# Series | 5000®

## Terminal Equipment

LYNXTechnik® | Broadcast Television Equipment

Series 5000 Catalog 2024/4

Series 5000 Rev 3.1

# Series | 5000®

The **Series | 5000** hardware is unique in terms of features, reliability, and dependability. **Series | 5000** is a tried and tested solution for mission critical applications where dependability and quality counts, trusted by broadcasters worldwide for over 15 years.

We provide a broad spectrum of modules spanning all applications, from simple analog video and audio solutions to multiplexed fiber transport systems capable of moving over 54Gbit of real time bi-directional video data over a single fiber link.

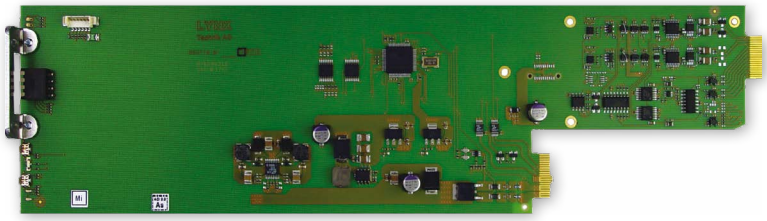
All of the LYNX Technik products are designed and manufactured in Germany to the highest quality standards. Through extensive use of programmable FPGA technology, modules can be easily upgraded with the latest new features, future proofing your investment.

Our rack frames are solid, high quality, and use only the highest rated materials. We use non-magnetic stainless steel construction for strength and full safety and emissions compliance.

# Table of Content

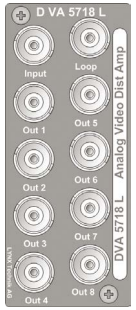
# DVA 5718 L

## 1×8 Analog Video / Sync Distribution Amplifier



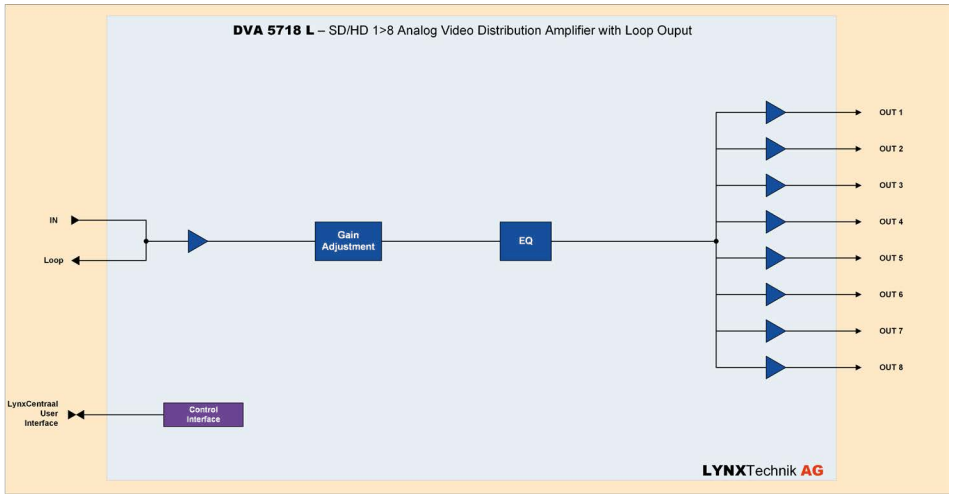
### Features

- High quality 1×8 video distribution
- Wide band amplifier for both SD and HD analog video
- Also use as sync DA, for tri-level and Bi-level sync
- Passive loop through input
- Signal presence detection
- Adjustable video gain
- Adjustable Cable equalization
- Selectable input clamp. (via control system)
- Selectable AC or DC coupled inputs (via control system)
- Microprocessor controlled with internal flash ram for storing configuration.
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable



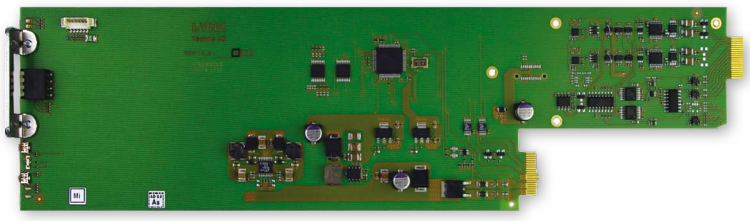

### Ordering Information

| Model # | Description |
|---|---|
| DVA 5718 L | 1×8 Analog Video / Sync Distribution Amplifier |



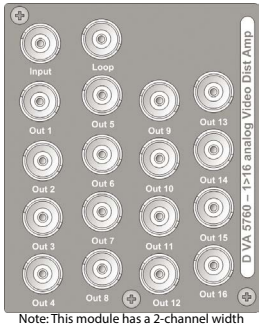

# DVA 5760 L

## 1×16 Analog Video / Sync Distribution Amplifier



### Features

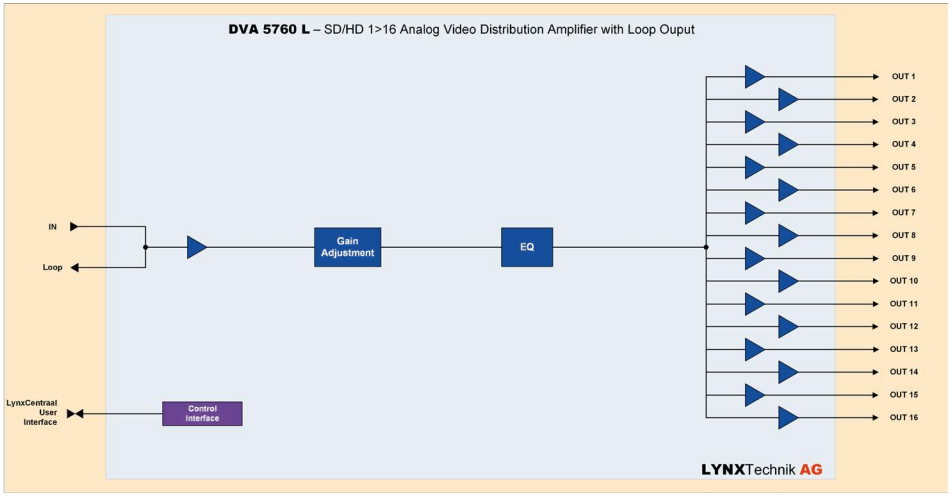
- High quality 1×16 distribution amplifier
- 30MHz wide band distribution amplifier for both SD and HD analog video
- Supports SD bi-level and HD tri-level analog sync
- Passive input loop through
- Signal presence detection
- Adjustable video gain
- Adjustable cable equalization
- Selectable input clamp (via control system)
- Selectable AC or DC coupled differential inputs (via control system)
- Microprocessor controlled with internal flash ram for storing settings
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable




Note: This module has a 2-channel width panel and will occupy two rack card slots.

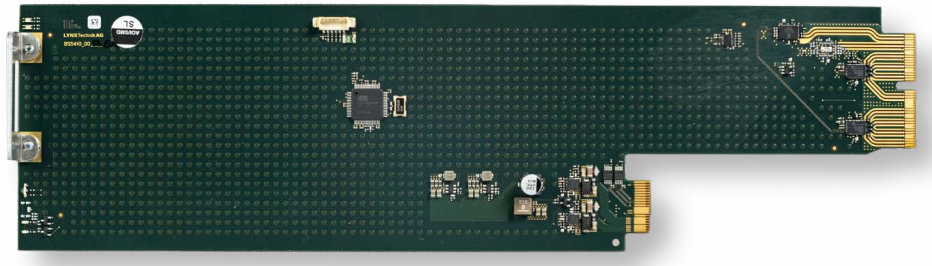
### Ordering Information

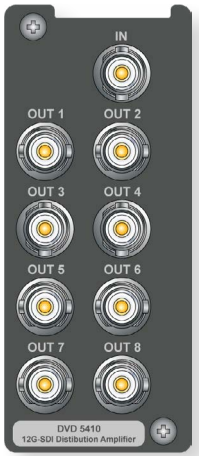
| Model # | Description |
|---|---|
| DVA 5760 L | 1×16 Analog Video / Sync Distribution Amplifier |



# DVD 5410

## 12G-SDI 1×8 Distribution Amplifier






## Features

- Supports all SDI video formats
- Fixed 1×8 distribution mode
- Reclocking or non-reclocking mode (selectable)
- Auto-detect input video standard
- Transparently pass data between 15Mbit/s and 3Gbit/s in non re-clocked mode
- High Return Loss in 4K/UHD
- Optional power fail relay connecting input to output
- Remote control, status monitoring and error reporting with LynxCentraal
- Full SNMP support when used with master controller option
- Hot Swappable

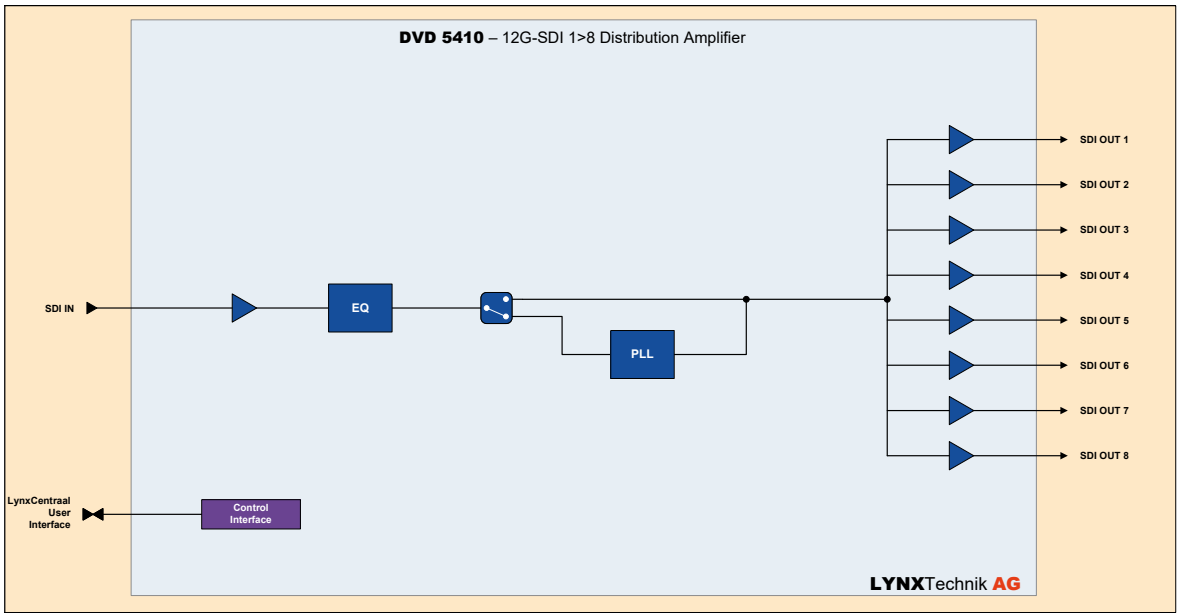
## Description

The DVD 5410 is a low cost fixed 1x8 utility distribution amplifier which can be used in a reclocking or non-reclocking mode. This module is ideally suited for demanding digital multi-format broadcast and professional applications.

The module auto-detects the input video standard with support for all SDI video formats up to 12G-SDI. In non re-clocked mode the module will transparently pass any data between 15Mbit/s and 12G-SDI.

Internal settings can be modied via LynxCentraal. The optional mechanical relay will connect the input to one of the ouptuts in the event of a power failure.

Remote control, status monitoring and error reporting is possible when using the LynxCentraal.

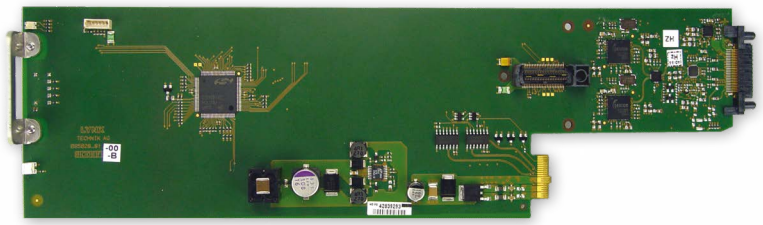



## Ordering Information

| Model # | Description |
|---|---|
| DVD 5410 | 12G-SDI 1×8 Distribution Amplifier |

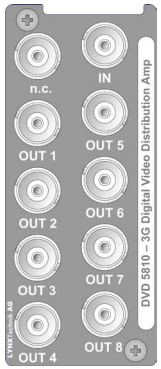
# DVD 5810

## 3G-SDI 1×8 Distribution Amplifier



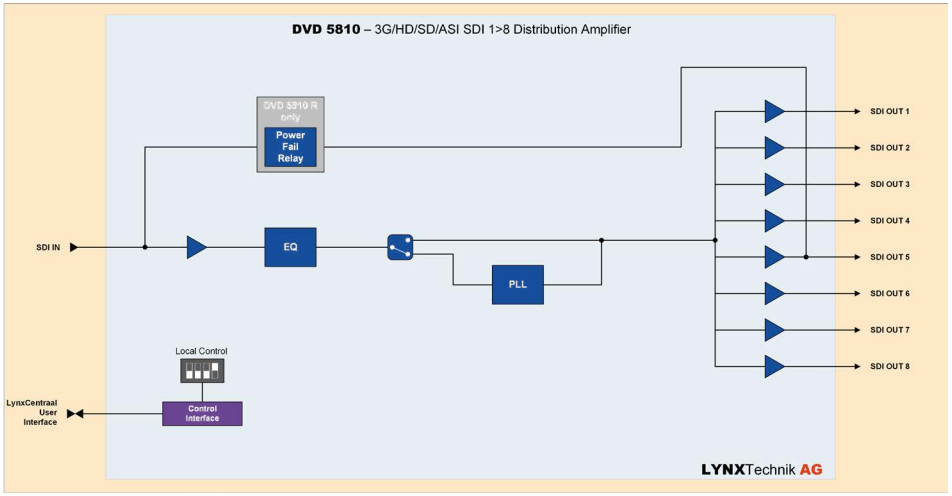
### Features

- Supports all SDI/ASI/DVB video formats
- Fixed 1×8 configuration
- Reclocking or non-reclocking mode (selectable)
- Auto-detect input video standard
- Transparently pass data between 15Mbit/s and 3G-SDI in non re-clocked mode
- Microprocessor controlled with internal flash ram for storing configuration
- Input presence detection with LED indication
- Optional power fail relay connecting input to output
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable



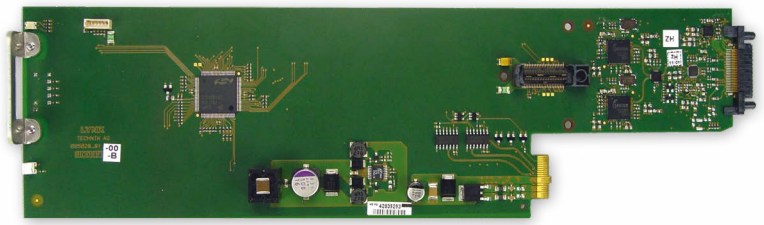

### Ordering Information

| Model # | Description |
|---|---|
| DVD 5810 | 3G-SDI 1×8 Distribution Amplifier |
| DVD 5810 R | OPTION: OH-DVD-RL2 - Mechanical Bypass Relay Option |



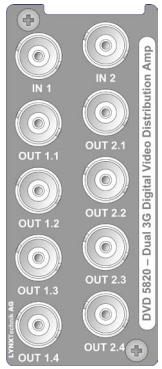

# DVD 5820

## 3G-SDI 2×4 Distribution Amplifier



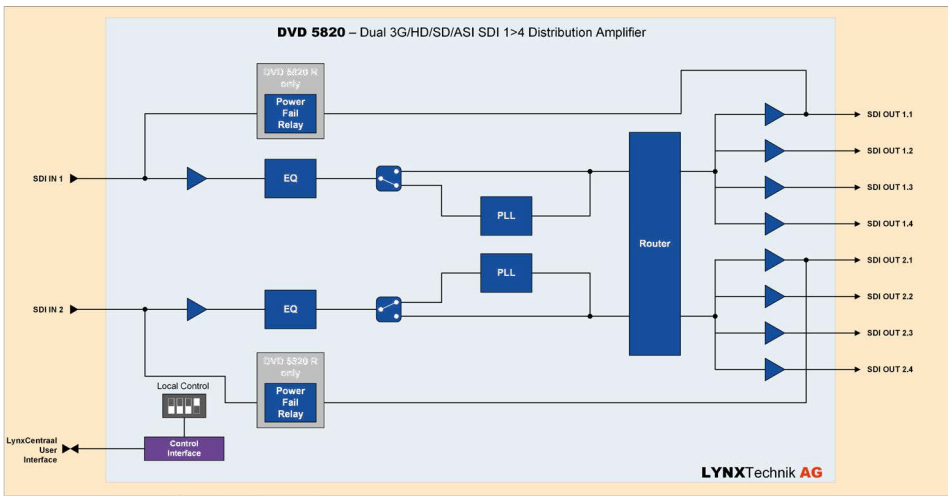
### Features

- Supports all SDI/ASI/DVB video formats
- 2-channel channel 1×4 or flexible 1×8 mapping
- Reclocking or non-reclocking mode (selectable)
- Auto-detect input video standard
- Transparently pass data between 15Mbit/s and 3G-SDI in non re-clocked mode
- Microprocessor controlled with internal flash ram for storing configuration
- Input presence detection with LED indication
- Optional power fail relay connecting input to output
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable



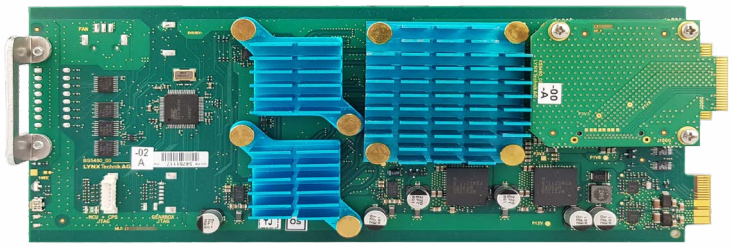

### Ordering Information

| Model # | Description |
|---|---|
| DVD 5820 | 3G-SDI 2×4 Distribution Amplifier |
| DVD 5820 R | OPTION: OH-DVD-RL2 - Mechanical Bypass Relay Option |



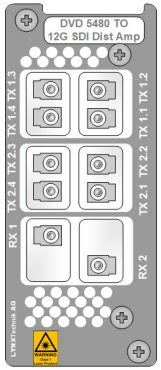
# DVD 5480 TO

## 12G-SDI 1×8 or 2×4 Fiber Distribution Amplifier



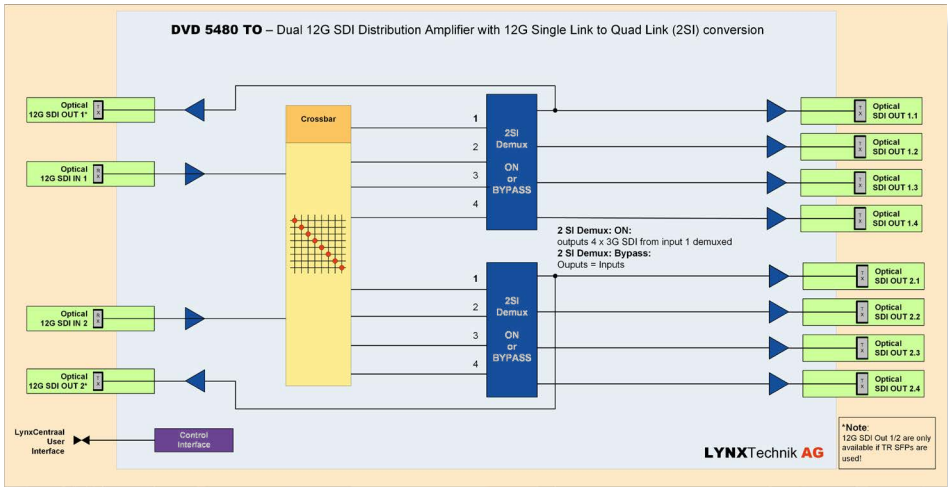
### Features

- Supports 12G-SDI on Optical inputs and outputs
- Auto-detect input video standard
- 2-channel Channel (2x 1×4 ) or Single Channel (1×8) distribution amplifier
- 12G-SDI input signals can be demultiplexed to quad link (2SI, 4×3G-SDI)
- 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 LynxCentraal control system
- Hot Swappable



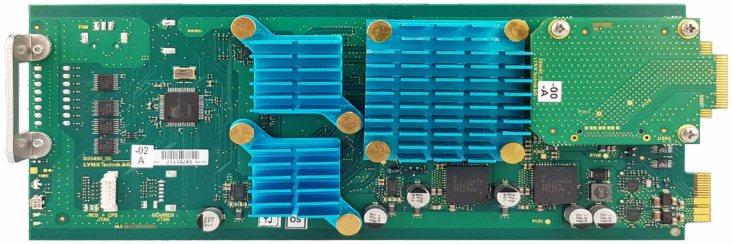

### Ordering Information

| Model # | Description |
|---|---|
| DVD 5480 TO | 12G-SDI 1×8 or 2×4 Fiber Distribution Amplifier |



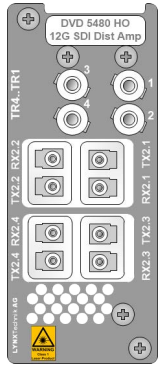

# DVD 5480 HO

## 12G-SDI 4×1, 1×4 or 2×4 Distribution Amplifier with Fiber I/O



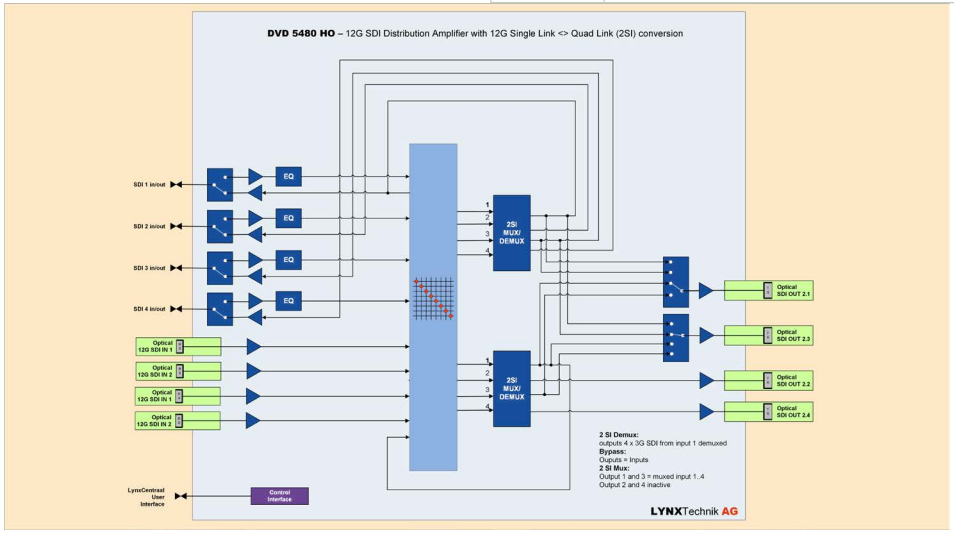
### Features

- Supports four 12G-SDI SDI Optical inputs and outputs each.
- Provides four bidirectional, electrical inputs/outputs on the high density MicroBNCs
- Different operation modes:
  - » *12G-SDI single Link Input signal can be demultiplexed to quad link (2SI; 4×3G-SDI)*
  - » *Quad Link (2SI) signal can be multiplexed to 12G-SDI Single Link*
  - » *12G-SDI optical signal can be distributed to four optical outputs and four electrical outputs*
  - » *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 LynxCentraal Control
- system
- Hot swappable



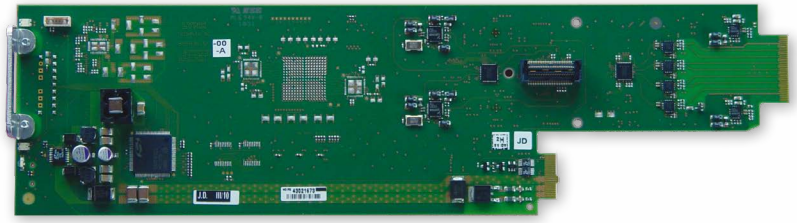

### Ordering Information

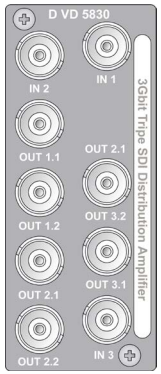
| Model # | Description |
|---|---|
| DVD 5480 HO | 12G-SDI Distribution Amplifier with 12G Single Link <x Quad Link (2SI) and optical/electrical Interfaces |



