— QUANTUM FREQUENCY CONVERTER

Connecting photons across different wavelengths.



QUANTUM FREQUENCY CONVERTER

The best quantum emitters and quantum processors are often found at different wavelengths in the visible range. The AQLS quantum frequency converter is designed to translate single photons from visible or near-infrared light to telecom wavelengths while preserving quantum coherence. This allows long-range transmission of single photons from defect centres in diamond or 2D materials and can connect different quantum-computing platforms. **It can be configured to interface AQLS photon sources with quantum memories and telecom-wavelength systems.**

Single-step conversion using ppKTP	Robust monolithic crystal cavity
Enhanced continuous-wave pump	More than 75% internal conversion efficiency
Low noise floor	Room-temperature operation