

# 7815VPDA-HD-F-2, 7815VPDA-3G-F-2

## Dual Path 3G/HD Video Processor and Distribution Amplifier

Typical broadcast and professional media applications require that a number of common processing, conversion and utility functions be performed on signals entering and being generated at various points within the facility:

- Distribution
- Audio Processing
- Optical/Electrical Conversion
- Frame Synchronization
- Up/Down/Cross Conversion
- Streaming Encode for Monitoring

Typically, multiple products would need to be used to perform the above functions. The 7815VPDA is a single powerful product which supports all of the above functions on two independent paths. This offers exceptional value and density while reducing interwiring, rack space and power requirements. Models are available to support common HD and 3G video formats.

### Distribution

For signal distribution or connection to external elements such as patch panels, re-clocked copies of the input signals are provided on two coax outputs per path. Six coax outputs per path of the processed input signals are also provided. Standard connectors are HD-BNC, while DIN 1.0/2.3 are optional.

### Audio Processing

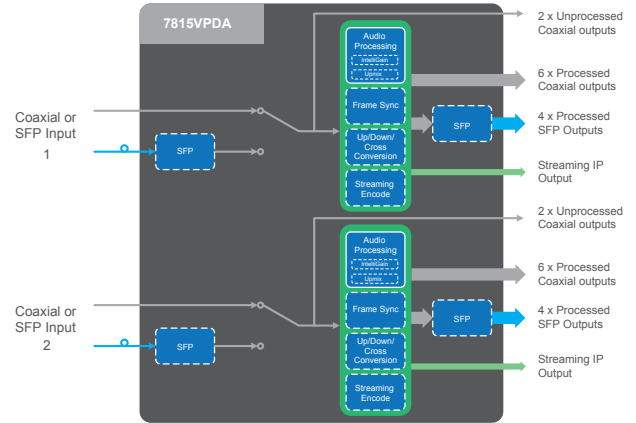
As standard features, the 7815VPDA series supports 16x channels of embedded audio, 5.1 to stereo down-mixing (LoRo or LtrT), audio channel shuffling, gain, inversion and mono-mix capabilities. Optional audio processing features include IntelliGain audio loudness control (+IG2 option) and Stereo-to-5.1 upmix (+UMX2 option).

### Optical/Electrical Conversion

In addition to coaxial inputs and outputs, the 7815VPDA also offers added I/O via Evertz pluggable SFP modules (ordered separately). Whether the card uses the SFP or coaxial inputs for either processing or distribution path is software selectable on a per-path basis. On the output side, in addition to the six fully processed coaxial outputs per path, four outputs per path are available via SFPs. Optical or coaxial type SFPs may be installed (ordered separately) to facilitate alternate coaxial or optical inputs or additional coaxial or optical outputs.

### Frame Synchronization and Up/Down/Cross Conversion

With the +UDX2 option, the 7815VPDA series can support frame synchronization and video up/down/cross conversion capabilities. Full AFD,

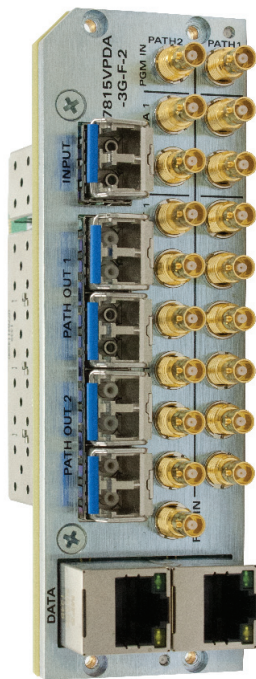


video proc, detail enhancement, RGB-based color legalization and ITU Rec. 709 ↔ 601 color space conversion processes are also included. Audio delay is automatically synchronized with video delay. Additional audio and video delay are also available. CEA 608/708 Closed Caption and timecode information are transferred from input to output performing all HD ↔ SD data translations and time code recalculations. The 7815VPDA is also capable of generating and embedding timecode via synchronization with NTP.

