

mDECK Grand io



Overview

Take your content production to the next level with mDECK Grand io, a professional media deck that ensures incredible reliability and elasticity with the combination of record, ingest, transcode, and playback operations in 4K, UHD, FHD, and NDI. All in a single box and with users working together as a group.

This powerful appliance ensures broadcast quality for hybrid workflows (file-based and live) while supporting the most used formats on the market.

In addition, it comes with 8TB local storage, PSU redundancy, an OS drive, and can be pre-configured to support IP Live workflows.



Highlights

- mSWITCH - Remote live switching and composing
- mTALK - Audio communication between users
- Live to live - multiple simultaneous records
- Metadata preservation, enhancement, and enrichment
- File playback - multiple simultaneous plays
- Multiple simultaneous transcodes
- Automated file ingest
- Media checksum
- Closed captions
- Playlist management
- Quality control, audio, and video report
- Flexible file naming and renaming engine
- Locators support
- Batch capture
- Supports spanned clips
- Proxy generation
- Playout preparation and control
- Improved security
- Artificial intelligence

Specially Designed For

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

Features

Features
Timecode support
LTC (SMPTE 12M)
VITC (SMPTE RP188)
Time of Day
From VTR (BVW) - Serial
Multiple LIVE and simultaneous records
Crash Record operations
Gang Capture operations
Independent workflow selection in Gang Captures
Unique workflow for gang captures while using clipnaming with counters
Conceal/Hide option for unused Capture Instances
Synchronize (different) Gang Captures
Flexible Gang Capture channel configurations / Choose which channels are present in the gang
Frame Chase editing
Unlimited capture duration support
Loop record support
Extend a playlist's maximum duration in a Loop Record workflow
Perform Loop record captures through automatic jobs
Growing files support
Growing file support for Grass valley Edius Workgroup v.9 and X
Growing XDCAM MXF OP1a file support on Avid Media Composer *required Nablet AMA Plugin
Automatic Stream Control - Detect input streams and start recording automatically
Continuous recording support
Continuous live stream capture
Recording timer for captures
Abort or force stop a capture or a stream
Frame rate conversion option on Capture workflows
Generate MP4 files as Fragmented MP4 via DCP Packager
Add XML sidecars with WAV file as output while recording
Perform "Run after completion" scripts
Remove source assets after Job completion for all plain sources
Live Probing option
Stream with Closed Captions
Edit a Workflow directly from the Player
Input selection made directly from a dropdown list on the player
Option to start timecode recording from 00:00:00:00
Export in "MOG playlist" format (.XML Sidecar containing information about the chunks of the recorded media)
Batch record support
Deck control through Serial Ports
Pre-roll and post-roll options
LiveU NewsML batch capture
LiveU NewsML metadata import
LiveU NewsML - support XML from devices (Live U, Android and iPhone)
LiveU include subfolder browse
Contribution Web Video Player - Aspect marker, Safe Area Marker, and Center marker
Player Overlay - Center Dot and Cross
Support for Active Format Description (AFD)
Medialoopster Integration in Capture operations
Medialoopster Integration in Batch Capture operations
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

Features

- Drag and Drop support
- Restore auto numbering on capture abort in naming templates
- "CreateDate" 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
- Generate metadata directly through capture operations
- Prevent the overwrite of metadata fields
- Protect metadata fields
- Delete custom metadata
- Edit group clips 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
- Forward metadata to Gang Captures
- 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
- Rename media in Interplay after a capture has begun
- 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
- Dolby-E Input and output support
- DTS Coherent Acoustics (DCA)
- Integration with Dante Audio Capture *Negotiated separately
- PCM 96KHz support
- Independent audio encoder for hires and proxy
- Individually map your audio by output target
- Record audio only streams
- Payout audio only streams

Features

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 DVB-S captions in streams
 Support captioning for OTT (CMFT, SubRip, and WebVTT)
 Stream with Closed Captions

Locators

Create locators with shortcut keys
 Edit and delete locators
 Edit the locators' description
 Insertion and viewing
 Create and freely customize action fields
 Insert comments in a marker's widget tab
 Locators source in markers widget
 Select multiple subcategories for a single locator
 Order asset locators by timecode
 Establish Absolute or Relative timecode for source locators
 Enter Timecode without the need of entering colons
 Eject locators using the player eject button
 Merge locators
 Support for locators with AMT captures
 Send locators directly to Gang Captures
 Send locators instantly to Playout
 Preserve Metadata Enhancement locators created by an Automatic Job

