

# Fastec 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 control interface protocol standard. 



## 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

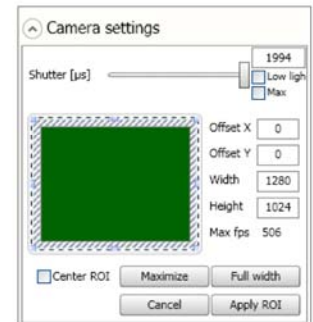
The HiSpec 2 has been certified to 100 "G" accelerations making it the ideal combination of ruggedness with small size. Fits into tight spaces for on-board automotive impact testing, military ordinance testing and other harsh environments. The built-in battery operates in three modes:

- 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**



Easy to use  
Camera Control Software



ImageBLITZ® Auto Trigger  
feature based on selectable  
region of interest

**FASTEC IMAGING™**


# Fastec HiSpec 2

## Innovative Low-Light High-Speed Camera

### CAMERA SPECIFICATIONS

<b>SYSTEM DESIGN</b>	Scaleable and network-compatible with standard and/or notebook PCs. Synchronous processing of multiple cameras
<b>SENSOR</b>	CMOS sensor, 1280 x 1024 pixels, 10-bit monochrome or RGB color with BAYER filter. Active pixel area 22.9mm diagonal
<b>PIXEL SIZE</b>	14 x 14 $\mu$ m
<b>LIGHT SENSITIVITY</b>	3,200 ISO monochrome, 1,600 ISO color
<b>SPECTRAL BANDWIDTH</b>	400 - 900 nm
<b>RECORDING RATE</b>	Up to 506 fps at full resolution, up to 298,851 fps at reduced resolution
<b>MEMORY</b>	4GB standard. Optional upgrade to 8GB
<b>RECORDING TIME</b>	6.4 seconds at full resolution. Longer record times with variable resolution and frame rates
<b>SHUTTER</b>	Global electronic shutter from 2 $\mu$ sec to 1 second in 2 $\mu$ sec steps
<b>LENS MOUNT</b>	C-Mount or F-Mount
<b>FRAME FORMAT</b>	BMP, TIF, DNG, JPG or AVI file format
<b>CAMERA/PC INTERFACE</b>	1000/100 Ethernet interface (Gigabit Ethernet)
<b>PHASE LOCK</b>	Multiple cameras can be synchronized to a master camera or to an external source such as optional IRIG-B
<b>TRIGGER</b>	Contact closure, external TTL signal or optional ImageBLITZ® Auto Trigger software
<b>CAMERA SIZE</b>	69mm H x 93mm W x 93mm D with C-Mount. 63mm H x 93mm W x 128mm D with F-Mount
<b>CAMERA WEIGHT</b>	.9 kg, without lens
<b>OPERATING ENVIRONMENT</b>	+ 5° to + 45°C
<b>POWER SUPPLY</b>	10 - 30V DC external power supply
<b>POWER CONSUMPTION</b>	15W maximum

### SOFTWARE SPECIFICATIONS

<b>CAMERA CONTROL SOFTWARE</b>	HiSpec 2 Director software for Windows 2000/XP/Vista
<b>IMAGE AMPLIFICATION</b>	Digital gain from 1 – 4 in 8 steps
<b>OPTIONAL SDK</b>	GiGE Vision compatible 

### OPTIONS AVAILABLE

<b>MEMORY</b>	8GB
<b>AUTO TRIGGER</b>	ImageBLITZ® Software – Auto Trigger
<b>MULTI-SEQUENCE MODE</b>	2, 4, 8 or 16 individual recording partitions
<b>IRIG-B</b>	Range timing standard
<b>HI-G CERTIFIED</b>	Certified for shock to 100g for 20ms, vibration to 10g
<b>F-MOUNT ADAPTER</b>	Convert from C-Mount lenses to F-Mount lenses

### MENGEL ENGINEERING\*

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### TYPICAL RESOLUTIONS & FRAME RATES

Maximum Frame Rate	Resolution	4GB STANDARD		8GB STANDARD	
		Recording Time @ Max Frame Rate	Total Frames	Recording Time @ Max 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
298,851 fps	128 x 2	149.4 sec	-	-	-

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Specifications subject to change without notice.  
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