

RuggedPCReview.com

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

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Tablets, tablets and more

Summer's supposed to be a quiet time, but for this year's dog days there seems to be more new rugged hardware than ever! Tablets, handhelds, notebooks, netbooks, industrial computers, you name it. Intel's never-ending flurry of more efficient and more powerful processors has something to do with it, as does the unabated growth of the booming tablet and smartphone markets that generates demand for more durable versions that provide the same functionality in a rugged packages. This undoubtedly spells opportunity for those who successfully bring emerging new technologies into the rugged space.



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Juniper Mesa -- The "world's first rugged notepad"



Juniper Systems of Logan, Utah, calls their new Mesa the "world's first rugged notepad," a device designed to offer

the advantages of both a Tablet PC and a rugged handheld, but without the disadvantages of either category. We reviewed the Juniper Mesa in detail and found it to be a class-busting much larger handheld that brings Windows Mobile simplicity, instant-on, speed and battery life to a satisfyingly large 5.7-inch touch screen. Windows Mobile has never looked so good. [Read full review of the [Juniper Mesa](#)]

GD-Itronix GD8200: Ultra-rugged flagship machine gets performance- and functionality update



Now equipped with a 2.2/2.9GHz Intel Core i7-2655LE processor and ancillary circuitry, the General Dynamics Itronix flagship GD8200 should be substantially more powerful than its predecessor, while retaining full backward compatibility and its 8-hour battery life rating. Graphics performance is improved and additionally benefits from DynaVue II technology. The IP65-rated GD8200 also supports numerous wireless standards including 4G LTE. [See the [GD-Itronix GD8200](#)]

Xplore iX104C5: Extending tablet mania into the field with 5th gen ultra-rugged Intel Core i7-based tablet computer



Xplore Technologies introduced the latest generation of its ultra-rugged iX104 tablet computer. We had detailed hands-on with the new Intel Core i7-powered Xplore iX104C5 and found significant enhancements in the sunlight-viewable 10.4-inch dual-mode display, overall functionality, and, especially, performance. See [review of the iX104C5](#).

Winmate G-WIN W12193S -- More than your ordinary rugged Panel PC

Panel PCs are usually boring. Not this one. With its 16:9 aspect ratio 1280 x 800 pixel 12.1-inch touch display, this latest Intel Atom-powered G-WIN model brings wide-format high resolution viewing to the line, opening new markets that require the more modern format and the higher resolution in a rugged, compact package. It also weighs just over six pounds, is amazingly quick with a super-frugal Atom processor, and fits about anywhere. [See full review of the [Winmate G-WIN W12193S](#)]



Getac X500: Raising the bar with an expandable 15.4-inch ultra-rugged notebook



Things just got more interesting in the full-size rugged notebook arena: Getac introduced the Getac X500 ultra rugged notebook that combines state-of-the-art Intel Core i7 technology, a large 15.4-inch sunlight-viewable resistive multi-touch display, available discrete nVidia graphics, extensive onboard connectivity, and an optional expansion chassis with either full-size PCI or PCIe card slots. Wow. [See description and specs of the [Getac X500](#)]

Advantech TREK-510/303L -- Fleet and mobile resource management hardware

Fleet management and mobile resource management (MRM) are ever more important in the transportation industry. We examined the Windows CE-based Advantech TREK-510 rugged in-vehicle computer/TREK-303 smart touch display combo, which offers a simple, cost-effective platform that can be used in numerous ways to integrate fleet operations more closely into overall corporate information systems, something that can have direct, and substantial, impact on the bottom-line. [See review of the [Advantech TREK-510/303L](#)] -



GammaTech Durabook S15C: A big, tough machine for (much) less



The GammaTech Durabook S15C is a 6.5-pound notebook computer designed to be tougher and more durable than standard consumer notebooks, but without the extra size, weight and cost of a fully rugged design. It's a very solid, trust-inspiring machine with a large 15.6-inch wide-format display, good connectivity, and good day-to-day functionality. We found the Intel Core i5-460M equipped Durabook S15C to be an interesting, economically priced solution for those whose needs are between consumer and semi-rugged hardware. [See full review of the [GammaTech Durabook S15C](#)]

