## **mREC**

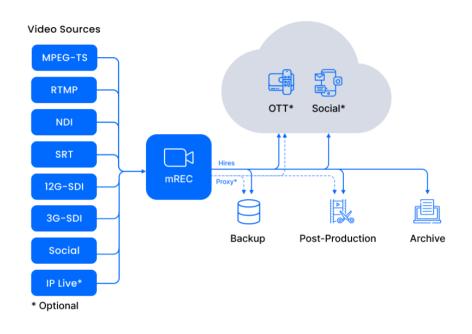
### mREC Grand io



### Overview

mREC Grand io is a powerful and flexible multi-format recording appliance to optimize media creativity for enterprise, digital media, sports, and broadcast markets with a streamlined file-based capture system, with full support for recording 4K UHD and HDR live video channels in different file formats.

mREC Grand io supports simultaneous media operations that can be a combination of recording and previewing files. Additionally, it can be pre-configured to support IP Live workflows.



### 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 •
- mTALK Audio communication between users
- Full featured remote and local user interface
- Multi-configuration metadata management
- Flexible file naming engine
  - Enable edit while ingest

- **Specially Designed For**
- Educational/Government
- Live Entertainment/Worship
- Corporate
- Sports
- Film/TV Studio/Scripted

- Digitalization
- Post-Production
- Broadcast/Digital News
- System Integrators/Rentals

# mREC

### Features

| Timecode support   |  |
|--|--|
| Timecode support   |  |
| LTC (SMPTE 12M)  |  |
| VITC (SMPTE RP188)   |  |
| Time of Day  |  |
| From VTR (BVW) - Serial  |  |
| Multiple LIVE and simultaneous records   |  |
| Crash Record operations  |  |
| Gang Capture operations  |  |
| Independent workflow selection in Gang Captures  |  |
| Unique workflow for gang captures while using clipnaming with counters                                       |  |
| Conceal/Hide option for unused Capture Instances   |  |
| Synchronize (different) Gang Captures  |  |
| Flexible Gang Capture channel configurations / Choose which channels are present in the gang                 |  |
| Frame Chase editing  |  |
|  |  |
| Unlimited capture duration support   |  |
| Loop record support  |  |
| Extend a playlist's maximum duration in a Loop Record workflow   |  |
| Perform Loop record captures through automatic jobs  |  |
| Growing files support  |  |
| Growing file support for Grass valley Edius Workgroup v.9 and X  |  |
| Growing XDCAM MXF OP1a file support on Avid Media Composer *required Nablet AMA Plugin                       |  |
| Automatic Stream Control - Detect input streams and start recording automatically                            |  |
| Continuous recording support   |  |
| 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  |  |
| 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  |  |
|  |  |



|   | Features   |
|---|--|
| 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<br>Delete custom metadata   |  |
|   |  |
| Edit group clips metadata<br>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 / Go                                  | ogle Cloud Storage / Tencent / IBM Cloud Object Storage) |
| Preserve specific Arri fields   |  |
| Support IMF (Netflix Compliant) output metadata   |  |
| 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<br>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                                       |  |
| 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)<br>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  |  |
| Order asset locators by timecode  |  |
|   |  |



| Features  |
|---|
| 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  |
| Scheduler (Calendar View)   |
| Schedule a Record 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  |
| 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   |
| 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<br>Input modes: Caller, Listener, and Rendezvous<br>SRT listener mode as stream output          |  |
|---|--|
|   |  |
| SRT listener mode as stream output  |  |
|   |  |
| Stream ID support   |  |
| Configurable latency settings   |  |
| Configurable overhead bandwidth   |  |
| Configurable passphrase   |  |
| 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   |  |
| Timecode and metadata overlaying on SDI out   |  |
| Playout   |  |
| -   |  |
| Print to tape   |  |
| 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   |  |
| 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 |  |