# DVD 5830

## 3G-SDI 1×6 or 3×2 Distribution Amplifier



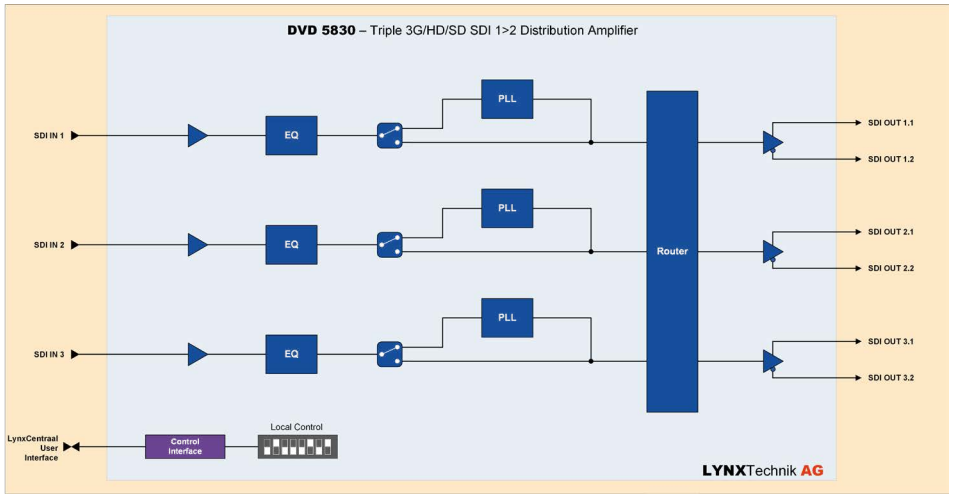



### Features

- Supports all SDI video formats
- 3x SDI inputs and 3 sets of 2 outputs (user mapped)
- Reclocking or non-reclocking mode for each channel
- Auto-detect input video standard.
- Transparently pass data between 143 Mbit/s and 3G-SDI in non re-clocked mode
- Microprocessor controlled with internal flash ram for storing configuration
- Input presence detection with LED indication for each input
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable

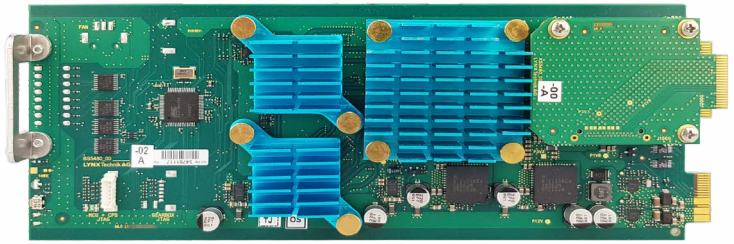
### Ordering Information

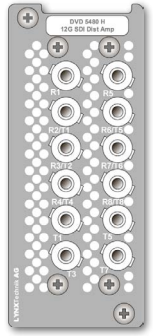
| Model # | Description |
|---|---|
| DVD 5830 | 3G-SDI 1×6 or 3×2 Distribution Amplifier |




# DVD 5480 H

## 12G-SDI 1×10 or 2×5 Video Distribution Amplifier



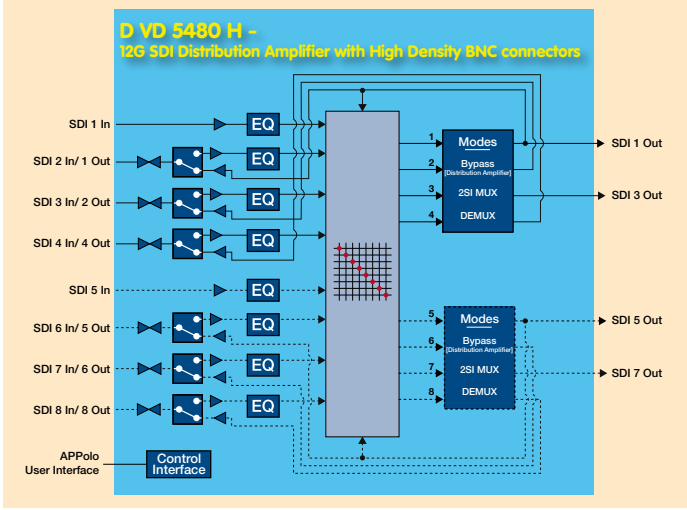


### Features

- Supports six bidirectional electrical inputs/outputs with additional two input and four output electrical interfaces.
- Several applications:
  - » *2-channel 12G-SDI single link input signal can be demultiplexed to quad link (2SI) independently*
  - » *2-channel Quad link 3G-SDI (2SI) signals can be multiplexed to 12G-SDI Single link independently*
  - » *One 12G-SDI signal can be distributed to ten electrical outputs*
  - » *Mixtures between the different operation modes*
- Incoming and outgoing 12G-SDI signals are reclocked.
- 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 LynxCentraal Control System
- Hot swappable

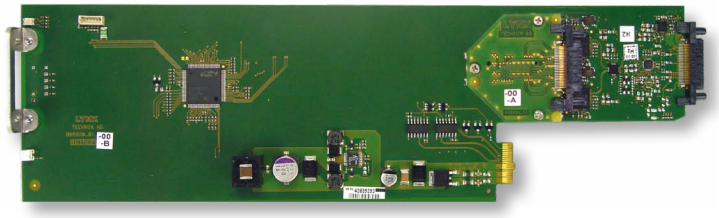
### Ordering Information

| Model # | Description |
|---|---|
| DVD 5480 H | 12G-SDI 1×10 or 2×5 Video Distribution Amplifier |



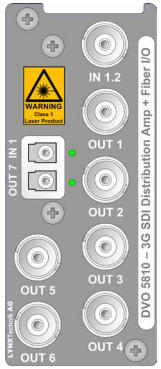
# DVO 5810

## 3G-SDI 1×6 Distribution Amplifier with Fiber I/O



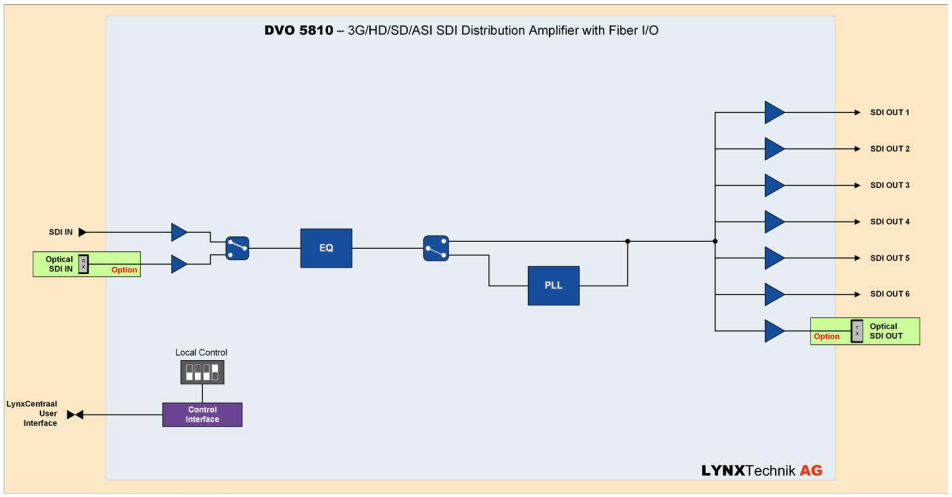
### Features

- Supports SDI / ASI / DVB up to 3G-SDI
- Electrical or optical SDI inputs (selectable)
- 6x electrical and 1x optical SDI outputs
- Reclocking or non-reclocking of input (selectable)
- Auto-detect input video standard.
- CWDM support with 18 selectable optical wavelengths (non CWDM option available)
- Transparently pass data between 15Mbit/s and 3G-SDI in non re-clocked mode
- Microprocessor controlled with internal flash ram for storing configuration
- Input presence detection with LED indication
- Singlemode LC fiber connections
- Fiber SFP in backplane
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable



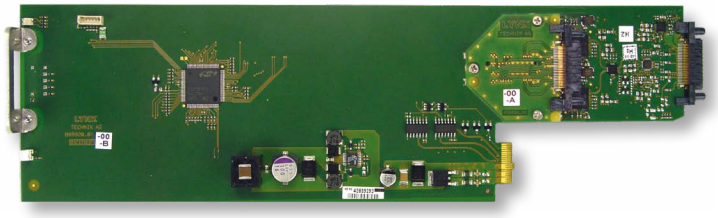

### Ordering Information

| Model # | Description |
|---|---|
| DVO 5810 | 3G-SDI 1×6 Distribution Amplifier with Fiber I/O |



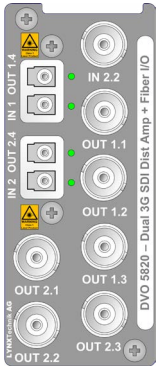

# DVO 5820

## 3G-SDI 2×4 Distribution Amplifier with Fiber I/O



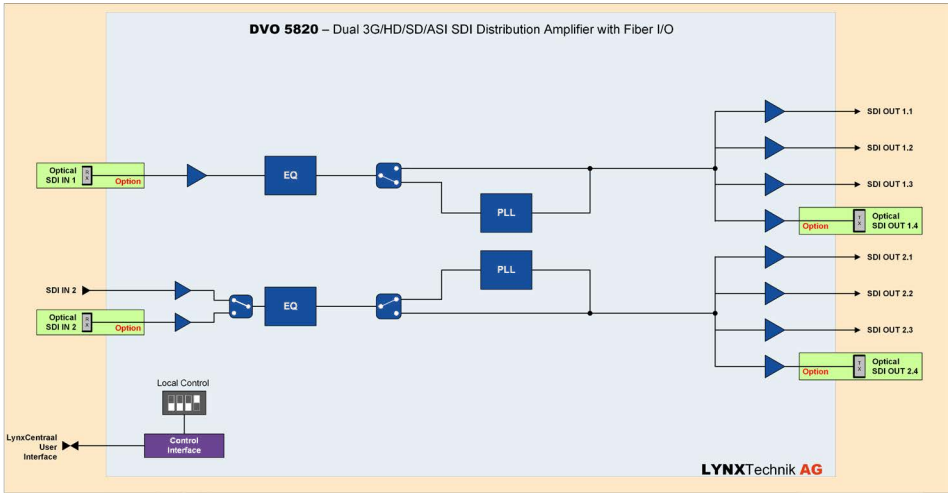
### Features

- Supports SDI / ASI / DVB up to 3G-SDI
- 2-channel channel 1×4
- 2 optical inputs, with selectable electrical input on channel 2
- 3x electrical and 1x optical outputs per channel
- CWDM support with 18 selectable optical wavelengths
- Reclocking or non-reclocking mode for each channel
- Auto-detect input video standard
- Transparently pass data between 15Mbit/s and 3G-SDI in non re-clocked mode.
- Microprocessor controlled with internal flash ram for storing configuration
- Input presence detection with LED indication for each channel
- Singlemode LC fiber connections
- Fiber SFP in backplane
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable



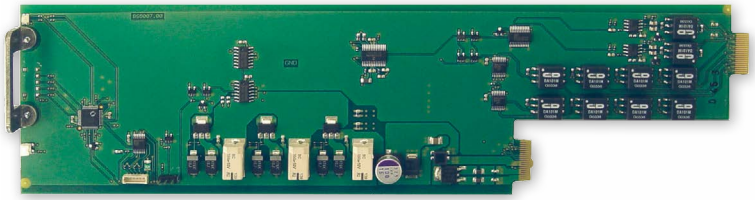

### Ordering Information

| Model # | Description |
|---|---|
| DVO 5820 | 3G-SDI 2×4 Distribution Amplifier with Fiber I/O |



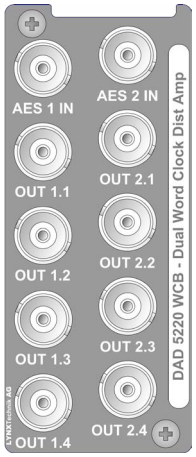
# DAD 5220 WCB

## Word Clock 2×4 Distribution Amplifier



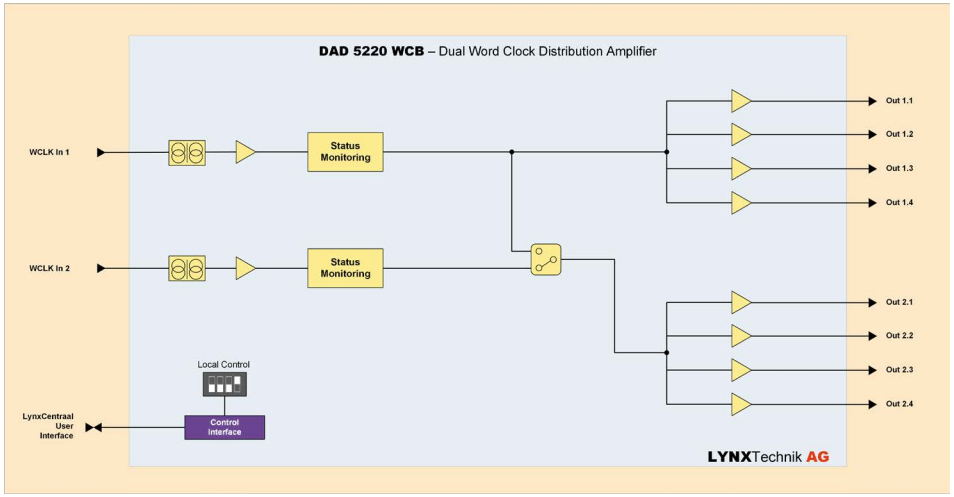
### Features

- Word Clock (48KHz) distribution amplifier
- 2-channel 1×4 or Single 1×8 modes
- Signal presence detection
- Supports clock signals between 32KHz and 108KHz (Independent for each input channel)
- 5v TTL level outputs
- Fully isolated transformer coupled inputs
- Microprocessor controlled with internal flash RAM for storing configuration
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable




### Ordering Information

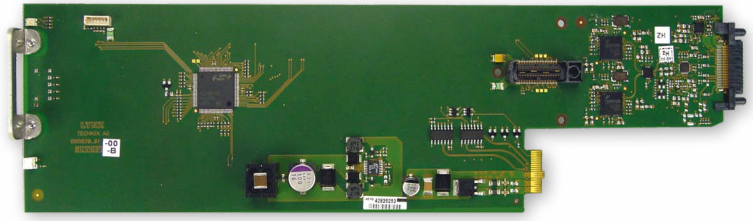
| Model # | Description |
|---|---|
| DAD 5220 | Word Clock 2×4 Distribution Amplifier |





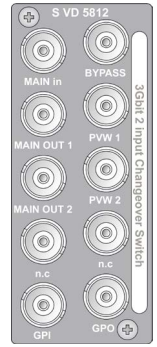

# SVD 5812

## 2-Channel 3G-SDI/ASI Changeover Switch



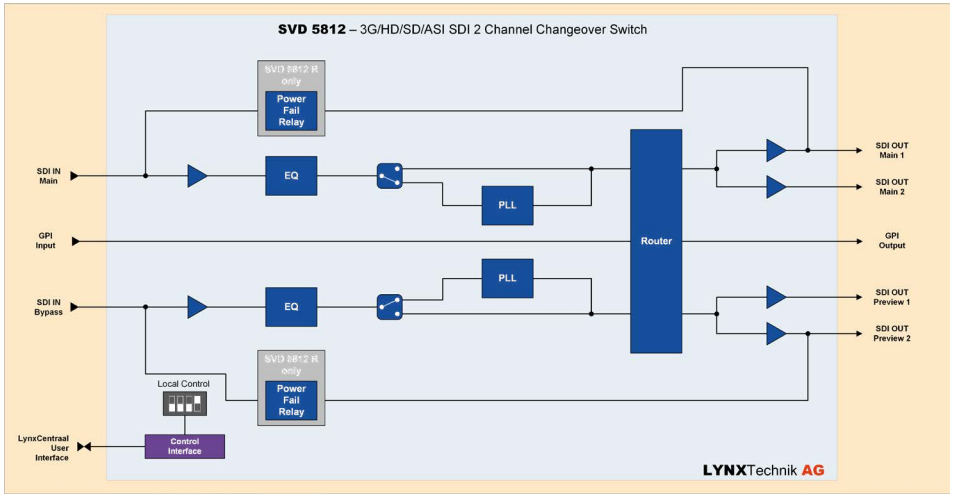
### Features

- Supports SDI/ASI/DVB inputs up to 3G-SDI
- 2x Inputs and 2 sets of switched outputs
- Inputs can be reclocked or non-reclocked
- Auto-detect input video standard
- Manual switching from external GPI trigger or from control system GUI
- Automatic emergency switching when designated input fails
- Select latch or automatic return when main input returns
- GPO output trigger provided when switch operates
- Pass data between 15Mbit/s and 3G-SDI in non-reclocked mode.
- Input presence detection with LED indicators
- Optional power fail relay connecting inputs to outputs
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable




### Ordering Information

| Model # | Description |
|---|---|
| SVD 5812 | 2-Channel 3G-SDI/ASI Changeover Switch |
| SVD 5812 R | OPTION: OH-DVD-RL2 - Mechanical Bypass Relay Option |

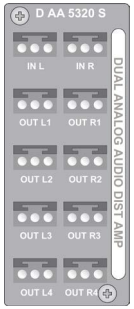


# DAA 5320

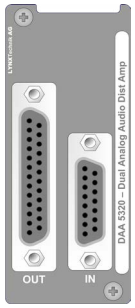
## Analog Audio 2×4 Distribution Amplifier


### Features

- 2-channel 1×4 (stereo) or single 1×8 (mono) modes
- Balanced analog audio inputs and outputs
- Input presence detection
- Independently adjustable gain for each input channel
- Two backplane options - screw terminal (Weco) or D-Sub
- Microprocessor controlled with internal flash RAM for storing configurations
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable



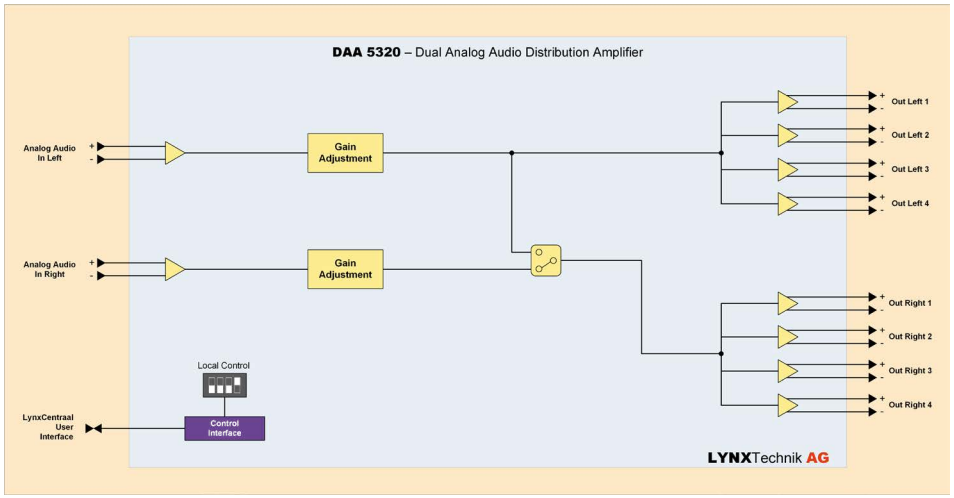

DAA 5320 S




DAA 5320 D

### Ordering Information

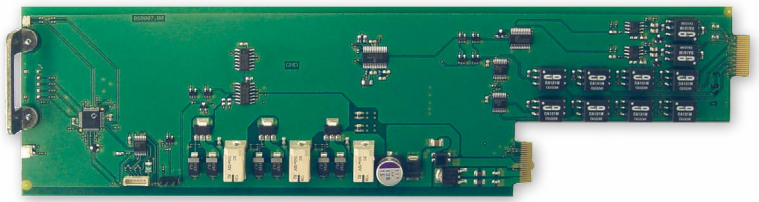
| Model # | Description |
|---|---|
| DAA 5320 D | Analog Audio 2×4 Distribution Amplifier (D-Sub Connectors) |
| DAA 5320 S | Analog Audio 2×4 Distribution Amplifier (Weco Single Jack Connectors) |





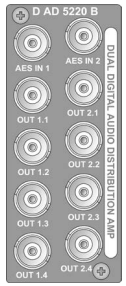

# DAD 5220

## AES Audio 2×4 Distribution Amplifier

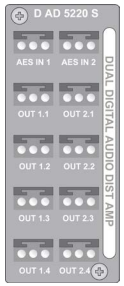


### Features

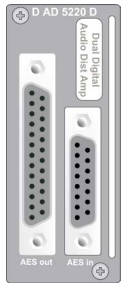
- 2-channel 1×4 or single 1×8 modes
- AES digital audio distribution amplifier
- Non-reclocking
- Signal presence detection
- Supports sample rates between 32KHz and 108KHz (Independent for each input channel)
- Fully isolated transformer coupled inputs and outputs.
- Three choices of back panel (balanced or unbalanced AES)
- Internal flash RAM for storing configurations
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable




DAD 5220 B



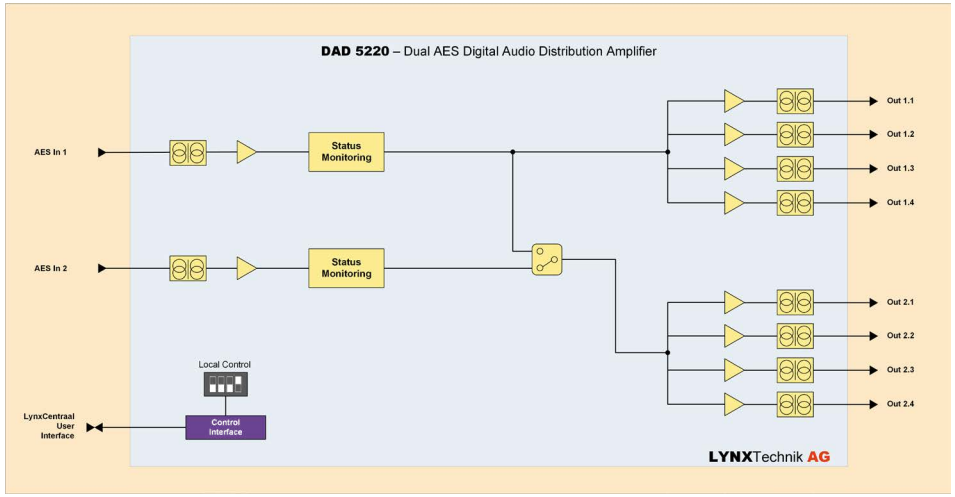

DAD 5220 S




DAD 5220 D

### Ordering Information

| Model # | Description |
|---|---|
| DAD 5220 B | AES Audio 2×4 Distribution Amplifier (BNC Connections for unbalanced AES3id) |
| DAD 5220 D | AES Audio 2×4 Distribution Amplifier (D-Sub Connections for balanced AES3) |
| DAD 5220 S | AES Audio 2×4 Distribution Amplifier (Weco Single Jack Connections for balanced AES3) |

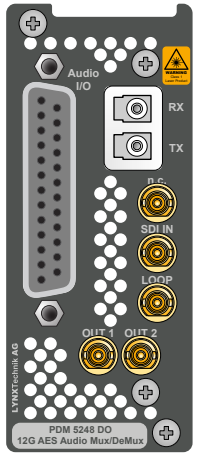


# PDM 5248 O

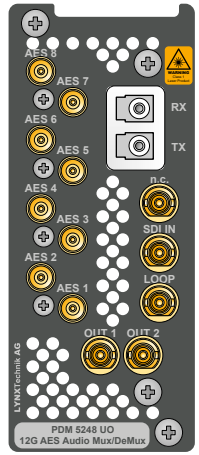
## 12G-SDI 2-Channel Frame Synchronizer and Image / Audio Processing

### Features

- Two versions available for balanced and unbalanced AES
- Switch between 64 channel embedder or de-embedder or combination of both
- 80 channel audio processing stage with adjustable gain, phase invert, mute and stereo to mono mixdown plus overload and silence detection
- 80x 80 mono output crossbar for embedder and external audio channel assignment
- Selectable "Auto Pattern Function". When no audio is present on the input the module will embed audio on a test pattern
- Optional 12G-SDI fiber I/O
- Up to 30 frames of programmable delay
- Up to 1.3s audio total delay (latency)
- Supports 12G-SDI formats up to 4K DCI (auto-detect)
- All external audio inputs / outputs are transformer coupled
- Fully compatible with Lynx Centraal for remote control, status monitoring and error reporting
- Full SNMP support when used with master controller option
- Hot swappable




PDM 5248 DO




PDM 5248 UO

### Description

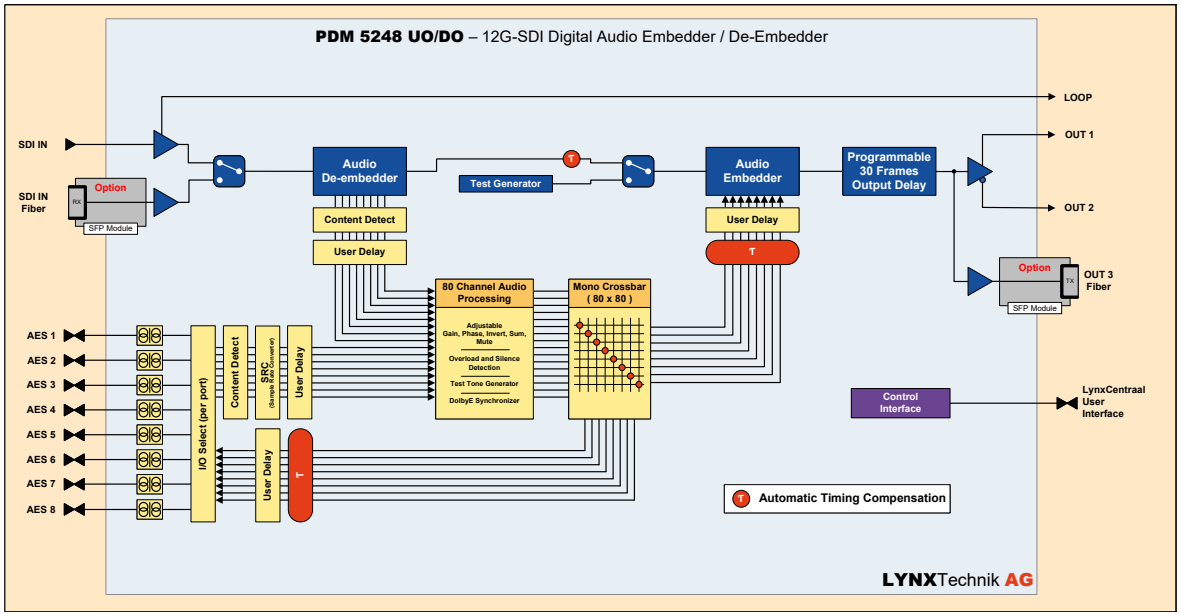
The PDM 5248 is a versatile 12G-SDI audio embedder and de-embedder with 8 external AES ports for 16 channels of audio inputs/outputs. It can be used to address a wide variety of audio requirements in broadcast. The module offers multiformat support for SDI formats up to 4K DCI (auto-detect). The module also features a 12G-SDI SFP cage for optional fiber input/output.

