

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

SPECIFICATIONS

i-SPEED 220/221

IMAGER

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

SYNCHRONIZATION and CAPTURE

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

PHYSICAL and ENVIRONMENTAL

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

CONNECTIVITY

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

PURCHASING OPTIONS

Sensor	Color / Mono
Memory	2 GB (Std) / 4 GB / 8 GB* / 16 GB*
Package	Standard / Hi-G rated
Warranty	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
43,500	128x128	3.0 s	6.0 s	12.0 s	24.1
204,100	128x10	8.2 s	16.4 s	32.9 s	66.0 s

Note: Other resolutions and speeds are available.



info@ix-cameras.com • ix-cameras.com

Specifications subject to change
Document: DS-220-221-12.15.15
Copyright © 2015 ix Cameras Ltd.

United Kingdom

ix Cameras
Bradley House
Locks Hill
Rochford Essex, SS4 1BB
T: +44 (0) 1702 540 669

United States

ix Cameras
8 Cabot Road
Suite 1800
Woburn, MA, 01801
T: 339 645 0778

China

ix Cameras
No.28 Lane 757 Jin Yang Road
Pudong New Area
Shanghai
T: +86 186 215 60553