Shared Disk | Compute | LTO Archive

108 TB
Shared Disk Storage
Expandable to 228 TB

Windows Server
16 Cores, 64 GB RAM
Running Cinegy MAM

326 TB LTO-8 Archive
Expandable to 3.2 PB
Managed by XenData software

Platform One Concept

For many organizations, the sheer volume of video files creates challenges associated with storing, organizing, finding and reusing their media assets. The conventional approach is to install shared disk storage, a Media Asset Management (MAM) server and an archive server which brings its own challenges when it comes to getting these components to work harmoniously together. Cinegy Platform One from XenData provides an integrated solution that combines all these elements on one powerful server.

The Windows server is powered by two 8-core Xeon processors and has 64 GB of RAM. It is connected to a scalable LTO-8 robotic library managed by XenData software which provides a 326 TB near-line archive. As your storage needs grow, the library can be expanded to over 3.2 PB. The server also connects to a high-performance RAID that provides from 120 TB to 240 TB of shared disk storage. If you already have shared disk storage, a model is available with just the server and LTO archive. The Cinegy software is pre-installed and ready for configuration.
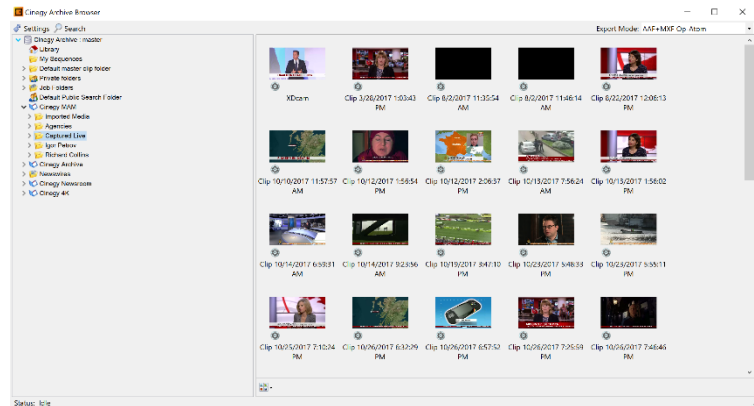
Cinegy MAM

Cinegy Platform One is managed by Cinegy MAM software which allows you to maximize the value of your media assets.

Management Software

Cinegy Archive

Cinegy Archive is the innovative media asset management solution for an organization with video assets that need to be managed and archived. With its scalable and open architecture Cinegy offers the most affordable solution to digitize tape-based archives and production workflows. With advanced logging and metadata accumulation over the entire lifecycle of the media assets these become easily searchable and reusable, saving time and money.

- Affordable
- Enterprise scalable asset management
- Collaborative, non-linear workflow
- Asset lifecycle metadata accumulation
- Simple and advanced search
- Active archive
- Uses standard IT hardware

- Flexible & open
- Future proof
- Third-party integration
- Simple operation
- Rights management and access control
- AVID, Adobe Premiere Pro, Apple Final Cut Pro Integration

Advanced Metadata Collection

Cinegy Archive uses today's most advanced accumulative metadata collection methods, with a highly customizable metadata set for meeting specific user needs. Any number of custom metadata fields can be added to the system at any time. Ingested video clips automatically inherit information including tape or disk reference IDs, cameraman, date, program name, rights, resolution, type, legal information and production notes. Users can add additional information to a video clip or a section of a clip. Any number of the custom metadata fields can be added to the system at any time. Cinegy Archive seamlessly integrates with all Cinegy products, ensuring that metadata is accurately created, updated and maintained on each step of the production workflow.

Archive and Restore Automatically

Video assets are migrated automatically from the shared disk storage to the LTO library. The automatic migration is based on asset expiration dates, when set, and on a pre-defined 'high water mark' for the disk storage volume. When assets are required from LTO, they are copied automatically back to the disk storage.