Scheduler (Calendar View)

Schedule a Record operation
 Scheduled Automatic Jobs via Scheduler
 Edit individual events
 Allow editing of settings for each occurrence/repetition
 Set the number of an event's repetitions
 Check for collisions between events and repetitions
 Ability to Ignore files before a start date
 Placeholder when editing an occurrence name
 Enable field event name as AVID Interplay clipname by default
 Use pre-set naming templates
 Send the assets to independent targets and multiple outputs
 Establish a maximum capture duration
 Configurable number of iterations when using maximum capture duration
 Use AVID Interplay clip name as event name on crash record events
 Pre-roll and post-roll options for scheduled events
 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
 Edit the Start Time field after the first recording
 Visualize scheduled events in a List View
 Export activity events
 Perform captures from a MOG S1000
 Perform captures from an Airspeed 5000
 Perform captures from a Softron Movie Recorder

Scheduler (Playout Grid View) - Unifies in a single rollout view all Playout activities *Optional

Grid View for Playout
 Crash Playout directly from the Grid View
 Loop a playlist

Features

- Schedule Clip Lists to be Played out
- Adjust to a desired Time Zone
- Ability to set a pre-determined number of repetitions
- Trigger Playout events (Any day, On Working Days or only on Weekends)

Signal error detection and related recovery actions

- Detect possible signal errors
- Detect possible drop frames
- Support for timecode breaks
- Configurable capture resume methodology
- Automatic streaming (headless) - Restart capture after stopping/crashing or rebooting

Checksum media

- MD5 hash file
- MDL - Media hash list

Live to Live

- Delete artifacts on abort
- Vizzi OTT Live Output
- Multiple resolutions check-in
- Support Time of Day in input streams (RTMP, MPEG-TS, RTP, SRT, RTSP, HLS, LLDASH, MSS, MPEG-DASH, CMAF)
- Support Live Stream from sCapture as rPlayout input
- Variable Frame Rate Input
- Support IGMPv3 multicast
- Add possibility to change the transport stream segments duration

MPEG-TS Support

- Capture of MPEG-Transport Streams
- Support of MPEG-TS program IDs

NDI

- Native NDI output
- NDI HX Support
- NDI audio and video synchronized mechanism
- NDI discovery mechanism
- Capture multiple NDI sources
- Time of day and embedded timecode options in NDI input

RTMP

- RTMP recording with absolute timecode
- RTMP Push Mode in input and output
- RTMP Pull Mode in input and output
- Native RTMP listener capability
- Multiple audio channels in RTMP Output
- HEVC, VP9 and AV1 codec in enhanced RTMP/FLV

SRT

- Input modes: Caller, Listener, and Rendezvous
- SRT listener mode as stream output
- Output modes: Caller and Rendezvous
- Stream ID support
- Configurable latency settings
- Configurable overhead bandwidth
- Configurable passphrase
- Monitoring input metrics

WebRTC

- h.264 Support
- VP8 Support
- VP9 Support

Live switcher - Capture switcher producer

- Commute between channels while recording
- Record audio and video from one channel, or just audio or video
- Playout from SDI Inputs
- Playout from Streams Inputs
- Playout from File Inputs
- Overlay graphics support
- Chroma Key as Input

Features

File ingest

- Execute multiple simultaneous transcodes
- Batch ingest
- Card ingest
- Clip merge
- Clip renaming
- Disable Clip File Naming generation
- 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
- Cut growing files and send them to (a playlist for) playout
- Directly select the storage on the dashboard instead of accessing workflow profiles
- Copy assets
- 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

Features
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
Update Metadata in Media Central/Interplay using AMT-3 library
Create Live Ingest Operations
Live Sources made available in the Asset Browser/Explorer widgets
Override start timecode
Index clips with same name but with different metadata
Exclude file extensions from File inputs
Burn-In Video options
Graphic burn-in while recording
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
Simultaneous playback
Composition play
Instant play
Gang Play
Replay a group or an individual asset
Loop playback
Group Loop Playback
Gridline (3x5) Overlay
Remote preview
Support for 10bit
Synchronous SDI playback of multiple files
Closed captions

