

SCIENTECH®

 Astral Series *S*

Photodiode Measurement Systems



**Intelligent
Detectors**

**Wavelength
Compensation**

**Highly
Sensitive**

Portable

**Large
Aperture**

**ISO 9001
REGISTERED**

The **MEASURE**
of Confidence

Astral Series *S*

New CW, low power photodiode laser measurement systems are now available from Scientech. These hardy systems consist of a handheld meter and your choice of highly sensitive, silicon optical detectors. Utilizing intelligent detector technology, these easy-to-use handy systems provide wavelength compensation along with a slim profile.

The Astral Series *S* AI51/AI51D indicators are a compact, portable, handheld device in a rugged, metal case. The AI51 marries both a 4-digit LCD display along with a true analog needle meter movement. The needle makes laser tuning a cinch with no possible misinterpretation of digits. Or you may choose the AI51D which is the digital only version of the AI51. Both meters

make wavelength corrections at the push of a button. The meter can be powered by the standard wall mounted power supply/battery charger, the optional USB data interface, or the optional battery. Optional meter accessories include a lithium-poly battery, a non-skid weighted base mounting system, a soft case, a hard sided carrying case, and a USB data interface with drivers.

Although the Astral Series *S* AP50S/AP50UVS detectors possess a large aperture of 11mm and a slim profile of 2.8cm, they are both able to resolve down to 10nW. The maximum power of the AP50S is 50mW and can be expanded to 1W if you purchase the optional APXVIS attenuator. The maximum power of the AP50UVS is

4mW and can be expanded to 400mW if you purchase the optional APXUV attenuator. Both attenuators slip fit into the 11mm aperture for ease of use.

Each detector also comes with a NIST traceable calibration certificate to insure that you are getting the most accurate laser measurement possible. Standard equipment for the detectors includes a 1.27cm diameter x 8.89 cm long mounting post for easy mounting to optical tables and an aperture extension for blocking out unwanted environmental light sources. This extension is easily removed allowing close proximity to the absorbing surface for measuring diverging beams. Removing the aperture extension also permits the detectors to fit into tight spaces. Optional accessories for the detectors include two different holding bases.

Special FEATURES

***S* SERIES FEATURES**

- ▶ Ideal for low power CW
- ▶ Compact profile
- ▶ NIST traceable
- ▶ Microprocessor controlled
- ▶ AC power adapter/recharger
- ▶ Simple user interface
- ▶ Extended range with optional attenuators



PHOTODIODE SERIES S

Specifications



PHOTODIODE SERIES S SPECIFICATIONS

Model No.	AI51D	AI51
Display	4-Digit LCD	4-Digit LCD With Selectable Meter Movement
Ranges [Watts Full Scale]	50.00m, 5.000m, 500.0μ, 50.00u	4.000m, 400.0μ, 40.00μ
Response Time	<1 sec	
Operating Temperature Range	5°C to 40°C	
Power Requirement	100 - 240 VAC, 50 - 60 Hz	
Case	metal	
Weight	1 lbs. / 0.45 kg	
Dimensions [L x W x D] (in/cm.)	6.3 x 4.2 x 1.5 / 16.0 x 10.7 x 3.8	
Battery	optional lithium poly, Scientech PN11640 only	
Mounting System	optional	

DETECTOR SPECIFICATIONS

Model No.	AP50S	AP50UVS
Spectral Response	400 to 1100 nm	200 to 1100 nm
Maximum Power	50 mW	4mW
Maximum Power Density	170mW/cm ²	5mW/cm ²
Type Absorber	Silicon	
Aperture Size (dia.)	11mm	
Minimum Power	100nW	
Noise Level	1nW	
Accuracy	± 5%	
Repeatability	± 3%	
Linearity	± 1%	
Weight (lbs / kgs)	0.05 / 0.12	
Dimensions (Dia. x L) (in / cm)	2.5 x 1.1 / 6.4 x 2.8	



Optional ACCESSORIES



Mounting System

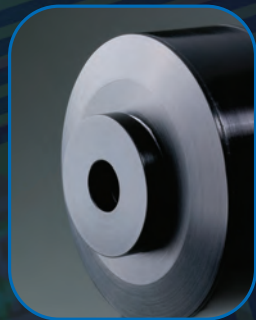
This sturdy mounting system has a moldable, weighted, rubber base with a non-slip surface, ball mounts, and an Astral Series S cradle. The system will hold the Astral Series S meter up to 12 inches vertically above your working surface in an upright position. The ball mounts let you reposition the meter to accommodate any viewing angle you desire. You can also readily remove the Astral Series S meter for safekeeping at the end of the day.

Lithium Battery



The battery can be easily installed either in the field or at the factory. It is a rechargeable, lithium-poly Battery with in-use time of 12 hours before needing recharging. Charging time is one hour.

APX Beam Expanders



USB
USB interface

Bases



These bases will hold the Astral Series S Detector upright on your working surface. Base 11788, which is a slotted base, will bolt down to your optical bench. Base 30109 will work on any surface.

9663 Carrying Case (soft)

Soft carrying case with belt loops.



LCC Carrying Case (hard)

Plastic carrying case for Astral Series S meter & detector.



Made in the USA

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