



LigoWave

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

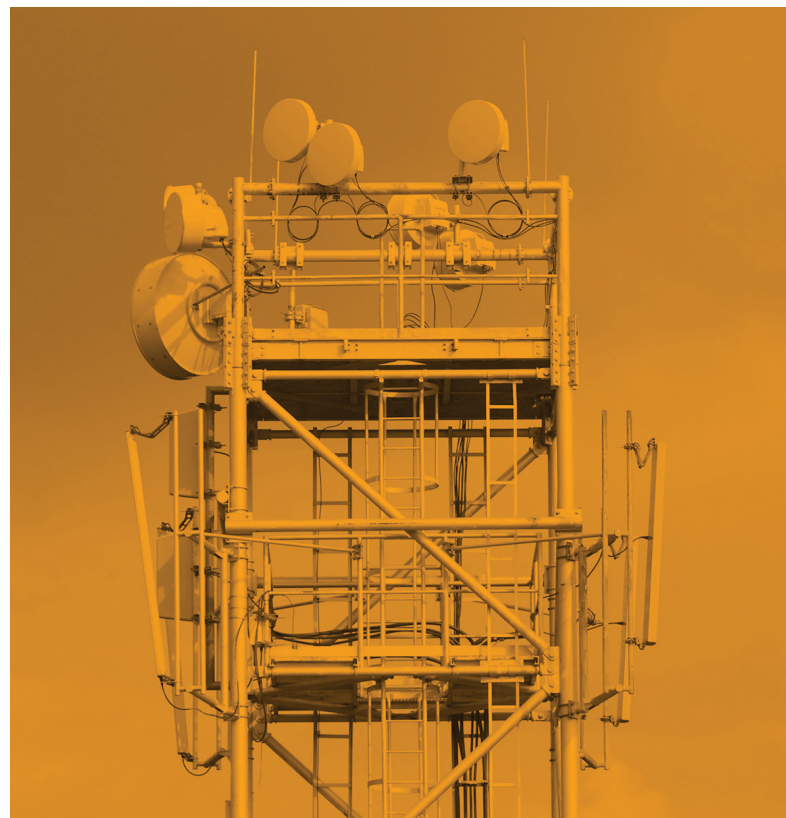
LigoWave's product line offers a wide variety of products designed to operate in point-to-point and point-to-multipoint scenarios for various distances, with differing capacities and at price levels that allow appropriate investment for each location. A choice of unique devices for different scenarios 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 5GHz) 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 (170Mbps)

Scalability

Quick ROI

Large selection of devices

Product summary (2GHz outdoor)



Product	DLB 2-90	DLB 2	DLB 2-14n	DLB 2-9B	DLB Propeller 2
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
Radio					
Frequency	2.402 – 2.492GHz				
Channel size	5, 10, 20, 40MHz				
Stream	MIMO 2x2				
Wireless protocol	Proprietary iPoll 3 or standard 802.11n				
Operating mode	Point to Multi Point				
Max output power	31dBm*				28dBm*
Receive sensitivity at 20MHz channel	-95dBm +/-2dB @BPSK -91dBm +/-2dB @QPSK -83dBm +/-2dB @16-QAM -78dBm +/-2dB @64-QAM				
Network					
Ethernet interface	10/100 Base-T				
Aggregated data throughput	170Mbps				
Antenna					
Gain	16dBi (dual POL)	-	14dBi (dual POL)	9dBi (dual POL)	11dBi (dual POL)
Beamwidth horizontal	100°	-	34°	55°	70° or 35°
Beamwidth vertical	30°	-	36°	62°	35° or 70°
Mounting					
Pole diameter	2.5 – 5cm 1 – 2in	3.5 – 6cm 1.3 – 2.3in	2 – 5cm 0.8 – 2in	3.5 – 6cm 1.3 – 2.3in	3 – 7cm 1.2 – 2.7in
Tilting	+10°/- 30°	-	+/- 40°	-	-
Powering					
Method	Passive PoE; 4,5 pin (+) and 7,8 pin (-)				
Input voltage	12 – 24V				
Power consumption	4.5W				

