

# Product Overview



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### Solutions

LigoWave has multiple product lines covering a variety of applications in different vertical segments. Many years of experience, unique proprietary technologies and professional product design make our wireless equipment ideal for anyone seeking quality, high performance and quick return on investment.



### Enterprise

#### Powerful OS

The operating system embedded in LigoWave devices is straightforward and intuitive. Each device group has specifically chosen functionality that is necessary for a particular application. The fast and responsive HTML 5 user interface allows accessing wireless equipment not only with a laptop or regular PC, but also with smart phones and tablets.

#### Reliable security mechanisms

Hardware based AES 128 encryption, which is compatible with a FIPS-197 standard, allows protecting sensitive data and is suitable even for banking or governmental networks. Hidden SSID, HTTPS for secure user interface access, SSH for secure command line management and SNMP v3 for secure data collection and monitoring make LigoWave devices ideal for enterprise networks.

#### High capacity links

High throughput over long distances can be achieved with high output power coupled with high gain antennas, enabling the transmission of hundreds of megabits over 50+ KM (30+ mile) links. There are multiple models equipped with professional N-connectors that can be used with a variety of external, high gain antennas to achieve remarkable results.

### Operators

#### Variety of devices

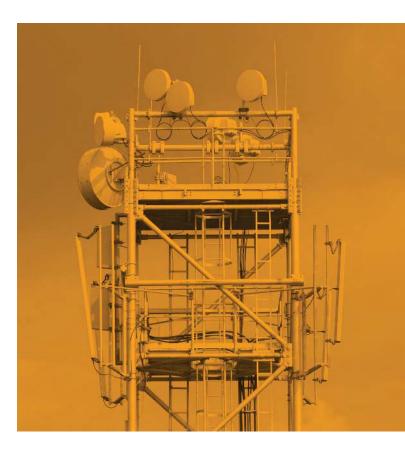
LigoWave's product line offers a wide variety of products designed to operate in point-to-point and point-to-multipoint scenarios for various distances, with differing capacities and at price levels that allow appropriate investment for each location. A choice of unique devices for different scenarios and applications provides end-users with the utmost flexibility.

#### Proprietary protocols

W-Jet and iPoll maximize the performance of LigoWave's PTP and PTMP devices even in RF intense environments, to ensure higher bandwidth, higher packet per second rate, and low, stable latency with no distance limitation. Automatic channel selection and automatic transmit power control mechanisms allow avoiding noisy channels and optimizing the RF output power to maximize performance and minimize undesirable noise emissions. The reliability and solid performance of these proprietary protocols ensure service provider success.

#### Advanced QoS

QoS allows prioritizing real time voice and video data and allows delivering triple play services to end users more effectively. Impressive performance results are achieved when QoS is combined with the high packet per second rate on LigoWave devices.



### Industrial

#### Professional hardware design

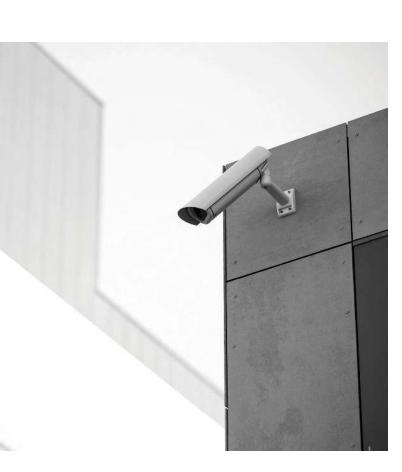
LigoWave's hardware is designed according to specific standards that are critical for industrial applications (ATEX and others). IP-6x standard rated enclosures and professional mounting brackets make LigoWave devices the right choice for industrial applications. The integrated surge protection systems are designed to be two times higher than the top class IEC standard requirements in order to survive extreme voltage surges and lightning.

#### Reliable security mechanisms

Security is an important topic for enterprise networks. Hardware based AES 128 encryption, which is compatible with a FIPS-197 standard, allows protecting sensitive data and is suitable even for banking or governmental networks. Hidden SSID, HTTPS for secure user interface access, SSH for secure command line management and SNMP v3 for secure data collection and monitoring make LigoWave devices ideal for the industrial networks.

