GO BOLDLY

WORK SMART. WORK CONNECTED. WORK WHEREVER.

Mobile devices have become integral tools for cabling installers and technicians working in the field. With a laptop, tablet or handheld device, workers are able to manage projects more effectively and access the data and documentation they need right at the scene. Cable installers and technicians often face tough physical environments – from maintenance holes and outdoor cross-connects in campus networks, to cramped telecom rooms and above-ceiling spaces inside buildings along with a wide range of environmental factors. Their mobile devices need to be just as rugged to stand up to the demands of the job.

TOUGHPAD FZ-N1
Qualcomm® MSM8974AB 2.3GHz Quad Core;
Android 6.0.1 (Marshmallow)

INTRODUCTION

As cloud computing, the Internet of Things, and other technology trends put new demands on the way enterprises and academic institutions use their networks, network installers and technicians are managing increasingly complex projects. Mobile devices offer cable workers access to real-time and secure information in the field where they need it most to help them stay productive and work effectively.

Slim, lightweight, powerful, the fully-rugged handheld Panasonic Toughpad® FZ-N1 is the all-in-one tool you’ve been waiting for. With a quad-core processor, angled rear-facing barcode scanner, warm-swappable battery, and multi-carrier 4G LTE, with voice capabilities, it’s ready to go when and where work takes you today. When a flexible device is in demand, the Panasonic FZ-N1 delivers the Android® Marshmallow operating system, giving you the ability to develop in an open environment with thousands of enterprise grade applications at your fingertips.
Mobile computing offers enhanced productivity and a distinct advantage over managing paper forms and physical documentation. Today’s cable installers and technicians can access and capture data in real-time, on the job site, using laptops, tablets, and handhelds that keep them connected to vital information via cloud or an off-site storage center. They can retrieve schematics or blueprints, video conference with experts around the world, locate replacement parts, connect to diagnostic or line-testing machines, check or update schedules, file trip and route reports, and view maps. With the increasing availability of reliable wireless connectivity, mobile devices have become a critical tool for field workers to better perform their jobs.

Typically, a cable installer performs installation, maintenance and trouble-shooting, using diagnostic equipment in a wide range of environments and locations. Harsh conditions are part of the job and cable installers and technicians benefit from rugged mobile devices specifically built to perform in the type of challenging environments they face day to day. For example, workspaces for network cabling are often tight, frequently involve ladders and are not always climate-controlled. A campus-spanning network can see connections in locations such as manholes and special-built outdoor pedestals, frequently without access to power connections. Cable workers need devices that can handle a wide range of situations and environmental conditions.
Available in different form factors, cable companies can equip their workforce with field-ready rugged devices designed for the specialized job application. Cable installation, maintenance, and repair work requires a versatile device that supports:

» Secure text communications
» Reliable wireless connectivity
» Specialized ports such as true serial, Bluetooth, and USB to connect to peripheral devices
» Screen readability in bright sunlight
» Day-long battery life (including hot-swap or bridge configurations)
» Touchscreens, including glove-touch for outdoors
» Easy integration with corporate systems
» Ability to survive drops, bumps, and outdoors conditions including dust, dirt, temperature extremes and moisture

An experienced manufacturer can assist your IT department in understanding the full range of capabilities needed by your workers, helping you to select devices that meet or exceed the most difficult known environments where they will be used. They can assist in determining level of ruggedness and device features that apply to your specific needs today as well as into the future.

The rugged, 7-inch Panasonic Toughpad® FZ-B2, now powered by Android™ 6.0.1 (Marshmallow) and the latest Intel® Atom™ x5-Z8550 processor is an easy-to-use, enterprise-grade productivity booster that works rain or shine. With durability, power and a range of configuration options – at a price within reach of any business – the Toughpad FZ-B2 features a faster CPU, upgraded rear camera and Wi-Fi chipset, and a quick-charging, user-replaceable full-shift battery. With a fully rugged and sealed design, the thin and lightweight Toughpad FZ-B2 is built for long-lasting durability where others fail.

The Panasonic Toughbook® 33 is the first fully-rugged 2-in-1 of its kind—redefining rugged flexibility for those who work in demanding conditions.
Panasonic, the leading manufacturer of rugged mobile devices, provides state-of-the-art products with field-proven capabilities that are particularly attuned to the needs of cable workers. Because access to critical data offers broad benefits to workers from the front office to the field, there’s no “one-size-fits-all” solution. Panasonic Toughbook provides the widest range of form factors - including laptops, 2-in-1s, tablets, and handhelds, so depending on the use case, a Panasonic rugged mobile device can fit neatly into the specific job application. Thus, Panasonic offers its customers a single source to meet any combination of requirements along with a comprehensive set of services and warranties to get workers up and running quickly, greatly reducing potential downtime, and supporting enhanced productivity and efficiency.

“We use our technology expertise, business knowledge, and customer input to build devices that fit how cable installers and maintainers actually use them,” says Sonia Arnold, ProServices – Territory Manager at Panasonic. “We also do the design, sourcing, fabrication and manufacturing of our devices to ensure selection of the right components for the device and the job application, going beyond “good enough” to best,” she continues. The result is a line of rugged mobile computers almost six times more reliable than standard laptops with the lowest failure rate in the nation.

