# mPORT Densu io

Elevate your content production with mPORT Densu io, a robust and versatile multi-format compact 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 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 Densu 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.

mPORT Densu io has a redundant power supply and the possibility of being equipped with local storage to provide more flexibility and increased capacity.
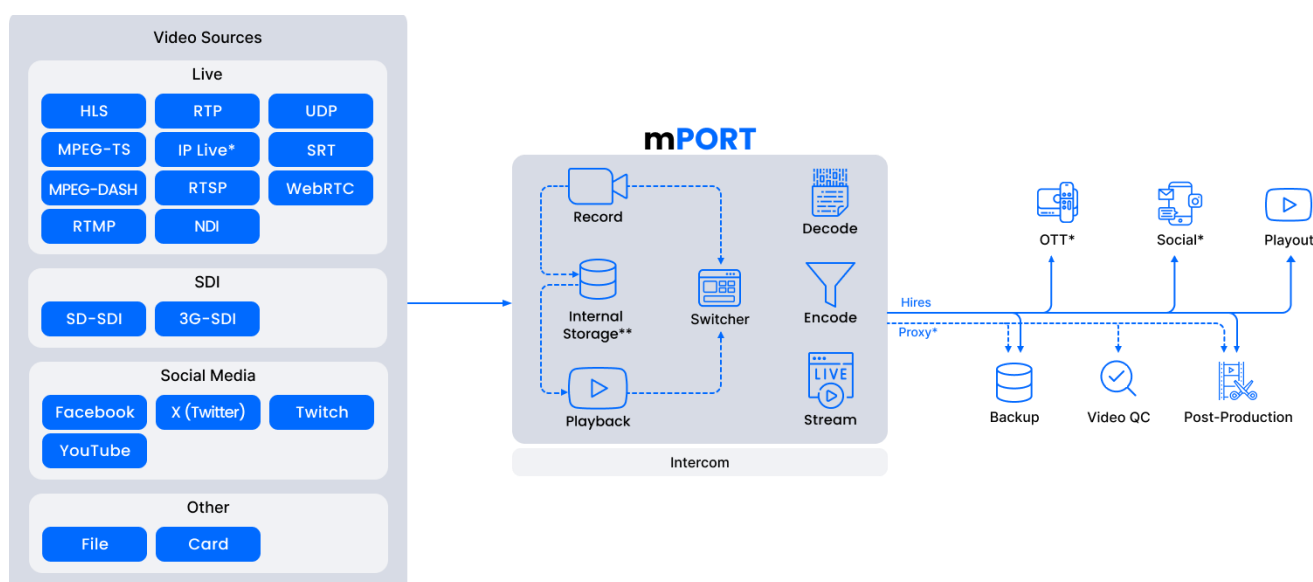
* Optional
** Not included by default

Highlights

- **mSWITCH:** Remote live switching and composing
- 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
- Mobile Studios/OB Vans

- Digitalization
- Post-Production
- Broadcast/Digital News
- OTT & Streaming
- System Integrators/Rentals

Features

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
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
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
Video Router Protocols
Quartz
Probel SW-P-08
Jupiter ASCII
Blackmagic Videohub Ethernet Protocol

Features

Operation modes
- Automatic
- Manual
- Scheduled

Clipnaming
- 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
- "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

Features
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

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
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
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
Perform captures from a MOG S1000
Perform captures from an Airspeed 5000
Perform captures from a Softron Movie Recorder

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

Schedule a Record operation
Schedule Gang Captures

Features
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 a MOG S1000
Selectable MOG S1000 capture profiles
Perform captures from an Airspeed 5000
Perform captures from a Softron Movie Recorder
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)

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)
- 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

Features
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
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
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)

Features
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)

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

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

mTALK

Communicate via audio between two or more users

QR code implementation

WebApp (requires Android smartphone)

Toggle Mode

Features

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

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 Configurarion while displaying running servicers per node

Hardware acceleration *If Hardware is installed or available

Intel QSV

Nvidia Nvenc

General Purpose IN/OUT

GPI triggers supported

GPO triggers supported

Additional Highlights

REST API - allows interaction with RESTful web services

Change Aspect Ratio (4:3 / 16:9 / 1.9:1 / 2:1 or use same as source)

Active Format Description (Option to Preserve, Discard or Override)

Notify user upon connection lost with the Server

Manage via web interface or REST APIs for integration with automation system

Configurable quality and target latency of the preview stream

Logging - Human readable information on Services logs

Logging - Add user information on flow actions

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

Features
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
	Avid Files
	Avid Media Files (standalone or Nexis/ISIS)
	Avid Sequences (master clips and rendered sequences)
	CANON DSLR 5D, 7D, C300, C100
	Generic File Shares
	GoPro Cards
	IKEGAMI GFPAK
	JVC (AVC HD models)
	NextoDI NSB-25
	Panasonic CX350 HEVC
	Panasonic AU-EVA1 and GH5 Cameras
	Multi Clip/Spanned XDCAM/XAVC/XDCAM-EX Structure
	DJI (Camera Drones)
	HLS Structures
	MPEG-TS Structures
	XAVC Structures
	XDCAM EX
	Sony SxS (SBAC-UT100, SBAC-US10/20/30)
	Sony XQD (MRW E-80, MRW E-90)
	XDCAM HD
	Sony XDCAM HD: Disc (PDW-U1, PDW-U2, PDW-U4)

