

The KURTEK logo is displayed in a large, bold, blue sans-serif font. A small blue diamond is positioned below the letter 'E'.

CURATED TECHNOLOGIES

ADVANCING TECHNOLOGY ♦ ADVANCING HUMANITY

INTEGRATED SYSTEMS HARDWARE DESIGN

KEY CAPABILITIES

Design Services ♦ Logic Design ♦ Component Selection and Placement ♦ Printed Circuit Board Layout ♦ Firmware Design and Implementation ♦ Prototyping and Hand Assembly ♦ Manufacturing Process Planning and Oversight ♦ Product Testing and Certification

Design Objectives ♦ Analog and Digital Communications ♦ Optical Transmission ♦ Signal Filtering and Processing ♦ Power Regulation and Conditioning ♦ Thermal Monitoring and Control ♦ Vehicle Propulsion and Attitude Control ♦ Pointing and Positioning Control ♦ Sensor Monitoring and Management

Design Tradeoffs ♦ Size, Weight, and Power ♦ Functionality and Performance ♦ Heat Generation and Dissipation ♦ Electromagnetic Interference ♦ Component Cost and Supply Chain Availability ♦ Interface and Connector Compatibility

Achieving critical mission objectives and delivering cutting-edge system performance often requires the use of specialized, customized hardware components. Kurtek provides a comprehensive portfolio of hardware engineering services that combines systematic design practices, proven expertise in assessing technical tradeoffs, and extensive experience with a variety of flight and ground hardware to enable reliable, cost-effective circuit and component implementation, meet unique functional and performance requirements, and ensure compliance with crucial size, weight, and power constraints.

Kurtek engineers have experience with numerous types of flight and ground electronics, ranging from peripheral modules and boards to spacecraft instruments and buses. We have managed the full hardware implementation lifecycle, from circuit logic design to large-scale manufacturing.

Working with Kurtek gives you access to a proven combination of experience and expertise from across the global space industry. Our engineers have designed numerous flight and ground systems, and their comprehensive knowledge, broad mission experience, and specialized skillsets enable us to deliver an effective solution for your unique needs.

To learn more about our capabilities, email us at info@kurtek.io or call our team at **703-943-7236**.

REPRESENTATIVE PROGRAMS

- Designed and implemented digital serial data transmit/receive circuitry to perform high-precision time-data correlation and multi-channel synchronization.
- Designed and integrated propulsion and attitude control flight components for multiple NASA spacecraft.