#### Quality of service (QoS)

QoS prioritizes mission critical data and LigoWave's hardware based QoS does not generate additional CPU load, thereby leaving the resources for other processes such as high speed packet handling.





### Security

#### Professional software functionality

W-Jet and iPoll allow maximizing performance of LigoWave's PTP and PTMP devices even in RF intense environments, ensuring higher bandwidth, higher packet per second rate, and low and stable latency with no distance limitation. Automatic channel selection and automatic transmit power control mechanisms allow avoiding noisy channels and optimize the RF output power to maximize performance and minimize undesirable noise emissions.

#### Quality of service (QoS)

QoS prioritizes mission critical data. Security providers can set the highest priority to video data over other types of traffic to ensure the lowest possible latency and steady display of video signals.

### Professional hardware design

IP-6x standard rated enclosures and professional mounting brackets allow LigoWave devices to be installed wherever security devices need wireless connectivity. The carrier grade surge protection systems are designed to be two times higher than the top class IEC standard requirements in order to survive extreme voltage surges and lightning.



# LigoDLB

This product line is dedicated for the last mile point-to-multipoint and light point-to-point applications in the unlicensed (2.4 and 5 GHz) band. A variety of models including base-stations and client devices make the products ideal for Internet service providers and operators running their networks in the open bands. Powerful software platform with proprietary communication protocol ensures smooth performance even in congested environments. Professional all integrated hardware design allows quick return on investment and minimizes operational cost.

High capacity (170 Mbps)

Scalability

Quick ROI

Large selection of devices

## Product summary (2 GHz outdoor)



Product	DLB 2-90	DLB 2	DLB 2-14	DLB 2-9B	DLB Propeller 2	DLB 2-9				
Role description	Extremely cost effective base station with an integrated high gain 90° sector antenna	High power multipurpose device with 2 external N-connectors	Powerful client device with an integrated high gain antenna for mid-range links	Small size client device for high capacity short distance links	Unique client device with a mechanical antenna characteristics switching mechanism	Smallest, but yet powerful and the most cost effective client device				
Radio										
Frequency			2.402 – 2	.492 GHz						
Channel size			5, 10, 20	, 40 MHz						
Stream			MIM	O 2x2						
Wireless protocol			Proprietary iPoll 3 o	or standard 802.11n						
Operating mode			Point to N	Multi Point						
Max output power		31 (	dBm*		28 dBm*	28 dBm*				
Receive sensitivity at 20 MHz channel		-95 dBm +/-2 dB @BPSK -91 dBm+/-2 dB @QPSK -83 dBm +/-2 dB @16QAM -78 dBm +/- 2 dB @64QAM								
Network										
Ethernet interface			10/100	Base-T						
Aggregated data throughput			170 M	Mbps						
Antenna										
Gain	16 dBi (dual POL)	-	14 dBi (dual POL)	9 dBi (dual POL)	11 dBi (dual POL)	9 dBi (dual POL)				
Beamwidth horizontal	100 deg.	-	34 deg.	55 deg.	70 or 35 deg.	55 deg.				
Beamwidth vertical	30 deg.	-	36 deg.	62 deg.	35 or 70 deg.	62 deg.				
Mounting										
Pole diameter	2.5 – 5 cm 1 – 2 in	3.5 – 6 cm 1.3 – 2.3 in	2 – 5 cm 0.8 – 2 in	3.5 – 6 cm 1.3 – 2.3 in	3 – 7 cm 1.2 – 2.7 in	2 – 7 cm 0.8 – 2.7 in				
Tilting	+10 /- 30 degrees	-	-							
Powering										
Method	Passive PoE; 4,5 pin (+) and 7,8 pin (-)									
Input voltage	12 – 24 V									
Power consumption		4.5 W								

