

# mPORT Grand io

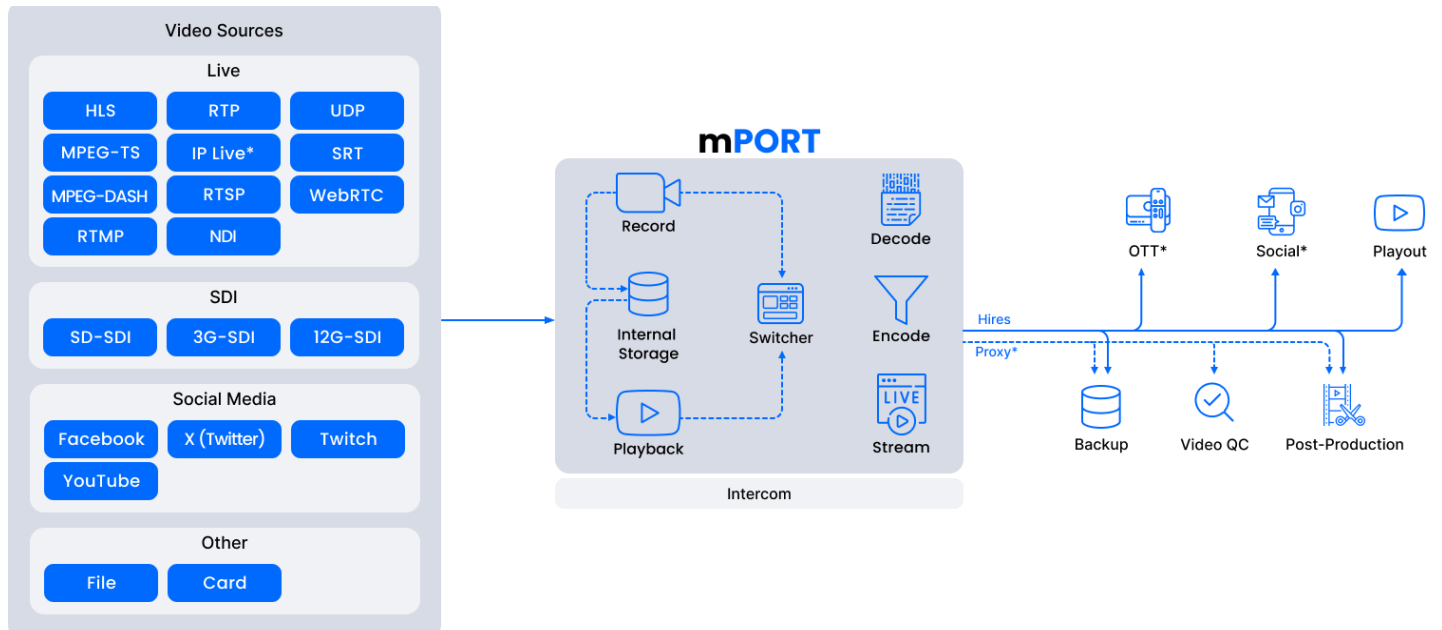


## Overview

Elevate your content production with mPORT Grand io, a robust and versatile multi-format appliance optimized for live ingest and playout within an integrated media production ecosystem. This professional solution integrates seamlessly into your existing workflows, offering comprehensive support for 4K/UHD, FHD, IP Live, and NDI workflows to elevate the quality and impact of your content.

Experience a state-of-the-art solution that enhances your media production processes, delivering unmatched flexibility, reliability, and efficiency. mPORT Grand io streamlines your operations, ushering in a new era of multimedia excellence and transforming your content creation workflows.

It supports multiple simultaneous media operations such as recording, playout, live video streams, file previews, live switching, and intercom communication among users, enabling a dynamic and collaborative production environment.



