# 7600

### **HD/SD Embedder and Disembedder**

The 7600 module is a dual rate eight-channel audio embedder or disembedder for 1.5 Gb/s high definition video signals or for 270 Mb/s standard definition signals. Four AES ports automatically configure as inputs or outputs depending on if the module is configured as mux or demux.

#### **Configurable Mux or Demux**

When configured as a multiplexer, the 7600 has one serial digital video input and four AES audio inputs. These four AES streams are embedded into the video stream. AES inputs are sample rate-converted, allowing the use of asynchronous audio. The output of the module is a digital stream that contains the original video signal and four AES pairs.

When configured as a demultiplexer, audio signals present in the incoming video signal are extracted and delivered as standard AES digital audio streams.

The 7600 includes a full-featured, eight-channel audio mixer. The channel swap and shuffle capability allows you to completely rearrange and remix audio channels. It provides precise control over audio level, with up to 12 dB of gain to compensate for low level sources. All audio processing is performed at full 24 bit resolution by a digital signal processor (DSP). Delay is adjustable up to one second.

#### **In-Line Shuffler**

Because the 7600 has simultaneous disembedding and embedding, it is an in-line processor for embedded audio. It can take embedded content, adjust levels and remap channels, and deliver it to the output as an embedded signal.

The 7600 can be configured locally or controlled and configured remotely with Avenue Touch Screens, Express Panels, or Avenue PC Software. Alarm generation, configurable user levels, module lockout, and customizable menus are just some of the tools included in the Avenue Control System.

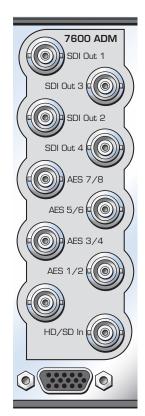
### **Automatic Gain Control Option**

The 9670 Audio Automatic Gain Control software key can be added as an option. This option provides control for keeping audio levels consistent in program material.

#### **Features**

- Audio embedder or disembedder for HD or SD signals
- Handles 4 AES streams/8 channels
- Up to one second of delay
- In-line processor for embedded audio
- Supports Dolby E and AC-3 data
- Audio Automatic Gain Control option
- Built-in audio mixer
- Phase inversion selectable on a channel basis
- Built-in sample rate converter accepts asynchronous inputs
- 26 bit processing resolution
- Memory registers
- Local and remote control







# **HD/SD Embedder and Disembedder**

### **Serial Digital Input**

Number One

Signal Type HD Serial Digital 1.485 Gb/s,

SMPTE 274M, 292M or 296M

SD Serial Digital 270 Mb/s, SMPTE 259M

 $\begin{array}{ll} \text{Impedance} & 75 \, \Omega \\ \text{Return Loss} & > 15 \, \text{dB} \end{array}$ 

Max Cable Length 100 meters Belden 1694A

**Automatic Cable Input Equalization** 

## **Standards Supported**

1080i 50, 59.94 or 60 Hz, SMPTE 274M -4,5,6 720p 50, 59.94 or 60 Hz, SMPTE 296M -1,2,3 1080p 23.98, 24 or 25 Hz, SMPTE 274M -9,10,11 1080sF 23.98, 24 or 25 Hz, RP211 -14,15,16 525i 59.94, 625i 50

#### **Serial Digital Output**

 $\begin{array}{lll} \mbox{Number} & \mbox{Four} \\ \mbox{Signal Type} & \mbox{Follows input} \\ \mbox{Impedance} & 75 \ \Omega \\ \mbox{Return Loss} & >15 \ \mbox{dB} \end{array}$ 

Output DC None (AC coupled)

Delay <2 μSec

#### **AES/EBU Digital Inputs**

Number Four (total of eight channels)

 $\begin{array}{lll} \mbox{Type} & \mbox{AES3id} \\ \mbox{Connector} & \mbox{Coaxial, 75} \ \Omega \\ \mbox{Bit Depth} & \mbox{20 and 24 bit} \\ \end{array}$ 

Sample Rate 30 kHz to 100 kHz (sample rate converted

internally to 48 kHz)

Crosstalk <144 dB Dynamic Range >144 dB

Reference Level -18 or -20 dBFS (selectable)

AC-3, Dolby E Supported when inputs are synchronous

### **Embedded Inputs**

Number Four AES Streams (from video input)

Eight channels from any two of

four groups

Channels Eight
Bit Depth 20 and 24 bit

#### **AES/EBU Digital Outputs**

Number Four (total of 8 channels)

Signal TypeAES3idConnectorCoaxial, 75 ΩBit Depth20 and 24 bitSample Rate48 kHz

Synchronous to video output

Reference Level -18 or -20 dBFS (selectable)

### **Embedded Output (In SDI Outputs)**

Group Assign Cascade or replace any two of four groups

Channels Eight Bit Depth 24 Bit

### **General Specifications**

Power Consumption 10 watts

Temperature Range 0 to 40°C ambient (all specs met)

Relative Humidity 0 to 95%, noncondensing

Altitude 0 to 10,000 ft

