

# 924XD SERIES

### 1-channel video w/3 duplex data/option channels

#### DESCRIPTION

The 924xD series modules digitize and transport one video, one duplex data, and two Option Module channels operating in both directions over one optical fiber. The dedicated data channel and two user selected option data types make this model pair a flexible and powerful solution.

#### **FEATURES**

Single-channel video transmitters and receivers

9-bit uncompressed digital video

High-quality video 63dBw SNR

1 duplex user-configurable data channel(s)

2 duplex user-configurable option modules

Standalone and rack-mount versions

Network Management System (NMS) compatible





The wide operating temperature range of these units makes the 9241D series well-suited for environmentally harsh applications such as traffic monitoring, video surveillance in city centers, and federal and critical infrastructures.

The 9241D series comes as a rack-mount version, suitable for a 9002, 9003-2, or 9008 power supply cabinet, or as a standalone unit. The 9241D series modules are managed with the Optelecom Network Management System (NMS).

To create a standalone version of the 9241D rack-mount card, use the 9003-2 mini chassis.



Video	
Video format	NTSC, PAL
Video input	1Vpp into 75
Connector type	BNC
Bandwidth	5Hz to 6.5MHz (-3dB)
Differential gain	1.0%
Differential phase	0.7°
Signal-to-noise ratio	63dBw
Video encoding	Uncompressed 9-bit linear PCM
Video sampling rate	16MHz
Option modules	
Number of free channels	2x duplex
A Module	1x audio
B Module	1x user-configurable data (RS-232, RS-422, RS-485)
C Module	1x contact closure
D or E Module	2x audio (simplex only)
GM or GR Module	2x intercom audio
om or or medale	ZA III. CO COM LIGHT
Management	
LED status indicators	
9241DT	Sync, video present
9241DR	Sync, Tx video present
9245DT	Sync, not sync, loop, RC, video present
9245DR	Sync, not sync, loop, RC, Tx video present
Management system	9900 Network Management System (NMS)
Power requirements	
9241DT	
Voltage	6VDC (chassis)
Current	700mA
9241DR	
Voltage	6VDC (chassis)
Current	700mA
9245DT	
Voltage	8-15VDC
Current	360mA at 12VDC
9245DR	
Voltage	8-15VDC
Current	360mA at 12VDC
Environmental	
Operating temperature	-40°C to +74°C (-40°F to +165°F)
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## Specs



