

# ECT144 ONE CHANNEL VIDEO WITH TWO DUPLEX RS-422 DATA CHANNELS OPTICAL LINK



Video	Data
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ECT144 system provides high performance link for transmitting unidirectional composite video channel along with two bi-directional RS-422 data channels over one or two fibers. The system features CCTV professional video quality and high speed RS-422 data transfer capability. ECT144 utilizes linear frequency modulation and very low noise transmission technology to assure high quality and stability.

## ORDERING INFORMATION

144E-VT/DX-MYZ – video TX/RS-422 data TRX module  
 144E-VR/DX-MYZ – video RX/RS-422 data TRX module  
 TX - transmitter, RX – receiver, TRX - transceiver

E = M for multimode 850 nm/TX  
 = M(13) for multimode 1300 nm/TX  
 = S for single mode 1310 nm/TX  
 = S(15) for single mode 1550 nm/TX

Y = 1 for single fiber system  
 = 2 for dual fiber system

Z = ST, FC, SC for optical connectors

**Note:** The specifications are subject to change without notice.

## FEATURES

- CCTV Professional Video Quality
- Balanced Video Input
- Compatible with NTSC, PAL and SECAM Transmission
- High Speed Duplex RS-422 Data Ports
- Multimode and Singlemode Versions
- Power and Signal Status Indicators

Operating Wavelength	850 nm	1300 nm	1310/1550 nm
Optical Core Diameter	50µ/62.5µ		8/10µ
Optical Power Source	VCSEL	LED	Laser
Optical Power Output*	-7 dBm	-14 dBm	-8 dBm
Video Receiver Sensitivity	-30 dBm	-34 dBm	-36 dBm
Video Receiver Sensitivity**	-29 dBm	-33 dBm	-35 dBm
Data Receiver Sensitivity	-32 dBm	-35 dBm	-37 dBm
Data Receiver Sensitivity**	-31 dBm	-34 dBm	-36 dBm
Optical Connectors	ST, SC		FC, ST, SC

\* with +/- 1 dBm variation; higher power laser sources are available per special request;  
 \*\* for one-fiber configuration with internal WDM

Video Bandwidth @ 3 dB	7 MHz
Video Input Impedance	75 Ohm balanced
Video Output Impedance	75 Ohm unbalanced
Video Input/Output Level	NTSC: 1.0 Vp., PAL: 1.3 Vp. (+1/-3 dB)
Video Input Overload	Up to 3 Vp.
Signal-to-Noise Ratio	62 dB*
Diff. Gain (-20°C to +70°C)	< 4 %
Diff. Gain (-30°C to +85°C)	< 7 %
Diff. Phase (-20°C to +70°C)	< 4 °
Diff. Phase (-30°C to +85°C)	< 7 °
Field Tilt	< 2 %
Luminance Non-Linearity (-20°C to +70°C)	< 4 %
Luminance Non-Linearity (-30°C to +85°C)	< 7 %
Data Interface	RS-422
Data Rate	Up to 200 Kb/s
Bit Error Rate	10 <sup>-9</sup>
Power Requirements	11 – 14 VAC/VDC @ 300mA 21 - 27VAC @ 200mA
Operating Temperature	-30°C to +85°C (-22°F to +185°F)
Module Dimensions	6.7"(170mm) x 4.95"(126mm) x 1.32"(34mm)

\* measured as per RS-250C @ 100m for multimode and 1km for single mode optical cable.

