

TOUGHBOOK

**FOR EVERY
MISSION**

Your TOUGHBOOK defence
solutions information pack

TOUGH is
staying strong in
mission-critical
moments



RUGGED. SECURED. CONNECTED

Innovative C4i solutions for Defence Forces

For mission-critical tasks and digitally enabled militaries, there's a commercial off-the-shelf (COTS) solution that's ready for anything – even the most hostile of environments.

Panasonic TOUGHBOOK is the European market leader for rugged mobile computing. For over 20 years we've worked with defence partners to deliver vehicle-mounted and portable solutions to support a wide range of operations.

Tested to the highest military standards, our devices offer unmatched durability, enduring reliability and unwavering security.

TOUGHBOOK.

Empowering technology. Improving operations.
Protecting national security.

With enterprise grade durability and connectivity, TOUGHBOOK devices, docks and accessories give you the power to manage the most demanding missions, collaborate remotely, and save money on repairs and replacements.



intel®

Windows 11

Intel®

Why militaries trust TOUGHBOOK



NO MORE DEVICE FAILURES, DOWNTIME OR DISTURBANCE

Noise. Dust. Drops. Knocks. Extreme temperatures. TOUGHBOOK devices are tested to military standards, so they are fully rugged and ready for duty.



INSTANT COMMUNICATION, REPORTING AND DATA ACCESS

Our connectivity just won't quit. LAN, Bluetooth, 4G/5G, GPS, and optimised antennas mean your team communicates and accesses vital operation info in real time.



UNDETECTABLE OPERATIONS

When going under the radar proves mission critical, TOUGHBOOK's concealed mode allows all radio and display features to be disabled in less than a second, at the push of a button. Devices can also be certified to MIL-STD-461, ensuring they meet strict controls for limited electro-magnetic interference.



PERSISTENT PERFORMANCE FOR LONG SHIFTS

Extended battery life plus easy and quick hot- and warm-swap options. With 24 hours of operational capability across our devices, extending up to 40 hours with the TOUGHBOOK 55, our devices can handle multiple shifts and multiple users.



UNRIVALED SECURITY

Security is a top priority and TOUGHBOOK speciality. Complete with removable SSD, the option to include Viasat SSD for encryption up to NATO Top Secret level, concealed mode and black casing, our devices are always defence-ready.



ERGONOMIC, VERSATILE AND EASY TO USE

Thanks to extended battery life, glove-enabled touch screens and powerful speakers, our devices can handle full shifts in any conditions. They are designed to be convenient and user-friendly with an ergonomic design.



COMPLETELY ADAPTABLE AND CUSTOMISABLE

Our TOUGHBOOK devices offer customisation options to meet your requirements, including military connectors and Viasat SSD, as well as fingerprint readers and legacy ports.



TOUGHBOOK Strategic Partnerships

Viasat Eclipt® Core SSD Custom caddy available for TOUGHBOOK 55 and TOUGHBOOK 40

- Internal 2.5inch SSD
- Encryption across every disk sector
- Available in 256GB, 512GB & 1TB
- SATA III 2.5inch interface/connection
- 256-bit hardware encryption
- Two factor authentication at boot up



Mobility Solutions

Vehicle integration and military dock

A fully rugged kit means your troops can take their TOUGHBOOK devices everywhere, whether they're on foot or off-road.

Our wide range of fully rugged, crash-tested mounts and docks give you the option to install a permanent in-vehicle mobile base, or offer the flexibility to dismount in high-pressure environments and use devices on the move.

Rely on us at every stage of vehicle integration, design and installation – and benefit from tailored solutions such as custom mounts with dedicated military connectors.



Taking UAS control to new heights

We work closely with industry experts, UAS manufacturers, system integrators, contract owners and military project offices to ensure successful missions and operations for drones, robots and unmanned aircraft's missions and operations.

