

BBG-1060-TG2-REF1 • 3G/HD/SD-SDI Standalone Dual Test Signal Generator with Moving Box Active Signal Indication and Bi-Level/Tri-Level Sync Out



The Cobalt® **BBG-1060-TG2-REF1 3G/HD/SD-SDI Standalone Dual Test Signal Generator** with Moving Box Active Signal Indication and Bi-Level/Tri-Level Sync Out offers an easy to use, economical solution to providing comprehensive test signal packages to ensure validity of downstream baseband SDI systems. Two independent generator blocks can be set to offer dual test packages which can be simultaneously outputted.

SCTE 104 insertion function provides generation and insertion of SCTE 104 messages into baseband SDI. Message send can be triggered from automation GPI, manual, or other event action modes. The function can also execute device actions based on SCTE 104 messages received by the BBG-1060, as well as send triggered SCTE 104 packets to other downstream systems.

The BBG-1060-TG2-REF1 also provides AES and analog audio test tones (both using 24-bit data). A moving-box insertion can be enabled to serve as a dynamic raster confidence check. The BBG-1060-TG2-REF1 can use an external reference to provide an output that's synchronous with house ref, or use its internal ref timing to generate its own ref. An analog video output offers SD black burst or HD tri-level reference output.

Preset save/load allows saving custom settings while allowing one-button revert to factory settings. Layered presets allow invoking changes related only to a specific area of concern while not changing any other processing settings or aspects. The BBG-1060-TG2-REF1 can be remote-controlled using DashBoard™. The compact standalone form factor allows desktop usage, as well as the 1/3-rack size of the BBG-1060-TG2-REF1 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

Comprehensive test signal generation for SDI/analog video and baseband discrete audio in an easily integrated standalone unit

Easy to use, intuitive, flexible, and far more economical than typical bench equipment

Fully-independent dual generator blocks offer simultaneous output of user-configured test packages, or instant user selection between generators via output crosspoint

Full suite of output interfaces – SDI, CVBS, AES and analog audio.

Closed-captioning CEA 608 generator allows user test packages of VBI closed captioning for testing downstream systems

SCTE 104 insertion available using ancillary data, GPI, SNMP, or JSON via HTTP POST / WebSocket, with full control of splice start, end, and cancel as well as pre-roll and break duration offsets

Moving-box/motion insertion enable serves as an easy to use dynamic raster confidence check

SDI import allows insertion of user static raster/patterns as an alternative addition to standard test pattern outputs

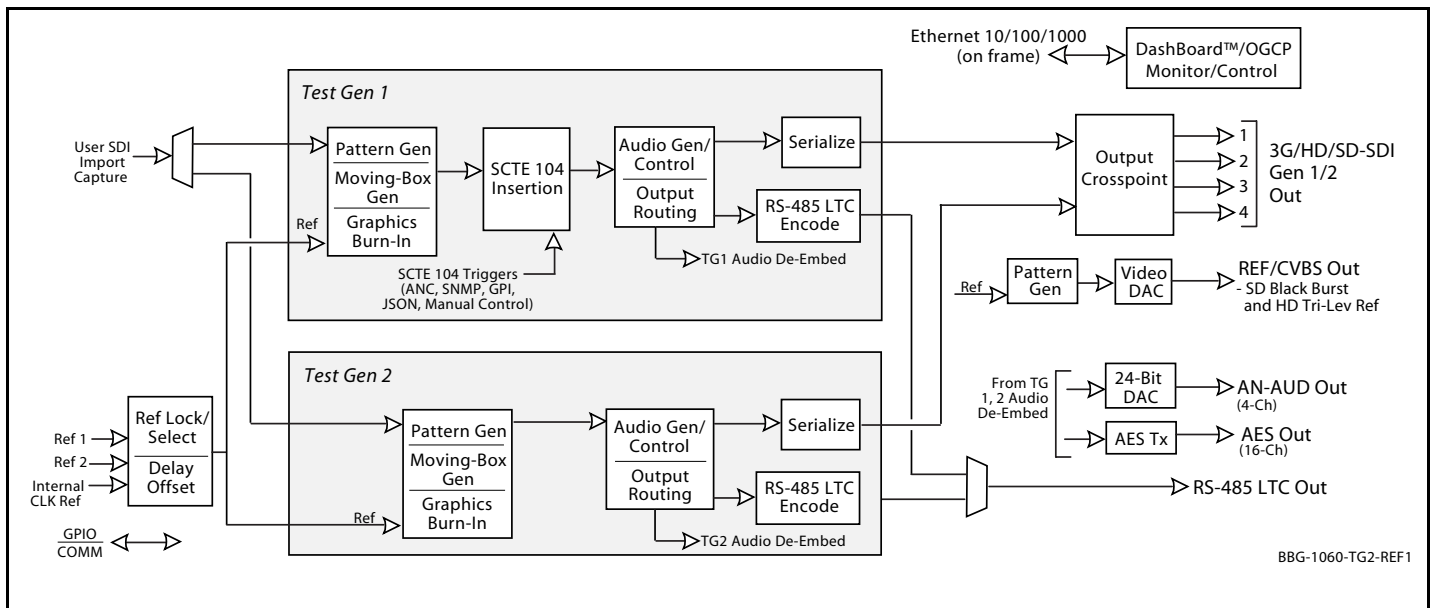
Convenience RS-485 LTC output works with legacy systems and checks bi-phase LTC/SMPTE 12 correlation in mixed systems

