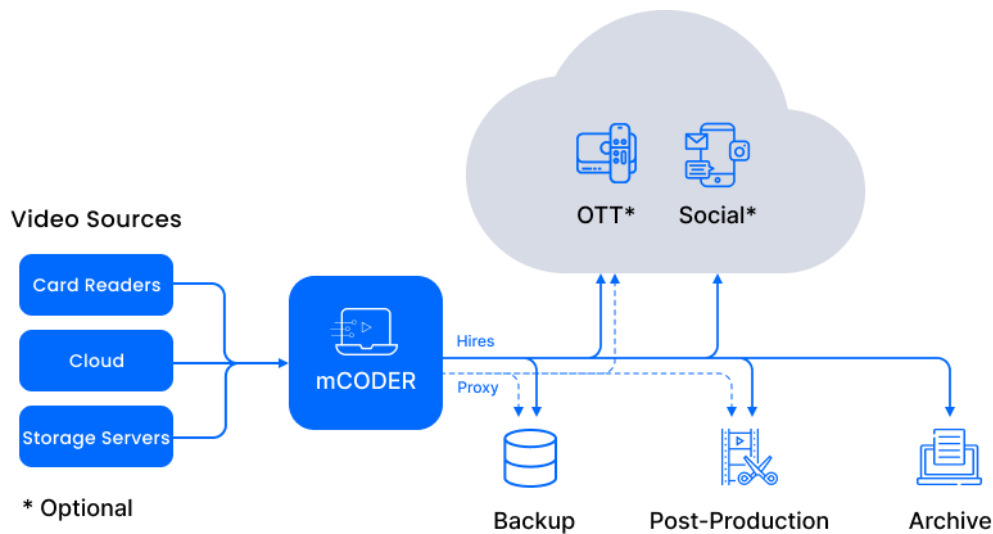# mCODER Grand av

Overview

mCODER Grand av is a professional multi-format and real-time transcoder appliance with XAVC & AVC-Ultra hardware encoder that can automatically transcode assets to internal house formats for a wide variety of media workflows.

It supports simultaneous media operations that can be a combination of transcoding and previewing files.

Highlights

- Operation modes: manual, scheduled, and automatic
- Ingest and/or transcode the contents according to the destination format
- Supports spanned clips (Sony XDCAM EX, Panasonic P2, Panasonic GH5, GoPro and Canon)
- Optional remote preview for media selection, sub-clipping, and merge
- Burnt-in options: text, timecode, overlays (images and videos), and LUT
- Flexible file renaming engine
- Enable edit while ingest
- Metadata preservation and enhancement
- Multiple simultaneous transcodes
- Full featured local and remote user interface
- Proxy generation
- Artificial intelligence

Specially Designed For

- Educational/Government
- Live Entertainment/Worship
- Corporate
- Sports
- Film/TV Studio/Scripted
- Digital News
- Post-Production
- Television/Broadcasting
- System Integrators/Rentals

Features

Features
Operation modes
Automatic
Manual
Scheduled
Clipnaming
Flexible file renaming engine
Create diversified clipnaming templates
Clipnaming based on Metadata Profiles
Use of common labels (Id, label, Counter, Date, Original Source Name, Weekday, User)
Field numeric representation of the day of the week
Folder Structure creation
Drag and Drop support
"CreationDate" field can refer to a desired Time Zone
Add the label "_p" to proxy clips' names
Multi-Configuration metadata management and enrichment
An efficient internal asset management
Quickly search for assets metadata
Directly manage your assets metadata
Prevent the overwrite of metadata fields
Protect metadata fields
Delete custom metadata
Edit a file's source metadata based on a configured metadata profile
"Description" field editable in metadata widget
Set "Description" field as a column in the Asset Explorer list view
Favorite metadata fields
Create custom metadata fields
Add a "Rating" metadata field
Update the source metadata directly through the metadata widget
Add asset tags insertion in preset list
Re-use lists of possible values
Update Metadata in Media Central/Interplay using AMT-3 library
Take field (counter)
Support for "Reel" metadata field using Apple ProRes Wrapper
Read metadata from pre-configured cloud storages (Amazon S3 / Google Cloud Storage / Tencent / IBM Cloud Object Storage)
Preserve specific Arri fields
Preserve RED digital cinema color information
Find immediately and learn everything about any asset
Show or hide proxies on Asset Browser
Sort, order and search for files on Asset Browser
Asset Explorer - Resizable thumbnails
Asset Explorer - Support asset availability
Search for all assets on Asset Explorer
Extract thumbnails and posters while indexing on Asset Explorer
Asset Explorer - Playable thumbnails
Preview media with interactive Pop-up Players
Asset Explorer - View the exact duration of files with more than 24 hours
Asset Selection -View the total duration of the selected assets
Configure the asset's preview duration
Asset Selection - Add Numeric Input
Asset management Check-in
AVID AAF
AVID interplay
XML support
XSLT transformation - XML sidecar
Edit share flow
Vizzi OTT check in
Support for update on Vizzi OTT check-in
Audio support
PCM input and output support
Dolby E-AC-3, Dolby TrueHD, and DTS input support

