Synapse

SDR216

SD SDI dual input distribution amplifier with 8 reclocked outputs per input (ASI/DVB compatible)

A Synapse® product

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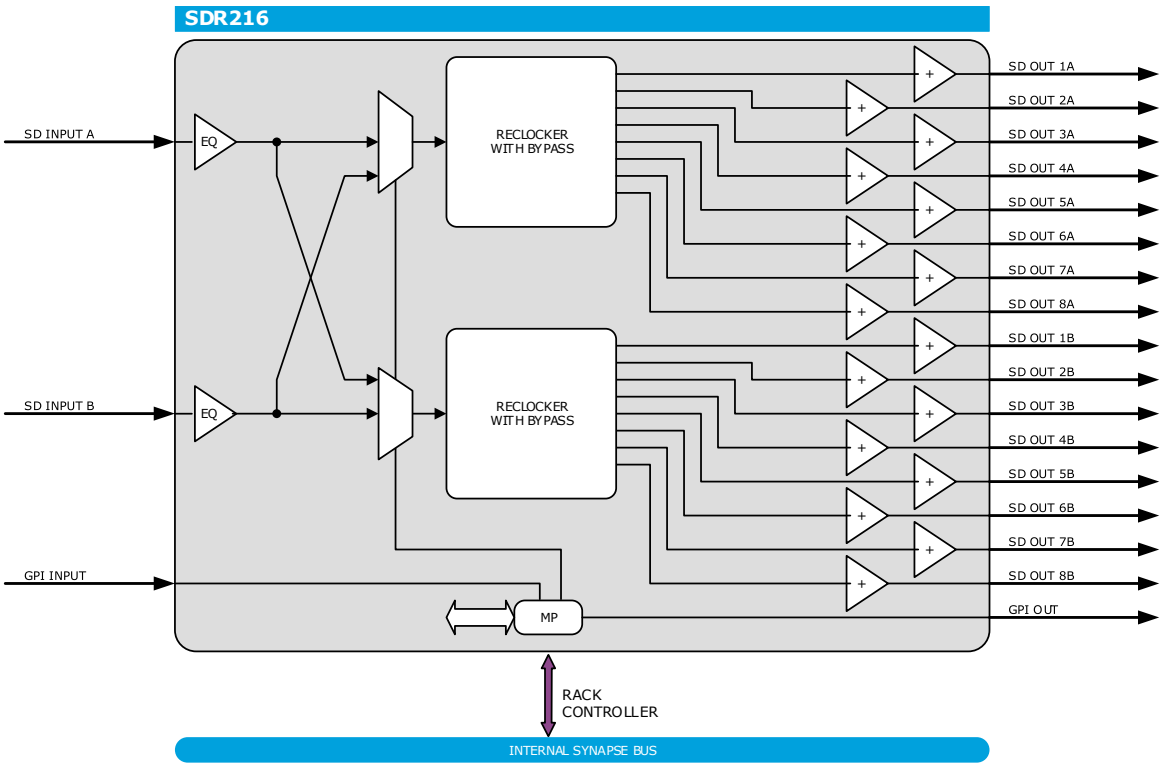
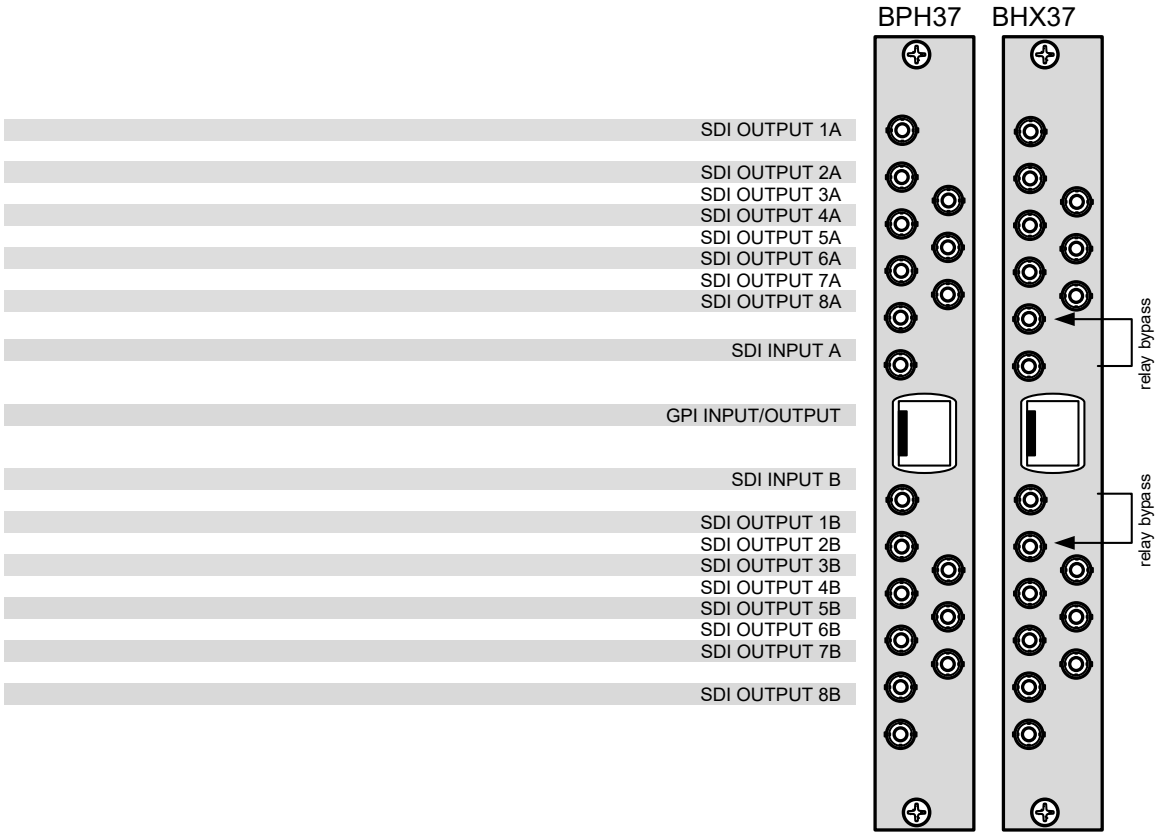