* Country dependent

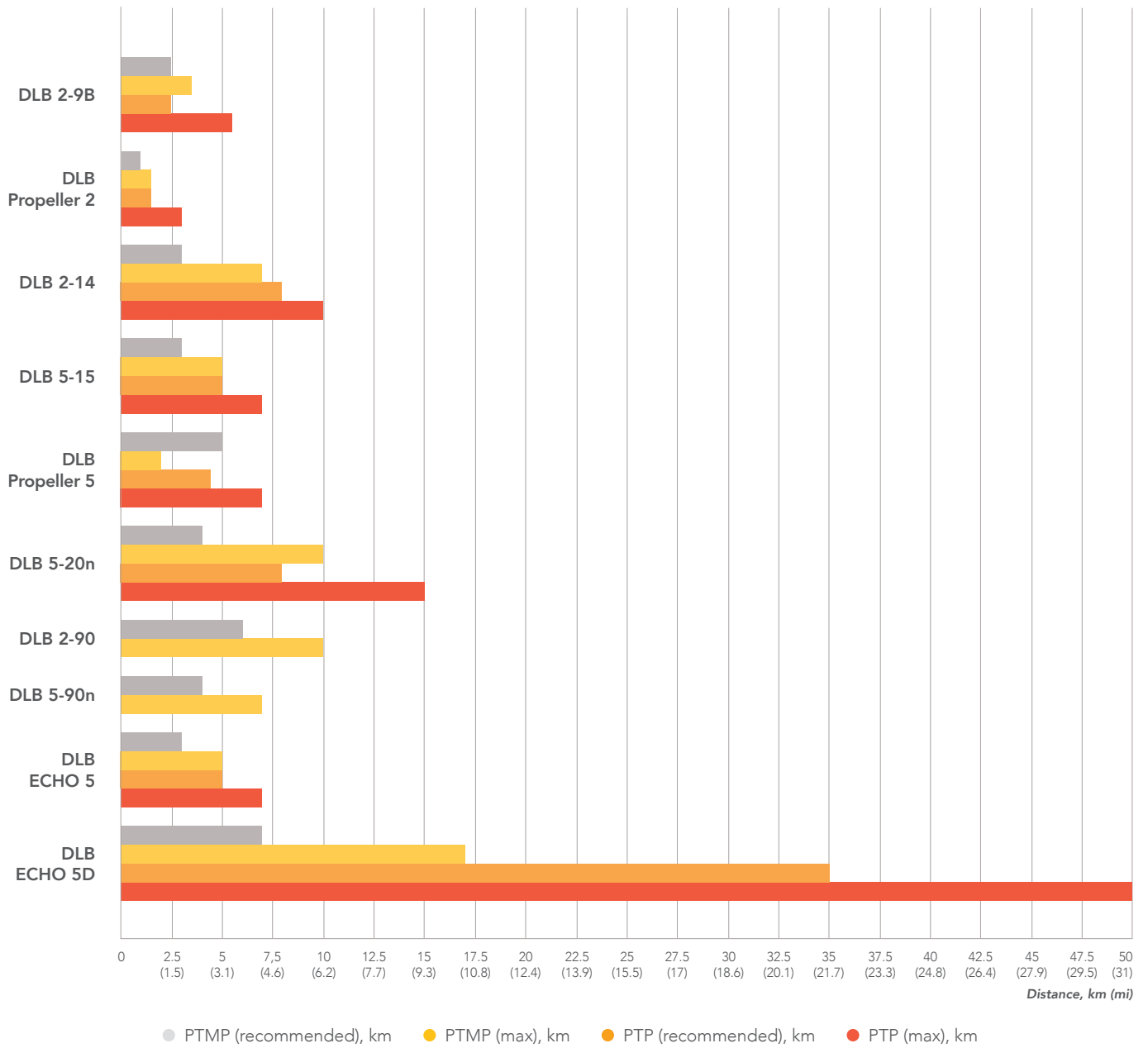
Product summary (5GHz outdoor)