Features
Dolby-E Input and output support
DTS Coherent Acoustics (DCA)
PCM 96KHz support
Independent audio encoder for hires and proxy
Individually map your audio by output target
Playout audio only streams
Loudness normalization (EBU R128)
Audio downmixing & upmixing
External audio files support (.WAV)
MPEG-4 Audio (M4A) audio format as output
Ability to mute proxy on the output

Close captions

CEA/EIA - 608
Scenarist (SCC)
Add sidecar - SubRip (SRT)
Add sidecar - Fragmented WebVTT
Add sidecar - ISMT/CMFT subtitles
DCP subtitle burn-in (.SCC)
Digital Cinema Package (DCP) open captioning
Support captioning for OTT (CMFT, SubRip, and WebVTT)
Stream with Closed Captions

Locators

Edit and delete locators
Merge locators
Preserve Metadata Enhancement locators created by an Automatic Job

Scheduler (Calendar View)

Scheduled Automatic Jobs via Scheduler
Edit individual events
Allow editing of settings for each occurrence/repetition
Set the number of an event's repetitions
Ability to Ignore files before a start date
Placeholder when editing an occurrence name
Use pre-set naming templates
Define events to be triggered on any day, on working days only or only on weekends
Set the Calendar Notion option to automatically adjust to daylight time
Visualize scheduled events in a List View
Export activity events

Checksum media

MD5 hash file
MDL - Media hash list

File ingest

Execute multiple simultaneous transcodes
Batch ingest
Card ingest
Clip merge
Clip renaming
Disable Clip File Naming generation
Ingest while growing
Growing file support for Grass valley Edius Workgroup v.9 and X
Partially restore clips
Rough cut
Establish priority levels
Insert Subclips SOM and EOM without colons
Automatic drag and drop ingest
Drag and drop media from several social networks
Generate XML sidecar with WAV file as output while ingest
Generate a .xml file for each output AVID clip or AVID sequence
Merge as Sequence from MP4 proxy files
Merge as sequence by sequence XML for MP4
Automatically select workflows available in job control attending the source files
Directly select the storage on the dashboard instead of accessing workflow profiles
Copy assets

Features
Group resulting assets into a single one
Copy - Transfer sidecars if available
Encode the contents according to the destination format
Decode the contents according to the destination format
Move assets
Edit while transcoding/ingesting
Place locators on growing files
Multiple resolutions check-in
Frame rate conversion
Variable Frame Rate Input
High Dynamic Range (HDR) support - HLG (arib std-b67) / PQ (SMPTE 2084)
High Frame Rate (HFR) up to 120fps (ST2081-10, ST2081-11, ST2082-10, ST2082-11 and ST2082-30)
Ability to perform "Run after completion" scripts
Audio only OPAtom as output
Opt to not overwrite files
Support for .MOV files containing "Run-length encoding" video essence
Enable "growing" support on EDL ingest workflow
Timecode SUM of selected cuts
Merge assets as EDL, regardless of the input's format
Merge Trimmed files
Merge files with different framerates
Merge P2 with different audio channels
Merge operations for Devices sources
Allow the merge of more than 200 assets
Support for spanned Panasonic P2 structure
Preserve original time code breaks in Panasonic P2 Format
Mute proxy option in output (requires proxy option)
Create Edit Decision Lists with cut points
View the total duration of the sub-clips in an EDL widget
Ingest from cloud locations
Digital Cinema Package (DCP) support
Choose to force fragment MP4 clips while uploading to a S3 bucket
Generation of MP4 files as fragmented MP4 with DCP packager
Digital Picture Exchange (DPX) support
Select IMF (Netflix Compliant) as the output metadata
FTP for generic network devices as input
Ability to delete OPAtom source files after ingest
Support for GOPRO spanned files
Support video with vertical rotation
MOG file package support
Support MOG Package from Cloud Storages
Outgest growing media directly from Interplay
Dual check in to interplay in a merge as sequence operation with the same MOBID for the sequences
HDR (PQ, HLG) conversion to SDR as output
Ingest image files
Support 48fps drop frame media (DJI Camera Drones)
Support for spanned clips
XDCAM support for spanned & merge clips in network locations/network devices
Add black bars to match the aspect ratio
Delete an Output via Job Abort
Schedule an Ingest operation through the Calendar via Automatic Jobs
Ingest and/or transcode the contents according to the destination format
Vubiquity assets support
Support for Vizzi collections as input files
Browse Avid Interplay folder structure from within the "Workflow selection window"
Avid Sub Clip export referencing Growing Master Clip
Generate Avid OPAtom assets to an FTP server
Independent targets and multiple outputs
Manage via web interface or REST APIs for integration with automation system
Update Metadata in Media Central/Interplay using AMT-3 library
Create Live Ingest Operations
Live Sources made available in the Asset Browser/Explorer widgets

