



Synapse

GDR216

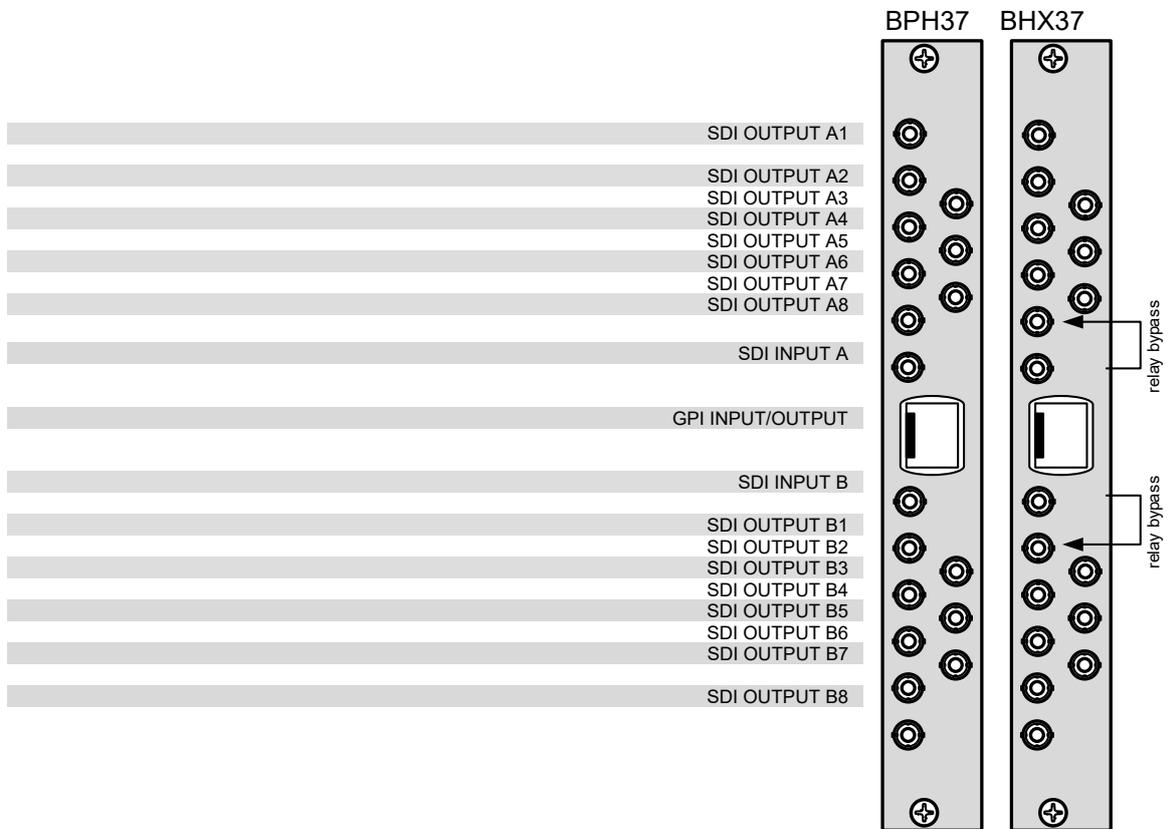
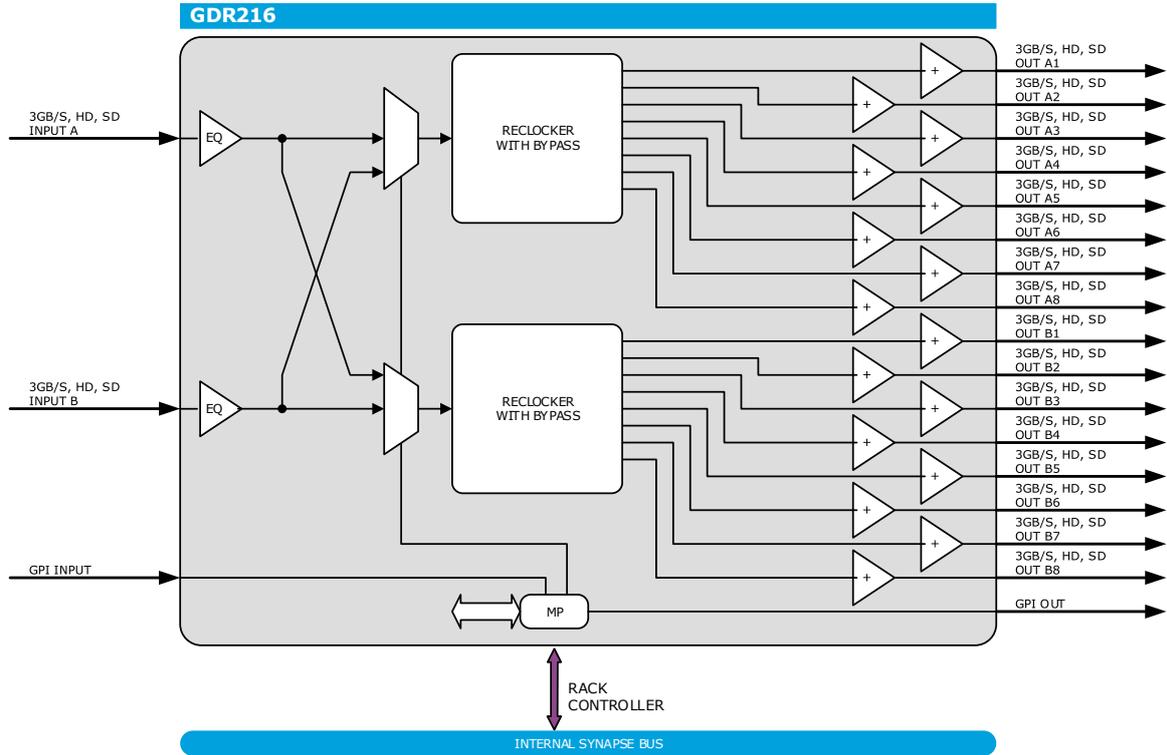
3Gb/s, HD and SD dual input distribution amplifier with 8 reclocked outputs per channel (ASI/DVB compatible)

