

Thermal Video System



Neo Thermo

TVS-700

Radiometric UFPA IR Camera



High Sensitivity and Quality Image with New Generation Detector
Comfortable Operation with Light Weight Body
Extensive Measurement with Variety of Options

NIPPON AVIONICS CO., LTD.

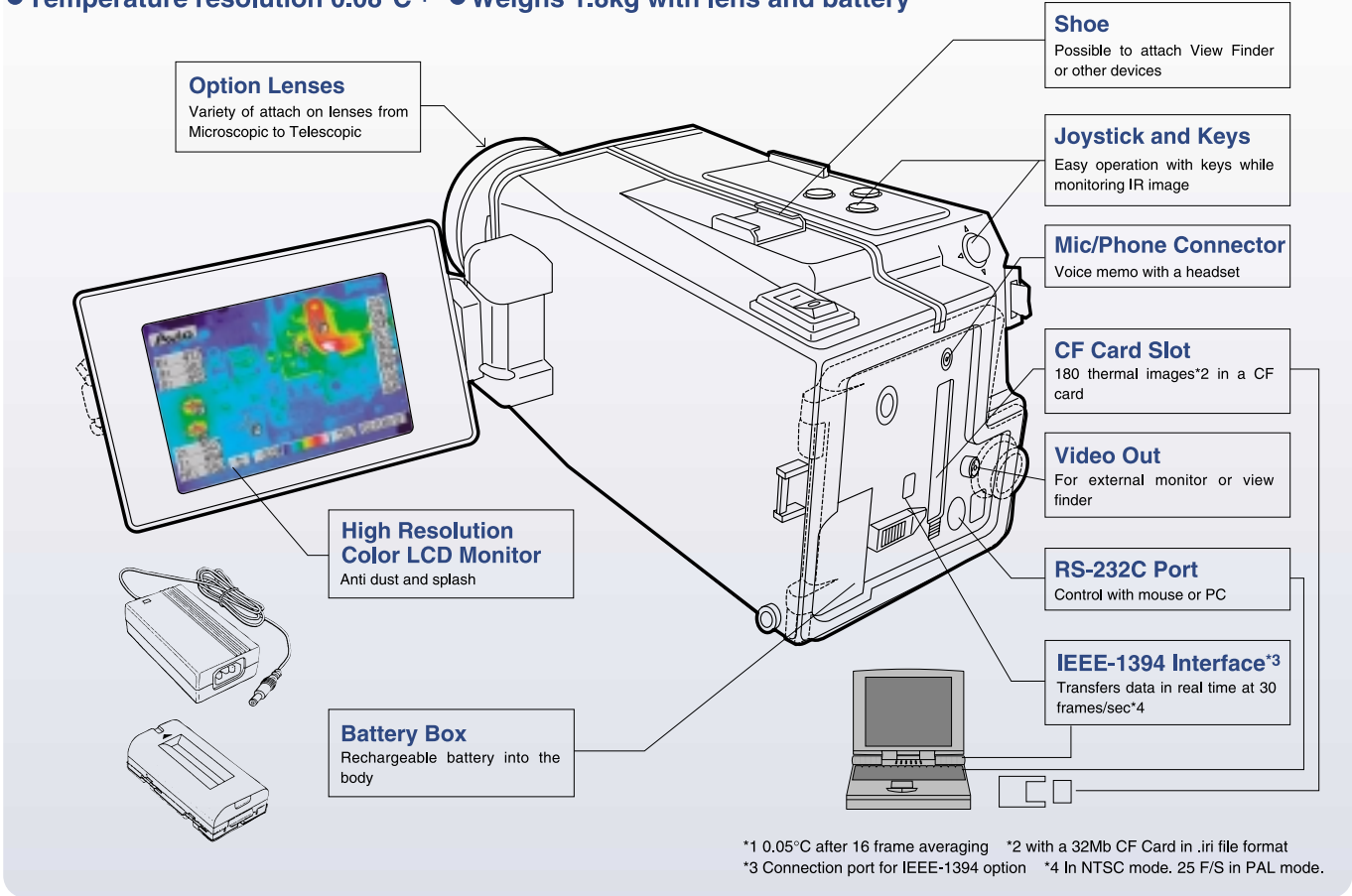


With a new generation UFPA, thermography has evolved into

Neo Thermo TVS-700

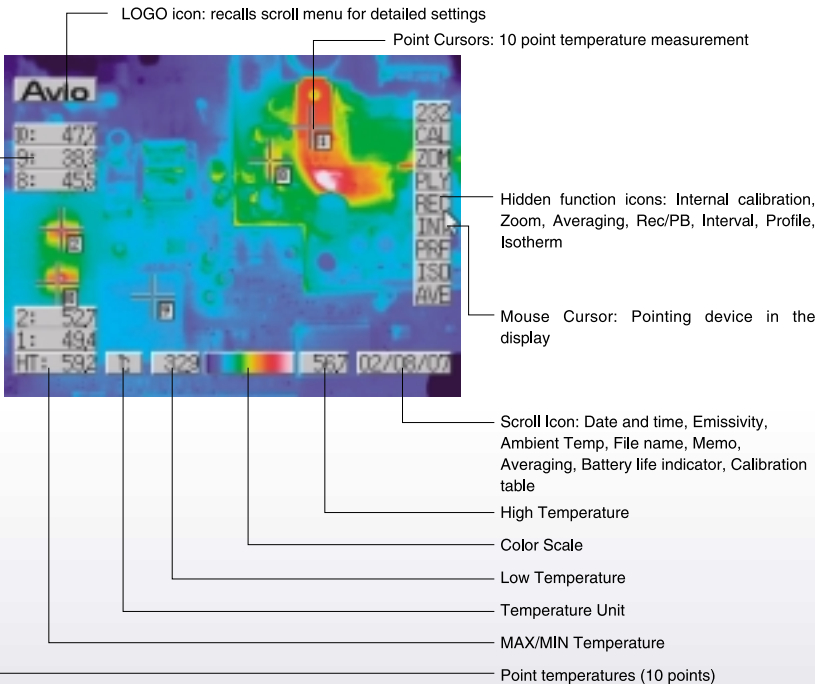
High Sensitivity, High Quality Image and Light Weight

- Temperature resolution 0.08°C*1
- Weighs 1.8kg with lens and battery



Easy Operation with Windows like menu

● Display and icons

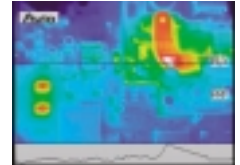


Isotherm



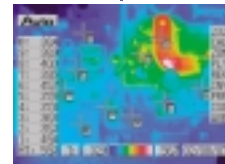
Highlights the specified temperature band in the display

Profile



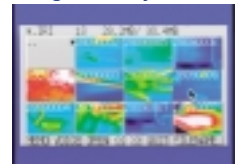
Shows temperature profile on the specified horizontal line

Point Temperatures



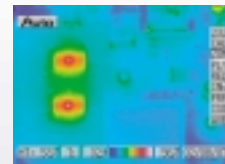
Shows maximum 10 point temperatures

Image Gallery



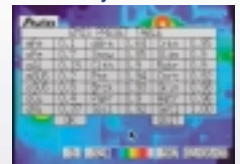
Displays 12 recorded images in the CF card

Zoom



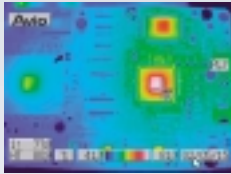
Scrollable electronic zoom (2X, 4X)