Features
Override start timecode
Index clips with same name but with different metadata

Burn-In Video options

Graphic burn-in while ingesting
Text (Position, Text color, Box Color, Font Size)
Timecode (Position, Text color, Box Color, Font Size)
Overlays support (images and videos positioning)
LUT (Look-Up Table) - Save particular color grades as a template

Quality control - Report

Video Report

Black frames detection
Video freeze detection
Scene change detection

Audio Report

Audio clipping detection
Loudness detection
Silence detection

Others

Timecode gap detection

Automated ingest

Dynamic workflows using metadata fields
Dynamic workflows with support for metadata without sidecars
Delete Assets in Dynamic Jobs
Support different input types on dynamic configurations
Ignore files before a start date
Re-process assets with the same name
Support metadata enhancement workflows
Vizzi Collections support

File playback

Preview Editing Decision Lists
Preview Clip Lists
Read Metadata Timecode Package (Auto / Material Package / Source Package)

Input/output social media *Optional

Google Chrome Social-m Plugin
Social-m - Add support for live stream capture
Metadata in Chrome Social-m Plugin
Capture to Facebook Live
Stream to Facebook Live
Stream to Twitch Live
Capture to YouTube Live
File based YouTube Upload
Capture X (Twitter) Live
Stream to X (Twitter) Live
Upload to Vimeo
Metadata social annotation and enhancement

Metadata Enhancement and preservation

Artificial Intelligence

Audio

Audio clipping detection
Loudness detection
Silence detection
Voice activity detection
Audio mute detection
Audio phase detection
Mono audio detection

Video

Black frames detection
Video freeze detection
Scene change detection
Black Margins detection
Flashing video detection

Features

Object
- Concept tagger 2.0
- Vehicle detection
- License plate detection

Others
- Timecode gap detection
- Update existing interplay entry with new metadata
- Possibility to add bounding boxes to player

Transform
- Automatically Blur License Plates
- Black margins automatic crop
- Remove audio clicks
- Remove audio clipping
- AI Upscale
- Reduce video flashing

Additional AI Operations
- Face recognition 2.0
- Face recognition - Support dataset with multiple images for each person
- Age prediction detection
- Object detection 2.0
- Optical Character Recognition (OCR)
- Speech recognition 2.0 (with ability to detect non speech tokens)

Analytics
- Integrate with Google Analytics and Tag Manager
- Enable or disable Analytics
- Keep track of menu events
- Receive video metrics
- Keep track of Job Control widget's events
- Keep track of Asset Explorer widget's events

Improved security
- Support for Windows UAC
- Support for HTTP/HTTPS Ingress
- HTTPS (Hypertext Transfer Protocol Secure) for REST API
- Secure login
- User Impersonation
- Token based authentication
- Two-factor authentication
- Remote services, system restart, and settings recovery features
- DASH/HLS packager with DRM
- Opt to "Keep me signed in"
- Send a User Verification through email
- Configurable password visibility in logs

Transfer acceleration protocols
- Aspera FASP transport technology - Transfer acceleration protocol
- FileCatalyst direct - Transfer acceleration protocol

Hardware acceleration *If Hardware is installed or available
- Intel QSV
- Sony XAVC
- Panasonic AVC-Ultra
- Nvidia Nvenc

General Purpose IN/OUT
- GPI triggers supported
- GPO triggers supported

Additional Highlights
- REST API - allows interaction with RESTful web services
- Change Aspect Ratio (4:3 / 16:9 / 1.9:1 / 2:1 or use same as source)
- Active Format Description (Option to Preserve, Discard or Override)
- Notify user upon connection lost with the Server
- Manage via web interface or REST APIs for integration with automation system
- Configurable quality and target latency of the preview stream
- Logging - Human readable information on Services logs
- Logging - Add user information on flow actions

