Thermal Imaging

Models 1950 & 1954

- Operational in less than 10 seconds
- Focus-free capability
- Exceptionally long battery life
- Wirelessly integrate data from other measuring instruments
- Practical: voice recordings, customizable integrated emissivity table, organize folders by site

Our products are backed by over 125 years of experience in test and measurement equipment, and encompass the latest international standards for quality and safety.

(800) 343-1391
www.aemc.com

AEMC® INSTRUMENTS
CHAUVIN ARNOUX GROUP

THERMAL IMAGING IR CAMERAS

Designed for use in the electrical maintenance and mechanical maintenance sectors

MODEL 1954
Thermo Resolution
120 x 160

Model 1954 Feature
Laser Pointer

MODEL 1950
Thermo Resolution
80 x 80

FEATURES

- **Focus free quality.**
  Provides crisp, clear thermal and real images without the need for adjustments.
- **Accurate temperate measurement over the full range.**
  From -4 to 482°F (-20 to 250°C) with a stability of 80mK at 86°F (30°C).
- **Audio narration can be recorded with thermograms.**
  You can describe the circumstances of each image, providing additional text and description to be stored with each image.
- **Automatic non-uniformity temperature correction.**
  Compensates for any internal drift to improve accuracy.
- **Measurement data can also be stored with each thermogram**
  Both cameras can wirelessly connect via Bluetooth to compatible AEMC® test instruments and loggers, enabling you to combine electrical and physical measurements to the imaging data.
- **Offers broad range of operational capabilities.**
  Locating the cold and hot spots in the image, measuring the temperature of a selected point in the image, displaying the temperature profile of a line in the image, displaying points at the same temperature in the image, and freezing the colors representing the temperatures.
- **CAmReport® software.**
  Included for downloading stored files from the instrument to a computer for further processing, analysis, and report generation.
- **This camera is built to last.**
  Their rugged design survives if accidentally dropped on any of its surfaces from as high as 6'.
- **Exceptionally long battery life up to 13 hours (model dependent).**
  Ensures no loss of test time during a typical work day.

ACCESSORIES/REPLACEMENT PARTS

2121.60 - Carrying Case with Foam Insert
2126.49 - Cable - USB (Type A to 5-pin Mini-B)

PRODUCTS INCLUDE

Rugged carrying case, 4 NiMH rechargeable batteries and charger, Bluetooth headset, USB cable, User Manual, Micro SD HC card and CAmReport® software.

SPECIFICATIONS

	MODEL 1950	MODEL 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	0.98ft (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	
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, relative humidity	
Isotherm Display	Color display of a temperature range adjustable by the user	
Voice Recordings	via Bluetooth headset (included)	
ENVIRONMENTAL SPECIFICATIONS		
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	
Ingress Protection	IP54	
LASER POINTER		
Type	-	Class 2 645-655nm power: 1mW
GENERAL SPECIFICATIONS		
Start Up	Less than 3 seconds	Less than 10 seconds
Safety	EN 61326-1: 2006, EN 61010-1 Ed.02	
Power Supply	4 x AA NiMH rechargeable batteries with external charger included	
Laser	-	Class 2
Laser Output	-	< 1mW
Laser Wavelength	-	645-655nm
Software	CAmReport® software included, for data analysis and report generation	
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 Product Communication	407, 607 clamps and MTX3293 dmm	407, 607 clamps, MTX3292 and MTX3293 and logger models 1110, 1200 and 1800 Series

CAMERA CONSTRUCTION

Performs infrared thermography, an indispensable means for ensuring safety

Left Side of Camera:

PROTECTIVE ELASTOMER FLAP

MINI USB CONNECTOR

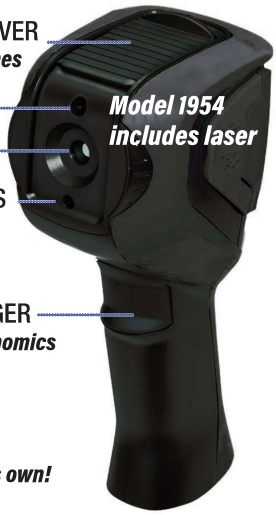
MICRO SD SLOT

AUTOMATIC BRIGHTNESS SENSOR

MULTIPLE-FUNCTION KEYS ASSOCIATED WITH THE DISPLAY

NAVIGATION KEYS

ON/OFF KEY



PROTECTIVE LENS COVER
Protects against scratches

LASER POINTER

THERMAL LENS

VISIBLE CAMERA LENS

Model 1954 includes laser

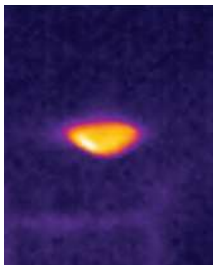
CONFIGURABLE TRIGGER
Offers exceptional ergonomics

Balance guaranteed: the camera stands on its own!

