

Non-Contact

Infrared Thermometer

Handheld Models

IT-540 Series

IT-550 Series



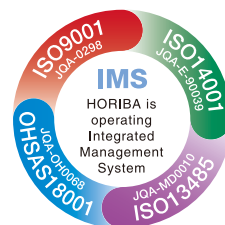
IT-540



IT-550



CE marking compliant



Non-Contact

Infrared Thermometer Handheld Models

Quick, Accurate and Easy A full lineup of hand-held infrared thermometers covering a wide range of measurement needs

Every unit offers reliable functionality, narrow focus, splash resistance and low cost exceptional performance. HORIBA has the ideal model to meet your specific temperature measurement needs.

Narrow-focus model

IT-550F

-50°C ~ 500°C

AC adaptor, tripod

Twin
beam
marker

Digital
output
(Option)

Printer
output
(Option)

Splash-
resistant

Memory
function

IT-550L

-50°C ~ 500°C

AC adaptor, tripod

Twin
beam
marker

Digital
output
(Option)

Analog
output
(Option)

Splash-
resistant

Display
resolution
switch

IT-540N

-50°C ~ 500°C

Twin
beam
marker

Upper/Lower
temp
alarm

Measurement-
hold
function

IT-540NH

-50°C ~ 1000°C

Twin
beam
marker

Upper/Lower
temp
alarm

Measurement-
hold
function

Standard model

IT-540E

-50°C ~ 500°C

Upper/Lower
temp
alarm

Measurement-
hold
function

IT-540W

-50°C ~ 500°C

One
beam
marker

Measurement-
hold
function

IT-540WE

-50°C ~ 500°C

Measurement-
hold
function

Spot focus model

IT-550S

-50°C ~ 500°C

AC adaptor, tripod

Twin
beam
marker

Digital
output
(Option)

Analog
output
(Option)

Splash-
resistant

Display
resolution
switch

IT-540S

-50°C ~ 500°C

LED
target
marker

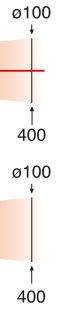
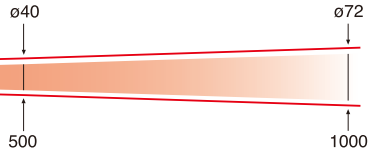
Upper/Lower
temp
alarm

Measurement-
hold
function

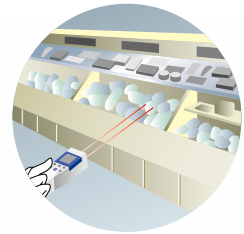
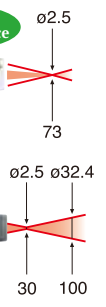


(Unit: mm)

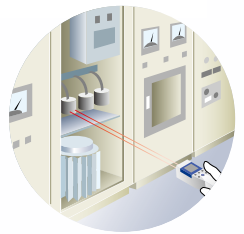
HACCP-Compliance



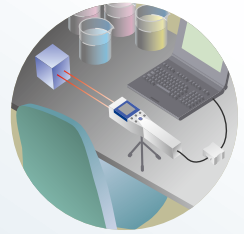
HACCP-Compliance



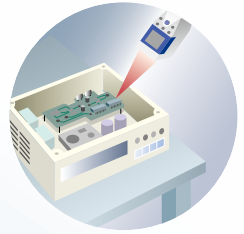
Food temperature management



Non-contact testing of high-voltage equipment such as a power supply system



Temperature measurement as a part of lab tests



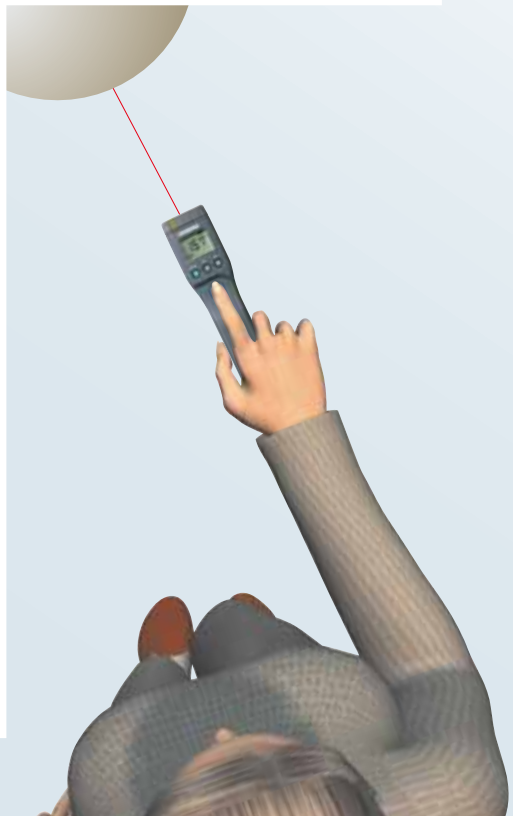
Surface temperature measurement of ICs and other minute surfaces



