

# ProteusQ-LT

Low Temperature Scanning NV Microscopy



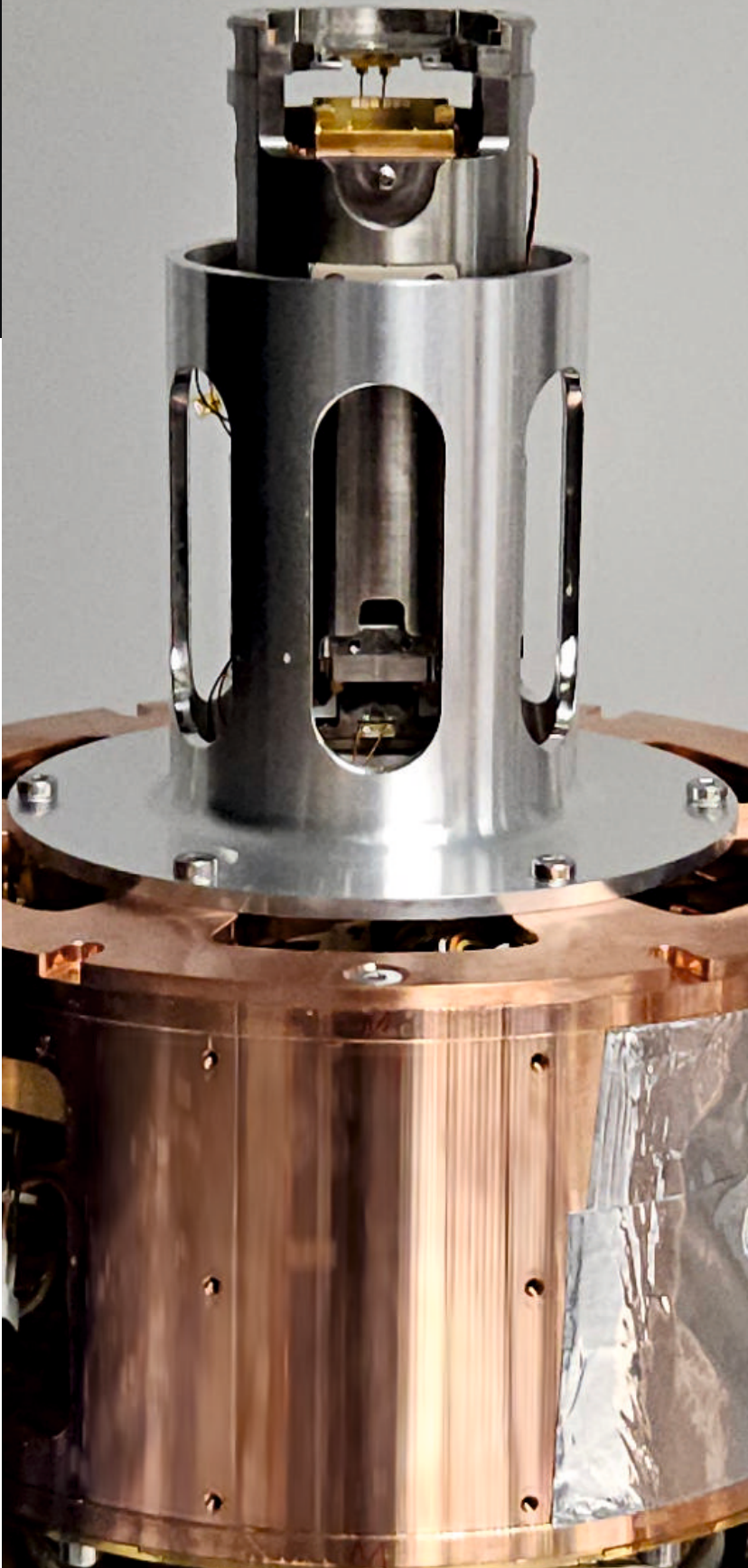
# ProteusQ-LT

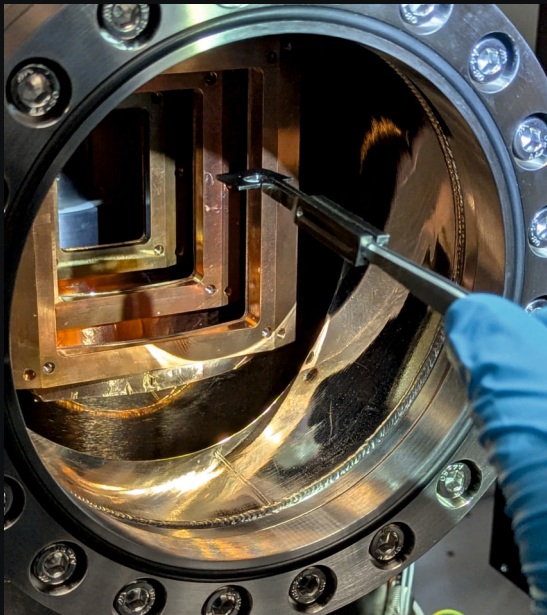
In 2025, Qnami unveils the newest ProteusQ family member—a breakthrough instrument redefining quantum sensing by combining precision, ease-of-use, and performance to make scanning NV microscopy at low temperatures accessible to more researchers.

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„10 years of research with cryogenic scanning NV microscopy taught me that minimizing the barriers to perform measurements, reproduce results and test as many samples as necessary is key to make important discoveries“

Prof. Patrick Maletinsky,  
University of Basel  
Co-Founder Qnami AG



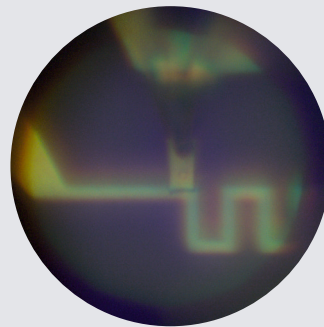


# Built for Science

The ProteusQ-LT is engineered to make scanning NV microscopy at low temperatures as straightforward as possible, reducing the complexity traditionally associated with cryogenic experiments. From sample loading to device localization, to data acquisition, every aspect of the system has been designed with user experience in mind – allowing researchers to focus on discoveries rather than system operation.

## Scanning NV Microscope for Low-Temperature Quantum Sensing

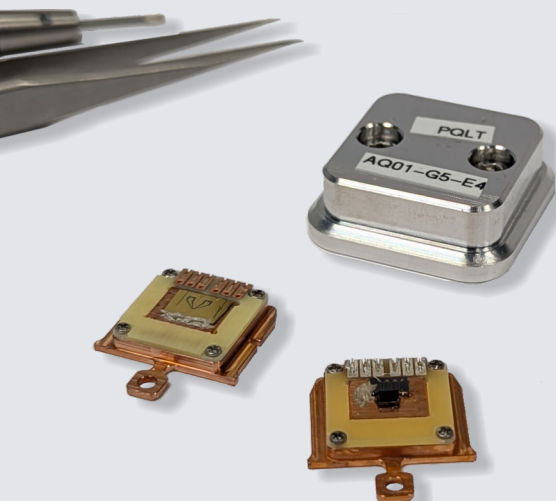
The ability to measure magnetic fields at the nanoscale under cryogenic conditions is essential for advancing research on quantum materials, spintronics, nanomagnetism and 2D materials. The **ProteusQ-LT**, developed by Qnami, is the first **commercially available turnkey Scanning NV Microscope** designed for operation at low temperatures, providing high-sensitivity quantum sensing without the need for complex system integration.



Designed to reduce overheads

- **Easy access to sample:** Our unique table top design with side access to sample and probe allows for exchange in just 10 min.
- **Straightforward localization of region of interest:** Unique optical design with top and side view ports for optical access allows for real time in-situ monitoring of probe and sample position.
- **Fast start:** Flawless cryogenics and automated compensation of drifts and cryogenic contractions allow to start measurements without delay.

Offering best performance with  $< 50\text{nm}$  resolution thanks to our state of the art Quantilever™ technology and up to  $3\mu\text{T}/\text{Hz}^{1/2}$  sensitivity.





# Key Specifications - ProteusQ-LT

Qnami's ProteusQ-LT is built on the latest scientific discoveries and the most advanced technology of leading suppliers to help pushing boundaries.

