



V100:R2



SURPRISING AFFORDABILITY

With systems starting at under \$7k, V100 cameras deliver the industry's most affordable high-performance tracking platform.

EFFICIENT PERFORMANCE

Our cameras are engineered for maximum capture efficiency, offering sub-millimeter tracking at a fraction of the price you would expect.

WORLD CLASS LENSES

We custom design our own super low distortion, high illuminance lenses. Our "fast glass" dramatically increases your camera's range and capture volumes.

REFERENCE VIDEO

Any of your V100:R2 capture cameras can also operate in full frame grayscale, for flexible reference video that's calibrated into your mocap system.

FILTER SWITCHER

Move from visible to infrared imaging with a single mouse-click, enabled with the FS add-on.

OPTISYNC

OptiTrack's custom sync system, which sends and receives sync signals over USB cable. As a result, cabling is reduced by 50%, which enables simpler setup.

ON-BOARD PROCESSING

Our heralded real time, on-camera image analysis delivers clean, reliable data to your PC with minimal demands on your CPU for efficient system scaling.

CAMERA CONTROL

Control exposure, frame rate, resolution, image processing mode, LED intensity, and more directly from the application UI.

FREE CAMERA SDK

Integrate V100:R2 cameras into your custom tracking and vision applications with the free Camera SDK, which offers a simple C++ interface.

TECHNICAL SPECIFICATIONS

CAMERA BODY

- Width: 1.78 inches (45.2 mm)
- Height: 2.94 inches (74.7 mm)
- Depth: 1.44 inches (36.6 mm)
- Weight: 4.20 ounces (0.1 kg)
- Mounting: 1/4"-20 tripod thread
- Status Indicators:
 - 2 digit numeric LEDs

IMAGE SENSOR

- Pixel Size : 6 μm \times 6 μm
- Imager Size : 4.5 mm \times 2.88 mm
- Imager Resolution : 640 \times 480 (0.3 MP)
- Frame Rate: 25, 50, 100 FPS
 - Frame decimation (transmit every Nth frame)
- Spatial decimation:
 - 320 \times 240
 - 160 \times 120
- Accuracy: Sub-millimeter
- Latency: 10 ms
- Shutter Type: Global
- Shutter Speed:
 - Default: 1000 μs
 - Minimum: 20 μs

IMAGE PROCESSING TYPES

- Object (Centroids)
- Precision (Grayscale)
- Segment (Thresholded)
- MJPEG Grayscale
- Raw Grayscale

LENS & FILTER

- Default Lens:
 - 4.5mm F#1.6
 - Horizontal FOV: 46°
 - Vertical FOV: 35°
- Optional Lenses:
 - 3.5 mm F#1.6
 - Horizontal FOV: 58°
 - Vertical FOV: 43°
 - 5.5 mm F#1.6
 - Horizontal FOV: 38°
 - Vertical FOV: 28.5°
- M12 Lens Mount
- Adjustable focus w/ spring assist
- 800 nm IR pass filter
- Optional: 800nm IR pass filter w/ Filter Switcher

LED RING

- 26 LEDs
- 850 nm IR
- Adjustable brightness
- Strobe or continuous illumination
- Removable

INPUT/OUTPUT & POWER

- Data: USB 2.0
- Camera Sync: USB 2.0 or Wired Sync
- Power: USB 2.0
 - Standard: 5V @ 490mA
 - High Power: 680mA

SYSTEM REQUIREMENTS

- Windows XP/Vista/7
- 1GHz processor
- 1GB of RAM
- 50MB of available disk space
- USB 2.0 Hi-speed port

IN THE BOX

- 1 V100:R2 camera (part no: FL-R2)
- 1 Quick start guide

