



## Black Box Micro Mini Media Converters

Ultra-compact converters bring fiber to the desktop and other tight spaces.



### Features:

- Bring fiber to the desktop conveniently and cost-effectively.
- Smallest media converters available; tuck them unobtrusively behind a PC.
- Ultra compact and weigh less than 2.5 ounces.
- USB-powered for portability, or use a model with a country-specific AC/DC adapter.
- Plug-and-play capability with autonegotiation.
- Fiber port supports 100BASE-FX or 1000BASE-X, depending on model.
- Small Form Pluggable (SFP) transceivers or fixed fiber connectors (SC, ST).
- Multimode and single-mode fiber options.
- UTP port supports 10/100/1000BASE-T.
- Supports Jumbo Ethernet frames up to 10,240 bytes.
- LED indicators for power, UTP, and fiber status.

Black Box® Micro Mini Media Converters are ideal for mobile applications where light weight, compact size, and low power requirements are critical.

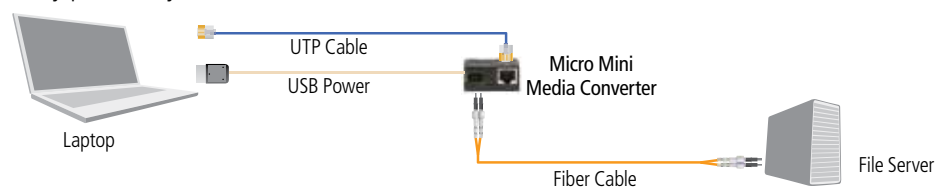
Weighing less than 2.5 ounces and about the length of a house key, these ultra-compact media converters are portable yet powerful. They can be USB-powered, making it easy to provide fiber connectivity to locations where AC or DC power is unavailable, such as field-deployed fiber-to-the-laptop. They conveniently slip into a pocket or laptop carrying case for easy portability.

Micro Mini Media Converters are plug-and-play with an RJ-45 port that autonegotiates for speed, duplex mode, and crossover functions for laptops with 10BASE-T, 100BASE-TX, and 1000BASE-T Ethernet. Available with 100BASE-FX or 1000BASE-X fixed fiber transceivers, they support multimode and single-mode options, as well as SFPs. SFP transceivers make it easy to adapt to different fiber types, speeds, and distances.

Connect the media converter to a laptop using two cables. The USB power cable draws current from the laptop's USB 1.0 or 2.0 port. The UTP cable connects the laptop to the copper port on the converter. The converter then provides 10/100/1000BASE-T UTP to 100BASE-FX or 1000BASE-X fiber conversion, which can extend the fiber link up to 60 kilometers via SFP.

When plugged into a computer's USB port, the media converter shuts down automatically when you turn off the computer, which saves energy.

Micro Mini Media Converters are excellent solutions for fiber-to-the-laptop applications where you need Gigabit fiber connectivity but local power isn't available.



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### Micro Mini Media Converters

| Item Description  | Code        |
|---|-------------|
| <b>10-/100-/1000-Mbps Copper to 100-Mbps Fast Ethernet Duplex Fiber</b>     |             |
| SFP Converter   | LMC400A     |
| Multimode, 1310-nm, 5 km, ST  | LMC401A     |
| Multimode, 1310-nm, 5 km, SC  | LMC402A     |
| Single-mode, 1310-nm, 30 km, ST   | LMC403A     |
| Single-mode, 1310-nm, 30 km, SC   | LMC404A     |
| <b>10-/100-/1000-Mbps Copper to 1000-Mbps Gigabit Ethernet Duplex Fiber</b> |             |
| SFP Converter   | LMC4000A    |
| Multimode, 850-nm, 0.5 km, ST   | LMC4001A    |
| Multimode, 850-nm, 0.5 km, SC   | LMC4002A    |
| Single-mode, 1310-nm, 12 km, ST   | LMC4003A    |
| Single-mode, 1310-nm, 12 km, SC   | LMC4004A    |
| Wallmounting Bracket (Optional)   | LMC400-WALL |

### SFPs

| Category               | Type | SKU    | MM or SM    | Wavelength | Distance | DDM Support | Connector Type | Power Budget | Operating Temperature |
|------------------------|------|--------|-------------|------------|----------|-------------|----------------|--------------|-----------------------|
| 1000-Mbps Gigabit      | SFP  | LFP411 | Multimode   | 850 nm     | 550 m    | Yes         | LC             | 7.5 dBm      | 32 to +122° F         |
|                        | SFP  | LFP412 | Multimode   | 1310 nm    | 2 km     | Yes         | LC             | 10 dBm       | 32 to +122° F         |
|                        | SFP  | LFP413 | Single-mode | 1310 nm    | 10 km    | Yes         | LC             | 10.5 dBm     | 32 to +122° F         |
|                        | SFP  | LFP414 | Single-mode | 1310 nm    | 40 km    | Yes         | LC             | 21 dBm       | 32 to +122° F         |
| 100-Mbps Fast Ethernet | SFP  | LFP401 | Multimode   | 850 nm     | 2 km     | Yes         | LC             | 7 dBm        | 32 to +122° F         |
|                        | SFP  | LFP402 | Multimode   | 1310 nm    | 2 km     | Yes         | LC             | 12 dBm       | 32 to +122° F         |
|                        | SFP  | LFP403 | Single-mode | 1310 nm    | 30 km    | Yes         | LC             | 19 dBm       | 32 to +122° F         |
|                        | SFP  | LFP404 | Single-mode | 1310 nm    | 60 km    | Yes         | LC             | 30 dBm       | 32 to +122° F         |

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### Specifications

NOTE: For SFP specifications, see the chart on the previous page.



#### Converter Specifications

|                      |   |
|----------------------|---|
| <b>Approvals</b>     | CE  |
| <b>Environmental</b> | Operating temperature: +32 to +122° F (0 to +50° C);<br>Storage temperature: -40 to +176° F (-40 to +80° C);<br>Humidity: 5 to 95%, noncondensing   |
| <b>Connectors</b>    | All converters: (1) RJ-45 10-/100-/1000-Mbps Ethernet, (1) USB Micro B;<br>LMC400A, LMC4000A: (1) SFP;<br>LMC401A, LMC403A, LMC4001A, LMC4003A: (1) pair of ST;<br>LMC402A, LMC404A, LMC4002A, LMC4004A: (1) pair of SC |
| <b>Power</b>         | 100–120 VAC, 50–60 Hz, 0.02A @ 120 V external power supply or from a PC's USB port, 0.5 A @ 5 VDC   |
| <b>Size</b>          | 0.84"H x 1.75"W x 2.25"D (2.1 x 4.4 x 5.7 cm)   |
| <b>Weight</b>        | Without power adapter: 2.5 oz. (70.8 g);<br>With USB cable: 3.8 oz. (107.7 g);<br>With AC power adapter (U.S.) and USB: 5.5 oz. (155.9 g)   |