yellobrik CDH 1811

3Gbit SDI to HDMI Converter

- Supports SDI video inputs up to 3Gbit/s (1080p60)
- Automatic input standard and format detection
- Fiber input and output option
- HDMI video output with embedded audio
- Analog and AES audio outputs
- Select audio from 16 input channels
- Balanced professional analog audio outputs or unbalanced line level audio outputs
- Selectable Timecode burn in windows
- Selectable Metadata indication
- 16 channel on screen audio metering
- Video and Audio present LED indication

The CDH 1811 is a versatile, compact SDI to HDMI converter designed to combat a host of monitoring and display applications in Broadcast, Post Production and Pro A/V markets.

Convert any SDI video signal into a standard HDMI signal for monitoring and display. Optional fiber interface allows the module to be used for monitoring fiber connections and also function as a SDI to fiber converter. The HDMI output displays the native input resolution therefore no scaling artifacts are introduced.

Two channels of audio can be de-embedded from the incoming video signal and provided as digital AES outputs and analog audio signals. Balanced audio outputs have selectable full scale range presets. The two selected audio channels can also be embedded into the HDMI output, or 8 channels selected from the input signal (channels 1-8 or channels 9-16).

A selectable time-code burn in window and 16 on screen audio meters makes the module ideal for editing and monitoring applications, with a mode to also indicate key metadata information as well as AFD code on screen.

Option

OH-OTR-1 Fiber Transceiver Stick - Provides fiber input and re-clocked fiber loop output up to 10Km (6.2 miles) @ 3Gbits/s

Technical Specifications

SDI Input	1 x SDI video on 75 Ohm BNC connector
	SMPTE 424M, SMPTE 292M, SMPTE 259M
	Multi-standard operation from 270Mbit/s to 3Gbit/s SDTV (525/625) 720p and 1080p (23.98/24/25/29.97/30/50/59.94/60 Hz) 1080psf (23.98/24/25/29.97/30 Hz) 1080i (50/59.94/60 Hz)
	Return Loss: > 15dB to 1.5GHz and > 10dB up to 3GHz
	Automatic cable EQ (Belden 1694A cable) 250m @ 270Mbit/s, 140m @ 1.5Gbit/s, 80m @ 3Gbit/s
Optical Input	1 x fiber optic input. Singlemode (OH OTR 1 option) LC/PC fiber connection (wavelength 1310nm). RX Sensitivity -19dBm
	SMPTE 297M - 2006
SDI Output	1 x SDI video on 75 Ohm BNC connector
	SMPTE 424M, SMPTE 292M, SMPTE 259M
	Multi-standard operation from 270Mbit/s to 3Gbit/s
Optical Output	1 x fiber optic output. Singlemode (OH OTR 1 option) LC/PC fiber connection (wavelength 1310nm). TX Power -3dBm
	SMPTE 297M - 2006
	Max. distance 10Km (6.2 miles) @ 3Gbit/s (Singlemode)
HDMI Output	Version 1.4 (deep color) type A connector
	24 bit (3X8bit) and 30bit (3x10bit) deep color (R,G,B / Y,Cr,Cb / X,Y,Z)
	2 or 8 channel audio embedding (selectable)
AES Output	AES3id on 75 Ohm BNC, 2 channels (selectable)
Audio Output	Left and right analog audio using 1/4 inch Jack plugs
	Balanced mode with 24,22,20,18,15,12 dBu full scale (selectable)
	Unbalanced mode with (line level) at -10 dBv
	1/4 inch Jack Plug to RCA connection adapters supplied
Power	+12VDC power supply (included)
Size	105mm x 40mm x 22mm (4.13" x 1.57" x 0.86")
Model #	CDH 1811
Includes	Module, power supply, RCA adapters, HDMI cable and mounting brackets

Specifications subject to change

Timecode and Metadata Overlay

Overlay timecode burn-in windows, 16 audio level meters plus display of the presence of key metadata parameters in the incoming SDI stream. Modes are OFF (no overlay on image), Timecode ON (display of timecode only), Metadata ON (Metadata only) or both ON - (both modes ON is shown below). **Note.** Overlay is only present on the HDMI output.