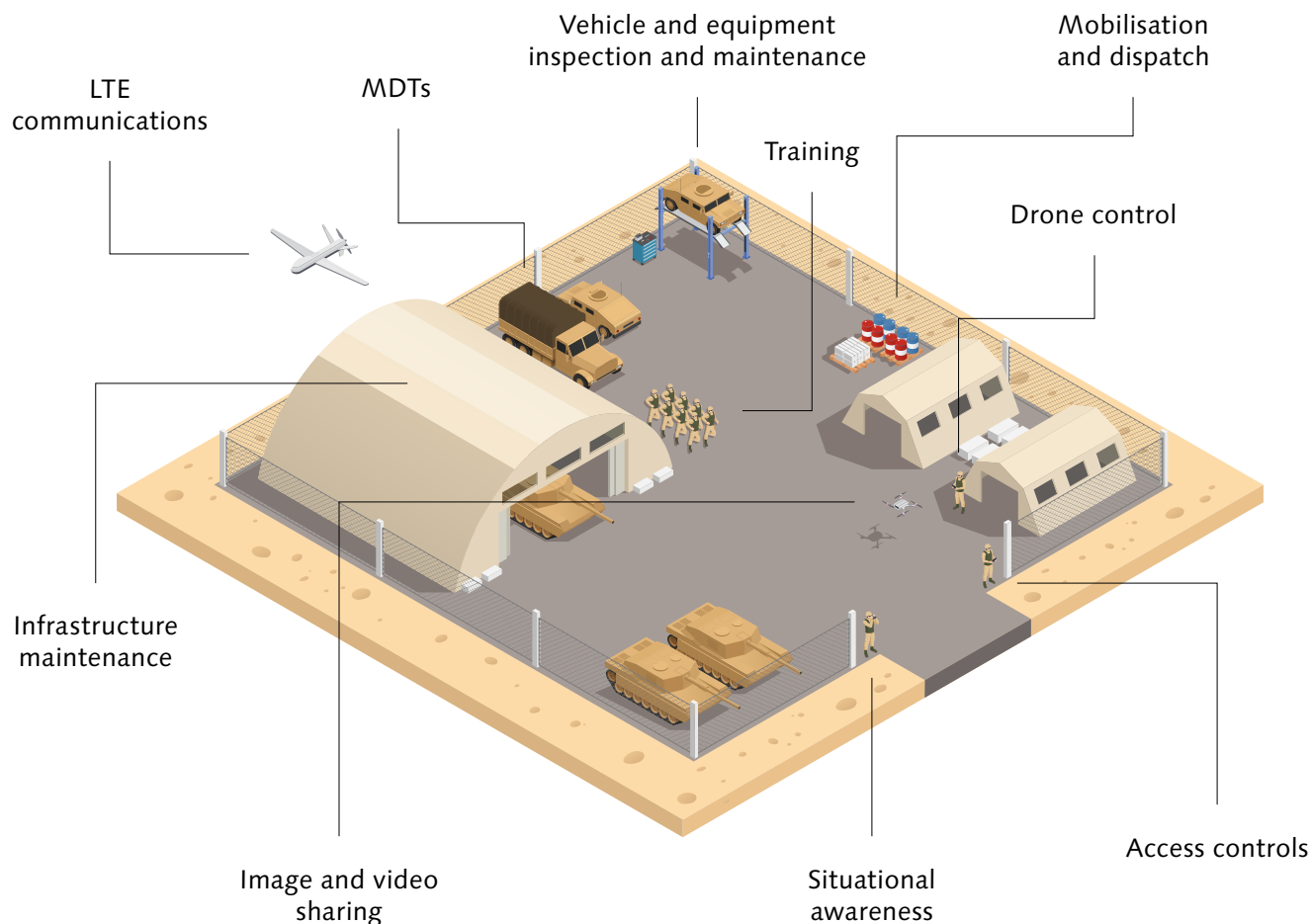
Why choose TOUGHBOOK for your UAS?