Features
Logging - Structured Logging
Receive SMTP notifications via e-mail
Support an external Database
Microsoft Edge / Firefox / Safari and Chrome Support
Unified Interface User Experience
Configurable web interface access port
Embeddable Dashboards/Widgets
Web-Based Interface with video preview
Dashboards based experience where users can create their own personalized view
Dashboards presets for ease-of-use deployment
Create your own custom dashboard templates
Import and Export Users' Dashboards
Associate a single dashboard to multiple users
LDAP user authentication
User profile management
Users permissions control
Widget based modular interface
Lock/Unlock widgets permission
High contrast theme
Choose between multiple interface themes (Midnight, Carbon, Dark or High contrast theme)
Touch screen mode
Monitoring - Advanced metrics
Multi Language Support
User tour
Show/Hide player overlays
Notifications of required actions needed to resume a workflow
Monitor Grouped Servers' activity in a Group Activity Widget
Multiviewer
Define the quality and target latency of the preview stream
Maintenance
Scheduler
Reboot host or group
Export database (backup) as a scheduled task
Export logs as a scheduled task
Activity
Export last activity
Export all activity
Export activity from a date range
Clear all activity
Logs
Export logs
Backup
Export full backup - A full backup will create an archive of all the files and configurations
Import full backup
Dashboards
Export dashboards from one user or all users
Import dashboards
Data
Clean data usage
Clean assets, flows and notifications
Perform a Factory Data Reset
Erase all data and reset the system
Force clear cache

Technical Specifications

Supported File Inputs

	Inputs
OnPrem	ARRI ALEXA Cameras
	BlackMagic Cameras
	RED Digital Cinema
	Avid Files
	Avid Media Files (standalone or Nexis/ISIS)
	Avid Sequences (master clips and rendered sequences)
	CANON DSLR 5D, 7D, C300, C100
	Generic File Shares
	GoPro Cards
	IKEGAMI GFPAK
	JVC (AVC HD models)
	NextoDI NSB-25
	Panasonic CX350 HEVC
	Panasonic AU-EVA1 and GH5 Cameras
	Panasonic P2
	AJ PCD 2 / AJ PCD 20/30/35 / AJ MPD1
	AU-XPD1E / AU-XPD3EJ
	Multi Clip/Spanned XDCAM/XAVC/XDCAM-EX Structure
	XDCAM EX
	Sony SxS (SBAC-UT100, SBAC-US10/20/30)
	Sony XQD (MRW E-80, MRW E-90)
	XDCAM HD
	Sony XDCAM HD: Disc (PDW-U1, PDW-U2, PDW-U4)
	XAVC Structures
	DJI (Camera Drones)
	HLS Structures
	MPEG-TS Structures
	MOG Package
	Network
	XDCAM Network
	P2 Network
	ARRI RAW Network
	Ikegami Network
	Storage
	Avid ISIS / Nexis
	Avid Unity™ MediaNetwork
	DDP – Dynamic Drive Pool
	Facilis TerraBlock
	Harmonic MediaGrid
	Editshare EFS
	NAS / SAS (SMB 2.0 and 3.0)
	Quantum StorNext
	ScaleLogic NX2 & ZX NAS Storage
	EMC Isilon
	QNAP
	Studio Network Solutions EVO
	Oracle Storage
	Netapp
Cloud	**Social Media**
	Facebook
	X (Twitter)
	Vimeo
	YouTube
	Professional Cloud Storages
	Adobe Creative Cloud
	Amazon S3 Glacier
	Microsoft Azure Storage
	Tencent
	Lucidlink Cloud NAS

Inputs	
Cloud	Google Cloud Storage
	IBM Cloud Object Storage
	Generic S3 storages
	Consumer Cloud Storages
	Apple I Cloud Drive
	Dropbox
	Google Drive
	Microsoft One Drive

Supported File Outputs

Outputs	
OnPrem	Avid ISIS / Nexis
	Avid UnityTM MediaNetwork
	DDP – Dynamic Drive Pool
	Facilis TerraBlock
	Harmonic MediaGrid
	Editshare EFS
	NAS / SAS (SMB 2.0 and 3.0)
	Quantum StorNext
	ScaleLogic NX2 & ZX NAS Storage
	EMC Isilon
	QNAP
	Studio Network Solutions EVO
	Oracle Storage
	Netapp
	FTP Servers (List on request)
	Generic File Shares
Cloud	**Consumer Cloud Storages**
	Apple I Cloud Drive
	Dropbox
	Google Drive
	Microsoft One Drive
	Multiple and Adaptive bitrates for the OTT * Optional
	Professional Cloud Storages
	Adobe Creative Cloud
	Amazon S3 Glacier
	Microsoft Azure Storage
	Tencent
	Lucidlink Cloud NAS
	Google Cloud Storage
	IBM Cloud Object Storage
	Generic S3 storages
	Social Media *Optional
	Facebook
	X (Twitter)
	Vimeo
	YouTube

