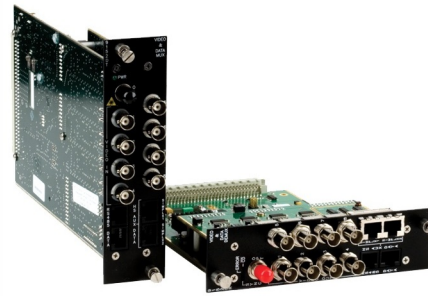


## Features

- 4-channel digital video multiplexer with data and High-Speed (HS) expansion ports
- Uncompressed 10-bit digital video
- Very high quality video  $\geq 67\text{dBw}$  SNR
- No signal degradation over long distances
- 3 built-in duplex data channels
- 2 high-speed data audio expansion ports (1 simplex, 1 duplex)
- Network Management System (NMS) compatible



## 9782D Series

### Eight-channel video with five duplex data channels

#### Description

The Optelecom® 9782D video/data transceivers use one optical fiber for simultaneous transmission of eight unidirectional camera signals, three simplex data signals and two duplex high-speed data signals. The use of 10-bit video sampling provides extremely high video quality over long distances.

#### Data channels

The RS-232, user-configurable RS-422/RS-485 Manchester 2-wire, and RS-485 2-wire ports add capability to this basic four-channel transport card. Two high-speed data expansion channels are available to support additional duplex audio/data contact closures, intercom links (9961A/9962A) and even Ethernet (9971/9973-C) requirements.

The wide operating temperature range of these units makes the 9782D series well-suited for environmentally harsh applications such as traffic monitoring, video surveillance in city centers, and federal and critical infrastructures.

The 9782D comes as a rack-mount version, suitable for a 9002 power supply chassis. To create a standalone version of the 9782D rack-mount card, use the 9003-2 mini chassis.



**optelecom**

# Technical Specifications

## 9782D Series



### Video

Number of channels	8
Video format	NTSC, PAL
Input/output level	1Vpp ( $\pm 3$ dB)
Bandwidth	6MHz
Sampling resolution	10-bit
Video sampling rate	56MHz
Differential gain	<2%
Differential phase	<1°
Signal-to-noise ratio	$\geq 67$ dBw
Connector type	ST
Group delay	<7ns

### Data

Number of channels	3 (simplex, in the video direction)
Data port	
Connector type	RJ-45
Data type (Bit/ sampling rate)	1-channel RS-232 (DC-115.2kbps/1.5MHz) 1-channel RS-422/ RS-485-2W/RS-485-4W/ Manchester, switch selectable (DC-256Kbps/3MHz)
RS-485 port	
Connector type	RJ-12
Data type	1-channel RS-485-2W (DC to 256kbit/s/3MHz)
High-speed port	
Number of channels	2 (1 simplex, 1 duplex)
Compatible plug-in expansion	Option module host (9961A-C or 9962A-C), cards 10Mb Ethernet (9971-C or 9972-C)

For more information on data interfaces, refer to the data sheet of the 9961 and 9962.

# Technical Specifications

## 9782D Series

### Management

LED status indicators	Operational link (green), local synchronization error (red), remote synchronization error (yellow)
Management system	9900 Network Management System (NMS) compatible

### Power requirements

Voltage	5.7 to 6.4VDC
Power consumption	
TX	670mA at 6VDC (4W)
RX	620mA at 6VDC (3.7W)
Rack-mount units	9002 or 9003-2 power supply chassis

### 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

### Mechanical

Housing	Rack-mount units
Dimensions (h x w x d)	154.9 x 40.6 x 218.4mm (6.1 x 1.6 x 8.6in)
Weight	362.9g (12.74oz)

### Optical

	9782DT/DR-MM TX/RX	9782DT/DR-SM TX/RX
Fiber type	1xMM (62.5)	1xSM (09)
Output wavelength	1310nm/1550nm	1310nm/1550nm
Output power	-4dBm/-7dBm	-4dBm/-7dBm
Input sensitivity	-26dBm/-19dBm	-30dBm/-24dBm
System link budget	15dB at 1310nm	20dB at 1310nm
Fiber length (range) <sup>2</sup>	2km	48km
Minimum link loss	0dB	0dB
Connector type	ST	ST (FC optional)

<sup>1</sup>Due to fiber bandwidth, the maximum transmission distance may be limited to 4km.

### Ordering Information

Models	Description	Fiber type
9782DT/MM-ST	8-channel digital video transmitter with 2-way data/HS channel	MM
9782DR/MM-ST	8-channel digital video receiver with 2-way data/HS channel	MM
9782DT/SM-ST	8-channel digital video transmitter with 2-way data/HS channel	SM
9782DR/SM-ST	8-channel digital video receiver with 2-way data/HS channel	SM



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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