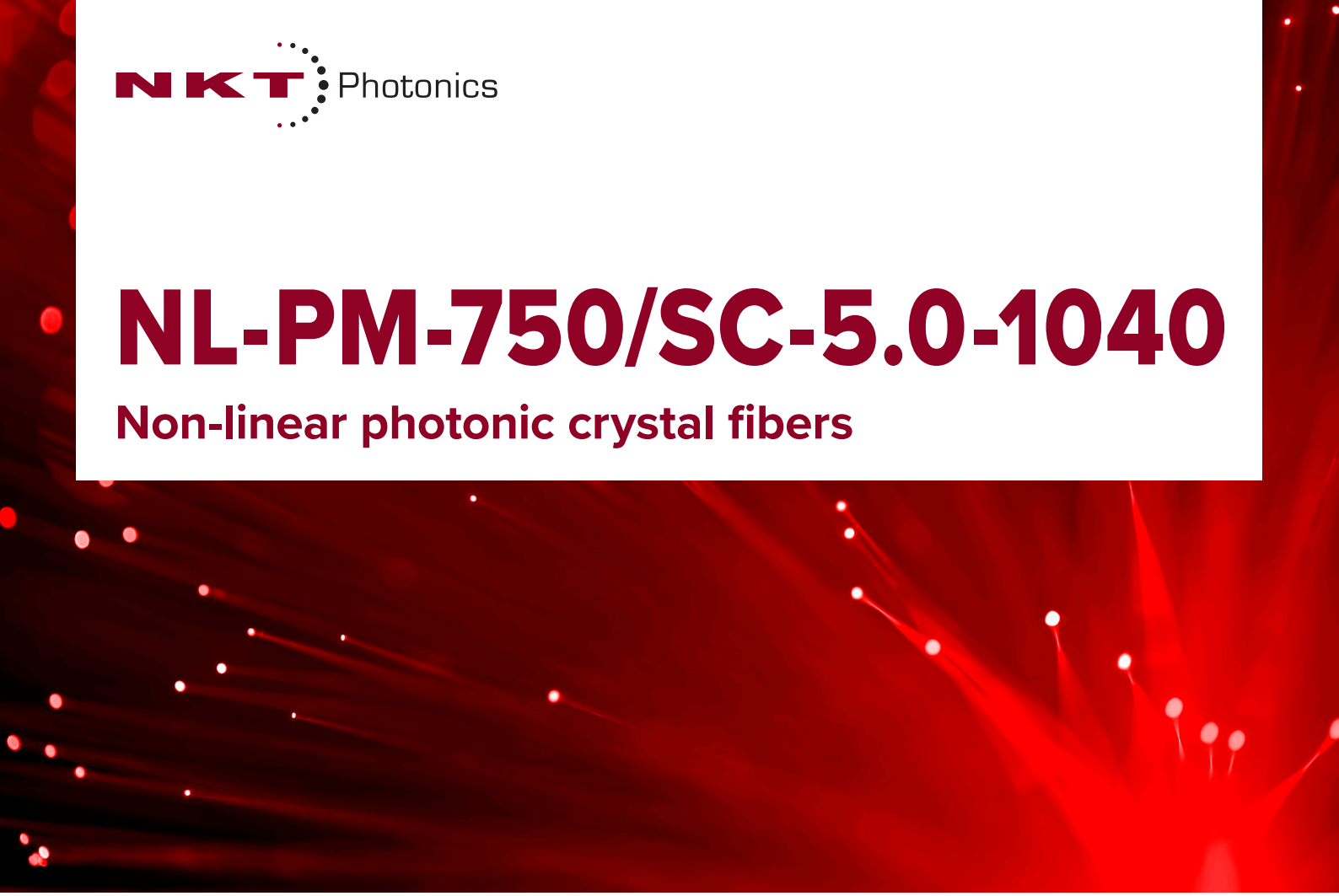
NKT Photonics

NL-PM-750/SC-5.0-1040

Non-linear photonic crystal fibers



SINGLE-MODE, NON-LINEAR PHOTONIC CRYSTAL FIBERS

Ideal for supercontinuum generation

These single-mode non-linear photonic crystal fibers combine a very small effective mode field area and low/zero-dispersion to allow efficient supercontinuum generation with 800 nm and 1064 nm pump sources.

These fibers are ideal for applications like frequency comb generation.