Inputs	
OnPrem	**Panasonic P2**
	AJ-PCD 2 / AJ-PCD 20/30/35 / AJ-MPD1
	AU-XPD1E / AU-XPD3EJ
	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
	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

Outputs		
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)
		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
SDI
SD-SDI (SMPTE 259M)
3G-SDI (SMPTE 292M, SMPTE296M, SMPTE372M, SMPTE425M)
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
RTMP (with support for HEVC / VP9 / AV1)
RTP
RTSP
UDP
Haivision SRT
WebRTC
Vizzi
Live Output
Social Media *Optional
Facebook
Twitch
X (Twitter)
YouTube
Vimeo
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

The row label **Live** spans from the SDI section through the IP Live section.

Formats

Input Formats

Input Video Formats
ARRI ARRIRAW
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 LGOP 25 / 35 / 50 Mbps
DVCPRO 25/50 Mbps / DVCPRO HD 100 Mbps
AVC-Intra 50/100 Mbps
AVC-Intra 200 Mbps
DNxHD (SQ/HQ/HQX/LB)
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 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)

Input Video Formats
H.264 L10 10 Mbps
H.264 MOG 1Mbps
H.265/HEVC 10 / 25 / 50 / 100 Mbps LGOP
ProRes 422 (SQ/HQ/LT)
JPEG 2000 (Full HD)
Google® VP6 / VP7 / VP8 / VP9 (Full HD)
Uncompressed UYVY 422 / V210 / RGBA
AOMedia Video 1 (Full HD)
IMF (JPEG 2000 @ Full HD)

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 LGOP 25 / 35 / 50 Mbps
DVCPRO 25/50 Mbps / DVCPRO HD 100 Mbps
AVC-Intra 50/100 Mbps
AVC-Intra 200 Mbps
AVC Ultra (LGOP 6/12/25/50 Mbps)
DNxHD (SQ/HQ/HQX/LB)
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 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
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)
Google® VP6 / VP7 / VP8
IMF (JPEG 2000 @ Full HD)

Proxy Formats *

Output Proxy Formats
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 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 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 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	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	**Consumer Cloud Storages**	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
Storage	MOG Vizzi	**VTR Decks**	StackPath
AVID ISIS Storage	Medialoopster MAM	XDCAM HD: Disc (PDW 1500)	KeyCDN
AVID Nexis Storage	**Professional Cloud Storages**	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	**Cameras**	Verizon
Harmonic MediaGrid	Amazon S3 Glacier	Canon: DSLR 5D, DSLR 7D	**Hypervisers**
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	**Social Media *Optional**
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	**Peripheral Devices**	LUMIX DC-S1H	Vimeo
Audio	Countour Shuttle Pro V2	NewTek PTZ3, PTZ3 UHD Camera	
Dante *Negotiated separately	Elgato Stream Deck	RED Digital Cinema	
		GOPRO	

Server Options

	Features		Specs
System	Platform		Densu 2U
	Video IO		2x DeckLink miniDuo2
	Operating System Drive		480GB
	Operating System		Windows 10 Enterprise (LTSC)
Connectivity	Networking	1Gb Ethernet Port	2
		2.5Gb Ethernet Port	2
	Video	Display Port	2
		HDMI	2
	USB	2.0	4
		3.0	8
	HD BNC I/O		8
	Ref. In		2
	Live IP Port**		2
	LTC Input		2
	Audio Output		2
	Breakout Connector		2
	Power Requirements		Dual 300W
	Breakout Cable	RS422	8
		GPO branch with 4 outputs	2
		GPI branch with 4 inputs	2
Other	Dimensions & Weight		2RU, 245x484x89mm (D, W, H), ~14Kg
	Delivery Packaging		580x380x250mm (D, W, H), ~15Kg
	Temperature	Storage**	−40°C to 65°C (−40°F to 149°F)
		Continuous Operation	10°C to 32°C (50°F to 89.6°F)
	What is Included	Power Cable	2x C13 to C14
		Other	4x rack mount screws

** Not included by default

Concurrent Media Operations

With mPORT Densu 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, playback, live video streams, file preview, live channel switching, and intercom.

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

Concurrent Media Operations				
Record / Live Video Stream	**Playback**	**File Preview**	**Live Switch**	**Intercom**
Up to 4 live channels *	Up to 4 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 8.

Product

Part Number	Product	Description
mtdnio	mPORT Densu io	Appliance for hybrid workflows of up to 8 combined media operations

Available Options

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

Production Tool

Tool for asset management and workflow orchestration.
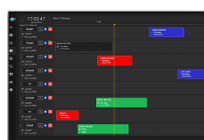
mPLAN

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
mpla8c	mPLAN	Scheduler & Router Control of up to 8 channels

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

Add-ons

Output options to complement your workflows.

Part Number	Product	Description
s2ioiplk	IP live kit	IP media production infrastructure
dnpa	Proxy generation	Simultaneous proxy creation
dnoa	OTT live ingest	Multiple output resolutions for OTT
dnsa	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.*

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