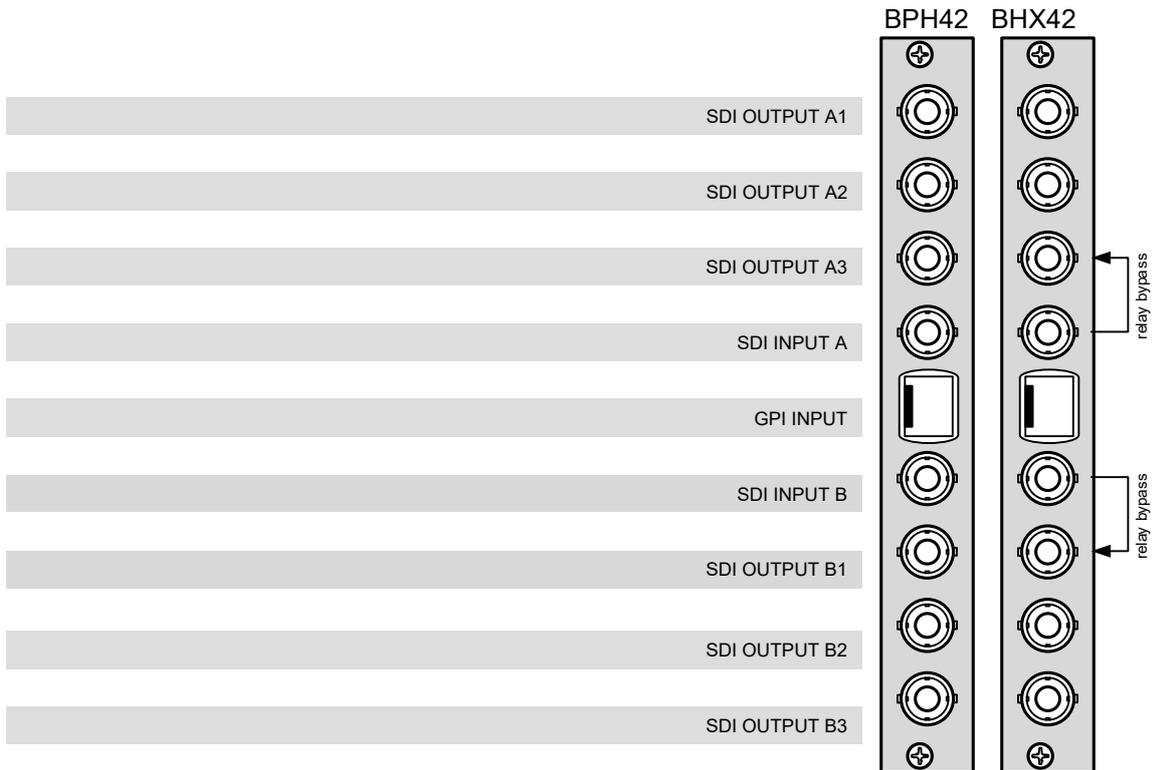
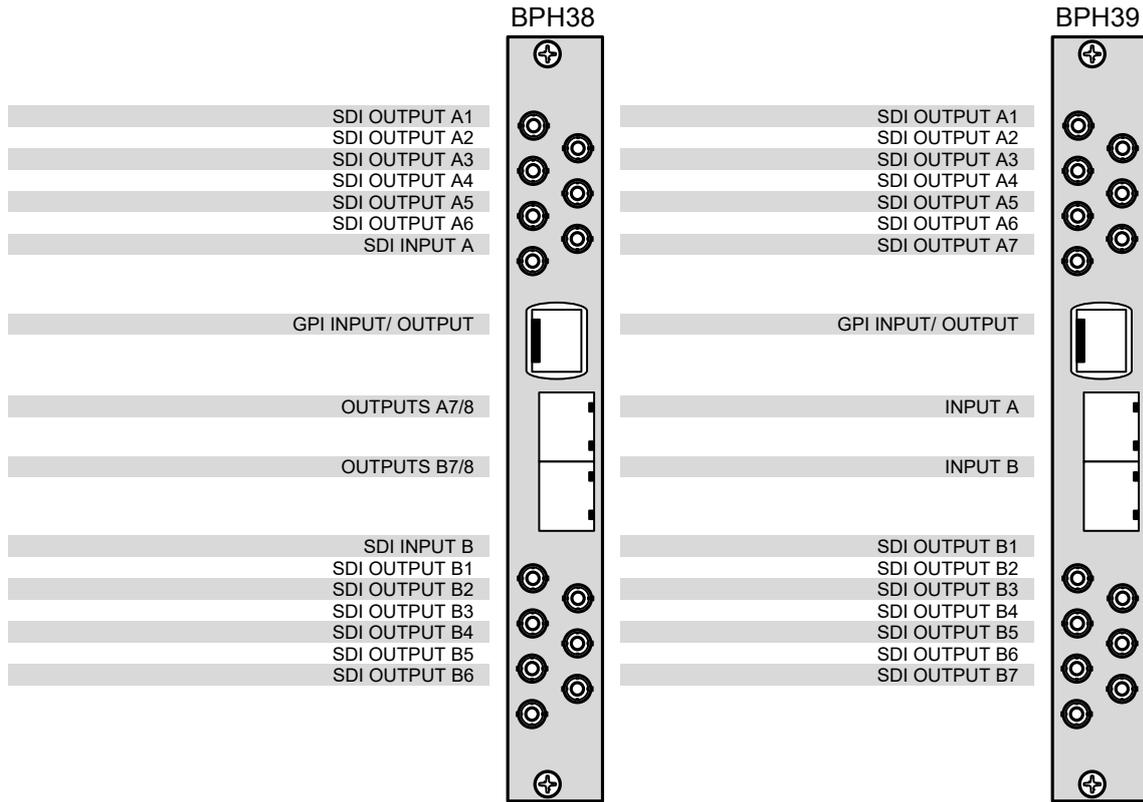
A Synapse® product



