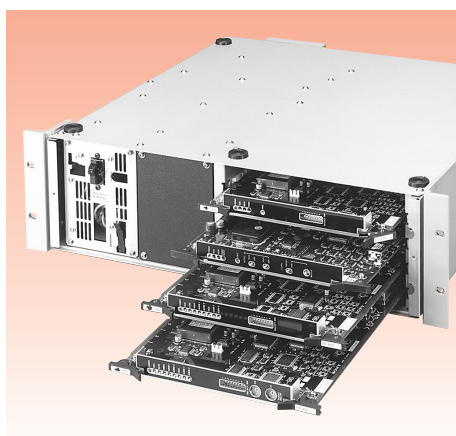
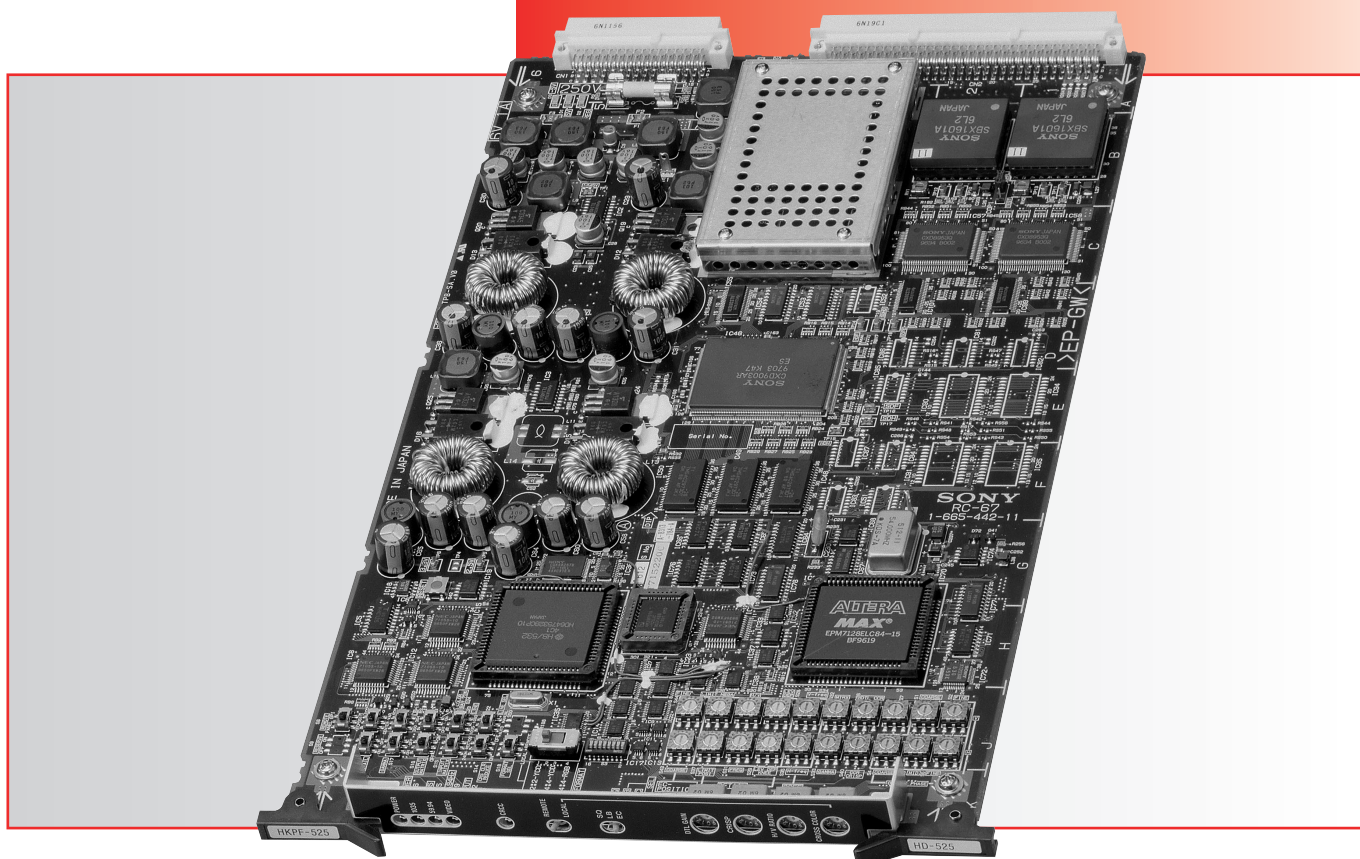


SONY®

High Definition 525 Down Converter Board

HKPF-525



The HKPF-525 Down Converter Board converts an HD serial digital video signal to 525 component serial digital signals. It accepts and converts one HD serial digital video signal, and provides four sets of output signals. The output signal format can be selected from the following three: 525 4:2:2 Y/B-Y/R-Y component serial digital video, 525 4:4:4 Y/B-Y/R-Y component serial digital video, and 525 4:4:4 GBR component serial digital video.

The HKPF-525 provides an uncompressed, 10-bit, digital component SMPTE-292M HD serial stream with a bit rate of 1.5 Gbps with conversion and distribution both being carried out on the same board.

The HKPF-525 board is designed for ISR (Interactive Status Reporting) System for system diagnosis, and is used in combination with the PFV-HD300/HD50A Digital Interface Unit. Power for operation of the HKPF-525 is supplied from the interface unit.

