

# HORIBA

Process & Environmental

**High-accuracy  
Infrared Thermometer  
Handheld Models**

IT-545 Series

  
CE marking compliant



IT-545 (Actual size)

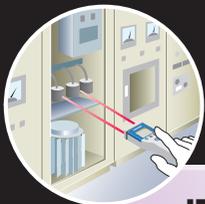
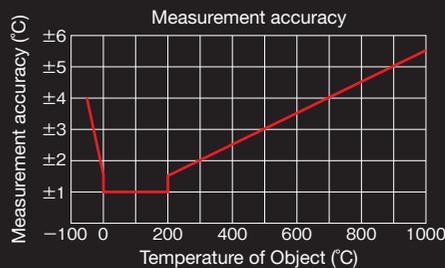


# Industry-leading accuracy



Our unique thermopile sensor enables high accuracy ( $\pm 1^{\circ}\text{C}$ ), high repeatability ( $\pm 0.3^{\circ}\text{C}$ ), and fast response (within 0.8sec, 95%)

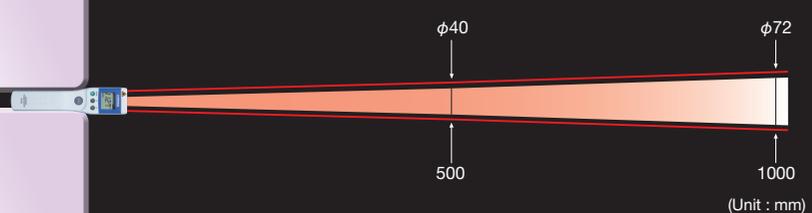
- Adoption of our unique thermopile sensor structure provides enhanced resistance to fluctuations in ambient temperature for very stable measurement with minimal drift.
- Years of successful development of infrared multi-layer filters are leveraged to identify the best wavelength regions and filter designs matched to sensor performance to ensure high accuracy temperature measurements.
- Exclusive in-house black body furnace technology produces superior uniform temperature conditions to deliver industry-leading characterization and calibration.
- Easy-to-use, compact & lightweight, simple, advanced design.
- Laser guide marker define measurement area for high precision
- Wide measurement area.
- Abnormal temperature warning by audio alarm and flashing marker



For routine maintenance work  
**Narrow-focus model**

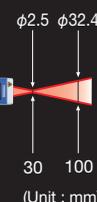
**IT-545N**  
-50°C ~ 500°C  
Twin beam marker  
Upper/Lower temp alarm  
Measurement-hold function

**IT-545NH**  
-50°C ~ 1000°C  
Twin beam marker  
Upper/Lower temp alarm  
Measurement-hold function



For measuring electronic components  
**Spot focus model**

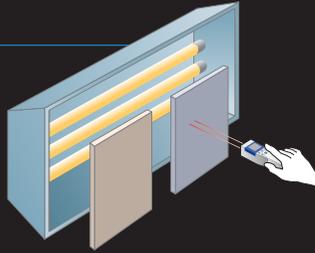
**IT-545S**  
-50°C ~ 500°C  
LED target marker  
Upper/Lower temp alarm  
Measurement-hold function



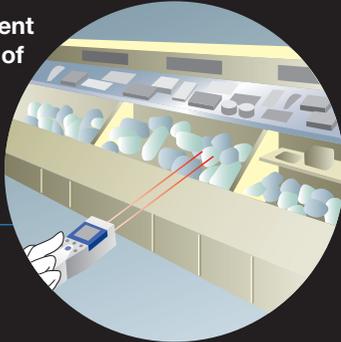
# Applications

## ■ For high-precision measurements

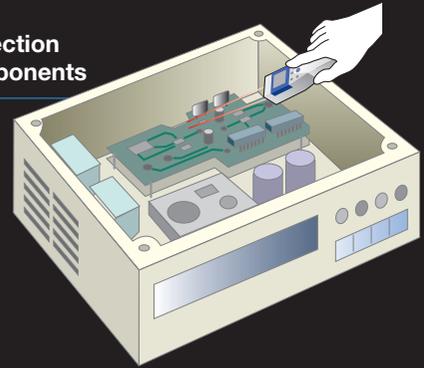
Comparison and inspection of thermal insulators



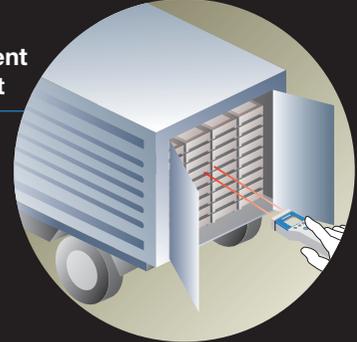
For food management such as inspection of refrigerated/frozen foods, cooking temperature, deep fryer oil temperature etc.



