

# DHI-TPC-HI20

## Thermal Handheld Thermographic Camera



- Built with an industry-leading vanadium oxide uncooled focal plane detector, it is highly sensitive and produces high-quality images
- Supports the accurate measuring of temperatures, with a tolerance of less than Max ( $\pm 2\text{ }^{\circ}\text{C}$ ,  $\pm 2\%$ ) and a range of  $-20\text{ }^{\circ}\text{C}$  to  $+550\text{ }^{\circ}\text{C}$
- Supports SD card storage
- Features 4 pseudo-color modes: Whitehot, Blackhot, Rainbow, and Ironbow
- Uses buzzer alarm when a temperature exceeds the alarm threshold
- Automatically captures images when a temperature exceeds the threshold
- Supports device exception alerts
- Supports image enhancement
- Supports laser Pointer
- Supports cold/Hot spot trace

Temperature Mode	<ol style="list-style-type: none"> <li>1. Center spot</li> <li>2. Max. temp point and Min. temp point</li> <li>3. Abnormal temperature alarm</li> <li>4. Color bar display</li> <li>5. Temperature units can be set as <math>^{\circ}\text{F}</math>, <math>^{\circ}\text{C}</math>, and K</li> <li>6. Auto tracking of hot spots and cold spots</li> </ol>
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### Video and Audio

Video Compression	H.265
Resolution	480 x 640
Frame Rate	480 x 640@25 fps
Picture Encoding Format	JPEG (480 x 640)

### Video and Audio

Sound and Light Alarm	Buzzer alarm
Storage	Micro SD card storage (Max. 256 GB)
Malfunction Detection	Storage card status detection; storage space detection
Laser Aiming	Yes

### Port

Alarm Linkage	High temperatures trigger the buzzer alarm and the capturing of snapshots
Alarm Event	No SD card; SD card has no space; SD card error; sound alarm
USB	Micro USB

### Power

Power Supply	5 V DC; built-in battery
Standby Time	$\geq 8\text{ h}$
Charging Time	$\leq 2.5\text{ h}$
Power Consumption	$< 1\text{ W}$

### Series Overview

The HI20 series allows inspectors to check efficiently and find the source of system failures faster than with a IR temperature gun. It is a auxiliary diagnostic tool with non-contact measurement, high accuracy and visualized anomalies on screen.

### Technical Specification

#### Thermal

Detector Type	Vanadium Oxide Uncooled Focal Plane Detector
Effective Pixels	256 x 192
Pixel Pitch	12 $\mu\text{m}$
Spectral Range	8 $\mu\text{m}$ ~14 $\mu\text{m}$
Thermal Sensitivity (NETD)	$\leq 50\text{ mK}@f/1.0$
Focal Length	3.5 mm
Field of View	H: $37.8^{\circ}$ ; V: $50.6^{\circ}$
Focus Mode	Athermalized
Thermal Close Focus Distance	0.5 m
Aperture	F1.0
Noise Reduction	Yes
Color Palettes	4 (Whitehot/Blackhot/Rainbow/Ironbow)
Temperature Range	$-20\text{ }^{\circ}\text{C}$ to $+550\text{ }^{\circ}\text{C}$ ( $-4\text{ }^{\circ}\text{F}$ to $+1022\text{ }^{\circ}\text{F}$ )
Temperature Accuracy	Max( $\pm 2\text{ }^{\circ}\text{C}$ , $\pm 2\%$ ), Operating Temperature( $-20\text{ }^{\circ}\text{C}$ to $+50\text{ }^{\circ}\text{C}$ ) ( $-4\text{ }^{\circ}\text{F}$ to $+122\text{ }^{\circ}\text{F}$ )
Measurement Distance	1 m~4 m

## Display

Display Screen Dimensions	2.4"LCD
Resolution	240 x 320

## Environment

Operating Temperature	-20 °C to +50 °C
Operating Humidity	≤ 90%
Storage Temperature	-20 °C to +60 °C

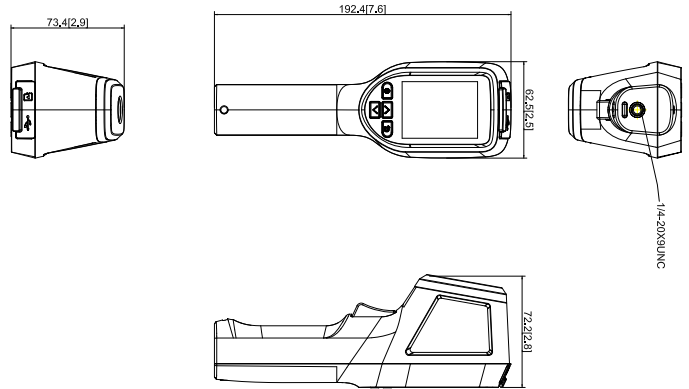
## Physical Characteristics

Protection	IP54; 2 m (6.56 ft) (naked camera)
Product Dimensions	192.4 mm × 62.5 mm × 72.2 mm (7.6" × 2.5" × 2.8") (L × W × H)
Packaging Dimensions	239 mm × 147 mm × 109 mm (9.4" × 7.0" × 4.3") (L × W × H)
Net Weight	≤ 350 g
Gross Weight	≤ 1 kg
Power Adapter	Included
Lens	Included

## Certification

Certifications	CE: EN 55032:2015; EN 61000-3-3:2013+A1:2019; EN 50130-4:2011/A1:2014; EN55024:2010/A1:2015; EN55035:2017 FCC: CFR 47 FCC Part 15 subpart B, 2019; ANSI C63.4-2014 UL: IEC 62368-1:2014 (Second Edition)
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## Dimensions (mm[inch])



## Ordering Information

Type	Model	Description
Thermal Camera	DHI-TPC-HI20	3.5 mm