

IRI 1011

Universal Thermal Imager

The IRI 1011 is a groundbreaking thermal imager product which brings the benefits of this versatile technology to the professional, the trades person and the non-specialist alike.

The flexibility, ease of use and above all, the low cost of this product extend the normal application areas for thermal imaging from military and professional use, to wider use in industrial, commercial and domestic applications.

Typical applications for the IRI 1011 include:

- Predictive and Preventative Maintenance
- Process Monitoring
- Research and Development
- HVAC Troubleshooting
- Vehicle Maintenance
- General Industrial/Domestic



The IRI 1011 Universal Thermal Imager

Product Description

The ergonomically designed imager houses the imaging optics, detector, drive electronics, optical modulator, laser pointer and four standard or rechargeable AA size batteries. The system includes a detachable pistol grip handle which holds virtually any 'Pocket PC' as a combined processing, display unit and image storage device. As an alternative, the output of the imager can be visualised and processed in real time using a PC.

Operation

The system is designed for either one or two handed operation. For one handed operation both the imager and the 'Pocket PC' (user provided) can be attached to the handle to form a single integrated lightweight unit. For two handed operation the imager can be quickly detached from the handle leaving the 'Pocket PC' attached for ease of operation. This latter configuration enables the imager to be pointed at awkward angles or used in confined places. Alternatively, instead of using a 'Pocket PC' the imager can be linked to a PC or laptop computer using the RS232 serial cable supplied.

PERFORMANCE

Temperature range:	Range 1: -10°C to +150°C Range 2: -10°C to +300°C
Field of view (FOV):	20° x 20° (optional 10° x 10°)
Spectral Response:	8 to 14 micrometers
Sensitivity:	0.5°K @ 30°C (Range 1)
Displayed Image:	96 x 96 pixels
Detector:	16 x 16 pixel array
Frame rate:	8Hz

IMAGE STORAGE

Up to 1000 images per MB of Memory.

LASER POINTER

A built in Class II laser is supplied to highlight the reference pixel.

IMAGER POWER SUPPLY

Battery:	4 x AA type removable batteries.
Operation time:	Up to 10 hours.
AC operation:	AC adaptor, 5 Volts DC out.

MECHANICAL

Housing:	Impact Resistant Plastic.
Dimensions:	120mm x 125mm x 80mm.
Weight:	≤ 600g not including 'Pocket PC' and handle.
Mounting:	Handheld & Tripod mounting.
Handle:	For supporting the Imager and 'Pocket PC' for one handed operation.

IRI 1011 INCLUDES

Imager, Imager/Pocket PC handle, lanyard, software for 'Pocket PC' & PC, 2m RS232 connection cable - imager to PC, user manual, AC power supply, carrying case.

SETTINGS AND CONTROLS: POCKET PC & PC

- User selectable sensitivity settings.
- User selectable offset control (range).
- Auto adjust sensitivity/range.
- Display palettes: ironbow, rainbow and greyscale.
- Pocket PC: two moveable temperature measurement cursors.
- PC: up to ten moveable temperature measurement cursors.
- User selectable emissivity values.
- User selectable image integration: 1 to 10 frames.
- Readout in °C, °F and K.
- Image snapshot.
- Image browser.
- Image label.

FEATURES - POCKET PC SOFTWARE

- Compatible with most Pocket PC devices running Microsoft Pocket PC 2000 & 2002.
- Multiple image storage and retrieval.
- Battery Charge indicator - Pocket PC.
- Pocket PC controlled by navigator button and touch sensitive screen controls.

FEATURES - PC SOFTWARE

- Real time image and temperature measurement display.
- Multiple image storage and retrieval.
- Time / Temperature display for up to ten user defined pixels.
- Save all (256) temperature values to microsoft Excel.
- Cut & Paste images into other Microsoft applications.

COMPUTER REQUIREMENTS

Pocket PC: Compaq iPAQ, Toshiba e740, Dell Axim X5, O2 XDA - contact IRISYS for alternatives.
RS 232 to Pocket PC communication cable or CompactFlash RS 232 adaptor where applicable.

PC: IBM compatible PC with a minimum of: 32Mb RAM, 300MHz processor, MS Windows (98, NT, ME, 2000 and XP), RS 232 serial port (115k Baud), 15 bit colour graphics capability.

ENVIRONMENT

Temp. operating range:	-5°C to +50°C	Humidity:	10% to 90% non condensing
Temp. storage range:	-20°C to +80°C	CE Mark (Europe):	Complies with EMC directive