Refrigeration maintenance of foods



Temperature check when adding or removing food from storage





Non-Contact Infrared Thermometer

IT-550 Series

Narrow Focus, Splash-Resistance & Digital Output
The Twin-Laser Sight Makes Measurements A Snap!

Narrow-focus type

Target area of $\varnothing 24/1000$ mm (F and L models)

The twin laser sight makes it easy to focus on target. The F (Field) model, L (Lab) model and the S (Spot) model all have unique twin-laser sights optimized for your applications. The F and L models require only 1/3 of target area, when compared to older models, making it easier to measure temperature of small objects from a distance. The S model's target area is $\varnothing 2.5/73$ mm.

Splash-resistance

The splash-resistant non-contact thermometer!

IT-550 is splash-resistant. It can be safely used in kitchens and other type of spaces where thermometers may get wet. It can safely be operated with a wet hand, making it ideal for use in food industry.



* A wet lens can cause errors in readings. Completely wipe off any water from the lens before use.

HACCP-Compliance

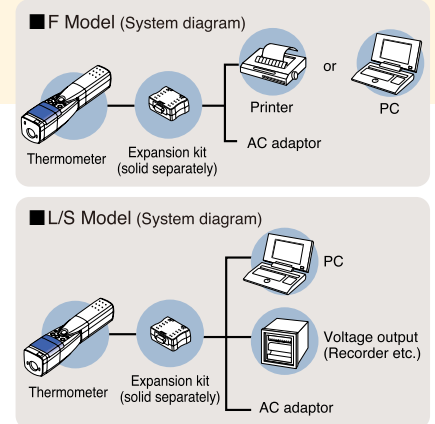


IT-550F
IT-550L
IT-550S

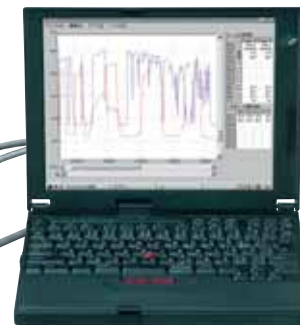
Digital Output

Memory function, Digital Output, Voltage Output, PC/Printer connection and more!
Speedup data processing by collecting temperature measurements directly from the thermometer!

The optional expansion kit (sold separately) lets you connect the thermometer (F model) to printers and print data directly from its memory. The thermometers with digital/voltage output (L & S models) can easily hookup to a computer/recorder and export data for spreadsheets or word processors.



Expansion kit (sold separately)



■ Option

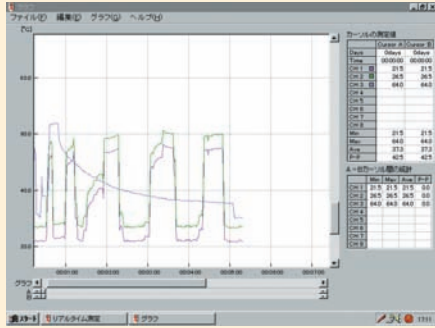
● Expansion kit

- PC software
- Expansion box
- Modular cable
- Analog output cable

* The expansion kit does not include any connection cable(s) required between the expansion box and the PC/Printer.

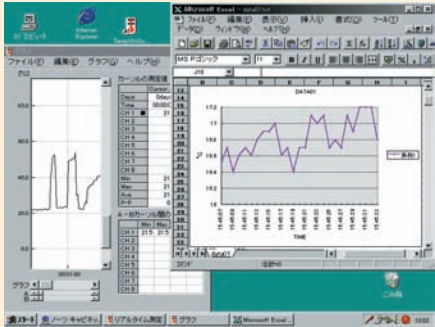
Graphing made easy

- Using the accompanied software (L & S models)



▲ Sample screen

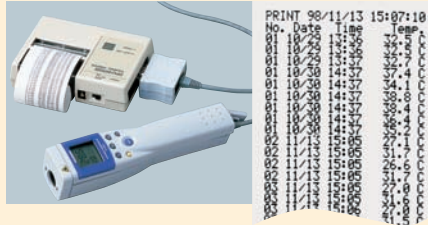
- Exporting data to spreadsheets (all models)



