

7812UDX Series

3G/HD Up/Down/Cross Converters

The 7812UDX–HD and 7812UDX–AES8–HD are broadcast–quality up/down/cross converters that convert between common SD/SMPTE ST 259 and HD/SMPTE ST 292–1 video signals. –3G versions add support for common 3G/SMPTE ST 424M video signals. These modules support frame synchronization and external genlock inputs (card and frame reference) for video timing adjustments.

The 7812UDX series incorporates Mosquito Noise Reduction (MNR) and Block Artifact Reduction (BAR) in addition to motion adaptive spatial–temporal (3D) noise reduction. The 7812UDX series also incorporates new de–interlacing technologies for superior resolution and artifact reduction.

The 7812UDX series supports broadcast–quality scaling and offers both standard and user defined ARC modes. AFD (SMPTE ST 2016) based steering of ARC modes and stamping AFD codes is fully supported. Transitions between AFD modes are frame accurate/glitch free. With the +F option, signals applied to PGM IN B can be keyed into image side panels. FILL inputs are frame synchronized so that pre–timing of FILL inputs is not required. With the +CF2G option, static or animated side panels can be stored locally and keyed into image side–panels.

Full broadcast–quality color correction and detail enhancement processors are integrated in the 7812UDX series, which also includes support for RGB–based color legalization. ITU Rec. 709↔601 color space conversions are performed as needed.

The 7812UDX series supports 16x channels of embedded audio with audio delay automatically matching video delay. Additional audio delay is available. Full audio proc is supported, including per–channel audio gain, channel swapping and inversion controls. Surround sound–to–stereo (Lt/Rt or Lo/Ro) down–mixing is supported.

On –AES8 variants of the 7812UDX series, 8x discrete AES inputs and outputs are supported, in addition to advanced audio processes like stereo–to–5.1 up–mixing (+UMX), Dolby® E/AC–AC3 decoding (+DD), Dolby® E encoding (+DEE), Dolby® AC3 encoding (+AC3E) and IntelliGain Loudness Management (+IG). Any two Dolby® encode or decode functions may be integrated into a single card, including dual decoders or dual encoders.

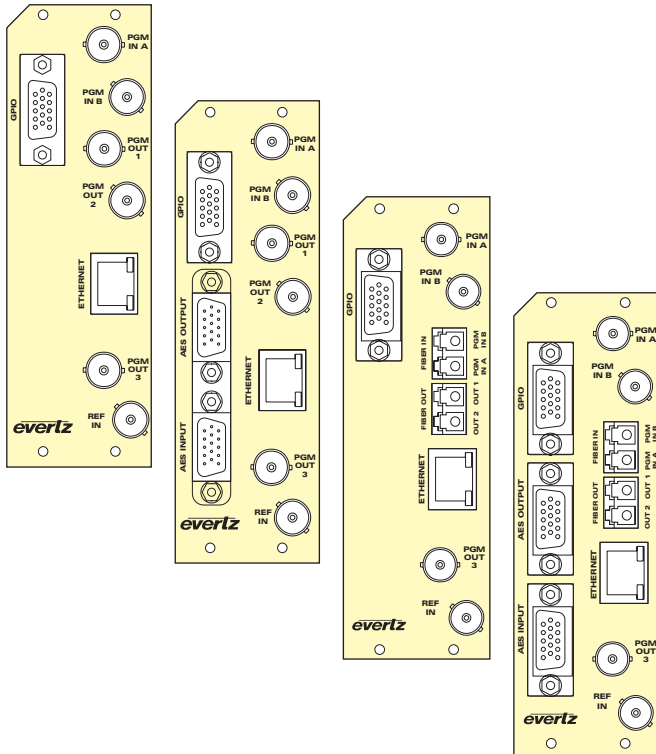
These modules transfer closed caption and time information from input to output, performing all HD↔SD data translations and time code re–calculations. SFP–based fiber inputs and outputs can be supported with the –F variations. (SFP modules ordered as separate accessories).

The 7812UDX series is fully SNMP–enabled for remote monitoring, control and configuration. SNMP capabilities may be accessed by using a 7700FC in Slot 1 of the 7800FR or by using the SNMP–enabled 10/100 Ethernet connection on the 7812UDX series' rear panel.

7812UDX series converters may be ordered with an optional rear panel that offers a bypass protection relay.