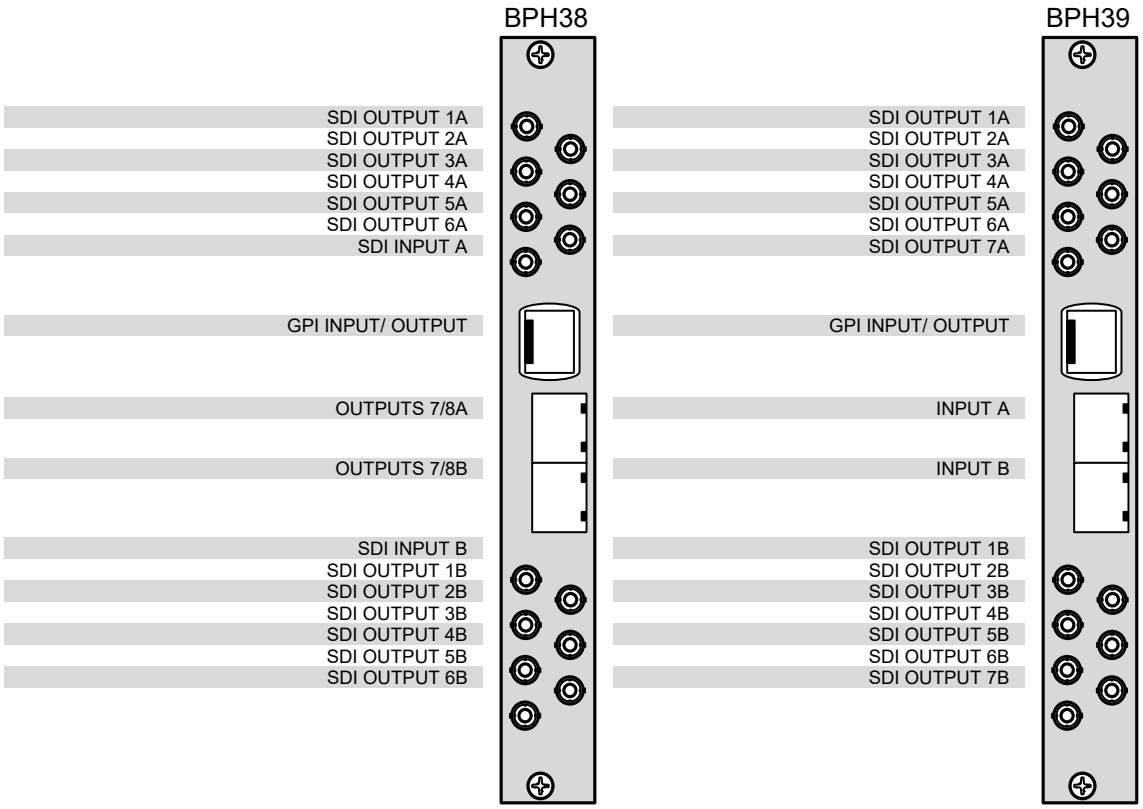
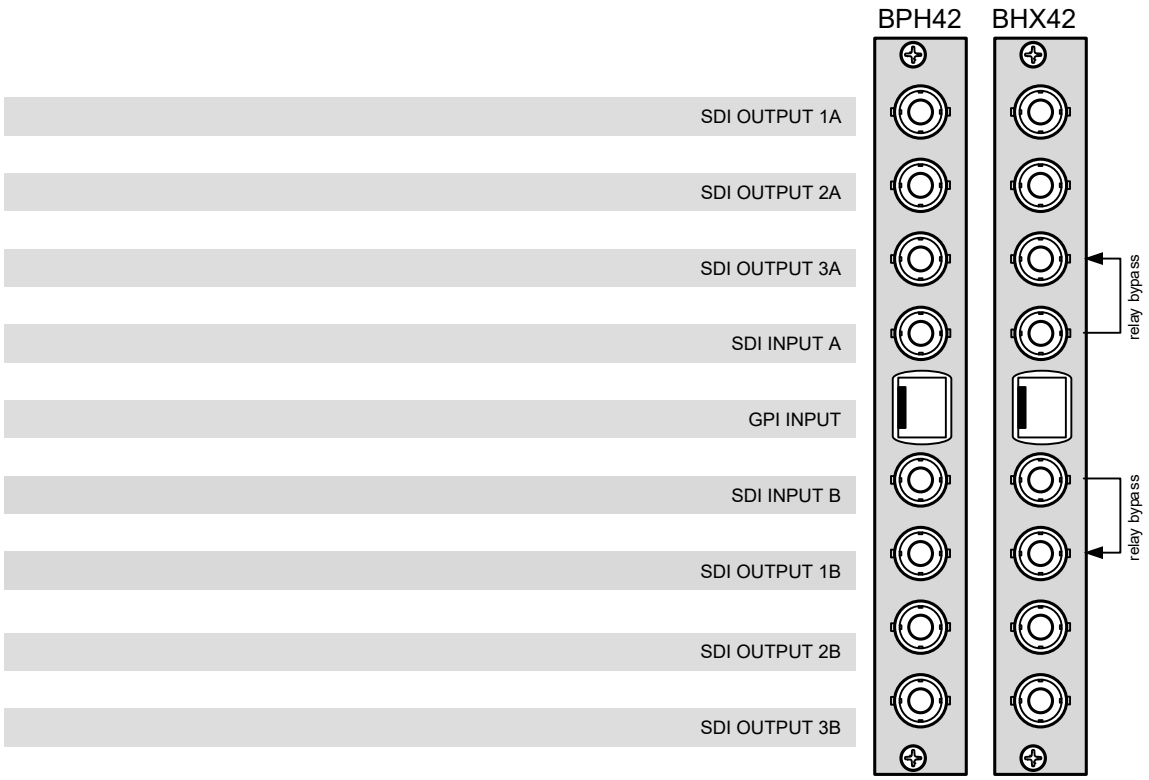
Block Schematic & I/O panel