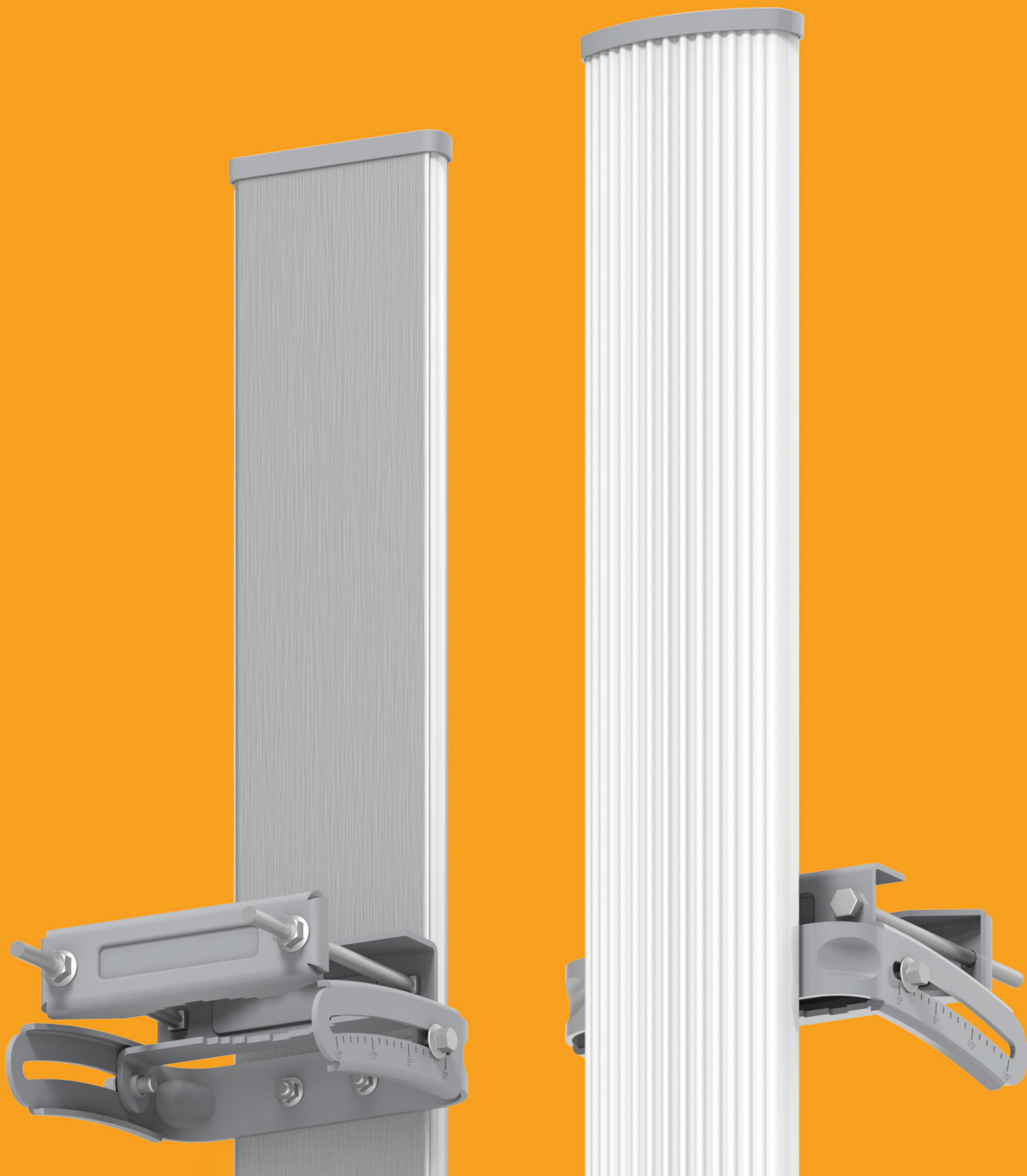


Product	DLB 5-90n	DLB 5	DLB 5-20n	DLB 5-15n	DLB 5-15	DLB Propeller 5	DLB Echo 5	DLB Echo 5D
Role description	Extremely cost effective base station with an integrated high gain 90° sector antenna	High power multipurpose device with 2 external N-connectors	Powerful client device with an integrated high 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	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 – 5,850GHz (FCC 5,150 – 5,250 and 5,725 – 5,850GHz)							
Channel size	5, 10, 20, 40MHz							
Stream	MIMO 2x2							
Wireless protocol	Proprietary iPoll 3 or standard 802.11n							
Operating mode	Point to Multi Point							
Max output power	29dBm*							
Receive sensitivity at 20MHz channel	-97dBm +/-2dB @BPSK -93dBm +/-2dB @QPSK -85dBm +/-2dB @16-QAM -75dBm +/-2dB @64-QAM							
Network								
Ethernet interface	10/100 Base-T							
Aggregated data throughput	170Mbps							
Antenna								
Gain	18dBi (dual POL)	-	20dBi (dual POL)	15dBi (dual POL)	15dBi (dual POL)	15dBi (dual POL)	15dBi (dual POL)	27dBi (dual POL)
Beamwidth horizontal	90°	-	10°	30°	30°	60° or 15°	30°	6°
Beamwidth vertical	20°	-	10°	30°	30°	15° or 60°	30°	6°
Mounting								
Pole diameter	2.5 – 5cm 1 – 2in	3.5 – 6cm 1.3 – 2.3in	2 – 5cm 1 – 2in	3.5 – 6cm 1.3 – 2.3in	2 – 7cm 0.8 – 2.7in	3 – 7cm 1.2 – 2.7in	5 – 7cm 2 – 2.7in	3 – 6cm 1.2 – 2.3in
Tilting	+10°/-30°	-	+/-40°	-	-	-	+/-40°	+30°/-22°
Powering								
Method	Passive PoE; 4,5 pin (+) and 7,8 pin (-)							
Input voltage	12 – 24V							
Power consumption	4.5W							

