

# Flexi Zone Multiband Indoor Pico BTS Quick Guide

**NOKIA**

This is a quick reference guide for Flexi Zone Multiband Indoor Pico BTS installations.

The Flexi Zone Multiband Indoor Pico BTS is designed for indoor installations on walls or ceilings.

## Check the site

- 1 Contents of delivery

## Prepare the installation

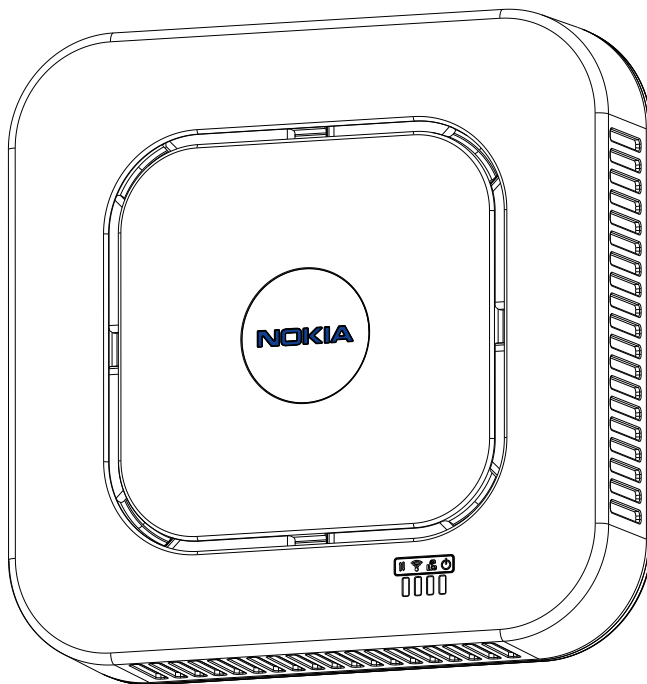
- 2 Preparing for installation

## Installation

- 3 Wall installation
- 4 Ceiling installation

## Cabling

- 5 Connecting cables



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DN09218794, Issue 03, Approval date: 2016-04-22

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device does 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:

- 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.

#### **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.

Operation within the 5.15 ~ 5.25 GHz / 5.47 ~ 5.725 GHz frequency ranges are restricted to indoor environment. The band from 5600-5650 MHz is disabled by the software during manufacturing and cannot be changed by the end user. This device meets all other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

#### **FCC Radiation Exposure Statement**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environments. This equipment should be installed and operated in accordance with the minimum distance Compliance Boundaries table located on Page 3.

## Industry Canada Statement

This device complies with RSS-247 of the Industry Canada Rules. Operation is subject to the following two conditions: (1) This device does not cause harmful interference, and (2) this device must accept any interference received, including interference that can cause undesired operation. Ce dispositif est conforme à la norme CNR-247 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet 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.

### Caution:

- (I) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
- (II) the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz comply with the e.i.r.p. limit; and
- (III) the maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.
- (IV) Users are also advised that high-power radars are allocated as primary users (for example priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars can cause interference and/or damage to LE-LAN devices.

### Avertissement

Le guide d'utilisation des dispositifs pour réseaux locaux doit inclure des instructions précises sur les restrictions susmentionnées, notamment:

- (I) les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
- (II) le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5250-5350 MHz et 5470-5725 MHz doit se conformer à la limite de p.i.r.e.;
- (III) le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5725-5825 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.
- (IV) De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

### Radiation Exposure Statement

Flexi Zone Indoor Pico Multiband BTS is compliant with the cited standards at every point outside the FINAL boundary (CB) as described in the IC REL. The antenna types actually configured in the product determine the minimum safe distance. (See Compliance Boundaries Table.) Provisions must be taken to guarantee that no public access is possible to regions within the compliance boundaries.

### Déclaration d'exposition aux radiations

La BTS Flexi Zone Indoor Pico Multiband est conforme aux normes citées en chaque point à l'extérieur de la limite FINALE (CB), telles que décrites dans la publication REL de l'IC. Les types d'antennes réellement configurées dans le produit déterminent la distance de sécurité minimale (se référer au tableau des Limites de Conformité). Des dispositions doivent être prises pour garantir qu'aucun accès public n'est possible dans les zones situées dans ces limites.

