



Pascal Technologies

High-Accuracy Thin Film Monitoring & Sensor Heads

New technology at lowest investment - Made in USA

Introducing the **QUARK** Deposition Controller



Accurate

- Dual-Sensor Temperature Compensation
- Realtime Freq/Temp Curve Generation
- 500°C Crystal Operation

Versatile

- Up to 4 sources/sensors (2 standard)
- Dual Crystal Channels & Source Control
- Touchscreen Display
- User-Programmable

The Phillip Technologies™ QUARK™ Controller is an ultra-high resolution thin film deposition control system with temperature compensation and co-deposition support. Built in a 19-in standard modular rackmount enclosure, the user-programmable QUARK™ controller features a touchscreen display with real-time graphing of temperature and frequency, providing unprecedented accuracy for your thin-film application.

Electron™

Multiple Crystal Sensor Head



The Electron™ is Phillip Technologies's multiple crystal sensor head, designed for high vacuum thin film deposition and available in two formats. The Electron-12™ is capable of holding twelve, 14 mm industry-standard crystals, and the Electron-24™ is designed for twenty-four 8.6 mm crystals.

By utilizing an in-vacuum stepper motor system for crystal indexing, Electron™ takes a step forward from conventional and often unreliable pneumatic technology. One-quarter inch water cooling tubes keep the sensor head thermally stable, maintaining the head and stepper motor within an optimum operating temperature range, yet still allowing flexibility in sensor placement.



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NUCLEUS PLUS™

Dual-Channel Film-Thickness
PC-Based Controller



The Nucleus Plus™ controller is a thin film deposition control system compatible with industry standard crystal sensors. Paired with the Proton Plus sensor head and Phillips AT/RC™ crystals, the Nucleus Plus™ automatically compensates for temperature variations to provide the ultimate in precision deposition control.

PROTON PLUS™

A sensor head that senses more than
frequency



Phillip Technologies™ simply wasn't satisfied with the precision available in today's market. The Proton Plus™ Sensor Head adds a new level of control to the thin film deposition process by utilizing an embedded thermocouple that is read with a simple thermocouple meter.