

Pure Networking Media Converters

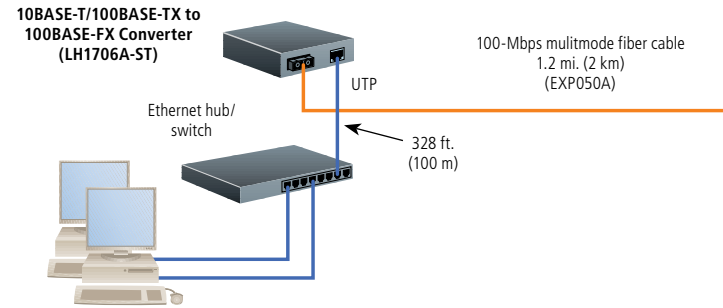
Media converters for every
twisted-pair to fiber optic
connection you can imagine—
at an incredibly affordable price!



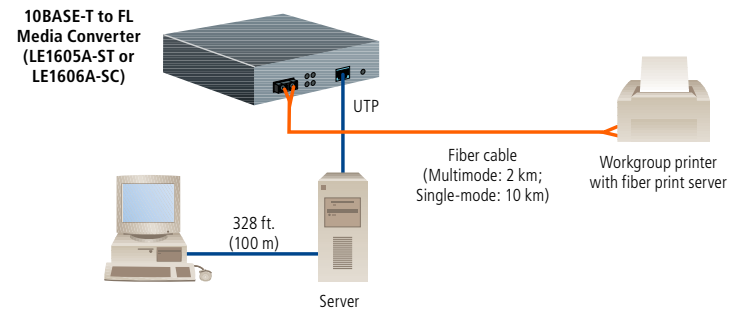
FEATURES

- » Extremely affordable media conversion!
- » Wide variety of interfaces available for half- or full-duplex operation.
- » Compatible power supplies available for the United States, Europe, the United Kingdom, Australia, and Japan.
- » Most models don't need to be used in pairs.
- » FREE 24/7/365 Tech Support.

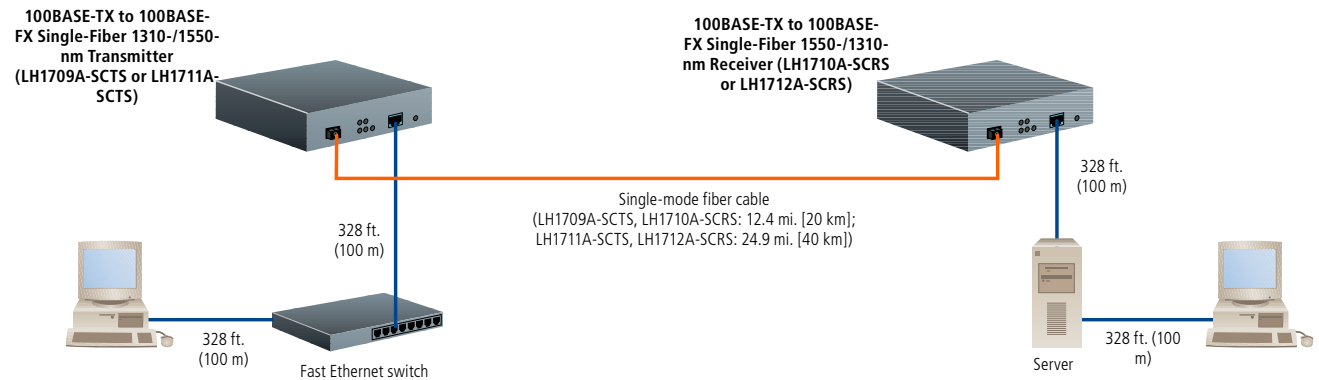
Use the 10-/100-Mbps Twisted-Pair to 100BASE-FX Fiber Optic Media Converter to convert from UTP to fiber.



Connect a 10BASE-T network and a 10BASE-FL device via a 10BASE-T to 10BASE-FL Converter.