Access Rights

All access rights can be controlled to the lowest level of detail. Functionality available to individual users depends on their roles and the security level they have been assigned. An item or a database sub-tree can be hidden from specific users, while anyone with appropriate user rights can access video material and instantly view, tag or annotate ingested content.
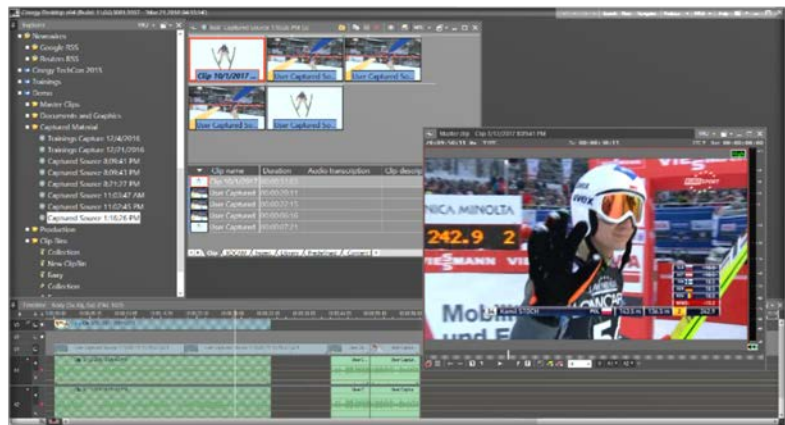
Editors and producers can work on material on the fly as content is accessed in parallel by any number of loggers, producers or any authenticated and assigned end-user. For example, experienced editors could have access to a different set of features and content compared with that available to production assistants.

MAM Production Tool

Cinegy Desktop

Cinegy Desktop is a universal production tool that provides real-time access to media in Cinegy Archive, along with a powerful suite of tools for logging and editing, and an almost limitless ability to import and export media to third-party non-linear editing and automation systems.

Cinegy Desktop runs on standard office IT infrastructure and can be installed on any user's desktop within a network environment. It allows users to collaborate from their desktops, without tying up expensive editing bays. Full system functionality is available from any workplace, editing bay or machine room for maximum workflow flexibility.

Cinegy Desktop is a MAM client or Production and Newsroom client that delivers:

- Storyboarding
- Timeline editing
- Logging tools
- Edit while ingest
- Mixed SD/HD/UHD edits
- Metadata manager
- Video effects
- FX Manager
- Multi-cam editing

- Extensive search
- Team collaboration
- Instant messaging between clients
- Simple and intuitive interface
- Full rights management
- Up to 256 video/audio tracks
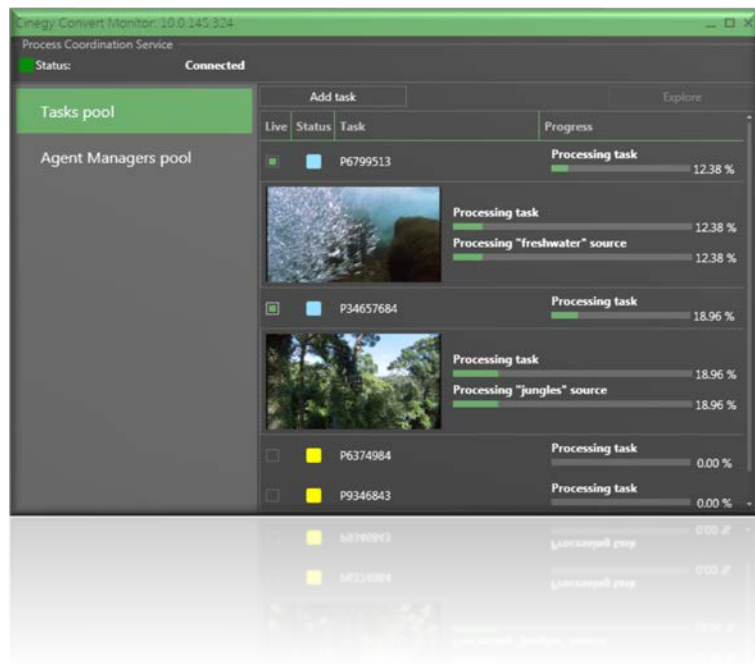- Always real-time
- Floating licensing
- Works on commodity PC

Search

Cinegy Desktop features a sophisticated search engine that can be used to quickly locate required video media and documents, even in very large archives. Users can search and sort content by keywords or metadata values. A simple search delivers results quickly; a federated search adds intranet and Internet access; while an advanced search enables further functionality for more precise results.

Transcoding

Cinegy Convert

Cinegy Convert is Cinegy's server-based transcoding and batch processing service. Designed to function like a network-based print server, it can be used to perform repetitive export and conversion tasks by "printing" material to predefined formats and destinations. Available in both standalone and Cinegy Archive integrated variants, Cinegy Convert saves time that can be applied to more important activities by automating repetitive tasks. Processing is performed on dedicated Cinegy Convert servers that act as a print queue/spooler,

processing tasks in order. Highly flexible, scalable and interactive it is an ideal tool for converting material into different formats and for integration with third-party NLE systems.

