FASTEC IMAGING™

HIGH SPEED IMAGING — IN THE PALM OF YOUR HAND
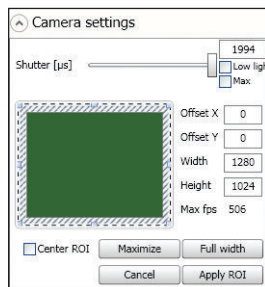
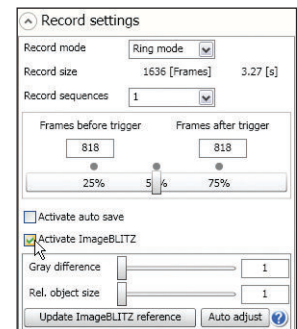# HiSpec 2 — *Innovative Low-Light High-Speed Camera*

Fast Facts

- **Excellent Light Sensitivity: 3,200 ISO monochrome, 1,600 ISO color**
- **Outstanding Image Quality: Up to 506 frames per second at 1280 x 1024 resolution**
- **Extremely Fast: Adjustable frame rate up to 112,000 frames per second**
- **Well Connected: GiGE compatible for easy remote camera control**
- **Fits Anywhere: Only 69mm H x 93mm W x 92mm D, C-Mount and .9 kg.**
- **GiGE Vision: Industry standard control interface**

Easy to use Camera Control Software

ImageBLITZ® Auto Trigger feature based on selectable region of interest

Key Features

- **Forget About Bright Lights –** Until now, lighting has sometimes been a challenge with high-speed imaging. No more! The photo-sensitivity of the HiSpec 2 enables high speed recordings at 1.3 megapixels under normal lighting conditions.

- **Optional ImageBLITZ® Auto Trigger –** Now it's easy to capture those elusive random events. Simply define a "region of interest" in the field of view and let the ImageBLITZ® trigger take over. Any change in the pre-set image area will stop the recording and save the event sequence. No special hardware or intrusive wiring is required.

- **Optional Hi-G Configuration -** The HiSpec 2 has been certified to 100 "G" accelerations making it the ideal combination of ruggedness with small size. Fits into tight spaces for on-board automotive impact testing, military ordinance testing and other harsh environments. The built-in battery operates in three modes:
  - Ensures fail-safe operation in the event of a power loss
  - Allows "untethered" operation for up to 1 hour
  - Has image retention mode of up to 24 hours

- **Use it Everywhere –** The HiSpec 2's Gigabit Ethernet interface allows the user to operate multiple cameras from any standard Notebook / PC up to a distance of 100 meters. The HiSpec 2 is designed for easy operation in virtually any industrial or laboratory environment.

See what you've been missing

Fastec HiSpec 2

Camera Specifications

Standard Features

System Design	Scaleable and network-compatible with standard and/or notebook PCs Synchronous processing of multiple cameras
Sensor	CMOS sensor, 1280 x 1024 pixels, 10-bit monochrome or RGB color with BAYER filter Active pixel area 22.9mm diagonal
Pixel Size	14 x 14 µm
Light Sensitivity	3,200 ISO monochrome, 1,600 ISO color
Spectral Bandwidth	400 - 900 nm
Record Rate	Up to 506 fps at full resolution, up to 298,851 fps at reduced resolution
Image Memory	4GB standard. Optional upgrade to 8GB
Recording Time	6.4 seconds at full resolution Longer record times with variable resolution and frame rates
Shutter	Global electronic shutter from 2µsec to 1 second in 2µsec steps
Lens Mount	C-Mount or F-Mount
Frame Format	BMP, TIF, DNG, JPG or AVI file format
Camera / PC Interface	1000/100 Ethernet interface (Gigabit Ethernet)
Phase Lock	Multiple cameras can be synchronized to a master camera or to an external source such as optional IRIG-B
Trigger	Contact closure, external TTL signal or software trigger (ImageBLITZ® Auto Trigger)
Multi-Sequence Record Mode	2, 4, 8 or 16 individual recording partitions
Camera Size	69mm H x 93mm W x 93mm D with C-Mount 63mm H x 93mm W x 128mm D with F-Mount
Camera Weight	.9 kg. without lens
Operating Environment	+ 5° to + 45°C
Power Supply	10 - 30V DC external power supply
Power Consumption	15W maximum

Software Specifications

Camera Control Software	HiSpec 2 Director software for Windows 2000/XP/Vista
Image Amplification	Digital gain from 1 to 4 in 8 steps
Optional SDK	GiGE Vision compatible **GiGE VISION**

Options Available

Memory	8GB
Auto Trigger	ImageBLITZ® Software – Auto Trigger
Multi-Sequence Mode	2, 4, 8 or 16 individual recording partitions
IRIG-B	Range timing standard
Hi-G Certified	Certified for shock to 100g for 20ms, vibration to 10g
F-Mount Adapter	Convert from C-Mount lenses to F-Mount lenses

Sample Frame Rates and Resolutions

| Maximum Frame Rate | Resolution | 4GB Standard | | 8GB Option | |
		Recording Time @ Maximum Frame Rate	Total Frames	Recording Time @ Maximum Frame Rate	Total Frames
506 fps	1280 x 1024	6.5 sec	3,274	12.9 sec	6,550
718 fps	1280 x 720	6.5 sec	4,656	13.0 sec	9,317
1,008 fps	1280 x 512	6.5 sec	6,548	13.0 sec	13,103
1,319 fps	768 x 600	7.1 sec	9,313	14.1 sec	18,635
2,312 fps	480 x 480	8.1 sec	18,627	16.1 sec	37,271
5,672 fps	320 x 240	9.9 sec	55,879	19.7 sec	111,813
13,540 fps	144 x 144	15.3 sec	206,967	30.6 sec	414,125
112,183 fps	128 x 2	149.4 sec	16,877,450	298.8 sec	33,542,717