



NEWS RELEASE

FOR TECHNICAL EDITORS
FOR IMMEDIATE RELEASE

MICRO INDUSTRIES FIRST TO OFFER SYSTEM WITH 20" LCD DISPLAY FOR TRANSACTION TERMINAL MARKET

'Messenger' System Uses Intel® Pentium® 4 Processor-based EmbeddedATX Motherboards To Give OEMs Scalable Modularity

"Micro Industries' use of the Mobile Intel Pentium 4 processor-M on the EmbeddedATX form factor enables them to offer OEMs a solution with the highest level of performance at the right cost, enabling their customers to get to market quickly."

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Westerville, Ohio — July 15, 2002 — Micro Industries announced today the release of its *Touch & Go Messenger* transaction terminal system. It is the first user-configurable computer system on the market based on the EmbeddedATX motherboard specification and 20.1-inch LCD/touchscreen technology. It is designed to support the Mobile Intel® Pentium® 4 processor-M, Intel® Pentium 4, Intel® Pentium® III, and Intel® Celeron® processors with extended lifecycle support.

Transaction terminal systems are used at access points where businesses and customers engage in commerce or exchange information. The *Messenger* is a scalable system that provides original equipment manufacturers (OEMs) with the ability to "mix and match" a variety of 20.1-inch displays with Intel processor-based EmbeddedATX-based motherboards. Other options to totally customize their specific transaction terminal requirements are also available.

The EmbeddedATX specification, developed by Intel and other industry leaders, is a low-profile form factor that outlines the features and size for boards used in embedded applications such as point of sale (POS) terminals, kiosks, automated teller machines (ATM), and communications appliances.

EmbeddedATX enables economies of scale that reduce board development costs as well as enclosure design and tooling, and chassis design investments, while supporting the trend toward using standard, high-volume boards where proprietary solutions were previously the only option.

"The modularity that we're providing using the EmbeddedATX motherboard standards-based specification offers the flexibility to match the price and performance objectives of OEM customers with the latest processor and LCD technology," said Michael Curran, CEO of Micro Industries Corporation. "This system helps OEMs respond quickly and economically to rapidly changing market conditions with a scalable product that is tailored for the unique needs of their customers."

The *Messenger* can use the EmbeddedATX motherboard with the Mobile Intel Pentium 4 processor-M to provide long-term availability, high processor frequencies at low power, and a stable platform environment. The processor works in conjunction with the EmbeddedATX form factor to reduce overall hardware costs by improving interoperability, increasing design modularity and reuse, stimulating innovation, and improving time-to-market.

“Micro Industries’ use of the Mobile Intel Pentium 4 processor-M on the EmbeddedATX form factor enables them to offer OEMs a solution with the highest level of performance at the right cost, enabling their customers to get to market quickly,” said Joe Jensen, general manager, Embedded Intel Architecture Division.

Touch & Go System Options

OEMs can configure the *Messenger* system with a high- or low-resolution color or high-resolution monochromatic 20.1-inch LCD panel and their choice of Micro Industries’ three new EmbeddedATX motherboards, with a variety of Intel processors including the Mobile Intel Pentium 4 processor-M, Intel Pentium 4 processor, Intel Pentium III processor, and Intel Celeron processor, for optimal price and performance for their application. Each system can be equipped with either a resistive or surface acoustic wave (SAW) touchscreen.

The *Messenger* also provides options for processor speeds, memory sizes, wireless LAN/modem, and other configurable components such as hard drive, CD, CD-RW, and DVD drive. An attractive bezel is available in a textured light gray but can be color matched and painted to almost any color. All bezels are made from fire retardant acrylic/polyvinyl chloride for durability. All systems are UL listed and comply with FCC Class-B emissions standards.

