J-Matrix™

Broadcast Quality, 2 RU, 1080i and 720p JPEG 2000 Based SSD Recorder and Player with 192 GB to 1536 GB Removable Solid State Drive for Archiving or Storage. Over 5 Hours Record Time in Lossless Mode and Up to 48 Hours in Studio Quality Mode. Options Include LCD display for Time Code and Manual Jog + Shuttle Control with Full Support for VANC Remote Control.

Features

- Uncompressed picture quality in Lossless mode
- Over 5 Hours of record time in lossless mode
- Very long recording time of studio quality HDTV content – up to 40 hours
- Removable SSD magazine (up to 1.5 TB capacity)
- VTR-like front panel controls
- Raid 1 Mirroring
- Simultaneous record and play
- Time lapse recording ability
- LTC and VTC time code support
- Typical bit rate is 50-100 Mbps
- INSERT and ASSEMBLE editing
- 40-50 milliseconds latency
- Remote control by RS-422, GPI, and Ethernet
- HD-SDI input and output
- 8 channels of digital audio
- VANC (Vertical ancillary data) Meta data
- Includes one removable 384 GB SSD (solid state drive) magazine
- Optional removable 768 GB SSD magazine with up to 20 hours of studio quality recording, or…
- Optional removable 1536 SSD magazine with up to 40 hours of studio quality recording

Applications

- Broadcast studio recorder
- HDTV shooting from airplanes, ships and OB vans
- Ideal recorder for military, digital cinema, studio, geospatial, and HD medical image archiving where low or no image quality loss is acceptable
- Instant replay device in sports stadiums
- Synchronize several recorders to yield ultra high definition video via 4 or 16 MP projectors

Overview

JPEG 2000 is a new compression standard extended by the JPEG committee (www.jpeg.org). It is an advanced version of the JPEG standard originally used to compress photos for websites and graphics artwork. Today's JPEG 2000 uses wavelet compression and has been adapted for use by the broadcast and digital cinema industries.

The J-Matrix™ is a professional solid state drive HDTV disk recorder that uses JPEG 2000 to record and play broadcast quality HDTV. The high-resolution video quality makes this an ideal recorder for HDTV broadcasting and digital cinema.

JPEG 2000 video compression can be lossless, where no data is lost, or lossy, where some data is lost but the data is compressed to a smaller size. The J-Matrix records up to four hours in lossless mode and up to 20 hours in DVCAM (low loss) mode. The low loss mode features the ability to simultaneously record and play.

The unit includes one 900 GB removable cassette for archiving or storage. An optional 1.5 TB cassette is available, offering up to 48 hours of recording time.

JPEG 2000 is an international standard. With an additional Ethernet Gigabit option, you can transfer files between host computers and J-Matrix recorders.

The J-Matrix also offers time lapse recording ability, making it suitable for geospatial and HD medical image archiving, where little or no image quality loss is required.

The J-Matrix is an ideal recorder for military, digital cinema, studio, geospatial, and HD medical image archiving where low or no image quality loss is acceptable. Several recorders can also be synchronized to yield ultra high definition video via 4 or 16 MP projectors...

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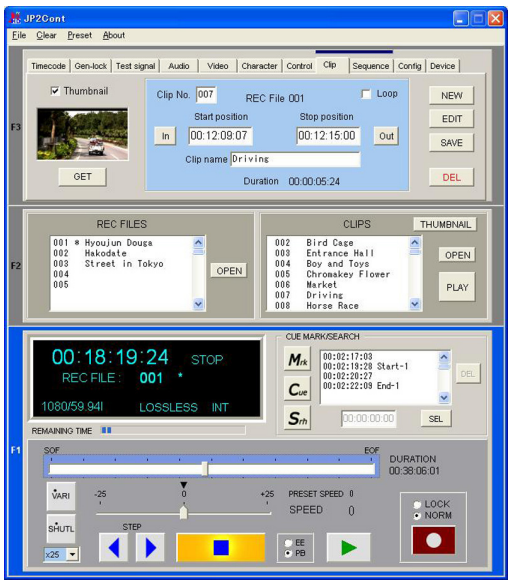
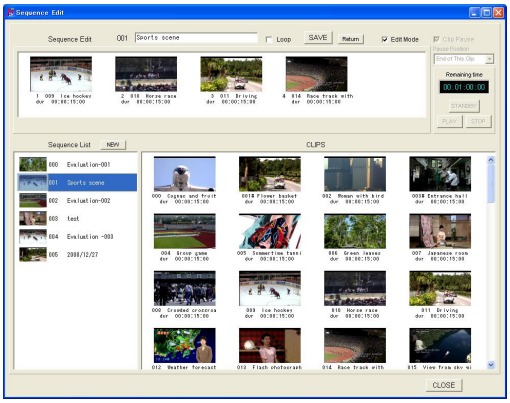
J-Matrix™

