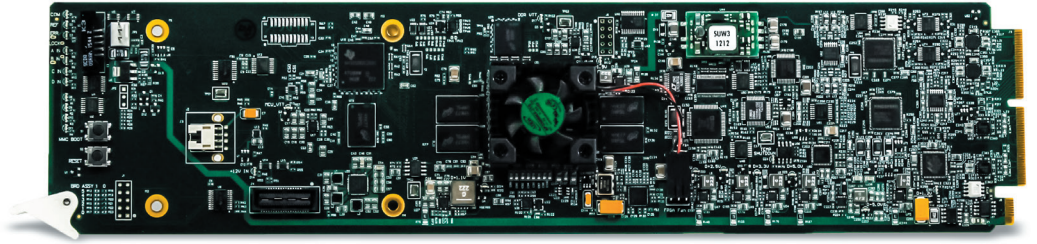


FEATURES

- ▷ Comprehensive test signal generation for SDI/analog video and baseband discrete audio in an easily integrated openGear® card
- ▷ 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
- ▷ 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
- ▷ DID/SDID authoring allows custom payloads to be written to specific DID/SDID locations as test packets for downstream systems
- ▷ Full suite of output interfaces – SDI, CVBS, AES and analog audio
- ▷ Convenient 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 per card
- ▷ Remote control/monitoring via Dashboard™ software



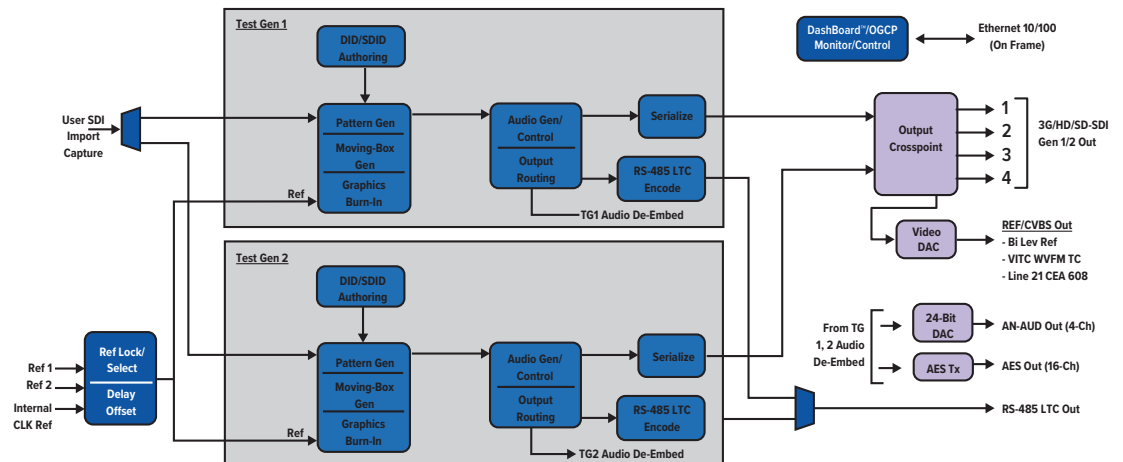
The MultiDyne OG-5410-2TSG 3G/HD/SD-SDI Dual Test Signal Generator with Moving Box Active Signal Indication and Bi-Level/Tri-Level Sync Out offers an easy to use, economical solution to providing comprehensive test signal packages to ensure validity of downstream baseband SDI systems. The OG-5410-2TSG is an unprecedented first in the high-density openGear® based card form factor. Two independent generator blocks can be set to offer dual test packages which can be simultaneously outputted or selectively fed to a single downstream path via a 2x4 output crosspoint.

The OG-5410-2TSG also provides AES and analog audio test tones (both using 24-bit data), and also provides waveform-based test data over its CVBS video output. A moving-box insertion can be enabled to serve as a dynamic raster confidence check. The OG-5410-2TSG can use either of two frame references

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, line 21 CEA 608 closed-captioning and VITC waveform TC outputs. Audio LTC test sequences are available over embedded, AES, and analog audio as well as via an RS-485 serial port. A user ID/trouble slate graphic file can be uploaded to the card, which in turn can be automatically inserted in active video.

Preset save/load allows saving custom card 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 settings or aspects. Full user Dashboard™ allows full status and control access locally or across a standard Ethernet network. GPIO allows direct input routing control and status monitoring.

BLOCK DIAGRAM



ORDERING INFORMATION

PART #	CARD OPTIONS
OG-5410-2TSG	3G/HD/SD-SDI Dual Test Signal Generator with Moving Box Active Signal Indication and Bi-Level/Tri-Level Sync Out
R2-5410-A	20-Slot Frame Rear I/O Module (Standard Width) (1) 3G/HD/SD-SDI Input BNC, (3) 3G/HD/SD-SDI Output BNCs, (1) REF/CVBS Out BNC, (3) AES Out BNC, (1) Balanced Analog Audio Output, (1) RS-485 I/O
R2-5410-B	20-Slot Frame Rear I/O Module (Split; supports 2 cards) (1) 3G/HD/SD-SDI Input BNC, (2) 3G/HD/SD-SDI Input BNCs, (3) 3G/HD/SD-SDI Processed or Reclocked Output BNCs (connections are per each Card 1 / Card 2 connector bank)

TECHNICAL SPECIFICATIONS

Electrical

Power	<18 Watts
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SDI Inputs/Outputs

Number of Inputs	1 SDI - 75Ω BNC
Number of Outputs	4 - 75Ω BNC
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. CVBS output functional only when selected path is carrying SD-SDI.
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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 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.

Tfext 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

GPIO/COMM

(2) GPI configurable to select input routing. (2) GPO configurable to invoke upon input selected.
RS-232/485 comm port. All connections via rear module RJ-45 GPIO/COMM jack.

Frame Reference Input

(2) reference from frame bus. SMPTE 170M/318M "Black Burst", SMPTE 274M/296M.	
Return Loss:	>35 dB up to 5.75 MHz

Note: Inputs/outputs are a function in some cases of rear I/O module used

REAR MODULE MODELS