20.1-inch LCD Panel Display Options

OEMs can order the *Messenger* with any of three LCD panel displays. The simple mounting arrangement makes it easy to attach the *Messenger* to a wall, behind a display, or to any other surface that will attract consumer attention. Display options include:

- A high-resolution (1600 x 1200 pixel UXGA), color flat panel with a 170-degree viewing angle and 220 nits brightness level especially helpful for applications that need to be legible both from a distance and up close. This display can be paired with an Intel Pentium 4 processor to drive multimedia applications such as multiple windows and streamed video and animation. It can be made interactive with the addition of a touchscreen to facilitate user transactions.
- An ultra-bright (500 nits), low-resolution (640 x 480 pixel VGA), color panel that creates a television-like backdrop with eye-catching sharpness and clarity. Intel Pentium III and Celeron processors can support video and other graphics-heavy data sent to the jumbo display with ease, giving OEMs the freedom to create attention grabbing, flawless promotions.
- A monochromatic flat panel for OEMs supporting healthcare applications. The system’s large, bright LCD display provides remarkably clear digital images (up to 1600 x 1200 pixel resolution with 256 levels of grayscale).

Touch & Go Messenger Motherboard Options

OEMs can customize the *Messenger* with their choice of Micro Industries’ three new EmbeddedATX motherboards—the mTG62, mTG845, or mTG845LP—that support any of the monochromatic or high- or low-resolution color LCD panels.

- The feature-packed mTG62 motherboard supports the Mobile Intel Celeron Processor – Low Power and the Intel Pentium III Processor – Low Power, with speeds up to 1.2 GHz.
- The mTG845 motherboard supports the Intel Pentium 4 processor, currently available at speeds of up to 2.53 GHz (with support for future frequencies), and Double Data Rate (DDR) Synchronous Dynamic RAM (SDRAM) memory technology.
- The mTG845LP motherboard has all the features of the mTG845, but is powered by the Mobile Intel Pentium 4 processor-M at current speeds ranging from 1.4 to 1.8 GHz (with support for future frequencies) and is preferable for low-power operations where heat dissipation is a concern.

Each board is scalable for optimal price and performance. Processors can be upgraded in the future to drive new software and database demands, ultimately reducing OEMs' total cost of ownership. Numerous I/O ports capable of supporting a variety of serial, USB, and parallel devices typically required in transaction terminal markets are available. External printers can be used for receipt, data printouts, maps, menus, tickets, etc.

Availability and Price

Retailers and OEMs interested in ordering a *Messenger* system or learning more about other *Touch & Go* products can call Micro Industries' Customer Service Department at 800-722-1842 or visit www.microindustries.com. The *Messenger* is available immediately in the United States and Europe. Volume OEM pricing starts at \$1,995.00 (U.S.) based on processor and I/O configuration. Smaller quantities are available at higher prices.

About Micro Industries

Micro Industries Corporation, founded in 1978, is an electronics manufacturing services (EMS) company that provides electronic engineering and manufacturing resources to original equipment manufacturers (OEMs). Micro Industries helps customers translate their product requirements into low-cost standard, custom, and semi-custom product solutions for embedded and integrated computer systems. The 52,000 square foot facility in Westerville, Ohio, serves as corporate headquarters and houses an EPA Zero Discharge manufacturing facility that meets both ISO 9001-94 and ISO 14001 standards. The manufacturing facility has fully automated conventional and surface mount assembly lines for both prototype and production requirements.

Micro Industries employs a dedicated staff of engineers focused on product design. Micro Industries also supports an Internet-based company that features free online tools that OEMs can use to design circuit board assemblies and systems and accelerate new product development. The website for this wholly-owned subsidiary, Sweetcircuits, Inc., is located at sweetcircuits.com. For more information about Micro Industries, please visit www.microindustries.com.