Cinegy Archive Integration

Cinegy Convert is fully integrated with Cinegy Archive, utilizing the job folders infrastructure. Any Cinegy Desktop connected to the archive can easily create exporting, transcoding, quality building tasks via a simple drag-and-drop operation within the job folder window. These special folders can be set up to perform specific repetitive actions. Tasks assigned to a particular folder can be viewed, managed and monitored through the job folder window. Working in Archive integrated mode, Cinegy Convert automates important tasks such as media import, media export, additional qualities creation, etc.

Interactivity

Cinegy Convert provides rich feedback on the processes being performed and status of every single node of the processing network. Information can be taken from the central coordination service providing the general overview on the system health or directly from the processing nodes including live feedback on tasks progress including video preview when required. Extensive logs, with configurable log levels, provide additional information about when, where and what tasks were performed by each job server.
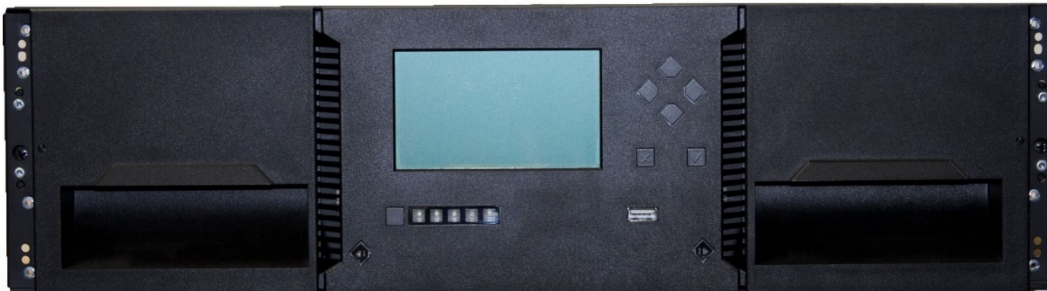
Automation

Cinegy Convert accepts tasks both manually and automatically. Operators using an appropriate client application can submit custom processing tasks or a dedicated watch folder can be created, processing the incoming media automatically, according to the pre-configured parameters.

Optimized LTO Archive

Scalable LTO Library

The LTO library is a Qualstar Q40 with a base configuration having two LTO-8 drives, 4 mail slots, 28 cartridge slots and dual redundant power supplies. It has a capacity of 326 TB when using 12 TB cartridges and may be expanded to over 3.2 PB by adding six 40 slot expansion modules that increase the capacity by 480 TB each.

Disk Cache Enhances Performance

The server includes a disk cache consisting of four 800 GB high endurance SSDs in a RAID5 configuration, giving a usable capacity of 2.4 TB. The disk cache and the LTO library are managed by XenData Archive Series software running on the server. The library and disk cache appear as a logical drive letter X. Cinegy Archive MAM moves files to the X-drive via the disk cache to free up space on the shared disk storage and copies files back directly from LTO when required.