<sup>\*</sup> Country dependent

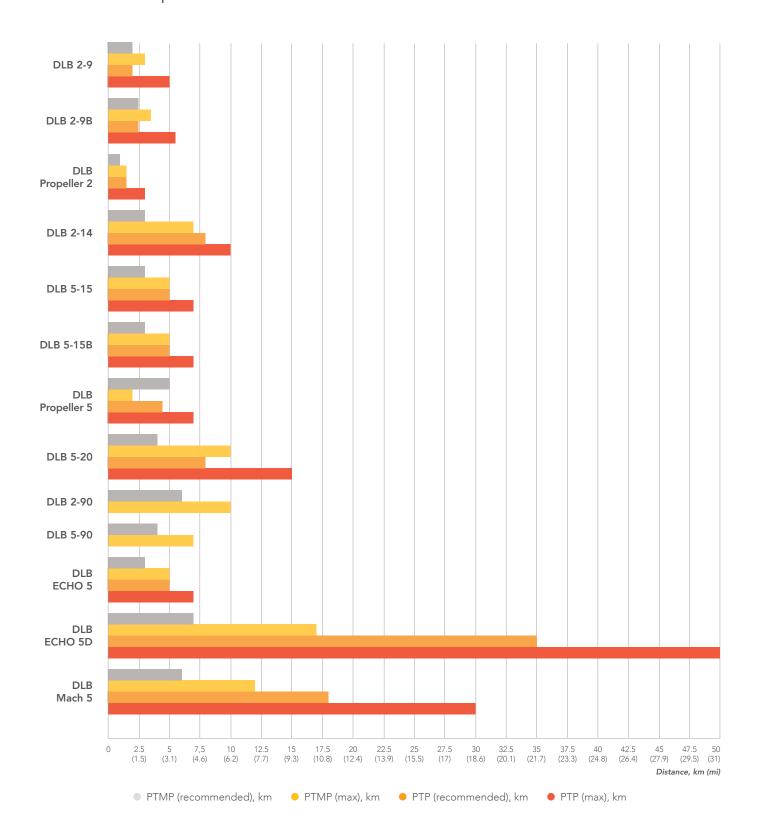
### Product summary (5 GHz outdoor)



Product	DLB 5-90	DLB 5	DLB 5-20	DLB 5-15B	DLB 5-15	DLB Propeller 5	DLB Mach 5	DLB Echo 5	DLB Echo 5D	
Role description	Extremely cost effective base station with an integrated high gain 90° sector antenna	High power multipurpose device with 2 external N- connectors	Powerful client device with an integrated high gain antenna for mid-range links	Small size device for high capacity short distance links	Smallest, but yet powerful and the most cost effective client device	Unique client device with a mechanical antenna	High capacity and high performance device ideal for mid to long range distance links	Professional wireless device suitable for short to medium distances	Long-range and high- gain wireless device suitable to use with any standard offset satellite dish antenna	
Radio										
Frequency			5.150 - 5	5.850 GHz (FC0	C 5.150 - 5.250	and 5.725 - 5.8	350 GHz)			
Channel size				5	, 10, 20, 40 MH	łz				
Stream					MIMO 2x2					
Wireless protocol				Proprietary	iPoll 3 or stanc	lard 802.11n				
Operating mode				Рс	oint to Multi Po	int				
Max output power					29 dBm*					
Receive sensitivity at 20 MHz channel		-97 dBm +/-2 dB @BPSK -93 dBm+/-2 dB @QPSK -85 dBm +/-2 dB @16QAM -75 dBm +/- 2 dB @64QAM								
Network										
Ethernet interface					10/100 Base-T					
Aggregated data throughput					170 Mbps					
Antenna										
Gain	18 dBi (dual POL)	-	20 dBi (dual POL)	15 dBi (dual POL)	15 dBi (dual POL)	15 dBi (dual POL)	23 dBi (dual POL)	15 dBi (dual POL)	27 dBi (dual POL)	
Beamwidth horizontal	90 deg.	-	10 deg.	30 deg.	30 deg.	60 or 15 deg.	7 deg.	30 deg.	6 deg.	
Beamwidth vertical	20 deg.	-	10 deg.	30 deg.	30 deg.	15 or 60 deg.	9 deg.	30 deg.	6 deg.	
Mounting										
Pole diameter	2.5 – 5 cm 1 – 2 in	3.5 – 6 cm 1.3 – 2.3 in	2 – 5 cm 1 – 2 in	3.5 – 6 cm 1.3 – 2.3 in	2 – 7 cm 0.8 – 2.7 in	3 – 7 cm 1.2 – 2.7 in	3 - 7 cm 1.2 – 2.7 in	5 – 7 cm 2 – 2.7 in	3 - 6 cm 1.2 – 2.3 in	
Tilting	+10 /- 30 degrees	-	+/- 40 degrees	-	-	-	+45 /- 60 degrees	+/- 40 degrees	+30 / - 22 degrees	
Powering										
Method				Passive PoE	E; 4,5 pin (+) ar	nd 7,8 pin (-)				
Input voltage		12 – 24 V								
Power consumption		4.5 W								

