

BBG-1040-ACO • 3G/HD/SD-SDI Standalone Multi-Input Intelligent Auto-Changeover Switch with Optional Trouble Slate Inserter



The Cobalt® **BBG-1040-ACO 3G/HD/SD-SDI Standalone Multi-Input Intelligent Auto-Changeover Switch with Optional Trouble Slate Inserter** allows manual selection of input, or failover to alternate inputs (Auto-Changeover) on loss of input conditions as well as user-configurable Video Quality Event intelligent assessments such as black/frozen frame or audio silence. Also Included standard is closed captioning absence/presence detection for CEA 608/708 and line 21 SD closed captioning. Video Quality or Closed-Captioning event status can independently be propagated for each event type as GPO, automated alert email, input routing changes, or card user presets you can configure to provide any number of special actions such as routing changes or burn-in text alert messages. A user trouble slate graphic file can be uploaded to the unit, which in turn can be automatically inserted in active video if any Video Quality Event triggered errors occur.

Two discrete character burn strings can be inserted on output video, with each string inserted as static text and/or insert only upon LOS. Any of several standard test patterns can be inserted as an input LOS marker. A moving-box insertion can serve as a dynamic raster confidence check even when the input video image is static. Timecode can be received and prioritized among any standard SMPTE embedded or audio LTC timecode, and in turn outputted and burned-in on the output video.

The BBG-1040-ACO can be remote-controlled using DashBoard™. GPIO allows direct input routing control and status monitoring. The compact standalone form factor allows desktop usage, as well as the 1/3-rack size of the BBG-1040-ACO allowing 3 units to be installed in a 1RU space (an optional mounting tray is available that provides secure mounting of the units to a standard 19" frame).

FEATURES

Multi-input, with manual selection or Intelligent Auto-Changeover failover. Latching relay bypass retains manual or failover input-to-output routing even in the event of power failure.

Intelligent Auto-Changeover can be set to invoke failover or alerts for basic input loss as well as intelligent failover/alert based on black/frozen frame or audio silence. Threshold and hold-off are user configurable.

Video Quality and Closed-Captioning Absence detection and flagging with GPO, automated alert email, input auto-changeover, or engage custom user preset actions

Dual independent burn-in text string insertion allows condition-based insertion (such as basic ID text for valid input and different text message for failover conditions)

Optional user trouble slate graphic import allows trouble slate to be displayed upon user-selectable input error conditions (such as CC or audio loss, or frozen frame)

Moving-box/motion insertion enable serves as a dynamic raster confidence check even when the input video image is static

Frame Sync with full H/V offset and manual/LOS video pattern generator. Frame sync can also convert raster format between 29.97/59.94 and 30/60 formats. Rear-panel looping reference connectors.

Full audio crosspoint with delay control available for all audio outputs

Timecode processing can prioritize, filter for, and convert between specific SMPTE embedded-video or audio LTC, with output/burn-in timecode using selected format

Remote control/monitoring via DashBoard™ software, OGCP-9000 Remote Control Panel, or Web Browser User Interface

Redundant power supply option

Compact footprint - up to 3 units in a 1RU space. Optional tray provides secure captive-fastener mounting of 3 units in a 1RU tray.

Five year warranty

OPTIONS

User Trouble Slate Graphic Import (+T-SLATE) - Allows uploading of up to three different user trouble slate graphic file to card, with automated insertion controlled by GPI or other events

Color Corrector (+COLOR) - Provides full RGB color corrector (offset, gain, gamma) with extended YCbCr proc controls with white hard clip, white soft clip, black hard clip, and saturation clip

Clean and Quiet Switching (+CQS) - Provides automatic audio muting during switching transitions from one SDI input source to another to provide silence between input switches

