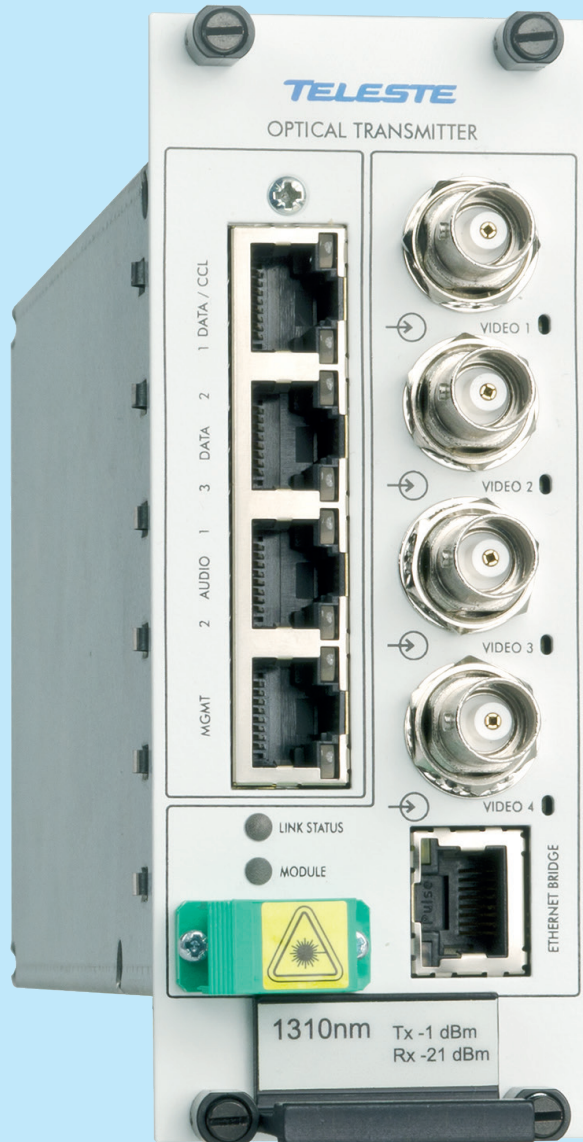


Four Channel Video Links

For high performance uncompressed real time video transmission. CFO First Mile product consist of fibre optic video modems providing a lossless point-to-point transmission system for variety of CCTV applications.



CFO product family video modems are typically used in point-to-point fibre optic transmission systems. The optical operation on CFO461 is based on 1310/1310 nm bidirectional signalling whereas the CFO491 with 1550/1310 nm WDM operation brings extra gain to link budget. All four baseband video channels are interference-free and independent on other sub-channels.

CFO461 and CFO491 modems support multiple serial data needs such as PTZ and access control as for instance. The dual audio channels are suitable for

any PA needs but are fit for broadcast purposes as well.

In addition to standard analog interfaces the series can offer a Fast Ethernet port for bridge type network operation. The Ethernet capability offers an easy migration path e.g. for LAN extensions, IP cameras, edge recording, or any IP device on remote CCTV camera locations.

CFO video modems are manageable over TCP/IP connection or locally via a serial port. Units are open to any 3rd party network management system via SNMP.

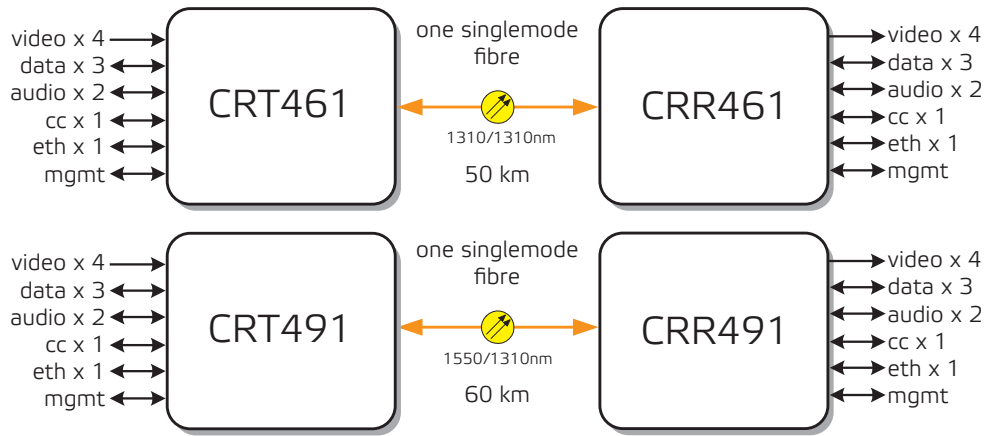
CFO video modems are temperature hardened and well-suited for industrial, traffic and urban monitoring systems. Stand-alone units mounted into CMA adaptors can be equipped with optional CLP line protectors providing a surge/transient protection as well a common mode interference filtering.

