

T3 SERIES

Intelligent Dynamic Digital Recorder



iDDR T3™ is a powerful and versatile recorder/player designed to streamline video production workflows across various industries. It supports the optimization of video production processes, enhances efficiency and facilitates the creation of high-quality content. T3 is well-suited for a wide range of applications including broadcast stations, CATV, post-production facilities, educational institutions, corporate environments and live events.

Overview

1. All-in-One Solution: Streamline your workflow with a comprehensive feature set.

T3 is a robust all-in-one system integrating recording, playback and transcoding functionalities. Its high scalability allows customization to meet specific workflow needs. Operable as a standalone unit, T3 simplifies setup and operation, contributing to overall production efficiency.

2. Multiformat Support: Handle any footage with ease, from 4K to SD.

T3 supports a comprehensive range of formats from 4K (both DCI and UHD) to SD, offering seamless up/down conversion capabilities. This ensures a seamless workflow in multiformat environments, providing flexibility and efficiency when using various format types.

3. Optimized File Workflow: Versatile codecs and file conversion capabilities.

T3 supports a wide array of file formats and codecs, offering flexible file conversion capabilities. For 4K recording and playback, T3 Elite Max and T3 Elite support up to three simultaneous I/O channels with Grass Valley® HQX, while T3 Pro supports up to two. For HD recording and playback, T3 supports up to four simultaneous I/O channels using supported codecs such as Sony XAVC HD, Sony XDCAM, Apple ProRes, Avid DNxHD and Grass Valley HQX. T3 also supports native import and playback of H.265/HEVC-encoded MP4 and MOV files. In addition, Sony XAVC QFHD Intra Class 300 and uncompressed video recording/playback

are supported depending on the model and configuration. High-speed M.2 NVMe SSDs ensure fast and reliable data access.

4. Limitless Possibilities with System Integration: Remote control and highly expandable interfaces.

T3 integrates with a wide range of external devices such as RS-422, GPIO, AMP, VDCP and LTC timecode, enabling remote control and collaboration. Compatibility with switchers and controllers makes it ideal for live events, broadcast/CATV applications, and beyond. System integration maximizes T3's capabilities.

5. Built for Demanding Environments: Robust chassis and intuitive operation.

T3 features a robust chassis designed to withstand rigorous environments such as live events. Compared to the T2 4K series, it offers a 20% reduction in depth, enhancing its compactness. Intuitive operation via touchscreen and jog/shuttle controls ensures swift and easy deployment for all users.

6. Safe and Secure Operation: Maintenance mode for optimal performance.

In addition to standard operation modes, T3 provides a dedicated maintenance mode for tasks including process log management, data initialization, backup and restore, and system software updates. This ensures T3 operates at optimal performance levels, supporting safe and secure workflows.

Key Features

Recorder/Player

- 4K (2160p) video recording and playback support: up to 3 simultaneous I/O channels in total, depending on the model, when using Grass Valley HQX^{*1}
 - I/O modes (T3 Elite Max, T3 Elite): 3 in 0 out, 2 in 1 out, 1 in 2 out, or 0 in 3 out
 - I/O modes (T3 Pro): 2 in 0 out, 1 in 1 out, or 0 in 2 out
- HD (1080p) video recording and playback support: up to 4 simultaneous I/O channels in total^{*1}
 - I/O modes: 4 in 0 out, 3 in 1 out, 2 in 2 out, 1 in 3 out, or 0 in 4 out
- Key/Fill (Alpha) video playback support
- Synchronized playback across 2 channels for key/fill rolls, edge blending, multiscreen displays, and 3D applications
- Chasing playback while recording
- Real-time cross conversion support among 720p, 1080p/i and 4K
- Direct recording to an external media/storage device
- Scheduled recording
- Ancillary data recording and playback, including closed captions (CEA-608/708, OP-47, ARIB)
- E-to-E mode
- Video monitor output and on-screen display
- Next Preview for monitoring the next clip event in a playlist
- NDI IP input/output support, including NDI Alpha output

Import/Export

- Native import/playback for most standard formats
- Supports multiple codec formats (transcoding to Grass Valley HQX AVI) for most standard and broadcast formats
- FTP transfer rate limited to maintain playback performance
- Watch folder transfers
- Export to Sony XDCAM drive (PDW-U1/PDW-U2)

^{*1} The maximum number of streams that can be recorded or played back simultaneously may be limited depending on the I/O mode, resolution, codec, and other factors.

