



## Product Description

The KBC FDDDB1 series uses the most advanced digital technologies to provide excellent repeatable performance for today's data systems. It supports transmission of one bi-directional data channel over one multimode or singlemode optical fiber. RS232, RS422 and RS485 (2 wire & 4 wire) standards are fully supported. 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 wall mount or 3U chassis card.

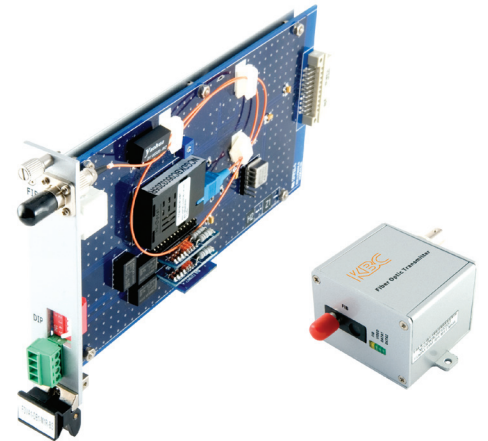
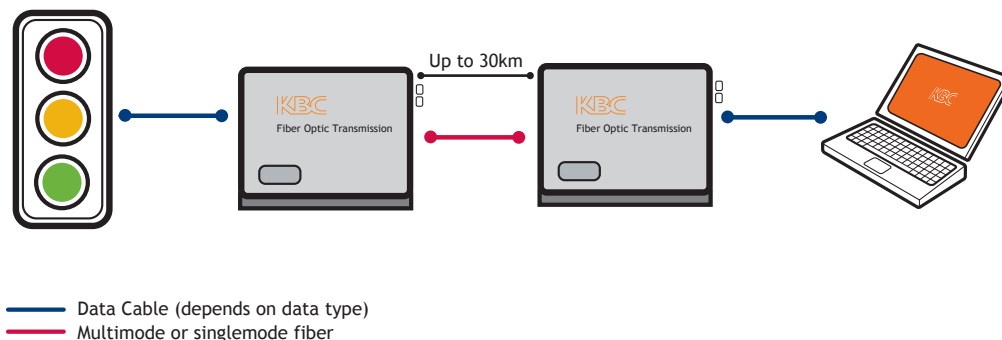


Image may not represent actual product dimensions

## Product Features

- Supports RS232, RS422 and RS485 (2W & 4W)
- Multimode and singlemode solutions
- Switchable 120Ω termination and biasing
- LED indicators provide quick diagnosis of all important system parameters
- Up to 14 units in a 3U chassis
- Compact and 3U chassis card configuration

## Typical System Configuration



## Specifications

### Data<sup>(1)</sup>

Data Formats	RS232, RS422, RS485 (2W & 4W)
One Way Channel	1
RS232 Data Rate	DC - 115.2kbps
RS422/485 Data Rate <sup>(2)</sup>	DC - 250kbps
Bit Error Rate	<1 x 10 <sup>-12</sup>
Encoding Schemes	Manchester, Bi-Phase, NRZ, NRZI

### Optical

Wavelength	1310nm
Fiber	Multimode or Singlemode
Number of Fibers	1

### Power

Power Input Compact	12-24 Vac/dc @ 150 mA
Power Supply <sup>(3)</sup>	Input: 100 ~ 240 Vac; Output: +12 Vdc UL and cUL listed PSU Supplied from FR3 PSU
Chassis Card	

### Environmental

Operating Temperature	-40° ~ +70° C / -40° ~ +158° F
Storage Temperature	-40° ~ +70° C / -40° ~ +158° F
Operating Humidity	0 to 95% non-condensing
Mean Time Between Failure (MTBF)	>100,000 Hours

### Mechanical

Dimensions (Compact L x W x H)	70mm x 61mm x 44mm (2.8" x 2.4" x 1.7")
Number of 3U Chassis Card Slot <sup>(4)</sup>	1

### Connectors

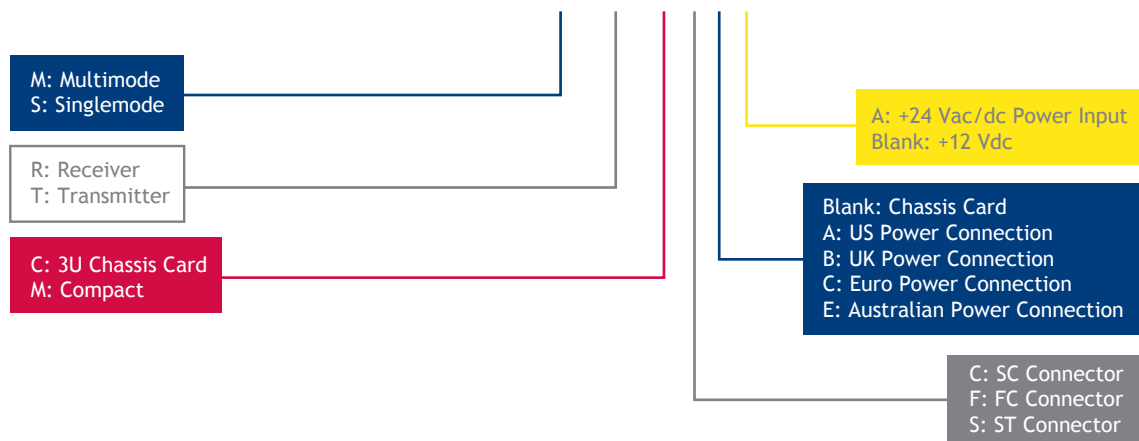
Data	Screw Block Terminal
Fiber	ST, SC or FC (ST fitted as standard)
Power <sup>(5)</sup> Compact	Screw Block Terminal

### DIP Switch Settings

Data	RS232, RS422 or RS485 (2W & 4W)
120Ω Termination	On / Off
Biasing	On / Off

## Part Number Configurator

### FDDB1-M1T-MSBA



## Optical Budget

Part Code	Fiber Type	No.	Optical Budget			Wavelength nm	Approximate Transmission Distance <sup>(6)</sup>
			50μm	62.5μm	9μm		
FDDB1-M*	Multimode	1	8dB	12dB		1310	0-4km
FDDB1-S*	Singlemode	1			15dB	1310	0-30km

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

- RS232, RS422 and RS485 are field selectable
- Data rates up to 1Mbps available, please contact KBC Networks for details.
- Please select the power plug from US Standard, Euro 2 Circular or UK 3 Pin square when placing order.
- Supports maximum of up to 14 single slot cards in each 3U Chassis.
- Power lines are crimped and fitted to screw block connector in factory.
- 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.

Due to ongoing technological improvements, product specifications are subject to change without notice.  
E&OE.