

Integrating Spheres



Highlights:

- High power handling
- Multiple ports
- Economical

Our offer in Detail:

Artifex Engineering designs and manufactures a range of gold coated integrating spheres for high power applications. We use SMA fibre ports to allow accurate power measurement with our OPM series of optical power meters.

High power measurements are often performed using thermopile detectors. Thermopiles however, have the disadvantage of reacting very slowly – typical rise times leading to measurement periods of 1 second at best. The combination of an integrating sphere and a photodiode based power meter opens the possibility of measuring high power fluctuations on a μs time scale.

These integrating spheres have exceptional power density handling capability. We offer air and water cooled designs depending on the average power to be measured.

Specifications

- SMA fibre ports
- Standard 2 port design (eg: power and spectrometer).
Four ports on request.
- Power density: $5000\text{W}/\text{cm}^2$
- Power handling: 40W (65mm uncooled); 4000W (100mm water cooled)
- Wavelength range: 650nm – 20 μm



Your problem is our challenge – flexibility is our standard:

We will gladly adapt, for example, the aperture or diameter to suit your application. Let us know your requirements

The perfect match!

SIMTRUM

Integrating Spheres



Highlights:

- High efficiency
- Extreme positional independence
- Compatible with OPM150 system

Our offer in Detail:

Artifex Engineering designs and manufactures a range of high quality polymer based integrating spheres for low average power applications in the visible and near infra-red. The larger spheres have standardized ports for modular configuration. The ports can be populated with either a photodiode or a fibre receptacle. The smaller sized spheres come with an integrated photodiode and an SMA fibre port. These spheres are compatible with our OPM150 series of optical power meters. Just plug it in to your USB port and start measuring!

The polymer integrating spheres from Artifex Engineering are very efficient due to the high reflectivity of the quality material we use. These spheres are CNC machined from solid raw material – not just coated. The result is a stable instrument you can trust!

Options

- Fibre ports: SMA and FC
- Photodiodes: Si, Ge, InGaAs, VIS-enhanced InGaAs, IR-extended InGaAs
- Sphere inner diameters: 10mm, 20mm, 50mm, 100mm

Specifications

- Wavelength range: 250-2500nm
- Positional dependence: <1% (full aperture)
- Angular dependence: <2% ($\pm 30^\circ$)

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Singapore Main Office
Telephone: +65 6996 0391
Email: info@simtrum.com

China Main Office
Telephone: +86 150 0085 3620
Email: sales@simtrum.cn

SIMTRUM
www.simtrum.com