Emissivity Preset Table

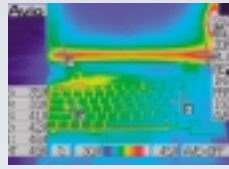


Emissivity of popular material is prepared for easy setting

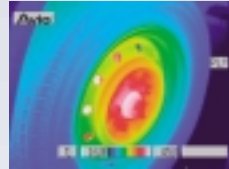
Thermal Image Samples



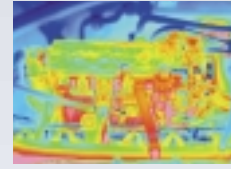
Printed Wiring Board



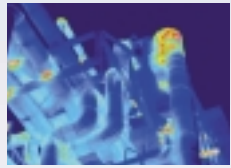
Laptop PC



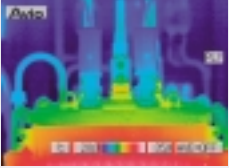
Tire



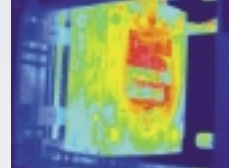
Engine Room



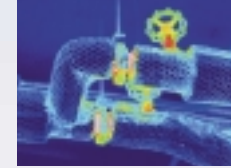
Plant Maintenance



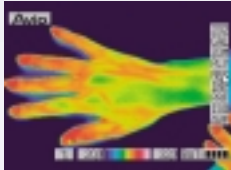
Transformer Station



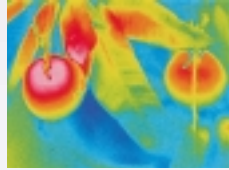
Casting



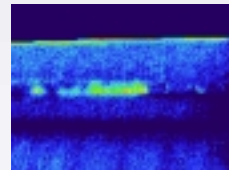
Pipeline



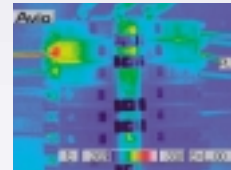
Human Body



Plant Growth



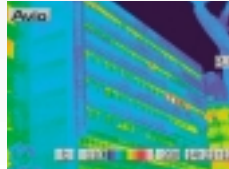
Concrete Structure



Switch Gears



Road Monitoring



Buildings



Printer Head



Wiring Board

Extended Applications to PPM, NDT, QC, R&D, etc.

PPM

- Electric Power/Railways
Abnormal temperature detection of equipment and gears in power plant, substation, transmission or distribution, Combustion in coal yard, etc.
- Plant/Factory
Damage inspection of refractory and lining, Leakage from piping, Abnormal temperature in motor, Loose connection in electric facility, Abnormal temperature detection in refinery, etc.

Non Destructive Testing/Quality Control

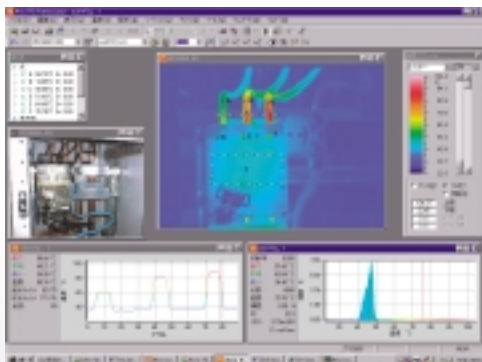
- Building/Civil Engineering
Inspection of building or concrete structure, Water leakage, Heat insulation
- Ceramics/Components
Detection of crack, Detection of heating conductor, Running test of active devices, Inspection of heater or lamp,
- Plastics
Temperature control for blow forming or molding, Uniformity control of glue and bond,

Research & Development

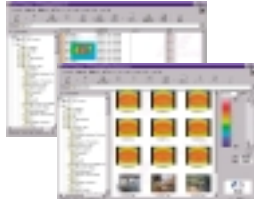
- Electronics
Heat analysis and design of electronic components or products, Temperature distribution of semiconductor, Inspection of LCD, plasma display, etc.
- Automobile Industry
Heat design of electric parts, Transmission, Air conditioner, Defroster, etc., Heat design and control of mold and casting, Heat analysis of tire and break
- Metal/Machinery
Heat analysis and control of die cast, plastic molding and injection, Heat analysis of welding and bonding

Analysis Software (option)

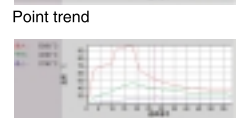
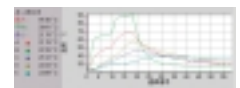
Easy analysis of thermal image on your computer



File Management



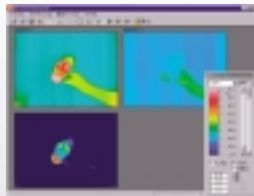
Trending



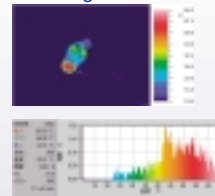
Point trend

Area trend

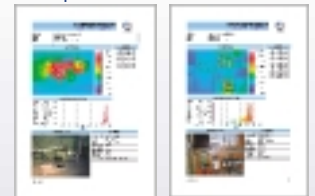
Subtraction



Histogram



Report Generation



Functions

- File Management
- Analytical Functions (temperature measurement, profile, histogram, isotherm, emissivity correction)
- Trend (points, area, profile)
- Subtraction
- Image composition
- 3D display
- Report generation
- Filters
- Data conversion

Options

Wide Angle Lens 2X (TVL-7017A)

Measurement Range: -20°C to 500°C
FOV: 52°H x 39.2°V
Dimensions: ø78mm x 57mm
Weight: 265g