Use a 100BASE-TX to 100BASE-FX Media Converter Transmitter and Receiver to connect a LAN switch and a network server over one strand of single-mode fiber optic cable.



OVERVIEW

No tech's tool kit is complete without a handful of Pure Networking™ Media Converters from Black Box. At our low prices, there's no reason not to have a stockpile of them on hand.

These basic media converters feature a sturdy, solid construction. And their dependability makes them one of Tech Support's favorite products.

Our Pure Networking Media Converters cover a wide range of interfaces. The guide on **page 4** will help you select the media converter that's right for your application. Available models include:

10-Mbps Twisted Pair to 10-Mbps Fiber Optic

- 10BASE-T to 10BASE-FL Media Converter (LE1605A-ST, LE1606A-SC)

10/100-Mbps Twisted Pair to 100-Mbps Fiber Optic

- 10BASE-T/100BASE-TX to 100BASE-FX Media Converter (LH1706A-SC or LH1706A-ST, LH1707A-SC, LH1708A-SC)

100-Mbps Twisted Pair to 100-Mbps Fiber Optic

- 100BASE-TX to 100BASE-FX Media Converter (LH1700A-SC or LH1700A-ST, LH1701A-SC, LH1702A-SC)

100-Mbps Twisted Pair to 100-Mbps Single-Strand Fiber Optic

- 100BASE-TX to 100BASE-FX Media Converter Transmitters and Receivers (LH1709A-SCTS, LH1710A-SCRS, LH1711A-SCTS, LH1712A-SCRS)

NOTE: Australian versions of LH1709A-SCTS and LH1710A-SCRS are not available.

1000-Mbps Twisted Pair to 1000-Mbps Fiber Optic

- 1000BASE-T to 1000BASE-SX/LX Media Converters (LGC1713A-SX-US, LGC1713A-LX-US)

Each model comes with the correct power supply for your country. Choose the media converter that's right for your application (see the Buyer's Guide on **page 4**). This chart compares the features of the available models. Nearly all models listed are available in a version for your country (United States, Europe, United Kingdom, Australia, or Japan). For specific codes, see **page 6**.

If you have any additional questions about the converters, Tech Support is only a phone call away.

Buyer's Guide, Tech Specs, and Code List,
pp. 4–6.



Why Buy From Black Box? Exceptional Value. Exceptional Tech Support. Period.

Recognize any of these situations?

- You wait more than 30 minutes to get through to a vendor's tech support.
- The so-called "tech" can't help you or gives you the wrong answer.
- You don't have a purchase order number and the tech refuses to help you.
- It's 9 p.m. and you need help, but your vendor's tech support line is closed.

According to a survey by *Data Communications* magazine, 90% of network managers surveyed say that getting the technical support they need is extremely important when choosing a vendor. But even though network managers pay anywhere from 10 to 20% of their overall purchase price for a basic service and support contract, the technical support and service they receive falls far short of their expectations—and certainly isn't worth what they paid.

At Black Box, we guarantee the best value and the best support. You can even consult our Technical Support Experts before you buy if you need help selecting just the right component for your application. Don't waste time and money—call Black Box today.