Automatic Operation and LTO Cartridge Replication

The XenData Archive Series software is driven by user defined policies and runs automatically after the policies are defined. It automatically initializes blank LTO cartridges as needed, writing to them after the current cartridges become full.
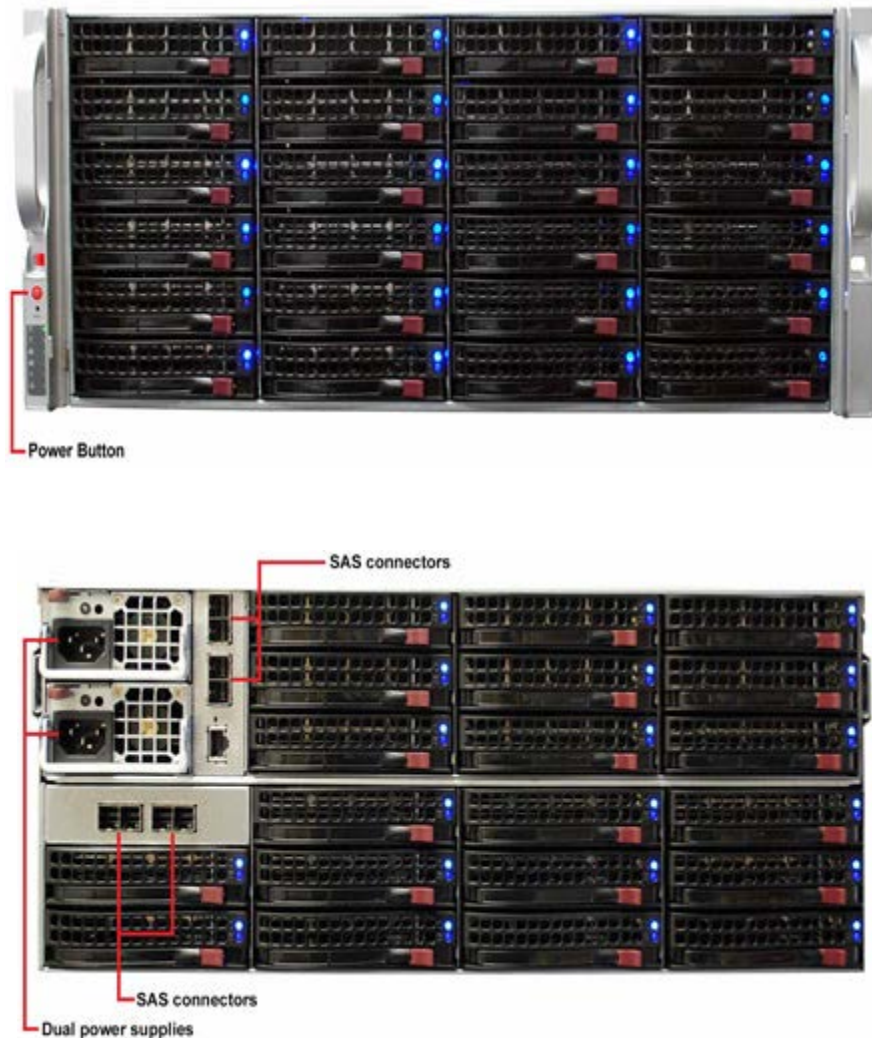
It can be configured to automatically create one or more additional LTO cartridge replicas. Best practice is to export one of the replica cartridges from the library after it becomes full and retain in an offsite location for data protection purposes.

Industry Standard LTFS Format

The XenData software initializes rewritable LTO cartridges using LTFS, the industry interchange standard. The software can alternatively be configured to write to LTO in the open standard TAR.

Shared Disk Storage

The shared disk storage consists of an external 4 RU enclosure with dual power supplies and up to forty-four enterprise-class disks. The shared disk storage appears as a single logical drive letter, drive D, on the Platform One server.

Shared Disk Storage Enclosure with 24 Front and 20 Rear Disk Bays

The disks have a 6TB capacity and come with a 3 years warranty. The Platform One system is available with either 24, 34 or 44 disks. Two of the disks are configured as hot spares and the remaining disks are configured in RAID60 for both reliability and ultra-high performance.

Number of Disks	Raw Capacity	Usable Capacity
24	144 TB	108 TB
36	204 TB	168 TB
44	264 TB	228 TB

The shared disk volume is optimized for video streaming and has high performance suitable for 4K workflows and beyond, as illustrated below:

Format	Frame Rate(fps)	Ave. Data Rate (Mbps)	Max. Stream Count 24 disk systems
Red 6K HD 7:1	23.98	820	6
UHD DNxHR HQ	23.98	700	7
XAVC 2160p 4K	59.94	600	8
ProRes 4444 (1920x1080)	29.97	330	15

Supported TV formats

- Ultra High Definition 2160p
- High Definition 1080i, 720p
- Standard Definition PAL and NTSC

Natively supported codecs

- Apple ProRes
- XAVC
- AVC-Intra / AVC-Ultra
- Avid DNxHD/HR
- XDCAM HD 422
- XDCAM HD
- DVCPRO HD
- IMX
- H.264
- MPEG-2 Long-GOP
- MPEG-2 (up to 1080i 4:2:2)
- DV and DVCPRO
- Cinegy Daniel2

Platform One Server

The 2 RU rack-mount server is optimized for video applications. With two 8-core Xeon processors and 64 GB of RAM, it delivers very high performance.

