

DATA SHEET

Phantom® ir300



Phantom ir300

Key Benefits:

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

Using a proprietary sensor design and existing Phantom v7.3 camera electronics, the Phantom ir300 provides extended spectral response beyond visible light into the infrared spectrum. The extended IR response allows you to image events not previous visible to CMOS-based digital high-speed cameras. (The ir300 is not a thermal imaging camera.)

The Phantom ir300 is ideal for nocturnal animal studies, security applications, pulsed laser targeting applications, PIV, combustion and other uses where light sources in the 600nm to 1100nm spectrum are used. While most CMOS sensors start losing sensitivity rapidly above 600nm, the Phantom ir300 extends that point to 800nm giving it a usable range to about 1100nm.

Extend response beyond visible light spectrum

800 x 600 at up to 6688 fps

Familiar Phantom camera use model

Key Features:

- Extended-range CMOS sensor
- 800 x 600 full-frame resolution
- 14-bit image depth
- 6,688 fps at full resolution
- 190,000 fps at reduced resolution
- Continuously adjustable resolution in 32/8 increments
- 4800 ISO monochrome
- Global on-chip shuttering to 1 microsecond
- Extreme Dynamic Range (EDR) and Auto Exposure
- 8GB or 16GB versions
- IRIG-B timing capture, modulated or unmodulated, IRIG lock with phase shift
- Video output (NTSC, PAL, HD-SDI)
- Gb Ethernet control

Additional Features:

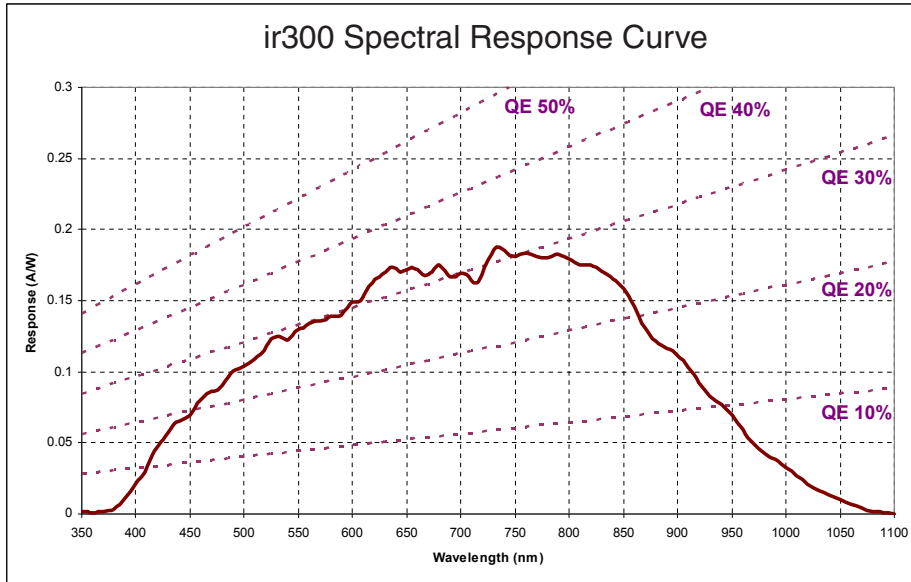
- PIV features (shutter off)
- Automated continuous recording for remote, unmanned operation
- Optional external mechanical shutter for hands-off black references
- Optional Canon EOS lens mount for remote lens control
- Nikon f-mount standard, PL, C-, and Canon EOS available
- 0°C to 40°C operating temperature, 80% non-condensing humidity
- Power: 24VDC with AC adapter included

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With the new ir300, you can use IR LEDs or lasers to illuminate events or capture 'self illuminating' phenomenon in the 600nm -1100nm range.

The Phantom ir300 behaves just like a v7.3 at wavelengths up to 600nm, so it is a general-purpose monochrome digital high-speed camera also!



The Phantom ir300 has a 4:3 aspect ratio and uses a proprietary 800 x 600 pixel CMOS sensor with 14-bit depth. At full resolution the ir300 can take over 6,500 frames-per-second (fps). At reduced resolutions, the camera can shoot up to 190,000 fps.

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.

| ir300 FRAME RATES | |
|-------------------|---------|
| RESOLUTION | RATE |
| 800 x 600 | 6,688 |
| 640 x 480 | 10,101 |
| 320 x 240 | 33,057 |
| 512 x 512 | 11,527 |
| 512 x 384 | 15,151 |
| 512 x 256 | 21,978 |
| 512 x 128 | 40,000 |
| 512 x 64 | 67,796 |
| 256 x 512 | 20,000 |
| 256 x 256 | 36,697 |
| 256 x 128 | 63,492 |
| 256 x 64 | 100,000 |
| 128 x 128 | 88,888 |
| 128 x 64 | 129,032 |
| 64 x 64 | 148,148 |
| 32 x 32 | 190,476 |

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.



100 Dey Road
Wayne, NJ 07470 USA
+1.973.696.4500
phantom@visionresearch.com

www.visionresearch.com

All specifications are subject to change without notice. Rev June 2010