

12G SDI Distribution Amplifier

with 12G Single Link <=> Quad Link (2SI) and Optical/Electrical Interfaces

Description

The DVD 5480 HO module is a high performance 12G SDI distribution amplifier with 12G Single Link <=> Quad Link (2SI) conversion on optical and electrical interfaces. This module can be used in various applications depending on user settings:

1. 12G SDI Distribution amplifier
2. 12G SDI Single Link to Quad Link (2SI) converter (Demux)
3. Quad Link (2SI) to 12G SDI Single Link Converter (Mux)
4. 8K SDI <=> Fiber converter

DVD 5840 HO is ideally suited for demanding high quality broadcast and professional video applications.

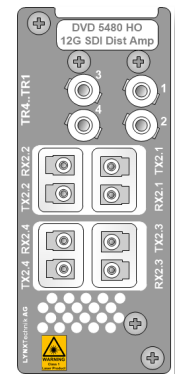
The module provides four 12G SDI optical inputs and four 12G

SDI optical outputs in four pairs of optical TR slots (Transmitter/ Receiver, SFPs optional). In addition, four bi-directional electrical inputs/outputs (signal flow direction can be set by the user) on High Density MicroBNCs are available for optical<->electrical conversion.

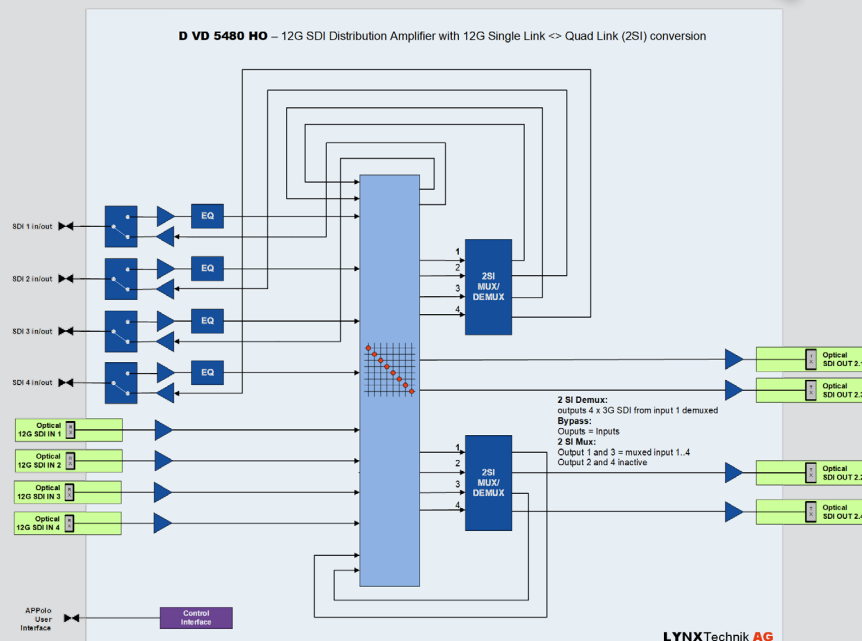
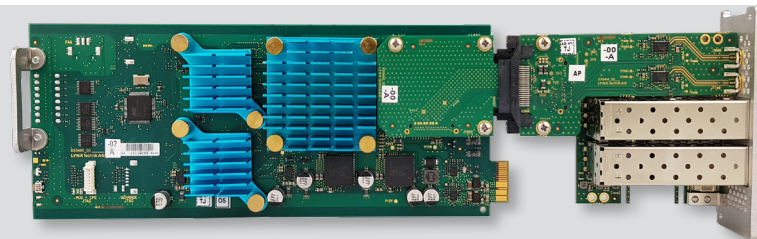
DVD 5480 HO is part of the 5000 series of CardModules, which offers high quality, modularity and flexibility in a small form factor ideal for applications where space is at a premium. Like other 5000 series CardModules, this module is fully integrated into LYNX APPolo Control system which provides remote control, status monitoring and error reporting for the module.

Features

- Supports four 12Gbit/s SDI Optical inputs and outputs each.
- Provides four bidirectional, electrical inputs/outputs on the high density MicroBNCs
- Different operation modes:
 - o 12G SDI single Link Input signal can be demultiplexed to quad link (2SI; 4x3G SDI)
 - o Quad Link (2SI) signal can be multiplexed to 12G SDI Single Link
 - o 12G SDI optical signal can be distributed to four optical outputs and four electrical outputs
 - o Mixtures between the different operation modes
- Input presence detection with LED indication
- Microprocessor controlled with internal flash RAM for storing configuration
- Remote control, status monitoring and error reporting when used with Lynx APPolo Control system
- Hot swappable

