



LigoDLB 5-90 ac

5GHz Base Station with Integrated Antenna

500 + Mbps

Incredible performance

500+ Mbps throughput - a result of powerful hardware platform with 802.11ac technology based radio and a proprietary data transmission protocol (iPoll 3). Incorporating a QCA 9563 CPU (750MHz), a QCA 9882 radio and 64MBytes of RAM and 16 MBytes 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 the highest modulation—256-QAM. The 24V Gigabit Ethernet port (passive PoE) allows utilizing the full capacity of the radio when used in a 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.



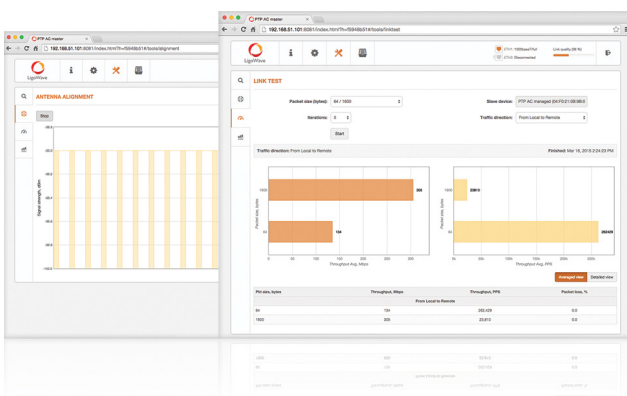
New form factor

The shape of the enclosure is now smaller, lighter and retains the IP-66 weather protection rating. Smaller packaging reduces freight costs and makes them less obvious. The new LigoDLB 5-90ac design has no metal parts, which makes them lighter and corrosion resistant.



New mounting

The adjustable mounting bracket is very easy to assemble and install. It consists of two easy to connect parts that allow tilting the device up and down when installing on a pole. A metal strap is included to securely tighten the device. This design includes additional reinforcements and thicker materials to ensure survival in extreme climate conditions.



Powerful 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 (500Mbps) allows offering more bandwidth together with additional services such as VoIP and IPTV. This is possible when using LigoWave's smart QoS mechanism and multicast traffic enhancements for triple play services. Such services are essential for all next generation service providers to complement their existing portfolios. iPoll 3, LigoWave's proprietary transmission protocol, ensures smooth performance with a high number of clients even in noisy environments.

Specifications

Product Name	LigoDLB 5-90ac
Coverage recommendation	5km/ 3.1mi

Wireless

WLAN standard	IEEE 802.11a/n/ac, iPoll 3
Radio mode	MIMO 2x2
Radio frequency band	5,150 - 5,850GHz (FCC 5,150 - 5,250 and 5,725 - 5,850GHz)
Transmit power	Up to 30dBm (country dependent)
Channel size	5, 10, 20, 40, 80MHz
Modulation schemes	802.11a/n: OFDM (64-QAM, 16-QAM, QPSK, BPSK) 802.11ac: OFDM (256-QAM, 64-QAM, 16-QAM, QPSK, BPSK)
Data rates	802.11ac @ 40MHz: 400, 360, 300, 270, 240, 180, 120, 90, 60, 30Mbps 802.11ac @ 80MHz: 866, 780, 650, 585, 520, 390, 260, 195, 130, 65Mbps
Error correction	FEC, LDPC
Duplexing scheme	Time division duplex

40MHz	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
80MHz	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 90 degree sector antenna
Gain	18dBi

Wired

Interface	10/100/1000 Base-T, RJ45
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Physical

Dimensions	380mm, 100mm, 35mm
Weight	0.460g
Mounting	Pole mounting bracket included

Power

Power supply	24VDC passive PoE (AC to 24VDC adapter is included in the package)
Power source	100 – 240VAC
Power consumption (max)	10W

Environmental

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

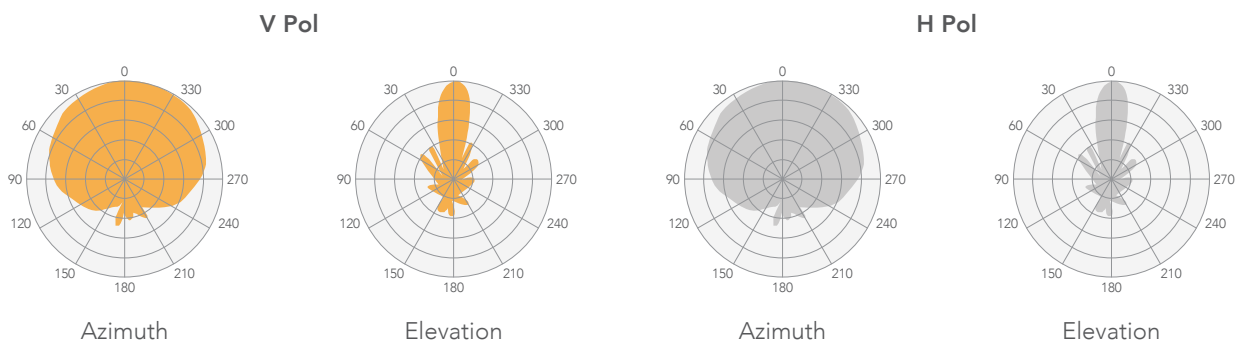
Management

System monitoring	SNMP, Syslog, Web UI, WNMS
Configuration	WebUI, WNMS

Regulatory

Certification	FCC/IC/CE
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Antenna specifications



