TACHYON 16k CAMERA & TACHYON 16k CAMERA PLUS

Uncooled MWIR 128x128 pixels infrared camera with high-speed frame rates up to 4000 frames per second

Maximum added value and afordability to ensure a full integration in the INDUSTRY 4.0 applications

▸ Detector type: VPD PbSe FPA with digital interface, uncooled operation
▸ Array format: 128x128 (16384 pixels)
▸ Pixel size: 50 um x 50 um (square format)
▸ Spectral range: MWIR, 1.0 μm to 5.0 μm
▸ Peak wavelength of detection: 3.7 microns
▸ Integration time: 10 - 1000 μs, selectable
▸ Raw data communication, 14 bit
▸ Interfaces:
  ▸ GigE VISION 2.0 (GenICam compatible) with PoE
  ▸ Multipurpose DI/DO connector (trigger IN/OUT) (cable sold separately)
▸ Maximum frame rate: 4000 fps (TACHYON 16k CAMERA PLUS) (see table)
▸ ROI windowing function (see table for full description of possible modes)
▸ Mechanical shutter for 1-pt offset correction
▸ Start-up time: < 10 seconds
▸ Power supply: PoE, 8 W (non-PoE operation requires 12 VDC)
▸ Metal housing with rear connectors and tripod screw holes (M3 and M4)
▸ Dimensions and weight (w/o optics): 66 (L) x 62 (W) x 62 (H) (mm), 400 grams
▸ Optics (standard option): f=35 mm, F#1.1, FoV 10.5º x 10.5º, AR coating (1 - 5 μm), manual focus with CS-mount interface
▸ Software included:
  ▸ NIT SOFTWARE SUITE (Acquisition and visualization SW)
  ▸ SDK available for custom software programming
▸ Minimum temperature of detection: 100 ºC
▸ Industrial applications: machine vision, additive manufacturing, industrial process monitoring, gas detection, spectroscopy, glass manufacturing quality assurance
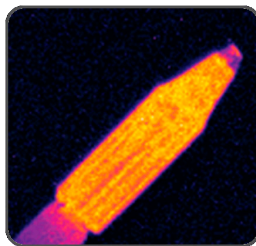
GiGE VISION **GEN‹i›CAM**
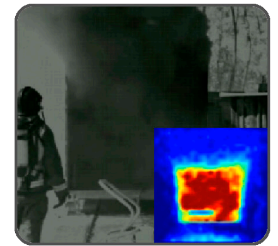
Additive manufacturing monitoring

Manufacturing process control

Machine vision applications
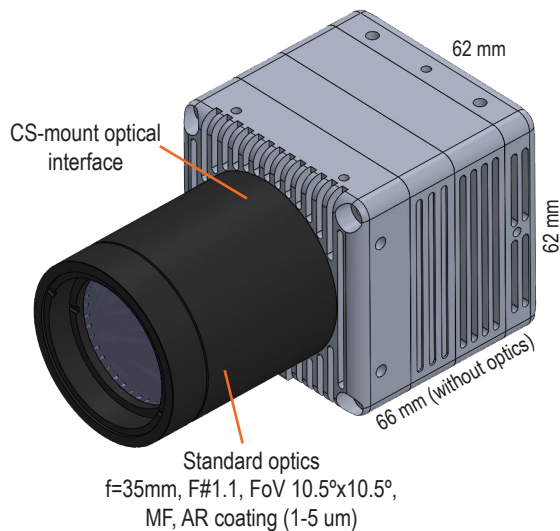
Gas and spectroscopy

Fire detection

NIT New Infrared Technologies

TACHYON 16k CAMERA & TACHYON 16k CAMERA PLUS

Main specifications

	TACHYON 16k CAMERA	TACHYON 16k CAMERA PLUS
MAXIMUM FRAME RATE	2000 frames per second @ 128×128	4000 frames per second @ 128×128 Allows higher frame rates using embedded ROI windowing functions
ACQUISITION MODE	128×128: Interlaced acquisition 64×64, 32×32, 1×128: Global shutter acquisition	All modes: Global shutter acquisition
WINDOWING MODES	128×128 64×64 (center of FPA) 32×32 (center of FPA) 1×128 (center of FPA)	Window position and dimensions: configurable via SW
NUC CORRECTION TABLES	Software correction	Hardware correction (4 preconfigured tables)
DATA TRANSMISSION MODES	RAW data, 14 bit	Selectable: – RAW data, 14 bit – NUC corrected, 16 bit – High-speed mode RAW/NUC: 12 bit

Front view

CS-mount optical interface

62 mm

62 mm

66 mm (without optics)

Standard optics
f=35mm, F#1.1, FoV 10.5°x10.5°,
MF, AR coating (1-5 um)

Rear view

Multipurpose DI/DO connector (trigger IN/OUT)
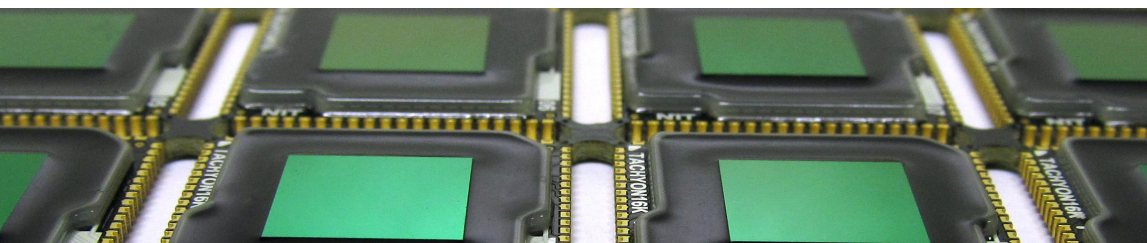
GigE VISION connector + PoE

17054-001
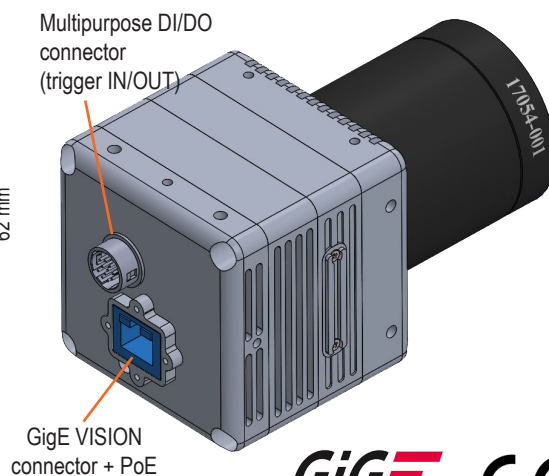
Main facts

▶ Maximum added value and affordability
▶ Miniaturized compact size to ensure a full integration in the Industry 4.0 applications and Factories of the Future production lines

Typical applications

▶ Additive manufacturing
▶ Industrial process monitoring
▶ Machine vision
▶ Gas and flame detection
▶ Spectroscopy
▶ Glass manufacturing quality assurance
▶ R+D

Industries of use

▶ Automotive industry
▶ Home appliance manufacturing
▶ Metallurgy and steel industry
▶ Petrochemical industry
▶ Glass manufacturing industry

GigE VISION

CE

GENiCAM

ROHS✓

NIT
New Infrared Technologies