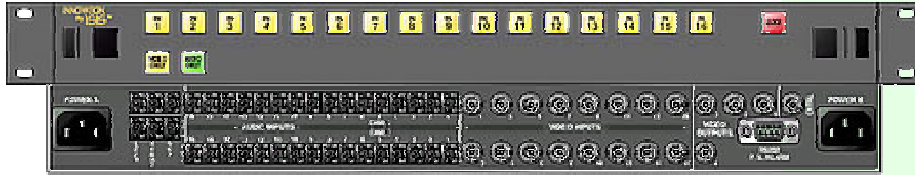


# INNOVATION By ISIS

## Analog/SDI Routing Switchers



The **INNOVATION** series of compact analog/SDI routing switchers is designed for the most demanding broadcast and professional users. Redundancy, reliability, and flexibility make these switchers ideal for critical path operations. The clean design reduces the number of potential failure points, and the full seven-year warranty guarantees a long, effective life.

Based on rugged frame structures, each system has cells for optional back-up power supplies. All signal board cells in the frames are fully compatible with analog or digital signal formats, making field upgrades simple and cost effective.

Each router package includes a set of analog and / or digital boards and universal power supplies. All boards can be added or exchanged while the equipment is in service, minimizing down time and increasing flexibility. The 16 x 2 router includes input signal clamping, eliminating the need for external DA's.

The Ethernet-based control architecture supports up to 32 control panels via a single coax line. The control system includes an RS232 interface with a very flexible protocol, allowing the interface to external controllers specific to the needs of the installation.

### FEATURES:

- **16 x 1, 16 x 2, 8 x 8, 8 x 16, 16 x 16, and 32 x 32**
- **Hot-swappable front-loading modules and power supplies**
- **Redundant power supplies available**
- **Flexible Ethernet, coax-based control**
- **Wide range of local or remote control panels**
- **Versatile RS232 interface**

**We take your success personally**

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### Typical Analog Video Specifications

#### Video inputs:

Inputs:	8, 16 or 32
Impedance:	75Ω terminating
Coupling:	DC
Connector type:	BNC
Return loss:	40dB at 3.58 or 4.43MHz
Level:	1V p-p nominal, 2V p-p maximum

#### Video outputs:

Number:	4 on 16x1 and 1 per bus on 8x8, 16x2, 16x16 and 32x32
Connector type:	BNC
Impedance:	75Ω, source terminated
Return loss:	35dB at 3.58 or 4.43MHz
Level:	1Vp-p nominal, 2Vp-p maximum

#### Performance:

Gain:	Unity ±0.1 dB
Gain adj range:	±2dB. On the 16x1 only
V.I. switching:	Line 6 (NTSC)
Diff Gain:	0.1% 10 to 90% APL @ 3.58MHz and 4.43MHz
Diff phase:	0.1° 10 to 90% APL @ 3.58MHz and 4.43MHz
Freq response:	±0.1dB to 5mHz, -3dB bandwidth to 50mHz
Crosstalk isolation:	62dB to 5mHz worst case
Propagation delay:	5ns typical
In/In phase scatter:	±0.5%
In/In gain scatter:	±0.05% ref unity
DC offset:	<25mV
SNR:	-73dB, 5mHz bandwidth, 0.714Vp-p video to RMS noise

### Typical Digital Video Specifications

#### SDI video inputs:

Inputs:	8 or 16
Impedance:	75Ω terminating
Coupling:	AC
Connector type:	BNC
Return loss:	15dB to 400mbps

#### Video outputs:

Number:	2 on 16x1 and 1 per bus on 8x8, and 16x16
Connector type:	BNC
Impedance:	75Ω, source terminated
Return loss:	12dB to 400mbps

Your local ISIS Group Distributor:

### Typical Analog Audio Specifications

#### Audio inputs:

Audio inputs:	8, 16 or 32 dual (stereo) channels
Connector type:	Removable three pin Weco connector
Impedance:	20kΩ (600Ω input versions available)
Signal Level:	+26dBu, maximum
CMRR:	60dB to 1kHz

#### Audio outputs:

Number:	One dual (stereo) on 16x1 and one dual (stereo) per bus on 8x8, 16x2, 16x16 and 32x32
Signal type:	Balanced
Connector type:	Removable three pin Weco
Impedance:	<30Ω (600Ω version available)
Level:	+26dBu, maximum

#### Performance:

Freq response:	±0.1dB to 20kHz, ref 1kHz
Crosstalk:	90dB @ 10kHz, worst case
DC offset:	<50mV
SNR:	<100dB, 20Hz to 20kHz
IM/THD:	< 0.02%

### Typical AES/EBU Audio Specifications

#### AES/EBU inputs:

Number:	8 or 16
Connector type:	Removable three pin Weco
Impedance:	110Ω balanced, AC coupled
CMR:	±25V
Level:	0.5 to 10V p-p

#### AES/EBU outputs:

Number:	1 per bus
Connector type:	Removable three pin Weco
Impedance:	110Ω balanced
Level:	4V p-p
Jitter:	< ±0.5ns p-p (+input jitter)

### Electrical / Physical / Environmental

#### Electrical:

Input power:	Switch selectable 90 to 130VAC or 200 to 265VAC.
Frequency:	47 to 63 Hz.
Consumption:	16x1 20VA max, 8x8 25VA max, 16x16 50VA, 32x32 80VA max.
Compliance:	UL listed, CE, FCC-Part 15 class B

#### Physical:

Dimensions:	16x1, 8x8, 16x2, 16x16 housed in 1RU frames
Weight:	16x1, 8x8, 16x2, 16x16 - 9 lbs, 4.0 kg CP Cradle w/panel - 6 lbs, 2.7 kg

#### Environmental:

Operating temperature:	0 to 40° centigrade.
Humidity:	90% non-condensing.