MultiDyne®
Video & Fiber Optic Systems

MDoG-6002-DA-1X8-12G

1x8/2x4 12G-SDI Reclocking Distribution Amplifier

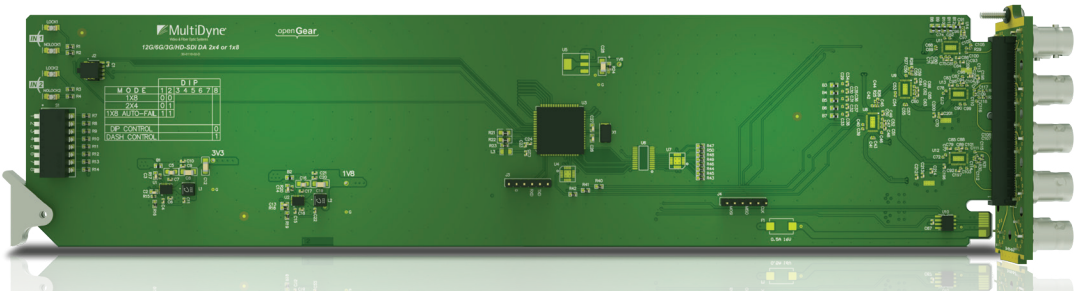
FEATURES

- ▷ 12G-SDI 1x8 or dual input 2x4 operation
- ▷ Recover 12G-SDI input signals with cable runs up to 50M
- ▷ A/B failover mode capable in event of signal loss
- ▷ Several rear module options with full size BNC connectors accommodate one or two cards
- ▷ Relay bypass option for signal continuity in event of power failure or card removal
- ▷ HD-BNC rear module option for maximum density 1x7 or 1x4/1x3 operation allows up to 20 cards per frame with up to 40 inputs & 140 outputs in 2 RU
- ▷ Remote control monitoring via DashBoard™ software
- ▷ Hot-swap capable

APPLICATIONS

- ▷ Inter-facility Signal Distribution
- ▷ QC Monitoring
- ▷ Split Feeds
- ▷ OB Inter-connects Transmission

MDoG-6002-DA-1X8-12G 1x8 / 2x4 12G-SDI Distribution Amplifier with A/B Failover Feature



The MDoG-6002 is a 12G-SDI Reclocking Distribution Amplifier designed for the award winning openGear platform. The unit can be configured as a 1x8 or dual input 2x4 operation.

The MD0G-6002 utilizes adaptive cable equalization and automatic reclocking to reliably recover 12G-SDI input signals with cable runs up to 50M in length.

When using the MDoG-6002 with dual inputs the unit can operate in A/B failover mode. This provides the ability to switch between a primary and backup signal in the event of signal loss.

For mission critical signals, combine the A/B failover mode with the relay bypass rear module for added protection. In the case of power failure to the frame or the card has been pulled from the front the unit will route either input 1 or 2 to the relay bypass output. This will provide continuity to downstream equipment.

There are several rear module options with full size BNCs to accommodate one or two cards, as well as a relay bypass option.

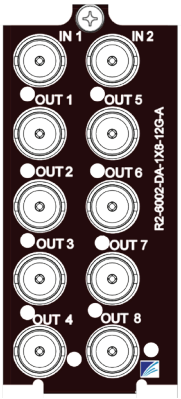
For applications with higher density and channel counts an HD-BNC rear module accommodates 2 cards. Each card can operate as 1x7 or 1x4/1x3. This allows for up to 20 cards per frame with up to 40 inputs and 140 outputs in 2 RU.

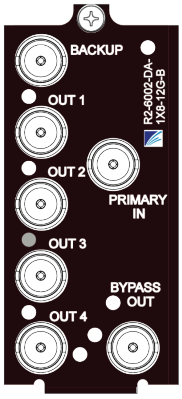
The MDoG-6002 uses openGear Dashboard for remote control and monitoring as well as firmware upgrades.

REAR MODULES

R2-6002-DA-1X8-12G-A

- Occupies 2 slots of a standard 20 slot openGear Frame
- Provides I/O for a single MDoG-6002 card
- 1x8 or dual 1x4 operation
- Full sized BNC connectors
- Auto Failover feature when using 2 inputs



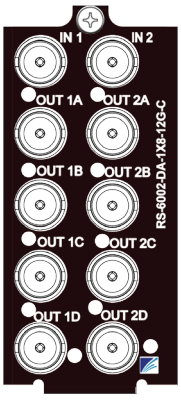


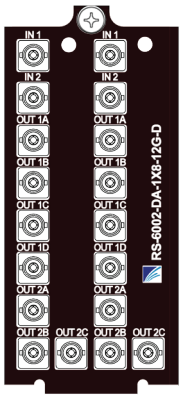
R2-6002-DA-1X8-12G-B

- Occupies 2 slots of a standard 20 slot openGear Frame
- Full sized BNC connectors
- Provides Primary and Backup Auto-Changeover
- Provides relay switched output in the event of power loss or card removal from the frame