| Features  |
|---|
| Hardware acceleration *If Hardware is installed or available                                  |
| Sony XAVC   |
| Panasonic AVC-Ultra   |
| Nvidia Nvenc  |
| General Purpose IN/OUT  |
| GPI triggers supported  |
| GPO triggers supported  |
| Additional Highlights   |
| REST API - allows interaction with RESTful web services                                       |
| Change Aspect Ratio (4:3 / 16:9 / 1.9:1 / 2:1 or use same as source)                          |
| Active Format Description (Option to Preserve, Discard or Override)                           |
| Notify user upon connection lost with the Server  |
| Manage via web interface or REST APIs for integration with automation system                  |
| Configurable quality and target latency of the preview stream                                 |
| Logging - Human readable information on Services logs   |
| Logging - Add user information on flow actions  |
| Logging - Structured Logging  |
| Receive SMTP notifications via e-mail   |
| Support an external Database  |
| Microsoft Edge / Firefox / Safari and Chrome Support  |
| Unified Interface User Experience   |
| Configurable web interface access port  |
| Embeddable Dashboards/Widgets   |
| Web-Based Interface with video preview  |
| Dashboards based experience where users can create their own personalized view                |
| Dashboards presets for ease-of-use deployment   |
| Create your own custom dashboard templates  |
| Import and Export Users' Dashboards   |
| Associate a single dashboard to multiple users  |
| LDAP user authentication  |
| User profile management   |
| Users permissions control   |
| Widget based modular interface  |
| Lock/Unlock widgets permission  |
| Choose between multiple interface themes (Midnight, Carbon, Dark or High contrast theme)      |
| Touch screen mode   |
| Monitoring - Advanced metrics   |
| Multi Language Support  |
| User tour   |
| Show/Hide player overlays   |
| Notifications of required actions needed to resume a workflow                                 |
| Monitor Grouped Servers' activity in a Group Activity Widget                                  |
| Remove the "quick edit" button from the Job Control Widget                                    |
| (Set Permissions to) Activate or Deactivate Settings of a Gang Capture widget                 |
| Multiviewer   |
| Define the quality and target latency of the preview stream                                   |
| Ability to control to up to 4 players in a single dashboard Maintenance                       |
| Scheduler   |
|   |
| Reboot host or group  |
| Export database (backup) as a scheduled task  |
| Export logs as a scheduled task   |
| Activity  |
| Export last activity  |
| Export all activity Export activity from a date range   |
| Clear all activity  |
|   |
| Logs<br>Export logs   |
| Export logs Backup  |
| Export full backup - A full backup will create an archive of all the files and configurations |
| Import full backup  |
|   |
|   |

Features



| 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 Live Inputs**

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

### **Supported Live Outputs**

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



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|        | Outputs  |
|--------|--|
|        | Avid ISIS / 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                                     |
| OnPrem | ScaleLogic NX2 & ZX NAS Storage                      |
|        | EMC Isilon   |
|        | QNAP   |
|        | Studio Network Solutions EVO                         |
|        | Oracle Storage                                       |
|        | Netapp   |
|        | FTP Servers (List on request)                        |
|        | Generic File Shares                                  |
|        | 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                              |
| Cloud  | Tencent  |
|        | Lucidlink Cloud NAS                                  |
|        | Google Cloud Storage                                 |
|        | IBM Cloud Object Storage                             |
|        | Generic S3 storages                                  |
|        | Social Media *Optional                               |
|        | Facebook   |
|        | X (Twitter)  |
|        | Vimeo  |
|        | YouTube  |

#### Formats

#### **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

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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 VVC/H266 Main Profile ProRes 422 (SQ/HQ/LT) ProRes 4444 ProRes 4444XQ JPEG 2000 (Full HD) JPEG 2000 (4K) Google® VP6 / VP7 / VP8 Uncompressed UYVY 422 / V210 / RGBA AOMedia Video 1 (Full HD) AOMedia Video 1 (4K) IMF (JPEG 2000 @ Full HD) IMF (JPEG 2000 @ 4K)

#### 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.264 960 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 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



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### **Product Integrations**

