

Imagestore-Modular

Single Card, 3G/HD/SD Master Control and Branding



Promote your brand and efficiently deliver your channels.

Imagestore-Modular from Grass Valley, a Belden Brand, is a low cost, 3G/HD/SD modular master control and branding processor. It offers exceptional space and energy efficiency, with up to 10 channels in a 3 RU Densité frame.

Master control features include AB video/audio mixing (16 channels) plus voiceovers.

Designed for pre-rendered graphics, it can provide five layers of keying (three internal stores), character generation and EAS, as well as clock and temperature insertion.



Imagestore-Modular Single Card, 3G/HD/SD Master Control and Branding

KEY FEATURES

Modular 3G/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 3G/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 iMC panels, Branding Panel, PresStation, Vertigo Xpanel GUI, and iControl PC-based control

Multilayer channel branding

- Four independent keying layers: three can be fed by internally stored stills/animations, and one layer fed by external graphics device (fill and key input)
- Integral storage capacity of up to 4,000 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 (US only)
- Multichannel voiceovers and audio clip playback
- Temperature sensor option

Master control switching

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

Streamlined workflow

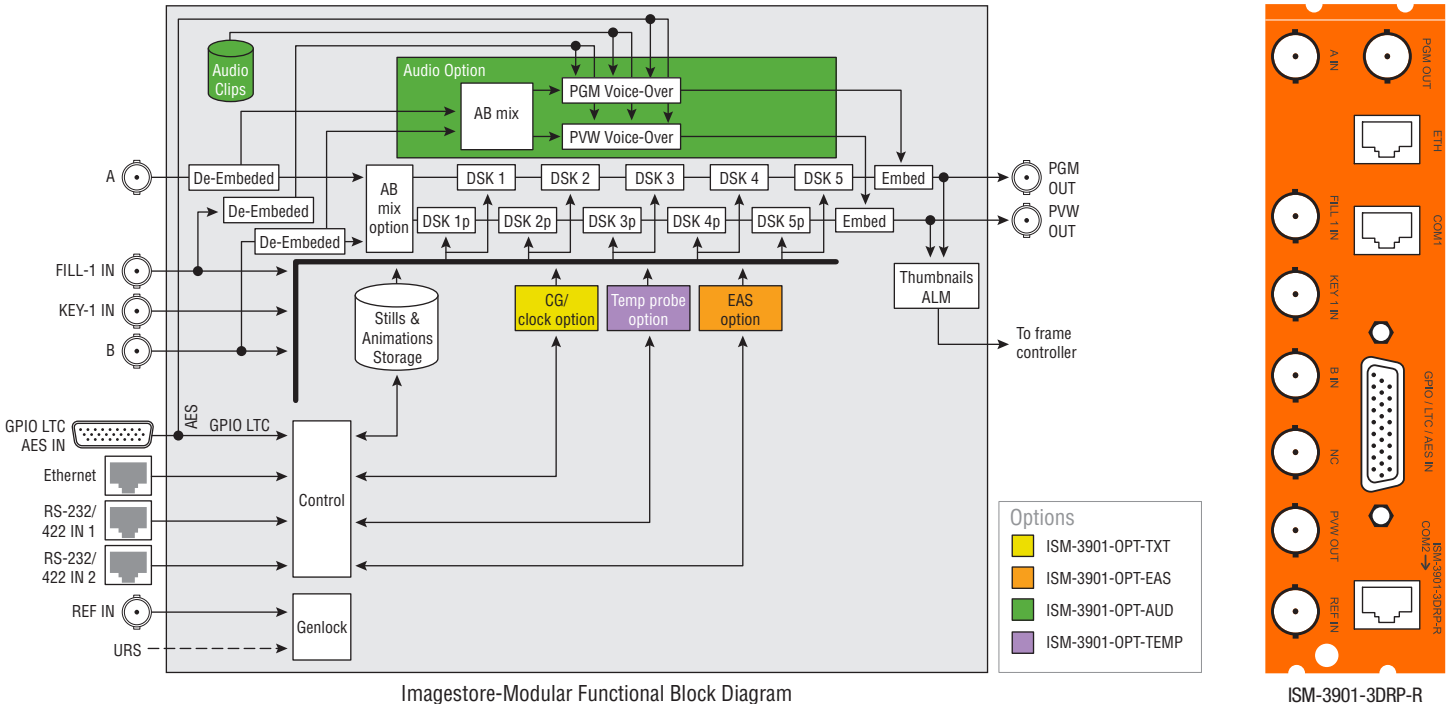
- Fully compatible with Vertigo branding graphics automation and asset management system for highly productive, cost-saving workflows
- Easy integration into a familiar After Effects-based workflow, using the Vertigo After Effects plug-in

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

Comprehensive Densité range

- Imagestore-Modular can be easily combined with other Densité modules in the 3 RU Densité frame, including signal processors, DAs and multiviewers



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 Mb/s

Cable length (Belden 1694A):

- 60m (196 ft.) at 3 Gb/s
- 120m (393 ft.) at 1.5 Gb/s
- 300m (3,280 ft.) at 270 Mb/s

Return loss*:

- >15 dB for up to 1.5 GHz
- >10 dB from 1.5 GHz to 3 GHz

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 Mb/s

Return loss*:

- >15 dB for up to 1.5 GHz
- >10 dB from 1.5 GHz to 3 GHz

Jitter (wideband):

- HD/SD: <0.2 UI
- 3G: <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: RJ45

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: 25W

*Return loss figures may differ when signal is routed through the bypass relay.



