

Think**K**QUANTUM|

# Thi**K**e

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The Source of True Quantum Randomness by ThinkQuantum



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## Stand Alone version (Rack and benchtop)












## OEM version (available for integration into products)



**THIKE**, The Source of True Quantum Randomness by ThinkQuantum, provides the most secure random numbers, based on the Heisenberg's uncertainty principle. At the core of the device, a true random entropy source enables a ultra fast stream of random numbers.

## Key Features

	<b>High rate</b>	High data rate, for fast real-time stream of random numbers.
	<b>Unpredictable</b>	True randomness by a quantum random entropy source allows for the highest security of the generated numbers.
	<b>Secure</b>	Entropy rate certified by security proof against general attacks.
	<b>Hardware extraction</b>	Real-time randomness extraction performed on hardware, for high speed secure data stream.
	<b>Device independent</b>	Source-device independent scheme.
	<b>Quality</b>	Internal parameters monitoring.
	<b>Network</b>	Quick installation, robust and reliable.
	<b>Tailored Solution</b>	Flexible design for customized solutions.
	<b>EU27</b>	ThinkQuantum, based in Italy with an Italian shareholder structure, offers a reliable European Supply Chain.

## Technical Specifications

<b>Randomness Generation</b>	Quantum entropy source	Heterodyne based (source-device independent)
	Internal quantum entropy source	2 Gbps
	Random post-processed bit rate	330 Mbps (secure random bits)
	Tests compliant	NIST SP 800-22 (NIST STS) and Dieharder tests suite
<b>Physical Parameters (Stand-alone)</b>	Dimensions	19" rackmount, 1U chassis, 300 mm depth
	Interfaces	RJ45, DC plug DIN 5
	Power supply	Dual voltage 12V - 5V (40W). External power supply provided.
	Operating conditions	10°C to 30°C, 80% r.h. non condensing
	Storage conditions	-10 to 60 °C, 90% r.h. non condensing (30°C)
<b>Physical Parameters (OEM)</b>	Dimensions	41mmx200mmx300 mm (HxWxL)
	Interfaces	RJ45, DC plug
	Power supply	12V (40W)
	Operating conditions	10°C to 30°C, 80% r.h. non condensing
	Storage conditions	-10 to 60 °C, 90% r.h. non condensing (30°C)

The information reported in this document are subject to change by ThinkQuantum without prior notice.

## Markets & Applications

- ❑ Security systems and classical cryptographic services
- ❑ High-end electronic manufacturers demanding for higher security and true random number generations
- ❑ Diverse applications such as Computation, Gaming, Automotive, Pro & Consumer Electronics

Further to the existing standard products, ThinkQuantum supplies tailored made turnkey solutions to meet the client's project needs.

Inquiries: [info@thinkquantum.com](mailto:info@thinkquantum.com)

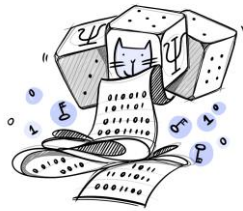
## About ThinkQuantum

ThinkQuantum Srl, SME and spin-off of the University of Padua, offers **Optical & Quantum Solutions for Cyber Security and Communication** to ICT, Telecommunication and Space Industries.

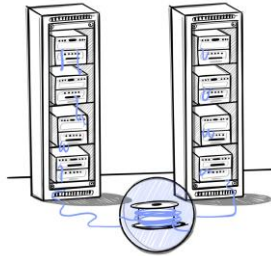
ThinkQuantum covers the **Full Value Chain** from development and manufacturing of **quantum key distribution and quantum random numbers generation** systems to design and commissioning of tailored solutions.

ThinkQuantum, based in Italy with an Italian shareholder structure, offers a **Reliable European supply chain**.

## We offer products & solutions for:

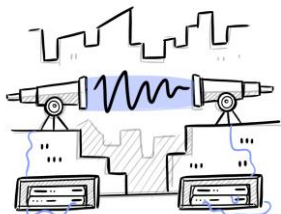


**Quantum Random  
Number Generation**



**QKD over optical fibers**

**QKD for data center**



**Free-space QKD**

**Daylight & Nighttime operation**



**Satellite QKD**

**Payload & Ground Station**

### ThinkQuantum Srl

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