LigoWave



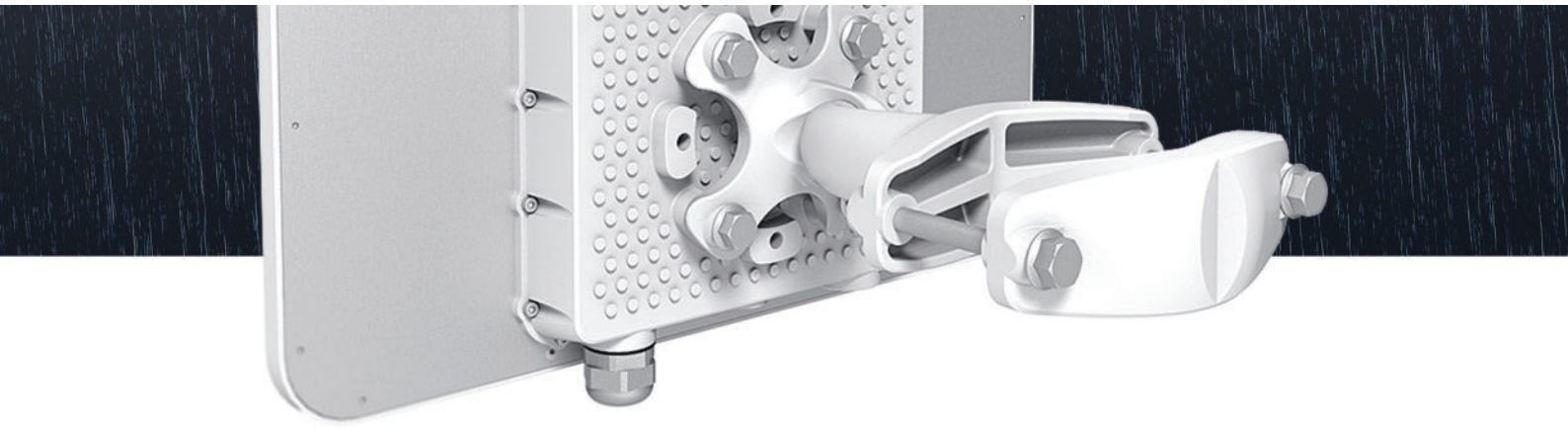
LigoDLB MACH 5 ac

5 GHz high-capacity wireless device

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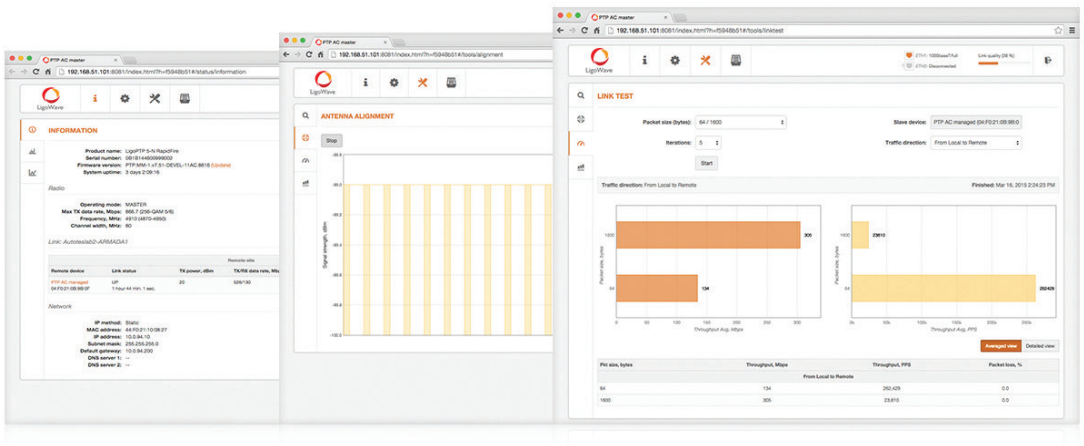
Incredible performance

500+ Mbps throughput - a result of powerful hardware platform with 802.11ac technology based radio and a proprietary data transmission protocol (iPoll). Incorporating a 720 MHz powerfull CPU, a iPoll3 / 11ac radio and 128Mbytes of RAM and 128Mbytes of flash memory, the LigoDLB ac series devices are an ideal solution for capacity demanding applications. State of the art RF design with great output power and sensitivity parameters improve range and capacity over highest the modulation - 256 QAM. The 48V Gigabit Ethernet port (802.3af) allows utilizing the full capacity of the radio when used in a point-to-point or point-to-multipoint network design. LigoDLB ac series devices are backwards compatible with LigoDLB devices using iPoll mode, which helps to expand or upgrade existing networks using the latest technologies over time.