Buyer's Guide | Pure Networking Media Converter Models

Part Number	Media Converted	Maximum Distance (Coax or Fiber Segment)	MDI/MDI-X	N-Way Auto-negotiation	Indicators	Operation	Link Fault Signaling/ Loopback	Must Use in Pairs?
LE1605A-ST	10BASE-T to MM 10BASE-FL 850 nm	1.2 mi. (2 km)	Push button	No	(1) PWR, (2) LNK, (2) RCV	Half-duplex	No	No
LE1606A-SC	10BASE-T to SM 10BASE-FL 1300 nm	6.2 mi. (10 km)	Push button	No	(1) PWR, (2) LNK, (2) RCV	Half-duplex	No	No
LH1700A-SC	100BASE-TX to MM 100BASE-FX SC	1.2 mi. (2 km)	Push button	Switch	(1) PWR, (2) LNK, (2) RCV, (1) FD	Half-or full-duplex	No	No
LH1700A-ST	100BASE-TX to MM 100BASE-FX ST	1.2 mi. (2 km)	Push button	Switch	(1) PWR, (2) LNK, (2) RCV, (1) FD	Half- or full-duplex	No	No
LH1701A-SC	100BASE-TX to SM 100BASE-FX SC	9.3 mi. (15 km)	Push button	Switch	(1) PWR, (2) LNK, (2) RCV, (1) FD	Half- or full-duplex	No	No
LH1702A-SC	100BASE-TX to SM 100BASE-FX SC	18.6 mi. (30 km)	Push button	Switch	(1) PWR, (2) LNK, (2) RCV, (1) FD	Half- or full-duplex	No	No
LH1706A-SC	10/100BASE-TX to MM 100BASE-FX SC	1.2 mi. (2 km)	Auto MDI via RJ-45 connector	Auto 10/100 via RJ-45 connector	(1) PWR, (2) LNK/ACT, (2) FDX/COL, (1) 100	Half- or full-duplex via switch	No	No
LH1706A-ST	10/100BASE-TX to MM 100BASE-FX ST	1.2 mi. (2 km)	Auto MDI via RJ-45 connector	Auto 10/100 via RJ-45 connector	(1) PWR, (2) LNK/ACT, (2) FDX/COL, (1) 100	Half- or full-duplex via switch	No	No
LH1707A-SC	10/100BASE-TX to SM 100BASE-FX SC	9.3 mi. (15 km)	Auto MDI via RJ-45 connector	Auto 10/100 via RJ-45 connector	(1) PWR, (2) LNK/ACT, (2) FDX/COL, (1) 100	Half- or full-duplex via switch	No	No
LH1708A-SC	10/100BASE-TX to SM 100BASE-FX SC	18.6 mi. (30 km)	Auto MDI via RJ-45 connector	Auto 10/100 via RJ-45 connector	(1) PWR, (2) LNK/ACT, (2) FDX/COL, (1) 100	Half- or full-duplex via switch	No	No
LH1709A-SCTS	100BASE-TX to 100BASE-FX Single-Fiber (SC) 1310-/1550-nm Transmitter	12.4 mi. (20 km)	Push button	Switch	(1) PWR, (2) LNK, (2) RCV, (1) FD	Half- or full-duplex	No	Yes, with the LH1710A- SCRS Receiver
LH1710A-SCRS	100BASE-TX to 100BASE-FX Single-Fiber (SC) 1550-/1310-nm Receiver	12.4 mi. (20 km)	Push button	Switch	(1) PWR, (2) LNK, (2) RCV, (1) FD	Half- or full-duplex	No	Yes, with the LH1709A- SCTS Transmitter
LH1711A-SCTS	100BASE-TX to 100BASE-FX Single-Fiber (SC) 1310-/1550-nm Transmitter	24.9 mi. (40 km)	Push button	Switch	(1) PWR, (2) LNK, (2) RCV, (1) FD	Half- or full-duplex	No	Yes, with the LH1712A- SCRS Receiver
LH1712A-SCRS	100BASE-TX to 100BASE-FX Single-Fiber (SC) 1550-/1310-nm Receiver	24.9 mi. (40 km)	Push button	Switch	(1) PWR, (2) LNK, (2) RCV, (1) FD	Half- or full-duplex	No	Yes, with the LH1711A- SCTS Transmitter
LGC1713A-SX-US	1000BASE-T to 1000BASE-SX Multimode (SC) 1310 nm	721.8 ft. (220 m)	Automatic	No	(1) PWR, (2) LNK, (2) RCV, (1) FD	Full-duplex	No	No
LGC1713A-LX-US	1000BASE-T to 1000BASE-LX Single-Mode (SC) 1550 nm	6.2 mi. (10 km)	Automatic	No	(1) PWR, (2) LNK, (2) RCV, (1) FD	Full-duplex	No	No

TECH SPECS

All models:

Temperature Tolerance —

Operating: 32 to 158°F (0 to 70°C);
Storage: -4 to +158°F (-20 to +70°C)

Relative Humidity —

Operating: Up to 80%, noncondensing;
Storage: Up to 90%, noncondensing

Weight — 0.3 lb. (0.1 kg)

LE1605A-ST, LE1606A-SC:

Standards — IEEE 802.3

Operation — Half-duplex

Maximum Distance — UTP: 328 ft. (100 m);

Fiber: LE1605A-ST: 1.2 mi. (2 km)
850-nm multimode;
LE1606A-SC: 6.2 mi. (10 km)
1300-nm single mode

User Controls — (1) Push button for MDI/MDI-X connection

Connectors — LE1605A-ST: (1) RJ-45, (2) ST®,

(1) barrel connector for Power;
LE1606A-SC: (1) RJ-45, (2) SC,
(1) barrel connector for Power

Indicators — (5) LEDs: (2) LNK, (2) RCV, (1) PWR

Power — External power supply: Output:

12 VDC @ 0.8 A;

LE1605A-ST-US, LE1606A-SC-US:

Input: 120 VAC, 60 Hz (2-prong);

LE1605A-ST-EU, LE1606A-SC-EU:

Input: 230 VAC, 50 Hz (2-prong);

LE1605A-ST-UK, LE1606A-SC-UK:

Input: 230 VAC, 50 Hz (3-prong);

LE1605A-ST-AU, LE1606A-SC-AU:

Input: 240 VAC, 50 Hz (3-prong);

LE1605A-ST-JP, LE1606A-SC-JP:

Input: 100 VAC, 50/60 Hz (2-prong)

Size — 0.9" H x 2.9" W x 4.9" D

(2.3 x 7.4 x 12.4 cm)

LH1700A-SC, LH1700A-ST, LH1701A-SC, LH1702A-SC:

Standards — IEEE 802.3u 100BASE-TX/ 100BASE-FX

Operation — Half- or full-duplex

Maximum Distance —

UTP: 328 ft. (100 m);

Fiber: LH1700A-SC, LH1700A-ST: 1.2 mi. (2 km)

over multimode fiber optic cable;

LH1701A-SC: 9.3 mi. (15 km) over single-

mode fiber optic cable;

LH1702A-SC: 18.6 mi. (30 km)

over single-mode fiber optic
cable

User Controls — (1) Push button for MDI/MDI-X connection;

(1) ON/OFF N-Way switch for autonegotiating speed and duplex operation

Connectors — LH1700A-ST: (1) RJ-45, (2) ST,

(1) barrel connector for Power;

LH1700A-SC, LH1701A-SC, LH1702A-SC:

(1) RJ-45, (2) SC, (1) barrel connector

for Power

Indicators — (6) LEDs: (2) LNK, (2) RCV, (1) FD, (1) PWR

Power — External power supply: Output: 12 VDC @ 0.8 A;

LH1700A-SC-US, LH1700A-ST-US, LH1701A-SC-

US, LH1702A-SC-US: Input: 120 VAC, 60 Hz

(2-prong);

LH1700A-SC-EU, LH1700A-ST-EU, LH1701A-SC-

EU, LH1702A-SC-EU: Input: 230 VAC, 50 Hz

(2-prong);

LH1700A-SC-UK, LH1700A-ST-UK, LH1701A-

SC-UK, LH1702A-SC-UK: Input: 230 VAC,

50 Hz (3-prong);

LH1700A-SC-AU, LH1700A-ST-AU,

LH1701A-SC-AU, LH1702A-SC-AU: Input:

240 VAC, 50 Hz (3-prong);

LH1700A-SC-JP, LH1700A-ST-JP, LH1701A-SC-JP,

LH1702A-SC-JP: Input: 100 VAC, 50/60 Hz

(2-prong)

Size — 0.9" H x 2.9" W x 4.3" D

(2.3 x 7.4 x 10.9 cm)

LH1706A-SC, LH1706A-ST, LH1707A-SC, LH1708A-SC:

