

## CMOS Cameras

# MV-D1024-TRACKCAM

**Don't Lose Your Target!**

### Benefits

- Change of camera parameters frame by frame beyond 1000 fps
- Up to 75 fps at full resolution
- High-speed configuration interface (40 Mbit / s)
- Sequencing between different capture modes
- Exceptional linear response curve
- Superior SNR (Signal to Noise Ratio)
- Ultra low trigger delay and jitter
- Region of Interest (ROI)
- CameraLink™ interface
- Look-up table (LUT)
- LinLog™ functionality



MV-D1024-TrackCam

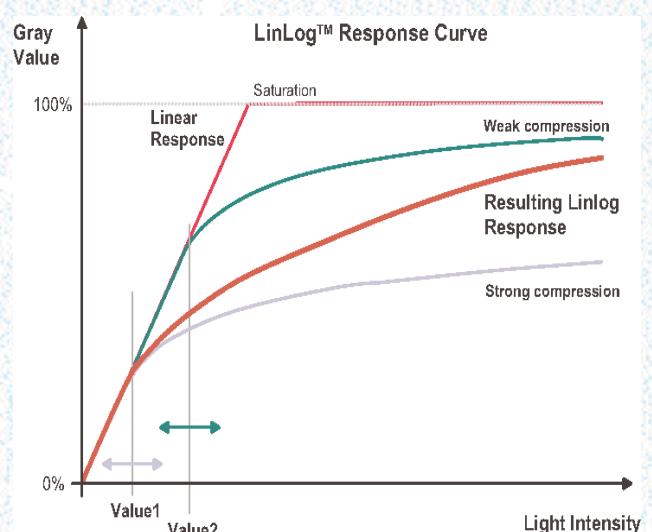
### Application examples

#### Machine vision

- Standard vision applications
- PCB inspection
- High-speed laser pattern tracking with dynamic windowing
- Welding & soldering

#### Motion analysis

- High-speed object tracking
- Slow-motion sequences
- Biomedical applications



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# MV-D1024-TRACKCAM

## Don't Lose Your Target!

- Digital 1" monochrome CMOS camera with 1024 x 1024 pixels
- Up to 75 frames per second with full resolution
- Up to 120 dB dynamic range with LinLog™ technology
- High-speed configuration interface (40 Mbits / s) with selected frame grabbers
- CameraLink™ base interface
- 100% CameraLink™ compatible with standard CameraLink™ frame grabbers (9600 baud)

### MV-D1024-TrackCam

#### Image Sensor

Technology	CMOS active pixel
Scanning system	Progressive scan
Optical format / diagonal	1" / 15.42 mm
Resolution	1024 x 1024 pixels
Pixel size	10.6 x 10.6 $\mu\text{m}^2$
Active optical area	10.9 x 10.9 mm <sup>2</sup>
Random noise	< 0.5 DN RMS @ 8 bit / gain = 1
Fixed pattern noise (FPN)	< 2.5 DN RMS @ 8 bit / gain = 1
Dark current	2 fA/pixel @ 30°C
Full well capacity	200 ke <sup>-</sup>
Spectral range	400 nm ... 900 nm
Responsivity	120 x 10 <sup>3</sup> DN / (J/m <sup>2</sup> ) @ 610 nm / 8 bit / gain = 1 (approx. 350 DN / (lux s) @ 610 nm / 8 bit / gain = 1)
Optical fill factor	35%
Dynamic range	Up to 120 dB (with LinLog™)
Colour format	Monochrome
Characteristic curve	Linear, LinLog™, Skimming
Shutter mode	Global shutter

#### Camera

Exposure time	10 $\mu\text{s}$ ... 0.5 s / 50 ns steps
Frame rate	75 fps
Pixel clock	40 MHz
Camera taps	2
Greyscale resolution	8 bit
Analogue gain	1 or 4
Configuration interface	CL SERIAL (9600 baud) and high-speed synchronous (40 Mbits/s)
Trigger modes	• Free running (non triggered) • Edge controlled trigger • Level controlled
Features	• Region of Interest (ROI) • Look-up-Table (LUT) • High-speed configuration interface • Skimming • LinLog™
Interface	CameraLink™ base configuration
Operating temperature	0 °C ... + 60 °C
Power supply	+ 5 V DC + 10% / -5%
Power consumption	2.5 W
Lens mount	C-Mount
Dimensions	55 x 55 x 46 mm <sup>3</sup>
Mass	200 g
Conformity	CE / UL
Special	Microbench compatible mountings

#### Software

Camera control	PFRremote™ graphical user interface (GUI) and PFLib (SDK) - Framegrabber GUI & SDK for 40 Mbits / s high-speed configuration
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