



LigoDLB 6-20 ac

6GHz Wireless Outdoor Device



The 6GHz Generation

The LigoDLB 6 Series—an extension of the time-tested LigoDLB line of wireless data transfer devices—empowers users to deliver superb connectivity over 6GHz frequencies. The 6GHz band provides more leg room for all types of wireless networks, allowing users to find minimally crowded channels, experience less noise and interference, and achieve greater range and throughput.

500+
Mbps

Technical Description

Equipped with a 750MHz QCA 9563 CPU, a QCA 9882 radio, and 64MB RAM/16MB Flash Memory, the LigoDLB 6ac brings efficiency to the next level.

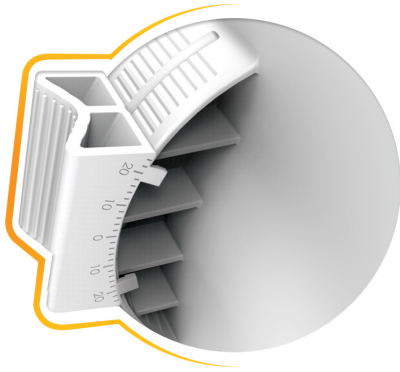
The state-of-the-art RF design supports external antennas over N-Connectors, thus ensuring great output power, providing improved range, and enabling high-capacity transmission over 256-QAM.

+500Mbps of throughput—the result of a powerful hardware platform with an 802.11ac technology-based radio and the LigoWave iPoll 3 Proprietary Protocol.



Small Form Factor

A small form factor means smaller packaging, which in turn reduces transportation costs and enables the devices to blend in better with the surroundings. Moreover, the DLB 6-20ac is designed with a non-metallic IP65 weatherproof exterior, making the device lighter and corrosion-resistant.



Innovative Mounting Bracket

The adjustable mounting bracket is very easy to assemble and install. It consists of two easy-to-connect parts that allow tilting and turning the device up, down, left, and right when installing on a pole.

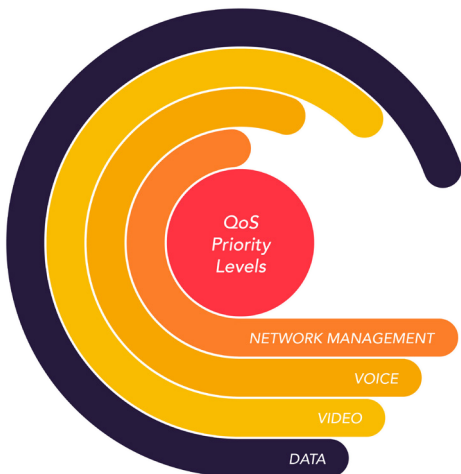
iPoll 3: Enhanced Performance Protocol

LigoWave's iPoll 3™ PTMP proprietary protocol is an innovative solution, eliminating transmission congestion and close-cluster interference created in wireless PTMP installations.

It works by having a DLB base station poll all connected DLB CPE within the network, after which the base station sends a data frame and a token to one CPE, signifying that it can now send a data frame back to the base station. The base station then waits for that one CPE to send a data frame, and only having successfully received it, moves on to poll all CPE and to perform the same process again.

The iPoll smart polling technology handles the activity of all connected equipment to ensure transmission efficiency by having DLB CPE that require less airtime listed as low activity or idle and having CPE that generate more traffic assigned to the active list.

This way, iPoll provides improved latency, avoids data traffic collisions, and allows more CPE to be connected to the base station simultaneously.



Quality of Service

The LigoDLB series is equipped with Quality of Service—a technology that prioritizes pre-tagged traffic based on type to ensure seamlessness and efficiency when delivering mission-critical data.

QoS sorts through four types of data: network management, voice, video, and data. Each type is assigned a priority level, meaning that certain data will be preferred and given more attention in the network during data transmission.

LigoDLB 6 devices provide QoS with L2 (CoS)/L3 (ToS/DSCP) and makes use of the weighted round robin (WRR) algorithm during the distribution of data, which makes sure that all types of data are sent in some proportional amount without packet loss.