- Rugged devices connect to drones and autonomous ground vehicles
- Integrated wireless GPS, 4G and 5G
- Long-term product roadmap with stable form factors
- Dedicated engineering support



The digital partner partner for military organisations

Digitalisation is taking place in military operations and mobile devices are key for real time data, communication and in the end successful missions. TOUGHBOOK devices are the perfect mobile tools for:



TOUGHBOOK 40 with Military Docking in association with roda

- Maximum flexibility through military interfaces and four expansion slots
- Easy vehicle integration thanks to the military interfaces
- Excellent robustness with IP66, MIL-STD810
- Windows 11 Pro 64-bit (Windows 10 Pro 64-bit downgrade available)
- Up to 18 hours of battery life with standard battery
- Expands availability of TOUGHBOOK 40 platform





Changing the face of training for the British Army

Panasonic TOUGHBOOK and Cubic Defence merged virtual reality with live training exercises in a synthetic wrap technology world-first

In a defence exercise at Salisbury Plain involving more than 600 soldiers, the British Army combined virtual air force jets, drones (UAV), missiles and artillery systems in a combat exercise alongside soldiers and vehicles using Cubic's Synthetic Wrap technology and TOUGHBOOK notebooks.

The technology creates a life-like computer-generated landscape of the exercise area with every instrumented soldier and vehicle tracked in real-time. Both live and virtual elements of the battlefield can be seen at once by soldiers on the ground and the full suite of operational capabilities can be used for training.

This ground-breaking solution was delivered using simulation software running on TOUGHBOOK rugged notebooks both in the exercise control room and in the field.

"This successful trial, using a combination of cutting edge British technology and Panasonic Toughbook notebooks, is another significant step in keeping the British Army's training at the forefront of the digital revolution."

– Martyn Armstrong, Senior Programme Manager
at Cubic Defence UK



TOUGHBOOK devices are 7x more reliable than the industry average – for an even better TCO and next-to-zero downtime





Scan the code
to learn more

Militaries and defence specialists internationally have been choosing TOUGHBOOK for over 20 years because we know the challenges they face

Our military-grade products are designed to last for longer, withstand more extreme environments and heavier handling. They come with a variety of TOUGHBOOK support and warranty options to meet any operational requirement.

Discover a range of mobile devices that minimise risk, protect data and keep up with the team – even in the most challenging environments.



Read more on www.toughbook.eu

Intel® Core™ i7 vPro® processor



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PROSERVICES



TOUGHBOOK 40

14" FULLY RUGGED WINDOWS 11 PRO NOTEBOOK WITH FULL-HD TOUCH DISPLAY

The Panasonic TOUGHBOOK 40 is the ultimate 14" fully rugged notebook designed for Defence and ideal for Police and Utilities. It has a modular design that allows mobile workers to modify the device quickly and easily for different challenges by equipping 7 expansion areas. The powerful new all black model is built for use in the most extreme conditions (IP66, 180cm drop tested and MIL-STD-810H), designed for military-grade quick release self-encrypting secure drives and up to 36-hour battery life to support mission critical operations.

- Intel® Core™ i5-1145G7 vPro™ Processor
- Windows 11 Pro
- 14" Full-HD Touch Active Matrix LCD, 1.200cd/m² brightness
- 16GB DDR4 RAM and 512GB NVMe OPAL SSD as standard
- 2x USB 3.2, 1x Thunderbolt 4, 1x HDMI, 1x LAN and micro SDCX
- Left, Right, Rear and Palm Rest Expansion Area
- Long battery life of up to 36 hours (MobileMark 2014)
- 4G or 5G with eSIM support optional
- Dedicated Global Positioning optional
- -29 °C to +63 °C operating temperature
- Fully Rugged magnesium casing with carry handle
- IP66 Ingress Protection*
- Withstands drops from a height of 180cm*
- Shock and vibration protected for vehicle docking

*Test by an independent third party lab following MIL-STD-810H and IEC 60529



Panasonic recommends Windows 11 Pro for business.

This high-performance device is a Windows 11 Secured-core PC, with an Intel® Core™ i5 vPro processor with i7 optional, 16GB RAM with up to 64GB optional, and a quick release 512GB NVMe OPAL SSD as standard with up to 2TB optional. It has all the latest communications capabilities required on operations, including options for eSIM and LTE, as well as 5G. It is designed for use with all the major GPS navigation systems and offers WiFi 6, Bluetooth 5.1 and Thunderbolt 4.



