

PI-4880 Floodbeam Optical Test Head

Features

- **Controlled Optical Environment**
- **Meets NIST Calibration Standards**
- **Transportable, Turnkey System**
- **System 4700 Compatible or Stand Alone Operation**



The Pulse Instruments MODEL PI-4880 FLOOD BEAM OPTICAL TEST HEAD is a transportable, turnkey subsystem that provides a controlled optical flux and temperature environment test head for the testing of IR Detectors and Focal Plane Arrays. Modular design and a host of options allow a maximum of configuration flexibility at a minimum cost. Ergonomic design and user friendly software maximizes test throughput and minimizes set-up time.

The subsystem consists of a console including power distribution, a radiation flux source assembly, an optical box assembly and optional accessories such as a dewar assembly, dewar temperature monitor and controller. The system also includes control software and can be controlled by our PI-DATS software.

The test head is mounted in a standard minirack console assembly. Wheels allow for portability, and jack screws are included to support the system while in operation. The rack requires single 30 Amp, 115 VAC service. The power distribution concept is designed for maximum personnel and equipment safety. This includes ground fault interruption, emergency power off protection and AC power interlocks. Two grounds are made available within the test head; an analog ground associated with the optical and dewar portion of the test head and digital ground attached to the control and CPU components.

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Specifications

* The spec's below are for a standard configuration

PI-4880 System

Basic Model #	PI-4880-1	PI-4880-2	PI-4880-3	PI-4880-4
Blackbody Cavity Diameter	1"	0.5"	1"	0.5"
Blackbody Temperature Range	50 - 1000 C	50 - 1000 C	50 - 1200 C	50 - 1200 C
Operating Ambient Temperature	0 - 50 C	0 - 50 C	0 - 50 C	0 - 50 C
Voltage	110V or 220V 50/60 Hz	110V or 220V 50/60 Hz	110V or 220V 50/60 Hz	110V or 220V 50/60 Hz
Weight	120 lbs.	120 lbs.	160 lbs.	160 lbs.
Transportable	locking casters and adjustable stabilizing legs	locking casters and adjustable stabilizing legs	locking casters and adjustable stabilizing legs	locking casters and adjustable stabilizing legs
Computer Control	via IEEE-488 Bus and PI-CONTROLLER Plus and PI-DATS software	via IEEE-488 Bus and PI-CONTROLLER Plus and PI-DATS software	via IEEE-488 Bus and PI-CONTROLLER Plus and PI-DATS software	via IEEE-488 Bus and PI-CONTROLLER Plus and PI-DATS software
Optical Train Environmental Control	LN2 Purge	LN2 Purge	LN2 Purge	LN2 Purge
Size	31"W x 32"D x 42"H	31"W x 32"D x 42"H	31"W x 32"D x 42"H	31"W x 32"D x 42"H

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Ordering Information

<u>Model No.</u>	<u>Description</u>
PI-4880	<p>FLOODBEAM OPTICAL TEST HEAD - Turnkey radiometric test head intended to provide a controlled optical flux and temperature environment for the testing of IR Detectors and Focal Plane Arrays. The PI-4880 can operate as an integral part of the System 4700 Test System, or can be used as a stand alone test head. The sell contained subsystem consists of a console including, power distribution, a MODEL 48804 RADIATION FLUX SOURCE CONTROLLER and assembly, and an optical box assembly with baffle. Provisions and controller included for all options listed below. Includes IBM PC compatible software for setup and real time control over IEEE-488 bus.</p> <p><u>Options</u></p> <p>-1: Blackbody with 1" cavity and 50 to 1000 C temperature range</p> <p>-2: Blackbody with 0.5" cavity and 50 to 1000 C temperature range</p> <p>-3: Blackbody with 1" cavity and 50 to 1200 C temperature range</p> <p>-4: Blackbody with 0.5" cavity and 50 to 1200 C temperature range</p>
48801	<p>CHOPPER -- Programmable variable frequency radiation modulator features high frequency stability using closed loop digital control. Mounts directly to the blackbody front panel. Includes one Chopper Wheel from list below: (For other frequencies consult factory.)</p> <ul style="list-style-type: none"> ● Chopper with 1 to 250 Hz Frequency (2 blades) ● Chopper with 10 to 1 kHz Frequency (8 blades) ● Chopper with 10 to 2 kHz Frequency (16 blades) ● Chopper with 10 to 5 kHz Frequency (40 blades) ● Chopper with 100 to 20 kHz Frequency (160 blades)
48802	<p>APERTURE WHEEL -- Motor driven, eight-position aperture wheel features remote selection of apertures for test sequences. The wheel position is selected from either the MODEL 48804 RADIATION FLUX SOURCE CONTROLLER front panel or via the control software over the IEEE-488 bus.</p>

48803	FILTER WHEEL -- Motor driven programmable filter wheel with eight positions for 1" (25mm) diameter filters (clamping rings only provided). The wheel is mounted in front of the aperture wheel on the blackbody. The wheel position is selected from either the MODEL 48804 RADIATION FLUX SOURCE CONTROLLER front panel, or via the control software. Provides radiation in selected wavelength bands. For filters consult factory.
720	TEMPERATURE MONITOR/CONTROLLER -- Dual-channel, low noise microprocessor based PID controller. 0.1 K resolution, 60W heater power, IEEE-488 interface, includes interface cable.