

ECT5000 SERIES

ECT5142 1 CHANNEL VIDEO/12BIT, 4 CHANNEL AUDIO/24 BIT AND 2 CHANNEL DATA DIGITAL LINK



Video	Audio	Data
1	4	2

The ECT5142 system provides a high performance link for unidirectional or bi-directional transmitting of one composite video, four audio and two data channels over a single fiber optic cable. The system features broadcast video quality providing 12-bit video processing with uncompressed digital transmission.

ECT5142 utilizes high speed Analog-to-Digital and Digital-to-Analog Conversion with 12-Bit Resolution, Digital Signal Processing, Time Division Multiplexing and Fibre Optic Transmission at a data rate of up to 500 Mbit/sec.

FEATURES

- Broadcast Video Quality with 12-bit Uncompressed Video Processing
- Supports NTSC, PAL, SECAM and Component (YUV, RGB, Y/C) Video Formats
- Video Cable Equalization
- 2 x Stereo or 4 x Mono Audio Channels
- 2 x RS-232/RS-422/TTL/Contact Closure or 1 x RS-485 Data Channels
- Multifunction Power and Signal Status Indicators

Fiber Type	Multimode	Singlemode
Optical Core Diameter	50μ/62.5μ	8/10μ
Operating Wavelength	850	1310/1550 nm
Optical Power Source	Laser (VCSEL)	Laser
Optical Power Output	-2 dBm	-5 dBm*
Receiver Sensitivity	-24 dBm	-26dBm
Optical Connectors	ST, SC**	FC, ST, SC**

*with +/- 1.5 dBm variation: higher power laser sources are available per special request.

**for transceivers only

Video Channel Characteristics

Video Bandwidth @1dB	10MHz
Video Input	75 Ohm balanced
Video Output	75 Ohm unbalanced
Video Input Level	NTSC: 1.0 V p-p, PAL: 1.3 V p-p
Video In/Out Cable Equalization	Up to 300 meters
Signal-to-Noise Ratio	72 dB*
Differential Gain	< 0.25 %
Differential Phase	< 0.25 °
Field Tilt	< 0.25 %
Luminance Non-Linearity	< 0.25%
Chrominance/ Luminance Delay	< 20ns
K-2T Factor	< 1.0%

*measured with ECT5142 receiver as per RS-250C



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Audio Channel Characteristics

Audio Input	600 Ω or 10K, Balanced
Audio Input Levels	0 to +18 dBm
Audio Output	Balanced or Unbalanced
Audio Output Levels	0 to +18 dBm (balanced, 10K load), 0 to +12dBm (unbalanced, 10K load)
Audio Bandwidth	10Hz to 20 kHz
Audio Signal-to-Noise Ratio	< 90 dB (0 dBm, 10K Load)
THD	<0.1% (0 dBm, 10K Load)

Data Channel Characteristics

Supported Data Formats:	RS-232, RS-422, TTL, Contact Closure
Simplex or Duplex	RS-485
Duplex	
Data Channel Bit-Rate	Up to 2.5Mb/sec (1Ch. mode) Up to 300 Kbit/sec (2Ch. mode)
Bit Error Rate	10^{-9}

Power Requirements:	
Transmitter or Receiver	12 V DC @ 0.5A
Transceiver	12 V DC @ 1.0A
Operating Temperature	-30°C to +70°C (-22°F to +158°F)
Dimensions (without connectors):	
Transmitter or Receiver	11.6"(295mm) x 5.20"(133mm) x 1.0"(26mm)
Transceiver	11.6"(295mm) x 5.20"(133mm) x 2.0"(52mm)

ORDERING INFORMATION

5142F-VADTU-M1Z – video, audio & data transmitter module
 5142F-VADRU-M1Z – video, audio & data receiver module
 5142F-VADTU-C1Z – video, audio & data transmitter card*
 5142F-VADRU-C1Z – video, audio & data receiver card*
 5142F-VAT/DXU-MYZ – video, audio transmitter & data transceiver module
 5142F-VAR/DXU-MYZ – video, audio receiver & data transceiver module
 5142F-VADXU-MYZ – video, audio & data transceiver module
 5142F-VADXU-CYZ – video, audio & data transceiver card*

- F = M for multimode 850nm
- = M(13) for multimode 1300nm
- = S for singlemode 1310nm
- = S(15) for singlemode 1550nm
- U = 1 for TTL, 3 for RS-232, 4 for RS-422, 5 for RS-485, 9 for Contact Closure
- Y = 1, 2 for number of fibers
- Z = ST, FC, SC** for optical connectors

*compatible with USR type subrack;

**for transceivers only



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