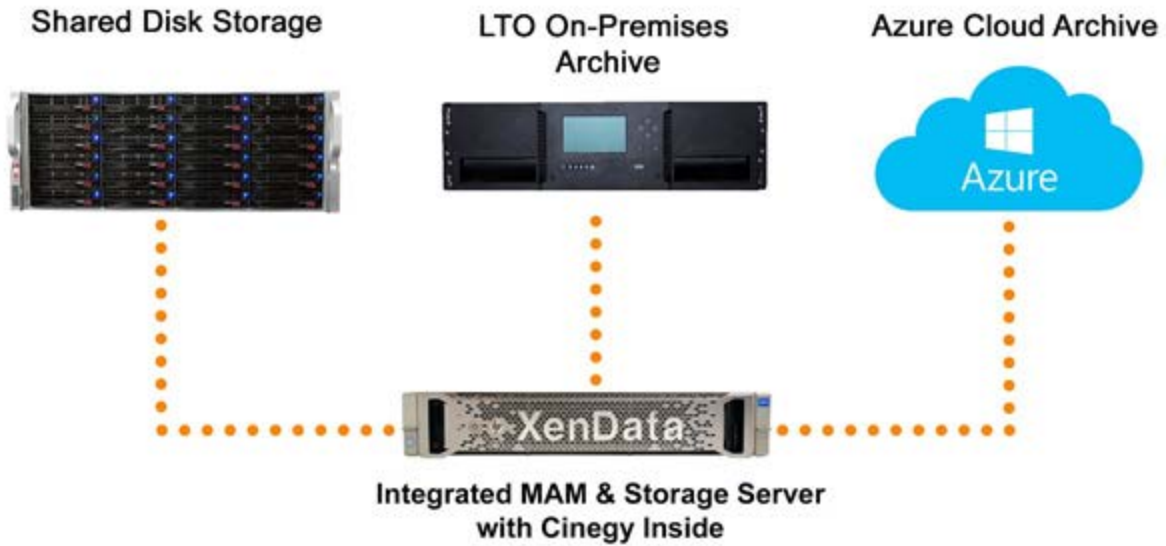### Single Server Eliminates Network Bottlenecks

By having the shared disk and LTO archive storage directly attached to the Platform One server, network traffic is minimized and network bottlenecks are eliminated. The server comes with four 1 GbE network ports and optional 10 GbE ports may be added.

Configured for Reliability

The server has dual redundant power supplies, mirrored boot disk drives and reliable SSDs for the LTO disk cache configured in RAID5. It is designed for near-continuous availability.

Azure Cloud Connectivity

The Cinegy Platform One system also connects to the Azure cloud, allowing files to be stored in Azure blob storage. The system comes with a free 100 GB Azure storage subscription which may be used to back up the Cinegy Archive MAM SQL database and the LTO archive metadata. If required, the subscription can be increased to support higher capacities in the Azure cloud.

Shared Disk Storage — LTO On-Premises Archive — Azure Cloud Archive

XenData — Integrated MAM & Storage Server with Cinegy Inside

Cinegy Software

The following software is installed but not licensed. Licenses must be purchased separately.

What is included:

- Cinegy Archive S x1
- Cinegy Desktop x 4
- Cinegy Convert
- Cinegy Convert MAM plugin
- Microsoft SQL Server 2017 Standard

Platform One Specification

Server

Operating system:	Microsoft Windows Server 2012 R2 Standard Edition
Processor:	2 x Intel® Xeon® 8-core processor
RAM:	64 GB
System disk:	2 x 600 GB mirrored
Network connections:	4 x RJ45 connectors; 1000BASE-T, 100-BASE-TX, 10BASE-T
USB connections:	2 x USB 3.0 (rear mounted); 1 x USB 2.0 (front mounted)
Number of power supplies:	2 redundant power supplies
Power:	100-240V; 50-60 Hz; 6.2-4.1 Amp max
Operation temperature and humidity:	50-95°F (10-35°C); 8-90% non-condensing
Form factor:	2U, 26.75" deep
Dimensions (HxWxD):	3.44" x 17.54" x 26.75" (87.3mm x 445.5mm x 680 mm)
Weight:	55 lbs (24.95 Kg)
Rack Rails:	Included

Shared Disk Storage

Disk bays:	44 hot-swap (24 front and 20 rear)		
Disk capacity, type:	6 TB SAS 7,200 rpm		
RAID configuration:	RAID 60 with two disks configured for automatic hot swap		
Cinegy Platform One Model	Model 030	Model 031	Model 032
Usable Capacity:	108 TB	168 TB	228 TB
Number of disks:	24	34	44
Connections to server:	External SFF-8644 Mini-SAS HD connectors		
Cooling:	7 hot-swap redundant cooling fans		
Number of power supplies:	2 redundant power supplies		
Power:	100-240V; 50-60 Hz; 6 – 12 Amp max		
Operation temperature and humidity:	41-95°F (5-35°C); 8-90% non-condensing		
Form factor:	4U, 27.5" deep		
Dimensions (HxWxD):	7" x 17.2" x 27.5" (178mm x 437mm x 699mm)		
Weight – 44 disk configuration	75 lbs (11.5 Kg)		
Rack Rails:	Included		

