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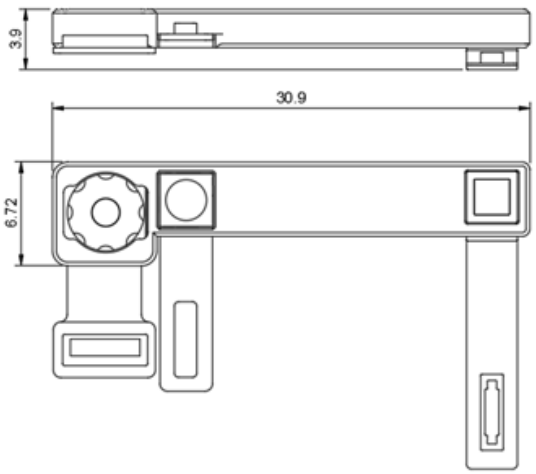
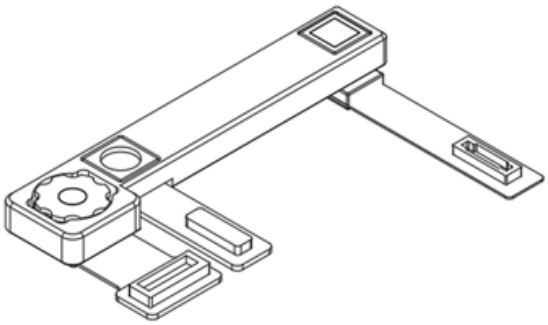
trinamiX Imaging System for smartphone





Technology demonstrator (user facing)

The system enhances a regular 2D IR image using proprietary beam profile analysis to capture
- Flood illuminated IR 2D image
- 3D depth information
- Material classification

Depth image (3D)

Z-resolution (max. distance, distance error at 350 mm)	up to 1 m (user facing), up to 4m (world facing), distance error at 350mm is 1.0 mm
X,Y-resolution	up to 240 x 160 points
Field of view	55° x 32°

Material classification

Material	Human skin (prototype)
X,Y-resolution	Same as depth image
Field of view	Same as depth image

2D image

X,Y-resolution	1280 x 800
Field of view	64° x 44°

Release date October 2019

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Camera

Sensor type/Shutter type	OmniVision OV9281 - global shutter
Frame rate depth sensing	up to 30 Hz
Lens focal length	3.0 mm
Lens aperture	2.0
Filter type	NIR Bandpass 95% transmission at 940 m, +-/25 nm

Laser projector

Wavelength	940 nm
Battery consumption (1 h usage)	60 mAh

Flood illumination

Centroid wavelength	940 nm
Radiant intensity	360 mW/sr
Spectral bandwidth at 50 % intensity	30 nm

Software-core

Platforms	Android, Windows, Linux (in development)
CPU and GPU support	Intel x64, ARMv8 and OpenCL for GPU
SDK	Workbench + API (C++, Python, C#), client-server architecture
Interfaces	trinamiX SDK

Contact

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