Standards — IEEE 802.3 10BASE-T and IEEE 802.3u 100BASE-TX/100BASE-FX

Operation — Half- or full-duplex

Maximum Distance —

UTP: 328 ft. (100 m);

Fiber: LH1706A-SC, LH1706A-ST: 1.2 mi. (2 km)

over multimode fiber optic cable;

LH1707A-SC: 9.3 mi. (15 km) over single-

mode fiber optic cable;

LH1708A-SC: 18.6 mi. (30 km)

over single-mode fiber optic

cable

User Controls — (1) DIP switch for half- or full duplex operation

Connectors — LH1706A-ST: (1) RJ-45,

(2) ST, (1) barrel connector for Power;

LH1706A-SC, LH1707A-SC, LH1708A-SC:

(1) RJ-45, (2) SC, (1) barrel connector for

Power

Indicators — (6) LEDs: (2) LNK/ACT, (2) FDX/COL, (1) 100, (1) PWR

Power — External power supply: Output: 12 VDC @ 0.8 A;

LH1706A-SC-US, LH1706A-ST-US,

LH1707A-SC-US, LH1708A-SC-US:

Input: 120 VAC, 60 Hz (2-prong);

LH1706A-SC-EU, LH1706A-ST-EU,

LH1707A-SC-EU, LH1708A-SC-EU:

Input: 230 VAC, 50 Hz (2-prong);

LH1706A-SC-UK, LH1706A-ST-UK,

LH1707A-SC-UK, LH1708A-SC-UK:

Input: 230 VAC, 50 Hz (3-prong);

LH1706A-SC-AU, LH1706A-ST-AU,

LH1707A-SC-AU, LH1708A-SC-AU:

Input: 240 VAC, 50 Hz (3-prong);

LH1706A-SC-JP, LH1706A-ST-JP, LH1707A-SC-JP,

LH1708A-SC-JP: Input: 100 VAC, 50/60 Hz

(2-prong)

Size — LE1706A-ST: 0.9" H x 2.9" W x 4.9" D

(2.3 x 7.4 x 12.4 cm);

LE1706A-SC, LE1707A-SC, LE1708A-SC:

0.9" H x 2.9" W x 4.8" D (2.3 x 7.4 x 12.2 cm)

LH1709A-SCTS, LH1710A-SCRS, LH1711A-SCTS, LH1712A-SCRS:

Standards — IEEE 802.3u 100BASE-TX/ 100BASE-FX

Operation — Half- or full duplex

Maximum Distance —

UTP: 328 ft. (100 m);

Fiber: LH1709A-SCTS, LH1710A-SCRS: 12.4 mi.

(20 km) over a single strand of single-

mode fiber optic cable;

LH1711A-SCTS, LH1712A-SCRS: 24.9 mi.

(40 km) over a single strand of single-

mode fiber optic cable

User Controls — (1) Push button for MDI/MDI-X connection;

