

3DX-3901

Stereoscopic 3D video processor (3Gbps/HD)



The 3DX-3901 delivers all essential Stereoscopic 3D signal processing functions on a single card. It's ideal for Stereoscopic 3D production applications using camera beam splitter rigs, as well as playout of Stereoscopic 3D across 3Gbps/HD infrastructures.

The processor offers high quality conversion of multiple 3D formats, including Dual 1.5Gbps (SMPTE-292M), Dual 3Gbps (SMPTE-424M), Single 3Gbps (SMPTE-425M-B), and Single 1.5Gbps (SMPTE-292M), with side-by-side encoding and Sensio side-by-side encoding. Different monitoring functions are available to perform Anaglyph, Difference – Disparity, and Left or Right eye display.

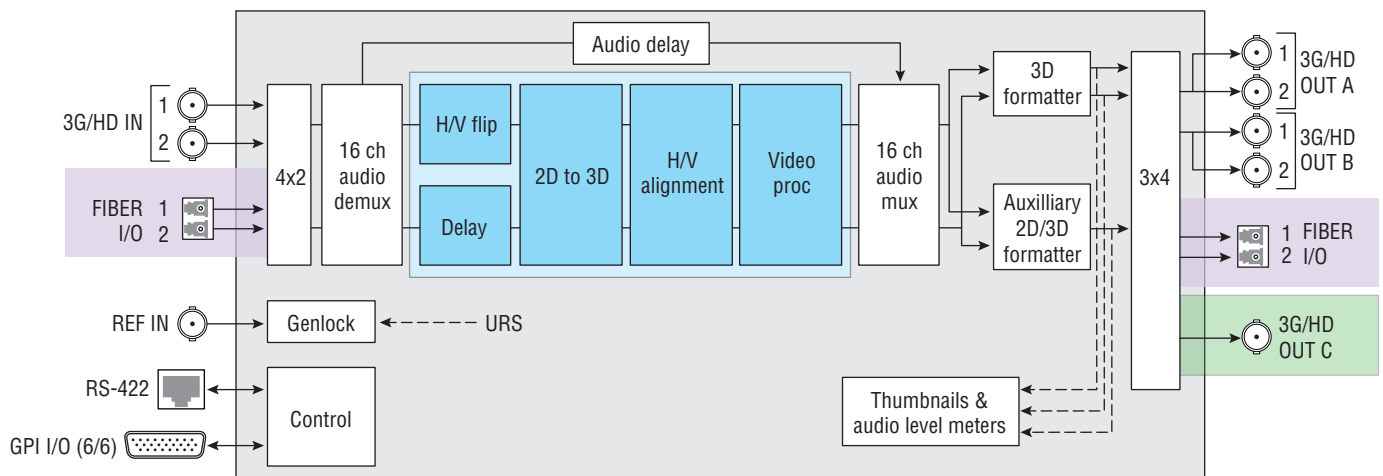
The 3DX-3901 also offers horizontal and vertical flip, and interaxial adjustment to correct any stereoscopic 3D camera misalignment due to the camera beam splitter rigs. It can also apply a Proc Amp to adjust the mirrored eye to compensate for the loss/change of color level compared to the paired eye.

A Horizontal Image Translation (HIT) feature allows a user to adjust the depth positioning, or even simulate a 3D landscape scene from a 2-D scene. An auxiliary output provides monitoring and full previewing of the 3D processing effects.

A Fiber I/O cartridge option significantly simplifies fiber installation and configuration. When the fiber cartridge is fitted, the card can select between fiber and auxiliary output.

KEY FEATURES AND BENEFITS

- High quality, Stereoscopic 3D signal processor
- Supports multi-rate 3Gbps/HD inputs and outputs
- Conversion of multiple Stereoscopic 3D formats:
 - Dual 1.5Gbps (SMPTE-292M)
 - Dual 3Gbps (SMPTE-424M)
 - Single 3Gbps (SMPTE-425M-B)
 - Single 1.5Gbps (SMPTE-292M)
 - Side-by-side encoding
 - Sensio side-by-side encoding
- Different monitoring functions are available to display:
 - Anaglyph
 - Difference - Disparity
 - Left or Right eye
- Three outputs, including an auxiliary output with 2D/3D formats
- Fixed processing delay
- Horizontal and vertical flip
- Horizontal and vertical adjustments
- Build-in Proc Amp with YUV/RGB color correction
- Horizontal Image Translation (HIT) for depth adjustment
- 2D to Stereoscopic 3D conversion for “landscape” shots
- Swapping of left and right eye signals
- Optional fiber module



