Modular digital video routers

256x256 Modular routers

The Modular 3GHD256256L router is part of the VikinX Modular range, offering up to 256x256 3G-SDI, HD-SDI or SD-SDI X-points. It provides a very compact frame, fully hot-swappable architecture, built-in dual redundant power supply and fully redundant controller functions. Starting with the 32x32, the router can be expanded under operation with 32x32 increments. Advanced control features like TCP/IP interface and SNMP agent, as well as comprehensive surveillance of the router's vital parameters are available via the Multicon monitoring and control system. The Modular 3G/HD/SD-SDI router provides output reclocking and input (cable) equalization; which can be turned on/off on an individual basis. As with our well known VikinX compact router series, low power consumption is important. VikinX Modular provides a fully hot-swappable architecture—all components are front loaded without any active components on the rear panel. VikinX Modular provides important third-party control interfaces allowing the control of our routers through third-party management software.

Key features

- 256x256 3G/HD/SD-SDI router
- Uses VikinX Modular components I/O boards, PSU and controller
- Additional eight monitor outputs
- Extended router lines (16x8); makes it possible to add standard Flashlink cards in the router and control them like a regular router input/output
- Provides all main features known from VikinX Modular HD/SD routers
- Lowest power consumption available, approx. 560W
- 3G-SDI, HD-SDI, SD-SDI, DVB-ASI, MADI and AES-3id audio in one frame
- All active components hot-swappable and front loaded

Ordering options 3G/SD-SDI 21 RU modular router

18591 3GHD256256L	256x256 3G-SDI fully equipped modular router with single power supply and Multicon VX-MOD
18597 XC-M256256-3GHD	Main X-point module for 3GHD256256L
SD256256L	256x256 SD-SDI fully equipped 21RU modular router with single power supply and Multicon VX-MOD

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Power supply

Built-in, redundant power supply. 1 module included, 1 (redundant) optional	
Total power consumption	<300W
AC Supply voltage range	90 – 130VAC/180 – 254VAC, switchable, 50 – 60Hz, 300W
AC Mains connector	IEC 320, separate input for each PSU module
Optional DC/DC power supply	
DC Supply voltage range	36 – 72VDC, 300W
DC Mains connector	Screw terminal, separate input for each PSU module
Alarms	Power failure alarm on relay contact closure, LED in front, and open collector
Alarms connector	RJ45

Control

Serial ports	RS232/RS422 for protocol conversion, to VikinX compact control protocol, or to third-party protocols. (1x per Multicon1 card)
Connector	DB9, female
Ethernet ports	10/100 Base-T Ethernet bus for external router control with new protocol. (1x per Multicon1 card)
Connector	RJ45
EDH & Monitoring	Error detection and handling integrated in monitoring outputs. 1 channel available for switch through inputs
Connector	BNC, 75 Ohm
Monitored parameters (via Multicon)	Loss of signal Lock and clock rate on reclockers Module temperature Internal module voltages
Status surveillance	On each board with LED, and via system controller
Reclocker option	Bypass of reclocking (from system controller)
Input equalizer option	Bypass of input equalization (from system controller)
Configuration storage	Removable compact flash card
Other features	Video switching synchronized on selectable field and line number. Monitoring output on separate channel from each module. 32x1 switch on separate level. (Same as EDH channel). SNMP agent, included with Multicon1
Optional features	
Redundant control	Redundant matrix control using 2x Multicon

Electrical signal inputs, SD-SDI routers

Standard	SMPTE-259M
Data rate	19.4Mbps, 143Mbps – 540Mbps
Connector	BNC, 75 Ohm
Cable equalization	0 to 250m, typical Belden 8281

Electrical signal inputs, 3G/HD/SD routers

Standard	SMPTE-259M, SMPTE-292M and SMPTE-424M.
Data rate	19.4Mbps, 143Mbps – 2.97Gbps
Connector	BNC, 75 Ohm
Cable equalization	0 to 70m @ 3Gbps, typical Belden 1694A 0 to 100m @ 1.5Gbps, typical Belden 1694A 0 to 200m @ 270Mbps, typical Belden 1694A

Electrical signal outputs, SD-SDI routers

Connector	BNC, 75 Ohm
Signal level	800mVp-p ±10%
Signal polarity	Non-inverting

Electrical signal outputs, 3G/HD/SD routers

Connector	BNC, 75 Ohm
Signal level	800mVp-p ±10%
Signal polarity	Non-inverting

Reference inputs

Number of inputs	2 standard; both reference signals supplied to both system controllers when used in redundant mode
Connector	75 Ohm BNC female, loop-thru
Return loss	>40dB (100kHz – 5MHz >35dB (5 – 10MHz)
Signal format	NTSC or PAL Black&Burst or HD Tri-Level according to SMPTE-274M, SMPTE 276M
Signal level	Nominal 1.0Vp-p
Field selectivity	Odd/even field selectable
Timing adj. range	0-20 lines in 1 line steps Vertical interval switching point: Manual configuration with options fully in accordance with SMPTE RP168

[1] GYDA-VX must be applied for SNMP agent if Syscon is used; only Multicon includes SNMP agent.