■Specifications

	TVS-200
Measurement Range	-20°C to 300°C: Standard
	~900°C: Option with High Temp Filter
Measurement Accuracy	±2°C below 100°C, ±2% over 100°C
Temperature Resolution	Better than 0.08°C with Averaging
Frame Time	1/60 Sec.
Detector	Uncooled FPA, 320(H) x 240(V) VOx microbolometer
Wavelength	8 to 14 μm
FOV	30.1°(H)x 22.6°(V)(with 22mm standard lens)
Spatial Resolution	1.68mrad
Focus Distance	30cm to ∞
Effective Pixels	320(H) x 240(V)
Display	3.5" Transflective Color LCD Monitor
	Color View Finder (Option)
Functions — Point Temperature Read Out	5 Points Maximum
Digital Zoom	×2, Scroll
Freeze	On/Off
Isotherm Mode	High/Low/Center
Color Selection	Rainbow / Red / Green / Blue
Background Color Selection	Rainbow / Hotiron / Ironbar / Hotwhite / Hotblack
Cursor Speed Selection	Fast / Medium / Slow
Alarm	Alarm Display Over High Temp Threshold (Single / Continuous)
Color Pallet	Rainbow / Hotiron / Ironbow / Hotwhite / Hotblack
Image Improvement	Averaging (2, 4, 8, 16 frames)
Other Functions	Emissivity Compensation, Day and Time Display, Battery Status, Memo
Area icon display	Maximum Temp or Minimum Temp
AOI size	Large /Small
Scroll display	Date, Time, Emissivity, Ambient Temperature, File Name,
	Memo, Averaging(Off, 2,4,8,16), Battery Status,
	Temperature Table Display, Alarm Threshold Temperature
Function Icon Display — CAL Icon	Wink Compensation
ZOM Icon	Zoom
PLY Icon	Thermal Image Play Back
REC Icon	Thermal Image Record
FRZ Icon	Freeze On/Off
INT Icon	Interbal Recording of Thermal Image
ALM Icon	Alarm Function On/Off
ISO Icon	Isotherm Display
AVE Icon	Averaging Selection(off,2,4,8,16)
Ambient Temp Correction	Auto/Manual
Wink Compensation Selection	Auto/Interval/Manual/off
Auto Temperature Tracking	Auto Sense / Auto Point
Manual Range Setting	Low Temp / High temp / Level / Span / Full Range
	History Mode (Up to last 5 Temp Setting)
CF Card — Data Storage	150 Frames/32MB, up to 512MB
Mode	CF Format / Delete / Make Directory / File Name Input
	/ One Shot Rec / Interval Rec / One Shot Play Back /
	Gallary Display / File Name Display
File Format	IRI / BMP / LOG
Temperature Unit	℃ / ˚F / K
Video Output	NTSC or PAL
PC Interface	IEEE-1394 (Option)
Power	Battery(Li-ion), AC Adaptor
Power Consumption	13W
Battery Duration	1.5H or more
Operation Temperature	-10℃ to 50℃
Dimensions	87(H)x112(W)x218(D)mm/3.4(H)x4.4(W)x8.6(D)in.
Weight	1.6kg/3.5lb (with battery and lens)
Environmental Protection	IP54

● Specifications and outline in this brochure are subject to change without notice for improvement.
● Since the product contains an item under export control, delivery is subject to necessary export licenses by the authorities. It is strictly regulated to export the product to certain areas.
● In case of retransfer, resale and/or reexport of the product, prior authorization by the authorities is required.

■Options

Wide Angle Lens 2X

Temperature Measurement Range:
-20°C to 300°C
Viewing Distance:15cm or longer
FOV:56.7°(H)x 44.0°(V)

Telephoto Lens 2X

Temperature Measurement Range:
-20°C to 300°C
Viewing Distance:1.2m or longer
FOV:13.5°(H)x 11.5°(V)

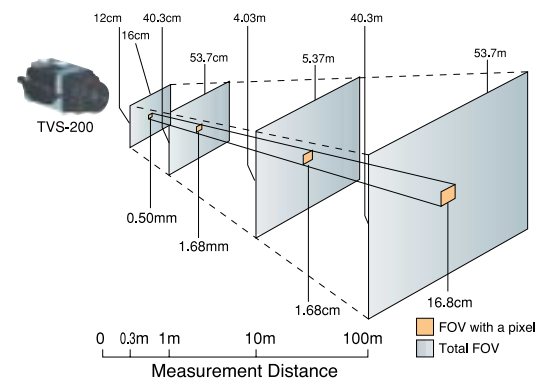| Visible Camera |
|---|

Both thermal image and visible image can be recorded simultaneously.

