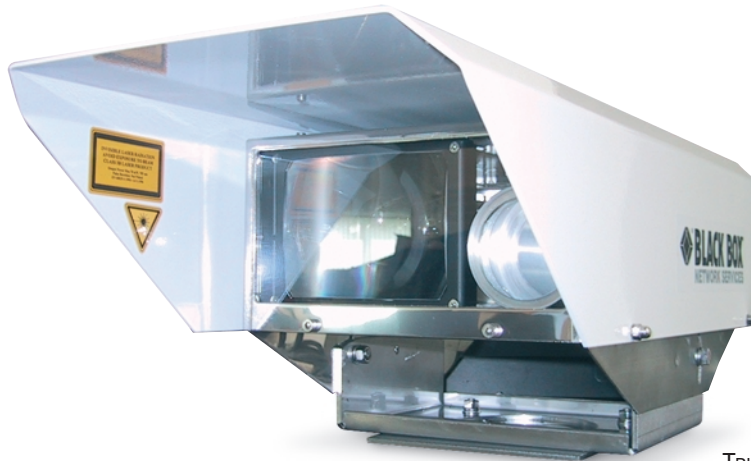




# BLACK BOX<sup>®</sup>

## NETWORK SERVICES

## GIGABIT LASERLINK RANGE



TRUE BACKBONE SPEEDS BETWEEN BUILDINGS

### Key Features

- ▶ **Licence free connection**
- ▶ **Full Duplex Gigabit Ethernet**
- ▶ **Wireless communication up to 2500 m**
- ▶ **Rapid Installation and redeployment**
- ▶ **Standard fibre connection**
- ▶ **Robust and waterproof**
- ▶ **Transmission monitoring**
- ▶ **Secure Data Transmission**
- ▶ **Competitive pricing**

The Gigabit LaserLink Range comprises four models offering the highest link speed and performance and integrity.

The 500,1000 and 2500 metre models employ multibeam technology with a new, state of the art feature of Automatic Inbound Power Control that guarantees outstanding link availability.

#### Fast and Cost Effective

This new generation LaserLink series of products from BLACK BOX, are designed to deliver easy-to-use and cost-effective wireless solutions for gigabit Ethernet backbone connection over long range. The applied technology is based on the highly successful compact mechanical design of the LaserLink Fast Ethernet series products. These attributes ensure not only the highest performance but also make them one of the best value FSOprouducts on the market. Because they use infrared light as their transmission medium, these Black Box systems do not require frequency licences, even at these

data rates. The transmission is not affected by electro-magnetic interference and the concentrated laser beam is extremely hard to tap, even to discover. The full duplex data transfer is transparent at full wire speed which, together with virtually zero latency, assures the easy integration of the system in all environments. A Black Box link is a virtual fibre in the air.

#### Complete Solution

The Black Box Gigabit LaserLink systems comprise of two Laser heads, two Outdoor Interconnection Units (OIU) and two sets of interconnection cables - one at each end. Even the mounting brackets are included.

The Laser Heads are installed outdoors, where a clear optical path exists between the two sites. Next to the head the Outdoor Interconnection Unit provides fast and easy interconnection between the laser head and the fibre optic cable coming from the network equipment. The OIU houses the Power Supply Unit (PSU) of the system and the network interface.

The PSU 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 which features a visual signal strength indicator accessible on the rear of the head assembly.

#### Investment Protection

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

## Applications

- Instant upgrades for lower speed leased lines or radio links.
- High bandwidth connection for Internet Service Providers.
- High speed LAN backbone connections.
- Voice over IP applications.
- Video over IP scenarios.
- Backbone connectivity in metropolitan or 3G wireless networks.
- Emergency backup for fibre connections.

## Specifications

### Connections —

LAN Interface: SX interface on SC connector, multimode fibre (850 nm)

**Management —** Indicators:  
Power Optimum Link Level,  
Receiver Saturation, Receiver Status,  
Dynamic signal level LED array.

### Range —

LWU0200GB-E: 200 metres  
LWU0500GB-E: 500 metres  
LWU1000GB-E: 1.000 metres  
LWU2500GB-E: 2.500 metres

### Engine (Laser) —

Light Source: Laser Diode,  
785 nm wavelength.

Laser Diode Power:  
1 x 25mW -LWU0200GB-E  
2 x 25mW -LWU0500GB-E  
4 x 25mW -LWU1000GB-E  
8 x 25mW -LWU2500GB-E

Detector: APD Photodiode.

Dynamic Range:  
LWU0200 - LWU1000GB-E > 30 dB,  
LWU2500GB-E: > 40 dB

Beam Divergence: 0.5 -15 mrad.

Receiver Acceptance Angle: 8.5 mrad.

Bandwidth: 1.25 Gbps.

BER: < 10<sup>-9</sup>

System Latency: < 50ns.

### Operating Environment —

Operating Temperature: -25 to +60° C

Storage Temperature: -40 to +80 ° C

Humidity: 95% non-condensing.

Protection Rating:

IP65 for Head and Outdoor Unit.

IP20 for indoor unit.

Power: 230VAC, 50W

Power to head: x x 12VDC, 2x1A max.

### Dimensions —

LWU0200GB-E:  
485 x 216 x 175 mm, weight 6.5 kg.

LWU0500GB-E:  
560 x 289 x 217 mm, weight 18 kg.

LWU1000GB-E:  
560 x 362 x 338 mm, weight 24 kg.

LWU2500GB-E:  
750 x 467 x 480 mm, weight 32 kg.

## Contact us worldwide:

**[www.blackbox.com](http://www.blackbox.com)**

or

[http://www.blackbox.com/Contact\\_Us/  
Contacts-by-country.aspx](http://www.blackbox.com/Contact_Us/Contacts-by-country.aspx)

## Ordering information

### ITEM

### CODE

Gigabit LaserLink 200 metres .....	LWU0200GB-E
Gigabit LaserLink 500 metres .....	LWU0500GB-E
Gigabit LaserLink 1000 metres .....	LWU1000GB-E
Gigabit LaserLink 2500 metres .....	LWU2500GB-E

## 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.

**On the Phone** — no charge, answer calls in less than 20 seconds, find the right product with our technical experts.

**On-site** — superior design and engineering, Certified installations, end-to-end service.

**On-line** — receive technical knowledge on-line, including technology overviews, Black Box Explains and the Knowledge Box.

**Most comprehensive TECHNICAL SUPPORT** — our best Product! Free hotline TECH SUPPORT!

**The world's best customer service** — Custom design services and products, the best warranties, money-saving discount programs.

**BLACK BOX exclusives** — Certification Plus. Guaranteed-for-life products and services.