



# LigoSU 5-N/ 5-20/ 5-23

High-performance 5 GHz subscriber unit

## Available models

### LigoSU 5-N



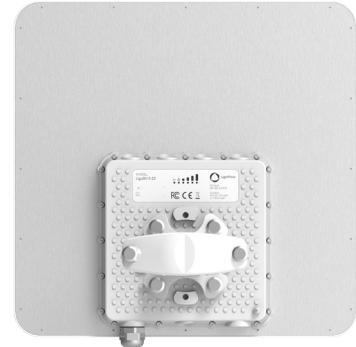
Subscriber unit with N-type connectors for the external antenna.

### LigoSU 5-20



Subscriber unit with an integrated directional 20 dBi antenna.

### LigoSU 5-23



Subscriber unit with an integrated directional 23 dBi antenna.

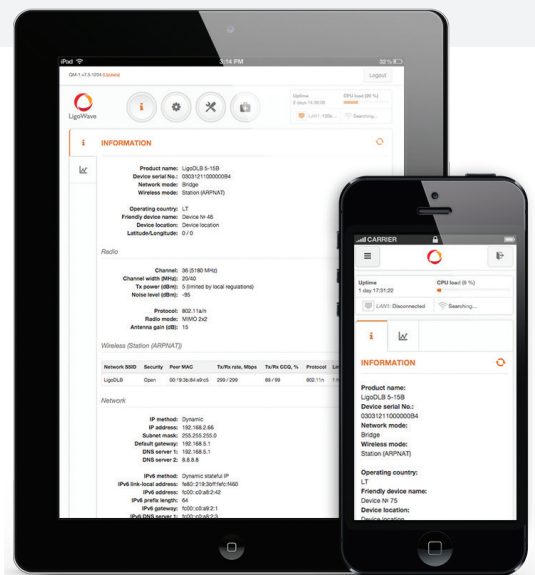
## Incredible performance

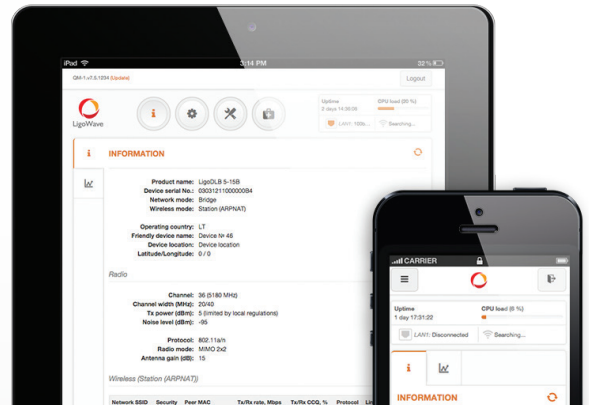
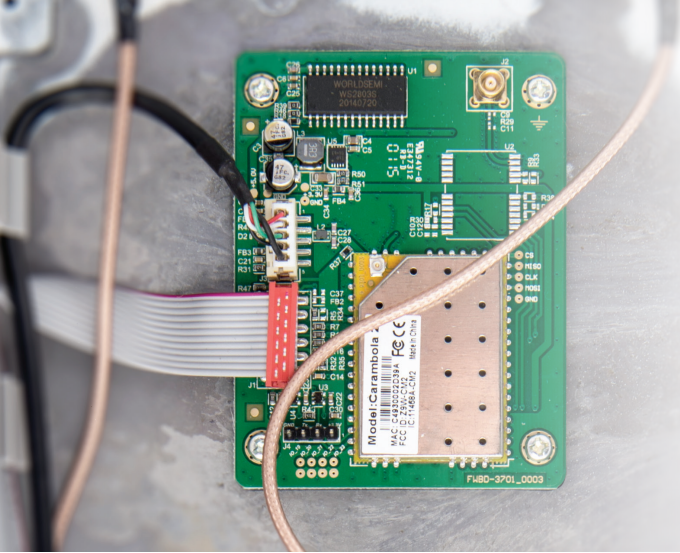
LigoPTMP series point to multipoint system delivers 600+ Mbps throughput via its unique and powerful RF design that supports up to 256QAM modulation and 30 dBm output power. 720 MHz dedicated CPU ensures swift data processing and high packet per second rate (PPS) which is important for real time data transmission applications. Gigabit Ethernet port supporting 802.3af/at standard allows powering the devices with PoE switches. Weatherproof IP-67 standard rated enclosure design allows using the equipment in any climate conditions.

