

DATASHEET

HDA-1911 HDA-3911 3G/HD/SD SDI Distribution Amplifier (DA) with Optional Fiber Connectivity

Space-saving, modular platform for advanced signal distribution.

The HDA-1911 and HDA-3911 from Grass Valley® are 3G/HD/SD SDI video distribution amplifiers (DAs) that support a variety of compressed and uncompressed serial digital video signals.

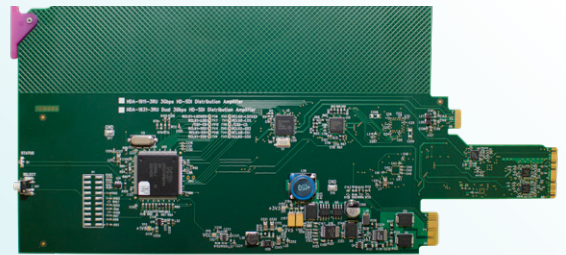
The HDA-1911 and HDA-3911 provide up to nine relocked outputs with automatic equalization for up to 200 meters (656 feet) of cable using

Belden 1694A at 1.5 Gb/s and up to 100 meters (328 feet) at 3 Gb/s.

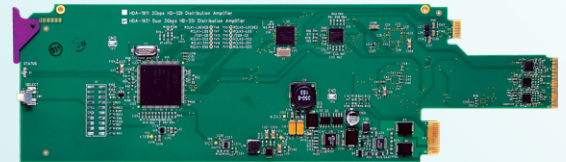
The HDA-1911 and HDA-3911 offer fiber connectivity, making it ideal for longer cable lengths. Critical applications protection is provided by a protection bypass relay available on selected rears.

The HDA-1911 and HDA-3911 share the same feature set and

specifications, except that HDA-1911 is a 2 RU card built for the Densité® 2 frame while the HDA-3911 is a 3 RU card made for the Densité 3 frame series. Each product has its specific rears as illustrated in the Key Features section and in the ordering information.



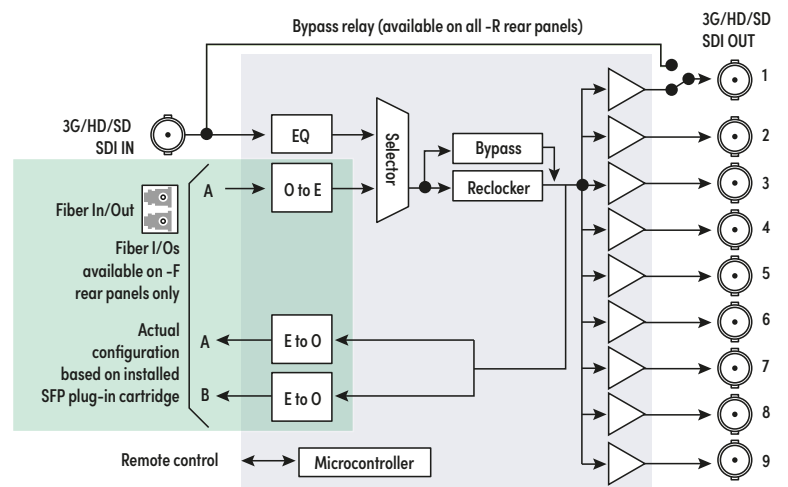
HDA-3911



HDA-1911

Key Features

- 3G/HD/SD SDI input
- Up to 9 3G/HD/SD SDI outputs
- Supports bit rates all the way up to 3 Gb/s
- Automatic format detection and cable equalization
- Optional fiber I/O



HDA-1911 / HDA-3911 Functional Block Diagram

Options Optical option: Refer to the ordering info to see different options

Specifications

Electrical Input

Signal:

3G/HD/SD SDI SMPTE ST 424, 292, and 259-C compliant

Supports data rates of 270, 1483.5, 1485, 2967, 2970 Mb/s

EN50 83-9 DVB-ASI 270 Mb/s

Cable length* (Belden 1694A):

3G: 100m (328 ft.) at 3 Gb/s

HD: 200m (656 ft.) at 1.5 Gb/s

SD: 400m (1,312 ft.) at 270 Mb/s

Return loss*:

>15 dB for up to 1.5 GHz

>10 dB from 1.5 GHz to 3 GHz

Electrical Outputs (9)

Signal:

