

# M7640

## Fully Radiometric Thermal Imager with High Resolution 640 x 480 Detector

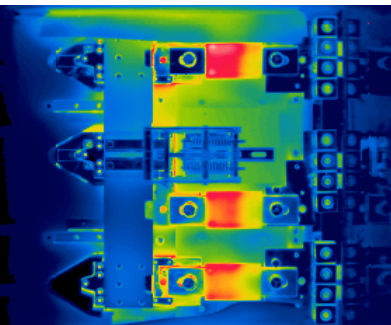
Easy-to-use, superior performance infrared camera with high-quality articulating 5.6 inch LCD—and four times the resolution of regular detectors



### Features:

- 640 x 480 Resolution UFPA VOX Detector
- Resolution of 0.06°C (at 30°C 30 Hz)
- Temperature Range -40°C to 2000°C
- Focus Range of 12" (30cm) to Infinity
- Real-time Image Recording
- Revolutionary DualVision Image Composite Functionality
- Image Transfer Using IEEE 1394 (Firewire®) Technology, USB 2.0, and Compact Flash card
- Viewfinder and 5.6" Articulating LCD
- Automatic Level, Gain and Focus
- Multi-spot Temperature Measurement with Emissivity Settings

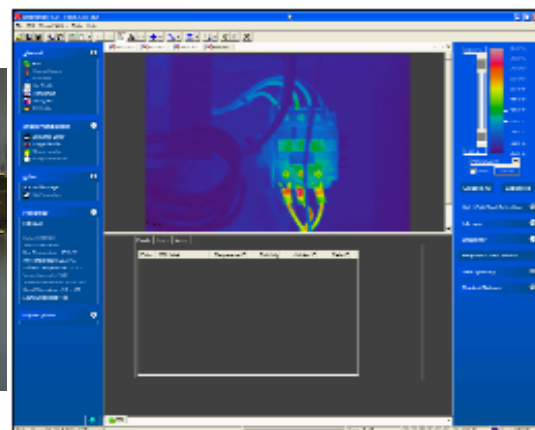
### Sample Images:



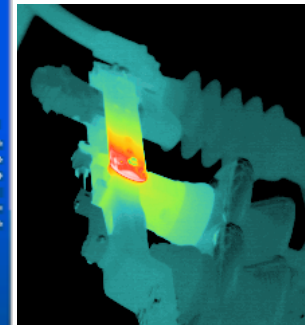
OL Fuses (thermal)



OL Fuses (visual)



Optional powerful MikroSpec 4.0 analyzing and report writing software.