\* Optional

## Highlights

- **mSWITCH:** Remote live switching and compositing
- Baseband ingest - multiple simultaneous recordings: multicamera recording, loop recording, crash recording, schedule recording, batch recording;
- Video server for multiple destinations of any storage, NAS, or SAN
- **Burnt-in options:** text, timecode, overlays (images and videos), and LUT
- **File playback:** multiple simultaneous operations: composition play, loop playback, instant play, schedule play, remote preview
- Encodes and/or decodes contents according to the destination format
- **Playlist management:** add clips, remove clips, reorder clips, export playlist, loop play
- Full featured local and remote user interface (includes quick control through touch screen)
- **mTALK:** Audio communication between users
- **Overlays:** clip-name and port-name
- Ideal for multiple feeds of video contribution
- Multi-configuration metadata management
- Flexible file naming engine
- Enable edit while ingest
- **Operation modes:** manual, scheduled, and automatic

## Specially Designed For

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

## Features

Features
<b>Timecode support</b>
LTC (SMPTE 12M)
VITC (SMPTE RP188)
Time of Day
From VTR (BVW) - Serial
<b>Multiple LIVE and simultaneous records</b>
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 <b>*required Nablet AMA Plugin</b>
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
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)
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
<b>Operation modes</b>
Automatic
Manual
Scheduled
<b>Clipnaming</b>
Clipnaming based on Metadata Profiles
Field numeric representation of the day of the week
Drag and Drop support
Restore auto numbering on capture abort in naming templates

## Features

"CreationDate" field can refer to a desired Time Zone

Add the label "\_p" to proxy clips' names

### Multi-Configuration metadata management and enrichment

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

Support IMF (Netflix Compliant) output metadata

### 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

Playout audio only streams

Audio downmixing & upmixing

External audio files support (.WAV)

MPEG-4 Audio (M4A) audio format as output

Ability to mute proxy on the output

## Features

**Close captions**

- CEA/EIA - 608
- Add sidecar - SubRip (SRT)
- Add sidecar - Fragmented WebVTT
- Add sidecar - ISMT/CMFT subtitles
- 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 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
- 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 a Playout operation
- 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
- 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
- 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

## Features

### 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)
- 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 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

### Burn-In Video options

- Graphic burn-in while recording
- 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

### 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

## Features

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
Read Metadata Timecode Package (Auto / Material Package / Source Package)
<b>Playout</b>
<b>Playout Preparation</b>
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
<b>Playout Control</b>
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
<b>Input/output social media *Optional</b>
Google Chrome Social-m Plugin
Social-m - Add support for live stream capture

**Features**

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
<b>mTALK</b>
Communicate via audio between two or more users
QR code implementation
WebApp (requires Android smartphone)
Toggle Mode
<b>Analytics</b>
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
<b>Improved security</b>
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
Opt to "Keep me signed in"
Send a User Verification through email
Configurable password visibility in logs
<b>Hardware acceleration</b> *If Hardware is installed or available
Intel QSV
Sony XAVC
Panasonic AVC-Ultra
Nvidia Nvenc
<b>General Purpose IN/OUT</b>
GPI triggers supported
GPO triggers supported
<b>Additional Highlights</b>
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
Logging - Structured Logging
Receive SMTP notifications via e-mail
Support an external Database
Microsoft Edge / Firefox / Safari and Chrome Support
<b>Unified Interface User Experience</b>
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

### Features

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
Remove the "quick edit" button from the Job Control Widget
(Set Permissions to) Activate or Deactivate Settings of a Gang Capture widget
<b>Multiviewer</b>
Define the quality and target latency of the preview stream
Ability to control to up to 4 players in a single dashboard
<b>Maintenance</b>
<b>Scheduler</b>
Reboot host or group
Export database (backup) as a scheduled task
Export logs as a scheduled task
<b>Activity</b>
Export last activity
Export all activity
Export activity from a date range
Clear all activity
<b>Logs</b>
Export logs
<b>Backup</b>
Export full backup - A full backup will create an archive of all the files and configurations
Import full backup
<b>Dashboards</b>
Export dashboards from one user or all users
Import dashboards
<b>Data</b>
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

<b>OnPrem</b>	<b>Plain Files or Structures</b>
	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 GFPK



