# **The Quantum** Orchestration Platform

THE NEW STANDARD FOR QUANTUM **CONTROL HARDWARE AND SOFTWARE ACROSS ALL QUBIT PLATFORMS** 

## **OPERATOR-X**

### AN ARCHITECTURE CREATED FOR QUANTUM

Designed from the ground up for quantum, the OPX and its dedicated Pulse Processor open the door for running any experiment from our intuitive QUA language. Due to its real-time capabilities, the OPX can speed up certain experiments by orders of magnitude! From complex calibrations to realtime Bayesian estimates and ultra-low-latency feedback-based protocols, even your dream experiments can now run at ease.

## SERVER

## **CLASSICAL TO POWER QUANTUM**

QM introduces Quantum-Reactive-Programming - a whole new platform for real-time processing of streams arriving from the OPX. While the most demanding real-time processing will take place at the FPGA-level within the OPX, additional real-time processing can take place on the server. From real-time FFTs, averages and cross-correlation measurements, to hybrid algorithms like VQE and QAOA, the Quantum-Reactive-Programming platform can be utilized to save critical resources.

# QUA

#### A POWERFUL, INTUITIVE PROGRAMMING LANGUAGE

Run quantum protocols as naturally and seamlessly as writing pseudocode. With QUA, a programming language designed for quantum, unprecedented capabilities like parametric programming, real-time classical processing, and complex control flow are now at your fingertips. Backed by our dedicated hardware, the OPX, you can now run the most demanding experiments in no time. Development that used to take months or even years, will now take days. Say goodbye to hardware complications, writing complicated FPGA and low-level code, and configuring legacy equipment.





If you wish to learn more, drop us a line: INFO@QUANTUM-MACHINES.CO | WWW.QUANTUM-MACHINES.CO