

### 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 - THE TURNING POINT FOR SMALL ROUTERS



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	AXB-MPE	AXU-MPE	AXV-MPE	AXA-MPE
	AXS-MNE	AXB-MNE	AXU-MNE	AXV-MNE	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

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