Up to 64 channels of audio are de-embedded from the input SDI signal and passed to the audio processor. In embedder mode, up to 64 channels of audio can be processed (including up to 16 channels from the external AES ports). Audio processing includes adjustable gain, phase invert and mute for all 64 channels as well as a selectable mono mixdown function for each left and right pair.

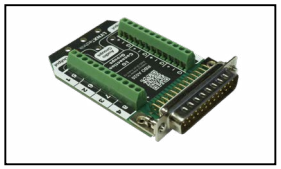
The processed audio is passed into a 80x 80 output crossbar where the audio for the embedder and the external outputs can be user mapped.

The module also provides up to 30 frames of programmable output delay adjustable in frames, lines and pixels.

Remote control, status monitoring and error reporting is possible when using the LynxCentraal Control System.




### Breakout Boards and Cables



**RBO A025:** D-Sub Breakout board

**RAC F 25:** 8x female XLR Breakout Cable

**RAC F/M 25:** 4/4 XLR Breakout Cable

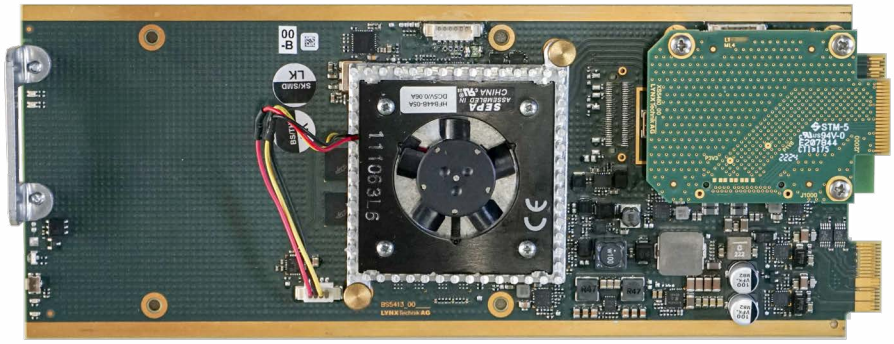
**RAC M 25:** 8x male XLR Breakout Cable

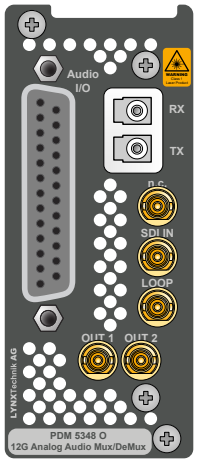
### Ordering Information

| Model # | Description |
|---|---|
| PDM 5248 DO | 12G-SDI 2-Channel Frame Synchronizer and Image / Audio Processing - Balanced Audio |
| PDM 5248 UO | 12G-SDI 2-Channel Frame Synchronizer and Image / Audio Processing - Unbalanced Audio |

# PDM 5348 O

## 12G-SDI Analog Audio Embedder / De-Embedder






## Features

- Supports 12G-SDI formats up to 4K 4096x2160p60 (auto-detect)
- Optional 12G-SDI fiber input/output
- Switch between 8 channels embedder or de-embedder
- 72 channel audio processing stage with adjustable gain, phase invert, mute and stereo to mono mixdown, provides overload and silence detection
- 72x 72 mono output crossbar for embedder and external audio channel assignment
- Selectable "Auto Pattern Function" - When no input video is present the module will embed audio on a test pattern
- Up to 30 frames of programmable delay
- Up to 1.3s (1334ms) of total audio delay
- Fully compatible with Lynx Centraal for remote control, status monitoring and error reporting
- Full SNMP support when used with server option
- Hot swappable

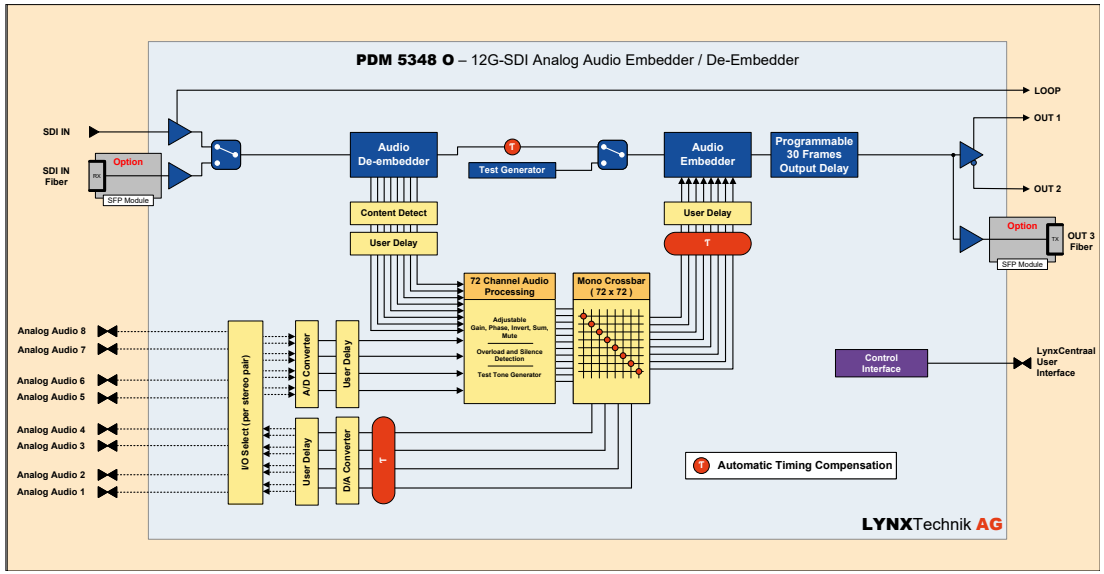
## Description

The PDM 5348 is a versatile 8 channel analog audio embedder or de-embedder which can be used to address a variety of audio issues in broadcast. The module has multiformat support for SDI formats up to 4K DCI(auto detect) and features an optional 12G-SDI SFP cage for fiber input and/or output.

The module can be switched between an 8 channel embedder or an 8 channel de-embedder, or used as a combination of both. 8 channels of audio are always de-embedded from the SDI input and passed into a audio processing stage. In embedder mode 8 channels of external audio are passed into the audio processing stage. Audio processing includes adjustable gain, phase invert, and mute for all 72 channels as well as a selectable mono mixdown function for each left and right pair. The processed audio is passed onto a 72x 72 output crossbar where the audio for the embedder, and/or audio for the external outputs can be user mapped.

The module also provides up to 30 frames of programmable output delay.

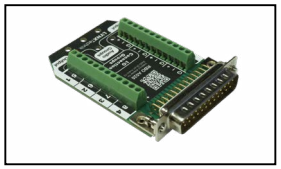
Remote control, status monitoring and error reporting is possible when using the LynxCentraal Control System.




## Ordering Information

| Model # | Description |
|---|---|
| PDM 5348 O | 12G-SDI Analog Audio Embedder / De-Embedder |

## Breakout Boards and Cables



**RBO A025:** D-Sub Breakout board

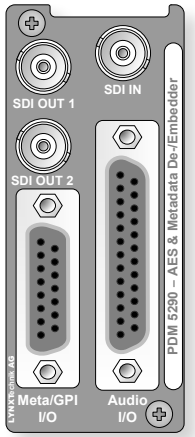
**RAC F 25:** 8x female XLR Breakout Cable

**RAC F/M 25:** 4/4 XLR Breakout Cable

**RAC M 25:** 8x male XLR Breakout Cable

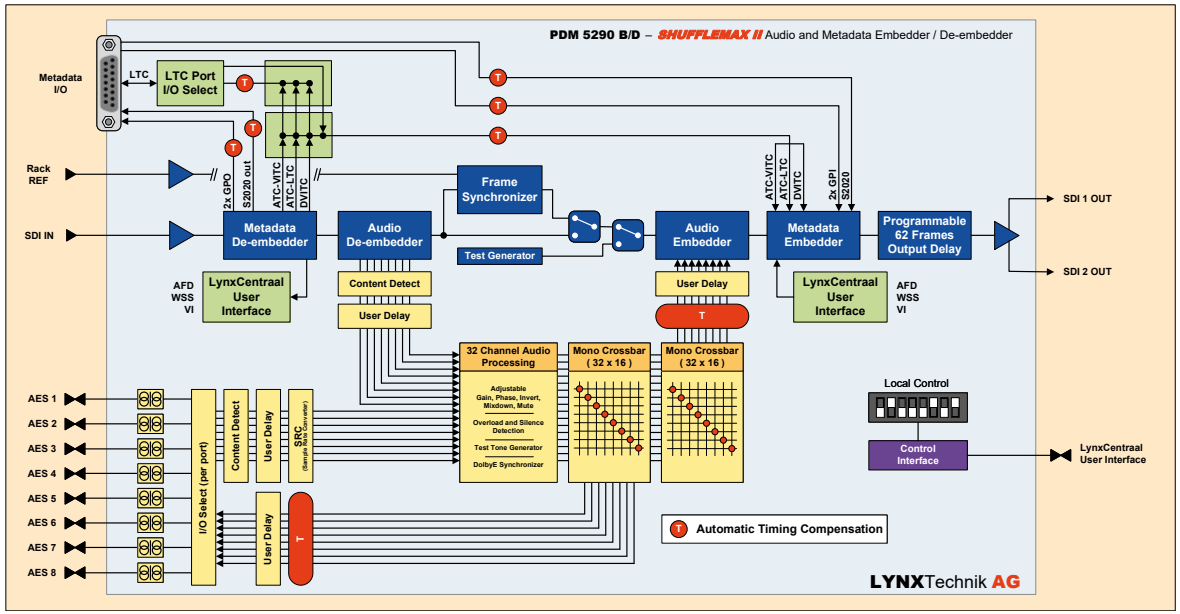
# PDM 5290 D

## 3G-SDI 8x AES Audio and Metadata Embedder / De-Embedder

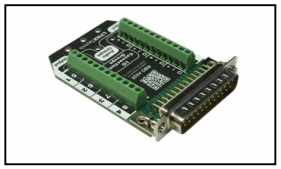



## Features

- Auto detecting multi-format SDI support for SD/HD/3G
- 8 external AES inputs or outputs – indivi2-channelly assigned
- Transformer coupled audio I/O
- Balanced AES3 or unbalanced AES3id versions available
- 16 channel AES audio embedder / de-embedder
- Delete, overwrite, extract, re-map, process or pass audio transparently
- "Auto Test" uses a selectable internal test pattern if the SDI input is not present
- 2 internal mono crossbars for complete audio mapping control
- Auto detect audio format, PCM or encoded (DolbyE)
- 8 selectable sample rate converters for external AES inputs
- Automatic timing compensation to maintain audio I/O timing accuracy
- User adjustable timing osets for each AES channel – four sets provided
- DolbyE synchronizer – SMPTE 2020 Metadata sub-frames alignment to rack reference
- 32 channel audio processing stage with indivi2-channel adjustments for:
  - » *Gain*
  - » *Phase (0-180°)*
  - » *Invert*
  - » *Mute*
  - » *Sum (left + right)*
- External Metadata I/O port
- Embed and de-embed Metadata
- 32 channels of overload and silence detection
- Visualize all ANC packets for both HANC and VANC, includes;
  - » *Timecode ATC-LTC, ATC-VITC and D-VITC*
  - » *SMPTE 2020 audio Metadata*
  - » *GPI/GPO signaling in Metadata*
  - » *Any other ANC data present*
- Support for AFD / WSS / VI and Closed Caption Metadata via LynxCentraal
- Metadata can be extracted, replaced or passed transparently
- Extract or insert LTC timecode from external I/O connection
- Extract or insert SMPTE 2020 Audio Metadata using external RS 422 port
- Extract or insert up to 2 GPI / GPO (relay) triggers in Metadata
- Programmable 62 frame video delay, in frames / lines / pixels or milliseconds
- Powerful, intuitive user interface using APPolo control system
- All settings automatically stored in module's fl ash RAM
- Selectable timecode burn in on SDI output
- SNMP error reporting if used with OH-RCT-5023 SERVER option
- Hot swappable




## Breakout Boards and Cables



**RBO A025:** D-Sub Breakout board

**RAC F 25:** 8x female XLR Breakout Cable

**RAC F/M 25:** 4/4 XLR Breakout Cable

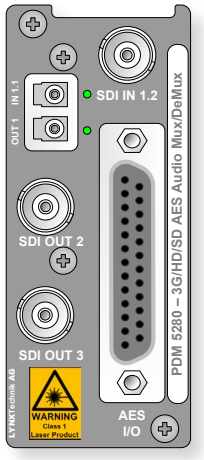
**RAC M 25:** 8x male XLR Breakout Cable

## Ordering Information

| Model # | Description |
|---|---|
| PDM 5290 D | 3G-SDI 8x AES Audio and Metadata Embedder / De-Embedder |

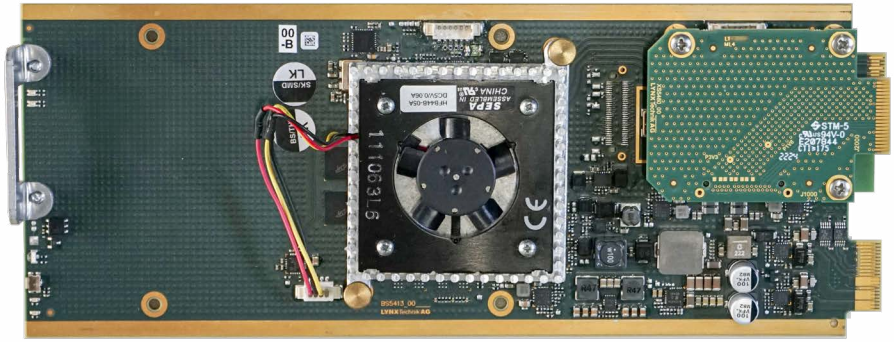
# PDM 5280 DO

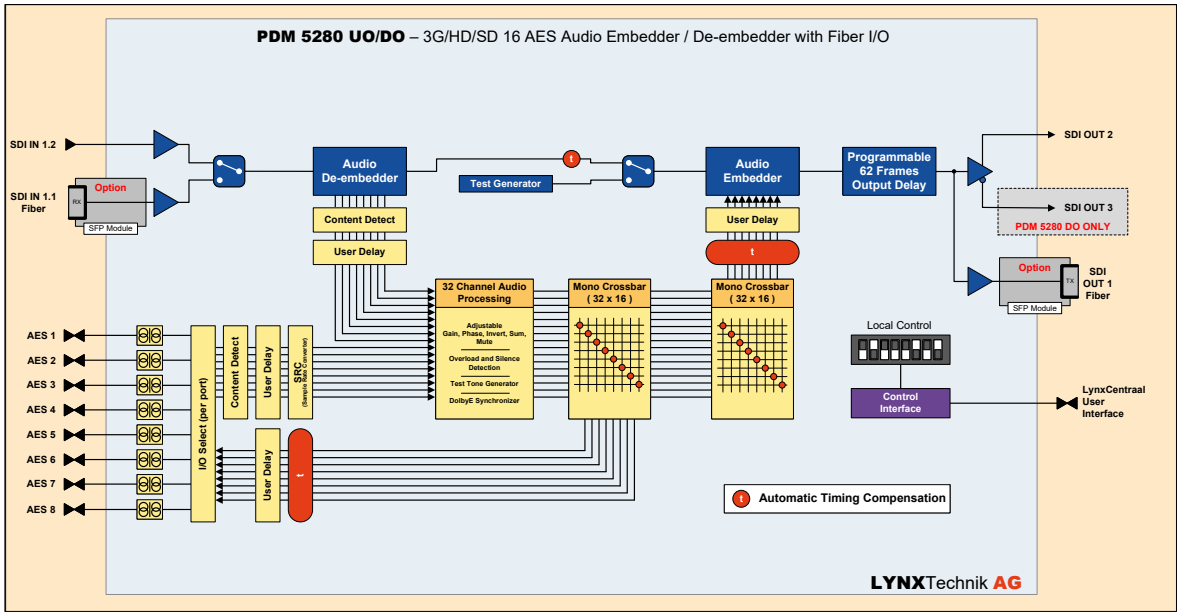
## 3G-SDI 8x AES Audio Embedder / De-Embedder with Fiber I/O




## Features

- Supports SDI formats up to 3Gbit (auto-detect)
- Optional fi fiber optic I/O
- Switch between 16 channel embedder or de-embedder or combination of both
- 32 channel audio processing stage with adjustable gain, phase invert, mute and stereo to mono mixdown plus overload and silence detection
- 32x 32 mono output crossbar for embedder and external audio channel assignment
- DolbyE Synchronzer to maintain Guard Band alignment
- Selectable "Auto Pattern Function". With no input video the module will embed audio in the selected test pattern
- Up to 62 frames of programmable delay
- Up to 1.3s audio delay (total)
- Two versions available for balanced and unbalanced AES
- All external audio inputs / outputs are transformer coupled
- Remote control, status monitoring and error reporting possible with LynxCentraal
- Full SNMP support when used with master controller option
- Hot swappable






## Description

The PDM 5280 is a versatile 16 channel (8x AES) audio embedder and de-embedder, which can be used to address a variety of audio issues in broadcast. The module offers multiformat support for SDI formats up to 3Gbit/s (auto-detect). The module also features optional fi fiber optic I/O.

The module can be switched between a 16 channel embedder or de-embedder, or used as a combination of both. 16 channels of audio are also de-embedded from the input SDI signal and passed into the audio processing stage. In embedder mode, 16 channels of external audio are passed into the audio processing stage. Audio processing includes adjustable gain, phase invert and mute for all 32 channels as well as a selectable mono mixdown function for each left and right pair.

The processed audio is passed into a 32x 32 output crossbar where the audio for the embedder and the external outputs can be user mapped.

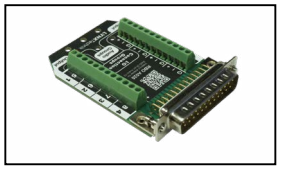
The module also provides up to 62 frames of programmableoutput delay adjustable in frames, lines and pixels.

Remote control, status monitoring and error reporting is possible when using LynxCentraal.

## Ordering Information

| Model # | Description |
|---|---|
| PDM 5280 DO | 3G-SDI 8x AES Audio Embedder / De-Embedder with Fiber I/O |

## Breakout Boards and Cables



**RBO A025:** D-Sub Breakout board

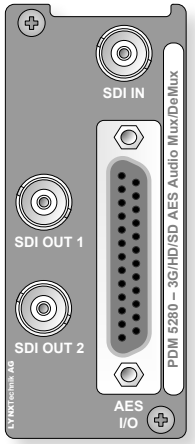
**RAC F 25:** 8x female XLR Breakout Cable

**RAC F/M 25:** 4/4 XLR Breakout Cable

**RAC M 25:** 8x male XLR Breakout Cable

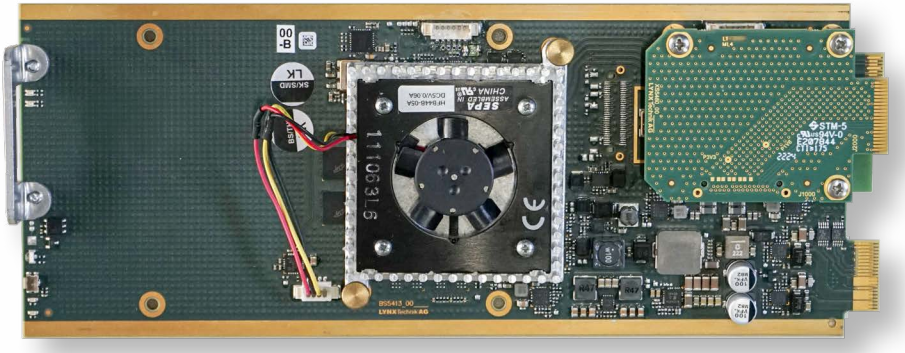
# PDM 5280 D

## 3G-SDI 8x AES Audio Embedder / De-Embedder




## Features

- Supports SDI formats up to 3Gbit (auto-detect)
- Switch between 16 channel embedder or de-embedder or combination of both
- 32 channel audio processing stage with adjustable gain, phaseinvert, mute and stereo to mono mixdown plus overload andsilence detection
- 32x 32 mono output crossbar for embedder and external audio channel assignment
- Selectable "Auto Pattern Function" with no input video the module will embed audio in a selectable test pattern
- DolbyE Synchronizer to maintain Guard Band
- Up to 62 frames of programmable delay
- Up to 1.3s audio delay (total)
- Two versions available for balanced and unbalanced AES
- All external audio inputs / outputs are transformer coupled
- Remote control, status monitoring and error reporting with LynxCentraal
- Full SNMP support when used with master controller option
- Hot swappable



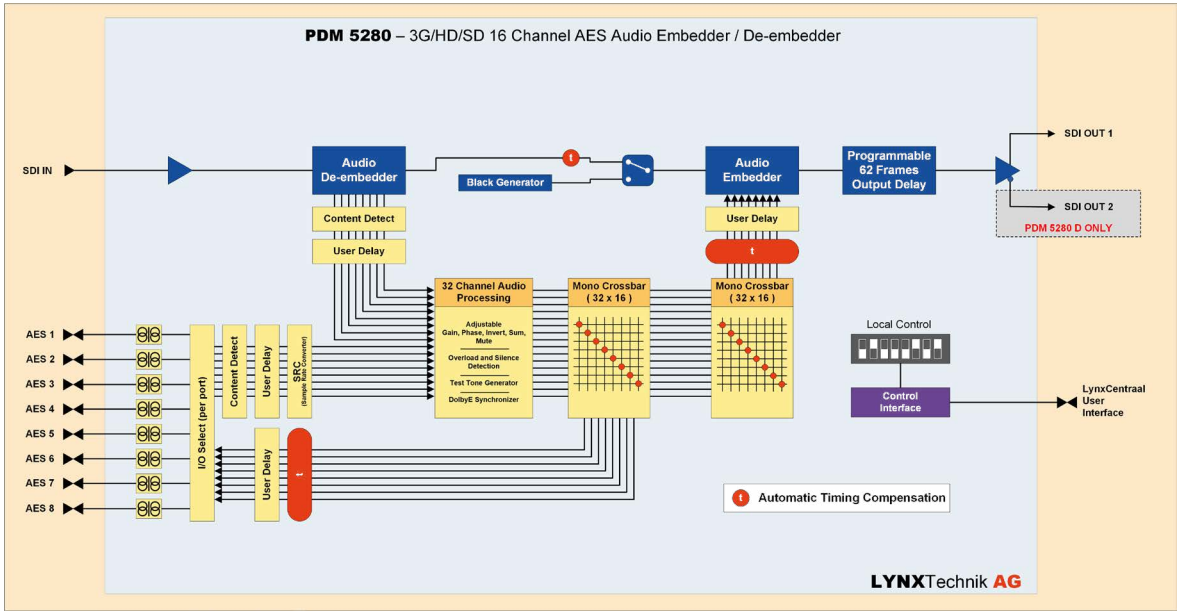
## Description

The PDM 5280 is a versatile 16 channel (8x AES) audio embedder and de-embedder, which can be used to address a variety of audio issues in broadcast. The module offers multiformat support for SDI formats up to 3Gbit/s (auto-detect).