Mobile Computing Platform	Intel® Core™ i5-1145G7 vPro™ processor (1.16GHz up to 4.4GHz) Intel® Core™ i7-1185G7 vPro™ processor (1.2GHz up to 4.8GHz) optional	
Operating System	Windows 11 Pro 64-bit Windows 10 Pro 64-bit Downgrade Model optional	
RAM	16GB DDR4 RAM (max. 64GB)	
Graphic Chip	Intel® UHD Graphics, support Intel® Iris® Xe Graphics when 2 RAM Modules installed	
Storage	Quick Release 512GB NVMe OPAL SSD [with heater]	
LCD	14" Active Matrix (TFT) colour Touch LCD 1920 x 1080 pixels, up to 1.200cd/m² Brightness	
Front Camera	5 MP with IR / privacy shutter (Windows Hello compliant) optional	
Sound	Waves MaxxAudio® Stereo Speakers	
Enhanced Voice Recognition	4 Microphones	
LAN	IEEE 802.3 10Base-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T (2nd GLAN optional)	
Bluetooth™	5.1 Class 1	
Wireless LAN	Intel® Wi-Fi 6 AX201	
Mobile Broadband*	4G LTE, EM7690. eSIM support 5G, EM9190. eSIM support in summer 2022	
Global Positioning*	u-blox NEO-M8J (supports GPS, GLONASS, Beidou, Galileo)	
Interfaces	USB 3.2 Gen 1 Type-A	x2
	Thunderbolt 4	x1
	Micro SDXC Memory Card	x1
	HDMI	x1
	Headset	x1
	DC In	x1
	Port Replicator	x1
Left Expansion Area**	Quad Path Through Connector	x1
	2nd SSD	
	Smart Card Reader	
	DVD Multi Drive	
Right Expansion Area**	Blu Ray Drive	
	2nd Battery	
Rear Expansion Area**	Smart Card Reader	
	VGA + True Serial (RS232) + 2nd native GLAN	
	USB 3.1 Type A + True Serial (RS232) + 2nd HDMI	
Palm Rest Expansion Area**	USB 3.1 Type A + USB 3.1 Type A + 2nd HDMI	
	Fingerprint reader (Windows Hello)	
	Fingerprint reader (Windows Hello, Multi-user authentication)	
Security	Contactless Smart Card Reader	
Power	TPM 2.0, Password security, Integrated hardware security lock slot	
	AC Adapter	Input: 100V - 240V AC, 50Hz/ 60Hz, Output: 15.6V DC, 7.05A
	Battery	Lithium-Ion 10.8V, 6500mAh (typ.), 6300mAh (min.)
	Battery Life	Approx. 18 hours (Mobile Mark™ 2014)
		Approx. 36 hours with 2nd battery (Mobile Mark™ 2014)
	Power Management	Standby function, ACPI BIOS
	Hot Swap*	With 2nd Battery
Dimensions (WxHxD)	354mm x 301mm x 54.4mm (without protruding parts)	
Weight	Approx. 3.35 kg	
Testing Standards***	Drop Resistance	180cm
	Dust Resistance	IP6x
	Water Resistance	IPx6
	Operating Temperature	-29°C to + 63°C
Standard Configuration	FZ-40mk1, 16GB RAM, 512GB SSD, battery pack	
Included in the box	Power Supply, Power Cord, capacitive pen, Display cleaning cloth and User Manual	

TOUGHBOOK 40mk1 Spec Sheet: 24.05.2022

* Optional, ** Exclusive option, pre configured or accessory, ***Test by an independent third party lab following MIL-STD-810H and IEC 60529

Active Matrix colour display conforms to industry standards. Some displays may contain isolated illuminated or dark pixels as an artefact of the manufacturing process (effective pixels: minimum 99.998%). RAM capacity calculated as follows: 1MB = 1,048,576 bytes. Capacity calculated as follows: 1GB = 1,000,000,000 bytes. Toughbook is a brand name and registered trademark of Panasonic Corporation. Acrobat® is a registered trademark of Adobe® Systems Incorporated. Intel, the Intel logo, Intel Core, Intel vPro, Core Inside and vPro Inside are trademarks of Intel Corporation in the U.S. and other countries. Microsoft® and Windows® are registered trademarks of Microsoft® Corporation of the United States and/or other countries. All other brand names shown are the registered trademarks of the relevant companies. All rights reserved. All working conditions, times and figures quoted are optimum or ideal levels and may differ as a result of individual and local circumstances.
Mobile Solutions Business Division - Europe, Panasonic Connect Europe GmbH, Hagenuhr Straße 43, 65203 Wiesbaden, Germany

