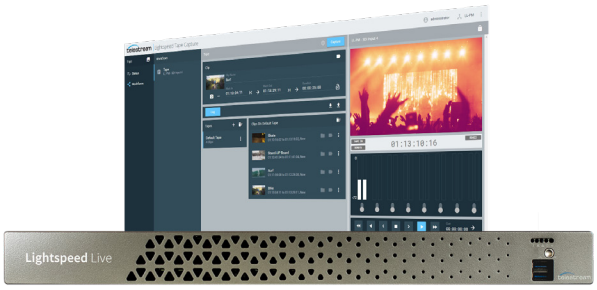
# Lightspeed Live Capture C5

Product Sheet




# Lightspeed Live Capture

## 8-Channel High Performance Capture

**Telestream® Lightspeed® Live Capture C5** server offers high performance encoding for 8 HD or 2 UHD/4K channels with concurrent 3G SDI confidence monitoring outputs. Live Capture C5 server is part of Telestream's portfolio of professional enterprise-class Live video products.

The Lightspeed Live server family offers a unique set of Live solutions for capture or streaming.

Lightspeed Live Capture C5 can operate as a standalone capture device, a multiple server capture farm or be seamlessly added to a Vantage domain of any size.

### Overview

Lightspeed Live Capture C5 is a flexible and scalable video capture solution that offers the highest level of performance for capturing SD, HD or UHD/4K media. Live Capture C5 supports capturing from eight (8) concurrent 3G-HD SDI inputs or, two concurrent (2) 4K/UHD inputs (quad-link or 2SI) with eight (8) 3G HDSDI concurrent confidence monitoring/loop outputs. The C5 platform also supports IP formats such as Transport Streams, NDI, SRT and RTMP. Live Capture C5 captures into multiple video formats, including AVC-Intra, XAVC-Intra Class 100/300/480 and many more, all while simultaneously creating H.264/AVC proxy files, and storing them to a large local media RAID or to external shared storage such as a NAS or SAN.

### Standalone, Capture farm or integrated into Vantage

Like all Live Capture servers, Live Capture C5 can operate as a standalone capture device, a multiple server capture farm or be integrated directly into a Vantage domain of any size. Expanding the system is easy: to increase the channel count, simply add additional Lightspeed Live Capture servers, add their services through a common database and control them via common user interfaces. The integration of Lightspeed Live Capture with Vantage allows for unlimited workflow possibilities which makes this solution the most scalable, flexible and powerful media processing platform available today.

### More choices, more flexibility

Lightspeed Live Capture offers multiple ways to capture your video: 24/7/365 scheduled recording of live feeds, RS-422 controlled capture from a VTR, manual record including Gang control, DAI (SCTE-104) triggering, Recurring Segment creation, and automated control through a simple Web Service REST API. Lightspeed Live Capture provides direct support for capturing into MXF OP1a, QuickTime or Telestream's TIFO. For those wishing to maintain closed captions and other ancillary data, Lightspeed Live Capture can preserve this data via MXF, QuickTime, TIFO and Avid/Apple proprietary schemes.

### Media platform friendly

The Lightspeed Live Capture system creates growing files that directly support 3rd party media edit solutions, including Avid Media Central|Production (Interplay), Avid Media Composer, Adobe Premiere, DaVinci Resolve, Apple Final Cut Pro and many more!

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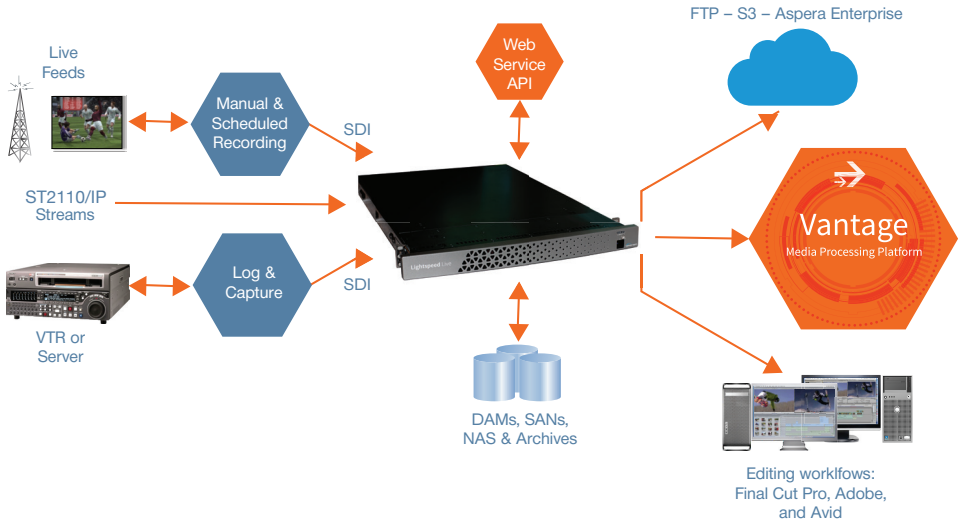


