

DATA SHEET

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Subject to change Rev June 2019



Phantom S710
Side View




Phantom S710
Front View

Phantom® S710

7Gpx/sec for Extreme high speed in Machine Vision.

Key Benefits:

Get **extreme frame rates** for machine vision applications with the 1Mpx Phantom S710. It achieves up to 7Gpx/sec (87.5 Gbps) data throughput via up to 16 CXP6 ports.

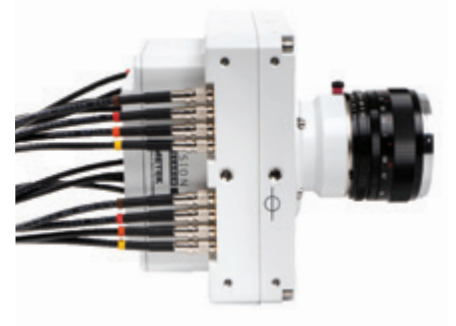
-  **7Gpx/Sec:** The Phantom S710 achieves over 7000 fps at 1MPx resolution and up to over 700,000 fps at reduced resolutions.
-  **Very large 20-micron pixel:** Large pixels translate to the higher light sensitivity that's needed in extreme high-speed applications.
-  **Metadata ready:** Important metadata is available in each frame's header for precision analysis.

The Phantom S710 also has:

Lens mount options; F (Std.), C, or EOS	Mechanical Shutter for easy Black Reference
Defect Pixel Correction	Output resolution in 8-bit and 12-bit
GPIO with common signals and header for important metadata	Continuous or Controlled Image Acquisition

Key Features:

- 7,275 fps at 1280 x 800
- Scalable - Up to 4 banks of 4 CXP ports available
- CXP6 Protocol, Gen-i-Cam compliant
- Sturdy, Metal body construction
- Made in USA



Phantom S710 - Side with cables

Phantom® S710

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: 20-28 VDC

Cooling: Fan

Compliance: CE, RoHS

S710 – Specifications			
Resolution (H x V)	1280 x 800	Sensor	Phantom VEO 710
Resolution Mpx	1 Mpx	Sensor Type	CMOS Color or Mono
Frame Rate	7,275 fps @ 8bit 5,780 fps @ 12bit	Image Data Interface	CXP6 (CoaXPress)
Max FPS at Reduced Res.	701,030 FPS	Sensor Size	25.6 x 16 mm
Minimum Exposure	1µs standard 300 ns with FAST option	Sensor Diagonal	30.18 mm
Bits/Pixel	12, output in either 8 or 12	Pixel Size	20µm
Electronic Shutter	Global	ISO	6400 (M), 2000 (C)
Dynamic Range	59.6 dB	Noise	29.0 e-

Resolution		Bit Depth	FPS		
H	V		4 Banks 8 Gpx/sec	2 Banks 4Gpx/sec	1 Bank 2 Gpx/sec
1280	800	8 bit	7,275	4,290	2,145
		12 bit	5,740	2,885	1,445
1024	768	8 bit	9,255	5,640	2,825
		12 bit	7,570	3,795	1,890
768	640	8 bit	13,980	8,940	4,505
		12 bit	11,975	6,045	3,015
512	512	8 bit	23,480	16,390	8,385
		12 bit	21,855	11,340	5,630
256	320	8 bit	57,430	49,850	27,375
		12 bit	55,600	36,090	18,255
128	32	8 bit	314,810	217,945	414,630
		12 bit	242,855	500,000	298,245
128	8	8 bit	N/A - Min res	N/A - Min res	701,030
		12 bit	128 x 32	128 x 32	701,030

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.phantomhighspeed.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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