

# StreamZHD Live ABR™

## Live Adaptive Bit Rate Streaming Encoder

### Highlights

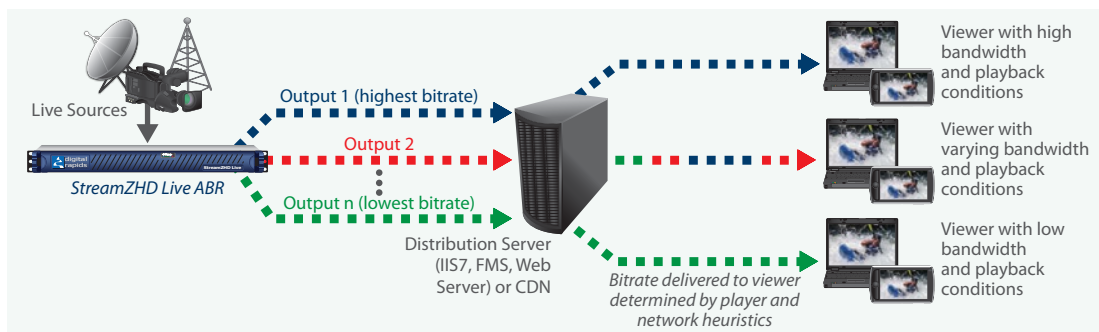
- Highest-quality live encoding and streaming for adaptive bit rate delivery
- Supports Dynamic Streaming for Adobe Flash Media Server; Adobe HTTP Dynamic Streaming; Apple iPhone/iPad adaptive HTTP streaming; and Microsoft IIS Smooth Streaming
- Outputs up to seven or more simultaneous HD and SD streams in multiple resolutions and bit rates
- Live output streams up to 1080p in H.264, 720p in VC-1
- Simultaneous archiving to files for future on-demand use
- Enterprise-class, multi-channel management and automation through Digital Rapids Broadcast Manager

### The Ultimate Adaptive Streaming Encoder

StreamZHD Live ABR™ is the industry's highest-quality, highest-performance Adaptive Bit Rate streaming system. The latest model in the StreamZ Live™ family, StreamZHD Live ABR encodes and streams live HD and SD content at unparalleled quality for delivery through the latest generation of adaptive streaming technologies.

StreamZHD Live ABR supports the Dynamic Streaming capabilities of Adobe® Flash Media Server® and Adobe's new HTTP Dynamic Streaming; adaptive HTTP streaming to Apple® iPhone® mobile devices and the iPad™; and Microsoft® Internet Information Services (IIS) Smooth Streaming to Microsoft® Silverlight® based media players on PCs and mobile devices. StreamZHD Live ABR is also easily extensible to support new adaptive delivery technologies as they emerge.

Adaptive bit rate streaming enables higher-quality viewing experiences with television-like continuity and reliability on the Web and mobile devices. StreamZHD Live ABR creates multiple output streams at varying bit rates and resolutions from the input source. As the content is delivered to each viewer, the chosen adaptive delivery technology automatically switches between these streams to deliver the best possible quality based on the viewer's current network and local system conditions. The results are consistent, uninterrupted viewing experiences up to HD quality even under dramatically changing network connectivity and playback conditions. Adaptive bit rate technologies also enable delivery to ramp up from a low bit rate stream to top quality, minimizing the initial delay typical with earlier streaming methods while letting all viewers start from a single engagement point.



Building on Digital Rapids' long-standing ability to output multiple formats, resolutions and bit rates simultaneously in real time, StreamZHD Live ABR provides superior encoding performance for adaptive delivery. Combinations of seven or more HD, SD and mobile streams can be output simultaneously in real time from a single StreamZHD Live ABR unit. StreamZHD Live ABR can output streams up to full 1920x1080 at 30 fps in the H.264 compression format – including simultaneous 1080p and 720p outputs – and up to 720p with VC-1 compression. Multiple StreamZHD Live ABR systems can be synchronized to encode the same source for adaptive streaming applications requiring a greater number of simultaneous streams. A single StreamZHD Live ABR unit can also create outputs for multiple platforms – such as the Web and iPhone – concurrently.

