

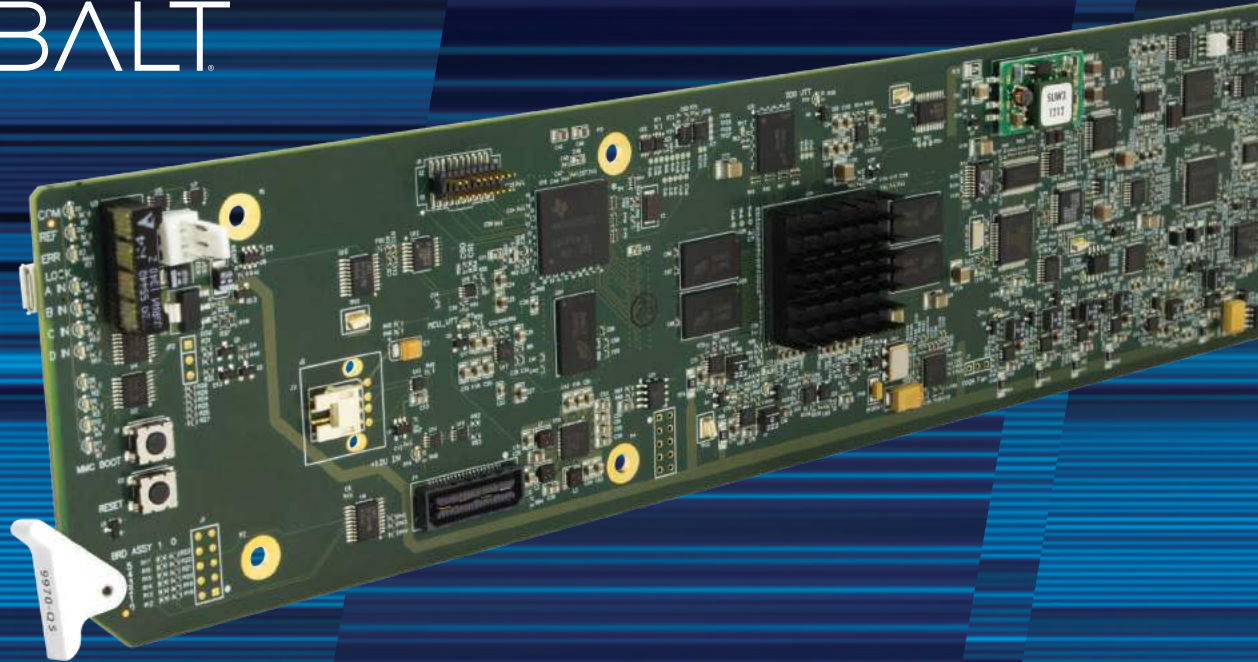


## ***QS SERIES MULTIVIEWERS***

*COMPACT AND EXPANDABLE SIGNAL MONITORING*

COBALT®

# COBALT®



## 9970-QS

### 9970-QS 3G/HD/SD-SDI/CVBS QUINT-SPLIT (5)

MULTI-IMAGE EXPANDABLE DISPLAY PROCESSOR WITH ADVANCED ON-SCREEN GRAPHICS

Cobalt Digital's Quint-Split Multi-Image Expandable Display Processor for openGear® integrates five discrete 3G/HD/SD-SDI or CVBS inputs onto a single 3G/HD/SD-SDI/HDMI quint-split output, with each input image being flexibly inserted into the output image area!





Combine cards to build a 4x1 Multiviewer in a single 2RU openGear® frame.

## COMPACT AND FULL-FEATURED MULTIVIEWER FOR THE OPENGear® AND BBG-1000 PLATFORMS.

The advanced openGear® solution offering multi-format independent input support and advanced on-screen graphics in a scalable 5-split single card format that's easily expanded to meet your system requirements.

Fully-flexible layouts using one-button templates or custom layouts using easy-to-use sizing/positioning custom controls. Custom layouts can be saved to user presets. A master output up-down-cross convert scaler provides scale-to HD or 3G SDI formats for the combined multiviewer output. Advanced graphics such as user identify text, PiP input video format, audio meter bars, tally/UMD, reticules, and timecode can be burned into any PiP with full user attributes control. User-configurable Quality Check allows subjective criteria such as black/frozen frame or audio silence events to propagate an on-screen alarm/alert to the output image (such as alert text burn-in or border alert highlighting).

