

## FLASHLINK

DA-3GHD-8-PL / DA-3GHD-8

# Multi Rate 3G/HD-SDI distribution amplifier with passive loop-through

### Sports event



3G-SDI  
HD-SDI  
SD-SDI  
DVB-ASI

DA-3GHD-8-PL

### Broadcast facility



3G-SDI  
HD-SDI  
SD-SDI  
DVB-ASI

## Application overview

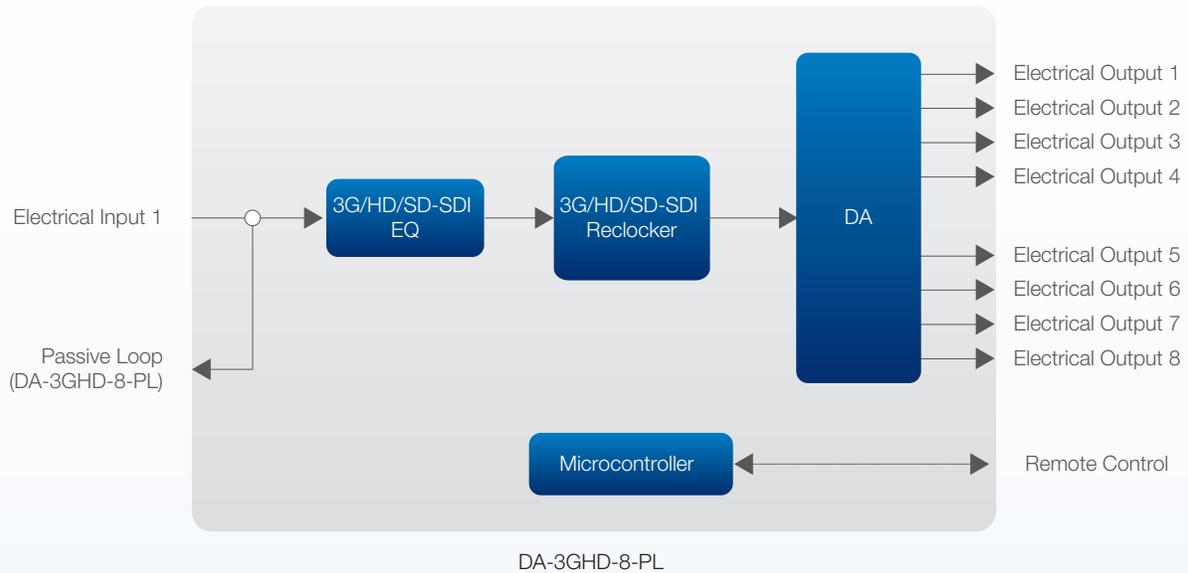
The Flashlink DA-3GHD-8-PL / DA-3GHD-8 are multi bit-rate distribution amplifiers that provide high performance media distribution for signal formats from 19.4Mbps to 2970Mbps in studio and broadcast applications. These units are automatically configurable for cable equalizing and reclocking of DVB-ASI, SD/HD/3G-SDI signal formats.

The DA-3GHD-8-PL module features a passive loop-thru function that enables cascading of several units. One module can be hot-swapped without affecting other modules in the cascade.

The DA-3GHD-8 is the non-looped version with improved cable equalization.

## Key features

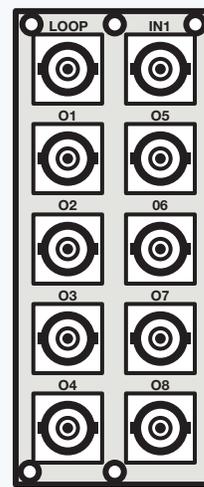
-  1 x 8 distribution amplifier
-  ASI support on all outputs
-  Passive loop-through on backplane (DA-3GHD-8-PL)
-  On board LED for status
-  On board DIP for configuration



The Flashlink DA-3GHD-8-PL and DA-3GHD-8 are multi bit-rate distribution amplifier modules providing high performance media distribution for various signal formats from 19.4Mbps up to 2970Mbps. These units can be configured to do cable equalizing and reclocking of SMPTE 424M, SMPTE 292 and SMPTE 259M signal formats.

Both modules provide 8 reclocked non-inverting outputs, and the DA-3GHD-8-PL also provides a passive loop-through output. The passive loop-through output facilitates distribution of the source signal to multiple cards without corruption due to powerdown or removal of cards. The passive loop-through output must be terminated into 75 Ohm, either by connecting it to a subsequent DA-3GHD-8-PL, or by attaching a 75 Ohm BNC terminator.

Both modules will detect HD and SD rates and automatically switch to correct output slew-rate. The reclocker supports the bit-rates 270Mbps, 1483.5Mbps, 1485Mbps, 2967Mbps and 2970Mbps. For other rates the reclocker can automatically switch to bypass mode and the DA-3GHD-8-PL / DA-3GHD-8 will work as a non-reclocking distribution amplifier with cable equalizer. The DA-3GHD-8-PL / DA-3GHD-8 also support reclocking of DVB-ASI at 270Mbps, enabling all possible rates including empty transport streams with only K28.5 padding packets. All 8 outputs (and the passive loop-through output) are non-inverting and suitable for DVB-ASI.



DA-3GHD-8-PL

# Specifications

## General

Power	+5V / 1.4W
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## Supported standards

SD-SDI	SMPTE-259M
HD-SDI	SMPTE-292M
3G-SDI	SMPTE-424M
SD-SDTI	SMPTE-305M
MPEG-2	SMPTE-310M
ATSC	SMPTE-310M
DVB-ASI	EN50083-9

## Electrical input

Number of inputs	1
Connectors	75 Ohm BNC
Input return loss	< -15dB, 5MHz - 1.5GHz < -10dB, 1.5GHz - 3GHz
Jitter tolerance	
SD limit	10Hz – 10kHz: >1 UI 10kHz – 10MHz: >0.2 UI
HD limit	10Hz – 100kHz: >1 UI 100kHz – 150MHz: >0.2 UI
3G HD limit	10Hz – 100kHz: >2 UI 100kHz – 300MHz: >0.3 UI

Cable equalization	Automatic
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### DA-3GHD-8-PL version, 2 cards looped

3G-SDI	25m Belden 1694A
HD-SDI	50m Belden 1694A
SD-SDI	200m Belden 8281

### DA-3GHD-8 version

3G-SDI	70m Belden 1694A
HD-SDI	150m Belden 1694A
SD-SDI	300m Belden 8281

## Electrical SDI output

Number of outputs	8 reclocked 1 passive loop-through (-PL version)
Connectors	75 Ohm BNC
Output return loss	< -15dB, 5MHz - 1.5GHz < -10dB, 1.5GHz - 3GHz
Output signal level	800mV +/- 10%
Output signal rise / fall time 20% – 80%	
SD limit	(0.4ns – 1.5ns); <0.5ns rise/fall var.
HD limit	< 270ps, <100ps rise/fall var.
3G HD limit	<135ps, <50ps rise/fall var.
Amplitude overshoot	<10%
Polarity	All outputs are non-inverting
Output timing jitter	SD: <0.2 UI HD: <1 UI 3G HD: <1UI
Output alignment jitter	SD: <0.15 UI HD: <0.15 UI 3G HD: <0.2UI

## Ordering options

19707	3GHD-SDI 1 x 8 DA with passive loop-thru
DA-3GHD-8-PL	
20079	3GHD-SDI 1x8 DA
DA-3GHD-8	



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