3G/HD/SD SDI SMPTE ST 424, 292, and 259-C compliant

Supports data rates of 270, 1483.5, 1485, 2967, 2970 Mb/s

EN50 83-9 DVB-ASI 270 Mb/s (5 outputs only)

Return loss:

>15 dB up to 1.5 GHz

>10 dB from 1.5 GHz to 3 GHz

Jitter (wideband):

HD/SD: <0.2 UI

3G: <0.3 UI

Rise/fall time:

135 ps max., 20% to 80%, for HD

400 – 800 ps, 20% to 80%, for SD

Processing Performance

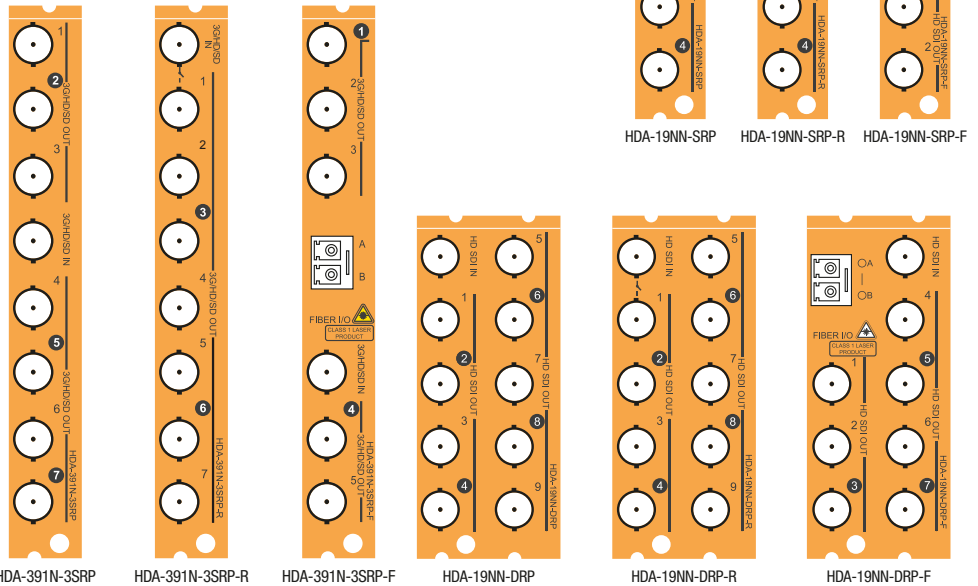
Signal path: 10 bits

Latency: <6 ns

Electrical

Power: 5W

* Cable length and return loss specifications will be reduced when using the output protected by the bypass relay on HDA-19NN-SRP-R, HDA-19NN-DRP-R rears and HDA-391N-3SRP-R. Refer to the manual for more details.



Note: Numbered outputs marked with black circles are not suitable for DVB-ASI distribution.

Ordering

Densité 2 frame	Densité 3 frame	Description	Densité 2 frame	Densité 3 frame	Description
HDA-1911	HDA-3911	3G/HD/SD distribution amplifier with EQ and reclocking		HDA-391N-3SRP-F	Single rear connector panel for single 1x5 operation mode with fiber option support
HDA-19NN-SRP		Single rear connector panel to be used in single 1x4 operation mode		HDA-391N-3SRP-R	Single rear connector panel for single 1x7 operation mode with bypass protection relay
HDA-19NN-SRP-R		Single rear connector panel to be used in single 1x4 operation mode with bypass protection relay	Fiber options		
HDA-19NN-SRP-F		Single rear connector panel to be used in single 1x2 operation mode with fiber option support	SFP-R-LC		Single fiber RX (input) cartridge with LC/PC connector
HDA-19NN-DRP		Double rear connector panel to be used in single 1x9 operation mode	SFP-T-S13-LC		Single fiber TX (output) cartridge at 1310 nm with LC/PC connector
HDA-19NN-DRP-R	HDA-19NN-DRP-R-3RU	Double rear connector panel to be used in single 1x9 operation mode with bypass protection relay	SFP-RT-S13-LC		Dual fiber Rx/Tx (input/output) cartridge 1310 nm with LC/PC connector
HDA-19NN-DRP-F	HDA-19NN-DRP-F-3RU	Double rear connector panel to be used in single 1x7 operation mode with fiber option support			
	HDA-391N-3SRP	Single rear connector panel to be used in single 1x7 operation mode			

Note: This product can also make use of SFP Optical Plug-in Cartridges from the WDM and CWDM series. Other types of SFP Optical Plug-In Cartridges may be available for this product.

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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