

DATA SHEET

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Phantom® Miro M140 & M340 High-Speed Cameras

Advanced features in a
compact, rugged camera



Miro M-Series High-Speed Digital Cameras

Key Benefits:

WHEN IT'S TOO FAST TO SEE, AND TOO IMPORTANT NOT TO®

Phantom Miro cameras have all the high-performance features you've come to expect from Vision Research in a compact, rugged camera. Now, we've introduced two new models — the Miro M140 and M340.

These new models differ from the Miro M120 and M320S in two significant ways. First, they have twice the resolution at 2560 x 1600 on a 35mm sized sensor. Second, neither comes with a video output. Images are only available over Gb Ethernet using our Phantom Camera Control (PCC) software or custom written 3rd party software using our SDK.

These cameras are best used in a tethered environment for measurement applications such as Tomographic PIV. An SDK is available for use in embedded or custom applications. LabView drivers are also available, as is the ability to

Key Features:

- 4 Megapixel custom-designed CMOS sensor
- Up to 3.2 Gigapixels/second throughput
- High light sensitivity
- Compact, rugged design
- Rechargeable Battery (Sony BP-U30 or BP-U60)
- Phantom CineFlash® storage system
 - 60GB, 120GB and 240GB CineFlash
 - CineFlash Dock
 - eSATA Connectivity

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Phantom® Miro M140 & M340 High-Speed Cameras

Additional Features:

- Gb Ethernet
- Dimensions: 7.5 x 3.5 x 4 inches, 19 x 9 x 10 cm (L, W, H without handle or lens)
- Weight: 3.0 lbs, 1.4 kg (without CineFlash, battery or lens)
- Operating Temperature and Humidity: 0° C to 40° C @ 8% to 80% relative humidity, non-condensing
- Tiered Service Contracts to protect your investment



Miro M-Series Rear View with optional BP-U60 battery

acquire data from National Instrument's data acquisition modules synchronized to the camera.

The M140 has 1.6 gigapixels-per-second (Gpx/s) throughput while the M340 is twice that fast. That means a maximum frame rate of 410 fps on the M140 at full resolution and 800 fps on the M340 at full resolution. Both cameras have a straddle time of 1.4 μs. Minimum exposure on both models is 1μs.

Both cameras are available with color or monochrome sensors. And, both come with our revolutionary CineFlash® non-volatile storage system (including a docking station) and rechargeable battery packs.

When ordering your camera, you can select from a variety of lensing alternatives including Nikon F/G mount, Canon EF / EF-S mount, 1" c-mount or a PL mount.

Cameras come with 3GB, 6GB or 12GB internal volatile high-speed memory. And, include other advanced features like: internal mechanical shutter for remote/automatic black referencing; advanced control signals (ready, strobe, sync, IRIG, trigger, event & memgate.)

Phantom Miro M340	
Resolution	Max FPS
2560 x 1600	800
2048 x 1600	980
1920 x 1080	1540
1152 x 1152	2240
1280 x 1024	2310
1280 x 800	2950
896 x 720	4390
640 x 480	8450
512 x 512	9290
256 x 256	27200
128 x 128	66600
128 x 64	114700
64 x 8	320000

Phantom Miro M140	
Resolution	Max FPS
2560 x 1600	410
2048 x 1600	510
1920 x 1080	810
1152 x 1152	1220
1280 x 1024	1250
1280 x 800	1600
896 x 720	2450
640 x 480	4900
512 x 512	5530
256 x 256	18100
128 x 128	51000
128 x 64	90800
64 x 8	250000

ISO SAT			
Mono		Color	
ISO SAT T	ISO SAT D	ISO SAT T	ISO SAT D
12,500	5000	1600	1250

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AMETEK Vision Research's digital high-speed cameras are subject to the export licensing jurisdiction of the Export Administration Regulations. As a result, the export, transfer, or re-export of these cameras to a country embargoed by the United States is strictly prohibited. Likewise, it is prohibited under the Export Administration Regulations to export, transfer, or re-export AMETEK Vision Research's digital high-speed cameras to certain buyers and/or end users.

Customers are also advised that some models of AMETEK Vision Research's digital high-speed cameras may require a license from the U.S. Department of Commerce to be: (1) exported from the United States; (2) transferred to a foreign person in the United States; or (3) re-exported to a third country. Interested parties should contact the U.S. Department of Commerce to determine if an export or a re-export license is required for their specific transaction.