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Micro Industries Corporation
Touch & Go Messenger
Configurable Transaction Terminal System
Complete List of Product Features

MESSENGER SYSTEM:

Dimensions	Chassis: 17.5" x 20.1" x 3.7" (H x W x D) Motherboard: EmbATX-compatible footprint (maximum size: 9.6" x 9.6" x 2")
Mounting Options	Wallmount or embedded
LCD	<p>20.1" viewable area with choice of*:</p> <p>Sharp® high resolution color</p> <ul style="list-style-type: none"> • 1600 x 1200 pixels, 16 million colors • UXGA compatible • 220 cd/m² brightness • Contrast ratio: 350:1 • Viewing angle: 170 degrees <p>NEC® low resolution color</p> <ul style="list-style-type: none"> • 640 x 480 pixels, 16 million colors • 500 cd/m² brightness • Contrast ratio: 400:1 • Viewing angle: Up 55°, down 50°, right 65°, left 65° <p>Sharp high-resolution monochromatic</p> <ul style="list-style-type: none"> • 1600 x 1200 pixels, 256 grayscale • UXGA compatible • 700 cd/m² brightness • Contrast ratio: TBD • Viewing angle: 170 degrees <p>*Other LCD sizes and options are also available. Contact a Micro Industries Sales Representative with your requirements.</p>
Touchscreen	Choice of resistive or surface acoustic wave (SAW) touch panel
Storage	Choice of CD, CD-RW, or DVD 2.5" internal mobile hard drive or 3.5" hard drive Compact Flash socket (for up to 256 MB CompactFlash cards)
Additional Features	Two internal stereo speakers Power LED indicator
Expansion	Low-profile PCI slot Factory options: <ul style="list-style-type: none"> • Wireless LAN • Modem
Motherboard Options	Any EmbATX-compatible motherboard, including the three listed on the following pages

mTG62 MOTHERBOARD:

Form Factor	EmbATX, 7.5" x 9.6" x 2" (H x W x D)
Processor	Mobile Intel® Pentium® III processor-M or Celeron Micro-FCBGA or Micro-FCPGA processor – Low Power
Chipset	Intel® 82443MX single-component chipset
Memory	Two 168-pin dual inline memory module (DIMM) sockets Support for up to 256 MB of synchronous DRAM (SDRAM)
Video	Silicon Motion® Cougar3DR Graphics Controller <ul style="list-style-type: none"> • 4x AGP • Dual-LVDS flat panel output for high resolution displays – Supports dual displays with 1280 x 1024 resolution or single display with up to 2048 x 1536 resolution
Ethernet Controller	Intel® 82559 <ul style="list-style-type: none"> • PCI 10BASE-T/100BASE-TX Ethernet controller • RJ-45 interface • Indicator LEDs
I/O Controller	SMC® FDC37C932
Peripheral Interfaces	Three external 16550 RS-232 serial ports (plus one internal for touchscreen) External bi-directional parallel port (plus one internal, can be brought external) Two USB ports PS/2 keyboard/mouse
Sound	AC'97 sound via the chipset <ul style="list-style-type: none"> • 2-watt speaker out/mic in capabilities
Additional Features	Real Time Clock with battery backup Advanced Power supply Control (APC) Advanced Power Management (APM)
BIOS	256K/512K Flash BIOS Flash re-programming and Crisis Recovery utilities

mTG845 MOTHERBOARD:

Form Factor	EmbATX, 9.60" x 9.60" x 2" (H x W x D)
Processor	Intel® Pentium® 4 processor in the 478-pin package
Chipset	Intel® 845E chipset, consisting of: <ul style="list-style-type: none"> • Intel® 82845E Memory Controller Hub (MCH) • Intel® 82801DB (ICH4) I/O controller hub • Intel® 82802AB firmware hub
Memory	<ul style="list-style-type: none"> • Two 184-pin dual inline memory module (DIMM) sockets • DDR (Double Data Rate) 200 w/ECC • DDR 266 • Support for up to 2 GB of DDR SDRAM

