

Single 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 CFO161 is based on 1310/1310 nm bidirectional signalling whereas the CFO191 with 1550/1310 nm WDM operation brings extra gain to link budget. The core operation is on lossless real-time standard definition baseband video.

CFO161 and CFO191 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 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.

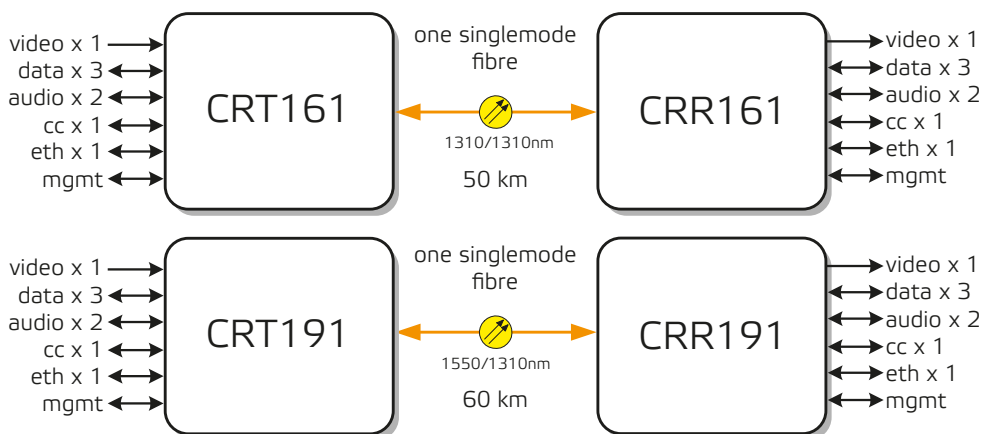
Stand-alone units mounted into CMA adaptors can be equipped with optional CLP line protectors providing a surge/transient protection as well a common mode interference filtering.

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.

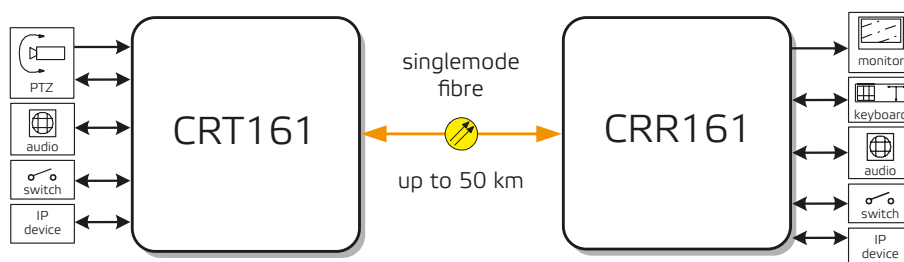
Features

- High performance uncompressed real time digital video transmission, typical SNR 67 dB, 10 bit video sampling
- One CVBS (PAL/NTSC) video channel
- 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	CFO161 bi-directional CFO191 bi-directional	Number of channels	1	bi-directional
Output power	-1 dBm +1 dBm	CFO161 CFO191	Input	dry contact	open/close, max loop R 120 ohm
Received power	-21 dBm -23 dBm	CFO161 min. CFO191 min.	Output	relay	max 30 V/1A switching
Video			Data rate	5 Hz	max
Data			Ethernet Bridge		
Number of channels	1	uni-directional	Number of ports	1	bi-directional
Standard	PAL/NTSC	CVBS	Port type	10/100Base-TX	configurable
Input and output signal levels	1 Vp-p		Compliant	IEEE802.3, IEEE802.3U	
Input overload level	1.5 Vp-p	DC component	Thruput	99 Mbps	max
Impedance	75 ohm		Management		
Sampling	10 bits / 15.55 MHz		Command Line Interface	RS-232 and/or TCP/IP terminal	
Bandwidth	6.5 MHz	- 3 dB	SNMP	v2, MIB-II, remote via network	
C/L gain inequality	3 %		General		
C/L delay inequality	40 ns	max	Supply voltage	10.5...14 V DC	regulated
Differential gain	2 %	max	Current consumption (max)	750 mA	steady state
Differential phase	2°	max	Dimensions (H x W x D)	3U • 10HP • 190 mm	
S/N ratio	67 dB	unified, weighted	Weight	0.7 kg	
Audio			Connectors		
Number of channels	3	bi-directional	Video	BNC female	
Data 1 & 2 format	RS232/422/485	selectable	Data/audio/cc/mgmt/Ethernet	RJ-45 female	
Data 3 format	RS232	fixed	Optical	SC/APC 8°	angle-polished only
Data rate	0...230 kbps	all channels	Environmental		
Dwelltime setting	50...10000 µs	RS485 2-wire	Operating temperature	-34...+74 °C	
Notes			Storage temperature	-34...+74 °C	
Class 1M Laser Product			Humidity	0...95 % non condensing	
			EMC compatibility	EN61000-6-4, EN50130-4, CE FCC CFR 47 Part 15 (subpart B, class A)	
			IP Housing	IP20	

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