DISPLAY & MENU CONTENTS

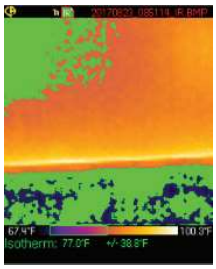
Programmable cursors provide a comprehensive set of options for evaluating thermal profiles

SELECTABLE CURSOR TOOLS



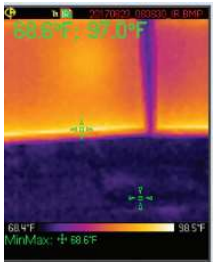
NONE

No cursor display, temperature evaluation is determined by color palette only.



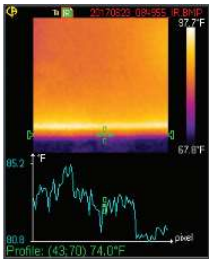
ISOTHERM

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.



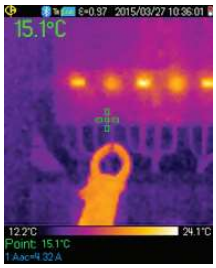
MIN/MAX

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



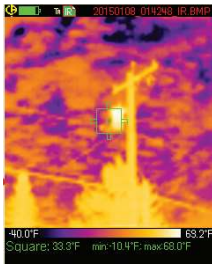
PROFILE

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



POINT

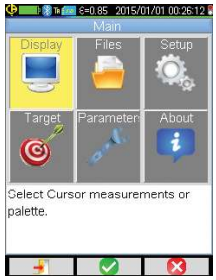
Displays the value at the cursor. Cursor is movable using the navigation keys.



SQUARE

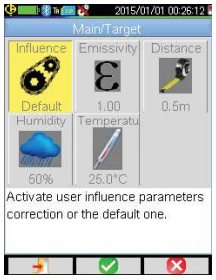
Displays the Min/Max and mean values within the box. Box size and location is user adjustable.

