

# LGK-3901

## Single card, 3Gbps/HD/SD channel branding processor



The Densité LGK-3901 is a low cost, single card channel branding processor, capable of inserting up to five layers of graphics into 3Gbps/HD/SD. Three of the keying layers can be fed by internally stored still/animated graphics, and two layers are fed by external graphics devices. It also offers character generation, clock insertion, EAS support, and audio clip/voice-over playout. The LGK-3901 is ideal for pre-rendered graphics (see page 372).

A template-based character generator can insert a crawl layer or a static (dynamically updated) text layer. High quality characters are output with 256 level anti-aliasing, with easy drop shadow and transparency control. Unicode characters in TrueType fonts, are available from 6 to 600 pixels, in

any RGB color. The EAS option (USA) enables emergency text and voice-overs to be inserted (requires an A to D converter to provide AES input).

An integrated audio mixer provides eight channel voice-over/audio clip storage/playout. Background audio is automatically ducked during voice-overs. Audio can be accepted as embedded audio or by four external AES inputs.

The LGK-3901 can be used with the Vertigo Suite's work order management, graphics preparation, asset management, data interfacing and playout automation workflow tools. The Vertigo Suite streamlines graphics operations in localized and distributed environments, and contributes to lower costs, faster delivery, and greater creativity.

### KEY FEATURES AND BENEFITS

#### Modular, 3Gbps / HD / SD branding processor

- > Single, card master control and branding processor
- > Module is housed in Densité 3 frame, with up to 10 cards (channels) per frame
- > Supports 3 Gbps/HD/SD (1080p, 1080i, 720p, 576i, 480i, 59.94 Hz and 50 Hz)
- > Uses widely adopted Oxtel automation protocol (Ethernet, RS-232/422)
- > Manual control options include Branding Panel, PresStation, Vertigo Xpanel GUI, and iControl PC-based control

#### Multi-layer channel branding

- > Five independent keying layers: three can be fed by internally stored stills/animations, and two layers are fed by external graphics devices (dual fill & key inputs)
- > Integral storage capacity of up to 4000 images/animations
- > Independent preview output
- > Automated character generation for static or data-driven text rendering and crawls
- > In-vision digital / analog clock insertion (with CG option)
- > Emergency Alert System (EAS) support (USA only)
- > Multi-channel voice-overs and audio clip playback \*
- > Temperature sensor option

#### Master control switching

- > AB video mixing option, with 16 channel audio mixing
- > X-fade, V-fade and asymmetric V-fade transitions

#### Streamlined workflow

- > Fully compatible with Vertigo branding graphics automation and asset management system for highly productive, cost-saving workflows
- > Easy integration into a familiar After Effects based workflow, using the Vertigo After Effects Plug-in

#### Robust design

- > Compact flash memory for O/S and graphics storage
- > Rugged Linux architecture
- > Densité 3 frame offers redundant, hot-swappable power supplies
- > Mechanical bypass of program input
- > Easy diagnostics via Densité 3 front panel, video thumbnails over IP, and iControl monitoring and control system (see page 533)

