: The unit may become hot and should be installed with a minimum of 100 mm (4.0 in.) clearance on all sides to ensure proper air flow and heat dissipation. The front side of the MulteFire Router should always be facing open space to maximize the efficiency of the device.

Dimensions and weight

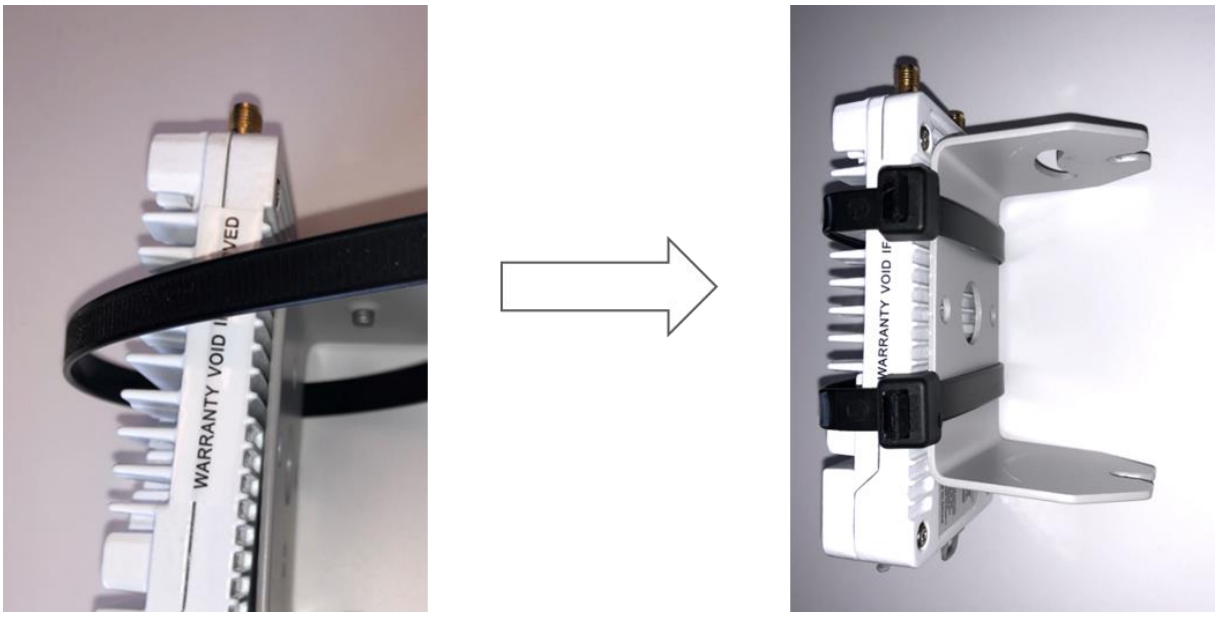
Property	Value
Height	110 mm (4.3 in.)
Width	60 mm (2.4 in.)
Depth	25 mm (1.0 in.)
Weight	0.2 kg (0.5 lbs)

4. Installing on a wall

Installing MulteFire Router on walls

The steps below show the installation for the MulteFire Router.