Timecode Burn-in. (*The module can detect and display the following Timecode formats: ATC-VITC, ATC-LTC and DVI-TC Timecode. Only the formats present in the SDI input will be displayed).*

SDI Input format, resolution and bit depth

AFD code display (if present)

G1-G4 Audio presence detection and audio meters (16 channel)
(G = SDI audio group = 4 channels)

WSS (Wide Screen Signal), VI, AFD and CC (Closed Captions) Highlighted if present

OH OTR 1 - Fiber Transceiver Option

This option allows the module to be used with an electrical SDI input or a fiber input signal. (selected via dip switch), the module will provide both a fiber and electrical SDI output of the selected input signal. Fiber outputs can be transmitted up to 10km (6.2miles) @ 3Gbit/s. Signal flow is shown below:

Fiber Input Option Dip Switch = ON

Fiber Input Option Dip Switch = OFF

yellobrik® CDH 1811
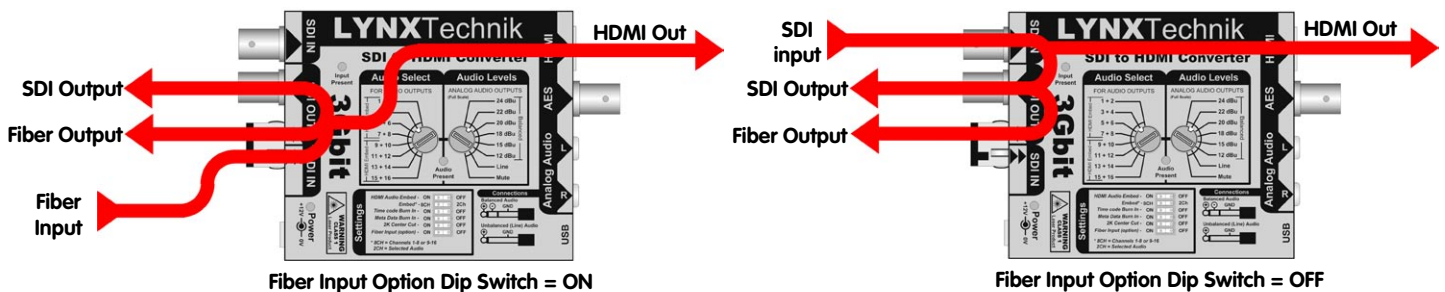
Fiber Application Using CDH 1811 SDI to HDMI Converter