Internal Antenna

Frequency range	5.1 – 5.9GHz
Gain	18dBi
Polarization	Dual linear
Cross-pol Isolation	24dBi
VSWR	<1.7
Azimuth beamwidth (H pol)	90deg
Azimuth beamwidth (V pol)	90deg
Elevation beamwidth	20deg



LigoDLB 5-15 ac

5 GHz high-capacity wireless device

500 + Mbps

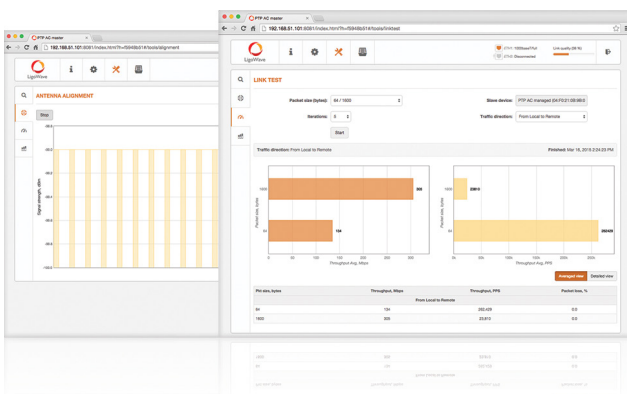
Incredible performance

500+ Mbps throughput - a result of powerful hardware platform with 802.11ac technology based radio and a proprietary data transmission protocol (iPoll). Incorporating a QCA 9563 CPU (750 MHz), a QCA 9882 radio and 64 MBytes of RAM and 16 MBytes of flash memory the, LigoDLB 5-15 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 the highest modulation - 256 QAM. The 24V Gigabit Ethernet port (passive PoE) 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.



New form factor

The shape of the enclosure is now smaller, lighter but retains the IP-65 weather protection rating. Smaller packaging reduces freight costs and makes them less obvious. The new design has no metal parts, which makes them lighter and corrosion resistant.



Powerful 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 multicast 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.

Specifications

Distance recommendation	PTMP mode (max)	PTP mode (max)
LigoDLB 5-15 ac	5 km/ 3.11 mi	7 km/ 4.35 mi

Wireless

WLAN standard	IEEE 802.11 a/n/ac, iPoll 3
Radio mode	MIMO 2x2
Radio frequency band	5 GHz models: 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
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
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	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	15 dBi

Wired

Interface	10/100/1000 Base-T, RJ45
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Physical

Dimensions	158 mm (6.2"), 97 mm (3.8"), 38 mm (1.5")
Weight	185 g (0.4 lb)
Mounting	Pole mounting bracket included

Power

Power supply	24 VDC passive PoE (AC to 24 VDC adapter is included in the package)
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)

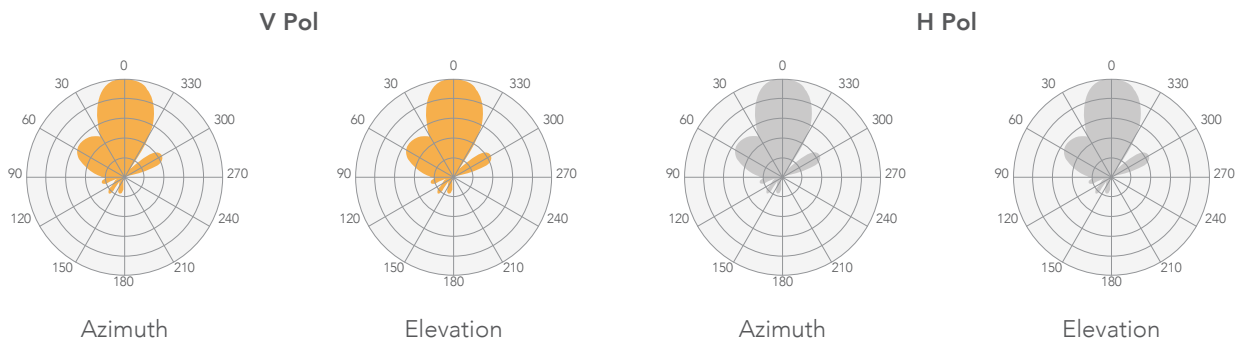
Management

System monitoring	SNMP, Syslog, Web UI, WNMS
Configuration	WebUI, WNMS

Regulatory

Certification	FCC/IC/CE
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Antenna specifications



Frequency range	5.1 - 5.9 GHz
Gain	15 dBi
Polarization	Dual linear
Cross-pol Isolation	21 dBi
VSWR	<1.4
Azimuth beamwidth (H pol)	35 deg
Azimuth beamwidth (V pol)	35 deg
Elevation beamwidth	35 deg



LigoWave

www.ligowave.com

LigoDLB 5-15 ac

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