GUI's



Main GUI



Sequence Play GUI

Easily Exchanged SSD Magazine

Ordering Information

J-Matrix
J-Matrix with 2K Option
J-Matrix with Optional 768 GB SSD magazine
J-Matrix with Optional 1536 SSD magazine
J-Matrix with Optional HDD cassette
J-Matrix with Optional Gigabit Ethernet

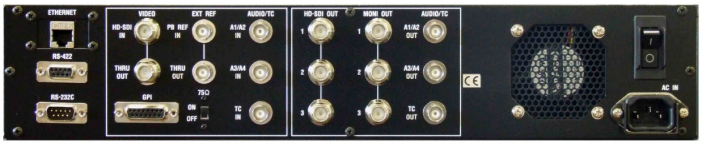
Specifications

Video Input/Output	Input: HD-SDI 1 BNC Active through OUT 1 BNC Output: HD-SDI 1 BNC Monitor OUT (+2 optional additional outputs)
Video Standards	1080i/50, 1080i/59.94, 1080i/60 10 bit 1080psf/23.98, 1080psf/24, 1080psf/25, 1080psf/29.97, 1080psf/30 10 bit, 720p/59.94, 720p/60 10 bit Optional 2K, 2048x1080p/24 or 23.98
Audio Input/Output	Input: HD-SDI embedded audio input (8 channels) OptionalAES3 digital audio input 2 BNC (4 channels) Output: HD-SDI embedded audio output (8 channels) Optional AES3 digital audio output 2 BNC (4 channels)
Time Code Input/Output	Input: VITC input (Embedded in HD-SDI) Optional LTC input 1 BNC Output: VITC output (Embedded in HD-SDI) Optional LTC output 1 BNC
Internal Test Signals	Video: Color Bar, RAMP, or BLACK Audio: 1 kHz tone
VANC Data	Conforms to ARIB TR-B23
PB REF IN	Tri-level SYNC or BB 1 BNC Through Out 1 BNC (with 75 Ohm termination switch)
Recording Media	Removable Solid State Drive (SSD) Magazine
Recording Capacity	Selectable – 192 GB, 384 GB, 768 GB, 1536 GB
Interval Recording	Selectable – 1/2 frames to 1/999 frames
Remote Control	• RS-422 (VTR-like controller, slow-motion controller, etc.) • RS-422 – 2 ports (OPTION) • Ethernet 10/100 Base-T with software (OPTION) • GPI D-SUB 15 pin (In 8, Out 5) • RS-232C • Optional GPI D-SUB 15 (8 command inputs, 5 Status outputs)
Character Display	Time code, current modes, audio levels, etc. can be displayed on the HD-SDI monitor output Character ON/OFF, Character size selection and position adjustment are possible
Power	AC 100-240V +/- 10% 50/60 Hz, 85 W
Operating Environment	32 to 113º F (0 to 45º C); 10-90% humidity, non-condensing
Dimensions	17" wide x 3.46" high x 18.3" deep (432 x 88 x 465 mm)
Weight	Approximately 19.8 lbs. (9 kilograms)

Quality and Recording Time

Quality Mode	SSD Magazine Capacity Average Recording Time			
	192 GB	384 GB	768 GB	1536 GB
Lossless	0.7 hours	1.4 hours	2.8 hours	5.6 hours
High Quality	2.2 hours	4.4 hours	8.8 hours	17.6 hours
Long Play 1	2.8 hours	5.6 hours	11.2 hours	22.4 hours
Long Play 2	5 hours	10 hours	20 hours	40 hours

Rear View



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