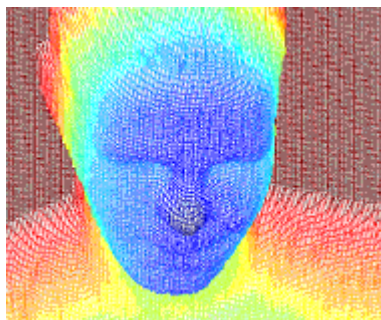




SR-3000 Data Sheet



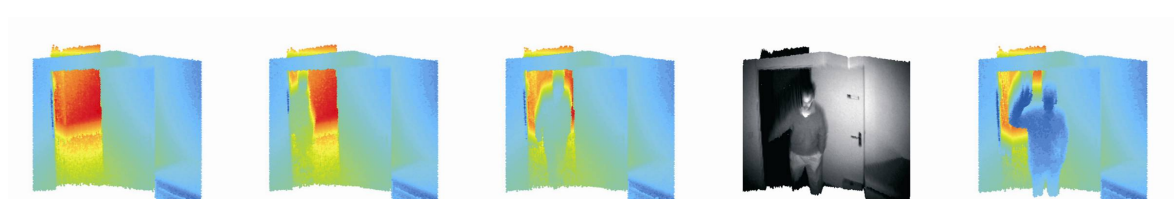
The SR-3000 is an optical imaging system which offers real time 3D image data.

Based on the time-of-flight (TOF) principle, the camera works with an integrated, modulated infrared light source. The emitted light is reflected by objects in the scene and travels back to the camera, where the precise time of arrival is measured independently by each pixel of the image sensor.

The SR3000 is a general purpose range imaging camera. The standard product is easily connected to a computer via USB 2.0, enabling straightforward measurement of real-time depth maps. Designed for operation under indoor lighting conditions, the compact unit is offered with a complete visualization software program.

Features

- Captures 3D scenes in real-time at video frame rates
- QCIF resolution (176 x 144 pixels)
- Distance resolution of less than one centimeter in short range applications
- Built-in optics (bandpass and lens system)
- Built in background light suppression
- USB 2.0 interface
- Direct Cartesian coordinate output: x, y and z
- Compact, solid-state design





Included with purchase

SR-3000 camera (calibrated at factory)

- USB2.0 cable
- Power supply and cable
- CD with all manuals, visualization software, and drivers.

Software

- Drivers for Windows, Linux, MacOS
- Visualization software (Windows)
- Sample code in C/C++ (Windows)
- Viewer application for MacOS
- Matlab user interface

Applications

- Machine Vision
- Autonomous Robotics
- Interactive video gaming
- Security and surveillance
- Gesture Recognition
- Automotive
- Biometrics (Facial Recognition)
- Biomechanics analysis
- Custom orthopedics

Specifications

Pixel Array Size	176 x 144 (QCIF)
Field of View	47.5 x 39.6 degrees
Interface	USB 2.0
Illumination Power	1 Watt (average)
Wavelength	850nm
Housing Size	50 x 67 x 42.3 mm ³
Housing Material	Aluminium
Power Supply	12V
Power Consumption	12 W, typical
Operating Temperature	-10°C to +50°C
Output Data (per pixel)	x, y, z coordinates i (intensity)
Camera Mounting Holes	2 x M4; 1 x 1/4"

Range and Resolution	
Modulation Frequency	20MHz, standard
Non-ambiguous range	7.5 meters
Distance Resolution	1% of range, typical
Frame Rate	25 fps, typical

Notes:

1. Distance resolution will vary with reflectivity of objects in area of interest.
2. Performance varies with (user-defined) integration time, frame rate.
3. Resolution values referenced to central pixel.
4. Indoor operation only.
5. Specifications are subject to change.

