



mDECK Grand io

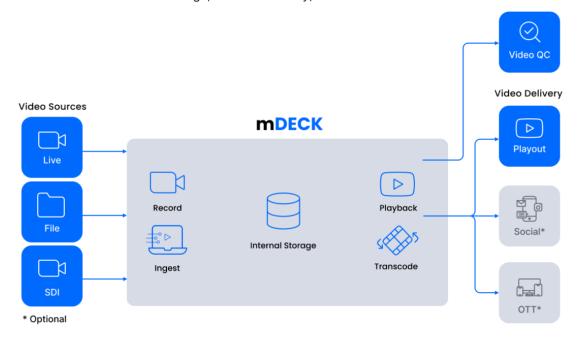


Overview

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 UHD, FHD, and NDI.

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 SSD local storage, PSU redundancy, and an OS drive.



Highlights

- 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 Timecode support LTC (SMPTE 12M) VITC (SMPTE RP188) Time of Day **Serial Control Protocols** VTR (BVW) - Serial VTR (VDCP) - 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 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 Measurement of consumption (Number of bytes for input/output "lives") **Video Router Protocols** Quartz Probel SW-P-08 Jupiter ASCII Blackmagic Videohub Ethernet Protocol **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

Restore auto numbering on capture abort in naming templates

"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

Generate metadata directly through capture operations

Prevent the overwrite of metadata fields

Protect metadata fields

Reset 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

$\label{thm:continuous} \textbf{Find immediately and learn everything about any asset}$

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





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Features

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

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 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

Schedule Automatic Jobs

Schedule Gang Captures

Schedule Playouts

Schedule Maintenance Tasks (Reboot, Export Logs, Export Full Backup)

Edit individual events

Export activity 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 $% \left(1\right) =\left(1\right) \left(1\right)$

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

Perform captures from an Airspeed 5000

Scheduler (Record Grid) - Unifies in a single rollout view all ingest activities *Optional

Schedule a Record operation

Schedule Gang Captures

Create new scheduled events directly from the timeline

Perform crash record captures directly from the grid view

Metadata Insertion availability

Use of pre-set naming templates

Edit scheduler individual events

Edit an event after it has started

Edit settings for each occurrence/repetition

Trigger Capture events (Any day, On Working Days or only on Weekends)

Adjust events by dragging them on the timeline

Check collision between events with repetitions

On channel settings assign an Input a workflow a router source and a duration and start recording on the fly

Change router source cross point from record scheduler during a live event

Change router source on rollout

Copy an event's name after it is complete

Perform captures from an Airspeed 5000

Pre-roll and post-roll options for scheduled events

Configure the number of events repetitions

Define events to be triggered on any day, working days or weekends only

Set the Calendar Notion option to automatically adjust to daylight time

Expandable and collapsible views

Jump to date to seek events by day or in a 7 days period

Choose between AVID or MOG color schemes

Confirm a "Stop" action

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

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)

Router Control *Optional

Support for Black Magic Video Router

Support for Grass Valley Sirius Video Router

Support for Evertz Quartz Video Router

Support for Jupiter ASCII

Change router points directly on the player

Capacity to setup the number of sources and destinations

Option to choose to make use or not of a source

Assign a mnemonic to each source

Ability to provide an alternative name to a router mnemonic

Assign in the crosspoint tab a source to each router destination

Lock sources to each router destination

Configurable connection through IP or host mane to the destination router

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)

Features

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

HLS

Configurable HLS segment duration

Configurable HLS Playlist segment count

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

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

Pause File Based ingest operations

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

Ingest Apple ProRes wrapped in OP-Atom to Avid





Support of Avid OP-Atom files with Apple ProRes essence

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

Outgest growing media directly from Interplay

Dual check in to interplay in a merge as sequence operation with the same MOBID for the sequences

 $\ensuremath{\mathsf{HDR}}$ (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

Measurement of consumption (Number of bytes for input/output "files")

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

Automated ingest

Create Automatic Jobs

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

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

Prepare the Playout clip actions while preparing the playlist

Seamless playback without black frames when "jump to" in a playlist

Input/output social media *Optional

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 *Optional

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)

Disk-to-Disk Storage Manager (Archive and Restore)

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

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

Al Upscale

Reduce video flashing

Additional Al Operations *Optional

Face recognition 2.0

Face recognition - Support dataset with multiple images for each person

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

Database replication

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 Cluser Configuration while displaying running servicers 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 Nveno

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)