(1) ON/OFF N-Way switch for autonegotiating

speed and duplex operation

Connectors — (1) RJ-45, (1) SC, (1) barrel connector for Power

Indicators — (6) LEDs: (2) LNK, (2) RCV, (1) FD, (1) PWR



LH1701A-SC-US

Item	Code	Item	Code
Pure Networking 10BASE-T Media Converters to 10BASE-FL Multimode, 850-nm, ST, 2 km		Pure Networking 100BASE-TX Media Converters (continued) to 100BASE-FX Multimode, 1300-nm, SC, 2 km	
United States	LE1605A-ST-US	United States	LH1700A-SC-US
Europe	LE1605A-ST-EU	Europe	LH1700A-SC-EU
United Kingdom	LE1605A-ST-UK	United Kingdom	LH1700A-SC-UK
Australia	LE1605A-ST-AU	Australia	LH1700A-SC-AU
Japan	LE1605A-ST-JP	Japan	LH1700A-SC-JP
to 10BASE-FL Single-Mode, 1300-nm, SC, 10 km		to 100BASE-FX Single-Mode, 1310-nm, 15 km	
United States	LE1606A-SC-US	United States	LH1701A-SC-US
Europe	LE1606A-SC-EU	Europe	LH1701A-SC-EU
United Kingdom	LE1606A-SC-UK	United Kingdom	LH1701A-SC-UK
Australia	LE1606A-SC-AU	Australia	LH1701A-SC-AU
Japan	LE1606A-SC-JP	Japan	LH1701A-SC-JP
Pure Networking 10BASE-T/100BASE-TX Media Converters to 100BASE-FX Multimode, 1310-nm, ST, 2 km		to 100BASE-FX Single-Mode, 1300-nm, 30 km	
United States	LH1706A-ST-US	United States	LH1702A-SC-US
Europe	LH1706A-ST-EU	Europe	LH1702A-SC-EU
United Kingdom	LH1706A-ST-UK	United Kingdom	LH1702A-SC-UK
Australia	LH1706A-ST-AU	Australia	LH1702A-SC-AU
Japan	LH1706A-ST-JP	Japan	LH1702A-SC-JP
to 100BASE-FX Multimode, 1310-nm, SC, 2 km		Pure Networking WDM (Single-Fiber) Media Converters	
United States	LH1706A-SC-US	100BASE-TX to 100BASE-FX Single-Fiber	
Europe	LH1706A-SC-EU	1310-nm/1550-nm Transmitter, SC, 20 km	
United Kingdom	LH1706A-SC-UK	(NOTE: Must be used with LH1710A-SCRS.)	
Australia	LH1706A-SC-AU	United States	LH1709A-SCTS-US
Japan	LH1706A-SC-JP	Europe	LH1709A-SCTS-EU
to 100BASE-FX Single-Mode, 1310-nm, SC, 15 km		United Kingdom	LH1709A-SCTS-UK
United States	LH1707A-SC-US	Japan	LH1709A-SCTS-JP
Europe	LH1707A-SC-EU	1550-nm/1310-nm Receiver, SC, 20 km	
United Kingdom	LH1707A-SC-UK	(NOTE: Must be used with LH1709A-SCTS.)	
Australia	LH1707A-SC-AU	United States	LH1710A-SCRS-US
Japan	LH1707A-SC-JP	Europe	LH1710A-SCRS-EU
to 100BASE-FX Single-Mode, 1310-nm, SC, 30 km		United Kingdom	LH1710A-SCRS-UK
United States	LH1708A-SC-US	Japan	LH1710A-SCRS-JP
Europe	LH1708A-SC-EU	1310-nm/1550-nm Transmitter, SC, 40 km	
United Kingdom	LH1708A-SC-UK	(NOTE: Must be used with LH1712A-SCRS.)	
Australia	LH1708A-SC-AU	United States	LH1711A-SCTS-US
Japan	LH1708A-SC-JP	Europe	LH1711A-SCTS-EU
Pure Networking 100BASE-TX Media Converters to 100BASE-FX Multimode, 1300-nm, ST, 2 km		United Kingdom	LH1711A-SCTS-UK
United States	LH1700A-ST-US	Australia	LH1711A-SCTS-AU
Europe	LH1700A-ST-EU	Japan	LH1711A-SCTS-JP
United Kingdom	LH1700A-ST-UK	1550-nm/1310-nm Receiver, SC, 40 km	
Australia	LH1700A-ST-AU	(NOTE: Must be used with LH1711A-SCTS.)	
Japan	LH1700A-ST-JP	United States	LH1712A-SCRS-US
		Europe	LH1712A-SCRS-EU
		United Kingdom	LH1712A-SCRS-UK
		Australia	LH1712A-SCRS-AU
		Japan	LH1712A-SCRS-JP
		Pure Networking 1000BASE-T Media Converters to 1000BASE-SX Multimode, 1310-nm, SC, 220 m	
			LGC1713A-SX-US
		to 1000BASE-LX Single-Mode, 1550-nm, SC, 10 km	LGC1713A-LX-US