

Precision Multi-Channel PXIe Systems Making Wind Tunnel Testing More Efficient, Easier

Wind Tunnel Testing



One important tool used in such testing is the wind tunnel. One example, testing a true scale model of an aircraft, requires numerous sensors arranged on the exterior of the tested object, acquiring data related to critical components such as airfoils and engine, or to determine the efficacy of streamlining on high-speed airflow. The abundance of sensors and extended testing scale can represent considerable difficulty in obtaining accurate results.

Simulation testing in aerodynamics is conducted to improve physical designs of so as to enhance overall safety, comfort and performance. Results generated by such testing can significantly impact many different areas of life, from bicycle helmets and gear to automotive designs, bridge/building structure, and, of course, aircraft configuration.



A highly efficient and precise test and measurement solution based on PXI Express (PXIe) architecture, with multiple channels and fully integrated synchronization, can connect with sensors to measure various parameters to streamline system installation.

ADLINK Solution: PXIe-9529: 8-CH 24-Bit High-Resolution Dynamic Signal Acquisition Module

Innovative and flexible, the PXI Express is a modular electronic instrumentation platform meeting an abundance of industry challenges and providing efficient solutions for building test and measurement systems. ADLINK's PXIe-9529's 8-channel design provides easy expansion up to 136 channels in a single 18-slot PXI Express chassis or more while still maintaining split-second timing and synchronization between channels, for a cost-optimized solution supporting high channel count applications such as those employed in wind tunnel aerodynamics testing.