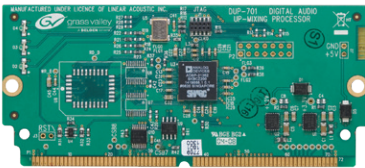
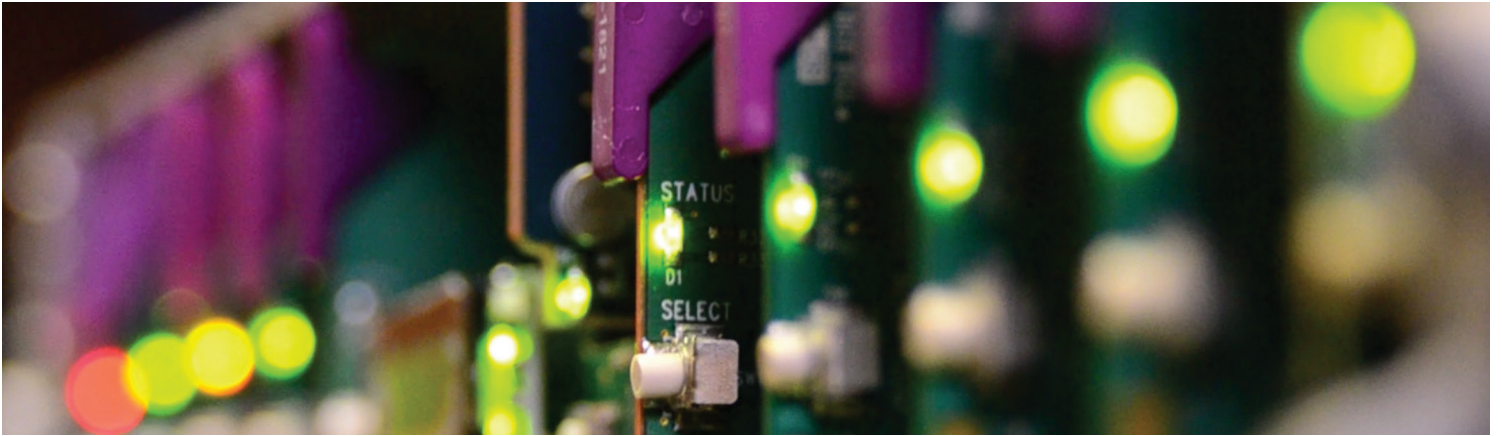


Audio Processing Sub-Modules

Optional Audio Processing for Densité Cards

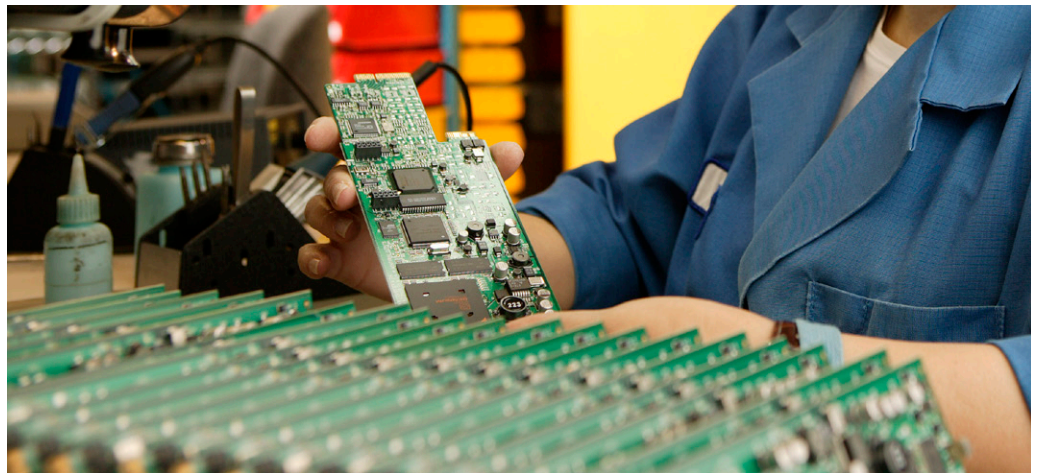


Space-saving, modular platform for advanced signal processing.

Grass Valley, a Belden Brand, offers additional audio processing power through the use of optional sub-modules that mount on compatible cards.

Dolby Digital (AC-3) and Dolby E encoding/decoding, automatic loudness control (ALC) and upmixing can be added for optimal integration of system components while reducing both power and rack space.

These audio processors can be easily installed after initial commissioning, reducing initial roll-out costs. Compatible products can host up to two expansion sub-modules adding complex audio processing functions to existing capabilities.