※When Visible Camera attached

Real Time Data Transfer Kit

OS : Win2000,winXP(SP2 or better)

Extended Temperature
(Measurement Range 200~900℃)

Color Viewfinder

Carrying case

■Measurement Distance and FOV (with standard 22mm lens)

12cm   40.3cm   4.03m   40.3m
16cm   53.7cm   5.37m   53.7m

TVS-200

0.50mm
1.68mm
1.68cm   16.8cm

0   0.3m   1m   10m   100m

☐ FOV with a pixel
☐ Total FOV

Measurement Distance

■Standard Configuration

● TVS-200(w/22mm standard lens) ————— 1 ea
● Shoulder Strap ————————————— 1 ea
● Battery Pack —————————————— 1 ea
● AC Adaptor —————————————— 1 ea
● Battery Charger ———————————— 1 ea
● CF Card (32Mb) ————————————— 1 ea
● Card Adaptor ————————————— 1 ea
● Operation Manual ———————————— 1 ea

⚠ **Caution** — Please make sure to read the instruction manual carefully before use so that the equipment can be used safely.
Do not leave the equipment in a place where there is water, moisture, steam, smoke, etc. It may cause fire, electric shock or failure of the equipment.
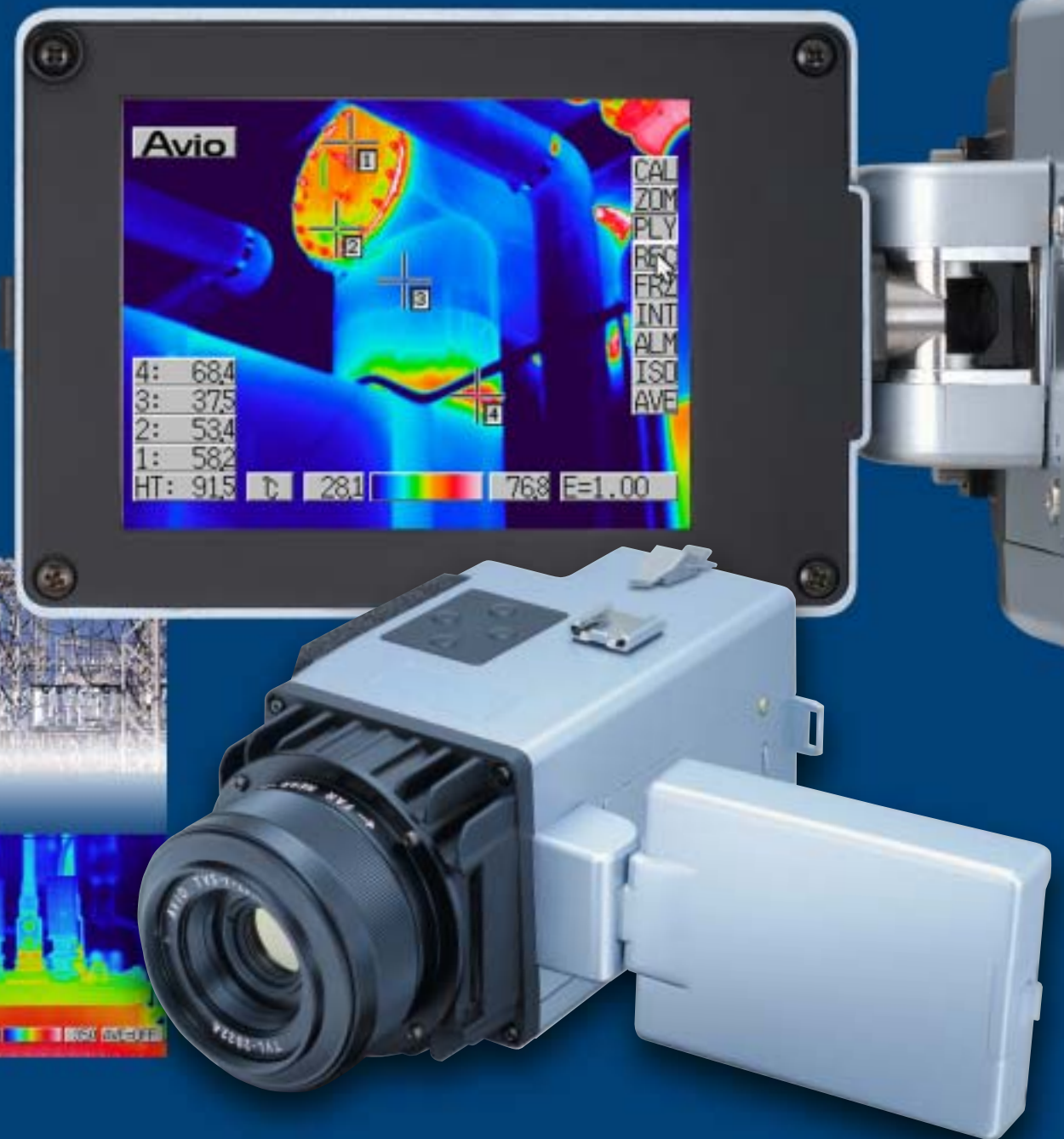
Handy Thermo TVS-200
Avio

