For current pricing, please see our website.

Photomultiplier Modules (Page 1 of 2)

PMTSS2 (Lens Tube and Fiber Collimator Sold Separately)

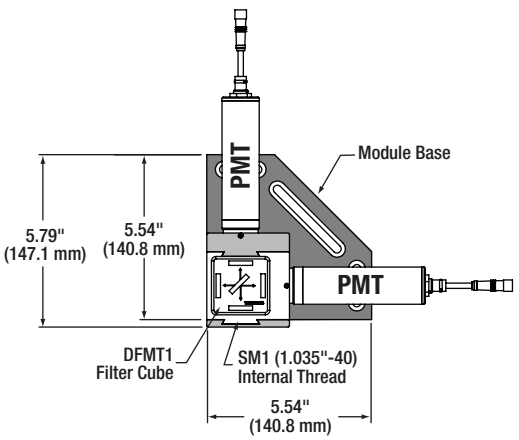
Features

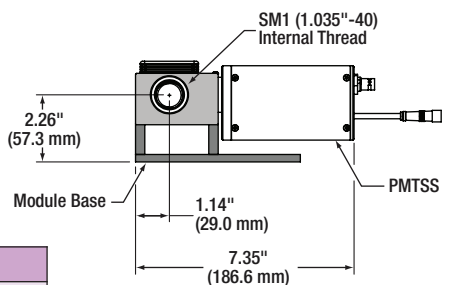
- Ideal for Laser Scanning Microscopy
- Compatible with Thorlabs' Laser Scanning Essentials Kits (See Page 1684 for Details)
- PMT Modules Expandable to up to 8 Channels
- Included with Two-Channel Module
  - Two Multi-Alkali PMTs
  - Removable Fluorescence Filter Cube
  - SM1-Threaded PMT Mount for Housing the Filter Block
- Stand-Alone Multi-Alkali PMT Also Available
- Broadband Spectral Response: 185 – 900 nm

Thorlabs' Photomultiplier Tube (PMT) Modules are designed for easy integration of PMT detection into imaging systems such as our Laser Scanning Essentials Kit (see page 1684). The PMTSS2 Two-Channel PMT Module consists of two multi-alkali standard-sensitivity PMTs, a DFMT1 filter cube insert (see page 1721 for more details), and a base. The two multi-alkali PMTs incorporated into this module offer high detection efficiency with broad spectral response from 185 – 900 nm.

The base of the module is equipped with a DMFT filter cube block and slots for attachment to an imperial or metric optical table or breadboard. The input port of the filter block features SM1 (1.035"-40) threading, which is directly compatible with a wide array of Thorlabs' SM1 lens tubes and fiber collimation adapters.

The PMTs are prealigned for use with the included filter cube insert, which enables easy exchange of dichroic mirror/emission filter sets. With the purchase of additional single-channel add-on modules (PMTSS2-SCM), the two-channel PMT modules can be expanded to as many as 8 detection channels. These PMT Modules are featured in our Confocal Laser Scanning Microscopy Systems describe on pages 1680 – 1683.





SPECIFICATIONS	
Optical	
Detector Type	Multi-alkali
Spectral Response	185 – 900 nm
Peak λ Sensitivity	450 nm
Radiant Sensitivity*	105 mA/W
Dark Current (Analog Mode)	2.0 nA (Typical); 10 nA (Max)
Rise Time**	1.4 ns
Gain	10^7
Active Area (W x H)	3.7 mm x 13 mm
Electrical	
Output Signal Current	10 µA (Max)
Input Voltage	±15 V
Output Impedance	Variable Gain Control Input Voltage 0.25 – 1.0 V
General	
Storage Temperature	-20 to 50 °C
Operating Temperature	15 to 40 °C

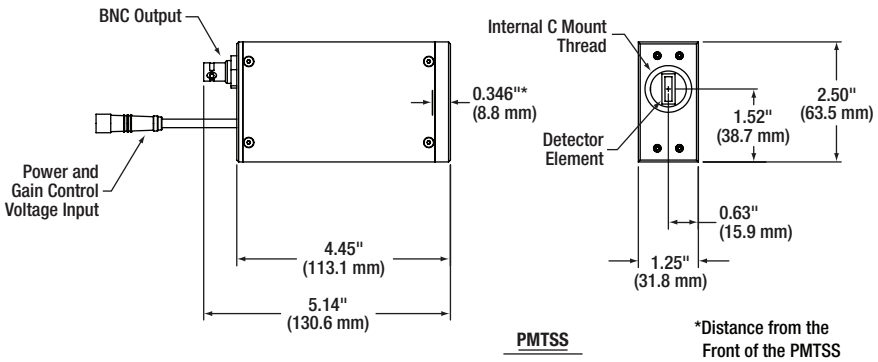
* Radiant Sensitivity measured @ 450 nm

** Rise Time measured at maximum gain setting

PMTSS2

PMTSS2-SCM
Single-Channel Add-On Module

Photomultiplier Modules (Page 2 of 2)



For those interested in purchasing the PMTs alone, we offer the PMTSS, which is the multi-alkali PMT detector without the filter block and base. The detectors have a C-mount internal thread that enables direct compatibility with common microscope camera ports.

The PMT detectors include a power cable for wiring to a user-supplied ±15 V power supply and 0.25 – 1 V variable gain control. Detector data output is supplied via BNC connector.

Combining a PMTSS2 Two-Channel Module with an additional PMTSS2-SCM Single-Channel Module, enables three-channel detection, as shown to the right. The included filter blocks enable easy insertion and exchange of fluorescence filter sets.

Coupling of optical signal is possible through the addition of SM1 Lens Tube and Fiber Collimation System.

ITEM #	$	£	€	RMB	DESCRIPTION
PMTSS2	$ 6,250.00	£ 4,500.00	€ 5.437,50	¥ 49,812.50	Two-Channel PMT Module, Standard Sensitivity
PMTSS2-SCM	$ 3,200.00	£ 2,304.00	€ 2.784,00	¥ 25,504.00	Single-Channel Add-On Module, Standard Sensitivity
PMTSS	$ 2,300.00	£ 1,656.00	€ 2.001,00	¥ 18,331.00	Multi-Alkali PMT Detector