▲ Sample screen of MS Excel

(F model)

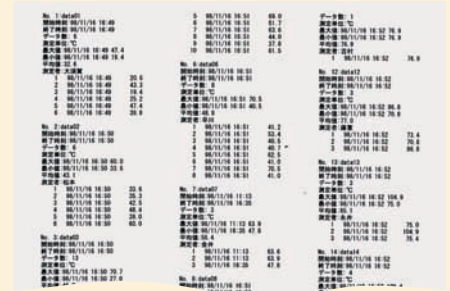
Obtaining hardcopy



▲ Sample printout

(F model)

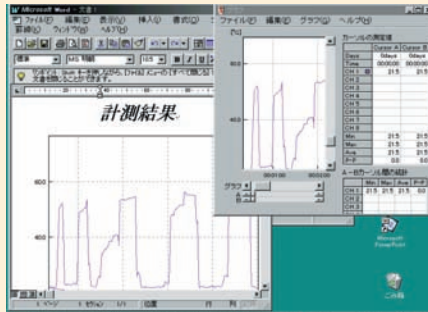
Simplifying reports



▲ Sample report

(L & S models)

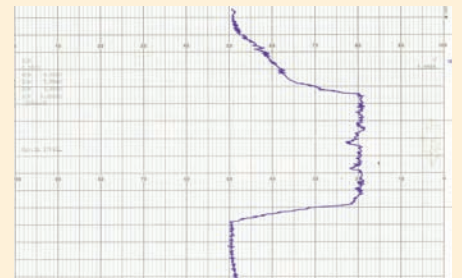
Data manipulations



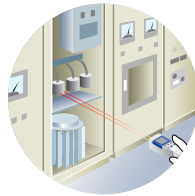
▲ Sample screen of MS Word

(L & S models)

Using a graphical recorder



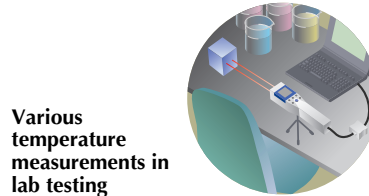
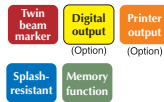
▲ Sample graph



Power supply maintenance

For Field Use

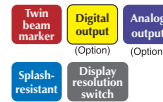
IT-550F



Various temperature measurements in lab testing

For laboratory Use

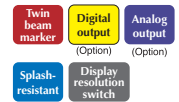
IT-550L



Surface temperature measurements of minute devices such as IC components

For laboratory Use. Spot Focus Model

IT-550S



Spectral response	8 to 16μm	
Measurement temp. range	-50 to 500°C	
Display temp. range (Display resolution)	-55.0 to 505.0°C (0.1°C)	-55.0 to 505.0°C (1°C) or -55.0 to 505.0°C (0.1°C)
Accuracy	Within ±(10% of reading -2)°C (-50.0 to -0.1°C) Within ±2.0°C of reading (0.0 to 200.0°C) Within ±1% of reading (200.0 to 500.0°C) (Temp. 18 to 28°C Humidity 55%RH, ε=1.00)	Within ±(10% of reading -2)°C (-50. to -1°C) or (-50.0 to -0.1°C) Within ±2.0°C of reading (0 to 200°C) or (0.0 to 200.0°C) Within ±1% of reading (200 to 500°C) or (200.0 to 500.0°C) (Temp. 18 to 28°C Humidity 55%RH, ε=1.00)
Repeatability	Within ±1°C (-50.0 to -0.1°C) Within ±0.5°C (0.0 to 500°C)	[0.1°C resolution] Within ±1°C (-50.0 to -0.1°C), Within ±0.5°C (0.0 to 500°C) [1°C resolution] Within ±2°C (-50 to -1°C), Within ±2°C (-50 to -1°C)
Response time	1.6 s or less (95%)	0.7 s or less (95%) at 1°C resolution; 1.6 s or less (95%) at 0.1°C resolution
Target size	ø24/1000 mm	
Emissivity setting	0.10 to 1.00 in 0.01 increments	
Sight	2-Beam Laser sight (Class 2)	
Splash & Dust resistance	Dust-resistance type (IEC529 IP54)	
Operating temp. & humidity	0 to 40°C, 35 to 85% RH, no condensation	
Power	9 V dry battery (6F22 or 6LR61) × 1, or AC adapter (requires the expansion kit)	
Battery life	Approx. 20 hrs (continuous use under standard condition using alkaline battery)	
Dimensions & weight	47(W) × 200(L) × 48(H) mm / 280g (batteries included)	
Other functions	Date memory (Max.130point), Printer output, RS232C Max/Min values, Measurement-hold, Auto power off	Analog output (0~1v), Display resolution, Scaling, RS232C Max/Min values, Measurement-hold, Auto power off
Storage temp.	-20 to 55°C no condensation	
Accessories	Manual, carrying case, hand strap, batteries, battery lid opener	

Note: The optional expansion kit (sold separately) is required for analog output, printer output, use of RS232C.

