



FDVA1-DB1 Series
One Channel Video with Bi-Directional Data,
Point-to-Point Transmission



Product Description

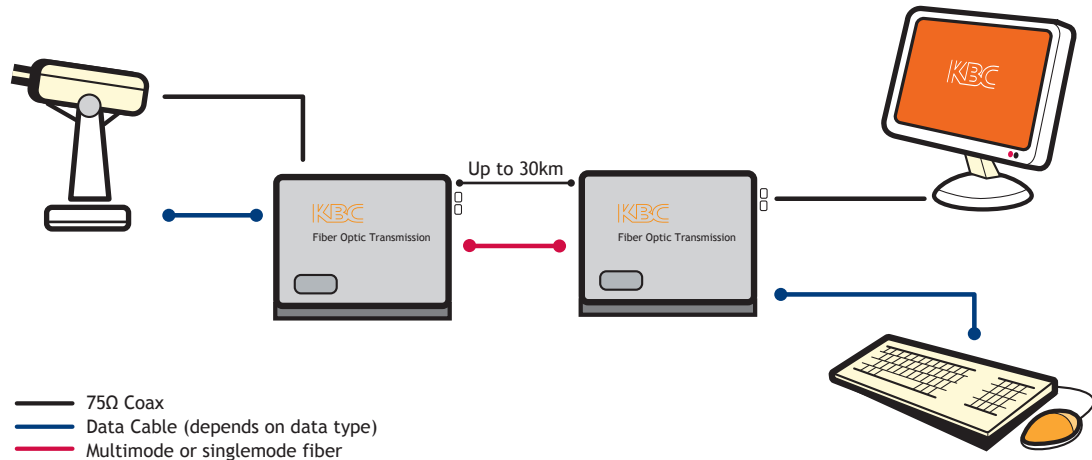
The KBC FDVA-DB1 series uses the most advanced digital technologies to provide excellent repeatable performance for today's CCTV systems. It supports transmission of one analog composite video channel and one bi-directional data channel over one multimode or singlemode optical fiber. PAL, NTSC and SECAM video standards are fully supported and the data channel supports all standard PTZ (Pan-Tilt-Zoom) control signals. The plug-and-play design ensures ease of installation with no electrical or optical adjustment needed. LED indicators are provided to clearly show the operational status of the unit. The series is available in compact or 3U chassis card.



Product Features

- 8 or 10 bit digitally encoded non-compressed video transmission
- Unique 2 channel card module
- Up to 28 receivers in one 3U chassis
- Cost effective WDM single fiber solution
- Switchable 120Ω termination and line biasing
- LED indicators provide quick diagnosis of all important system parameters
- Multimode and singlemode models
- Compact and 3U chassis card configurations

Typical System Configuration



Specifications

Video

No. of Channels	1
Format	PAL / NTSC / SECAM
Input/Output	1.0V pk - pk typical, 75Ω
Bandwidth	5 Hz ~ 6.5 MHz
Digital Encoding (non compressed)	8 bit 10 bit
Differential Gain (10-90% APL)	<2.0% <2.0%
Differential Phase (10-90% APL)	<2.0° <1.0°
SNR	>60dB >67dB

Data⁽¹⁾

Data Formats	RS232, RS422, RS485 (2W & 4W)
One Way Channel	1
RS232 Data Rate	DC - 115.2kbps
RS422/485 Data Rate ⁽²⁾	DC - 250kbps
Bit Error Rate	<1 x10 ⁻¹²
Encoding Schemes	Manchester, Bi-Phase, NRZ, NRZI

Optical

Wavelength	1310nm
Fiber	Multimode or Singlemode
Number of Fibers	1

Power

Power Input	Compact	+12 Vdc @ 400 mA 24 Vac & +24 Vdc available
Power Supply ⁽³⁾		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)	50mm x 49mm x 27mm
Number of 3U Chassis Card Slot ⁽⁴⁾	1

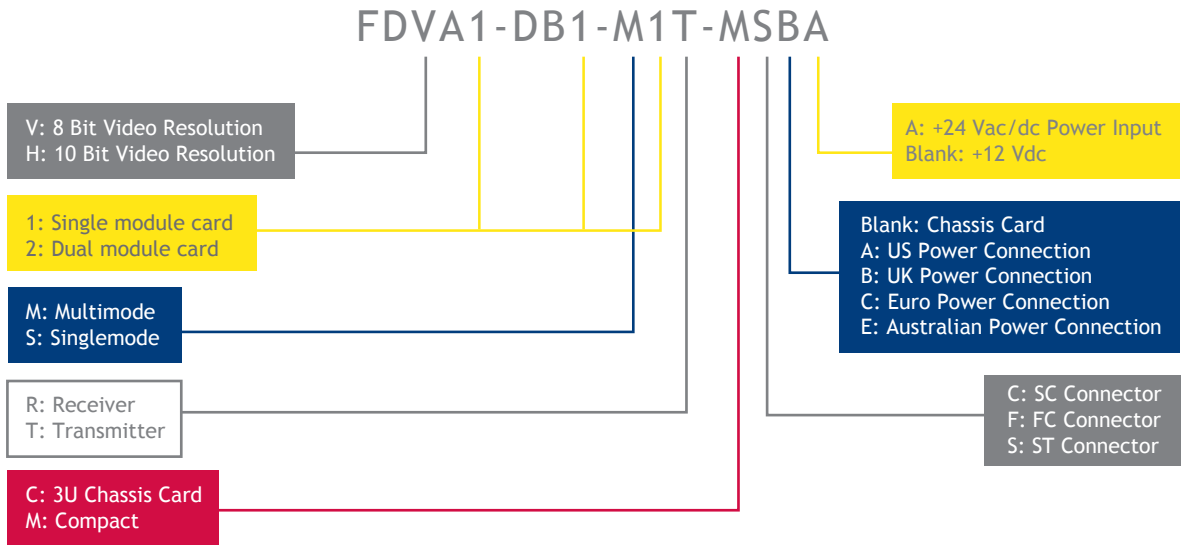
Connectors

Video	BNC 75Ω
Data	Screw Block Terminal
Fiber ⁽⁵⁾	ST, SC or FC (ST fitted as standard)
Power ⁽⁶⁾	Compact Screw Block Terminal

DIP Switch Settings

Data	Switch Selectable
120Ω Termination	On / Off
Biasing	On / Off

Part Number Configurator



Optical Budget

Part Code	Fiber Type	No.	Optical Budget	Wavelength nm	Approximate Transmission Distance ⁽⁴⁾
			50μm 62.5μm 9μm		
FDVA1-DB1-M1*	Multimode	1	8dB 12dB	1310	0-4km
FDVA1-DB1-S1*	Singlemode	1		1310	0-30km

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

1. RS232, RS422 and RS485 are field selectable
2. Data rates up to 1Mbps available, please consult factory.
3. Please select the power plug from US Standard, Euro 2 Circular or UK 3 Pin square when placing order.
4. Supports maximum of up to 14 single slot cards in each 3U Chassis.
5. SC and FC connectors not available on dual module card
6. Power lines are crimped and fitted to screw block connector in factory.
7. 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.