

Powering the  
live streaming of  
the XXI Olympic  
Winter Games

## Spinnaker HD / 7100

Redefining the Video Experience with Live,  
High Definition Adaptive Streaming

The Spinnaker™ family of advanced, live SD and HD encoding solutions is redefining the online video experience with best-in-class quality for live media delivery applications such as live sports and other web streaming, broadband TV, IPTV, enterprise, education or government video.

Using state-of-the-art encoding enhancements and an advanced toolset, the Spinnaker HD delivers the bandwidth performance and unique features necessary to provide an HD broadcast experience over any IP network. It is a flexible, multi-format, scalable solution, supporting resolutions from mobile to web to HD. Unlike other encoders on the market, Spinnaker supports multiple formats in one unit, and is optimized to deliver adaptive streams, allowing users the best quality experience, whatever their bandwidth.

### FUTURE-PROOF YOUR INFRASTRUCTURE

Inlet future proofs your IP video infrastructure. Even if you're only streaming in SD today, Spinnaker HD protects your investment. When you're ready to add HD resolutions such as 960x540 or 720p, Spinnaker HD is ready to deliver. And it's multi-format out of the gate – so no adding appliances every time you add a format. Inlet's patent pending software technology allows you to continue to upgrade your existing Spinnaker encoder with the latest and greatest technologies.

### WHY SPINNAKER?

- Spinnaker offers full support for adaptive streaming, including **Apple® iPhone™ streaming, Microsoft Smooth Streaming and Adobe Dynamic Flash Streaming.**
- Spinnaker's powerful and flexible core software platform can **output multiple formats from one appliance**, while offering a range of resolutions, from mobile to SD to HD. In addition to format and resolution flexibility, Spinnaker HD can output four simultaneous streams at varying bitrates.
- Designed to be **easy to set up and manage**, Spinnaker's Web-based interface gives you the flexibility of controlling the encoder from any networked computer. Spinnaker's scheduling capabilities allow you to set up future one-time or recurring events. Spinnaker also boasts an XML API that allows you or third party applications to control the Spinnaker via automated commands.
- In order to provide the **highest quality video**, Inlet starts with a high end video capture card, adds multiple pre-processing options and powerful Intel® Quad Core processors, uses patent pending Dynamic Complexity balancing, and exposes the most comprehensive list of advanced compression settings. This compelling combination allows Spinnaker to consistently win video quality shoot outs.
- Spinnaker **supports multiple captioning options**: open captions, closed captions, SAMI captions, script streams, cue points, etc, giving you multiple ways to reach a broader base of users and meet government or corporate requirements. In addition to the captioning data, Spinnaker also **supports the insertion of metadata** into a Windows Media or Flash stream. This metadata can be statistics, URLs for advertisements, contextual information, etc.



### SPINNAKER HD FEATURES

#### What's New in Spinnaker HD / 7100

- The latest Intel Quad Core i7 processor, meaning 20% more performance, making it ideal for more complex encoding projects
- Integrated Linear Time Code Reader (LTC) for adaptive streaming synchronization across multiple Spinnakers. No "Little Red" device or other time code reader required.

#### Full support for HTTP adaptive streaming to the Apple iPhone

- Includes automated VOD file creation
- Also supports audio-only streaming

#### Full support for Microsoft Smooth Streaming

- Includes support for PlayReady DRM
- Proven with events such as the French Open, Wimbledon and Sunday Night Football

