



## 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. 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. Up to 28 FTL media converters can be accommodated in a KBC FR3 chassis.

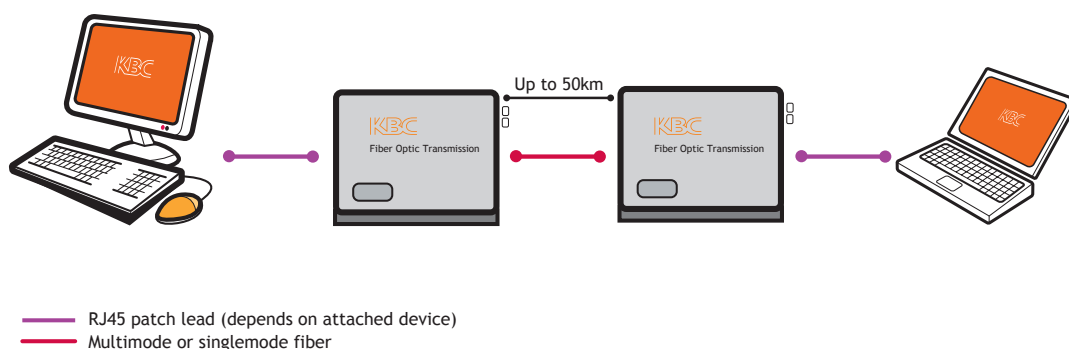
KBC 10/100 media converters are designed for transmission distances up to 4km for multimode fiber and 50km on singlemode fiber (for distances up to 80km, please contact us). If the media converter is to be connected to an SFP port, please contact us for advice since SFPs can vary in the level at which they saturate.



## 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
- Dual module 3U chassis card
- Up to 50km on singlemode fiber

## Typical System Configuration



## Specifications

### Standards

IEEE Standard

### Data

Data Formats  
Two Way Channels  
Data Rate

### Optical

Wavelength  
Fiber  
Number of Fibers

### Power

Power Input  
Power Supply<sup>(1)</sup>

Chassis Card

IEEE 802.3 10BASE-T  
IEEE 802.3u 100BASE-TX  
& 100BASE-FX  
IEEE 802.3x Full duplex

Ethernet  
1  
10 / 100 Mbps auto-sensing  
Half & full duplex

1310nm / 1550nm  
Multimode or singlemode  
1 or 2

12-24 Vac/dc @ 200mA  
Input: 100 ~ 240 Vac  
Output: +12 Vdc  
Supplied from FR3 PSU

### Environmental

Operating Temperature  
Storage Temperature  
Operating Humidity  
Mean Time Between Failure (MTBF)

-40° ~ +74° C / -40° ~ +165° F  
-40° ~ +74° C / -40° ~ +165° F  
0 to 95% non-condensing  
>100,000 Hours

### Mechanical

Dimensions Compact(W x H x D)

DIN Rail

Number of 3U Chassis Card Slots<sup>(2)</sup>

70mm x 58mm x 28mm  
(2.8" x 2.3" x 1.1")  
110mm x 87mm x 25mm  
(4.3" x 3.4" x 0.98")  
1

### Connectors

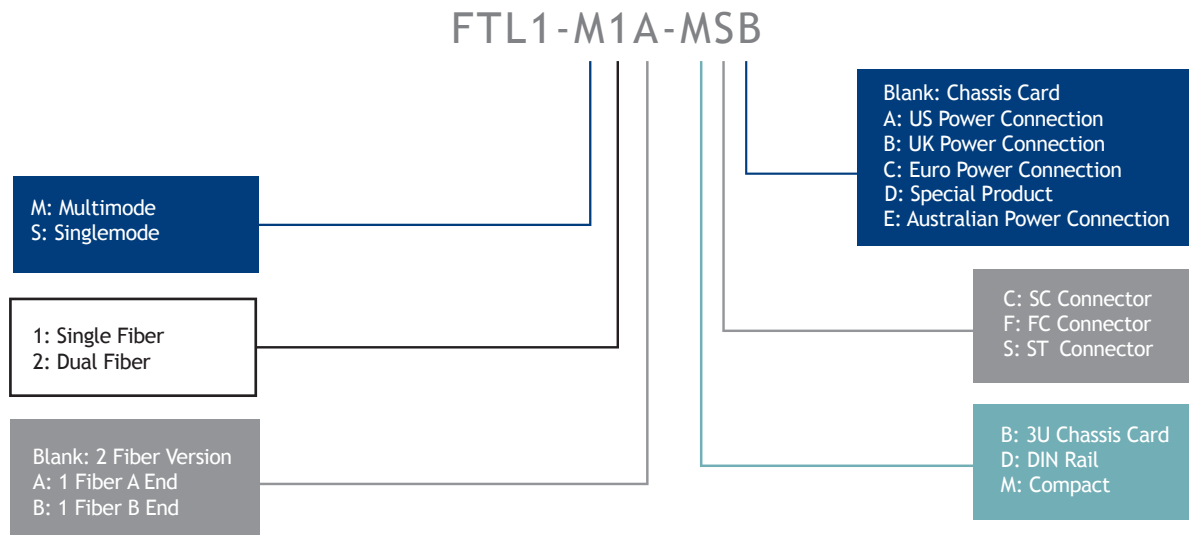
10/100 Electrical  
Fiber

Power<sup>(3)</sup>

Compact & DIN Rail

1 x RJ45  
ST, SC or FC  
(ST fitted as standard)  
3-way screw block terminal

## Part Number Configurator



## Optical Budget

Part Code	Fiber Type	No.	Optical Budget			Wavelength nm	Approximate Transmission Distance <sup>(4)</sup>
			50µm	62.5µm	9µm		
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 80km are available please contact KBC Networks for details. All KBC Networks optical transmitters are LASER based.  
SFPs can vary in the level at which they saturate, so if the media converter is to be connected directly to an SFP port, please contact us for advice.

1. Please select the power plug from US Standard, Euro 2 Circular or UK 3 Pin square when placing order.

2. Up to 14 cards in an FR3 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.

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