Built to perform

LigoDLB MACH 5 ac is designed to provide maximum performance in any conditions. Metal IP standards rated enclosure not only protects from harsh weather conditions, but also allows using high-power radio for long distance links at the same time creating a shield for unwanted RF noise from nearby sources. Directional 23 dBi panel antenna makes this product ideal for medium to long range communication both in point to point and point to multipoint scenario. Such outstanding quality and flexibility makes this product ideal option for wireless bridging especially in mission critical connectivity applications requiring reliable data transmission.



Powerfull OS

The LigoDLB OS is a highly functional and easy to use operating system embedded in all LigoDLB hardware devices for effortless setup and trouble free operation. High performance (500 Mbps) allows offering more bandwidth together with additional services such as VoIP and IPTV. This is possible when using LigoWave's smart QoS mechanism and multi-cast traffic enhancements for triple play services. Such services are essential for all next generation service providers to complement their existing portfolios. iPoll, LigoWave's proprietary transmission protocol, ensures smooth performance with a high number of clients even in noisy environments.

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Specifications

Product/ distance recommendation	PTMP mode	PTP mode	PTP mode (full capacity)
LigoDLB MACH 5ac	12 km/ 7.45 mi	20 km/ 12.43 mi	5 km/ 3.15 mi

Wireless

WLAN standard	IEEE 802.11 a/n/ac, iPoll 3
Radio mode	MIMO 2x2
Radio frequency band	5.150 - 5.850 GHz (FCC 5.150 - 5.250 and 5.725 - 5.850 GHz)
Transmit power	Up to 30 dBm (country dependent)
Channel size	5, 10, 20, 40, 80 MHz
Modulation schemes	802.11 a/n: OFDM (64-QAM, 16-QAM, QPSK, BPSK) 802.11 ac: OFDM (256-QAM, 64-QAM, 16-QAM, QPSK, BPSK)
Data rates	802.11 ac @ 40 Mhz: 400, 360, 300, 270, 240, 180, 120, 90, 60, 30 Mbps 802.11 ac @ 80 Mhz: 866, 780, 650, 585, 520, 390, 260, 195, 130, 65 Mbps
Error correction	FEC, LDPC
Management	Time division duplex
Duplexing scheme	Time division duplex

40 MHz	Modulation, Mbps	400	360	300	270	240	180	120	90	60	30
	TX Power, dBm	26	27	28	29	30	30	30	30	30	30
	Receive sensitivity, dBm	-70	-72	-76	-78	-80	-84	-87	-92	-94	-95
80 MHz	Modulation, Mbps	866	780	650	585	520	390	260	195	130	65
	TX Power, dBm	24	25	25	26	27	28	28	29	29	29
	Receive sensitivity, dBm	-64	-66	-70	-72	-74	-78	-81	-85	-88	-90

Antenna

Type	Integrated dual-polarized directional panel antenna
Gain	23 dBi

Wired

Interface	10/100/1000 Base-T, RJ45 (802.3af)
Duplexing scheme	TDD

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Physical

Dimensions	Length 379 mm (14.9 ''), width 387 mm (15.2 ''), height 80 mm (3.15 '')
Weight	3.3 kg (7.3 lb)
Mounting	Combination, heavy duty wall / pole mount bracket included

Power

Power supply	37 - 56 VDC PoE 802.3af (AC to DC adapter included)
Power source	100 – 240 VAC
Power consumption (max)	10 W

Environmental

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

Management

System monitoring	SNMP v3, Syslog, Web UI, WNMS
Configuration	WebUi, WNSM

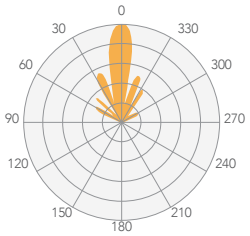
Regulatory

Certification	FCC/IC/CE

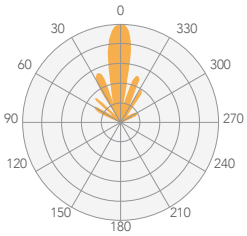
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Antenna specifications

V Pol

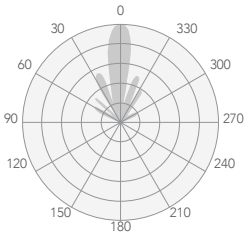


Azimuth

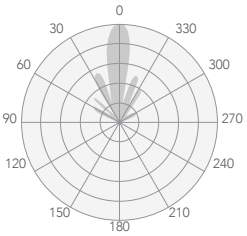


Elevation

H Pol



Azimuth



Elevation

Frequency range	5.1 - 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

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