

7812DCDA2Q-HD, 7812DCDA2Q-3G (Including -AA and -AES4 versions)

Dual Channel 3G/HD Down-Converting Distribution Amplifier with Optional Analog or AES Audio Outputs



The 7812DCDA2Q is a high density, dual path down-converter with integrated distribution amplifiers. -HD versions convert common HD/SMPTE 292 video signals to common SD/SMPTE 259M video signals. -3G versions support 3G/SMPTE 424M inputs. Each processing path simultaneously provides re-clocked copies of program inputs and SD program outputs. These modules support frame synchronization and external genlock inputs (card or frame reference) for video timing adjustments.

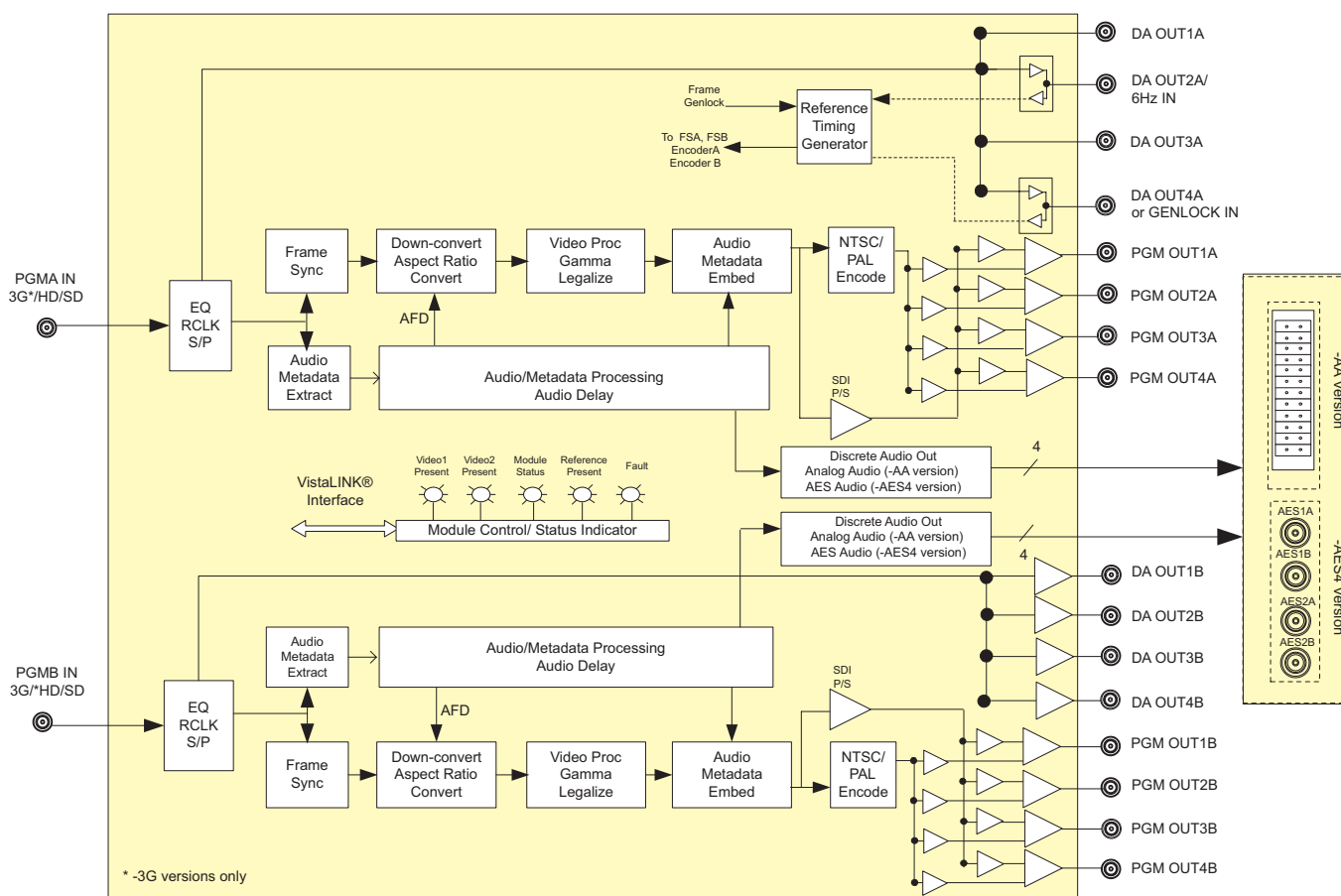
SD program outputs are configurable to be either NTSC/PAL or SMPTE 259M compliant. High quality and color frame locked NTSC/PAL outputs are generated using 12 bit composite encoders.