► Features & Benefits

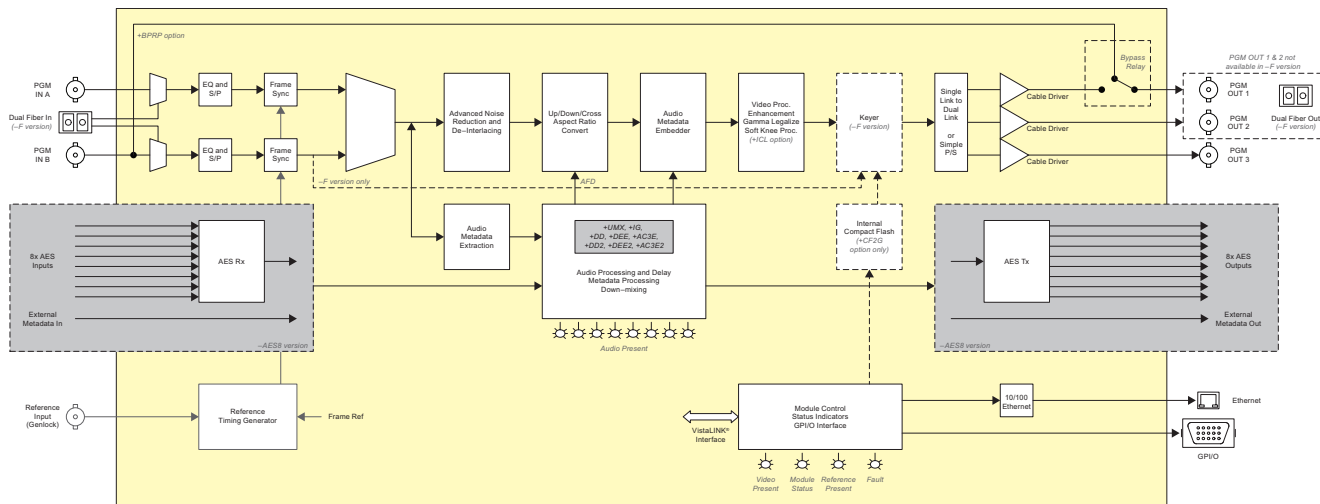
- Broadcast–quality up/down/cross conversions between common SD/SMPTE ST 259 and HD/SMPTE ST 292–1 video signals
- Support for common 3G/SMPTE ST 424M video signals (–3G versions)
- Integrated frame synchronization capabilities
- Support for card reference and 7800FR frame reference
- Advanced noise reduction technologies (3D NR, MNR, BAR)
- New generation de–interlacing technologies
- Supports standard and user–defined aspect ratio conversions
- Fully AFD–enabled with frame accurate transitions between AFD modes
- Integrated side panel fill keyer (+F)
- Optional compact flash for storage of side–panel content (+CF2G)
- Broadcast–quality color corrector and detail enhancement engines
- ITU Rec 709↔601 color space conversions
- “Soft Knee” color legalization (+ICL)
- 16–channel embedded audio support
- Audio delay automatically tracks video delay
- Full audio proc and channel–swapping
- 5.1 surround sound–to–stereo (Lt/Rt and Lo/Ro) down–mixing
- Supports 8x external AES inputs and 8x AES outputs (–AES8 versions)
- Optional stereo–to–5.1 surround sound up–mixer (+UMX on –AES8 versions)
- Optional Dolby® E/AC–AC3 decoder (+DD on –AES8 versions)
- Optional Dolby® E encoder (+DEE on –AES8 versions)
- Optional Dolby® AC3 encoder (+AC3E on –AES8 versions)
- Optional IntelliGain Loudness Management (+IG on –AES8 versions)
- Transfers closed caption and time information from input to output with all required SD↔HD data translations and time code re–calculations
- Dual fiber in and dual fiber out using SFP modules (–F versions)
- SFP modules ordered as separate accessories
- Optional rear panel offers bypass protection relay (+BPRP)
- VistaLINK® PRO–capable for remote monitoring, control and configuration capabilities via SNMP; using VistaLINK® PRO, CP–2116E or CP–2232E control panels. VistaLINK® is available when modules are used with the 3RU 7800FR frame and a 7700FC VistaLINK® frame controller module in Slot 1 of the frame. Alternatively, the card's rear panel 10/100 Ethernet connector may be used for SNMP and VistaLINK® control directly



When used in 7700FR–C, modules occupy 3 slots.
Card slot blocker must be installed for operation in 7700FR–C.

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3G/HD Up/Down/Cross Converters



Ordering Information

| | |
|--------------------------|--|
| 7812xxx-3G | 3G/HD up/down/cross converter |
| 7812xxx-HD | HD up/down/cross converter |
| 7812xxx-3G-F | 3G/HD up/down/cross converter with fiber I/O capability |
| 7812xxx-HD-F | HD up/down/cross converter with fiber I/O capability |
| 7812xxx-AES8-3G | 3G/HD up/down/cross converter with AES I/O |
| 7812xxx-AES8-HD | HD up/down/cross converter with AES I/O |
| 7812xxx-AES8-3G-F | 3G/HD up/down/cross converter with AES I/O, fiber I/O capability |
| 7812xxx-AES8-HD-F | HD up/down/cross converter with AES I/O, fiber I/O capability |

All options above can be ordered with the following options:

| | |
|-------------|-----------------------------|
| UDX: | Up/down/cross conversion |
| HDC: | High quality down-converter |
| XC: | Cross converter |
| UC: | Up-converter |

Ordering Options: rear plate must be specified at time of order (Eg: Model + 3RU)

| | |
|--------------|---|
| +F | Side panel fill |
| +CF2G | Embedded compact flash |
| +ICL | "Soft Knee" color legalizer |
| +BPRP | Bypass relay-enabled rear panel (not available on -F version rear plates) |

For -AES8 Versions Only:

| | |
|---------------|---------------------------------|
| +UMX | Stereo-to-5.1 up-mix |
| +IG | IntelliGain loudness management |
| +DD | Dolby® E/AC3 decoder |
| +DEE | Dolby® E encoder |
| +AC3E | Dolby® AC3 encoder |
| +DD2 | Second Dolby® E/AC3 decoder |
| +DEE2 | Second Dolby® E encoder |
| +AC3E2 | Second Dolby® AC3 encoder |

Rear Plate Suffix:

| | |
|-------------|---|
| +3RU | 3RU rear plate for 350FR, 7700FR-C or 7800FR multiframe |
|-------------|---|

Accessories:

| | |
|-------------------|---|
| SFP3T13-2 | Dual optical 3G/HD/SD-SDI SFP transmitter, 1310nm |
| SFP3R-2 | Dual optical 3G/HD/SD-SDI SFP receiver |
| 7700FC | VistalINK® PRO frame controller |
| CP-2116E-H | Remote control panel |
| CP-2232E | Remote control panel |

Enclosures:

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|-----------------|--|
| 7800FR | 3RU multiframe, holds up to 15x single-slot modules |
| 7700FR-C | 3RU multiframe, holds up to 15x single-slot modules |
| 7801FR | 1RU multiframe, holds up to 4x single- or 2x dual-slot modules |