

Lightspeed Live Capture VC-100 & VC-300

High Octane UHD Video Capture



Executive Summary

Telestream’s Lightspeed Live Capture servers are flexible and scalable video capture solutions designed to meet the ever-increasing demands of mezzanine-quality SD, HD, and UHD/4K.

With industry leading support for a multitude of file formats, the VC-100 and VC-300 Live Capture servers support up to sixteen concurrent 3G-HD SDI inputs or four concurrent UHD/4K inputs. Standard features now include RAID1 OS redundancy, and media storage capacity has been quadrupled compared to previous generations.

Lightspeed Live Capture offers 3G/12G SDI, 25/100GbE ST 2110, and compressed IP input options: TS, SRT, RTMP, and NDI.

Lightspeed Live Capture VC-100 & VC-300

Key Features & Benefits

Capture Anything, Anytime

Maximizes recording flexibility with comprehensive capture options: 24/7/365 scheduled live feed recordings, 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.

Supports an extensive number of wrappers including MXF, MOV, MP4, MKV, DASH, HLS, TIFO and more.

Preserves closed caption and other ancillary data via MXF, QuickTime, TIFO and Avid/Apple proprietary schemes.

Offers extensive support for popular 3rd party editing solutions including: Avid Media Central|Production (Interplay), Avid Media Composer, Adobe Premiere, DaVinci Resolve, Apple Final Cut Pro, and others.

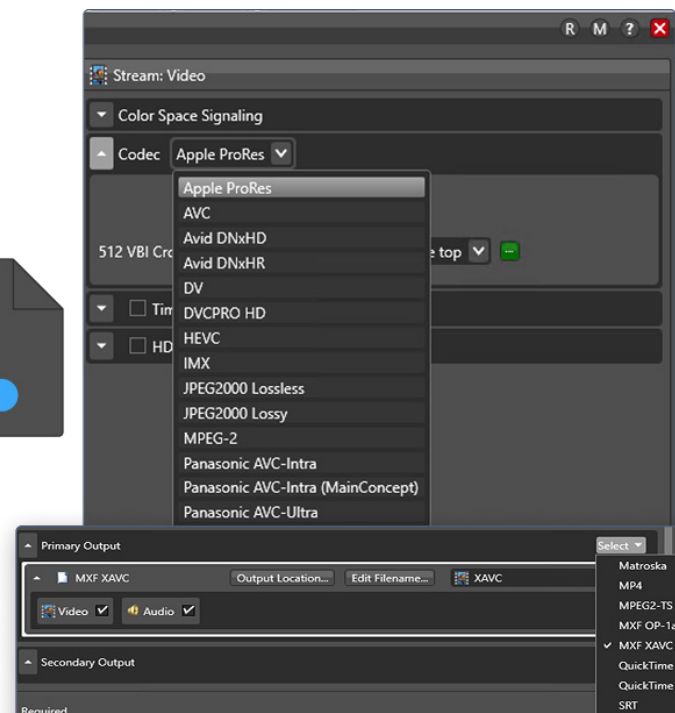
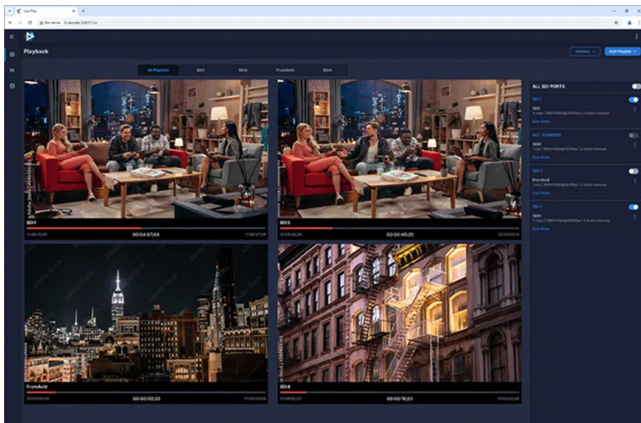
Flexible Deployment & Scalability

Offers flexible deployment options as a standalone capture device, as a part of a multi-server capture farm, or integrated into a Vantage domain of any size.

Scales easily to increase channel capacity with additional Lightspeed Live Capture servers and shared database integration with control managed via common user interfaces.

Integrates with Vantage for highly scalable, flexible, and powerful media processing.

Offers support for streaming formats such as NDI, SRT, RTMP and MPEG2-TS.