Editing

- Direct access to an internal media folder with EDIUS and the ability to edit a growing file – AVI (Grass Valley HQX) and MXF (Grass Valley HQX/Apple ProRes/Avid DNxHR/Avid DNxHD/XDCAM)
- Export a growing AVI (Grass Valley HQX) file via CIFS
- Export a growing MXF (Grass Valley HQX/Apple ProRes/Avid DNxHR/Avid DNxHD/XDCAM) file via FTP/CIFS
- Import from Final Cut Pro in QuickTime format using the free Grass Valley HQ codec for Mac onto an exFAT storage device
- Convert and CIFS export from AVI (Grass Valley HQX) to MXF (Grass Valley HQX/Apple ProRes/Avid DNxHR/Avid DNxHD/XDCAM) or MOV (Apple ProRes/Avid DNxHR/Avid DNxHD)

Front Panel

- Easy-to-use front panel interface and jog/shuttle

Workstation

- Workstation mode included as standard
- Immediate playback of clip events from a playlist (on-the-fly playback) and playback speed control
- Simple on-the-fly editing, including trimming, mark in/out, markers with comments, basic transition effects and insertion of placeholders for playlists
- Transition effect (cross dissolve) when manually switching to another clip event in a playlist
- Keyboard shortcuts and mouse customization on workstation
- Multichannel gang recording using assignable keyboard shortcuts

Remote

- Synchronized playback using LTC input (timecode chasing)
- Synchronized playback for multiple T3s using GPI input/RS-422 (BVW)
- Integration support for third-party control (BVW, VDCP, GPIO and AMP)

Device

- SDI embedded audio (16 channels)
- Robust design – engineered to withstand demanding live event and mobile production environments
- ASIO audio input/output support
- Redundant power supply (available depending on the model)
- Media slots – SD card x2, 2.5-inch SSD x2 (available depending on the model)

Maintenance

- Full data backup and restore feature
- Monitoring using watchdog timer (hardware/software)

Max License

- Uncompressed video recording/playback (available depending on the model)
- XAVC recording/transcoding (available depending on model)
- H.264 codec board acceleration (optional, available depending on model)

