Optelecom-nkf

V 8x | A stereo | D 4x | CC 2x

8-channel digital video, audio, data MM

OCTA 5300

10-bit

Features

- 8-channel digital video multiplexer with twoway audio and data
- Exceeds EIA RS-250C short haul
- Real-time 10-bit uncompressed video
- Advanced digital filtering
- No signal degradation over long distances
- Adjustment-free operation and installation
- Compact rack-mount or stand-alone
- SNM™ compatible

Description

Providing a compact combination of signal quality and ease of use, the OCTA 5300 can simultaneously transmit eight camera signals with two audio, four data and two telemetry signals over one multimode optical fiber. Uncompressed 10-bit digitizing, oversampling and digital filtering ensure a very high video transmission performance, exceeding the requirements of the EIA RS-250C short haul specifications.

The wide operating temperature range of these units makes the OCTA 5300 system extremely well suited for environmentally harsh applications, such as traffic monitoring, incident management, video surveillance in city centres, airport security, etc.

OCTA 5300 equipment comes as twin Eurocard cassettes, suitable for MC 11 power-supply cabinets, or as stand-alone units (/SA version). LED indicators provide an instant overview of the system's status.

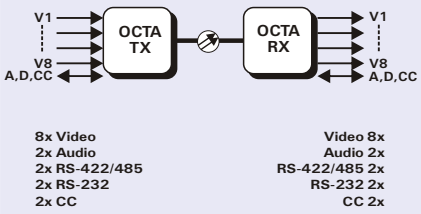
Smart Network Management (SNM™) provides status information of all transmission parameters.

Ordering information

Model	Description	Fiber type	Wavelength(s)	Budget	Housing	Managed
OCTA 5310 TX OCTA 5310 RX	8-ch digital video muliplexer, 2-way audio/data 8-ch digital video demultiplexer, 2-way audio/data	MM	1310/850 nm	10 dB[1]	rack-mount	SNM
OCTA 53xx /SA	Stand-alone versions of rack-mount models				stand-alone	SNM

[1]): Due to fiber bandwidth the maximum transmission distance may be limited to 2 km. For 50/125 μ fiber subtract 4 dB.

Applications



OCTA 5300

Technical Specifications

Video

Number of channels	8
Video format	PAL/SECAM/NTSC
In-/output level	1 Vpp (±3 dB)
DC restore (clamping)	On or off (selectable)
Bandwidth (-3 dB)	6 MHz
Sampling resolution	10-bit
Sampling rate	27 Msamples/s, 2x oversampled
Differential gain	< 1%
Differential phase	< 1°
Group delay	< 10 ns
SNR	> 67 dB (weighted)
Connector type	BNC 75 Ω (gold-plated centerpin)

Audio

Number of channels	2 (full-duplex)
Bandwidth	20 Hz to 20 kHz
Sampling resolution	16-bit
In-/output level	0 dBV (+6 dBV max.)
Total harmonic distortion	< 0.25% at nominal level
SNR	> 75 dBA
Input impedance	> 50 kΩ or 600 Ω bal.
Output impedance	< 50 Ω bal.
Connector type	RJ45

Powering

Power consumption	< 12 W (2 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)
D1, D3	RS-4xx data activity on input (red/green = 1/0)
D2, D4	RS-232 data activity on input (green/off = 1/0)
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

Data

Number of channels	4 (full-duplex)
Data interface	2x RS-232 2x RS-422/485 (2- or 4-wire)
Interface support	Current loop / TTY / TTL/ Manchester/Bi-phase
Data format	Asynchronous, serial
Data rate	DC to 64 kb/s
Sampling rate	750 Ksamples/s
Connector type	RJ45

Contact Closure

Number of channels	2 (full-duplex)
Input	+5 V pull-up, 10 kΩ
Threshold	0.75 V
Output	Fail-safe, potential-free
Switch rating	2 A at 30 Vdc
Connector type	RJ45

Mechanical

Dimensions (hxwxd)	128 x 71 x 190 mm
Weight (approx.)	900 g
Housing	Rack-mount or stand-alone

Optical	OCTA 5310 TX	RX		
Fibre type	1x MM			
System budget	10 dB[1] @ 850 nm			
Min. link loss	0 dB			
Output power	>-4 dBm	>-20 dBm[1]		
Ouput wavelength	1300 nm	850 nm		
Input sensitivity	<-30 dBm	<-20 dBm		
Connector type	ST			

[1]): Due to fiber bandwidth the maximum transmission distance may be limited to 2 km. For 50/125 µ fiber subtract 4 dB.