Inputs

OnPrem	JVC (AVC HD models)
	NextoDI NSB-25
	Panasonic CX350 HEVC
	Panasonic AU-EVA1 and GH5 Cameras
	Multi Clip/Spanned XDCAM/XAVC/XDCAM-EX Structure
	DJI (Camera Drones)
	HLS Structures
	MPEG-TS Structures
	XAVC Structures
	<b>XDCAM EX:</b>
	Sony SxS (SBAC-UT100, SBAC-US10/20/30)
	Sony XQD (MRW E-80, MRW E-90)
	<b>XDCAM HD</b>
	Sony XDCAM HD: Disc (PDW-U1, PDW-U2, PDW-U4)
	<b>Panasonic P2</b>
	AJ-PCD 2 / AJ-PCD 20/30/35 / AJ-MPD1
	AU-XP1E / AU-XP3EJ
	<b>Network</b>
	XDCAM Network
	P2 Network
	ARRI RAW Network
	Ikegami Network
	<b>Storage</b>
	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	<b>Social Media</b>
	Facebook
	X (Twitter)
	Vimeo
	YouTube
	<b>Professional Cloud Storages</b>
	Adobe Creative Cloud
	Amazon S3 Glacier
	Microsoft Azure Storage
	Tencent
	Lucidlink Cloud NAS
	Google Cloud Storage
	IBM Cloud Object Storage
	Generic S3 storages
	<b>Consumer Cloud Storages</b>
	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	<b>Consumer Cloud Storages</b>
	Apple I Cloud Drive
	Dropbox
	Google Drive
	Microsoft One Drive
	<b>Multiple and Adaptive bitrates for the OTT *Optional</b>
	<b>Professional Cloud Storages</b>
	Adobe Creative Cloud
	Amazon S3 Glacier
	Microsoft Azure Storage
	Tencent
	Lucidlink Cloud NAS
	Google Cloud Storage
	IBM Cloud Object Storage
	Generic S3 storages
	<b>Social Media *Optional</b>
	Facebook
	X (Twitter)
	Vimeo
	YouTube

## Supported Live Inputs

Inputs	
Live	<b>SDI</b>
	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)
	<b>Streams</b>
	Video Content Hyperlinks
	HLS
	MPEG-TS
	MPEG-DASH
	RTMP (with support for HEVC / VP9 / AV1)
	RTP
	RTSP
	NewTek NDI
	UDP
	Haivision SRT
	WebRTC
	Zixi
	<b>Audio</b>
	Dante audio *Negotiated separately

### Inputs

Live	<b>Social Media</b>
	Facebook
	Twitch
	X (Twitter)
	YouTube
	<b>IP Live *Optional</b>
	ST2022-6, ST2022-7
ST2110-10, ST2110-20, ST2110-21, ST2110-30, ST2110-31, ST2110-40	

## Supported Live Outputs

### Outputs

Live	<b>SDI</b>
	SD-SDI (SMPTE 259M)
	3G-SDI (SMPTE 292M, SMPTE296M, SMPTE372M, SMPTE425M)
	12G-SDI UHD-SDI (SMPTE ST-2081/SMPTE ST-2082)
	12G-SDI (Quad-Link 3G-SDI)
	<b>Streams</b>
	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
	<b>Vizzi</b>
	Live Output
	<b>Social Media *Optional</b>
	Facebook
	Twitch
	X (Twitter)
	YouTube
	Vimeo
	<b>Multiple and Adaptive bitrates for the OTT *Optional</b>
	<b>IP Live *Optional</b>
	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)
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

### Input Video Formats

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 (GOP 6/12/25/50 Mbps)  
 DNxHD (SQ/HQ/HQX/LB)  
 DNxHR (SQ/HQ/HQX/LB)  
 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 4:2:2 LGOP  
 H.265/HEVC 4K 4:2:2 LGOP  
 ProRes 422 (SQ/HQ/LT)  
 ProRes 4444  
 ProRes 4444XQ  
 JPEG 2000 (Full HD)  
 JPEG 2000 (4K)  
 Google® VP6 / VP7 / VP8 / VP9 (Full HD)  
 Google® VP9 (4K)  
 Uncompressed UYVY 422 / V210 / RGBA  
 AOMedia Video 1 (Full HD)  
 AOMedia Video 1 (4K)  
 IMF (JPEG 2000 @ Full HD)  
 IMF (JPEG 2000 @ 4K)

### 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

### Output Video Formats

AVC-Intra 4K422  
 AVC Ultra (LGOP 6/12/25/50 Mbps)  
 DNxHD (SQ/HQ/HQX/LB)  
 DNxHR (SQ/HQ/HQX/LB)  
 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  
 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  
 NDI HX H.264 - High Profile  
 NDI HX H.265 - High 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)  
 Google® VP6 / VP7 / VP8