*Capture files into any workflow or editing system, for automated turnaround.*

## Fast, Parallel Open Media Processing

When joined with a Vantage domain, Lightspeed Live Capture workflows support Vantage Open Workflows. This allows for transcoding, packaging, and deployment to occur through the Vantage domain while the media is being captured. This means advanced media processing workflows can complete within seconds following the end of media capture.

## Native File-Based Transcoding

Lightspeed Live Capture customers may now add file based to transcoding options to allow for Vantage file based encoding when not in use ingesting video content. The ability to add file based transcoding to Live Capture servers allows customers to utilize their hardware investment for both live video encoding as well as traditional Vantage file based encoding.

## Workflow Features

- Seamlessly integrated with Vantage including Open Workflows
- Output multiple resolutions files from any input
- Capture to Local RAID or external shared storage
- Direct support for Avid Media Central|Production (Interplay) and ISIS/NEXIS shared storage
- Wide range of delivery options – SAN, NAS, FTP, S3, Aspera, Signiant and others
- Supports edit, transcode or copy from growing files.
- Optional native file based Vantage transcoding
- Optional 24/7/365 scheduling
- Optional SDI Playback via Live Play
- Browser based control interface

Designed for demanding enterprise-class broadcast and professional video capture applications, Lightspeed Live Capture C5 offers premium features and top of the line flagship performance. Lightspeed Live Capture excels at performing demanding video ingest from similar or mixed format sources, while simultaneously creating multiple high resolution and proxy files from any of its inputs. Files are written directly to the Live Capture server's local RAID storage, NAS/SAN shared storage, or remote storage locations via Aspera, Signiant and other WAN accelerations product.

As a standalone system, Lightspeed Live Capture acquires SDI video from independent input channels or through IP connections. Multiple Live Capture servers can be joined together to create a Lighspeed Live Capture server farm under a common control interface. In addition, Live Capture can be seamlessly integrated directly into a Vantage domain enabling unlimited workflow possibilities through Vantage's Media Processing Platform.

Lightspeed Live Capture offers best in class channel density (up to 8 HD channels in 1 RU) and a broad range of control methods (Lightspeed Live Capture Web Application, Lightspeed Live Capture Web Service Application Program Interface (API), VTR control via RS-422 or Vantage Management Console) plus enterprise class system management tools including IPMI, SNMP and Windows Active Directory login.

# Lightspeed Live Capture C5 — Technical Specifications

### SDI Input Sources:

- 8 SD/HD/3G-SDI inputs - Supports up to 1080 50/60p (3G-SDI LEVEL A only)
- 8 SD/HD/3G-SDI outputs - Supports up to 1080 50/60p
- Up to 2 Quad-Link Square Division/2 Sample Interleave input – Supports UHD/4K up to 2160 50/60p
- Up to 16 channels embedded SDI audio 48Khz/16/24bit / Uncompressed
- Configurable 3G-SDI loop-through outputs

### IP Input Sources:

- MPEG-2 Transport Stream (SPTS, MPTS) with MPEG-2 or AVC (h.264) Video
- SMPTE 302M, MPEG Layer2, AAC, AC-3, EAC3 Audio
- RTMP TCP protocol support for source input — including support for Wirecast RTMP input
- SMPTE ST2110 via optional Mellanox 25Gbe NIC
- NDI
- SRT

### VTR Machine Control for each SDI Input[1]

- RS-422, 9 pin Sony Protocol
- Control up to 8 VTRs per Capture system

### External API Control

- Web service
- RS-422 (BVW/Sony 9-pin)[1]

### Time code sources

- Source SDI input (VITC/VBI)
- RS-422[1]
- Analog LTC
- Computer Clock
- Free Run

### Edit solutions

- Adobe Premier Pro CC
- Apple Final Cut Pro 7 and X
- Avid Media Composer 7 or later
- Others

