

## Integrating Sphere

### Overview

OptoTest's **OP-SPHR Integrating Sphere** is designed as a cost-effective solution for optical testing of fibers terminated with high-density connectors such as MTP®/MPO or bare fiber. The Integrating Sphere works by reflecting and evenly distributing the light over the entire surface of the internal cavity, making Insertion Loss (IL) measurements stable and repeatable with low polarization dependence.

The screw-on design is ideal for implementing into new or existing Test Systems to accommodate up to 72 fibers and can be used with OptoTest 3mm detectors for remote heads and OP940 front panels.

### Features

- Uniform distribution of light on the detector results in superior accuracy
- Operating range (+20dBm to -50dBm)
- Interchangeable between detectors without affecting accuracy or repeatability
- Interfaces to existing 3mm detectors, front mount or remote head
- Adapters for all common connector types including MTP®, 1.25mm, and 2.5mm
  - Magnetic connections on the adapters make them easily exchangeable
  - Built-in screw hole allows for optional added rigidity
  - Bare fiber adapters available for simplex or ribbon fiber
- No calibration of the sphere needed



Figure 1: Model OP-SPHR Detector-Mounted Integrating Sphere.

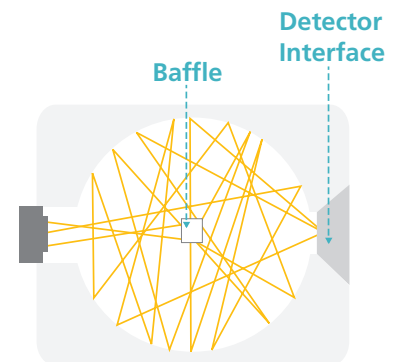


Figure 2: The integrating sphere works by scattering the incoming light uniformly around the internal cavity.

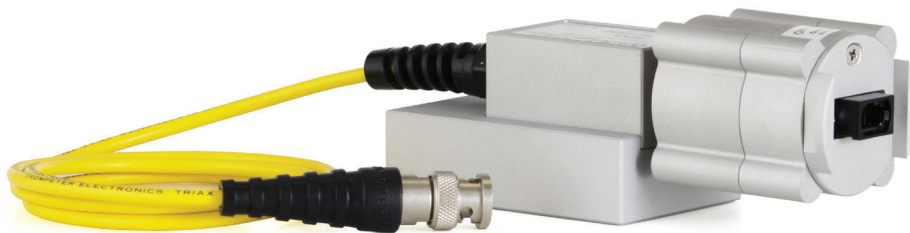


Figure 3: Model OP-SPHR attached to a remote head detector with a baseplate and an AD-SPHR-MTP adapter.



AD-SPHR-MTP-16



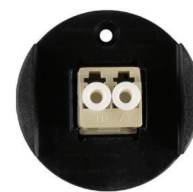
AD-SPHR-125



AD-SPHR-25



AD-SPHR-BFA



AD-SPHR-DLC



AD-SPHR-CS

Additional adapters for the OP-SPHR are available. For more information, please contact OptoTest.

*MTP® is a registered trademark of US Conec.*



**Advancing the World of Fiber Optics™**



Proudly made in the USA

Distribution in the UK & Ireland



**Characterisation,  
Measurement &  
Analysis**

**Lambda Photometrics Limited**  
Lambda House Batford Mill  
Harpenden Herts AL5 5BZ  
United Kingdom  
E: [info@lambdaphoto.co.uk](mailto:info@lambdaphoto.co.uk)  
W: [www.lambdaphoto.co.uk](http://www.lambdaphoto.co.uk)  
T: +44 (0)1582 764334  
F: +44 (0)1582 712084