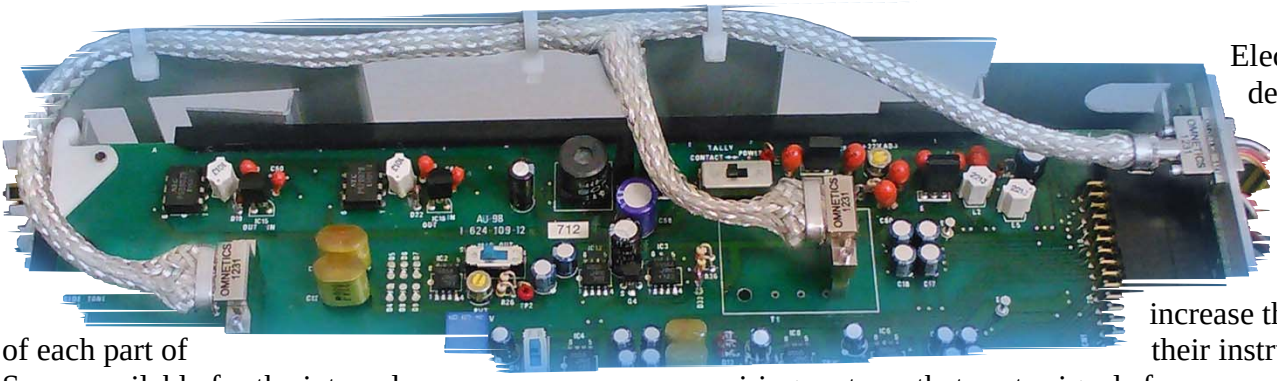
Omnetics Launches Cable Design for Micro-wire Harnesses in Miniature Electronics

Application-Specific Micro and Nano Cables save space and weight in aerospace and medical electronics.



Electrical design teams are constantly demanding higher density to increase the functions of each part of their instruments. Space available for the internal wiring systems that route signals from one section of the instrument to another is getting smaller and more critical. Designing the cable and connector system specifically for each instrument helps reduce size and weight while improving circuit speed, signal routing and helps matching signal impedance to other circuits in adjoining module. Cable design details, micro-d connectors and nano- connector formats are available on the Omnetics Connector Corporation web site at http://www.omnetics.com.

Carefully designed wiring harnesses are fit into exact dimensions and routes inside miniature electronic equipment. This allows for compact modules that are small, lightweight and reliable. Micro and Nano-sized connectors with ruggedized spring pin contacts, as small as 13 one-thousands of an inch in diameter, provide constant connection thru high vibration and physical shock. The combined cable-connector systems are designed-to-fit the instrument, retain high flexibility, and offer constant performance during use. Wire harness routing from one module to another is kept at the shortest possible length to improve signal quality. Shielded cable is often used to assure signals are not affected by resulting electro-motive interference that can occur in miniature electronics. Miniature wiring is used and made from multiple strands of fine-wire copper insulated with Teflon® to insure flexibility, long life and withstand a wide temperature range often needed in ruggedized portable electronics.

Equipment benefiting from custom wiring harnesses range from healthcare electronics to military and robotics. In the medical industry, hand held, surgery tools, dental camera modules, cosmetic lasers and even spinal pain management tools use uniquely designed wiring to support both patient comfort and technical performance. Application-specific wire-harnesses are used in military sensor system detectors, processors for mine-detection, portable camera and surveillance modules, and unmanned aerial vehicles. Today's UAVs, faced with extreme conditions, are demanding minimum-weight miniature electronics to achieve increased payload and flight times with additional cameras, sensors and broadcast equipment. Cable design, solid model images and information is on Omnetics website at **http://www.omnetics.com**

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