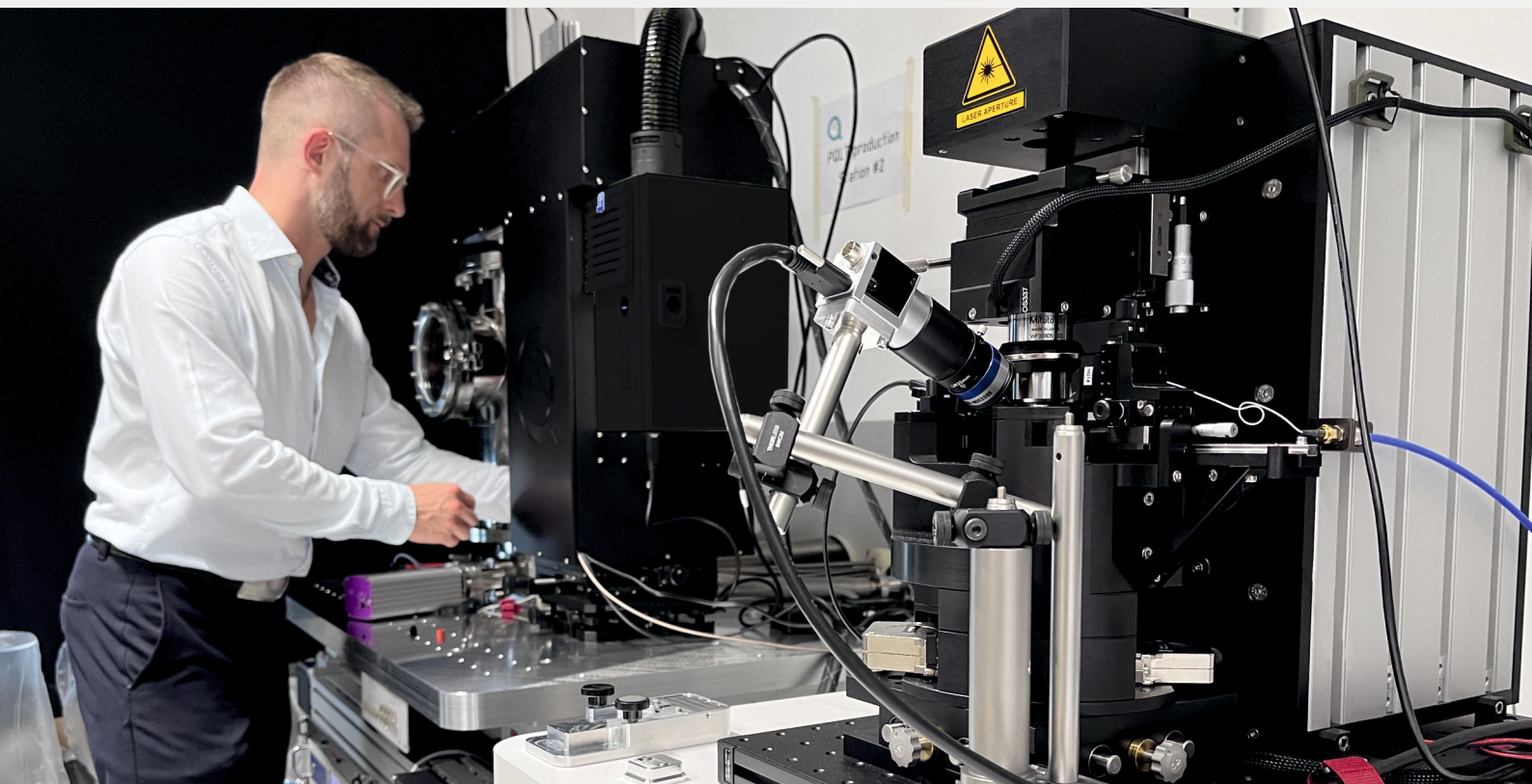
min. Temperature	< 2 K	Sample scan range	12 x 12 x 6 $\mu\text{m}$ @ 4K
mag. Sensitivity	3 $\mu\text{T}/\text{Hz}^{1/2}$ (cw ODMR)	Optical scan range	100 x 100 $\mu\text{m}$
Spatial resolution	< 50 nm*	Optical side access with CMOS camera for sample & probe observation	
Imaging modalities: Quenching Mode, IsoB, Dual-IsoB, FullB, Fast-FullB, T1-, Rabi-, T2-maps, customized sequences via Tool Box		Optional super conductive vector magnet with up to 0.5 x 0.5 x 3 T field	

\* Patent protected NV probe technology with implantation depth < 50nm

Interested to learn more?

Join us on this journey and shape the future of quantum sensing with Qnami.

*the quantum wave*



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