



PRODUCT

Falqon[®] MDI-QKD Series

Secure your data with Quantum Cryptography

Is Your Data Really Secure?

In today's digital world, data security is more critical than ever with increased computing power and AI. Traditional cryptography methods are increasingly at risk. Once encrypted data is stolen, it can be stored and decrypted later, a common tactic known as "harvest now, decrypt later", making even today's secrets vulnerable tomorrow.

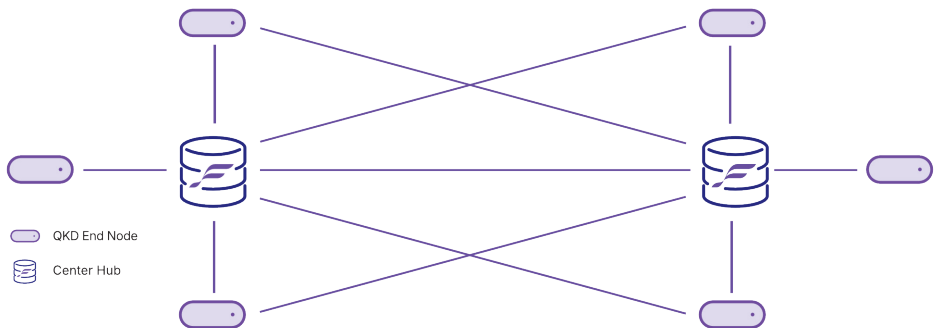
Falqon®'s QKD uses the laws of quantum physics to provide proven secure cryptographic keys that are immune to interception, ensuring your data remains safe from eavesdropping.

Our Falqon® Series delivers a next-generation solution for Measurement-Device-Independent Quantum Key Distribution (MDI-QKD) offering unequalled security and flexibility without relying on trusted nodes, ensuring your data stays protected in transit, now and into the quantum future.

Quantum Security: How Falqon® Protects Your Data?

The Falqon® Series creates a secure, scalable network where only QKD End Nodes can access the cryptographic keys.

The inherent star topology greatly increases the flexibility in the topology and the distance between 2 end users up to 200km.



QKD End Nodes create the ultra-secure cryptographic keys.

Center Hub facilitates key distribution but never has access to the keys. No need for a trusted infrastructure.

Center Hub includes optical routing of quantum and classical data around the network.

Why Trust Your Data to Falqon® Series?



Untappable communication powered by quantum physics for maximum protection



Immediate auto-recognition of eavesdropping attack



Future-proof against future quantum computing attacks



Seamless integration compatible with existing network and security systems



End Nodes can connect to 2 or more Center Hubs enabling redundancy



Multi-point connectivity securely links multiple locations in one network

Key Features of the Falqon® Series

Scalable and Cost Effective Solution	✓
Remote Management and Configuration	✓
Embedded Key Management System	✓
Standardized Interfaces	ETSI004, ETSI014, ETSI020, SKIP
Security	Tapping Detection, Detector Hacking Proof
Maximum Distance between 2 Nodes	Up to 200 Km — 40 dB



Key Features of the Falqon® Series — MQ4000 Line

Maximum Length of Quantum Channel (typ. @ 0.2 db/Km)	200 Km — 40 dB
Secret Key Rate (with 0.2 dB/Km)	≥ 500 bps at 125 Km
Protocol	Measurement Device Independent with Decoy States
Pulse Repetition Rate	1.25 GHz
Fiber Requirements for Quantum and Service Channel	1 Fiber Pair Total
Connector for Quantum Channel	LC/SC/FC
WDM Compatibility	Yes, upon request
Wavelength	C Band (1530-1580 nm), or O Band (1310 nm)
Key Delivery Interface	ETSI014, ETSI004, ETSI020, SKIP and customer specific upon request
Secure Key Handover to Encryptors/Secure Application	Yes, using MTLS
Remote Management Interfaces	NETCONF, RESTCONF, SNMP, CLI
Auto-recognition of Eavesdropping Attacks	✓
Multi-tenancy Architecture	✓

Environmental and Physical Parameters

	Center Hub — MQX4000	End Node — MQT4000
Form Factor	13 U to 34 U	2 U
Dimensions	Varies	19 inch x 70 cm
Interfaces	2N x Simplex Fiber 4 x 1 Gpbs Ethernet Ports 1 x USB	2 x Simplex Fiber 4 x 1 Gpbs Ethernet Ports 1 x USB
Power Supply	1400 W Max, 100-240 V	200 W, 100-240 V
Weight	Varies	30 Kg
Temperature Range	18 C - 35 C	18 C - 35 C
Relative Humidity Range	30% to 60%, non-condensing	30% to 60%, non-condensing

Your Partner in Quantum Security

Falqon® is a leader in quantum communication technology, based in Delft, The Netherlands. We provide cutting-edge solutions and expert support to ensure your data security.

Trusted by



Contact us to learn how the Falqon® MDI-QKD Series can protect your organization from data breaches, quantum threats and future-proof your network security!



Interested?

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