



BPS-2020

Digital Bypass Switcher



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The BPS-2020 digital bypass switcher is an 8x1 switcher for digital video (SD or HD) and digital audio signals. Designed for use in conjunction with the Utah Scientific MC-2020 Master Control Switcher, the BPS-2020 provides a compact reliable means for switching alternate signals into the program feed. Therefore bypassing the various elements in the master control signal chain.

The optional clean-quiet switch module increases the usefulness of the BPS-2020 by ensuring that switch transitions between synchronous inputs are clean, preventing disruptions in downstream equipment. With this option installed, the BPS-2020 can be used anywhere that clean switching of SDI signals (SD or HD) is required.



Features

- 8 or 16 inputs with SD/HD Digital video and up to 4 AES levels
- Optional Clean-Quiet switch module
- Dual redundant power supplies are standard equipment
- Optional input loop-through feature (8 input model only)
- Space saving 2RU package
- Multiple options for remote control
- Hard bypass relay ensuring signal passage in the event of power loss

The BPS-2020 is housed in a 2RU frame with redundant power supplies. The BPS-2020 frame holds the 8-input video switcher board with on-board control logic, an optional video DA board to provide looped copies of each input if required, and one or two audio switch boards, each of which will handle two AES signal streams.

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VIDEO

The video switcher section will handle digital video streams at any rate from 1.5Mbps to the full HD rate of 1.485Gbps. The inputs have cable equalization for up to 1,000 ft of cable at 270Mbps. There are two re-clocked video outputs provided, one for the main program feed and one for monitoring.

The optional Video DA board provides actively regenerated loop-through connections for each of the 8 inputs on the main switch board. A second switch board is available for installation in place of the DA board to extend the unit's capacity to 16 inputs.

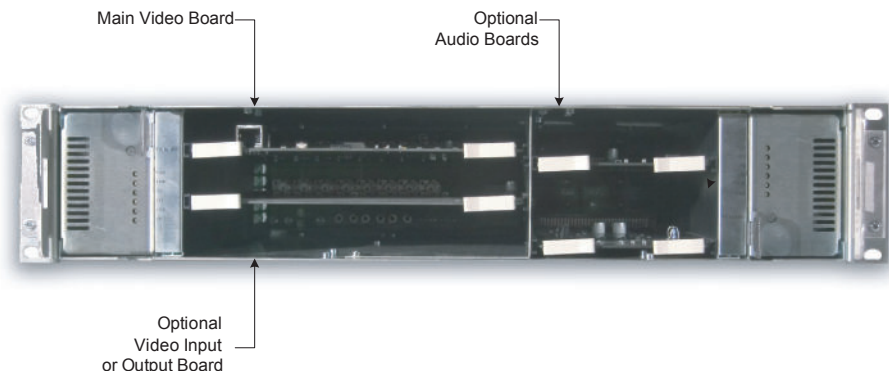
The BPS-2020 also includes a hard bypass relay on Input 1 to ensure signal passage in the event of power disruption. Input 1 is sent directly to the output BNC when the bypass mode is enabled.

