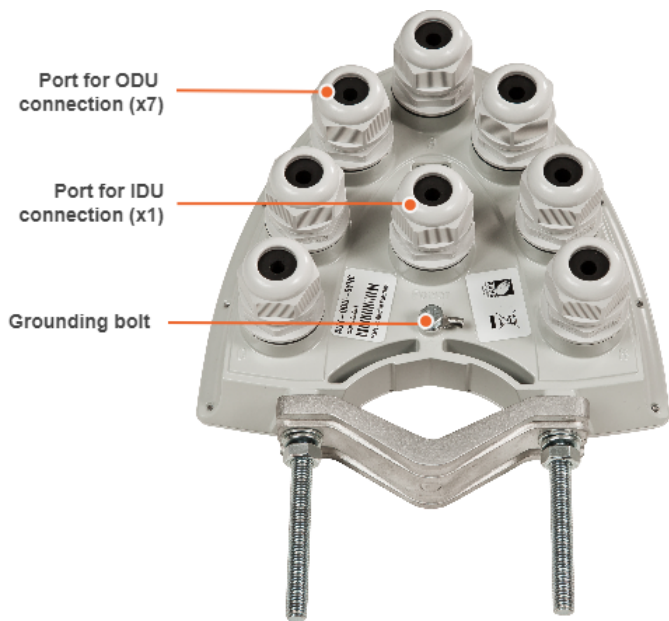


Synchronization unit



AUX-ODU-SYNC is a TDD synchronization hub, which has been designed to provide a timing reference to Base Stations sectors of InfiMAN 2x2, InfiMAN Evolution families and InfiLINK 2x2 PRO devices. In combination with Infinet’s proprietary TDMA-based wireless architecture, AUX-ODU-SYNC completes the solution, providing TDD synchronization to its systems, both legacy and newly deployed.

TDD synchronization eliminates self-interference between multiple co-located units and enables frequency re-use within the same site. Infinet’s implementation supports not only intra-, but inter-site synchronization too, thanks to the fact that the timing reference is GNSS-based.

Parameter	Description
Compatible models	<ul style="list-style-type: none">• InfiMAN 2x2 BS: Mmxb(s), Omxb(s), Qmxb• InfiLINK 2x2 PRO family: Mmx(s), Omx(s)• InfiMAN Evolution BS: E5-BSI, E5-BSQ, E5-BSE, E6-BSI, E6-BSE
GNSS receiver	<ul style="list-style-type: none">• Embedded, GPS/GLONASS
GNSS antenna	<ul style="list-style-type: none">• Embedded, active
Water and Dust protection	<ul style="list-style-type: none">• IP66 and IP67
Consumption, W	<ul style="list-style-type: none">• up to 4
Input voltage, VDC	<ul style="list-style-type: none">• ±19..±56
PoE type	<ul style="list-style-type: none">• Passive PoE (4,5,7,8 Ethernet pins used)

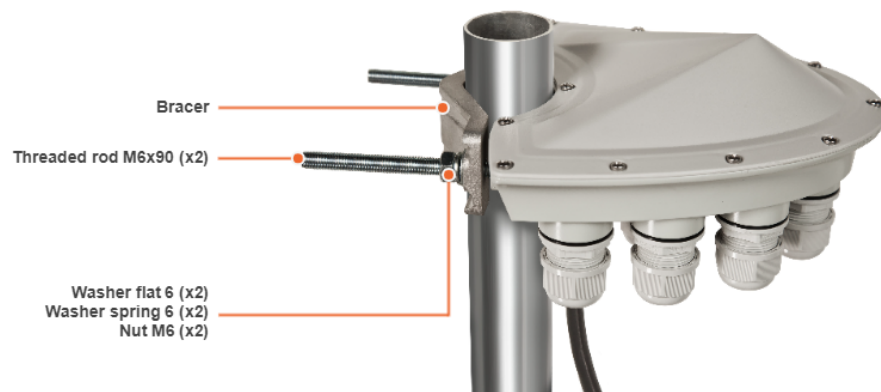
Interfaces and connectors	<ul style="list-style-type: none"> Port 0-6: sync outs (7 RJ-45 connectors to connect to ODU with special cable CAB-SYNC or CAB-SYNC-E depends on model family) Power: DC input (1 RJ-45 connector)
Compatible InfiNet Wireless power supplies	<ul style="list-style-type: none"> IDU-CPE (supplied by default) IDU-BS-G IDU-BS-G(60W) IDU-CPE-G(24W) AUX-ODU-INJ-G IDU-LA-G(V.01)
Temperature range	<ul style="list-style-type: none"> ODU: -40...+60°C IDU: 0...+40°C
Size and Weight	<ul style="list-style-type: none"> 180x170x75mm, 0.65kg
Indicators	<p>Indicators is located near the power port of AUX-ODU-SYNC:</p> <ul style="list-style-type: none"> POWER - power. SYNC - TDD synchronization.