LTO Library (Base Unit)

Library type:	Qualstar Q40
Tape drive type:	IBM LTO-8 half-height
Drive interface:	SFF-8088 connections; 6 Gb/s SAS - 2m cable(s) for connection to SX-250 are included
Transfer rate – writing and reading:	300 Mbytes/s native per drive
Number of tape drives included:	2
Max number of tape drives:	3
Number of active cartridge slots:	28
Number of mail slots:	4
Barcode reader:	Included
Interface to Medium Changer:	ADI
Mean Swaps Between Failures:	Greater than 2 million robot load/unload cycles
Electrical	
Number of power supplies:	2
Voltage:	100-240VAC; 50-60Hz
Power – library with 2 drives:	230 W
Dimensions & Weight	
Rack form factor:	3U, 34.27 inches (873 mm) deep
Weight:	51 lbs (23.1 Kg)
Dimensions (HxWxD):	5.24" x 18.98" x 34.27" (133mm x 482mm x 873mm)
Rack rails:	Included

LTO Library (Expansion Unit)

Number of tape drives included:	0
Max number of tape drives:	3
Number of active cartridge slots:	40
Number of mail slots:	0
Rack form factor:	3U, 34.27 inches (873 mm) deep

Platform One Part Numbers

System Options

XenData SKU	Description
231029	Cinegy Platform One - Model 029. Includes server and expandable 326 TB LTO-8 archive. It does not include shared disk storage. Support: The system has 12 months of support that includes remote technical support from XenData, onsite support from HPE for the server, advanced exchange for the LTO library, disks, and all software upgrades.
231030	Cinegy Platform One - Model 030. Includes server, expandable 326 TB LTO-8 archive and 108 TB shared disk storage. Support: The system has 12 months of support that includes remote technical support from XenData, onsite support from HPE for the server, advanced exchange for the LTO library, disks, and all software upgrades.
231031	Cinegy Platform One - Model 031. Includes server, expandable 326 TB LTO-8 archive and 168 TB shared disk storage. Support: The system has 12 months of support that includes remote technical support from XenData, onsite support from HPE for the server, advanced exchange for the LTO library, disks, and all software upgrades.
231032	Cinegy Platform One - Model 032. Includes server, expandable 326 TB LTO-8 archive and 228 TB shared disk storage. Support: The system has 12 months of support that includes remote technical support from XenData, onsite support from HPE for the server, advanced exchange for the LTO library, disks, and all software upgrades.

LTO Library Expansion

XenData SKU	Description
231035	LTO library expansion module and XenData license to support it. Adds 40 slots which increases the library capacity by 480 TB when using LTO-8 cartridges. Up to 6 expansion modules may be added to the base library.

Server Connectivity Upgrades

XenData SKU	Description
101049	Dual port 10 GbE network adapter HPE 530SFP+ pre-installed in server. This adds two 10 GbE ports and uses one PCIe slot. Transceivers not included.
101081	SFP+ 10 Gb/s LC Short Range Transceiver for insertion in SKU 101049. Quantity 2 required to use both 10 GbE ports in the adapter.
107130	Dual port 10 GbE network adapter for use with CAT6 or UTP cabling pre-installed in server. It is an HPE model 561T adapter and uses one PCIe slot.

Where to Buy

Please contact Cinegy or XenData for an introduction to an Authorized Reseller.

XenData USA

Address: 2125 Oak Grove Road, Suite 100, Walnut Creek, CA 94598
Phone: +1 925 465 4300
Email: xendata@xendata.com

XenData Europe

Address: Sheraton House, Castle Park, Cambridge CB3 0AX, UK
Phone: +44 1223 370114
Email: xendata@xendata.com

Cinegy GmbH

Address: Muellerstr. 27, 80469 Munich, Bavaria, Germany
Phone: +49 89 23 88 53 60
Email: sales@cinegy.com

Cinegy LLC

Address: 1101 Pennsylvania Ave. 3rd Floor, Washington, DC 20004, USA
Phone: +1 877 4CINEGY
Email: sales@cinegy.com

Last Updated: August 1, 2018