Features

- Cue mode
- Monitor - support HDR
- Option to add locators
- Play assets from cloud storages
- Preview Editing Decision Lists
- Preview Clip Lists
- Playback - 8K UHD
- Embedded VITC output support
- Step multiple frames forward and backwards on SDI/gang playback
- Timecode and metadata overlaying on SDI out
- Support for growing assets in player
- Support for spanned assets in player
- Timecode only monitoring
- Use of a contour shuttle to control an asset during playback
- Playback duration showing the remaining time of the clip
- Remove clips
- Reorder clips
- Export playlist
- Create new playlists with the current assets selection
- 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)
- Preview - Possibility to change the playback speed by multiplier factors
- Simple Time Delay: Scheduling a Playback of a Single File in Growing Recording Mode
- Read Metadata Timecode Package (Auto / Material Package / Source Package)

Playout

Playout Preparation

- Build playlists in a Playlist Builder widget
- Create multiple Playlists
- Allow configuring playout clip action while preparing the playlist
- Support visual separators for rPlayout playlists
- Drag and Drop clips to the player for media preparation
- Support insertion of Timecodes without separators ":" in the playlist builder
- Use both types of TC (Relative and Absolute) for Mark-ins and mark-out at playlist builder
- Trim clips to be included in the Playlist
- Editable timecodes of the in and out points
- Re-arrange clips order
- Duplicate Edit Decision Lists
- Export Edit Decision Lists

Playout Control

- Edit playlist on the fly and while playing
- Playlist countdown and clip countdown
- File and clip list progress bars
- Playout Capture streams through SDI and native window
- Print to tape
- Queue clip on the playlist
- Queue on first frame and last frame
- Queue on first frame the first clip of the playlist
- Bypass action for playout clips
- Pause Playlist
- Playout to stream
- Thumbnail preview of the current clip on the playlist and its remaining time until Playout of the next clip
- On Air - current loaded playlist name
- Loop a playlist
- Loop one or more assets in the playlist
- Drag and Drop Clip List entries in Playout Control
- Multi-channel playout capability
- Schedule Playout
- Choose between Playout Services available - rPlayerSDI or CasparCG
- Mini control bar for use with Playout Control
- Keyboard shortcuts for playout control and associated WEB player
- Autoplay option
- As Run Log's containing Date, Time, Clip name, Time Code In, and Time Code Out

Features

Prepare the Payout clip actions while preparing the playlist

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

PAM - Production Asset Management

Advanced text search
 Asset browser permissions
 Asset collections
 Asset essences
 Asset essences for generic sources
 Asset comments
 Enable on-the-fly tagging
 Flexible metadata management
 Dynamic Automatic Jobs - Age value for CreationDate (Available for Copy, Move, Archive Workflows)
 Display of Essences File Paths
 Check-in via detector
 Check-in via metadata update
 Check-in via workflow
 Interactive approval workflows
 MOG player proxy
 Optional Proxy creation
 Manual Proxy creation
 Move option in asset collections
 Collections as input in automatic jobs
 Private and shared asset collections
 Show the creator of the collection
 Statistics for collections
 Save searches and filters
 Rich logging workflows
 User abstraction for in/out assets
 Instant play, anytime and anywhere of any asset (with or without proxy)

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

Object

Concept tagger 2.0
 Vehicle detection
 License plate detection

Features

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)

mTALK

- Communicate via audio between two or more users
- QR code implementation
- WebApp (requires Android smartphone)
- Toggle Mode

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

Orchestration

- Orchestration View for output workflows
- Services Menu that eases Group and Cluster Configuration while displaying running services per node

Transfer acceleration protocols

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

Hardware acceleration *If Hardware is installed or available

- 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

Features

Logging - Add user information on flow actions

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

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

Remove the "quick edit" button from the Job Control Widget

(Set Permissions to) Activate or Deactivate Settings of a Gang Capture widget

Multiviewer

Define the quality and target latency of the preview stream

Ability to control to up to 4 players in a single dashboard

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	Plain Files or Structures
	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
	GoPro Cards
	IKEGAMI GFPAK
	JVC (AVC HD models)
	NextoDI NSB-25
	Panasonic AU-EVA1 and GH5 Cameras
	Panasonic P2
	AJ-PCD 2 / AJ-PCD 20/30/35 / AJ-MPD1
	AU-XPDI1E / AU-XPDI3EJ
	XDCAM EX:
	Sony SxS (SBAC-UT100, SBAC-US10/20/30)
	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
	Google Cloud Storage
	IBM Cloud Object Storage

Inputs

Cloud	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 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
	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 Inputs

