

## High-Speed, High-Quality without Breaking the Budget



### Designed with the Test Engineer in mind

The i-SPEED 3 Series has been Olympus' top selling line of high-speed cameras due to its exceptional image quality and value. The i-SPEED 3 Series is now proudly offered by iX Cameras.

The i-SPEED TR is the value camera in a line of cameras that is dominated by value. Comparably priced with simple point-and-shoot cameras, the TR shares the same exceptional image sensor and possesses the same processing and capture features of the heralded i-SPEED 3. The i-SPEED TR is designed with the production and test engineer in mind – reasonable resolution at reasonable speeds in a value package. Acquire slow motion footage in a value camera with the i-SPEED TR.

### FEATURES

- Custom 1280 x 1024 pixel resolution sensor
- Extreme light sensitivity
- Maximum Frame Rate of 10,000 fps
- 2.16  $\mu$ 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
- Phase lock auto synchronization of multiple cameras

# SPECIFICATIONS

*i-SPEED. TR*

## 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>	2.16 µs
<b>Maximum Frame Rate</b>	10,000 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, BROCC
<b>Sync</b>	24Hz – 10kHz
<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 RJ45
<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>	4GB (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 TR (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
7,500	636x476	10,631	1.417
10,000	528x396	15,390	1.539

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



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