### Compliance Boundaries

Sales Item	Model	Uncontrolled environment	Controlled environment
473123A	FW2FIA Multiband Indoor Pico BTS	20 cm	20 cm
473124A	FW2FIWA Multiband Indoor Pico BTS	27 cm	20 cm
473851A	FW2FIWC Multiband Indoor Pico BTS	22 cm	20 cm

### Model list

Sales Item	Model	Approved LTE RF Module(s) FCC/IC IDs	Approved WiFi RF Module(s) FCC/IC IDs	Approved BT RF Module(s) FCC/IC IDs
473123A	FW2FIA Multiband Indoor Pico BTS	2AD8UFW2FADPM01, 2AD8UFW2IADPM01, 109D-FW2FADPM01, 109D-FW2IADPM01	N/A	2AD8UNBTM01, 109D-NBTM01
473124A	FW2FIWA Multiband Indoor Pico BTS	2AD8UFW2FADPM01, 2AD8UFW2IADPM01, 109D-FW2FADPM01, 109D-FW2IADPM01	109D-FZCWM2A01	2AD8UNBTM01, 109D-NBTM01
473851A	FW2FIWC Multiband Indoor Pico BTS	2AD8UFW2FADPM01, 2AD8UFW2IADPM01, 109D-FW2FADPM01, 109D-FW2IADPM01	2AD8UFZCWM2A1	2AD8UNBTM01, 109D-NBTM01

**NOTE:** The operating temperature range of the device is 0°C (32°F) - 40°C (104°F).

**!** NOTICE: This product must only be used with the Nokia-specified power supply or Power-over-Ethernet solution.

**!** NOTICE: Power-over-Ethernet (PoE) cables must only be connected to Safety Extra Low Voltage (SELV) circuits and must not be routed outside the building structure.

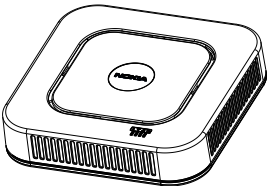
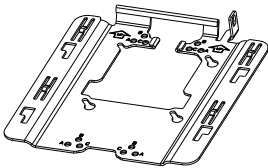
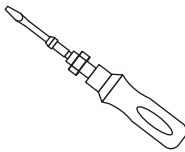
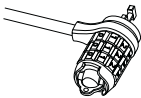
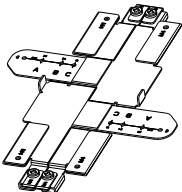

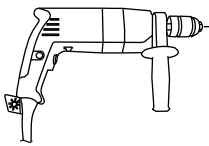





# 1 Contents of delivery

Items
1x Flexi Zone Multiband Indoor Pico BTS Module
1x Flexi Zone Multiband Indoor Pico BTS Quick Guide
1x Mounting bracket
1x Ceiling clip
4x Screw for the ceiling clip (used to attach the ceiling clip to the ceiling grid)
4x M4 screw for the mounting bracket (used to attach the mounting bracket to the ceiling clip)
1x GPS/GLONASS antenna