### 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

**Output Proxy Formats**

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 Interplay Web (SD, 800 Kbps, and 2 Mbps)
Sony Proxy AV (MPEG-4 Part-2) @1.5 Mbps

\* Optional output

**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 Sysms	MAM / PAM / DAM	Stream	CDN's
Adobe Premiere Pro	CatDV MAM	Newtek NDI	Lumen
AVID Media Composer	CatDV PAM	Haivision SRT	Fastly
AVID Media Central UX	CatDV DAM	Zixi	Akamai Technologies
AVID Media Central Cloud UX	eMAM Media Asset Management	<b>Consumer Cloud Storages</b>	Microsoft Azure
Apple Final Cut Pro X	Telestream: Masstech	Dropbox	Cloudflare
Edius: Pro 8, Workgroup 9	AVID Interplay	Google Drive	Limelight Networks
BlackMagic: DaVinci Resolve Studio	AXLE MAM	Microsoft One Drive	Amazon CloudFront
Autodesk: Flame	Editshare Flow	Apple I Cloud Drive	BootstrapCDN
<b>Storage</b>	MOG Vizzi	<b>VTR Decks</b>	StackPath
AVID ISIS Storage	Medialoopster MAM	XDCAM HD: Disc (PDW 1500)	KeyCDN
AVID Nexis Storage	<b>Professional Cloud Storages</b>	XDCAM HD: Disc (PDW HD1500)	Rackspace
Avid Unity™ MediaNetwork	Adobe Creative Cloud	XDCAM HD: Disc (PDW F70)	Alibaba Cloud Content Delivery Service
Dynamic Drive Pool SAN Storage	Amazon EC2	XDCAM Station (XDS1000)	CacheFly
Facilis Terrablock	Amazon S3	<b>Cameras</b>	Verizon
Harmonic MediaGrid	Amazon S3 Glacier	Canon: DSLR 5D, DSLR 7D	<b>Hypervisors</b>
Quantum: Storenext	Microsoft Azure Storage	Canon: DSLR C100, C300	Microsoft HyperV
Scalelogic: NX2 & ZX NAS Storage	Microsoft Azure Virtual Machines	ARRI: Alexa XT (ARRIRAW)	VMWare ESX
Editshare EFS	Tencent: Cloud Storage	Panasonic AU-EVA1, GH5 Cameras	<b>Social Media *Optional</b>
EMC: Isilon	Lucidlink Cloud NAS	Panasonic CX350 HEVC	Facebook
QNAP	Google Cloud Storage	Panasonic PTZ Cameras	Twitch
Studio Network Solutions: EVO	IBM Cloud Object Storage	Ikegami Gfpack	X (Twitter)
Oracle Storage	Generic S3	JVC: AVC HD camera models	YouTube
Netapp	<b>Peripheral Devices</b>	LUMIX DC-S1H	Vimeo
<b>Audio</b>	Countour Shuttle Pro V2	NewTek PTZ3, PTZ3 UHD Camera	
Dante *Negotiated separately	Elgato Stream Deck	RED Digital Cinema	
		GOPRO	

## Server Options

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

\*\* Not included by default

## Concurrent Media Operations

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

Media operations include recording, ingest, playback, live video streams, file preview, live channel switching, and intercom. It 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 / Live Video Stream	Playback	File Preview	Live Switch	Intercom
Up to 16 live channels *	Up to 16 playback files *	Up to 5 files preview	Up to 1 operation	Up to 1 operation

\* When using operations dependent on SDI video inputs and outputs, the physical limit of the video card ports must be respected. Thus, the sum of these operations cannot be greater than 16.

## Product

Part Number	Product	Description
mtgrio	mPORT Grand io	Appliance for hybrid workflows of up to 16 combined media operations

## Available Options

Choose from the products below to customize the mPORT Grand io according to your business rules.

### Production Tool

Tool for asset management and workflow orchestration.



#### 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
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
grpa	Proxy generation	Simultaneous proxy creation
groa	OTT live ingest	Multiple output resolutions for OTT
grsa	Social media sharing	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.



#### 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
scpi	Screen-m plugin	Screen capture & Delivery

**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 mmodule	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](mailto:sales@mog-technologies.com) to find out how to purchase or in case you need more information.

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