ViSiON RESEARCH

◆ PHANTOM®

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

Inset: Back View with cables

Phantom S990 Front View

Phantom® S990

The Highest throughput streaming camera available.

Key Benefits:

The Phantom S990 brings Phantom premium sensor image quality, world class high-speed technology, and record breaking data transfer speed to provide 9Mpx at up to 938 fps and almost 9Gpx/sec. It uses up to 16 standard CXP6 channels, to stream directly into PCI Express frame grabbers.
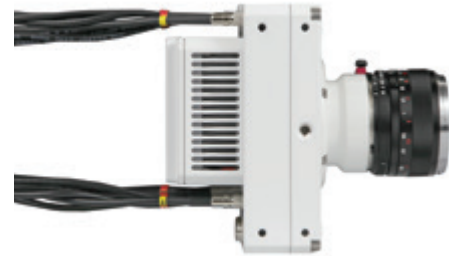
◆ **World class high speed image quality:** The Phantom S990 uses the same Phantom-designed sensor found in the Phantom Flex 4K, with image quality high enough for media production.

◆ **Highest level of detail:** Images are captured in 12-bit, but can be transferred in either 8 or 12-bit.

◆ **Crossover to Streaming:** CXP and Gen-i-Cam compliant, plus 4 Enhancements:

Designed for up to 4 frame grabbers, with image stitching	Metadata header including time code in each image
GPIO for flexible signaling and synchronization	Rolling / Global / Global Bright Field shutter selection

The S990 has 3 selectable shutter modes to customize to specific applications:

- Rolling Shutter: For the highest dynamic range and lowest noise
- Global shutter: For high-speed and precise applications
- Bright Field Mode: For the lowest noise in bright backgrounds

Key Features:

9 Gpx/sec of streaming capability

Scalable - Up to 4 banks of 4 CXP ports available

Phantom 4K sensor in color or monochrome

CXP protocol, Gen-i-Cam compliant

Sturdy, metal body construction

Made in USA

Environmental Specifications:

Power Requirements: 20-28 VDC

Cooling: Fan

Lens Mount: F Standard

Dimensions: 145 x 145 x 190 mm
             (5.7 x 5.7 x 7.5 in)
             Without lens mount

Weight: 1.62 Kg (3.6 Lb)

Operating Temperature: -10C° - +50C°

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Phantom® S990

Phantom S990 - Side View with Cables

S990 – Specifications			
Resolution (H x V)	4096 x 2304	**Sensor**	Phantom 4K
Resolution Mpx	9.4 Mpx	**Sensor Type**	CMOS Color or Mono
Frame Rate	938 fps @ 8bit 625 fps @ 12bit	**Image Data Interface**	CXP6 (CoaXPress)
Max FPS at Reduced Res.	25,000 FPS	**Sensor Size**	27.6 x 15.5 mm
Minimum Exposure	5µs	**Sensor Diagonal**	31.72 mm
Bits/Pixel	12, output in either 8 or 12	**Pixel Size**	6.75µm
Electronic Shutter	Global / Rolling / Bright Field	**ISO**	GS: 5,000 (M), 640 (C) RS: 2,000 (M), 320 (C)
Dynamic Range	GS: 54.8 dB RS: 71.6 dB	**Noise**	GS: 31.0e- RS: 9.6e-

Resolution			FPS		
H	**V**	**Bit Depth**	**4 Banks 8 Gpx/sec**	**2 Banks 4Gpx/sec**	**1 Bank 2 Gpx/sec**
4096	2304	8 bit	938	465	235
		12 bit	625	310	155
2048	2304	8 bit	938	938	465
		12 bit	938	625	310
1024	1600	8 bit	1,345	1,345	1,345
		12 bit	1,345	1,345	895
1024	960	8 bit	2,215	2,215	2,215
		12 bit	2,215	2,215	1,475
1024	512	8 bit	4,065	4,065	4,065
		12 bit	4,065	4,065	2,710
1024	128	8 bit	14,200	14,200	14,200
		12 bit	14,200	14,200	9,465
1024	16	8 bit	25,000	25,000	25,000
		12 bit	25,000	25,000	25,000

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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