Graphics Applications

- Imagestore-Modular is ideal for prerendered animated/still graphics, such as logos and lower thirds
- The most intensive, full screen dynamic HD graphics are best performed by the top of the range Vertigo XG processor



Audio Mixing and Voiceovers

- Imagestore-Modular features 16 channel audio mixing, and optional 8 channel voiceover/audio clip storage and playout (simultaneous playout of two clips)
- Background audio is automatically ducked during voiceovers
- Audio is accepted as embedded audio or by four external AES inputs



Automated Character Generation and EAS

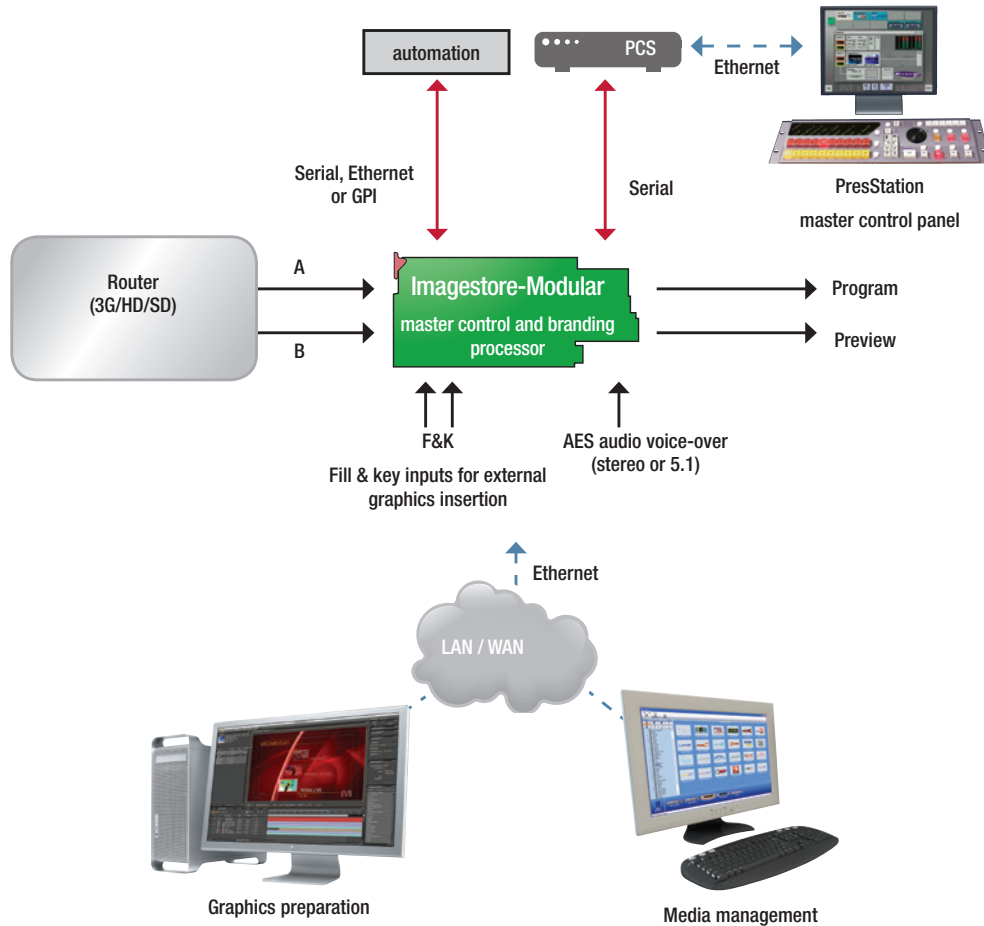
- The optional automated, template-based character generator can insert a crawl layer or static (dynamically updated) text layer
- High quality characters are output with 256 level anti-aliasing, with easy drop shadow and transparency control
- Unicode characters in Truetype fonts, from 6 to 600 pixels, in any RGB color
- The EAS option (USA) enables emergency text and voice-overs to be inserted automatically via GPI and RS-232, when the processor is connected to an external EAS receiver (EAS audio requires an A-to-D converter)



Advanced Manual Control

- Imagestore-Modular operates with the compact iMC panels, Branding Panel, the Vertigo Xpanel GUI and the PresStation master control panel

Specialty channel master control switching and branding



For a simpler logo insertion version of Imagestore-Modular, please see the LGK-3901

ORDERING

ISM-3901	Imagestore-Modular 3G/HD/SD master control switcher and logo inserter with 8 GB storage
ISM-3901-SD	Imagestore-Modular SD master control switcher and logo inserter with 8 GB storage
Housing Frame	Description
Densité 3 frame	Housing frame with (1) PSU (AC IN), (1) Ethernet controller with front control panel, blank rear panels (up to 10 Imagestore-Modular processors per 3 RU frame)

Options	Description
ISM-3901-OPT-TXT	Easytext Character Generator (includes analog/digital clocks)
ISM-3901-OPT-EAS	EAS Support - US only
ISM-3901-OPT-AUD	Audio/voiceover/audio clip option
ISM-3901-OPT-TEMP	Temperature probe option
ISM-3901-HD-UPG	Upgrade from SD to HD for Imagestore-Modular-SD
ISM-3901-16GB-UPG*	16 GB upgrade for logos/animations
ISM-3901-32GB-UPG*	32 GB upgrade for logos/animations

*Check for availability.



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