### Primary output file formats

- Apple ProRes – 422HQ, 422SQ, 422LT, 422 Proxy, 444
- DNxHD - 444, HQX, HQ (220/185 Mbps), HQ TR (145/120 Mbps), SQ (145/120 Mbps), SQ TR (100 Mbps), LB (45/36 Mbps)
- DNxHR - 444, HQX (10 bit), HQ, SQ, LB.
- JPEG2000 Lossy
- JPEG2000 Lossless
- AVC Intra - 50 Mbps 4:2:0, 100 Mbps 4:2:2, 200 Mbps 4:2:2
- AVC Intra - 50 Mbps 4:2:0, 100 Mbps 4:2:2, 200 Mbps 4:2:2
- AVC Ultra Log GOP 25, 50
- AVC Baseline, Main, High. Bit Rate - 50 Mbps
- XDCAM HD - 18 Mbps CBR, 25 Mbps CBR, 35 Mbps VBR
- XDCAM HD422 - 50 Mbps CBR
- XDCAM EX - 35 Mbps VBR
- IMX – 30, 40, 50Mbps
- HEVC (software encoding only) Bit Rate - 50 Mbps
- XAVC – Class 50 4:2:0, Class 100 4:2:2, Class 200 4:2:2, Class 300 4:2:2, Class 480 4:2:2, Class 25 Long GOP 4:2:2, Class 35 Long GOP 4:2:2, Class 50 Long GOP 4:2:2, QFHD Class 100 Long GOP 4:2:2, QFHD Class 140 Long GOP 4:2:2, QFHD Class 200 Long GOP 4:2:2
- DV - DV 25 Mbps, DVCPRO 25 Mbps, DVCPRO 50 Mbps, DVCPROHD
- x264 Baseline, Main, High, High 10, High 4:2:2, max Bit Rate 50Mbps
- x265 Main, Main 10, Main Intra,
- MPEG-2
- Uncompressed 10-bit (SD/HD V210)

### Browser based control UI

- Manual Recording options
- 24/7/365 Scheduling
- Log and Capture with VTR control via RS-422[1]
- Web Service API
- Multichannel Gang recording
- DAI (SCTE Trigger)

### Container Wrappers

- MXF OP1a including RDD9 and RDD25 variants
- Avid MXF OPAtom
- QuickTime
- MP4 - complies with IEC-14496-14
- MPEG Transport Stream (with MPEG2 essence) and Manzanita multiplexing (optional purchase)
- Telestream TIFO

### Proxy Output Formats

- MP4
- RDD25 MXF
- HLS (4 variant)
- TIFO (including support for Avid proprietary proxy formats via Vantage Media Creation action)

### Hardware

- 1 RU chassis
- Dual hot swap Power Supplies
- 2 x 10Gbe SFP+ based Ethernet ports
- 2 x 1Gbe Ethernet ports
- Up to 15.4TB of local RAID storage

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## Software options

- ***Avid integration*** – Create Avid media and metadata for Media Composer or MediaCentral | Production
- ***GLIM*** – Create sub-clips and highlights from open,growing media files
- ***Live Schedule Pro*** – 24/7/365 orchestration and automation of multiple Capture systems complete with SDI and IP router control
- ***Vantage Transcode and Transcode Pro*** – Add industry leading file-based transcoding to your Live Capture ingest systems
- ***Vantage Analysis and Analysis Pro*** – Advanced media file inspection and reporting capabilities
- ***Vantage Metadata*** – Create, extract, manipulate and examine side-car and embedded metadata

## Hardware options

- 8Gb and 16Gb FibreChannel HBA for SAN access
- Myricom 10Gb Ethernet
- ATTO 10Gb Ethernet
- Additional 4.4TB (Four enterprise class 1.2TB SATA 6Gb/s drives)
- 4 channel RS422 Kit

## Environment

- Management console and system monitoring via SNMP
- Size: H 1.7" (43mm) x W 17.2" (437mm) x L 27.8" (707mm)
- Weight: 32 lbs
- AC Input: 100-127Vac, 50-60Hz; 200-240Vac, 50-60Hz
- Operating Temperature: 5°C to 40°C (41°F to 104°F)

[1] *Requires optional RS422 kit*

[2] *4K/UHD capable*

www.telestream.net | info@telestream.net | tel +1 530 470 1300

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