# AVerCaster Premium RS7190
## 4 Ch 3G-SDI Encoder



## Highlights

- Highly flexible input signals
  - Supports up to 4x3G-SDI / HD-SDI / SD-SDI signal inputs
- High quality encoding capability
  - Supports H.264, AAC, and MP3 video and audio codecs
- Intuitive user interface
  - Visualized WebUI for capture devices to handle signal inputs
- Cost-effective solution for OTT and IPTV services
  - Single source encoded to multi-screen streams
- Reliable platform
  - 1U rack-mounted server and Intel® Xeon® E5-2660 Processor
  - Power and Ethernet redundancies

The AVerCaster Premium RS7190 is a video capturing, encoding, and streaming solution for the OTT and IPTV industries. It not only broadcasts live TV programs and HD video to a massive audience over LAN and WLAN, but also provides bit rate configurations, resolution configurations, and various encoding options to optimize viewing quality for different commercial applications. By supporting FLASH, Apple HLS, MPEG-DASH, and 3GPP, the AVerCaster Premium RS7190 allows you to reach large audiences over computers and most 3G mobile devices, such as tablets and smartphones.

In order to enhance managerial convenience as a head-end device, AVerMedia has developed an intuitive management webpage with remote monitor functions for system integrators. With high video quality, high extendibility, and high durability under long-term video broadcasting, the RS7190 helps OTT and IPTV companies reduce managerial costs and secure  TV and video business opportunities.

### Single input source, multi-screen stream outputs
- Supports single source encoded for multiple output streams for various client devices
- Compatible with standard video streaming protocols for OTT and IPTV applications

### High-quality encoding
- Capable of encoding video in MPEG-2 and H.264, the major formats for the OTT and IPTV industries
- Allows resolution and output data rate configurations to meet different requirements
- Supports MPEG-2, H.264/ AAC, H.264/ MP3, H.263/ AMR, AAC, and MP3 video and audio codecs
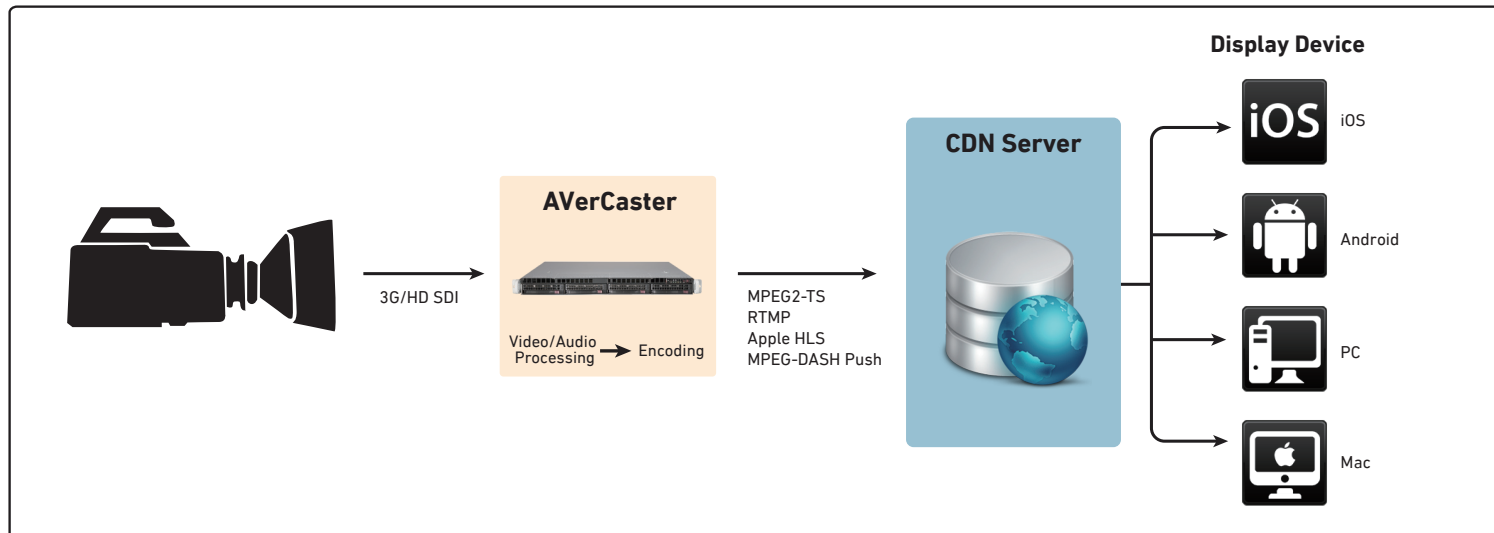- Integrates H.264 and Flash formats, allowing end users to watch high quality video on the web

### Reliable technology
- Server and channel redundancies to avoid contingencies
- Recovery disk and configuration reset can return the server to default settings

### SW backup solution
- Server and channel redundancies to avoid contingencies
- Recovery disk and configuration reset can return the server to default settings
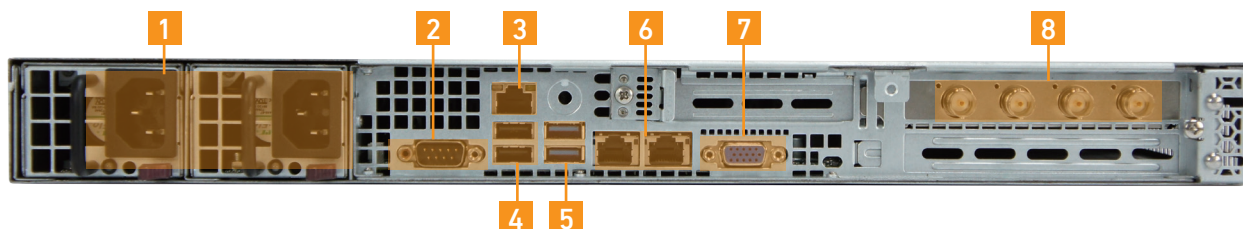- All profile, streaming and server settings can be exported for backup