Supported Live Outputs

Outputs	
Live	**Social Media *Optional**
	Facebook
	Twitch
	X (Twitter)
	Vimeo
	YouTube
	Multiple and Adaptive bitrates for the OTT *Optional

Formats

Input Formats

Input Video Formats
ARRI ARRIRAW
Blackmagic RAW
Digital Cinema Packages (DCP)
RED Digital Cinema
IMX 30/40/50 Mbps
MPEG2 LGOP 18/25/35 Mbps 4:2:0
MPEG2 LGOP 50/70 Mbps 4:2:2
MPEG2 LGOP 422 50 Mbps
MPEG2 LGOP 420 1440x1080 35 Mbps
MPEG2 LGOP 420 (FULL) 35 Mbps
DVCAM 25 Mbps
XAVC Intra 50 / 100 Mbps
XAVC Intra 300 / 300 VBR / 480 / 480 VBR Mbps
XAVC LGOP 25 / 35 / 50 Mbps
XAVC LGOP 60 / 100 / 140 / 150 / 200 Mbps
DVCPRO 25/50 Mbps / DVCPRO HD 100 Mbps
AVC-Intra 50/100 Mbps
AVC-Intra 200 Mbps
AVC-Intra 2K422
AVC-Intra 4K422
AVC Ultra (LGOP 6/12/25/50 Mbps)
DNxHD (SQ/HQ/HQX/LB)
DNxHR (SQ/HQ/HQX/LB)
H.264 4320P 80 - 150 Mbps High Profile
H.264 4320P 150 - 280 Mbps High Profile
H.264 2160p 35 - 68 Mbps High Profile
H.264 1440p 16 - 24 Mbps High Profile
H.264 1080p 8 - 12 Mbps High Profile
H.264 720p 5 - 7.5 Mbps High Profile
H.264 480p 2.5 - 4 Mbps High Profile
H.264 360p 1 - 1.5 Mbps High Profile
H.264 2160p 13 - 51 Mbps High Profile (Live)
H.264 1440p 6 - 18 Mbps High Profile (Live)
H.264 1080p 3 - 9 Mbps High Profile (Live)
H.264 720p 1.5 - 6 Mbps High Profile (Live)
H.264 480p 0.5 - 2.0 Mbps High Profile (Live)
H.264 360p 0.4 - 1.0 Mbps High Profile (Live)
H.264 240p 0.3 - 0.7 Mbps High Profile (Live)
H.264 L10 10 Mbps
H.264 MOG 1Mbps
H.265/HEVC 10 Mbps LGOP
H.265/HEVC 25 Mbps LGOP
H.265/HEVC 50 Mbps LGOP
H.265/HEVC 100 Mbps LGOP
H.265/HEVC 4K 25 Mbps LGOP
H.265/HEVC 4K 50 Mbps LGOP
H.265/HEVC 8K 25 Mbps LGOP
H.265/HEVC 8K 50 Mbps LGOP
H.265/HEVC 8K 100 Mbps LGOP
H.265/HEVC 4:2:2 LGOP
H.265/HEVC 4K 4:2:2 LGOP
H.265/HEVC 8K 4:2:2 LGOP
MPEG-5 EVC Baseline Profile
MPEG-5 EVC Main Profile
MPEG VVC/H266 Main Profile
ProRes 422 (SQ/HQ/LT)
ProRes 4444
ProRes 4444XQ
JPEG 2000 (Full HD)

Input Video Formats
JPEG 2000 (4K)
JPEG 2000 (8K)
Google® VP6 / VP7 / VP8 / VP9 (Full HD)
Google® VP9 (4K)
Google® VP9 (8K)
Uncompressed UYVY 422 / V210 / RGBA
AOMedia Video 1 (Full HD)
AOMedia Video 1 (4K)
AOMedia Video 1 (8K)
IMF (JPEG 2000 @ Full HD)
IMF (JPEG 2000 @ 4K)
IMF (JPEG 2000 @ 8K)

