HDSD9545DLY-PRO

HD/SD Video and Audio Delay/Profanity Protection System

In live shows, there is invariably the need to time-shift various feeds that contribute to the final production. This may be required to provide delays to accomplish profanity censorship, contribution back haul delay mismatch compensation or compliance for other contractual obligations.

The Evertz® HDSD9545DLY-PRO time shifting delay processor has been designed to give an operator complete control over the program content being broadcast to air. This product enables the operator to insert the desired time delay via a front panel control and display panel. There are two program paths which are HD and SD compatible.

The main program feed will usually be focused on the main detailed action. Both channels are delayed by the same amount. If an unscheduled switch to an alternate source is required, the operator has only to hit one remote button to cause the program video and audio output to be clean switched to the alternative back-up channel. The output can be returned to the main program content without interruption to the video, or pops and clicks in the audio.

The delay can be adjusted from a minimum two frame program or to a maximum of 40 seconds of 1.5Gb/s HDTV or 240 seconds for SDTV (with the HD40 option). This max delay can be allocated to primary and secondary paths as per the user.

Features & Benefits

- HD or SD SDI compatible
- Embedded Audio and Discrete (4ch AES) Audio Support
- Monitoring outputs of delayed program and delayed backup can be provided
- Selectable quad split monitoring outputs
- Safe input frame capture
- Clean transition between program and backup feed
  * SoftSwitch™ audio (patented)
  * Clean switch video
- Non-PCM audio / Dolby E® support (in non-SoftSwitch™ mode)
- Supports program video blur features
- Relay bypass protection for video and audio
- Delay memory is solid state (no moving parts)
- No hard drive to fail or maintain
- Contact closure inputs for bypass triggering
- Programmable pre-trigger reaction time
- Delay on HDSD9545DLY-PRO: 24 seconds for HD or SD Delay
- Delay on HDSD9545DLY-PRO-HD40: 40 seconds for HD Delay or 240 seconds for SD Delay
- Delay is user-allocated between primary & secondary back-up paths
- Dual power supplies
- Min two frame PGM delay and 2 frame safe delay
- VistaLINK® control for device configuration and status monitoring

Specifications

Serial Digital Video Inputs:

Standard:	ST 292-1 (1.5Gb/s) 1080i/59.94, 1080i/50, 720p/59.94 SMPTE 259-C (270Mb/s) 525i/59.94, 625i/50
Embedded Audio:	ST 299-1 (HD) SMPTE ST 272 (SD)
Number of Inputs:	2
Connector:	BNC per IEC 61169-8 Annex A
Equalization:	
HD Video Stds:	Automatic up to 50m with Belden 1694A or equivalent cable
SD Video Stds:	Automatic up to 250m with Belden 8281 or equivalent cable
Return Loss:	> 15dB up to 1.0Gb/s, > 10dB at 1.5Gb/s

Serial Digital Video Outputs:

Standard:	Same as Inputs
Number of Outputs:	5 outputs (2 copies of Output A) Input A bypass protected to output A1
Connector:	BNC per IEC 61169-8 Annex A
Signal Level:	800mV nominal
DC Offset:	0V ±0.5V
Rise and Fall Time:	
HD Video Stds:	200ps nominal
SD Video Stds:	650ps nominal
Overshoot:	< 10% of amplitude
Wide Band Jitter:	< 0.2 UI
Output Return Loss:	
A1:	> 10dB up to 1.5Gb/s
Out A2, B, C, D, E:	> 15dB up to 1.5Gb/s
Output Phase:	0 to a full frame of offset - separate H and V phase adjustments

Video Reference:

Type:	NTSC or PAL Color Black 1V p-p Composite Bi-level sync (525i/59.94 or 625i/50) 300mV HD Tri-level Sync
Connectors:	BNC per IEC 61169-8 Annex A
Termination:	High impedance loop through or High impedance non-looping or 75Ω non-looping (jumper selectable)

AES Audio Inputs:

Standards:	SMPTE 276M single ended AES
Number of Inputs:	2 Groups of 4
Connector:	BNC per IEC 61169-8 Annex A
Signal Level:	1V p-p ±10%
Return Loss:	> 25dB up to 6MHz

AES Audio Outputs:

Standards:	SMPTE 276M single ended AES
Number of Outputs:	3 buses, 4 outputs per bus Safe AES Inputs bypass protected to AES A outputs when bypass relay option is installed
Connector:	BNC per IEC 61169-8 Annex A
Signal Level:	1V p-p
Return Loss:	> 35dB up to 6MHz
Reference:	From Video Reference

GPI Control Port:

Number of Inputs:	8 opto-isolated, active high or active low, programmable functions
Number of Outputs:	4 sets of relay contacts, normally closed, programmable functions
Relay Max Current:	1 A at 30V DC

Functional:

Maximum Total Delay (configurable between live and safe inputs):