Mechanical           9241DT           Housing         1-slot card, 9000 series chassis           Dimensions (h x w x d)         154.9 x 20.3 x 218.4mm (6.1 x 0.8 x 8.6in)           Weight         272g (9.55cg)           9241DR         1-slot card, 9000 series chassis           Housing         1-slot card, 9000 series chassis           Dimensions (h x w x d)         154.9 x 20.3 x 218.4mm (6.1 x 0.8 x 8.6in)           Weight         272g (9.55cg)           9245DT         40.6 x 81.3 x 127.0mm (1.6 x 3.2 x 5.0in)           Housing         Standalone           Dimensions (h x w x d)         40.6 x 81.3 x 127.0mm (1.6 x 3.2 x 5.0in)           Weight         36.3g (12.8cz)           9245DR         40.6 x 81.3 x 127.0mm (1.6 x 3.2 x 5.0in)           Weight         36.3g (12.8cz)           9241DT/DR-MMH TX/RX         Fiber type           MM (62.5)         Qutput wavelength           Output wavelength         1310mm/1550mm           Output power         -7dBm/-7dBm           Input sensitivity         -29dBm/-30dBm           System link budget         22dB*/23dB*           Fiber length (range)**         19km           Connector type         ST (others optional)           Output wavelength         1310mm/1550nm	Environmental	
### Standalone	Storage temperature	-55°C to +85°C (-67°F to +185°F)
Page	Relative humidity	<95% with no condensation
1-slot card, 9000 series chassis	Mechanical	
Dimensions (h x w x d)         154.9 x 20.3 x 218.4mm (6.1 x 0.8 x 8.6in)           Weight         272g (9.55oz)           9241DR         Housing           Housing         1-slot card, 9000 series chassis           Dimensions (h x w x d)         154.9 x 20.3 x 218.4mm (6.1 x 0.8 x 8.6in)           Weight         272g (9.55oz)           9245DT         Housing           Housing         Standalone           Dimensions (h x w x d)         40.6 x 81.3 x 127.0mm (1.6 x 3.2 x 5.0in)           Weight         363g (12.8oz)           9245DR         Housing           Housing         Standalone           Dimensions (h x w x d)         40.6 x 81.3 x 127.0mm (1.6 x 3.2 x 5.0in)           Weight         363g (12.8oz)           Optical           9241DT/DR-MMH TX/RX           Fiber type         MM (62.5)           Output wavelength         1310nm/1550nm           Output power         -7.8bm/7-78Bm           Input sensitivity         -2.9dBm/-30dBm           System link budget         22.dB*/23.8B*           Fiber length (range)**         5M (09)           Output wavelength         1310nm/1550nm           Output power         -7.4Bm/7-74Bm           Input sensitivity         -3.	9241DT	
Weight         272g (9.55oz)           9241DR           Housing         1-slot card, 9000 series chassis           Dimensions (h x w x d)         154 x 20.3 x 218.4mm (6.1 x 0.8 x 8.6in)           Weight         272g (9.55oz)           9245DT         Policy (1.6 x 3.2 x 5.0in)           Housing         Standalone           Dimensions (h x w x d)         40.6 x 81.3 x 127.0mm (1.6 x 3.2 x 5.0in)           Weight         363g (12.8oz)           9245DR         Policy (1.6 x 3.2 x 5.0in)           Housing         Standalone           Dimensions (h x w x d)         40.6 x 81.3 x 127.0mm (1.6 x 3.2 x 5.0in)           Weight         363g (12.8oz)           Optical           System in K w x d)           M (6.2 x 81.3 x 127.0mm (1.6 x 3.2 x 5.0in)           Weight           Optical           System in K w x d)           M (62.5)           Output wavelength         1310nm/1550nm           Output seviestivity         -29dBm/30dBm           System link budget         22dB*/23dB*           Fiber length (range)**         57km           Connector type         SM (09)           Output wavelength         1310nm/1550nm	Housing	1-slot card, 9000 series chassis
9241DR Housing 1-slot card, 9000 series chassis  Dimensions (h × w x d) 154.9 × 20.3 × 218.4mm (6.1 × 0.8 × 8.6in)  Weight 272g (9.55oz)  Housing Standalone  Dimensions (h × w x d) 40.6 × 81.3 × 127.0mm (1.6 × 3.2 × 5.0in)  Weight 363g (12.8oz)  9245DR  Housing Standalone  Dimensions (h × w x d) 40.6 × 81.3 × 127.0mm (1.6 × 3.2 × 5.0in)  Weight 363g (12.8oz)  9245DR  Housing Standalone  Dimensions (h × w x d) 40.6 × 81.3 × 127.0mm (1.6 × 3.2 × 5.0in)  Weight 363g (12.8oz)  Optical  9241DT/DR-MMH TX/RX  Fiber type MM (62.5)  Output wavelength 1310nm/1550nm  Output wavelength 22dB*/23dB*  Fiber length (range)** 19km  Connector type SM (09)  Output wavelength 1310nm/1550nm  Output power -7dBm/-7dBm  Input sensitivity -30dBm/-30dBm  System link budget 23dB/23dB  Fiber length (range)** 57km  Connector type ST (others optional)  **For 50/125m fiber, subtract 4dB.  *** Range may be limited by fiber bandwidth.	Dimensions (h x w x d)	154.9 x 20.3 x 218.4mm (6.1 x 0.8 x 8.6in)
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Housing   Standalone	Weight	272g (9.55oz)
Dimensions (h x w x d)	9245DT	
Weight         363g (12.8oz)           9245DR         Housing           Dimensions (h x w x d)         40.6 x 81.3 x 127.0mm (1.6 x 3.2 x 5.0in)           Weight         363g (12.8oz)    Optical  9241DT/DR-MMH TX/RX  Fiber type  MM (62.5)  Output wavelength  1310nm/1550nm  Output power  -7dBm/-7dBm  Input sensitivity  -29dBm/-30dBm  System link budget  22dB*/23dB*  Fiber length (range)**  19km  Connector type  ST (others optional)  9241DT/DR-SM TX/RX  Fiber type  SM (09)  Output wavelength  1310nm/1550nm  Output power  -7dBm/-7dBm  Input sensitivity  -30dBm/-30dBm  System link budget  23dB/23dB  Fiber length (range)**  57km  Connector type  ST (others optional)  ** For 50/125m fiber, subtract 4dB.  ** Range may be limited by fiber bandwidth.  Ordering information	Housing	Standalone
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Dimensions (h x w x d)	9245DR	
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9241DT/DR-MMH TX/RX  Fiber type	Weight	363g (12.8oz)
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9241DT/DR-SM TX/RX  Fiber type SM (09)  Output wavelength 1310nm/1550nm  Output power -7dBm/-7dBm  Input sensitivity -30dBm/-30dBm  System link budget 23dB/23dB  Fiber length (range)** 57km  Connector type ST (others optional)  *For 50/125m fiber, subtract 4dB.  ** Range may be limited by fiber bandwidth.  Ordering information	Fiber length (range)**	19km
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Output wavelength  1310nm/1550nm  Output power  -7dBm/-7dBm  Input sensitivity  -30dBm/-30dBm  System link budget  23dB/23dB  Fiber length (range)**  57km  Connector type  ST (others optional)  *For 50/125m fiber, subtract 4dB.  ** Range may be limited by fiber bandwidth.  Ordering information	9241DT/DR-SM TX/RX	
Output power -7dBm/-7dBm Input sensitivity -30dBm/-30dBm System link budget 23dB/23dB Fiber length (range)** 57km Connector type ST (others optional) *For 50/125m fiber, subtract 4dB. ** Range may be limited by fiber bandwidth.  Ordering information	Fiber type	SM (09)
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Fiber length (range)**  Connector type  ST (others optional)  *For 50/125m fiber, subtract 4dB.  ** Range may be limited by fiber bandwidth.  Ordering information	Input sensitivity	-30dBm/-30dBm
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*For 50/125m fiber, subtract 4dB.  ** Range may be limited by fiber bandwidth.  Ordering information	Fiber length (range)**	57km
** Range may be limited by fiber bandwidth.  Ordering information	Connector type	ST (others optional)
Ordering information		*For 50/125m fiber, subtract 4dB.
		** Range may be limited by fiber bandwidth.
	Ordering information	
	9241DT(XX)/MMH-ST	1-channel video with 3 duplex data/option channels   Fiber type : 1xMM





Ordering information	
9241DR(XX)/MMH-ST	1-channel video with 3 duplex data/option channels   Fiber type : 1xMM
9241DT(XX)/SM-ST	1-channel video with 3 duplex data/option channels   Fiber type : 1xSM
9241DR(XX)/SM-ST	1-channel video with 3 duplex data/option channels   Fiber type : 1xSM
9245DT	Standalone version of the 9421D transmitter model
9245DR	Standalone version of the 9421D receiver model
Replace (XX) in model number with code	e Option Modules
Refer to the Option Modules data sheet	or contact TKH Security Solutions



