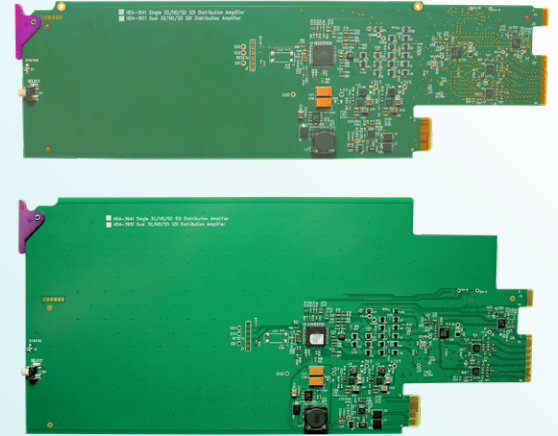


HDA-1941 HDA-3941

Single Channel 3G/HD/SD SDI Video Distribution Amplifiers



Single Channel DAs for Densité 2 and Densité 3 frames.

The HDA-1941 (for Densité® 2 series) and HDA-3941 (for Densité 3, Densité 3+ and GV Node™ series) are single channel 3G/HD/SD SDI video distribution amplifiers from Grass Valley®, designed for broadcast and production facilities. The two cards are functionally identical.

The HDA-1941/3941 DAs support a variety of compressed and uncompressed serial digital video

signals. They provide up to nine relocked outputs with automatic input equalization for up to 185 meters (656 feet) of cable using Belden 1694A at 1.5 Gb/s and up to 100 meters (328 feet) at 3 Gb/s.

Critical application protection is provided by optional bypass relays available on selected rears.

The HDA-1941 and HDA-3941 are single channel DAs, while the complementary HDA-1951 and HDA-3951 are dual channel DAs sharing the same performance quality, but with a higher density by doubling the number of DAs per slots for projects that do not require as many outputs per DA. See the HDA-1951/3951 datasheet for more information.

Key Features

- 3G/HD/SD SDI inputs
- Supports bit rates up to 2.97 Gb/s
- Automatic format detection and cable equalization
- All outputs are DVB-ASI compatible
- Up to 9 3G/HD/SD SDI outputs on the HDA-1941 (2 RU)
- Up to 9 3G/HD/SD SDI outputs on the HDA-3941 (3 RU)
- 2 RU and 3 RU versions have the same functionality and performance
- Optional bypass relay protection available

Specifications

Electrical Inputs (1 or 2)

Signal:

SMPTE ST 259-C (270 Mb/s)
 SMPTE ST 292 (1.485, 1.485/ 1.001 Gb/s)
 SMPTE ST 424 (2.970, 2.970/ 1.001 Gb/s)
 EN50 83-9 DVI-ASI (270 Mb/s)

Cable length:

350m (1312 ft.) Belden 1694A at 270 Mb/s
 185m (656 ft.) Belden 1694A at 1.485 Gb/s
 100m (328 ft.) Belden 1694A at 2.970 Gb/s

Return loss:

>15 dB up to 1.5 GHz
 >10 dB from 1.5 GHz to 3 GHz

Electrical Outputs (Up to 10)

Signal:

SMPTE ST 259-C (270 Mb/s)
 SMPTE ST 292 (1.485, 1.485/ 1.001 Gb/s)
 SMPTE ST 424 (2.970, 2.970/ 1.001 Gb/s)
 EN50 83-9 DVI-ASI (270 Mb/s, all outputs)

Return loss:

>15 dB up to 1.5 GHz
 >10 dB from 1.5 GHz to 3 GHz

Jitter (wideband): <0.2 UI p-p

Rise/fall time:

Reclocker on:

<135 ps, 20% to 80%, for HD and 3G
 400 – 800 ps, 20% to 80%, for SD

Reclocker off: <135 ps for all formats (3G, HD, SD)

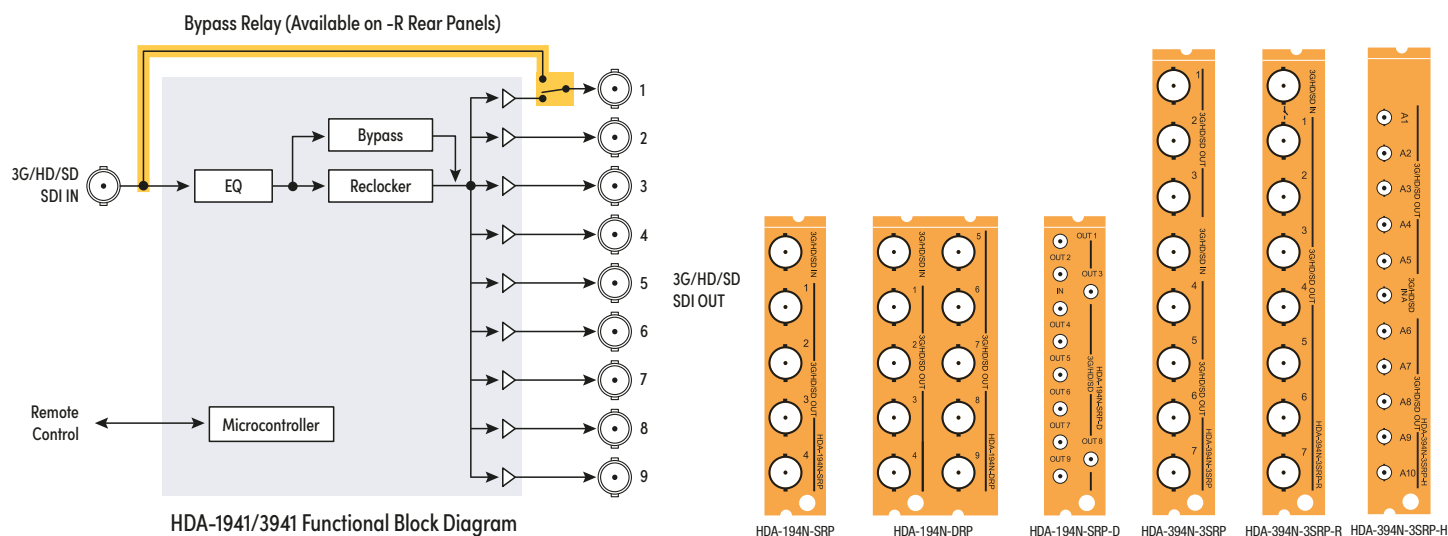
Processing Performance

Signal path: 10 bits

Processing delay: 7 ns typical

Electrical

Power: 2.4W max.



HDA-194N-SRP-D-3RU not shown.

Ordering

Densité 2 frame

HDA-1941
 HDA-194N-SRP
 HDA-194N-DRP
 HDA-194N-SRP-D

Densité 3 frame

HDA-3941
 HDA-194N-SRP-D-3RU
 HDA-394N-3SRP
 HDA-394N-3SRP-R
 HDA-394N-3SRP-H

Description

Single Channel 3G/HD/SD SDI Video Distribution Amplifiers
 Single rear for 1x4 operating mode with BNC connectors
 Double rear for 1x9 operating mode with BNC connectors
 Single rear for 1x9 operating mode with DIN connectors
 Single rear for 1x7 operating mode with BNC connectors
 Single rear for 1x7 operating mode, with bypass relay and BNC connectors
 Single rear for 1x9 operating mode with HD-BNC connectors

Remote control

GV Orbit®, iControl™, iControl Solo

This product may be protected by one or more patents. For further information, please visit: www.grassvalley.com/patents

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