The HKPF-525 structure and power supply voltage are the same as those of all other boards designed for use in the PFV-HD300 and PFV-HD50A Digital Interface Unit. These boards may be installed in either interface unit in any combination and used simultaneously, allowing a highly flexible system.

Digital
Processing
Equipment

Features

- Various 525 output formats selectable: 525 4:2:2 Y/P_B/P_R, 525 4:4:4 Y/P_B/P_R or 525 4:4:4 G/B/R.
Note: In case of 4:4:4 output, two BNC connectors are required as shown in the block diagram.
- Four 4:2:2 component SDI or two 4:4:4 component SDI outputs selectable.
- Image enhancer and output mode control .
Note: The 525 image enhancer can be controlled from the HKDV-503 digital video controller and the output mode can be selected from Edge Crop, Squeeze, Letter Box.
- Aspect ratio — Squeeze(16:9)/Edge Crop/ Letter Box selectable.
- Automatic detection of Active line 1080 or 1035.

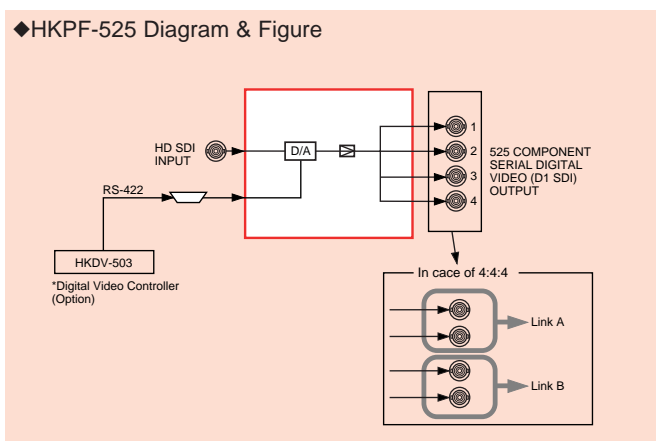
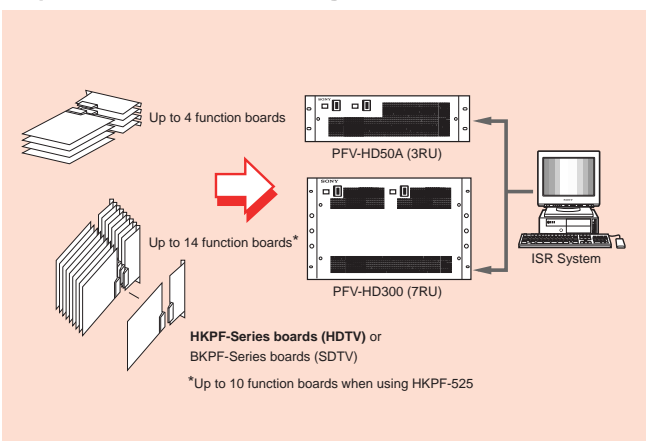
- Field frequency 59.94 Hz fixed.
- Auto equalizing function enables HD SDI transmission up to 100 m via a single coaxial cable (5C-FB or PD-3079 COOPER RG-6/U)
- Time delay: 90 lines (1125)/ 42 lines (525)
- Adjustable time delay: ±7 lines (525)
- Support of ISR (Interactive Status Reporting) function.
- Video image enhancer adjustment items: H CROP, DETAIL GAIN, LIMITER, CRISP, DEPEND, FREQUENCY, H/V RATIO, GAMMA
Note: Cross color is also adjustable.

Specifications

General	
Power requirement	+5 V DC:2.0 A, -5 V DC:1.0 A (supplied from the PFV- HD300/HD50A)
Power consumption	Approx.14 W
Operating temperature	5°C to 40°C (41°F to 104°F)
Dimensions	Board: 194 (H) X 310 (D)mm (7 3/4 X 12 1/4 inches) Connector Panel:218 (H) X 98 (D) X 25 (W) mm (8 5/8 X 3 7/8 X 1 inches)
Mass	Board: Approx.700 g (1 lb 9 oz) Connector Panel:Approx.200 g (7 oz)
Time delay	
	90 lines (1125)/42 lines (525)
ISR output information	
	Status messages : 3 items Set up messages : 7 items
Input Signals	
Digital input	DIGITAL IN connectors (BNC type) (1) HD serial digital video signal SMPTE 292M

Input impedance	75 Ω, unbalanced
Input return loss	15 dB or more (5 MHz to 750 MHz) 10 dB or more (750 MHz to 1.5 GHz)
Transmission distance	max.100 m
Data rate	1.4835 Gbps (59.94 Hz)
Remote control input	REMOTE IN connectors (D-sub 9-pin) (1), RS-422
Output Signals	
Digital output	DIGITAL OUT connectors (BNC type) (4) 525 component serial digital video Y/P _B /P _R , R/G/B selectable 525 4:2:2 Y/P _B /P _R 525 4:4:4 Y/P _B /P _R 525 4:4:4 G/B/R (selectable with a switch on the board)
Selectable mode	Edge Crop, Letter Box, Squeeze
Adjustable parameters	Detail gain, Detail frequency, Level depend, Crisp, H/V ratio, Limit level, Gamma
Adjustable time delay	±7 lines (525)

System Configuration



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