RS-6002-DA-1X8-12G-C

- Occupies 2 slots of a standard 20 slot openGear Frame
- Full sized BNC connectors
- Split rear module provides I/O for two MDoG-6002 cards
- 1x4 operation per card





RS-6002-DA-1X8-12G-D

- Occupies 2 slots of a standard 20 slot openGear Frame
- Split rear module provides I/O for two MDoG-6002 cards
- HD-BNC connectors for maximum density
- 1x7 or 1x4/1x3 operation for each card.
- Auto Failover feature when using 2 inputs

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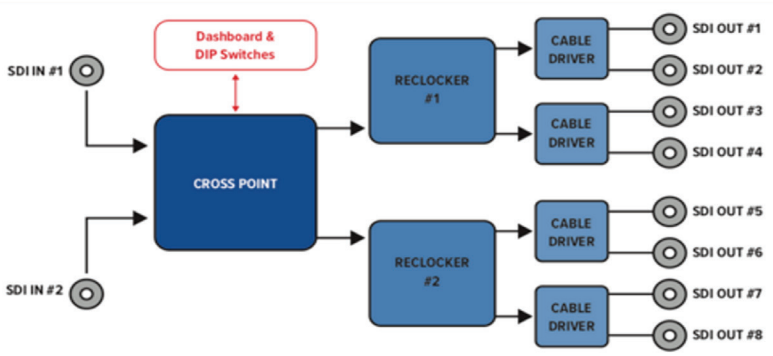
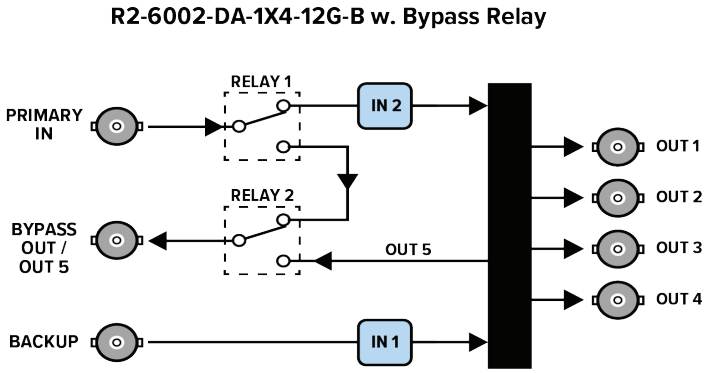
1x8/2x4 12G-SDI Reclocking Distribution Amplifier

BLOCK DIAGRAM



REAR MODULE B DIAGRAM



TECHNICAL SPECIFICATIONS

Electrical

Power	6W
Temperature	0 – +45° C

SD/HD/3G/6G/12G-SDI Input

Bit Rates	1Mbps to 12Gbps
Impedance	75 Ohms
SMPTE Standards	ST259, ST292, ST297, ST424, ST2081-1, ST2082-1
Return Loss	<-15dB 5MHz – 1.485Ghz <-10dB 1.485GHz – 3GHz <-7dB 3GHz – 6GHz <-4dB 6GHz – 12GHz
Inputs	1 or 2 BNC
Cable EQ Length (4855R)	20m for Rear Modules A,C,D 15m for Rear Module B.
Cable EQ Length (4694R)	40m for Rear Modules A,C,D 25m for Rear Module B

SD/HD/3G/6G/12G-SDI Output

Output	1x8 or 2x4 modes
Impedance	75 Ohms
Signal Level	800mV ±10%
Return Loss	<-15dB 5MHz – 1.485Ghz <-10dB 1.485GHz – 3GHz <-7dB 3GHz – 6GHz <-4dB 6GHz – 12GHz
JitterA	UHD <0.2UI
JitterT	UHD <2UI
Rise/Fall Time	<45ps

**Note: Some Inputs / Outputs are a function of rear I/O Module used*

ORDERING INFORMATION

FRAME OPTIONS	
MDoG-6002-DA-1X8-12G	1x8/2x4 12G-SDI Reclocking Distribution Amplifier with A/B Failover Feature
R2-6002-DA-1X8-12G-A	Standard-Width Rear Module for MDoG-6002-DA-1x8-12G Distribution Amplifiers with Full Size BNCs
R2-6002-DA-1X8-12G-B	Standard-Width Rear Module for MDoG-6002-DA-1x8-12G Distribution Amplifiers with Full Size BNCs and Passive Bypass Relay Protection
RS-6002-DA-1X8-12G-C	Split Rear Module for MDoG-6002-DA-1x8-12G Distribution Amplifiers with Full Size BNCs
RS-6002-DA-1X8-12G-D	Split Rear Module for MDoG-6002-DA-1x8-12G Distribution Amplifiers with HD-BNCs

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