Technical Specifications

Input Sources (VC-300)

- Up to 16 3G-SDI inputs - Supports up to 1080 50/60p (3G-SDI LEVEL A only) - non-loop-through mode
- 8 SD/HD/3G-SDI inputs and 8 SD/HD/3G-SDI outputs - Supports up to 1080 50/60p - loop-through mode
- Up to 4 Quad-Link Square Division/2 Sample Interleave input – Supports UHD/4K up to 2160 50/60p
- 4 SD/HD/UHD 12G-SDI inputs and 4 SD/HD/UHD 12G-SDI outputs - loop-through mode
- Configurable SDI loop-through outputs
- 25 or 100Gbe ST 2110 inputs with 2022-7 redundancy
- Up to 16 channels embedded SDI audio 48Khz/16/24bit / Uncompressed

Input Sources (VC-100)

- Up to 8 SD/HD/3G-SDI inputs - Supports up to 1080 50/60p (3G-SDI LEVEL A only) – non-loop-through mode
- 4 SD/HD/3G-SDI inputs and 4 SD/HD/3G-SDI outputs - Supports up to 1080 50/60p - loop-through mode
- 1 Quad-Link Square Division/2 Sample Interleave input – Supports UHD/4K up to 2160 50/60p
- Up to 4 SD/HD/UHD 12G-SDI inputs – non-loop-through mode
- Configurable SDI loop-through outputs

- 25 or 100Gbe ST 2110 inputs with 2022-7 redundancy
- Up to 16 channels embedded SDI audio 48Khz/16/24bit / Uncompressed

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 ST 2110
- NDI
- SRT

VTR Machine Control for up to 8 VTR's

- RS-422, 9 pin Sony Protocol

External API Control

- REST API

Time Code Sources

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

Technical Specifications, Continued

Edit Solutions

- Adobe Premier Pro CC
- Apple Final Cut Pro
- Avid Media Composer
- Avid Media Central Production
- DaVinci Resolve
- Many others

Primary Output File Formats

- Apple ProRes – 422HQ, 422SQ, 422LT, 422 Proxy
- DNxHD, HQX, HQ (220/185 Mbps), HQ TR (145/120 Mbps), SQ (145/120 Mbps), SQ TR (100 Mbps), LB (45/36 Mbps)
- DNxHR, HQX (10 bit), HQ, SQ, LB.
- JPEG2000 Lossy
- JPEG2000 Lossless
- DVCPROHD
- AVC Intra - 50 Mbps 4:2:0, 100 Mbps 4:2:2, 200 Mbps 4:2:2
- AVC Ultra Log GOP 12,25,50
- 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
- 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
- H.264 Baseline, Main, High, High 10, High 4:2:2, max Bit Rate 50Mbps
- H.265/HEVC Main, Main 10, Main Intra,
- MPEG-2
- Uncompressed 10-bit (SD/HD V210)
- FFV1

Browser Based Control UI

- Manual Recording options
- 24/7/365 Scheduling
- Log and Capture with VTR control via RS-4221
- Web Service API
- Multichannel Gang recording
- DAI (SCTE Trigger)

Containers

- MXF OP1a including RDD9 and RDD25 variants
- Avid MXF OPAtom (with Vantage option)
- QuickTime
- MP4 - complies with IEC-14496-14
- MKV

Technical Specifications, Continued

- MPEG Transport Stream (with MPEG2 essence) and Manzanita multiplexing (optional purchase)
- Telestream TIFO

Proxy Output Formats

- MP4
- RDD25 MXF
- Op1A
- TIFO (including support for Avid proprietary proxy formats via Vantage Media Creation action)
- DASH and HLS

Streaming Output Formats

- SRT with H.264, HEVC and XDCAM

Software Options

- Avid integration – Create Avid media and metadata for Media Composer or MediaCentral | Production
- GLIM – Perform visual QC and create sub-clips 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

- 10, 25 & 100Gbe networking options
- 11.5 TB (15TB raw) or 23TB (30Tb raw) RAID5 media storage options
- 4 channel RS422 Kit



Lightspeed Live Capture VC-100 & VC-300

Standard Configuration VC-300 & VC-100

Base Chassis

1RU Supermicro Server

CPU

Intel (Dual) 6442Y (VC-300)

Intel (Dual) 4410Y (VC-100)

Number of Cores

2x 24c, 48c (VC-300)

2x, 12c, 24c (VC-100)

Memory

256GB (VC-300)

128GB (VC-100)

OS Drives

2x 800GB NVMe

Power Supply

2x 800/1200W Redundant

GPU

NVIDIA RTX 4000 ADA GPU

Media Drives

15TB or 30TB Raw of local RAID storage

OS

Windows Server 2019 or 2022 (Coming Soon)

¹ requires optional RS422 kit

Ethernet Connectivity

2-Port 1G/10G RJ45

Hardware

- 1 RU chassis
- Dual hot swap Power Supplies
- 2-Port 1G/10G RJ45 Ethernet Connectivity

Factory Fitted Options

Ethernet Option 1

2-Port 25G + SR SFP's

Ethernet Option 2

2-Port 100G QSFP + SFP's

Environmental Specifications

Operating Temperature

15oC to 30oC (59oF to 85oF)

Power Consumption (Idle)

345W/2.9A (VC-300)

255W/2.1A (VC-100)

Power Consumption (Full Load)

960W/8.6A (VC-300)

545W/4.5A (VC-100)

Size

H 1.75" x W 19" (w/ears) x L 32.25"

Weight

39 lbs

Learn more about Live Capture:
telestream.com/live-capture



Want to schedule a demo?
Contact us at telestream.com/contact-us