



BlackBody - Thermal Sensor Calibration System

#EOTestandMeasurementSystems



■ THERMAL SENSOR CALIBRATION

OMSAS | BB

BlackBody - Thermal Sensor Calibration System

OMSAS-BB is a high-precision thermal calibration source developed to ensure the accurate characterization and validation of infrared (IR) and thermal imaging systems during production and integration phases.

As a mission-critical instrument in the manufacturing of electro-optical systems, OMSAS-BB enables precise thermal sensitivity calibration, ensuring measurement reliability, repeatability, and long-term stability of thermal sensors.

Entirely designed and engineered in-house, OMSAS-BB reflects our opto-mechanical and thermal control expertise. With superior temperature uniformity and differential stability performance, the system positions itself ahead of global competitors in terms of precision, robustness, and environmental compliance.

Available in 4", 12", and 20" aperture configurations, OMSAS-BB provides scalable solutions for laboratory validation, production line calibration, and system-level verification of thermal imaging payloads.



4" Technical Specifications

- Emissivity : 0.98
- Uniformity : Maximum ± 5 mK ΔT Deviation
- Operating Temperature : -40°C to $+70^{\circ}\text{C}$
- Surface Temperature Range : -25°C to 125°C ΔT , -40°C to 125°C T "
- Differential Temperature Range : -40°C Ambient \rightarrow -40°C to $+85^{\circ}\text{C}$ Surface
 0°C Ambient \rightarrow -25°C to $+125^{\circ}\text{C}$ Surface
 25°C Ambient \rightarrow 0°C to $+125^{\circ}\text{C}$ Surface
 70°C Ambient \rightarrow $+45^{\circ}\text{C}$ to $+125^{\circ}\text{C}$ Surface

12" Technical Specifications

- Emissivity : 0.98
- Uniformity : Maximum ± 10 mK ΔT Deviation
- Operating Temperature : -40°C to $+70^{\circ}\text{C}$
- Surface Temperature Range : -15°C to 110°C ΔT , -40°C to 125°C T "
- Differential Temperature Range : -40°C Ambient \rightarrow -40°C to $+70^{\circ}\text{C}$ Surface
 0°C Ambient \rightarrow -15°C to $+110^{\circ}\text{C}$ Surface
 25°C Ambient \rightarrow 10°C to $+125^{\circ}\text{C}$ Surface
 70°C Ambient \rightarrow $+55^{\circ}\text{C}$ to $+125^{\circ}\text{C}$ Surface

20" Technical Specifications

- Emissivity : 0.98
- Uniformity : Maximum ± 15 mK ΔT Deviation
- Operating Temperature : -40°C to $+70^{\circ}\text{C}$
- Surface Temperature Range : -15°C to 100°C ΔT , -40°C to 125°C T "
- Differential Temperature Range : -40°C Ambient \rightarrow -40°C to $+60^{\circ}\text{C}$ Surface
 0°C Ambient \rightarrow -15°C to $+100^{\circ}\text{C}$ Surface
 25°C Ambient \rightarrow 10°C to $+125^{\circ}\text{C}$ Surface
 70°C Ambient \rightarrow $+55^{\circ}\text{C}$ to $+125^{\circ}\text{C}$ Surface



Specifications are subject to change without any notice. | All tolerances are within $\pm 10\%$.