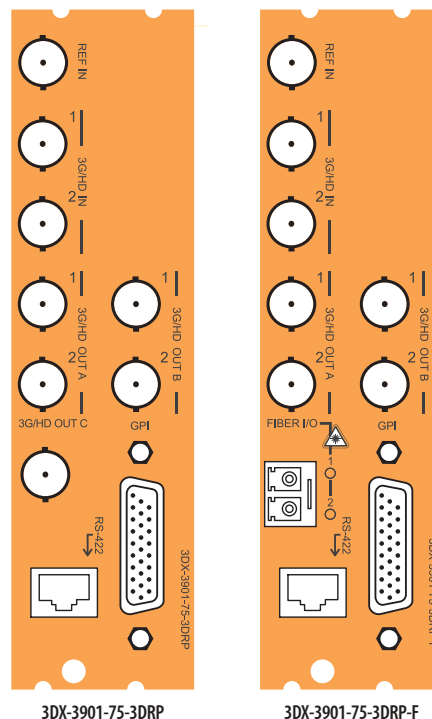
3DX-3901 Functional Block Diagram

Options (hardware & software)

3DX-3901-75-3DRP-F (with appropriate fiber cartridge)

3DX-3901-OPT-PROD

3DX-3901-75-3DRP



3DX-3901-75-3DRP

3DX-3901-75-3DRP-F

TECHNICAL SPECIFICATIONS

VIDEO INPUT (2) / OUTPUT (3)

Signal: SMPTE-292M(1.485, 1.485/1.001 Gbps)
SMPTE-425/372M (2.970, 2.970/1.001 Gbps)

Supported formats: HD: SMPTE-274M: 1080i59.94, 1080i50, 1080p23.98, 1080p23.98sf
HD: SMPTE-296M: 720p59.94, 720p50

3G: SMPTE-425 level A (mapping 1), level B: 1080p59.94, 1080p50, 1080i59.94/50, 720p59.94/50

Cable length: 150 m Belden 1694A at 1.485 Gbps
120 m Belden 1694A at 2.970 Gbps

Return loss: >15 dB up to 3 GHz

Jitter: HD/SD: <0.2 UI
3 Gbps: <0.3 UI

REFERENCE INPUT

Signal: SMPTE 170M/SMPTE 318M/ITU 624-4 black burst
SMPTE 274M / SMPTE 296M tri-level sync

Return loss: >35 dB up to 5.75 MHz

VIDEO PROCESSING PERFORMANCE

Signal path: 10 bits minimum
Latency: 2 frames in all modes

GPI

Connector: 26-pin D-Sub, opto-isolated
GPI in: 6
GPI out: 6

RS-422

Connector: RJ-45

FIBER

For full specifications on SFP optical module, please refer to www.miranda.com

ELECTRICAL

Power: 25 W



ORDERING INFORMATION

Densité 3 frame

3DX-3901 Stereoscopic 3D processor
3DX-3901-75-3DRP Double rear connector panel with auxiliary output
3DX-3901-75-3DRP-F Double rear connector panel with fiber connector

Options (software)

3DX-3901-OPT-PROD 3D production processing option
3DX-3901-OPT-SENSIO Sensio Side by Side 3D format option

Options (hardware)

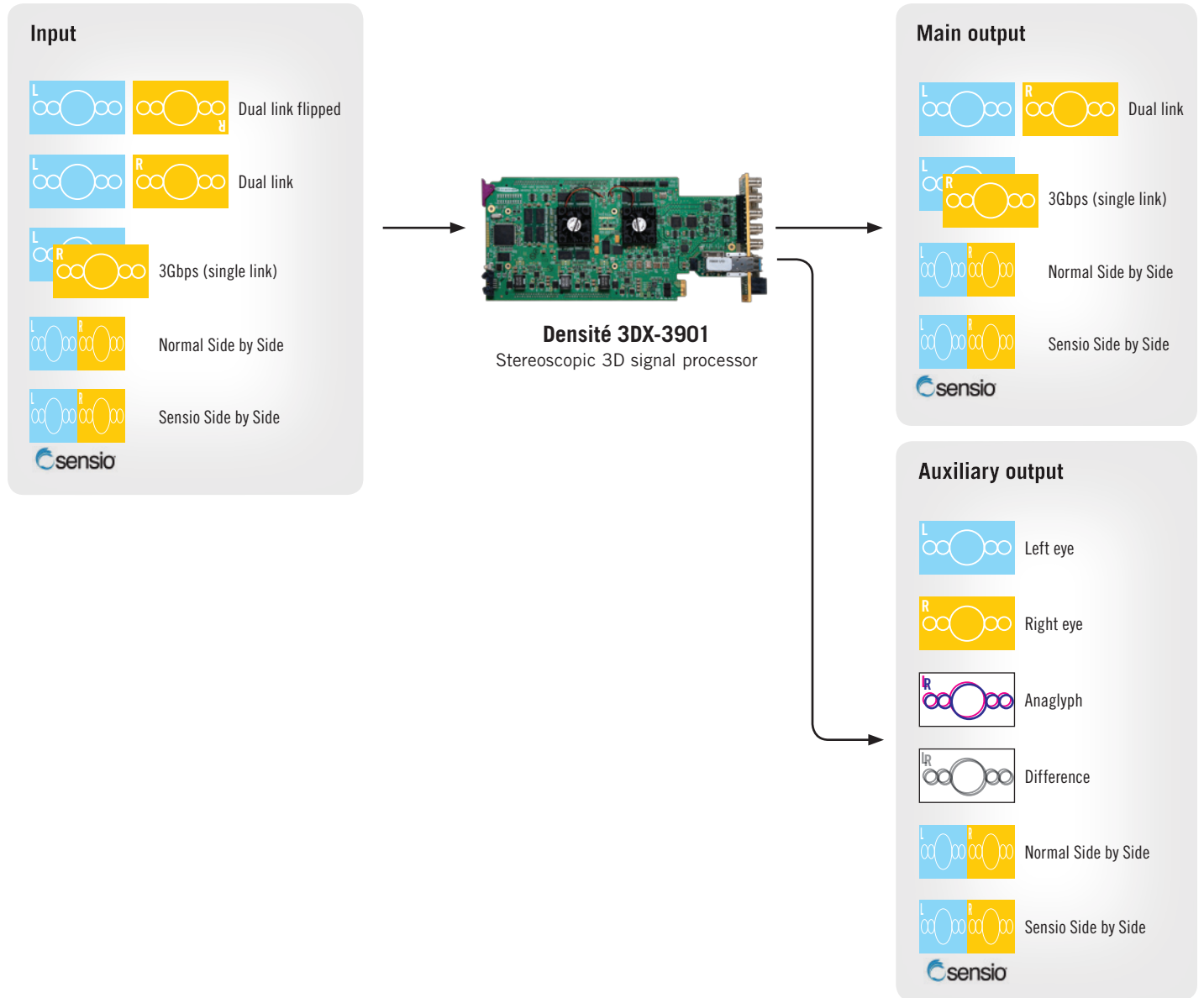
SFP-R-LC Single fiber Rx (input) cartridge with LC/PC connector
SFP-RR-LC Dual fiber Rx (input) cartridge with LC/PC connector
SFP-T-S13-LC Single fiber Tx (output) cartridge at 1310 nm with LC/PC connector
SFP-TT-S13S13-LC Dual fiber Tx (output) cartridge at 1310 nm with LC/PC connector
SFP-RT-S13-LC Dual fiber Rx/Tx (input/output) cartridge 1310 nm with LC/PC connector