* 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 – 2,492GHz		5,150 – 5,850GHz (FCC 5,150 – 5,250 and 5,725 – 5,850GHz)	
Channel size	5, 10, 20, 40MHz			
Stream	MIMO 2x2			
Wireless protocol	Proprietary iPoll 3 or standard 802.11n			
Operating mode	Point to Multi Point			
Max output power	30dBm*			
Receive sensitivity at 20MHz channel	-89 dBm +/-2dB@BPSK -87 dBm +/-2dB@QPSK -76 dBm +/-2dB@16-QAM -77 dBm +/-2dB@64-QAM		-97 dBm +/-2dB@BPSK -91 dBm +/-2dB@QPSK -79 dBm +/-2dB@16-QAM -76 dBm +/-2dB@64-QAM	
Network				
Ethernet interface	10/100/1000 Base-T			
Aggregated data throughput	180Mbps			
Antenna				
Gain	16	19	17	20
Beamwidth horizontal	90°	90°	90°	90°
Beamwidth vertical	25°	15°	12°	8°
Mounting				
Pole diameter	2.5 – 7.5cm (0.98 – 2.9in)			
Tilting	+15°			
Powering				
Method	802.3af			
Input voltage	37 – 56V			
Power consumption	10W			

* Country dependent



LigoDLB ac

Ultra high performance point-to-multipoint system delivering up to 500Mbps 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 5-90-17ac	LigoDLB PRO 5-90-20ac	LigoDLB 5-15ac	LigoDLB 5-20ac	LigoDLB MACH 5ac	LigoDLB 5-90ac	LigoDLB 5ac
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		High capacity wireless bridge with a 15dBi directional panel antenna	High capacity wireless bridge with a 20dBi directional panel antenna	High capacity wireless bridge with a 23dBi directional panel antenna	A cost-effective base station with an integrated high-gain 90° sector antenna	A cost-effective outdoor device for PTP/PTMP scenarios
Radio							
Frequency	5,150 – 5,850GHz (FCC 5,150 – 5,250 and 5,725 – 5,850GHz)						
Channel size	5, 10, 20, 40, 80MHz						
Stream	MIMO 2x2						
Wireless protocol	Proprietary iPoll 3 or standard 802.11ac						
Operating mode	Point to Multi Point						
Max output power	30dBm*						
Receive sensitivity at 40MHz channel	-95 dBm +/-2dB@BPSK -92 dBm +/-2dB@QPSK -84 dBm +/-2dB@16-QAM -78 dBm +/-2dB@64-QAM -70 dBm +/-2dB@256-QAM						
Network							
Ethernet interface	10/100/1000 Base-T						
Aggregated data throughput	500Mbps						
Antenna							
Gain	17dBi	20dBi	15dBi	20dBi	23dBi	18dBi	-
Beamwidth horizontal	90°	90°	30°	10°	7°	90°	-
Beamwidth vertical	12°	8°	30°	10°	9°	90°	-
Mounting							
Pole diameter	2.5 – 7.5cm (0.98 – 2.9in)		2 – 7cm (0.8 – 2.7in)	3 – 6cm (1.1 – 2.4in)	1 – 12.4cm (0.39 – 4.88in)	3.0 – 6.0cm (1.1 – 2.4in)	3.5 – 6.0cm (1.4 – 2.4in)
Tilting	+15°		none	+20/-20°	+25/-45°	+43°/-43°	-
Powering							
Method	802.3af/ at		Passive PoE; 4,5 pin (+) and 7,8 pin (-)		802.3af/at	24 VDC Passive PoE	
Input voltage	37 – 56V		24V		37 – 56V	100 – 240V	
Power consumption	10W						4.5W

* Country dependent

LigoDLB ac performance data

			Distance														
Channel	Base	CPE	0.5km			1km			2km			5km			8km		
			CPE ×10	CPE ×20	CPE ×30	CPE ×10	CPE ×20	CPE ×30	CPE ×10	CPE ×20	CPE ×30	CPE ×10	CPE ×20	CPE ×30	CPE ×10	CPE ×20	CPE ×30
40MHz	LigoDLB 5-90- 17ac PRO	LigoDLB 5-15ac	280	260	240	240	220	200	220	200	180	150	130	120	N/A	N/A	N/A
		LigoDLB 5-20ac	280	260	240	280	260	240	260	240	220	250	240	220	180	160	140
	LigoDLB 5-90- 20ac PRO	LigoDLB 5-15ac	280	260	240	260	240	220	240	220	200	160	140	130	N/A	N/A	N/A
		LigoDLB 5-20ac	280	260	240	280	260	240	260	240	220	250	240	220	190	170	150
	LigoDLB 5-90ac	LigoDLB 5-15ac	280	260	240	240	230	210	230	210	190	150	130	120	N/A	N/A	N/A
		LigoDLB 5-20ac	280	260	240	280	260	240	260	240	220	250	240	220	180	160	150