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Block Schematic & I/O panel





Features

The GDR216 is a dual channel 3Gb/s, HD, SD SDI reclocking distribution amplifier with simple switching capabilities and selectable outputs. 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)
 - HD SDI 1485 Mbit/s (SMPTE 292M)
 - 3Gb/s SDI 2970 Mbit/s (SMPTE 424M)
 - 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: 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 generic wideband 3Gb/s DA
- 1 to 16 or 1 to 6 generic wideband 3Gb/s DA

Ordering information

Module:

- **GDR216-I/O:** 3Gb/s, HD, SD-SDI dual reclocking distribution amplifiers

Standard I/O:

- **BPH37-PANEL:** I/O-panel for GDR216
- **BPH42-PANEL:** I/O-panel for GDR216 with 2 inputs and 6 outputs on BNC

Relay bypass I/O:

- **BHX37-PANEL:** I/O-panel with relay bypass for GDR216
- **BHX42-PANEL:** I/O-panel with relay bypass for GDR216 with 2 inputs and 6 outputs on BNC

SFP I/O:

- **BPH38-PANEL:** I/O-panel for GDR216 with SFP module output options
- **BPH39-PANEL:** I/O-panel for GDR216 with SFP module input options

Specifications

Video Input

Standard	3Gb/s ,HD and SD SDI: SMPTE424, SMPTE259M, SMPTE 292M
Number of Inputs	2
Connector	DIN1.0/2.3 or BNC (BPH42)
Equalization	Typical maximum equalized length of Belden 1694A cable: 80m at 2.97Gb/s, 100m at 1.485Gb/s, and 190m at 270Mb/s
Return Loss	> 15dB up to 3GHz

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 \pm 0.5V
Rise/Fall Time	135ps nominal
Overshoot	< 10% of amplitude
Return Loss	> 15dB up to 1.5GHz (typ.) > 10dB up to 3GHz (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