

## OVERVIEW

# Thermal Imaging: Fever Screening

38.1°C



29.6C 38.1C



**TELEDYNE IMAGING**  
Everywhere you look™



# Fever Screening Thermal Solution

## Thermal: Calibir camera

- Measure temperature



VGA, <50 mK NETD

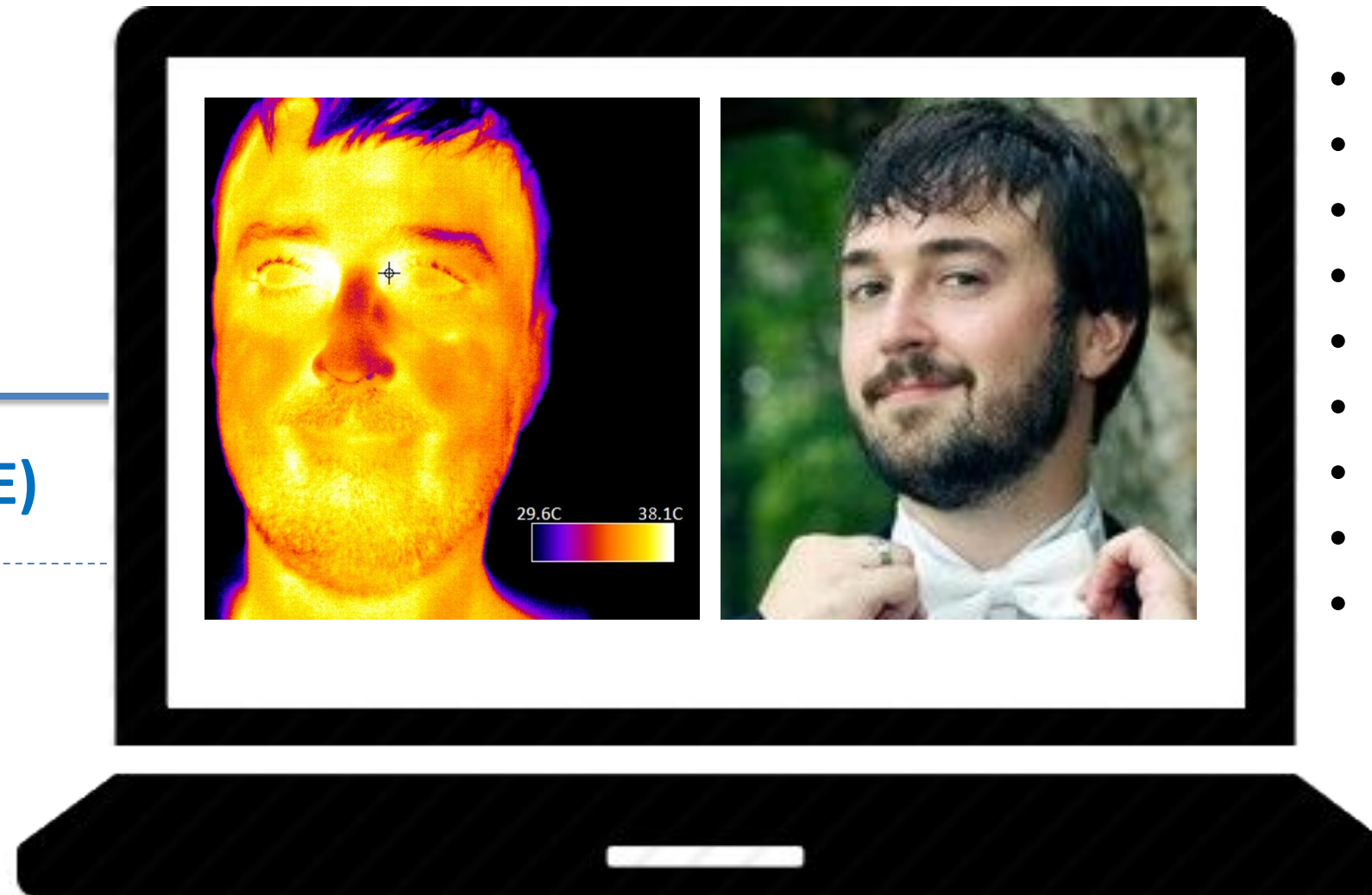
GigE Vision (RJ45 or PoE)



from VGA to 45 MP

## Visible: Genie Nano camera

- Identify individuals



- Radiometric performance
- Emissivity adjustment
- Background temp
- ROIs
- Triggers
- 16 bits/ 8 bits output
- Colormaps
- Metadata information
- Multi-camera drivers