80MHz	LigoDLB 5-90- 17ac PRO	LigoDLB 5-15ac	400	380	360	360	340	320	340	320	300	180	160	140	N/A	N/A	N/A
		LigoDLB 5-20ac	400	380	360	390	370	350	380	360	340	340	320	300	280	260	240
	LigoDLB 5-90- 20ac PRO	LigoDLB 5-15ac	400	380	360	370	350	330	360	330	310	180	160	140	N/A	N/A	N/A
		LigoDLB 5-20ac	400	380	360	400	380	360	390	370	350	340	320	300	280	260	240
	LigoDLB 5-90ac	LigoDLB 5-15ac	400	380	360	360	340	320	350	320	300	180	160	140	N/A	N/A	N/A
		LigoDLB 5-20ac	400	380	360	400	380	360	390	370	350	340	320	300	270	250	240

Channel	Base	CPE	0.5km			2km			5km			10km			15km		
			CPE ×10	CPE ×20	CPE ×30	CPE ×10	CPE ×20	CPE ×30	CPE ×10	CPE ×20	CPE ×30	CPE ×10	CPE ×20	CPE ×30	CPE ×10	CPE ×20	CPE ×30
40MHz	LigoDLB 5ac (18dB _i)	LigoDLB 5ac (20dB _i)	280	260	240	280	260	240	260	240	220	140	130	120	N/A	N/A	N/A
		LigoDLB 5ac (25dB _i)	280	260	240	280	260	240	280	260	240	200	180	160	100	80	60
	LigoDLB 5ac (20dB _i)	LigoDLB 5ac (20dB _i)	280	260	240	280	260	240	260	240	220	140	130	120	100	80	60
		LigoDLB 5ac (25dB _i)	280	260	240	280	260	240	280	260	240	260	240	220	140	130	120
	LigoDLB 5ac (23dB _i)	LigoDLB 5ac (20dB _i)	280	260	240	280	260	240	260	240	220	160	150	140	140	130	120
		LigoDLB 5ac (25dB _i)	280	260	240	280	260	240	280	260	240	260	240	220	160	150	140

80MHz	LigoDLB 5ac (18dB _i)	LigoDLB 5ac (20dB _i)	400	380	360	400	380	360	340	320	300	250	220	200	N/A	N/A	N/A
		LigoDLB 5ac (25dB _i)	400	380	360	400	380	360	360	340	320	260	240	200	200	180	160
	LigoDLB 5ac (20dB _i)	LigoDLB 5ac (20dB _i)	400	380	360	400	380	360	340	320	300	280	260	240	230	200	180
		LigoDLB 5ac (25dB _i)	400	380	360	400	380	360	400	380	360	340	320	300	280	260	240
	LigoDLB 5ac (23dB _i)	LigoDLB 5ac (20dB _i)	400	380	360	400	380	360	390	350	330	340	320	300	240	210	200
		LigoDLB 5ac (25dB _i)	400	380	360	400	380	360	400	380	360	39	350	330	290	270	250

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 5GHz 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