Remote control

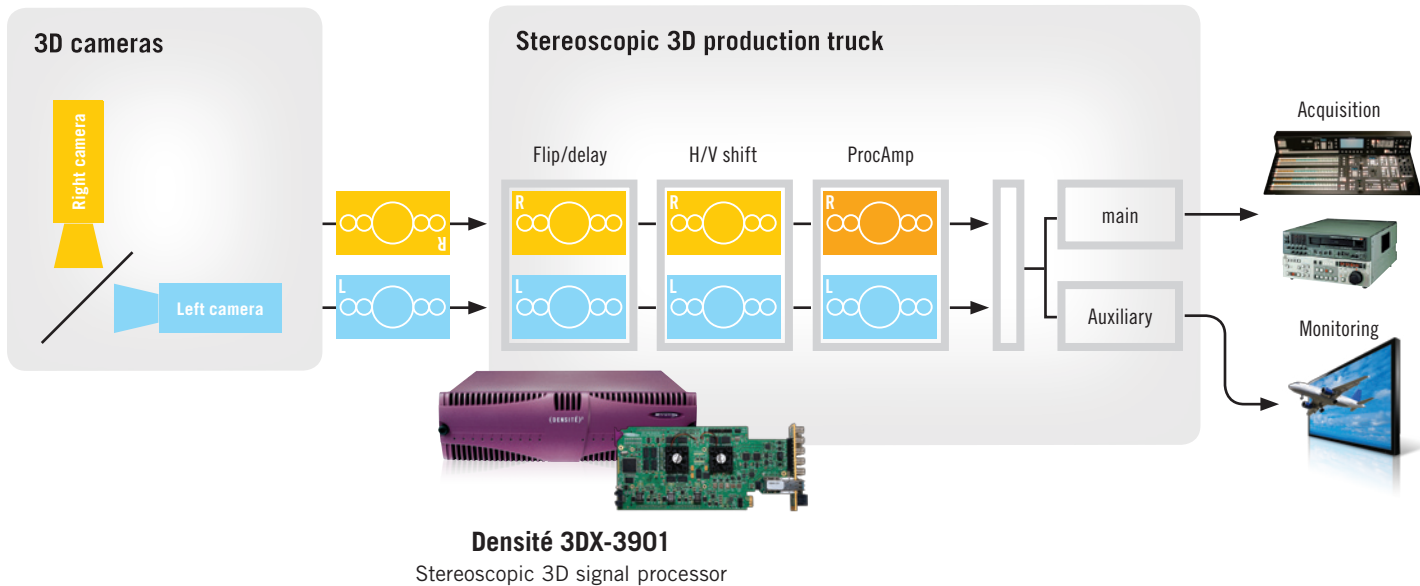
iControl, iControl Solo, RCP-200

Typical Stereoscopic 3D signal processing applications

High quality Stereoscopic 3D format conversion (with auxiliary output)



Using 3DX-3901 in a production truck for processing an incoming Stereoscopic 3D camera signal



Using 3DX-3901 to simulcast Stereoscopic 3D and 2D signals

