Synapse
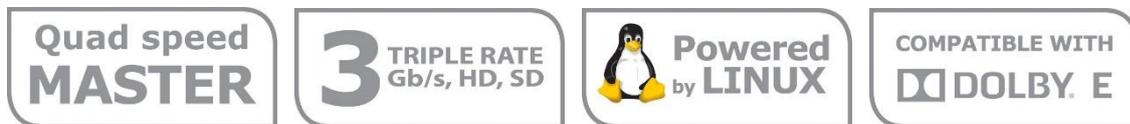
GDL200

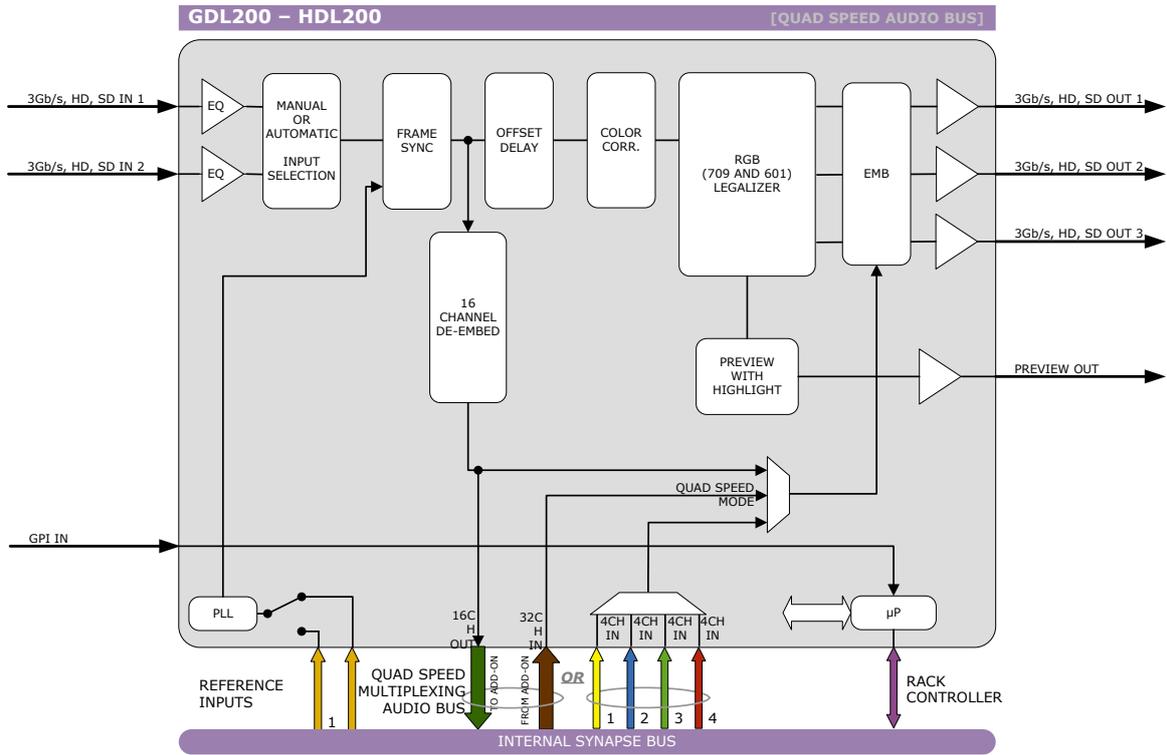**Dual input 3Gb/s and HD RGB legalizer and framesync with preview output with Quad Speed ADD-ON handling**

