

0402 Spontaneous Parametric Down Conversion (SPDC)

SPDC-1550-20-M



1550 nm Type-II SPDC Module, 20 mm

SPDC-1550-20-M is a fully integrated Spontaneous Parametric Down-Conversion module, incorporated in the module is a 20 mm long Periodically Poled Lithium Niobate (PPLN) waveguide device (SPDC-1550-20-PG) for operating at 1550 nm. When pumped by 775 nm light, this device, Spontaneous Parametric Down-Conversion (SPDC), will create polarization correlated photon-pairs for Quantum Light Source (QLS) applications. The spectrum can be fine tuned by either tuning the laser wavelength or by adjusting the temperature through the module.

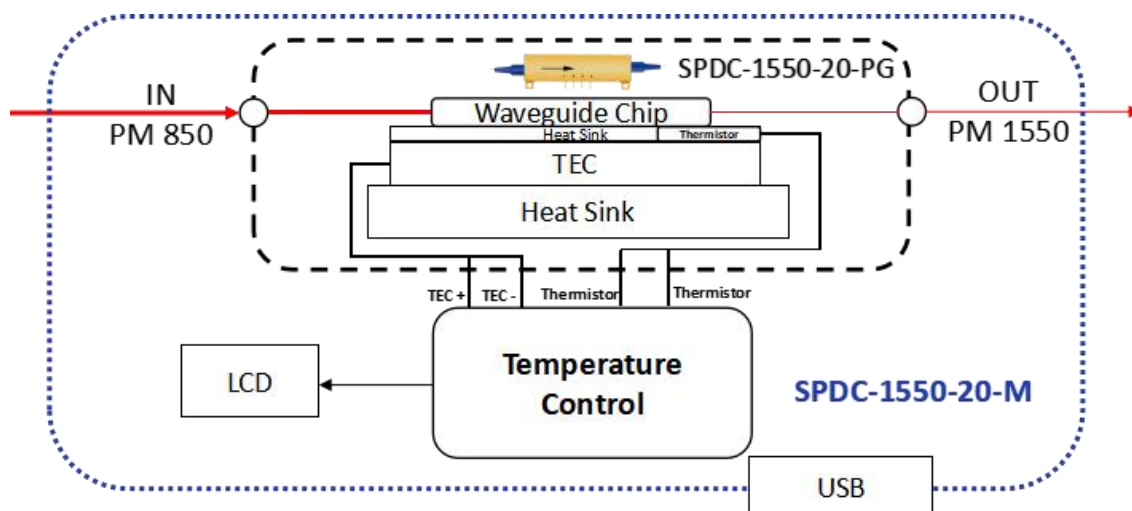
FEATURES

- Designed for Type-II SPDC
- Spatially Uniformed PPLN
- PM Fiber Pigtailed In/Out
- Polarization-Correlated Photon Pairs
- Built-in TEC & Heat Sink
- High Brightness

USE IN

- Quantum Photon Pair Generation
- Heralded Single Photon Source (HSPS)
- Fiber Based Quantum Optics
- Quantum Light Source (QLS)
- Quantum Key Distribution (QKD)
- EPR Photon Source

FUNCTION DIAGRAM



Order notes to our customers: For special needs, please contact sales.

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Substrate	Z-cut, X-propagation PPLN
Waveguide	Titanium In-diffusion
Pump Power Threshold @ CW	30 mW max.
Avg. Pump Power @ Pulsed Pump*	20 mW max.
Degeneracy Bandwidth @ 1550 nm FWHM	0.5 nm
Insertion Loss	3.5 dB max. (3.0 dB typ.) @ 775 nm
Input Fiber Type	PM850
Output Fiber Type	PM1550
In/Output Connector Type	FC/APC
Chip Dimension	50x18x7.10 mm
Operating Temperature	10 °C to +60 °C
Storage Temperature	-20 °C to +80 °C

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