THERMAL IMAGING CAMERAS
INFRARED CAMERAS

AUTOMATIC REPORT GENERATION

MODELS 1950 & 1954

Versatile tool for performing infrared thermography

Indispensable means for ensuring safety in industrial application

1950 **1954**

THERMO RESOLUTION
1950: 80 X 80 | 1954: 120 X160

IP 54   CE   MicroSD

SPECIFICATIONS

MODEL	1950	1954
IR DETECTOR		
Type	UFPA microbolometer	
Spectral Range	8~14µm	
Resolution	80 x 80	120 x 160
IMAGING PERFORMANCE		
NETD	80mK @ 86°F (30°C)	
Frequency	9Hz	
Field of View	20° x 20°	28° x 38°
IFOV (spatial resolution)	4.4mrad	4.1mrad
Minimal Focal Distance	1.3 ft (0.4m), fixed focus	0.98 ft (0.3m), fixed focus
FOCUSING		
Adjustment	Fixed	
VISUAL IMAGE		
Resolution	240 x 320 pixels	480 x 640 pixels
Minimal Focal Distance	2" (0.05cm), fixed focus	
PRESENTATION OF IMAGES		
Images Displayed	Infrared image, visual image with automatic parallax compensation. Merging of both images is possible with included PC software	
LCD Screen	2.8" (7.1cm)	
Display Colors	Pseudo-colors, multiple palettes	
LASER POINTER		
Type	–	Class 2 645-655nm power: 1mW
FUNCTIONS		
Image Freezing	Animated or fixed image	
Data Storage	2GB Micro SD card included (approx. 4,000 images). Replaceable with up to 32 GB SD card	
MEASUREMENT		
Temperature Range	-4°F to 482°F (-20°C to 250°C)	
Accuracy	±3.6°F (±2°C) or ±2% of reading	
ANALYSIS FUNCTIONS		
Measurement Tools	Manual cursor, automatic detection, min/max/avg on adjustable area, temperature profile, and isotherm	
Adjustment	Automatic or manual adjustment palette min-max	
Parameter Settings	Emissivity, environmental temperature, distance, and relative humidity	
Isotherm Display	Color display of a temperature range adjustable by the user	
Voice Recordings	via Bluetooth headset (included)	
ENVIRONMENTAL		
Operating Temperature	-4° to 122°F (-15° to 50°C); 95% RH	
Storage Temperature	-40° to 158°F (-40° to 70°C)	
Humidity	10% to 95%	
Drop Resistance	6' (2m) on all sides	
Impact Resistance	25G	
Vibration Resistance	2G	
GENERAL		
Start Up	Less than 3 seconds	Less than 10 seconds
Power Supply	4 x AA NiMH rechargeable batteries with external charger included	
Laser/Output/Wavelength	– / – / –	Class 2 / < 1mW / 645-655nm
Tripod Mounting	1/4" insert on camera (tripod not included)	
Battery Life	13.30 hrs typical (11 hours minimum)	9 hrs typical (7 hours minimum)
Dimensions/Weight	8.86 x 4.92 x 3.27" (225 x 125 x 83mm) / 24.7oz (700g) with rechargeable batteries	
Bluetooth Communication	407, 607 clamps and DMMs MTX 3292B-BT and MTX 3293B-BT	407, 607 clamps, DMMs MTX 3292B-BT and MTX 3293B-BT and logger models 1110, 1200 and 1800 Series
Safety Rating / IP Protection	EN 61326-1: 2006, EN 61010-1 Ed.02 / IP54	

FEATURES

- Focus-free with 20° x 20° field of view (1950) and 28° x 38° field of view (1954)
- Automatic brightness control
- Exceptionally long battery life
- Quick startup in 3 to 10 seconds (model dependent)
- User configurable emissivity table
- User configurable cursor and trigger functions
- User selectable color palette
- Captures thermal and real image simultaneously
- Verbally record your comments directly to the image using included Bluetooth headset
- Wirelessly connect to AEMC® Clamp-on Meters, Multimeters, and Environmental Meters (model dependent) and record their measurements simultaneously with your thermograms
- Comprehensive CAmReport® software included that offers all the necessary functions for reliable analysis of the measurement results and report generation