Output Formats

Output Video Formats
IMX 30/40/50 Mbps
MPEG2 LGOP 18/25/35 Mbps 4:2:0
MPEG2 LGOP 50/70 Mbps 4:2:2
MPEG2 LGOP 422 50 Mbps
MPEG2 LGOP 420 1440x1080 35 Mbps
MPEG2 LGOP 420 (FULL) 35 Mbps
DVCAM 25 Mbps
XAVC Intra 50 / 100 Mbps
XAVC Intra 300 / 300 VBR / 480 / 480 VBR Mbps
XAVC LGOP 25 / 35 / 50 Mbps
XAVC LGOP 60 / 100 / 140 / 150 / 200 Mbps
DVCPRO 25/50 Mbps / DVCPRO HD 100 Mbps
AVC-Intra 50/100 Mbps
AVC-Intra 200 Mbps
AVC-Intra 2K422
AVC-Intra 4K422
AVC Ultra (LGOP 6/12/25/50 Mbps)
DNxHD (SQ/HQ/HQX/LB)
DNxHR (SQ/HQ/HQX/LB)
H.264 4320p 150 - 280 Mbps High Profile
H.264 4320p 80 - 150 Mbps High Profile
H.264 2160p 35 - 68 Mbps High Profile
H.264 1440p 16 - 24 Mbps High Profile
H.264 1080p 8 - 12 Mbps High Profile
H.264 720p CBR - 6.5 Mbps High Profile
H.264 720p 5 - 7.5 Mbps High Profile
H.264 480p 2.5 - 4 Mbps High Profile
H.264 360p 1 - 1.5 Mbps High Profile
H.264 2160p 13 - 51 Mbps High Profile (Live)
H.264 1440p 6 - 18 Mbps High Profile (Live)
H.264 1080p 3 - 9 Mbps High Profile (Live)
H.264 720p 1.5 - 6 Mbps High Profile (Live)
H.264 480p 0.5 - 2.0 Mbps High Profile (Live)
H.264 360p 0.4 - 1.0 Mbps High Profile (Live)
H.264 240p 0.3 - 0.7 Mbps High Profile (Live)
H.264 1080p CBR 15 Mbps MAIN Profile
H.264 480p CBR 2.3 Mbps MAIN Profile
H.264 360p CBR MAIN Profile
H.264 432p CBR MAIN Profile
H.264 576p CBR MAIN Profile
H.264 720p CBR MAIN Profile
H.264 1080p CBR MAIN Profile
H.264 576p CBR - 3 Mbps MAIN Profile
H.264 720p CBR - 4 Mbps MAIN Profile
H.264 1080p CBR - 5Mbps MAIN Profile
H.264 15-30 Mbps MAIN Profile
H.264 L10 10 Mbps

Output Video Formats

Output Video Formats
H.265/HEVC LGOP 4:2:2
H.265/HEVC 10 Mbps LGOP
H.265/HEVC 25 Mbps LGOP
H.265/HEVC 50 Mbps LGOP
H.265/HEVC 100 Mbps LGOP
H.265/HEVC 4K 25 Mbps LGOP
H.265/HEVC 4K 50 Mbps LGOP
H.265/HEVC 8K 25 Mbps LGOP
H.265/HEVC 8K 50 Mbps LGOP
H.265/HEVC 8K 100 Mbps LGOP
MPEG-5 EVC Baseline Profile
MPEG VVC/H266 Main Profile
ProRes 422 (SQ/HQ/LT)
ProRes 4444
ProRes 4444XQ
JPEG 2000 (Full HD)
JPEG 2000 (4K)
JPEG 2000 (8K)
Google® VP6 / VP7 / VP8
Google® VP9 (Full HD)
Google® VP9 (4K)
Google® VP9 (8K)
Uncompressed UYVY 422 / V210 / RGBA
AOMedia Video 1 (Full HD)
AOMedia Video 1 (4K)
AOMedia Video 1 (8K)
IMF (JPEG 2000 @ Full HD)
IMF (JPEG 2000 @ 4K)
IMF (JPEG 2000 @ 8K)

Proxy Formats

Proxy Formats
XAVC LGOP 25 / 35 Mbps
AVC Ultra (LGOP 6/12/25 Mbps)
H.264 @ 500 Kbps Flash
H.264 @ 486p 1 / 1.5 Mbps Flash
H.264 360p @ 1.6 Mbps Flash
H.264 720 480p @ 8 / 10 Mbps Flash
H.264 720p @ 8 / 15 / 16 / 20 / 24 / 25 Mbps Flash
H.264 854 480p @ 8 / 10 Mbps Flash
H.264 960 540p @ 3 Mbps Flash
H.264 1080p @ 8 / 15 / 16 / 20 / 24 / 25 Mbps Flash
H.264 SD @ 4 / 8 / 15 / 20 / 25 Mbps
H.264 480p @ 0.5 - 2 Mbps High Profile (Live)
H.264 360p @ 0.4 - 1 Mbps High Profile (Live)
H.264 240p @ 0.3 - 0.7 Mbps High Profile (Live)
H.265/HEVC 10 / 25 / 50 / 100 Mbps LGOP
ProRes Proxy 1920x1080
ProRes Proxy 1280x720
ProRes Proxy 960x540
ProRes Proxy SD (16:9 Raster)
ProRes Proxy SD
MPEG-1 (layer 2) @ 1.5 Mbps
Avid MPEG-2 (SIF @ 2Mbps)
H.264 Interplay Web (SD, 800 Kbps, and 2 Mbps)
Sony Proxy AV (MPEG-4 Part-2) @1.5 Mbps