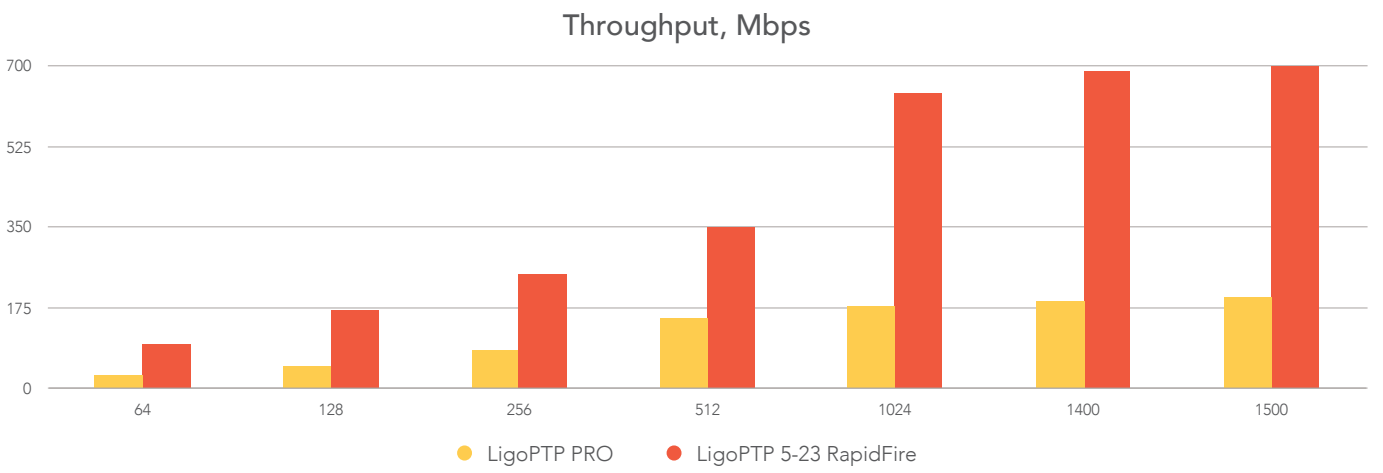
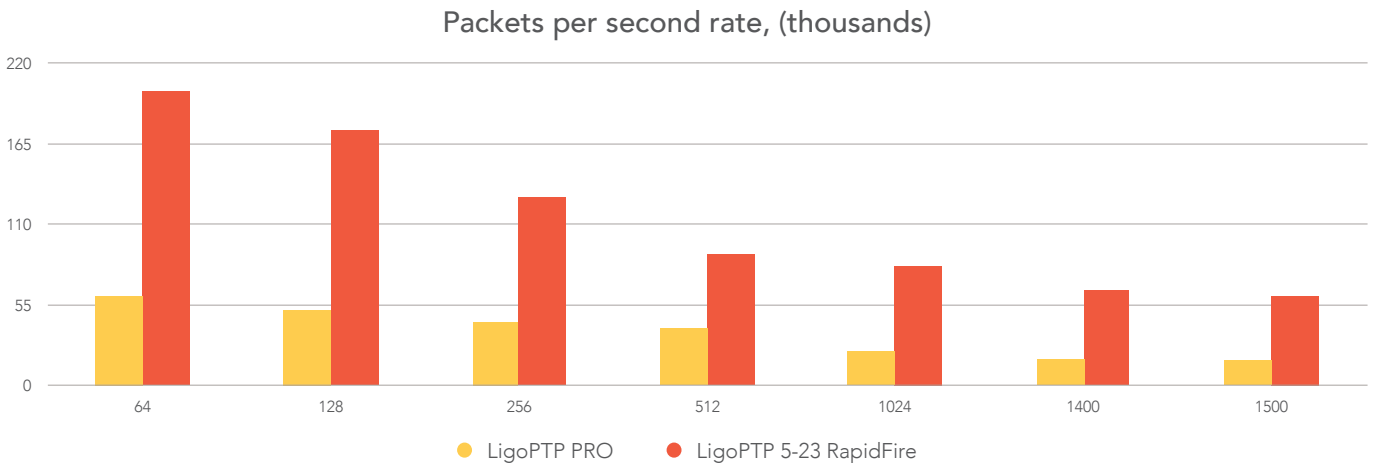
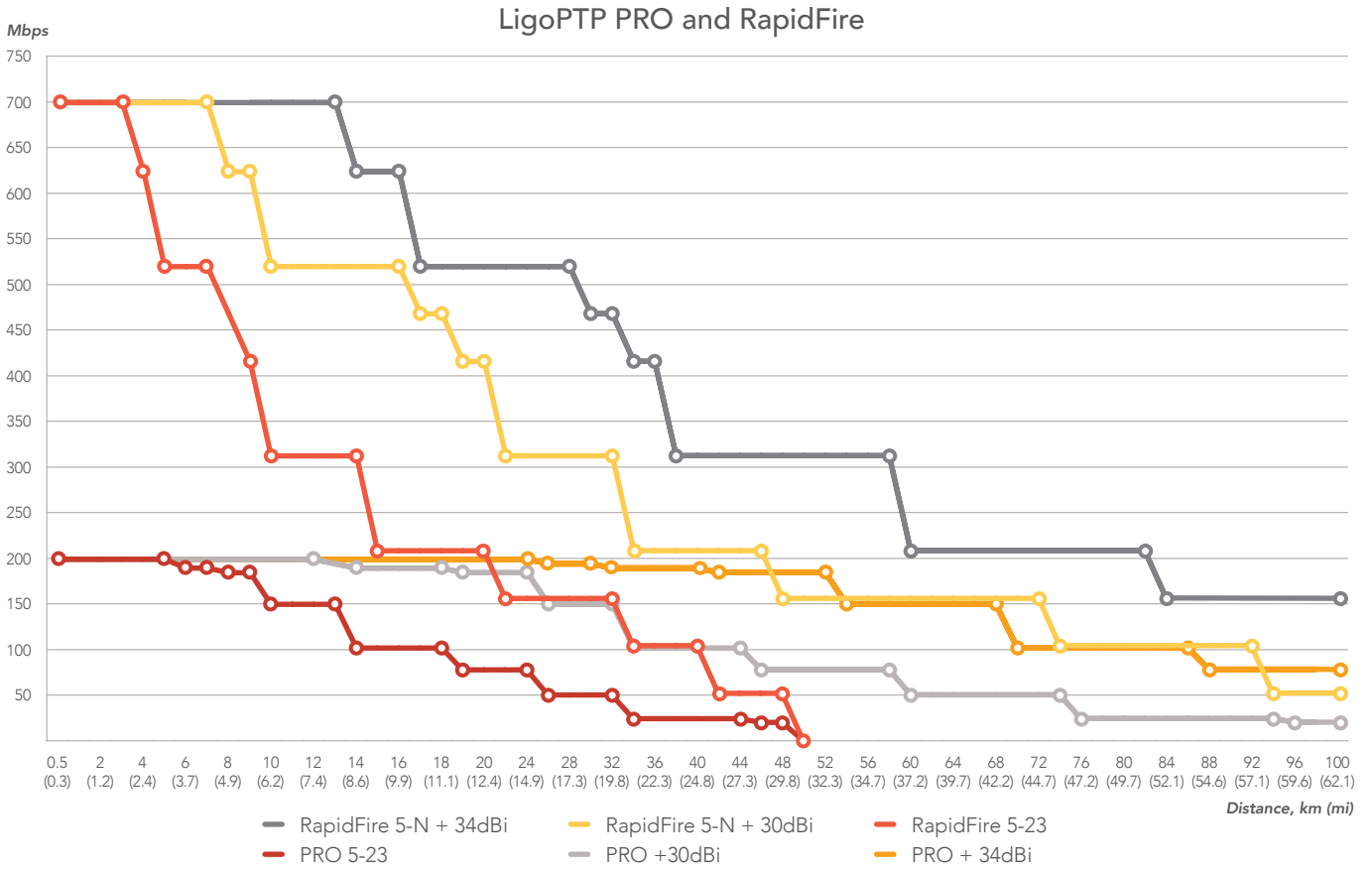
Product	LigoPTP PRO	LigoPTP 5-23 RapidFire
Role description	Professional unlicensed band wireless PTP link for long range backhaul applications	Ultra high capacity (700Mbps) new generation PTP equipment for the unlicensed band
Radio		
Frequency	4,780 – 6,300GHz*	4.9 – 6.1*
Channel size	20, 40MHz	5, 10, 20, 40, 80MHz
Duplexing	TDD	TDD
Stream	MIMO 2x2	MIMO 2x2
Wireless protocol	Proprietary W-Jet 2	Proprietary W-Jet 5
Protection	None	1+1***
Max output power	30dBm**	31dBm**
Modulation schemes	BPSK, QPSK, 16-QAM, 64-QAM	BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
Network		
Ethernet interface	10/100/1000 Base-T	2x 10/100/1000 Base-T
Aggregated data throughput	220Mbps	700Mbps
Antenna		
Type	Integrated dual pol directional panel; N-type connectors for external antenna	
Gain	23dBi	
Mounting		
Pole diameter	3 – 7cm 1.2 – 2.7in	1 – 12.4cm 0.39 – 4.88in
Tilting	+45°/-60°	+25°/-45°
Powering		
Method	PoE 802.3af	802.3af/at
Input voltage	+/-48VDC	+/-42 – 57VDC
Power consumption	8W	8.6W
Operating temperature	-40°C (-40°F) ~ +85°C (+185°F)	-40°C (-40°F) ~ +65°C (+149°F)