ACCESSORIES/ REPLACEMENTS

CATALOG #2121.60
Carrying case with foam insert
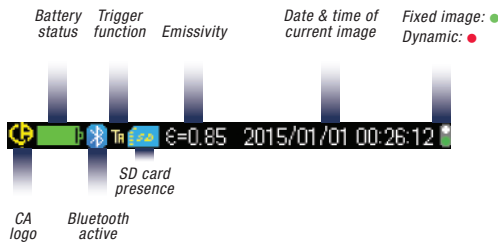
CATALOG #2126.49
USB cable Type A to 5-pin Mini-B

Consult factory for NIST Calibration prices

AEMC® INSTRUMENTS

THERMAL IMAGING CAMERAS
INFRARED CAMERAS

DISPLAY & MENU CONTENTS

STATUS BAR

Battery status
Trigger function
Emissivity
Date & time of current image
Fixed image: ●
Dynamic: ●

SD card presence

CA logo
Bluetooth active

FUNCTION KEYS
Linked to selected menu choice or camera image

MENU
Selectable using navigation keys

CONTEXTUAL HELP
This display area updates based on the menu item selected

A comprehensive set of easy access menus are available on screen. You can use the function and navigation keys to easily configure the camera for your specific needs. Trigger functions can be programmed, color palettes can be selected, cursor tools can be configured as well as environmental conditions including ambient temperature and humidity, distance and emissivity.
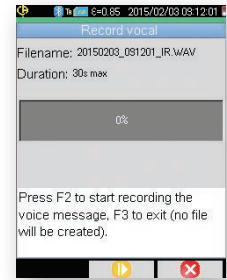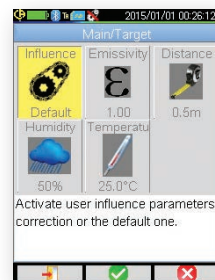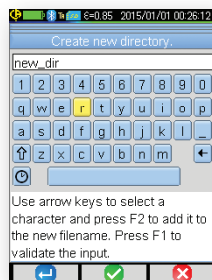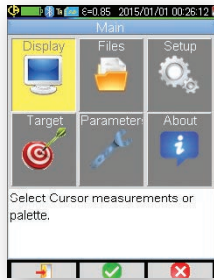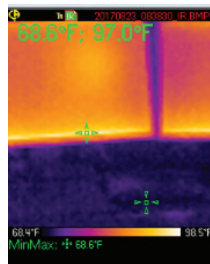
SELECTABLE CURSOR TOOLS
User programmable cursors provide a comprehensive set of options for evaluating thermal profiles
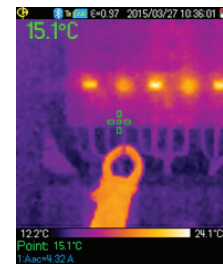
NONE
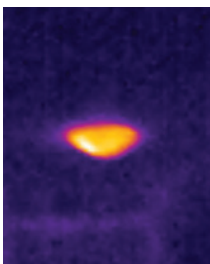
No cursor display, temperature evaluation is determined by color palette only.
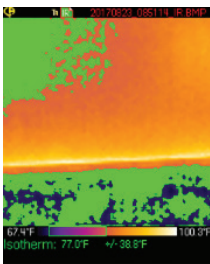
MIN/MAX

Automatically displays the cold and hot spot values at the Min and Max cursor positions.
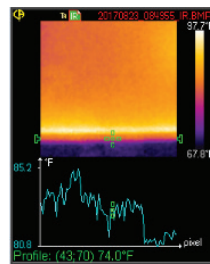
POINT

Displays the value at the cursor. Cursor is movable using the navigation keys.
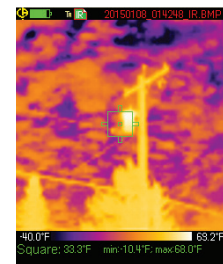
ISOTHERM

Displays points that fall in the same temperature range in the same color. User picks green, red or brown as the display color and defines the range and tolerance.

PROFILE

Displays the temperature profile of a horizontal line defined by the cursor. Cursor can be moved along the line to get an individual temperature.

SQUARE

Displays the Min/Max and mean values within the box. Box size and location is user adjustable.

