

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



Video	Data
1	2
→	↔

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 ⁻⁹
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.



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