Protection against overwriting files

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

Logging - Structured Logging

Receive SMTP notifications via e-mail

Support an external Database

Microsoft Edge / Firefox / Safari and Chrome Support

Unified Interface User Experience

Unified GUI for all services and group of servers in the farm

Configurable web interface access port

Embeddable Dashboards/Widgets

Environment Dashboard which enables an overview of group servers in workgroups

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





Features
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 8 players in a single dashboard
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
	Plain Files or Structures
	ARRI ALEXA Cameras
	BlackMagic Cameras
	RED Digital Cinema
	Avid Files
	Avid Media Files (standalone or Nexis)
	Avid Sequences (master clips and rendered sequences)
	CANON DSLR 5D, 7D, C300, C100
	GoPro Cards
	IKEGAMI GFPAK
	JVC (AVC HD models)
	NextoDI NSB-25
OnPrem	Panasonic AU-EVA1 and GH5 Cameras
	Panasonic P2
	AJ-PCD 2 / AJ-PCD 20/30/35 / AJ-MPD1
	AU-XPD1E / AU-XPD3EJ
	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





	Inputs
	Network
	XDCAM Network
	P2 Network
	ARRI RAW Network
	Ikegami Network
	Storage
	Avid Nexis
	Avid Unity™ MediaNetwork
	DDP – Dynamic Drive Pool
O . D	Facilis TerraBlock
OnPrem	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
	Social Media
	Facebook
	X (Twitter)
	Vimeo
	YouTube
	Professional Cloud Storages
	Adobe Creative Cloud
	Amazon S3 Glacier
	Microsoft Azure Storage
Cloud	Tencent
	Lucidlink Cloud NAS
	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
	Avid Nexis
	Avid Unity™ MediaNetwork
	DDP – Dynamic Drive Pool
	Facilis TerraBlock
	Harmonic MediaGrid
	Editshare EFS
	NAS / SAS (SMB 2.0 and 3.0)
OnPrem	Quantum StorNext
OliPielli	ScaleLogic NX2 & ZX NAS Storage
	EMC Isilon
	QNAP
	Studio Network Solutions EVO
	Oracle Storage
	Netapp
	FTP Servers (List on request)
	Generic File Shares





	Outputs
	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
Cloud	Microsoft Azure Storage
Cioud	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
	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)
Live	RTP
Live	RTSP
	NewTek NDI
	UDP
	Haivision SRT
	WebRTC
	Zixi
	Audio
	Dante Audio *Negotiated separately
	Social Media
	Facebook
	Twitch
	X (Twitter)
	YouTube





Supported Live Outputs

	Outputs
	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
	HTTPS Push
	Microsoft Smooth Streaming
	MPEG-DASH
	Low Latency Dash - LL-Dash
	NewTek NDI
	MPEG-TS
Live	RTMP (with support for HEVC / VP9 / AV1)
	RTP
	RTSP
	UDP
	Haivision SRT
	WebRTC
	Vizzi
	Live Output
	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)
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





Input Video Formats
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
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
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)

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)





	Output Video Formats
H.264 4320p 150 - 280 Mbps High Profile	Output video Formats
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 1080i 35 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	
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	
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)	







