

## The Gold Standard for Usability and Versatility in a High-Speed Camera



### Acquire slow motion footage like a professional, with a camera that won't break the budget

The cornerstone of Olympus' high-speed camera technology, the i-SPEED 3 Series is now proudly offered by iX Cameras. Discover a family of best-selling cameras capturing high-resolution images with a heralded proprietary 1280x1024 pixel custom CMOS sensor. The i-SPEED 3 is a workhorse -- a robust, value-packed camera that records brilliant high-speed images with exceptional light sensitivity. Paired with the award-winning CDU, the i-SPEED 3 is ideal for engineers, product developers, test scientists and more, for applications including sports, ballistics, machine automation, biology and more.

### FEATURES

- Color rich 1280 x 1024 pixel resolution sensor
- Extreme light sensitivity
- Maximum Frame Rate of 150,000 fps
- 1  $\mu$ s global electronic shutter
- Seamless integration with award-winning CDU for remote access
- i-CHEQ externally visible status indicators
- i-FOCUS electronic lens focusing aid
- Economy Mode - 16 x 9 aspect ratio setting 720P
- On board measurement of distance, speed, acceleration, angle, angular velocity, and angular acceleration
- Phase lock auto synchronization of multiple cameras

## IMAGER

<b>Sensor Type</b>	Custom CMOS
<b>Resolution</b>	1280 x 1024
<b>Sensor Size Inches</b>	1.36 (diagonal), 0.847 x 1.06
<b>Sensor Size mm</b>	35 (diagonal), 22 x 27
<b>Pixel Size</b>	21 micron
<b>Aspect Ratio</b>	5:4
<b>Shutter type</b>	Global Exposure
<b>Shutter time</b>	1 µs
<b>Bit Depth</b>	10 bit
<b>Maximum Frame Rate</b>	150,000 fps
<b>Sensor</b>	Sealed unit, no dust ingress
<b>ISO Rating (ISO 12232)</b>	Mono 5,000 / Mono 40,000† Color 1,600 / Color 12,800†

## SYNCHRONIZATION and CAPTURE

<b>Trigger</b>	TTL T0 to 0-100%
<b>Trigger modes</b>	Circular, ROC, BROc
<b>Sync</b>	24Hz – 150kHz
<b>iCHEQ</b>	Camera status LEDs
<b>iFocus</b>	Focusing aid tool
<b>Control</b>	PC or CDU
<b>Internal Memory</b>	4GB standard, upgrade to 16GB

## PHYSICAL and ENVIRONMENTAL

<b>Dimensions Inches</b>	4.41 (W) x 5.55 (H) x 13.4 (L)
<b>Dimensions mm</b>	112 (W) x 141 (H) x 340 (L)
<b>Weight</b>	11 lb (4.99 kg) with battery
<b>Input Voltage</b>	14 V -0% to 28 V +5%
<b>Power Consumption</b>	Camera 70 W max/System 80 W max
<b>Mounting</b>	5 x 1/4" Whitworth threads
<b>Battery (optional)</b>	Li-Ion, 10.8 V, 45 minutes continuous usage
<b>Lens Mounting</b>	F-Mount
<b>EMC</b>	CISPR22 (B S EN55022), CISPR24 (BS EN55024)
<b>Safety</b>	BS EN61010-1
<b>CE Marking</b>	EMC Directive (Camera), LV Directive and EMC Directive (Power Supply)
<b>Lead Free</b>	RoHS Directive
<b>WEEE</b>	Compliant
<b>IP Rating</b>	IP 20
<b>Temperature °F</b>	32 to 104 operation, -4 to 140 storage
<b>Temperature °C</b>	0 to 40 operation, -20 to 160 storage
<b>Pressure</b>	71 kpa to 106 kpa
<b>Relative Humidity</b>	95% at 104 °F non-condensing
<b>HG Cameras</b>	100 G @ 11 milliseconds, IEC 68-2-27 Ea 100 G @ 2 milliseconds IEC 68-2-29 Eb

## CDU (OPTIONAL)

<b>Dimensions inches</b>	10.5 (W) x 8.27 (H) x 1.69 (L)
<b>Dimensions mm</b>	267 (W) x 210 (H) x 43 (L)
<b>Weight</b>	2.8 lb (1.27 kg)
<b>Display</b>	8.4" (213 mm) LCD Daylight viewing
<b>Input Voltage</b>	12 V ± 10%
<b>Power Consumption</b>	8 W maximum

## PC SOFTWARE

<b>Standard</b>	Control
<b>Premium</b>	ControlPro
<b>Data Collection Module</b>	Optional
<b>Utilities</b>	i-SPEED Lens Calculator, i-SPEED Viewer
<b>Software Developers Kit</b>	C++, LabView

## CONNECTIVITY

<b>Video outputs</b>	BNC 50ohm, S-Video
<b>Network</b>	1Gb
<b>CDU</b>	Custom connector
<b>Video</b>	AVI (JPG, BMP), HSV
<b>Image sequence</b>	TIFF, BMP, JPG, RAW
<b>Ethernet control</b>	1Gb
<b>Remote control</b>	Via software or CDU

## PURCHASING OPTIONS

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

## FRAME RATES, RESOLUTION and DURATION

### i-SPEED 3 (HIGH-QUALITY) HQ MODE 4 GB INTERNAL MEMORY

FPS	Resolution	Frames in Memory	Record Time(s)
1	1280x1024	2,447	2447.000
25	1280x1024	2,447	97.880
100	1280x1024	2,447	24.470
150	1280x1024	2,447	16.313
200	1280x1024	2,447	12.235
300	1280x1024	2,447	8.157
400	1280x1024	2,447	6.118
500	1280x1024	2,447	4.894
1,000	1280x1024	2,447	2.447
1,500	1280x1024	2,447	1.631
2,000	1280x1024	2,447	1.224
3,000	1068x800	3,767	1.256
4,000	912x684	5,159	1.290
5,000	804x600	6,672	1.334
10,000	528x396	15,390	1.539
15,000	420x312	24,561	1.637
20,000	348x260	35,572	1.779
30,000	264x196	62,202	2.073
40,000	216x160	93,130	2.328
50,000	180x132	135,462	2.709
75,000	132x96	253,992	3.386
100,000	96x72	465,653	4.657
150,000	60x44	1,219,165	8.127

### i-SPEED 3 (QUALITY WITH SPEED) QS MODE

FPS	Resolution	Frames in Memory	Record Time(s)
100,000	108x80	372,522	3.725
125,000	84x60	638,625	5.109
150,000	72x52	859,667	5.731

Note: Record time is directly proportional to memory size

\*The CDU is patented in the UK, patents pending in other markets

† ISO Sensitivity with sensor gains on maximum