1. Attach Wall Mounting Bracket to the MulteFire Router using two nylon cables ties.

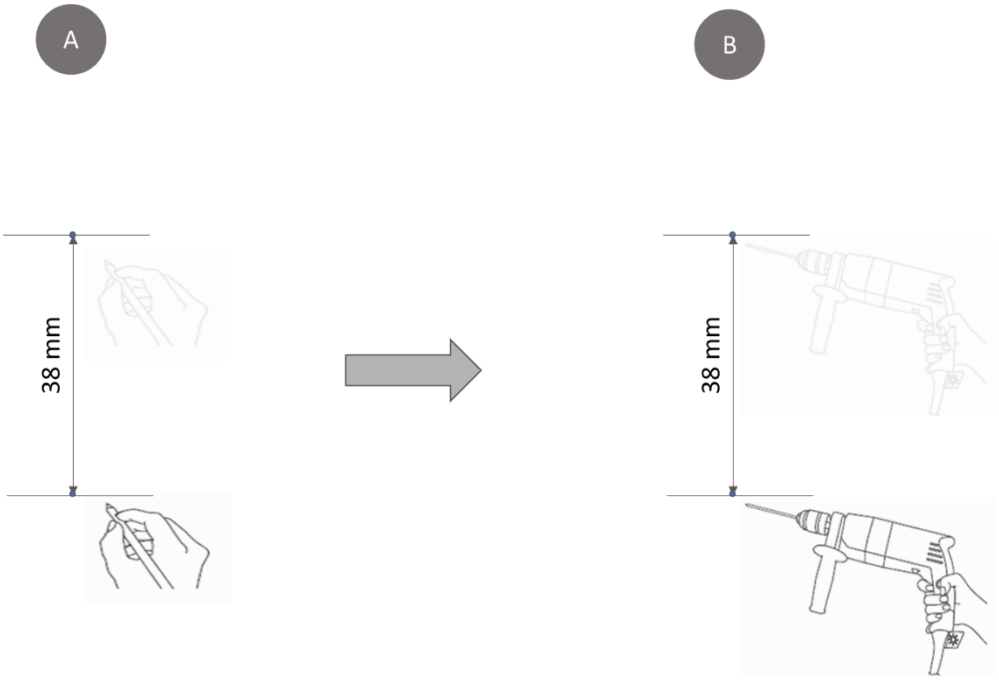


2. Tighten the omni-directional antennas to the MulteFire Router (torque 0.8 – 1.1 Nm).

NOTICE: Use only the antennas shipped with the MulteFire Router. Failure to do so may void the regulatory approval of the device.

NOTICE: Apply waterproof sealing tape as needed between antennas and the device to prevent moisture and dust from entering the unit.

3. Mark two screw holes on the designated wall (38 mm apart). Then drill holes in the marked places



4. Attach the bracket to the wall using M6 bolts/screws (torque 3 Nm).

5. Attach the MulteFire Router to the wall-portion of the Wall Mounting Bracket using the provided short M5 bolts (torque 1 Nm).

5. Installing on a pole

Installing MulteFire Router on poles

Complete steps 1-2 in Install on a Wall procedure to attach the MulteFire Router to the Wall-Mount bracket and continue with the following steps.

1. Attach the MulteFire Router to the other half of the Wall Mounting Bracket using the provided short M5 bolts (torque 1 Nm).

2. Attach Pole Mount Bracket to the pole using two steel band straps through the Pole Mount Bracket.

3. Attach Wall Mount Bracket to Pole Mount Bracket using provided M5 bolts (torque 1 Nm).

6. SIM Insertion

MulteFire Router SIM Insertion

Insert the SIM card provided by Nokia into slot below the RJ45 connector.

For additional information on SIM insertion please refer to the Nokia Industrial MulteFire Router User Manual.

7. Cabling

Connecting power cable to MulteFire Industrial Router

The MulteFire Router is provided with a power supply that includes a threaded locking connector and can provide 12V, 2A to the Router.

NOTICE: Usage of any other AC/DC power supply adapters must be approved by Nokia for use with this product.

Ethernet Connector on MulteFire Industrial Router

The MulteFire Router includes an RJ45 port that can be used to provide connectivity to external equipment. Ethernet cables are customer supplied.

NOTICE For ruggedized use, consider using waterproof ethernet cable, and apply waterproof sealing tape as needed between cables and the device to prevent moisture and dust from entering the unit

8. MulteFire Router Compliance Statements

Approved antenna for MulteFire Router

Antenna P/N	Frequency Range (MHz)	Antenna Type	Gain (dBi)
DLYO-515903V-360-RPSMA-Q1	5150 – 5925	Omni	3

FCC Compliance Statement

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 equipment has been tested and complies with the Class B digital device limits, 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 according to the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference cannot 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 taking one of the following actions:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and the receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/RV 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. RF Modules installed in this product must not be co-located or operating in conjunction with any other antenna or transmitters, except when installed in accordance with FCC multi-transmitter product guidelines.

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 in accordance with the minimum distance found in the model List and Compliance Boundaries.

CE Compliance Statement

This product has been CE marked in accordance with the requirements of European Directives 2014/35/EU Low Voltage (LVD) Directive, 2014/30/EU Electromagnetic Compatibility (EMC), and 2011/65/EU Restriction of Hazardous Substances (Recast) Directive, including Commission Delegated Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances.

ISED Compliance Statement

English

This device complies with ISED's licence-exempt RSSs. 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.

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 chosen so that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Français

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

1. le dispositif ne doit pas produire de brouillage préjudiciable, et
2. ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

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 radio électrique 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.