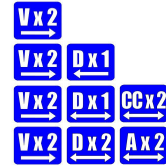


PV2 Series

2-Channel digital Video, Data, Audio & Contact
Fibre-optic multiplex & transmission system



Description

Precision's PV2 series transmits video, audio, data and contact closure signals over multi-mode and single-mode fibre-optic cable over distances of up to 20km. The PV2 series multiplexes and then sends video using 8-bit digital uncompressed full-D1 encoding for the best possible video quality under any condition. The PV2 can also send and receive data, audio and contact closure signals on the same simplex optic fibre. The PV2 is field-hardened for operation in harsh field conditions with very wide temperature swings. The PV2 series is available as standalone units, or rack-mount cards for high density applications.

Key Features

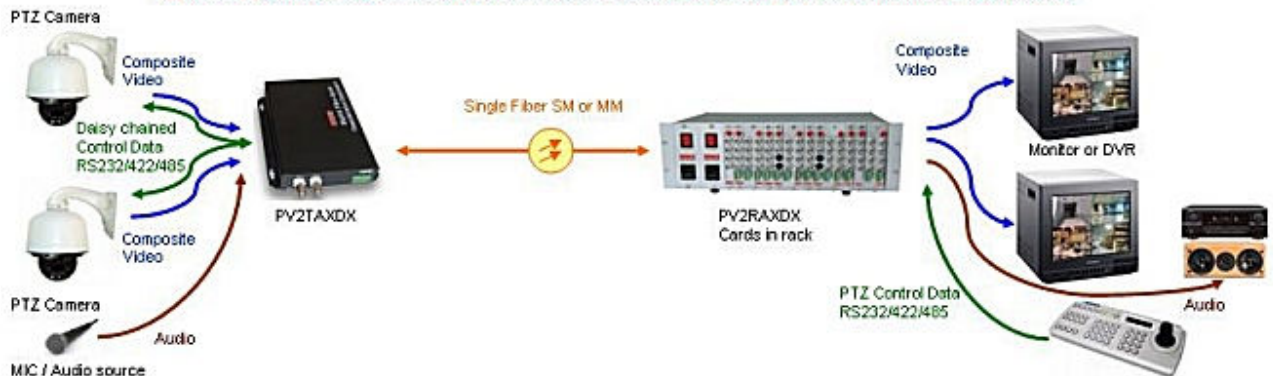
- 2-Channel 8 Bit uncompressed digital encoding
- Compatible with NTSC, PAL & SECAM video
- 2x BNC Video Connector
- 1x FC Optical Connector, simplex fibre
- Optional Audio, Data, and Contact Closure
- Manchester/Bi-phase, RS-232, RS-422, RS-485 (2 & 4 wire) Data (optional)
- 600 Ohm / 10k Ohm Unbalanced Audio (optional)
- High optic budget 12dB for multi-mode and 22dB for single-mode fibre
- Hot-swap 19" rack-mount card or standalone units
- Supplied with universal switch-mode power brick

Typical applications

Typical application: 2 channels Upstream Video from 2 static cameras to standalone receiver



Typical application: 2 channels Upstream Video, Audio, Bi-directional control data for PTZ cameras



Optic

Optic wavelength	Upstream:	1310nm
	Downstream:	1550nm
Optic transmit power	Single-mode:	-3dBm typ. +/- 5dB
	Multi-mode:	-13dBm typ. +/-5dBm
Optic receive sensitivity		-24dBm min
Optic budget	Single-mode:	22 dB
	Multi-mode:	12 dB
Optic Connector		FC

Video

Video formats	PAL, NTSC, SECAM	2-channel composite
Input bandwidth	5Hz – 8MHz	
Sampling resolution	8-bit uncompressed	Full D-1 (720x576) [576p]
BNC Input	1.0V p-p 75 Ω	2 connectors
Maximum input	2.0V p-p 75 Ω	
SNR	>63dB (quantified)	
Differential phase	≤ 1°	
Differential gain	≤ 1%	

Data (Optional)

Data channels	1 or 2 (certain models only)
Data formats	RS-232 (3-wire) option RS-422 (4-wire) RS-485 (2-wire)
Data rate	180Kbps max
Termination	120Ω
Data Direction	Bi-directional or Downstream only depends on model
Connector	RJ-45

Audio (Optional)

Audio channels	2 (certain models only)
Sampling rate	48KHz
Sampling resolution	16-bit uncompressed
Input impedance	600Ω
Input bandwidth	10Hz – 20KHz
SNR	>70dB (quantified)

Contact Closure (Optional)

Contact channels	2 (certain models only)
Contact Direction	Bi-directional
Input signal	Logic 0-12V ref GND
Max Input voltage	12V (not protected)
Output	potential-free relay
Max Output current	100mA

System

BER	10 E-9 max
MTBF	> 100000 Hr

Dimensions

12V standalone	179mm x 130mm x 29mm
Rack-mount card	3U, 1 slot (of 16)

Power

12V standalone	Universal AC adapter	110-220V AC 50-60Hz	12V DC 24Watt max
Rack-mount card	Rack power		24Watt max

























