

**SONY**<sup>®</sup>

High Definition Video System

*Digital* **HDVS**

HDS-7150/7100

HD  
Digital  
Video  
Switcher



Preliminary

**T**he HDS-7000 and HDME-7000 are the Digital High Definition Switcher and Digital Multi Effects systems that succeed our Standard Definition DVS-7000 series and DME-7000 product offerings. They have been in service for a wide range of HDTV™ program productions and applications, with a proven performance in sporting events, talk shows and episodic productions, in addition to post production applications throughout the United States and Japan.

The HDS-7150 and HDS-7100 HD Digital Production Systems are Sony's newest additions to our series of HDS-7000 products. The HDS-7150 is a high definition video switcher with one M/E plus PGM/PST, while the HDS-7100 with one M/E. Both of them operate in the SMPTE 274M 1920 x 1080i standard, and have the ability to add integrated Digital Multi Effects into their processors. Each system provides superb picture quality through 10-bit signal input processing and interfaces with other Sony products such as our HDCAM™ VTRs and HDW portable camcorders in addition to a full range of processing and HD Routing products. With HDS-7150 and HDS-7100, Sony provides a compact and cost effective HDTV system.



HDS-7100 System



HDS-7150 System

# Features and Benefits of HDS-7150 and HDS-7100

## High Quality Digital Video Signal Processing

Both of the HDS-7150 and HDS-7100 with HD 1080i standard provides outstanding digital video images with a sampling rate of 74.25 MHz/10 bits.

## HD SDI Connection

All inputs and outputs of the HDS-7150 and HDS-7100 are HD SDI (High Definition Serial Digital Interface), which conforms to SMPTE 292M through a single cable for wiring convenience and reliable system inter-connection. The HDS-7150 provides six auxiliary buses with access to 15 HD SDI inputs, while HDS-7100 provides two auxiliary buses and 10 HD SDI inputs.

## Familiar Operating Style Control Panels

Control panels of the HDS-7150 and HDS-7100 are compact, yet comprehensive and specifically designed for post production editing operations and small OB/mobile truck applications. Users' adaptation is minimal as the control surfaces are identical to those of our SDTV products.

## High Definition Quality Chroma Key Option

Processing in High Definition provides a high quality chroma key with our easy to use auto chroma key function. Available as an option in the HDS-7150 and HDS-7100 systems, this option provides a one channel chroma keyer and includes several powerful functions such as color cancel, foreground color modify, and mask.

## RGB Color Corrector Option

Powerful RGB Color Corrector is available by option. One option provides two channels, and enables R/G/B and Y/U/V color space correction including primary color correction, six-vector color correction and Luminance Processing (Lum Proc) function.

## Powerful Plug In DME Option

The integrated DME option is simply inserted into the switcher processor. By adding this option, powerful effects are readily available in a single processor system. Our proven DME-LINK™ function enables a wide range of internally generated and keyframe digital effects to be run by the fader lever or transition button of the M/E or P/P in the same fashion as if controlling a wipe transition. The DME can also be controlled from the BKDS-7031 and GUI based BKDM-3010 DME control panels.

\* When using the HKDS-7071 Digital Multi Effects Board, HKDS-7061 Video Modifier Board is also required to realize the function of DME option.

## Full Compliment of Video Effects Capabilities

Two powerful key processors for HDS-7150 and one for HDS-7100 are standard on each M/E. Furthermore, two color background generators for HDS-7150 and one for HDS-7100 are provided as standard features. Standard transition types include mix, NAM, Super Mix™ and wipe effects with patterns generated for Circle, Star, Matrix, Diamond Dust among a few.

## 99 Snapshots and 99 Effects Memory

Users can recall up to 99 Snapshots of the switcher's entire panel set-up. In addition, the HDS-7150 and the DME of HDS-7100 provide 99 time line sequences of digital video effects.

## Format Flexibility

HDS-7150 and HDS-7100 operate at 1125/60 or 1125/59.94, 1080i or 1035i. Also, 1080p/23.976, 24 and 25 are supported as standard, and are switchable between 16:9 or 4:3 aspect ratios.

## Redundant Power Supply System (Optional)

A redundant power supply system for HDS-7150 is available by using another HKDS-7695 power supply unit.