Telescopic Lens 3X (TVL-7105A)

Measurement Range: 0°C to 500°C
FOV: 8.7°H x 6.5°V
Dimensions: ø112mm x 60mm
Weight: 450g

Close Up Lens (TVC-7100U)

Measurement Range: 0°C to 300°C
FOV: 32mm H x 24mm V
Focus: 74mm fixed (Typical)
Resolution: 100µm
Dimensions: ø65mm x 26.5mm
Weight: 110g

Microscopic Lens (TVM-7025U)

Measurement Range: ambient to 300°C
FOV: 8mm H x 6mm V
Focus: 34mm fixed (Typical)
Resolution: 25µm
Dimensions: ø66mm x 155mm
Weight: 750g

Extended Temperature (TVF-701)

Measurement Range: 400°C to 2000°C

Real Time Data Transfer Kit

IEEE-1394-7AE (PCI Bus)
IEEE-1394-7BE (PC Card)
OS: Win98SE, Win2000, WinXP
Data transfer at 30f/s (NTSC)

Post Analysis Software

Color Viewfinder (TV-VF01)

Tripod(TV-1001)

Transport Case (TV-C7001)

AC Adaptor

Battery Charger

Battery

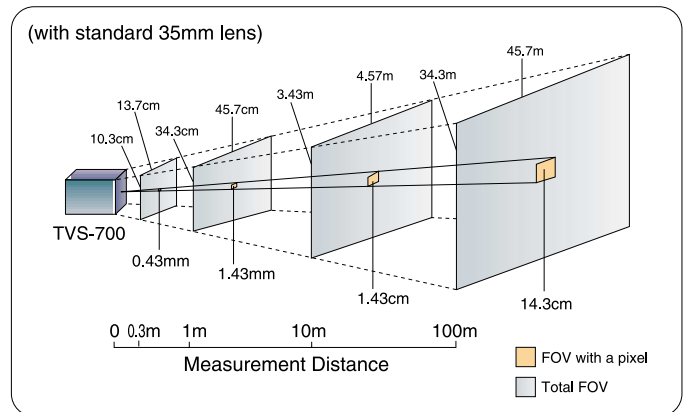
Specifications

TVS-700	
Temperature Range	-20°C to 500°C (to be extended to 2000°C with option)
Temperature Resolution	0.08°C at 30°C Black Body (0.05°C or better with averaging)
Frame Rate	30Hz (NTSC)
Detector	320(H) x 240(V) Uncooled Microbolometer
Spectral Range	8 to 14µm
FOV*	26.0°(H) x 19.6°(V)
Spatial Resolution*	1.4 mrad
Focus Range*	30cm to ∞
Correction	Emissivity/Reflection Correction, Amb. Temp. Correction,
Display	3.8" Color LCD Monitor(digital interfaced TFT), Color View Finder (option)
Range Setting	Auto Range Setting(Auto Sens, Auto Point), Manual Setting
Image Improvement	Averaging (2,4,8,16)
Functions	Multi Point Temperature(10 points), Gallery Display, Isotherm, A-scope, Zoom(x2, x4, scrolable), Freeze, Max/Min Temperature, Battery Indicator, Emissivity Preset Table
Data Storage	Compact Flash Card (180 frames/32Mb), Voice Recording, Interval Recording
File Format	tiff / bmp / iri
Video Output	NTSC/PAL
External Interface	RS-232C, IEEE-1394(option)
Power	Battery, AC100/240V, 50/60Hz
Power Consumption	12W
Battery	1H or more
Operating Temperature	0°C to 40°C
Dimensions(mm)	100(H)x126(W)x239(D) excluding protrusion
Weight	1.8Kg (w/battery)
Environment	IP54

*with standard 35mm lens

- Specifications and outline in this brochure are subject to change without notice for improvement.
- Since the product contains an item under export control of the US government as well as the Japanese government, 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.

Measurement Distance and FOV



Standard Configuration

TVS-700 (with 35mm lens)	1 ea
Battery Pack	1 ea
AC Adaptor	1 ea
Battery Charger	1 ea
Compact Flash Card (32Mb)	1 ea
Card Adaptor	1 ea
RS-232C Conversion Cable	1 ea
Headset	1 ea
AC Cable	1 ea
DC Cable	1 ea
Operation Manual	1 ea



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.

NIPPON AVIONICS CO., LTD.

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