FTL1 Series
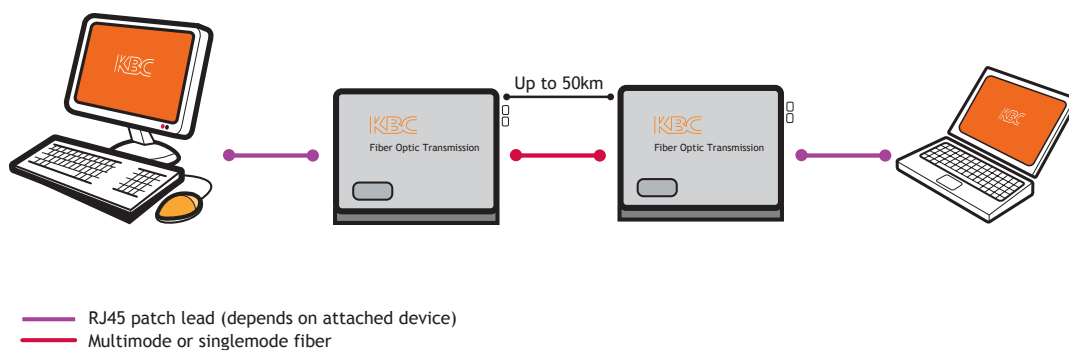## 10/100 Ethernet Media Converter

Product Description

The KBC FTL series is a fully-ruggedized 10/100 Ethernet media converter. It supports transmission of an Ethernet channel over either one or two, multimode or singlemode optical fibers. Full duplex operation enables distances in excess of 50km on singlemode fiber. The plug-and-play design ensures ease of installation with no electrical or optical adjustment needed. LED indicators are provided to show the operational status of the unit clearly. The series is available in compact, DIN rail or 3U chassis card configurations.

Product Features

- Wide operational temperature range
- 100BASE-FX on fiber port
- Ultra-compact footprint
- 10/100 auto-sensing
- MDI / MDIX
- Multimode and singlemode interfaces
- Single and dual fiber
- Up to 50km on singlemode fiber

Typical System Configuration

—— RJ45 patch lead (depends on attached device)
—— Multimode or singlemode fiber

Specifications

Standards
IEEE Standard — IEEE 802.3 10BASE-T
IEEE 802.3u 100BASE-TX
& 100BASE-FX
IEEE 802.3x Full Duplex

Data
Data Formats — Ethernet
Two Way Channels — 1
Data Rate — 10 / 100 Mbps auto-sensing
Half & full duplex

Optical
Wavelength — 1310nm / 1550nm
Fiber — Multimode or singlemode
Number of Fibers — 1 or 2

Power
Power Input — 12-24 Vac/dc @ 200mA
Power Supply for Compact [1] — Input: 100 ~ 240 Vac
Output: +12 Vdc
UL and cUL listed PSU
Chassis Card — Supplied from FR3 PSU

Environmental
Operating Temperature — -40˚ ~ +74˚C / -40˚ ~ +165˚F
Storage Temperature — -40˚ ~ +74˚C / -40˚ ~ +165˚F
Operating Humidity — 0 to 95% non-condensing
Mean Time Between Failure (MTBF) — >100,000 Hours

Mechanical
Dimensions (Compact W x H x D) — 70mm x 58mm x 28mm
(2.8" x 2.3" x 1.1")
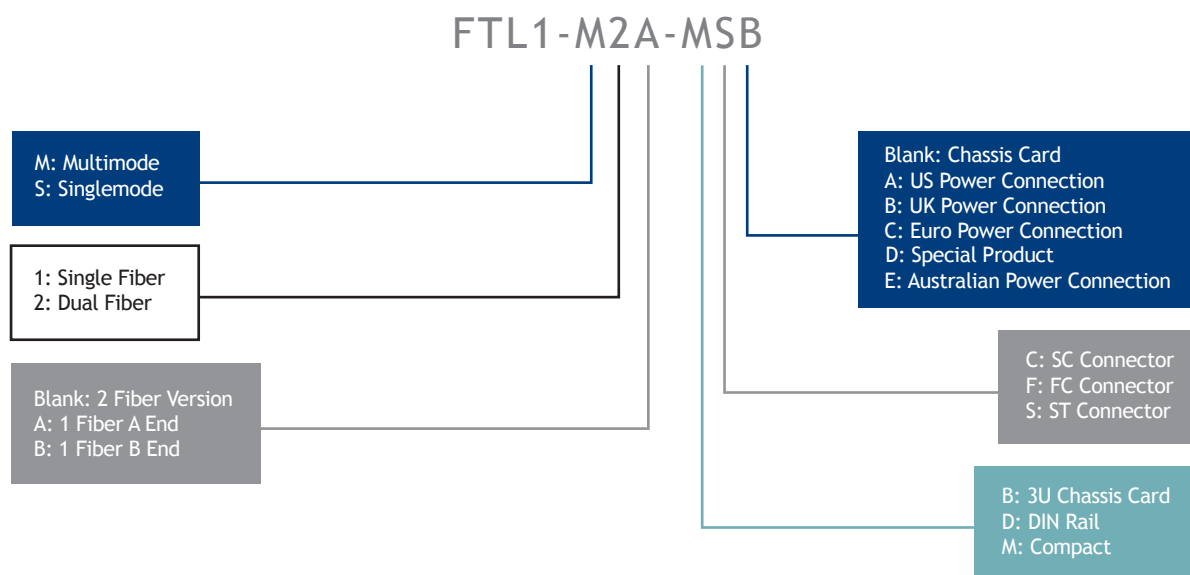Number of 3U Chassis Card Slots [2] — 1

Connectors
10/100 Electrical — 1 x RJ45
Fiber — ST, SC or FC
(ST fitted as standard)
Power [3] — Compact & DIN Rail — 2-way screw block terminal

Part Number Configurator

FTL1-M2A-MSB

M: Multimode
S: Singlemode

1: Single Fiber
2: Dual Fiber

Blank: 2 Fiber Version
A: 1 Fiber A End
B: 1 Fiber B End

Blank: Chassis Card
A: US Power Connection
B: UK Power Connection
C: Euro Power Connection
D: Special Product
E: Australian Power Connection

C: SC Connector
F: FC Connector
S: ST Connector

B: 3U Chassis Card
D: DIN Rail
M: Compact

Optical Budget

Part Code	Fiber Type	No.	Optical Budget 50μm	62.5μm	9μm	Wavelength nm	Approximate Transmission Distance [4]
FTL1-M2*	Multimode	2	8dB	12dB		1310	0~4km
FTL1-S2*	Singlemode	2			20dB	1310	0~30km
FTL1-S1*	Singlemode	1			20dB	1310/1550nm	0~30km
FTL1-S2*-**D	Singlemode	2			20dB	1310	0~50km
FTL1-S1*-**D	Singlemode	1			20dB	1310/1550nm	0~50km

Transmission distances up to 120km are available please contact KBC Networks for details. All KBC Networks optical transmitters are LASER based.

1. Please select the power plug from US Standard, Euro 2 Circular or UK 3 Pin square when placing order.
2. Supports maximum of up to 14 single slot cards in each 3U Chassis.
3. Power lines are crimped and fitted to screw block connector in factory.
4. Transmission distance is limited by optical loss of the fiber and loss introduced by connectors, splices and patch panels. Fiber bandwidth also limits the transmission distance.