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CONNECT

www.toughbook.eu



PROTOTYPE | DESIGN IN PROGRESS
(images shown may not represent final product)



I/O INTERFACE FOR TOUGHBOOK 40

(with Adapter Plate)

An IO interface for use with the TOUGHBOOK 40 with the MIL Adapter plate fitted. It allows the single D38999 connection to be split out into individual LAN, USB3.0 and power connections.

The interface also includes a MIL spec integrated power supply with a wide range 18-32V input (TBC)

Features

- Designed specifically for the TOUGHBOOK 40
- Designed to meet MIL-STD-1275E
- Wide range 18-32V input (TBC)
- Compatible only with the TB40 Adapter Plate
- Also compatible with the Shock Mount in development

Get in Touch: proservices@eu.panasonic.com

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PROTOTYPE | DESIGN IN PROGRESS
(images shown may not represent final product)



MILITARY ADAPTER FOR TOUGHBOOK 40

An IP rated adapter for TOUGHBOOK 40 that passes data and power via a single MIL standard connector.

DC power, USB 3.0 and 1000BASE-T GbE signals all pass through the D38999 connector simultaneously.

Features

- Designed specifically for the TOUGHBOOK 40
- Passes both data and power simultaneously
- Can be customised to use alternative MIL specification connector
- USB 3.0 and 1000BASE-T GbE connectivity
- Compatible shock mount in development
- Compatible IO interface in development

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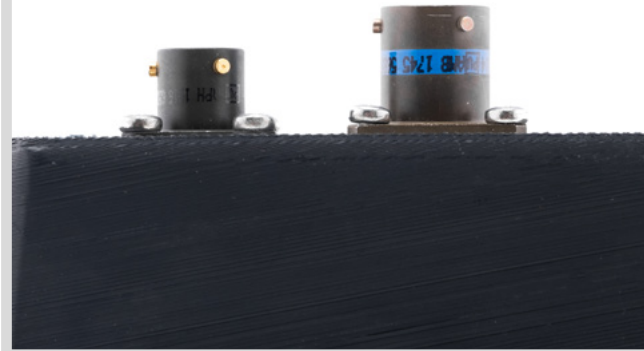


PROTOTYPE | DESIGN IN PROGRESS
(images shown may not represent final product)

MILITARY CASE FOR TOUGHBOOK G2

A Military standard, IP rated enclosure for TOUGHBOOK G2, constructed from a high strength plastic with a mechanical strength equivalent of aluminium.

Highly configurable, with options for custom rear IO ports, the option for a front mounted USB port and an internal area for an application specific PCB (e.g. USB to audio PCB, Sealevel USB to serial PCB, etc.)



Features

- Designed specifically for the TOUGHBOOK G2
- Fully IP rated (target IP65) Enclosure for fixed vehicle mounting
- High strength plastic (mechanical strength equivalent of aluminium)
- Highly configurable:
- Customisable rear IO ports
- Option for front mounted IP rated USB port
- Internal area for additional PCB

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TOUGHBOOK G2 MIL ADAPTOR

Customisable and secure connectivity
for military environments.

Part No. PCPE-CDSG2RU*

The **TOUGHBOOK** G2 MIL Adaptor transforms the market-leading G2 rugged tablet into a fully military-grade solution, preserving its IP65 rating during operational use with peripherals. Using a MIL-STD Fischer MiniMax™ connector, the G2 MIL Adaptor charges the tablet and provides USB simultaneously, replicating full port and expansion functionality while maintaining IP65 protection in harsh environments.

The G2 MIL Adaptor is interoperable with Nett Warrior and NATO STANAG connections, thanks to custom output cables, designed and produced according to customer requirements.

