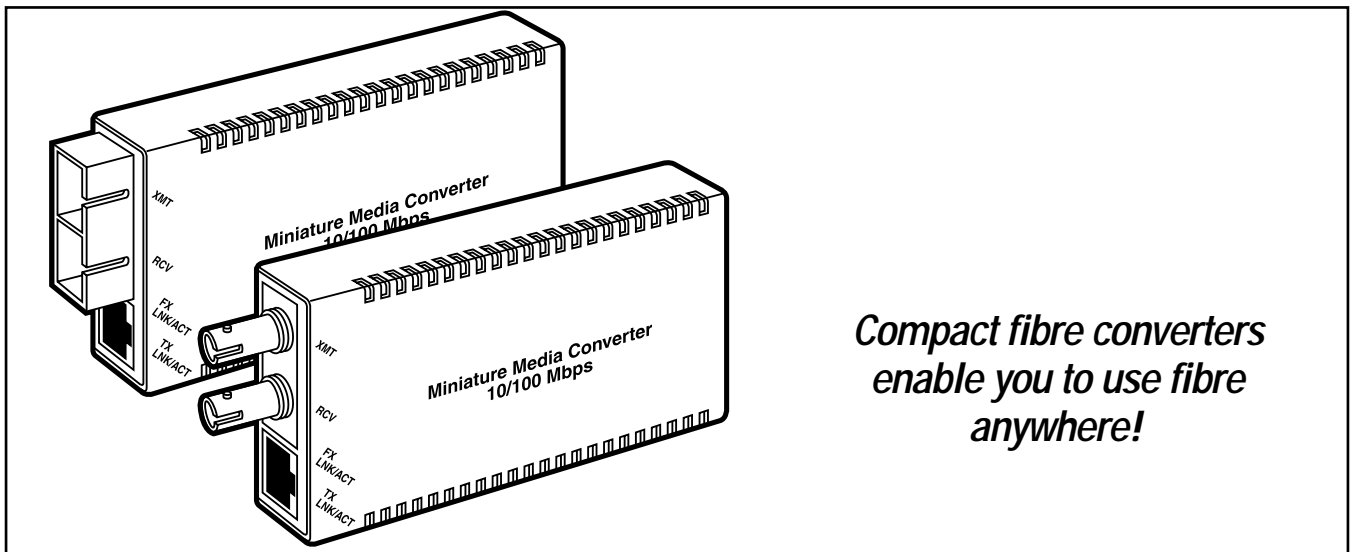


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# BLACK BOX<sup>®</sup>

## NETWORK SERVICES

### MINIATURE MEDIA CONVERTERS



*Compact fibre converters enable you to use fibre anywhere!*

#### Key Features

- ▶ **Connect 10- or 100-Mbps copper ports to fibre optic cable.**
- ▶ **Bring fibre to the desktop more economically than fibre NICs.**
- ▶ **Compact size makes them easy to fit in anywhere.**
- ▶ **Autonegotiating for speed and duplex.**
- ▶ **Powered from the USB port, from a universal AC power supply, or with the optional PowerTray.**

Now it's easier than ever to bring fibre into your network. Miniature Media Converters are easy to install—literally plug and play—tiny enough to fit in anywhere, and very economical.

Use them to bring fibre to the desktop or add fiber segments to your network to gain extra distance—up to 40 kilometres with single-mode fibre.

#### Autosensing

A Miniature Media Converter enables you to connect 10-Mbps and 100-Mbps twisted-pair network segments to fibre optic cabling. It's both a media and data rate converter with 10/100 autonegotiation on the twisted-pair port; the fibre port operates at 100 Mbps. This versatility enables you to use them with your 10BASE-T network now and use them with your 100BASE-TX network when you upgrade.

The converters also have an HDX/FDX function for half- and full-duplex autosensing.

#### Easy installation

Just connect a Miniature Media Converter to the RJ-45 connector on your PC's 10- or 100-Mbps Ethernet port using CAT5e cable, then connect fiber optic cable to the other side of the media converter. That's all there is to it!

Best of all, these tiny Miniature Media Converters tuck unobtrusively behind your PC.

#### Add distance

Multimode Fibre Miniature Media Converters support distances of up to 2 kilometres (1.2 miles)—enough distance for most LAN applications. For more extensive campus applications, choose Single-Mode Miniature Media Converters for long-

distance runs of up to 40 kilometres (24.8 miles).