The 9970-QS 3G/HD/SD-SDI/CVBS openGear® card provides scalable, easily integrated multi-image functions for the 20-slot frame with easy-to-use DashBoard™ remote control. And up to 10, five-input cards per frame can be cascaded to provide expanded PiP muxing. The 9970-QS features an HDMI output (with audio embedding) allowing direct feed to a monitor. Full user DashBoard™ or Remote Control Panel control for full status and control access locally or across a standard Ethernet network. Tally can be communicated by GPI, Ethernet, or serial interfaces. Backed by five-year warranty.

**While the 9970-QS offers unprecedented flexibility, it also offers an unprecedented ease-of-use.**

- Fully-flexible layouts using any of several one-button template presets or fully customizable layouts using easy-to-use sizing/positioning custom controls
- Full input support - from 3G SDI to CVBS with built-in scaler. Supports asynchronous and mixed-format inputs
- Real-time "on the fly" custom layout changes without needing setup compiler or layout programs like many other split/multiviewer products
- Easy to configure PiP sizing and borders using one-button templates or easy-to-use, intuitive DashBoard controls.
- Custom settings can be saved to user presets. Right out of the box, layouts are always predictable and stable with no guesswork
- Auto-detect and display (output over SDI and HDMI) up to 5x independent 3G/HD/SD/Composite inputs!

  
openGear

Scalable openGear® Design

## ADVANCED COMPREHENSIVE ON-SCREEN GRAPHICS

Easy to configure PiP sizing and borders, with advanced graphics including tallies/UMD, audio meters, character burn, and reticules. PiP sizing/splits using one-button templates or easy-to-use, intuitive DashBoard controls.



Independent per PiP audio meters

Two user identity text fields per PiP. Each can be set as user text, or to display the input video format

Independent sizing control for each PiP using one-button templates or easy-to-use custom slider controls with full control of size, position, H/V scaling, and border attributes. Burn-in insertions are independently configurable for insertion enable/disable, insertion size/position, color, background and opacity



Users can now upload custom images to use as foreground overlays or as graphical backgrounds.

User-configurable reticules

Clock insertion can be sized and positioned anywhere in merged view, or inserted as per PiP user text. Time can be locally user set, or sourced from network NTP with timezone localization

Independent per PiP timecode insertion

Per PiP User UMD text and tally indicators

User-configurable alert annunciation with special borders and text

### Scalable openGear® card-based form factor provides easy and economical integration.

- A single 9970-QS provides up to 5:1 split, with up to ten 5:1 splits per 20-slot frame
- Easy, economical setup of Multiviewer functions using "cascaded" cards where PiP inputs on additional cards can be added next to PiP images from a preceding 9970-QS card in a daisy-chain arrangement
- Cascading Mode and QuickSet grid definer offers easy to set up scalable multiviewer functions using multiple cascaded (daisy-chained) 9970-QS cards
- Special low-latency modes allow multi-card multiviewer setups with virtually no cumulative latency between inputs

### Built-In Video Quality Checks and Captioning Compliance Checks.



- Closed captioning overlays provide direct closed captioning presence/quality compliance checks for up to 5 simultaneous video streams per card. Each PiP image supports independent, real-time closed captioning text overlays.
- User quality criteria (such as missing video) alert/alarms can be propagated to output image with alarm text and border highlighting.





## CLOSED CAPTIONING COMPLIANCE SOLUTIONS ... TODAY!

The 9970-QS provides simultaneous real-time closed captioning text overlays for up to 5 streams per card. Easy-to-use and perfectly intuitive, offering a very practical solution for closed captioning presence and quality checks.



**EASY-TO-USE PRESET RECALL WITH THE OGCP-9000 CONTROL PANEL.**



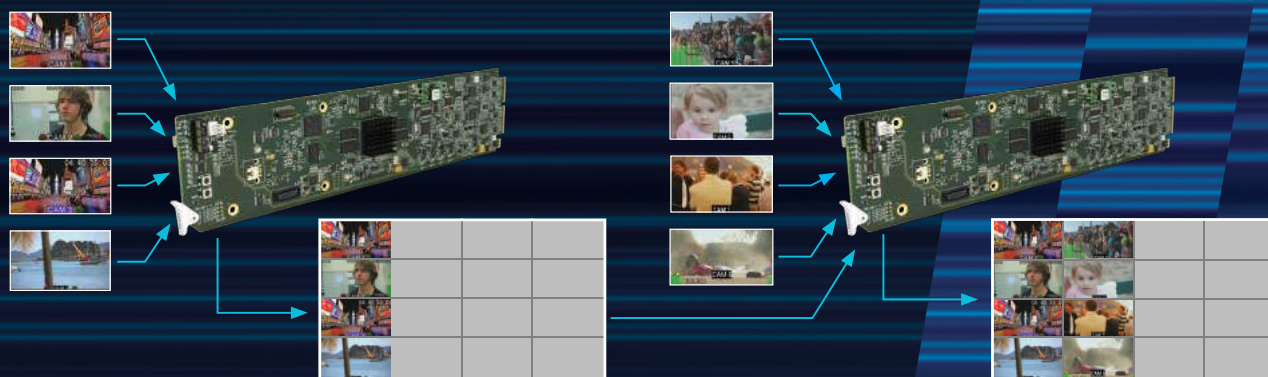
## THE EASIEST ROUTE TO A FULLY SCALABLE openGear® MULTIVIEWER SOLUTION