# 2 Preparing the installation

## Contents of delivery

## Installation tools and materials

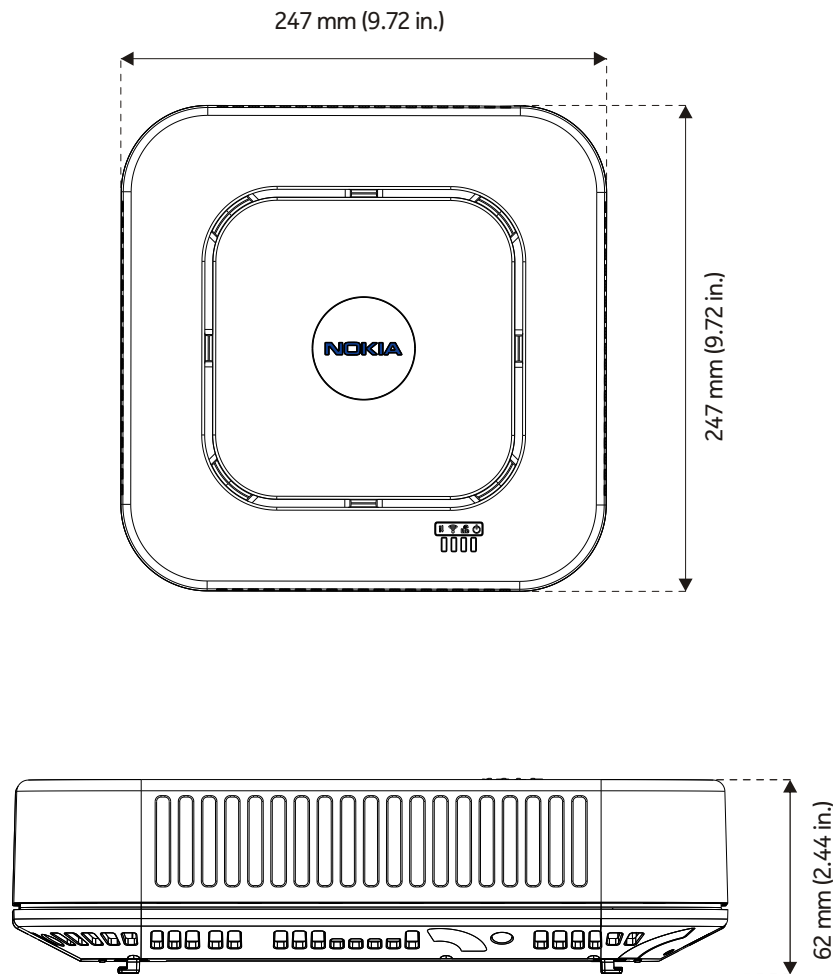
 <p>1x Flexi Zone Multiband Indoor Pico BTS Module</p>	 <p>1x Mounting bracket</p>	 <p>Philips Screwdriver (PH2)</p>	 <p>Cabled lock or pad-lock</p>
 <p>1x Ceiling clip</p>	 <p>1x Flexi Zone Multiband Indoor Pico BTS Quick Guide</p>	 <p>Drill</p>	 <p>Pencil</p>
 <p>4x M4 screw</p>	 <p>4x Screw for the mounting bracket</p>	 <p>Level</p>	
 <p>1x GPS/GLONASS antenna</p>			

### Checklist

- Delivery is complete.
- Equipement is not damaged.

## 2 Preparing the installation (continued)

### Dimensions and weight



#### Before you start

This guide provides instruction on Flexi Zone Multiband Indoor Pico BTS installation. The Pico module is designed to be installed on walls or ceilings.

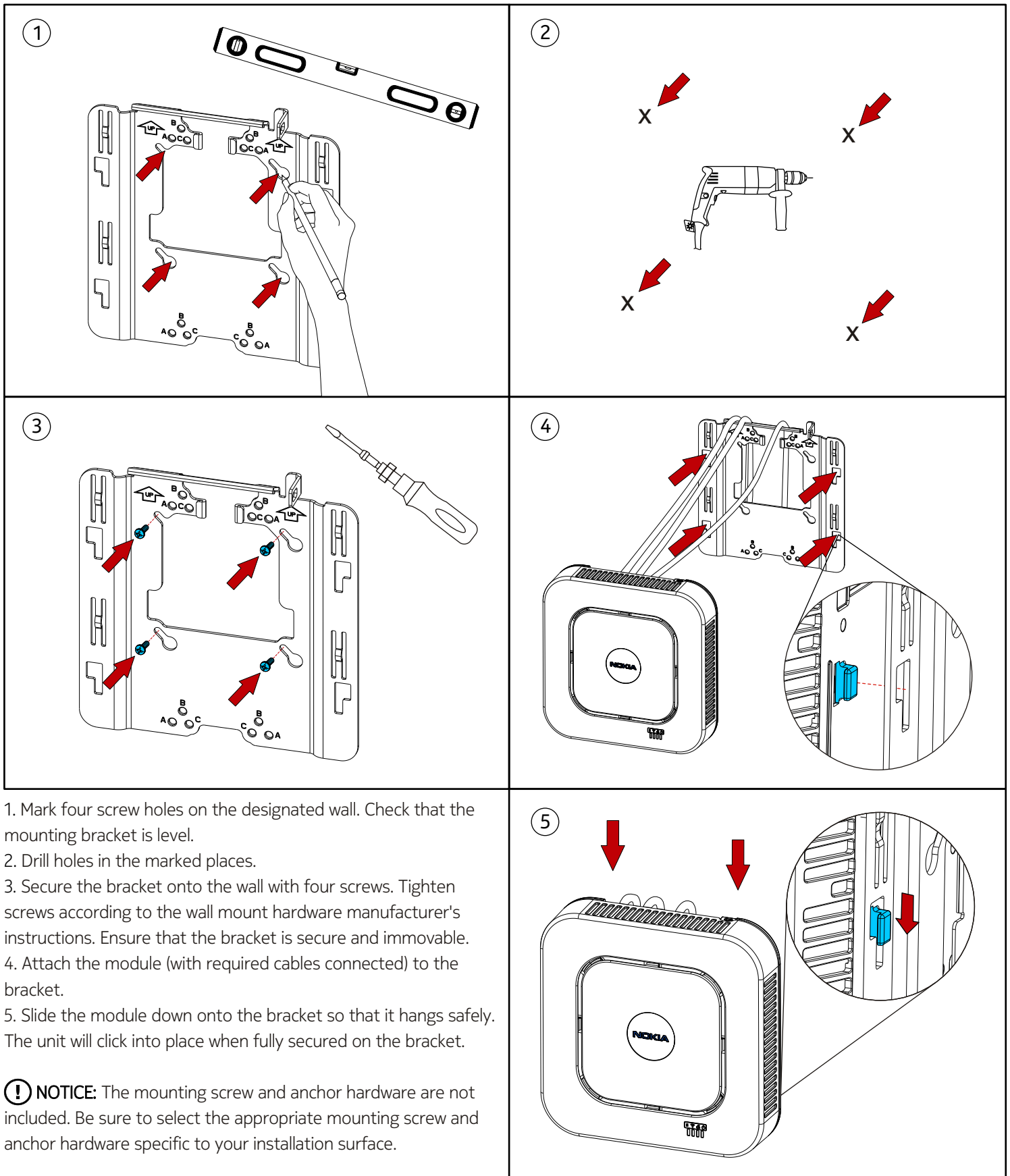
**NOTE:** Flexi Zone Multiband Indoor Pico BTS modules might differ in appearance from what is shown in this guide.

