

MAXIM

LANTRONIX

CUSTOM

Panasonic

Melexis

enfora

VAC

SOKYMAT

TERIDIAN  
SEMICONDUCTOR CORP.  
A FORTHELLER TECHNOLOGY COMPANY

iButton®  
Touch the Future!

HID

bel

SignalQuest™  
Precision Measurement

telegesis

SKYWORKS

ember

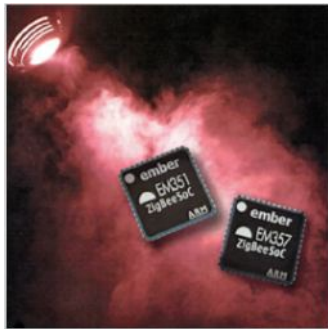
NDK  
Crystal. Bridge to the Future.

GainSpan

LM TECHNOLOGIES  
INNOVATIVE TECHNOLOGY PRODUCTS

antenna<sup>3</sup>

## Ember demos IP-based Stack at ConnectivityWeek 2010



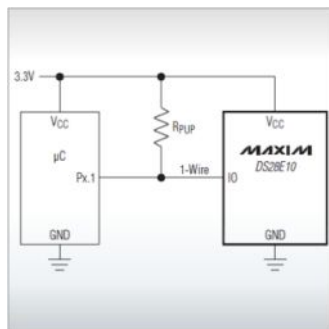
Ember announced it will give attendees of ConnectivityWeek 2010 a preview of the new Internet Protocol (IP)-based low-power, wireless networking product it is currently developing.

The company will demo a smart energy application with Ember-enabled products incorporating standards being developed by the IETF such as 6LoWPAN, ROLL and CORE. The demo includes a Windows 7 PC running IPv6, a standard web browser, Ethernet connectivity to an Ember-enabled router and an IP-enabled IEEE 802.15.4 network. The IEEE 802.15.4 network is running completely standards-based versions of IPv6, 6LoWPAN, RPL, TCP and HTTP. It's a significant step in Ember's plans to deliver native IP support for smart energy devices later this year.

As the communications standard for the Internet as well as most business and home computer networks, IP is ubiquitous, reliable, understood by legions of developers, and has a huge installed infrastructure already in place. Taking data from these ubiquitous networks and making it available in standard web browsers opens up development opportunities and market adoption of low-power monitoring and control devices.

Read more at [Ember](#)

## Introducing a low-Cost, World-Class Authentication Security to Protect Your Development Investment



The DS28E10 combines secure challenge-and-response authentication functionality based on the FIPS 180-3 specified Secure Hash Algorithm (SHA-1) with 224 bits of one-time programmable user EPROM in a single chip. Once written, the memory is automatically write protected.

Additionally, each device has its own guaranteed unique 64-bit ROM identification number (ROM ID) that is factory programmed into the chip. Memory writes are performed 4 bytes at a time. A secure and low-cost factory programming service is available to preprogram device data, including the SHA-1 security data components. The device communicates over the single-contact 1-Wire® bus. The communication follows the standard 1-Wire protocol with the ROM ID acting as node address in the case of a multidevice 1-Wire network.

Read more at [Maxim](#)

## 1Kb/4Kb Memory iButton



The DS1992 memory iButtons are rugged read/write data carriers that act as a localized database, easily accessible with minimal hardware. The nonvolatile memory and optional timekeeping capability offer a simple solution to storing and retrieving vital information pertaining to the object to which the iButton is attached. Data is transferred serially through the 1-Wire protocol that requires only a single data lead and a ground return.

The scratchpad is an additional page that acts as a buffer when writing to memory. Data is first written to the scratchpad where it can be read back. After the data has been verified, a copy scratchpad command transfers the data to memory. This process ensures data integrity when modifying the memory.

Read more at [Maxim](#)

## World's Smallest Linux Networking Server

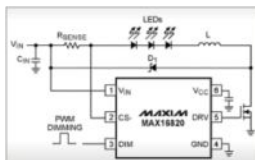


XPort Pro provides bullet-proof security by offering a variety of robust data encryption and authentication options. What's more, the option to run Linux, with IPv6 built in, enables you to deploy custom applications and take advantage of the large feature libraries available for Linux developers. XPort Pro also includes Lantronix' patent pending VIP (virtual IP) Access™ technology, which allows for seamless integration with the ManageLinX™ remote services enablement platform. Critical agency certification has already been completed by Lantronix, reducing your test time and speeding time-to-market.

Read more at [Lantronix](#)

### APPLICATION NOTES

Diagnose LEDs by monitoring the switch-mode duty cycle  
[Read more here.](#)



The forward voltage (VF) of high-brightness LEDs (HB LEDs) is often monitored to assess the health of the LED. Big changes in VF can indicate deterioration or even a complete failure of one or more LEDs connected in series.