

#### Introduction

Thank you for purchasing a StarTech.com Single-Mode WDM Media Converter. This product allows you to bridge two Ethernet networks using fiber cable, and offers Wave Division Multiplexing, which allows the use of a single fiber cable for both sending and receiving data (Tx/Rx), reducing the amount of cable required.

#### Features

- Simple installation and use
- WDM (Wave Division Multiplexing) allows the use of a single fiber cable for both sending and receiving data
- LED indicators display single-mode, multi-mode and power status of the converter
- Supports link-loss-forwarding function, loop-back test, remote monitor status

#### Before You Begin

##### System Requirements

- Fiber Cable
- 10Base-T; Cat 3, 4 or 5 **or** 100Base-Tx, Cat 5 or 6 cable
- Power source

##### Contents (per unit)

- Media Converter (1)
- 12V Power Adapter (1)
- Instruction manual (1)

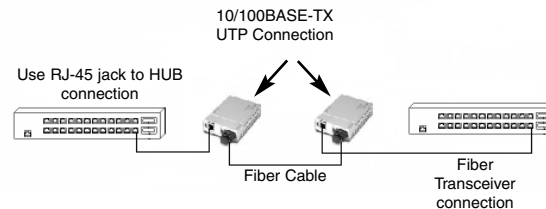
#### Basic Setup

1. Connect the fiber interface cable to the A-Unit. Using UTP cable, connect the ethernet connection to the RJ45 jack.
2. Set the Fx switch (marked **FIBER** according to the specifications of your fiber side equipment. The switch has two positions, *HALF* (Half Duplex) and *FULL* (FullDuplex). A Full Duplex setting will be indicated by anLED (see **LED Indicators**).

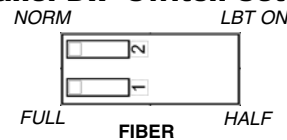
#### Media Converter Connections

The following example illustrates the connection scheme when connecting from a 10/100Base-TX port of one hub to a 100Base-FX port of another hub, through the fiber converter:

The following example illustrates the connection scheme when connecting from a 10/100Base-TX port of one hub to a 100BASE-TX Network Interface Card (NIC) in a computer through the fiber converter:



#### Front Panel DIP Switch Settings

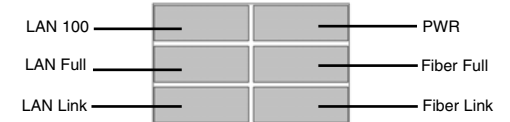


1. **Full/ Half:**  
The Fiber Duplex will be configured in Full-duplex or Half-duplex
2. **Loop-back test and get remote side status :**  
(NORM = Not Active, LBT ON = Active)

**Please note:** If the local side loop-back test is active, then LEDs (except PWR) will all blink rapidly and refresh to display the remote side status.

#### LED Indicators

The following diagram and chart outline the meaning of each LED located on the media converter(s):



LED	Function	State	Status
PWR	Power Indicator	On	Converter has power
		Off	Converter has no power
Fiber Full	Mode display	On	Fiber side full duplex mode (200Mbps)
		Off	Fiber side half-duplex mode
Fiber Link	Fiber link	On	The fiber link is okay
		Off	No link, or the link is faulty
		Blinking	Receiving data on the fiber
LAN 100	Mode display	On	UTP side is operating in 10Mbps mode
		Off	UTP side is operating in 100Mbps mode
LAN Full	Mode display	On	UTP side full duplex mode (200Mbps)
		Off	UTP side half-duplex mode
LAN Link	Ethernet Link	On	The UTP link is ok
		Off	No link, or the link is faulty
		Blinking	Receiving data on Ethernet

#### General Specifications

<b>Wavelength</b>	Tx: 1310 nm / Rx: 1550 nm
<b>BER</b>	<10 <sup>-10</sup>
<b>Sensitivity</b>	-32dBm
<b>Output Power</b>	-18 dBm (A), -15dBm (B)
<b>Power Margin</b>	14 dB (A), 17dB (B)
<b>Return Loss</b>	-14dBm
<b>Supported Cable Type</b>	9/125µm Single Mode (SC Connector)
<b>Ethernet Network Interface</b>	10/100 Mbps/sec. (via auto-negotiation)
<b>Switching Mechanism</b>	Store and Forward
<b>Additional Features</b>	Link-loss forwarding, loop-back test, remote monitor status
<b>Network Standards Compliance</b>	IEEE 802.3 10Base-T, 802.3u/100Base-TX, 100Base-FX
<b>MTBF</b>	38000 hours (minimum)
<b>Cable Length</b>	20 KM (max) using single mode fiber optic cable
<b>Product Dimensions (LxWxH)</b>	122mm x 85mm x 20mm (4.8 x 3.3 x 0.9 in.)
<b>Product Weight</b>	0.65 lb (295 g)
<b>Data Transfer Rate (max.)</b>	100 Mbps/sec (Full and Half duplex supported)
<b>Certifications (regulatory etc.)</b>	FCC, CE (Class A)
<b>Power Adapter</b>	DC 12V, 1A, Center Pos.

**Support, Warranty Information, and Regulatory Compliance Statement**  
If you ever need help with your product, visit [www.startech.com/support](http://www.startech.com/support) and access our comprehensive selection of online tools, documentation, and downloads. This product is backed by a one-year warranty. In addition, StarTech.com warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion. The warranty covers parts and labor costs only. StarTech.com does not warrant its products from defects or damages arising from misuse, abuse, alteration, or normal wear and tear.

**Limitation of Liability:** In no event shall the liability of StarTech.com Ltd. and StarTech.com USA LLP (or their officers, directors, employees or agents) for any damages (whether direct or indirect, special, punitive, incidental, consequential, or otherwise), loss of profits, loss of business, or any pecuniary loss, arising out of or related to the use of the product exceed the actual price paid for the product. Some states do not allow the exclusion or limitation of incidental or consequential damages. If such laws apply, the limitations or exclusions contained in this statement may not apply to you.

**FCC Compliance Statement:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.