**NOTE:** The mounting bracket is delivered preattached to the ceiling clip with two M4 screws. Before you start a wall installation, make sure to disassemble the bracket from the ceiling clip first.

- ⓘ **NOTICE:** Provide 50 mm (2.0 in.) clearance on all sides of the unit to ensure proper air flow and heat dissipation. Install the unit away from any potential sources of moisture or condensation (away from heating or cooling ducts, doors/window).
- ⓘ **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.
- ⓘ **NOTICE:** When installing the mounting bracket onto a wall, ensure that the arrows on the bracket points upwards.
- ⓘ **NOTICE:** Avoid installing the device near windows to minimize external interference.

## 3 Installing

### Installing Flexi Zone Multiband Indoor Pico BTS onto walls

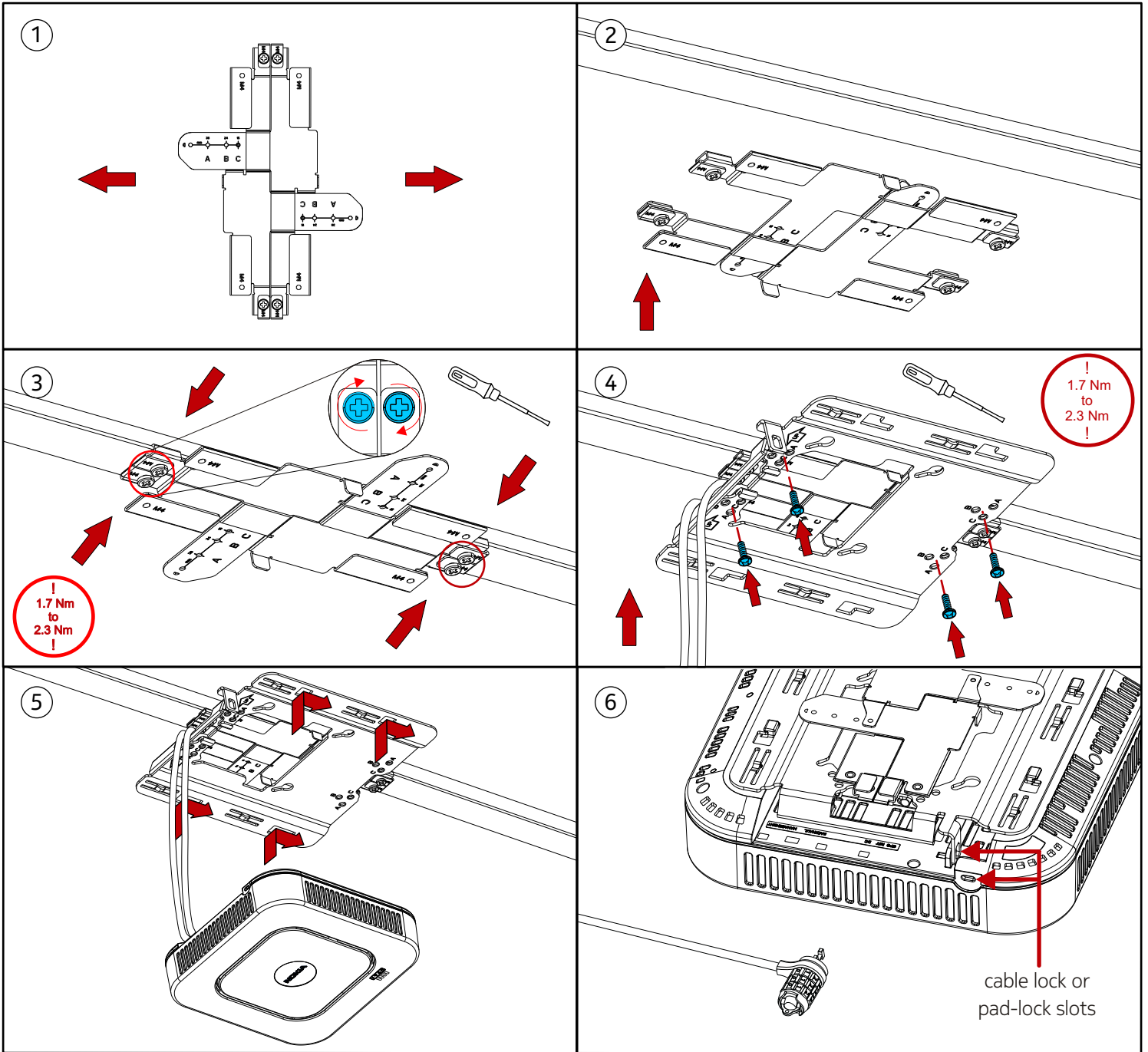


#### Checklist

- Unit is attached to the mounting bracket and cannot slide off the mounting.

