



Introducing PACU

The new *photonic assembly control unit* powering our next-gen Alquor® quantum photonic processor

The PACU is our latest control unit, engineered for high stability and performance. Its new features include a high-speed interface and supports photonic assemblies (PAs) with both slow and fast phase shifters. Calibration data are stored locally, allowing seamless hot-swapping.

Control Unit Key Highlights:



Highly reliable and robust



Rack-mountable unit



Supports both slow and fast phase shifters



Turn-key and easy to integrate



Air-cooled, no water system required

PACU Technical Specifications

Category	Specification
Form Factor	3U, 19" rack-mount design
Max Number of Phase Shifters	Up to 1000 phase shifters (max Alquor 32-mode)
Connectivity	USB and Ethernet
Fiber Connectors	E2000
Cooling System	Air-cooled (no water cooling required)
External Control Compatibility	Up to 32 × MMC connectors (RF) for high-speed external systems
Software Interface	Extra features for individual phase shifter control and overheat protection
Driver Card / Type	Mix and match for different phase shifter types Current drivers for higher fidelity and better crosstalk correction
Photonic Assembly (PA) Design	Board-to-board connectors (no flat cables)
Calibration Storage	Encrypted flash memory on PA, making it pluggable and hot-swappable
System Monitoring	Data communication from PA to PACU for condition feedback

Experience stable, scalable, and secure photonic control with PACU.

Contact us: sales@quixquantum.com