HDSD9545DLY-PRO:	24 seconds of HD or SD delay
HDSD9545DLY-PRO-HD40:	40 seconds of HD delay or 240 seconds of SD delay

Electrical:

Voltage:	Auto ranging 100 to 240V AC, 50/60Hz - dual redundant power supplies
Fuse Rating:	250V, 1amp time delay
Power:	40W
Safety:	TüV listed, complies with EU safety directives
EMI/RFI:	Complies with FCC Part 15 Class A regulations Complies with EU EMC directive

Physical:

Dimensions:	19" W x 3.5" H x 17.75" D. (483mm W x 89mm H x 451mm D)
Weight:	8lbs (3.5kg)

The Complete Solution Provider

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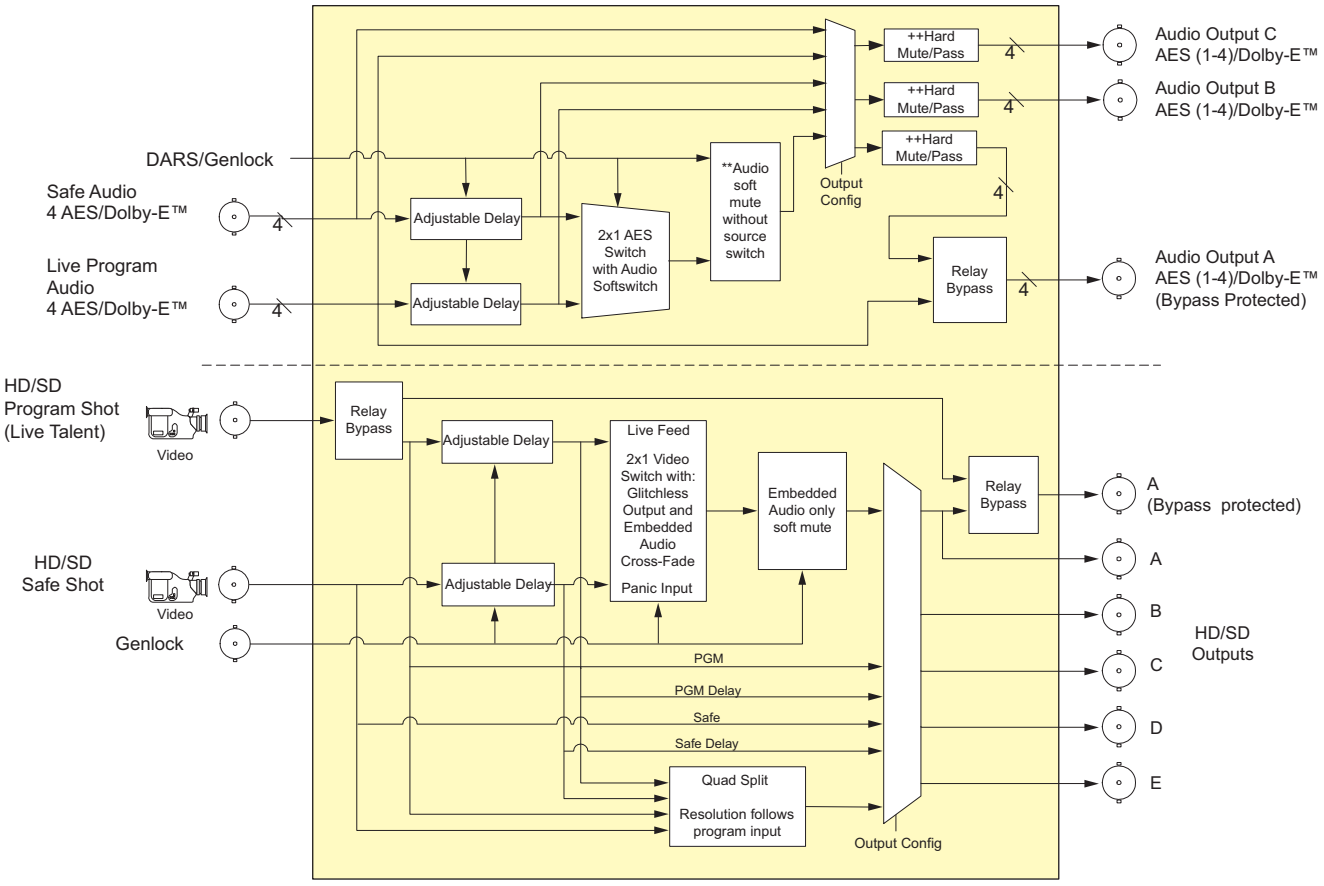

** Soft mutes only function when embedded audio softswitch is enabled
++ Hard mutes only function when delayed sources are selected

Ordering Information

HDSD9545DLY-PRO HD/SD Video Delay/Protection System
HDSD9545DLY-PRO-HD40
HD/SD Video Delay/Protection System with 40 second delay