PRECISION
TELEMETRY & NETWORK SYSTEMS

PV16 Series

16-Channel Digital Video, Data & Audio Fibre-optic multiplex & transmission system

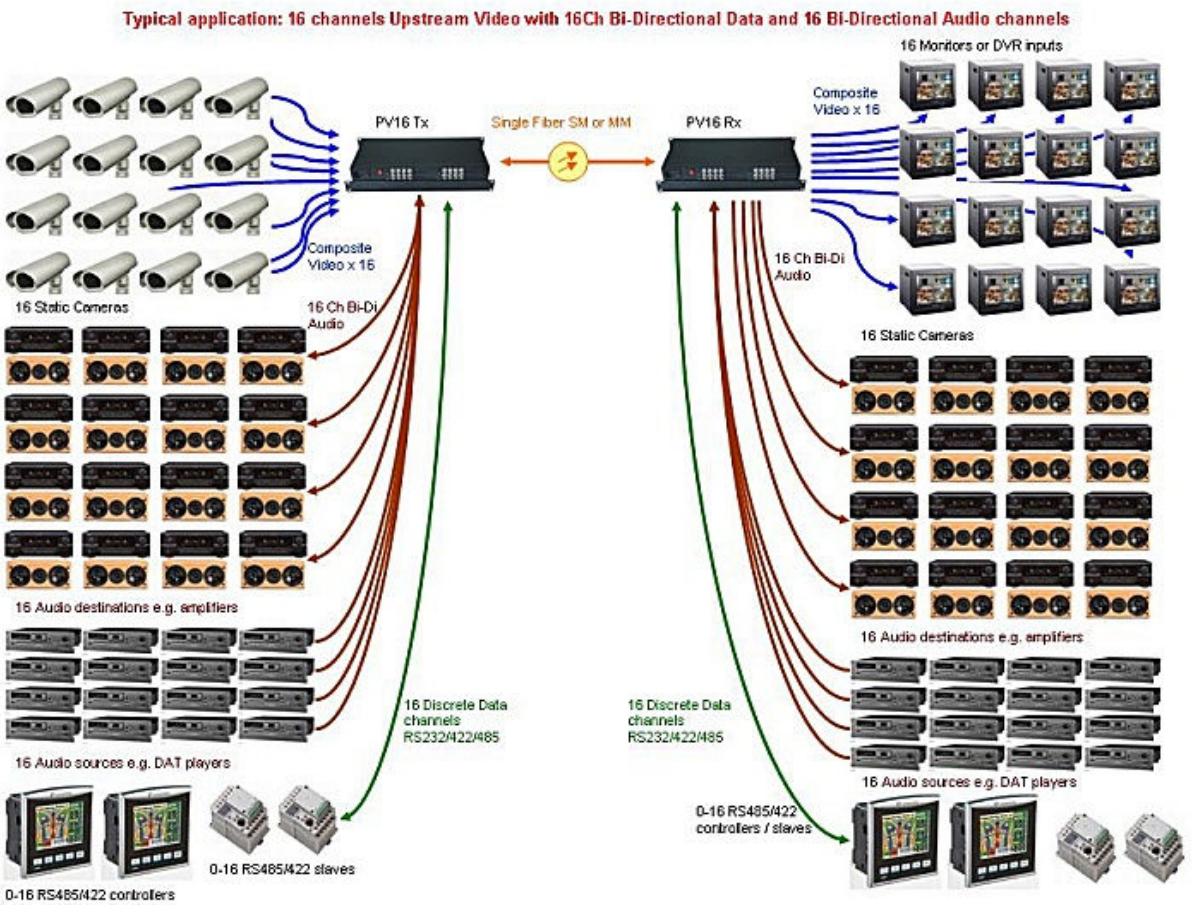
Description

Precision's PV16 series transmits 16 channels of video with audio, data and contact closure signals over single-mode fibre-optic cable over distances of up to 20km. The PV16 series sends sixteen video channels using 8-bit digital uncompressed full-D1 encoding per channel for the best possible video quality under any condition. The PV16 can also send and receive data, audio and contact closure signals on the same simplex optic fibre. The PV16 is field-hardened for operation in harsh field conditions with very wide temperature swings. The PV16 series is available as rack-mountable standalone units.