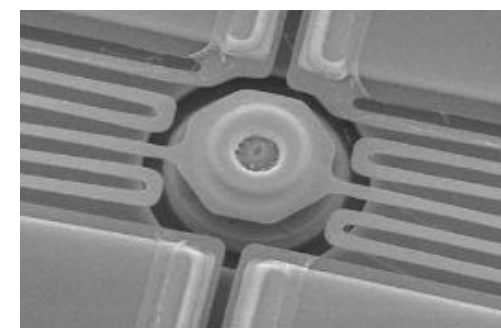
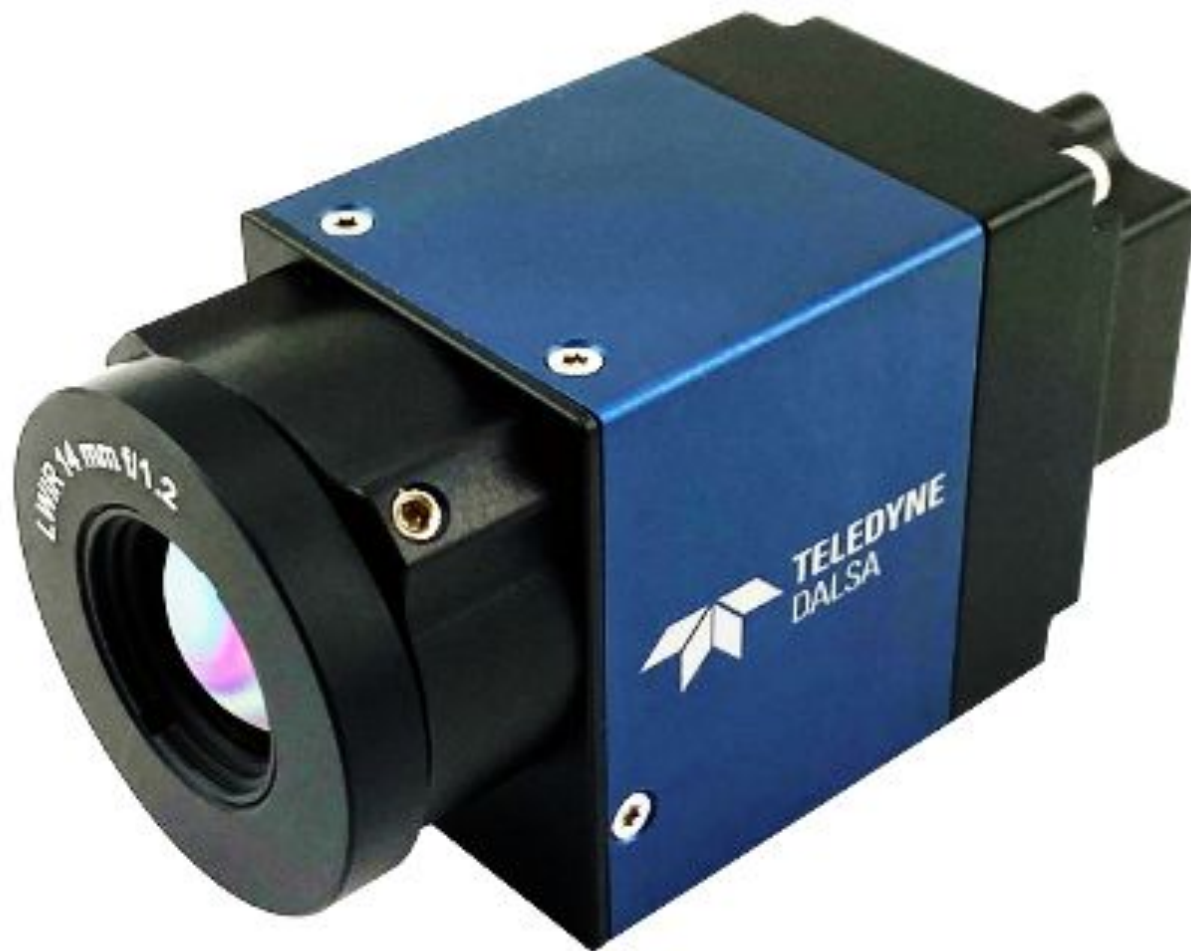
Sapera / CamExpert  
Software

# Calibir Thermal Camera

Radiometric performance for accurate, repeatable temperature measurement

## Key Performance Parameters

format	320x240	640x480
pixel pitch	17 $\mu$ m	
NETD	< 50mK	
Technology	uncooled VOx with WLP vacuum package	
spectral band	8-14 $\mu$ m	
size	29 x 29 x36 mm	
color B&W palette	yes	
lens option (HFOV)	from 8° to 40°	from 6° to 90°