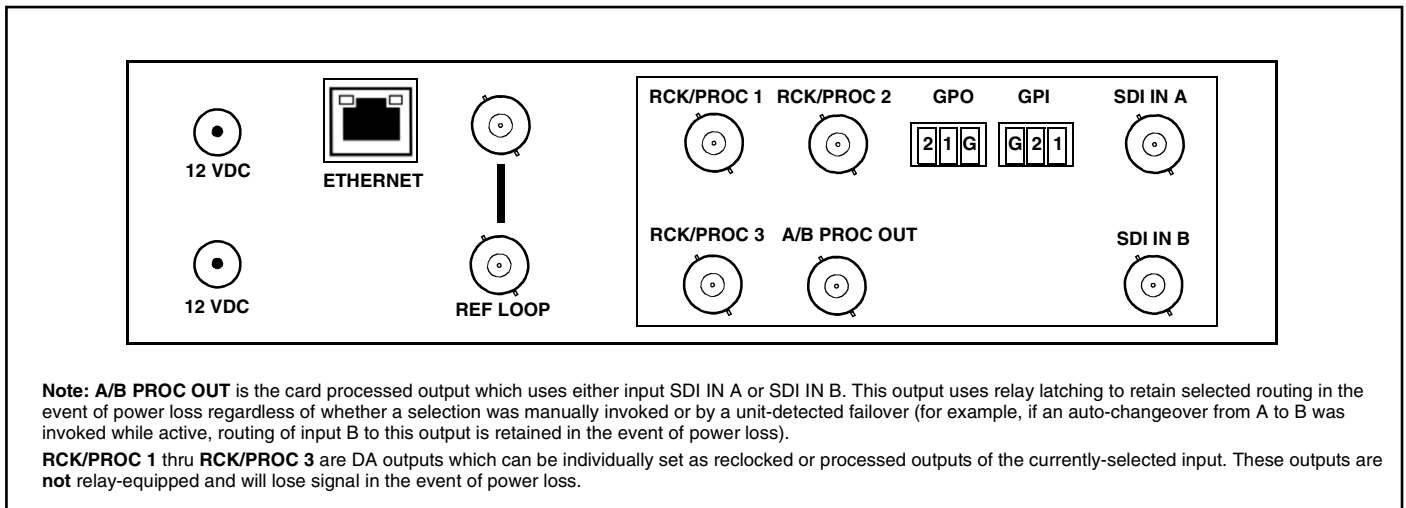
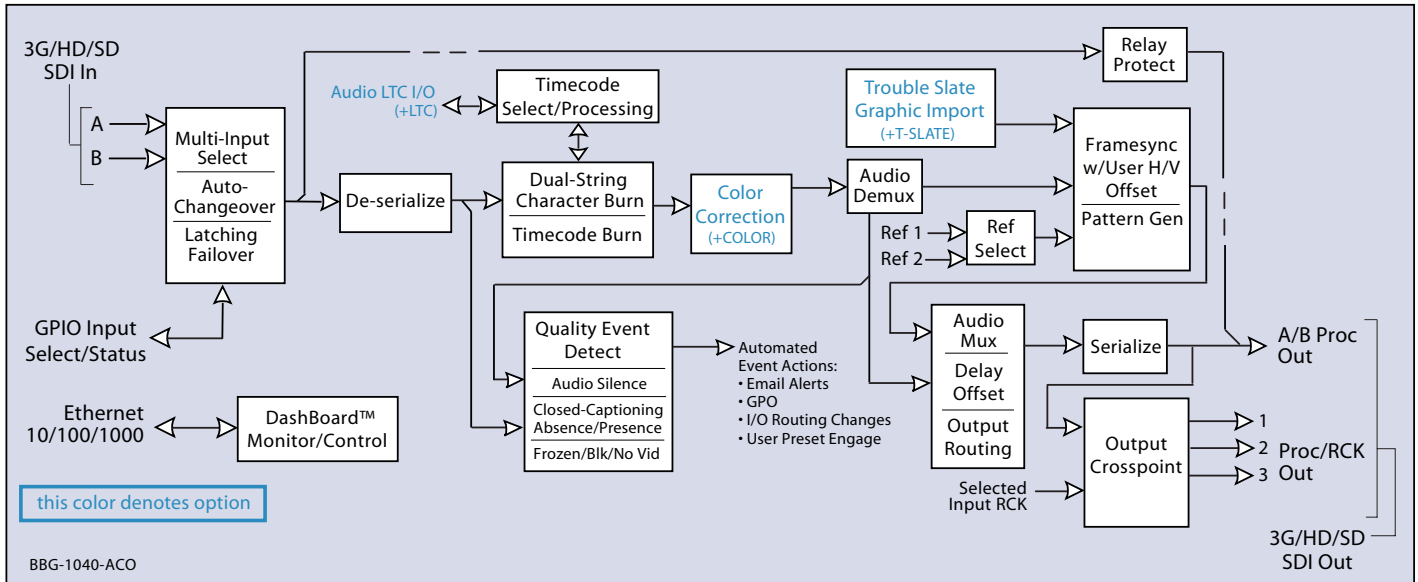
Audio LTC I/O (+LTC)