Key Features

- 16-Channel 8 Bit uncompressed digital encoding and multiplexing
- Compatible with NTSC, PAL & SECAM video
- 16xBNC Video Connector
- 1x FC Optical Connector, simplex fibre
- Optional Audio, Data, and Contact Closure
- Manchester/Bi-phase, RS-232, RS-422, RS-485 (2 & 4 wire) Data (optional)
- 600 Ohm / 10k Ohm Unbalanced Audio (optional)
- High optic budget 22dB for single-mode fibre
- 1U 19'' rack-mountable standalone unit
- Supplied with internal mains power supply

Typical applications



Optic

Optic wavelength	Upstream:	1310nm
	Downstream:	1550nm
Optic transmit power	Single-mode:	-3dBm typ. +/- 5dB
Optic receive sensitivity	-30dBm min	
Optic budget	Single-mode:	22 dB
Optic Connector	FC	

Video

Video formats	PAL, NTSC, SECAM	16-channel composite
Input bandwidth	5Hz – 8MHz	
Sampling resolution	8-bit uncompressed	Full D-1 (720x576) [576p]
BNC Input	0.6V-2.0V p-p 75 Ω	16 connectors
Maximum input	2.0V p-p 75 Ω	
SNR	>70dB (quantified)	
Differential phase	≤ 1˚	
Differential gain	≤ 1%	

Data (Optional)

Data channels	16 (certain models only)
Data formats	RS-232 (3-wire) option RS-422 (4-wire) RS-485 (2-wire)
Data rate	160Kbps max
Termination	120Ω
Data Direction	Bi-directional or Downstream only depends on model

Audio (Optional)

Audio channels	16 (certain models only)
Sampling rate	48KHz
Sampling resolution	16-bit uncompressed
Input impedance	600Ω
Input bandwidth	20Hz – 23KHz
SNR	>90dB (quantified)

System

BER	10 E-9 max
MTBF	> 100000 Hr

Dimensions

Rack-mount unit	1U 19''

Power

Rack-mount unit	Universal AC mains	110-220V AC 50-60Hz	48Watt max

Environmental

Storage temperature	-40˚C to +85˚C
Operating temperature	-40˚C to +70˚C
Humidity	0 to 95% (non cond)

Quality standards

ISO 9001 certified
CE Mark
FCC Certified

Ordering information

Model	Function	Fibre	Description
16-Channel Video Multiplexing Transmitters & Receivers, Single-mode			
PV16T-SM-RM220		1xSM	16ch video TX, SM, 20Km, FC, Single Fiber, Standalone or 1U 19" racKmountable with internal mains supply for 110-220V AC 50-60Hz Type-M 15A Plug.
PV16R-SM-RM220		1xSM	16ch video RX, SM, 20Km, FC, Single Fiber, Standalone or 1U 19" racKmountable with internal mains supply for 110-220V AC 50-60Hz Type-M 15A Plug.
16-Channel Video Multiplexing with return Data Transmitters & Receivers, Single-mode			
PV16TDR-SM-RM220		1xSM	16ch video TX + Data RX, SM, 20Km, FC, Single Fiber, Standalone or 1U 19" racKmountable with internal mains supply for 110-220V AC 50-60Hz Type-M 15A Plug.
PV16RDT-SM-RM220		1xSM	16ch video RX + Data TX, SM, 20Km, FC, Single Fiber, Standalone or 1U 19" racKmountable with internal mains supply for 110-220V AC 50-60Hz Type-M 15A Plug.
16-Channel Video, Audio and Data Multiplexing Transmitters & Receivers, Single-mode			
PV16TATDT-SM-RM220		1xSM	16ch video TX + 16ch Audio TX + 16ch Data TX, SM, 20Km, FC, Single Fiber, Standalone or 1U 19" racKmountable with internal mains supply for 110-220V AC 50-60Hz Type-M 15A Plug.
PV16RATDT-SM-RM220		1xSM	16ch video RX + 16ch Audio TX + 16ch Data TX, SM, 20Km, FC, Single Fiber, Standalone or 1U 19" racKmountable with internal mains supply for 110-220V AC 50-60Hz Type-M 15A Plug.

Note: Function and fiber type must be the same for transmitter and receiver to work.

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