

MRDT-50 DIFFERENTIAL BLACKBODY

SPECIFICATIONS

Slew rate: +0.10°C/s, -0.08°C/s
Stability: 0.005°C rms ($\pm 0.01^\circ\text{C}$ p-p)
Emissivity: >0.95
Max/Min Temperature: 65°C / 5°C
Set point resolution: 0.01 °C
Differential Accuracy: 0.01 °C
Dimensions:
 Blackbody: 4" x 4" x 6"
 Controller : 7" x 4.5" x 10.5"
Face dimensions: 2.1" x 2.1"
Weight:
 Blackbody: 3.5 lbs.
 Controller : 4.3 lbs.
Environment: 60 °C to -20 °C
Power In: 120/240 VAC, 40 W

KEY FEATURES

- Measure Minimum Resolvable Temperature Difference (MRTD) of IR imagers
- Ideal for Two-point Calibration of Infrared Cameras and Detectors
- Removable/Interchangeable Bar Target
- Thermo-Electric Drive Provides Both Hot and Cold Set-Point
- Achieves Set-point Temperature in < 1 Min.
- Faster and Easier Lab Calibration
- OEM Models Can Be Incorporated Into Instrument Housing for Built-in Calibration

HIGH SLEW RATE RAPID SETTLING TIME

Thermo-electrically driven blackbody provides precise infrared emission over the MWIR and LWIR spectral bands.

Tri-bar target with differential temperature control for Minimum Resolvable Temperature Difference measurements.

Removable bar target permits flat-plate blackbody use; ideal for two point calibration of imagers and single detectors.

Digital Interface to custom PC set-point control application via RS-232 connection.

Collimating optics and multiple-frequency bar targets available for scene projection.

Rapid blackbody systems and customized components available

INFRARED BLACKBODY SOURCES TO MEET YOUR CALIBRATION NEEDS

BODKIN DESIGN & ENGINEERING, LLC

TEL 617.795.1968
FAX 617.795.1969

WWW.BODKINDESIGN.COM
SALES@BODKINDESIGN.COM

SOFTWARE INTERFACE

Each IR Blackbody system comes equipped with its own user-friendly software. The software is compatible with Microsoft Windows XP. The Blackbody has two operating modes, fixed mode for flat field calibrations, and differential mode for minimum Resolvable Temperature Measurements.

Fixed mode is used without the bar target in place so that the blackbody radiator plate maintains a fixed temperature

Differential mode is used with the bar target in place so that the blackbody radiator plate maintains a fixed temperature difference relative to the target.

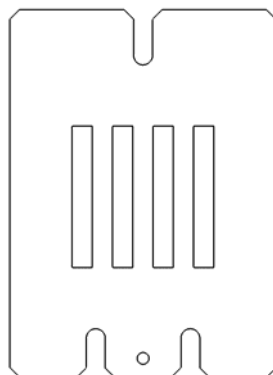


Fixed Mode Display



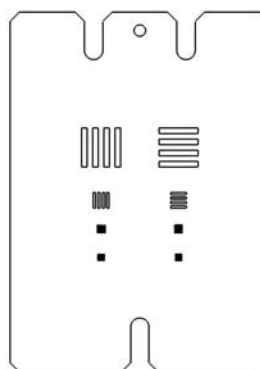
Differential Mode Display

VARIABLE FREQUENCY TARGETS ARE AVAILABLE:



Four Bar Target

Pitch: .428"



Multi-Bar Target

Pitch: .020"

.024"

.048"

.122"

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