# AVerCaster Premium RS7190
4 Ch 3G-SDI Encoder

## Workflow

**Display Device**

iOS

Android

PC

Mac

CDN Server

AVerCaster

Video/Audio Processing → Encoding

3G/HD SDI

MPEG2-TS
RTMP
Apple HLS
MPEG-DASH Push

## Platform Specifications

| | | |
|---|---|---|
| Input Signal | Input Interface | 3G-SDI/HD-SDI/SD-SDI |
| | Max. Input Channels | 4 x 3G-SDI/HD-SDI/SD-SDI |
| System | Operating System | Windows® 8 Embedded |
| | Processor | Intel® Xeon® E5-2660 V3 (20M Cache, 2.20 GHz, 8.00 GT/s Intel® QPI) |
| | Memory | 16G DDR4 2133 |
| | HDD | 500 GB |
| | Ethernet Controller | Intel® i350 Dual port GbE LAN |
| Physical | Dimension (W x H x D) | 437 x 43 x 650 mm / 17.2" x 1.69" x 25.6" |
| | Weight | 10.7 kg / 23.6 lbs. |
| Power | Voltage | 100V-240V, 63-47 Hz, 4-2 A |
| | Power Consumption | Redundant Power 500 W |
| Environment | Operating Temperature | 10°C ~ 35°C (50°F ~ 95°F) |
| | Storage Temperature | -40°C ~ 70°C (-40°F ~ 158°F) |
| | Humidity Tolerance | 5% ~ 95% @ 40°C (Non-condensing) |

## Appearance

| | | | | |
|---|---|---|---|---|
| **1** Power | **4** USB 2.0 | **7** VGA |
| **2** RS232 Controller | **5** USB 3.0 | **8** SDI |
| **3** IPMI | **6** LAN Port | |

## Encoder Specifications

| | | |
|---|---|---|
| **Input Source** | Video Input | 1080p60, 1080i60, 1080p50, 1080i50, 1080p30, 1080p25, 720p, 576i, 480i, audio sensing |
| **Codecs** | Video Codecs | MPEG-4 AVC/H.264 High Profile, Main Profile, Baseline Profile<br>MPEG-2 Main Profiles, Simple Profile |
| | Audio Codecs | MPEG-1 Layer II<br>MPEG-2<br>AAC-LC, HE-AAC v1, HE-AAC v2 |
| **Preprocessing** | Video Preprocessing | De-interlacing<br>Watermark<br>Image Cropping/Resizing<br>Frame Rate Conversion<br>Frame Rate Decimation<br>BT.601/BT.709 Color Space Conversion<br>Picture-in-Picture* |
| | Audio Preprocessing | Resampling<br>Loudness Correction |
| | Ad Management | Insertion*<br>Replacement*<br>Scheduling* |
| **Video Encoding Mode** | Rate Control | CBR, VBR, ABR |
| | Data Rate | H.264: 10Kbps-20Mbps<br>MPEG-2: 10Kbps-40Mbps |
| | GOP | Fixed<br>Variable |
| | Key Framerate | 5-300 |
| | Scene Cut Detection | Automatic |
| | Encode Mode | Progressive<br>MBAFF<br>CABAC<br>CAVLC |
| **Audio Encoding Mode** | Rate Control | CBR |
| **Output Stream** | Encode Stream | Up to 4x FHD channels |
| | Resolution | 1920x1080,1760x990, 1600x900, 1440x810, 1280x720, 1024x576, 864x486, 720x576, 704x576, 640x576, 544x576, 480x576, 352x576, 960x540, 852x480, 720x480, 704x480, 640x480, 544x480, 480x480, 352x480, 480x360, 640x360, 352x288, 384x288, 480x270, 320x240, 320x180, 240x160, 176x144, 128x96, 96x96, 120x90, 160x90 |
| | IP Version | IPv4<br>IPv6 |
| | Protocol | HTTP<br>MPEG2-TS (Support TR 101 290)<br>RTSP<br>RTMP<br>RTP over UDP (Unicast & Multicast)<br>RTP over TCP (Unicast & Multicast)<br>Apple HLS<br>Adobe HTTP Dynamic Streaming*<br>Microsoft Smooth Streaming*<br>MPEG-DASH Push |
| **Redundancy** | Redundancy | Server<br>Channel<br>Network<br>Power<br>N+M* |
| **Alert** | Server | Power Redundant Alert*<br>Network Redundant Alert* |
| | Channel | Channel Redundant Alert* |
| **CDN** | Compatibility | Akamai<br>Wowza<br>Amazon Web Service |

*\* Upgrade without notice*

## AVerCaster Web UI



| | | |
|---|---|---|
| **1** | Broadcast List | Manage AVerCaster proprietary capture cards and streaming status |
| **2** | Configuration | Configure video source inputs and streaming outputs |
| **3** | Encoding Profile | Preset encoding profiles for easy streaming control |
| **4** | Redundancy | Manage server redundancy and channel redundancy |
| **5** | Watermark | Overlay specific watermark on screen |
| **6** | Log | Log management |
| **7** | Administration | Account management |
| **8** | Visualized Video Inputs | Friendly UI to manage capture interfaces |
| **9** | System Status | Monitor CPU, memory and throughput statuses |