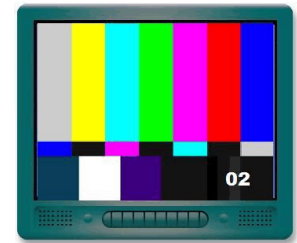
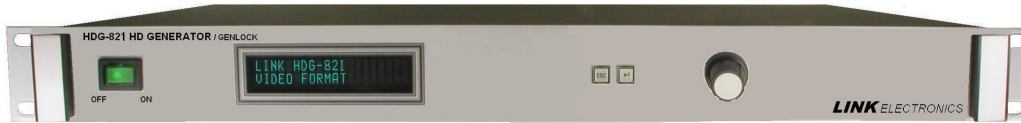




**LINK ELECTRONICS, INC.**



## **MASTER SYNC GENERATOR (Bi & Tri-Level) HD TEST SIGNAL GENERATOR with PsF**



- ◆ 23 different HD video formats
- ◆ 30 different test patterns
- ◆ HD analog and SDI outputs
- ◆ YUV or RGB analog outputs
- ◆ SD Black Burst Output
- ◆ Tri-Level Sync Output
- ◆ Two AES Generated Outputs
- ◆ AES, Either AES-3 or AES-11 (DARS)
- ◆ Master HD & SD Sync Generator
- ◆ 8 selectable channels to be embedded
- ◆ Power-up user settings
- ◆ Loadable factory defaults
- ◆ Adjustable audio frequency and amplitude
- ◆ Adjustable horizontal & vertical timing
- ◆ PsF (Progressive Segmented Frame)
- ◆ Source ID

The HDG-821 Series by Link Electronics™ is a series of broadcast High Definition Pattern Generators providing the user with high quality, low cost system to produce HD Test Patterns. The HDG-821 is a self contained product for standard 19 inch rack mounting.

This unit is a multi-format generator can be used where various HD signals are required. Tri-level sync is on all analog component outputs, RGB or YUV. Sync output can be selected as Bi-level (black burst) or Tri-level.

The HDG-821 is a high definition video test pattern generator in a stand-alone one rack (RU) chassis. The unit has two serial digital outputs at 1.485 Gb/s and YUV/RGB analog outputs. The digital and analog outputs are simultaneous on the rear panel and contain the same test pattern. The user may embed internal audio tones on the digital video output if desired.

There are two audio groups supported, which will allow for eight channels. The channels can be enabled on an individual basis. The internal tones generated are adjustable from 400Hz to 10 KHz with amplitude adjustment from -30 dbfs to 0 dbfs and silence. The unit will generate one of the two types of audio AES3 or AES11 (DARS). There are also two BNC connectors for AES output, which will allow four channels of audio for monitoring.

There are a total of thirty test signals available, including SMPTE, EIA and Full Field Bars. There are twenty three different HD formats available plus NTSC or PAL black burst. It also has a unit identification that can be enabled to uniquely identify up to 100 different units. It also has the ability to alternate (flip) the pattern to black making the video active so that one can see if the video has been frozen when going thru other equipment.

The HDG-821 is gen-lock unit with a pair of looping BNC connectors on the rear panel. The gen-lock version provides adjustments of H & V Timing and gen-lock indication.

The 20X2 Vacuum Fluorescent Display, shows data for operational functions. All user controls are made from the front panel. All internal adjustments are made by potentiometers for precise and accurate settings. The user may choose to have all of the selections saved for power up defaults.

The Link Electronics product design, performance and reliability are reflected in the New-Generation of Link Electronics products. A pair of lighted push buttons and an optical rotary encoder changes and selects between various menus. User friendly operation is a key concept of this instrument.

**LINK ELECTRONICS, INC.** ◆ 2137 Rust Avenue ◆ Cape Girardeau, MO 63703-7668  
Phone 573 334 4433 ◆ FAX 573 334 9255

# HDG-821 HIGH DEFINITION GENERATOR

## OUTPUTS:

HD/SDI: ..... Two 75 Ω BNC's, 800mV ±10%  
 YUV or RGB Analog: ..... One set of three 75 Ω BNC's  
 Y, G, B, & R: ..... 1Vpp, ±10% @ 100% Color Bar  
 U & V: ..... 0.7Vpp, ±10% @ 100% Color Bar  
 Sync: ..... Bi-level or Tri-level one 75 Ω BNC, 0.6Vpp±10%  
 AES/EBU Audio: ..... Two, AES3-ID or AES11, 75 Ω BNC

## AUDIO:

Frequency: ..... 400 to 10K Hz (100 Hz increments)  
 Amplitude: ..... 0 to -30dBFS plus silence (1dBFS increments)

## SERIAL RS-232:

Serial Control: ..... RS-232, DB-9 Connector, (Future development)

## REFERENCE INPUT:

Analog Black Burst: ..... High Impedance Loop, >50K ohms  
 Level: ..... 1Vpp +/- 3dB  
 Configuration: ..... Single ended

## ELECTRICAL:

Input Power: ..... Auto Detection 90 to 264VAC  
 Frequency: ..... 47 to 63 Hz  
 Consumption: ..... 12 Watts  
 Compliance: ..... Designed to meet UL Approval

## MECHANICAL:

Height: ..... 1.75 inches  
 Width: ..... 19 inches  
 Depth: ..... 9 inches  
 Weight: ..... 4.75 Lbs.

## ENVIRONMENTAL:

Temperature: ..... 0° to 50° C (ambient)  
 Humidity: ..... 10% to 90% non-condensing

## TEST PATTERNS

- |                          |                        |                        |                        |
|--------------------------|------------------------|------------------------|------------------------|
| 1. 100% COLOR BARS       | 9. CHROMA 10 STEP      | 17. CHROMA MULTIBURST  | 25. 75% RED            |
| 2. 75% COLOR BARS        | 10. CHROMA RAMP        | 18. CHROMA SWP 5-15MHZ | 26. 75% BLUE           |
| 3. SMPTE BARS            | 11. SDI PATHOLOGICAL   | 19. CHROMA PULSE & BAR | 27. 50% GRAY           |
| 4. 75% COLOR BARS/5 STEP | 12. SDI EQ             | 20. 100% WHITE         | 28. BLACK              |
| 5. LUMA 5 STEP           | 13. SDI PLL            | 21. 75% YELLOW         | 29. LUMA ZONE PLATES   |
| 6. LUMA 10 STEP          | 14. LUMA MULTIBURST    | 22. 75% CYAN           | 30. CHROMA ZONE PLATES |
| 7. LUMA RAMP             | 15. LUMA SWEEP 1-30MHZ | 23. 75% GREEN          |                        |
| 8. CHROMA 5 STEP         | 16. LUMA PULSE & BAR   | 24. 75% MAGENTA        |                        |

## FORMATS

Formats	60	59.94	50	30	29.97	25	24	29.98
720p								
1080p								
1080i								
1080 pfs								
1035i								