Table - AUX-ODU-SYNC specification

AUX-ODU-SYNC Mounting

AUX-ODU-SYNC can be installed on a pole, using fasteners from the delivery package:

1. Screw the threaded rod to the unit case.
2. Tighten the device and the bracer on the pole and fix them by the threaded rod using the nuts and washers as shown at the picture
3. Attach the grounding cable to the unit case using the grounding bolt.



CAUTION

Missing or bad grounding may leave the unit vulnerable to lightning damage.

AUX-ODU-SYNC Cable gland Assembling

In order to ensure that the cable gland remains sealed under any environmental conditions, please, follow the assembly sequence according to the procedure below:

1. Put the cable gland nut (1), the split sealing grommet (2) and the cable gland threaded coupling (3) onto the cable

2. Crimp the connector onto the cable using the crimping tool:

**CAUTION**

Make sure that the connector is well-crimped. A loose connector can damage the device. Please note that such damage is not covered by the warranty.

- a. For connection to the port Power terminate the FTP Cat.5e cable with the unshielded RJ-45 connector (4) according to the EIA/TIA-568B. Do not use the shielded RJ-45 connector on this end of the cable as it should be attached on the IDU end (to provide grounding circuit)
 - b. For connection to the ports 0-6 use the ready-assembled specialized CAB-SYNC or CAB-SYNC-E (5) cables
3. Insert the connector of the pre-terminated cable into the corresponding socket until you hear a click
 4. Screw the cable gland threaded coupling (3) into the port and tighten it. Do not apply excessive force
 5. Tighten the sealing grommet (2) by the cable gland nut (1). Do not apply excessive force.

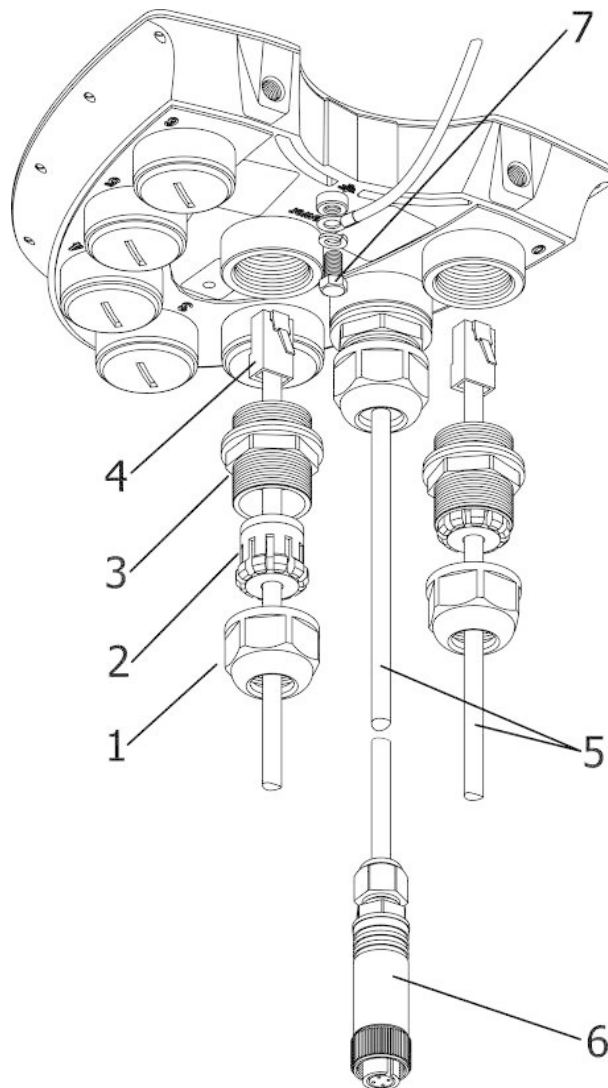


Figure - Cable gland Assembling scheme



CAUTION

Please note that the pressure equalization system in Infinet devices is performed via gas exchange through a cable gland and Ethernet cable jacket with a dry room where the power supply is installed. In order to avoid AUX-ODU-SYNC failure due to moisture entering the device, for example, during the pressure drop during the rain, the cable gland assembly requirements should be met and there should be no cracks in the Ethernet cable jacket.

