

## MCS110SC20

### 10/100 RJ45 to SC Fiber SMode Media Converter

#### Introduction

Thank you for purchasing a StarTech.com 10/100 RJ45 Single Mode Converter. The perfect solution for converting between 10 Base-T or 100 Base-TX electrical Ethernet signals and 100 Base-FX optical Ethernet signals, the converter supports a maximum multi-mode fiber optic cable distance of 25 Km for single-mode, ensuring a highly reliable signal for ideal network performance.

#### Features

- Auto-negotiation of 10/100 Mbps and Auto – Crossover for TX port
- Supports IEEE 802.3u 100Base-TX and 100Base-FX industry standards
- Compact, lightweight design, with small form factor
- Auto-detection of half/full duplex transfer mode for TX port

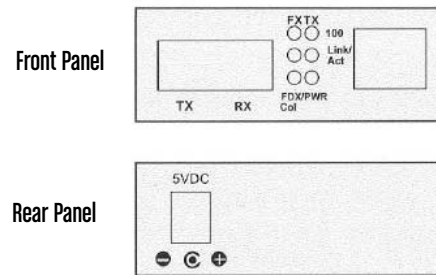
#### System Requirements

- Fiber Cable (Single Mode: 8.3/125, 9/125 or 10/125µm)
- Cat5 UTP Cable
- Power source

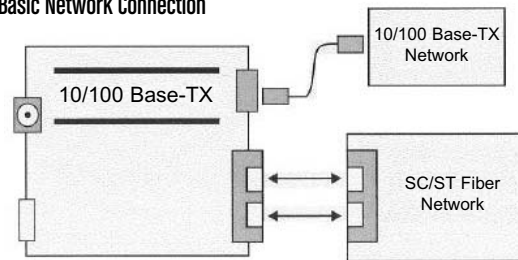
#### Package Contents

- Media Converter (1)
- 5V Power Adapter (1)
- Instruction manual (this document)(1)

#### Installation



#### Basic Network Connection



#### 1. Converter to 10/100Base-TX connection

- Ensure that the length of twisted pair cable (CAT5) between the 10/100Base-TX device is no longer than 100 meters (328')

- Connect one end of twisted pair cable to the RJ45 port on the converter, and the other end of the cable to the RJ45 port on the 10/100Base-TX device

#### 2. Converter to Converter or 100Base-FX connection

- Connect one (SC) end of a fiber cable to the SC connector on the converter and the other end of the cable to the SC connector on the other converter or 100Base-FX device.

#### 3. Connect the power adapter to the converter

#### Specifications

##### LED Functions

| LED                | Function  |
|--------------------|---|
| <b>FX 100</b>      | Lit when operating as 100Base-FX  |
| <b>FX Link/ACT</b> | Lit when fiber cable connection with remote device is detected. Blinks when FX traffic is present |
| <b>Power</b>       | Lit when +5V power is available   |
| <b>FDX/Col</b>     | Lit when Full Duplex Mode is enabled. Blinking when collisions are present.                       |
| <b>TX 100</b>      | Lit when operating as 100Base-TX  |
| <b>TX Link/ACT</b> | Lit when TP cable connection with remote device is detected. Blinks when TX traffic is present    |

##### Fiber Optic Specifications

|                         |             |
|-------------------------|-------------|
| <b>Connector Type</b>   | SC/ST       |
| <b>Fiber Type</b>       | Single-Mode |
| <b>Wavelength</b>       | 1310nm      |
| <b>Typical Distance</b> | 25 Km       |
| <b>Min TX Power</b>     | -15.0dBm    |
| <b>Max TX Power</b>     | -7.0dBm     |
| <b>Sensitivity</b>      | -34.0dBm    |
| <b>Link Budget</b>      | 17.0dBm     |

##### General Specifications

|                              |  |
|------------------------------|--|
| <b>Standard</b>              | IEEE 802.3 / IEEE 802.3u                                   |
| <b>Connectors</b>            | 1 SC fiber optic, 1 RJ45 port                              |
| <b>Maximum Distance</b>      | Twisted Pair (CAT5): 100M<br>Single-Mode fiber optic: 25Km |
| <b>Power</b>                 | Input: 220V AC, 48 DC<br>Output: 5V DC 1A                  |
| <b>Operating Temperature</b> | -10 to 50°C  |
| <b>Operating Humidity</b>    | 10% to 90% (non-condensing)                                |

##### 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.