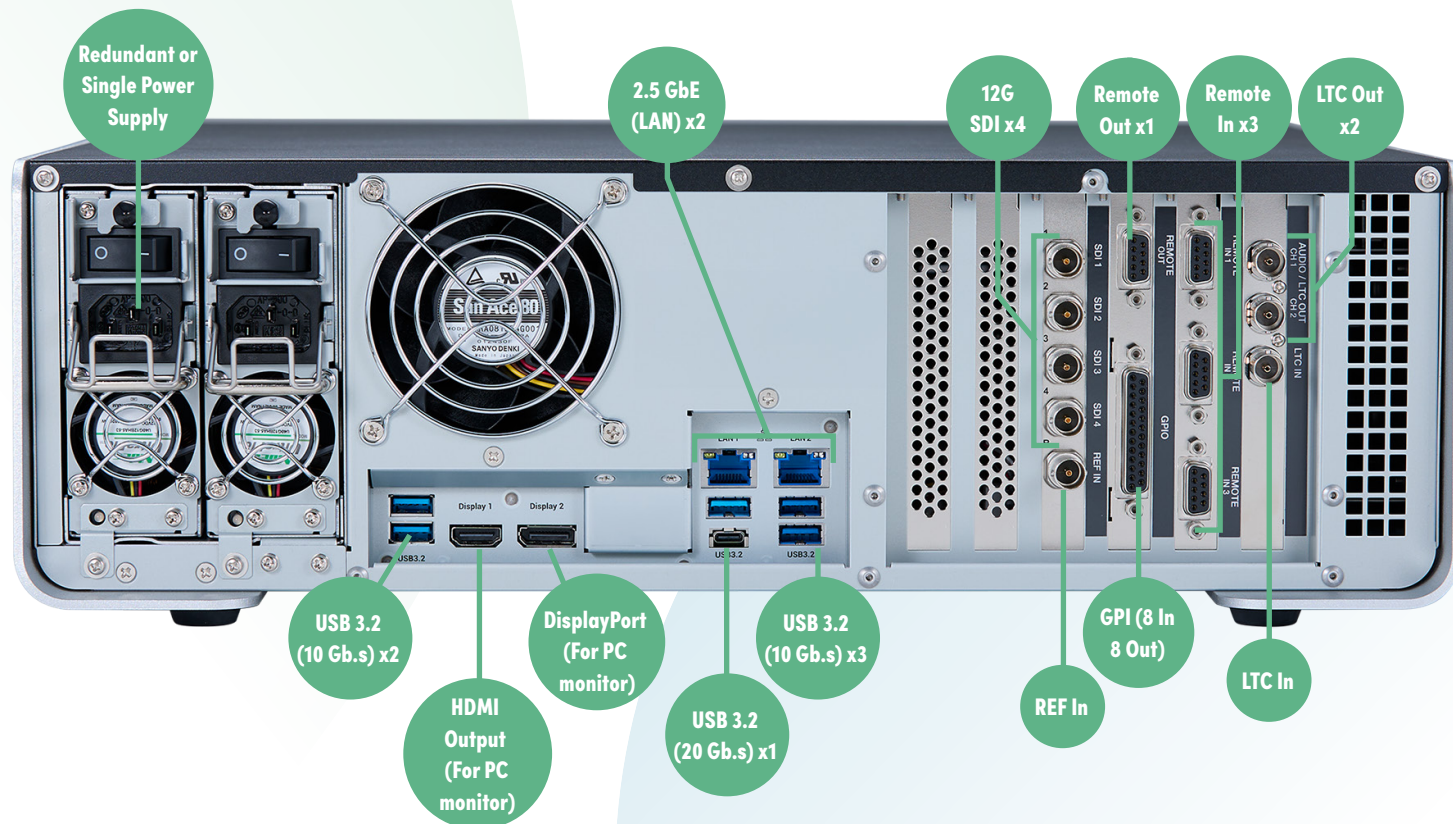
Workstation mode.



Note: Some features described in this datasheet require T3 Series system software v4.1.0 or later.



* Available depending on the model.



I/O Mode	T3 Elite Max	T3 Elite	T3 Pro
4K DCI / 4K UHD	3 in 0 out 2 in 1 out 1 in 2 out 0 in 3 out		2 in 0 out 1 in 1 out 0 in 2 out
HD / SD	4 in 0 out 3 in 1 out 2 in 2 out 1 in 3 out 0 in 4 out		

Note: The number of streams for each input and output in I/O Mode represents the maximum value, and there may be limitations depending on combinations of resolution, codec and other factors.

Video Input Formats	T3 Elite Max	T3 Elite	T3 Pro
Resolution / Framerate			
4K DCI	4096 x 2160 (60p/59.94p/50p) 4096 x 2160 (30p/29.97p/25p/24p/23.98p)		
4K UHD	3840 x 2160 (60p/59.94p/50p) 3840 x 2160 (30p/29.97p/25p/24p/23.98p)		
HD (1920 x 1080)	1920 x 1080 (60p/59.94p/50p) 1920 x 1080 (30p/29.97p/25p/24p/23.98p) 1920 x 1080 (59.94i/50i/24PsF/23.98PsF)		
HD (1440 x 1080)	1440 x 1080 (29.97p/25p/24p/23.98p) 1440 x 1080 (59.94i/50i/24PsF/23.98PsF)		
HD (1280 x 720)	1280 x 720 (60p/59.94p/50p)		
SD	720 x 486 59.94i, 720 x 576 50i		
Video Output Formats	T3 Elite Max	T3 Elite	T3 Pro
Resolution / Framerate			
4K DCI	4096 x 2160 (60p/59.94p/50p) 4096 x 2160 (30p/29.97p/25p/24p/23.98p)		
4K UHD	3840 x 2160 (60p/59.94p/50p) 3840 x 2160 (30p/29.97p/25p/24p/23.98p)		
HD (1920 x 1080)	1920 x 1080 (60p/59.94p/50p) 1920 x 1080 (30p/29.97p/25p/24p/23.98p) 1920 x 1080 (59.94i/50i/24PsF/23.98PsF)		
HD (1280 x 720)	1280 x 720 (60p/59.94p/50p)		
SD	720 x 486 59.94i, 720 x 576 50i		