<sup>\*</sup> Country dependent

### Product comparison





# LigoDLB PRO

Base-stations made for resource demanding applications have an optimized hardware platform to allow better scalability by supporting higher number of clients. Integrated antenna design reduces risk of cabling failures and additional signal loss. Professional metal enclosure not only improves noise immunity, but also ensures smooth performance even in harshest weather conditions.

Powerful base-station oriented hardware

Zero loss design

Improved noise immunity

**Professional mounting** 

### Product summary



Product	LigoDLB PRO 2-90-16	LigoDLB PRO 2-90-19	LigoDLB PRO 5-90-17	LigoDLB PRO 5-90-20							
Description	A powerful base-station with an integrated 90° sector antenna, weather proof enclosure, metal back-plate for improving noise immunity and a robust mounting bracket built for professionals										
Radio											
Frequency	2.402 - 2.492 GHz 5.150 - 5.850 GHz (FCC 5.150 - 5.250 and 5.725 - 5.850 GHz)										
Channel size		5, 10, 20, 40 MHz									
Stream		MIM	O 2x2								
Wireless protocol		Proprietary iPoll 3	or standard 802.11n								
Operating mode		Point to Multi Point									
Max output power		30 c	lBm*								
Receive sensitivity at 20 MHz channel	-87 dBm +/ -76 dBm +/-	-2dB@BPSK -2dB@QPSK 2dB@16QAM 2dB@64QAM	-97 dBm +/-2dB@BPSK -91 dBm +/-2dB@QPSK -79 dBm +/-2dB@16QAM -76 dBm +/-2dB@64QAM								
Network											
Ethernet interface		10/100/10	000 Base-T								
Aggregated data throughput		180	Mbps								
Antenna											
Gain	16	19	17	20							
Beamwidth horizontal	90 deg.	90 deg.	90 deg.	90 deg.							
Beamwidth vertical	25 deg.	15 deg.	12 deg.	8 deg.							
Mounting											
Pole diameter		2.5 - 7.5 cm (0	).98 - 2.9 inch)								
Tilting		+15 d	egrees								
Powering											
Method		802	2.3af								
Input voltage		37 - 56 V									
Power consumption		10	W								

<sup>\*</sup> Country dependent



# LigoDLB ac

Ultra high performance point-to-multipoint system delivering up to 500 Mbps capacity is an ideal upgrade for service providers seeking to deliver more reliable connectivity and higher subscriber capacity. Backwards compatibility with LigoDLB products simplifies the migration. Powerful and highly functional operating system with a user-friendly interface makes it easy to deploy and manage the network even for the new customers.