Low-power/high-density design – less than 18 Watts

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

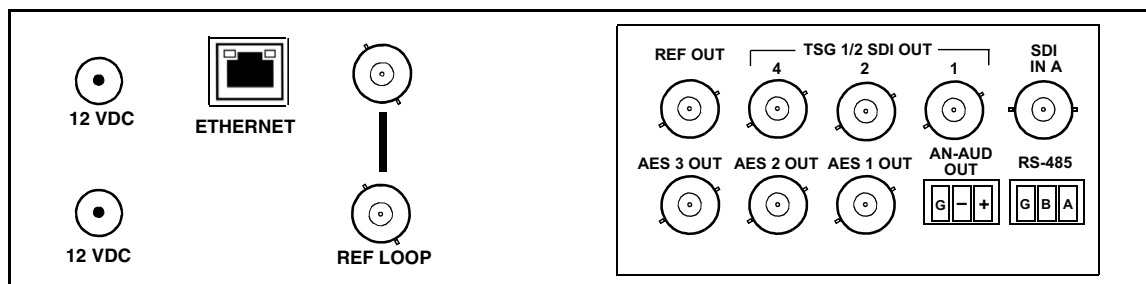
Remote control/monitoring via DashBoard™ software or Web Browser User Interface

Five year warranty



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Rear Panel



SPECIFICATIONS

Power

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

SDI Input/Outputs

(1) SDI User Input (75Ω BNC)
Up to (4) 75Ω BNC outputs
SDI Formats Supported: SMPTE 259M, SMPTE 292M, SMPTE 424M
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

CVBS Video Output

(1) 75Ω BNC output

Discrete Audio Outputs

AES-3id 75Ω outputs (8 pair (16-Ch) max)
Balanced analog audio outputs (4-Ch max)
(I/O conforms to 0 dBFS = +24 dBu)
Analog Output Impedance: < 50 Ω
Analog Reference Level: -20 dBFS
Analog Nominal Level: +4 dBu
Analog Max Output Level: +24 dBu (0 dBFS)
Analog Freq. Response: ±0.2 dB (20 Hz to 20 kHz)
Analog SNR: 115 dB (A weighted)
Analog THD+N: -96 dB (20 Hz to 10 kHz)
Analog Crosstalk: -106 dB (20 Hz to 20 kHz)

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.

User Audio Delay Offset from Video

Bulk delay control: -33 msec to +3000 msec.
Per-channel delay controls: -800 msec to +800 msec

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
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-1060-TG2-REF1 3G/HD/SD-SDI Standalone Dual Test Signal Generator with Moving Box Active Signal Indication and Bi-Level/Tri-Level Sync Out

BBG-1000-PS Redundant Power Supply Module

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