



BLACK BOX[®]

NETWORK SERVICES

LASER LINK COMPACT SERIES

Key Features

- ▶ *New Industry Standard for Free Space Optics*
- ▶ *Wire Speed Fast Ethernet (100 Mbps)*
- ▶ *Competitive pricing compared to 2,4 GHz radios.*
- ▶ *Quick Installation and Redeployment*
- ▶ *RJ-45 STP Connection*
- ▶ *IEEE 802.3u compliant*
- ▶ *Transmission monitoring*

SPECIFICATIONS

Electrical Characteristics

Light source — GaA1As Laser Diode

Laser diode power (mW) — 70

Detector — SiPIN Photodiode

Dynamic range — >25 dB

Bandwidth — 100 Mbps

Data In/Out — 100BASE-TX RJ45

BER — Better than 10⁻⁹

System latency — 50 ns

Power

Power required — 110/230V AC

Optical Characteristics

Wavelength — 785 nm

Beam divergence — 20-70 mrad

Receiver acceptance angle — 2dgr

Physical Characteristics

Head Housing — Hardened aluminum

Weight (w. Alignment Unit) -2.5kg

Dimensions

(with cover and Alignment Unit)

— 160 x 110 x 350 mm

Environment

Operating temperature —

- 25 to + 60°C

Humidity — up to 95% non condensing

#81011



Wire speed laser at a competitive cost

OVERVIEW

The LaserLink Compact series of products from BLACK BOX sets a new standard for Free Space Optical transmission systems. The series provides a simple and easy to install solution that is unique in laser based networking.

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

LaserLink Compact is more competitively priced than 2.4 GHz radio, and its performance is at least hundred times faster. BLACK BOX's LaserLink Compact range offers cost effective, reliable and secure free space optical transmission for local area networks (LAN) at Fast Ethernet speed of 100 Mbps.

The transmission carries data using a concentrated laser beam and a unique modulation technique ensures error free data transfer over distances of up to 150 meter. Transparent and wire speed data transfer together with

virtually zero latency ensures that the LaserLink Compact system can be easily integrated into any environment. As with all BLACK BOX optical systems this means that frequency licenses are not required and transmission is unaffected by electromagnetic interference. Data transmission via a laser beam is secure as it is extremely hard to intercept, and cannot be detected by spectrum analysers. In the case of a LaserLink Compact system the laser link is considered a virtual fiber in the air which is then converted to electrical interfaces.

PRODUCT DESCRIPTION

The LaserLink Compact system comprises of two Laser Heads — one at each end of the link — and the supporting hardware. The Laser Heads are installed in or outdoors, usually on roof-tops or sidewalls of buildings, which have a clear line of sight between two locations. The LaserLink Compact links are available with a factory set,

operating range of either 10 -75m or 75-150m. The LaserLink Compact system is a standalone all-in-one solution, which requires no additional hardware for operation. The power supply is connected directly to the laser head, which features 100BaseTX interface for network connection.

Each LaserLink Compact head contains built-in transmission monitoring service. The Power On LED, Optical Link Status, Ethernet Link/Received Data and Optical Level indicators, provide useful information for troubleshooting. The Optical Level OK and Saturation indicators provide guidance for use during system installation.

INSTALLATION

The most important feature of BLACK BOX'S LaserLink Compact system is the quick and easy installation process available via our Network Services operations.

Ordering Information

Item	Code
LaserLink Compact series	
LaserLink Compact distance 10 - 75m	LWU075-TP
LaserLink Compact distance 75 - 150m	LWU0150-TP

The Complete Package

- > 2 Laser Heads
- > 2 Mounting brackets
- > 1 Manual (on CD)