Ultra high performance (500+ Mbps)

Professional hardware design

Higher network scalability

Simple deployment and operation

### Product summary











Product	LigoDLB PRO 5-90-17 ac	LigoDLB PRO 5-90-20 ac	LigoDLB 5-15 ac	LigoDLB 5-20 ac	LigoDLB MACH 5 ac						
Description	90° sector antenna, we metal back-plate f immunity and a robu	ion with an integrated eather proof enclosure, or improving noise ust mounting bracket ofessionals	High capacity wireless bridge with a 15 dBi directional panel antenna	High capacity wireless bridge with a 20 dBi directional panel antenna	High capacity wireless bridge with a 23 dBi directional panel antenna						
Radio											
Frequency		5.150 - 5.850 GHz (FCC 5.150 - 5.250 and 5.725 - 5.850 GHz)									
Channel size			5, 10, 20, 40, 80 MHz								
Stream			MIMO 2x2								
Wireless protocol		Proprie	etary iPoll 3 or standard	802.11n							
Operating mode			Point to Multi Point								
Max output power			30 dBm*								
Receive sensitivity at 40 MHz channel	-95 dBm +/-2dB@BPSK -92 dBm +/-2dB@QPSK -84 dBm +/-2dB@16QAM -78 dBm +/-2dB@64QAM -70 dBm +/-2dB@256QAM										
Network											
Ethernet interface			10/100/1000 Base-T								
Aggregated data throughput			500 Mbps								
Antenna											
Gain	17	20	15 dBi	20 dBi	23 dBi						
Beamwidth horizontal	90 deg.	90 deg.	30 deg.	10 deg.	7 deg.						
Beamwidth vertical	12 deg.	8 deg.	30 deg.	10 deg.	9 deg.						
Mounting											
Pole diameter	2.5 - 7.5 cm (0	).98 - 2.9 inch)	2 - 7 cm (0.8 - 2.7 inch)	3 - 6 cm (1.1 - 2.4 inch)	1 - 12.4 cm (0.39 - 4.88 inch)						
Tilting	+15 d	egrees	none	+20 / -20 degrees	+25 / -45 degrees						
Powering											
Method	802.3	Baf/ at	Passive PoE; 4,5 p	802.3af/ at							
Input voltage	37 -	56 V	24 V 37 - 56 V								
Power consumption			10 W								

<sup>\*</sup> Country dependent

### LigoDLB ac performance data

	Distance																
Channel size	Base station	СРЕ		0.5 km			1 km		2 km		5 km			8 km			
			CPE x10	CPE x20	CPE x30												
	LigoDLB	LigoDLB 5-15ac	280	260	240	240	220	200	220	200	180	150	130	120	N/A	N/A	N/A
40 MHz	5-90- 17ac PRO	LigoDLB 5-20ac	280	260	240	280	260	240	260	240	220	250	240	220	180	160	140
	LigoDLB	LigoDLB 5-15ac	280	260	240	260	240	220	240	220	200	160	140	130	N/A	N/A	N/A
	5-90- 20ac PRO	LigoDLB 5-20ac	280	260	240	280	260	240	260	240	220	250	240	220	190	170	150
	LigoDLB	LigoDLB 5-15ac	400	380	360	360	340	320	340	320	300	180	160	140	N/A	N/A	N/A
80 MHz	5-90- 17ac PRO	LigoDLB 5-20ac	400	380	360	390	370	350	380	360	340	340	320	300	280	260	240
	LigoDLB	LigoDLB 5-15ac	400	380	360	370	350	330	360	330	310	180	160	140	N/A	N/A	N/A
	5-90- 20ac PRO	LigoDLB 5-20ac	400	380	360	400	380	360	390	370	350	340	320	300	280	260	240

Listed as true TCP values

This distance and throughput are an estimated based on a relatively low interference environment

The throughput is calculated theoretically, and may vary from the actual testing results due to packet size and the testing tool utilized

The throughput is the aggregate throughput of the concurrent CPEs connected

All throughputs listed are calculated throughputs, not the theoretical link speed.

The location of CPE is at the distance stated

NA = Not Applicable

LigoDLB ac protocol: iPoll 3



# LigoPTP

The flagship product line, which has made LigoWave devices famous for quality and performance. High performance 5 GHz wireless bridges are deployed for the backhaul and last-mile applications even by Tier 1 operators worldwide requiring carrier grade performance and robustness for their links. W-Jet, being the best in class data transmission protocol, is developed specifically for point-to-point scenario and more efficient spectrum usage.

