

## TETRA 5200

### Features

- 4-channel digital video multiplexer with two-way data
- Uncompressed 10-bit video (SNR >67 dBw)
- Low cost
- No signal degradation over long distances
- Adjustment-free operation
- Compact rack-mount or stand-alone
- SNM™ compatible



10-bit

### Description

TETRA 5200 video/data transceivers use one optical fiber for simultaneous transmission of four unidirectional camera signals and one bidirectional data signal. Due to the sophisticated 10-bit A/D conversion techniques used, high-quality and superbly stable video signals can be sent over very long distances without degradation.

The fully transparent RS-422/485 data channel offers transmission speeds of up to 128 kbit/s, the interface being configurable for compatibility with all CCTV equipment. (Manchester, biphase, etc.)

The system will operate within a broad temperature range, which makes it suitable for outdoor applications.

Each compact TETRA 5200 transceiver comes as a Eurocard module to be slotted into an Optelecom-NKF MC 11 power-supply cabinet, or as a stand-alone unit (/SA version). TETRA 5200 equipment is SNM™ compatible.

### Ordering information

Model	Description	Fiber type	Wavelength(s)	Budget	Housing	Managed
TETRA 5210 TX TETRA 5210 RX	4-ch. digital video multiplexer with 2-way data 4-ch. digital video demultiplexer with 2-way data	MM	1300/850 nm	13 dB <sup>1)</sup>	rack-mount	SNM
TETRA 5250 TX TETRA 5250 RX	4-ch. digital video multiplexer with 2-way data 4-ch. digital video demultiplexer w. 2-way data	SM	1310/1550 nm	22 dB	rack-mount	SNM
TETRA 5250 TX /HP TETRA 52xx /SA	High-power 4-ch. video mux with 2-way data Stand-alone versions of rack-mount models	SM	1310/1550 nm	26 dB	rack-mount stand-alone	SNM SNM

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

### Applications



## Technical Specifications

### Video

Number of channels	4
Video format	PAL/SECAM/NTSC
In-/output level	1 Vpp ( $\pm 3$ dB)
DC restore (clamping)	On or off (selectable)
Bandwidth (-3 dB)	7.5 MHz
Sampling resolution	10-bit
Sampling rate	18 Msamples/s
Differential gain	< 1%
Differential phase	< 1°
Group delay	< 50 ns
SNR	> 67 dB (weighted)
Connector type	BNC 75 $\Omega$ (gold-plated centerpin)

### Data

Numbers of channels	1 (full-duplex)
Data interface	1x RS-422/485 (4- or 2-wire)
Interface support	Manchester / Bi-phase
Data format	Asynchronous, serial
Data rate	DC to 128 kb/s
Sampling rate	1.5 Msamples/sec
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	> 100,000 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 (hwxwd)	128 x 35 x 190 mm
Weight (approximately)	490 g
Housing	Rack-mount or stand-alone

Optical	TETRA 5210		TETRA 5250		TETRA 5250	
	TX	RX	TX	RX	TX/HP	RX
Fibre type	1x MM		1x SM		1x SM	
System budget	13 dB <sup>1</sup> @ 850 nm		22 dB @ 1310 nm		26 dB @ 1310 nm	
Min. link loss	0 dB		0 dB		4 dB @ 1310 nm	
Output power	> -8 dBm	> -20 dBm <sup>1</sup>	> -2 dBm	> -7 dBm	> 2 dBm	> -7 dBm
Output wavelength	1300 nm	850 nm	1310 nm	1550 nm	1310 nm	1550 nm
Input sensitivity	< -33 dBm	< -15 dBm	< -27 dBm	< -24 dBm	< -27 dBm	< -24 dBm
Connector type	ST		FC (others optional)		FC (others optional)	

<sup>1</sup>): Due to fiber bandwidth the maximum transmission distance may be limited to 4 km. For 50/125 m fiber subtract 4 dB.

