

**FLUKE®**

# TiS20+

Thermal Imager

## Product Specifications

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## General Specifications

<b>Temperature</b>	
Operating	-10 °C to 50 °C (14 °F to 122 °F)
Storage	-20 °C to 50 °C (-4 °F to 122 °F) without batteries
<b>Relative humidity</b>	10 % to 95 % non-condensing
<b>Altitude</b>	
Operating	2000 m
Storage	12 000 m
<b>Display</b>	8.9 cm (3.5 in) diagonal touchscreen landscape color QVGA (320 x 240) LCD with backlight
<b>Battery</b>	Lithium-ion rechargeable battery
Battery life, as tested	≥4 hours continuous without WiFi (Actual life depends on settings and usage)
Charge time	≤2.5 hours to full charge
Charge temperature	0 °C to 40 °C (32 °F to 104 °F)
Battery charge	Ti SBC3B Two-Bay Battery Charger or in-Imager charging.
AC power adapter	AC operation with included power supply, universal adapters included Output: 15 VDC, 2 A
Power save	User-selectable sleep and power off
<b>Safety</b>	IEC 61010-1: Pollution Degree 2
<b>Wireless radio</b>	
Frequency	2412 MHz to 2462 MHz
Output power	<100 mW
CMIIT	2019DJ11091
<b>Electromagnetic Compatibility (EMC)</b>	
International	IEC 61326-1: Portable Electromagnetic Environment; IEC 61326-2-2 CISPR 11: Group 1, Class A  <i>Group 1: Equipment has intentionally generated and/or uses conductively-coupled radio frequency energy that is necessary for the internal function of the equipment itself.</i> <i>Class A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a low-voltage power supply network that supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances.</i> <i>Caution: This equipment is not intended for use in residential environments and may not provide adequate protection to radio reception in such environments.</i>
Korea (KCC)	Class A Equipment (Industrial Broadcasting & Communication Equipment)  <i>Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.</i>
USA (FCC)	47 CFR 15 Subpart C Sections 15.207, 15.209, 15.249
<b>Vibration</b>	10 Hz to 150 Hz, 0.15 mm, IEC 60068-2-6
<b>Shock</b>	30 g, 11 ms, IEC 60068-2-27
<b>Drop</b>	2 m
<b>Size (H x W x L)</b>	~(26.7 cm x 10.1 cm x 14.5 cm) ~ (10.5 in x 4.0 in x 5.7 in)
<b>Weight</b>	≤2.27 kg (5 lb)
<b>Ingress protection rating</b>	IEC 60529: IP54
<b>Supported Languages</b>	Czech, Dutch, English, Finnish, French, German, Hungarian, Italian, Japanese, Korean, Polish, Portuguese, Russian, Simplified Chinese, Spanish, Swedish, Traditional Chinese, and Turkish

## Detailed Specifications

<b>Operating range</b>	0.5 m to 1.2 m
<b>Temperature range</b>	-20 °C to 150 °C (not calibrated below -10 °C)
<b>Accuracy</b>	±2 °C or 2 % (whichever is greater) at 25 °C ambient temperature
<b>Thermal image features</b>	
Image capture frequency	9 Hz
Detector resolution	120 x 90
Total pixels	10 800
Thermal sensitivity (NETD)	≤0.06 °C at 30 °C target temp (60 mK)
Spectral band	8.0 μm to 14 μm (long wave)
Pitch size	17 μm
Field of View (H X V)	50 ° x 38 °
Spatial resolution (IFOV)	7.6 mRad
F stop number	F1.13
Minimum focus distance	0.5 m
IR-Fusion™ technology	Adjustable Autoblend™ mode
<b>Visual (visible light) features</b>	
Operating range	≥0.5 m (no focus)
Resolution	minimum: 640 x 480 maximum: 1.3 megapixel x 5.0 megapixel
Field of View (H X V)	68 ° x 52 °
Focus	Fixed lens
<b>Palette</b>	Grayscale, Ironbow, High Contrast, Amber, Hot Metal, Blue Red
<b>Image Capture and Data Storage</b>	
Internal storage memory capacity	~500 images
Micro SD memory card	≥4 GB (>1000 images)
File Formats	Non-radiometric (.jpg) or Fully-radiometric (.is2). No analysis software is required for .jpg files. Fluke Connect desktop software is required for .is2 files.
Memory Review	Thumbnail and full screen review
Text Annotation	Yes (.is2 file format only, not .jpg file format)
<b>Wireless Connectivity</b>	PC and WiFi to LAN (where available)

### SIMPLIFIED EU DECLARATION OF CONFORMITY

Hereby, Fluke declares that the radio equipment contained in this Product is in compliance with Directive 2014/53/EU. The full text of the EU declaration is available at the following internet address:

[www.fluke.com/RED](http://www.fluke.com/RED)