Scalable openGear® Design

Scalable from a 5:1, single-card with cascading architecture, the 9970-QS is designed from the ground up as The Scalable openGear® Multiviewer Solution. The 9970-QS Cascading Mode and QuickSet grid definer offers easy to set up scalable multiviewer functions using multiple cascaded (daisy-chained) 9970-QS cards. Two cards can provide a 9:1 multiviewer, and combining up to 10 cards provides a cost-efficient, high-density multiviewer in a single 2RU openGear® frame.

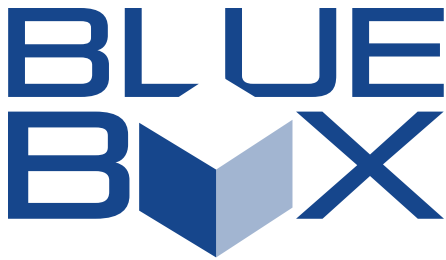
Multiple 9970-QS cards can operate in a **cascading** mode, where 4 PiP inputs serve as program video inputs, and the PiP 5 input receives the cascading combined layout of a preceding 9970-QS card in a daisy-chain arrangement.



The **cascade** output (consisting of the four PiP images and a full-size underlay) can be sent to another 9970-QS as a cascade input, serving as an underlay which can accept more PiP insertions.

A Quickset grid definer precisely sets up a multiviewer grid where columns and rows of each of the cards PiPs are arranged to work together in a cascaded aggregate arrangement. Simply set for the number of rows and columns desired - the Quickset definer does the rest!

More downstream 9970-QS cards can be added and have its PiPs added next to those furnished from the upstream card cascade. Here, PiP insertions are arranged in columns, although almost any desired grid and arrangement scheme is possible.



## **BBG-1070-QS**

### **THE 1/3-RU STANDALONE VERSION OF QUINT-SPLIT**

Compact and standalone, our BBG-1070-QS offers the same scalability as our 9970-QS openGear® card-based form. BBG-1070-QS can be used as a desktop unit, or can be rack-mounted in a 1RU rack space using an accessory mounting tray (up to three BBG-1070-QS units can be mounted per tray). The BBG-1070-QS offers all the functionality and features of the 9970-QS, and also offers an internal web server for user interface on virtually any computer or smart device using its HTML5 built-in web server. BBG-1070-QS takes flexibility to a whole other level.

### **CONTROL INTERFACE/INTEGRATION SUPPORT**

Both the 9970-QS and modular BBG-1070-QS support 3rd-party integration using Cobalt protocol as well as openGear® Connect and openGear® protocol. UMD integration with multiple router protocols and TSI/Image Video tally protocol is supported.

- Web GUI interface allows configuring with no additional software needed (DashBoard remote control is also supported)
- Compact 1/3 RU enclosure with up to 3 units per 1RU (using optional 1RU mounting tray)
- Front panel LCD and keypad allows setup with no remote control connection of software needed
- Cascading system architecture provides a 13:1 multiviewer using 3 units in just 1RU
- Dual redundant power supply option
- Optional 1RU Mounting Tray allows three BBG-1070-QS units to be securely mounted to tray which installs in standard 19" racks. Mounting tracks and captive thumbscrew fastener secures the BBG-1070-QS units without tools.



*Optional 1RU Mounting Tray available.*

# TAKE FLEXIBILITY TO A WHOLE NEW LEVEL.



Cobalt Digital Inc. designs and manufactures award-winning IP and 12G/3G/HD/SD conversion, throwdown, and multiviewer technology for the production and broadcast television environment. As a founding member in the openGear® initiative, Cobalt offers a full range of openGear-compliant solutions as well as video and audio processing products for closed caption compliance, production trucks, master control, HD news, signal transport, audio loudness processing, and color correction. Cobalt's Blue Box Group™ line of interface converter throwdown boxes streamlines and simplifies a wide range of IP and 12G/3G/HD/SD conversion and processing tasks. In addition, the company's multi-image display processors enable multiviewer capabilities in the most demanding studio and remote production/broadcasting environments. Cobalt Digital products are distributed through a worldwide network of dealers, system integrators, and other partnerships.

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