A dedicated passive VESA mount is available. This enables the G2 device to be attached and integrated into a vehicle with the MIL Adapter.

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*Does not include TOUGHBOOK G2 Tablet

KEY FEATURES

IP65-Rated Connectivity: Dust- and water-protected even when connector is used.

Field-Proven Robustness: Tested to MIL-STD-810H and IEC 60529 standards.

Enhanced Compatibility: Interoperable with Nett Warrior / NATO interfaces.

High-Speed Connectivity: USB 3.0 interface with support for LAN, VGA, and other peripherals.

Vehicle-Ready: Dedicated VESA vehicle mount with optional shock dampener.

Built to Perform. Ready for Mission.

Applications

- Battlefield communications.
- Command and control systems.
- Tactical data analysis.

Why Choose the G2 MIL Adaptor?

- Maintains rugged environmental protection even under connection.
- Reduced risk and lower costs versus fully custom device builds.
- Future-Ready Technology that supports **TOUGHBOOK** G2mk3's AI edge processing features.

Feature	Details
Power	15.6 V 7.05 A DC Input
IP Rating	IP65 [with active connections when connected to FZ-G2]
Certification Standards	MIL-STD-810H, IEC 60529
Connector System	Fischer MiniMax™ 10-12 (USB 3.0 + Power)
Data Transfer	USB 3.0 High-Speed (Max 5Gbps)
Peripheral Interfaces	Custom MIL-SPEC cables (LAN, VGA)
Compatibility	TOUGHBOOK G2 Series (Windows 11 Pro)
Military Standards	Nett Warrior, NATO STANAG 4695/4851
Operating Temperature	MIL-STD 810H, -29 °C to 63 °C
Dimensions (W × H × D) & Weight	MIL Adaptor: 205 × 57 × 32 mm, 0.35 kg MIL Adaptor attached to G2: 205 × 232 × 32 mm, 1.58 kg Passive Mount: 329 × 283 × 91 mm, 2.45 kg
Recommended Accessories	G2 MIL Adaptor Mount (PCPE-CDSG2M1 – VESA 75, PCPE-CDSG2M2 – VESA 100) G2 MIL Adaptor Shock Mount (PCPE-CDSG2M3)

Specifications are subject to change



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PROTOTYPE | DESIGN IN PROGRESS
(images shown may not represent final product)



SHOCK PROOF MOUNT FOR TOUGHBOOK 40

(with Adapter Plate)

A Shock mount for use with the TOUGHBOOK 40 with the MIL Adapter plate fitted. It allows the device to be used in environments where higher vibration profiles are present (e.g., for use in tracked vehicles)

The D38999 connector that passes the DC power, USB 3.0 and 1000BASE-T GbE signals can still be utilised while fitted in the shock mount.

Features

- Designed specifically for the TOUGHBOOK 40
- Suitable for higher MIL standard vibration profiles
- Secure, high retention, quick release mechanism
- Compatible only with the TB40 Adapter Plate
- Compatible IO interface in development

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roda
RUGGED IT & ELECTRONICS

TOUGHBOOK 40 TACTICAL

TOUGHBOOK

40
Tactical

intel
CORE
ULTRA 7

Intel® Core™ Ultra 7 processor 165H

Defence solutions empowered by roda

As digitalisation continues to advance across all military operations, networked mission vehicles are becoming a priority, fast.

Most commercial off-the-shelf devices can be secured using mechanical mounting plates. But connecting seamlessly to the platform via military interfaces? Not every device on the market can achieve this.



TOUGHBOOK 40 Tactical
is a flexible,
defence-ready solution.

A flexible solution for in-vehicle operations

The **TOUGHBOOK 40 Tactical** features a specialised module from roda computer, uniquely designed for seamless integration in both tracked and wheeled military vehicles.



Flexibility

Optimised mounting and simple, reliable connection ensure streamlined logistics and improved operational flexibility on any vehicle, wheeled or tracked.



Reliability

The solution ensures reliable connections via military round connectors, with an embedded Port Control Protocol (PCP) for signal transfer from central docking stations.



