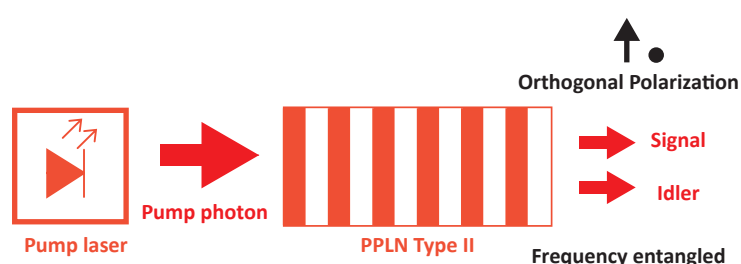


## TPS\_1550\_TYPE\_II

# Quantum photon source

Self-contained entangled photon source

[Telecom wavelength - 1550 nm]



The TPS\_1550\_TYPE\_II is a new generation of self-contained quantum photon source working at room temperature generating orthogonally-polarized frequency-entangled photons in the C-band. Pairs of photons are produced by Spontaneous Parametric Down Conversion (SPDC) in Periodically Poled Lithium Niobate PPLN waveguide (Quasi Phase Matching-QPM).

Based on a table-top design, the TPS\_1550\_TYPE\_II combines a temperature-tunable PPLN waveguide crystal with wavelength stabilized laser source. The laser pump power and the internal temperature of the crystal are controlled to adjust the phase matching with high-precision via the USB interface and the proprietary software interface.

Very well-designed, the compactness and the modern interfaces of the TPS\_1550\_TYPE\_II makes it your essential analytical tool for the most demanding academic and industrial quantum research !

### Features

- Photon pairs generation at 1550 nm
- High brightness > 250 000 pairs/sec
- Bi-photon bandwidth < 2 nm
- Entangled photons
- Internal laser pump
- Adjustable pump power up to 5 mW
- PPLN waveguide crystal type
- Room temperature operation
- Remote control
- DLL libraries : LabVIEW, C++

### Applications

- Photon pairs generation
- Quantum communications
- Quantum Key Distribution
- Quantum tomography
- Quantum teleportation
- Atomic interferometry

### Options

- 1550 nm Type 0
- Polarization-entanglement
- 810 nm source

