

PRO-BEL 800 SERIES



New Expandable 3G Router launching at NAB 2009



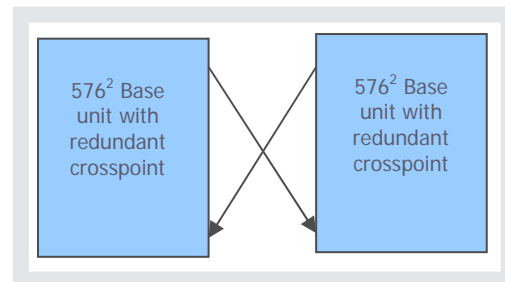
FEATURES

- 576 x 576 expandable frame, with up to 140 multiviewer outputs in 36U. Field expandable to 1152 x 1152 by addition of a single 36U frame
- 576 x 1032 with full crosspoint redundancy and 140 additional multiviewer outputs in 36U
- 576 x 576 with up to 140 multiviewer outputs in 28U
- Redundant video and audio crosspoints
- Mix and match different signal formats in the same frame:
 - Video - 3Gbit & 1.5Gbit HD, SD, ASI
 - Fibre - 3Gbit & 1.5Gbit HD, SD, ASI
 - Audio - AES & Madi, Embedded audio routing
- Optional 3Gbit, 1.5Gbit and SD Fibre I/O with CWDM wavelength transmitters
- Dual redundant controllers & PSUs
- Catsii status indication and connector location
- Four independent outputs for input and output monitoring
- Optional 3Gbit fibre I/O
- New pre-processing I/O functionality
- Extensive status reporting of input/output status and crosspoint health via Morpheus Control & Monitoring

Pro-Bel continues to lead the way in signal routing with the launch of its innovative 800 Series - a new large-scale, multi-format, expandable router range.

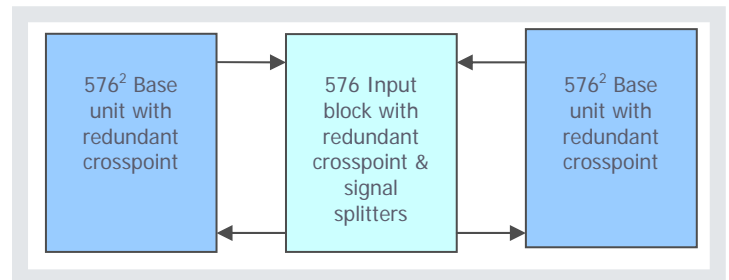
Incorporating many technological firsts, the 800 Series compliments Pro-Bel's popular Pyxis, Sirius and Cygnus routers, which also offer multi-format operation up to 3Gbit/s in one frame.

The 800 Series consists of a range of different frames and card configurations based on a common card format. These are based on a 576 x 576 matrix size, incorporated into an expandable and a non-expandable frame. Fast, simple field expandability up to 1152 x 1152 is achieved by purely linking two frames together via multi-way cables. No other external splitters or combiners are required and the system can even be expanded whilst in use. By adding a third frame routers in excess of 1152 x 1152 can be created.



1152² router with redundant crosspoints

1728 x 1152 router with redundant crosspoints

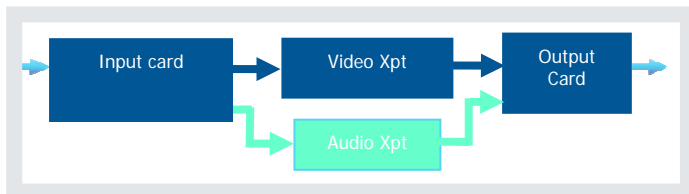


Video and Audio Routing

24 Channel input and output cards with optional fibre interfaces for SD, 1.5G and 3Gbit/s (using industry standard SFP modules) provide the ideal mix of modularity whilst ensuring a cost effective design. Video cards are multi format SD, ASI, 1.5G and 3G capable. The frames can also be fitted with Audio input and output modules (with discrete AES and MADI interfaces), providing a highly flexible routing system.

The frame architecture has also been designed to allow high performance processing input and output modules. The first of these to be released is a de-embedder/ embedder option. This allows up to 32 embedded audio signals from all inputs to be passed to an internal audio crosspoint, allowing the user to route, shuffle and process any embedded audio signal on any input to any output. The audio crosspoint is configured in an N + N redundant configuration with auto failure detection and manual or auto switchover. Combining embedded cards and audio cards allows audio de-multiplexing to AES, AES multiplexing, channel swapping, or any combination of these in one single frame.

A unique approach to the crosspoint routing allows multiple non-synchronous audio signals to be routed and all outputs to be either sample rate converted to a studio reference, or for the signal to be passed transparently at it's original data rate. Dolby E routing and clean switching is also possible due to complex processing and re-synchronising to the transition point.



All input and output card positions have connections to video and audio crosspoints.