| Editing Sytems                     | MAM / PAM / DAM                  | Stream                      | CDN's                                  |
|------------------------------------|----------------------------------|-----------------------------|--|
| Adobe Premiere Pro                 | CatDV MAM, PAM, DAM              | Newtek NDI                  | Lumen                                  |
| AVID Media Composer                | eMAM Media Asset Management      | Haivision SRT               | Fastly                                 |
| AVID Media Central UX              | Telestream: Masstech             | Zixi                        | Akamai Technologies                    |
| AVID Media Central Cloud UX        | AVID Interplay                   | Consumer Cloud Storages     | Microsoft Azure                        |
| Apple Final Cut Pro X              | AVID Media Central UX            | Dropbox                     | Cloudflare                             |
| Edius: Pro 8, Workgroup 9          | AVID Media Central Cloud UX      | 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 UnityTM 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                | Panasonic PTZ Cameras       | Hypervisers                            |
| Quantum: Storenext                 | Microsoft Azure Storage          | NewTek PTZ3 UHD Camera      | Microsoft HyperV                       |
| Scalelogic: NX2 & ZX NAS Storage   | Microsoft Azure Virtual Machines | NewTek PTZ3 Camera          | VMWare ESX                             |
| Editshare EFS                      | Tencent: Cloud Storage           | Social Media *Optional      | Peripheral Devices                     |
| EMC: Isilon                        | Lucidlink Cloud NAS              | Facebook                    | Countour Shuttle Pro V2                |
| QNAP                               | Google Cloud Storage             | Twitch                      | Elgato Stream Deck                     |
| Studio Network Solutions: EVO      | IBM Cloud Object Storage         | X (Twitter)                 | Audio                                  |
| Oracle Storage                     | Generic S3                       | YouTube                     | Dante *Negotiated separately           |
| Netapp                             |                                  | Vimeo                       |  |

### **Server Options**

| Features                 |                                | res                         | Specs                                 |
|--------------------------|--------------------------------|-----------------------------|---------------------------------------|
| Ε                        | Platform                       |                             | Dell R750                             |
|                          | GPU                            |                             | 2x Nvidia A2                          |
| System                   | Video IO                       |                             | 4x DeckLink 8K Pro                    |
| Sy                       | operating system brive         |                             | 480GB RAID 1                          |
|                          |                                |                             | Windows 10 Enterprise (LTSC)          |
|                          | Networking                     | 1Gb Ethernet Port           | 2                                     |
|                          | Networking                     | 10Gb Ethernet Port SFP+     | 2                                     |
| /ity                     | Video                          | VGA Out                     | 1                                     |
| Connectivity             | USB                            | 2.0                         | 1                                     |
| nne                      | 036                            | 3.0                         | 1                                     |
| ပိ                       | BNC 12G In                     |                             | 16                                    |
|                          | Ref. In                        |                             | 4                                     |
|                          | Power Requirements             |                             | Dual 1100W                            |
|                          | Peripheral Module**            | LTC Input                   | 1                                     |
| ity d                    |                                | Audio Out                   | 1                                     |
| Extended<br>Connectivity |                                | Breakout Connector          | 1                                     |
| xtel<br>nne              | Breakout Cable**               | RS422                       | 4                                     |
| မ လိ                     |                                | GPO branch with 4 outputs   | 1                                     |
|                          |                                | GPI branch with 4 inputs    | 1                                     |
|                          | <b>Dimensions &amp; Weight</b> |                             | 2RU, 772x482x86.8mm (D, W, H), ~40 kg |
|                          | Delivery Packaging             |                             | 970x660x310mm (D, W, H), ~45Kg        |
| Other                    | Temperature                    | Storage                     | -40°C to 65°C (-40°F to 149°F)        |
| Ē                        |                                | <b>Continuous Operation</b> | 10°C to 35°C (50°F to 95°F)           |
|                          | What is Included               | Power Cable                 | 2x C13 to C14                         |
|                          |                                | Other                       | Static rails for 2/4-post racks       |

\*\* Not included by default



### **Concurrent Media Operations**

With mREC 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, file preview, live channel switching, and intercom.

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

| Concurrent Media Operations |                       |                   |                   |
|-----------------------------|-----------------------|-------------------|-------------------|
| Record                      | File Preview          | Live Switch       | Intercom          |
| Up to 16 live channels      | Up to 5 files preview | Up to 1 operation | Up to 1 operation |

### Product

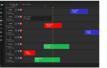
| Part Number | Product       | Description   |
|-------------|---------------|---|
| mrgrio      | mREC Grand io | Video file record appliance of up to 16 combined media operations |

### **Available Options**

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

#### **Production Tools**

Tool for 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                                      |
| -           | IP live card*        | Add up to 4 UHD IP channels into your media production infrastructure |

\* Each Live IP card effectively replaces 8 SDI input 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 will be seamlessly transformed into IP-based connections.

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.



# mREC

#### 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 sales@mog-technologies.com to find out how to purchase or in case you need more information.

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