Case Study: Computers in Diving and Marine Exploration

Editors of RuggedPCReview.com took along an Intel Atom-powered Handheld Group Algiz XRW rugged notebook computer on the 112-foot Solmar V to the Archipelago Revillagigedo, a remote group of uninhabited islands 300 miles off the Pacific coast of Mexico, where the compact IP65-sealed Algiz XRW with its superbright sunlight readable 1366 x 768 pixel display came in very handy. [Read how the [Algiz XRW Handheld Algiz XRW boosted safety, productivity, data capture on a marine underwater expedition](#)]



Samwell RUGGEDBOOK SR810 -- Atom Z670-based 7-inch rugged Android tablet



The tech wizards at Samwell are teasing the market with their new RUGGEDBOOK SR810, a new rugged Intel "Oak Trail" Atom Z670 based media tablet with a high-res (1280 x 800 pixel) capacitive multi-touch screen. Weighing well under two pounds, the RUGGEDBOOK SR810 carries IP65 sealing, can handle 4-foot drops and extreme temperatures, has dual cameras, onboard USB/serial /HDMI, and optional GPS, WWAN, barcode reader and RFID. Most intriguing: the SR810 is designed to run either Windows 7 or Android Honeycomb. [See description and specs of the [Samwell RUGGEDBOOK SR810](#)]

DAP introduces small and rugged M1000 handheld



DAP Technologies introduced the M1000 handheld computer that is hardly larger than a standard mobile phone, but has voice capability and a barcode scanner or imager, making it suitable for inventory control, picking and packing and other advanced scanning applications. Powered by a 624MHz Marvell PXA310 processor

and running either Windows CE 6.0 or Windows Mobile 6.5, the 8.2 ounce DAP M1000 has a 2.8-inch QVGA touch display, impressive ruggedness specs, a micro-SD card slot, and can be configured with 3G WWAN and either a laser scanner or 1D/2D imager. [See description and specs of the [DAP M1000](#)]

Other cool stuff we reviewed:

RuggedPCReview also examined and described the [Panasonic Toughbook H2](#), the [Unitech PA690](#), the [GD-Itronix GD3015](#) tablet, the [Radix FW960](#) , the [LXE Marathon](#), the [ARK-1503](#) Box PC and [AIMB-213](#) board from Advantech, and the [Winmate 10.4" PST](#). Editors also reviewed the [HTC Flyer](#) and [Samsung Galaxy Tab 10.1](#) media tablets, the new [Panasonic Toughbook 53](#), the [AMREL DB6](#), and the very interesting [Pision EP10](#). We blogged about a great conversation with [Fujitsu's Paul Moore](#), the [problems with benchmarks](#), the [state of still/video imaging in mobile devices](#), and much more.



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 over 30 of them for you. And the we keep updating the table. [See the RuggedPCReview.com [Media Tablet Spec Table](#)]

TDI Panamericana 2011: 16,000 miles in a turbo-diesel VW Touareg

Now this was fun: A German team decided to celebrate the 75th anniversary of the Pan-American Highway by driving a Volkswagen Touareg from the southern tip of South America all the way up to northern Alaska. We covered the trip in great detail because they had a rugged convertible notebook on board for GPS navigation, a Getac V100. [See the [TDI Panamericana 2011 challenge](#)]



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

- The second gen Intel Core i5/i7 chips seem to have great power management. We just saw the first Core i5 tablet without a fan.
- Are outdoor-viewable displays going back to transfective? Several manufacturers have switched to the (improved) technology after everyone thought it was dead.
- Android is facing some pesky problems: Larry Ellison's mega lawsuit and Microsoft getting people to pay THEM license fees for Android.
- We're still seeing new industrial handhelds with Windows Mobile 6.5 (or whatever Microsoft calls it these days), but none as of yet with Android.
- We're not totally happy with some of the sealing efforts we've seen in rugged gear as of late. Ports need more than a rubber plug.

- DisplaySearch says projected capacitive touch is now the #1 digitizer technology. It's what people expect on mobile devices these days, and it somehow needs to be integrated into vertical market gear.

Keep cool!

Conrad

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