Light and compact portability assists confortable field use.
Low cost package without compromise in performance.
Simplified operation brings easy and quick control.

NIPPON AVIONICS CO., LTD.

Overseas Department,
Industrial Electronic Products Sales Division

URL:http://www.avio.co.jp/
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CAT.No.430-688-E 0505-100-NCRv1

ISO14001 JQA-EM0156 Yokohama Plant
ISO 9001 JQA-1361

Handy Thermo
TVS-200
THERMAL VIDEO SYSTEM

Handy Thermo TVS-200 is a thermography equipment realizing small size and light weight by using the made-in-Japan uncooled IR FPA detector. In addition to its high accuracy and supreme image quality, superior portability and high functionality are combined together. You will be satisfied with the TVS-200 performance not only in the field applications such as the plant maintenance and building diagnosis but also in any kind of applications where thermal images are essential.

■Visible Camera Unit（Option）
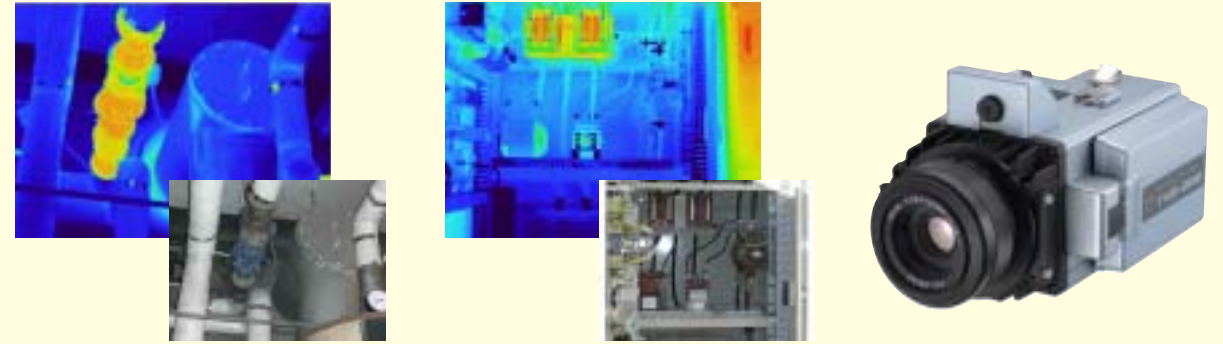
Both thermal image and visible image can be recorded simultaneously.

Ultra-Light Weight 1.6kg
Supreme Image Quality, High Temperature Resolution Made-in-Japan Uncooled IR FPA

（Better than 0.08℃ with Averaging）

❶ **LOGO icon**
The menu is displayed.

