RuggedPCReview.com
If it's rugged, we review it and write about it

January 2011

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- Samwell SR820 wins

- RAM Mount for iPad

A year of change and promise

Another year's come to an end, and this one was interesting. We saw pretty much a wholesale move to new processors both in notebooks and handhelds (mostly Core 5/7s and Atoms), lots of excitement over consumer market tablets that will undoubtedly increase acceptance of the tablet form factor in vertical markets, and a bit of hesitation as everyone wonders what Microsoft may or may not do next. The numbers say the economy is back in decent shape, so let's hope in 2011 it'll *feel* that way as well.

A big thanks to our sponsors Advantech, Motion Computing, DLI, DRS Tactical Systems, General Dynamics Itronix, Getac, the Handheld Group, Juniper Systems, Logic Instrument, MobileDemand, RAM Mounts, Samwell, Winmate Communications and RMT for making RuggedPCReview.com possible!

DLI 8800 -- Rugged 7-inch tablet for POS applications

By now, most vertical market compact tablets use Atom processors, mostly the Z530, and DLI's 8800 POS tablet is no exception. What sets this one apart is its integrated 3-in-1 payment processing functionality that includes an integrated magnetic card reader, an integrated barcode scanner, and RFID for fully contactless payment transactions. Featuring a 7-inch touchscreen (or digitizer) and your choice of OS, the DLI 8800 is small and handy enough to be deployed almost anywhere, and tough enough to take quite a bit of abuse. [See the DLI 8800 POS tablet]

DRS ARMOR X10gx: 10th generation ultra-rugged tablet computer

It seems almost impossible, but the DNA of the latest DRS ARMOR goes back ten product generation, all the

- Advantech UTC-520

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way to the mid 90s or so. This latest iteration of the compact X10 has a greatly enhanced display that offers truly superb viewability under all lighting conditions. There's now also autosense dual-input, increased sealing (up to IP67), improved functionality via more hardware controls and extra connectivity, Gobi 2000, as well as significantly enhanced performance (more than double that of the last X10 we tested) [Read about the DRS ARMOR X10gx]

Samwell Ruggedbook MCA9: increased ruggedness and sealing for medical tablets

We've been seeing a move to ever greater ruggedness and better sealing in vertical market products where modest ruggedness used to be considered good enough. The latest version of Samwell's MCA9 medical/clinical tablet now carries IP65 sealing and can handle more abuse, in part due to a switch to solid state storage. [Read about the Samwell Ruggedbook MCA9]

The Tablet Wars -- Background and Outlook

Despite getting soundly trashed by a good number of industry experts when the iPad was first announced by Steve Jobs on January 27, 2010, Apple ended up selling about ten million of them in 2010, and the same experts now predict that a lot more will be sold in the coming years. Everyone is scrambling to also have a tablet. Tablets are hot, tablets will demolish the netbook market, tablets will eat into notebook sales, Microsoft will gag and wither over having blown it with tablets, and so on and so on. So what's *really* happening? [To find out, read about the The Tablet Wars: Background and Outlook]

Samsung Galaxy Tab: What lessons does the iPad's first real competitor teach?

2010 was the year of the tablet, but there really weren't any tablets other than the iPad in the consumer space. Until Samsung came out with the Galaxy Tab that runs Android on a 7-inch display. The Tab is a relevant bellwether product because it shows a) whether Android is a real contender on tablets, b) whether all that effortless multi-touching works on a platform other than the iPad, and c) whether the smaller 7-inch displays make sense. [Read "What can you expect from the iPad's first real competitor?"]

Panasonic Toughbook 31 -- How well is Panasonic's milestone rugged notebook holding up?

Panasonic's flagship Toughbook hardly needs an introduction. Few computers have the history and pedigree of the rugged Toughbooks that hold a special place as perhaps the most popular rugged notebook computers ever made. We put the

significantly enhanced 5th generation Toughbook 31 through its paces. It's faster (by a lot), has an incredibly bright screen, touch is now standard, there's the very useful Gobi 2000, discrete graphics, and the drop spec has been increased to a stunning six feet. But is it enough to extend the same design into yet another generation? [See full review of the Panasonic Toughbook 31]

Winmate G-WIN IP67: What can you expect from today's rugged panel computers?

