

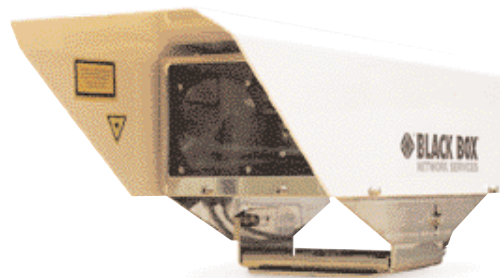


# BLACK BOX<sup>®</sup>

## NETWORK SERVICES

## LaserLink 200

*The low cost solution for point to point*



### Key Features

- ▶ Wire Speed Fast Ethernet (100 mbps Ethernet).
- ▶ Competitive pricing.
- ▶ Rapid installation and redeployment.
- ▶ Direct Ethernet twisted pair connection.
- ▶ Robust and weatherproof.
- ▶ Transmission monitoring.
- ▶ Licence free connection.

#### Overview

The LaserLink 200 from BLACK BOX sets a new standard for Free Space Optical transmission systems. The new, entry level model to the Black Box LaserLink product range, the LaserLink 200 provides a simple, and easy to install solution to laser based network interconnection up to 200 metres.

This new product incorporates a lightweight, compact mechanical design with a factory-set, optical system that uses laser light as a transmission medium.

#### The Alternative to Leased Lines

These precision units provide a means of linking two sites when it is cost prohibitive to lay cable or when it is physically impossible because of infrastructure such as railways, road or rivers. Using Laser technology the units enable a secure, high speed link to be established.

#### Simple To Install

Mains power and an Ethernet connection are all that is needed to get the units up and running. Even Mounting Brackets and fixings are included.

As with any Optical system, clear line of site between locations is required but Black Box will advise on the best location and method of mounting and installing your system and cables at very competitive rates.

#### Secure and Reliable

A major advantage of Laser based optical solutions is the inherent high security especially compared to radio links. The narrow angle of the beam makes it almost impossible to try to monitor covertly without detection. The transmission heads are precision engineered ensure reliable connection even in adverse weather conditions.

The laser transmission carries the data using a concentrated laser beam and a unique modulation technique is employed to ensure error free data transmission over distances up to 200 metres. The transparent and wire speed data transfer together with virtually zero latency assures easy integration of the system in all environments.

Because they use infra red light as transmission mediums the Black Box LaserLink systems do not require frequency licenses and the transmission is not affected by electro magnetic interference.

**Product description –  
The Complete Solution**

The LWU0200-TP comprises of two laser heads and two outdoor interconnection units and mounting brackets. The Laser heads are installed outdoors where a clear optical path exists between the two sites. Located near to head the outdoor connection unit (OIU) provides fast and easy interconnection between the Laser head and the cable coming from the network equipment. The OIU also houses the power supply and the network interface of the system. The power supply provides the low voltage power required to operate the laser head while the data port offers direct connectivity for standard network equipment.

The system contains a built in signal monitoring unit which features a visual signal strength indicator and LINK status information accessible at the rear of the head assembly.

**Investment Protection**

Industry standard network interfaces and a clear upgrade path for higher bandwidth protect the customer's investment in Black Box systems. The LaserLink systems also offer high levels of network flexibility due to their extremely fast and easy installation method, which makes them ideal to follow network topology changes.

**Applications**

- Replaces lower speed leased lines or radio links
- High bandwidth connection to the Internet
- High speed of LAN connections in Campus or Industrial environments.
- Suitable for temporary installations.
- Emergency backup to cable connections.

**Specifications**

**Connections**

LAN Interface: RJ-45

**Management**

- Indicators Power
- Optimum Link Level
- Receiver Saturation
- Receiver Status
- Dynamic signal level
- LED array

**Engine (Laser)**

Light Source:  
Laser Diode, 785 nm wavelength,  
Laser Diode Power:70mW (Class 3B)  
Detector: Si PIN  
Dynamic Range: – >25dB  
Beam Divergence: 0.5 – 15mrad  
Receiver Acceptance Angle: 8.5 mrad  
Range: Up to 200metres  
BER: <10<sub>-9</sub>

**Operating Environment**

Operating Temperature:  
–25 to + 60 Centigrade  
Storage Temperature:  
– 40 to + 80 Centigrade  
Humidity:  
95% Non Condensing Protection  
Rating:  
IP65 for Head and Outdoor Unit.

Power:  
230VAC, 50W Max  
Dimensions:  
160 x 110 x 350 mm  
Weight:  
2.5 Kg

**Ordering information**

**ITEM**

**CODE**

Product  
LaserLink 200 Twisted pair Ethernet .....LWU0200-TP

**Black Box Network Services - The world's largest network services company**

We are, with 25 years of experience, the world leader in network infrastructure services.

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