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## **Echelon's New Pyxos FT Chip Thinks For Itself, Shares What It Knows, and Fits Into Almost Anything**

**First Implementation of New Pyxos Self-organizing Embedded Control Network  
Sends High-speed Control Data and Power on Two Wires, and Is Small Enough to  
Fit Into Virtually Any Device or Material**

**(San Jose, CA – October 12, 2005)** - Echelon Corporation ([NASDAQ: ELON](#)), the leading technology supplier for the widely-used LONWORKS<sup>®</sup> control networking standard, today launched the Pyxos<sup>™</sup> FT chip, the first implementation of its new Pyxos embedded control networking platform released last month at the DEMOfall event. Designed to be built into the sensors and actuators embedded inside a machine, Pyxos FT chips extract information from the devices, relay control commands between devices, and make the machine's control network status available to remote service centers and applications. These features, combined with the unique self-organizing capabilities of the Pyxos platform, reduce the cost of manufacturing, installing, and maintaining a machine, and provide valuable insights into machine efficiency, productivity, and reliability.

"Prospective customers have been looking for a solution that extends the features of a control network inside of their machines, and at the same time links those machines with their enterprise operations centers and software applications," said Michael R. Tennefoss, Echelon's

vice president of marketing. "Pyxos FT networks exceed these goals, and set the benchmark for the economic value and utility of an embedded control networking technology against which other solutions will be judged."

Pyxos FT chips use twisted pair wiring to send both high speed network data and power to sensors, actuators, devices, and even building materials into which they have been embedded. Sending both power and data on only two wires reduces the complexity of an installation, and lowers the cost of both the end product and the installation. Leveraging Echelon communication technologies honed in tens of millions of devices, the Pyxos FT network consists of up to thirty-two Pyxos Points embedded inside sensors and actuators, and a Pyxos Pilot that interfaces with the outside world. The network operates at greater than 250 kilobits per second using a deterministic signaling method by which all Pyxos Points are scanned every 25 milliseconds. This high speed allows Pyxos FT networks to be used for closed-loop controls in process and industrial applications, as well as sensing and control applications that require fast response time such as vehicular controls, fault monitors, propulsion controls, elevator cab and floor call controls, security and fire/life safety devices, burner and boiler controls, lighting systems, HVAC systems, and office automation equipment.

According to Tennefoss, "Unlike mesh network radios which don't work inside machines or in close proximity to metal, the Pyxos FT chip provides the exceptional reliability of twisted pair communications at a price that is unmatched by any other media. The ultra-miniature, low-cost integrated circuit is only 5mm by 5mm, small enough to fit into almost anything with which you might wish to communicate." According to Tennefoss, the Pyxos FT chip for the first time makes it possible to economically and reliably build two-wire control networks *inside* of machines such as copy machines, packaged air conditioners, elevator cabs, cars, and vending machines.

Pyxos FT chips can directly supervise digital sensors and actuators, or, through their serial peripheral interface port, they can be integrated with virtually any host processor for use with analog devices. When Pyxos embedded control networks need to be incorporated into larger control networks – such as one might find in smart buildings, utilities, vehicles, or factories – the Pyxos platform can interface with PLCs (programmable logic controllers), data gathering panels, LONWORKS networks, and the Internet. This flexibility allows a Pyxos FT network to grow in size and complexity over time without replacing devices. Pyxos FT networks interconnect the

constituent elements of a machine, while LONWORKS control networks interconnect machines to one another providing a powerful and unique ecosystem for control-related applications.

Pyxos FT networks incorporate a breakthrough “self-organizing” feature whereby devices can dynamically and autonomously assemble themselves into fully functioning networks without any human intervention. This feature makes it possible to mix and match different assemblies or components without changing wiring harnesses or using special configuration tools or software. This is an extremely powerful system concept for manufacturers that build many variations of a common product, such as a copy machine or air handler, and want the products to configure themselves without the help of skilled labor. When the efficiency gains of self-organizing machines are coupled with the savings enabled by identifying which specific sensor or actuator is in need of service or has been running too long, the life-cycle cost savings are potentially enormous.

“Echelon pioneered the control networking market which today has blossomed into a robust industry with thousands of companies worldwide providing products for untold numbers of applications,” said M. Kenneth Oshman, Echelon's chairman and CEO. “We believe that the Pyxos FT network will do the same for the embedded control networking market – a market with unit volumes that are potentially several orders of magnitude larger – by providing an inexpensive, simple and reliable means of extending control networking inside devices and subsystems.”

Pyxos FT samples are expected to be available at the end of the first quarter of 2006 with product pricing roughly \$2 to \$3 in quantity.

### **About Echelon Corporation**

Echelon Corporation (NASDAQ: ELON) is a pioneer and world leader in control networking — networks that connect machines and other electronic devices — for the purpose of sensing, monitoring and controlling the world around us. Echelon's LONWORKS platform for control networking was released in 1990 and has become a worldwide standard in the building, industrial, transportation, and home automation markets. Launched in 2003, Echelon's Networked Energy Services system is an open, extensible, advanced metering infrastructure that can bring benefits to every aspect of a utility's operation, from metering and customer services to distribution operations and value-added business. In 2005 Echelon released the world's first

embedded control network infrastructure, the Pyxos platform, extending the benefits of networking inside machines to the sensors and actuators that make them function.

Echelon is based in San Jose, California, with international offices in China, France, Germany, Italy, Hong Kong, Japan, Korea, The Netherlands, and the United Kingdom. Further information regarding Echelon can be found at <http://www.echelon.com>.

Echelon is a co-organizer of the LONWORLD<sup>®</sup> 2005 Exhibition and Conference in Paris, France on October 20-21, 2005. Information about the LONWORLD event may be found at <http://www.lonworldexpo.com>.

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This press release may contain statements relating to future plans, events or performance. Such statements may involve risks and uncertainties, including risks associated with whether developers will adopt the Pyxos platform; risks associated with market acceptance of any products that are developed using the Pyxos platform; risks associated with the size of the market for the Pyxos platform and Pyxos FT products; risks associated with whether Pyxos FT products will perform as designed, including reliably, at high speed and at low-cost; uncertainties pertaining to the pricing of and timing of shipments of Pyxos FT products and the timing and level of customer orders and demand for Echelon products and services; and other risks identified in Echelon's SEC filings. Actual results, events and performance may differ materially. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. Echelon undertakes no obligation to release publicly the result of any revisions to these forward-looking statements that may be made to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.