



Product Description

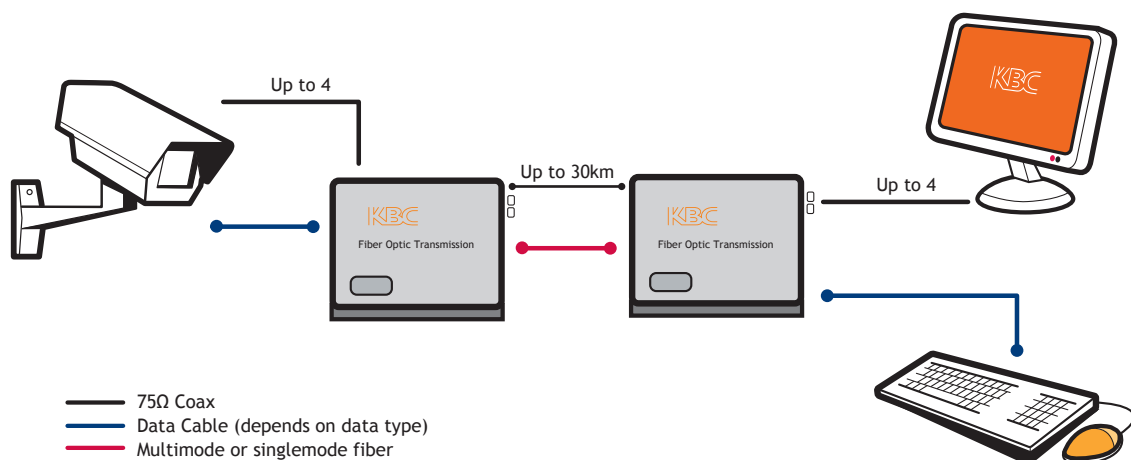
The KBC FDVA4-DB1 series uses the most advanced digital technologies to provide excellent repeatable performance for today's CCTV systems. It supports transmission of four analog composite video channels and one bi-directional data channel over one multimode or singlemode optical fiber. PAL, NTSC and 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 show the operational status of the unit clearly. The series is available in compact, wall-mount or 3U chassis card.



Product Features

- 8 or 10 bit digitally-encoded, non-compressed video transmission
- Multimode and singlemode solutions
- Card module requires just 1 slot of 3U chassis
- Switchable 120Ω termination and biasing
- LED indicators provide quick diagnosis of all important system parameters
- Wall-mount and 3U chassis card configurations
- Wide optical dynamic range. No adjustment required

Typical System Configuration



Specifications

Video

No. of Channels	4	
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)
Number of Two-way Channels	1
RS232 Data Rate	DC - 115.2 kbps
RS422/485 Data Rate ⁽²⁾	DC - 250 kbps
Bit Error Rate	<1 x 10 ⁻¹²
Encoding Schemes	Manchester, Bi-Phase, NRZ, NRZI

Optical

Wavelength	1310nm/1550nm
Fiber	Multimode or Singlemode
Number of Fibers	1

Power

Power Input	Wall-mount	+12-24 Vac/dc @ 400mA
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° ~ +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 (Wall-mount L x W x H) ⁽⁷⁾	222mm x 158mm x 36mm (8.74" x 6.22" x 1.42")
Number of 3U Chassis Card Slot ⁽⁴⁾	1

Connectors

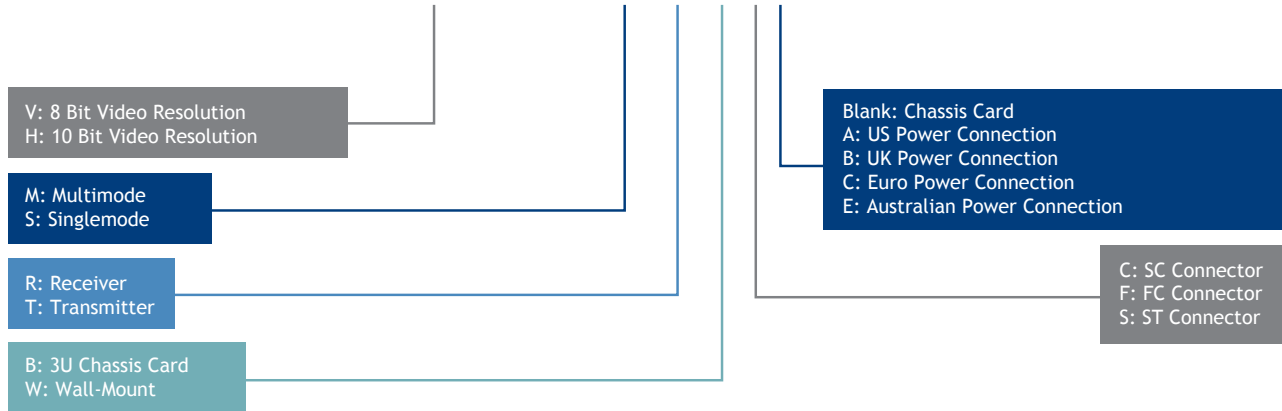
Video	BNC 75Ω
Data	Screw Block Terminal
Fiber	ST, SC or FC (ST fitted as standard)
Power ⁽⁵⁾	Wall-mount Screw Block Terminal

DIP Switch Settings

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

Part Number Configurator

FDVA4-DB1-M1T-WSB



Optical Budget

Part Code	Fiber Type	No.	Optical Budget			Wavelength nm	Approximate Transmission Distance ⁽⁶⁾
			50μm	62.5μm	9μm		
FDVA4-DB1-M*	Multimode	1	8dB	12dB		1310	0-4km
FDVA4-DB1-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.
- Product body dimensions. Please contact KBC Networks for product drawing and dimensions of mount.

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