Sample application using two CDH 1811 modules for SDI fiber optic transmission up to 10km (6.2 miles) @3Gbit/s with integrated HDMI signal confidence monitoring at each end.
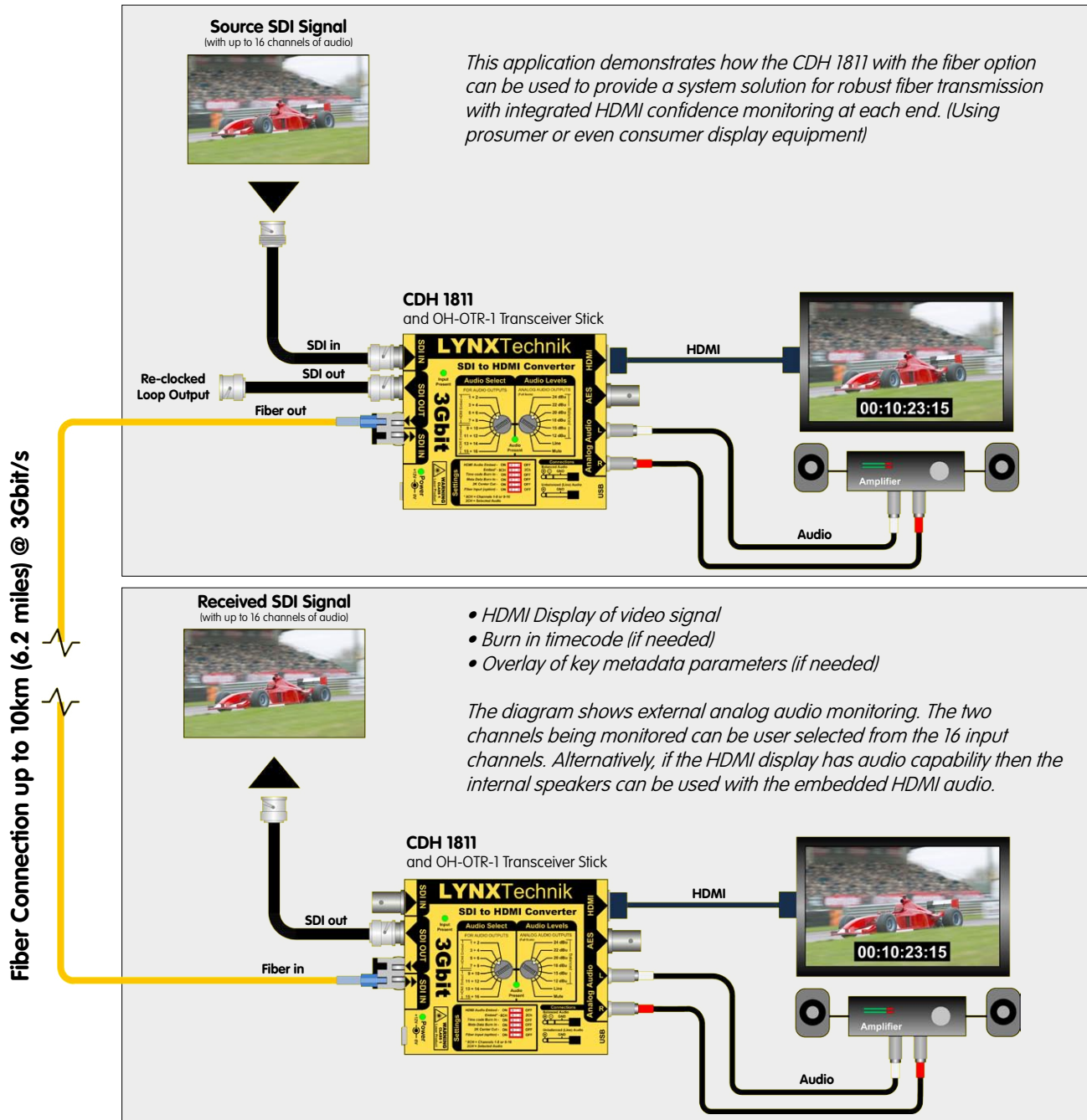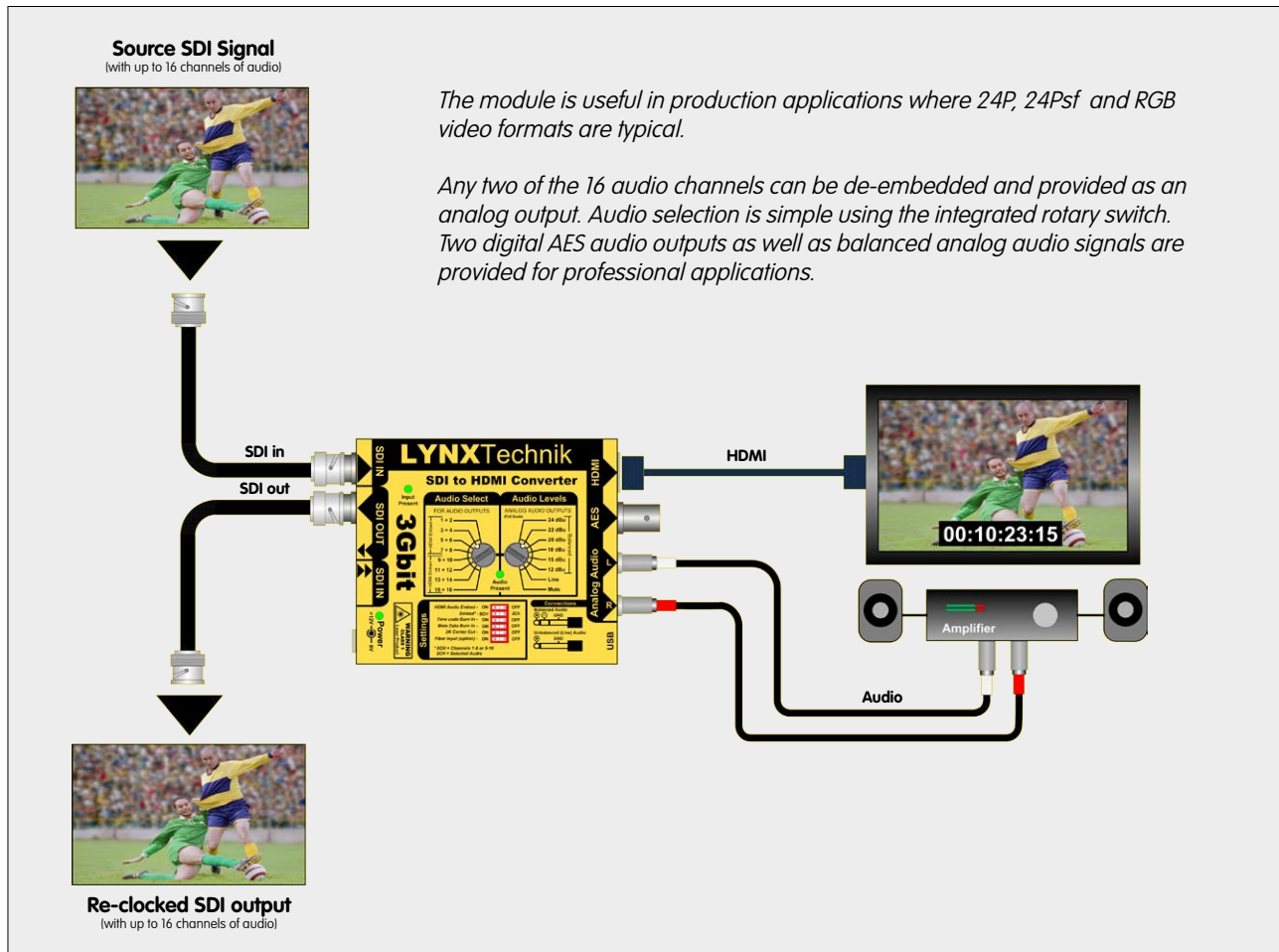
Source SDI Signal
(with up to 16 channels of audio)