Applications

- Supercontinuum generation
- Frequency comb generation

NL-PM-750
SC-5.0-1040
SC-5.0-1040-PM

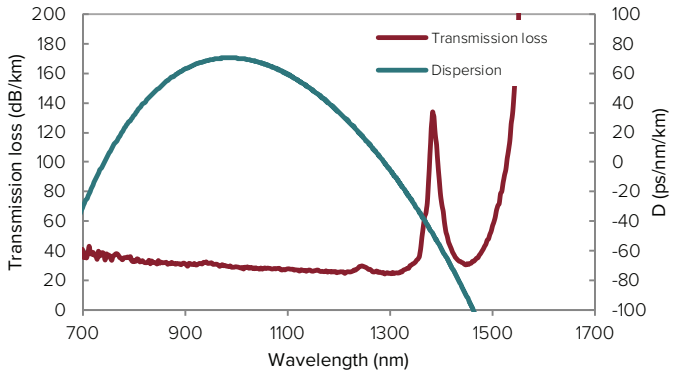
Optimized for supercontinuum generation

Optimized for supercontinuum generation and non-linear wavelength conversion, our non-linear photonic crystal fibers offers a unique combination of tailored dispersion profile and a very high non-linear coefficient.

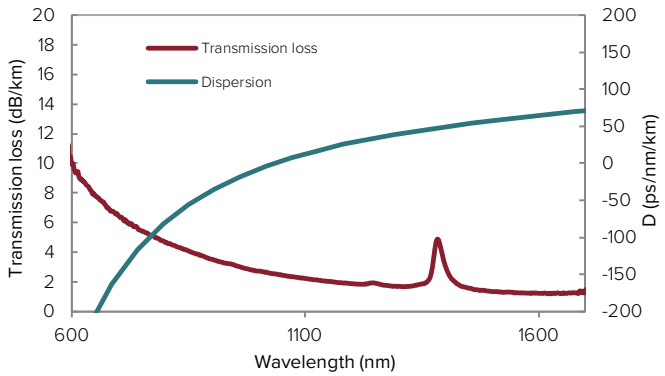
Features

- Small mode-field area
- High non-linear coefficient
- Zero-dispersion near pump wavelength

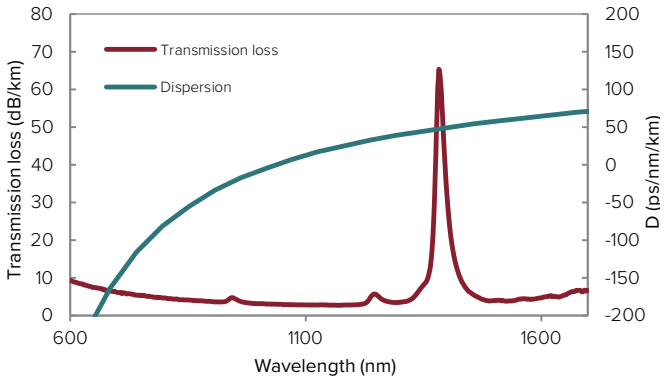
Typical measurements for NL-PM-750



Typical measurements for SC-5.0-1040



Typical measurements for SC-5.0-1040-PM



SPECIFICATIONS

Optical

Model	NL-PM-750	SC-5.0-1040	SC-5.0-1040-PM
Short zero-dispersion wavelength [nm]	750 ± 15	1040 ± 15	1040 ± 15
Long zero-dispersion wavelength [nm]	1270 ± 30	NA	NA
Attenuation [db/km]			
@ 780 nm	< 50	-	
@ 1064 nm	-	< 3	< 3
Mode-field diameter, $1/e^2$ [µm]			
@ 780 nm	1.6 ± 0.3	-	-
@ 1064 nm	-	4.2 ± 0.2	4.3 ± 0.2
NA (5%)			
@ 780 nm	0.38 ± 0.05	-	-
@ 1064 nm	-	0.20 ± 0.05	0.20 ± 0.05
Polarization maintaining	Yes	No	Yes
Birefringence [nm]			
@ 780 nm	$> 3 \cdot 10^{-4}$	NA	-
@ 1060	-	NA	$> 1.7 \cdot 10^{-4}$
HOM cut-off wavelength [nm]	< 650	< 1000	< 1000

Mechanical

Model	NL-PM-750	SC-5.0-1040	SC-5.0-1040-PM
Outer cladding diameter [µm]	120 ± 5	125 ± 3	125 ± 3
Coating diameter [µm]	240 ± 10	244 ± 10	244 ± 10
Core and cladding material	Pure silica	Pure silica	Pure silica
Coating material, single-layer	Acrylate	Acrylate	Acrylate

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

FORCE Certification
Systemcertificering
DS/EN ISO 9001 - Kvalitet