700+ Mbps capacity

Carrier-grade hardware design

PTP scenario oriented protocol

Very easy setup and management

Low maintenance

### Product summary









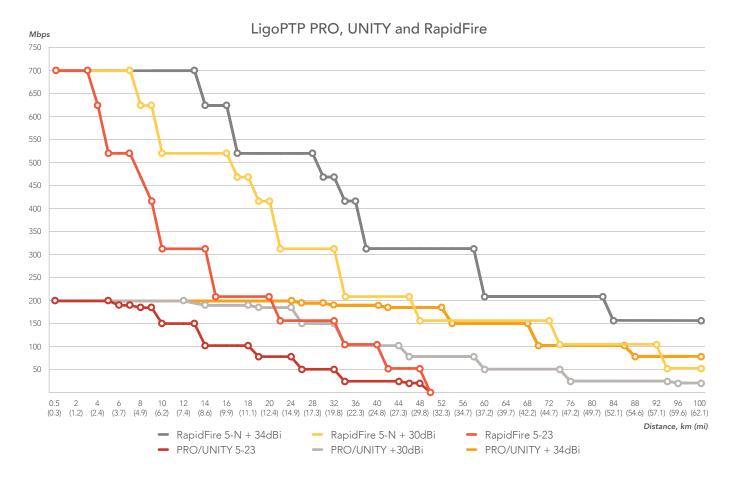
Product	LigoPTP PRO	LigoPTP UNITY	LigoPTP 5-23 RapidFire	LigoPTP 620HP	
Role description	Professional unlicensed band wireless PTP link for long range backhaul applications	Professional unlicensed band wireless PTP link for long range and high performance backhaul applications	Ultra high capacity (700 Mbps) new generation PTP equipment for the unlicensed band	Professional licensed band microwave PTP link for long range and high capacity backhaul applications	
Radio					
Frequency	4.780 – 6.	.300 GHz*	4.9 - 6.1*	6, 7, 8, 10, 11, 13, 15, 18, 23, 26, 28, 32, 38 GHz	
Channel size	20, 40	) MHz	5, 10, 20, 40, 80	7, 14, 27.5, 28, 40, 56 MHz (ETSI/CEPT); 10, 20, 25, 30, 40, 50, 60 MHz (ANSI/FCC)	
Duplexing	TC	DD	TDD	FDD	
Stream	MIM	O 2x2	MIMO 2x2	SISO 1x1	
Wireless protocol	Proprietary W-Jet 2	Proprietary W-Jet 3	Proprietary W-Jet 5	Microwave radio relay	
Protection	None	1+1, 2+0	1+1***	1+1, 2+0	
Max output power	30 d	Bm**	31 dBm**	30 dBm	
Modulation schemes	BPSK, QPSK, 1	6QAM, 64QAM	BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM	QPSK, 8PSK, 16QAM, 32QAM, 64QAM, 128QAM, 256QAM	
Network					
Ethernet interface	10/100/1000 Base-T	2x 10/100/1000 Base-T	2x 10/100/1000 Base-T	3x 10/100/1000 Base-T; 2x gigabit SFP	
Aggregated data throughput	220 1	Mbps	700 Mbps	730 Mbps	
Antenna					
Туре		grated dual pol directional p pe connectors for external an		1, 2, 3, 4, 6 ft dishes	
Gain		23 dBi		27 – 49 dBi	
Mounting					
Pole diameter		7 cm 2.7 in	1 - 12.4 cm 0.39 - 4.88 in	5 - 11 cm 2 – 4.3 in	
Tilting	+45 / -60	) degrees	+25 / -45 degrees	+/- 30 degrees	
Powering					
Method	PoE 8	02.3af	802.3af/at	DC terminal block	
Input voltage	+/- 48 VDC	+48 VDC	+/- 42 - 57 VDC	-20 to -60 VDC	
Power consumption	8 W	12 W	8.6 W	45 W (IDU + ODU)	

