Non-Contact

Infrared Thermometer

Handheld Models

NEW **IT-545 Series**
IT-550 Series

CE marking compliant

IT-550 (Actual size)

NEW

IT-545 (Actual size)

IMS
HORIBA is operating Integrated Management System
ISO9001 JQA-0298
ISO14001 JQA-E-90039
OHSAS18001 JQA-OH0068
ISO13485 JQA-MD0010

TASHIKA - JAPAN

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 with exceptional performance.
We have the ideal model to meet your specific temperature measurement needs.

Non-Contact
Infrared Thermometer
Handheld Models

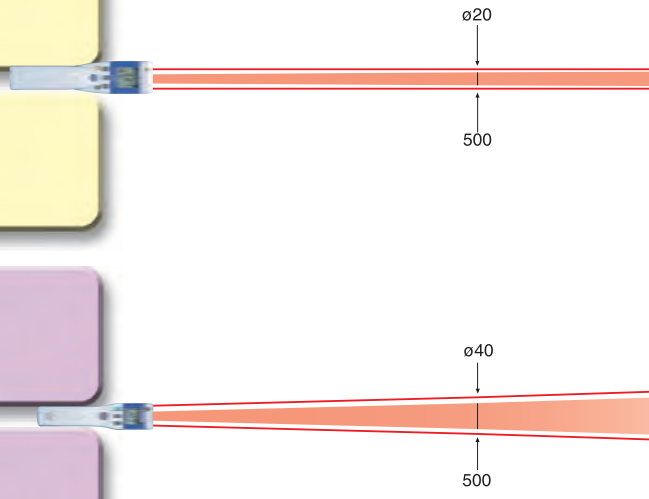
Narrow-focus model

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

NEW IT-545N
-50˚C ~ 500˚C
Twin beam marker | Upper/Lower temp alarm | Measurement-hold function

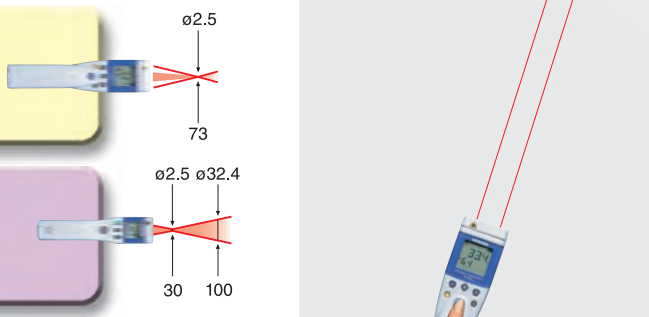
NEW IT-545NH
-50˚C ~ 1000˚C
Twin beam marker | Upper/Lower temp alarm | Measurement-hold function



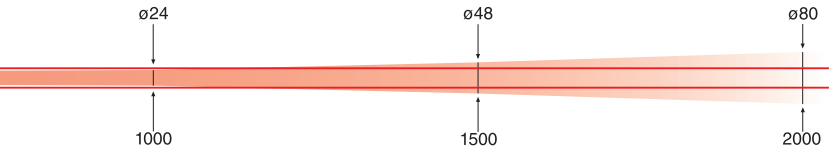
Spot focus model

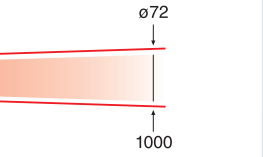
IT-550S
-50˚C ~ 500˚C
AC adaptor, tripod
Twin beam marker | Digital output (Option) | Analog output (Option) | Splash-resistant | Display resolution switch