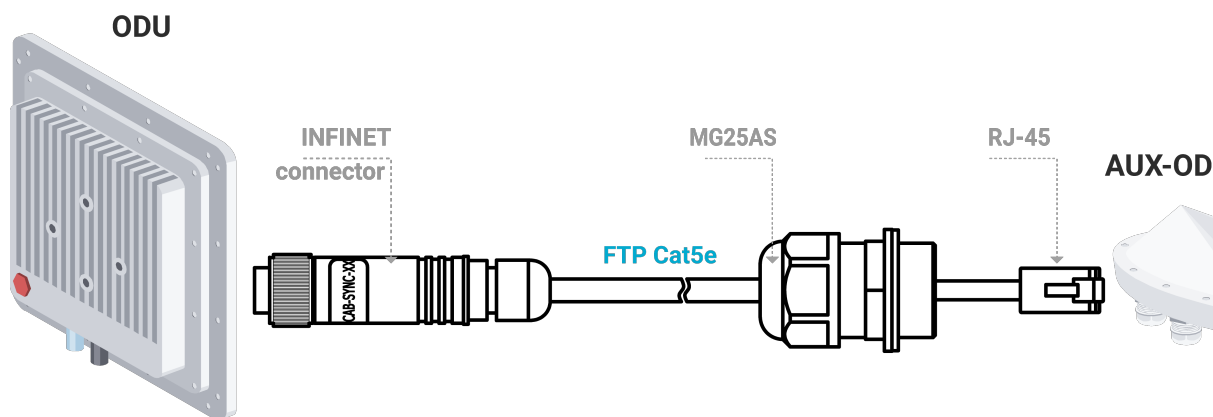
In addition, you should avoid the Ethernet cable bending near the AUX-ODU-SYNC and pinching with clamps, that can bring to the pressure equalization system fault between the internal volume of the sealed AUX-ODU-SYNC and the external environment during a sudden air temperature change. This may lead to the leakage and device failures.

AUX-ODU-SYNC Connection to ODU

To connect AUX-ODU-SYNC to the units use the ready-assembled specialized CAB-SYNC cables for InfiMAN 2x2 and InfiLINK 2x2 PRO devices or CAB-SYNC-E cables for InfiMAN Evolution base station sectors. CAB-SYNC and CAB-SYNC-E must be ordered additionally. Information about CAB-SYNC and CAB-SYNC-E cables is available at Infinet web site in the "[Accessories](#)" section.

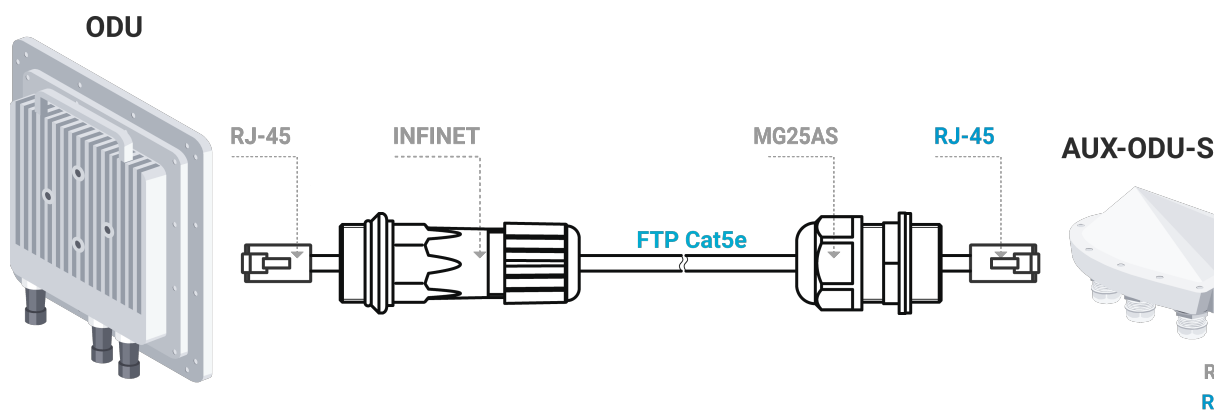
InfiMAN 2x2 and InfiLINK 2x2 PRO

To connect AUX-ODU-SYNC to ODU insert the INFINET connector of the CAB-SYNC cable to the console port of ODU and tighten the cap nut.



InfiMAN Evolution base station sector

To connect AUX-ODU-SYNC to ODU insert the RJ-45 connector with INFINET cable gland of the CAB-SYNC-E into the corresponding socket of the ODU until you hear a click. Perform the device port insulation with a cable gland as instructed above.



**NOTE**

Synchronization settings with AUX-ODU-SYNC is described in the document:

- [InfiLINK 2x2 PRO, InfiMAN 2x2 BS.](#)
- [InfiMAN Evolution BS.](#)