#### Full support for Adobe Dynamic Flash Streaming

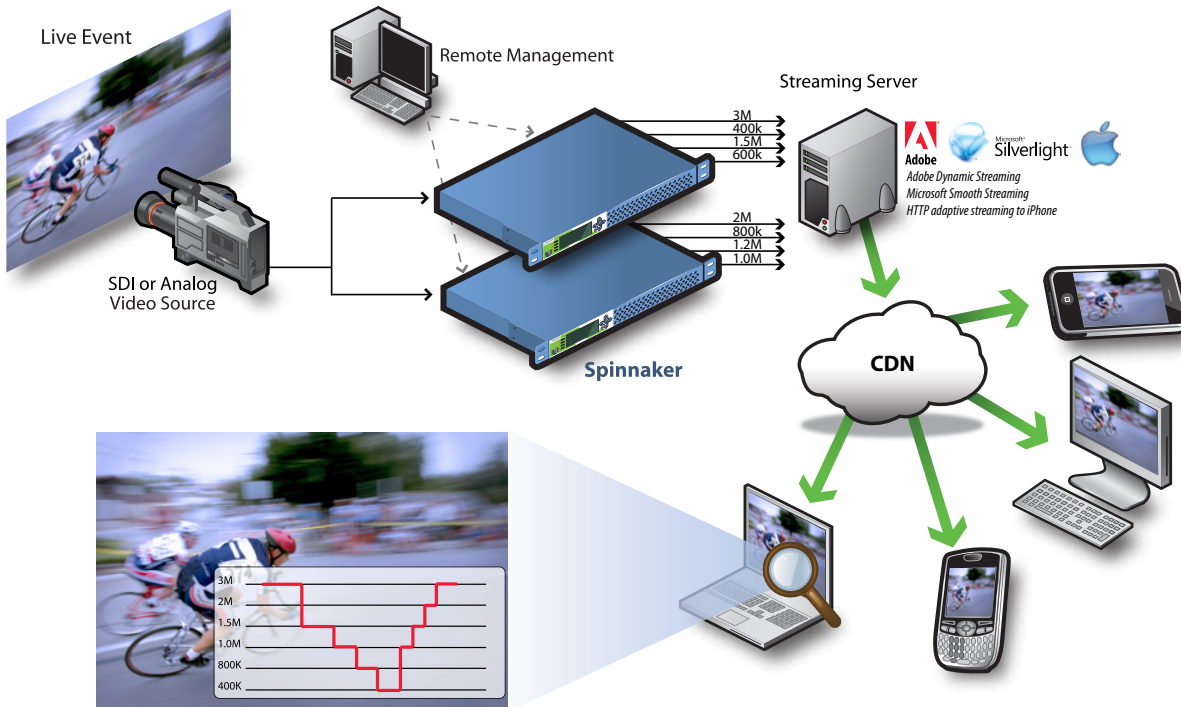
- Built-in CDN authentication, with Akamai and Limelight support
- Automatically detects when an H.264 Flash stream has been disconnected from the Flash Media Server, and automatically republishes the stream

#### Multi-encoder synchronization

- Allocate 2 or more Spinnakers to a single event, and generate up to 4 streams per Spinnaker, providing multiple available bit rates.
- Synchronize discrete Spinnakers on frame boundaries, eliminating pauses and skips when switching between streams on different encoders.
- Ideal for back-up, failover and recovery.

#### JPEG source preview

- Turn on JPEG preview of the source video, allowing you to verify the source is active, even remotely.



Spinnaker HD fully supports all flavors of adaptive streaming: iPhone, Smooth and Dynamic

## SPINNAKER HD / 7100 SPECIFICATIONS

### Inputs:

#### Video

- NTSC, PAL
- High Definition
- HD-SDI – SMPTE 292/296 (BNC connector)
- Standard Definition
- SD-SDI – SMPTE 259 (BNC connector)
- Composite (via 1 locking BNC)
- Component (via 3 locking BNC)
- S-Video (via 2 locking BNC)

#### Audio

- 4 stereo pairs over SDI embedded (BNC)
- Stereo Balanced Audio (via 2 locking XLR connectors)
- AES, Stereo via locking XLR

### Codecs:

#### Windows Media

- Smooth streaming to IIS server
- Windows Media 9 (WMV3) – Simple, Main Profiles
- VC-1 (WVC1) – Simple, Main, Advanced Profiles
- Windows Media Audio
- Windows Media Audio Professional
- VC-1 / Windows Media ASF file (.wmv)
- VC-1 – Push or Pull mode from encoder

#### H.264 Flash

- Dynamic Flash streaming to Flash Media Server
- RTMP stream over TCP to Flash Media Server
- H.264/AVC – Baseline, Main, High profiles
- AAC audio (Low Complexity, HE-AAC v1, HE-AAC v2)

#### H.264 iPhone

- H.264/AVC – Baseline
- AAC audio (Low Complexity, HE-AAC v1, HE-AAC v2)
- H.264 - Multicast MPEG-2 Transport Stream
- Integrated iPhone segmenter – streams transport stream segments directly to Web server

#### Control:

- Remote Web-based GUI
- LCD front panel
- Customizable encoding templates
- Local User Interface
- SNMP
- XML SOAP messaging service

#### Processing:

##### Pre-processing

- Scaling
- Cropping
- De-interlacing
- Inverse telecine
- Adaptive image filtering

#### Certifications:

##### Safety

- UL 60950-1:2003
- CAN/CSA – C22.2 no. 60950-1-03

##### EMC

- FCC (CFR 47, Part 15) Class A
- CE marking

#### Physical and Power:

##### Dimensions

- 17.0" (w) x 18.21" (d) x 1.72" (h) (1RU)

##### Power

- 100-240 VAC Full Range, 290W

##### Connectivity

- 2 x 10/100/1000 BaseT Ethernet

##### Ambient temperature

- Operating temperature: 0 to 45°C
- Non-operating (storage): -10 to 60°C

##### Relative humidity

- Non-operating: <95% non-condensing