StreamZHD Live ABR combines the benefits of adaptive bit rate delivery with the proven quality, reliability and versatility of our StreamZ Live encoder family, forming the ideal adaptive streaming platform. Advanced video pre-processing features deliver superior visual quality with the most efficient use of bandwidth in the compressed result. Video adjustments and graphic overlay enable refinement of incoming sources and the addition of branding to output streams. Multiple StreamZHD Live ABR encoders can be combined with

the scalable Digital Rapids Broadcast Manager® software for enterprise-class management, automation, scheduling, multi-channel monitoring and failover.



Best Web TV  
Technology or Service



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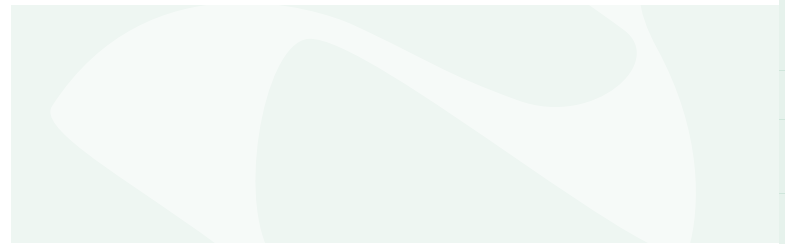
## Features and Specifications

• standard ○ optional

Inputs and Specifications	StreamZHD Live ABR-D	StreamZHD Live ABR-AD
SDI input (HD/SD)	•	•
Component analog video input (3 BNC, HD/SD)		•
Y/C (S-Video) analog video input (Mini-Din)		•
Composite analog video input (BNC)		•
SDI embedded audio (8 stereo pairs)	•	•
AES/EBU audio inputs (4 stereo pairs, BNC)		•
Balanced analog audio inputs (stereo, XLR)		•
Unbalanced analog audio inputs (stereo, RCA)		•
Video/audio connectivity	Direct SDI connections to board	Breakout cable standard Rack-mountable breakout box optional
Supported video resolutions and frame rates	HD: 1080i @ 25, 29.97, 30 Fps 1080p/1080PsF @ 23.98, 24, 25, 29.97, 30 Fps 720p @ 23.98, 24, 25, 30, 50, 59.94, 60 Fps SD: 486i @ 29.97 Fps (NTSC), 576i @ 25 Fps (PAL)	
Hardware-based video pre-processing (motion adaptive de-interlacing with pixel-level analysis, format conversion with cadence detection inc. Inverse Telecine, 601/709 color space conversion, cropping, scaling, proc amp controls, gamma correction)	•	•
Form factor	1RU rackmount chassis 26" D x 16.9" W x 1.7" H 660mm D x 430mm W x 43.5mm H	

## Features

Supported adaptive bit rate technologies	Adobe® Dynamic Streaming [Flash Media Server] (H.264) Adobe HTTP Dynamic Streaming (H.264) Apple® iPhone®/iPad™ HTTP Streaming (H.264) Microsoft® IIS Smooth Streaming (H.264/VC-1)
Encoding Formats (standard)	AVC (H.264, MPEG-4 Part10) progressive, VC-1 (Windows Media, Microsoft Silverlight) Dolby Pulse AAC, MP3, WMA audio
Dolby® Digital (AC-3) / Dolby Digital Plus stereo or surround audio encoding	○
Optional encoding formats for non-adaptive streaming	3GPP/Mobile (H.263, H.264, MPEG-4 Part 2, AAC and AMR audio), MPEG-2 (UDP/RTP with RTSP), On2 VP6 for Adobe Flash Advanced H.264 in Transport Stream
Graphic Overlay (logos/branding)	•
Operator-friendly software interface for configuration	•
Unlimited customizable, reusable encoding profiles	•
Simultaneous output to multiple publishing points enables redundant streaming servers and services	•
Simultaneous archiving of streams to files for future on-demand use	•
Multi-channel scheduling, monitoring, failover and automation through Digital Rapids Broadcast Manager®	○



Left: StreamZHD Live ABR with optional Digital Rapids Broadcast Manager



### North America

(905) 946-9666 x212  
sales.na@digital-rapids.com

### EMEA

+44-1428-751012  
sales.eu@digital-rapids.com

### Asia Pacific

+852-3972-2385  
sales.ap@digital-rapids.com

### Australia

+61-2-9546-1300  
sales.ap@digital-rapids.com

### Latin America

+54-11-4700-0051  
sales.la@digital-rapids.com