1RU Mounting Tray (supports 3 units) (BBG-1000-TRAY)

Redundant Power Supply Module (BBG-1000-PS)



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SPECIFICATIONS

Power

< 18 Watts. Power supplied by 12VDC AC adapter, universal input (included).

SDI Input/Outputs

Up to (4) 75Ω BNC inputs
 Up to (4) 75Ω BNC outputs (selectable as processed SDI IN or IN RCK)
 SDI Formats Supported: SMPTE 259M, SMPTE 292M, SMPTE 424M
 SDI Receive Cable Length: 3G/HD/SD: 120/180/320 m (Belden 1694A)
 SDI Return Loss: >15 dB up to 1.485 GHz; >10 dB up to 2.970 GHz
 SDI Alignment Jitter: 3G/HD/SD: < 0.3/0.2/0.2 UI
 Timing Jitter: 3G/HD/SD: < 2.0/1.0/0.2 UI
 Minimum Latency:
 SD: 127 pixels; 9.4 us
 720p: 330 pixels; 4.45 us
 1080i: 271 pixels; 3.65 us
 1080p: 361 pixels; 2.43 us

Input Select/Auto-Changeover Failover

Manual selection (forced) of any input via DashBoard or GPI.
 Failover to alternate input on loss of target input. Failover invoked upon LOS or user configurable parametric criteria such as black/frozen frame or audio silence.
 Relay latching for manually or failover selected path retains routing in loss of power conditions.

Timecode Insertion/Burn-In

Burn-in and embedded video output timecode selected via user controls from input video SMPTE embedded timecode and/or audio LTC. Burn-in enable/disable user controls. Configurable for burn-in string of seconds, seconds:frames, seconds:frames:field. User controls for text size and H/V position.

Text Burn-In

(2) independent strings supported. Independent insertions controls for enable/disable and enable upon LOS. User controls for text size and H/V position.

Audio Output

16-ch embedded. User crosspoint allows routing of any embedded channel to any embedded channel output. Multi-frequency tone generator for each audio output. Downmix output available for any output channel pair. Master delay control; range of -33 msec to +3000 msec.

GPIO

(2) GPI configurable to select input routing. (2) GPO configurable to invoke upon input selected.

Control/Monitor Interface

Front panel network setup. DashBoard remote control via 10/100/1000 Ethernet port.

Frame Reference Input

Looping 2-BNC connection. SMPTE 170M/318M "Black Burst", SMPTE 274M/296M "Tri-Level"
 Return Loss: >35 dB up to 5.75 MHz

Physical

Dimensions (WxHxD): 5.7 x 1.4 x 14.7 in (14.5 x 3.5 x 37.3 cm) Dimensions include connector projections.
 Weight: 6 lb (2.8 kg)

ORDERING INFORMATION

BBG-1040-ACO 3G/HD/SD-SDI Standalone Multi-Input Intelligent Auto-Changeover Switch with Optional Trouble Slate Inserter (includes one BBG-1000-PS Power Supply)

Options and Accessories:

+T-SLATE Usert Trouble Slate Graphic Import Option

+COLOR Color Correction Option

+CQS Clean and Quiet Switching Option

+LTC Audio LTC I/O Option

BBG-1000-PS Redundant Power Supply Module

BBG-1000-TRAY 1RU Mounting Tray (supports 3 units)