### Streaming Encode

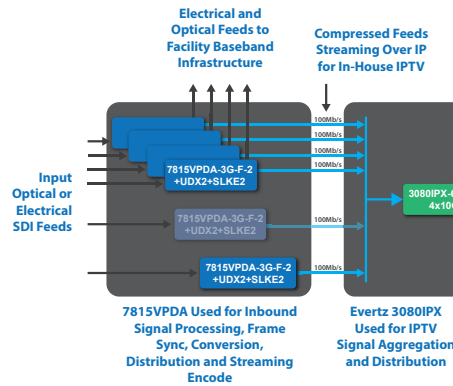
Ideal for in-house IPTV systems and other monitoring applications, the +SLKE2 option adds the generation of monitoring quality H.264/MPEG2 encoded video (4:2:0) with AAC-LC or HE-AAC-V1/2 encoded audio for streaming over IP. This encoded output can include CEA 708 Closed Captioning and is suitable for PC-based streaming decoder applications, standalone IPTV set top box decoders and dedicated modular card-based decoders. The 7815VPDA's video encoding resolution may be set to follow the card's baseband output or may be set to output and hold a different resolution. Common resolutions are supported and range from 240p up to 1080p. A stereo pair of audio is supported, which may be sourced from the dedicated 5.1 to stereo downmixer.

The 7815VPDA is a dual-slot card providing up to 14x paths of processing in 3RU when housed in a 7800FR/7800FR-QT frame. These modules are SNMP capable for remote monitoring, control and configuration purposes using VistaLINK® PRO. VistaLINK® PRO control and monitoring is available when modules are used with a 7800FC in Slot 1 of the 7800FR frame.

