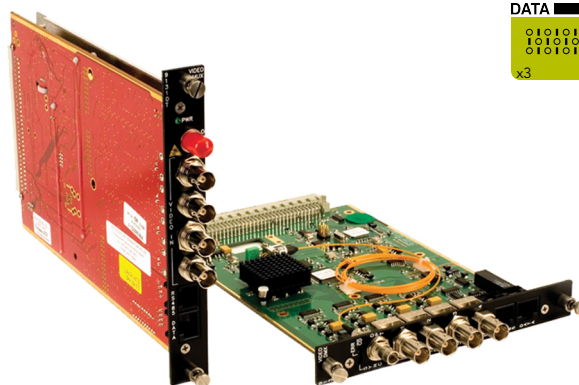


Features

- 4-channel video transmitters and receivers
- Uncompressed 10-bit digital video
- High quality video $\geq 67\text{dBw}$ SNR
- 3 simplex user-configurable data channels
- Rack-mount version
- Network Management System (NMS) compatible



9701D Series

Four-channel video with three simplex data channels

Description

The Optelecom® 9701D models digitise and transport four video signals and three data channels over one optical fibre in one direction. The use of 10-bit video sampling provides extremely high video quality. The RS-232, user-configurable RS-422/RS-485 Manchester 2-wire, and RS-485 2-wire ports add additional capability to this basic four-channel transport card.

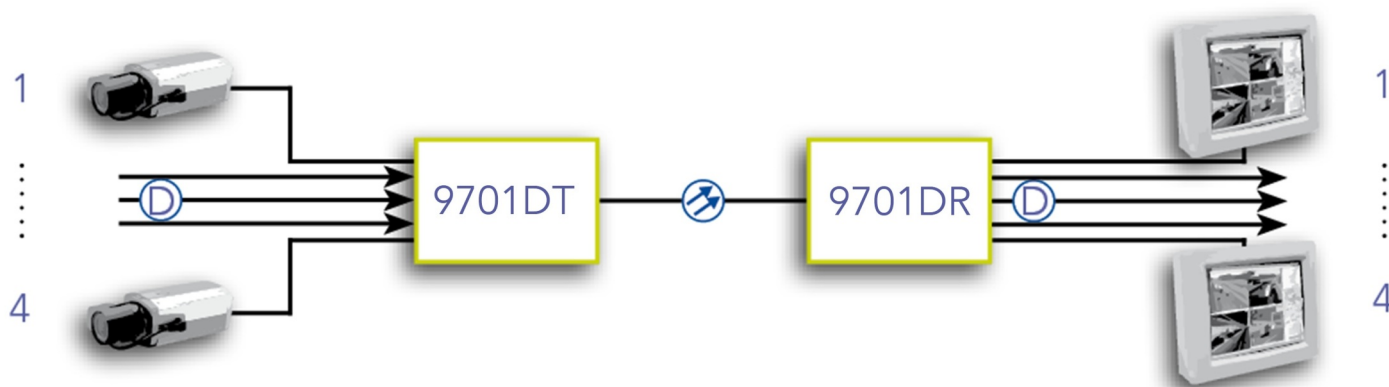
The wide operating temperature range of these units makes the 9701D series well-suited for environmentally harsh applications such as traffic monitoring, video surveillance in city centres, and federal and critical infrastructures.

The 9701D series comes as a rack-mount version only, suitable for a 9002 or 9008 power supply cabinet. The 9701D series modules are managed with the Optelecom Network Management System (NMS).

To create a stand-alone version of the 9701D rack-mount card, use the 9003-2 mini chassis.

Technical Specifications

9701D Series



Video (x4)

Number of channels	4
Video format	NTSC, PAL
Input/output level	1 Vpp (± 3 dB)
Bandwidth	6MHz (-3dB)
Sampling resolution	10-bit
Differential gain	<2%
Differential phase	<1°
Signal-to-noise ratio	≥ 67 dBw
Connector type	ST
Group delay	<20ns
Video sampling rate	56MHz

Data

Number of channels	3 (duplex)
Data port	
Connector type	RJ-45
Data type (bit/sampling rate)	1-channel RS-232 (DC-115.2 kbps / 1.5 MHz) 1-channel switch selectable RS-422, RS-485-4W, and RS-485-2W (DC-256 kbps / 3 MHz) or Manchester
RS-485 port	
Connector type	RJ-12
Data type	1-channel RS-485-2W (DC to 256 kbps / 3 MHz)

Power requirements

Voltage	5.7 to 6.4 VDC
Power consumption	
TX	460mA at 6 VDC (2.76W)
RX	420mA at 6 VDC (2.52W)
Rack-mount units	9002 or 9003-2 power supply chassis

Technical Specifications

9701D Series

Management

LED status indicators	Operational link (green), local synchronisation error (red)
9701DT	PWR
9701DR	SYNC
Management system	9900 Network Management System (NMS) compatible

Mechanical

Housing	Rack-mount units
Dimensions (h x w x d)	154.9 x 20.3 x 218.4 mm (6.1 x 0.8 x 8.6 in)
Weight	272 g (0.6 lbs)

Environmental

Operating temperature	-40 °C to +74 °C (-40 °F to +165 °F)
Storage temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Relative humidity	<95% with no condensation
MTBF (Mean Time Between Failures)	>100,000 hours
Safety and EMC	IEC/EN 60950-1, IEC/EN 60825-1, IEC 60825-2, EN 55024, EN 50130-4, EN 61000-6-2, EN 55022, FCC part 15

Optical

	9701DT/DR-LDL/LM TX/RX	9701DT/DR-LD/L TX/RX
Fiber type	1xMM (62.5)	1xSM (09)
Output wavelength	1310 nm/NA	1310 nm/NA
Output power	-4dBm/NA	-4dBm/NA
Input sensitivity	NA/-28dBm	NA/-29dBm
System link budget	24dB at 1310 nm	25dB at 1310 nm
Fiber length (range) ¹	8km	65km
Minimum link loss	0dB	0dB
Connector type	ST	ST (others optional)

*Due to fiber bandwidth, the maximum transmission distance may be limited to 4 km for MMH.

Ordering information

Description	Models	Fiber type
9701DT-LDL-ST	4-channel digital video transmitter	1xMM
9701DR-LM-ST	4-channel digital video receiver	1xMM
9701DT-LD-ST	4-channel digital video transmitter	1xSM
9701DR-L-ST	4-channel digital video receiver	1xSM



The quality management system used in the development, production, sales, and support of this product is ISO 9001:2008 certified by LRQA.

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