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 1080i 35 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 and Workgroup 9 and 10	AVID Interplay	Panasonic CX350 HEVC	Lumen
BlackMagic: DaVinci Resolve Studio	AXLE MAM	Panasonic PTZ Cameras	Fastly
utodesk: Flame	Editshare Flow	Ikegami Gfpack	Akamai Technologies
Storage	MOG Vizzi	JVC AVC HD camera models	Microsoft Azure
VID Nexis Storage	Medialoopster MAM	LUMIX DC-S1H	Cloudflare
vid UnityTM MediaNetwork	Professional Cloud Storages	NewTek PTZ3 UHD Camera	Limelight Networks
ynamic Drive Pool SAN Storage	Adobe Creative Cloud	NewTek PTZ3 Camera	Amazon CloudFront
acilis Terrablock	Amazon EC2	RED Digital Cinema	BootstrapCDN
Iarmonic MediaGrid	Amazon S3	GOPRO	StackPath
Quantum: Storenext	Amazon S3 Glacier	Card Readers	KeyCDN
Scalelogic: NX2 & ZX NAS Storage	Microsoft Azure Storage	Panasonic P2 (AJ PCD 2 / AJ PCD 20/30/35)	Rackspace
ditshare EFS	Microsoft Azure Virtual Machines	Panasonic P2 (AJ MPD1)	Alibaba Cloud Content Delivery Service
MC: Isilon	Tencent: Cloud Storage	Panasonic P2 (AU-XPD1E / AU-XPD3EJ)	CacheFly
NAP	Lucidlink Cloud NAS	Panasonic P2 (AG HPG 20)	Verizon
Studio Network Solutions: EVO	Google Cloud Storage	Sony XDCAM EX (SxS Cards): SBAC- US10/20/30	Social Media *Optional
Pracle Storage	IBM Cloud Object Storage	Sony XDCAM EX (SxS Cards): SBAC-UT100	Facebook
letapp	IBM Generic S3	Sony XDCAM EX (SxS Cards): MRW E-80	Twitch
Transfer Acceleration Protocols	Stream	Sony XDCAM EX (SxS Cards): MRW E-90	X (Twitter)
ile Catalyst Direct	Newtek NDI	Sony Disc Reader: PDW-U1, PDW-U2	YouTube
BM: Aspera File Transfer	Haivision SRT	Video Router Control Protocols	Vimeo
Peripheral Devices	Zixi	Videohub Ethernet Protocol	VTR Decks
Countour Shuttle Pro V2	Structures	Evertz > SONY HDS-X5800 - Evertz BRC controller (7700R-SC-BRC) (Quartz Protocol)	XDCAM HD: Disc (PDW 1500, PD HD1500)
ilgato Stream Deck	XAVC Structures	Grass Valley > Trinix 5122 - CM4000 GrassValley Router Control (Jupiter ASCII protocol)	XDCAM HD: Disc (PDW F70)
Archive	Audio	Grass Valley > Sirius 840 - Router Control module 2464 (Probel SW-P-08 Protocol)	XDCAM Station (XDS1000)
Archiware P5	Dante *Negotiated separately		





Server Options

	Features		Specs
	Platform		Dell R760
_	GPU		2x Nvidia A2
System	Video IO		4x DeckLink 8K Pro
Sys	Storage Drive		8TB SSD
	Operating System Drive		2x 480GB RAID 1
	Operating System		Windows 10 Enterprise (LTSC)
	Networking	1Gb Ethernet Port	2
	Networking	10Gb Ethernet Port SFP+	4
īŧ	Video	VGA Out	1
Connectivity	USB	2.0	1
nne	USB	3.0	1
ပိ	BNC 12G In/Out		16
	Ref. In		4
	Power Requirements		Dual 1400W
	Peripheral Module**	LTC Input	1
ੂ <u>ੜੇ</u> ਲ		Audio Out	1
ctiv		Breakout Connector	1
Extended Connectivity	Breakout Cable**	RS422	4
Col		GPO branch with 4 outputs	1
		GPI branch with 4 inputs	1
	Dimensions & Weight		2RU, 772x482x86.8mm (D, W, H), ~40 kg
	Delivery Packaging		970x660x310mm (D, W, H), ~45Kg
er		Storage	-40°C to 65°C (-40°F to 149°F)
Other	Temperature	Continuous Operation	10°C to 35°C (50°F to 95°F)
		Power Cable	2x C13 to C14
	What is Included	Other	Static rails for 2/4-post racks
			The state of the s

^{**} 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, ingesting, transcoding, playback, and file preview.

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 Me	edia Operations	
Record Ingest & Transcode		Playback	File Preview
Up to 16 live channels	Up to 4 operations	Up to 16 playback files	Up to 5 files preview

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.



mDI AN

Set up scheduled events not only from the standard scheduler but through a unique rollout 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
mpam1usw	mPAM	Content and production asset manager per licensed user
mgslsb	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
cnnsmop	Social media	Simultaneous social media shares
cnnottop	OTT	Multiple OTT output resolutions

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	Al upscale		
Remove audio clipping	Blur license plates		

	Additional Al Operations		
Part Number	Product		
aistop	Option to enable Speech-to-Text		
aifrop	Option to enable Face Recognition		
aiocop	Option to enable Optical Character Recognition		
aiodop	oliodop Option to enable Object Detection		

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
pcbx	Peripheral module	Optional MOG module to expand I/O available with 1x LTC, 1x audio output, 1x GPI, 1x GPO and 4x RS422

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

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

Disclaimer: the data and information contained in this document is representative and may be incomplete. If in doubt, please contact our sales team at sales@mog-technologies.com. The information contained in this document is not to be construed as a warranty, express or implied, including, but not limited to, a warranty of merchantability or fitness for a particular purpose. In no event will MOG be liable for any incidental or consequential damages resulting from the use, misuse, or inability to use the product. This exclusion applies regardless of whether such damages are sought on the basis of breach of warranty, breach of contract, negligence, strict liability in tort or any other legal theory. Contact our sales team at sales@mog-technologies.com to find out how to purchase or in case you need more information.