M7815B

MIKRON INFRARED
A LUMASENSE TECHNOLOGIES Company

Low-Cost, Fully Radiometric Hand-Held Thermal Imager with Laser Pointer & Built-in Visible Light Camera

Easy to use, high performance infrared camera with high-quality flip-up LCD display, on-board laser pointer and digital visual recording for building diagnostics.

Key Features

- Newly developed high performance 320x240 UFPA detector
- Exceptional performance with a resolution of 0.06°C (at 30°C 60Hz)
- Temperature Range -40°C to 120°C
- Focusing Range of 12″ to infinity
- Weighs 2.9 lbs with battery
- Stores images in on-board memory
- Transfers images to a remote device using USB 2.0

The M7815B represents another milestone in innovative infrared thermometry. It is an extremely lightweight, high-performance handheld IR camera offering capabilities normally found in models costing much more. This fully-radiometric camera is ergonomically designed for comfortable one-handed point-and-shoot operation and features 320x240 resolution at a 60Hz refresh rate.

It measures the passive infrared radiation emitted by the target surface and converts this radiation into a two-dimensional image relating to the temperature distribution at the target surface. This temperature distribution can then be viewed in full color or grayscale through the flip-up 3.5inch TFT LCD display, which is located on the top of the IR camera. It also offers visible light technology with an on-board laser pointer to assist you being able to visually pinpoint the problem areas for further analysis.

The on-board diagnostic software provides an intuitive menu system, which can be accessed using the button control panel located on the back of the camera. Completely self-contained in a highly-durable housing, it is both dust-proof and weather resistant, suitable for indoor or outdoor use. It is battery operated, uses advanced uncooled UFPA microbolometer technology, and stores 14-bit images and data to internal flash memory. The images and image data can then be transferred to an external device using the USB port.

In addition to its on-board image processing capabilities, it is fully compatible with Mikron's M7815 Thermal Imaging Software, which includes Mikron's ThermalSpection R-Value calculator and provides fully-comprehensive, post image analysis and report generation features.

Mikron has been an innovative leader in the field of infrared non-contact temperature measurement since 1969. Mikron offers Value Imageering to help customers solve their most challenging application problems. Value Imageering is a turnkey package, consisting of complete engineering, design, and installation services to meet the most severe and difficult thermal imaging system requirements. Today, the company provides industrial customers and R&D laboratories with accurate instrumentation ranging from convenient portable cameras to complete thermal imaging systems.

Technical Data

M7815B		
Performance	Temperature Range:	-40°C to 120°C (-40°F to 248°F)
	Measurement Accuracy:	±2% or 2°C of reading
	Field of View:	21°(H) x 16°(V)
	Focus Range:	30 cm to infinity (12″ to infinity)
	Instantaneous FOV / Spatial Resolution:	1.2 mrad
	Image Update Rate:	60 frames per second
	Resolution:	0.06°C (at 30°C 60Hz)
	Detector:	320 x 240 Uncooled Focal Plane Array Microbolometer
	Spectral Band:	8.0 to 14.0 µm
Visual Camera	Effective Image Pixels:	752 (H) x 480 (V) pixels
	Field of View:	34.6° (H) x 25.9°(V)
	Sensitivity:	1 lux
	Focusing distance:	30 cm to infinity (12″ to infinity)
	Auto Exposure:	Provided
Laser Pointer	Classification:	CDRH Class II
	Type:	650 nm (red) Laser Diode 0.5 mW
Presentation	Display Type:	3.5″ color LCD display
	A/D Resolution	14 bit
	B&W/Color Image:	Several palettes available
	Display:	Date/time; Temperature units °C/°F; Multi-Language; LCD intensity (high/ normal/low); Battery Status Indicator; Color Bar; Temperature Range Scale
	Video Output:	NTSC/PAL composite video signal, S-Video
Measurement	Measuring Functions:	Run/Freeze
	Signal to Noise (S/N) Improvement:	Off, Σ2, Σ8, Σ16
	Image Processing Functions:	Variable level/sense; single fixed-point temp.display and Emiss. Correction
	Emissivity Correction:	0.10 to 1.00 (at 0.01 steps)
	Environmental Temperature Correction:	Provided (including interval NUC)
	Background Compensation:	Provided
Image Processing	On-Board Flash Memory:	Stores up to 1,300 images (dependent upon the camera configuration)
	Image Storage Functions:	Save individual images or thermal/visual composites with or without text annotation; view thermal image gallery (12 thumbnails); replay images; and create, change, delete and rename directories and image files.
	Software:	Downloading and Image Viewing Software included
Interfaces	USB-2:	Transfers images and image data to a personal computer (Requires Windows™ XP)
	Lemo Connector:	Requires RCA adapter or S-Video adapter
Environmental	Operating Temperature:	-15°C to 50°C 90% Relative Humidity or less (not condensed)
	Storage Temperature (without 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)
Power Source	Power Consumption:	Approx. 6W (typical)
	Battery Type:	Li-ion; rechargeable, field replaceable (spare battery included)
	Battery Operating Time:	Approx. 2 hours 30 minutes (display shows battery status)
	AC operation:	AC adaptor: 100V to 240V, DC 7.2V (nominal)
	Power Saving:	Manual and/or automatic standby mode
Physical Characteristics	Camera Dimensions:	203.2 mm x 228.6 mm x 101.6 mm (8″ x 9″ x 4″)
	Camera Weight:	1.2 kg including battery (2.9 lbs. including battery)
	Tripod Mounting:	Standard, 1/4″ - 20
Optional	Lenses	Telephoto 2.0, Wide Angle, SpyGlass™

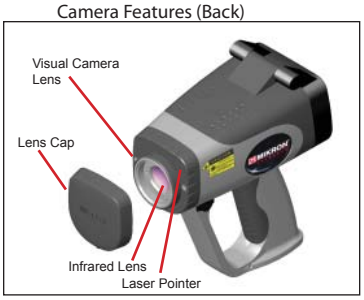
Standard Accessories

- (2) Li-Ion Batteries
- Smart Battery Charger
- AC Adapter and DC Interface Cable
- USB Cable
- Lens Cap
- Shippable Carrying Case
- Downloader Software
- Neck Strap
- Operating Manual on CD
- Lemo to RCA or Lemo to SVideo Adapter

Several add-on lenses available at additional cost.

Camera Features (Front)

Camera Features (Back)



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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