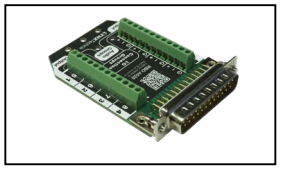
The module can be switched between a 16 channel embedder or de-embedder, or used as a combination of both. 16 channels of audio are also de-embedded from the input SDI signal and passed into the audio processing stage. In embedder mode 16 channels of external audio are passed into the audio processing stage. Audio processing includes adjustable gain, phase invert and mute for all 32 channels as well as a selectable mono mixdown function for each left and right pair. The processed audio is passed onto a 32x 32 output crossbar where the audio for the embedder and the external outputs can be user mapped.

The module also provides up to 62 frames of programmable output delay adjustable in frames, lines and pixels.

Remote control, status monitoring and error reporting is possible when using LynxCentraal.




## Breakout Boards and Cables



**RBO A025:** D-Sub Breakout board

**RAC F 25:** 8x female XLR Breakout Cable

**RAC F/M 25:** 4/4 XLR Breakout Cable

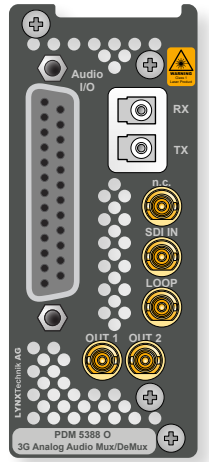
**RAC M 25:** 8x male XLR Breakout Cable

## Ordering Information

| Model # | Description |
|---|---|
| PDM 5280 D | 3G-SDI 8x AES Audio Embedder / De-Embedder |

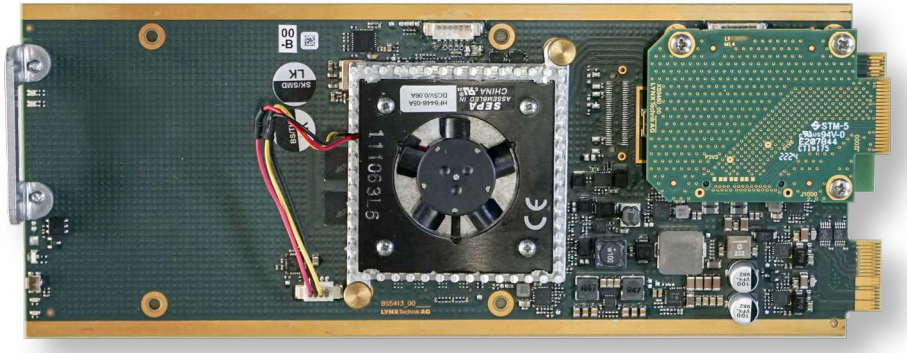
# PDM 5388 O

## 3G-SDI Analog Audio Embedder / De-Embedder




## Features

- Supports 3G-SDI formats up to 2K 2048x1080p60 (auto-detect)Optional 3G-SDI fiber input/output
- Optional 3G-SDI fiber input/output
- Switch between 8 channels embedder or de-embedder
- 24 channel audio processing stage with adjustable gain, phase invert, mute and stereo to mono mixdown, provides overload and silence detection
- 24x 24 mono output crossbar for embedder and external audio channel assignment
- Selectable "Auto Pattern Function" - When no input video is present the module will embed audio on a test pattern Up to 1.3s (1334ms) of total audio delay
- Up to 30 frames of programmable delay
- Up to 1.3s (1334ms) of total audio delay
- Fully compatible with Lynx Centraal for remote control, status monitoring and error reporting
- Full SNMP support when used with master controller option.
- Hot swappable



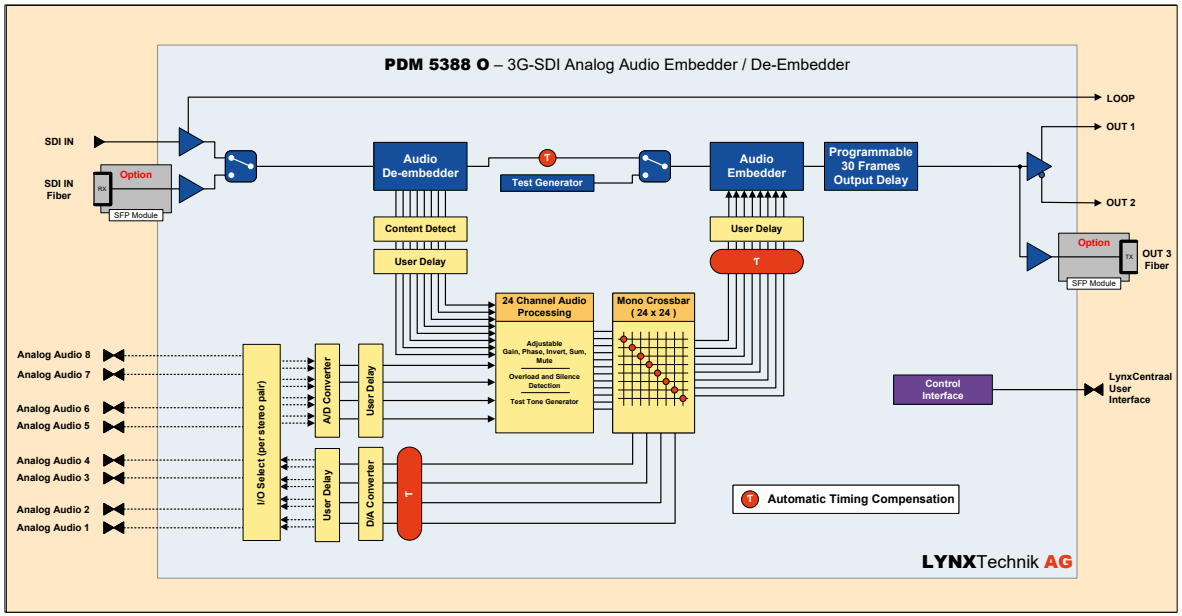
## Description

The PDM 5388 O is a versatile 8 channel analog audio embedderor de-embedder which can be used to address a variety of audio issues in broadcast. The module has multiformat support for SDI formats up to 2K DCI(auto detect) and features an optional 3G-SDI SFP cage for fiber input and/or output.

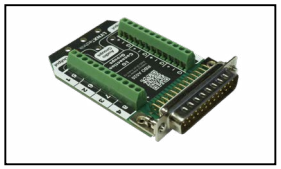
The module can be switched between an 8 channel embedder or an 8 channel de-embedder, or used as a combination of both. 8 channels of audio are always de-embedded from the SDI input and passed into a audio processing stage. In embedder mode 8 channels of external audio are passed into the audio processing stage. Audio processing includes adjustable gain, phase invert, and mute for all 24 channels as well as a selectable mono mixdown function for each left and right pair. The processed audio is passed onto a 24x 24 output crossbar where the audio for the embedder, and/or audio for the external outputs can be user mapped.

The module also provides up to 30 frames of programmable output delay.

Remote control, status monitoring and error reporting is possible using LynxCentraal.




## Breakout Boards and Cables



**RBO A025:** D-Sub Breakout board

**RAC F 25:** 8x female XLR Breakout Cable

**RAC F/M 25:** 4/4 XLR Breakout Cable

**RAC M 25:** 8x male XLR Breakout Cable

## Ordering Information

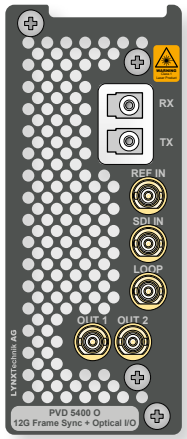
| Model # | Description |
|---|---|
| PDM 5388 O | 3G-SDI Analog Audio Embedder / De-Embedder |

# PVD 5400 O

## 12G-SDI Frame Synchronizer

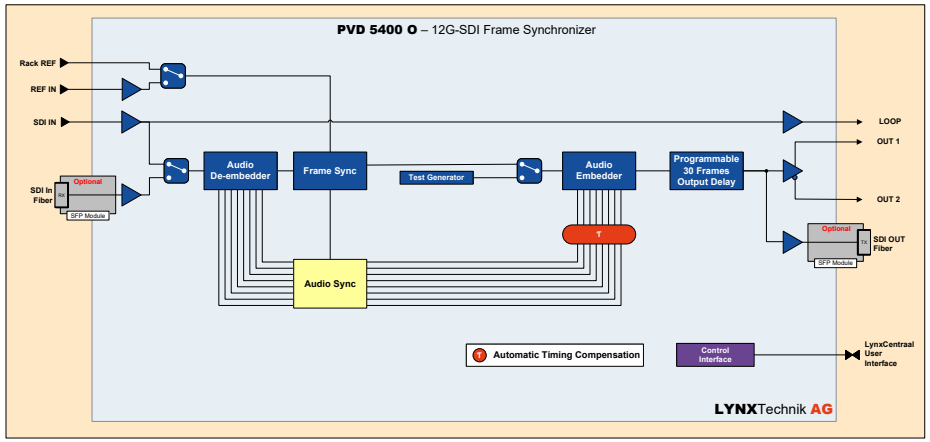
### Features

- Supports SDI formats up to 4K DCI (auto-detect)
- Optional fiber I/O
- Robust "flywheel" synchronization for a wide variety of problematic sources
- "Cross lock" compatible reference input
- All 64 channels of audio de-embedded from SDI input, delayed to match video processing delay and re-embedded
- 2x electrical SDI outputs + 1 LOOP output provided
- Integrated test pattern generator
- Auto-tracking audio delay with no "pops" or "clicks" in audio even when dropping and adding frames
- Up to 30 frames of programmable delay
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable



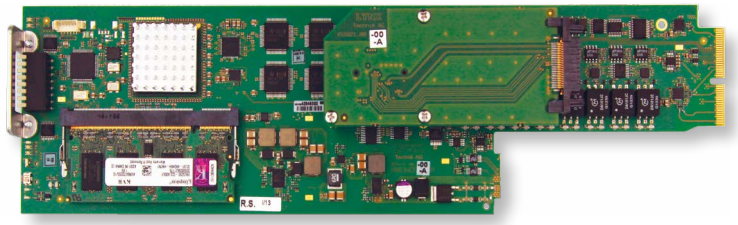

### Ordering Information

| Model # | Description |
|---|---|
| PVD 5400 O | 12G-SDI Frame Synchronizer |



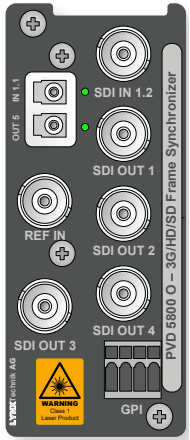

# PVD 5800 O

## 3G-SDI Frame Synchronizer



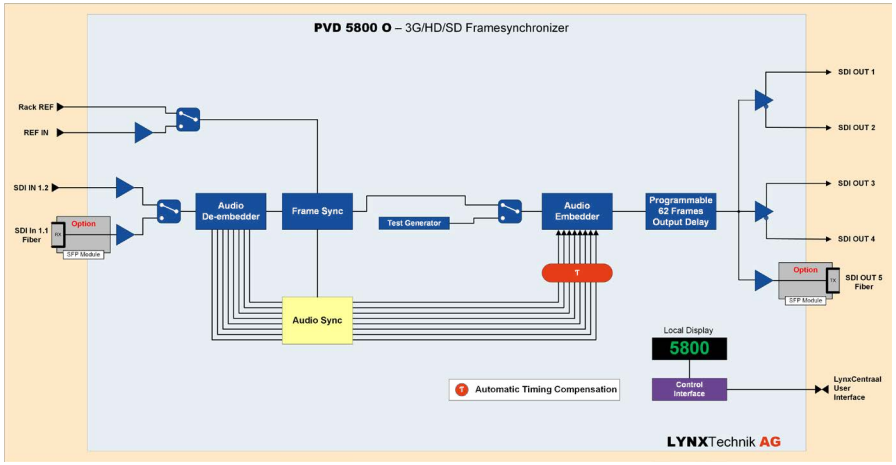
### Features

- Supports SDI formats up to 3Gbit (auto-detect)
- Optional fiber I/O
- Robust "flywheel" synchronization for a wide variety of problematic sources
- "Cross lock" compatible reference input
- All 16 channels of audio de-embedded from SDI input, delayed to match video processing delay and re-embedded
- 4x SDI outputs provided
- Integrated test pattern generator
- Auto-tracking audio delay with no "pops" or "clicks" in audio even when dropping and adding frames
- Up to 62 frames of programmable delay
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable




### Ordering Information

| Model # | Description |
|---|---|
| PVD 5800 O | 3G-SDI Frame Synchronizer |

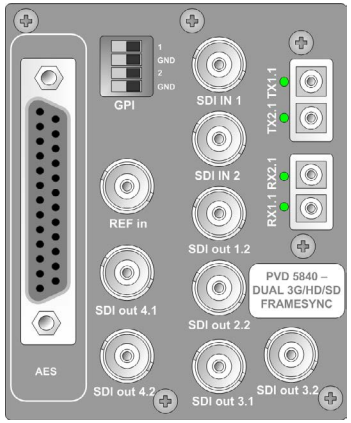


# PVD 5840 DO

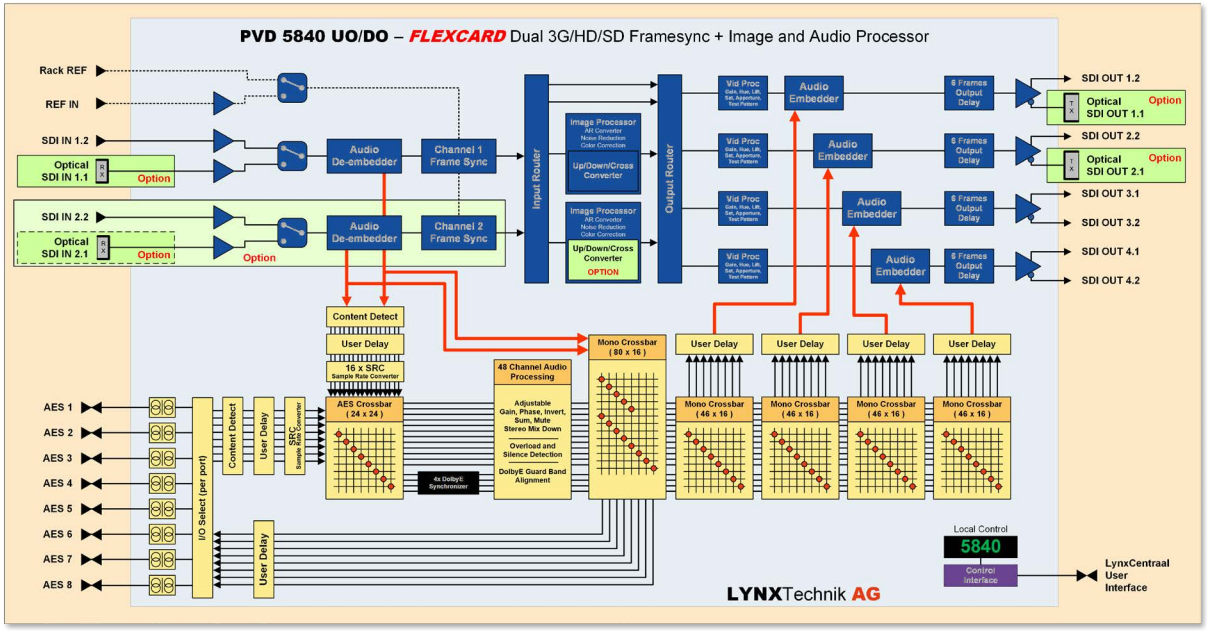
## 3G-SDI 2-channel Channel SDI Frame Synchronizer + Image and Audio Processing

## Features

- Compact 2-channel channel frame synchronizer
- Optional fiber I/O
- Support for SDI video formats up to 3Gbit
- Bi-level or tri-level reference input, auto detect, cross lock compatible
- Robust "flywheel" frame synchronizer functionality
- Seamless switching between input sources (with second input option)
- Integrated Image processing includes:
  - » *2 channel aspect ratio converter*
  - » *2 channel noise reduction*
  - » *2 channel RGB gain and lift color correction*
  - » *1 channel UP/DOWN/CROSS conversion*
- Firmware plug in options:
  - » *OC-5840-SCND - Second Input Option*
  - » *OC-5840-UPXD2 - UP/DOWN/CROSS conversion channel 2*
  - » *OC-5840-3G-LEVELB-DL - Level B (DL) support and A<xB conversions*
- 4 independent SDI outputs, user mapped to any internal resource
- Each output (4) has independent 10 bit digital video processing providing:
  - » *Adjustable gain, saturation, black level and hue*
  - » *Adjustable aperture correction*
  - » *Color space conversion ( 601 x 709 or 709 x 601 )*
  - » *Integral test pattern generator with multiple patterns*
  - » *Adjustable output timing delay (3 frame)*
- Automatically detect audio content PCM / DolbyE / compressed bitstream
- De-embed complete audio payload from each SDI input (16 channels)
- 8x external AES inputs and / or outputs (transformer coupled)
- 24x 24 AES audio input crossbar
- Indivi2-channelly selectable sample rate converters (on/off) for de-embedded audio and external audio inputs
- Selectable audio pathways through synchronizer
  - » *20x AES - Internal*
  - » *4x AES - Through 4x DolbyE synchronizers*
  - » *8x AES bypass channel synchronized to SDI input 1*
  - » *8x AES bypass channels synchronized to SDI input 2*
- 48 channel audio processing with adjustable gain / phase / mute / sum
- 48 channel overload and silence detection
- Audio is delayed to track video synchronizer automatically
- User adjustable audio delays in multiple zones
- DolbyE synchronizers automatically maintain guard band timing
- No "pops and clicks" in audio even when frames are dropped / added
- 4 Independent output embedders (16 channel) for each output
- 4 independent 48x 16 mono output crossbars
- 80x 16 mono crossbar for external AES outputs
- Store 7 module user presets, and switch between four with GPI
- Two external GPI inputs, user configurable:
  - » *Seamless switch between inputs (with second input option)*
  - » *Freeze input 1 (or 2 with second input option)*
- AFD / WSS / VI / Closed Caption and Timecode metadata transcoding
- Remote control and error reporting when using APPolo control system
- Hot swappable



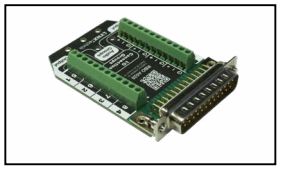

Balanced AES3 Audio
25 pin D-Sub Connector




## Ordering Information

| Model # | Description |
|---|---|
| PVD 5840 DO | 3G/HD/SD SDI 2-channel Frame Synchronizer + Audio Processing |
| OC-5840-SCND | Second SDI input option for PVD 5840 |
| OC-5840-UPXD | Second channel high quality UP/DOWN/CROSS conversion |
| OC-5840-3G-LEVELB-DL | Level B (DL) support and Leve A to Level B conversions |

## Breakout Boards and Cables



**RBO A025:** D-Sub Breakout board

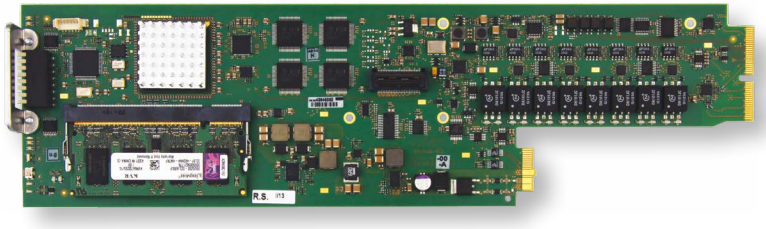
**RAC F 25:** 8x female XLR Breakout Cable

**RAC F/M 25:** 4/4 XLR Breakout Cable

**RAC M 25:** 8x male XLR Breakout Cable

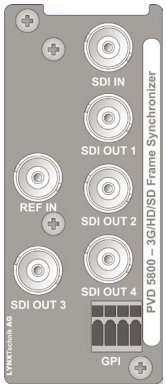
# PVD 5800

## 3G-SDI Frame Synchronizer



### Features

- Supports SDI formats up to 3Gbit (auto-detect)
- Robust "flywheel" synchronization for a wide variety of problematic sources
- "Cross lock" compatible reference input
- All 16 channels of audio de-embedded from SDI input, delayed to match video processing delay and re-embedded
- 4x SDI outputs provided
- Integrated test pattern generator
- Auto-tracking audio delay with no "pops" or "clicks" in audio even when dropping and adding frames
- Up to 62 frames of programmable delay
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable

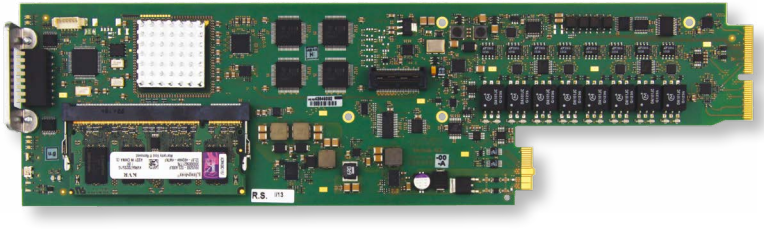



### Ordering Information

| Model # | Description |
|---|---|
| PVD 5800 | 3G/HD/SD SDI Frame Synchronizer |