N+1 Redundant Crosspoint Architecture

To ensure ease of maintenance and cost effective spares holdings this new router is designed around up to four 288 x 288 crosspoint modules. As well as having an architecture that minimizes the reliance on any one crosspoint module, Pro-Bel has also included the option of N+1 redundancy in both the 576 and the 1152 router sizes. Sophisticated path monitoring constantly compares signals through the main and redundant path to ensure any crosspoint failure is immediately identified. Once identified the router can be set to automatically switch to the redundant path or to issue a user alarm through Pro-Bel's system-wide MCM control and monitoring application. Simple LED indicators on the front of all crosspoint modules ensure that users know which crosspoint cards are currently routing active signals.



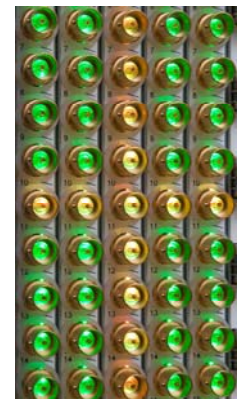
Examples of status information available on front door touchscreen

Simple, Comprehensive Status Reporting

Knowing the status of a large and complex system could be challenging. The 800 Series simplifies this by providing a simple to operate display mounted on the front of the equipment. This provides a graphical summary of the P800 system status. Touch screen operation allows for simple navigation through a series of screens, showing comprehensive status and diagnostics for the router. All this information can be linked to Pro-Bel's Morpheus Control and Monitoring system (MCM), allowing remote access to the same information, or through the MCM rules engine an automatic re-routing of signals - a truly self healing routing system.

Catsii™

A unique and innovative feature - Catsii offers immediate and simple indication of router input and output status - by illuminating the BNC connectors on the rear panels to show if a signal is valid, and the type of signal connected. This is still visible even with cables connected, allowing quick diagnosis of system faults. Catsii also allows quick location of a specific input or output - when selected on the touch screen the specific BNC is clearly indicated.



Unique Catsii technology

Status & Diagnostics

Each 800 Series system includes a touchscreen interface on the front door of the unit. This allows quick and easy access to a wide range of status information; for example, PSU and fan status, reference standards etc. The frame configuration can be seen at a glance, showing card presence and status, and drives the Catsii indication for the system.

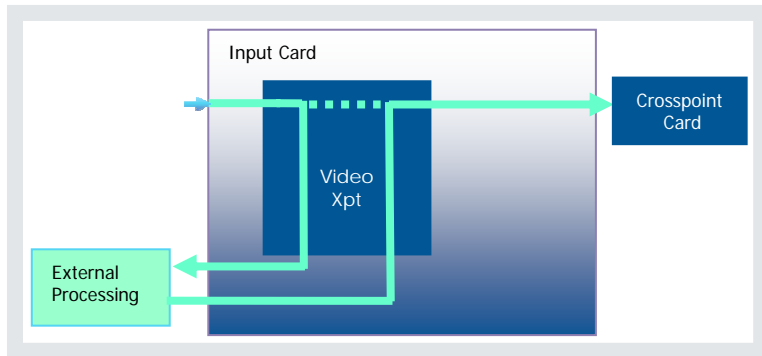
Multiviewer Crosspoint Outputs

As many large routers now need to link in to multiviewer systems, Pro-Bel have included the option for an additional 140, independently controllable outputs that can be used as sources for connection to any third party multiviewer solution. Connections to the multiviewer are via coax or multi-way MV-Link connections.

Signal Pre-Processing & Monitoring

For further flexibility in system design input modules are fitted with Pro-Bel's innovative new external processing links. This allows a number of input signals to be passed out to an external processing engine such as a Vistek modular Up/Down/Cross converter or Frame Synchroniser. Expensive resources can then be allocated to different inputs on a case by case basis rather than using up valuable outputs to "loop" resources around the router. By adding the MCM "Rules" engine, sophisticated algorithms can be built up to ensure resources are switched in when required.

Four independent monitoring outputs are available on the back of the frame allowing users to monitor signal health at both the input and output stages of the router. The sophisticated control system also allows the status of these signals to be indicated on softpanel control surfaces. If required the monitoring outputs can also be streamed via an optional encoder module.



Pre-processing I/O - feeds to and from each input card to allow for streaming, up/down conversion, frame sync etc.

Environmental

Pro-Bel continues to strive towards environmentally responsible products and this new router is no exception. It incorporates a video output disable mode which turns off video driver outputs if no load is detected on the output BNC. In addition crosspoints are powered down where possible to further reduce power consumption.

Thermostatic fan speed control ensures that the system is adequately cooled, whilst reducing the fan speed to reduce noise and save power.



WWW.PRO-BEL.COM

UK
+44 (0) 1189 866 123

USA
+1 631 549 5159

France
+33 (0) 1 45 18 39 80

Hong Kong
+ 852 2891 9123

