

BrightEye 56

HD/SD/Analog Test Signal and Sync Pulse Generator

BrightEye 56 is a genlockable sync generator and test signal generator that can be used as either a slave or master reference generator. It can lock to house reference or it can lock to its own internal precision standard. BrightEye 56 is well suited for remote trucks, post, helicopters and fly packs.

HD or SD SDI test signals or black with embedded audio is output on the SDI BNCs. Composite, Tri-level Sync and AES digital audio outputs are also provided. There are three user programmable outputs that are selectable between AES, LTC, Word Clock or 6 Hz Pulse. Analog audio and AES outputs provide tone or silence.

Color black, bars, crosshatch, multiburst, and SDI checkfield (pathogenic) are just some of the signals simultaneously available on the SDI and analog composite outputs. The cyclops feature adds a motion element to the selected video test signal. An ID slate with user programmable text can overlay the test pattern.

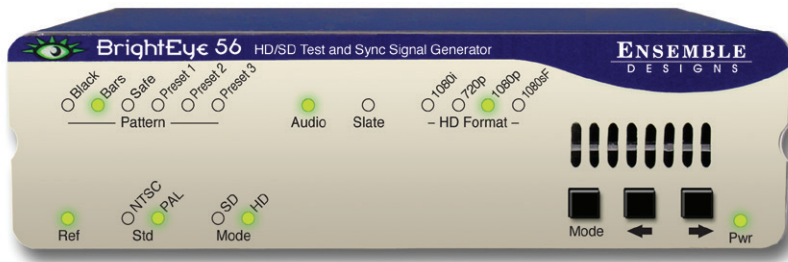
The internal timecode generator feeds DVITC on the SDI outputs and VITC on the composite outputs, timecode can also be selected in LTC form on the programmable Aux outputs.

Many controls can be adjusted through the intuitive front panel. BrightEye Mac and BrightEye PC software provide a complete user interface for all adjustments and controls.



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Features

- Master or slave reference generator for all video and audio gear
- Sync pulse generator
- 30+ HD and SD test signals
- Composite, SD SDI, HD Tri-Level outputs
- Timecode generator
- Analog, AES and embedded audio outputs

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Reference Input

Number	One
Signal Type	1 V P-P Composite Video PAL or NTSC, Tri-Level Sync, or 10 MHz
Return Loss	>40 dB DC to 5.5 MHz

Composite Output

Number	Two
Signal Type	NTSC/PAL
Impedance	75 Ω
Return Loss	>40 dB DC to 5.5 MHz
Frequency Response	-0.1 dB 10 KHz to 5.0 MHz
Output DC	± 50 mV
K Factor	<1.0%
Differential Phase	<1.0 degree
SCH Phase	± 5 degrees

Accuracy and Timing Stability

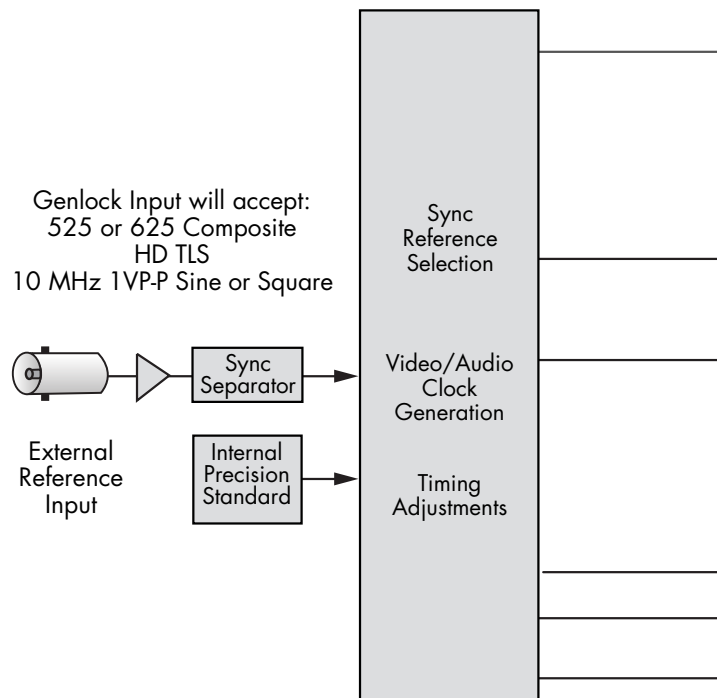
Internal	TCXO
PAL Fsc	4.43361875 MHz +/- 1 Hz
NTSC Fsc	3.579545 MHz +/- 1 Hz
601 Fs	27.000000 MHz +/- 5 Hz
Long Term Drift	<1 ppm/year
Analog Jitter	<1 ns
Digital Jitter	<0.2 UI (0.13 UI typical)

Serial Digital Output

Number	Two
Signal Type	270 Mb/s SD Serial Digital (SMPTE 259M) 1.485 Gb/s HD Serial Digital (SMPTE 274M, 292M or 296M)
Return Loss	>15 dB for 270 Mb/s >15 dB for 1.485 Gb/s
Max Cable Length	300 meters for 270 Mb/s 100 meters for 1.485 Gb/s 70 meters for 2.97 Gb/s (Belden 1694A)

Tri-Level Sync Output

Number	Two, 75 Ω
Output	DC ± 50 mV
Return Loss	>30 dB to 30 MHz



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Standards Supported:

1080i (SMPTE 274M -4, 5, 6) 50, 59.94 or 60 Hz
 720p (SMPTE 296M -1, 2, 3) 50, 59.94 or 60 Hz
 1080p (SMPTE 274M -9, 10, 11) 23.98, 24, 25 Hz
 1080sF (RP211 -14, 15, 16) 23.98, 24, 25 Hz
 625i 50, 525i 59.94, Composite PAL, NTSC

AES Audio Output

Number One
 Type AES3id, 1 KHz tone or silence
 Resolution 24 bit

Analog Audio Output

Number One stereo pair or two mono
 Type 1 KHz tone or silence
 Impedance 30 Ω, balanced
 Reference Level -10 to + 4 dBu, adjustable

Programmable Outputs

Number Three
 Type Selectable between AES, LTC, Wordclock or 6 Hz Pulse
 Impedance 75 Ω

General Specifications

Size 5.63" W x 1.65" H x 5.98" D
 (143 mm x 42 mm x 152 mm)
 including connectors and flange
 Weight 1 lb 7 oz
 Power 12 volts, 12 watts
 (100-230 VAC modular power supply)
 Temperature Range 0 to 40° C ambient (all specs met)
 Relative Humidity 0 to 95%, non-condensing
 Altitude 0 to 10,000 ft.

