

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

## Features

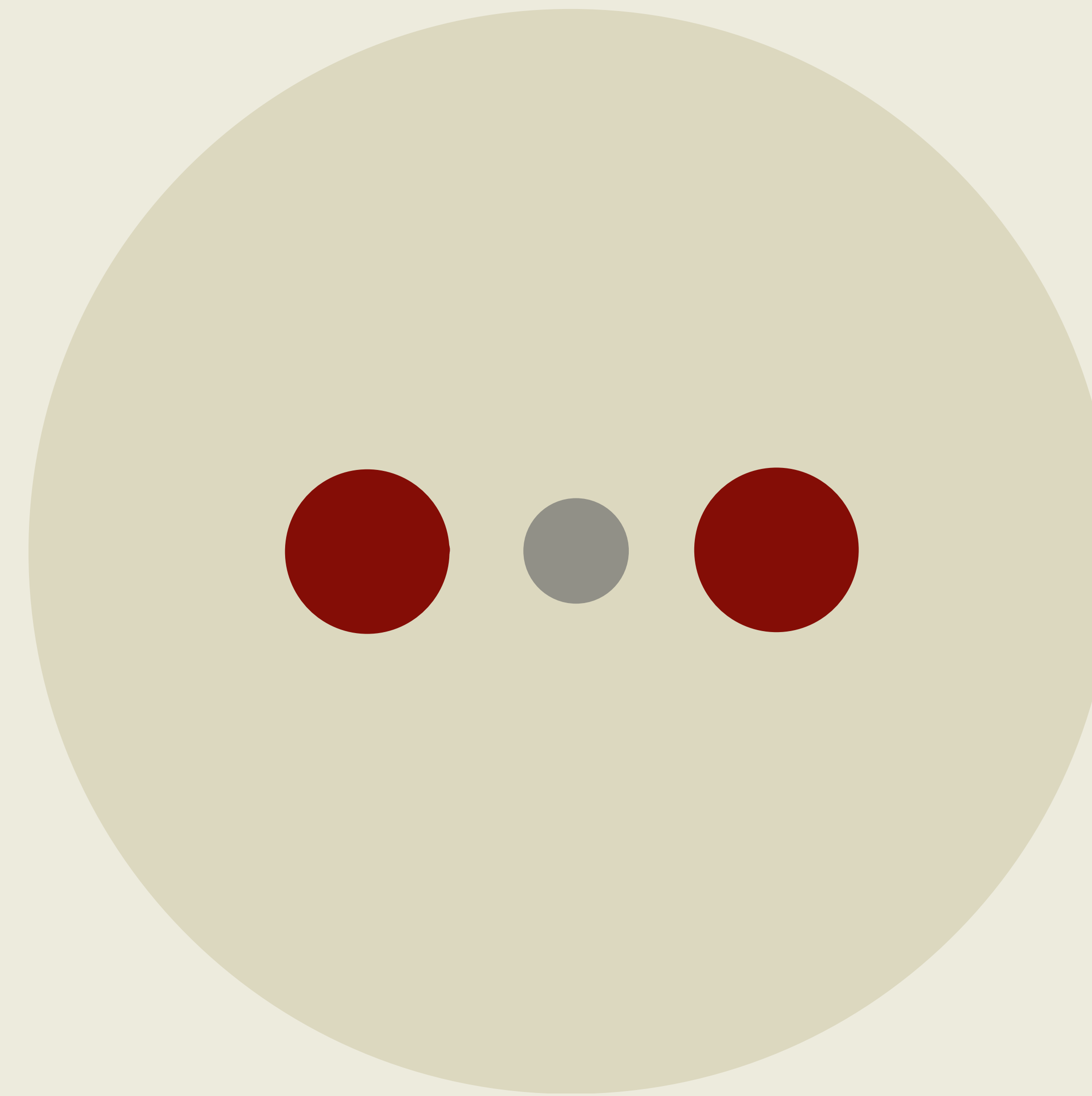
Truly single-mode

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



## SC-250/14-PM-Ge

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### The single-mode advantages

