P TG 5610 B / D

SDTV / HDTV
SERIES 5000
CardModules

HD/SD Video and Audio Test Generator

Description

The P TG 5610 is a versatile multi-rate video and AES test generator which can generate video test signals in 525/625 plus HDTV formats.

Provides 2 independent simultaneous video outputs with 4 channels of external AES plus 16 channels of embedded audio with user adjustable frequency, audio gain, and bit depth plus selectable momentary pause (silence) for left and right channels to assist with left and right channel ID.

The module Includes a large library of internal test patterns, including the dynamic EBU A/V Sync pattern which can be used for "transmission alive" and audio video lip sync testing. Other dynamic patterns includes a real-time luma and chroma zoneplate generator and LCD persistence test.

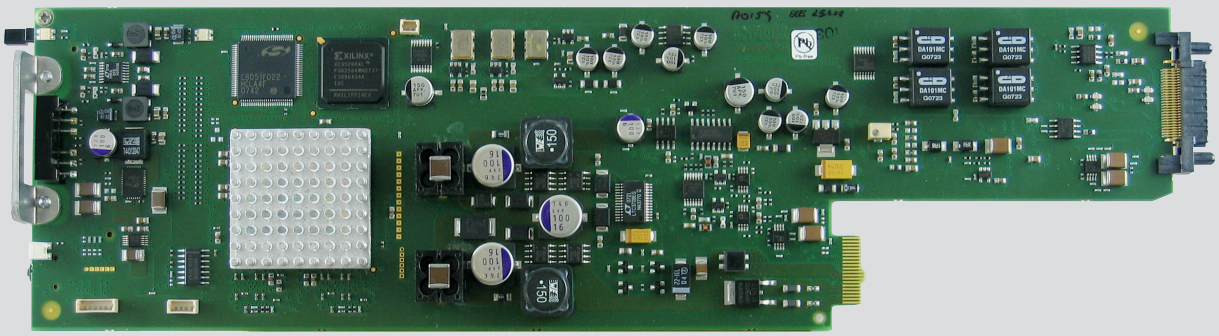
Additional test patterns can be loaded via the compact flash slot (option) and even user defined using the standard DPX file format. Each output can have an independent user defined character overlay.

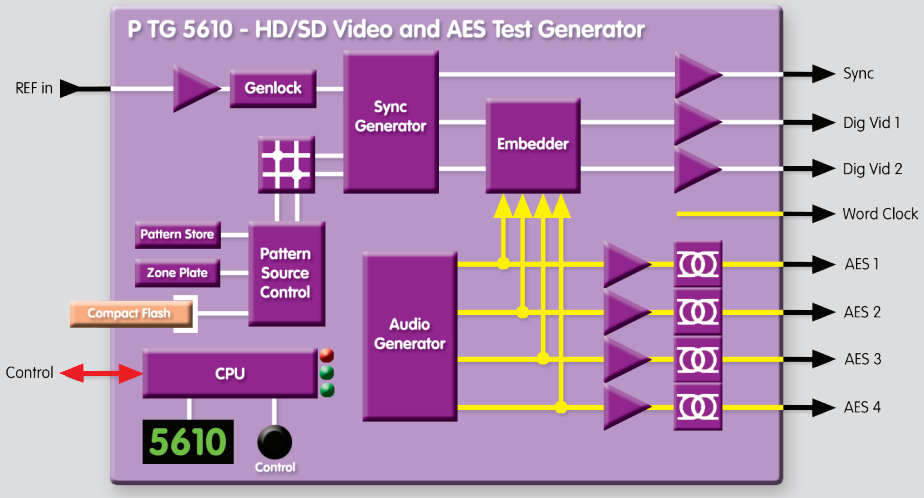
Genlock input is cross lock compatible and will lock to SDTV bi level or HDTV tri level sync with one frame of adjustable input timing for SYNC and Video timing. Analog sync output can be bi level or tri level and decoupled from output format.

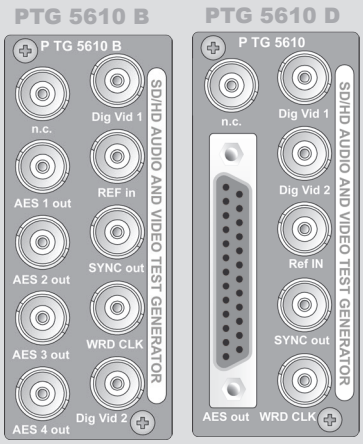
The module include a local matrix and menu system for local control. All settings are stored in Flash RAM and will survive power cycles and long term storage. PC remote control and status monitoring possible when used with one of the available controller options.

Features

- Multi-format operation. SDTV and HDTV formats.
- Two independent SDI outputs (can have different patterns).
- Large library of static and dynamic patterns.
- Load additional patterns using the compact flash slot
- 4 x External AES outputs with 16 channel embedder for each SDI output.
- 8 channel user programmable audio generator.
- Genlock input, multi format and cross lock compatible.
- One frame of adjustable output timing for video and sync outputs.
- Includes EBU A/V sync pattern for transmission alive and audio lip sync tests.
- Real time Zoneplate generator for choma and luma with user adjustable H and V center frequency.
- Multiformat analog sync output.
- Free run as sync generator or genlock to house sync
- All AES outputs are transformer coupled (isolated)
- 48KHz Word Clock output.
- Local control via matrix display and menu system
- Remote control and status monitoring via APPolo control system.







