THE ALGIZ 7 PRODUCT REVIEW

OUR EDITOR REVIEWS THE LATEST IP65 HANDHELD OFFERING FROM HANDHELD GROUP – THE ALGIZ 7 – FOR LOOK, FEEL AND PERFORMANCE.

For accurate data capture and communications operations in the field, the small handheld device is very effective for many tasks, and GEO:connexion has reviewed several such devices in the past 18 months. But when it comes to viewing more detailed information, such as maps and diagrams, a larger screen display is needed, yet still in a rugged unit and with power and battery life to match the enhanced display functionality. The Algiz 7 excels even in direct sunlight (see banner image above).

Algiz 7 in a Nutshell
The rugged Algiz 7 by the Handheld Group is lighter and smaller than full-size tablets and runs Windows 7 with ease. At 242 x 144 x 40 mm (9.1 x 5.5 x 1.6 inches), the footprint is smaller than even very small netbooks and weight is a light 1.1 kg (2.5 pounds) for easy use in the field. The rugged plastic housing has sturdy rubber corner bumpers and feels strong, yet light. The hand strap can be securely attached to either end of unit.

The 1.6GHz Intel Atom Z530 processor is supported by 2GB of RAM and a 64GB solid state disk, offering totally silent operation. The performance provided is more than enough to run the Windows 7 Professional operating system installed on the machines.

For communicating with the outside world, the Algiz 7 offers two standard USB 2.0 ports (one at either end of the chassis), a pin 9serial port (for legacy peripherals), an RJ45 LAN port, audio in and out jacks, a 2 megapixel camera, plus a multi-IO port (for the optional cradle). There is integrated Bluetooth Class II, version 2.0 with EDR (Enhanced Data Rate) and 802.11b/g/n WiFi plus a GPS receiver, with an optional Gobi 2000 WWAN module.

Power is supplied by two 7.4 Volt/2,600mAH Li-Polymer batteries providing 19.24 watt hours each that snap into place on the underside of the chassis, and are secured with a small sliding locking tab. The batteries have thick rubber insert 'feet' and act as part of the chassis.

Internally, along with two SIM card slots, one or more of the four PCIe slots are available for expansion. Its resistive touch screen measures 7 inches diagonally, with a 16:9 aspect ratio, at 1024 x 600 pixel resolution for very sharp and bright viewing of both text and images. Operation is by touch, with a 5-way navigation diamond, multi-function key for controlling brightness, volume and wireless radios, plus three programmable function keys. Unlike several of the smaller handheld units tested in recent months, the Algiz 7 includes a really practical 12.5 cm (5 inch) stylus, tethered to the unit so you don't lose it in the field. The stylus incorporates a screwdriver head, useful for changing the hand strap position or opening the unit.

The four main ports (two at either end of the chassis) are covered by rubber plugs that need to be securely pushed into place in order to maintain the IP65 rating. Removing and inserting the plugs requires a bit of practice, but then we have had the same experience with rugged handhelds from other vendors, as well. The plugs are secured to the unit with flexible plastic loops and can be replaced should they break during use. One thing missing from the otherwise well designed unit are labels (text or graphics) for what lies behind the four plugs!

Controls and Functions Galore
The photos here show where the various ports are located. On the front you have the screen, navigation diamond, button controls, microphone and speaker, plus indicator lights for the two batteries, disk activity and wireless status. The multi-IO port is located on the side and is not protected by a plug, but is sealed inside.
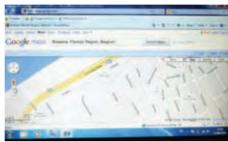
Available ports

The Function buttons are multi-purpose

The three function buttons – F1, F2 and F3 – do double duty, depending upon whether you use a 'short' or 'long' push of the button. Fir example, pressing F1 quickly calls up the menu to access the keyboard, virtual mouse or to rotate the screen position between horizontal and vertical (in 90 deg. increments). (Conveniently, the system boots up with the virtual keyboard displayed on the screen). Pressing F1 longer brings up a menu of programme options. There is also a CONFIG function for setting performance and power setting options.

The Algiz7 with the batteries in place and removed, with the motherboard exposed.

Google Maps shown on the Algiz 7 (left) and a Philips multimedia notebook (right)

Algiz7 Innards

The Algiz7 case is constructed from two plastic halves united with a rubber seal in a tongue-and-groove arrangement secured by eight screws, deeply embedded inside the rubber corner bumpers and a similar rubber protection bumper running along the top side of the unit.

Display Performance

Handheld's new MaxView touch-screen technology offers an impressive level of brightness in all outdoor conditions. As the photos here show, display performance is typical for a modern rugged handheld device and more than adequate for field operations in most light conditions. Only when trying to view the screen in direct sunlight (the sun hitting the screen perpendicular to the viewer's line of sight) did we have any difficulty. Compare this article's banner image, showing the unit in indirect sunlight on a very bright day, with the image here, working in the shade on that same day. Excellent viewing!

To see indoor performance in an unlit office, compare the images above, showing the same Google Maps screen on the Algiz 7 (left) and a Philips multimedia notebook (right). Outdoors, the optical anti-glare and anti-reflection treatment of the Algiz 7 display dramatically reduces the reflections that make a standard notebook screen virtually unusable outside.

That All Important Battery Life

The twin 7.4 Volt/2,600mAH Li-Polymer batteries provide nearly 40 watt-hours in total, which is even more than some notebook computers – including the editor's Philips machine. Based on our experience, you can expect from 5 to 6 hours operation with the screen set to useful brightness level, average tasks being performed and the wireless functions activated. Since additional batteries could be hot swapped in the field, this machine should satisfy the needs of most field operations.

How Rugged is 'Rugged'?

The Algiz 7 is presented as n "ultra-rugged" device for use in the very challenging environments, able to handle operating temperatures from - 22 to +50 degrees C (-9 to 122 degrees Fahrenheit), with IP65 sealing (protected from dust and low pressure water jets from all directions). It also passes the MIL-STD-810G test of 26 drops from a height of four feet to concrete, thanks to the sturdy casing, robust screen – and absence of a hard disk drive. Since the unit is not rated IP67, which covers complete immersion to one metre – don't drop it in the water!

Our Conclusion?

The Algiz 7 looks and feels like a truly professional product – well designed and constructed – and should give trouble free operation in a wide range of rugged field environments. Compared to other rugged tablets used by this reviewer, the Algiz 7 convincingly delivers what its specification promises – performance, ease and comfort in use, power and durability. For more information and list of distributors visit www.handheldgroup.com.

Article by Roger Longhorn, GEO:connexion International editor.