Technical Specifications

| Distance Recommendations | PTMP mode | PTP mode |
|--------------------------|--------------|--------------|
| LigoDLB 6-20 ac | 10km/ 6.21mi | 15km/ 9.32mi |

Wireless

| | |
|----------------------|--|
| WLAN Standard | IEEE 802.11a/n/ac, iPoll 3 |
| Radio Mode | 2x2 MIMO |
| Radio Frequency Band | 6GHz Models: 5.9–6.4GHz |
| Transmit Power | Up to 30dBm (Country-Dependent) |
| Channel Size | 5, 10, 20, 40, 80MHz |
| 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, 30Mbps 802.11 ac @ 80 MHz: 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 | 23 | 24 | 25 | 26 | 27 | 28 | 28 | 29 | 29 | 30 |
| | Rx 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 | 23 | 24 | 25 | 26 | 27 | 28 | 28 | 29 | 29 | 30 |
| | Rx Sensitivity, dBm | -64 | -66 | -70 | -72 | -74 | -78 | -81 | -85 | -88 | -90 |

Antenna

| | |
|------|---|
| Type | Integrated Dual-Polarized Directional Panel Antenna |
| Gain | 20dBi |

Wired

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

Physical

| | |
|------------|---|
| Dimensions | Length 216mm (8.5"), Width 184mm (7.2"), Height 80mm (3.1") |
| Weight | 413g (0.91lb) |
| Mounting | Pole Mounting Bracket |

Power

| | |
|-----------------------|--|
| Power Supply | 24VDC Passive PoE (AC to 24VDC Adapter Included) |
| Power Source | 100–240VAC |
| Max Power Consumption | 10W |

Environmental

| | |
|-----------------------|--------------------------------|
| Operating Temperature | –40°C (–40°F) ~ +65°C (+149°F) |
| Humidity | 0~90% (Non-Condensing) |

Management

System Monitoring
Configuration

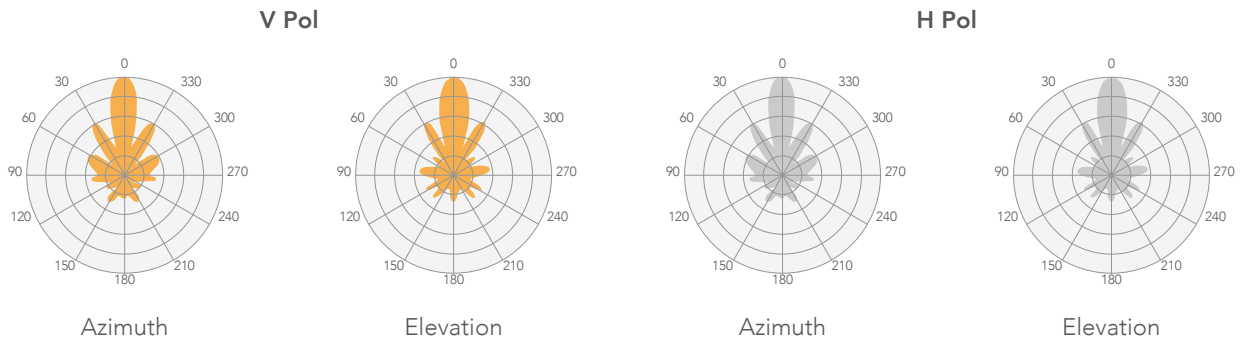
SNMP, Syslog, Web UI, WNMS
Web UI, WNMS

Regulatory

Certification

CE

Antenna Specifications



| | |
|---------------------------|--------------|
| Frequency Range | 5.85–6.45GHz |
| Gain | 20dBi |
| Polarization | Dual-Linear |
| Cross-Pol Isolation | 27dB |
| VSWR | <1.5 |
| Azimuth Beamwidth (H-pol) | 16° |
| Azimuth Beamwidth (V-pol) | 16° |
| Elevation Beamwidth | 16° |



LigoWave

www.ligowave.com

LigoDLB 6-20ac