# Digital Transform Effects of the Plug-in DME Option

## Image Transform:

3D Transform in source or target space, 3D location and rotation, Axis location, Size, Perspective, View, Aspect, Flip and tumble

## Background and Edge:

Color Background, Border, Crop, Drop Shadow (2D linear)

## Freeze and Recursive:

Input Freeze, Motion Decay, Multi Freeze, KF Strobe, Trail, Wind

## Picture Modify:

Multi Move, Defocus, Blur, DIM, Fade

## View Modify:

Posterization, Solarization, Sepia, Mono, Negative, Contrast, Mosaic, Mask (box)

## Nonlinear Effects

## Lighting Effects



HDS-7100 System with DME



HDS-7150 System with DME

# System Components

<b>HDS-7150</b>	Production Switcher Chassis
<b>HDS-7100</b>	Production Switcher Chassis
<b>HKDS-7031</b>	CromaKey Board
<b>HKDS-7051</b>	Color Correction Board
<b>HKDS-7061</b>	Video Modifier Board
<b>HKDS-7071</b>	Digital Multi Effects Board (requires HKDS-7061)
<b>HKDS-7695</b>	Power Supply Unit



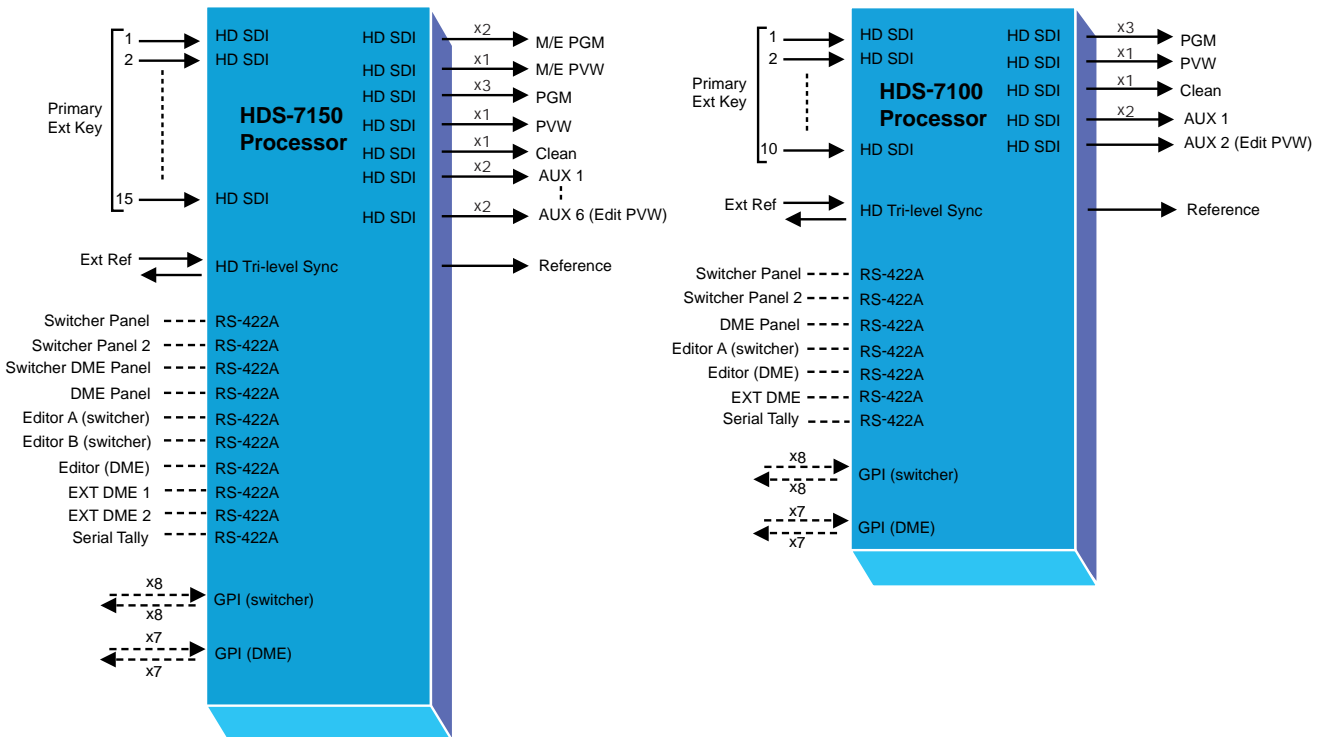
BKDS-7017

<b>BKDS-7017</b>	Switcher Control Panel (for HDS-7150 System)
<b>BKDS-2010</b>	Switcher Control Panel (for HDS-7100 System)
<b>BKDS-7030</b>	Key Frame Control Panel Unit (for HDS-7150 System)
<b>BKDS-7031</b>	DME Control Panel Unit (for HDS-7150 System)
<b>BKDS-7033</b>	Memory Recall Control Panel Unit (for HDS-7150 System)
<b>BKDS-7075</b>	Control Panel Remote Adapter (for BKDS-7030/7031/7033)
<b>BKDM-3010</b>	DME Control Panel
<b>CPD-100GS</b>	Color Display Monitor
<b>HZS-7040</b>	Operation Software(for HDS-7150)
<b>HZS-7060</b>	Operation Software(for HDS-7100)