A Synapse® product
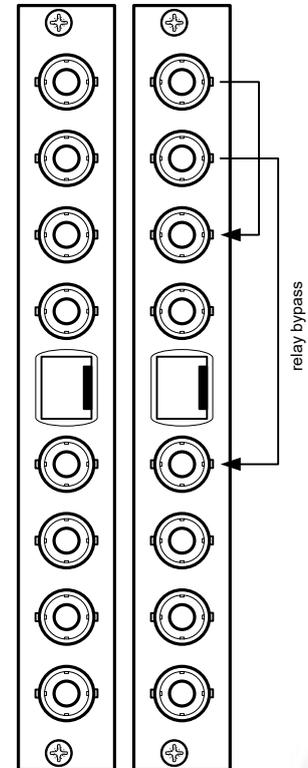
Quad speed MASTER

3 TRIPLE RATE Gb/s, HD, SD

Powered by LINUX

COMPATIBLE WITH DOLBY. E

Block Schematic & I/O panel

3Gb/s, HD, SD SDI INPUT A

3Gb/s, HD, SD SDI INPUT B

3Gb/s, HD, SD SDI LEGAL OUTPUT 1

3Gb/s, HD, SD SDI LEGAL OUTPUT 2

GPI INPUT/OUTPUT

3Gb/s, HD, SD SDI LEGAL OUTPUT 3

PREVIEW OUTPUT

BPH17 BHX17b

relay bypass

Features

The GDL200 is a dual standard legalizers for digital signals with full framesync functionality. It legalizes 3Gb/s, HD and SD SDI streams in the RGB domain within 709 color space (601 for SD).
The preview output with a highlight function that indicates the areas that are being processed. This card is also equipped with the Quad Speed audio bus which enables you to build a complete video and audio legalization ingest platform with the addition of a card of the DLA series.

- 2x 3Gb/s(Level A&B), HD or SD-SDI input (auto selecting)
- 2 input backup functions
  - Automatic by input carrier or fixed format detection
  - Manual by direct control (ACP)
  - GPI
- Frame sync/autophaser
- RGB legalization in either HD or 3Gb/s (709) or SD (601) domain
- HD is 16 channel (4 group) transparent
- Triple 3Gb/s (Level A&B), HD or SD output
- Preview output with highlighted legalization markers
- Color correction
- Compatible with the following standards:
  - 1080p 50/59.94
  - 1080i 50/59.94
  - 720p 50/59.94
  - 625/50
  - 525/59.94
- Reporting of chosen input
- CRC status information for both inputs
- Quad Speed audio bus and normal bus
- Locks to SDI input
- Full control and status monitoring through the front panel of the SFR04/SFR08/SFR18 frame and the Ethernet port (ACP)

Complementary cards:
- DIO88, DBD18, DLA41, DLA42, DLA43, DLA44

Applications

- Ingest legalizing tool for video as well as audio together with a DSF66
- Transmission legalizer for 3Gb/s, (level A&B) HD or SD signals
- Transmission legalizer with automatic back-up switching
- Tape transfer legalizer

Ordering information

Module:
- **GDL200-I/O:** Dual 3Gb/s and HD input RGB legalizer

Standard I/O:
- **BPH17-PANEL**: I/O panel for GDL200

Relay bypass I/O:
- **BHX17b-PANEL:** I/O panel for GDL200 with relay bypass

Specifications

Serial video input

Standard	3Gb/s, HD and SD SDI: 424M, SMPTE 425M (3Gb/s), SMPTE 274M, SMPTE 296M, SMPTE 259M
Number of inputs	2
Connector	BNC
Equalization	Typical maximum equalized length of Belden 1694A cable: 120m at 1.485Gb/s, and 250m at 270Mb/s
Return loss	> 15dB up to 1.5GHz

Serial video output

Number of outputs	4
Connector	BNC
Signal level	800mV nominal
DC offset	0V ±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

Reference Input through RRC

Number of inputs	2 on SFR18, 2 on SFR08 and 1 on SFR04
Tri-level	SMPTE274M, SMPTE296M
	600 mVp-p nominal, 75 Ohms terminated through loop
Bi-level	PAL Black Burst ITU624-4/SMPTE318, Composite NTSC SMPTE 170M
	1Vp-p nominal, 75 Ohms terminated through loop

Miscellaneous

Weight	Approx. 450g
Operating temperature	0 °C to +40 °C
Dimensions	137 x 296 x 20 mm (HxWxD)

Electrical

Voltage	+24V to +30V
Power	<17 Watts