RuggedPCReview.com

If it's rugged, we review it and write about it

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More processor choices than ever!

Well, over the past few months it's been all about new processor announcements from Intel and others. And a lot of those new processors, especially the new Intel Atoms and Core i3/i5/i7 chips, are directly relevant to the rugged computing industry. Make sure you read RuggedPCReview's assessment of all those new chips, and look out for actual reviews and benchmarks of the first rugged systems with those chips as soon as we get them into our lab.

Leaders like Advantech, Motion Computing, Datalogic, DLI, DRS Tactical Systems, General Dynamics Itronix, Getac, the Handheld Group, Juniper Systems, MobileDemand, RAM Mounts, Samwell, Winmate Communications and RMT are at the forefront of exploring these new trend and technologies, much to the benefit of existing and potential new customers worldwide.

Handheld Algiz 7 -- An ultra-rugged Intel Atom-powered tablet that weighs just 2.4 lbs., has optional Gobi WWAN

Handheld announced the Algiz 7, a rugged, ultra-mobile Intel Atom-based tablet computer designed for use in homeland security, public safety, field service, GIS/mapping, logistics, railways, telecommunications, energy, law enforcement, military, warehousing, etc. The Algiz 7 has a 7-inch "MaxView" WSVGA sunlight-viewable touch screen, excellent connectivity, onboard camera and Mediatek GPS, and it is available with Gobi 2000 WWAN technology that provides access to any wireless WWAN frequency used around the globe [See the Handheld Algiz 7]

RAM MDT-Mate: A modular mounting solution that helps converting any vehicle into a mobile office

For a lot of vehicle-based mobile professionals, being able to have quick and convenient access to

- RMT
- Ruggedbook
- Winmate

their notbook or tablet computer is essential. Unfortunately, most mounting systems are rigid and inflexible, making it difficult to comfortably use the system, or for both the driver and a passenger to use it. RAM's new MDT-Mount looks like the perfect solution for these problems. [Read about the RAM MDT-Mate]

Data Ltd DLI 8800 -- a rugged 2.3 lbs. point-of-sale tablet computer

DLI, a LaPorte, Indiana based manufacturer of rugged mobile tablets has announced the DLI 8800 Mobile POS tablet. The rugged Atom Z530-powered DLI 8800 has a 7-inch screen, weighs just 2.3 pounds, has an integrated mag stripe reader, and can be ordered with an integrated RFID reader and 2D barcode scanner. The DLI 8800 is available either with a touch screen or an active digitizer. [Read about the Data Ltd. DLI 8800]

Panasonic Toughbook H1 Field -- A power-efficient, cleanly designed and implemented, and heavily ruggedized tablet computer with excellent display and ergonomics

Panasonic introduced a new version of its Toughbook H1 tablet computer, the Toughbook H1 Field. Specially configured for use by field personnel and equipped with a 64GB solid state disk, the H1 Field offers impressive ruggedness specs (6-foot drop, -4 to 140 F temperature range, IP65 sealing), an excellent 10.4-inch sunlight-viewable dual-touch display, and 6-hour battery life thanks to a power-efficient Intel Atom Z540 processor. For data capture there's, depending on the version, a 1D/2D barcode reader, RFID, and a camera as well as smart card and fingerprint readers. Also available: Gobi2000 mobile broadband. [Read about the Panasonic Toughbook H1 Field

A look at Intel's new Core i3/i5/i7 processors and how they will affect rugged computing

Just when most manufacturers of rugged mobile computers have switched from earlier platforms either to Intel Atom or Core processors, Intel raises the ante again with new Atoms and the next generation of Core processors. By now Intel has released some three dozen Core i3/i5/i7 processors as part of the mobile "Calpella" and the not-so-mobile "Piketon" platforms that include "Lynnfield," "Clarkdale," and "Arrandale" processors, including a number designated as embedded processors. They offer some interesting new capabilities and will surely have an impact on rugged computing platforms [...more]

Review: Fujitsu Lifebook T4410 with multi-touch

Fujitsu was one of the early pioneers in pen computing and has been making tablet computers and pen-enable convertible notebooks ever since. Their experience shows in the latest convertible notebook, the Lifebook T4410. This is a versatile 4.5-pound notebook that offers excellent performance without compromising battery life. The outdoor-viewable 12.1-inch display offers both pen and touch input, and under Windows 7, the multi-touch capabilities are very good. [Read full review of the Fujitsu Lifebook T4410]

Intel's next generation of Atom processors

Intel announced a next generation of Atom processors that succeed the current 230, 330, N270 and N280 processors (but not the Z-series Atoms, which are a different family). The new chips are the single core N450 geared towards netbook-style devices which we'll likely see in a lot of rugged/mobile systems, and the desktop-oriented single core D410 and dual core D510. All run at 1.66GHz. Whereas older N-series Atoms used a three-chip solution (Atom - ICH7M - GMCH), graphics and memory controller are now part of the new Atoms, resulting in a smaller two-chip solution (Atom - NM10). Graphics seem slightly improved, but there's still no HD hardware acceleration. The primary benefit may be reduced power consumption of the N410 package versus the N270/280 package (7 vs. 12 watts). The D410 and D510 packages seem to have faster graphics and there is no obvious reason why they could not be used in mobile systems as their system power consumption is still only 12 and 15 watts [... more]

Rugged UMPCs are alive and well: TAG TC-100 Commander

When Microsoft first introduced the UMPC, we immediately felt it was a good platform for rugged computers. While consumer UMPCs didn't do well, we're seeing a number of interesting rugged UMPCs, such as the TC-100 Commander by Technology Advancement Group (TAG). It is a rugged ultra-mobile PC. Based on the 1.6GHz Intel Atom Z530 chip and equipped with a 7-inch daylight-viewable touchscreen, the TC-100 runs either Windows or Linux, does not need a fan, can handle extreme temperatures, is waterproof, offers excellent expansion and can be built to order in numerous configurations. Read our description of the TAG TC-100 Commander.

What else is going on in the Rugged World?

While all those processor announcements (and trying to figure out how they'll affect the mobile rugged industry) kept us busy, we also closely followed The Great Tablet Hype of 2010. It's amazing how many people think Microsoft invented tablet computers in 2002 when, of course, they've been around much longer than that (read Slate and Tablet Computers: Learning From the Past). Now the Apple iPad has been announced, and though it'll primarily be a consumer product, it will undoubtedly affect vertical markets as well, so if you're interested in our take on the iPad, here it is.

Recently I had a chance to speak with Paul Moore who is Senior Director of Mobile Product Development at Fujitsu. Fujitsu, of course, is one of the earliest pioneers in tablet and notebook convertibles, and it was interesting to hear their current views and positions.

Oh, and if you want to see a truly extreme portable computer, check the Core 2 Quad powered ACME Seahawk 100 with THREE full 17-inch displays!

In closing, here's the benefit of what we learned in the past couple of months here at the RuggedPCReview lab:

- If you contemplate an Intel Atom-powered sysem, do make sure to really educate yourself on what all Intel is offering. It's quite confusing.
- The multi-touch hype is still on (the new Windows 7 Phone Series even mandates it) and we're now seeing implementations that work quite well.
- Yes, the new Intel Core i5/i7 are great, but don't give up on the lowly Core 2 Duos just yet. They will be a good solution for some time to come.
- How much longer will Windows CE/Mobile dominate the vertical space when it's getting hammered in the commercial markets? Hedge your bets.
- With AT&T offering unlimited data for US$30/month with the Apple iPad, the chances for widespread adoption of WWAN seem much better now.

Best of luck for 2010! Let's hope the worst is over now.

Conrad

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