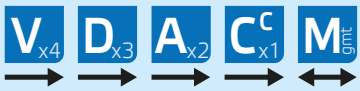
Product Information – CEV-4ch CWDM uni-directional

Four channel video modem

For high performance uncompressed real time video transmission. CEV is a common nominator for next generation video modems in the CFO OP-X CWDM platform.



New CEV video modems are basic building blocks for multi-channel video transmission system providing uni-directional transmission of 4 zero-delay video channels together with uni-directional audio, data and contact closure channels over one singlemode fibre.

Evolving from the CVM series, the new generation CEV video modems bring the CFO system into an entirely new era of modern fibre optic transmission. In addition to enhanced 10 bit video, multiple data RS-data channels, dual audio capacity and contact closure channel are available to same transmission direction as video.

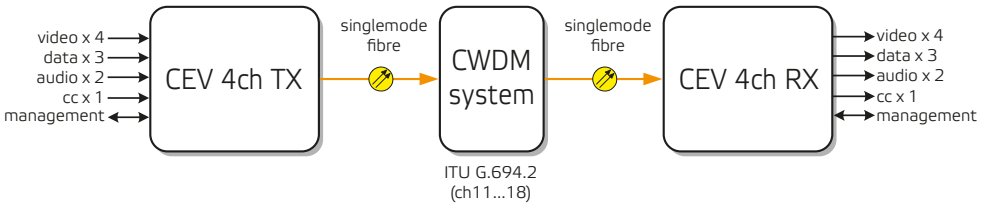
CEV Video modems are fully compatible with CFO platform mechanics. Standard CSR series racks and CMA series module adapters are available for easy installations.

As with all CFO platform products these specific models do meet all typical EMC as well as other environmental and manufacturing related requirements.

Features

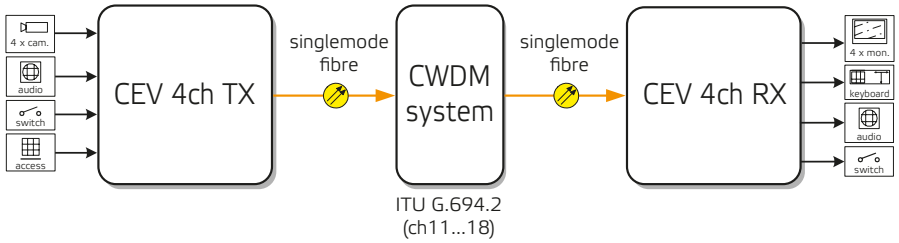
- High performance uncompressed real time digital video transmission, SNR 67 dB typical, 10 bit video sampling
- Four CVBS (PAL/NTSC) or two Y/C video channels
- 3 x uni-directional data interfaces, compatible with EIA232/422 (simplex)
- User data rate up to 230 kbps / channel
- 2 x uni-directional audio, support unbalanced or balanced wiring
- 1 x uni-directional contact closure
- Complies to ITU G.694.2 CWDM grid from ch 11 to ch 18
- Card format applicable both for rack mount and stand-alone installations
- Mechanically compact and ruggedised
- EMC and environmental conformance
- CE approved

Block diagrams



Note! All channels to same direction as video.

Application example



Technical specifications *(Typical values unless otherwise stated)*

Optical		
CWDM wavelengths	1470 nm...1610 nm	ITU G.694.2 *
Output power	-1 dBm	
Received power	-4 dBm	max
	-24 dBm	min
Video		
Number of channels	4	uni-directional
Standard	PAL/NTSC or Y/C	CVBS
Input and output signal levels	1 Vp-p	
Input overload level	1.5 Vp-p	DC component
Impedance	75 ohm	
Sampling	10 bits / 15.55 MHz	
Bandwidth	6.5 MHz	- 3 dB
C/L gain inequality	3 %	
C/L delay inequality	40 ns	max
Differential gain	2 %	max
Differential phase	2º	max
S/N ratio	67 dB	unified, weighted
Data		
Number of channels	3	uni-directional / simplex
Data 1 & 2 format	RS232/422	selectable
Data 3 format	RS232	fixed
Data rate	0...230 kbps	all channels
Audio		
Number of channels	2 uni-directional	unbalanced / balanced
Sampling frequency	60.5 kHz	
Sampling resolution	16 bits	
Input impedance	600/10k ohm	selectable
Output impedance	10 ohm	
Nominal level	0 dBm	
Clipping level	+20 dBm	
Frequency response	0.02...20 kHz	- 3 dB, ref. 1 kHz
S/N ratio	70 dBqp	CCIR weighted

Contact Closure		
Number of channels	1	uni-directional
Input	dry contact	
Output	30V / 1A (relay)	max
Switching frequency	5 Hz	
Management		
CLI	RS232 and/or TCP/IP	
SNMP	V2, MIB II	
General		
Supply voltage	10.5...14 V DC	regulated
Current consumption (max)	750 mA	steady state
Dimensions (H x W x D)	3U ● 10HP ● 190 mm	without CMA
Weight	0.770 kg	
Connectors		
Video	BNC female	
Data/audio/cc/mgmt	RJ-45 female	
Optical	SC/APC 8º	
Operating temperature	-34...+74 ºC	
Storage temperature	-34...+74 ºC	
Humidity	0...95 %	non condensing
EMC compatibility	EN61000-6-4, EN50130-4, CE	

Notes

* channel to be specified when ordering

Class 1M Laser Product

P4P_CEV4U, October 2012