



Today, we depend on strong data security for both communication and storage. But with powerful quantum computers coming up, current security systems may soon be broken. This puts sensitive data at serious risk. Quantum Key Distribution (QKD) is a solution that lets two or more users share secret keys safely — protecting against hacking by even quantum computers.

- ✓ Ultimate Security
- ✓ Long range > 100 km
- ✓ Key rates > 1 kbps

## Key Features

- Provably secure key sharing via specialized hardware and optical links
- Support interfacing of external encryption unit
- Quantum physics–ensured key secrecy
- Reliable and compact
- High-performance
- Trusted security and tamper proof
- Display unit on Easy installation
- Dedicated display unit for performance indicators

Our QKD system works on fiber using C-band wavelength and supports both COW and DPS protocols. It uses single-photon detectors and keeps the error rate below 5%. The system can secure key exchange over 100 km, with key rates of ~1 kbps (COW) and ~2 kbps (DPS) at 22 dB loss — perfect for safe, long-distance communication.

COW (Coherent One-Way) uses time-bin encoding with direct detection by Bob and separate monitoring for eavesdropping.

DPS (Differential Phase Shift) uses phase encoding, with Bob using an interferometer and eavesdropping detection built into the protocol.



### Visit our office

TAQBIT LABS PRIVATE LIMITED,  
MANYATA EMBASSY BUSINESS PARK,  
GROUND FLOOR, E1 BLOCK BEECH  
BUILDING,  
OUTER RING ROAD, BANGALORE,  
Karnataka, India - 560045.