SmartMux 3000

FDM

Features

- High-performance, drop and insert video, audio and data multiplexer
- Greater flexibility with a high capacity of real-time video, audio and data signals, without any digital artefacts
- Redundant design with no single point of failure offers unparalleled network availability
- Advanced network management and control featuring real-time video switching
- Modular design allows for future growth and investment protection

Description

SmartMux 3000 is the next generation of the highly successful AWS 3000 system, perfected with state-of-the-art network components, such as digital interfaces for two-way audio and data (ADS 3000).

With a capacity of 32 real-time images per wavelength (160 images with DWDM), and the possibility to drop and insert signals along the way, SmartMux 3000 is the most economic transmission solution for large and complex video networks.

Scalability

Network interfaces are available for video, audio and data, offering compatibility with any CCTV supplier. Network nodes are optimised for the required number of interfaces. The modular design is prepared for future system expansion. For ease of installation, system components are hot-swappable and auto-discovered by the management system (SNM™).

Built-in video switch

SmartMux 3000 multiplexers can simultaneously carry a huge amount of video, audio and data signals. By using the built-in switching facilities, only the signals in use are carried to the control station, thus limiting the required network capacity and obviating the need for external video switches.
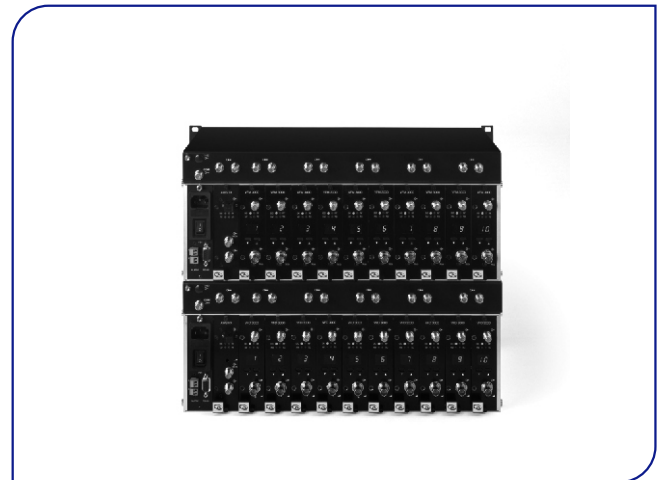
Performance

The SmartMux 3000 excels in the transmission quality of video, audio and data signals. SmartMux 3000 reserves broadband video channels for transporting uncompressed video signals, without the performance and latency problems known to come with video compression. Also, using the ADS 3000, no concessions are made regarding either the audio channels (16 bit digitised audio) or the data channels (high sample frequency). Everything to ensure the highest transmission performance possible.

Redundancy

The proven reliability of the SmartMux 3000 system components, the possibility of redundancy switching (FOS), and redundant powering (MC 10), make SmartMux video networks extremely fault-tolerant. A network based on SmartMux 3000 is therefore well suited for mission-critical applications.
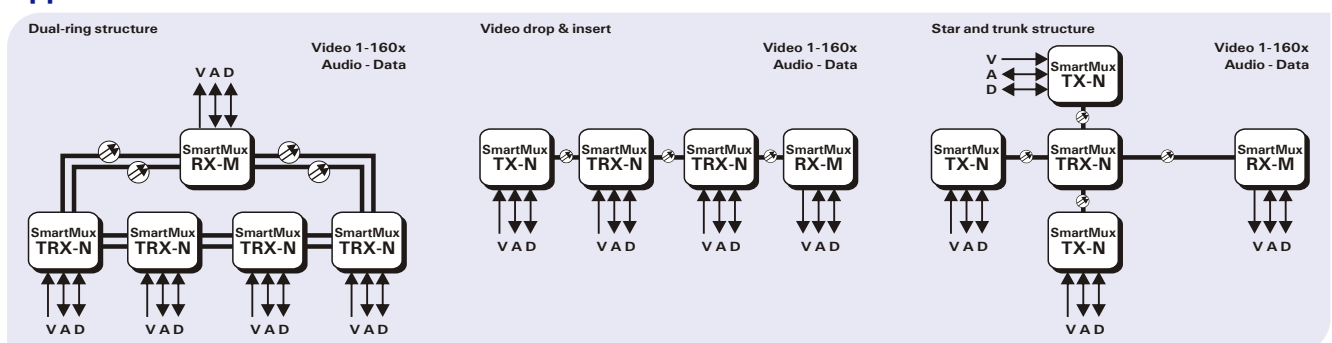
Management

All SmartMux 3000 network components are equipped with an interface for Smart Network Management (SNM™). With SNM™, the network can be remotely controlled, managed and configured. SNM™ also controls the switching facilities of the SmartMux 3000 network nodes.

Ordering information

Please contact us for system designs.

Applications

SmartMux 3000

Technical Specifications

Video

Number of channels	32 per wavelength
	2 to 160 max. per fiber
Video format	PAL/SECAM or NTSC (optional)
In-/output level	1 Vpp ($\pm$ 3dB)
Video mute (NV)	On or off (optional)
Bandwidth ($\pm$ 3dB)	10 MHz
Differential gain	3 %
Differential phase	3 °
Group delay	10 ns
SNRweighted	> 60 dB (short link)
Connector type	BNC (gold-plated centerpin)

Data

Number of channels	4 per (video)channel
Interfaces	2x RS-232;
	2x RS-422/485 (2- or 4-wire)
Format	Bidirectional, asynchronous, serial
Data rate	DC to 64 kb/s
Sample rate	512 ksample/s
Connector type	RJ45

Audio

Number of channels	2 per (video)channel
In-/output level	0 dBV (+6 dBV max.)
In-/output impedance	50 kΩ / 50 Ω balanced
Bandwidth	40 to 15 kHz
Tot. harmonic distortion	< 1%
SNR	> 62 dBA
Connector type	RJ45

Contact Closure

Number of channels	2 per (video)channel
Input configuration	+5 V pull-up over 10 kΩ
Threshold	0.75 V
Output configuration	Pot. free contacts, fail-safe (follows input)
Switch rating	2 A at 20 Vdc
Connector type	RJ45

Optical

Power source	FP or DFB laser
Output power	-7, 0, 3, 6 or 12 dBm
Wavelength	1310, 1550 or DWDM
	(4- or 8-ch. according ITU grid)
Input detector	PIN or APD
Input sensitivity	-25 or -28 dBm

Environmental

Operating temperature	-15 to +55°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

ADS 3000 TRA/TRB

FOS Fibre Optic Switch