❷ **POINT icon**
The temperature value at each cursor point is displayed.

❸ **POINT CURSOR**
The measuring points from P1 to P5 are displayed.

❹ **AREA icon**
Maximum and minimum temperatures within an area are displayed.

❺ **UNIT icon**
The temperature unit is displayed.

❻ **LTEMP icon**
The designated lower limit temperature of a thermal image is displayed.

❼ **COLOR bar**
The selected color palette (pseudo color) is displayed.

① Plain and Simple Menu Display

A desired function can be activated by clicking on the icon on the screen.
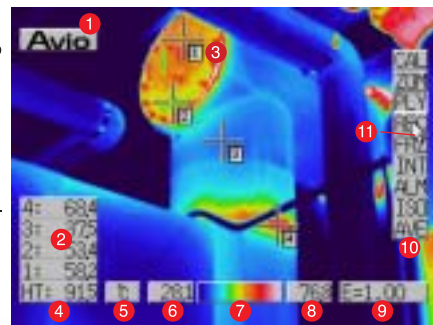
Display menu.

❽ **HTEMP icon**
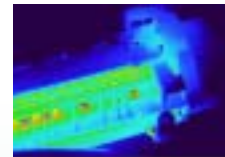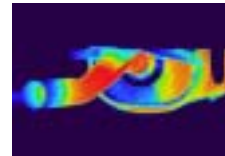The designated upper limit temperature of a thermal image is displayed.

❾ **SCROLL icon**
It switches the display among date, time, emissivity, camera ambient temperature, file name, memo, averaging, battery status and temperature table information.

❿ **FUNCTION icon**
The function execute button is displayed. The display appears when the cursor is moved to the desired button position.

⓫ **MOUSE CURSOR**
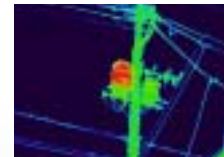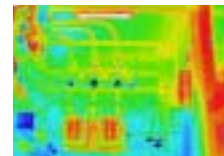It can be moved freely over the entire screen to select the icon desired to be activated.

■ ZOOM function

■ ISOTHERM display

■ ALARM display

An alarm will be displayed on the screen when a temperature exceeding the preset range is measured.

R&D
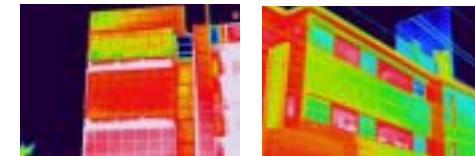Thermal design of electronic equipment and test of automobile parts, etc.

Power Facilities
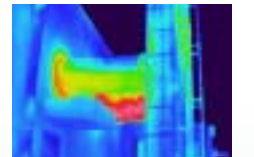Inspection of substations and power transmission lines, etc.

Building Inspection
Inspection for delamination of concrete or tiles or for water leakage, and evaluation of thermal insulation.
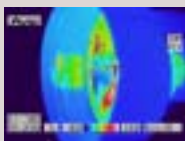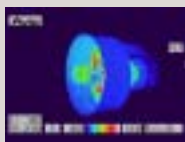
Plant maintenance
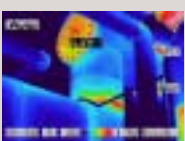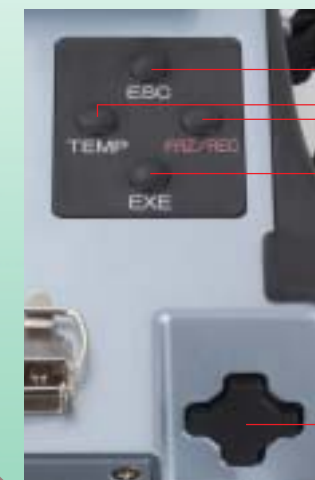Inspection and maintenance of piping and facilities.

② User Friendly Operation

ESC key
It is used for execution of CANCEL operation and others.

TEMP key
It is used for temperature range setting.

FRZ/REC key
It is used for freeze function ON/OFF and for thermal image recording.

EXE key
It is used for selection and execution of a function.

SCROLL key
It is used to move the cursor.