From military bases to patrol cars, on the shop floor or in a lab, on the road or in the field, Panasonic is helping organizations keep moving forward. Engineered to withstand drips, drops, dust and grime. Toughbook® laptops and Toughpad® tablets thrive and survive in the hardest of environments. Panasonic is committed to delivering mobile computing solutions that help you get the job done, wherever it takes you.

- Select Toughbook and Toughpad mobile devices go beyond the standard safety testing to achieve ANSI 12.12.01-2000 certification and are TAA-compliant, approved for government deployment.

- Panasonic and its partners design a wide assortment of heavy-duty docks, mounts and other peripherals—including barcode readers, printers and magstripe readers—to expand and enhance the Toughbook and Toughpad capabilities.

- Panasonic values keeping backward compatibility to allow customers to save the expense and hassle of replacing vehicle docks every time a new model is introduced.

- Panasonic is the only major manufacturer that designs, builds and tests its mobile devices in its own factory - allowing quality control, consistency and parts availability to be monitored every step of the way.

Not only is a Toughbook purpose-built to withstand extreme mobile environments, but it has the exclusive Panasonic ProServices support team standing behind it. To help ensure uninterrupted worker productivity and efficiency, Panasonic offers support and services throughout the lifecycle of your mobile computing device.

Panasonic ProServices for Toughbook and Toughpad include:

- Pre-deployment consulting
- Engineering design and field engineering expertise
- Deployment services (imaging, asset tagging, etc.)
- Warranty coverage and maintenance services
- Hard drive replacement
- End of life recycling

INDUSTRY AVERAGE FAILURE RATE

Panasonic computers are over five times more reliable than the average computer used by businesses across America.*

![Industry Average Failure Rate Chart]

*Comparing Panasonic actual data for Toughbook computers to PC Magazine reader-reported data for competitors.
TOUGHBOOK 31
13.1” Fully rugged 810G | 6’ Drop | IP65
- 1200 nit gloved touchscreen
- Windows® 10 Pro (available Windows 7 Professional downgrade)
- Intel® Core™ i5 vPro™ processor (7th and 16GB optional)
- Optional DVD drive, insertable CAC & fingerprint reader
- 18-hour battery life (27 with optional media bay battery)
- TPM 2.0 security available upon request

TOUGHBOOK 54
14” Semi-rugged 810G | 3’ Drop | IP51
- Optional 1000 nit gloved multi-touch display
- Windows® 10 Pro (available Windows 7 Professional downgrade)
- Intel® Core™ i5 vPro™ processor (7th and 16GB optional)
- Optional discrete graphics, 2nd drive, DVD, fingerprint, insertable or contactless CAC reader and more
- 11-hour battery life (18 with optional media bay battery)
- TPM 2.0 security available upon request

TOUGHBOOK 33
12” Fully rugged 810G | 4-5’ Drop | IP65
- 1200 nit gloved multi touch + digitizer display
- Windows® 10 Pro (available Windows 7 Professional downgrade)
- Intel® Core™ m5 vPro™ processor (16GB optional)
- Windows Hello biometric user authentication
- Generation of vehicle dock backwards compatibility with available vehicle dock adapter (VDA)
- 10-hour battery life (20 with optional long life battery)
- TPM 2.0 security

TOUGHBOOK 20
10.1” Fully rugged 810G | 4-5’ Drop | IP65
- 800 nit gloved multi touch glass display with optional digitizer
- Windows® 10 Pro (available Windows 7 Professional downgrade)
- Intel® Core™ m5 vPro™ processor (16GB optional)
- Built-in dual purpose handle that functions as a kickstand
- 10-hour battery life (20 with optional 2nd battery)
- TPM 2.0 security

TOUGHBOOK FZ-Q2
12.5” Semi-rugged 810G | 2.5’ Drop | IP5x
- 350 nit multi touch display
- Windows® 10 Pro (available Windows 7 Professional downgrade)
- Intel® Core™ m5 vPro™ processor
- Optional insertable & contactless CAC readers
- 9-hour battery life
- TPM 2.0 security

TOUGHBOOK FZ-G1
10.1” Fully rugged 810G | 4’ Drop | IP65
- 800 nit gloved multi touch + digitizer display
- Windows® 10 Pro (available Windows 7 Professional downgrade)
- Intel® Core™ i5 vPro™ processor (7th optional)
- Optional barcode, UHF RFID, magstripe, insertable or contactless CAC reader and more
- 14-hour battery life (28 with optional long life battery)
- TPM 2.0 security

TOUGHBOOK FZ-A2
10.1” Fully rugged 810G | 5’ Drop | IP65
- 800 nit gloved multi touch display
- Android 6.0.1
- Intel® Atom™ processor
- Optional barcode or insertable CAC reader and more
- 9-hour battery life and hot-swappable

TOUGHBOOK FZ-M1 & FZ-B2
7” Fully rugged 810G | 5’ Drop | IP65
- 800 nit gloved multi touch display
- FZ-M1: Windows® 10 Pro (avail Win 7 Prof downgrade)
- FZ-B2: Android™ 6.0.1
- FZ-M1: Intel® Core™ m5 vPro™ processor
- FZ-B2: Intel® Atom™ processor
- Optional barcode, magstripe, insertable CAC reader and more
- 8-hour battery (16 w/opt long life battery)
- FZ-M1: TPM 2.0 security available upon request

TOUGHBOOK FZ-F1 & FZ-N1
4.7” Fully rugged 810G | 6’ Drop | IP67
- 500 nit gloved multi touch display
- FZ-F1: Windows® 10 IoT Mobile Enterprise; FZ-N1: Android™ 5.1.1
- Qualcomm® quad-core processor
- NFC and angled barcode reader
- Dual SIM multi-carrier data with cellular voice capability
- 8-hour of continuous use (16 w/opt long life battery)

TOUGHBOOK FZ-E1 & FZ-X1
5” Ultra rugged 810G | 10’ Drop | IP68
- 500 nit gloved multi touch glass display
- FZ-E1: Windows® 10 IoT Mobile Enterprise; FZ-X1: Android™ 5.1.1
- Qualcomm® quad-core processor
- NFC, barcode reader and optional magstripe reader
- Dual SIM multi-carrier data with cellular voice capability
- 14-hour of continuous use and hot-swappable

Battery testing results for Windows PC’s are from MobileMark 2007 at 60 nit except where noted and Toughbook 33 which is based off of MobileMark 2014 at 150 nit.

Battery life for Prime, Performance and Gloved Multi-Touch models. Lite model has 7-hour battery life (16 w/opt media bay battery).

1 For Win10 models only. Win7 downgrade models have a standard webcam.

2 Battery life for Win10 models. Windows 7 downgrade model has 8-hour battery life (16 w/opt media bay battery).

3 Battery testing results for Windows PC’s are from MobileMark 2007 at 60 nit except where noted and Toughbook 33 which is based off of MobileMark 2014 at 150 nit.

4 Battery life for Win10 models. Windows 7 downgrade model has 8-hour battery life (16 w/opt media bay battery).

5 Check with your account manager for availability of Cellular voice capability and dual-SIM on FZ-F1.

Learn more at [panasonic.com/toughbook](http://panasonic.com/toughbook)

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