Panel computers are the unsung heroes of a lot of productivity improvement projects, bringing computing onto the shopfloor and into lots of harsh environment settings where automation wasn't possible before. RuggedPCReview takes a detailed look at the Intel Atom-powered Winmate G-WIN IP67 to see what the latest gen of rugged panels can do. We found exceptional flexibility as those panel manufacturers can usually supply whatever size display, sealing, and I/O capabilities are required for a job. [... read more]

Trimble Yuma: a rugged, innovative, and very well executed rugged UMPC

The very attractive Trimble Yuma tablet computer has been around since early 2009, but has been playing a rather low-key role. That's amazing considering all the hype about tablets. We did a full review of the Yuma and found it a rather compelling tablet solution that provides full Windows 7, a reasonably large display with WSVGA resolution, good onboard connectivity, ruggedness, long battery life, and exemplary quality in a very compact package. Read full review of the Trimble Yuma.

Intermec CS40 and Handheld Nautiz X3 -- Two more rugged multi-purpose handhelds for the field. Where do they fit in?

Almost everyone has a smartphone these days, but standard smartphones aren't tough enough for the field. Companies like Motorola, Intermec, Psion Teklogix, the Handheld Group, Datalogic and others have been trying to fill that gap with ruggedized versions of smartphones, but no one seems quite sure what such a device should look like and what it should offer. Some emphasize the smartphone side, others the ruggedness aspects. We looked at Intermec's CS40 and Handheld's Nautiz X3.

DAP revamps its lineup, adds M2000 and M4000 Series
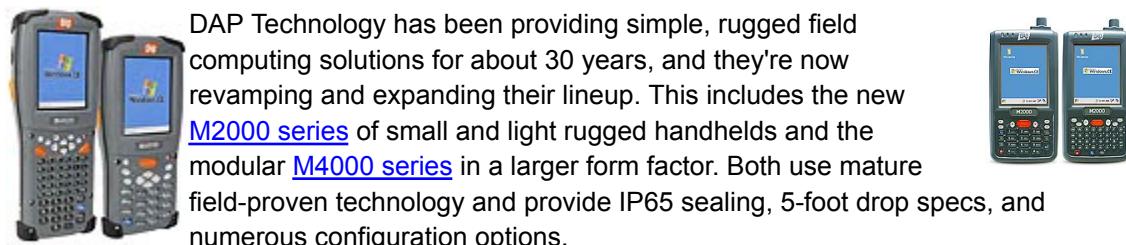
DAP Technology has been providing simple, rugged field computing solutions for about 30 years, and they're now revamping and expanding their lineup. This includes the new M2000 series of small and light rugged handhelds and the modular M4000 series in a larger form factor. Both use mature field-proven technology and provide IP65 sealing, 5-foot drop specs, and numerous configuration options.

Getac S400: State-of-the-art semi-rugged notebook computer

There is an increasing demand for notebooks for applications that require more toughness and durability than consumer products can provide, but not the higher weight and cost of fully ruggedized construction. Getac introduced the S400 for just those needs. It's a modern 14-inch notebook with Intel Corei3/i5 power, all the necessary expansion and connectivity, yet it weighs only 6.5 pounds and costs far less than fully rugged versions.   [...more]

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

- Almost all new higher-end notebooks and full-size tablets we see now have Intel Core i5/i7 processors. Compared to C2D solutions, the payoff is more performance, yet better battery life, especially with Windows 7.

- Android's huge advance in smartphones so far hasn't translated into vertical market adoption where everyone seems to be waiting to see what Microsoft will do next.

- Speaking of Microsoft, the future roadmap, if there is one, of Windows Mobile remains unclear. As is, almost all new 2010 products used Windows 6.5x, or even 6.1.

- With just a couple of exceptions, we haven't seen adoption of multi-touch in the vertical space. It's definitely an opportunity waiting to be explored and exploited.

- Intel keeps adding Atom processors and processor families, but one wonders if simply offering a flood of inexpensive but limited chips will be enough.

- If the Android vs. Microsoft situation clears up around CES or so, we'll finally have a clearer direction of where vertical market tablets will go in 2011.

Here's to a bright and successful 2011!

Conrad

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