# 4 Installing

## Installing Flexi Zone Multiband Indoor Pico BTS onto a ceiling grid



1. Expand the ceiling clip to the maximum width.
2. Lift the ceiling clip to the ceiling.
3. Compress the clip to one of the three possible ceiling widths: A = 38 mm (1.5 in.), B = 24 mm (0.94 in.), C = 15 mm (0.59 in.) and tighten it with four M4 screws to the ceiling (1.7 Nm (15.0 in-lbs) to 2.3 Nm (20.0 in-lbs)).
4. Lift the mounting bracket to the ceiling clip and fix it with four M4 screws (1.7 Nm (15.0 in-lbs) to 2.3 Nm (20.0 in-lbs)) matching the corresponding screw holes (A, B or C) from step 3.
5. Lift the Pico module (with required cables connected) and attach it to the bracket until the module clicks into place.
6. Secure the module with a cable lock or pad-lock (Customer supplied).

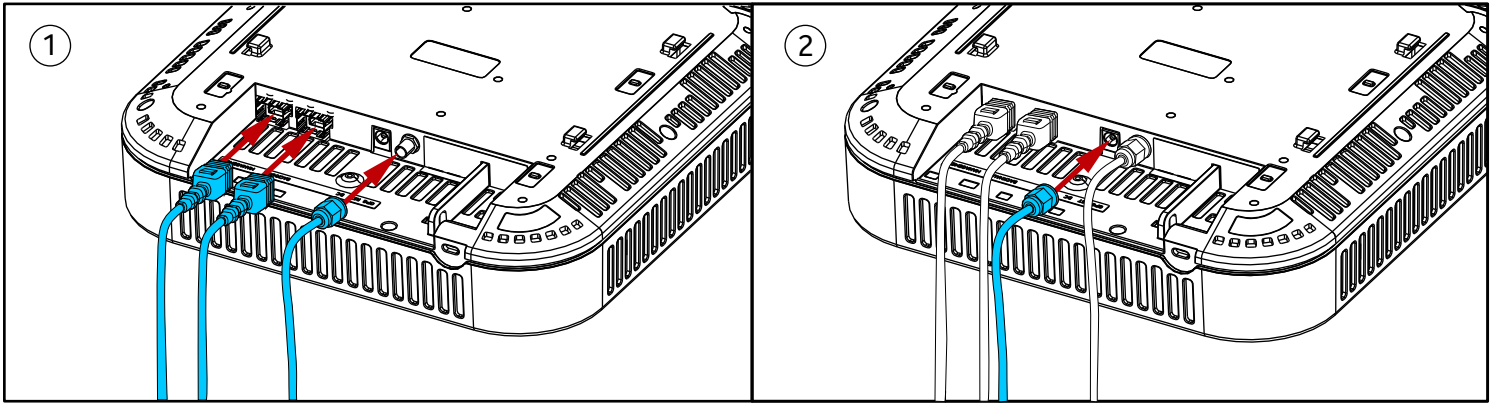
**⚠ NOTICE:** Make sure that the ceiling grid location is well supported.

