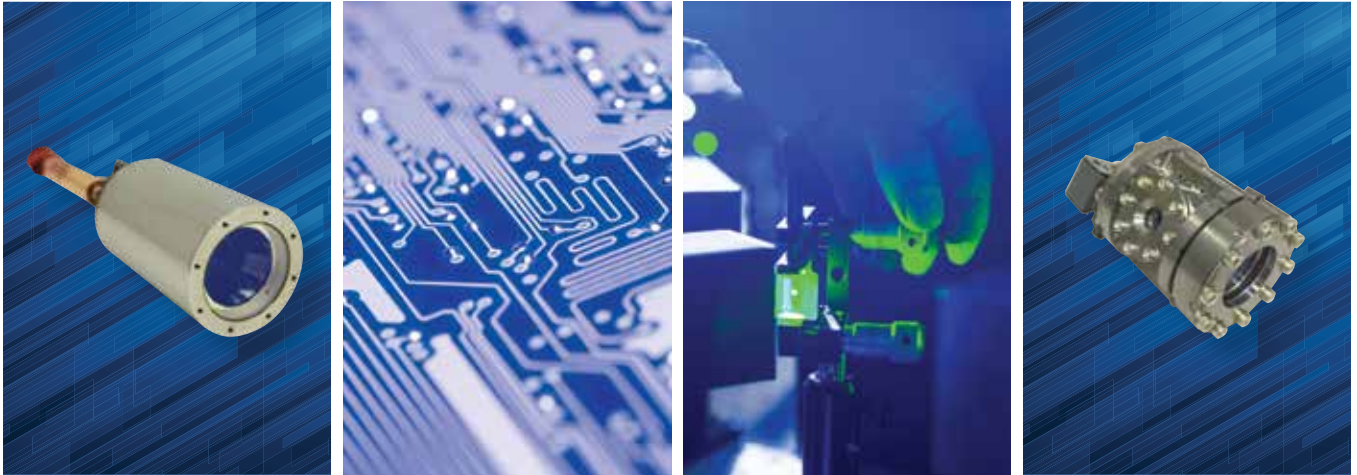


Quantum Research Made Easier



Teledyne e2v have developed a family of products and services that help you get your quantum lab up and running quicker and more efficiently — in weeks rather than years. These include miniature vacuum systems and control electronics. All of our devices are designed to take the hassle out of quantum research, helping you concentrate on cutting-edge science.

We supply standard components and subsystems as well as bespoke devices. All of our devices are made in the UK and are ITAR free.

BENEFITS & FEATURES

- » Industrial & miniaturised vacuum systems, electronics & other components, designed to take the hassle out of your research
- » Develop a cold atom lab in weeks, not years
- » Free up the time of your PhD students & post-docs for the research that really matters

MINIATURE VACUUM SYSTEMS

- » Small volume <600 mL
- » High numerical aperture, 2 inch BK7 window with anti-reflection coating options at a variety of wavelengths
- » Simple glass to metal sealed window design for robust operation
- » Miniature ion pump, suitable to UHV/ 10^{-11} mBar pressure
- » Very high window flatness $< \lambda/10$ to maintain low optical wave-front distortion
- » Rubidium dispenser supplied as standard, other species available on request
- » Additional options include:
 - » Optical prism package for easy production of cold atoms
 - » Side windows
 - » RF/DC Electrical feedthroughs for atom/ion chips

CONTROL ELECTRONICS

- » High performance FPGA architecture
- » Precision DDS waveform generation & timing control up to 5 GHz
- » Buffered / isolated high speed I/O
- » Flexible analogue & digital channels
- » Reconfigurable & upgradable through software updates
- » LabVIEW & Simulink custom drivers provided
- » USB device support — E.g. Laser Temperature controller
- » Future PID support (for frequency locking)
- » Control all functionality via Ethernet or USB
- » In-built security
- » Uninterruptable power supply (UPS) support
- » Expandable



Control Electronics

