![LigoWave logo]

LigoPTP 5-23 RapidFire
installation

Package content
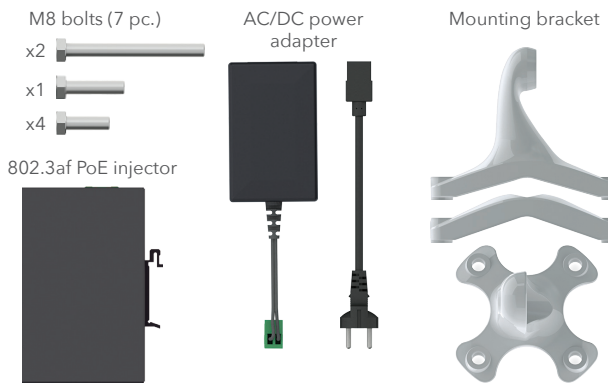
M8 bolts (7 pc.)
x2
x1
x4

AC/DC power adapter

Mounting bracket

802.3af PoE injector

Hardware overview

Antenna

LEDs

Multifunction button

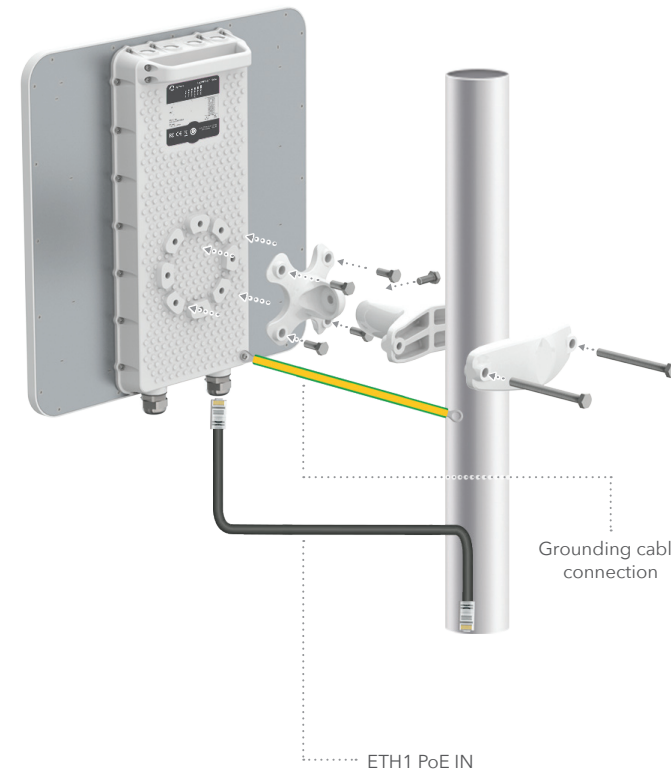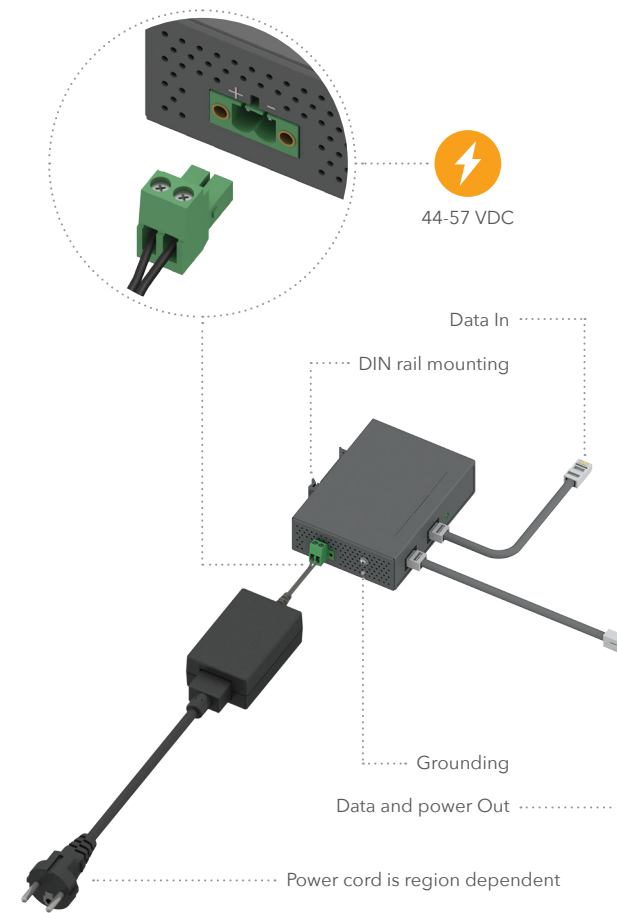Mounting bracket

Grounding stud

ETH1 PoE IN

ETH2 PoE OUT

LigoPTP 5-23 RapidFire installation

Grounding cable connection

ETH1 PoE IN

PoE connection

44-57 VDC

Data In

DIN rail mounting

Grounding

Data and power Out

Power cord is region dependent

Multifunction button

The Multifunction button, located on the back panel of the LigoPTP RapidFire 5-23 (refer to the Hardware overview picture) is able to perform following functions:

Activate LED indication	Click
Switch to RSSI or Status indication	Click
Enable WiFi management radio	Hold until 3 Blue LEDs are on
Reset device to factory defaults	Hold until all Blue LEDs start to blink

LEDs

The LigoPTP RapidFire 5-23 has 6 LEDs located on the back panel, which can indicate either main device operation status or RSSI level.
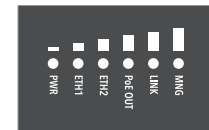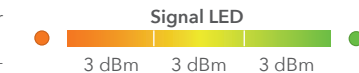
After the LigoPTP RapidFire 5-23 is powered up, the LEDs display status indications.