Environmental

Storage temperature	-40°C to +85°C
Operating temperature	0°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
2-Channel Video multiplexing Transmitters and Receivers, Multi-mode			
PV2T-MM-SA12		1xMM	2ch video TX, MM, 5KM, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2T-MM-RM		1xMM	2ch video TX, MM, 5KM, FC, Single Fiber, Rack-mount, powered from rack.
PV2R-MM-SA12		1xMM	2ch video RX, MM, 5KM, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2R-MM-RM		1xMM	2ch video RX, MM, 5KM, FC, Single Fiber, Rack-mount, powered from rack.
2-Channel Video multiplexing Transmitters and Receivers, Single-mode			
PV2T-SM-SA12		1xSM	2ch video TX, SM, 20KM, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2T-SM-RM		1xSM	2ch video TX, SM, 20KM, FC, Single Fiber, Rack-mount, powered from rack.
PV2R-SM-SA12		1xSM	2ch video RX, SM, 20KM, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2R-SM-RM		1xSM	2ch video RX, SM, 20KM, FC, Single Fiber, Rack-mount, powered from rack.
2-channel Video multiplexing Transmitters and Receivers with return data for PTZ control, Multi-mode			
PV2TDR-MM-SA12	 	1xMM	2ch video TX + Data RX, MM, 5KM, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2TDR-MM-RM	 	1xMM	2ch video TX + Data RX, MM, 5KM, FC, Single Fiber, Rack-mount, powered from rack.
PV2RDT-MM-SA12	 	1xMM	2ch video RX + Data TX, MM, 5KM, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2RDT-MM-RM	 	1xMM	2ch video RX + Data TX, MM, 5KM, FC, Single Fiber, Rack-mount, powered from rack.
2-Channel Video multiplexing Transmitters and Receivers with return data for PTZ control, Single-mode			
PV2TDR-SM-SA12	 	1xSM	2ch video TX + Data RX, SM, 20KM, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2TDR-SM-RM	 	1xSM	2ch video TX + Data RX, SM, 20KM, FC, Single Fiber, Rack-mount, powered from rack.
PV2RDT-SM-SA12	 	1xSM	2ch video RX + Data TX, SM, 20KM, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2RDT-SM-RM	 	1xSM	2ch video RX + Data TX, SM, 20KM, FC, Single Fiber, Rack-mount, powered from rack.

Ordering information (continued)

Model	Function	Fibre	Description
2-Channel Video multiplexing Transmitters and Receivers with Bi-directional data and 2 Bi-directional Contact closures, Multi-mode			
PV2TDXCX-MM-SA12		1xMM	2ch video TX + Data T&RX + 2Ch Contact T&RX, MM, 1Km, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2TDXCX-MM-RM		1xMM	2ch video TX + Data T&RX + 2Ch Contact T&RX, MM, 1Km, FC, Single Fiber, Rack-mount, powered from rack.
PV2RDXCX-MM-SA12		1xMM	2ch video RX + Data T&RX + 2Ch Contact T&RX, MM, 1Km, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2RDXCX-MM-RM		1xMM	2ch video RX + Data T&RX + 2Ch Contact T&RX, MM, 1Km, FC, Single Fiber, Rack-mount, powered from rack.
2-Channel Video multiplexing Transmitters and Receivers with Bi-directional data and 2 Bi-directional Contact closures, Single-mode			
PV2TDXCX-SM-SA12		1xSM	2ch video TX + Data T&RX + 2Ch Contact T&RX, SM, 20Km, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2TDXCX-SM-RM		1xSM	2ch video TX + Data T&RX + 2Ch Contact T&RX, SM, 20Km, FC, Single Fiber, Rack-mount, powered from rack.
PV2RDXCX-SM-SA12		1xSM	2ch video RX + Data T&RX + 2Ch Contact T&RX, SM, 20Km, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2RDXCX-SM-RM		1xSM	2ch video RX + Data T&RX + 2Ch Contact T&RX, SM, 20Km, FC, Single Fiber, Rack-mount, powered from rack.
2-Channel Video, Audio and Data multiplexing Transmitters and Receivers, Multi-mode			
PV2TAXDX-MM-SA12		1xMM	2ch video TX + 2ch Audio T&RX + 2ch Data T&RX, MM, 1Km, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2TAXDX-MM-RM		1xMM	2ch video TX + 2ch Audio T&RX + 2ch Data T&RX, MM, 1Km, FC, Single Fiber, Rack-mount, powered from rack.
PV2RAXDX-MM-SA12		1xMM	2ch video RX + 2ch Audio T&RX + 2ch Data T&RX, MM, 1Km, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2RAXDX-MM-RM		1xMM	2ch video RX + 2ch Audio T&RX + 2ch Data T&RX, MM, 1Km, FC, Single Fiber, Rack-mount, powered from rack.
2-Channel Video, Audio and Data multiplexing Transmitters and Receivers, Single-mode			
PV2TAXDX-SM-SA12		1xSM	2ch video TX + 2ch Audio T&RX + 2ch Data T&RX, SM, 20Km, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2TAXDX-SM-RM		1xSM	2ch video TX + 2ch Audio T&RX + 2ch Data T&RX, SM, 20Km, FC, Single Fiber, Rack-mount, powered from rack.
PV2RAXDX-SM-SA12		1xSM	2ch video RX + 2ch Audio T&RX + 2ch Data T&RX, SM, 20Km, FC, Single Fiber, Standalone 12V DC with Mains adapter for 110-220V AC 50-60Hz Type-M 15A Plug.
PV2RAXDX-SM-RM		1xSM	2ch video RX + 2ch Audio T&RX + 2ch Data T&RX, SM, 20Km, FC, Single Fiber, Rack-mount, powered from rack.
19 Inch Rack			
PVR316-DS220	NA	NA	19" Rack with 16 slots for video, audio, data, contact cards, 3U, with dual power 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. PV2 series is compatible with mini PVM2 series of same function.

Data Sheet Version

1.6

2010/01/20