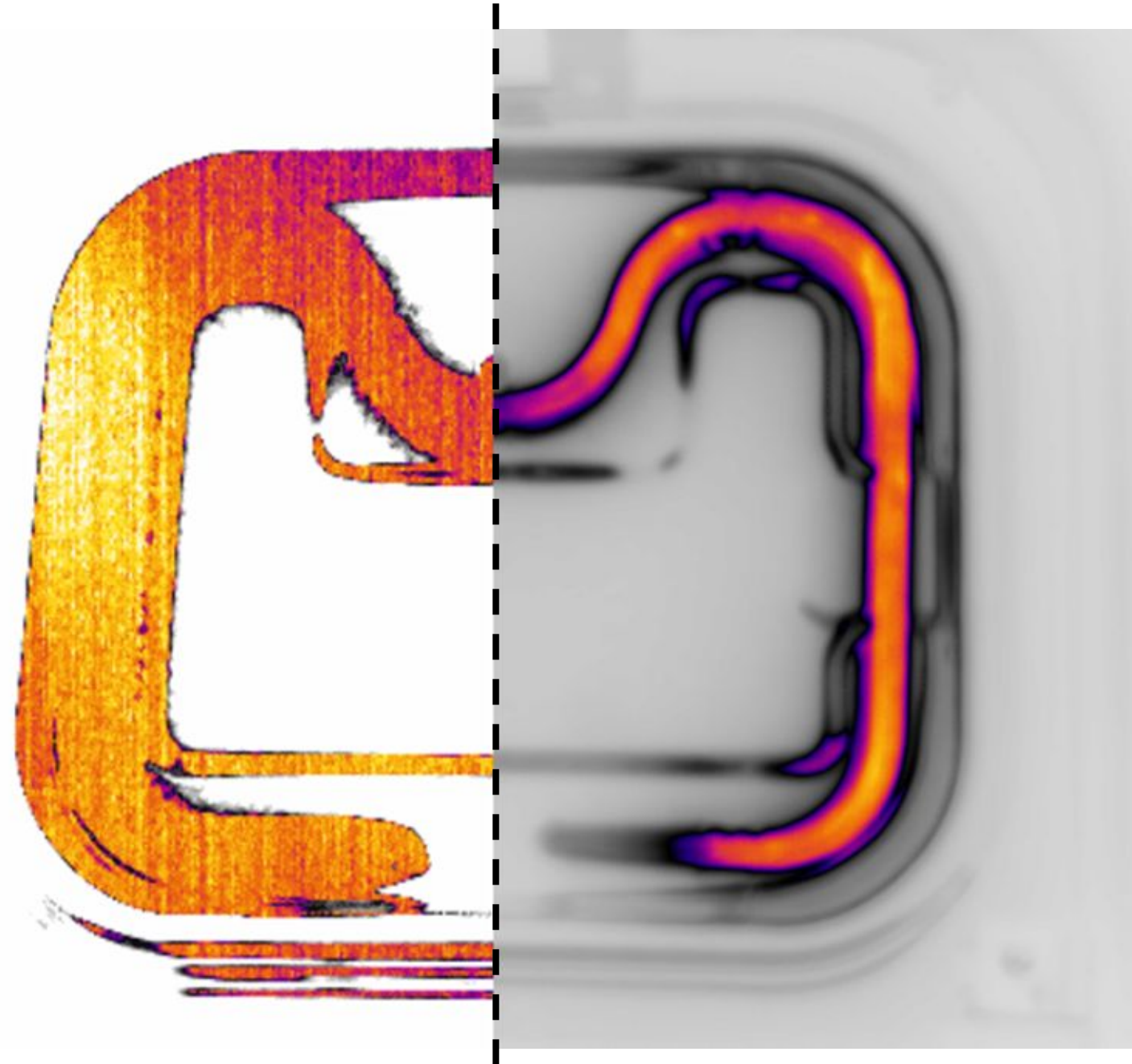
# Calibir: Superior dynamic range

Thermal images of an electric frypan



**Third party sensor in high gain mode setting (NETD < 50mK)**

- not enough dynamic range to retain fine details



**Teledyne DALSA's deep ADC ubolometer technology**

- simultaneously delivering DR < 1500°C and NETD < 50 mk

# Sapera & CamExpert Software

Sapera Vision Software Suite



Parameter	Value
Temperature Units	Celsius
Object Material	Other
Object emissivity	1.0
Ambient Temperature	0.0
ROI Selector	ROI1
Measurement ROI X	320
Measurement ROI Y	240
Measurement ROI Width	51
Measurement ROI Height	51
Display Range Mode	Manual
Display Range Manual Min	Automatic
Display Range Manual Max	Manual
FPN Compensation Mode	Active
Calibrate FPN Compensation	Press...
Save FPN Calibration	Press...
Temperature Adjust ROI Select...	ROI1
Adjust to ROI Temperature ...	Active
Calibrate ROI Temperature Adj...	Press...
User-measured ROI Temper...	32.0

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## Power, flexibility, and control

- Adjust emissivity, ambient/background temperature, distance
- Set up to 8 user-defined ROIs (>3x3 pixels) with Min/Max/Average temp—add metadata to image buffer
- Choose 8/16 bit output, monochrome or YUYV color
- Upload user defined Color maps (e.g. “blood” LUT)
- Synchronize and trigger multiple cameras over GigE—visible & IR

Category	Parameter	Value
Camera Information	Pixel Format	Monochrome 14-Bit
Sensor Control	Color Map	Monochrome 8-Bit
I/O Controls	Width	Monochrome 14-Bit
Image Format Controls	Height	YUYV
Metadata Controls	Output Offset Y	482
Image Processing	Test pattern	0
Radiometry	Test Pattern Constant	Off (Sensor)
Overlay	Image Flip Horizontal	Not Enabled
GigE Vision		False
GigE Vision Host Controls		
File Access Control		

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