

RuggedPCReview.com

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

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Tablets, tablets and more

As the year comes to an end, what have we seen in 2011 in the rugged space? That would be, 1) increasing use of Intel's 2nd Gen Core chips, 2) ever better outdoor-viewable screens, 3) impressive advances in battery life, 4) increasing efforts to somehow use Android in business, and 5), wondering what impact Windows 8 will have. At RuggedPCReview, that kept us plenty busy to bring you and your current and potential customers our industry-leading and very detailed product reviews.



A big thanks to our sponsors [Advantech](#), [Motion Computing](#), [DRS Tactical Systems](#), [General Dynamics Itronix](#), [Getac](#), the [Handheld Group](#), [Juniper Systems](#), [MobileDemand](#), [RAM Mounts](#), [Samwell](#), and [Winmate Communications](#) for making RuggedPCReview.com possible!

Getac X500 -- wide screen, speed, and optional PCI/PCIe



With the X500, Getac became the first major rugged manufacturer to introduce a fully rugged notebook computer with a sunlight-viewable (1,000 nits) wide-format 16:9 aspect ratio 15.6-inch resistive multi touch display. With a

2.66GHz Intel Core i7-620M processor and Nvidia discrete graphics, the X500 provides excellent performance. An optional PCI or PCIe expansion unit that fits under the computer provides almost unlimited expansion. [\[Read full review of the Getac X500\]](#)

Panasonic Toughpad: An Android tablet for business



Available early 2012, the 10.1-inch Android-based Toughpad A1 offers IP65 sealing, a 4-foot drop spec, dual cameras, 10



hour battery life, daylight viewability, and enterprise level security. A smaller 7-inch B1 version will be available later in 2012. Panasonic introduced the Toughpad, which they call "the first tablet designed for business," in grand style at Dallas Cowboy Stadium. [\[See Panasonic Toughpad description and launch event\]](#)

Motorola ET1: 7-inch Android-based enterprise tablet



Motorola Solutions also introduced a potentially very significant product: its first new era, post PC enterprise-oriented tablet with wide-format 7-inch form factor, capacitive multi-touch, Android operating system, sensors and cameras and all. The new ET1 tablet, which despite being quite rugged weighs just 1.4 pounds, should be available this year. See [description and specs. of the Motorola ET1](#).

Clover Systems/Samsung SunBook -- Netbook with Pixel-Qi triple-mode sunlight screen

Fact is that even the best current technology outdoor-viewable displays struggle in direct sunlight. Pixel Qi's innovative new triple mode display technology doesn't. It's a new sort of transfective that's bright and vibrant indoors, eBook-like in direct sunlight, and inbetween in the shade. Clover Systems offers the US\$795 SunBook, a Samsung netbook with a perfectly integrated Pixel Qi screen. How well does it work? [\[See full review of the Clover Systems SunBook and Pixel-Qi technology\]](#)



GD-Itronix GD8200: Supercharged by 2nd gen Core processor and other improvements

The General Dynamics Itronix GD8200, a fully rugged 8-pound notebook computer, is another new model that greatly benefits from a switch to Intel's latest 2nd gen Core processor, and without penalty to battery life. The GD8000 also offers improved sealing while still taking advantage of the inherent quality and reliability of its evolved XR-1/GD8000 platform. The 13.3-inch 4:3 aspect ratio LCD with 1024 x 768 pixel XGA resolution remains and now looks a bit tall and boxy, but thanks to the improved DynaVue II technology, there is excellent outdoor viewability of the touch screen display. [\[See description and specs of the General Dynamics Itronix GD8200 \]](#)



Winmate E430T -- Rugged industrial PDA with capacitive multi-touch



Over the years, the size of Pocket PC/PDA displays has been going up and down. First it was 3.8 inches, then they got smaller and smaller, and now apparently the trend s reversing, perhaps due to the advent of ever larger smartphone screens. Perhaps this is why Winmate's new



E430T industrial PDA has a nice and large display. But that's not all: the handy, rugged 8-ounce E430T uses a modern capacitive multi-touch display and is available either with Android 2.3 or Windows Mobile 6.5. [See review of the [Winmate E430T](#)]

Advantech PCM-C3500: ARM-based Single Board Computer for embedded projects



There was a time when the RISC versus CISC processor debate was headline material. Then Intel's CISC chips became dominant in most areas. Now we're starting to see more ARM designs in a number of markets again, and not just in smartphones and tablets. Even Microsoft will support ARM in the next major rev of Windows.

RuggedPCReview.com took a look at Advantech's PCM-C3500 OMAP-based Single Board Computer that can be the core of Android or Windows CE-based embedded systems. [See full review of the [Advantech](#)

[PCM-C3500](#)]

Rugged little worldbeater 1080p HD camera: the GoPro

Not a rugged computer, but a rugged, useful piece of equipment for outdoor work anyway: the GoPro Hero camera. It can do full-speed 1080p high definition video, comes with a waterproof, rugged case, all sorts of mounting materials, and the whole thing costs all of about US\$250. We did a comprehensive review of the GoPro for our sister site,



ScubaDiverInfo.com. [See [The GoPro phenomenon: what the world-beating little 1080p vidcam can \(and cannot\) do](#)]

Blog: Windows 8: a bit of fear, uncertainty and doubt

Having re-introduced tablet computers ten years ago (they'd been around since the late 1980s), Microsoft saw itself shut out from the grand tablet renaissance, with most of the spoils going to Apple in the form of tens of millions of iPads sold. But then Microsoft pre-announced the next version of Windows and calls it "touch-first." What does it mean to rugged and mobile computing? [See [Windows 8: a bit of fear, uncertainty and doubt](#)]

Other cool stuff we reviewed:

RuggedPCReview also examined and described the [Getac S400](#), the [Fujitsu T731 and Q550](#), the [GD-Itronix GD3080](#) tablet, the [Casio IT-300](#), the [BAP Precision S-Series](#), the [Advantech MIO-5270](#), the [GE Wolverine III](#), the [Winmate 3.7" Rugged Handheld](#), and the [Datalogic Rhino 10](#).

And... RuggedPCReview.com's Media Tablet Spec Table

In the beginning there was just the iPad, but now we're seeing a number of increasingly serious and competent media tablets, both in the 7-inch and 10-inch class. RuggedPCReview compiled the vital stats of almost 50 of them for you. And we keep updating the table. [See the RuggedPCReview.com [Media Tablet Spec Table](#)]

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

- As stated above, the second gen Intel Core i5/i7 chips is impressive both in performance and economy. We've even seen 2nd gen Core devices without fan!
- The Pixel-Qi screen technology that morphs from good color indoors to eBook-style black on white outdoors is remarkable and definitely has its use.
- Finally we're seeing the first rugged Android tablets.
- And also the first Android/WinMo handhelds with projected capacitive multi-touch!
- It should be interesting to see if Microsoft's future "touch-first" Windows 8 will manage to snatch victory (or at least a decent showing) from the jaws of tablet defeat.
- You can now buy very inexpensive cameras with excellent 1080p video. We hope the technology will soon find its way into rugged mobile technology!

Stay rugged!

Conrad

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