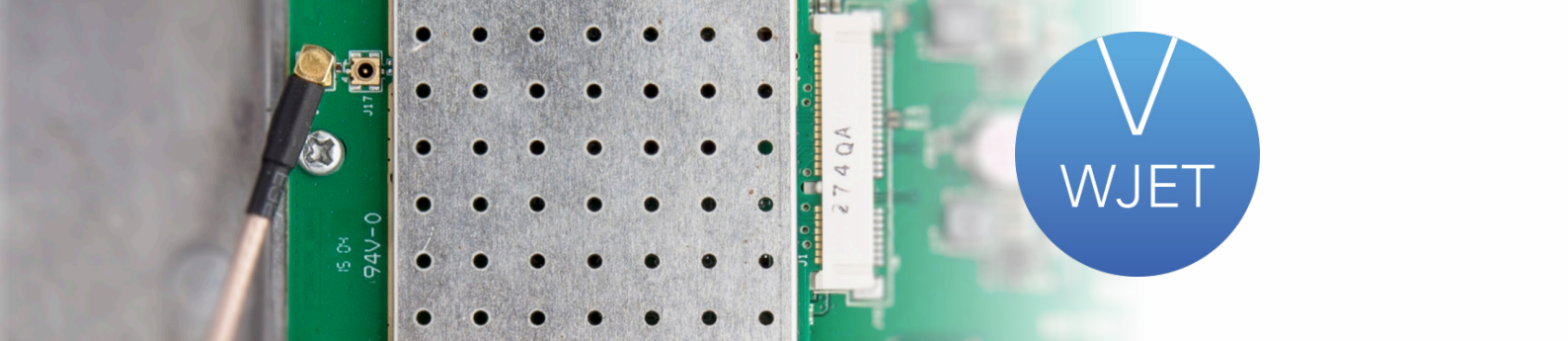




# LigoPTP 5-N/ 5-23 RapidFire

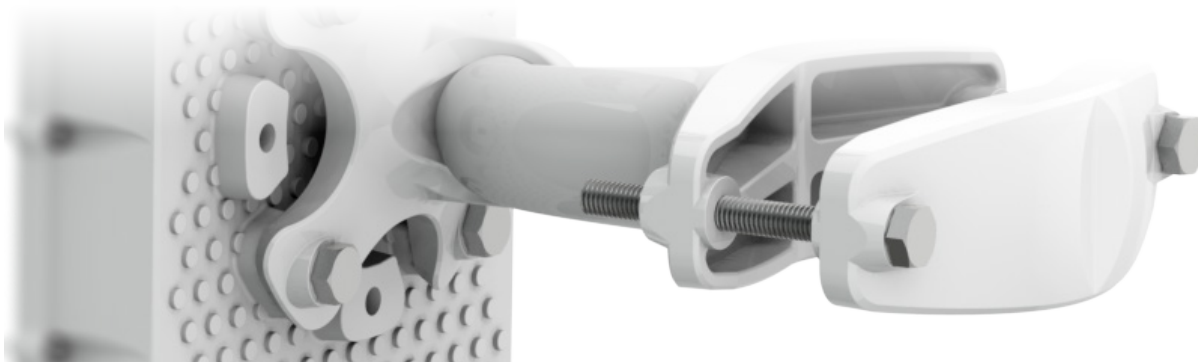
Outdoor Wireless Device





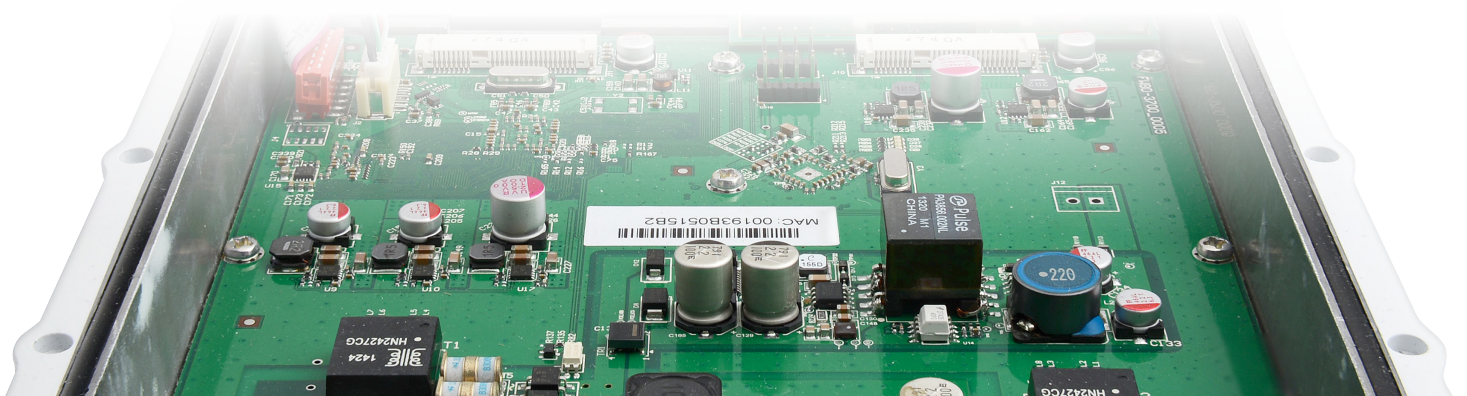
## Outstanding capacity

The RapidFire delivers an extremely high 750 Mbps capacity from its unique and powerful RF design which supports up to 256QAM modulation and 31 dBi output power. Our proprietary W-Jet V protocol specifically engineered for high performing PTP scenarios minimizes high interferences even across long distances and stabilizes latency within 2-4 ms range.