Backplane Options

Processing

LYNX

PROCESSING P TG 5610

P TG 5610 B / D

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Specifications

Video Standards
SDTV **525** 59.94Hz, **625** 50Hz
HDTV **1080i** 60Hz / 59.94Hz, / 50Hz,
720P 59.94Hz / 60Hz/ 50Hz / 29.97Hz
30Hz / 25Hz / 23.98Hz / 24Hz
1080P / 25Hz / 23.98Hz / 24Hz
29.97Hz / 30Hz
1080PSF / 25Hz / 23.98Hz / 24Hz

Inputs
Bi-level or tri-level analog sync.

Outputs
2 x Digital Video outputs
Analog Sync output (bi level or tri level)
4 x Balanced AES on 15 pin female SubD
48KHz Word Clock reference

Test Signals
Static: Full Field Red, Green, Blue, Yellow, Cyan, Magenta, White
Pathological EQ , Pathological PLL
Y-Ramp, CB-Ramp, CR-Ramp
YCBCR-Ramp, Y Staircase
Pluge, 100% Full Field Color bars
75% Full Field Colorbars,
75% Colorbars over Red,
SMPTE-Bars, SMPTE RP 219 Bars,
100% window (color temp),
Field 1 / Field 2 Test, 15% Grey
Multiburst, Frequency Sweep
Center Sweep, Convergence Grid
Static Zoneplate (chroma or luma)

Dynamic: Zoneplate (chroma or luma).
EBU A/V Sync pattern.
LCD Panel Persistence Test.

Test Signals (continued)
Website Download additional patterns from the LYNX web site (requires PTG FLASH option)
User User defined images / patterns as standard DPX files (requires PTG FLASH option)

Genlock
Free Run / Frequency Lock and Timing lock modes. Reference in automatically detected. Cross lock compatible

Timing
One frame adjustable sync + video output timing in lines and pixels.

Character Overlay
Each video output can have a user defined ASCII text overlay up to 22 characters. Position and colors can be changed.

Audio Test Generator
Four external AES/EBU channels (20/24 bit 48KHz).
Adjustable frequency 20Hz - 20KHz in 1 Hz steps for each channel.
Selectable momentary pause (silence) for left or right channel.
Adjustable audio gain for each channel (0dB to -60dB FS).
Adjustable phase for each channel.
Each audio channel is locked to reference input.

Embedder
Audio is embedded into all 4 audio groups (16 channels) on both SDI outputs.

Sync Output
Tri-level or Bi-Level analog sync output is provided.

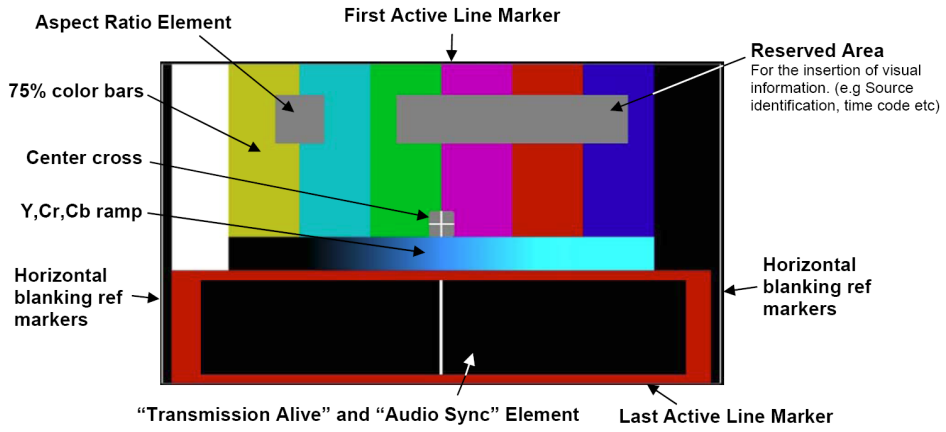
Control
The module has a five character card edge matrix display and a multifunction switch which facilitates navigation through a local menu system for set up and configuration of the module.

While not mandatory the use of the LYNX control system is recommended for using this module. This will make changing module settings and observing current status far easier.

The rack frame requires one of the optional LYNX controllers is installed to access the remote control functionality.

EBU A/V Sync Test Pattern

The PTG 5610 includes the EBU AV Sync Pattern, a general purpose pattern designed to address a number of requirements in a modern multi format environment. Pattern elements can be seen below, this pattern is available in all supported output formats.



"Transmission Alive" Tests
The first motion sequence is designed to test transmission paths. If the linear motion of the moving bar is interrupted then this indicates problems with the throughput of the signal. This is accompanies with a three level test tone which provides for audio level testing and left and right channel ID

Audio Sync Testing
The second part of the motion sequence is designed to check for audio / video delay problems. Two black bars come together accompanied by a single frame of pulsed audio.

The use of either motion sequence is user configurable and the cycle runs in a continuous loop.

Ordering Information

Specifications subject to change

Model #	Part Number	Description	Includes
P TG 5610 D	5155006110	SD/HD Video and Audio Test Gen (SubD, AES3)	CardModule, Rear termination Panel, + Mounting Screws, and Reference Manual
P TG 5610 B	5155006100	SD/HD Video and Audio Test Gen (BNC, AES3id)	CardModule, Rear termination Panel, + Mounting Screws, and Reference Manual