

# armstrong optical

*New System  
enquire for price*

## MobIR<sup>®</sup> M3



The **MobIR<sup>®</sup> M3**, the second mobile-like pocket IR camera in the world, is once again setting new milestones in the infrared thermal imaging industry. By fully integrating design without compromise, robust inspection capability with easy operation, and an unmatched price with high reliability, **MobIR<sup>®</sup> M3** will become the intelligent choice for thermal imaging.

### **Ultra-compact, & lightweight:**

Though weighing only 265g (with battery) and shaped like a mobile phone, the camera perfectly integrates into its casing a thermal cameras, dual LCD displays, built-in blackbody, and a laser locator and battery bay. Data storage is accommodated built-in flash memory.

### **Easy of carriage and operation:**

Rugged and lightweight architecture enables you to carry the camera in the same way as you do a mobile phone.

### **Crisp thermal imaging:**

Precision non-contact temperature measurement is accomplished with a thermal sensitivity of  $\sim 0.1^{\circ}\text{C}$  - the camera captures extremely small temperature differences as high-resolution, noise-free 16-bit thermal images.

### **IR locator:**

The integrated laser locator helps to accurately associate a hot spot shown in the thermal image with the real physical target.

### **Auto indication of hot spot and image centre:**

One cursor automatically indicates the position and temperature of the hottest spot within the image, whilst another cursor stays at the image centre to show its temperature and provide a reference for inspection analysis.

### **Audible and visible alarms:**

An audio alarm will automatically trigger for a spot with temperature exceeding a preset value. In the event that the battery power goes low, both audio and video alarms can be set.

**Multiple measurement modes:**

Simultaneous four-spot & four-area analysis, line profile, isotherm analysis and electronic zoom function are available to allow comprehensive probing for, and pinpointing of, potential problems.

**Ultra large capacity for filed image storage:**

On-board flash memory enables the recording and storage of fully radiometric images in the camera. Every file can consist of thermal images and voice annotation if any. Up to 30 seconds of voice clip can be saved per file.

**Plug-and-play connectivity:**

By using a standard USB interface, users are easily able to quickly download images, measurements, voice annotations and digital video from the camera to a PC. In addition, the battery can also be charged through this interface.

**Robust post-processing software:**

Offering an extensive range of temperature measurement, image processing and report generating functions, the easy-to-operate Windows-based software highly automates the process of reporting and archiving infrared images, improving productivity and efficiency.

**Affordable price & rapid delivery:**

Get everything that a high-end IR camera can offer at a price lower than any other 160x120 pixel camera on the market. Without Export, Import or End-User License restriction, the **MobIR<sup>®</sup>M3** will make an immediate impact on your work practises.

**Application areas include:**

- Energy management and thermal surveys
  - Building leaks, boiler insulation, pipework
- Steel, glass and cement
  - Blast furnace, transport ladles and torpedo heat distribution
- Petrochemicals and plastics
  - Storage/reactor tank levels and insulation, pipe blockage, motors and pump bearings
- Construction and Civil engineering
  - Building cladding integrity, cold-storage unit insulation, road surfaces
- Injection moulding and manufacturing
  - Uniformity of heating & cooling
- Power generation, transmission and distribution
  - Overheating switchgear, transformers, bus-bars, power lines
- Electronics and electrical manufacturing
  - Faulty component identification and system management



## **Specification:**

<b>Thermal channel:</b>	Detector type: Uncooled microbolometer FPA (160x120 pixels, 35µm) Spectral range: 8-14 µm FOV: 25 x 19 degrees Thermal sensitivity: 120mK at 30 °C Frame rate: 50Hz PAL or 60Hz NTSC, non-interlaced Electronic zoom: x2
<b>Image presentation:</b>	External display: 2.2" TFT plus 1.2" CSTN high resolution LCD Display colour: 256 level, 5 palettes Video output: PAL/NTSC, composite video
<b>Measurement:</b>	Temperature range: -20 to +250 °C Accuracy: +/-2 °C or +/-2% of reading
<b>Measurement modes:</b>	Spot/manual (up to 4 moveable), spot/automatic placement at max, area (up to 4 moveable) displaying max, min, or average, isotherm, line profile, and auto alarm
<b>Emissivity correction:</b>	Variable from 0.01 to 0.99 (in 0.01 increment)
<b>Measurement features:</b>	Automatic correction based on user input for reflected ambient temperature.
<b>Image storage:</b>	Type: Built-in flash memory – capacity 100 images Voice annotation: Up to 30s per file
<b>System Status indication:</b>	LCD display: Shows battery status/ power indication Sound alarm: Automatic alarm for low power indication
<b>Laser locator:</b>	Classification type: Class 2 semiconductor laser
<b>Battery system:</b>	Type: Li-ion battery, rechargeable and/or replaceable Operating duration: >2hrs continuous operation Charging system: In-camera (battery charger) or 5V via USB interface from AC adapter (96-250VAC) Power consumption: <3W
<b>Environmental specification:</b>	Operating Temperature: -20 °C to +60 °C Storage temperature: -20 °C to +60 °C Humidity: Operating & storage 10 – 95%, non-condensing Encapsulation: IP54 Shock: Operational: 25g, IEC 68-2-29 Vibration: Operational: 2g, IEC 68-2-6
<b>Interfaces:</b>	USB 1.1: Images, measurements, voice annotations and digital video transfer to PC
<b>Physical characteristics:</b>	Size: 120 x 60 x 30mm (standard model) Weight: 265gm (including battery)
<b>Delivered system includes:</b>	<b>MobIR<sup>®</sup>M3</b> Thermal Camera, 13mm IR lens, two rechargeable Li-ion batteries, battery charger, USB cable, audio/ video cable, post-analysis software <b>IrAnalyser<sup>®</sup></b> , user manual, leather sheathe and packing case.

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