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PHANTOM®
when it's too fast to see, and too important not to.®

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a.e.s

CineMag®

Hot-swappable, non-volatile memory for Phantom Digital Cameras

CineMag shown is the new, smaller 128 GB version.

Key Benefits:

HIGH-SPEED IMAGING IS MEMORY HUNGRY

Shoot 1000 frames-per-second with the Phantom HD at 1920 x 1080 and 14-bits-per-pixel and you will need 3.6 GB of memory for each second of recording! A 4-second recording could take up to 15 minutes to save using standard Gb Ethernet. Equip the Phantom HD with a CineMag, and save the shot to non-volatile memory in about 10 seconds.

Need to shoot 4 minutes of 1 megapixel footage at 400 fps for later analysis? Put a 128 GB CineMag on a v210 and you are good to go.

Do you have a recurring event that you want to safely save multiple recordings of? Unattended? Using a CineMag equipped camera set up for automatic saves after each shot, and you'll never miss an important event again.

Introducing the Phantom CineMag hot-swappable, non-volatile memory for Phantom high-speed cameras.

Record directly to a CineMag using compatible Phantom cameras at speeds up to 700 megapixels-per-second. That's 450 fps at 1920 x 1080 on the Phantom HD, 90 fps at full resolution on the Phantom 65, 700 fps at full resolution on the v210, v310, v12.1 or v710, and up to 175 fps at 2560 x 1600 on the v640. If you need higher speeds, record into camera RAM and "upload" the recording to a CineMag in seconds.

Key Features:

Hot-swappable, non-volatile memory for Phantom HD, 65, v12.1, v210, v310, v710, v640

Three sizes – 128 GB, 256 GB, 512 GB

Direct recording to a CineMag at up to 700 megapixels/second for long record time applications

Immediately save high-speed recordings to non-volatile memory and free the camera for the next event

Efficient cine raw format packs a lot of information into the available memory

Swap the CineMag onto a CineStation® for the ultimate digital imaging workflow

Access the data in the CineMag from the Phantom Software, just as if you were accessing recordings stored in camera RAM

PHANTOM®

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Introducing

the Phantom

CineMag

hot-swappable,

non-volatile

memory for

Phantom

high-speed

cameras.

Once saved in the CineMag, your data are secure and you can move on to your next shot.

When a CineMag gets full, or when you are done with a series of shots, pop the CineMag off the camera and snap another one on. You can later use the same camera, or Phantom CineStation as a docking station to view and download the raw cine files.

Use the Phantom CineStation connected to a PC and keep your camera free for doing its job – shooting high-speed events. The CineStation supports both raw digital and video workflows by providing a fast file download capability as well as the ability to play the cine files stored on the CineMag over dual HD-SDI video outputs or component video. The 10Gb Ethernet version of the CineStation accelerates your workflow even more.

Access the data in the CineMag from the Phantom Software, just as if you were accessing recordings stored in a camera. All the familiar tools are available. You can view stored cines, trim them, and save them onto a hard disk for later processing and conversion. Or, trim them, make image enhancements and "play" them out over HD-SDI (dual-link HD-SDI or component video if using the CineStation).

Maximum recording times at various resolutions

PHANTOM HD

RESOLUTION	FRAME RATE	128 GB	256 GB	512 GB
2048 x 2048	230 max	1.7 min.	3.5 min.	7 min.
2048 x 1536	310 max	1.7 min.	3.5 min.	7 min.
1920 x 1080	450 max	1.7 min.	3.5 min.	7 min.
1920 x 1080	24	28 min.	56 min.	112 min.
1280 x 720	670 max	1.7 min.	3.5 min.	7 min.

PHANTOM 65

RESOLUTION	FRAME RATE	128 GB	256 GB	512 GB
4096 x 2440	90 max	2 min.	4 min.	8 min.
4096 x 2440	24	7.5 min	15 min.	30 min.
1920 x 1080	230 max	2 min	4 min.	8 min.

PHANTOM v210, v310, v12.1, v710

RESOLUTION	FRAME RATE	128 GB	256 GB	512 GB
1280 x 800	700 max	2.5 min.	5 min.	10 min.
1280 x 720	300	6 min.	12 min.	24 min.
1024 x 768	910 max	2.5 min.	5 min.	10 min.
640 x 480	2330 max	2.5 min.	5 min.	10 min.

PHANTOM v640

RESOLUTION	FRAME RATE	128 GB	256 GB	512 GB
2560 x 1600	170 max	2.5 min.	5 min.	10 min.
2560 x 1600	24	18.2 min.	36.4 min.	72.8 min.
2048 x 1600	210 max	2.5 min.	5 min.	10 min.
2048 x 1080	320 max	2.5 min.	5 min.	10 min.
1024 x 1024	680 max	2.5 min.	5 min.	10 min.

The Phantom CineMag – your workflow solution for high-speed imaging.

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DATA SHEET
CineMag

*CineMag shown is
the new, smaller 128 GB version.*

Additional Features:

Weight: 0.9 kg (2 lb.), less for the 128 GB version

Size: 5.5" x 4.9" x 1.5" (L x W x H); 192 x 126 x 40 mm, the new 128 GB version is 1/2 this height

LED display: On-board display includes: memory remaining, write activity, write protect, magazine enabled, and power

Operating temperature: 0˚C to +40˚C (+32˚F to +104˚F)

Operating humidity: 80% non-condensing at +5˚C

Recording: Fully uncompressed 12-bit or 14-bit sensor data, saved internally as 10-bit log

Power Consumption: 1.5 amp supplied by camera or CineStation

Focused
Since 1950, Vision Research has been shooting, designing, and manufacturing high-speed cameras. Our single focus is to invent, build, and support the most advanced cameras possible.

All specifications are subject to change without notice.   Rev October 2009