

Sapphire BIDI-2H2S • 12G/6G/3G/1.5G/SD SDI<->HDMI Bidirectional Dual Channel Converter



The **Sapphire BIDI-2H2S** is a 12G/6G/3G/1.5G/SD SDI<->HDMI Bidirectional Dual Channel Converter. Each channel can be independently configured to have either SDI or HDMI inputs and each channel has simultaneous SDI and HDMI outputs. This provides input and output options with independent paths to and from the SDI and HDMI formats.

Every path is equipped with frame sync as well as full input and output audio crosspoints.

Per-path based color correction or scaler options are also available.

Preset save/load allows saving custom card settings and instant return to factory settings.

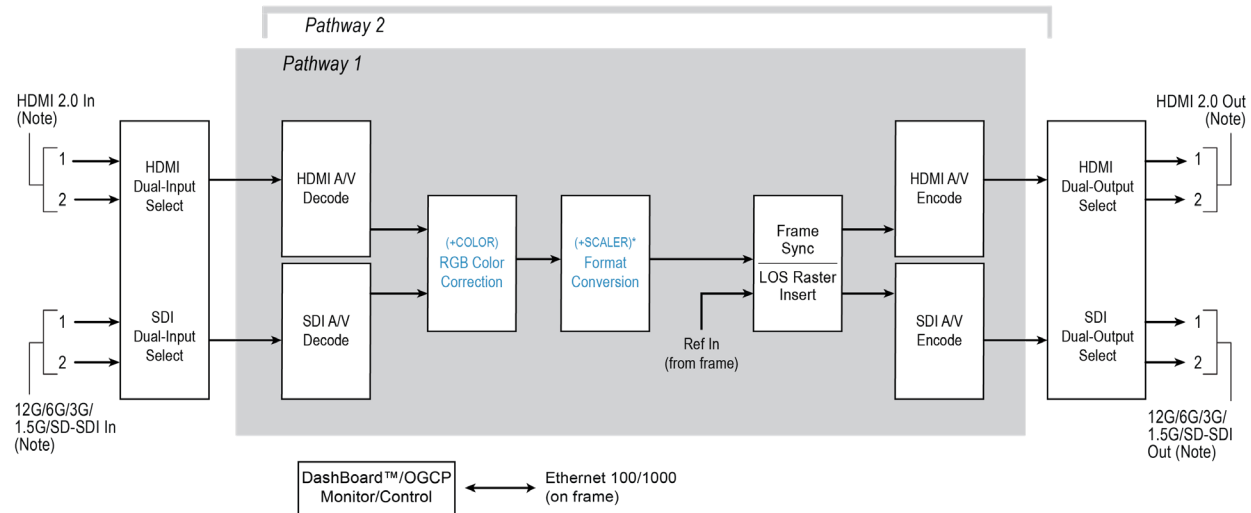
Layered presets allow invoking changes related only to a specific area of concern (audio routing, for example) while not changing any other processing settings or aspects.

Compatible with DashBoard™ or an OGCP-9000 Remote Control Panel for full status and control access locally or across an Ethernet network.

FEATURES

Supports resolutions of: 720p, 1080i, 1080p, and 2160p Supports frame rate of: 23.98, 24, 25, 29.97, 30, 50, 59.94, and 60	EDID Capture and Management
Independent processing paths on a single openGear® card provides high capacity in openGear® environments	Remote control/monitoring via DashBoard™ software or OGCP-9000 Remote Control Panel
Each path equipped with frame sync with configurable manual or LOS-detect insertion of frozen frame or selectable-color flat-field. Optional per-path color correction.	Make Sapphire BIDI-2H2S into a standalone unit by using it with our BBG-1300-FR 1RU Enclosure for openGear® Cards standalone enclosure
Full input and output audio crosspoints, including independent flex mix, stereo downmixers, and audio delay functions	Hot-swappable
	Five year warranty

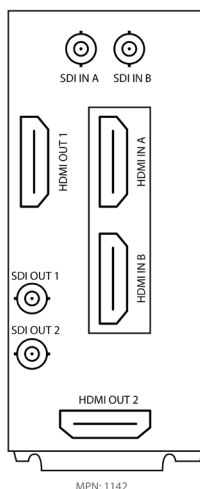
BLOCK DIAGRAM



Note: Inputs can be selected from up to 2 discrete HDMI and 2 discrete SDI inputs. Dual simultaneous path processing is available with pathway 2 offering same features/functions as shown for pathway 1.
* When 4K resolution is used the +SCALER option is not available.

this color denotes option
BIDI-2H2S

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RM20-BIDI-2H2S-B-HDBNC

20 Slot Frame Rear I/O Module (Standard Width)

- (2) HDMI 2.0 Inputs
- (2) HDMI 2.0 Outputs
- (2) 75Ω SDI Inputs
- (2) 75Ω SDI Outputs

Note: Due to the alignment of the card and this rear module, the combination of the card and rear module will consume the adjacent even frame slot in addition to the odd slot occupied by the card.

Note: Mates to card in odd slot.

SPECIFICATIONS

Power 49 Watts	Supports resolutions of: 720p, 1080i, 1080p, and 2160p Supports frame rate of: 23.98, 24, 25, 29.97, 30, 50, 59.94, and 60
HDMI Inputs (2) HDMI 2.0; Type A (standard) connectors	SDI Inputs 12G/6G/3G/1.5G/SD-SDI Inputs (2) 75Ω inputs
HDMI Outputs (2) HDMI 2.0; Type A (standard) connectors	SDI Outputs (2) 75Ω outputs Output Signal Level: 800 mV ±10% DC Offset: 0 V ± 50 mV Alignment Jitter (12G/6G/3G/1.5G/SD): < 0.3/0.3/0.3/0.2/0.2 UI
Power: < 49 watts	
Frame Sync Audio/Video Delay Max offset: 20 frames Latency (min): 1 frame	User Audio Delay Offset from Video Bulk delay control: -33 msec to +3000 msec. Per-channel delay controls: -800 msec to +800 msec

Frame Reference Input

(2) reference from frame bus. SMPTE 170M/318M "Black Burst", SMPTE 274M/296M "Tri-Level"

Note: Per-path frame reference offers independent per-path controls (such as video delay offset).

However, all paths must be locked to the same selected reference selection (for example, frame REF 2 used for each path).

ORDERING INFORMATION

Sapphire BIDI-2H2S 12G/6G/3G/1.5G/SD SDI<>HDMI Bidirectional Dual Channel Converter

Rear I/O Module

RM20-BIDI-2H2S-B-HDBNC

20 Slot Frame Rear I/O Module (Standard Width) two HDMI Inputs, two HDMI Outputs, two SDI Inputs and two SDI Outputs

OPTIONS

+COLOR Color Correction Option (per-path based)

+SCALER Up/Down/Cross conversion software option (per-path based). Supports 59.94 <-> 60 conversion
When 4K resolution is used the +SCALER option is not available.

Note: Options denoted as "+" are software-based options which are available on new product when ordered or can be customer field-installed as a software upload upgrade. Unless otherwise noted, software options are per-card based.
Options which are per-path based are identified as such.