



Axis - 16 x 16 routing switcher.



FEATURES

- High quality signal performance
- Multi-level, multi-format operation
- Local and remote control panels
- Editable database
- Fully compatible with Pro-Bel controllers
- HD Axis available for switching HD, SDI and ASI signals

Axis is a compact range of 16 x 16, 1RU self-contained routing switchers that addresses a wide range of audio visual routing requirements from traditional broadcast to new mediacasting technologies.

Axis routers can be supplied in either master or slave frame configurations. Master frames have an internal controller permitting them to be used as stand alone routers and can be supplied with or without an integral X-Y control panel. Additionally, up to three slave frames can be controlled from a master frame enabling routers with up to four breakaway levels to be constructed. Master frames are fitted with two control ports, pre-configured as one panel port for up to sixteen control panels (including the integral panel) and one remote control port.

Axis, however, is more than just a stand-alone routing system. An editable database releases the router's full potential, permitting the control ports to be configured as either panel ports, supporting a mixture of up to 32 control panels and undermonitor displays, or as remote control ports. With its editable database Axis can be configured to provide control for up to eight breakaway levels.

Full control compatibility with the parallel control bus used on Pro-Bel's Freeway routers, and the use of Pro-Bel General Switcher protocol on the remote control ports, guarantees operation with all Pro-Bel control systems, enabling Axis routers to be seamlessly incorporated with existing or new router installations.

Technical Specification

General

Size 1U 19" rack mounting x 490 mm deep (19") (exc. connectors)
 Power supplies Single, autosensing 90 to 264 Vac. 50/60 Hz
 Power consumption 70W maximum

Control

Control 2 x RS485, panel/remote control ports
 Configuration 1 x RS232 (option)
 Control expansion 1 x parallel port

Connections

Power 3 way IEC
 Control/configuration 15 way D type socket
 Expansion 37 way D type socket
 Video Reference BNC

Axis Digital Video

Inputs

Number and type Unbalanced NRZI coded serial data
 Standard Serial EBU Tech 3267E SMPTE 259M-ABCD
 Impedance 75 Ω
 Data rate 140 to 360Mbit/s
 Return loss >13dB 10MHz to 360MHz
 Amplitude 800mV p-p nominal
 DC offset <5V
 Equaliser Automatic for up to 250m cable (Belden 8281, PSF 1/2M)

Outputs

Type Unbalanced NRZI coded serial data
 Standard Serial EBU Tech 3267E. SMPTE 259M-ABCD
 Impedance 75 Ω
 Data rate 140 to 360Mbit/s
 Return loss >13dB 10MHz to 360MHz
 Amplitude 800mV p-p ±10%
 Overshoot <7%
 DC offset 0V ±0.5V

Performance

Data acquisition 20ms
 Rise time <0.5ns
 Jitter <0.5ns (<0.75ns with >200m input cable)

Axis Analogue Audio

Inputs

Number and type 16 (stereo): electronically balanced on 50 way D
 Impedance 10 k Ω

Outputs

Number and type 16 (stereo): electronically balanced on 50 way D
 Output impedance <100Ω

Performance

Gain stability ±0.2dB/24 hours
 Frequency response ±1dB 20Hz to 22kHz
 THD +N <0.1% at 1kHz, +18dBu <0.1% at 1 kHz,
 Dynamic range >100dB (AES 17-1991)
 Signal to noise ratio >100dB
 Crosstalk <-90dB all hostile at 16kHz

Specifications subject to change

Axis Analogue Video

Inputs

Number and type 16: unbalanced on BNC's, 1V p-p amplitude
 Impedance 75 Ω
 Return loss Better than 40dB to 3.58MHz and 4.43MHz
 Superimposed DC ±1V max
 Coupling DC or sync-tip restored

Outputs

Number and type 16: unbalanced on BNC's
 Impedance 75 Ω
 Return loss Better than 40dB to 3.58MHz and 4.43MHz
 DC offset Less than 50mV

Performance

Gain 0dB ±0.1dB
 Freq. response ±0.1dB to 8MHz, +2/-3dB to 30MHz
 Crosstalk -63dB (single adjacent hostile) @ 4.43MHz
 -60dB (all hostile) @ 4.43MHz
 Output eq. Selectable cable eq. on outputs
 2T pulse/bar <0.2%K
 Chrom/lum gain <±0.5%
 Chrom/lum delay <±2ns
 Group delay var. <5ns 50Hz to 15MHz
 Differential phase <0.15 degrees @ 4.43MHz
 Differential gain <0.15% @ 4.43MHz
 Signal to noise Better than 60dB (wideband)
 Delay variation <±0.6ns between any input to one output
 Switching transients ±30mV
 Black level steps <±50mV between inputs with same input coupling

Axis Digital Audio

Inputs

Number and type 16: to AES3-1992
 Impedance 110 Ω/optional 75 Ω

Outputs

Number and type 16: to AES3-1992
 Impedance 10 Ω/optional 75 Ω

Performance

Digital input - Digital output 1
 Sample rate 32 to 48kHz (re-clocking, and re-framing)
 Wordlength 16 to 24 bit
 Non re-clocking perf Transparent to all bi-phase mark data
 Re-frame performance Outputs AES-11 compliant channel status data

Ordering Information

Master Routers	Digital Video	Digital Audio		Analogue Video	Analogue Audio
		Balanced	Unbalanced		
Editable Database config. Incl. front mounted control panel Excluding front mounted panel	AXS-MPE AXS-MNE	AXB-MPE AXB-MNE	AXU-MPE AXU-MNE	AXV-MPE AXV-MNE	AXA-MPE AXA-MNE
Slave Router configuration	AXS-SSN	AXB-SSN	AXU-SSN	AXV-SSN	AXA-SSN
Control Panels (for master routers only)		Fixed database	Editable database		
RCP-100N-1600, 16 way single bus panel		•	•		
RCP-100N-1616, dual 16 way button panel (X-Y)		•*	•		
6276-00, 6276 X-Y panel			•		
6277-20, 6276 2 bus panel			•		
6277-40, 6276 4 bus panel			•		
6277-60, 6276 6 bus panel			•		
6277-80, 6276 8 bus panel			•		

* Only systems excluding front mounted X-Y panel

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