Recording Formats		T3 Elite Max + HW Option		T3 Elite Max		T3 Elite		T3 Pro	
		Up to		Up to		Up to		Up to	
4K DCI / 4K UHD									
AVI	Grass Valley HQX	✓	3 in	✓	3 in	✓	3 in	✓	2 in
	Uncompressed (YUV/10bit YUV)	✓	1 in	✓	1 in	✗	—	✗	—
MXF	Grass Valley HQX	✓	3 in	✓	3 in	✓	3 in	✓	2 in
	Apple ProRes (422 HQ/422/422 LT/422 Proxy)	✓	1 in	✓	1 in	✓	1 in	✓	1 in
	Avid DNxHR (HQ/SQ/LB)	✓	1 in	✓	1 in	✓	1 in	✓	1 in
	XAVC 4K Intra (Class480/Class300)	✓	1 in	✓	1 in	✗	—	✗	—
	XAVC QFHD Intra (Class480/Class300)	✓	2 in	✓	1 in	✗	—	✗	—
	XAVC QFHD Long422 (200/140/100)	✓	2 in	✗	—	✗	—	✗	—
	XAVC QFHD Long (150/100/60)	✓	2 in	✓	1 in	✗	—	✗	—
HD / SD									
AVI	Grass Valley HQX	✓	4 in	✓	4 in	✓	4 in	✓	4 in
	Uncompressed (YUV/10bit YUV)	✓	4 in	✓	4 in	✗	—	✗	—
MXF	Grass Valley HQX	✓	4 in	✓	4 in	✓	4 in	✓	4 in
	Apple ProRes (422 HQ/422/422 LT/422 Proxy)	✓	4 in	✓	4 in	✓	4 in	✓	4 in
	Avid DNxHD 220x	✓	4 in	✓	4 in	✓	4 in	✓	4 in
	Avid DNxHD (220/145/100/36)	✓	4 in	✓	4 in	✓	4 in	✓	4 in
	XDCAM (HD422/HD/IMX/DV)	✓	4 in	✓	4 in	✓	4 in	✓	4 in
	XAVC HD Intra (Class100/Class50)	✓	4 in	✓	4 in	✗	—	✗	—
	XAVC HD Long422 (50/35/25)	✓	4 in	✓	4 in	✗	—	✗	—

Note: The maximum number of streams that can be recorded simultaneously may be limited depending on combinations of I/O mode, resolution, codec and other factors.

Note: The HW Option requires the installation of the optional H.264 codec board KTR5-HW-H264-S2.