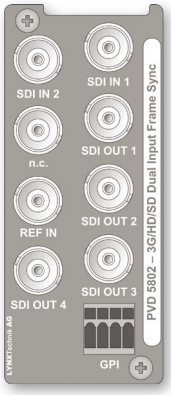
# PVD 5802

## 2-Channel 3G-SDI Frame Synchronizer



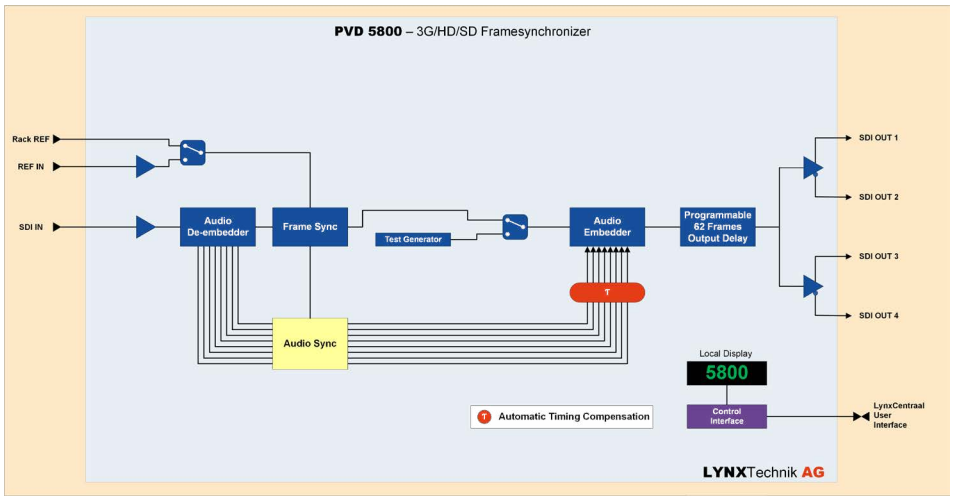
### Features

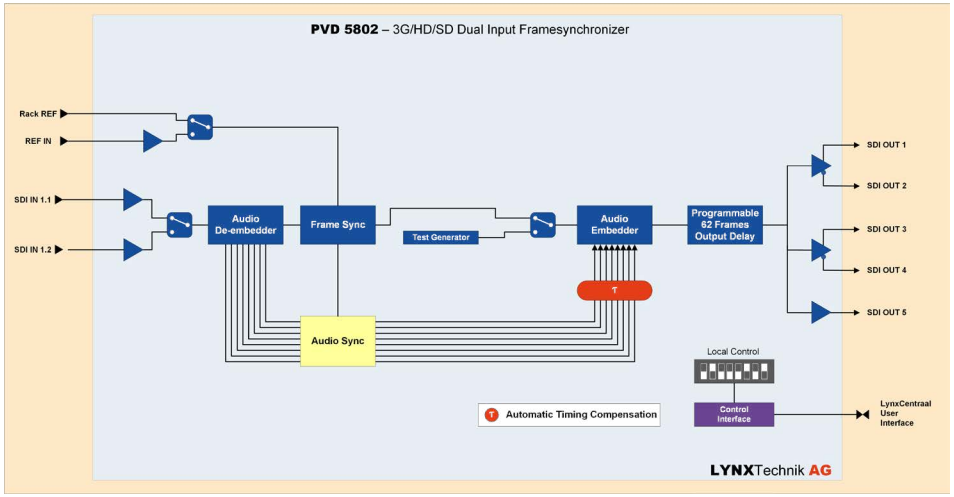
- Supports SDI formats up to 3Gbit (auto-detect)
- Two SDI inputs (switchable)
- Robust "flywheel" synchronization for a wide variety of problematic sources
- "Cross lock" compatible reference input
- All 16 channels of audio de-embedded from SDI input, delayed to match video processing delay and re-embedded
- 5x SDI outputs provided
- Integrated test pattern generator
- Auto-tracking audio delay with no "pops" or "clicks" in audio even when dropping and adding frames
- Up to 62 frames of programmable delay
- 2 external GPI inputs, with choice of connector
- Remote control, status monitoring and error reporting possible with LYNX
- LynxCentraal control system
- Full SNMP support when used with LynxCentraal control system
- Hot swappable




### Ordering Information

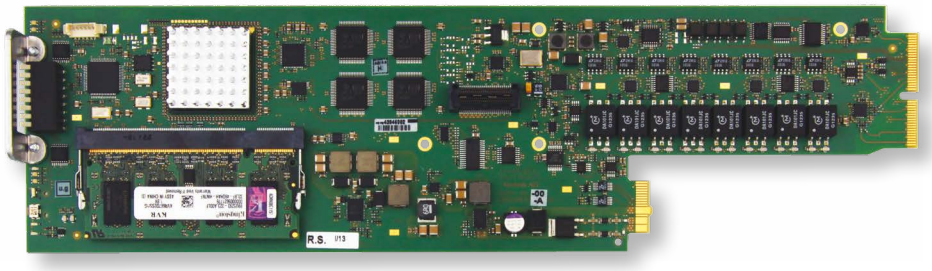
| Model # | Description |
|---|---|
| PVD 5802 | 3G/HD/SD SDI Frame Synchronizer (GPI on Terminal Strip) |

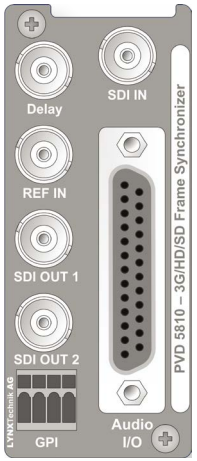


# PVD 5810 D

## 3G-SDI Frame Synchronizer with 8x External AES Audio






## Features

- Supports SDI formats up to 3Gbit (auto-detect)
- Robust "flywheel" synchronization for a wide variety of problematic sources
- "Cross lock" compatible reference input
- All 16 channels of audio de-embedded from SDI input
- 32 channel audio processing stage with adjustable gain, phase invert, mute and stereo to mono mixdown plus overload and silence detection
- 32x 32 mono output crossbar for embedder and external audio channel assignment
- Integrated test pattern generator
- Auto-tracking audio delay with no "pops" or "clicks" in audio even when dropping and adding frames
- DolbyE Synchronizer to maintain guard band
- Up to 62 frames of programmable delay
- Two versions available for balanced and unbalanced AES
- All external audio inputs / outputs are transformer coupled
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable

## Description

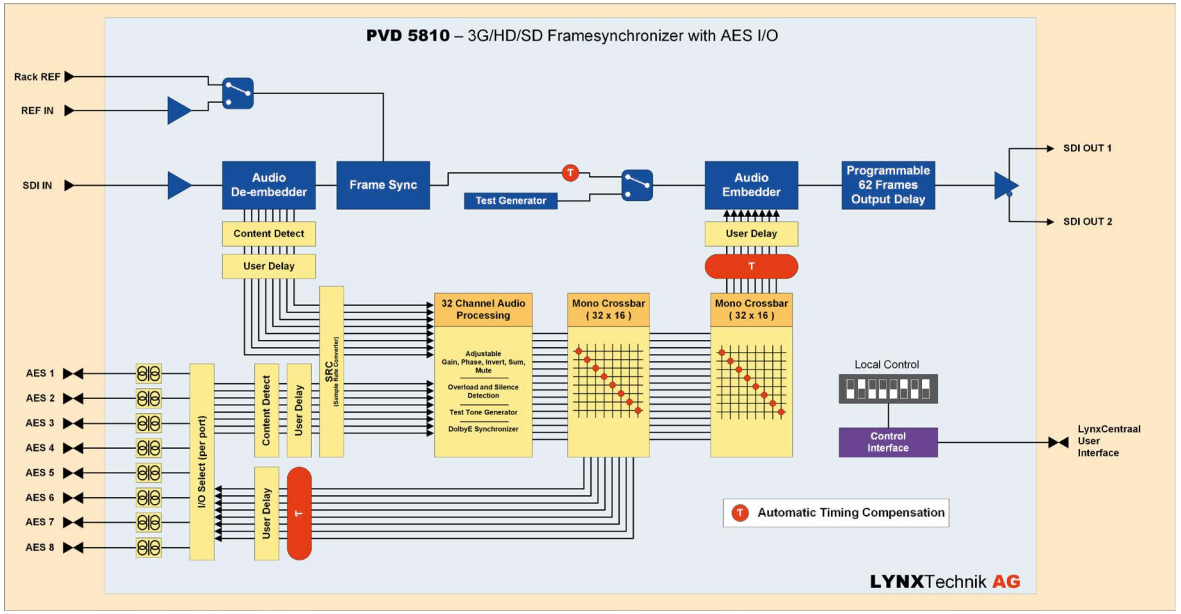
The PVD 5810 is a versatile SDI frame synchronizer with full audio support which can be used to address a variety of synchronization issues in broadcast. The module offers multi-format support for SDI formats up to 3Gbit/s (auto-detect).

The module utilizes robust "flywheel" synchronization which can accommodate a wide variety of low quality asynchronous SDI sources. Comprehensive audio support includes deembedding all 16 channels contained in the SDI input plus 16 external inputs. Audio is passed through a 32 channel audio processing stage before being passed into internal crossbars to confi gure the external audio outputs and the audio embedder. Audio is synchronized to the video automatically and is free from disturbances even when dropping and adding frames. A DolbyE synchronizer is also provided to correctly synchronize and maintain critical guard band alignment.

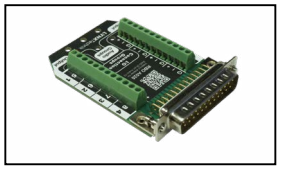
The module also provides up to 62 frames of programmable output delay adjustable in frames, lines and pixels.

Microprocessor control and on-board Flash RAM enable confi gurations and settings to be stored within the module.

Remote control, status monitoring and error reporting is possible when using the LynxCentraal Control System




## Breakout Boards and Cables



**RBO A025:** D-Sub Breakout board

**RAC F 25:** 8x female XLR Breakout Cable

**RAC F/M 25:** 4/4 XLR Breakout Cable

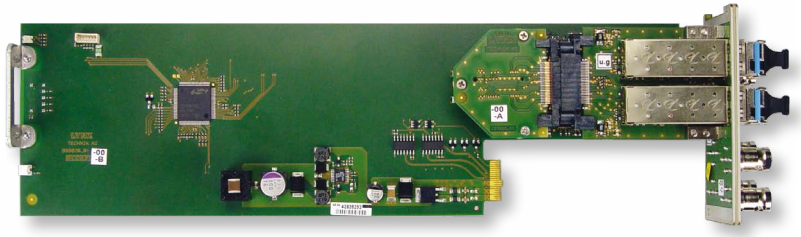
**RAC M 25:** 8x male XLR Breakout Cable

## Ordering Information

| Model # | Description |
|---|---|
| PVD 5810 D | 3G-SDI Frame Synchronizer with 8x External AES Audio |

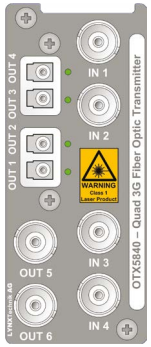
# OTX 5840

## 4-Channel 3G-SDI to Fiber Transmitter



### Features

- 4 independent SDI optical transmitter channels and 2x electrical outputs
- Supports SDI/ASI/DVB up to 3Gbit/s
- Selection of 18 wavelengths available for CWDM applications
- Reclocking or non-reclocking mode for each channel
- Auto-detects input clock rate
- Transparently pass data between 15Mbit/s and 3Gbit/s in non-reclocked mode.
- Input presence detection with LED indication for each channel
- Internal 4x6 signal router for flexible I/O mapping (via LynxCentraal)
- Singlemode LC fiber optic connections
- Fiber SFP modules secured in backplane
- Remote control and error reporting with LynxCentraal
- Full SNMP support when used with server option
- Hot swappable

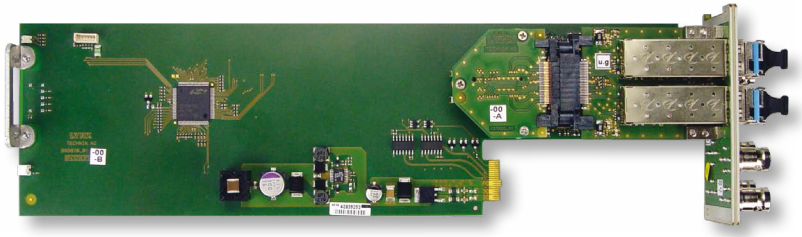



### Ordering Information

| Model # | Description |
|---|---|
| OTX 5840 | 4-Channel 3G-SDI to Fiber Transmitter |

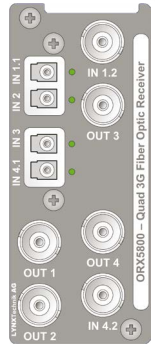
# ORX 5800

## 4-Channel Fiber to 3G-SDI Receiver



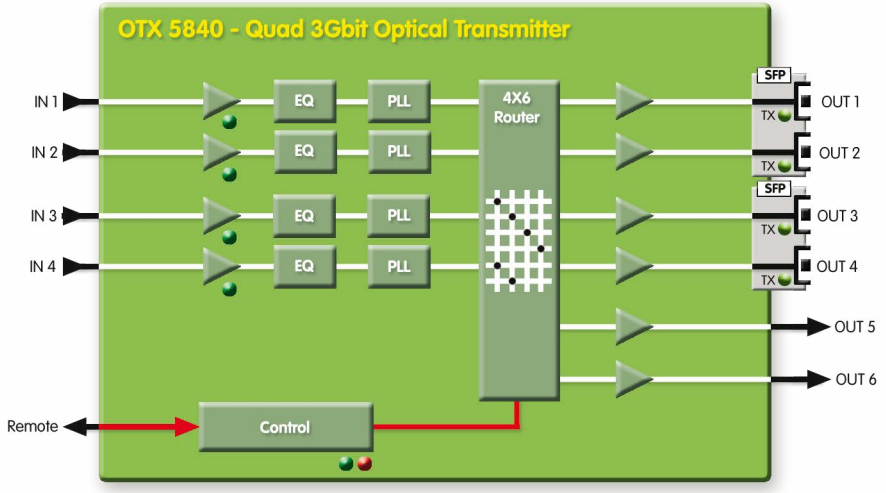
### Features

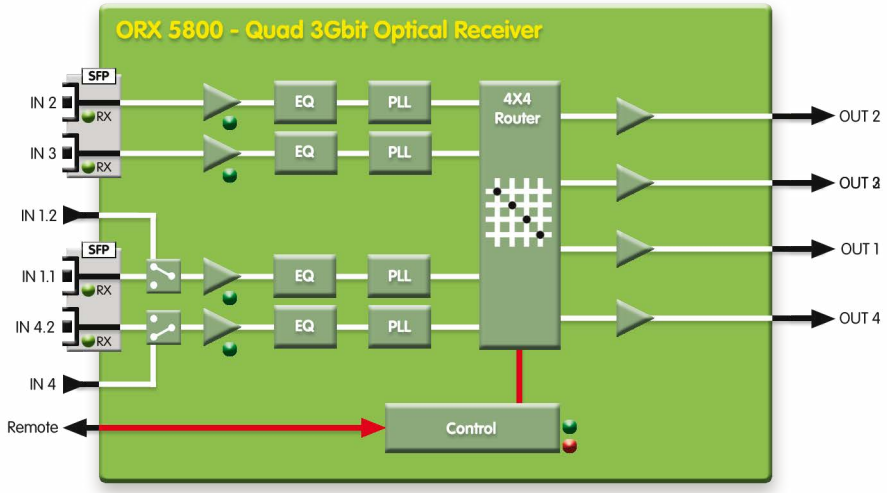
- 4 independent SDI optical receiver channels with 4x electrical SDI outputs
- Supports SDI/ASI/DVB up to 3Gbit/s
- 1260nm to 1620nm wavelength operational range
- Selectable electrical / optical inputs for 2 channels
- Reclocking or non-reclocking mode for each channel
- Auto-detects input clock rate
- Transparently pass data between 15Mbit/s and 3Gbit/s in non-reclocked mode.
- Input presence detection with LED indication for each channel
- Internal 4x4 signal router for flexible I/O mapping (via LynxCentraal)
- Singlemode LC fiber optic connections
- Fiber SFP modules secured in backplane.
- Remote control and error reporting with LynxCentraal
- Full SNMP support when used with server option
- Hot swappable




### Ordering Information

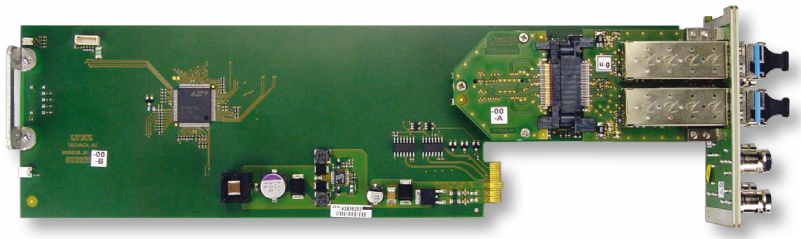
| Model # | Description |
|---|---|
| ORX 5800 | 4-Channel Fiber to 3G-SDI Receiver |



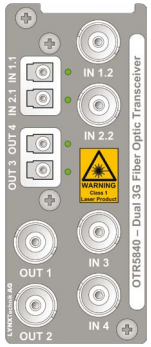
# OTR 5840

## 2-Channel 3G-SDI to Fiber Transceiver



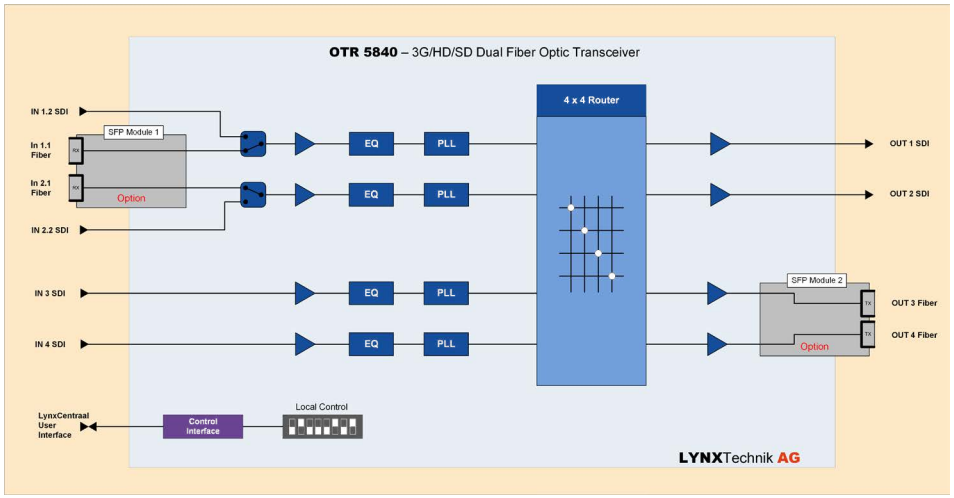
### Features

- 2 independent SDI fiber receiver channels (1260nm - 1620nm)
- 2 Independent SDI fiber transmitter channels
- 2 channels selectable between optical or electrical inputs
- CWDM support, select from 18 wavelengths
- Supports SDI/ASI/DVB to 3G-SDI
- Reclocking or non-reclocking mode for each channel
- Auto-detects input clock rate
- Transparently pass data between 15Mbit/s and 3G-SDI in non-reclocked mode.
- Input presence detection with LED indication for each channel
- Internal 4x4 router for flexible I/O mapping (via LynxCentraal only)
- Singlemode LC fiber optic connections
- Fiber SFP modules secured in backplane
- Remote control and error reporting when using LynxCentraal control system
- Full SNMP support when used with server option
- Hot swappable



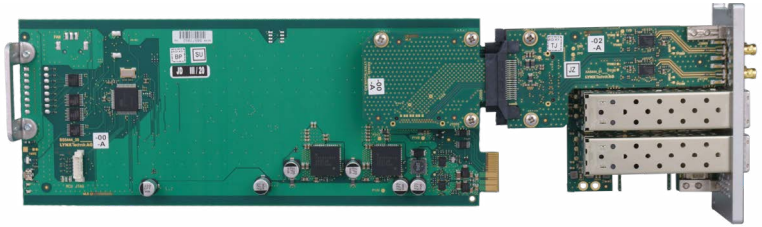

### Ordering Information

| Model # | Description |
|---|---|
| OTR 5840 | 3G-SDI 2-channel SDI / Fiber Transceiver |



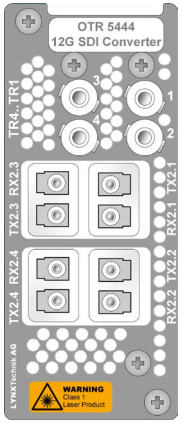

# OTR 5444

## 4-Channel Bi-Directional 12G-SDI to Fiber Converter



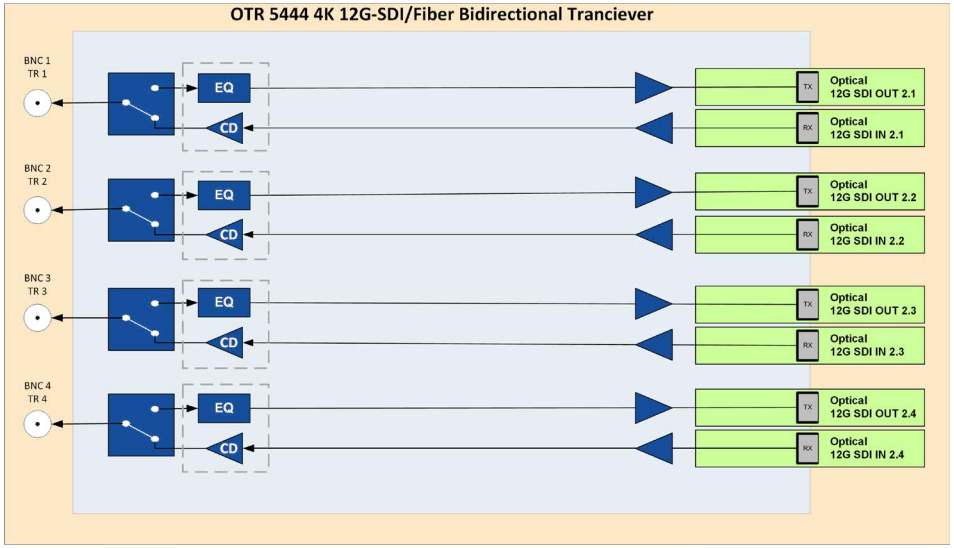
### Features

- Bi-directional electrical to optical and optical to electrical conversion up to 12GSDI
- 4-Channel12G-SDI (8K 4-channel optical to and from electrical conversion)
- 4x Optical Transceivers (TR)
- 4x High-density BNCs (TR)
- Incoming and outgoing 12G-SDI signals are reclocked.
- 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 LynxCentraal Control System
- Hot swappable




### Ordering Information

| Model # | Description |
|---|---|
| OTR 5444 | 4-Channel Bi-Directional 12G-SDI to Fiber Converter |

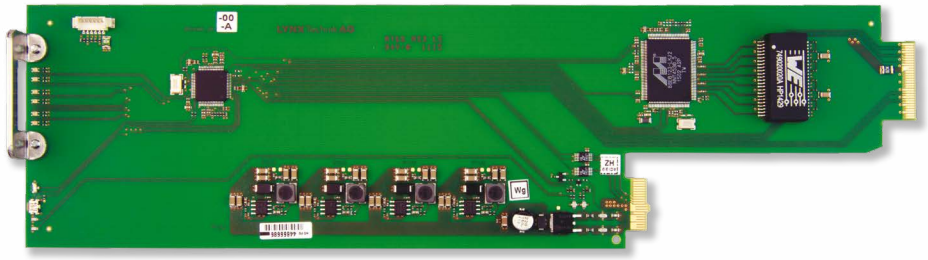


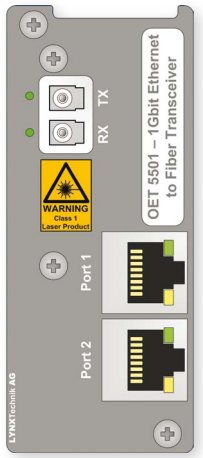
# OET 5501

## 1GbE Fiber Optic Transceiver

### Features

- Support for standard Ethernet inputs up to 1 Gbit
- 3 port Ethernet switch (1 fiber, 2 electrical)
- Support for Jumbo Frames
- Auto (10/100/1000) electrical port speed detection
- Manually force 10 Mbit electrical speed (if needed)
- Fiber transceiver speed always 1 Gbit
- Auto or manual electrical crossover selection
- Remote control, status monitoring and error reporting possible when used with LynxCentraal control system.
- Hot Swappable
- Variety of fiber SFP Transceiver options
  - » *Standard singlemode up to 10km (1310nm)*
  - » *Standard multimode up to 550m (850nm)*
  - » *CWDM 40km with 18 wavelength selections*
  - » *CWDM 80km with 8 wavelength selections*






### Description

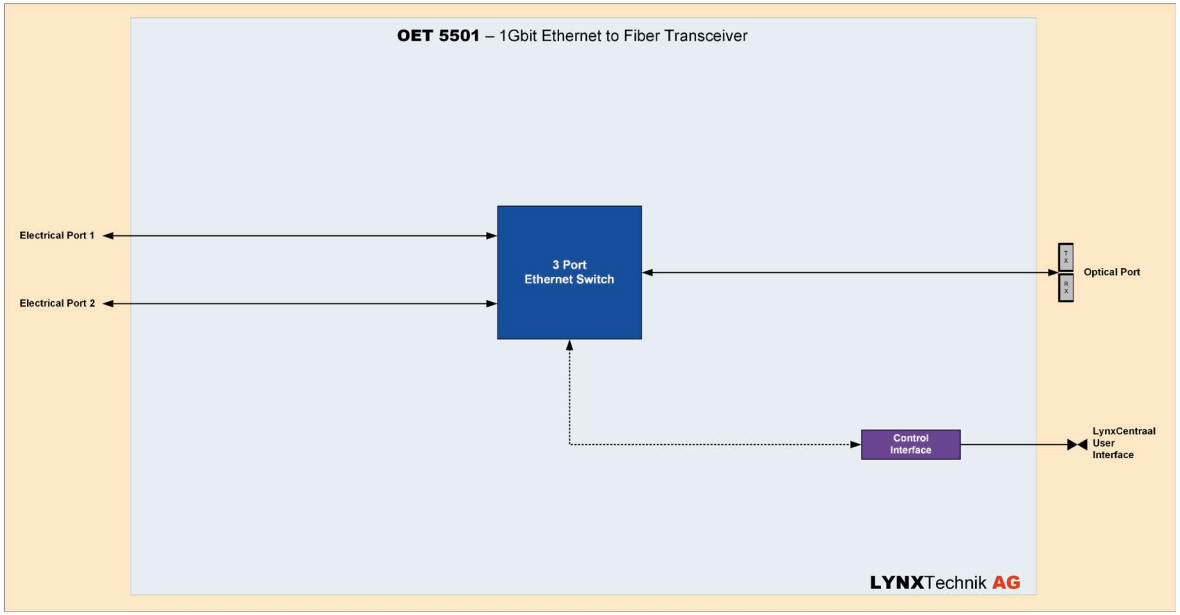
The OET 5501 is a 3 port Ethernet switch designed to extend the reach of electrical Ethernet signals over long distances using a constant (xed) high speed 1Gbit optical connection.