Ethernet Controller	Intel® 82551QM <ul style="list-style-type: none"> • PCI 10BASE-T/100Base-TX interface Ethernet Controller • RJ-45 interface
Sound	SigmaTel® AC'97 sound chip <ul style="list-style-type: none"> • Line in/line out/speaker out/mic in • AC'97 sound with amplified output and mic input
Video	Silicon Motion® Cougar3DR Graphics Controller <ul style="list-style-type: none"> • 4x AGP • Dual LVDS flat panel output for high resolution displays – Supports dual displays with 1280 x 1024 resolution or single display with up to 2048 x 1536 resolution
Hardware Monitor	Philips® NE 1614 Heceta system hardware monitor <ul style="list-style-type: none"> • Voltage inputs • 3 fan speed monitoring inputs • Comparison of all monitored values to defined limits
I/O Controller	SMC® LPC47B272
Peripheral Interfaces	<ul style="list-style-type: none"> • Two 16550 serial ports (RS-232) • PS/2 keyboard/mouse • Bi-directional parallel port • Four USB 2.0 ports (rear panel) • PCI riser for optional PCI expansion slots
Additional Features	<ul style="list-style-type: none"> • EIDE connector primary (2.5 mm notebook and 44-pin standard connectors) • EIDE connector secondary (CompactFlash) • SMBus header 3.3V • CPU fan connector • Two chassis fan connectors • IrDA header • Real Time Clock with battery backup • Advanced Power supply Control (APC) • Advanced Power Management (APM) • ACPI support
BIOS	<ul style="list-style-type: none"> • 4 Mbit 82802AB Flash memory hub • APM, and Plug and Play • Flash re-programming and Crisis Recovery utilities

mTG845LP (Low Power) MOTHERBOARD:

Form Factor	EmbATX, 9.60" x 9.60" x 2" (H x W x D)
Processor	Mobile Intel® Pentium® 4 processor-M in the 478-pin package
Chipset	Intel® 845E chipset, consisting of: <ul style="list-style-type: none"> • Intel® 82845E Memory Controller Hub (MCH) • Intel® 82801DB (ICH4) I/O controller hub • Intel® 82802AB firmware hub

Memory	<ul style="list-style-type: none"> • Two 184-pin dual inline memory module (DIMM) sockets • DDR 200 w/ECC • DDR 266 • Support for up to 2 GB of DDR SDRAM
Ethernet Controller	<p>Intel® 82551QM</p> <ul style="list-style-type: none"> • PCI 10BASE-T/100Base-TX interface Ethernet Controller • RJ-45 interface
Sound	<p>SigmaTel® AC'97 sound chip</p> <ul style="list-style-type: none"> • Line in/line out/speaker out/mic in • AC'97 sound with amplified output and mic input
Video	<p>Silicon Motion® Cougar3DR Graphics Controller</p> <ul style="list-style-type: none"> • 4x AGP • Dual LVDS flat panel output for high resolution displays <ul style="list-style-type: none"> – Supports dual displays with 1280 x 1024 resolution or single display with up to 2048 x 1536 resolution
Hardware Monitor	<p>Philips® NE 1614 Heceta system hardware monitor</p> <ul style="list-style-type: none"> • Voltage inputs • 3 fan speed monitoring inputs • Comparison of all monitored values to defined limits
I/O Controller	SMC® LPC47B272
Peripheral Interfaces	<ul style="list-style-type: none"> • Two 16550 serial ports (RS-232) • PS/2 keyboard/mouse • Bi-directional parallel port • Four USB 2.0 ports (rear panel) • PCI riser for optional PCI expansion slots
Additional Features	<ul style="list-style-type: none"> • EIDE connector primary (2.5 mm notebook and 44-pin standard connectors) • EIDE connector secondary (CompactFlash) • SMBus header 3.3V • CPU fan connector • Two chassis fan connectors • IrDA header • Real Time Clock with battery backup • Advanced Power supply Control (APC) • Advanced Power Management (APM) • ACPI support
BIOS	<ul style="list-style-type: none"> • 4 Mbit 82802AB Flash memory hub • APM, and Plug and Play • Flash re-programming and Crisis Recovery utilities