This application demonstrates how the CDH 1811 with the fiber option can be used to provide a system solution for robust fiber transmission with integrated HDMI confidence monitoring at each end. (Using prosumer or even consumer display equipment)

CDH 1811
and OH-OTR-1 Transceiver Stick

SDI in
SDI out
Re-clocked Loop Output
Fiber out

HDMI

LYNXTechnik
SDI to HDMI Converter
3Gbit

00:10:23:15

Amplifier

Audio

Fiber Connection up to 10km (6.2 miles) @ 3Gbit/s

Received SDI Signal
(with up to 16 channels of audio)

- HDMI Display of video signal
- Burn in timecode (if needed)
- Overlay of key metadata parameters (if needed)

The diagram shows external analog audio monitoring. The two channels being monitored can be user selected from the 16 input channels. Alternatively, if the HDMI display has audio capability then the internal speakers can be used with the embedded HDMI audio.

CDH 1811
and OH-OTR-1 Transceiver Stick

SDI out
Fiber in

HDMI

LYNXTechnik
SDI to HDMI Converter
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00:10:23:15

Amplifier

Audio

yellobrik® CDH 1811

Application Using CDH 1811 SDI to HDMI Converter

Typical application for the CDH 1811 module. Module is "looped" into an SDI signal path providing a HDMI monitoring output.

Source SDI Signal
(with up to 16 channels of audio)

The module is useful in production applications where 24P, 24Psf and RGB video formats are typical.

Any two of the 16 audio channels can be de-embedded and provided as an analog output. Audio selection is simple using the integrated rotary switch. Two digital AES audio outputs as well as balanced analog audio signals are provided for professional applications.

SDI in
SDI out

LYNXTechnik
SDI to HDMI Converter
3Gbit

HDMI

00:10:23:15

Amplifier

Audio

Re-clocked SDI output
(with up to 16 channels of audio)

Ordering Information

CDH 1811 - SDI to HDMI Converter

The CDH 1811 yellobrik is supplied in its own plastic transport case and includes the following items:

- CDH 1811 yellobrik Module
- Power Supply
- HDMI cable
- Module mounting brackets
- 2 x Phono to RCA audio adapters
- Quick reference guide
- 3 year warranty registration card

Option

OH-OTR-1
Fiber Optic Transceiver Stick