

# SYN-8817 Series Fibre Optic Video/Data Modem

The Synectics™ SYN-8817 Fibre Optic Video and Data Modem offers full quality and reliable duplex connections for CCTV systems.



The transmitter is extremely compact to fit into most COEX™ camera housings, the Synectics™ SYN-8817 module offers quick installation without the need for an additional housing. The Synectics™ SYN-8817 card can fit neatly into your equipment cabinet by using the SYN-8817 or SYN370 fibre optic card cages.

The Synectics™ SYN-8817 is designed for high quality CCTV networks requiring video, full duplex or reverse data transmission between cameras and their control centre along with additional transmission of alarm and / or control signals from the camera stations.

- High quality CCTV networks requiring full duplex data and contact closure transmission between cameras and their control centre
- Ideal for CCTV systems in sectors such as onshore Oil & Gas sites, safe cities and transportation communication systems

## Features

- One way optic transmission of PAL, NTSC or SECAM video plus duplex transmission of one data channel and forward path transmission of a contact closure
- Broadcast quality 10 bit video maintained over all link lengths
- Video bandwidth of 8MHz
- Transmitter configuration controlled by receiver
- Single fibre operation
- Receiver available either as a single channel card (SYN-8817R) or module (SYN-8817RC) or as a dual channel card (SYN-8817R2)
- Optional network monitoring available
- Operates over either up to 3 km of multimode fibre or up to 80 km of singlemode fibre, depending on optical devices used

## Options

- Singlemode
- Multimode
- Available as a Card or Module Version
- Receivers Available as Single or Dual Channel

# Specifications

ENVIRONMENTAL		[OPTIONS]
Operating Temperature	-20°C to +75°C	
Relative Humidity	0-95% Non-condensing	
MECHANICAL		
SYN-8817R Card Dimensions (W x D x H)	25 x 208 x 100 mm	
SYN-8817T Module Dimensions (W x H x L)	40 x 25 x 55 mm	
SYN-8817R Module Dimensions (W x H x L)	60 x 26 x 93 mm	
SYN-8817R Card Weight	250 g	
SYN-8817T Module Weight	50 g	
SYN-8817R / SYN-8817R2 Module Weight	200 / 250 g	
ELECTRICAL		
Power Requirements SYN-8817T / SYN-817R / SYN-8817RC	+9 to 35Vdc or 20 to 28Vac @ 3VA	
Power Requirements SYN-8817R2	+9 to 35Vdc or 20 to 28Vac @ 5VA	
Chassis Current Consumption (CCC)	0.25 Amp for SYN-8817R / 0.40 Amp for SYN-8817R2	
Data Connector	6-way RJ11	
Data Interface	TLL, RS422 and RS485 / 31kHz Manchester or Biphase possible in either direction	
Data Rate	DC to >500kbps at less than 15% pulse width distortion	
Video Input / Output Impedance	75Ω	
Video Input / Output Level	1Vpp nominal	
Video Connector	BNC	
Video Bandwidth	5Hz to 8MHz +1, -3dB	
Video Distortion	<0.8% DG, <0.8° DP	
Weighted Video Signal to Noise Ratio	>65dB at all receive levels over full dynamic range	
SYN-8817R System Controls (for both ends)	RS422 or RS485 / 2W or 4W RS485	
Contact Transmission	Buffered input at SYN-8817T, MOSFET output at SYN-8817R	
OPTICAL		
Optical Connectors	ST standard, others optional	
Fibres Required	One only	
Optical Link Budget and Distances	>16dB: >3 km on multimode fibre @ 1310nm (fibre bandwidth limited) >14dB: >30 km on singlemode fibre @ 1310nm (fibre loss limited) >30dB: >80 km on singlemode fibre @ 1310nm for a SYN-8817 link with high power devices	
SYN-8817T Transmitter Wavelength	1310nm	
SYN-8817R Transmitter Wavelength	1550nm	
SYN-8817T Transmitter Coupled Power	-10 to -5dBm into multimode fibre / -13 to -6dBm into singlemode fibre	
SYN-8817R Transmitter Coupled Power	-9 to -4dBm into multimode fibre / -10 to -5dBm into singlemode fibre	
SYN-8817T Sensitivity	<-32dBm	
SYN-8817R Receiver Sensitivity	<-27dBm	
SYN-8817T Receiver Saturation	>-3dBm	
SYN-8817R Receiver Saturation	>-3dBm	
AUDIO		
Optional One Way Audio Channels Bandwidth	10Hz to 20kHz +1, -3dB	
Audio Input / Output Impedance	>10KΩ / <200Ω	
Audio Input Level	250mVrms nominal	
Audio Output Level	250mVrms nominal	
Audio Headroom	15dB	
Audio Weighted Signal to Noise Ratio	>90dB at maximum level	
Audio Distortion	<0.05%	
Audio Connector	3.5 mm stereo socket	
INDICATORS		
SYN8817T	Local Receive Sync OK / Remote Receive Link OK	
SYN-8817R (Two sets for SYN-8817R2)	Remote Receive Sync OK / Rx Video Present	

## Synectic Systems

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Specifications subject to change. E & OE.

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MANUFACTURER OF



CAMERA STATIONS

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