The OET 5501 can be paired with another OET 5501, the yellobrik OET 1510 or any other IEEE compliant Ethernet switch with a fiber interface. When paired with one of these devices using two fiber cables, the OET 5501 will provide a stable, high speed 1Gbit error free optical connection between distant locations.

The OET 5501 has two standard RJ45 electrical Ethernet ports plus fiber I/O and functions as a 3 port Ethernet switch. For legacy system use; each electrical Ethernet port can be set for automatic speed detection (10/100/1000) or forced to 10Mbit, and each port can use automatic crossover detection, or be forced manually if needed. These functions are available via the LynxCentraal control system.

A variety of optional SFP fiber sub modules are available (including singlemode and multimode fiber plus CWDM fiber with 18 wavelength selections) this allows the module to be used in multiple applications.

Full remote control and status monitoring, (including the available optical input budget) are possible when using the LynxCentraal control system.

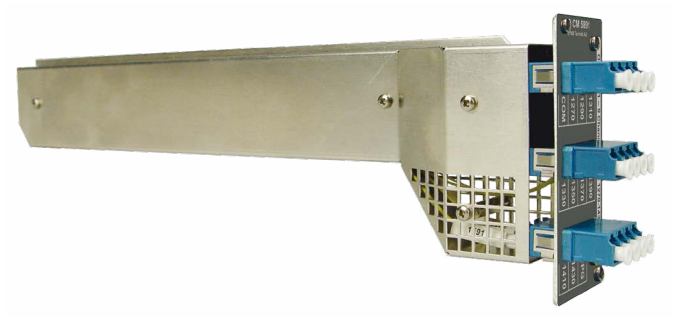


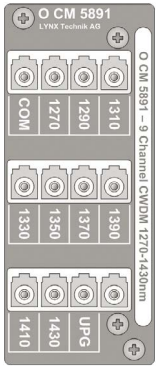

### Ordering Information

| Model # | Description |
|---|---|
| OET 5501 | 1Gbit Ethernet to Fiber Optic Transceiver |

# OCM 5891

## 9 Channel Optical Multiplexer / De-multiplexer






### Features

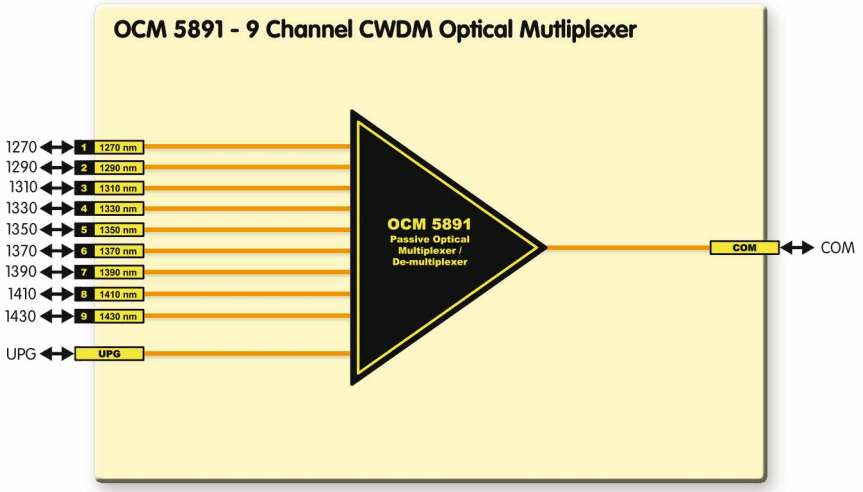
- 9 channel CWDM optical multiplexer / de-multiplexer
- Wavelengths according to ITU-T G.694.2
- Send and / or receive up to 9 channels over a single fiber connection
- Passive operation (no power needed)
- Designed to fit in RFR 5012, RFR 5013, RFR 5014 and RFR 5041 Frames
- Installs from rear of rack (uses one rack slot)
- LC fiber connections, singlemode
- UPG port for expansion (connect to OCM 5892 to add 9 more channels)
- Use with LYNX modules configured with CWDM fiber SFP options

### Fiber I/O Channels

| 9x Fiber Optic I/O channels | | |
|---|---|---|
| Channel 1: 1270nm | Channel 4: 1330nm | Channel 7: 1390nm |
| Channel 2: 1290nm | Channel 5: 1350nm | Channel 8: 1410nm |
| Channel 3: 1310nm | Channel 6: 1370nm | Channel 9: 1430nm |

### Ordering Information

| Model # | Description |
|---|---|
| OCM 5891 | 9 Channel Optical Multiplexer / De-multiplexer 1270 - 1430nm |



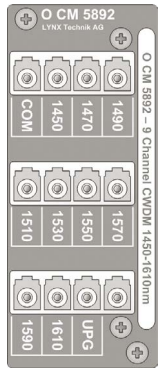

# OCM 5892

## 9 Channel Optical Multiplexer / De-multiplexer

### Features

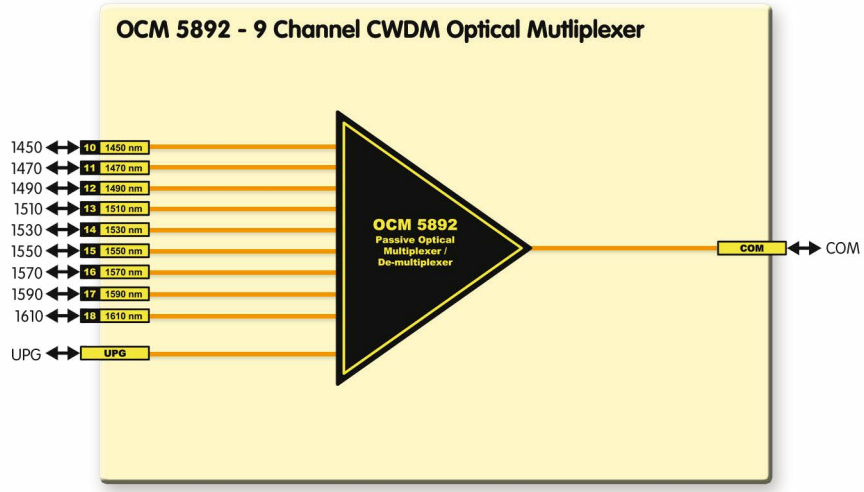
9 channel CWDM optical multiplexer / de-multiplexer
Wavelengths according to ITU-T G.694.2
Send and / or receive up to 9 channels over a single fiber connection
Passive operation (no power needed)
Designed to fit in R FR 5012, R FR 5013, R FR 5014 and R FR 5041 Frames
Installs from rear of rack (uses one rack slot)
LC fiber connections, singlemode
UPG port for expansion (connect to O CM 5891 to add 9 more channels)
Use with LYNX modules configured with CWDM fiber SFP options

| Optical I/O | 9x Fiber Optic I/O channels | |
|---|---|---|
| | Channel 10 = 1450nm | Channel 15 = 1550nm |
| | Channel 11 = 1470nm | Channel 16 = 1570nm |
| | Channel 12 = 1490nm | Channel 17 = 1590nm |
| | Channel 13 = 1510nm | Channel 18 = 1610nm |
| | Channel 14 = 1530nm | |



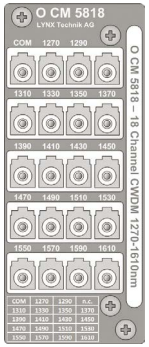

### Ordering Information

| Model # | Description |
|---|---|
| OCM 5892 | 9 Channel Optical Multiplexer / De-multiplexer 1450 - 1610nm |



# OCM 5891

## 18 Channel Optical Multiplexer / De-multiplexer 1270 - 1610nm




### Features

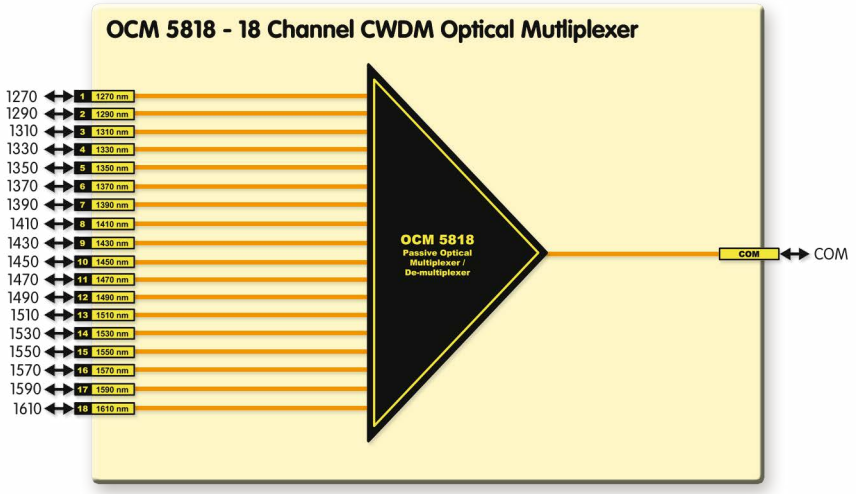
- 18 channel CWDM optical multiplexer / de-multiplexer
- Wavelengths according to ITU-T G.694.2
- Send and / or receive up to 18 channels over a single fiber connection
- Passive operation (no power needed)
- Designed to fit in R FR 5012, R FR 5013, R FR 5014 and R FR 5041 Frames
- Installs from rear of rack (uses one rack slot)
- LC fiber connections, singlemode
- Use with LYNX modules configured with CWDM fiber SFP options

### Fiber I/O Channels

| 18x Fiber Optic I/O channels | | |
|---|---|---|
| Channel 1: 1270nm | Channel 7: 1390nm | Channel 13: 1510nm |
| Channel 2: 1290nm | Channel 8: 1410nm | Channel 14: 1530nm |
| Channel 3: 1310nm | Channel 9: 1430nm | Channel 15: 1550nm |
| Channel 4: 1330nm | Channel 10: 1450nm | Channel 16: 1570nm |
| Channel 5: 1350nm | Channel 11: 1470nm | Channel 17: 1590nm |
| Channel 6: 1370nm | Channel 12: 1490nm | Channel 18: 1610nm |

### Ordering Information

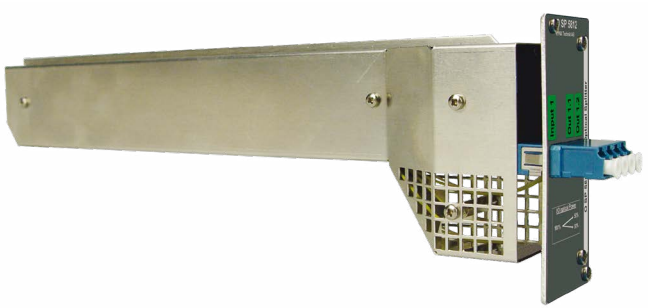
| Model # | Description |
|---|---|
| OCM 5891 | 18 Channel Optical Multiplexer / De-multiplexer 1270 - 1610nm |

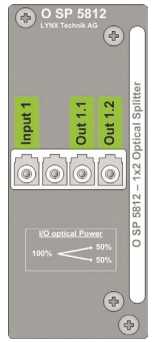





# OSP 5812

## 1×2 (50/50) Fiber Splitter



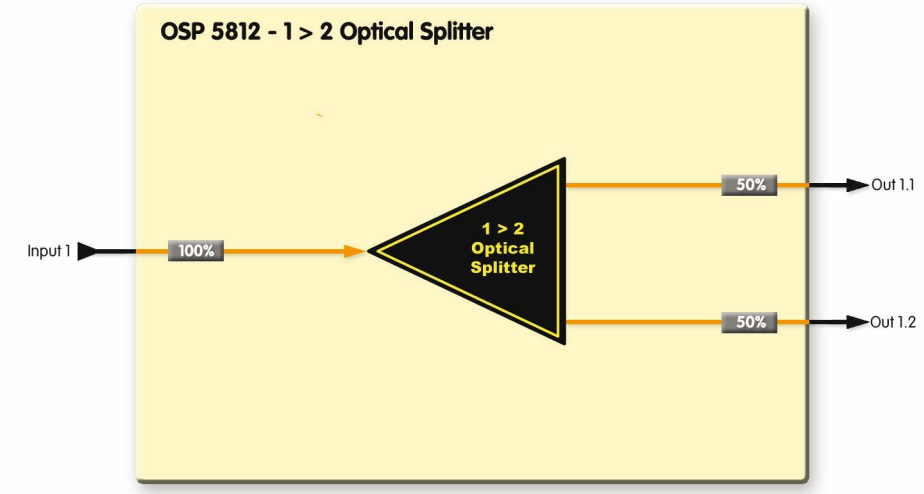



### Features

- Precision 1×2 optical splitter
- 50% / 50% split ratio
- Passive operation (requires no power)
- Compatible will all Series 5000 rack frames (2RU and 1RU)
- Occupies one card slot
- Installs from rear of rack
- LC fiber connections, singlemode

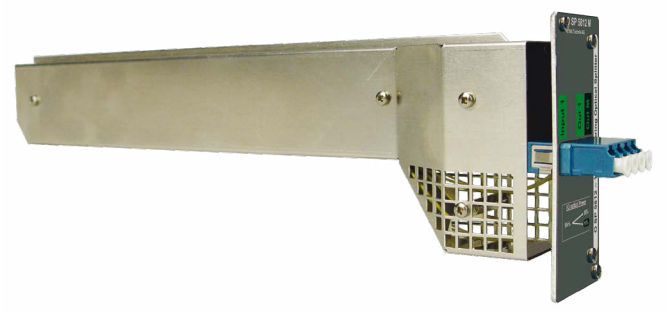
### Ordering Information

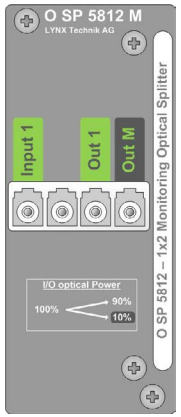
| Model # | Description |
|---|---|
| OSP 5812 | 1×2 Optical Splitter (50/50) |



# OSP 5812 M

## 1×2 (90/10) Fiber Splitter



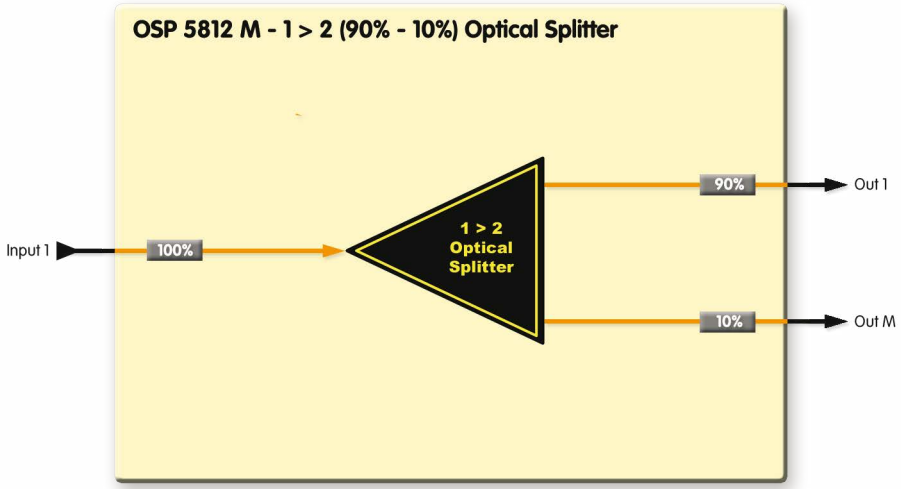



### Features

- Precision 1×2 optical splitter
- 90% / 10% split ratio (for monitoring applications)
- Passive operation (requires no power)
- Compatible will all Series 5000 rack frames (2RU and 1RU)
- Occupies one card slot
- Installs from rear of rack
- LC fiber connections, singlemode

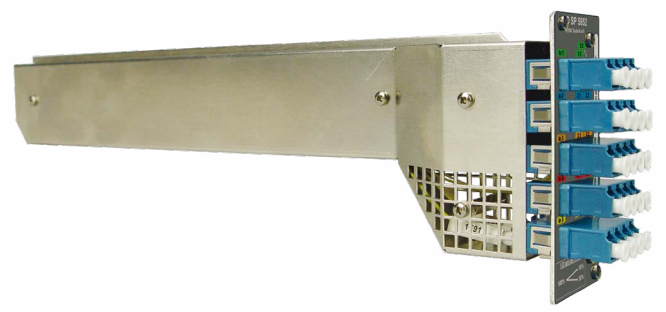
### Ordering Information

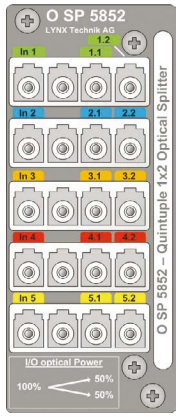
| Model # | Description |
|---|---|
| OSP 5812 M | 1×2 Monitoring Optical Splitter (90/10) |




# OSP 5852

## 5-Channel 1×2 (50/50) Fiber Splitter



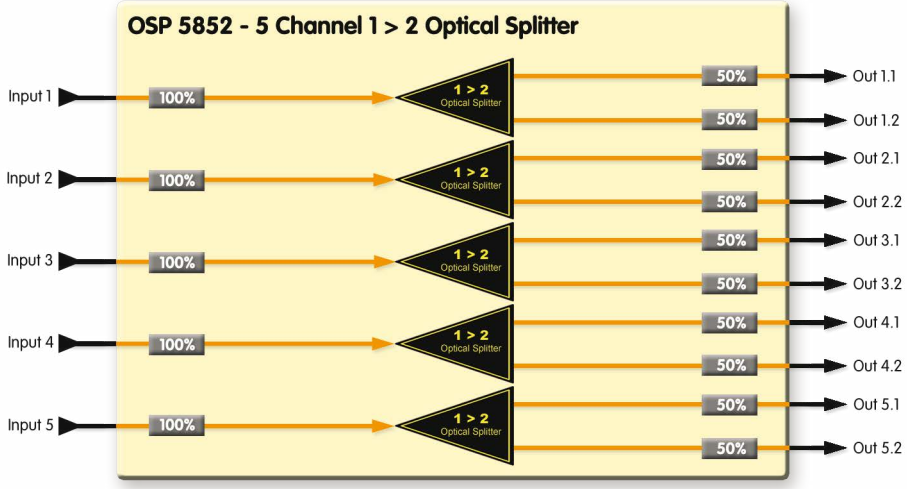



### Features

- Five 1×2 optical splitters in a single module
- Precision 1×2 optical splitter
- 50% / 50% split ratio
- Passive operation (requires no power)
- Compatible will all Series 5000 rack frames (2RU and 1RU)
- Occupies one card slot
- Installs from rear of rack
- LC fiber connections, singlemode

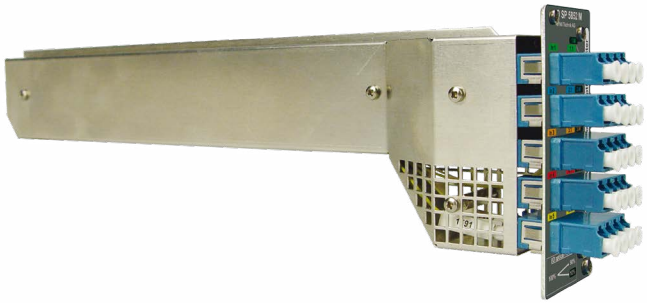
### Ordering Information

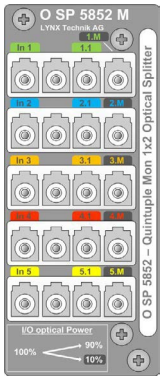
| Model # | Description |
|---|---|
| OSP 5852 | 5 channel 1×2 Optical Splitter (50/50) |



# OSP 5852 M

## 5-Channel 1×2 (90/10) Fiber Splitter



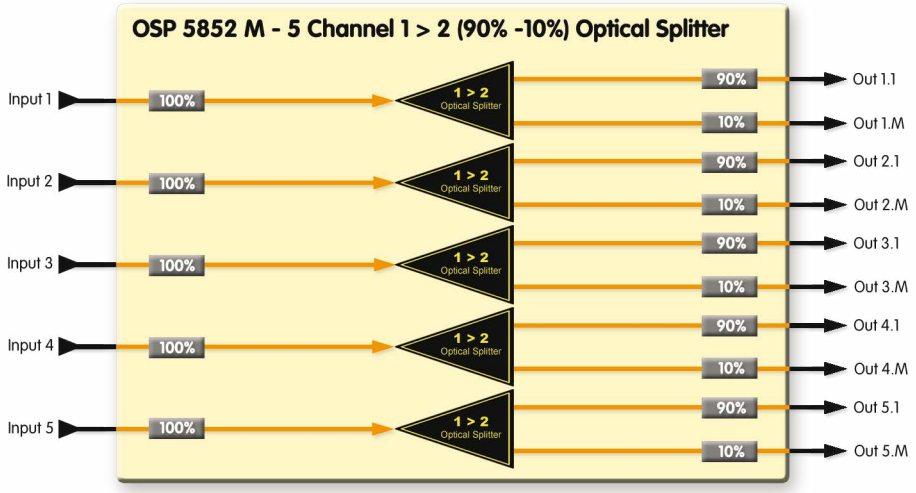



### Features

- Five 1×2 optical splitters in a single module
- Precision 1×2 optical splitter
- 90% / 10% split ratio (for monitoring applications)
- Passive operation (requires no power)
- Compatible will all Series 5000 rack frames (2RU and 1RU)
- Occupies one card slot
- Installs from rear of rack
- LC fiber connections, singlemode

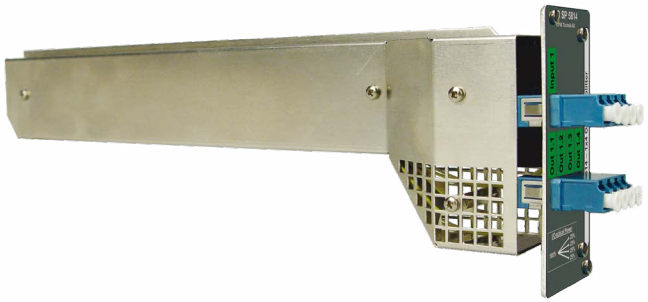
### Ordering Information

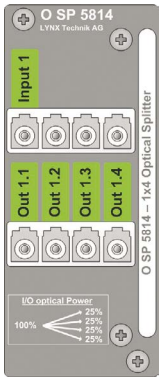
| Model # | Description |
|---|---|
| OSP 5852 M | 5 channel 1×2 Monitoring Optical Splitter (90/10) |




