

## The Highest-Resolution Compact High-Speed Cameras on the Market



### When Portability and Rapid Deployment Matter

The i-SPEED 220 and i-SPEED 221 represent the first cameras in a class of small footprint, easy-to-use, low-cost and very high-resolution cameras. A high-resolution 1600x1600 CMOS fast-transfer sensor allows the imagery of minute details even when zoomed in. The maximum full frame rate of 600 fps with both a global exposure shutter and optional G-shock housing makes this a true professional high-speed camera ideal for microscopy, robotics, auto-crash testing, graphics inspection, 3-D biomechanics, sports, web inspection, and more.

The i-SPEED 220/221 cameras fit in a briefcase, consume little power and create extremely nice images that can be zoomed and analyzed. Image transfer is simple via Ethernet.

The 1-hour battery that comes standard on the model 221 coupled with a standard laptop make this camera ideal for untethered portable field work. Add a layer of rugged durability with the optional Hi-G shock package.

### FEATURES

- High resolution 1600 x 1600 CMOS sensor
- Full resolution to 600 frames per second
- Maximum frame rate 204,100 frames per second
- Certified to 100 G shock, 10 G vibration
- Long recording times with up to 16GB memory (Model 221 only)
- Small package fits on microscopes and in tight spaces
- Global Exposure Shutter
- Interchangeable C-mount lenses

## IMAGER

<b>Frame rate at full resolution</b>	600 fps
<b>Shutter</b>	Global Electronic Shutter: 2µs to 1s
<b>Spectral bandwidth</b>	400 - 900 nm
<b>Amplification</b>	Digital Gain 1 - 2 in 3 steps
<b>Maximum resolution</b>	1600x1600
<b>Maximum frame rate</b>	204,100 fps
<b>Sensor diagonal</b>	size 18.1mm
<b>Pixel size</b>	8µm square
<b>Bit depth</b>	8-bit
<b>Light sensitivity</b>	1,200 Mono / 1,000 Color

## SYNCHRONIZATION and CAPTURE

<b>Memory</b>	2GB / 4GB / 8GB*
<b>Memory segments</b>	16
<b>Video</b>	AVI (JPG, BMP)
<b>Image sequence</b>	TIFF, BMP, JPG, DNG, PNG

## PHYSICAL and ENVIRONMENTAL

<b>220 Dimensions Inches</b>	2.5 (W) x 2.5 (H) x 2.6 (L)
<b>Dimensions mm</b>	64 (W) x 64 (H) x 66 (L)
<b>Weight</b>	0.66 lbs (300 g) without lens
<b>221 Dimensions Inches</b>	3.7 (W) x 2.7 (H) x 3.6 (L)
<b>Dimensions mm</b>	94 (W) x 69 (H) x 92 (L)
<b>Weight</b>	2.00 lbs (900 g) without lens
<b>Input Voltage</b>	10 - 30 VDC
<b>Power Consumption</b>	210 = 7.5w Max 211 = 15w Max
<b>Mounting</b>	¼-20
<b>Battery Charge</b>	Recording: 1 hr, Standby: 1.5 hr (Model 221 only)
<b>Lens options</b>	C mount / F mount / FG mount
<b>G shock</b>	Hi-G 100 G shock, 10 G vibration
<b>Temperature °F</b>	41 to 113 operation
<b>Temperature °C</b>	5 to 45 operation
<b>Ethernet</b>	1 Gb
<b>Remote control</b>	via supplied software

## CONNECTIVITY

<b>IRIG Input</b>	IRIG-B via BNC*
<b>Network</b>	1GB RJ45
<b>Power input</b>	6pin female connector
<b>Trigger</b>	External signal/switch triggering
<b>Input/Output</b>	8pin female I/O module (Model 221 only)
<b>Trigger modes</b>	Video trigger, Burst trigger mode

## PURCHASING OPTIONS

<b>Sensor</b>	Color / Mono
<b>Memory</b>	2 GB (Std) / 4 GB / 8 GB* / 16 GB*
<b>Package</b>	Standard / Hi-G rated
<b>Warranty</b>	1 yr (std) / 2 yr

\*Model 221 only

## FRAME RATES, RESOLUTION and DURATION

FPS	Resolution	Record Time(s)			
		2 GB	4 GB	8 GB	16GB
600	1600x1600	1.4 s	2.8 s	5.6 s	11.2 s
1,000	1600x900	1.5 s	3.0 s	6.0 s	11.9 s
1,150	1280x1024	1.4 s	2.8 s	5.7 s	11.4 s
1,400	1024x1024	1.5 s	2.9 s	5.8 s	11.7 s
1,640	1280x720	1.4 s	2.8 s	5.7 s	11.4 s
2,850	800x600	1.6 s	3.1 s	6.3 s	12.6 s
4,450	640x480	1.6 s	3.1 s	6.3 s	12.6 s
5,000	512x512	1.6 s	3.3 s	6.5 s	13.1 s
14,750	320x240	1.9 s	3.8 s	7.6 s	15.2 s
43,500	128x128	3.0 s	6.0 s	12.0 s	24.1 s
204,100	128x10	8.2 s	16.4 s	32.9 s	66.0 s

*Note: Other resolutions and speeds are available.*



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