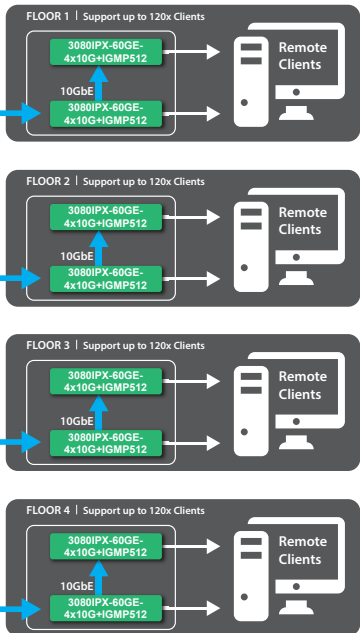


### Sample Application

Inbound Signal Processing and IPTV Streaming



### IPTV Floor-by-Floor Distribution and Clients



Location by Location Client Connection with IGMP

The Complete Solution Provider

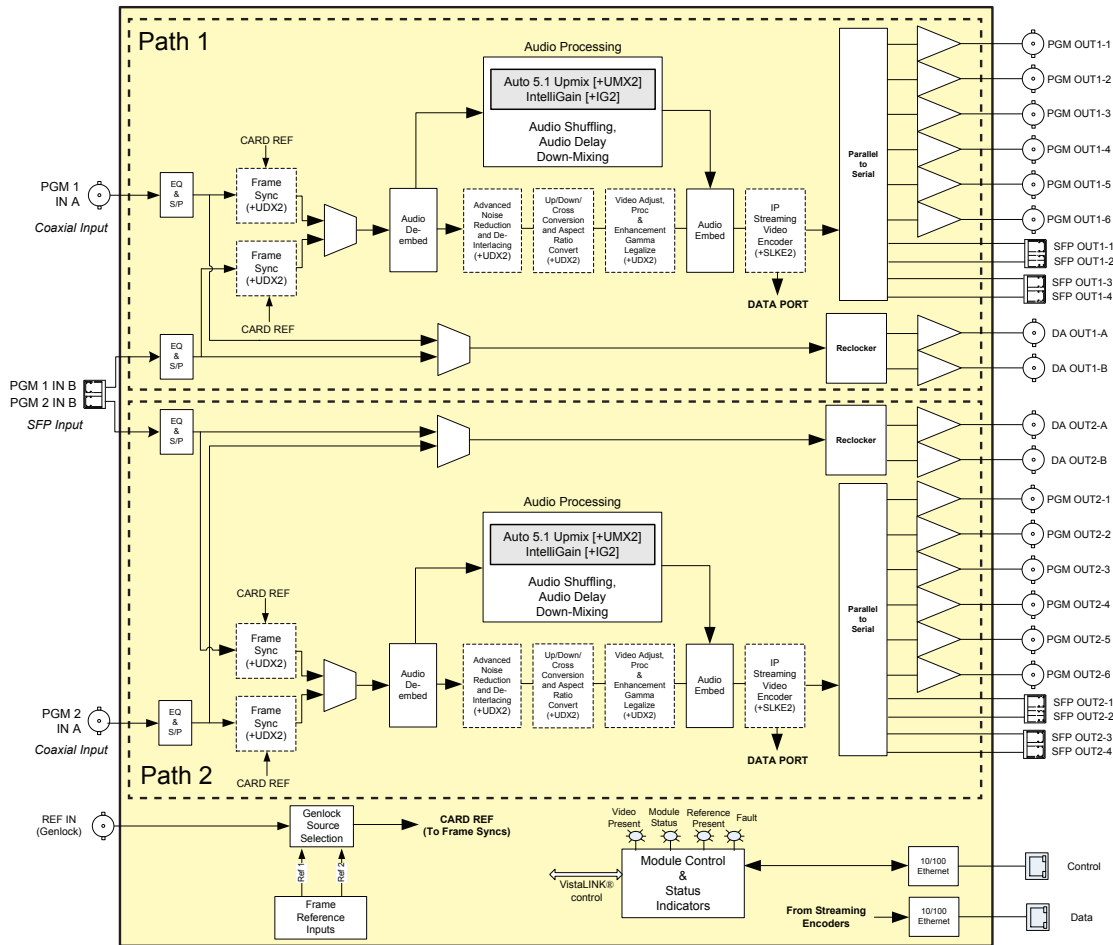


# 7815VPDA-HD-F-2, 7815VPDA-3G-F-2

## Dual Path 3G/HD Video Processor and Distribution Amplifier

### Features & Benefits

- Dual path Video Processor and Distribution Amplifier
- 14x paths of processing in 3RU
- Comprehensive DA functionality with 6x processed coax outputs and 4x processed SFP outputs per path
- Re-clocked, non-processed outputs and processed outputs may be independently sourced from the SFP or coaxial inputs (software selectable)
- HD BNC-based coax inputs/outputs
- Mini DIN 1.0/2.3 I/O support with +DIN rear panel option
- Fiber inputs and outputs are available when fiber SFP transmit and/or receive modules are installed
- Coaxial SFPs may also be installed in SFP ports to provide alternate coaxial inputs and/or additional processed coaxial outputs
- Input may be sourced from coaxial or SFP sources, and through software selection may be manually forced to either input or may operate in an automatic mode based on loss of video
- Economical SCTE104 message insertion over IP via the SCTE104 API with +SCTE104-2 option
- Support for 16x channels of embedded audio
- 5.1-to-stereo down-mixing (LoRo or LTR)
- VistaLINK Pro and SNMP enabled
- Optional monitoring quality MPEG2/H.264 encoder
  - User selectable encode bit rate
  - Compatible with PC, STB or dedicated modular decoders
  - AAC-LC, HE-AAC-V1/2 encoded audio
- Optional Frame Sync and Up/Down/Cross conversion
  - Broadcast quality up/down/cross conversion with de-interlacing
  - Video proc, detail enhancement, color space conversions
  - Full processing of CEA 608/708 Closed Captions and time code with all required data translations and time code re-calculations



### Ordering Information

**7815VPDA-HD-F-2** Dual Channel HD Video Processor and Distribution Amplifier  
**7815VPDA-3G-F-2** Dual Channel 3G Video Processor and Distribution Amplifier

#### Ordering Options:

**+UDX2** Dual Path Frame Sync and Up/Down/Cross conversion processing  
**+SLKE2** Dual Channel Monitoring Quality MP2/H.264 Encoding  
**+IG2** Dual Path (16x channels each) IntelliGain Loudness Processing  
**+UMX2** Dual Path Stereo-to-5.1 Upmix Capability  
**+SCTE104-2** Dual Path SCTE104 message insertion over IP

#### Evertz SFP Modules: (Sold separately, please specify at the time of ordering)

**SFP3R-2** Dual fiber optic receiver SFP module  
**SFP3T13-2** Dual fiber optic transmitter SFP module, 1310nm FP lasers  
**SFP3T13-2-S** Dual short-haul fiber optic transmitter SFP module, intra-facility and multimode applications, 1310nm FP lasers

#### SFP3Txx/yy-2

Dual fiber optic transmitter SFP module, CWDM DFB lasers (1270-1610nm available)

#### SFP3T-DIN2-3G

Dual coaxial transmitter SFP module, Mini DIN 1.0/2.3 connectors

#### SFP3R-DIN2-3G

Dual coaxial receiver SFP module, Mini DIN 1.0/2.3 connectors

Consult factory for CWDM multiplexers and other optical accessories.

#### Rear Plate Suffix:

**+3RU** +3RU Rear Plate  
**+DIN** Mini DIN 1.0/2.3 Rear Panel Option

#### Enclosure:

**7800FR** 3RU multiframe, holds up to 15x single-slot modules  
**7800FR-QT** 3RU multiframe, holds up to 15x single-slot modules, low noise  
**7801FR** 1RU multiframe, holds up to 4x single-slot modules