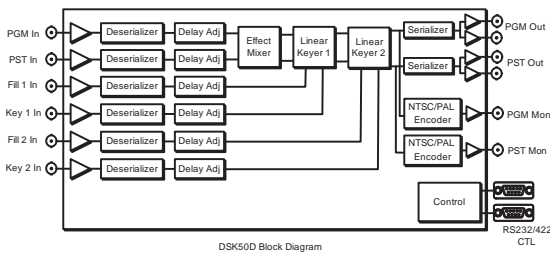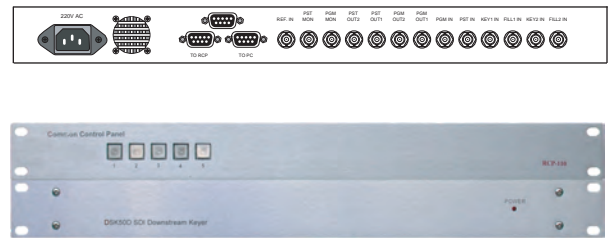# Serial Digital Component Downstream Keyer — DSK50D

Descriptions:

The DSK50D is designed to meet the need for automated multi-channel transmission and local insertion requirements for broadcast, cable, and satellite applications.

The DSK50D is normally used in conjunction with an automation system controller. An optional RCP-50 panel can be used for local control of program and preview key insertion and transition effect.

The DSK50D has one program input, one preset input, two external key inputs and two external fill inputs.

The DSK50D provides mix, fade in cut out, cut in fade out, fade in fade out and cut transition effects and master fade to black.

The DSK50D has two RS-232 serial control ports for remote control panel and automation system connecting.

The DSK50D has auto-timing capability of +/- 1/2 line on all of its inputs.

DSK50D Block Diagram

Features:

▶ Full 10-bit digital processing

▶ Supports embedded audio

▶ Relay bypass protected program output

▶ Mix transitions

▶ Master fade to black

▶ Two independent DSK

Signal Connection

PGM IN	Program input
PGM OUT1-2	Program output, the first output is with relay bypass
PST IN	Preset input
PST OUT1-2	Preset output
PGM MON	Analog monitoring output
PST MON	Pre-set analog monitoring output
FILL1-2	Fill input1-3
KEY1-2	Keyer input1-3
REF IN	BB reference input
TO PC	RS232/422 serial control port，for PC，2：Rx、3：Tx、8：Rx+,4：Rx-, 1：Tx+, 6：Tx-,5：Gnd
TO RCP	RS232/422 serial control port used for remote control panel，2：Rx, 3：Tx, 8：Rx+, 4：Rx-, 1：Tx+, 6：Tx-, 5：Gnd

Specifications: specifications are subject to change without notice

Serial Video Input

Number of Inputs	6: program input, preset input, fill 1, key 1, fill 2, key 2
Standard	SMPTE 259M-C；270Mb/s，525/625 component
Connector	BNC per IEC169-8 standard
Impedance	75 Ohms
Return Loss	>18dB to clock frequency
Signal Level	800mV +/-10%

Serial Video Output

Number of Outputs	4: 2 program outputs, 2 preset outputs, relay bypass protected for the 1st output
Standard	SMPTE 259M-C；270Mb/s，525/625 component
Connector	BNC per IEC169-8 standard
Impedance	75 Ohms
Return Loss	>18dB to clock frequency
Signal Level	800mV +/-10%
DC Offset	0V+/-0.5V
Rise and Fall Time	0.4 to 0.7nS (20% to 80% of amplitude)
Overshoot	<10% of amplitude (all outputs terminated)

Analog Video Output

Number of Outputs	2: program output and preset output
Standard	SMPTE 259M-C；270Mb/s，525/625 component
Level	1 Vp-p
Connector	BNC per IEC169-8 standard

Impedance	75 Ohms
Return Loss	>40dB to 5MHz
Frequency Response	+/-0.2dB to 5MH
DC Offset	+/-100mV
Differential Phase	1.5 degrees
Differential Gain	1.5%
Overshoot	<10% of amplitude （all outputs terminated）
Chroma-Luma Delay	<10nS to 5MHz
	10 bits (8 bits path data

Analog Video Output

Number of Outputs	2: program output and preset output
Signal Type	NTSC or PAL
Level	1Vp-p
Impedance	75 Ohms
Connector	BNC per IEC169-8 standard
Return Loss	>40dB to 5MHz
DC Offset	+/-100mV
Frequency Response	+/-0.2dB to 5MH
Differential Gain	1.5%
Differential Phase	1.5 degree
Chroma-Luma Delay	<10nS to 5MHz
Quantizing	10 bits （8-bit data path）

Reference Input

Number of Inputs	1
Signal Type	Analog composite NSTC/PAL or composite sync signal
Connector	BNC per IEC 169-8
Impedance	75 Ohms

Serial Control

Signal	RS-422 (SMPTE 207M, EBU-3245), RS-232 (EIA/TIA-232)
Connector	DB9, Male
Function	Setup and control

Power Supply

Voltage	90-265VAC

Frequency	50/60Hz
Power Dissipation	20W

Dimension

Height	44mm
Width	483mm
Depth	360mm

Ordering Information

DSK50Di	Keyer SDI DSK	DSK50Dii	2 keyers SDI DSK with PST
DSK50Di	Keyer SDI DSK with PST	RCP50D	DSK50D Remote control panel
DSK50Dii	SDI DSK		

Channel Branding