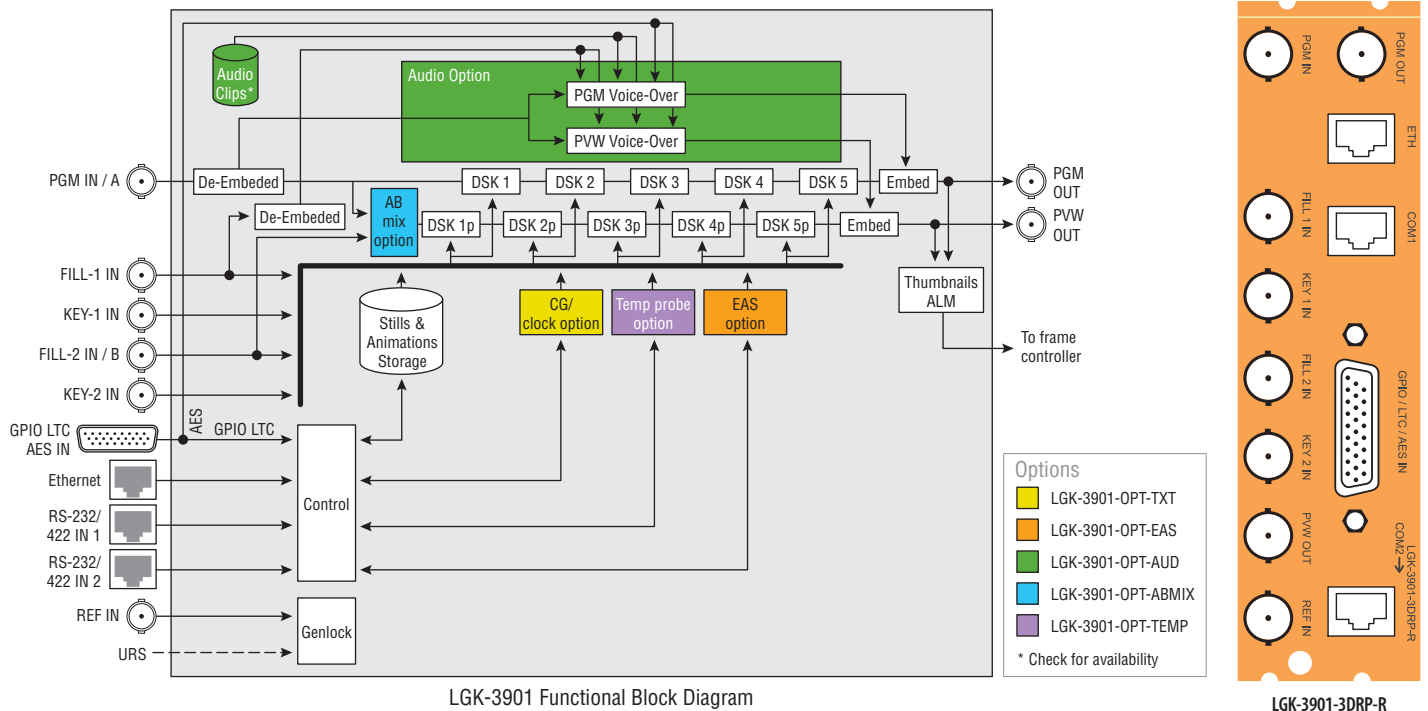
#### Comprehensive Densité range

- > LGK-3901 can be easily combined with other Densité modules in the 3RU Densité frame, including signal processors, DAs, and multi-viewers (see page 503)

\* Check for availability



The LGK-3901 channel branding processor provides five independent keying layers, automated character generation, EAS insertion, and audio voice-overs.



LGK-3901 Functional Block Diagram

LGK-3901-3DRP-R

## TECHNICAL SPECIFICATIONS

### PROGRAM AND FILL/KEY INPUTS

Signal: 3G/HD/SD-SDI SMPTE 424M, 292M, and 259M-C compliant  
 Supports data rates of 270, 1483.5, 1485, 2967, 2970 Mbps

Cable length (Belden 1694A):  
 60 m (180') @ 3Gbps  
 120 m (360') @ 1.5 Gbps  
 300 m (1000') @ 270 Mbps

Return loss \*:  
 >15 dB for up to 1.5 GHz  
 >10 dB from 1.5 GHz to 3 GHz  
 \* Return loss figures may differ when signal is routed through the bypass relay

### PROGRAM AND PREVIEW OUTPUTS

Signal: 3G/HD/SD-SDI SMPTE 424M, 292M, and 259M-C compliant  
 Supports data rates of 270, 1483.5, 1485, 2967, 2970 Mbps

Return loss \*:  
 >15 dB for up to 1.5 GHz  
 >10 dB from 1.5 GHz to 3 GHz  
 \* Return loss figures may differ when signal is routed through the bypass relay

Jitter (wideband): HD/SD: <0.2 UI  
 3Gbps: <0.3 UI

### REFERENCE INPUT

Signal: SMPTE 170M/SMPTE 318M/ITU 624-4/ BUT 470-6 or comp. sync  
 SMPTE 274M / SMPTE 296M tri-level sync

Return loss: >35 dB up to 5.75 MHz

### SERIAL CONTROL

Connector: RJ-45  
 Signal: RS-232/422  
 Data rate: 9600, 19200, 38400, 57600, 76800, 115200

### VIDEO PROCESSING PERFORMANCE

Signal path: 10 bits

### EMBEDDED AUDIO PROCESSING PERFORMANCE

Quantization: 20-24 bits  
 Sampling: 48 KHz, synchronous  
 Number of channels: 16, 4 groups

### ELECTRICAL

Power 25 W

## ORDERING INFORMATION

LGK-3901-4GB 3Gbps/HD/SD logo inserter with 4 GB storage  
 LGK-3901-8GB 3Gbps/HD/SD logo inserter with 8 GB storage  
 LGK-3901-4GB-SD SD logo inserter with 4 GB storage  
 LGK-3901-8GB-SD SD logo inserter with 8 GB storage  
 LGK-3901-3DRP-R Double rear connector panel with bypass relay

### Housing frame

Densité 3 Frame Housing frame with (1) PSU (AC in), (1) Ethernet controller with front control panel, blank rear panels (up to 6 LGK-3901 + processors per 3RU frame)

### Options

LGK-3901-OPT-TXT Easytext character generator (includes analog/digital clocks)  
 LGK-3901-OPT-EAS EAS support - USA only  
 LGK-3901-OPT-AUD Audio/voice-over option  
 LGK-3901-OPT-ABMIX AB mix option  
 LGK-3901-OPT-TEMP Temperature probe option  
 LGK-3901-8GB-UPG Upgrade to 8 GB storage  
 LGK-3901-HD-UPG Upgrade from SD to 3G/HD for LGK-3901-SD

### Remote control

iControl, iControl Solo, Xpanel, RCP-BR, RCP-200 \*

\* For full list of supported cards, visit <http://www.miranda.com/RCP-200>