

DVBus 8550/8750

Features

- Compact 8 to 64-channel single fibre, digital video system
- Drop & insert (digital video bus)
- Exceeds EIA RS-250C short haul
- 10-bit uncompressed video
- Advanced digital filtering
- No latency
- Stand-alone or rack-mount
- SNM™ compatible



10-bit

Description

The DVBus 8550/8750 system offers very versatile and cost-effective solutions for uncompressed video transmission over one fibre. 10-bit encoding and digital filtering ensure a system performance exceeding the EIA RS-250C short haul specifications. The system is also available with bidirectional digital stereo audio, data and contact closures. The DVBus can transport from 8 up to 64 high-quality, real-time camera signals over one fibre simultaneously. The basic building blocks are 8-channel video transmitters and receivers, which lets you easily build complicated video

transmission systems, such as a video bus, drop-and-insert chains and point-to-point links, by mere optical loop-through. Featuring adjustment-free installation and operation, convenient front panel status LEDs and SNM™ management, topped with a wide operating temperature range, DVBus 8550/8750 systems are extremely well suited for applications such as traffic monitoring, incident management, video surveillance in city centres, airport security, etc.

Ordering information

Model	Description	Fibre type	Budget	Housing	Managed
DVBus 8550 Tx ^x DVBus 8550 Rx ^x	8-ch. digital video multiplexer, fibre channel x ^x 8-ch. digital video demultiplexer, fibre channel x ^x	SM	21 dB	rack-mount	SNM
DVBus 8750 Txy ^{xy} DVBus 8750 Rxy ^{xy}	8-ch. digital video mux with audio/data, fibre ch. x ^{xy} and y ^{xy} 8-ch. digital video demux with audio/data, fibre ch. x ^{xy} and y ^{xy}	SM	21 dB	rack-mount	SNM
DVBus 8x50 /HS DVBus 8xxx /SA	High-sensitivity digital video demultiplexer Stand-alone versions of rack-mount models	SM	29 dB	rack-mount stand-alone	SNM SNM

^x) x = fibre channel a, b, c, d, e, f, g, or h.

^{xy}) xy = fibre channels ab, cd, ef, or gh.

Applications



Technical Specifications

Video

Number of channels per unit	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 (gold plated pin)

Audio (model 8750 only)

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 k or 600 bal.
Output impedance	< 50 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 (model 8750 only)

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 (model 8750 only)

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

Mechanical

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

Optical	DVBus 8550 Tx - Rx	DVBus 8550 Tx - Rx/HS	DVBus 8750 Tx - Rxx	DVBus 8750 Txx - Rxx/HS
Fibre type	1x SM	1x SM	1x SM	1x SM
Optical return loss	>45 dB	>45 dB	>45 dB	>45 dB
System budget	21 dB	29 dB	21 dB	29 dB
Min. link loss	2 dB	11 dB	2	11 dB
Insertion loss	1,5 dB	1,5 dB	3 dB	3 dB
Output power	2 dBm	2 dBm	2 dBm	2 dBm
Output wavelength	1470-1610 nm	1470-1610 nm	1470-1610 nm	1470-1610 nm
Input sensitivity Rx	0 to -19 dBm	-9 to -27 dBm	0 to -19 dBm	-9 to -27 dBm
Input sensitivity Tx			2 to -28 dBm	2 to -28 dBm
Connector type	2x SC/APC	2x SC/APC	2x SC/APC	2x SC/APC