EASY ACCESS MENUS

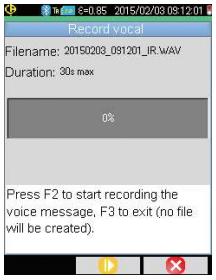


MAIN MENU DISPLAY

DIRECTORY MENU



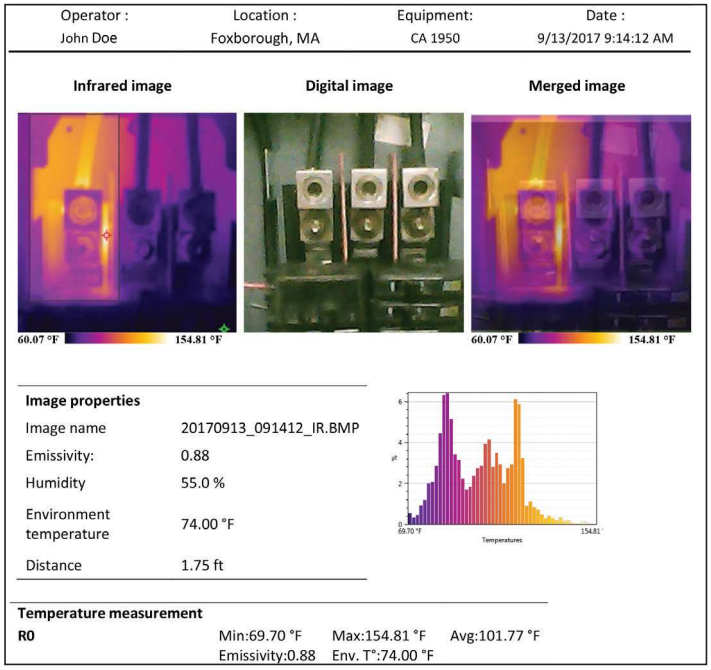
MAIN TARGET MENU



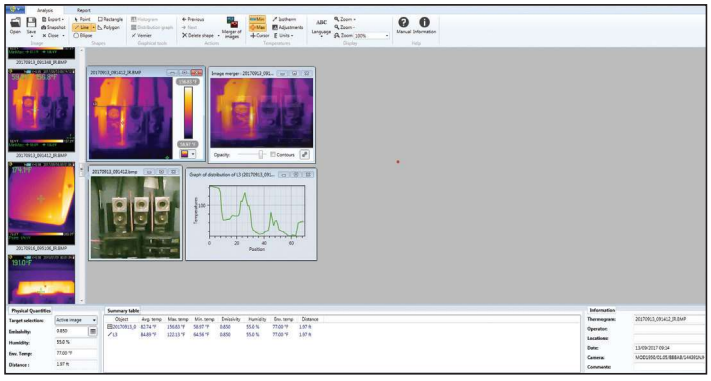
VOCAL RECORD MENU

CAmReport® SOFTWARE

Comprehensive software offering all the necessary functions for effective analysis of measurement results and report generation



Create reports using one of three available templates. Export reports to Word or PDF format making them easy to print and/or archive



Typical analysis tab screen

FEATURES

- Transfer measurements from camera to software via USB cable, wireless Bluetooth, or removable SD card
- Drag-and-drop measurement images right from the storage directory to the analysis window
- 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 measurements
- Include dictated audio comments in the report
- 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 measurement results using built-in or user configured emissivity tables
- Include multiple measurements in any report
- Save reports as a Word or PDF document

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)

BLUETOOTH CAPABILITY

Wirelessly connects via Bluetooth to compatible clamp-on meters, multimeters and environmental loggers combining electrical and physical measurements to imaging data for a complete analysis capability

In addition to capturing both real and thermal images, these cameras are capable of Bluetooth communication with a variety of instruments to give you the full measurement picture.

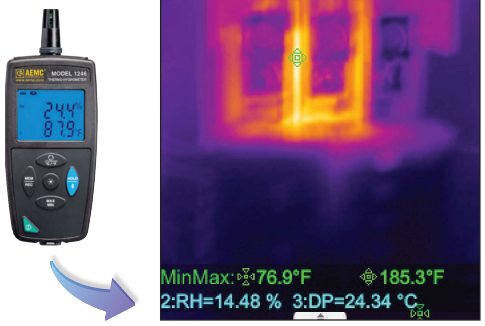
MODEL 407, MODEL 607, MTX3293

The Model 1950 and 1954 can receive data from the Models 407 and 607 power clamp meters and the MTX3293 multimeter providing the ability to store electrical real time measurements with the thermogram.

ENVIRONMENTAL DATA LOGGERS

The Model 1954 also communicates with AEMC's environmental data loggers to include the ability to add humidity, dew point, wind speed and flow, as well as light measurements to thermograms.

	1950	1954
INSTRUMENT COMPATIBILITY		
407 Power Clamp meter	✓	✓
607 Power Clamp meter	✓	✓
MTX3293-BT Multimeter	✓	✓
1110 Lightmeter Data Logger		✓
1227 Thermo-Anemometer Data Logger		✓
1246 Thermo-Hygrometer Data Logger		✓
1821 Thermocouple Thermometer Data Logger		✓
1822 Thermocouple Thermometer Data Logger		✓
1823 RTD Thermometer Data Logger		✓



Thermogram and connectivity to the Thermo-Hygrometer Model 1246

COMPATIBLE INSTRUMENTS

(Shown, from left:)

2139.51 - Power Clamp-on Meter Model 407
2139.61 - Power Clamp-on Meter Model 607
2154.06 - MTX3293-BT Multimeter
2121.71 - Environmental Data Logger Model 1110
2121.72 - Environmental Data Logger Model 1227
2121.73 - Environmental Data Logger Model 1246
2121.74 - Environmental Data Logger Model 1821
2121.75 - Environmental Data Logger Model 1822
2121.76 - Environmental Data Logger Model 1823