

Specifications and Block Diagram



General	
Model	DFS-700 (NTSC)/DFS-700P (PAL)
Power requirements	AC 100/120 V, 50/60 Hz (DFS-700) AC 220/240 V, 50/60 Hz (DFS-700P)
Operating voltage	AC 90 to 130 V, 47 to 63 Hz (DFS-700) AC 180 to 260 V, 47 to 63 Hz (DFS-700P)
Power consumption	200 W
Operating temperature	0 to 40 °C (32 to 104 °F)
Dimensions (W x H x D)	
Control panel:	440 x 121 x 287 mm 17 1/4 x 4 3/4 x 11 1/4 inches
Processor unit:	440 x 132 x 520 mm 17 1/4 x 5 1/4 x 20 1/2 inches
Mass	
Control panel:	3 kg, 6 lb 10 oz
Processor unit:	14 kg, 30 lb 14 oz

Input Signals	
VIDEO INPUTS	
SDI	BNC type x 4 270 Mb/s
Component	BNC type x 4 (Y/R-Y/B-Y) Y: 1.0 Vp-p, 75 Ω, Sync negative R-Y/B-Y: 0.7 Vp-p, 75 Ω (DFS-700) R-Y/B-Y: 0.525 Vp-p, 75 Ω (DFS-700P)
DSK KEY IN	BNC type x 2, Loop-through, 1.0 Vp-p, 75 Ω
REF VIDEO	BNC type x 2, Loop-through connection Sync: 0.286 Vp-p (DFS-700) Sync: 0.3 Vp-p (DFS-700P) Burst: 0.286 Vp-p (DFS-700) Burst: 0.3 Vp-p (DFS-700P)



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Output Signals

PGM OUT

SDI	BNC type x 2 270 Mb/s
Component	BNC type x 2 (Y/R-Y/B-Y) Y: 1.0 Vp-p, 75 Ω , Sync negative R-Y/B-Y: 0.7 Vp-p, 75 Ω (DFS-700) R-Y/B-Y: 0.525 Vp-p, 75 Ω (DFS-700P)
Composite	BNC type x 2 Video: 1.0 Vp-p, 75 Ω , Sync negative
S-Video	DIN type x 2 (Y/C) Y: 1.0 Vp-p, 75 Ω , Sync negative C: 0.286 Vp-p at burst, 75 Ω (DFS-700) C: 0.3 Vp-p at burst, 75 Ω (DFS-700P)
CLEAN OUT	BNC type x 1 SDI: 270 Mb/s
PREVIEW OUT	BNC type x 1, Composite Video: 1.0 Vp-p, 75 Ω , Sync negative
BLACK BURST OUT	BNC type x 3 Sync: 0.286 Vp-p, 75 Ω (DFS-700) Sync: 0.3 Vp-p, 75 Ω (DFS-700P) Burst: 0.286 Vp-p, 75 Ω (DFS-700) Burst: 0.3 Vp-p, 75 Ω (DFS-700P)

Signal Processing

Sampling rate	Y: 13.5 MHz R-Y/B-Y: 6.75 MHz
Quantization	Y/R-Y/B-Y: 8 bits
Linearity (Composite output)	DG: Less than 3.5% (composite input) Less than 2% (component, S-Video input) DP: Less than 2.5 $^{\circ}$ (composite input) Less than 1 $^{\circ}$ (component, S-Video input)
Frequency response	0 to 5 MHz +0.5 dB/-1 dB
S/N	More than 50 dB (composite) More than 55 dB (component, S-Video)
Y/C delay	Less than 20 ns (component) Less than 50 ns (composite, S-Video)

Control Signals

Editor	D-sub 9 pin x 1, RS-422A
GPI/T	BNC type x 2, TTL Level
Panel	D-sub 25-pin x 1
Tally	D-sub 25-pin x 1, Relay contact outputs x 8
Terminal	USB B-type



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Optional Accessories

BKDF-701	Digital/Analog Input Board for NTSC/PAL
BKDF-702	Analog Composite Input Board for NTSC
BKDF-702P	Analog Composite Input Board for PAL
BKDF-711	2nd Channel DME Board
BKDF-712	3D Video Mapping Effects Board

■ BKDF-701

With the BKDF-701, the following 8 inputs can be added to the standard 8 inputs of the DFS-700/P, making the total number of inputs 16. During use, any 8 of the 16 inputs can be assigned to the control panel.

Input Signals

SDI	BNC type x 4 270 Mb/s
Component	BNC type x 4 (Y/R-Y/B-Y) Y: 1.0 Vp-p, 75 Ω Sync negative R-Y/B-Y: 0.7 Vp-p, 75 Ω (with DFS-700) R-Y/B-Y: 0.525 Vp-p, 75 Ω (with DFS-700P)

■ BKDF-702/P

With the BKDF-702/P, the following 4 inputs (composite or S-Video) can be added to the standard 8 inputs of the DFS-700/P, making the total number of inputs 12. During use, any 8 of the 12 inputs can be assigned to the control panel.

Input Signals

Composite	BNC type x 4 Video: 1.0 Vp-p, 75 Ω , Sync negative
S-Video	DIN type x 4 (Y/C) Y: 1.0 Vp-p, 75 Ω , Sync negative C: 0.286 Vp-p at burst, 75 Ω (BKDF-702) C: 0.3 Vp-p at burst, 75 Ω (BKDF-702P)

■ BKDF-711

The BKDF-711 adds a second Title Key.

Product Configuration

Processor unit, Control panel, D-sub 25-pin control cable (10 m), AC cord, Instruction manual

[Click Here View To The Block Diagram](#)

(It is recommended to print out for seeing the details.)



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