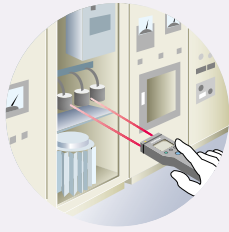


Non-Contact Infrared Thermometer

IT-540 Series

The easy-to-carry, compact & lightweight design
3 Types of narrow field, low cost and spot focus

Simple,
advanced design



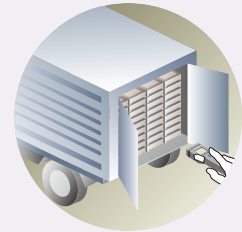
For routine maintenance work
**Narrow-focus model
(Dual beam model)**



- Quick, accurate readings, even under rapidly changing ambient temperatures minimizing "temperature drift."
 - Wide measurement area
 - Abnormal temperature warning by audio alarm and flashing marker*.
- * Only for models designated NH and N.



For measuring electronic components
Spot focus model



For measuring foods, etc.
Standard model

	Narrow-focus model		Spot focus model		Standard model	
	IT-540NH	IT-540N	IT-540S	IT-540E	IT-540W	IT-540WE
	Upper/Lower temp alarm Measurement-hold function Twin beam marker	Upper/Lower temp alarm Measurement-hold function Twin beam marker	Upper/Lower temp alarm Measurement-hold function LED target marker	Upper/Lower temp alarm Measurement-hold function	Upper/Lower temp alarm Measurement-hold function One beam marker	Measurement-hold function Measurement-hold function
Measurement temp. range	-50 to 1000°C		-50 to 500°C (-58 to 932°F)		-50 to 505°C (-58 to 932°F)	
Display temp. range	-55 to 1010°C					
Display resolution			1°C			
Accuracy	201 to 1000°C : ±1% of reading 0 to 200°C : ±2°C of reading -50 to -1°C : ±(10% of reading -2)°C (Emissivity=1.0, Temp. 18 to 25°C Humidity 55%RH)		201 to 500°C : ±1% of reading 0 to 200°C : ±2°C of reading -50 to -1°C : ±(10% of reading -2)°C (Emissivity=1.0, Temp. 18 to 25°C Humidity 55%RH)			
Spectral response	8 to 16μm				8 to 25μm	
Emissivity setting	0.10 to 1.00 in 0.01 increments					
Response time	Approx. 1.5 s (95%)					
Target size	ø40/500 mm		ø2.5/30 mm		ø40/500 mm	
Sight	2-Beam Laser sight (Class 2)		LED spot marker		None	
					1-Beam Laser sight (Class 2)	
Power	AAA batteries × 4					
Operating temp.	0 to 40°C		0 to 50°C		0 to 40°C	
Operating humidity	35 to 85% RH, no condensation					
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		Max/Min values Measurement-hold Auto power off	
Dimensions	170(H) × 40(D) × 36(W) mm					
Weight	Approx. 140g (Batteries included)					
Accessories	AAA batteries × 4, carrying case, manual				AAA batteries × 4, manual	