OTT Formats *

Output OTT Formats
H.264 2160p 35 - 68 Mbps High Profile
H.264 1440p 16 - 24 Mbps High Profile
H.264 1080p 8 - 12 Mbps High Profile

Output OTT Formats

H.264 720p 5 - 7.5 Mbps High Profile
H.264 480p 2.5 - 4 Mbps High Profile
H.264 360p 1 - 1.5 Mbps High Profile
H.264 2160p 13 - 51 Mbps High Profile (Live)
H.264 1440p 6 - 18 Mbps High Profile (Live)
H.264 1080p 3 - 9 Mbps High Profile (Live)
H.264 720p 1.5 - 6 Mbps High Profile (Live)
H.264 480p 0.5 - 2.0 Mbps High Profile (Live)
H.264 360p 0.4 - 1.0 Mbps High Profile (Live)
H.264 240p 0.3 - 0.7 Mbps High Profile (Live)
H.264 360p CBR MAIN Profile
H.264 432p CBR MAIN Profile
H.264 576p CBR MAIN Profile
H.264 720p CBR MAIN Profile
H.264 1080p CBR MAIN Profile
H.264 576p CBR - 3 Mbps MAIN Profile
H.264 720p CBR - 4 Mbps MAIN Profile
H.264 1080p CBR - 5Mbps MAIN Profile
H.265/HEVC 10 Mbps LGOP
H.265/HEVC 25 Mbps LGOP
H.265/HEVC 50 Mbps LGOP
H.265/HEVC 100 Mbps LGOP
H.265/HEVC LGOP 4:2:2
Google® VP9 (Full HD)
Google® VP9 (4K)

* Optional output

Product Integrations

Editing Sytems	MAM / PAM / DAM	Cameras	Consumer Cloud Storages
Adobe Premiere Pro	CatDV MAM	Canon (DSLR5D, DSLR 7D)	Dropbox
AVID Media Composer	CatDV PAM	Canon (DSLR C300, DSLR C100)	Google Drive
AVID Media Central UX	CatDV DAM	ARRI Alexa XT (ARRIRAW)	Microsoft One Drive
AVID Media Central Cloud UX	eMAM Media Asset Management	Panasonic AU-EVA1	Apple I Cloud Drive
Apple Final Cut Pro X	Telestream: Masstech	Panasonic GH5 Cameras	**CDN's**
Edius: Pro 8, Workgroup 9	AVID Interplay	Panasonic CX350 HEVC	Lumen
BlackMagic: DaVinci Resolve Studio	AXLE MAM	Ikegami Gfpack	Fastly
Autodesk: Flame	Editshare Flow	JVC AVC HD camera models	Akamai Technologies
Storage	MOG Vizzi	LUMIX DC-S1H	Microsoft Azure
AVID ISIS Storage	**Structures**	RED Digital Cinema	Cloudflare
AVID Nexis Storage	XAVC Structures	GOPRO	Limelight Networks
Avid UnityTM MediaNetwork	**Professional Cloud Storages**	**Card Readers**	Amazon CloudFront
Dynamic Drive Pool SAN Storage	Adobe Creative Cloud	Panasonic P2 (AJ PCD 2 / AJ PCD 20/30/35)	BootstrapCDN
Facilis Terrablock	Amazon EC2	Panasonic P2 (AJ MPD1)	StackPath
Harmonic MediaGrid	Amazon S3	Panasonic P2 (AU-XPD1E / AU-XPD3EJ)	KeyCDN
Quantum: Storenext	Amazon S3 Glacier	Panasonic P2 (AG HPG 20)	Rackspace
Scalelogic: NX2 & ZX NAS Storage	Microsoft Azure Storage	Sony XDCAM EX (SxS Cards): SBAC-US10/20/30	Alibaba Cloud Content Delivery Service
Editshare EFS	Microsoft Azure Virtual Machines	Sony XDCAM EX (SxS Cards): SBAC-UT100	CacheFly
EMC: Isilon	Tencent: Cloud Storage	Sony XDCAM EX (SxS Cards): MRW E-80	Verizon
QNAP	Lucidlink Cloud NAS	Sony XDCAM EX (SxS Cards): MRW E-90	**Social Media *Optional**
Studio Network Solutions: EVO	Google Cloud Storage	Sony Disc Reader: PDW-U1, PDW-U2	Facebook
Oracle Storage	IBM Cloud Object Storage	**VTR Decks**	Twitch
Netapp	Generic S3	XDCAM HD: Disc (PDW 1500, PDW HD1500)	X (Twitter)
Archive	**Hypervisers**	XDCAM HD: Disc (PDW F70)	YouTube
Archiware P5	Microsoft HyperV	XDCAM Station (XDS1000)	Vimeo
Xendata Archive Appliances	VMWare ESX	**Transfer Acceleration Protocols**	
Oracle Front Porch Digital DIVArchive		File Catalyst Direct	
		IBM: Aspera File Transfer	