High quality and sharp SD outputs are generated using Evertz's proprietary scaling technology. These modules provide standard as well as user defined ARC modes. The 7812DCDA2Q series also supports AFD (SMPTE 2016) based steering of ARC modes and can stamp AFD signals on output video. Transitions between ARC modes based on AFD metadata are frame accurate and glitch free. Full broadcast quality color correction engines are integrated into these modules. RGB color legalization and ITU Rec. 709 → 601 color space conversions are also supported.

Embedded audio on incoming video signals is de-embedded (16 channels) and re-embedded onto the SD outputs with audio delay matching video delay. Additional audio delay is also available. Audio proc is supported including per channel audio gain, channel swapping and inversion controls. Surround sound (5.1 PCM) to stereo (LtRt or LoRo) down-mixes are supported. With -AA variants, 4x analog audio outputs are available for each processing path. With -AES4 variants, two AES (4x mono) digital audio outputs are available for each processing path.

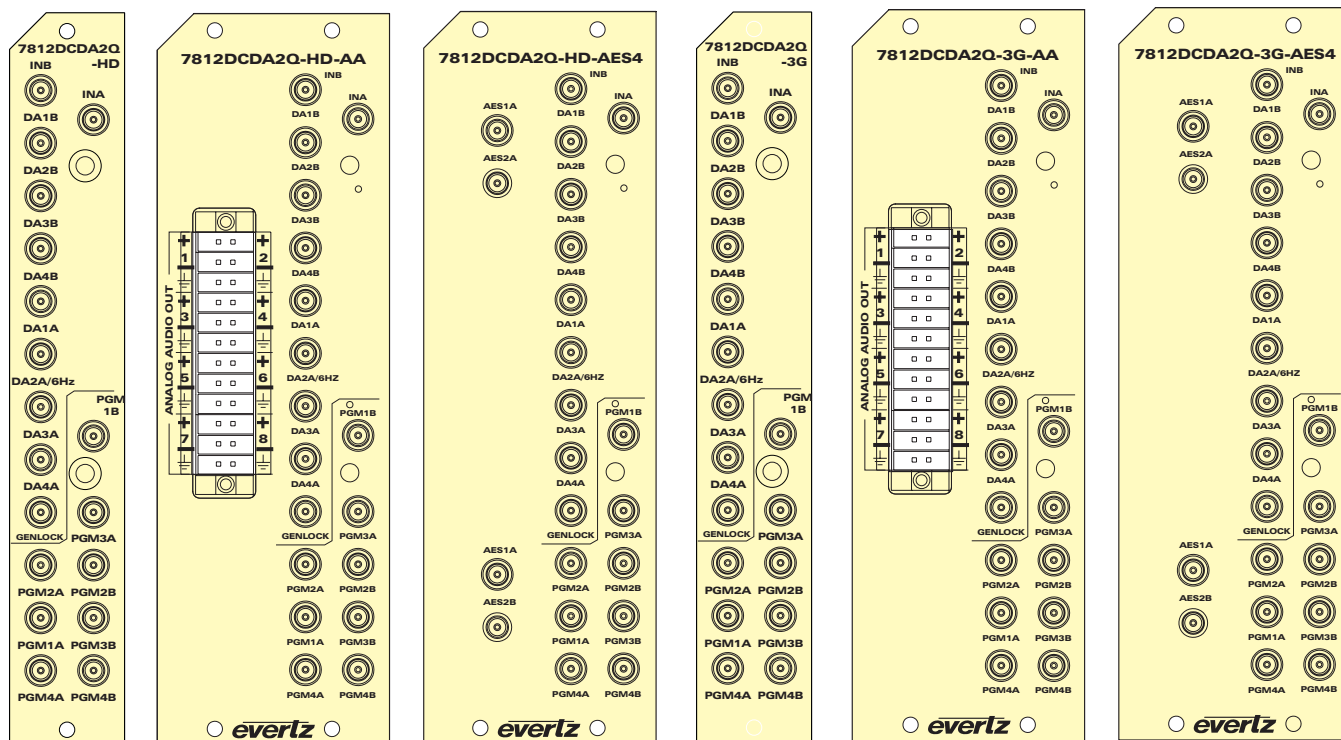
The 7812DCDA2Q series transport closed captioning and time code information from input to output with all required data translations and time code recalculations taking place.