### Checklist

- Lock is in place.

## 5 Cabling

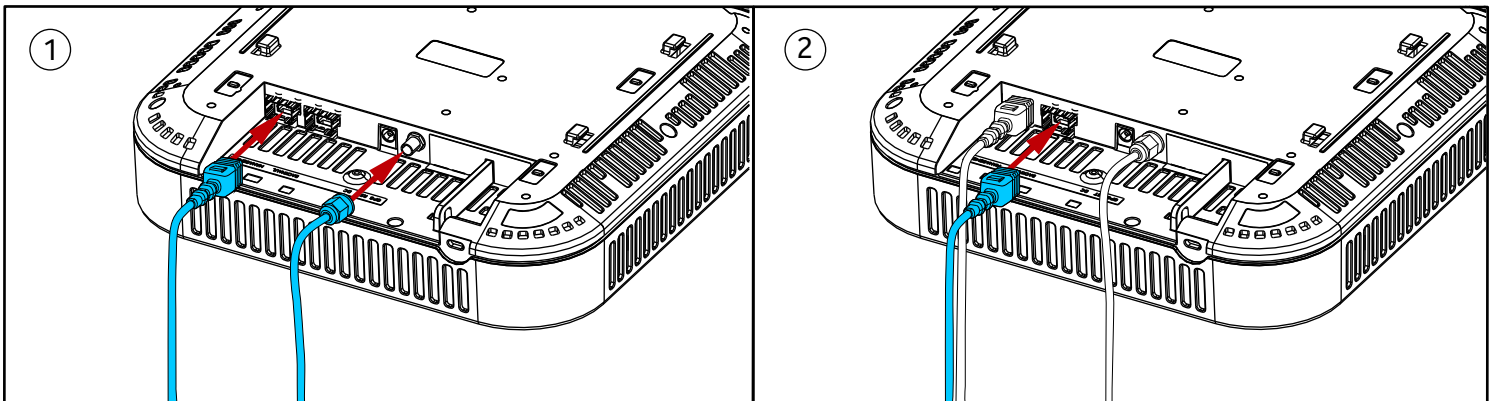
### Cabling Flexi Zone Multiband Indoor Pico BTS with DC Power Input



1. Connect the required GPS, Backhaul and Management cables, if needed.
2. Connect the DC power cable.

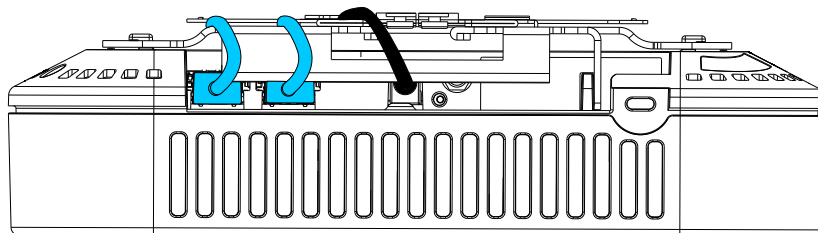
## 5 Cabling

### Cabling Flexi Zone Multiband Indoor Pico BTS with PoE Power Input



1. Connect the required GPS and Management cables, if needed.
2. Connect the Backhaul cable (PoE).

### Cabling result after the installation is completed



#### Checklist

- All cables are connected.
- Unit is powered on (LED status green).