BKDS-2010

# Input/Output Configurations



# Specifications

## HDS-7150

### Video Inputs/Outputs

<b>Signal standard:</b>	HD SDI conforming to SMPTE 292M
<b>Primary inputs:</b>	HD SDI x 15
<b>Program outputs:</b>	HD SDI x 3
<b>Preview output:</b>	HD SDI x 1
<b>M/E program outputs:</b>	HD SDI x 2
<b>M/E preview output:</b>	HD SDI x 1
<b>Clean output:</b>	HD SDI x 1
<b>Auxiliary bus outputs:</b>	HD SDI x 6 (x 2) (including Edit Preview)
<b>Analog reference input:</b>	HD Tri-level Sync, loop-through
<b>Analog reference output:</b>	HD Tri-level Sync

### Control Inputs/Outputs

<b>Switcher panel 1, 2:</b>	D-sub 9-pin or 25-pin, RS-422A
<b>Switcher DME panel:</b>	D-sub 9-pin, RS-422A
<b>DME Panel:</b>	D-sub 9-pin, RS-422A
<b>Editor A, B (Switcher):</b>	D-sub 9-pin, RS-422A
<b>Editor (DME):</b>	D-sub 9-pin, RS-422A
<b>EXT DME 1, 2:</b>	D-sub 9-pin, RS-422A
<b>GPI (Switcher):</b>	D-sub 25-pin, 8 inputs, 8 outputs, programmable
<b>GPI (DME):</b>	D-sub 25-pin, 7 inputs, 7 outputs, programmable
<b>Serial tally:</b>	D-sub 9-pin, RS-422A

### General

<b>Power requirement:</b>	DC 5 V, 3.3 V, 12 V, -5 V (from PSU)
<b>Dimensions (Approx.):</b>	
<b>Processor</b>	424 (W) x 620 (H) x 492 (D)mm (16 3/4 x 24 1/2 x 19 3/8 inches)
<b>BKDS-7017</b>	850 (W) x 200 (H) x 496 (D)mm (40 5/8 x 7 7/8 x 19 5/8 inches)
<b>Mass (Approx.):</b>	
<b>Processor</b>	70 kg (154 lb 5 oz)
<b>BKDS-7017</b>	30 kg (66 lb 2 oz)

## HKDS-7695

<b>Power requirements:</b>	AC 100 to 120 V, 50/60 Hz
<b>Current consumption:</b>	30 A (Max.)
<b>Dimensions (Approx.):</b>	424 (W) x 132 (H) x 542 (D)mm (16 3/4 x 51/4 x 21 3/8 inches)
<b>Mass (Approx.):</b>	20 kg (44 lb 1 oz)

## HDS-7100

### Video Inputs/Outputs

<b>Signal standard:</b>	HD SDI conforming to SMPTE 292M
<b>Primary inputs:</b>	HD SDI x 10
<b>Program outputs:</b>	HD SDI x 3
<b>Preview output:</b>	HD SDI x 1
<b>Clean output:</b>	HD SDI x 1
<b>Auxiliary bus outputs:</b>	HD SDI x 2 (x 2) (including Edit Preview)
<b>Analog reference input:</b>	HD Tri-level Sync, loop-through
<b>Analog reference output:</b>	HD Tri-level Sync

### Control Inputs/Outputs

<b>Switcher panel 1, 2:</b>	D-sub 9-pin, RS-422A
<b>DME Panel:</b>	D-sub 9-pin or 25-pin, RS-422A
<b>Editor A (Switcher):</b>	D-sub 9-pin, RS-422A
<b>Editor (DME):</b>	D-sub 9-pin, RS-422A
<b>EXT DME:</b>	D-sub 9-pin, RS-422A
<b>GPI (Switcher):</b>	D-sub 25-pin, 8 inputs, 8 outputs, programmable
<b>GPI (DME):</b>	D-sub 9-pin, 7 inputs, 7 outputs, programmable
<b>Serial tally:</b>	D-sub 9-pin, RS-422A

### General

<b>Power requirement:</b>	DC 5 V, 3.3 V, 12 V, -5 V (from PSU)
<b>Dimensions (Approx.):</b>	
<b>Processor</b>	424 (W) x 620 (H) x 492 (D) mm (16 3/4 x 24 1/2 x 19 3/8 inches)
<b>BKDS-2010</b>	424 (W) x 120 (H) x 400 (D)mm (16 3/4 x 4 3/4 x 15 3/4 inches)
<b>Mass (Approx.):</b>	
<b>Processor</b>	70 kg (154 lb 5 oz)
<b>BKDS-2010</b>	10 kg (22 lb 1 oz)

# SONY

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