

CYGNUS



3 Gig native HD routing.



FEATURES

- Specifically designed for 1.5Gbit/s HD and 3Gbit/s 1080p
- 576 x 576 in 26U (including redundant PSUs)
- 288 x 576 in 21U
- Dual redundant PSU
- Dual redundant controllers
- 3GB/s capable cards route 3G, 1.5G HD-SDI and SDI
- SDI cards route SDI, ASI only
- Control using Nebula or new MCM Controller
- Dual Ethernet (one per controller)
- 4 x RS485 ports, configurable as remote or panel ports
- Monitoring and alarms of PSUs, fans, controllers, all signal cards.
- Four video references (all black & burst or HD tri-level) – allows clean multi standard switching
- Timecode input for pre-loaded timed switching
- Monitoring outputs – 4 for input and output monitoring

The Cygnus router range offers the highest density routing available using industry standard BNC connections - essential for the low loss long cable runs associated with routers of this size. Full redundancy for power and control make it an ideal choice for the most 'mission critical' applications.

Complimenting the Sirius 256 and Sirius Gold routers, which offer multi format operation in one frame, Cygnus offers compact low cost routing for video applications, with enhanced control and monitoring facilities.

The Cygnus family consists of two different frame configurations:
576 x 576 in 26U (24U + 2U PSU frame).
288 x 576 in 21U (19U + 2U PSU frame).

Different formats are configurable in any combination of 12 channel input and 24 channel output blocks, up to 576 x 576 in 1 frame, with further expansion available by combining frames. You can add input or output modules at any time, allowing you to grow your system easily, and affordably.

Four monitoring outputs allow simultaneous monitoring of both inputs (i.e. before the primary crosspoint cards) and outputs.

In addition to its integration with the Morpheus Control and Monitoring system (providing a wide range of enhanced control of routing, master control, modular and automation products) Cygnus is fully compatible with the Pro-Bel Aurora control system, and has an internal controller providing the ability to add local control panels and UMDs direct from the router. Control is further enhanced with the options of Pro-Bel General Switcher protocol via RS485 or Ethernet, OEM protocols, or SNMP. Designed for the whole spectrum of routing applications, the Cygnus router is available with redundant on-board controllers and power supplies guaranteeing 24 by 7 operation.



Design Features

Cygnus, like all Pro-Bel's hardware products, has robustness and ease of maintenance built-in...as is essential for any critical signal application. All modules are 'hot-pluggable', with surge suppression circuitry and phased power-up allowing quick and safe module swapping.

The dual redundant power supply units supply only 48 volts, all modules convert this to the required levels locally, which not only makes the power routing simple, but provides thorough power rail isolation between modules. The robust approach to redundancy is further aided by the retention of crosspoint and configuration data in non-volatile control card memory.

A separate PSU chassis allows the PSUs to be installed remotely from the router frame, giving flexibility in rack layout.

If dual control cards are fitted, crosspoint, configuration and database information is synchronised between the two cards. Changeover is automatic in the event of failure, and the tri-state buffering of all control signals ensures that changeover is also transparent to both the internal and any external systems.

All modules are addressed by their position, rather than by jumper settings and the careful consideration of power routing and driver voltage levels ensures that mis-plugged modules are not damaged.

Signal routing was designed from the outset for 3Gbit/s, with a single card design capable of SD, HD and 3G. Inside the frame, signals are routed point to point, using discrete buffering, thereby maintaining signal integrity and quality. This approach allows the router to be part equipped or "partitioned" with no loss of functionality.

Technical Specification

General

Power supplies Autosensing 90 to 230Vac nominal 50/60Hz

Power consumption 1600W

Weight 120Kg max

Monitoring PSU monitor

Failure alarm relay and reported on DCCP and SNMP

Fan monitor Failure alarm relay and reported on DCCP

Control

4 x RS-485, panel/remote control

2 x Ethernet

4 x video reference (mixed sync or HD tri-level sync)

Connectors

576 x 576 - 26U high 19 inch rack

mounting x 490mm (19 inch) deep

288 x 576 - 21U high 19 inch rack

mounting x 490mm (19 inch) deep

Environmental

Cooling

Fan assisted

HD-SDI/SD-SDI/

Data

Video Inputs & Outputs

Input Equalisation

SD SMPTE 259m

HD SMPTE 292m

HD SMPTE 424m

ASI

SD inputs >250m (Belden 8281)

HD inputs >140m (Belden 1694) for HD and

SD signals

Control

- Control using new Morpheus Control and Monitoring (MCM) controller
- Dual Ethernet (one per Controller)
- 4 x RS485 ports, configurable as remote or panel ports
- Control using:
 - Pro-Bel General Switcher Protocol (SW-P-02)
 - Pro-Bel General Remote Protocol (SW-P-08)
 - SNMP
 - Pro-Bel DCCP Protocol on Ethernet
 - OEM protocols (contact Pro-Bel for details)
- Monitoring and alarms of PSUs, Fans, Controllers, All Signal Cards.
- Input signal failure detection
- Four video references (all Black & Burst or HD Tri-level) – allows clean multi standard switching
- Timecode input for pre-loaded timed switching
- Monitoring outputs – 4 for input and output monitoring

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