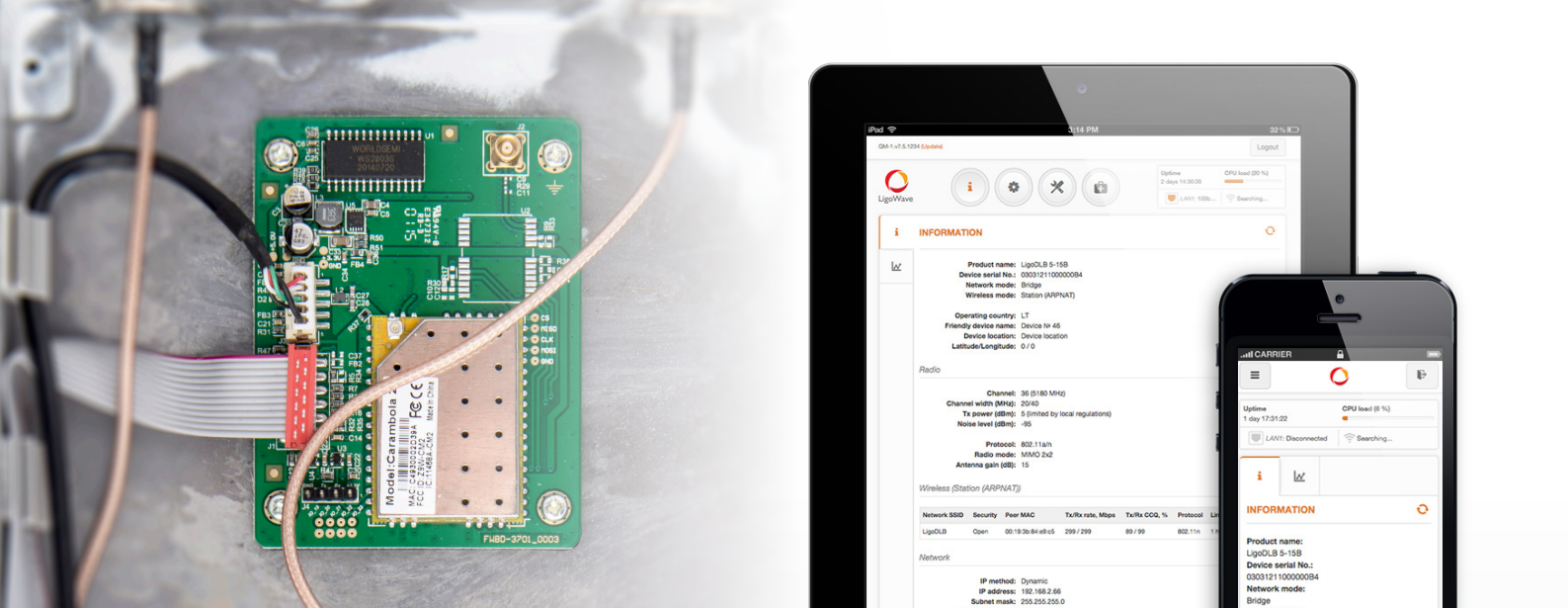
## Professional design

In addition to achieving maximum performance, LigoWave focuses on delivering flexibility and ease-of-use in our RapidFire series. Our robust mounting bracket enables rapid deployment of the links and ensures survivability during high wind-load. The integrated antenna possess a 45° tilting option which increase deployment flexibility especially in noisy areas. Built-in GORE-TEX glands allows water vapor to pass through during humid conditions. Detachable handle eases the carrying of the devices and can also work as an additional tightening option of the device. Newly designed RGB LEDs indicate different device statuses and signal levels when aligning the antenna in 1 dBm steps.



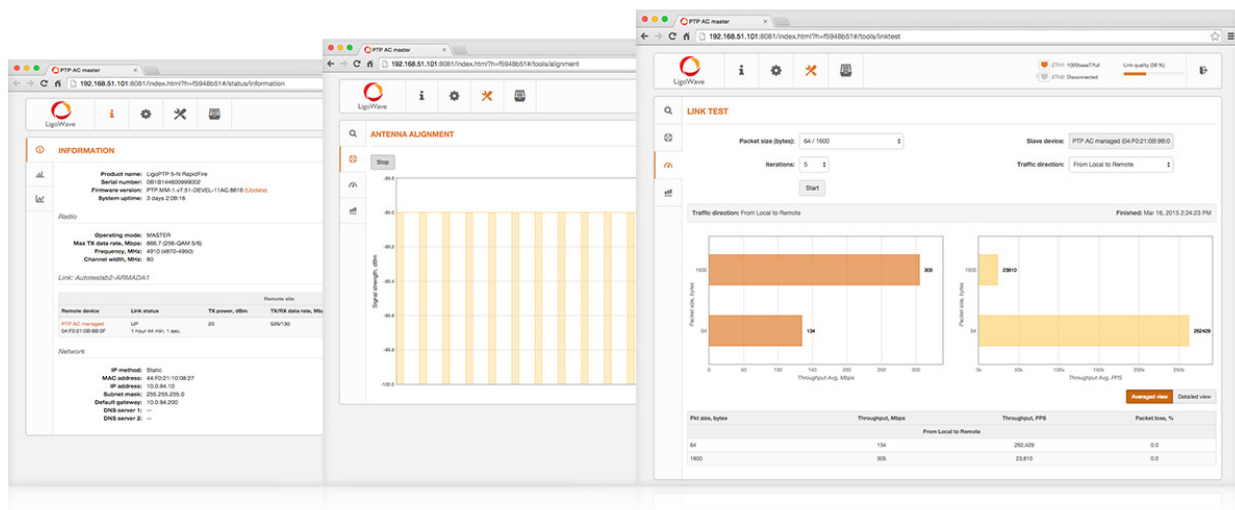
## Powerful all-in-one hardware platform

LigoWave RapidFire delivers powerful performance with its new 1.2 GHz CPU dedicated for data processing and high 250K PPS rate. Equipped with two Gigabit Ethernet ports with PoE passthrough, the unit allows for 1+1 (failover) or repeater links and is ideal for high-security video surveillance scenarios. As LigoWave's top-class PTP model, the RapidFire incorporates integrated surge and ESD protection according to IEC standards and passes Class 4 requirements.



## Wireless configuration interface

An additional 2.4 GHz radio allows access into the RapidFire unit via wireless connecting with any type of device. This feature expedites the installation of PTP links and eliminates the pain of troubleshooting in difficult-to-reach locations. Our radio can be accessible even mounted on top of a 10-story building while standing 20 meters away.



## Powerful OS

The LigoPTP operating system ensures easy and rapid deployment of point-to-point links with stable, fast performance.

An intuitive and responsive user interface adjusts layout based on the size of your screen. A link setup wizard is implemented to guide through the important steps of the set-up process. LigoPTP RapidFire simplifies link configuration by supporting single side configuration as parameters are automatically applied on slave units once set on the master side. Other essential tools including link test, antenna alignment, spectrum analyzer, and site survey are implemented to make set-up and troubleshooting more efficient. Automatic mechanisms such as auto-channel and automatic transmit power control optimize the link for maximum performance even in areas with high interference.

