

Features

- 4-channel digital video multiplexer with 2-way PTZ data
- Uncompressed digital video (SNR >63 dBw)
- High-speed full-duplex data channels
- No signal degradation over long distances
- Adjustment-free operation
- Compact rack-mount or stand-alone
- SNM™ compatible

Description

The TETRA 4200 provides a compact and versatile combination of video and a universal data channel, which can be deployed for PTZ applications.

The multiplexer simultaneously transmits four camera signals with two-way data, one single-mode or multimode optical fiber. Uncompressed 9-bit digitizing, over-sampling and digital filtering ensure a very high transmission performance of the video channels, exceeding the requirements of the EIA RS-250-C short-haul specifications.

The highly configurable data interface is suitable for RS-232/422/485, TTY, Manchester and biphase, and provides compatibility with any CCTV equipment.

Preliminary product data

TETRA 4200



9-bit

The wide operating temperature range of these units make the TETRA 4200 system extremely well suited for environmentally harsh applications such as traffic monitoring, incident management, video surveillance in city centers, airport security etc.

The TETRA 4200 comes as a Eurocard cassette, suitable for an MC 10 or MC 11 power-supply cabinet, or as a stand-alone unit (/SA version). LED indicators give an instant overview of the system's status.

Smart Network Management (SNM™) provides status information of all transmission parameters.

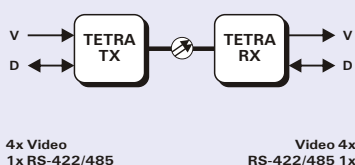
Ordering information

Model	Description	Fiber	Wavelengths	Budget	Housing	Managed
TETRA 4210 TX TETRA 4210 RX	4-channel digital video mux with 2-way data 4-channel digital video demux with 2-way data	MM	850/1300 nm	16 dB ¹	rack-mount	SNM
TETRA 4250 TX TETRA 4250 RX TETRA 4250 RX/ED	4-channel digital video mux with 2-way data 4-channel digital video demux with 2-way data 4-channel digital video demux with 2-way data, extended distance	SM	1310/1550 nm	20 dB ²	rack-mount	SNM
TETRA xxxx /SA	Stand alone version of the TETRA models					

¹): Due to fiber bandwidth the maximum transmission distance may be limited to 3.5 km. For 50/125 μ fiber subtract 4 dB.

²): Due to dispersion at 1550 nm distance may be limited to 20 km or less.

Applications



TETRA 4200

Technical Specifications

Video

Number of channels	4
Video format	PAL/NTSC
In-/output level	1 Vpp (± 3 dB)
DC restore (clamping)	On or off (selectable)
Bandwidth (-3 dB)	6 MHz
Sampling resolution	9-bit
Sampling rate	27 Msamples/s, 2x over-sampled
Differential gain	< 2%
Differential phase	< 1°
Group delay	< 33 ns
SNR	> 63 dB (weighted)
Connector type	BNC 75 Ω (gold-plated centerpin)

Data

Number of channels	1 (full-duplex)
Data interface	RS-422/485 (2- or 4-wire)
Interface support	Current loop / TTY / TTL / Manchester/Bi-phase
Data format	Asynchronous, serial
Data rate	DC to 1.5 Mb/s
Sampling rate	15 M samples/s
Connector type	5-p screw terminal

Powering

Power consumption	< 6 W (1 A inrush)
Rack-mount units	MC 10 and MC 11 power-supply cabinets
Stand-alone units (/SA)	11 to 16 Vdc (PSA 12 DC/25 or PSR 12 DC)

Management

LED status indicators	
DC	Power-on indicator (green)
NV	No video on in- or output (red)
SYNC	Full-duplex link (green), local (red) or remote synchronization error (yellow)
Network Management	SNM™ compatible
SNM™ variables	PS Voltages, module temperature, module status, optical levels, configuration, etc

Environmental

Operating temperature	-40 to +74°C
Relative humidity	< 95% (no condensation)
MTBF	> 250,000 h
Safety & EMC	IEC/EN 60950-1, IEC/EN 60825, IEC/EN 61000, EN 50130-4, EN 50081-1, EN 55022, FCC part 15

Mechanical

Dimensions (hxwxhd)	128 x 35 x 190 mm
Weight (approximately)	490 g
Housing	Rack-mount or stand-alone

Optical	TETRA 4210		TETRA 4250		TETRA 4250	
	TX	RX	TX	RX	TX	RX/ED
Fiber type	1x MM		1x SM		1x SM	
System budget	> 16 dB @ 1310 nm		20 dB @ 1310 nm		20 dB @ 1310 nm	
Link length	3.5 km		20 km		48 km	
Min. link loss	0 dB		0 dB		0 dB	
Output wavelength	1300 nm	1550 nm	1310 nm	1550 nm	1310 nm	1550 nm
Output power	-4 dBm	-7 dBm	-4 dBm	-7 dBm	-4 dBm	-7 dBm
Input sensitivity	-30 dBm	-20 dBm	-30 dBm	-24 dBm	-30 dBm	-24 dBm
Connector type	SC		SC		SC	