* Power is lower at frequency edges

** Country dependent

*** Available in future software release

Product comparison





LigoPTMP

The LigoPTMP series of devices are the next generation of point-to-multi-point wireless products dedicated to industrial and heavy-duty applications. LigoPTMP are extremely reliable and long-lasting solution suitable for a wide spectrum of capacity-demanding applications ranging from construction sites and racing tracks to seaports and oil fields. LigoPTMP comes with a durable metal enclosure, delivers high-speed performance, and allows for simplified deployment and configuration.

**Incredible performance
(Up to 600Mbps)**

Carrier-grade design

**Easy deployment and
configuration**

**Ideal for resource demanding
applications**

Product summary



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 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	4,900 – 5,850GHz (FCC: 4,940 – 4,990GHz, 5,150 – 5,250GHz, 5,725 – 5,850GHz)				
Channel size	5, 10, 20, 40, 80MHz				
Duplexing	TDD				
Stream	MIMO 2x2				
Wireless protocol	Proprietary W-Jet V				
Max output power	31dBm*		31dBm*		
Modulation schemes	BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM				
Network					
Ethernet interface	2x 10/100/1000 Base-T		10/100/1000 Base-T		
Aggregated data throughput	500Mbps				
Antenna					
Type	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	17dBi	Antenna dependent	20dBi	23dBi
Beamwidth horizontal	Antenna dependent	90°	Antenna dependent	10°	7°
Beamwidth vertical	Antenna dependent	12°	Antenna dependent	10°	9°
Mounting					
Pole diameter	1 – 12.4cm 0.39 – 4.88in				
Tilting	+25/–45°				
Powering					
Method	PoE 802.3af/at				
Input voltage	+/- 48VDC				
Power consumption	8.6W				

* Country dependent

LigoPTMP performance data

Distance																				
Channel	Base	CPE	0.5km			1km			2km			5km			8km			12km		
			CPE ×10	CPE ×20	CPE ×30	CPE ×10	CPE ×20	CPE ×30	CPE ×10	CPE ×20	CPE ×30	CPE ×10	CPE ×20	CPE ×30	CPE ×10	CPE ×20	CPE ×30	CPE ×10	CPE ×20	CPE ×30
40MHz	LigoBase 5-90	LigoSU 5-20	290	270	260	280	260	250	280	250	240	250	240	220	190	170	150	N/A	N/A	N/A
		LigoSU 5-23	290	270	260	280	260	250	280	250	240	260	250	240	250	220	200	190	170	150
80MHz	LigoBase 5-90	LigoSU 5-20	450	430	410	440	420	400	440	410	390	410	390	370	300	270	250	N/A	N/A	N/A
		LigoSU 5-23	450	430	410	440	420	400	440	410	390	420	410	390	330	300	280	260	230	200
40MHz	LigoBase 5N (20dBi)	LigoSU 5-N (15dBi)	290	270	260	270	250	240	200	180	160	180	160	140	N/A	N/A	N/A	N/A	N/A	N/A
		LigoSU 5-N (25dBi)	290	270	260	280	260	250	280	260	250	270	260	240	260	230	210	200	180	160
		LigoSU 5-N (30dBi)	290	270	260	280	260	250	280	260	250	270	260	240	260	240	220	240	220	200
80MHz	LigoBase 5N (20dBi)	LigoSU 5-N (15dBi)	450	430	410	430	410	390	260	240	220	240	220	200	N/A	N/A	N/A	N/A	N/A	N/A
		LigoSU 5-N (25dBi)	450	430	410	440	420	400	440	420	400	430	410	390	380	360	340	300	280	260
		LigoSU 5-N (30dBi)	450	430	410	440	420	400	440	420	400	430	410	390	400	380	360	370	350	330

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

LigoPTMP protocol: W-Jet V



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 2.4GHz indoor AP with two Ethernet ports and PoE pass-through	2.4GHz indoor AP with three Ethernet ports	2.4GHz 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 – 2,484GHz			2,402 – 2,484GHz; 5,170 – 5,875GHz		
Channel size	20, 40MHz			20, 40, 80MHz		
Stream	MIMO 2x2			DUAL MIMO 2x2	DUAL MIMO 3x3	DUAL MIMO 2x2
Wireless protocol	802.11b/g/n			802.11a/b/g/n/ac		
Max output power	31dBm*	28dBm*		27dBm*	29dBm*	
Receive sensitivity at 20MHz channel	-93dBm +/-2dB @BPSK -87dBm +/-2dB @QPSK -82dBm +/-2dB @16-QAM -76dBm +/-2dB @64-QAM	-90 dBm +/-2dB@BPSK -87 dBm +/-2dB@QPSK -82 dBm +/-2dB@16-QAM -76 dBm +/-2dB@64-QAM		-93dBm +/-2dB @BPSK -87dBm +/-2dB @QPSK -82dBm +/-2dB @16-QAM -76dBm +/-2dB @64-QAM	-93dBm +/-2dB @BPSK -87dBm +/-2dB @QPSK -82dBm +/-2dB @16-QAM -76dBm +/-2dB @64-QAM	
Antenna gain	3dBi	3dBi	3dBi	3dBi (2.4 and 5GHz)	5dBi (2.4 and 5GHz)	N - connectors for external antenna
Powering						
Method	Passive PoE; 4,5 pin (+) and 7,8 pin (-)		802.3af	802.3af/at		
Input voltage	12 – 24V		48V	37 – 56V		
Power consumption	4.5W	6.24W		14W	19W	

* Country dependent



Get your free account!

Infinity controller

The simplicity of use

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 manage 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.



LigoWave

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