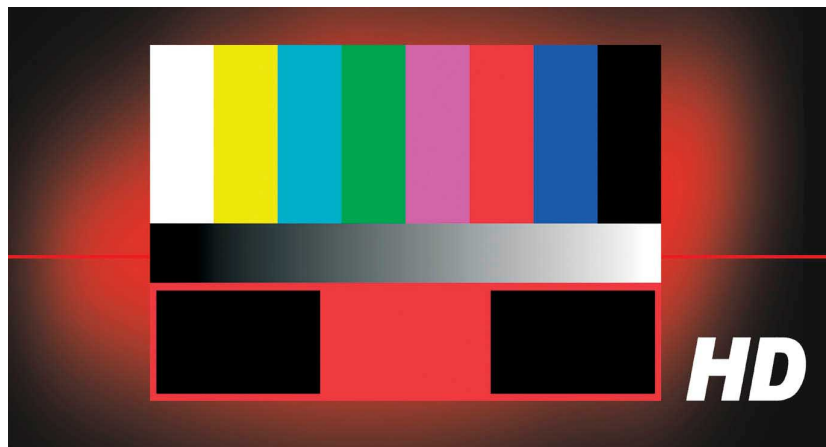DK-Technologies

Dual Link HD-SD Test Signal Generator Module
PT8613

New

- **Multi-format Dual Link, Single Link HD and SD test signals for high-end video production**

- **The 2 independent generators on board can simultaneously generate separate signals in different formats and timing**

- **RGB 4:4:4, YC$_B$C$_R$ 4:4:4, and YC$_B$C$_R$ 4:2:2 sampled formats with 12 and 10 bit resolution**

- **PT8613 integrates seamlessly into PT5300 HD-SD Sync Generator Mainframe**

solutions in Audio & Video

DK-Technologies will be unveiling a new PT8613 Dual Link Test Signal Generator module for its PT5300 HD-SD Sync Generator at this year's IBC Convention.

Aimed at the high-end video production market, the PT8613 uses 1080p progressive scanning and 4:4:4 sampled component HD signals with up to 12 bit video resolution.

Video
Specifically designed to work alongside DK's PT5300 Sync and Test Signal Generator Mainframe, the PT8613 provides two independent multisystem generators each capable of providing configurable video interface systems as HD Dual Link, HD Single Link, and SD. The generated video components can be RGB 4:4:4, YC$_B$C$_R$ 4:4:4, or YC$_B$C$_R$ 4:2:2, and colour resolution can be configured to 12-bits or 10-bits. Each generator is independently timeable in the interval +/- 0.5 relative to the mainframe genlock time reference, to account for cable length and buffers in the signal path.

Embedded Audio
DK's new module allows 16 channels of audio test signals to be embedded into the video signal and gives users the option of selecting the audio signal level. Tones are available to check the refer-

ence level and clicks can be generated to check the synchronization to the video. In Dual Link operation the audio is embedded in link A.

Lip-Sync Test Pattern
The generators provide a variety of test patterns including dynamic patterns synchronized with the embedded audio for checking of video/audio synchronization (Lip Sync).

Text Insertion for ID
For source identification, a text label of up to 3 x 16 characters can be inserted in the active video. Furthermore, motion on the text field can be enabled to check that the signal is alive and no frames are lost.

PT5300 HD-SD Sync Generator
The PT5300 HD-SD Sync Generator used to accommodate the new PT8613 Dual Link Generator module is, in its basic version, quipped with genlock as well as 4 Tri-Level sync outputs and 2 black burst outputs. A variety of HD and SD test signal generator modules, AES-3 audio module, and other special functions together with the PT5211 Change-over unit make it possible to configure the unit to the user's exact requirements, thus getting the best possible reliability of the overall sync system.

Video Systems
Any combination of the systems and interface below can be selected for the two generators independently.
- HD: 1080p/23.98, 24, 25, 29.97, 30. 1080i/25, 29.97, 30. 720p/23.98, 24, 25, 29.97, 30, 50, 59.94, 60.
- SD: 576i/25 (625) and 487i/29.97 (525)

Video Interface
- HD Dual Link: RGB 4:4:4 12-bit, RGB 4:4:4 10-bit, YC_BC_R 4:4:4 12-bit, YC_BC_R 4:4:4 10-bit, YC_BC_R 4:2:2 12-bit.
- HD: YC_BC_R 4:2:2 10-bit.
- SD: YC_BC_R 4:2:2 10-bit.

Video Test Patterns
- Black: Full field black.
- Colour Bars: 100%, 75%, and 75% with 100% white.
- White: Full field from -5% to 105% in 5% increments.

- White Window: Partial field from -5% to 105% in 5% increments.
- Crosshatch: 16 x 9 squares for geometry test.
- PLUGE Signal: -2%, 0, 2%, 16% (110 mV), 29% (200 mV), and 64% (450 mV).
- SDI Checkfield: Pathological patterns for PLL, and cable equalizer test.
- Clapper Board: Moving pattern for lip-sync test.
- White Ramp: From 0% to 100%, including 0% and 100% bars.
- Combination: Containing selectable colour bar, white ramp, lip-sync, and 75% red.

In Single Link operation Link B is black video.

Text insertion
Text can be inserted on top of all test patterns. Up to 3 lines of 16 characters each can be entered. The font size can be changed as well as the font colour

and background. The text field can be fixed positioned or slide horizontally, vertical, or both.

Embedded Audio
16 channels of audio can be embedded into one video stream. In Dual Link operation the audio is embedded in link A.
- Audio Signals: Silence, Sine, Click.
- Audio Level: 0 dBFS, -6 dBFS, -12 dBFS, -18 dBFS, -24 dBFS.
- Lipsync Timing: +/- 500 ms relative to video.

Video Timing
Each of the two generators can be timed individually relative to the mainframe genlock is steps of 6.7 ns.

Interface Specifications
- Connectors: 4 BNC, 75 ohm
- Output resistance: 75 ohm, +/- 1%.
- Return Loss: >15 dB, up to 1.5 GHz.
- Amplitude: 800 mVpp +/- 10%.

PT5300 Series Products

BASE UNITS

PT5300HD
HD-SD VariTime™ Sync Generator, HD base unit, 4 tri-level sync outputs, 2 black burst outputs, genlock

PT5300SD
SD VariTime™ Sync Generator, SD base unit, 2 black burst outputs, genlock

OPTIONS

PT8604
Multiple Parallel Black Burst Output, 6 outputs

PT8606
SD-SDI Digital Genlock Module, 1 input

PT8608
Dual Black Burst Generator, 2 outputs

PT8609
SDI Black/Colour Bar Generator

PT8611
Quad Tri-Level Sync Generator, 4 outputs

PT8612
Quad HD-SD Serial Digital Generator, 4 outputs

PT8613
Dual HD-SD Dual-Link Test Signal Generator Module, 2 x 2 outputs

PT8631
Analogue Test Signal Generator

PT8632
SDI Test Pattern Generator, Extended

PT8632/10
SDI Test Pattern Generator (Extended) FuBK 4:3

PT8633
SDI Test Pattern Generator, High end

PT8635
Dual AES3 digital audio generator, 2 XLR outputs, 2 BNC outputs, Wordclock output

PT8637
Time & Clock Interface

PT8639
SDI Test Signal Generator, Basic signals

Contact

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For distribution and sales consult our homepage

www.dk-technologies.net