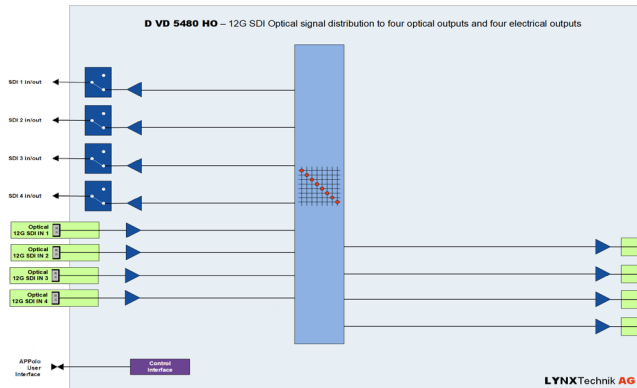


Backplane

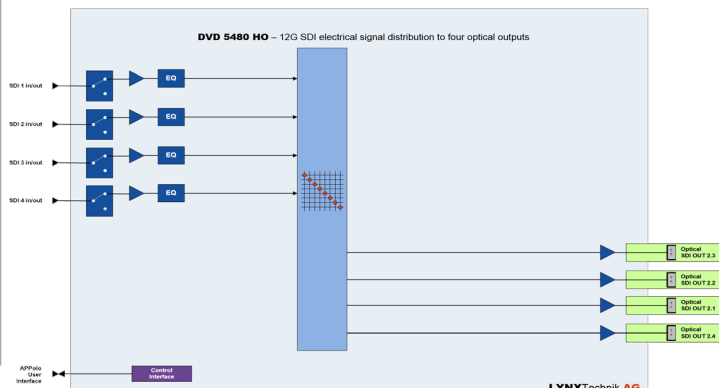


Application 1: Distribution Mode

1.1 In this mode, single or multiple 12G SDI optical signals are distributed to four optical and four electrical outputs. This mode also supports fiber to 8K SDI (Quad link) conversion.

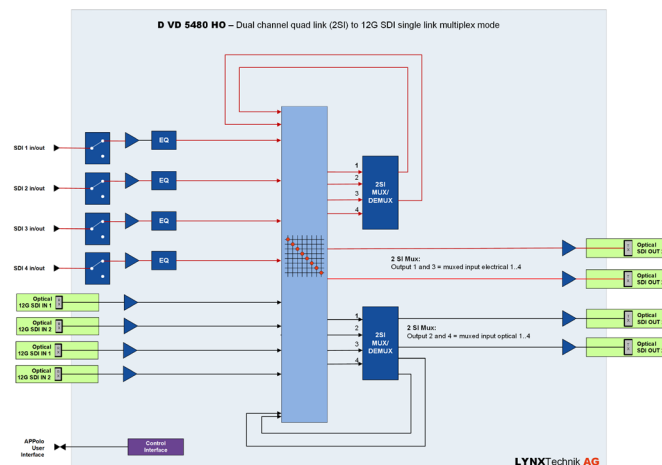


1.2 In this mode, single or multiple 12G SDI electrical signals are distributed to four optical outputs. This mode also supports 8k SDI (Quad link) to fiber conversion.



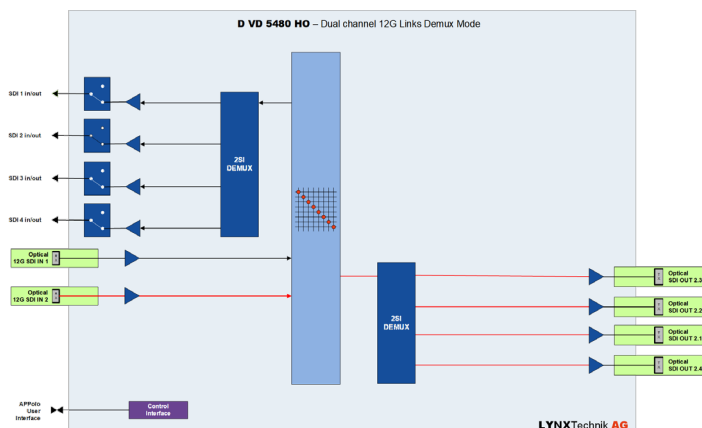
Application 2: Dual Channel Mux Mode

In this mode, dual quad link (2SI) signals over an electrical and optical inputs are multiplexed to two 12G SDI Single Link optical outputs.

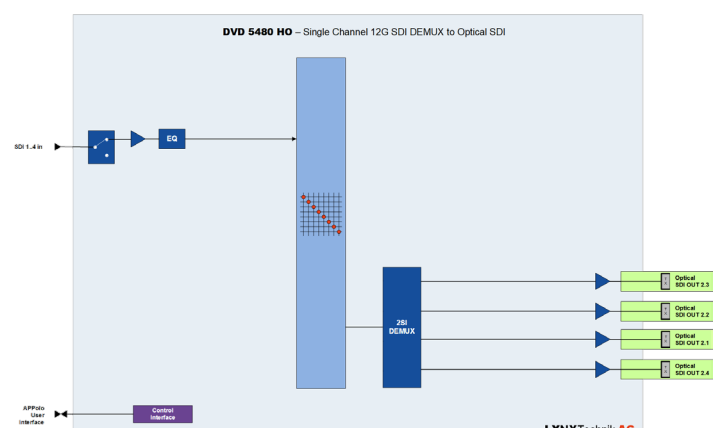


Application 3: Demux mode

3.1 In this mode, dual 12G SDI optical signals are demultiplexed to quad link (2SI) Optical and quad link (2SI) electrical outputs.