CLEAN-QUIET SWITCH OPTION

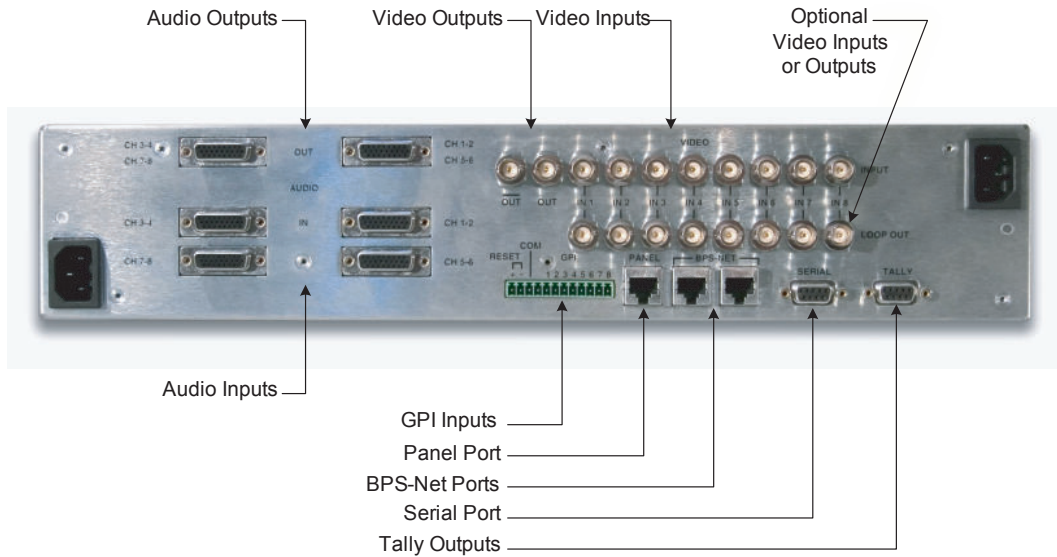
The CQ Logic Module can be installed on the main video switch board to ensure clean-quiet switching on switch transition between synchronous input signals. This unit prevents disconnection in the output data stream, eliminating disruptions to downstream equipment that can be caused by switch transitions.

AUDIO

The main audio switcher board has eight inputs for two levels of AES/EBU digital audio signals. The optional second audio switch board provides switching for two additional AES/EBU levels or extension of the first two audio levels to 16 inputs. A soft-switch option provides quiet transitions between synchronous audio signals. The input and output connections are 110 Ohm balanced. Utah Scientific offers several different models of breakout panels to simplify wiring to the BPS-2020's I/O connectors or to provide unbalanced I/O signal connection capability.



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CONTROL

There are a number of options available for control of the BPS-2020. For dedicated single channel systems, a simple 8-button control panel is available. This panel is designed to mount adjacent to the associated MC-2020 control panel.



For multi-channel systems, an 8-channel panel allows the operator to select the channel to be controlled by the eight source select buttons on the panel. This panel can also be used as a single-channel panel in 16-input systems.



To support custom-built control panels, two assignable GPI contacts are available for selecting the sources by a simple contact closure, and eight Tally (GPO) closures are provided to drive indicators showing the active source selection.

A serial port is also provided for connecting external control devices to the switcher, selecting sources through a very simple serial control protocol. Both Utah's RCP-1 and the GVG-10XL protocols are supported for communicating with this port.

Specifications

Video Inputs:	8 or 16 (per SMPTE259 or SMPTE292)
Video Return Loss:	<15dB at 1.485Gbs
Switch Point Timing: signal	Referenced to the vertical interval of the current output
Video Outputs:	2 each (PGM and Monitor) 8 regenerated loop-throughs of the inputs (optional)
Digital Audio Inputs:	110 Ohm, Balanced 8 per level, 2 AES/EBU levels per switch card
Digital Audio Outputs:	110 Ohm, Balanced 1 per level
Mechanical Specifications:	19"W x 13" D x 3.5"H (2RU rack mount)

Connectors

Control Panel Port:	RJ-45 (CAN-Bus)
Inter-frame Control:	RJ-45 (RS-422)
Serial Port:	DB-9F Subminiature 9-pin D connector with female pins.
Tally Connections:	DB-9F Subminiature 9-pin D connector with female pins.
GPI Control:	Terminal Strip w/ removable mating block.
Video Connections:	BNC
Audio Connections:	DB-25F Subminiature 25-pin D connector with female pins.

Environmental

Temperature:	10-40°C
Relative Humidity:	0-90% (non-condensing)

AC power:

110/240VAC	Chassis consumption is 35 VA max.
50/60HZ	Dual redundant power supplies are standard equipment.



Specifications are subject to change without notice

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Year
Warranty