14kV Hinge

## Technical Data:

| <b>M7640</b>                           |   |   |
|--|---|---|
| <b>Performance</b>                     | Temperature Range:                      | Range 1: -20°C to 60°C<br>Range 2: -40°C to 120°C<br>Range 3: 0°C to 500°C (Optional Range 4: 0°C to 2000°C)  |
|  | Measurement Accuracy:                   | ±2% or 2°C of reading   |
|  | Field of View:                          | 21.7°(H) x 16.4°(V)   |
|  | Focus Range:                            | 30 cm to infinity (12" to infinity)   |
|  | Instantaneous FOV / Spatial Resolution: | 0.6 mrad  |
|  | Image Update Rate:                      | 30 frames per second  |
|  | Resolution:                             | 0.06°C (at 30°C 30Hz)   |
|  | Detector:                               | 640 (H) x 480 (V) Uncooled Focal Plane Array Microbolometer   |
|  | Spectral Band:                          | 8.0 to 14.0 µm  |
| <b>Display Functions</b>               | B&W/Color Image:                        | Several palettes available  |
|  | Thermal/Visual Composite Image Display: | Provided  |
|  | Isothermal Band Display:                | Max. 4 bands  |
|  | Multi-Image Display:                    | Replay 12 Thermal Images  |
|  | Multi-Sense Display:                    | Provided  |
| <b>Visual Camera</b>                   | Pixels:                                 | 1.3 Megapixels  |
|  | Effective Image Pixels:                 | 1280 (H) x 960 (V) pixels   |
|  | Field of View:                          | 30.1° (H) x 22.7°(V)  |
|  | Sensitivity:                            | 1 lux   |
|  | Fixed Focus Distance:                   | 30 cm to infinity (12" to infinity)   |
|  | Auto Exposure:                          | Provided  |
|  | Video Signal:                           | NTSC  |
| <b>Presentation</b>                    | Image Processing Functions:             | Variable level/sense; Multi-point temperature display (4 pts); Multi-point emissivity display (4 pts); Temperature difference (@T) display; Max/Min (peak hold) temperature display; Alarm (full screen or specified box); 2x and 4x digital zoom (Run/Freeze); Box setting (max 5 boxes) |
|  | Display Type:                           | Viewfinder and flip out 5.6" articulating color LCD (640 x 480 pixels) with auto switch   |
|  | A/D Resolution:                         | 14 bit  |
|  | B&W/Color Image:                        | Several palettes available  |
|  | Image Zoom:                             | 2:1, 4:1 (with spatial filtering)   |
|  | Annotation:                             | Text and voice annotation (30 sec. per image)   |
|  | Movie Recording:                        | Real-time memory  |
|  | <b>Measurement</b>                      | Measuring Functions:  |
| Signal to Noise (S/N) Improvement:     |   | Off, S2, S8, S16 and spacial filter ON/OFF  |
| Alarm:                                 |   | Screen display and alarm sound (ON/OFF)   |
| Interval Measurement:                  |   | Recording on memory card: 2 to 3600 sec. interval; trigger function   |
| Emissivity Correction:                 |   | 0.10 to 1.00 (at 0.01 steps)  |
| Environmental Temp. Correction:        |   | Provided (including interval NUC)   |
| Background Compensation:               |   | Provided  |
| User Setup:                            |   | Pre-registration of user setup (maximum 10 setups)  |
| Auto Functions:                        |   | Full automatic (level, sense, focus with manual override); level trace, auto gain con-  |
| <b>Interface</b>                       | Communication:                          | RS-232C; image download by USB 2.0  |
|  | Storage Device:                         | Compact Flash Memory Card (stores thermal images in .SIT or .BMP file format; visible images in .SIT or .JPEG file format; and thermal/visual composite images in .BMP file format)   |
|  | Video Signal Output:                    | NTSC/PAL composite video signal, S-video  |
|  | Remote Control Operation:               | IEEE 1394 (Firewire®) Interface   |
|  | <b>Environmental</b>                    | Operating Temperature:  |
| Storage Temperature (w/out batteries): |   | -40°C to 70°C 90% Relative Humidity or less (not condensed)   |
| Environmental Protection:              |   | IP 54 (IEC60529)  |
| Shock:                                 |   | 30G (IEC60068-2-27)   |
| Vibration:                             |   | 3G (IEC60068-2-6)   |
| <b>Power Source</b>                    | Power Supply:                           | AC adaptor: 100V to 240V, DC 7.2V (nominal)   |
|  | Power Consumption:                      | Approx. 7W (typical)  |
|  | Battery Operating Time:                 | Approx. 2 hours 30 minutes (display shows battery status)   |
| <b>Physical Characteristics</b>        | Camera Dimensions:                      | 110mm (W) x 110mm (H) x 210mm (D) (excluding projections)   |
|  | Camera Weight:                          | 1.4kg (excluding battery and LCD); 1.7 kg including battery/LCD   |
|  | Mounting:                               | 1/4"-20 tripod mount  |

**Standard Accessories:** (2) Li-Ion Batteries, Smart Battery Charger, AC Adapter and DC Interface Cable, Lens Cap, Shippable Carrying Case, Viewer Software, Neck Strap, Operating Manual on CD.

Mikron reserves the right to change specifications to reflect the latest changes in technology and improvements at any time without notice. These changes will be reflected in subsequent editions of our literature when warranted.

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