CAMREPORT® SOFTWARE FOR ANALYZING THERMOGRAMS

This comprehensive software offers all the necessary functions for effective analysis of the measurement results and report generation

Operator :	Location :	Equipment:	Date :
John Doe	Foxborough, MA	CA 1950	9/13/2017 9:14:12 AM

Infrared image — **Digital image** — **Merged image**

60.07 °F — 154.81 °F | 60.07 °F — 154.81 °F
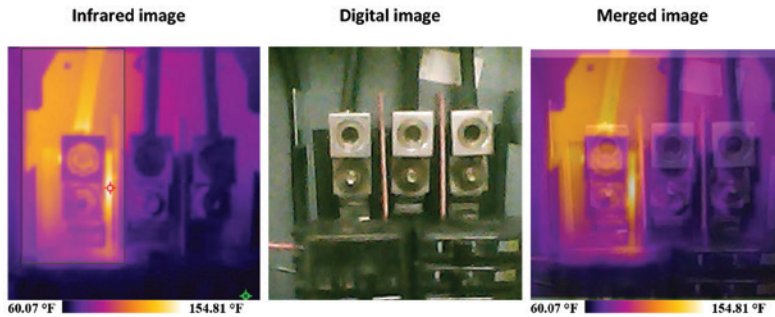
Image properties

Image name	20170913_091412_IR.BMP
Emissivity:	0.88
Humidity	55.0 %
Environment temperature	74.00 °F
Distance	1.75 ft
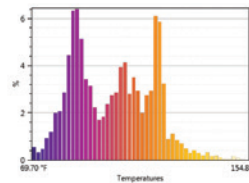
Temperature measurement

R0 — Min:69.70 °F — Max:154.81 °F — Avg:101.77 °F
Emissivity:0.88 — Env. T°:74.00 °F

Report creation is automatic, using one of three available templates. Reports can be exported in Word or PDF format making it simple to print and/or archive them.
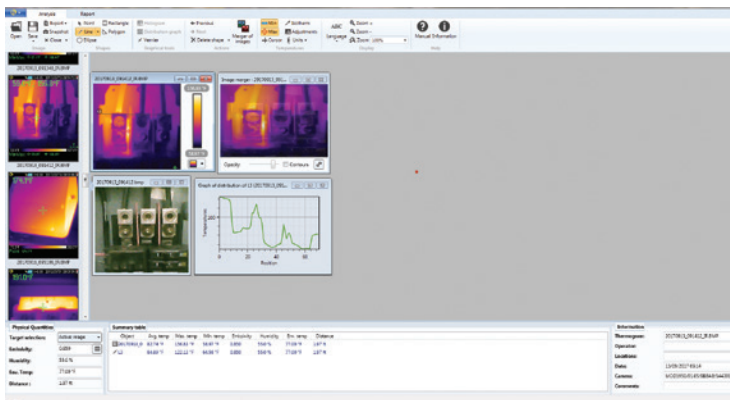
Typical analysis tab screen

FEATURES

- Transfer measurements from your camera to the software by USB cable, or transportable SD card
- Drag-and-drop measurement images from the storage directory to the analysis window in the software
- Includes thermal and real images automatically
- Superimpose thermal images over real images for better visual analytical results
- Locate Min/Max and mean temperatures of the image or an area of the image
- User selectable color palette from seven different types
- Summary table automatically displays environmental parameters and statistical results of the measurement
- Include dictated audio comments into the report with the Bluetooth headset
- Includes multiple analytical tools for assessing thermal images
- Manually enter measurement analysis findings, site characteristics and operator information to your report
- Add graphics such as logos to your reports
- Correct the measurement results using built-in or user configured emissivity tables
- Include multiple measurements in any report
- Save reports as a Word or PDF document

PRODUCT INCLUDES

Carrying case, USB cable, external battery charger (*Cat. # 2121.41 only*), (4) NiMH rechargeable batteries, micro SD card with adapter, Bluetooth headset, printed quick start guide, and a USB drive with CAmReport software, and user and software manuals.

CATALOG NO.	DESCRIPTION
2121.40	Thermal Imaging IR Camera Model 1950 (Resolution 80 x 80)
2121.41	Thermal Imaging IR Camera Model 1954 (Resolution 120 x 160)

AEMC® INSTRUMENTS