

H.265 Streamer and Recorder

- HDMI and 12G-SDI UHD video input
- Analog Audio Input
- H.264 and H.265 encoding
- Supported streaming formats
 - RTMP & RTMPS
 - RTP/RTSP
 - TS over UDP or RTP
 - HLS (HTTP Live)
 - SRT Listener/Caller/Rendezvous
 - Unicast or Multicast
- Record to USB 3.0
- Realtime Logo Insertion
- Custom Image and Test Pattern Transmission fallback
- Advanced Text Overlays
- Mobile friendly Web UI for configuration
- IP network Status and Configuration via LynxCentral over USB

The PEC 1464 is a versatile, compact H.264/H.265 streamer and recorder designed for a wide range of applications in the broadcast, film and pro AV industry. The module can take a 12G-SDI or HDMI source then stream and record it simultaneously.

Two channels of audio are de-embedded from the video input. In addition, the PEC 1464 has a line audio input and either one of these audio sources can be used for the streamer and/or recorder.

Support for real time logo insertion and advanced text overlays on the video signal with control over size and text position. A custom image or color bars can be displayed when the video input is lost or missing (transmission fallback).

The PEC 1464 supports a wide range of streaming standards as well as unicast and multicast operations. A mobile friendly Web UI allows for a simple configuration from a PC, Mac, tablet or smartphone.

The PEC 1464 is compatible with LynxCentral for remote configuration and status monitoring. This is particularly useful when managing several Lynx Technik devices.

Note: For legal reasons, HDMI capture devices from LYNX Technik AG are designed not to capture, convert or transmit video or audio from HDCP copy-protected sources (e.g. Satellite receivers, Cable receivers, etc.)

Fiber I/O Options:

Model	Description	Power	Sense
SDI Fiber Transceiver Options			
OH-TR-12G-LC	SFP Fiber RX/TX - Singlemode, LC Connector, 10km	-5 ... 0.5 dBm	-14 ... -10 dBm
SDI CWDM Fiber Transceiver Options			
OH-TR-12G-XXXX-LC	12G CWDM Fiber RX/TX - Singlemode LC Conn., 40km XXXX=Wavelength. 18 according to ITU T G692.2 (1270 - 1610nm)	-2 ... +3 dBm	-14 ... -10 dBm
SDI Fiber Receiver Options			
		Sensitivity	
OH-RX-12G-LC	12G-SDI Single Channel Optical Receiver - LC Connector	-16dBm (1.5G) -14dBm (3G - 6G) -10dBm (12G)	
OH-RX-12G-ST	12G-SDI Single Channel Optical Receiver - ST Connector	-14dBm (1.5G-3G) -10dBm (6G-12G)	

Other modules available on request

CAUTION: This is a high power module. If mounting the module in the RFR 1200 rack frame please leave an empty slot each side of the module to allow for adequate airflow to prevent the risk of overheating.