Playback Formats		T3 Elite Max + HW Option		T3 Elite Max		T3 Elite		T3 Pro	
		Up to		Up to		Up to		Up to	
4K DCI / 4K UHD									
AVI	Grass Valley HQX	✓	3 out	✓	3 out	✓	3 out	✓	2 out
	Grass Valley Lossless	✓	1 out	✓	1 out	(Transcode)	—	(Transcode)	—
	Uncompressed (YUV/10-bit YUV)	✓	1 out	✓	1 out	(Transcode)	—	(Transcode)	—
MXF	Grass Valley HQX	✓	3 out	✓	3 out	✓	3 out	✓	2 out
	Apple ProRes 4444	(Transcode)	—	(Transcode)	—	(Transcode)	—	(Transcode)	—
	Apple ProRes (422 HQ/422/422 LT/422 Proxy)	✓	1 out	✓	1 out	✓	1 out	✓	1 out
	Avid DNxHR 444	(Transcode)	—	(Transcode)	—	(Transcode)	—	(Transcode)	—
	Avid DNxHR HQX	✓	1 out	✓	1 out	✓	1 out	✓	1 out
	Avid DNxHR (HQ/SQ/LB)	✓	1 out	✓	1 out	✓	1 out	✓	1 out
	H.264/AVC	✓	1 out	✓	1 out	✓	1 out	✓	1 out
QuickTime	Grass Valley HQX	✓	2 out	✓	2 out	✓	2 out	✓	2 out
	Apple ProRes 4444	(Transcode)	—	(Transcode)	—	(Transcode)	—	(Transcode)	—
	Apple ProRes (422 HQ/422/422 LT/422 Proxy)	✓	1 out	✓	1 out	✓	1 out	✓	1 out
	Avid DNxHR 444	(Transcode)	—	(Transcode)	—	(Transcode)	—	(Transcode)	—
	Avid DNxHR HQX	✓	1 out	✓	1 out	✓	1 out	✓	1 out
	Avid DNxHR (HQ/SQ/LB)	✓	1 out	✓	1 out	✓	1 out	✓	1 out
	H.265/HEVC	✓	1 out	✓	1 out	✓	1 out	✓	1 out
MP4	H.265/HEVC	✓	1 out	✓	1 out	✓	1 out	✓	1 out
	H.264/AVC	✓	1 out	✓	1 out	✓	1 out	✓	1 out
XAVC	XAVC 4K Intra (Class480/Class300)	✓	1 out	✓	1 out	✓	1 out	✓	1 out
	XAVC QFHD Intra (Class480/Class300)	✓	2 out	✓	1 out	✓	1 out	✓	1 out
	XAVC QFHD Long422 (200/140/100)	✓	2 out	✓	1 out	✓	1 out	✓	1 out
	XAVC QFHD Long (150/100/60)	✓	2 out	✓	1 out	✓	1 out	✓	1 out
XAVC S	H.264/AVC	✓	1 out	✓	1 out	✓	1 out	✓	1 out
P2	AVC-Intra 4K 422	✓	1 out	✓	1 out	✓	1 out	✓	1 out
Windows Media	Windows Media Video	(Transcode)	—	(Transcode)	—	(Transcode)	—	(Transcode)	—
Still Image	Targa, Windows Bitmap, JPEG, TIFF, PNG, GIF, DPX	(Transcode)	—	(Transcode)	—	(Transcode)	—	(Transcode)	—
HD / SD									
AVI	Grass Valley HQX, Grass Valley HQ	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	DVCPRO HD, DVCPRO50, DVCPRO25, DV	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	Grass Valley Lossless	✓	4 out	✓	4 out	(Transcode)	—	(Transcode)	—
	Uncompressed (YUV/10-bit YUV)	✓	4 out	✓	4 out	(Transcode)	—	(Transcode)	—
MXF	Grass Valley HQX, Grass Valley HQ	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	Apple ProRes 4444	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	Apple ProRes (422 HQ/422/422 LT/422 Proxy)	✓	4 out	✓	4 out	✓	4 out	✓	4 out

