

2520INT Series Specifications

This series covers the offering of Integrating Spheres for use with the Model 2520 Pulsed Test System.

Products

The following lists the current products in the 2520INT Series. Each product has bundled a CD Manual, Calibration report, and ¼-20 post and base.

- 2520INT-1-GE 1in Integrating Sphere with a Germanium Detector

Accessories

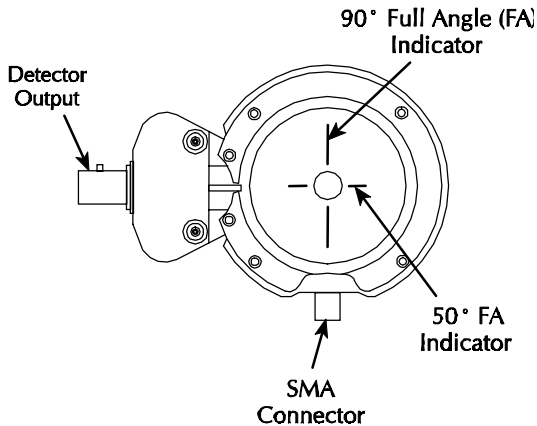
- Model 2520 Pulsed Laser Diode Test System
- Model 7078-TRX Triax Cables

Specifications

Full Acceptance Angle¹

90° vertical, 50° horizontal (max.)

Frontal View of Integrating Sphere showing Full Acceptance Angle Indicators:



Operating Wavelength Range

800 – 1700nm

Continuous Wave (CW) Calibration Wavelength Range²

950-1010nm and 1280-1620nm

Wavelength (nm)	980	1310	1480	1550
Measurable Optical Power Range ³	29mW – 7W	17mW – 4W	14.5mW – 3.5W	13.5mW – 3W
Typical Responsivity ⁴ (mA/W)	3.5	6.0	7.0	7.5
Resolution ⁵ (mW)	0.2	0.1	0.1	0.1

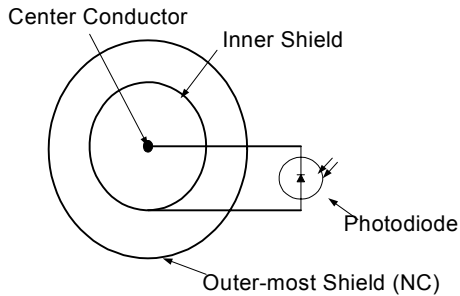
Maximum Reverse Bias

5V (recommended)

Dark Current at Max Reverse Bias

4 μ A (typ.); 10 μ A (max.)

Photodiode Electrical Connections on 3 Lug Triax ⁶



- Center to Cathode
- Inner Shield to Anode
- Outer Shield – Not Connect (Isolated from chassis)

Pulsed Operation

The 2520INT supports the pulse capabilities of the 2520 Pulsed Laser Diode Test System.

Fiber Tap Port

Connector Type: SMA

Numerical Aperature (NA): 0.22 (typ.)

Multi-Mode Patch Cord Core Diameter ⁷ (μ m)	400	100	62.5	50
Typical Attenuation (dB)	39.5	53	58.2	63

General

Description	Min	Max
Temperature		
Operating ⁸	0°C	50°C
Storage	-25°C	65°C
Weight ⁹	0.33 lbs (0.15 kg)	
Dimension ⁹ : LxDxH	2.36 in x 1.80 in x 3.40 in (60.0 mm x 45.7 mm x 86.4 mm)	
Input Port Diameter	0.25 in (6.35 mm)	
Recommended Calibration Cycle	1 year	

Notes

- ¹ Maximum distance from input port to accept at full maximum acceptance angle: 3.1mm (0.12 in).
- ² Calibration performed at 10nm wavelength intervals.
- ³ Based on detector being linear to up to 25mA photocurrent and on a Signal to Noise Ratio (SNR) ≥ 100 .
- ⁴ Calibration of the 2520INT is performed with an open fiber tap port. The power measurement will increase by approximately 1% with an SMA patch cord attached to the port.
- ⁵ Based on resolution of Model 2520 at 10mA (lowest) I_{meas} range.
- ⁶ This configuration MUST have a NEGATIVE (Reverse) Bias Voltage applied. If a Positive (Forward) Bias is applied, the detector (photodiode) will become damaged.
- ⁷ Use of Single Mode Fiber is Not Recommended.
- ⁸ The Calibration data is valid within the temperature range specified on the calibration certificate.
- ⁹ Only for integrating head, does not include post and base.