Overheating inspection of electronic components

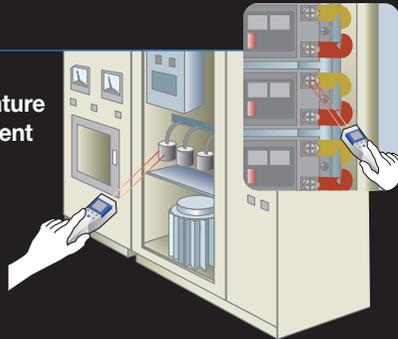


Temperature measurement for refrigerated transport



## ■ For standard measurements

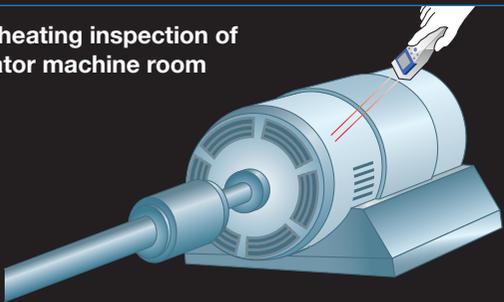
Inspection for abnormal temperature of electric equipment



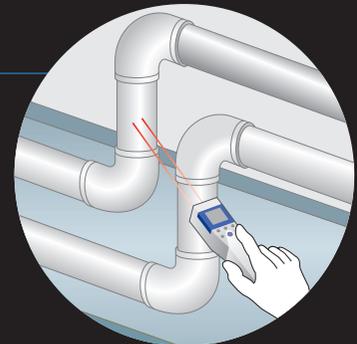
To confirm the efficacy of roof greening or heat-island prevention materials



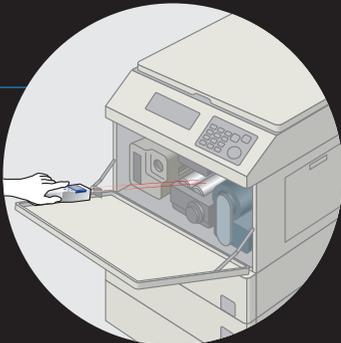
Overheating inspection of elevator machine room



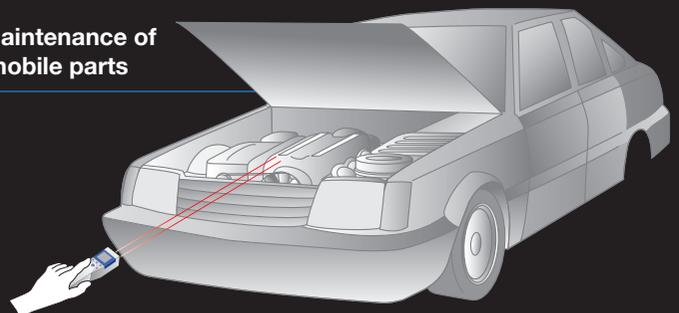
To confirm the surface temperature of pipe, checking overheating or freezing



Overheating inspection of copiers



For maintenance of automobile parts



Narrow-focus model		Spot focus model	
IT-545NH   		IT-545N   	
IT-545S   			
Measurement wavelength	8 to 14µm		
Measurement temp. range*1	-50 to 1000°C		-50 to 500°C
Display temp. range	-55 to 1010°C		-55 to 505°C
Display resolution	0.1°C for 0.0 to 199.9°C 1°C for other than above		
Accuracy*2	-50 to -0°C	±(10% of reading -1.5)°C	
	0.0 to 199.9°C	±1.0°C	
	200 to 500°C	±(0.5% of reading +0.5)°C	
	501 to 1000°C	±(0.5% of reading +0.5)°C (Only for IT-545NH)	
Repeatability	-50 to -0°C	±1°C	
	0.0 to 199.9°C	±0.3°C	
	200 to 500°C	±1°C	
	501 to 1000°C	±1°C (Only for IT-545NH)	
Response time	Within 0.8sec (95%)		
Measuring diameter	ø40/500 mm (DS*3 12.5:1)		ø2.5/30 mm
Emissivity setting	0.10 to 1.00 in 0.01 increments		
Sight	Twin beam laser marker (Class 2)		LED spot marker
Operating temp. & humidity	0 to 50°C, 35 to 85% RH, no condensation		
Power	AAA batteries × 4		
Battery life	Approx. 8 hrs (continuous use under standard condition using manganese battery)		Approx. 25 hrs (continuous use under standard condition using manganese battery)
Dimensions / Mass	40(W) × 170(L) × 36(H) mm / Approx.140g (batteries included)		
Other functions	Upper/Lower temp alarm (between -55 and 1010°C) Max/Min values Measurement-hold Auto power off	Upper/Lower temp alarm (between -55 and 505°C) Max/Min values Measurement-hold Auto power off	
Accessories	AAA batteries × 4, carrying case, manual		

\*1: Fahrenheit and Celsius displays are available for the Americas.

\*2: Temp. 18°C to 28°C, Humidity 55%RH, Emissivity (ε)=1.00

\*3: DS = Distance to spot size



**Please read the operation manual before using this product to assure safe and proper handling of the product.**

- The specifications, appearance or other aspects of products in this catalog are subject to change without notice.
- Please contact us with enquiries concerning further details on the products in this catalog.
- The color of the actual products may differ from the color pictured in this catalog due to printing limitations.
- It is strictly forbidden to copy the content of this catalog in part or in full.
- The screen displays shown on products in this catalog have been inserted into the photographs through compositing.
- All brand names, product names and service names in this catalog are trademarks or registered trademarks of their respective companies.