Playback Formats		T3 Elite Max + HW Option		T3 Elite Max		T3 Elite		T3 Pro	
		Up to		Up to		Up to		Up to	
MXF (cont.)	Avid DNxHD 220x	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	Avid DNxHD (220/145/100/36)	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	DVCPRO HD, DVCPRO50, DVCPRO25, DV, D10/IMX	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	H.264/AVC	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	MPEG-2	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	JPEG2000	(Transcode)	—	(Transcode)	—	(Transcode)	—	(Transcode)	—
QuickTime	Grass Valley HQX, Grass Valley HQ	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	Apple ProRes 4444	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	Apple ProRes (422 HQ/422/422 LT/422 Proxy)	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	Avid DNxHD 220x	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	Avid DNxHD (220/145/100/36)	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	XDCAM (HD422/HD)	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	XDCAM EX	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	H.265/HEVC	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	DVCPRO HD, DVCPRO50, DVCPRO25, DV	(Transcode)	—	(Transcode)	—	(Transcode)	—	(Transcode)	—
	H.264/AVC, MPEG-4	(Transcode)	—	(Transcode)	—	(Transcode)	—	(Transcode)	—
	Motion JPEG	(Transcode)	—	(Transcode)	—	(Transcode)	—	(Transcode)	—
	Uncompressed	(Transcode)	—	(Transcode)	—	(Transcode)	—	(Transcode)	—
MP4	H.265/HEVC	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	H.264/AVC	✓	4 out	✓	4 out	✓	4 out	✓	4 out
XDCAM	XDCAM (HD422/HD/IMX/DV)	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	XDCAM EX	✓	4 out	✓	4 out	✓	4 out	✓	4 out
XAVC	HD Intra (200/100/50)	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	HD Long422 (50/35/25)	✓	4 out	✓	4 out	✓	4 out	✓	4 out
XAVC S	H.264/AVC	✓	4 out	✓	4 out	✓	4 out	✓	4 out
P2	AVC-LongG (50/25/12)	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	AVC-Intra (200/100/50)	✓	4 out	✓	4 out	✓	4 out	✓	4 out
	DVCPRO HD, DVCPRO50, DVCPRO, DV	✓	4 out	✓	4 out	✓	4 out	✓	4 out
AVCHD	H.264/AVC	✓	4 out	✓	4 out	✓	4 out	✓	4 out
MPEG-2	PS, TS	(Transcode)	—	(Transcode)	—	(Transcode)	—	(Transcode)	—
Windows Media	Windows Media Video	(Transcode)	—	(Transcode)	—	(Transcode)	—	(Transcode)	—
GXF	Grass Valley HQ, MPEG-2 (Intra Frame), H.264/AVC (Intra Frame), DVCPRO HD, DVCPRO50, DVCPRO, DV	(Rewrap to MXF)	—	(Rewrap to MXF)	—	(Rewrap to MXF)	—	(Rewrap to MXF)	—
Still Image	Targa, Windows Bitmap, JPEG, TIFF, PNG, GIF, DPX	(Transcode)	—	(Transcode)	—	(Transcode)	—	(Transcode)	—

Note: Media files marked with ✓ can be imported in their native format or converted to Grass Valley HQX (AVI) during the import process.

Note: Media files labeled with (Transcode) will be automatically converted to Grass Valley HQX (AVI) during the import process.

Note: Media files labeled with (Rewrap to MXF) will be rewrapped into an MXF container during the import process.

Note: The maximum number of streams that can be played simultaneously may be limited depending on combinations of I/O Mode, resolution, codec and other factors.

Note: The HW Option requires the installation of the optional H.264 codec board KTR5-HW-H264-S2.

Transcoding Export Formats		T3 Elite Max + HW Option	T3 Elite Max	T3 Elite	T3 Pro
MXF	Grass Valley HQX	✓	✓	✓	✓
	Apple ProRes (422 HQ/422 LT/Proxy)	✓	✓	✓	✓
	Avid DNxHR (HQ/SQ/LB)	✓	✓	✓	✓
	Avid DNxHD (220x/220/145/100/36)	✓	✓	✓	✓
	XDCAM HD422 (50 Mb/s)	✓	✓	✓	✓
	XDCAM HD (35 Mb/s / 25 Mb/s / 18 Mb/s)	✓	✓	✓	✓
	XDCAM IMX, DVCAM	✓	✓	✓	✓
	XAVC 4K Intra (Class480/Class300)	✓	✓	✗	✗
	XAVC QFHD Intra (Class480/Class300)	✓	✓	✗	✗
	XAVC QFHD Long422 (200/140/100)	✓	✓	✗	✗
	XAVC QFHD Long (150/100/60)	✓	✓	✗	✗
	XAVC HD Intra (Class100/Class50)	✓	✓	✗	✗
	XAVC HD Long422 (50/35/25)	✓	✓	✗	✗
QuickTime	Apple ProRes (422 HQ/422 LT/Proxy)	✓	✓	✓	✓
	Avid DNxHR (HQ/SQ/LB)	✓	✓	✓	✓
	Avid DNxHD (220x/220/145/100/36)	✓	✓	✓	✓

Note: Only “AVI (Grass Valley HQX)” files or “Playlist” can be transcoded or exported in the specified formats.

Note: The HW Option requires the installation of the optional H.264 codec board KTR5-HW-H264-S2.

