

Installation Guide 100BASE-FX Multimode-Single mode Media Converter

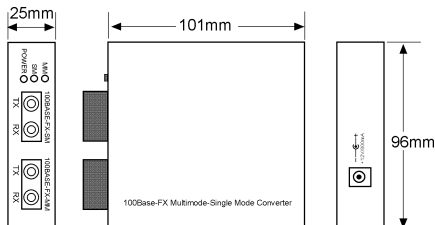
KC-220FF SERIES

DOC. 010430-KC220FF-K Rev.1.0
P/N: 750-0155-001

General Description

The KC-220FF Fast Ethernet media converter series are designed to convert a 100BASE-FX multimode fiber signal to single mode fiber signal. It is used to extend the connection distance between two Fast Ethernet fiber optic devices via single mode fiber cable transparently with no performance degradation. The converter series provide different types of fiber connectors such as ST, SC, and MT-RJ for MM (multimode) or SM (single mode) fiber cables.

The outline of the converter is:

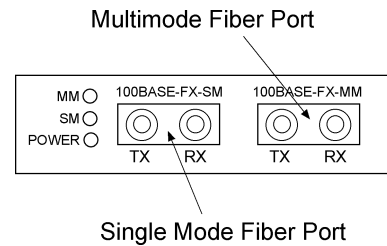


Specifications

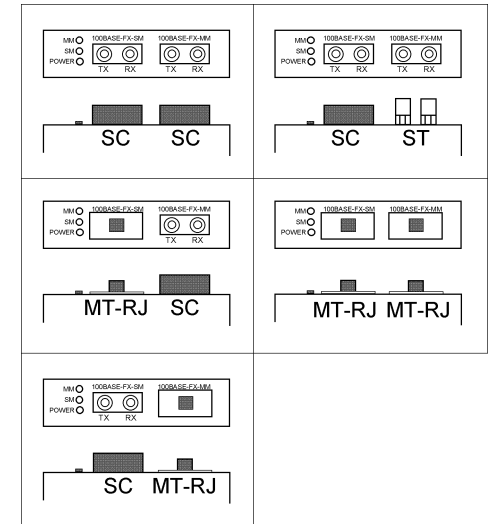
- Complies with IEEE 802.3u 100BASE -FX std.
- Operates with connected devices running on full duplex or half duplex mode
- Environment: Temperature 0 - 40°C
Humidity 10-90% non condensing
- Dimensions: 101mm x 96mm x 25mm
- Power: +12V / 800mA minimum
- DC plug type:

Connectors & Cables

The converter provides one multimode (MM) fiber port and one single mode (SM) fiber port as shown below:



The series provides different types of fiber connectors for different applications. The connectors include ST, SC, and MT-RJ. The following figure illustrates the available combinations:



The multimode fiber port is used for a duplex multimode fiber cable connection and single mode fiber port is used for a duplex single mode fiber cable connection.

Both ports are compliant to IEEE 802.3u 100BASE-FX standard and can convert multimode optic signal to single mode optic signal up to bandwidth 200Mbps transparently with a minimal delay time.

The wavelength used is 1300nm for both ports. The recommended MM (Multimode fiber) cable is 62.5/125mm and SM (Single Mode fiber) cable is 9/125mm.

The following table lists the fiber connectors, fiber cables and the maximum length supported by each converter model:

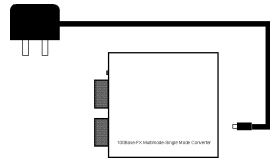
Model	MM Port*	SM Port	SM Cable Length*
KC-220FF-TSA	ST	SC	15Km
KC-220FF-TS3	ST	SC	30Km
KC-220FF-TS5	ST	SC	50Km
KC-220FF-CSA	SC	SC	15Km
KC-220FF-CS3	SC	SC	30Km
KC-220FF-CS5	SC	SC	50Km
KC-220FF-CJ	SC	MT-RJ	15Km
KC-220FF-JJ	MT-RJ	MT-RJ	15Km
KC-220FF-JSA	MT-RJ	SC	15Km

* MM Port : the maximum MM cable length is 2K meters.

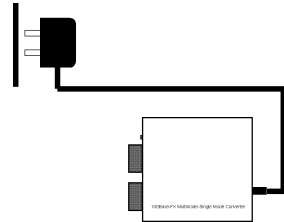
* SM Cable length : the maximum length in point-to-point full duplex operation

Installation

1. Install the media converter with the DC power adapter provided. (+12VDC, 800mA)

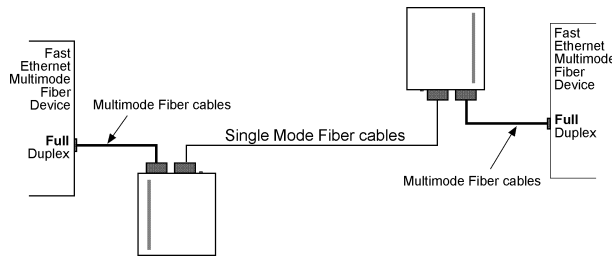


2. Connect the power adapter cable to the media converter before connecting the adapter to the AC outlet.



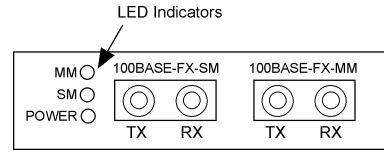
Making Network Connections

The converters serve as a conversion path between two Fast Ethernet Multimode fiber devices. To both devices, the conversion is transparent.



Important rule: When a connection is established, make sure the devices located at both ends of the path are configured and operated using the same duplex mode and the maximum distance must comply with IEEE 802.3u specifications.

Interpreting LED Indicators



LED	Status	State	Interpretation
POWER	Power status	On Off	Converter is on. Converter is off.
MM	MM port link	On Off	The MM fiber link is ok. No link or the link is faulty.
SM	SM port link	On Off	The SM fiber link is ok. No link or the link is faulty.

The information contained in this document is subject to change without prior notice.

Copyright (C) KTI. All Rights Reserved.

TRADEMARKS

Ethernet is a registered trademark of Xerox Corp.

WARNING:

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 when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause harmful interference in which case the user will be required to correct the interference at his own expense.

NOTICE:

(1) The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

(2) Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.

CISPR A COMPLIANCE:

This device complies with EMC directive of the European Community and meets or exceeds the following technical standard.

EN 55022 - Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment. This device complies with CISPR Class A.

WARNING: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CE NOTICE

Marking by the symbol  indicates compliance of this

equipment to the EMC directive of the European Community. Such marking is indicative that this equipment meets or exceeds the following technical standards:

EN 55022: Limits and Methods of Measurement of Radio Interference characteristics of Information Technology Equipment.

EN 50082/1: Generic Immunity Standard -Part 1: Domestic Commercial and Light Industry.

EN 60555-2: Disturbances in supply systems caused by household appliances and similar electrical equipment - Part 2: Harmonics.