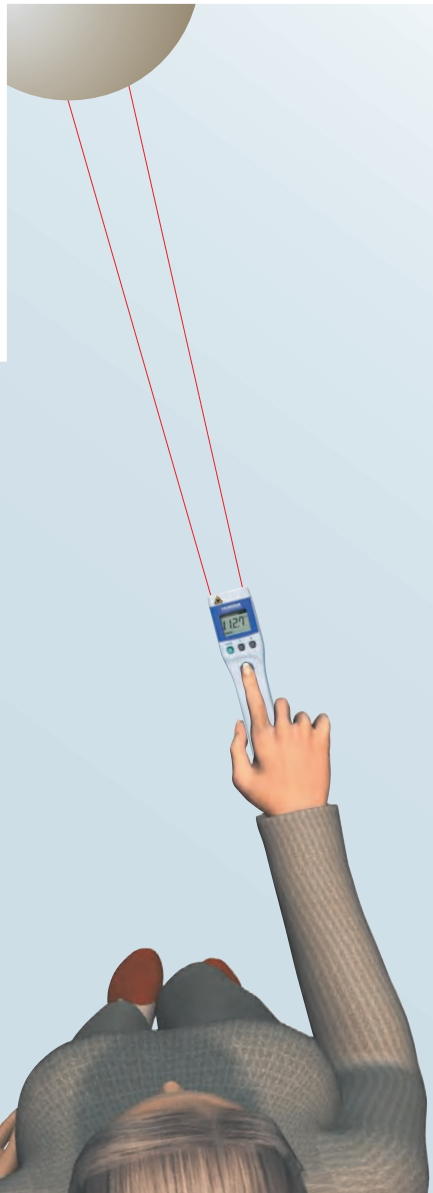
NEW IT-545S
-50˚C ~ 500˚C
LED target marker | Upper/Lower temp alarm | Measurement-hold function

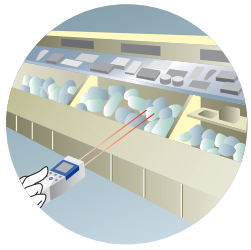


(Unit: mm)

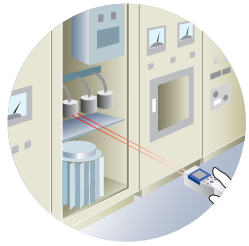




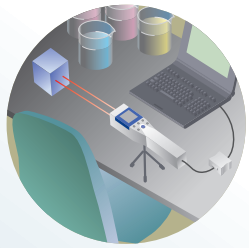




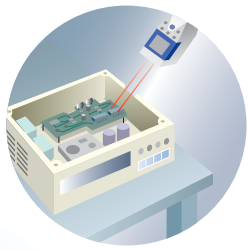
Food temperature management



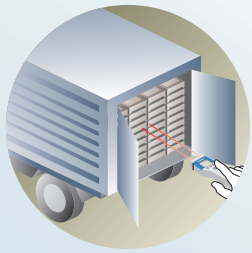
Non-contact testing of high-voltage equipment such as a power supply system



Temperature measurement as a part of lab tests



Surface temperature measurement of ICs and other minute surfaces



Refrigeration maintenance of foods

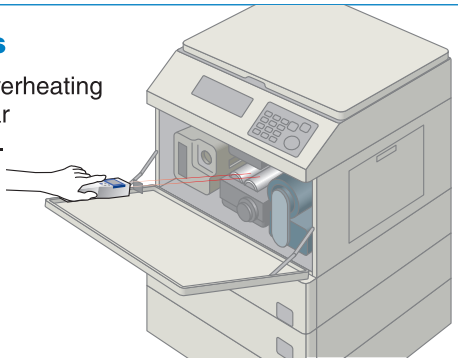
Temperature check when adding or removing food from storage

Infrared Thermometer **Applications**

ELECTRIC / ELECTRONIC

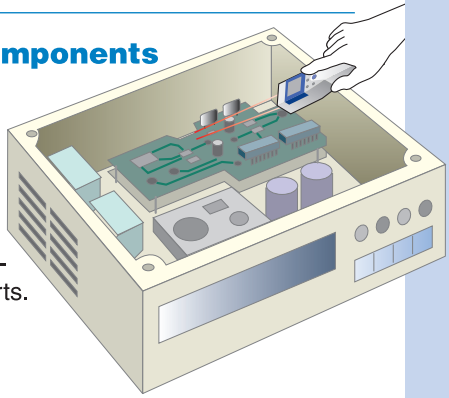
• Copiers

To identify overheating during regular maintenance.