Comparison	T3 Series			T2 4K Series		
	Elite Max	Elite	Pro	Elite	Pro	Express
Model Number	KTR5-ELT-40M-PK	KTR5-ELT-40-PK	KTR5-PRO-40-PK	KTR4A-ELT-CV40	KTR4A-PRO-CV40	KTR4A-EXP-CV40
System Software Version	Version 4	Version 4	Version 4	Version 3	Version 3	Version 3
Data storage	M.2 NVMe SSD	M.2 NVMe SSD	M.2 NVMe SSD	SSD	HDD	HDD
SDI	12G-SDI	12G-SDI	12G-SDI	3G-SDI	3G-SDI	3G-SDI
Redundant PSU	✓	✓	—	✓	—	—
Media slots	✓	✓	—	✓	—	—
Network	2.5 Gb/s	2.5 Gb/s	2.5 Gb/s	1 Gb/s	1 Gb/s	1 Gb/s
USB	USB 3.2	USB 3.2	USB 3.2	USB 3.0	USB 3.0	USB 3.0
4K recording (Grass Valley HQX)	Up to 3-ch (60p)	Up to 3-ch (60p)	Up to 2-ch (60p)	Up to 1-ch (60p)	Up to 1-ch (60p)	Up to 1-ch (30p)
4K playback (Grass Valley HQX)	Up to 3-ch (60p)	Up to 3-ch (60p)	Up to 2-ch (60p)	Up to 1-ch (60p)	Up to 1-ch (60p)	Up to 1-ch (30p)
4K chasing playback while recording (Grass Valley HQX)	✓	✓	✓	—	—	—
HD recording	Up to 4-ch (60p)	Up to 4-ch (60p)	Up to 4-ch (60p)	Up to 3-ch (60p)	Up to 3-ch (60p)	Up to 3-ch (30p/59.94i)
HD playback	Up to 4-ch (60p)	Up to 4-ch (60p)	Up to 4-ch (60p)	Up to 3-ch (60p)	Up to 3-ch (60p)	Up to 3-ch (30p/59.94i)
HD chasing playback while recording	✓	✓	✓	✓	✓	✓
Direct access to an internal media folder	✓	✓	✓	✓	—	—
NDI IP recording/playback	✓	✓	✓	✓	✓	✓
Max License	Included	—	—	—	—	—
Sony XAVC QFHD recording	✓	—	—	—	—	—
Sony XAVC QFHD playback	✓	✓	✓	Transcode	Transcode	Transcode
Sony XAVC transcoding	✓	—	—	—	—	—
Uncompressed video recording	✓	—	—	—	—	—
Uncompressed video playback	✓	Transcode	Transcode	Transcode	Transcode	Transcode
H.264 Codec board acceleration*1	✓	—	—	—	—	—
Dimensions (W x D x H)	430 x 450 x 140 mm (16.9 x 17.7 x 5.5 in.)			430 x 550 x 140 mm (16.9 x 21.6 x 5.5 in.)		

*1 Available exclusively for Max license models and requires installation of the optional H.264 codec board KTR5-HW-H264-S2.