<sup>\*</sup> Power is lower at frequency edges

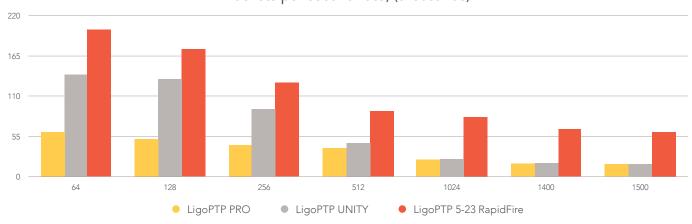
<sup>\*\*</sup> Country dependent

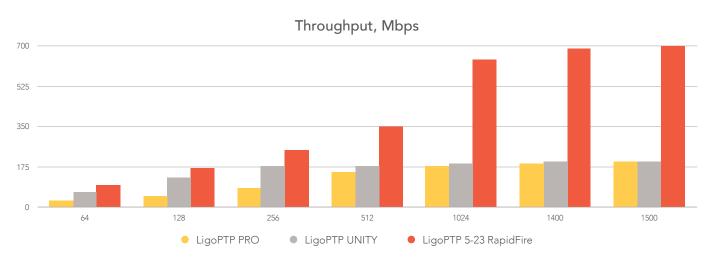
<sup>\*\*\*</sup> Available in future software release

### Product comparison



### Packets per second rate, (thousands)







# LigoPTMP

A fresh product line bringing all the major benefits of the LigoPTP product line to a point-to-multipoint scenario. From the powerful dedicated CPU in the LigoBASE products to IP standards rated metal enclosures and professional mounting bracket LigoPTMP products are made for resource demanding applications deployed even in the most difficult climate conditions. The entire network is controlled through base station allowing smooth and easy preconfiguration, deployment and monitoring.

Incredible performance (Up to 600 Mbps)

Carrier-grade design

Centralized network management

Made for resource demanding applications

## Product comparison











Product	LigoBASE 5-N	LigoBASE 5-90	LigoSU 5-N	LigoSU 5-20	LigoSU 5-23				
Role description	Professional high performance base- station for PTMP networks to use with external antenna	Professional high performance base- station for PTMP networks with an integrated 90° sector antenna	Professional high performance subscriber unit for PTMP networks to use with external antenna	Professional high performance subscriber unit for PTMP networks for short to mid range connectivity	Professional high performance subscriber unit for PTMP networks for mid to long range connectivity				
Radio									
Frequency	4.9	900 - 5.850 GHz (FCC: 4.9	940 - 4.990 GHz, 5.150-5	.250 GHz, 5.725-5.850 G	Hz)				
Channel size			5, 10, 20, 40, 80 MHz						
Duplexing			TDD						
Stream			MIMO 2x2						
Wireless protocol			Proprietary W-Jet 5						
Max output power	31 d	lBm*		31 dBm*					
Modulation schemes		BPSK, C	PSK, 16QAM, 64QAM, 2	256QAM					
Network									
Ethernet interface	2x 10/100/1	1000 Base-T		10/100/1000 Base-T					
Aggregated data throughput			600 Mbps						
Antenna									
Туре	N-type connectors for external antenna	Integrated 90° sector antenna	N-type connectors for external antenna	Integrated directional panel antenna	Integrated directional panel antenna				
Gain	Antenna dependent	17 dBi	Antenna dependent	20 dBi	23 dBi				
Beamwidth horizontal	Antenna dependent	90 deg.	Antenna dependent	10 deg.	7 deg.				
Beamwidth vertical	Antenna dependent	12 deg.	Antenna dependent	10 deg.	9 deg.				
Mounting									
Pole diameter	1 - 12.4 cm 0.39 - 4.88 in								
Tilting	+25 / -45 degrees								
Powering									
Method	PoE 802.3af/ at								
Input voltage	+/- 48 VDC								
Power consumption			8.6 W						

<sup>\*</sup> Country dependent



# Infinity

A dedicated Wi-Fi access product line with a good selection of devices for indoor and outdoor deployments. A flexible controller makes to setup, management and monitoring your network simple and straightforward. Based on the deployment size and requirements Infinity products an support controller-less and controller based setup with a cloud version available to use for free when installing less than 50 devices.

