



**PARAGON
INNOVATIONS**

inside

TECHNOLOGY Report

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News in Brief...

Back by popular demand! We had such a positive response from this section in our last newsletter that we decided to make it a quarterly standard. This issue, we're focusing on supply shortages and a growing lead-time list, as outlined below. We will periodically update this list as we learn more. To make this list more comprehensive, please provide your input. Send your additions to us via e-mail at newsletter@paragoninnovations.com.

SHORTAGES: Components Availability is Tight! Vendors say lead times are slipping out and many components are either on allocation or about to be on allocation. This is the direct result of trade sanctions against Japan for dumping memory at very low prices, and cutbacks in fabrication ability because of recent oversupply problems. Below is a list of some of the lead times we have been quoted recently by our vendors.

Greater than 20-week lead times

- Tantalum capacitors
- Discrete power semiconductors
- Crystals
- Static RAM
- FLASH

14- to 20-week lead times

- Most popular microcontrollers
- Linear devices
- Integrated power devices (Regulators, etc.)
- Optical components (LEDs, opto-isolators)

On allocation now or very soon

- LCD Components
- Ceramic capacitors
- Ferrite beads
- EPROM, EEPROM
- SOT-23 devices

WebPRN.com Net Marketplace Links Product Developers and Service Providers

Paragon Innovations is a charter member of the first Net Marketplace aimed at joining product developers with service providers. WebPRN.com, or the Web Productivity Realization Network, was launched earlier this year at the Spring Embedded Systems Conference.

The WebPRN site, <http://www.webprn.com>, allows an original equipment manufacturer to match its needs with available talent and resources within the design, engineering, foundry and contract electronics manufacturing markets.

"WebPRN.com is the first Web site of its kind to provide an all-inclusive place for companies to find outsourced services and products," said Michael Wilkinson, chief executive officer of Paragon Innovations. "This on-line community is a valuable asset to us as we continue to expand our service offerings and grow our customer base."

For companies searching for service providers, the use of WebPRN is free. WebPRN charges a fee to service providers for listing in the site. For more information, visit the WebPRN site or contact us.

Paragon Presents at ESC West

Willey leads discussion on Internet protocols, topologies



Michael Willey, vice president of Paragon Innovations Inc., will be speaking at the Embedded Systems Conference West during the week of Sept. 24-28, 2000, in San Jose, Calif. His topics include:

"Connect to the Internet for Almost Free": A discussion of how to use the Scenix Semiconductor Virtual Peripheral to create a device capable of communication with Internet protocols.

"Utilizing the World's Least Expensive Network Topology": A discussion of tools and techniques to communicate using the Dallas Semiconductor 1-Wire BUS.

Mike has been a frequent guest speaker for the last three years at both the East and West Embedded Systems Conferences, where he discussed "Reliability Testing" and "Engineering Specs: The Roadmap to Reliability."

For more information, visit the Paragon Web site at <http://www.paragoninnovations.com>.

"All devices, from PCs and PDAs to HVAC and hot tubs are capable of being Web based and Internet controlled. If you know the protocols, you know the answers."



New Century Brings Bright Outlook for Paragon

This year, Paragon Innovations is poised to experience significant growth as the nation's leading provider of embedded systems design and development. After 10 years of solid growth and continued financial and management stability, Paragon is expanding its personnel and facility. Both moves allow Paragon to broaden its offerings, while maintaining its services and commitment to quality work and customer service.

"Since we started in 1990, we've retained a clear focus on ensuring the best customer service and product designs available," said Wilkinson. "A big part of our success has been our sustained, managed growth and commitment to highest-caliber engineering and employees."

Ad Campaign Debuts in Medical Electronics Manufacturing

Paragon Innovations has started a new advertising campaign that appeared in the Spring 2000 Buyer's Guide of Medical Electronics Manufacturing. The ad focuses on the importance of clear and complete documentation in embedded systems engineering projects. Check it out. Contact Paragon Innovations at info@paragoninnovations.com or call (972) 680-2900 for more information.

Story Ideas?

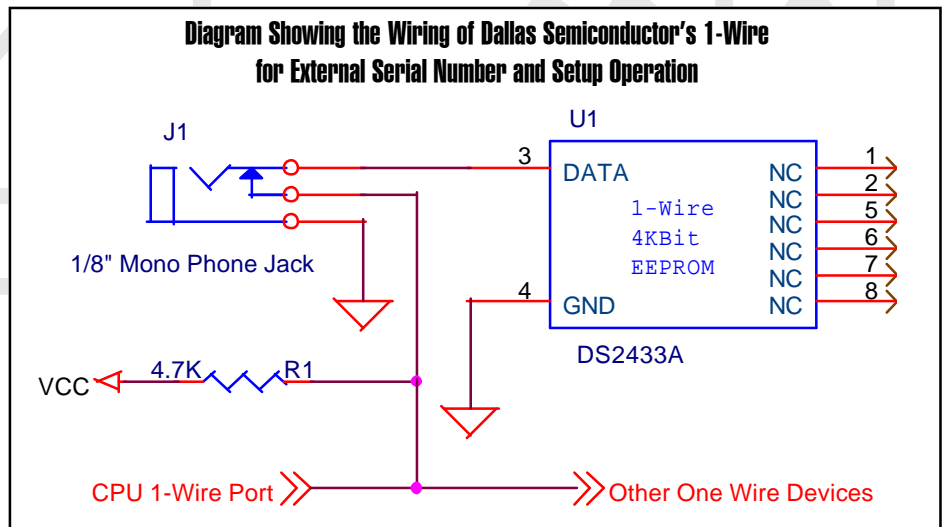
Have an idea, added insights or questions about design and development? Send them to info@paragoninnovations.com and we'll work them into upcoming issues of the Inside Technology Report.

Design Ideas! Better Serial Number Tracking

We have long advocated the use of Dallas Semiconductor (www.dalsemi.com) 1-Wire components for providing board serial numbers and storing non-volatile, setup information. The 1-Wire components provide a unique 48-bit serial number and offer additional features such as multi-channel A/D converters, EEPROM memory, time-keeping and more.

The convenience of having a hard-coded, electronically readable serial number on each board is undeniable. The question is ... how do you read the serial number when the board is powered down?

The answer is shown in the figure below.



By adding a 1/8-inch Mono Phone Jack to your design, the 1-Wire part is not only available to the microprocessor on your board, but also to an external 1-Wire bus even when the power is off.

Since the 1-Wire components use the data line for power as well as communication, you can operate the Dallas 1-Wire device from any working 1-Wire bus controller. For just a few pennies more per board, you can check a board's serial number, or even store setup parameters without requiring that the board be powered on.

Visit Us at These Trade Shows

- Medical Design & Manufacturing (East) 2000- June 6-8 in New York
- Southwest High Tech Career Fair- June 12-13 in Plano, Texas
- Embedded Systems Conference (West) 2000- Sept. 24-28 in San Jose, Calif



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Responsive • Innovative • On-time/On-budget

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