Specifications			T3 Elite Max	T3 Elite	T3 Pro
Storage	System		240 GB (2.5" SATA3 SSD)		
	Data		1.92 TB (M.2 NVMe SSD)		
Total Recording Duration* ¹	4K UHD (3840x2160) 59.94p @ Grass Valley HQX (1.2 Gb/s)		Approx. 3.5 hours		
	4K UHD (3840x2160) 29.97p @ Grass Valley HQX (600 Mb/s)		Approx. 7.5 hours		
	HD (1920x1080) 59.94p @ Grass Valley HQX (300 Mb/s)		Approx. 14 hours		
	HD (1920x1080) 59.94i @ Grass Valley HQX (150 Mb/s)		Approx. 28 hours		
	HD (1920x1080) 59.94i @ XDCAM HD422 (50 Mb/s)		Approx. 72 hours		
	HD (1440x1080) 59.94i @ XDCAM HD (35 Mb/s)		Approx. 150 hours		
Power supply unit			800W Redundant PSU		800W Single PSU
Connector	Remote		RS-422A (D-Sub 9-pin) x4		
	Network		RJ-45 (2.5GBASE-T / 1000BASE-T / 100BASE-TX / 10BASE-T) x2		
	USB	Front	USB 3.2 Gen 1 (5 Gb/s) Type-A x2		
		Rear	USB 3.2 Gen 2 (10 Gb/s) Type-A x5		
	PC display monitor output* ²		USB 3.2 Gen 2x2 (20 Gb/s) Type-C x1		
	Media Slots		HDMI 2.0b x1, DisplayPort 1.4a x1		—
		2.5" SSD (Up to 9.5 mm thickness, SATA) x1, 2.5" SSD (7 mm thickness, SATA) x1, SD card (SDXC, UHS-II, microP2) x2			
Video Input	SDI		BNC x4		
Video Output			(12G-SDI: SMPTE ST 2082 / 2081 / 424 / 292 / 259-C)		
Audio Input	SDI		SDI embedded audio 16-ch (SMPTE ST 299 / 272-A, 20 / 24-bit, 48 kHz, locked)		
Audio Output	Monitor Output* ³		BNC x2 (for L ch/R ch)		
	Headphone		Stereo jack x1		
Timecode	LTC Input		BNC x1		
	LTC Output* ⁴		BNC x2 (2.0 Vp-p, low impedance)		
	VITC Input		Embedded SDI Input		
	VITC Output		Embedded SDI Output		
Reference	Input		BNC x1 (HD Tri-level/SD BB auto-detect)		
Remote Protocol			BVW (RS-422A), VDCP (RS-422A, Network), AMP (Network)		
GPI	Input		TTL Input x8, Low 0V - 0.8V / High 2.0V - 5.0V, External Current Sink : 1 mA		
	Output		Open Drain Output x8, Max Sink Current: 100 mA, Max Voltage: 30V		
Max License			Included	Not Included	Not Included
Features with Max License	Uncompressed video recording/playback		Enabled with Max License	—	—
	XAVC recording/transcoding		Enabled with Max License	—	—
	H.264 codec board acceleration		Optional	—	—
Power (rated input voltage, frequency)			AC 100 - 240V, 50/60 Hz		
Electric power consumption			Up to 300W		
Operating temperature range			5°C to 35°C (41°F to 95°F)		
Operating relative humidity			Max. 80% (non-condensing)		
Dimensions (W x D x H)			430 x 450 x 140 mm (16.9 x 17.7 x 5.5 in.) (rubber feet and protrusions excluded)		
Weight			Approx. 14.3 kg (31.4 lbs.)		

*¹ The consecutive recording time is up to 24 hours at one time.

*² HDMI and DisplayPort cannot be used at the same time.

*³ Shared with Timecode LTC Output.

*⁴ Shared with Audio Monitor Output.

Ordering

T3 Elite Max

KTR5-ELT-40M-PK

- UHD (up to 60p/50p) and HD 1080 (up to 60p/50p)
- 12G-SDI x4
- Media Slots
- Redundant Power Supply Unit
- Includes Max License

Note: This model, with the Max license, can be equipped with the separately sold KTR5-HW-H264-S2.

T3 Elite

KTR5-ELT-40-PK

- UHD (up to 60p/50p) and HD 1080 (up to 60p/50p)
- 12G-SDI x4
- Media Slots
- Redundant Power Supply Unit

Note: This model cannot be equipped with the separately sold KTR5-HW-H264-S2.

T3 Pro

KTR5-PRO-40-PK

- UHD (up to 60p/50p) and HD 1080 (up to 60p/50p)
- 12G-SDI x4
- Single Power Supply Unit

Note: This model cannot be equipped with the separately sold KTR5-HW-H264-S2.

Options — Hardware

H.264 Codec Board S2 for T3

KTR5-HW-H264-S2

- Matrox M264 S2

Note: This hardware option must be installed into the T3 unit on site by a reseller.

Note: To use this hardware option, it must be installed in the T3 unit with a Max license. If the T3 unit does not have a Max license, the hardware option will not work.

Options — Accessories

T3 Rackmount Kit

iDDR2-RACK-W

Rackmount kit for T3 / T2 Series

This product may be protected by one or more patents. For further information, please visit: www.grassvalley.com/patents

DS-PUB-3-1070G-EN

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