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

**Excellent output stability**

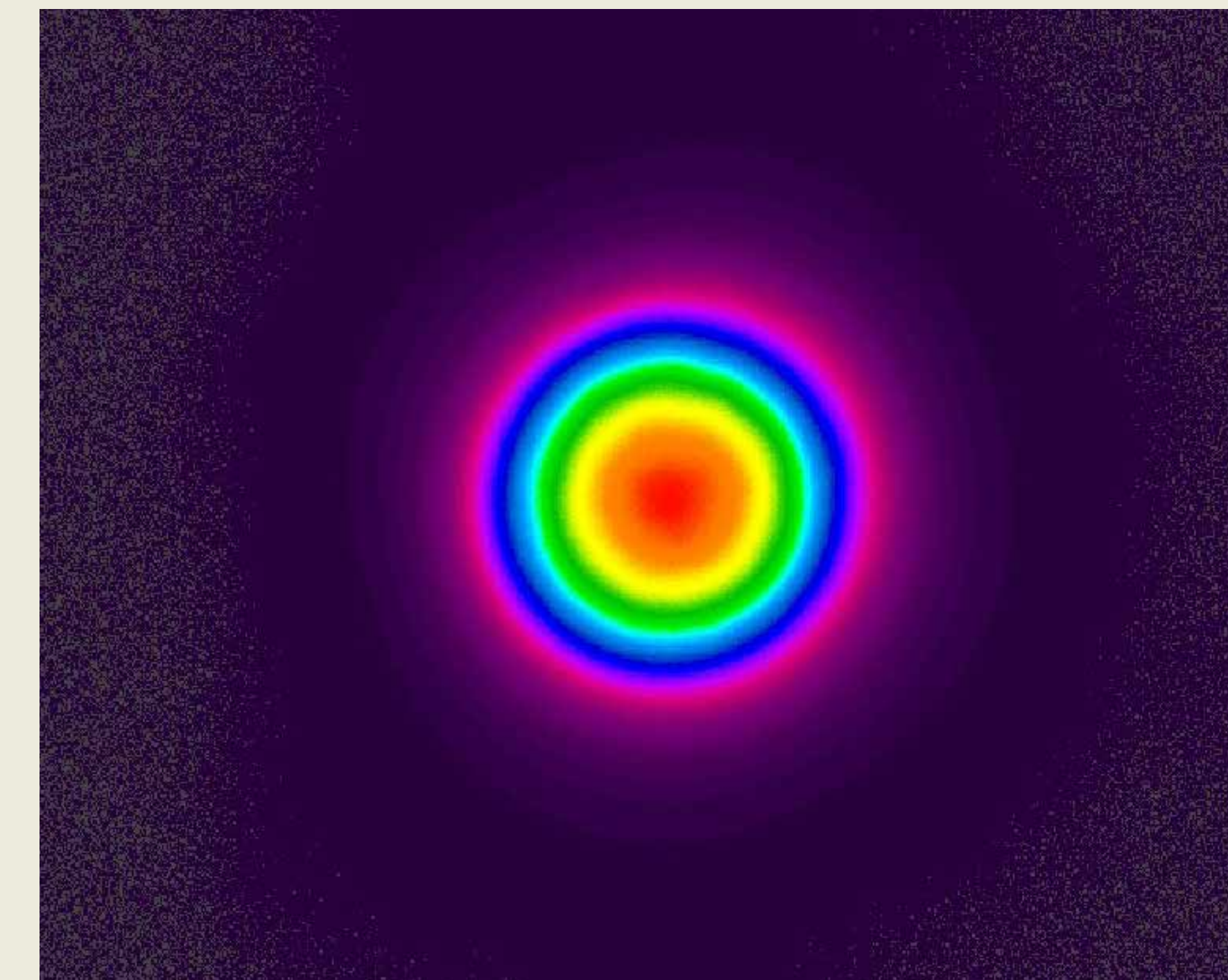
**Outstanding beam quality**

**No need for tight coiling**

**No coiling-induced mode area compression**

# Specifications

Typical near field intensity profile



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 <sup>2</sup> @ 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

<sup>1</sup> Spotsize varies with wavelength.

## SC-250/14-PM-Ge

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



# SOLUTIONS FOR INNOVATORS