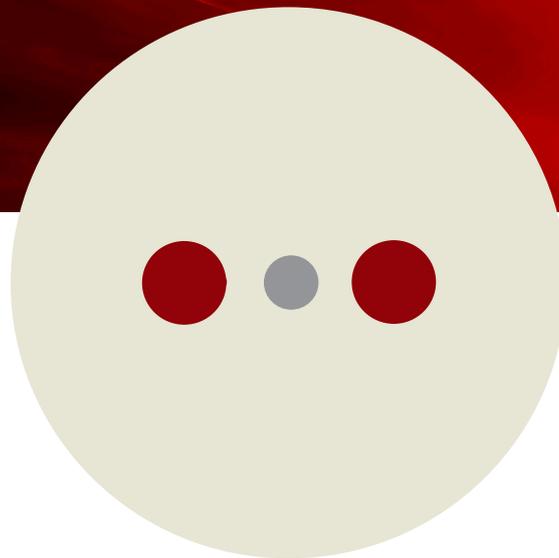


# SC-250/14-PM-Ge

Single-mode PM fiber



## LARGE AREA, SINGLE-MODE FIBER

The SC-250/14-PM-Ge is a truly single-mode, all-solid-core step-index single-clad fiber.

Based on a unique refractive index control, the 14  $\mu\text{m}$  polarization-maintaining core delivers diffraction-limited output in a single mode. The mode quality is stable over time and independent of coiling.

### The single-mode advantages

Our single-mode fibers offer several advantages compared to standard multi-mode large area fibers:

- Excellent output stability
- Outstanding beam quality
- No need for tight coiling
- No coiling-induced mode area compression

The fiber offers mode-matching with our DC-135/14-PM-Yb fiber and is spliceable to commercially available pump/signal combiners.

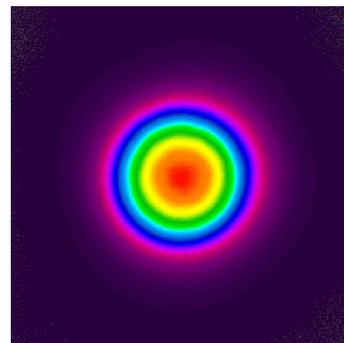
### Features

- Truly single-mode
- Large 15  $\mu\text{m}$  mode diameter
- Solid step-index
- Polarization maintaining
- Mode-matching with our single-mode gain fiber: DC-135/14-PM-Yb

## SPECIFICATIONS

| Signal core  |                           |
|--|---------------------------|
| Mode properties  | Single-mode               |
| Cut-off [nm]   | $\leq 1000$               |
| Beam quality (typical) @ 1064 nm                         | $M^2 < 1.2$               |
| Mode-field diameter, $1/e^2$ @ 1064 nm [ $\mu\text{m}$ ] | $15 \pm 1$                |
| Polarization parameters                                  |                           |
| Birefringence $\Delta n$ @ 1100 nm, typical              | $\geq 1 \times 10^{-4}$   |
| Physical properties                                      |                           |
| Signal core diameter [ $\mu\text{m}$ ]                   | $\approx 14$              |
| Outer cladding diameter [ $\mu\text{m}$ ]                | $249 \pm 3$               |
| Coating diameter [ $\mu\text{m}$ ]                       | $350 \pm 15$              |
| Coating material, single-layer                           | High-temperature acrylate |
| Minimum bending diameter [cm]                            | 18                        |

### Typical near field intensity profile



All NKT Photonics fiber products are produced under our quality management system certified in accordance with the ISO 9001:2015 standard.