BPH38
SDI OUTPUT 1A
SDI OUTPUT 2A
SDI OUTPUT 3A
SDI OUTPUT 4A
SDI OUTPUT 5A
SDI OUTPUT 6A
SDI INPUT A
GPI INPUT/ OUTPUT
OUTPUTS 7/8A
OUTPUTS 7/8B
SDI INPUT B
SDI OUTPUT 1B
SDI OUTPUT 2B
SDI OUTPUT 3B
SDI OUTPUT 4B
SDI OUTPUT 5B
SDI OUTPUT 6B
BPH39
SDI OUTPUT 1A
SDI OUTPUT 2A
SDI OUTPUT 3A
SDI OUTPUT 4A
SDI OUTPUT 5A
SDI OUTPUT 6A
SDI OUTPUT 7A
GPI INPUT/ OUTPUT
INPUT A
INPUT B
SDI OUTPUT 1B
SDI OUTPUT 2B
SDI OUTPUT 3B
SDI OUTPUT 4B
SDI OUTPUT 5B
SDI OUTPUT 6B
SDI OUTPUT 7B


BPH42
BHX42
SDI OUTPUT 1A
SDI OUTPUT 2A
SDI OUTPUT 3A
SDI INPUT A
GPI INPUT
SDI INPUT B
SDI OUTPUT 1B
SDI OUTPUT 2B
SDI OUTPUT 3B
relay bypass
relay bypass

Features

The SDR216 is a dual channel SD SDI distribution amplifier with simple switching capabilities and selectable outputs. This card can be used as reclocking or non-reclocking amplifier. This card is ASI/DVB compatible.

- Single or Dual channel with 6 to 16 configurable outputs depending on the back panel
- Flexible selection of inputs to outputs
- Input switching as emergency bypass (not clean) on carrier detects
- GPI controlled input swapping and status monitoring
  - GPI-1 = select input 1
  - GPI-2 = select input 2
  - GPO-0 = Crossed mode or straight mode status
  - GPO-1 = input 1 status
  - GPO-2 = input 2 status
- 2x2 or 2x1 function
- 2x1>8 or 1x1>16 function with BPH37, BHX37, BPH38 and BPH39
- 2x1>3 or 1x1>6 function with BPH42 back panel
- Compatible with:
  - SD SDI 270 Mbit/s (SMPTE 259M)
  - ASI/DVB
- Bypass function of the reclocker for non-standard frequencies
- Flexible choice of IO standards through use of SFP modules
  - Flexible output choice with BPH38. Options; 2x fiber, 2x CVBS, 2x SDI outputs or 1x HDMI output
  - Flexible input choice with BPH39. Options; fiber, CVBS or SDI or HDMI input

Applications

- dual channel SD DA
- 1 to 16 or 1 to 6 generic wideband SD DA
- ASI/DVB distribution

Ordering information

Module:

- **SDR216-I/O:** SD-SDI dual reclocking distribution amplifiers

Standard I/O:

- **BPH37-PANEL:** I/O-panel for SDR216
- **BPH42-PANEL:** I/O-panel for SDR216 with 2 inputs and 6 outputs on BNC

Relay bypass I/O:

- **BHX37-PANEL:** I/O-panel with relay bypass for SDR216
- **BHX42-PANEL:** I/O-panel with relay bypass for SDR216 with 2 inputs and 6 outputs on BNC

SFP I/O:

- **BPH38-PANEL:** I/O-panel for SDR216 with SFP module output options
- **BPH39-PANEL:** I/O-panel for SDR216 with SFP module input options

Specifications

Video Input

Standard	SD SDI: SMPTE259M
Number of Inputs	2
Connector	DIN1.0/2.3 or BNC (BPH42)
Equalization	Typical maximum equalized length of Belden 1694A cable: 350m at 270Mb/s
Return Loss	> 15dB

Serial Video Output

Number of Outputs	16 (configurable), 6 on BPH42
Connector	DIN1.0/2.3 or BNC (BPH42)
Signal Level	800mV nominal
DC Offset	0V ±0.5V
Rise/Fall Time	135ps nominal
Overshoot	< 10% of amplitude
Return Loss	> 15dB (typ.)
Wideband Jitter	< 0.2UI

GPI Input

Number of Inputs	2
Connector	RJ45
Type	Contact closure
Impedance	> 5 kOhms

GPI Output

Number of Outputs	2
Connector	RJ45
Type	>2.5 Volts High Level, <0.8V Low Level

Miscellaneous

Weight	Approx. 250g
Operating Temperature	0 °C to +50 °C
Dimensions	137 x 296 x 20 mm (HxWxD)

Electrical

Voltage	+24V to +30V
Power	<6 Watts