RSSI Signal level (antenna alignment) indication

Click once the multifunction button to switch LEDs for displaying RSSI level.

Each RSSI Signal LED changes color depending on the LigoPTP link's signal strength from the lowest (amber) to the highest (green):

Signal LED

3 dBm   3 dBm   3 dBm

The stronger signal of the LigoPTP link is, more LEDs are on:

≤ -89 dBm (too low)		
-88 to -86 (dBm)	-85 to -83 (dBm)	-82 to -80 (dBm)
-79 to -77 (dBm)	-76 to -74 (dBm)	-73 to -71 (dBm)
-70 to -68 (dBm)	-67 to -65 (dBm)	-64 to -62 (dBm)
-61 to -59 (dBm)	-58 to -56 (dBm)	-55 to -53 (dBm)
-52 to -50 (dBm)	-49 to -47 (dBm)	-46 to -44 (dBm)
-43 to -41 (dBm)	-40 to -38 (dBm)	-37 to -35 (dBm)
≥ -34 dBm (too high)		
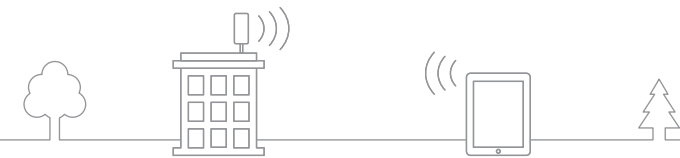
Remote wireless access

This is the easiest way to access the web management interface of the newly installed LigoPTP RapidFire device.

1. Power off and power on again the LigoPTP Rapid Fire unit to switch it to a remote wireless management mode. The mode will be switched off automatically in 10 minutes of wireless inactivity.

2. Scan for the wireless devices using your phone/tablet and choose the LigoPTP RapidFire wireless network name, which is LigoWave-mng-AABBCC (where AABBCC are the last three bytes of the particular RapidFire MAC address)

3. Launch the browser application and type the default LigoPTP RapidFire IP adress 192.168.111.1 in the address field.

```
192.168.111.1
```

4. The setup wizard screen appears, the LigoPTP RapidFire is now ready for configuration.
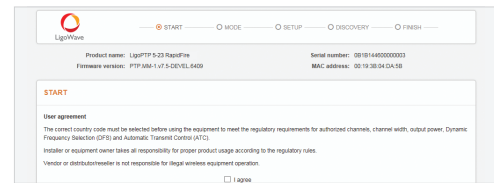
Ethernet access

By default LigoPTP RapidFire obtains the IP address from the DHCP server thus follow the steps to access device using Windows OS (for information how to access via other OS, refer to http://www.ligowave.com/wiki/faq/):
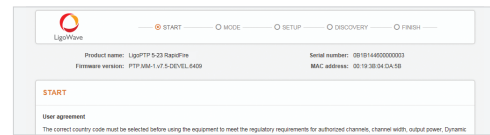
1. Connect your PC to the LigoPTP RapidFire via Ethernet.

2. Open Windows Explorer, click on Network drive, and turn on Network discovery:
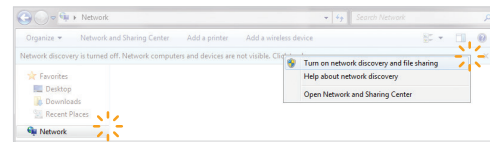
3. Find the required LigoPTP RapidFire icon:
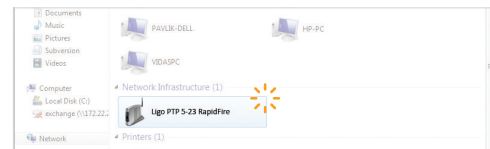
4. Double-click on LigoPTP RapidFire icon - you will be redirected to the LigoPTP RapidFire webpage. The LigoPTP RapidFire is now ready for configuration:

If the LigoPTP RapidFire is unable to obtain IP address from a DHCP server, it fallback to the default static IP 192.168.2.66.

Important information

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Notice
Product size and shape are subject to change without prior notice, and actual product appearance may differ from that depicted in the user guide.
While the information in this guide has been compiled with great care, it may not be deemed an assurance of product characteristics. LigoWave shall be liable only to the degree specified in the terms of sale and delivery.
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Trademarks
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All other registered and unregistered trademarks in this document are the sole property of their respective owners.