- High quality down-conversion of common HD/SMPTE 292M video signals to common SD/SMPTE 259 video signals
- Support for 3G/SMPTE 424M video inputs (-3G versions)
- Dual path processing within a single module
- DA outputs and SD PGM outputs per processing path
- Integrated frame synchronization capabilities
- Support for card reference or 7800FR FRAME REF
- Software selectable SD-SDI or NTSC/PAL program outputs
- 12 bit composite encoding engines with color frame locking
- Evertz proprietary scaling technology
- Support for standard and user defined ARC modes including manual and AFD (SMPTE 2016) driven ARC control
- Full broadcast quality color correction engines
- VistaLINK® 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



7812DCDA2Q Series Block Diagram

7812DCDA2Q-HD, 7812DCDA2Q-3G (Including -AA and -AES4 versions) Dual Channel 3G/HD Down-Converting Distribution Amplifier with Optional Analog or AES Audio Outputs



► Specifications

Program Inputs:

Number of Inputs: 1 per path
Standard: SMPTE 292M/SMPTE 259M (-HD)
SMPTE 424M/SMPTE 259M (-3G)
Connector: DIN 1.0/2.3
Impedance: 75Ω
Return Loss: > 15 dB @ 1.5 GHz
> 18 dB @ 270 MHz
> 400 m @ 270 Mb/s
> 140 m @ 1.5 Gb/s
Reference Belden 1694 cable
Cable EQ

DA Program Outputs:

Number of Outputs: 4 per path
Connector: DIN 1.0/2.3
Impedance: 75Ω
Signal Level: 800 mV
DC Offset: 0 +/- 0.5 V
Rise/Fall Times: 740 ps SD-SDI/270 ps HD-SDI
DA2A: Configurable as 6 Hz input
DA4A: Configurable as REF Input
Bi-level NTSC/PAL black ref only

SD Program Outputs:

Number of Outputs: 4 per path
Standards: Software configurable as NTSC/PAL or SD-SDI
Connector: DIN 1.0/2.3
Impedance: 75 Ω
Return Loss: > 15 dB to 1.5 GHz
SDI Signal Level: 800 mV
SDI DC Offset: 0V +/- 0.5 V
SDI Rise/Fall Times: 740 ps nominal SD-SDI

NTSC/PAL Encoder: 12 bit encoding engine
NTSC/PAL Freq Resp: <0.1 dB to 4.1 MHz
NTSC/PAL DP: <0.5 degrees
NTSC/PAL DG: <0.5 %
NTSC/PAL SNR: > 75 dB
NTSC/PAL Level: 1.0 V p-p nominal
NTSC/PAL Imped: 75Ω

Analog Audio Outputs:

Number of Outputs: 4 per path
Connector: Removable terminal strip
Output Impedance: 66 ohm max
Output Loads: Hi Z
Sampling Freq: 48 KHz
Freq Response: +/- 0.1 dB (20 Hz to 20 kHz)

AES Audio Outputs:

Number of Outputs: 2 per path
Impedance: 75Ω
Sample Rate: 48 KHz
Signal Level: 1 V p-p

► Ordering Information

7812DCDA2Q-HD	Dual Channel HD Down Converting Distribution Amplifier
7812DCDA2Q-HD-AA	Dual Channel HD Down Converting Distribution Amplifier with Analog Audio Outputs
7812DCDA2Q-HD-AES4	Dual Channel HD Down Converting Distribution Amplifier with AES Audio Outputs
7812DCDA2Q-3G	Dual Channel 3G/HD Down Converting Distribution Amplifier
7812DCDA2Q-3G-AA	Dual Channel 3G/HD Down Converting Distribution Amplifier with Analog Audio Outputs
7812DCDA2Q-3G-AES4	Dual Channel 3G/HD Down Converting Distribution Amplifier with AES Audio Outputs

Ordering Options

Rear Plate must be specified at time of order
Eg: Model +3RU

Rear Plate Suffix +3RU

3RU Rear Plate for use with 350FR, 7700FR-C or 7800FR Multiframe

Accessories

7700FC
CP-2116E-H
CP-2232E

VistaLINK® Frame Controller
Remote Control Panel
Remote Control Panel

Enclosures 7800FR

3RU Multiframe which holds up to 15 single slot modules