#### Three power options

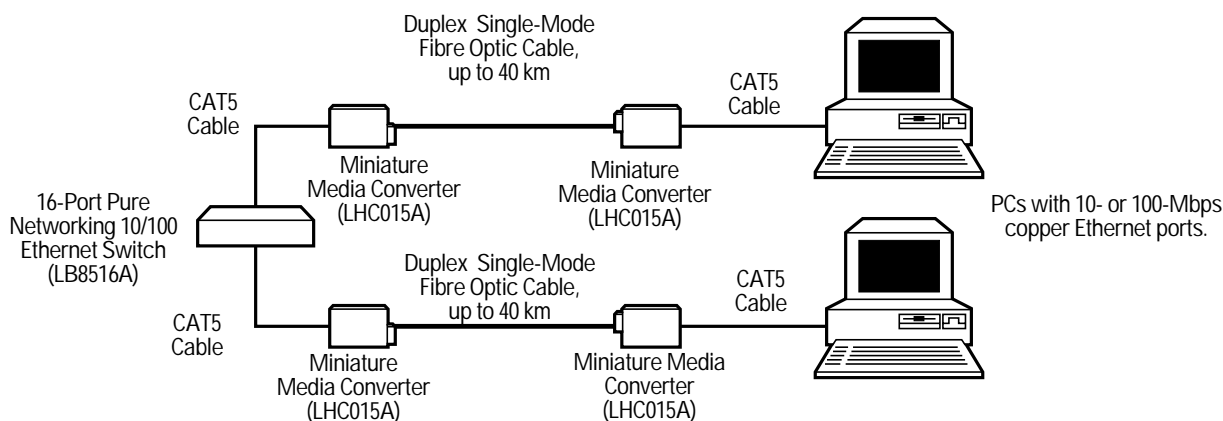
Miniature Media Converters can be powered in one of three ways: through an external AC power supply, through a USB power adapter, or through a rackmount PowerTray.

The Universal AC Power Supply is an external transformer power supply that requires a nearby AC power outlet.

The USB Power Adapter draws power from your PC's USB port. Because it doesn't require a nearby power outlet, the Miniature Media Converter is more convenient to use.

The PowerTray provides power for up to 18 converters in only 1.5U of rack space. Choose from a universal AC or a DC power supply. Rackmount ears are included.

# Extend up to 40 km with single-mode cable.



**Miniature Media Converters extend your 10/100BASE-T network beyond the 100-metre limit—perfect for connecting remote workstations.**

## Specifications

### Cable Requirements:

Twisted pair: CAT5 or above shielded or unshielded;  
Multimode fibre: 50/125- or 62.5/125- $\mu$ m duplex;  
Single-mode fibre: 9/125- $\mu$ m duplex

### Distance (Maximum):

Twisted pair: 100 m (328 ft.);  
Multimode fibre: 2 km (1.2 mi.);  
Single-mode fibre: 40 km (24.8 mi.)

### Standards:

IEEE 802.3 10BASE-T;  
IEEE 802.3u 100BASE-TX;  
IEEE 802.3u 100BASE-FX

### CE Approval:

Yes

### Connectors:

LHC012A–LHC013A,  
LHC016A: (1) RJ-45,  
(1) pair of ST<sup>®</sup>;  
LHC010A–LHC011A, LHC014A–  
LHC015A, LHC017A, LHC019A:  
(1) RJ-45, (1) pair of SC

### Indicators: LEDs:

Per twisted-pair port: (1) TX  
Link/ACT, (1) FX Link/ACT;  
Per fibre port: (1) XMT, (1) RCV

### Environmental: Temperature:

Operating: 32 to 104°F  
(0 to 40°C);  
Storage: 0 to 160°F  
(-18 to +71°C);  
Humidity: 5 to 95%,  
noncondensing

### Power:

LHC010A–LHC012A: From  
a USB interface, version 1.0 or  
above;  
LHC013A–LHC015A, LHC018A-AC:  
100–240 VAC, 50–60 Hz;  
LHC018A-DC: 48 VDC;  
LHC016A–LHC017A, LHC019A:  
Powered by the PowerTray  
chassis

### Size:

Media Converters: 0.8"H x  
1.8"W x 3.4"D (2 x 4.6 x 8.6 cm);  
PowerTrays: 2.3"H x 16.9"W x  
9.2"D (5.8 x 42.9 x 23.4 cm)

## Ordering Information

ITEM	CODE
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### Miniature Media Converters

Twisted Pair to Multimode Fibre, 1300-nm,  
Distances to 2 km  
with USB Power Adapter

ST .....LHC012A  
SC .....LHC010A

with Universal AC Power Supply

ST .....LHC013A  
SC .....LHC014A

without Power Supply (for use in PowerTray)

ST .....LHC016A  
SC .....LHC017A

Twisted Pair to Single-Mode Fibre, 1310-nm,  
Distances to 40 km, SC

with USB Power Adapter .....LHC011A

with Universal AC Power Supply .....LHC015A

without Power Supply  
(for use in PowerTray) .....LHC019A

### To rackmount your Miniature Media Converters, order...

#### PowerTrays for Miniature Media Converters

AC Power .....LHC018A-AC  
DC Power .....LHC018A-DC

### You may also need...

GigaBase<sup>®</sup> 350 CAT5e Patch Cable, 4-Pair, Straight-  
Pinned, PVC, 10-ft. (3-m) .....EVNSL85-0010

Multimode Duplex Fibre Optic Cable, PVC, ST–ST,  
Custom Lengths .....EFN062-CC

Single-Mode Duplex Fibre Optic Cable, PVC, SC–SC,  
Custom Lengths .....EFN5010