Technical Specifications

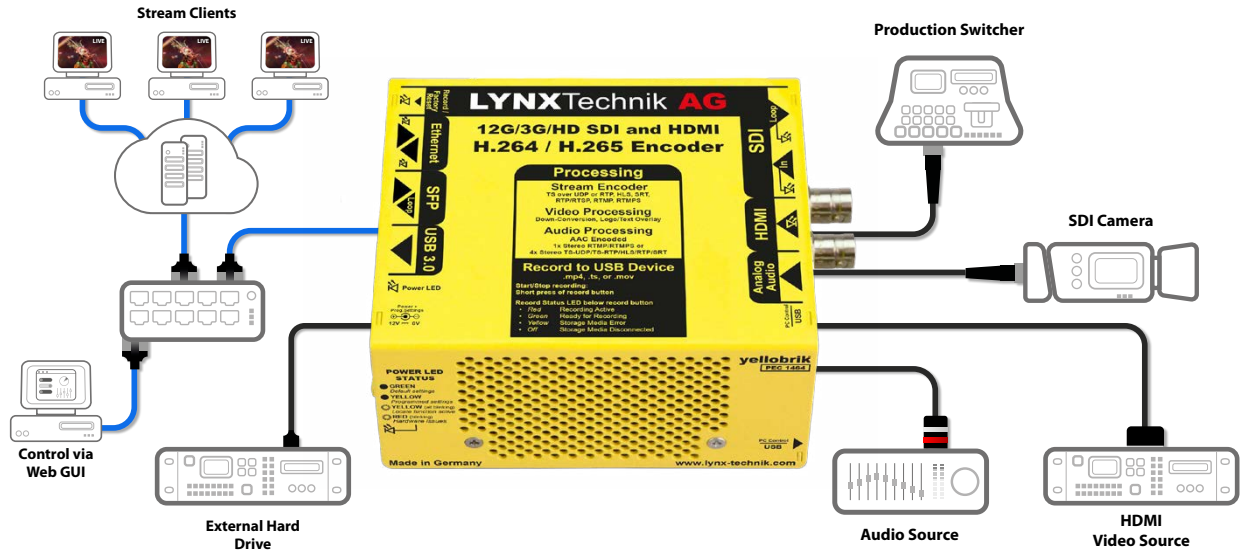
Video Inputs	1 x 75 Ohm BNC SDI input; 1 x HDMI 2.0b, Type A connector																								
Video Formats	<table border="1"> <thead> <tr> <th>SDI</th> <th>Resolution</th> <th>Frame Rate</th> </tr> </thead> <tbody> <tr> <td>12G-SDI (SMPT 2082)</td> <td>3840 x 2160p</td> <td>50 / 59.94 / 60</td> </tr> <tr> <td>6G-SDI (SMPT 2081)</td> <td>3840 x 2160p</td> <td>25 / 29.97 / 30</td> </tr> <tr> <td>3G-SDI (SMPT 424M)</td> <td>1920 x 1080p</td> <td>50 / 59.94 / 60</td> </tr> <tr> <td rowspan="3">1.5G-SDI (SMPT 292M)</td> <td>1920 x 1080p</td> <td>25 / 29.97 / 30</td> </tr> <tr> <td>1920 x 1080i</td> <td>50 / 59.94 / 60</td> </tr> <tr> <td>1280 x 720p</td> <td>50 / 59.94 / 60</td> </tr> <tr> <td rowspan="2">HDMI</td> <td>UHD</td> <td>3840 x 2160p 25 / 29.97 / 30 / 50 / 59.94 / 60</td> </tr> <tr> <td>HD</td> <td>1920 x 1080p 25 / 29.94 / 30 / 50 / 59.94 / 60 1920 x 1080i 50 / 59.94 / 60 1280 x 720p 50 / 59.94 / 60</td> </tr> </tbody> </table>	SDI	Resolution	Frame Rate	12G-SDI (SMPT 2082)	3840 x 2160p	50 / 59.94 / 60	6G-SDI (SMPT 2081)	3840 x 2160p	25 / 29.97 / 30	3G-SDI (SMPT 424M)	1920 x 1080p	50 / 59.94 / 60	1.5G-SDI (SMPT 292M)	1920 x 1080p	25 / 29.97 / 30	1920 x 1080i	50 / 59.94 / 60	1280 x 720p	50 / 59.94 / 60	HDMI	UHD	3840 x 2160p 25 / 29.97 / 30 / 50 / 59.94 / 60	HD	1920 x 1080p 25 / 29.94 / 30 / 50 / 59.94 / 60 1920 x 1080i 50 / 59.94 / 60 1280 x 720p 50 / 59.94 / 60
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Color Precision	YCbCr 4:2:2 10-bit																								
Video Encoder	H.265 according to MPEG-H Part 2 (HEVC): <ul style="list-style-type: none"> • Main, Main 10, Main 4:2:2 H.264 according to MPEG-4 Part 10 (AVC): <ul style="list-style-type: none"> • Baseline, Main, High, High 10, High 4:2:2 																								
Video Processing	<ul style="list-style-type: none"> • Downscaling • Frame Rate Down Conversion • Text Overlay • Logo Inserter (JPEG RGB, PNG24, PNG8, TIFF, static GIF, BMP) • Transmission Fallback Option: Test Pattern or Custom Image (png, jpeg) 																								
Audio I/O	<ul style="list-style-type: none"> • Input: 8 Channel embedded SDI Audio Input • Unbalanced analog line audio input - 3.5mm stereo jack • Output: Streaming Protocol dependant: <ul style="list-style-type: none"> - RTMP, RTMPS: 1 Stereo Channel - TS-UDP, TS-RTP, HLS, SRT, RTSP: 4 Stereo Channels 																								
Audio Processing	<ul style="list-style-type: none"> • Processing Options: Channel Mapping, Gain, Mute, Sample Rate, Bitrate • Audio Loss Reply Fallback Option: Mute, Testtone 																								
Protocols	<ul style="list-style-type: none"> • TS over UDP, RTP • RTP/RTSP • RTMP/RTMPS • HLS • SRT Listener, Caller, and Rendezvous 																								
Recording	1x USB 3.0 Female Type "A" Connector (Supported formatting: FAT32, exFAT, vFAT, Ext2, Ext3, Ext4) Output Container: .mp4, .ts, .mov (Max. recording time for .mov and .mp4: 4 hours)																								
Network	10/100/1000 Ethernet (RJ-45)																								
Power	+12VDC @ 8W (excl. SFP) nominal - (supports 10 - 24VDC input range)																								
Physical	Size: 124mm x 90mm x 50mm (4.88" x 3.54" x 1.9685") incl. connectors Weight: 230g (8.11oz)																								
Ambient	0 - 45 °C (32 - 113 °F) 90% Humidity (non condensing)																								
Model #	PEC 1464 - (EAN# 4250479329492)																								
Includes	Module, AC power supply, mini USB cable, ethernet cable																								