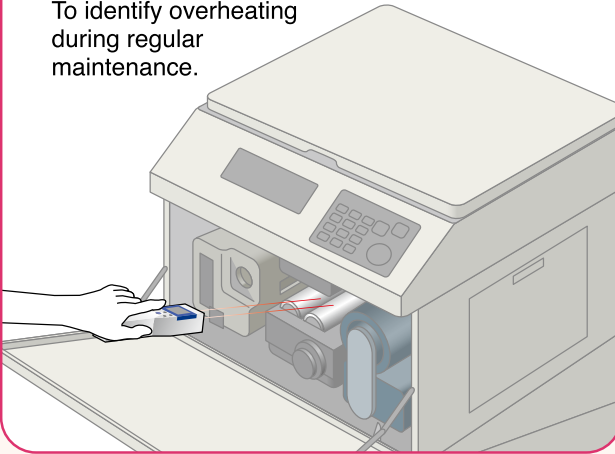
Infrared Thermometer

Applications

ELECTRIC / ELECTRONIC

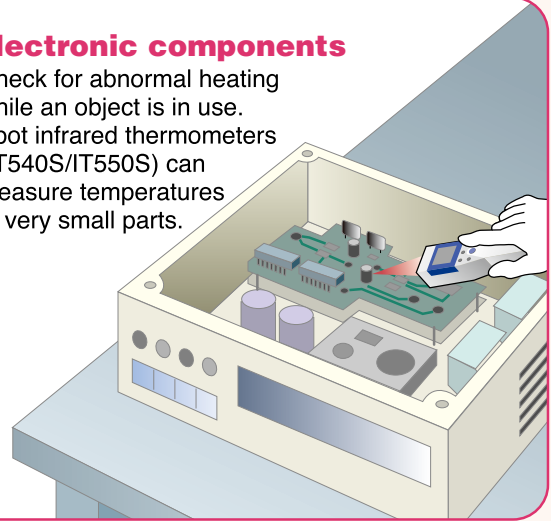
● Copiers

To identify overheating during regular maintenance.



● Electronic components

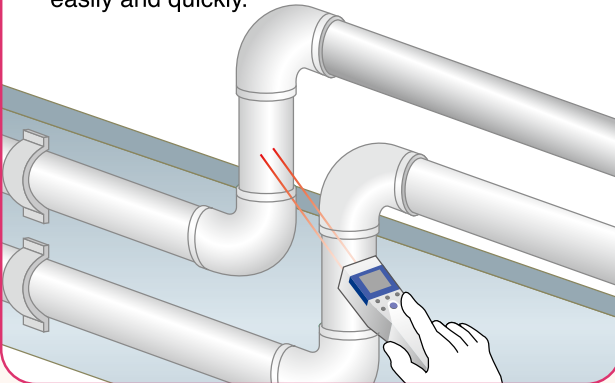
Check for abnormal heating while an object is in use. Spot infrared thermometers (IT540S/IT550S) can measure temperatures of very small parts.



SAFETY / MAINTENANCE

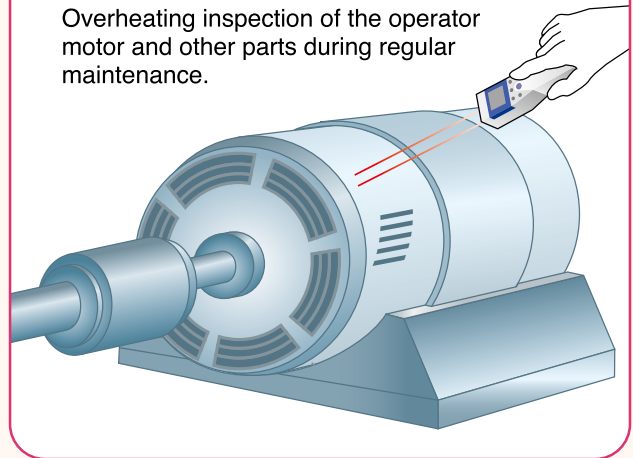
● Piping

Check for overheating or freezing. Infrared thermometers can inspect different points easily and quickly.



● Elevator machine room

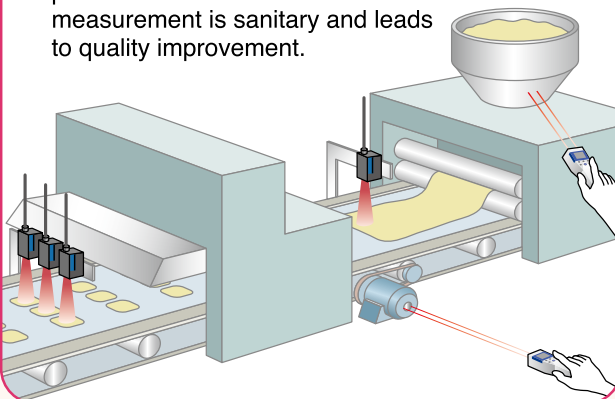
Overheating inspection of the operator motor and other parts during regular maintenance.



FOODS

● Ovens and dryers

Temperature control in baking and other process is crucial. Non-contact measurement is sanitary and leads to quality improvement.



CONSTRUCTION / CIVIL ENGINEERING

● Thermal insulation

For R&D, comparison and inspection of insulators.

