



megacine

Portable Field Recorder for Digital Cinema



Mobile Field Recorder System

At Fraunhofer Institute for Integrated Circuits IIS a new mobile storage concept for DC (Digital Cinema), HD (High Definition) or SD (Standard Definition) sequences is developed for use on film sets or outdoor locations.

New Feature:

The portable field recorder megacine also supports the ARRI-D20 Data Mode with a resolution of 2880 x 2160 pixels.

megacine offers small size, comfortable handling and one to eight hours of recording time for uncompressed image data. The data are stored at a modularly designed mini-raid array of up to 16 notebook hard disk drives with a current storage capacity of about one terabyte.

Store Any Format You Need!

The great advantages of **megacine** are the available recording time and the

functionality as a recorder. Nearly any data format from DC-SDI Dual Link down to SD can be stored.

Storage and Playback in One

11.5 x 8 x 8 inches are the dimensions of the field recorder that has a recording capacity of 45 minutes in uncompressed, lossless HDTV resolution (10 bits RGB 4:4:4) 1080/25 psf or DC resolution (12 bits 4:4:4 XYZ) 1080/24p. The recorded sequences can be played back in the same quality as they are captured or they can also be output in other frame rates.

For the recorder a display with 640x480 pixels is integrated. A preview in a smaller format is possible. In the on-screen display frame name, number of frames and takes, selected file format, remaining recording time, fill level can be shown. The

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on-screen display and the integrated keypad allow the input of the configuration set-up.

Fast Data Access

Serving as an external hard disk, **megacine** stores each video frame separately as an independent file, so that direct access for non-linear editing is immediately possible. The data transmission to the host computer is realized via FireWire (IEEE 1394a) with approximately 400 Mbit/s or Fibrechannel with 2 Gbit/s.

Immediate access to image data without additional steps is guaranteed: no longer waiting for film processing, no need for additional video equipment. Audio and ancillary data, like time code and other meta data that are transmitted in the HD-SDI stream can be stored together with the image data.

Future Aspects

A version based on flash-memory for professional film shootings is scheduled within the next few months.

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Formate

Resolution\Framerate	23,97	24	25	29,97	30	48	50	59,94	60
ARRI D20 DataMode		x	x		x				
2048x1080 XYZ 4:4:4		p, psF							
1920x1080 YUV 4:2:2	p, i, psF	p, i, psF	p, i, psF	p, i, psF	p, i, psF				
1920x1080 RGBA 4:4:4:4	p, i, psF	p, i, psF	p, i, psF	p, i, psF	p, i, psF				
ARRI D20 HighSpeed						psF	psF	psF	psF
1280x720 YUV 4:2:2	p	p	p	p	p		p	p	p
PAL			i						
NTSC					i				

i = interlaced
 p = progressive
 psF = progressiv segmented frame

Technical Details

Data Connections

HD-SDI Single Link/Dual Link in	BNC x2
HD-SDI Single Link/Dual Link out	BNC x2
FireWire (IEEE 1394a) 400 Mbit/s	x1
Fibrechannel 2 Gbit/s	x1

Storage Capacity

1 Terabyte

Power

DC Power (12 V – 36 V)

Dimensions of megacine

Size	11.5 x 8 x 8 inches
Weight	8 kilograms

Audio

Embedded Audio recording/play-back

Control

megacine can be remote controlled via RS422VTR-protocol

Display

Integrated TFT-display with 640 x 480 pixels: on-screen display of metadata and operating features additionally to the preview