• Electronic components

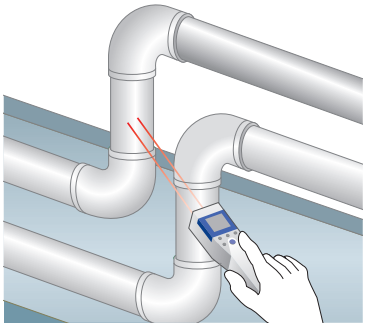
Check for abnormal heating while an object is in use. Spot infrared thermometers (IT-545S/IT-550S) can measure temperatures of very small parts.



SAFETY / MAINTENANCE

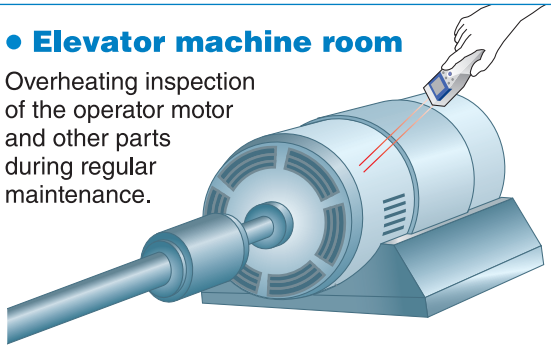
• Piping

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



• Elevator machine room

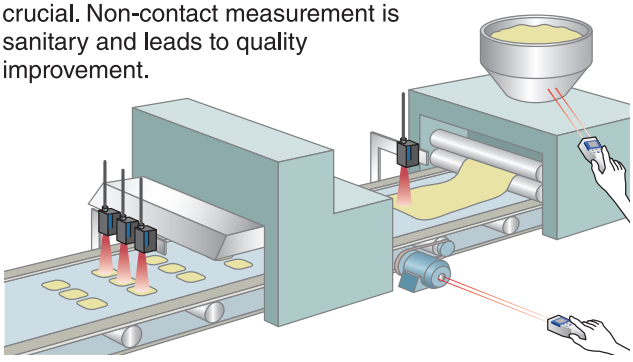
Overheating inspection of the operator motor and other parts during regular maintenance.



FOODS

• Ovens and dryers

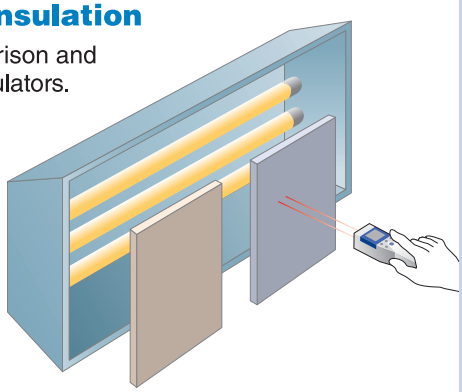
Temperature control in baking and other process is crucial. Non-contact measurement is sanitary and leads to quality improvement.



CONSTRUCTION / CIVIL ENGINEERING

• Thermal insulation

For R&D, comparison and inspection of insulators.



OTHERS

- **Inspection of household appliances.**
- **Inspection of air conditioners.**
- **Temperature monitoring of electric motors.**
- **Thermal insulation tests for pots and steamers.**
- **Inspection of ironing surface.**
- **Periodic maintenance of HVACR.**
- **Periodic maintenance of furnace outer wall.**
- **Periodic maintenance of boiler outer wall.**
- **Temperature inspection of refrigerated / frozen foods.**
- **Cooking temperature inspection.**
- **Deep fryer oil temperature inspection.**
- **Detecting overheating parts of automobile.**
- **Inspection of automobile air conditioners.**
- **Temperature measurement of automobile headlights.**

Non-Contact Infrared Thermometer

NEW

IT-545 Series

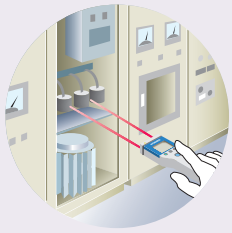
CE marking compliant

Easy-to-carry, compact & lightweight design

Simple, advanced design

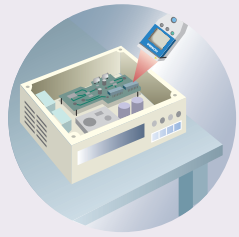
- Quick, accurate readings, even under rapidly changing ambient temperatures minimizing "temperature drift."
- Wide measurement area
- Abnormal temperature warning by audio alarm and flashing marker*.