# OSP 5814

## 1×4 (25/25/25/25/) Fiber Splitter



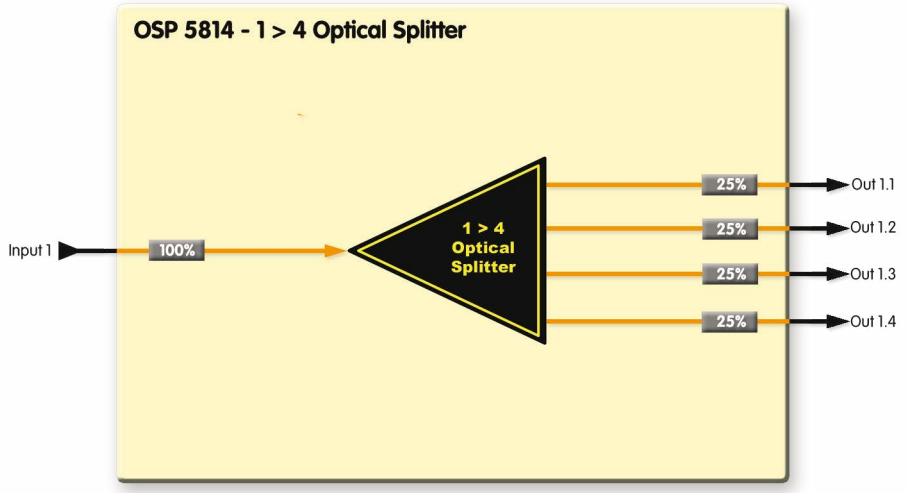



### Features

- Precision 1×4 optical splitter
- 25% / 25% / 25% / 25% split ratio
- Passive operation (requires no power)
- Compatible will all Series 5000 rack frames (2RU and 1RU)
- Occupies one card slot
- Installs from rear of rack
- LC fiber connections, singlemode

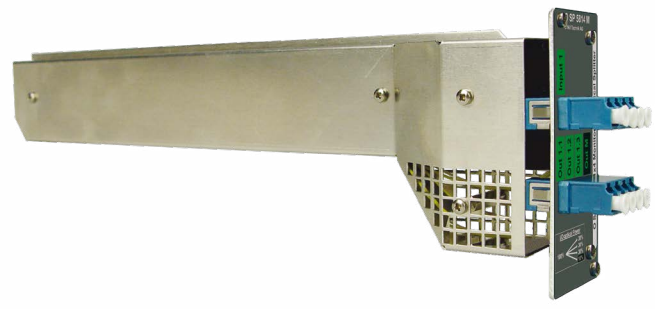
### Ordering Information

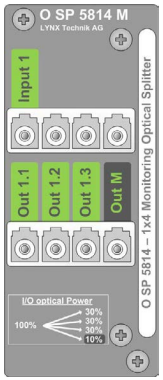
| Model # | Description |
|---|---|
| OSP 5814 | 1×4 Optical Splitter (25/25/25/25) |



# OSP 5814 M

## 1×2 (30/30/30/10) Fiber Splitter



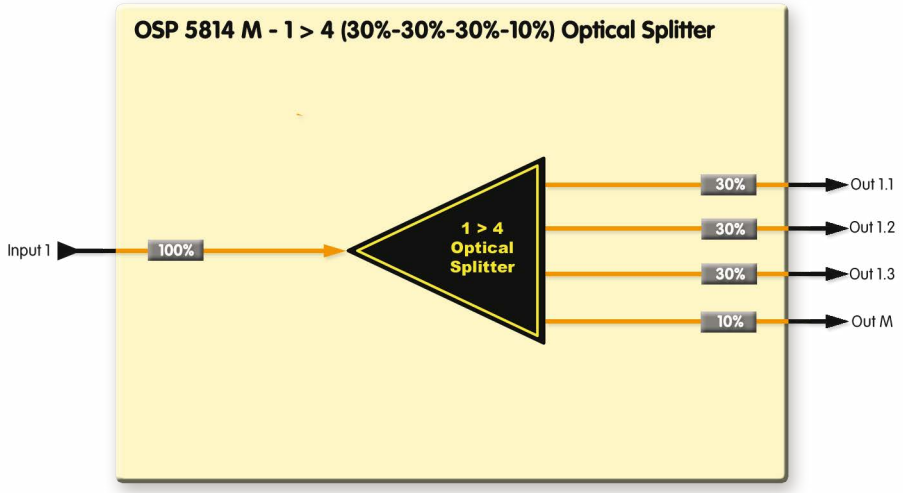



### Features

- Precision 1×4 optical splitter
- 30% / 30% / 30% / 10% split ratio (for monitoring applications)
- Passive operation (requires no power)
- Compatible will all Series 5000 rack frames (2RU and 1RU)
- Occupies one card slot
- Installs from rear of rack
- LC fiber connections, singlemode

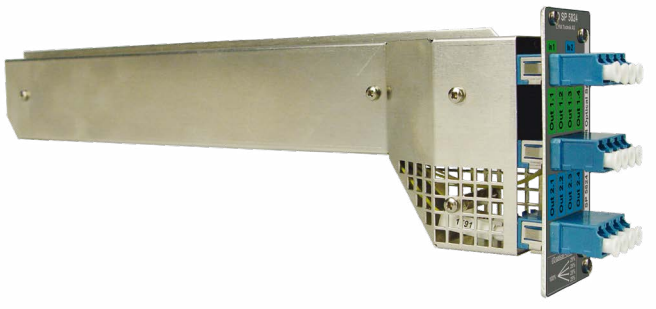
### Ordering Information

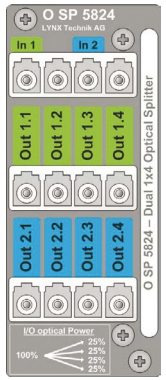
| Model # | Description |
|---|---|
| OSP 5814 M | 1×4 Monitoring Optical Splitter (30/30/30/10) |




# OSP 5824

## 2-Channel 1×4 (25/25/25/25) Fiber Splitter



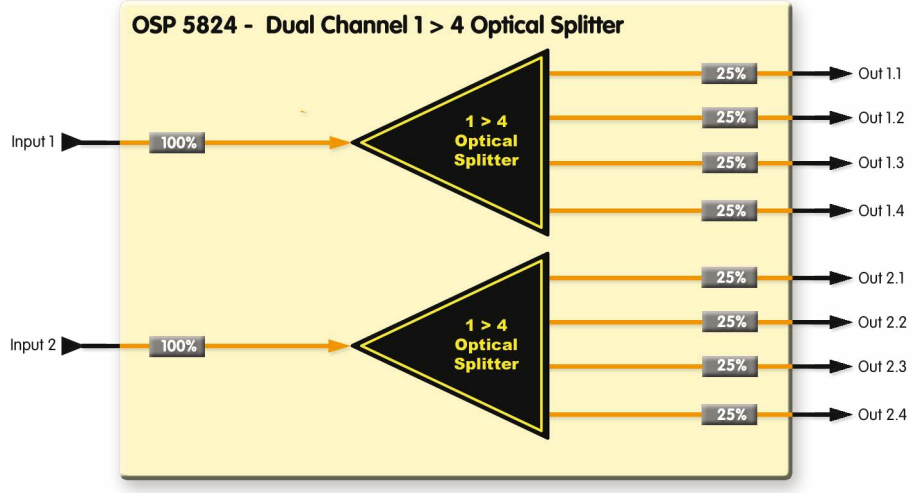



### Features

- Two 1×4 splitters in a single module
- Precision 1×4 optical splitter
- 25% / 25% / 25% / 25% split ratio
- Passive operation (requires no power)
- Compatible will all Series 5000 rack frames (2RU and 1RU)
- Occupies one card slot
- Installs from rear of rack
- LC fiber connections, singlemode

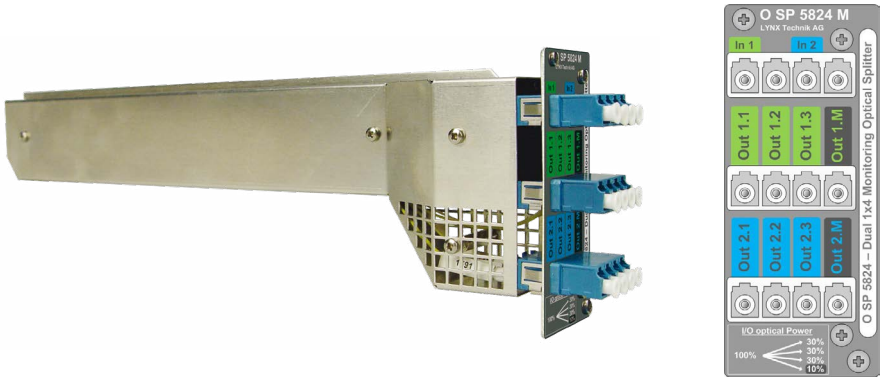
### Ordering Information

| Model # | Description |
|---|---|
| OSP 5824 | 2-channel Channel 1×4 Optical Splitter (25/25/25/25) |



# OSP 5824 M

## 2-Channel 1×4 (30/30/30/10) Fiber Splitter

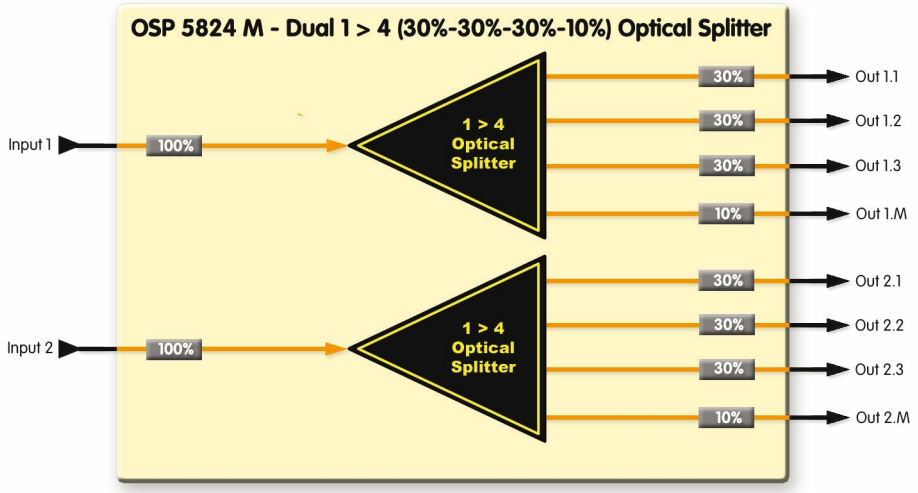



### Features

- Two 1×4 splitters in a single module
- Precision 1×4 optical splitter
- 30% / 30% / 30% / 10% split ratio (for monitoring applications)
- Passive operation (requires no power)
- Compatible will all Series 5000 rack frames (2RU and 1RU)
- Occupies one card slot
- Installs from rear of rack
- LC fiber connections, singlemode

### Ordering Information

| Model # | Description |
|---|---|
| OSP 5824 M | 2-channel Channel 1×4 Monitoring Optical Splitter (30/30/30/10) |




# OSP 5844

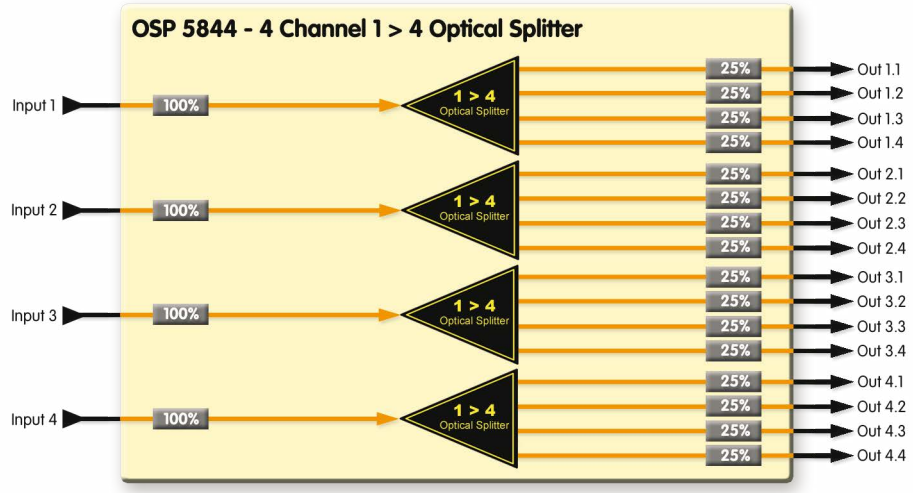
## 4-Channel 1×4 (25/25/25/25) Fiber Splitter


### Features

- Four 1×4 splitters in a single module
- Precision 1×4 optical splitter
- 25% / 25% / 25% / 25% split ratio
- Passive operation (requires no power)
- Compatible will all Series 5000 rack frames (2RU and 1RU)
- Occupies one card slot
- Installs from rear of rack
- LC fiber connections, singlemode

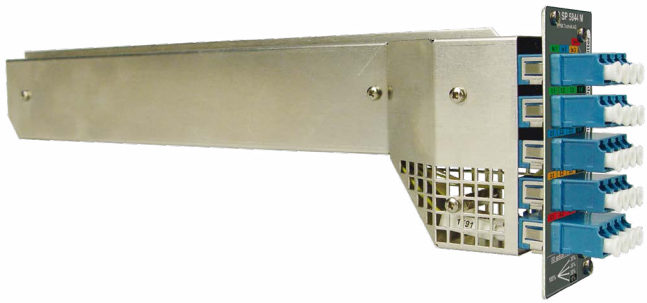
### Ordering Information

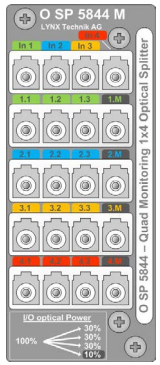
| Model # | Description |
|---|---|
| OSP 5844 | 4 Channel 1×4 Optical Splitter (25/25/25/25) |



# OSP 5844 M

## 4-Channel 1×4 (30/30/30/10) Fiber Splitter



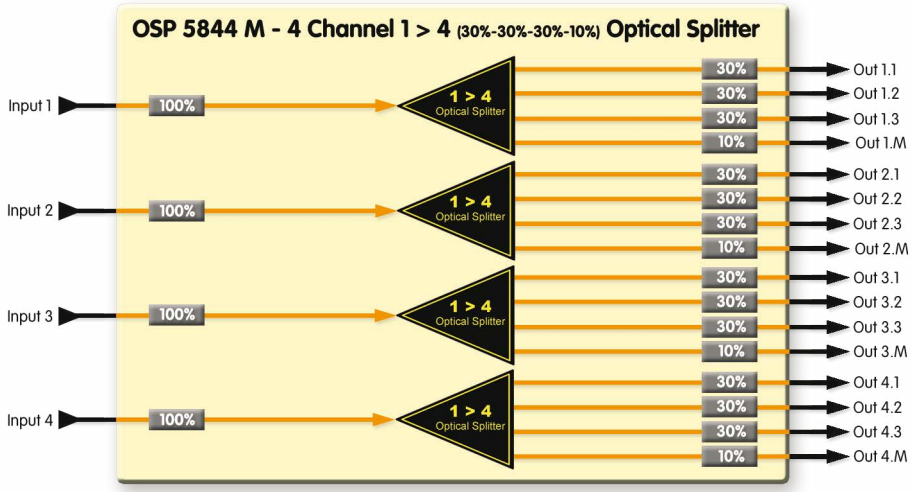



### Features

- Four 1×4 splitters in a single module
- Precision 1×4 optical splitter
- 30% / 30% / 30% / 10% split ratio (for monitoring applications)
- Passive operation (requires no power)
- Compatible will all Series 5000 rack frames (2RU and 1RU)
- Occupies one card slot
- Installs from rear of rack
- LC fiber connections, singlemode

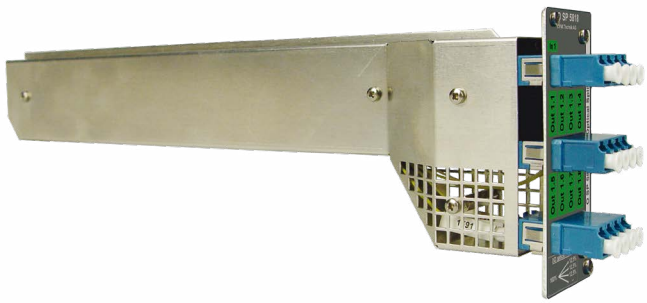
### Ordering Information

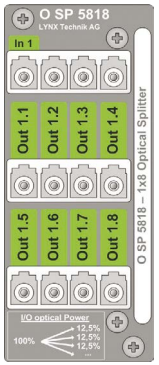
| Model # | Description |
|---|---|
| OSP 5844 M | 4 Channel 1×4 Monitoring Optical Splitter (30/30/30/10) |




# OSP 5818

## 1×8 (12.5%) Fiber Splitter



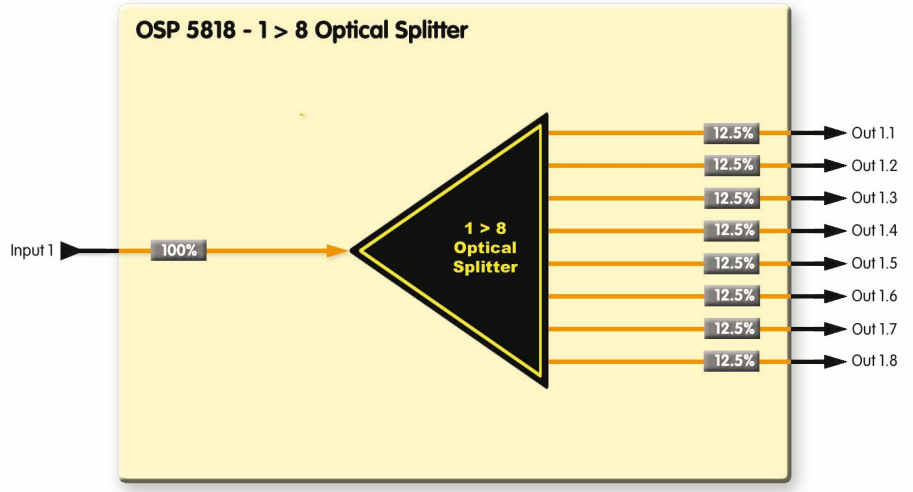



### Features

- Precision 1×8 optical splitter
- 12.5% / 12.5% / 12.5% / 12.5% / 2.5% / 12.5% / 12.5% / 12.5% split ratio
- Passive operation (requires no power)
- Compatible will all Series 5000 rack frames (2RU and 1RU)
- Occupies one card slot
- Installs from rear of rack
- LC fiber connections, singlemode

### Ordering Information

| Model # | Description |
|---|---|
| OSP 5818 | 1×8 (12.5%) Fiber Splitter |



# RCT 5023

## LynxCentraal Network Rack Controller + Server Option

### Features

- Remote control and status monitoring for all installed modules
- Network (LAN) access
- RFR 5018 and RFR 5014 compatible
- USB port on module for local access
- Upgrade with server option
- Includes LynxCentraal software
- Hot swappable

### Description

The RCT 5023 G Rack controller is the latest Serie 5000 controller from LYNX Technik. It is a one-stop solution for the management and control of multiple Series 5000 card modules within a rack frame. Set parameters and update firmwares quickly and easily. The controller offers LAN connectivity to simplify the connection of the rack frame to the network. The APPolo control system unifies all connected devices to Lynx Centraal.

A second RCT 5023 server can be added to provide redundancy.

**Server option**

The optional plug-in server module (OH-RCT5023-SVR) takes care of the host requirement removing the need for an external APPolo Control Server on a third party computer. This is recommended for large installations.

**Auto Control**

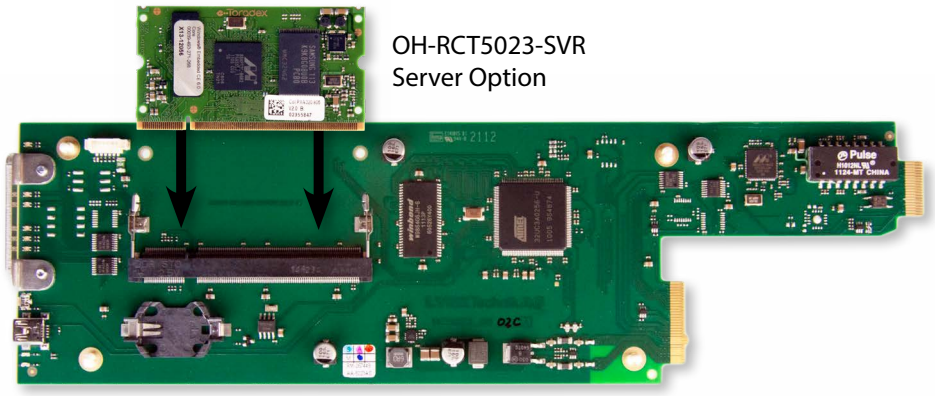
The RCT 5023 G with server module supports the new AutoControl software plug-in (OC-AUTOCONTROL-BASE). This enables user programmable system automation. It automates monitoring and handling user-defined events. AutoControl works with internal system events and external GPI/GPO interfaces.

Additional software plug-in options:

- OC-RSL-FUNC – Provides User Access Control + system wide Backup and Restore
- OC-RSL-CTRL – Provides full SNMP support for the system + access to the remote control protocol

### Ordering Information

| Model # | Description |
|---|---|
| RCT 5023 G | LynxCentraal Network Rack Controller |
| OH-RCT5023-SVR | Plug-In Server Option |



OH-RCT5023-SVR
Server Option

# OH-RCT5023-SVR

## Rack Controller Server Option

### Features

- Supports up to 256 Serie 5000 Rack Controllers RCT 5023-G
- Enables AutoControl and Custom Control in LynxCentraal
- Facilitates system wide backups of device settings and restore at will
- SNMPv2 and Lynx Remote Control Interface Protocol support for 3rd party control softwarew
- SNMPv2 and Lynx Remote Control Interface Protocol support for 3rd party control softwarew

### Description

The OH-RCT5023-SVR server board is designed to simplify the control of complex environment with multiple Serie 5000 rackframes. The plug-in server module must be added to an RCT 5023-G controller card. It uses the same rackframe RJ45 connector as the host RCT5023 controller to connect to a LYNX Series 5000 system through a LAN.

The optional server module takes care of the host requirement removing the need for an external APPolo Control Server on a third party computer. This is recommended for large installations as it unlocks powerful Lynx Centraal features such as automation, backup, customized control panels, centralized updates, etc.

# RFR 5018

## 2 RU Rack Frame for Series 5000 (Fan Cooled)

### Description

Compact 19 inch 2 RU rack mount rack frame which can accommodate up to 10 modules, primary and redundant power supplies plus the optional LynxCentraal rack controller.

Fan cooling is provided through the front cover. The high quality stainless steel construction is fully EMC/ FCC compliant.

All racks are pre-wired for the LynxCentraal control system.

RPS 5018
Redundant Power Supply (primary supply included)

### Ordering Information

| Model # | Description |
|---|---|
| RFR 5018 | 19" Rack Frame with Primary Power Supply (fan cooled) |
| RPS 5018 | Option : Redundant Power Supply |

# RFR 5014

## 2 RU Rack Frame for Series 5000 (No Fan Cooling)

### Description

Compact 19 inch 2 RU rack mount rack frame which can accommodate up to 10 low power* modules, primary and redundant power supplies plus optional LynxCentraal rack controller.

This rack is convection cooled (no fans). The high quality stainless steel construction is fully EMC/ FCC compliant. All racks are pre-wired for the LynxCentraal control system.

**Note:** This version is recommended when multiple low power modules are used, e.g. Distribution Amplifiers. **Not recommended for high power signal processing modules.**

RPS 5018
Redundant Power Supply (primary supply included)

### Ordering Information

| Model # | Description |
|---|---|
| RFR 5014 | 19" Rack Frame with Primary Power Supply (no cooling) |
| RPS 1018 | Option : Redundant Power Supply |

# RFR 5013

## 2 RU Rack Frame for Passive Fiber Modules (No Power)

### Features

- 2RU Height
- High quality steel construction
- Compact, small depth, ideal for mobile applications
- Accommodates up to 12 passive Series 5000 modules
- Modules install from the rear

### Description

Compact 19 inch 2 RU rack mount rack frame which can accommodate up to 12 passive fiber optical modules (OCM and OSP modules).