FCC warning
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 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.
• 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.

The device with integrated antenna should be installed no closer than 50 cm from the human body.

FCC caution
To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

FCC radiation exposure statement
To comply with FCC RF exposure requirements in section 1.1307, a minimum separation distance of 3.9 feet is required between the antenna and all occupational persons, and a minimum separation distance of 16.4 feet is required between the antenna and all public persons.

Antenna installation
WARNING: It is installer's responsibility to ensure that when using the authorized antennas in the United States (or where FCC rules apply), only those antennas certified with the product are used. The use of any antenna other than those certified with the product is expressly forbidden in accordance to FCC rules CFR47 part 15.204. The installer should configure the output power level of antennas, according to country regulations and per antenna type. Professional installation is required of equipment with connectors to ensure compliance with health and safety issues.

CE mark warning
This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

R&TTE compliance statement
This equipment complies with all the requirements of the Directive 1999/5/EC of the European Parliament and the Council of 9 March 1999 on Radio Equipment and Telecommunication Terminal Equipment and the Mutual Recognition of their Conformity (R&TTE).
The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) As of April 8, 2000.

Safety
This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this manual and of the computer manufacturer must therefore be allowed at all times to ensure the safe use of the equipment.

EU countries not intended for use
None.

Declaration of conformity

Česky [Czech]
LigoWave tímto prohlašuje, že tento LigoPTP 5-23 RapidFire, je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.

Dansk [Danish]
Undertegnede LigoWave erklærer herved, at følgende udstyr LigoPTP 5-23 RapidFire, overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

Nederlands [Dutch]
Hierbij verklaart LigoWave dat het toestel LigoPTP 5-23 RapidFire, in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
Bij deze verklaart LigoWave dat deze LigoPTP 5-N RapidFire, voldoet aan de essentiële eisen en aan de overige relevante bepalingen van Richtlijn 1999/5/EC.

English
Hereby, LigoWave, declares that this LigoPTP 5-23 RapidFire, is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Eesti [Estonian]
Käesolevaga kinnitab LigoWave seadme LigoPTP 5-23 RapidFire, vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.

Suomi [Finnish]
LigoWave vakuuttaa täten että LigoPTP 5-23 RapidFire, tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

Français [French]
Par la présente LigoWave déclare que l'appareil LigoPTP 5-23 RapidFire, est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Par la présente, LigoWave déclare que ce LigoPTP 5-N RapidFire, est conforme aux exigences essentielles et aux autres dispositions de la directive 1999/5/CE qui lui sont applicables.

Deutsch [German]
Hiermit erklärt LigoWave, dass sich diese LigoPTP 5-23 RapidFire, in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet. (BMWi)
Hiermit erklärt LigoWave die Übereinstimmung des Gerätes LigoPTP 5-N RapidFire, mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/EG. (Wien)

Ελληνική [Greek]
ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ LigoWave ΔΗΛΩΝΕΙ ΟΤΙ LigoPTP 5-N23RapidFire, ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.

Magyar [Hungarian]
Alulírott, LigoWave nyilatkozom, hogy a LigoPTP 5-23 RapidFire, megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.

Íslenska [Icelandic]
Hér með lýsir LigoWave yfr því að LigoPTP 5-23 RapidFire, er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC.

Italiano [Italian]
Con la presente LigoWave dichiara che questo LigoPTP 5-23 RapidFire, è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

Latviski [Latvian]
Ar šo LigoWave deklarē, ka LigoPTP 5-23 RapidFire, atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

Lietuvių [Lithuanian]
Šiuo LigoWave deklaruoja, kad šis LigoPTP 5-23 RapidFire, atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

Malti [Maltese]
Hawnhekk, LigoWave, jiddikjara li dan LigoPTP 5-23 RapidFire, jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fd-Dirrettiva 1999/5/EC.

Norsk [Norwegian]
LigoWave erklærer herved at utstyret LigoPTP 5-23 RapidFire, er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.

Slovensky [Slovak]
LigoWave týmto vyhlasuje, že LigoPTP 5-23 RapidFire, spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.

Svenska [Swedish]
Härmed intygar LigoWave att denna LigoPTP 5-23 RapidFire, står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

Español [Spanish]
Por medio de la presente LigoWave declara que el LigoPTP 5-23 RapidFire, cumple con los requisitos esenciales y cualesquiera ótras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.

Polski [Polish]
Niniejszym, frma LigoWave oświadcza, że produkt serii LigoPTP 5-23 RapidFire, spełnia zasadnicze wymagania i inne istotne postanowienia Dyrektywy 1999/5/EC.

Português [Portuguese]
LigoWave declara que este LigoPTP 5-23 RapidFire, está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE

To get full CE declaration of conformity documents, refer at http://www.ligowave.com/wiki/declarations-conformity/

LigoWave

Contact information

Technical support
If you encounter problems when installing or using this product, please consult the LigoWave website at www.LigoWave.com for:
• Direct contact to the LigoWave support centers.
• Frequently Asked Questions (FAQ).
• Download area for the latest software, user documentation and product updates.

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