Inputs	
Live	SDI
	SD-SDI (SMPTE 259M)
	3G-SDI (SMPTE 292M, SMPTE296M, SMPTE372M, SMPTE425M)
	12G-SDI (SMPTE ST-2081/SMPTE ST-2082, SMPTE/2108-1)
	12G-SDI (Quad-Link 3G-SDI)
	Support for 8, 10 and 12 bits
	Streams
	Video Content Hyperlinks
	HLS
	MPEG-TS
	MPEG-DASH
	RTMP (with support for HEVC / VP9 / AV1)
	RTP
	RTSP
	NewTek NDI
	UDP
	Haivision SRT
	WebRTC
	Zixi
	Audio
	Dante Audio *Negotiated separately
	Social Media
	Facebook
	Twitch
	X (Twitter)
	YouTube
	IP Live *Optional
	ST2022-6
	ST2022-7
	ST2110-10, ST2110-20, ST2110-21, ST2110-30, ST2110-31
	ST2110-40
	ST2110 - NMOS IS-04 and IS-05 support

Supported Live Outputs

Outputs	
Live	SDI
	SD-SDI (SMPTE 259M)
	3G-SDI (SMPTE 292M, SMPTE296M, SMPTE372M, SMPTE425M)
	12G-SDI (SMPTE ST-2081/SMPTE ST-2082, SMPTE/2108-1)
	12G-SDI (Quad-Link 3G-SDI)
	Support for 8, 10 and 12 bits
	Streams
	HLS
	Microsoft Smooth Streaming
	MPEG-DASH
	Low Latency Dash - LL-Dash
	NewTek NDI
	MPEG-TS
	RTMP (with support for HEVC / VP9 / AV1)
	RTP
	RTSP
	UDP
	Haivision SRT
	WebRTC
	Vizzi
	Live Output

Outputs	
Live	Social Media *Optional
	Facebook
	Twitch
	X (Twitter)
	Vimeo
	YouTube
	Multiple and Adaptive bitrates for the OTT *Optional
	IP Live *Optional
	ST2022-7
	ST2110-10, ST2110-20, ST2110-21, ST2110-30, ST2110-31
	ST2110-40

Formats

Input Formats

Input Video Formats
ARRI ARRIRAW
Blackmagic RAW
Digital Cinema Packages (DCP)
Digital Picture Exchange (DPX)
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

Input Video Formats
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
NDI HX H.264 - High Profile
NDI HX H.265 - High Profile
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)
JPEG 2000 (4K)
JPEG 2000 (8K)
Google® VP6 / VP7 / VP8 / VP9 (Full HD)
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)

Output Video Formats

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
 H.264 WebRTC Baseline
 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
 NDI HX H.264 - High Profile
 NDI HX H.265 - High Profile
 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)
 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

Output 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)
 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 MOG 1Mbps
 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
 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	AVID Media Central UX	Panasonic PTZ Cameras	Fastly
Autodesk: Flame	AVID Media Central Cloud UX	Ikegami Gfpack	Akamai Technologies
Storage	AXLE MAM	JVC AVC HD camera models	Microsoft Azure
AVID ISIS Storage	Editshare Flow	LUMIX DC-S1H	Cloudflare
AVID Nexis Storage	MOG Vizzi	NewTek PTZ3 UHD Camera	Limelight Networks
Avid UnityTM MediaNetwork	Medialoopster MAM	NewTek PTZ3 Camera	Amazon CloudFront
Dynamic Drive Pool SAN Storage	Professional Cloud Storages	RED Digital Cinema	BootstrapCDN
Facilis Terrablock	Adobe Creative Cloud	GOPRO	StackPath
Harmonic MediaGrid	Amazon EC2	Card Readers	KeyCDN
Quantum: Storenext	Amazon S3	Panasonic P2 (AJ PCD 2 / AJ PCD 20/30/35)	Rackspace
Scalelogic: NX2 & ZX NAS Storage	Amazon S3 Glacier	Panasonic P2 (AJ MPD1)	Alibaba Cloud Content Delivery Service
Editshare EFS	Microsoft Azure Storage	Panasonic P2 (AU-XPDI1E / AU-XPDI3EJ)	CacheFly
EMC: Isilon	Microsoft Azure Virtual Machines	Panasonic P2 (AG HPG 20)	Verizon
QNAS	Tencent: Cloud Storage	Sony XDCAM EX (SxS Cards): SBAC-US10/20/30	Social Media *Optional
Studio Network Solutions: EVO	Lucidlink Cloud NAS	Sony XDCAM EX (SxS Cards): SBAC-UT100	Facebook
Oracle Storage	Google Cloud Storage	Sony XDCAM EX (SxS Cards): MRW E-80	Twitch
Netapp	IBM Cloud Object Storage	Sony XDCAM EX (SxS Cards): MRW E-90	X (Twitter)
Transfer Acceleration Protocols	Generic S3	Sony Disc Reader: PDW-U1, PDW-U2	YouTube
File Catalyst Direct	Stream	VTR Decks	Vimeo
IBM: Aspera File Transfer	Newtek NDI	XDCAM HD: Disc (PDW 1500, PDW HD1500)	Archive
Peripheral Devices	Haivision SRT	XDCAM HD: Disc (PDW F70)	Archiware P5
Countour Shuttle Pro V2	Zixi	XDCAM Station (XDS1000)	Audio
Elgato Stream Deck	Structures		Dante *Negotiated separately
	XAVC Structures		

