

# BL681 ULTRA HIGH TEMPERATURE BLACKBODY



The BL681 is an ultra-high temperature blackbody calibration source system which utilizing a digital indicating temperature 400°C to 3000°C. A platinum rhodium wire sensor is embedded in the blackbody emitter, providing high accuracy and repeatability. The temperature to within 0.1°C of the set points. The black body emitter mechanism uses a resistive heating device that provides a long life, short stabilization times, and stable temperature control.

#### **FEATURES**

- Temperature is up to 3000°C
- Emissivity is better than 0.996
- Reference blackbody and control blackbody is integrated together
- Built-in closed loop cooling system, no need external cool water
- Computer simulation designed control unit and blackbody source
- Pre-set temperature section control ensures high stability

## TYPICAL APPLICATION

- Infrared temperature sensors
- Infrared thermal imaging systems
- Spectrographic analyzers
- Radio meters
- Flux meter

## **SPECIFICATION**

Part Number	681-2000	681-2500	681-3000
Temperature	400~2000°C	800~2500°C	800~3000°C
Emitter shape	Cylinder	Cylinder	Cylinder
Diameter	30mm	30mm	25mm
Designed ε	0.9991	0.9991	0.9992
Actual ε	>0.9997	>0.9997	>0.9997
Resolution	0.1°C	0.1°C	0.1°C
Stability (10 min)			0.3% RD
Uniformity	< 0.15%RD	< 0.15%RD	< 0.15%RD
Working type	Vacuum	Vacuum	Argon + Air
3 phases Power	45KW	45KW	60KW
Weight	800kg	800kg	850kg

### **SCOPE OF DELIVERY**

- BL681 Blackbody calibration source
- Temperature heating system.
- Temperature cooling system
- Temperature control unit
- Power voltage control unit
- Gas bottle (buy locally)
- Power cord
- User manual
- Factory calibration report

## **OPTIONAL ACCESSORIES**

ISO17025 calibration certificate (P/N: 9000-681)

#### ORDERING MODEL NUMBER

- BI 681-2000
- BL681-2500
- BL681-3000