* Only for models designated NH and N.



For routine maintenance work

Narrow-focus model (Twin beam model)



For measuring electronic components

Spot focus model

		Narrow-focus model		Spot focus model
		IT-545NH (Twin beam marker / Upper/Lower temp alarm / Measurement-hold function)	**IT-545N** (Twin beam marker / Upper/Lower temp alarm / Measurement-hold function)	**IT-545S** (LED target marker / Upper/Lower temp alarm / Measurement-hold function)
Spectral response		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%)		
Target size		ø40/500 mm (DS[*3] 12.5:1)		ø2.5/30 mm
Emissivity setting		0.10 to1.00 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

Non-Contact Infrared Thermometer

IT-550 Series

CE marking compliant

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

Narrow-focus type

Target area of ø24/1000 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 ø2.5/73 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.

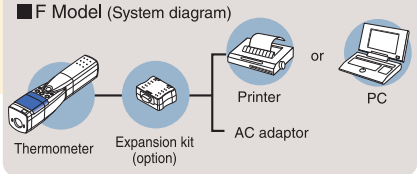
IT-550F
IT-550L
IT-550S

Digital Output

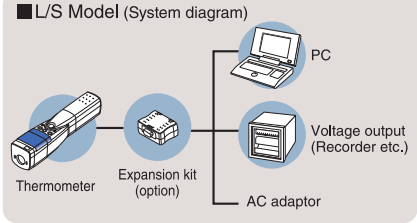
Memory function, Digital Output, Voltage Output, PC/Printer connection and more! Speedup data processing by collecting temperature measurements directly from the thermometer!

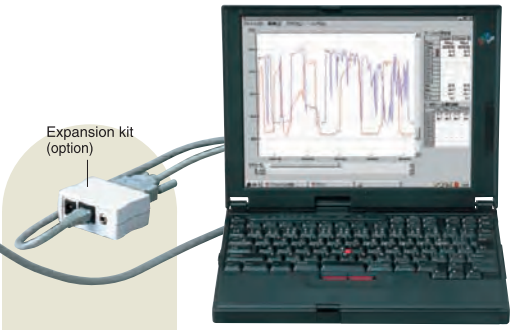
The expansion kit (option) lets you connect the thermometer (F model) to printers and print data directly from its memory. The thermometers with digital/voltage output (L & S models) can easily hookup to a computer/recorder and export data for spreadsheets or word processors.

■F Model (System diagram)



■L/S Model (System diagram)





■Option

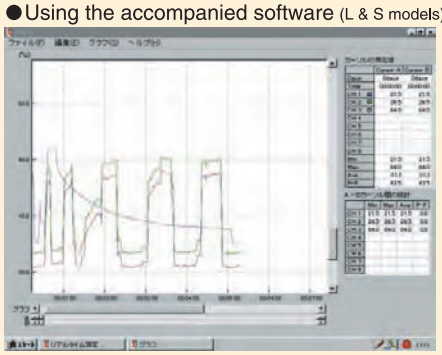
●Expansion kit

- •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.

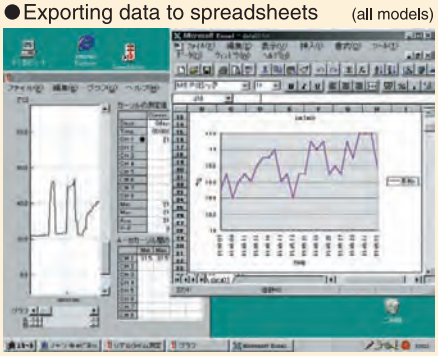
Graphing made easy

●Using the accompanied software (L & S models)