Audio Processing Sub-Modules Optional Audio Processing for Densité Cards

KEY FEATURES

All Sub-Modules

- Interchangeable modules for maximum flexibility and easy maintenance
- Reduces hosting card complexity and cost
- Up to 2 advanced audio functions per sub-module
- Up to 2 sub-modules per card (XVP-3901 series)
- Can be added later to minimize initial roll-out costs
- High-density: minimizes space and power requirements

Dolby Processing Sub-Modules

- Agile decoding of both Dolby Digital and Dolby E bitstreams
- PCM automatic pass-through on decoder
- Power and space efficient compared to “pizza box” designs
- Dolby metadata handling and restitution (Dolby E decoding)
- Encoding of up to 8 channels of PCM audio on up to 8 different programs (Dolby E)
- Dolby certified operation

Automatic Loudness Control Sub-Modules

- Automatic loudness control option for Densité interfaces smoothes out irritating loudness level differences between program segments, and between different channels
- High quality processing prevents adverse effects to program content
- Three different processing variants allow selection to best match a facility’s content and workflow
- Multiband or wideband processing
- Up to 16 audio channels processing capacity
- Multiprogram support using mono, stereo, 5.1 or 7.1 audio
- “Set and forget” mode with setting of output target loudness per program
- Actively managed processing modes, with playout automation driving a bypass mode or different profiles
- Loudness monitoring according to ITU-R BS.1770
- Upmixing can be combined with ALC for optimal integration (Linear Acoustic Audio ALC variants)
- Manual remote control by iControl, iControl Solo PC GUI or RCP-200 remote panel

SPECIFICATIONS

All Dolby modules are Dolby Laboratories certified)

All Modules

Dimensions: 116 x 51 mm (4.55 x 2 in.)
Edge connector: As per Jeduc MO-116 SIMM (72 pins)
Weight: ~0.125 kg (0.25 lbs.)

Dolby E Encoder Characteristics

Audio coding algorithm: Proprietary Dolby E
Video frame rates: 29.97 fps, 25 fps, 23.98 fps, 24 fps, 30 fps
Output bitstream: As per Dolby E specification
Encode capacity:
 Up to 8 channels of audio
 Up to 8 programs
Bit depth: 16, 20 or 24 bits
Encoding latency: 1 video frame

Dolby Digital Encoder Characteristics

Audio coding algorithm: Dolby Digital
Output bitstream: ETSI TS 102 366, ATSC A/52b
Encode capacity: Up to 6 channels of audio
Encoding latency: 187 ms

Dolby Decoder Characteristics

Decoding capabilities: Dolby Digital or Dolby E
Input bitstream: ETSI TS 102 366, ATSC A/52b or Dolby E
Decode capacity:
 Up to 8 channels of audio (Dolby E)
 Up to 8 programs (Dolby E)
Decoding latency:
 Dolby E: 1 video frame
 Dolby Digital: 32 ms

Ordering Information And Compatibility Chart

Expansion modules	Description	Product Compatibility						
		ADX-3981 (1 slot)	AMX-3981 (1 slot)	DAP-1781 (1 slot)	EAP-3101 (1 slot)	FRS-3901 (1 slot)	EAP-3901 (1 slot)	XVP-3901 series (2 slots)
MOD-DOLBY-DEC-2	Dolby E and Digital (AC-3) decoder	✓	✓	✓	✓	✓	✓	✓
MOD-DOLBY-ENC-E-2	Dolby E encoder	✓	✓	✓	✓	✓	✓	✓
MOD-DOLBY-ENC-D-2	Dolby Digital (AC-3) encoder	✓	✓	✓	✓	✓	✓	✓
MOD-LA-DUP-701	Upmixing using Linear Acoustic Technology UpMAX™	✓	✓	✓	✓	✓	✓	✓
MOD-LA-ALC-2	2 channel ALC licensed by Linear Acoustic	✓	✓	✗	✓	✓	✓	✓
MOD-LA-ALC-6	6 channel ALC licensed by Linear Acoustic	✓	✓	✗	✓	✓	✓	✓
MOD-LA-ALC-8	8 channel ALC licensed by Linear Acoustic	✓	✓	✗	✓	✓	✓	✓
MOD-LA-ALC-2-DUP	2 channel ALC and upmix licensed by Linear Acoustic	✓	✓	✗	✓	✓	✓	✓
MOD-LA-ALC-6-DUP	6 channel ALC and upmix licensed by Linear Acoustic	✓	✓	✗	✓	✓	✓	✓
MOD-LA-ALC-8-DUP	8 channel ALC and upmix licensed by Linear Acoustic	✓	✓	✗	✓	✓	✓	✓



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