## Radio

|                     |  |
|---------------------|--|
| Wireless protocol   | W-Jet V  |
| Radio mode          | MIMO 2x2   |
| Frequency range     | 4.900 – 6.100 GHz                                    |
| Channel size        | 5, 10, 20, 40, 80 MHz                                |
| Modulation schemes  | OFDM (256-QAM, 64-QAM, 16-QAM, QPSK, BPSK)           |
| Data rates @ 80 MHz | 866, 780, 650, 585, 520, 390, 260, 195, 130, 65 Mbps |
| Duplexing scheme    | TDD  |
| Error correction    | BCC, LDPC  |

|                          |     |     |     |     |     |     |     |     |     |     |
|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Modulation, Mbps         | 866 | 780 | 650 | 585 | 520 | 390 | 260 | 195 | 130 | 65  |
| TX Power, dBm            | 25  | 26  | 26  | 27  | 27  | 28  | 29  | 30  | 30  | 31  |
| Receive sensitivity, dBm | -71 | -73 | -77 | -79 | -80 | -84 | -87 | -92 | -94 | -97 |

## Antenna

|                        |  |
|------------------------|--|
| LigoPTP 5-23 RapidFire | Integrated directional dual-pol 23 dBi panel |
| LigoPTP 5-N RapidFire  | 2 N-type connectors                          |

## Wired

|                  |  |
|------------------|--|
| First Interface  | 10/100/1000 Base-T with PoE IN (RJ45)  |
| Second Interface | 10/100/1000 Base-T with PoE OUT (RJ45) |

## Physical

### Dimensions without mount:

|                        |   |
|------------------------|---|
| LigoPTP 5-23 RapidFire | Length 379 mm (14.9"), width 387 mm (15.2"), height 51 mm (2")  |
| LigoPTP 5-N RapidFire  | Length 399 mm (15.7"), width 174 mm (6.8"), height 47 mm (1.8") |

|                        |               |
|------------------------|---------------|
| Mount length till pole | 124 mm (4.8") |
|------------------------|---------------|

### Weight including mount:

|                        |                 |
|------------------------|-----------------|
| LigoPTP 5-23 RapidFire | 3.9 kg (8.5 lb) |
| LigoPTP 5-N RapidFire  | 2.9 kg (6.3 lb) |

## Power

|   |                                   |
|---|-----------------------------------|
| Power input method, voltage                           | PoE 802.3at, isolated 42 - 57 VDC |
| Power consumption (max)                               | 8.6 W                             |
| Power output method, voltage                          | PoE 802.3af, 48 VDC               |
| PoE inserter and AC/DC adapter is included in the box |                                   |

## Environmental

|                       |                                |
|-----------------------|--------------------------------|
| Operating temperature | -40°C (-40 F) ~ +65°C (+149 F) |
| Humidity              | 0 ~ 90 % (non-condensing)      |

## Software features

- Wizard for fast link setup
- Centralized control from master: A) Common wireless link parameters; B) Individual slave parameters
- Smart Auto-channel
- Robust data security
- QoS with hardware acceleration
- Spectrum analyzer
- Wireless signal and device state indication on RGB LEDs
- Dual firmware image

## Management

Dedicated 2.4 GHz radio for management

System monitoring

SNMP, GUI/HTTP(S), Shell/SSH and WNMS

System configuration

GUI/HTTP(S) and WNMS

## Regulatory

Certification

FCC/IC/CE

## Antenna specifications



## Internal antenna

|                           |               |
|---------------------------|---------------|
| Frequency range           | 4.9 - 5.9 GHz |
| Gain                      | 23 dBi        |
| Polarization              | Dual linear   |
| Cross-pol Isolation       | 27 dBi        |
| VSWR                      | 1.5:1         |
| Azimuth beamwidth (H pol) | 6 deg         |
| Azimuth beamwidth (V pol) | 7 deg         |
| Elevation beamwidth       | 9 deg         |





[www.ligowave.com](http://www.ligowave.com)



#### **LigoPTP 5-N/ 5-23 RapidFire**

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