Server Options

Features			Specs
System	Platform		Dell R750
	GPU		2x Nvidia A2
	Video IO		4x DeckLink 8K Pro
	Storage Drive		8TB SSD
	Operating System Drive		480GB RAID 1
	Operating System		Windows 10 Enterprise (LTSC)
Connectivity	Networking	1Gb Ethernet Port	2
		10Gb Ethernet Port SFP+	2
	Video	VGA Out	1
	USB	2.0	1
		3.0	1
	BNC 12G In/Out		16
	Ref. In		4
	Power Requirements		Dual 1100W
Extended Connectivity	Peripheral Module**	LTC Input	1
		Audio Out	1
		Breakout Connector	1
	Breakout Cable**	RS422	4
		GPO branch with 4 outputs	1
		GPI branch with 4 inputs	1
Other	Dimensions & Weight		2RU, 772x482x86.8mm (D, W, H), ~40 kg
	Delivery Packaging		970x660x310mm (D, W, H), ~45Kg
	Temperature	Storage	-40°C to 65°C (-40°F to 149°F)
		Continuous Operation	10°C to 35°C (50°F to 95°F)
	What is Included	Power Cable	2x C13 to C14
		Other	Static rails for 2/4-post racks

** Not included by default

Concurrent Media Operations

With mDECK Grand io, it is possible to run different media operations simultaneously, thus guaranteeing a universe of distinct arrangements to meet the challenging day-to-day activities of media production companies.

Media operations include recording, ingest, transcoding, playback, file preview, live channel switching, and intercom.

mDECK Grand io supports up to 16 media operations at the same time. Within this margin, you can combine the operations shown in the table below:

Concurrent Media Operations					
Record	Ingest & Transcode	Playback	File Preview	Live Switch	Intercom
Up to 16 live channels	Up to 4 operations	Up to 16 playback files	Up to 5 files preview	Up to 1 live switch	Up to 1 operation

Product

Part Number	Product	Description
mdgrio	mDECK Grand io	Deck appliance for hybrid workflows of up to 16 combined media operations

Available Options

Choose from the products below to customize the mDECK Grand io 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.



mPLAN

Setup scheduled events not only from the standard scheduler but through a unique roll out view interface. mPLAN is a tool that maintains a single rollout view of all scheduled events, allowing the management of the ingests process very efficiently. It manages multiple scheduled events across a variety of recording platforms in a multichannel environment using router control cross-points.

Part Number	Product	Description
mpam1u	mPAM	Content and production asset manager per licensed user
mpla1c	mPLAN	Scheduler & Router Control per licensed channel

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 mDECK 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.



Screen-m

Quickly capture and deliver your screen contents to your production environment.

Easily record your screen in its entirety or choose one of the open windows. You can even enable the capture of a microphone and the mouse cursor to make it easier to explain any presentation.

Part Number	Product	Description
smpl	Social-m plugin	Social media capture & Publishing
scpl	Screen-m plugin	Screen capture & Delivery

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.

Hardware

Customize your solution to your day-to-day media needs.

Part Number	Product	Description
pcbxx	Peripheral module	Optional MOG module to expand I/O available with 1x LTC, 1x audio output, 1x GPI, 1x GPO and 4x RS422
-	IP live card*	Add up to 4 UHD IP channels into your media production infrastructure

* Each Live IP card effectively replaces 8 SDI input/output channels. This offers the flexibility to opt for a hybrid appliance supporting both SDI and IP or, by integrating two Live IP cards, all current SDI inputs/outputs will be seamlessly transformed into IP-based connections.

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.

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