# 600

## LigoWave OS

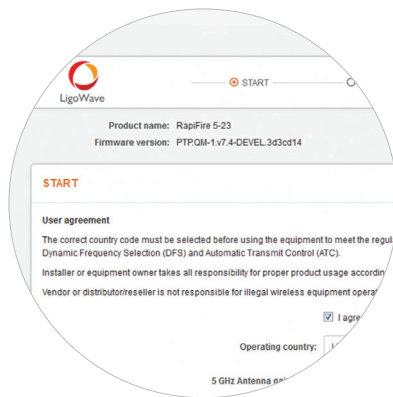
The full featured operating system makes LigoPTMP devices ideal not only for WISPs and operators, but also for security, enterprise or industrial applications. Proprietary data transmission protocol (W-Jet V) ensures smooth performance even in noisy areas at the same time delivering high capacity, low latency and high packet per second rate. QoS (quality of service) mechanism allows prioritizing mission critical data and efficiently transmitting voice, video or other real time data over the wireless network. Essential tools like spectrum analyzer, site survey, antenna alignment and others are included.





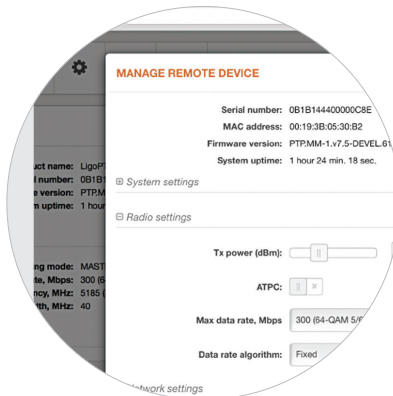
## Easy pre-configuration and maintenance

A new approach to setting up and maintaining your network



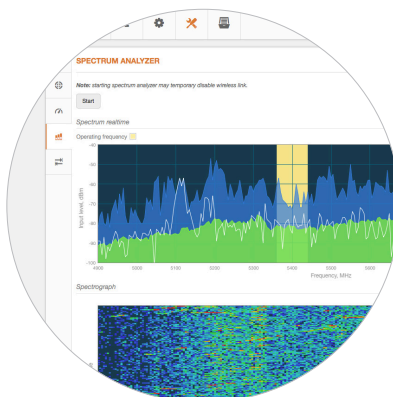
### Setup Wizard

Guides the installer through the important steps of the set-up process.



### Single side configuration

Link parameters are automatically applied to subscriber units once set on the base-station side.