For the past 14 years, Panasonic devices have led the rugged industry with the lowest failure rate across our product line. “That level of control in both the manufacturing process and the selection and sourcing of device components is key to Panasonic’s reliability,” says Arnold.
HOW PANASONIC BUILDS TOUGH

In addition to using the best ingredients for their devices, Panasonic is an industry leader in R&D, constantly seeking to identify and integrate “best practices” in product development, testing and support. That begins with employing state-of-the-art, fully vetted technologies based on real-world end-user needs.

Arnold reports, “When we develop our products, we take into account overall job requirements, affordability and reliability guarantees. We also work with customers to identify the potential hazards and conditions workers like network cabling installers and technicians face in the field from dust, dirt, cold, heat and wet environments to drops and bumps and the need for long battery life. Core to our effort is to over-deliver.”

A key investment for Panasonic is reliable wireless connectivity, whether WiFi or broadband. “Cabling workers rely on strong, uninterrupted broadband connectivity,” says Arnold. Panasonic makes and rigorously tests its embedded antennae modules in its anechoic chambers, one of the industry’s largest facilities. There engineers can maximize wireless performance and perform over-the-air tests in heat, cold, rain and other real-world conditions.

In 1996 we introduced the world’s first fully rugged laptop, the Toughbook CF25, and forever changed how people work. Twenty years later we continue to work alongside an ecosystem of dedicated partners to deliver in moving technology forward for the toughest customers. Being a pioneer is never easy, but this is what Toughbook Territory is all about.
Working with a vendor who can help decision makers understand how to choose the best devices goes a long way towards the successful introduction of mobility into the workforce. Equally important is the need to coordinate with the field technicians, learn their real-world problems and ensure they are properly trained on the new mobile computers.

The Panasonic ProServices team goes beyond the initial device purchase to help organizations equip their workers to be productive right out of the box. Panasonic ProServices can design a deployment support package tailor-made for the network cabling environment. Equipment is stress tested, software is loaded and integrated with third-party accessories, so your team can head to the job site and start working immediately.

**TOUGHBOOK 20**

The world’s first fully rugged detachable laptop.

The Panasonic Toughbook® 20 is a fully rugged, lightweight laptop that easily detaches to become a 10.1” tablet.

<table>
<thead>
<tr>
<th>SOFTWARE</th>
<th>Windows® 7 Professional (available through downgrade rights from Windows® 10 Pro).</th>
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</thead>
<tbody>
<tr>
<td>HARDWARE</td>
<td>Intel® Core™ m5 vPro™ processor</td>
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<tr>
<td>DURABILITY</td>
<td>Fully rugged</td>
</tr>
<tr>
<td>DISPLAY</td>
<td>10.1” WUXGA 800 nit multi touch with optional multi touch + digitizer display</td>
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<tr>
<td>BATTERY</td>
<td>10 hours (20 hours with optional 2nd battery)</td>
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<tr>
<td>PORTS &amp; EXPANSION</td>
<td>On Tablet: USB (optional 2nd USB), MicroSDXC, HDMI, Ethernet, Optional Serial, Audio In/Out, Micro-SIM - On Keyboard Dock: USB x 3, SDXC, HDMI, VGA, Ethernet Serial, Docking connector</td>
</tr>
<tr>
<td>WIRELESS</td>
<td>Wi-Fi, Bluetooth®, optional 4G LTE, optional GPS</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>3.9 lbs.</td>
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<td>CERTIFICATIONS</td>
<td>View Certifications</td>
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<tr>
<td>WARRANTY</td>
<td>3-year limited warranty, parts and labor</td>
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With the Android 6.0.1 (Marshmallow) operating system and Intel® x5-Z8550 processor, the Panasonic Toughbook® A2 10.1-inch fully rugged Android™ tablet provides enterprise features and reliability miles ahead of consumer tablets. With the ability to be WWAN 4G LTE connected and a super-bright 800 NIT screen, it is the perfect solution for workers in the field. However demanding the job, the dependable Toughbook FZ-A2 tablet is up to the task.
Panasonic Toughbook laptops have an average failure rate of 2.2 percent, far outpacing the average 11 percent industry average failure rate of standard consumer devices, and twice as dependable as the 4 to 6 percent failure rate of all rugged devices. To avoid catastrophic and expensive downtime, Panasonic also offers peace of mind through comprehensive ProServices warranty plans and technical support.

The Panasonic standard warranty protects against manufacturing defects for three years and includes a priority parts exchange program and repair service at no cost. Parts and support are available in 102 nations around the globe for quick turnaround, eliminating the need for repair fire drills and work interruptions and keeping your projects moving and profitable.

In just the past three years, deployment of mobile devices for network cabling projects, from on-the-scene cable layout changes to installation and maintenance, has grown rapidly as organizations recognize the productivity and financial benefits of a mobile workforce. For cabling projects, rugged mobile devices provide durable, reliable tools that workers can depend on to keep performing, no matter what the job throws at them.

Learn more about how Panasonic Toughbook can benefit your organization at toughbookterritory.com/fieldservices

Email: toughbook@us.panasonic.com
Phone: 800-662-3537

Comparing actual data from Panasonic Service Records, 2016, for Toughbook computers to PC Magazine reader-reported data for competitors.