▲Sample screen

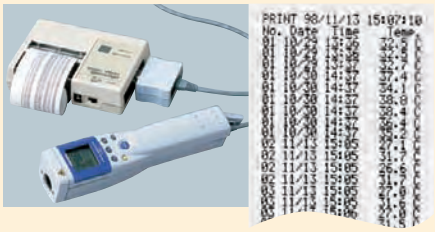
●Exporting data to spreadsheets (all models)



▲Sample screen of Microsoft® Excel®*1

Obtaining hardcopy

(F model)



▲Sample printout

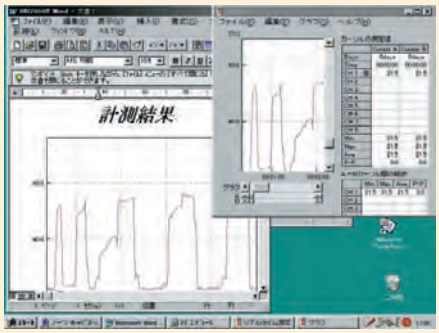
Simplifying reports

(F model)

▲Sample report

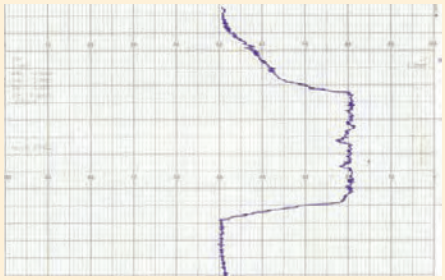
Data manipulations

(L & S models)



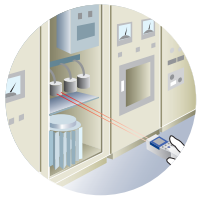
Using a graphical recorder

(L & S models)



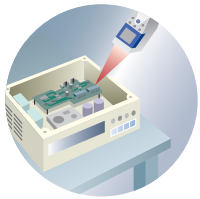
▲Sample graph

Power supply maintenance



Various temperature measurements in lab testing

Surface temperature measurements of minute devices such as IC components



For Field Use	For laboratory Use	For laboratory Use. Spot Focus Model
IT-550F Twin beam marker / Digital output (Option) / Printer output (Option) / Splash-resistant / Memory function	**IT-550L** Twin beam marker / Digital output (Option) / Analog output (Option) / Splash-resistant / Display resolution switch	**IT-550S** Twin beam marker / Digital output (Option) / Analog output (Option) / Splash-resistant / Display resolution switch

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	±(10% of reading -2)˚C (-50.0 to -0.1˚C) ±2.0˚C (0.0 to 200.0˚C) ±1% of reading (200.0 to 500.0˚C) (Temp. 18 to 28˚C Humidity 55%RH, ε=1.00)	±(10% of reading -2)˚C (-50. to -1˚C) or (-50.0 to -0.1˚C) ±2.0˚C (0 to 200˚C) or (0.0 to 200.0˚C) ±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	±1˚C (-50.0 to -0.1˚C) ±0.5˚C (0.0 to 500˚C)	[0.1˚C resolution] ±1˚C (-50.0 to -0.1˚C), ±0.5˚C (0.0 to 500˚C) [1˚C resolution] ±2˚C (-50 to -1˚C), ±2˚C (-50 to -1˚C)	
Response time	Within 1.6 sec (95%)	0.7 sec or less (95%) at 1˚C resolution: 1.6 sec or less (95%) at 0.1˚C resolution	
Target size	ø24/1000 mm (DS 41.6:1)		ø2.5/73 mm
Emissivity setting	0.10 to1.00 in 0.01 increments		
Sight	Twin beam laser marker (Class 2)		
Splash & Dust resistance	IP54 (IEC529)		
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 / Mass	47(W) × 200(L) × 48(H) mm / Approx. 280g (battery included)		
Other functions	Date memory (Max.130point), Printer output, RS232C Max/Min values, Measurement-hold, Auto power off	Analog output (0 to 1v), Display resolution, Scaling, RS232C Max/Min values, Measurement-hold,Auto power off	
Accessories	Manual, carrying case, hand strap, battery, battery lid opener		

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

*1: Microsoft and Excel are registered trademarks of Microsoft Corporation in the United States and other countries.

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