

Single channel video link

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.



This selected CFO series is capable of proving an optical transmission for a composite video, one serial data and one contact closure type I/O channel. Data and CC communication is 2-way. Data channel is configurable to various RS modes by DIP switches.

This series has dedicated models for multimode and single mode fibre operation. Typical achievable transmission distance in multimode fibre (OM1 & 2) is 5 km. For single mode fibre the typical

max distance is either 20 km or 60 km depending on model.

The video transmitters in this range are available only in a compact size standalone format which is suitable for various mounting schemes. Also a DIN mounting is available as an option. The powering for standalone unit is provided by additional CPS25x series mains adapters. A special model CCT541 is available for integrated dome camera mounting and it is in specific compatible with Pelco Spectra® III & IV domes.

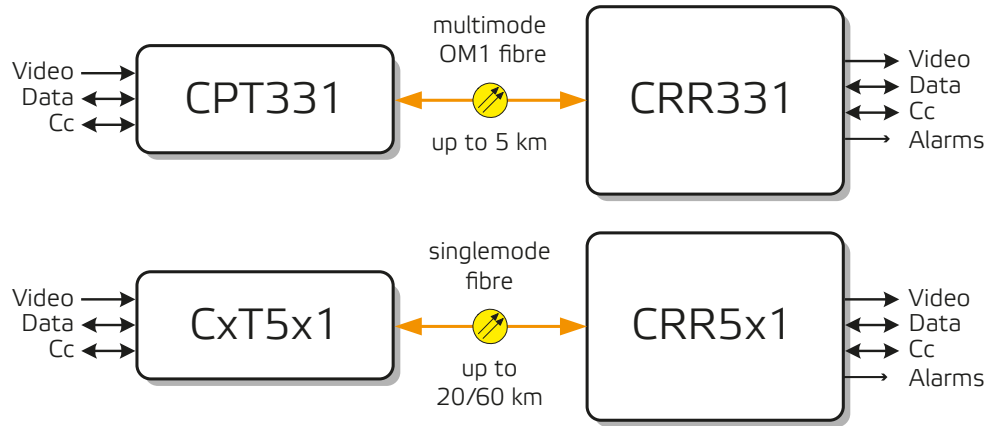
All video receivers are slim 5HP wide rack cards compatible with CFO series 19" installation racks with redundant powering options.

The primary application is a point-to-point transmission from camera to monitoring location. In advanced video network systems CFO First Mile series provides a flexible way to bring the camera feeds in reach of the nearest IP network collection point for further encoding.

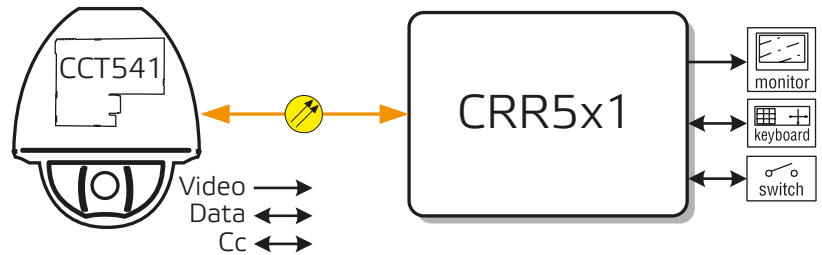
Features

- High performance uncompressed zero delay digital video transmission, SNR 67 dB typical, 10 bit video sampling
- One CVBS (PAL/NTSC) video channel
- One bi-directional data interface, compatible with EIA232/422/485
- Data rate up to 230 kbps
- One bi-directional contact closure
- Transmission on one multimode fibre up to 5 km (CFO331)
- Transmission on one singlemode fibre up to 20/60 km (CFO521/541)
- Units for rack mount or stand-alone installations
- Mechanically compact and ruggedised (CPT)
- CCT541 transmitter add-on board for dome camera installations (compatible with Pelco Spectra® III & IV series)

Block diagrams



Application example



Technical specifications *(Typical values unless otherwise stated)*

Optical, forward			Data		
Output wavelength	1310 nm	typical, +/- 50 nm	Number of channels	1	bi-directional
Output power	-15...-8 dBm	CFO331, MM	Data format	RS232/422/485	selectable
Input sensitivity	-28 dBm, min	CFO331	Data rate	0...230 kbps	
Output power	-14...-8 dBm	CFO521, SM	Sampling rate	16 MHz	
Input sensitivity	-31 dBm, min	CFO521	Data connector	Screw terminal	
Output power	-5...0 dBm	CFO541, SM	Contact Closure		
Input sensitivity	-33 dBm, min	CFO541	Number of channels	1	bi-directional
Bit rate	202.5 Mbps		Input	dry contact	
Optical connector type	SC/PC		Output	24V / 1A (relay)	max
Optical, return			Switching frequency	5 Hz	
Output wavelength	1550 nm, typical, +/-50 nm		Contact closure connector	Screw terminal	
Output power	-15...-8 dBm	CFO331	Alarms		
Input sensitivity	-28 dBm, min	CFO331	Video	CC output	configurable
Output power	-14...-8 dBm	CFO521	Optical input signal	B alarm	CRR
Input sensitivity	-31 dBm, min	CFO521	General		
Output power	-15...-8 dBm	CFO541	Supply voltage	10.5...14 VDC	regulated
Input sensitivity	-33 dBm, min	CFO541	Supply voltage connector	16...28 VAC	CPT, CCT
Bit rate	40.5 Mbps		Current consumption	screw terminal	CPT
Optical connector type	SC/PC		Video & link status	250 mA	max
Video			<u>Dimensions (H x W x D)</u>		
Number of channels	1	uni-directional	CRR	3U ● 5HP ● 190 mm	without CMA
Standard	PAL/NTSC	CVBS	CPT	35 ● 48 ● 62 mm	without connectors
Input level	1 Vpp		CCT	81 ● 64 ● 16 mm	without connectors
Input overload level	1.75 Vpp		Weight	0.1 kg	CCT
Impedance	75 ohm			0.2 kg	CPT
Sampling resolution	10 bit			0.5 kg	CRR
Sampling rate	13.5 MHz		Video & link status	LED displays	
Bandwidth	5.5 MHz	-1 dB	Operating temperature	-10...+60 °C	CFO521
Insertion gain	+/-1 dB			-34...+74 °C	CFO331/541
C/L gain inequality	4 %		Storage temperature	-40...+80 °C	recommended
C/L delay inequality	40 ns		Humidity	0...95 %	non condensing
Differential gain	2 %		EMC compatibility	EN61000-6-3, EN50130-4, CE	
Differential phase	1°		Notes		
SNR	67 dB	weighted	Class 1 Laser Product		
Video connector	BNC female		Class 1M Laser Product		
			CFO521		
			CFO331/541		

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