Professional product range

Ideal for indoor and outdoor installations

Controller-less scenario for smaller networks

Cloud based controller with extended functionality

### Product summary













Product	NFT 1Ni	NFT 1N	NFT 1N AF	NFT 2ac	NFT 3ac	NFT 2ac outdoor		
Role description	High power 2.4 GHz indoor AP with two Ethernet ports and PoE pass-through	2.4 GHz indoor AP with three Ethernet ports	2.4 GHz indoor AP with 3 Ethernet ports and 802.3af power	Dual-band, dual- radio (2x2) indoor AP with three Ethernet ports	High performance dual-band, dual- radio (3x3) indoor AP with two Ethernet ports	High performance dual-band, dual-radio (2x2) outdoor AP with one Ethernet port		
Radio								
Frequency		2.402 – 2.484 GHz			2.402 – 2.484 GHz; 5.170 – 5.875 GHz			
Channel size		20, 40 MHz			20, 40, 80 MHz			
Stream		MIMO 2x2		DUAL MIMO 2x2	DUAL MIMO 3x3	DUAL MIMO 2x2		
Wireless protocol		802.11b/g/n		802.11 a/b/g/n/ac				
Max output power	31 dBm*	28 d	Bm*	27 dBm*	29 dBm*			
Receive sensitivity at 20 MHz channel	-93 dBm +/-2 dB @BPSK -87 dBm+/-2 dB @QPSK -82 dBm +/-2 dB @16QAM -76 dBm +/- 2 dB @64QAM	-90 dBm +/- -87 dBm +/- -82 dBm +/-2 -76 dBm +/-2	-2dB@QPSK 2dB@16QAM	-93 dBm +/-2 dB @BPSK -87 dBm+/-2 dB @QPSK -82 dBm +/-2 dB @16QAM -76 dBm +/- 2 dB @64QAM	-87 dBm+/-	2 dB @BPSK 2 dB @QPSK . dB @16QAM 2 dB @64QAM		
Antenna gain	3 dBi	3 dBi	3 dBi	3 dBi (2.4 and 5 GHz)	5 dBi (2.4 and 5 GHz)	N - connectors for external antenna		
Powering								
Method	Passive PoE; 4,5 pi	n (+) and 7,8 pin (-)	802.3af	802.3af/ at				
Input voltage	12 –	24 V	48V	37-56V				
Power consumption	4.5 W	6.24	4 W	14 W	19	W		

<sup>\*</sup> Country dependent



### Infinity controller

A universal software platform to deploy, monitor and manage Infinity series Wi-Fi access points. It can run on two different platforms: Linux or VM VirtualBox

Cloud based version is available at https://controller.ligowave.com and allows connecting up to 50 devices using a free account. Additionally, the new NFT v7.54 firmware version will support controller-less network architecture. Which means no external hardware is needed to mange and control smaller size networks (up to 50 devices). This will extend LigoWave offering to new verticals like education, hospitality, governmental organisations or small to medium enterprises. Customers will have 3 different ways to setup and manage LigoWave's Wi-Fi access products.

### 3 ways to manage your network



#### Standalone

Infinity series access points are configured individually via the web interface. This traditional scenario is suitable for small networks that do not require centralized management and maintenance. Infinity OS is a highly functional and easy to use operating system.



#### Integrated

Each Infinity series access point supports controller-less architecture (software version NFT 7.54), which is ideal for small to medium size deployments (up to 50 access points). An Integrated setup wizard allows quick and easy setup. Master access point works as a controller and shares the configuration with managed access points at the same time collecting statistical information. This unique architecture allows secure, scalable, cost-effective and simple deployments in any industry.



#### External

Infinity controller is a software platform to configure and manage Wi-Fi networks based on LigoWave devices. It can run on Linux and Windows servers. Software image is free and available in downloads section. The controller supports unlimited amount of devices (assuming sufficient hardware resources are available) and is ideal for large networks that can be remotely located across the country and even different continents. Cloud based version is available at https://controller.ligowave.com and allows connecting up to 50 devices using a free account.



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