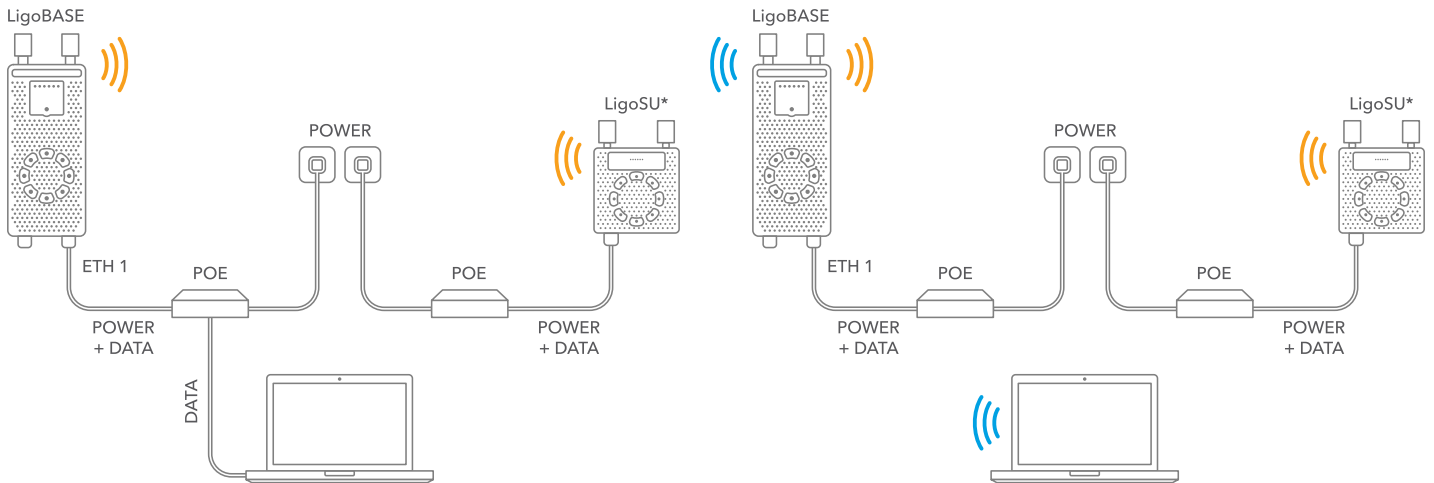
### Spectrum analyzer

Demonstrates the current noise floor in a waveform and waterfall graphs.

# Pre-configuration

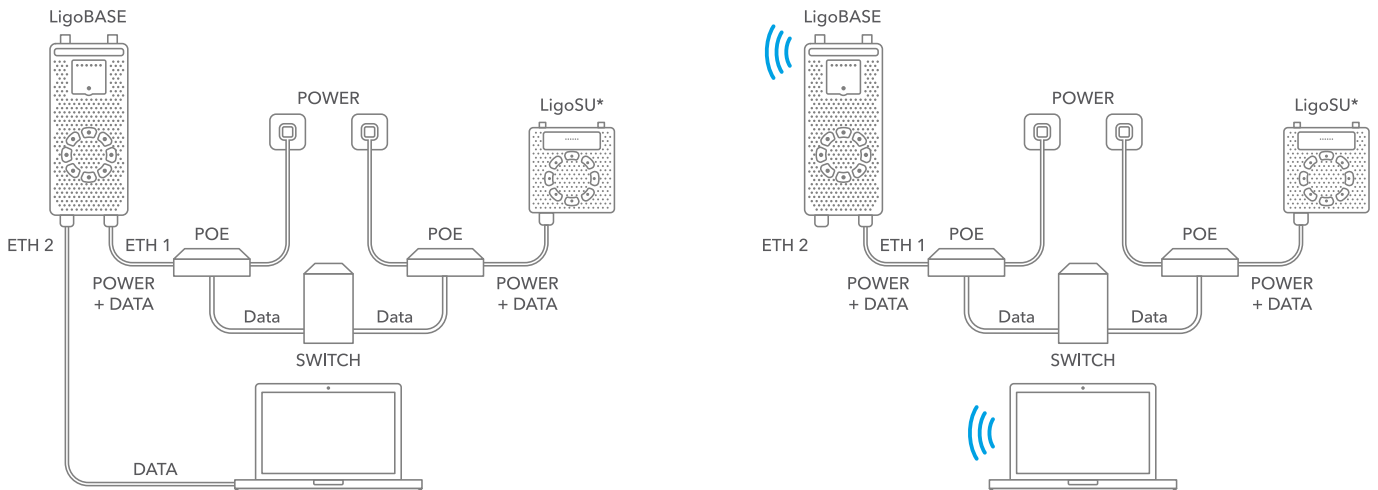
Multiple options to pre-configure LigoPTMP devices are displayed in the scheme below. Devices can be connected with each other using wired or wireless connectivity. End-user device can also connect to the LigoBASE device using 2.4 GHz access radio or using wire to the Ethernet port of the LigoBASE device. LigoPTMP devices can be discovered using Bonjour, CDP and SSDP protocols as well.

## Wireless



\*Multiple LigoSU units can be connected to the LigoBASE

## Wired



\*Multiple LigoSU units can be connected to the LigoBASE

## Radio

Wireless protocol	W-Jet V
Radio mode	MIMO 2x2
Frequency range	4.900 - 6.100 GHz (FCC: 4.940 - 4.990 GHz, 5.150-5.250 GHz, 5.725-5.850 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

<b>Modulation, Mbps</b>	866	780	650	585	520	390	260	195	130	65
<b>TX Power, dBm</b>	24	25	25	26	27	28	28	29	29	30
<b>Receive sensitivity, dBm</b>	-64	-66	-70	-72	-74	-78	-81	-85	-88	-90

## Antenna

LigoSU 5-N	2 N-type connectors
LigoSU 5-20	Integrated directional dual-pol 20 dBi antenna
LigoSU 5-23	Integrated directional dual-pol 23 dBi panel

## Wired

Interface	10/100/1000 Base-T with PoE IN (RJ45)
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## Physical

