VISION RESEARCH

PHANTOM

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

PRELIMINARY DATA SHEET

For the most current version visit www.phantomhighspeed.com

Subject to change Rev March 2019

COMING SOON!

Phantom S640

Phantom® S640

6Gpx/sec throughput in 4Mpx resolution for Machine Vision.

Key Benefits:

The Phantom S640 provides **extreme high-speed imaging capabilities** in 4Mpx resolution for machine vision applications. It achieves up to 6 Gpx/sec (6.6 Gbps) data throughput via up to 16 CXP6 ports.

- **Built on Renowned Phantom Platform:** Decades of high-speed imaging expertise ensures high quality high-speed performance.
- **Large 10-micron pixel:** The Phantom S640's large pixel design is inherently light sensitive, offering the perfect solution for difficult, light challenged applications.
- **Metadata ready:** Important metadata is available in each frame's header for precision analysis.
- **Signaling for any situation:** GPIO offers standard machine vision signals, plus time code in and out.

In addition to 6Gpx/sec (6.6 Gbps) streaming throughput, for demanding machine vision applications, the Phantom S640 also has:

CXP6 protocol with up to 16 CXP ports, for up to 4 frame grabbers	GPIO with common signals and header for important metadata
Color or Monochrome availability	Mechanical Shutter for easy Black Reference
Lens mount options; F (Std.), C, or EOS	Output resolution in 8-bit and 12-bit
Defect Pixel Correction	Continuous or Controlled Image Acquisition

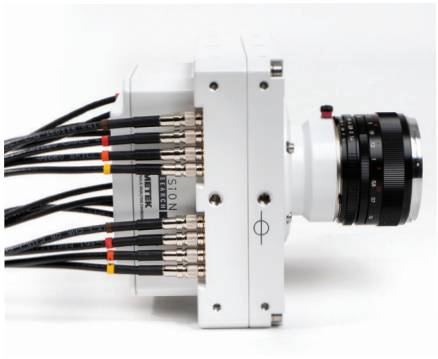
Key Features:

Extreme high-speed imaging at 4Mpx

1,260 fps at 2560 x 1600

CXP6 Protocol

GPIO & Metadata Header



Phantom S640 - Side with cables

AMETEK®
MATERIALS ANALYSIS DIVISION

PRELIMINARY

Phantom® S640

S640 – Specifications	
Maximum Resolution (W x H)	2560 x 1600
Maxi Frame Rate @ Max Res.	1260 @ 12bit
Max Frame Rate @ Reduced Res.	261000 @ 12bit
Pixel Size	10 micron
Sensor Size	25.6 x 16mm
ISO	Mono: 6400 Color: 1250D
Noise (e-)	20.5
Dynamic Range (dB)	55.9
Minimum Exposure	1 µs

Resolution		FPS		
Width	Height	8Gpx/sec Bandwidth	4Gpx/sec Bandwidth	2Gpx/sec Bandwidth
2560	1600	1,260	880	440
1920	1080	2,520	1,740	870
1280	720	5,130	3,910	1,950
512	512	12,600	12,600	6,870
256	256	32,400	32,400	27,470
128	4	261,000	261,000	261,000

Signaling: Hirose 12-pin Connector		
	Time Code In	
GPIO 0 - 3 - Bi-directional	Input: Event In Trigger In Memgate	Output: Trigger out SW Trigger Out Strobe Ready Time Code Out
GPIO 4	Isolated Input: Event In Memgate	
GPIO 5		Isolated Output: Strobe Ready Time Code Out SW Trigger Out

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.

Environmental Specs:

Dimensions: 146mm x 146mm x 89mm
(5.75 x 5.75 x 3.5 in)
Without lens mount

Weight: 1.62 Kg (3.6 Lb)

Operating Temperature: -10C - +50C

Power: 40 Watt

Compliance: CE, RoHS

Vision Research Global Support - for wherever you are

Our ultrahigh-speed camera line is supported by Vision Research's Global Service and Support network offering AMECare Performance Services from multiple sites around the globe. Maximize the value of your Phantom camera with a full menu of professional support services. Learn more about our service and support options at www.**phantom**highspeed.com/Support

Focused

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

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