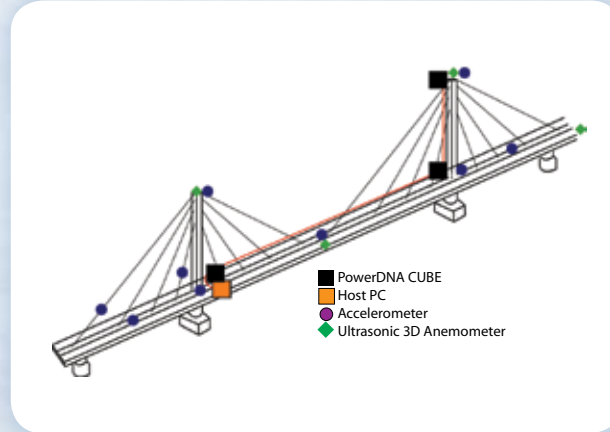# UEI Application Notes:

Bridge/Structural Test

United Electronic Industries

Bridge/Structural Test — Application:

Bridges and tunnels are a key part of our infrastructure. Recent disasters have shown that, in some cases, the infrastructure has degraded to such a point as to be hazardous. It has become critical to study and determine the health of these structures, both to prevent disaster and to lengthen the service life of the structures. The fiber-optic based (100Base-FX) DNA-FPPC5 Cube is an ideal solution, providing the following benefits:

- Real-time measurement spanning over 500 meters

- Reduced wiring costs 90%

- Optical fiber connection offers noise-free Ethernet connections

- Optical fiber interface isolates host computer from lightning strikes

- Compact size allows Cube installation close to sensors, thus reducing noise

- PowerDNA CUBE
- Host PC
- Accelerometer
- Ultrasonic 3D Anemometer

DNA-FPPC5

The DNA-FPPC5 Cube is a compact, rugged, 100Base-FX based DAQ interface. Its flexibility allows you to configure one or more cubes to match the specific I/O requirements of your application. The PowerDNA Cube is ideally suited for a wide variety of industrial, aerospace and laboratory data acquisition and control applications. The Fiberoptic network interface allows the cube to be located up to 2 kilometers from the host computer. A single mode fiber interface is available as a special order allowing ranges up to 20 kilometers.

About UEI:

Founded in 1990, UEI is a leader in the computer based data acquisition and control industry. Serving customers world-wide, UEI products based upon PCI, PXI, ISA and Ethernet interfaces offer unequaled performance as well as flexibility. We are committed to providing the highest quality hardware, software and services, enabling engineers and scientists to interface data-acquisition and control hardware to the real world. Through our state-of-the-art technologies we serve the needs of individual researchers and developers as well as OEMs.

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