

QUBE

Digital Cinema



only
The one that does it all.

Qube Cinema's end-to-end solutions for Digital Cinema provide the ultimate combination of quality, reliability, ease-of-use, security and flexibility. Designed from the ground up to operate in mission-critical applications, the architecture of the Qube product family has been conceived with the future in mind and provides an integrated workflow, from mastering to distribution to playback to reporting to archival. Being almost entirely software based allows the Qube system to leverage developments in the computer industry and bring to market format-independent, powerful and flexible products.

Qube Cinema has an entire suite of products required for a practical, commercially viable, end-to-end implementation of Digital Cinema. Qube Cinema is a company that has proven expertise in managing complex technology transformations in traditional workflows; a company with a passion for cinema and a thorough understanding of film, video, audio and computer technology as well as the production, post-production and exhibition industries.

The **Qube XP Digital Cinema Server** is the core component of the Qube system that plays picture and sound and provides theatre-automation support. Redundant power supplies and RAID 1,0 hard drives bring a high level of reliability to the system while a detachable Qube Remote Panel provides familiar operational controls such as Play, Pause and Stop along with an LCD Display and Menu Keys. Unlike more complex interfaces such as touch-screens or the mouse and keyboard, the Qube Remote Panel is a simple, familiar hardware interface that makes projectionists feel instantly comfortable with the system.

The second generation Qube software is database driven and has a flexible core media architecture that can work with multiple copies of picture, sound, subtitling and metadata files stored on local and shared central storage systems. Qube Cinema is based on the modular Microsoft Windows XP™ Embedded Operating System to maximize reliability and security while deriving benefit from Microsoft's powerful DirectShow™ architecture.

Qube XP-E is aimed at the E-cinema and Pre-show market and has a DVI picture output and analog audio outputs.

The Qube XP server is standards-based and designed for interoperability. The system utilizes DCI specified MXF containers with 128-bit AES encryption for media and xml for compositions and shows. RSA encryption is utilized for keys.

The base system handles high bit-rate MPEG 2 pictures and also supports Windows Media 9 and is expandable with additional software codecs. Audio is uncompressed 16 bit or 24 bit at 48 KHz and 96 KHz. Whether for pre-show or feature playback, Qube Cinema has the flexibility to support it all.

Qube Cinema supports subtitling in the TI CineCanvas™ file format and subtitles are internally rendered for display along with the picture using high quality fonts.

Media transport is possible using portable USB-2 or 1394a/b hard drives, high-speed data lines and satellite multicast transmissions. Qube XP Servers can manage media completely automatically by deleting older, unused media when additional space is required to ingest new media. This again makes the system entirely automatic in operation for the projectionist and theatre manager and considerably simplifies their lives while reducing the possibility of human-error.

Qube XP systems can be managed and operated locally and remotely via a powerful web-based UI which shows status and, with the proper login credentials, allows transport control, scheduling, content ingest, key management as well as setup and maintenance. System logs can also be viewed over the web interface and are signed for verification of authenticity.

Qube XP-E Technical Specifications

Digital Image Output:	DVI & HDMI with HDCP Encryption
UI Monitor Output:	DVI-I and HDMI connectors(monitor optional)
Audio Output:	25-pin D-sub Connector for 8-chan Analog Audio Output
Image Compression:	MPEG-2 4:2:0 & 4:2:2 Windows Media 9 4:2:0
Image Resolution:	Variable from SD PAL/NTSC to HD 1080P to 2K
Frame Rates:	23.97, 24, 25, 29.97, 30, 50, 59.94 & 60 fps
Audio Compression:	Linear PCM Audio Windows Media Audio
Audio Sampling:	44.1 KHz, 48 KHz and 96 KHz, 16 and 24-bit
File Formats:	MXF packaging for track files xml packaging for compositions and shows
Subtitling:	Multi-lingual subtitling in the TI CineCanvas™ format
I/O Ports:	Gigabit Ethernet Port, RJ-45 x 1 RS-232 Serial Port, 9-pin D-sub x 1 USB 2.0 Ports x 6 eSATA Port x 1 Mouse/Keyboard ports
GPI:	optional, 8 opto-isolated inputs and 8 relay outputs
Storage:	500 GB RAID 1,0 storage
Security:	128-bit AES Encrypted Content Start/End Date control by 2048-bit RSA Encrypted Keys
Picture Watermarking:	optional Thomson NexGuard™ on MPEG-2 content
Projectionist Interface:	USB Controller with Play, Pause, Stop and Menu Buttons with 40 char x 2 line LCD Status Display
Management Interface:	Multi-function web-based Interface with System Status, Transport Control, Show Builder Scheduling, Content Ingest, Key Management, Log Viewer and System Setup/Maintenance
Power Supply:	100-240V AC 50/60Hz, 450W dual-redundant power supply standard
Operating Temperature:	10 to 40 degrees C
Operating Humidity:	20% to 90% non-condensing
Size:	Main Unit – 48.5 cm (W) x 13.8 cm (H) x 67.5 cm (D) 3U Rack Mountable Unit Remote Panel – 9.5 cm (W) x 4.0 cm (H) x 14.8 cm (D)
Weight:	Main Unit – 20.30 Kg Remote Panel – 0.56 Kg Packed – 30.00 Kg

Specifications mentioned herein are subject to change without notice due to continuous product development

Qube Cinema, Inc.

4640 Lankershim Boulevard, Suite 601, North Hollywood, CA 91602-1844, USA

Tel: +1 (818) 392-8155 | Fax: +1 (818) 301-0401 | email:qubeinfo@qubecinema.com | www.qubecinema.com

Qube is the trademark of Real Image Media Technologies. All other products and technologies mentioned herein are the trademarks of their respective owners.
All screenshots are simulations & do not pertain to actual content