Indoor installations can be executed by standard 19" racks powered by robust AC or DC supplies (redundancy option). All CFO units follow a mix-and-match fashion and can share the common installation base.

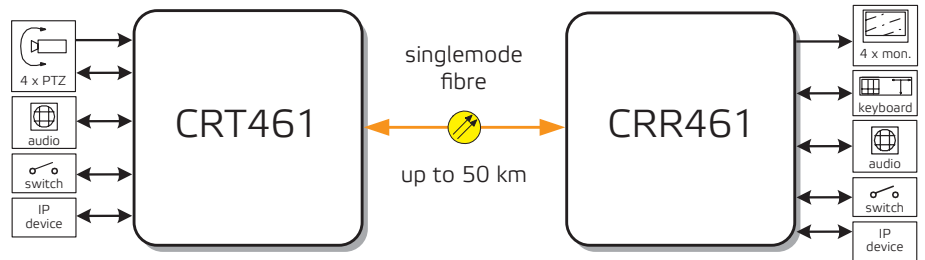
Features

- High performance uncompressed real time digital video transmission, typical SNR 67 dB, 10 bit video sampling
- Four CVBS (PAL/NTSC) video or two Y/C video channels
- 1 x 10/100Base-Tx Ethernet
- Autonegotiation, FD or HD selectable
- 3 x bi-directional data interfaces, compatible with RS232/422/485
- User data rate up to 230 kbps / channel
- 2 x bi-directional audio, supports unbalanced or balanced wiring
- 1 x bi-directional contact closure I/O
- In-band configuration and management
- Card format applicable both for rack mount and stand-alone installations
- Mechanically compact and ruggedised
- EMC and environmental conformance
- CE approved

Block diagrams



Application example



Technical specifications (Typical values unless otherwise stated)

Optical			Contact Closure		
Wavelength	1310/1310 nm 1550/1310 nm	CFO461 bi-directional CFO491 bi-directional	Number of channels	1	bi-directional
Output power	-1 dBm +1 dBm	CFO461 CFO491	Input	dry contact	open/close, max loop R 120 ohm
Received power	-21 dBm -23 dBm	CFO461 min. CFO491 min.	Output	relay	max 30 V/1A switching
Video			Data rate	5 Hz	max
Number of channels	4	uni-directional	Ethernet Bridge		
Standard	PAL/NTSC or Y/C	CVBS	Number of ports	1	bi-directional
Input and output signal levels	1 Vp-p		Port type	10/100Base-TX	configurable
Input overload level	1.5 Vp-p	DC component	Compliant	IEEE802.3, IEEE802.3U	
Impedance	75 ohm		Thruput	99 Mbps	max
Sampling	10 bits / 15.55 MHz		Management		
Bandwidth	6.5 MHz	- 3 dB	Command Line Interface	RS-232 and/or TCP/IP terminal	
C/L gain inequality	3 %		SNMP	v2, MIB-II, remote via network	
C/L delay inequality	40 ns	max	General		
Differential gain	2 %	max	Supply voltage	10.5...14 V DC	regulated
Differential phase	2°	max	Current consumption (max)	750 mA	steady state
S/N ratio	67 dB	unified, weighted	Dimensions (H x W x D)	3U • 10HP • 190 mm	
Data			Weight	0.8 kg	
Number of channels	3	bi-directional	Connectors		
Data 1 & 2 format	RS232/422/485	selectable	Video	BNC female	
Data 3 format	RS232	fixed	Data/audio/cc/mgmt/Ethernet	RJ-45 female	
Data rate	0...230 kbps	all channels	Optical	SC/APC 8°	angle-polished only
Dwelltime setting	50...10000 µs	RS485 2-wire	Environmental		
Audio			Operating temperature	-34...+74 °C	
Number of channels	2 bi-directional	unbalanced / balanced	Storage temperature	-34...+74 °C	
Sampling frequency	60.5 kHz		Humidity	0...95 %	non condensing
Sampling resolution	16 bits		EMC compatibility	EN61000-6-4, EN50130-4, CE FCC CFR 47 Part 15 (subpart B, class A)	
Input impedance	600/10k ohm	selectable	IP Housing	IP20	
Output impedance	10 ohm		Notes		
Nominal level	0 dBm		Class 1M Laser Product		
Clipping level	+20 dBm				
Frequency response	0.02...20 kHz	- 3 dB, ref. 1 kHz			
S/N ratio	70 dBq	CCIR weighted			

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