This is a passive rack frame and rack requires no power. The OCM and OSP Optical modules mount from the rear of the rack.

### Ordering Information

| Model # | Description |
|---|---|
| RFR 5013 | 19" Rack Frame for Passive Optical Modules |

# Fiber Adapter Kits

Almost all of the fiber SFP modules we use have LC fiber connections. We provide a range of adapter cables to facilitate the connection into existing fiber infrastructures.

SC and ST adapter kits are provided in Simplex (1-channel) or Duplex (2-channel) form. Each cable is made from singemode fiber, 0.5m long and the kit includes a male/female changer.

The adapter cables introduce minimal losses to the system.

## Ordering Information

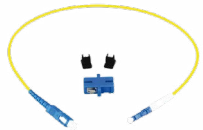
### LC/SC DUP

**Duplex LC/PC to SC/PC Adapter**

| Technical Specifications | |
|---|---|
| Attenuation | <0.25dB |
| Physical | Length: 0.5m (19") |
| Connectors | LC/PC, SC/PC (Duplex) |
| Model # | LC/SC DUP |

### LC/SC SIM

**Simplex LC/PC to SC/PC Adapter**



| Technical Specifications | |
|---|---|
| Attenuation | <0.25dB |
| Physical | Length: 0.5m (19") |
| Connectors | LC/PC, SC/PC (Simplex) |
| Model # | LC/SC SIM |

### LC/ST DUP

**Duplex LC/PC to ST/PC Adapter**

| Technical Specifications | |
|---|---|
| Attenuation | <0.25dB |
| Physical | Length: 0.5m (19") |
| Connectors | LC/PC, ST/PC (Duplex) |
| Model # | LC/ST DUP |

### LC/ST SIM

**Simplex LC/PC to ST/PC Adapter**

| Technical Specifications | |
|---|---|
| Attenuation | <0.25dB |
| Physical | Length: 0.5m (19") |
| Connectors | LC/PC, ST/PC (Simplex) |
| Model # | LC/ST SIM |

### LC/FC DUP

**Duplex LC/PC to FC/PC Adapter**

| Technical Specifications | |
|---|---|
| Attenuation | <0.25dB |
| Physical | Length: 0.5m (19") |
| Connectors | LC/PC, FC/PC (Duplex) |
| Model # | LC/FC DUP |

### LC/FC SIM

**Simplex LC/PC to FC/PC Adapter**

| Technical Specifications | |
|---|---|
| Attenuation | <0.25dB |
| Physical | Length: 0.5m (19") |
| Connectors | LC/PC, FC/PC (Simplex) |
| Model # | LC/FC SIM |

### LC/LC DUP

**Duplex LC/PC Patch Cable**

| Technical Specifications | |
|---|---|
| Attenuation | <0.25dB |
| Physical | Length: 0.5m (19") |
| Connectors | LC/PC (Duplex) |
| Model # | LC/LC DUP |

### LC/LC SIM

**Simplex LC/PC Patch Cable**

| Technical Specifications | |
|---|---|
| Attenuation | <0.25dB |
| Physical | Length: 0.5m (19") |
| Connectors | LC/PC (Simplex) |
| Model # | LC/FC SIM |

# Audio Adapter Kits

For Series | 5000 Modules that utilize D-Sub connections for balanced audio we provide 6 breakout cables which adapts the D-Sub connection to standard in line 3 pin XLR connectors.

Analog audio and balanced AES connections to the modules are made using D-Sub connectors on the module backplanes (15 or 25 pin). The RBO 5015 and RBO A025 PCB adapters can be used to facilitate connections via terminal strips. (As an alternative to using the optional breakout cable assemblies; or soldering custom connectors).

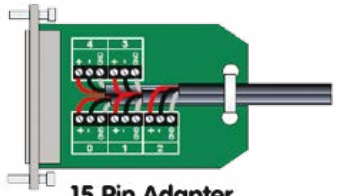
## Ordering Information

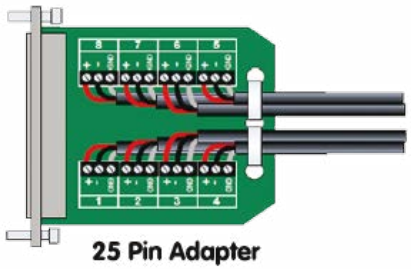
### Audio Breakout Cables

| | |
|---|---|
| RAC MF25-4/4 | D-Sub 25 (male) to 4x XLR (female) and 4x XLR (male) |
| Audio adapter cable with 1x male D-Sub 25 pin connector to 4x female XLR and 4x male XLR connectors. | |
| RAC M25-8 | D-Sub 25 (male) to 8x XLR (male) |
| Audio adapter cable with 1x male D-Sub 25 pin connector to 8x male XLR connectors. | |
| RAC F25-8 | D-Sub 25 (male) to 8x XLR (female) |
| Audio adapter cable with 1x male D-Sub 25 pin connector to 8x female XLR connectors. | |
| RAC M15-4 | D-Sub 15 (male) to 4x XLR (male) |
| Audio adapter cable with 1x male D-Sub 15 pin connector to 4x male XLR connectors. | |
| RAC MF15-2/2 | D-Sub 15 (male) to 2x XLR (male) and 2x XLR (female) |
| Audio adapter cable with 1x male D-Sub 15 pin connector to 2x male XLR and 2x female XLR connectors. | |

### Audio Breakout Adapters

| | |
|---|---|
| RBO A025 | D-Sub 25 Adapter PCB |
| Audio adapter breakout board with 1x male D-Sub 25 pin connector to 8x3 Screw terminals for AES groups and balanced analog audio. | |
| RBO 5015 | D-Sub 15 Adapter PCB |
| Audio adapter breakout board with 1x male D-Sub 15 pin connector to 5x3 Screw terminals for AES groups and balanced analog audio. | |



## Fiber Implementation

Fiber is essential in modern broadcast infrastructure, offering extended range and enabling advanced technologies like Coarse Wavelength Division Multiplexing (CWDM) and bi-directional transmission over a single fiber.

Our Small Form-factor Pluggable (SFP) modules are rigorously tested for reliability and thermal performance. They range from basic 10km non-CWDM fixed wavelength to a full range of High-Power/High Sensitivity CWDM SFPs for SDI, MADI and Ethernet signals. The basic SFP modules support distances up to 10km, while our CWDM solutions support distances up to 40km or 80km.

## How to calculate Optical Distances

**1. Determine the Link Budget (Total Allowed Loss):**
The link budget is calculated as the difference between the transmitter's output power and the receiver's sensitivity:
**Link Budget = Transmitter Power - Receiver Sensitivity**

**For example:**
If an SFP transmitter outputs at -3 dBm and the receiver sensitivity is -18 dBm, the link budget is:
**-3 dBm - (-18 dBm) = 15 dB**

**2. Estimate the fiber length:**
Using the fiber attenuation per unit length (dB/km) you can estimate the loss introduced by the maximum possible fiber length. Different types of fiber (e.g., single-mode, multimode) have different attenuation characteristics and maximum transmission distances.

**3. Account for splices and connectors:**
Each splice and connector introduces a loss, which needs to be factored into the total link loss calculation. Add up the losses from all connectors, splices, and passive components (such as splitters and multiplexers). LYNX fiber products provide this "Insertion Loss" information in dB on datasheets and/or product packaging.

**4. Consider the minimum bend radius:**
Ensure that the calculated length and routing of the cable do not violate the minimum bend radius requirements.

**5. Calculate the Total System Losses**
Add the Fiber attenuation, Connector losses, Splice losses, Passive components losses (e.g splitters, multiplexers) plus a safety margin for aging and temperature variations.
These losses must be less than or equal to the link budget.

**6. Optional: Verify with Optical Time-Domain Reflectometer (OTDR):**
After installation, use an OTDR to verify the actual fiber length, identify any faults, and confirm that the signal loss is within acceptable limits.

## CWDM

LYNX Technik offers comprehensive support for CWDM (Coarse Wavelength Division Multiplexing) with 18 selectable laser wavelengths as specified by ITU-T G692.2.

CWDM supports up to 18 signal channels on a single fiber using passive components such as LYNX Technik multiplexers (OCM 58XX) and splitters (OSP 58XX). Our CWDM solutions service distances up to 40km, and our long-haul transmitters and receivers are suitable for applications up to 80km.

| Table: R1 - 3G-SDI Receiver SFPs | | | Type | Sensitivity | |
|---|---|---|---|---|---|
| | | | | 3G | 1.5G |
| **OH-RX-1-LC/SC/ST** | 3G-SDI Singlemode LC/SC/ST Fiber RX | 10km (1260 - 1620nm) | Simplex | -18dBm | |
| **OH-RX-8-LC** | 3G-SDI Singlemode LC Fiber RX | 80km (1260 - 1620nm) | Simplex | -26dBm | |
| **OH-RX-0-850-MM** | 3G-SDI Multimode LC Fiber RX | 550m (780 - 880nm) | Simplex | -15dBm | -16dBm |
| **OH-RR-1-LC** | 3G-SDI Singlemode LC Fiber RX/RX | 10km (1260 - 1620nm) | Duplex | -18dBm | |
| **OH-RR-8-LC** | 3G-SDI Singlemode LC Fiber RX/RX | 80km (1260 - 1620nm) | Duplex | -26dBm | |

| Table: R2 - 12G-SDI Receiver SFPs | | | Type | Sensitivity | | | |
|---|---|---|---|---|---|---|---|
| | | | | 12G | 6G | 3G | 1.5G |
| **OH-RX-12G-LC** | 12G-SDI Singlemode LC Fiber RX | 10km (1260 - 1620nm) | Simplex | -10dBm | -14dBm | | -16dBm |
| **OH-RX-12G-ST** | 12G-SDI Singlemode ST Fiber RX | 10km (1260 - 1620nm) | Simplex | -10dBm | | -14dBm | |
| **OH-RX-4-12G-LC** | 12G-SDI Singlemode LC Fiber RX | 40km (1260 - 1620nm) | Simplex | -18dBm | | | |
| **OH-RX-12G-SDI** | 12G-SDI Singlemode micro BNC RX | 10km (1260 - 1620nm) | 1-Channel | | | | |
| **OH-RR-12G-LC** | 12G-SDI Singlemode LC Fiber RX/RX | 10km (1260 - 1620nm) | Duplex | -9dBm | -10dBm | | |
| **OH-RR-4-12G-LC** | 12G-SDI Singlemode LC Fiber RX/RX | 40km (1260 - 1620nm) | Duplex | -18dBm | | | |

| Table: T1 - 3G-SDI Transmitter SFPs | | | Type | Power | | |
|---|---|---|---|---|---|---|
| | | | | Min. | Typ. | Max. |
| **OH-TX-1-LC/ST/SC** | 3G-SDI Singlemode LC / ST / SC Fiber TX | 10km (1310nm) | Simplex | -5dBm | | |
| **OH-TX-4-12G-LC** | 3G-SDI Singlemode LC / ST Fiber TX | 40km (1310nm) | Simplex | 3dBm | | |
| **OH-TT-1-LC** | 3G-SDI Singlemode LC Fiber TX/TX | 10km (1270 ... 1610nm) | Duplex | -8dBm | - | -3dBm |

| Table: T2 - 12G-SDI Transmitter SFPs | | | Type | Power | | |
|---|---|---|---|---|---|---|
| | | | | Min. | Typ. | Max. |
| **OH-TX-12G-LC/ST** | 12G-SDI Singlemode LC / ST Fiber TX | 10km (1310nm) | Simplex | -0.5dBm | | |
| **OH-TT-12G-LC** | 12G-SDI Singlemode LC Fiber TX/TX | 10km (1270 ... 1610nm) | Duplex | -5.5dBm | - | +0.5dBm |
| **OH-TT-12G-SDI** | 12G-SDI Singlemode micro BNC TX/TX | (1270 ... 1610nm) | 2-Channel | | | |

| Table: T3 - 3G-SDI CWDM Transmitter SFPs | | | Type | Power | | |
|---|---|---|---|---|---|---|
| | | | | Min. | Typ. | Max. |
| **OH-TX-4-XXXX-LC** | 3G-SDI Singlemode LC Fiber TX | 40km (1270 ... 1610nm) | Simplex | -4dBm | - | +2dBm |
| **OH-TT-4-XXXX-XXXX-LC** | 3G-SDI Singlemode LC Fiber TX/TX | 40km (1270 ... 1610nm) | Duplex | -4dBm | - | +2dBm |
| **OH-TT-8-XXXX-XXXX-LC** | 3G-SDI Singlemode LC Fiber TX/TX | 80km (1270 ... 1610nm) | Duplex | +1dBm | - | +5dBm |

| Table: T4 - 12G-SDI CWDM Transmitter SFPs | | | Type | Power | | |
|---|---|---|---|---|---|---|
| | | | | Min. | Typ. | Max. |
| **OH-TX-12G-XXXX-LC** | 12G-SDI Singlemode LC Fiber TX | 10km (1270 ... 1610nm) | Simplex | -2dBm | - | +3dBm |
| **OH-TX-4-12G-XXXX-LC** | 12G-SDI Singlemode LC Fiber TX | 40km (1270 ... 1610nm) | Simplex | 0dBm | - | +5dBm |
| **OH-TT-12G-XXXX-XXXX-LC** | 12G-SDI Singlemode LC Fiber TX/TX | 10km (1270 ... 1610nm) | Duplex | -2dBm | - | +3dBm |

| Table: TR1 - 3G-SDI Transceiver SFPs | | | Type | Power | | | Sensitivity | |
|---|---|---|---|---|---|---|---|---|
| | | | | Min. | Typ. | Max. | 3G | 1.5G |
| **OH-TR-1-LC** | 3G-SDI Singlemode LC Fiber TX/RX | 10km | Duplex | | -5dBm | | -16dBm | |
| **OH-TR-0-850-MM** | 3G-SDI Multimode LC Fiber TX/RX | 550m | Duplex | | -5dBm | | -15dBm | |
| **OH-TR-SDI** | 3G-SDI micro BNC TX/RX | | 2-Channel | | | | | |

| Table: TR2 - 12G-SDI Transceiver SFPs | | | Type | Power | | | Sensitivity | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Min. | Typ. | Max. | 12G | 6G | 3G | 1.5G |
| **OH-TR-12G-LC** | 12G-SDI Singlemode LC Fiber TX/RX | 10km | Duplex | -5dBm | - | +0.5dBm | -10dBm | | -14dBm | |
| **OH-TR-12G-LC** | 3G-SDI micro BNC TX/RX | | 2-Channel | | | | | | | |
| **OH-BD-12G-1270-LC** | 12G-SDI Singlemode LC Fiber TX/RX | 10km (TX: 1270nm RX: 1330nm) | Simplex | -3dBm | - | +3dBm | -10dBm | | -14dBm | |
| **OH-BD-12G-1330-LC** | 12G-SDI Singlemode LC Fiber TX/RX | 10km (TX: 1330nm RX: 1270nm) | Simplex | -3dBm | - | +3dBm | -10dBm | | -14dBm | |

| Table: TR3 - 3G-SDI CWDM Transceiver SFPs | | | Type | Power | | | Sensitivity | |
|---|---|---|---|---|---|---|---|---|
| | | | | Min. | Typ. | Max. | 3G | 1.5G |
| **OH-TR-4-XXXX-LC** | 3G-SDI Singlemode LC Fiber TX/RX | 40km (TX: 1270 ... 1610nm) | Duplex | -4dBm | - | +2dBm | -20dBm | |
| **OH-TR-8-XXXX-LC** | 3G-SDI Singlemode LC Fiber TX/RX | 80km (TX: 1270 ... 1610nm) | Duplex | +1dBm | - | +5dBm | -28dBm | |

| Table: TR4 - 12G-SDI CWDM Transceiver SFPs | | | Type | Power | | | Sensitivity | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Min. | Typ. | Max. | 12G | 6G | 3G | 1.5G |
| **OH-TR-12G-XXXX-LC** | 12G-SDI Singlemode LC Fiber TX/RX | 10km (TX: 1270 ... 1610nm) | Duplex | -2dBm | - | +3dBm | -10dBm | | -14dBm | |

| Table: TR5 - MADI Transceiver SFPs | | | Type | Power | | | Sensitivity | |
|---|---|---|---|---|---|---|---|---|
| | | | | Min. | Typ. | Max. | 3G | 1.5G |
| **OH-TR-MADI-1310 MM** | MADI Singlemode TX (1310nm) Multimode RX (850-1310nm) LC Fiber 550m | | Duplex | -20dBm | - | -14dBm | -30dBm | |

| Table: TRE1 - 1GbE Transceiver SFPs | | Type | Data Rates | Power | | | Sensitivity |
|---|---|---|---|---|---|---|---|
| | | | | Min. | Typ. | Max. | |
| **OH-TR-51-LC** | 1GbE Singlemode LC Fiber TX/RX 10km | Duplex | 1.25GbE, 1GbE | | -3 dBm | | -23dBm |
| **OH-TR-50-850-MM** | 1GbE Singlemode LC Fiber TX/RX 550m (TX: 850nm / RX: 780 - 880nm) | Duplex | 1.25GbE, 1GbE | -2dBm | - | -7dBm | -15dBm |
| **OH-BD-51-1310-LC** | 1GbE Singlemode LC Fiber 20km (TX: 1310nm / RX: 1550nm) | Simplex | 1.25GbE, 1GbE | -9dBm | - | -3dBm | |
| **OH-BD-51-1550-LC** | 1GbE Singlemode LC Fiber 20km (TX: 1550nm / RX: 1310nm) | Simplex | 1.25GbE, 1GbE | -9dBm | - | -3dBm | |

| Table: TRE2 - 10GbE Transceiver SFPs | | Type | Data Rates | Power | | | Sensitivity |
|---|---|---|---|---|---|---|---|
| | | | | Min. | Typ. | Max. | |
| **OH-TR-10G-LC** | 10GbE Singlemode LC Fiber TX/RX 20km | Duplex | 10GbE, 1GbE | -3dBm | - | +1dBm | -14.4 dBm |
| **OH-TR-10G-LC-MM** | 10GbE Multimode LC Fiber TX/RX 550m (TX: 850nm / RX: 780 - 880nm) | Duplex | 10GbE, 1GbE | -6dBm | - | -1dBm | -11 dBm |
| **OH-TR-10G-RJ45** | 10GbE Electrical RJ45 30m | RJ45 | 10GbE, 1GbE | | | | |
| **OH-BD-10G-1330-LC** | 10GbE Singlemode LC Fiber 20km(TX: 1270nm / RX: 1330nm) | Simplex | 10GbE, 1GbE | +1dBm | - | +5dBm | -15 dBm |
| **OH-BD-10G-1270-LC** | 10GbE Singlemode LC Fiber 20km (TX: 1330nm / RX: 1270nm) | Simplex | 10GbE, 1GbE | +1dBm | - | +5dBm | -15 dBm |

| Table: TRE3 - 1GbE CWDM Transceiver SFPs | | Type | Data Rates | Power | | | Sensitivity |
|---|---|---|---|---|---|---|---|
| **OH-TR-54-XXXX-LC** | 1GbE Singlemode LC Fiber TX/RX 40km (1270 ... 1610nm) | Duplex | 1.25GbE, 1GbE | -5dBm | - | 0dBm | -23dBm |
| **OH-TR-58-XXXX-LC** | 1GbE Singlemode LC Fiber TX/RX 80km (1270 ... 1610nm) | Duplex | 1.25GbE, 1GbE | 0dBm | - | +5dBm | -23dBm |

| Table: TRE4 - 10GbE CWDM Transceiver SFPs | | Type | Data Rates | Power | | | Sensitivity |
|---|---|---|---|---|---|---|---|
| **OH-TR-10G-XXXX-LC** | 10GbE Singlemode LC Fiber 40km (1270 ... 1610nm) | Duplex | 10GbE, 1GbE | 0dBm | - | +4dBm | -23 dBm |

# LYNXTechnik AG

LYNX Technik AG is an industry leader and technology provider of terminal equipment, or "glue ware" for broadcast and professional audio-video use. LYNX Technik is an independent and privately-owned company with its research, design, and manufacturing located in Weiterstadt, Germany. Sales and support is covered from our regional headquarters in Germany, Singapore, and the USA.

Our engineering team consists of a multi-talented group of engineers that combine decades of experience from the broadcast and post-production industries. We carefully develop our products in close cooperation with leading broadcasters worldwide, who help specify and define features and performance levels that have produced some of the most flexible and powerful solutions available on the market today.

We have designed the **Series | 5000** product line to offer broadcast professionals an affordable, compact and extremely flexible solution for a variety of audio and video processing tasks. All modules have been designed to meet today's most demanding digital Broadcast requirements and have been configured to meet the 12G, 3G, HD, SD, and Fiber Optic demands across a wide spectrum of audio-visual applications.

Our LynxCentraal control system is the primary value-add component to a system that really sets us aside from other providers. It is a powerful and intuitive application that provides a unique graphical signal flow representation of each module function and can be expanded from a single rack to an extensive multi-rack system that supports literally hundreds of racks located in various locations.

The **Series | 5000** product line is designed around size and flexibility. Small and durable 1RU and 2RU rack frames offer a small footprint which accommodates any mixture of modules. Some modules feature add-on option codes, allowing users to add a variety of sophisticated signal processing features merely by entering a license code – no new hardware or re-programming required.

Terminal equipment is all we do, and over the years we have got exceptionally good at it. We offer many unique capabilities and superior performance at affordable prices. We look forward to being your modular equipment supplier of choice.

# Warranty

LYNX Technik AG warrants that the product will be free from defects in materials and workmanship for a period of three (3) years from the date of shipment. If this product proves defective during the warranty period, LYNX Technik AG at its option will either repair the defective product without charge for parts and labor, or will provide a replacement in exchange for the defective product.

In order to obtain service under this warranty, customer must notify LYNX Technik of the defect before expiration of the warranty period and make suitable arrangements for the performance of service. Customer shall be responsible for packaging and shipping the defective product to the service center designated by LYNX Technik, with shipping charges prepaid. LYNX Technik shall pay for the return of the product to the customer if the shipment is within the country which the LYNX Technik service center is located. Customer shall be responsible for payment of all shipping charges, duties, taxes and any other charges for products returned to any other locations.

This warranty shall not apply to any defect, failure, or damage caused by improper use or improper or inadequate maintenance and care. LYNX Technik shall not be obligated to furnish service under this warranty a) to repair damage resulting from attempts by personnel other than LYNX Technik representatives to install, repair or service the product; b) to repair damage resulting from improper use or connection to incompatible equipment; c) to repair any damage or malfunction caused by the use of non LYNX Technik supplies; or d) to service a product which has been modified or integrated with other products when the effect of such modification or integration increases the time or difficulty servicing the product.

**THIS WARRANTY IS GIVEN BY LYNX TECHNIK WITH RESPECT TO THIS PRODUCT IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED. LYNX TECHNIK AND ITS VENDORS DISCLAIM ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. LYNX TECHNIK`S RESPONSIBILITY TO REPAIR AND REPLACE DEFECTIVE PRODUCTS IS THE SOLE AND EXCLUSIVE REMEDY PROVIDED TO THE CUSTOMER FOR BREACH OF THIS WARRANTY. LYNX TECHNIK AND ITS VENDORS WILL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IRRESPECTIVE OF WHETHER LYNX TECHNIK OR THE VENDOR HAS ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES.**

**European Headquarters**
**LYNX Technik AG**
Brunnenweg 3
D-64331 Weiterstadt
Germany

Phone: + 49 (0) 6150 1817 0
Fax: + 49 (0) 6150 1817 100
Email: info@lynx-technik.com

**APAC Headquarters**
**LYNX Technik Pte Ltd**
114 Lavender Street
#05-92 CTHub2
Singapore 338729

Phone: + 65 6702 5277
Fax: + 65 6385 5221
Email: infoasia@lynx-technik.com

**USA Headquarters**
**LYNX Technik USA**
26366 Ruether Ave
Santa Clarita, CA 91350
USA

Phone: (661) 251 8600
Fax: (661) 251 8088
Email: info@lynx-usa.com

www.lynx-technik.com

lynx-technik-ag lynxtechnikag