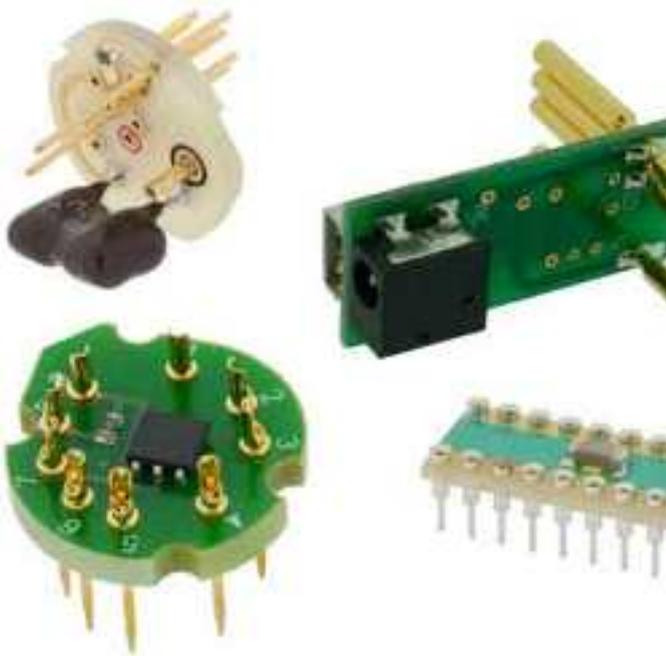


Embedded Electronics Connector Technology



Onanon, a leader in the highly automated design and manufacture of custom electronic connectors, announces the availability of its embedded electronics connector technology to all OEM application markets. Onanon's unique "breadboard" automated manufacturing methods have cost effectively produced connectors with low-profile integrated devices in applications as diverse as medical devices and military avionics, giving engineers the power to design greater functionality than ever before into connectors.

Rapid advances are being made in medical electronics. Onanon embedded electronics connector technology permits easy upgrading of medical systems by replacing connector plugs with ordinary tools and without solder damage to PCBs. In many cases, it may not affect any regulatory filings.

Onanon draws upon its expertise in advanced PC board and mass production IC placement techniques. Onanon first introduced the use of PC boards as connector pin substrates 32 years ago. The company has been building electronic circuits into connectors for most of its 32 years in business.

Beginning with terminating resistors, more complex circuits followed. Operational amplifiers were introduced to boost signal strength or to lower impedance to reduce or eliminate EMI and RFI. Low level, high impedance signals distorted by electrical noise can be converted to high level, low impedance signals by placing op-amps on the connector substrate.

Connector embedded op-amps can be used to convert differential signals to single ended signals. The small currents needed to read a thermistor, for example, can then be introduced by the connector's circuitry.

Embedded Electronics Connector Technology

Published on Medical Design Technology (<http://www.mdtmag.com>)

A processor with associated analog and digital circuits with an analog-to-digital converter integrated into the connector plug can greatly reduce the number of connector pins needed to bring all the signals to the outside world. When the output is fully digitally multiplexed, the number of signal output pins can be just one (with common). The number of signal input pins can be also just one to carry back commands to the processor.

Today, Onanon is placing full-fledged computers between connector pins. This makes it possible for OEMs to embed value added, intelligent, micro-scale systems into their new connector designs, and dramatically enhances capabilities that engineers can introduce into products from the connector. Drop-in replacement connectors can include small circuit boards for tasks such as device ID, use-limiters, EEPROM functions and fine-tuning.

"What's really important is that our rapid wire termination technology makes connecting wires to a PC board connector substrate as easy as making connections on the PC board connector substrate. It's done cheaply and quickly, with high quality by automatic machines," says Dennis Johnson, CEO of Onanon. "The real beauty of our system is where the 'intelligent' part comes in. Future instruments will have intelligence built into their connectors. Upgrades will be in their replaceable connectors."

Onanon

408-262-8990; www.onanon.com [1]

Source URL (retrieved on 10/21/2014 - 9:49am):

http://www.mdtmag.com/product-releases/2012/02/embedded-electronics-connector-technology?qt-recent_content=0

Links:

[1] <http://www.onanon.com/>