3.2 In this mode, a single 12G SDI electrical signal is demultiplexed to quad link (2SI) Optical outputs.



DVD 5480 HO

12G / 3G / HD

fiber

12G

SERIES 5000

12G SDI Distribution Amplifier

with 12G Single Link <=> Quad Link (2SI) and Optical/Electrical Interfaces

CardModules

Specifications

Video Input (Fiber) - Optional

Signal type	SMPTE 297M-2006 SMPTE 292M, 424M, 2082-1
Supported formats	SDI formats up to 12Gbit/s* (see table)
No. of inputs	4 x Receiver (OH-TR-12G-LC or OH-RX-12G-LC)
Connector	LC/PC (single mode)
Wavelength	1260nm – 1620nm (-14dBm sensitivity)

Video Input (microBNC)

Signal Type	SMPTE 292M, 424M, 2082-1
No. of inputs	4 x bi-directional microBNC port
Return Loss	>4dB upto 12 Gbit/s

Video Outputs (Fiber) - Optional

Signal Type	SMPTE 297M-2006 SMPTE 292M, 424M, 259M, 2082-1
No. of outputs	4 x Transmitter (OH-TR-12G-LC or OH-TX-12G-LC)
Connector	LC/PC (single mode transmit/receive – duplex connection)
Wavelength	Standard: 1310nm (non-CWDM)
Transmission power	Standard: 1310nm (non-CWDM): -5dBm typ.

Video Outputs (MicroBNC)

Signal Type	SMPTE 292M, 424M, 2082-1
No. of outputs	4 x bi-directional microBNC port
Connector	LC/PC (single mode transmit/receive – duplex connection)
Return Loss	>4dB upto 12 Gbit/s

Performance

2SI Demux	Two Converters for 12G SDI Single Link to Quad Link (2SI) Conversion or Quad Link (2SI) to 12G SDI Single Link can be activated
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Electrical Specifications

Operating voltage	+12 VDC
Power consumption	18W including optional Fiber SFPs
Safety	IEC 60950/ EN 60950/VDE 0805

Mechanical

Size	283mm x 78mm
Weight	CardModule 120g, connector plate 100g

Ambient*

Temperature	5°C to 40°C (41°F - 104°F) maintaining specifications
Humidity	90% maximum, non-condensing

*It is strongly recommended to operate DVD 5480 HO in a Series 5000 Rack with front panel fans and to keep the front panel closed during operation. This will avoid any signal error caused due to overheating in DVD 5480 HO.

Note: A maximum of 8 DVD 5480 HO cards can be installed in RFR 5018 rack frame due to the fan unit present at the bottom of slots 1 & 2.

Settings and Control

Control

Remote control	Full remote control and status monitoring supported with the APPolo control system Supported Version: APPolo 8.10.0 or above
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On Board Indicators / LEDs

Input Port status	8 x LED
Master status	1 x LED
Power status	1 x LED

Supported Video Standards

Bits / color	10 Bit / 4:2:2 (Y,Cr,Cb)
Formats : 1.5 Gbit	720p / 60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98 Hz 1080i / 60 / 59.94 / 50 Hz 1080p / 30 / 29.97 / 25 / 24 / 23.98 Hz 1080psF / 25 / 24 / 23.98 Hz
Formats : 3.0 Gbit	1080p / 60 / 59.94 / 50 Hz (Level A)
Formats : 12.0 Gbit	2160p / 60 / 59.94 / 50 Hz

SFP Module Selection

Model #	TX Power (dBm)	RX Sensitivity (dBm)	EAN #
SDI Fiber Transceiver Options			
OH-TR-12G-LC	-5	-10	4250479325029
CWDM SDI Fiber Transceiver Options			
OH-TR-12G-1270-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326552
OH-TR-12G-1290-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326569
OH-TR-12G-1310-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326576
OH-TR-12G-1330-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326583
OH-TR-12G-1350-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326682
OH-TR-12G-1370-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326699
OH-TR-12G-1390-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326705
OH-TR-12G-1410-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326712
OH-TR-12G-1430-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326729
OH-TR-12G-1450-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326736
OH-TR-12G-1470-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326743
OH-TR-12G-1490-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326750
OH-TR-12G-1510-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326767
OH-TR-12G-1530-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326774
OH-TR-12G-1550-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326781
OH-TR-12G-1570-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326798
OH-TR-12G-1590-LC	-2...+3	-10 (6G,12G) -14 (1.5G,3G)	4250479326804

There are more fiber options available. Please contact our dealers for more information.

Ordering Information

Model #	Description	Includes
DVD 5480 HO	12G SDI Distribution Amplifier with 12G Single Link <=> Quad Link (2SI) and optical/electrical interfaces	CardModule, Rear Termination Panel and Mounting Screws **Reference Manual can be found on www.lynx-technik.com

Specifications subject to change