### Dimensions without mount:

LigoSU 5-N	Length 198 mm (7.7"), width 198 mm (7.7"), height 46 mm (1.8")
LigoSU 5-20	Length 198 mm (7.7"), width 198 mm (7.7"), height 50.5 mm (1.9")
LigoSU 5-23	Length 387 mm (15.2"), width 379 mm (15.2"), height 50 mm (15.2")
Mount length till pole	130 mm (5.1")

### Weight including mount:

LigoSU 5-N	2.05 kg (4.5 lb)
LigoSU 5-20	2.00 kg (4.4 lb)
LigoSU 5-23	3.24 kg (7.1 lb)

## Power

Power input method, voltage	PoE 802.3af, isolated 42 - 57 VDC
Power consumption (max)	10 W
PoE included	

## Environmental

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

## Software features

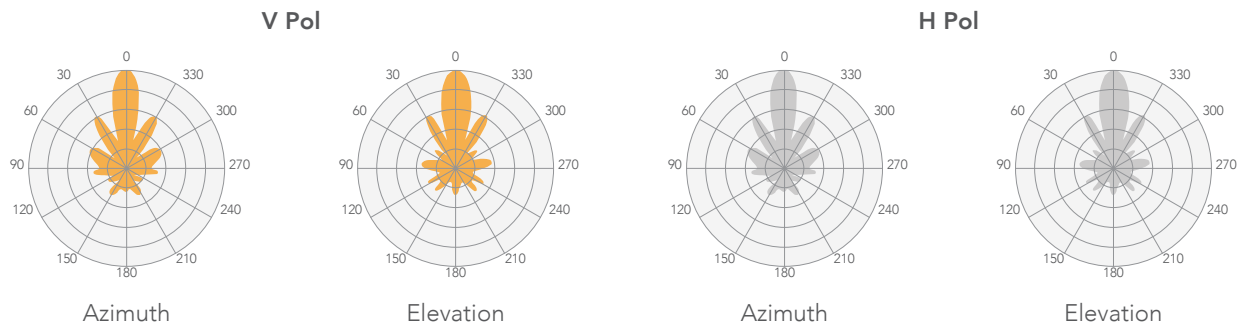
- Smart Auto-channel
- Robust data security
- QoS with hardware acceleration
- Spectrum analyzer
- Dual firmware image
- Client device is controlled via Base Station

## Regulatory

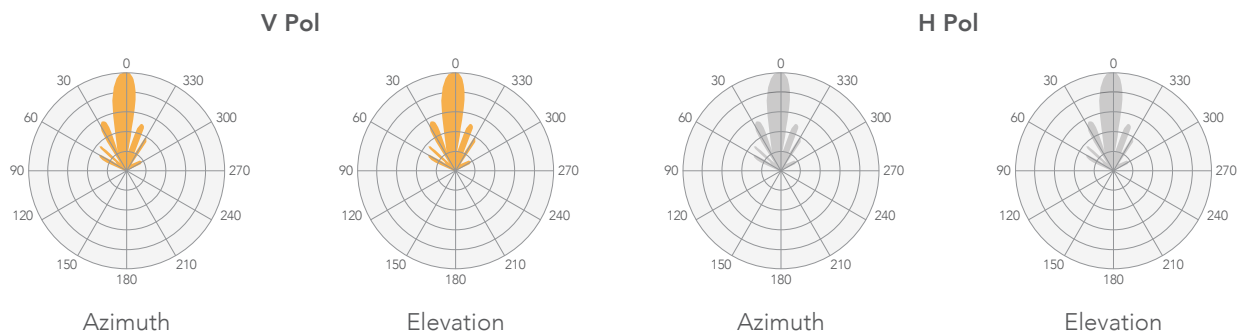
Certification	FCC/IC/CE
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## Antenna specifications

### LigoSU 5-20



### LigoSU 5-23



## Internal antenna

Model name	LigoSU 5-20	LigoSU 5-23
Frequency range	5.1 - 5.9 GHz	4.9 - 5.9 GHz
Gain	20 dBi	23 dBi
Polarization	Dual linear	Dual linear
Cross-pol Isolation	27 dBi	27 dBi
VSWR	<1.8	1.5:1
Azimuth beamwidth (H pol)	16 deg	6 deg
Azimuth beamwidth (V pol)	16 deg	7 deg
Elevation beamwidth	16 deg	9 deg

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