Server Options

Features		Specs
System	**Platform**	Dell R750
	GPU	2x Nvidia A2
	AVC Hardware Encoder	2x Matrox
	Operating System Drive	480GB RAID 1
	Operating System	Windows 10 Enterprise (LTSC)
Connectivity	**Networking** — **1Gb Ethernet Port**	2
	Networking — **10Gb Ethernet Port SFP+**	2
	Video — **VGA Out**	1
	USB — **2.0**	1
	USB — **3.0**	1
	Power Requirements	Dual 1100W
Other	**Dimensions & Weight**	2RU, 772x482x86.8mm (D, W, H), ~40 kg
	Delivery Packaging	970x660x310mm (D, W, H), ~45Kg
	Temperature — **Continuous Operation**	10°C to 35°C (50°F to 95°F)
	What is Included — **Power Cable**	2x C13 to C14
	What is Included — **Other**	Static rails for 2/4-post racks

Concurrent Media Operations

With mCODER Grand av, it is possible to run different media operations simultaneously, thus guaranteeing distinct arrangements to meet the challenging media day-to-day activities.

Media operations include ingest, transcoding, and file preview.

mCODER Grand av io supports up to 8 media operations at the same time. Within this margin, you can combine the operations shown in the table below:

Concurrent Media Operations	
Ingest & Transcode	**File Preview**
Up to 8 operations	Up to 10 files preview

Product

Part Number	Product	Description
mcav	mCODER Grand av	File ingest appliance with additional XAVC & AVC-Ultra hardware encoder accelerator of up to 8 combined media operations

Available Options

Choose from the products below to customize the mCODER Grand av according to your business rules.

Production Tools

Tools for asset management and workflow orchestration.

mPAM

Benefit from a state-of-the-art content and production asset manager tool with mPAM. Streamline daily operations and empower your creative teams with the right tools to find, manage, track, enhance and deliver media files throughout the entire production ecosystem from a single interface.

Part Number	Product	Description
mpam1u	mPAM	Content and production asset manager per licensed user

Note: *Adding optional features might affect the number of simultaneous operations.*

Add-ons

Output options to complement your workflows.

Part Number	Product	Description
groasa	OTT & Social media	Multiple output resolutions for OTT & Simultaneous social media shares

Note: *Adding optional features might affect the number of simultaneous operations.*

Plugins

Complement any media production and distribution workflow with turnkey plugins and extensions.

Social-m

Quickly fetch and publish your live or VoD contents to social media.

This social media plugin for Chrome will let users ingest media without having to access the mCODER GUI, allowing the content to be ready for editing or any other task, in no time. Simply open the plugin, insert the URL and run the workflow to fetch your video, with option to preserve metadata.

Part Number	Product	Description
smpi	Social-m plugin	Social media capture & Publishing

Note: *Adding optional features might affect the number of simultaneous operations.*

Artificial Intelligence

Artificial intelligence engine to boost and facilitate media tasks even more.

Default (already included)	
Black frames detection	Voice activity detection
Video freeze detection	Silence detection
Black margins detection	Loudness detection
Audio clipping detection	Loudness balance
Audio mute detection	Vehicle detection
Audio phase detection	License plate detection
Audio mono detection	Concept tagger
Timecode gap detection	Bouncing boxes
Scene change detection	Update existing interplay entry with new metadata
Transformation	
Frame rate conversion	Crop black margins
Remove audio clicks	AI upscale
Remove audio clipping	Blur license plates

Additional AI Operations	
Part Number	**Product**
graifr	Face Recognition and Age Prediction
graiod	Object Detection
graicr	Optical Character Recognition
graisr	Speech Recognition

Note: *Adding optional features might affect the number of simultaneous operations.*

Contact our sales team at sales@mog-technologies.com to find out how to purchase or in case you need more information.