PEC1464_DS_rev05 Specifications subject to change



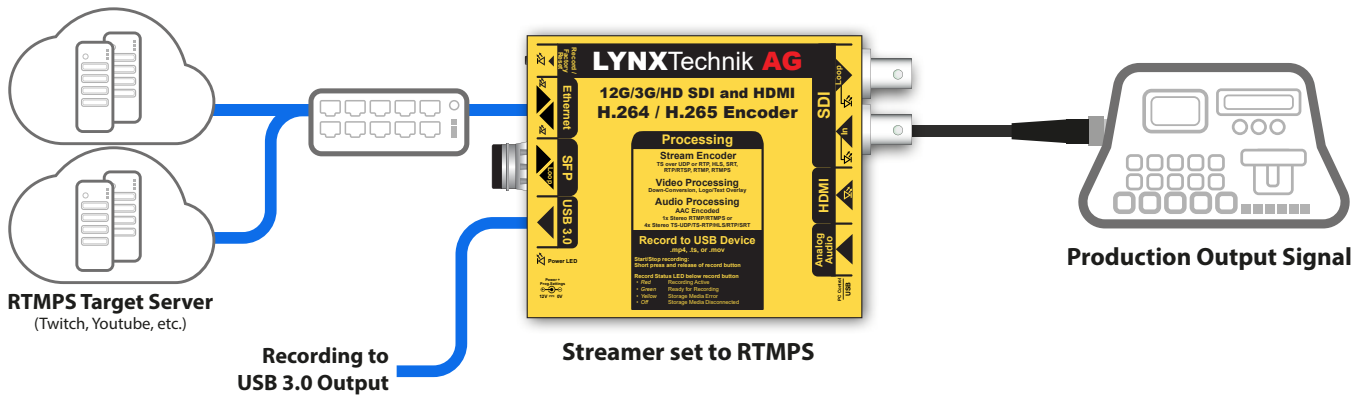
Application Example: Streaming and Archiving

The PEC 1464 can stream and record footage simultaneously to an external hard drive. Writing to an external hard drive requires at least USB 2.0 for HD footage, USB 3.0 for UHD footage.

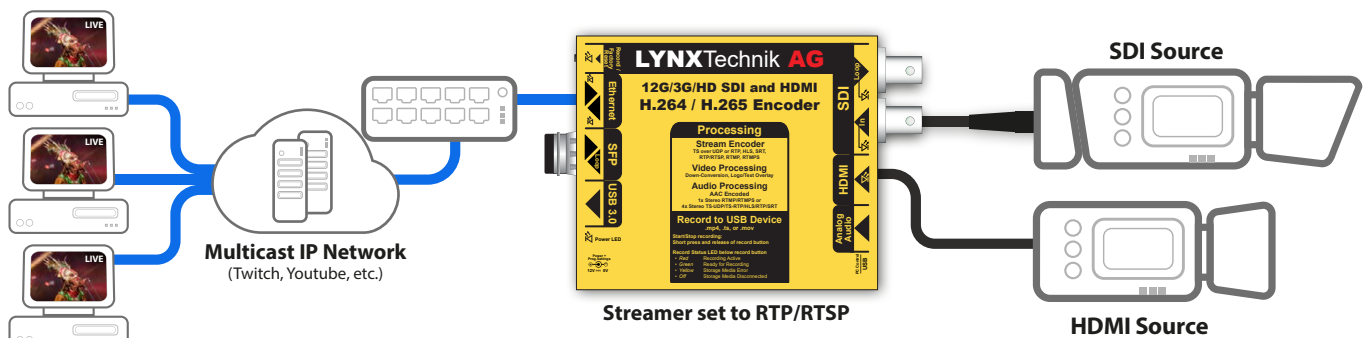


Application Examples

Stream live to a Content Delivery Network (CDN) and make a backup recording at the same time



Multicast a video feed into a network



Functional Diagram