Compatibility

For a solution that lasts throughout the platform's life cycle, the TOUGHBOOK 40 Tactical maintains its design consistency over time. This enables the technological refresh of core components, while allowing the module to be reused without further technical support.

Project configurations

Protocols and interfaces for a wide range of project-based applications

- DVI
- Display Port
- USB 2.0
- Serial
- PCIe
- CAN BUS
- MIL-STD-1553B BUS
- Gigabit LAN

Custom module configuration

Example based on military round connectors



DVI Incl. USB 2.0 | Gigabit LAN

Key features

Featuring a fully rugged main unit, specialised connector module and shock-proof mount, the **TOUGHBOOK 40 Tactical** is designed to meet exacting military standards.

Main Unit

Processor:
Intel® Core™ Ultra 5
or Ultra 7

Screen:
14" all-weather,
glove-compatible
touchscreen

Industry-specialised module

Connectors: Up to 3 flange
connectors with sizes 08 to 14

Shock-proof mount*

- Suitable for higher MIL-STD vibration profiles
- Secure, high retention, quick release mechanism

Military Cables*

- For reliable data or graphic connection

*optional accessory

RAM:
16 GB DDR5 RAM

Storage:
512 GB NVMe OPAL SSD

Connectivity:
5GSA, 4G LTE, WiFi

Integrable Connectors

ODU, Fischer, Terra Pin

DC/DC Converter ROD Modular*

- External vehicle converter



IP66



**38999
-connector**



**Higher
vibration
resistant**



12 hours

Mobile Computing Platform	Intel® Core™ Ultra 5 135H Processor (with Intel vPro® Technology) / Intel® Core™ Ultra 7 165H Processor (with Intel vPro® Technology) optional
Operating System	Windows 11 Pro 64-bit
RAM	16 GB DDR5 RAM (max. 64 GB)
Graphic Chip	Intel® Graphics (Built-in CPU), support Intel® Arc™ Graphics when equipped with 2 RAM modules, AMD Radeon™ PRO W6300M project based
Storage	512 GB NVMe OPAL SSD (max. 2 TB)
LCD	14" Active Matrix (TFT) colour LCD 1,920 × 1,080 pixels (Full-HD), 1.200 cd/m² brightness, capacitive 10 finger Touch Screen, rain and glove enabled
Bluetooth™	5.3 Class 1
Wireless LAN	Intel® Wi-Fi 7 BE200
Mobile Broadband*	4G EM7690 with eSIM support / 5G EM9190 with eSIM support
Global Positioning*	u-blox NEO-M9N (supports GPS, GLONASS, Beidou, Galileo)
LAN	IEEE 802.3 10Base-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T (2nd GLAN optional)
Sound	HD-Audio with Stereo Speakers
Enhanced Voice Recognition*	4 Microphones
Front Camera	5 MP with IR/privacy shutter (Windows Hello compliant)
Interfaces	Micro SDXC Memory Card ×1, USB 3.2 Type A ×2, Thunderbolt 4 ×1, HDMI ×1, LAN ×1, Headset ×1, DC in ×1, Port Replicator ×1, Quad Path Through Connector ×1
Left Expansion Area**	2nd SSD (NVMe), Smart Card Reader, DVD Multi Drive, Blu-Ray Drive
Right Expansion Area**	2nd Battery, Smart Card Reader
Palm Rest Expansion Area**	Fingerprint reader (Windows Hello), Fingerprint reader (Windows Hello, Multi-user authentication), Contactless Smart Card Reader (HF-RFID)
Rear Expansion Area**	VGA + True Serial (RS232) + 2nd native GLAN or USB 3.2 Type A + True Serial (RS232) + 2nd HDMI or USB 3.2 Type A + USB 3.2 Type A + 2nd HDMI or 2nd HDMI +USB 3.2 Type A + 2nd USB 3.2 Type C
AC Adapter	Input: 100-240 V AC, 50/60 Hz, Output: 15.6 V DC, 7.05 A
Battery	Lithium-Ion 10.8 V, 6,300 mAh
Battery Life	Approx. 12 hours (Mobile Mark™ 2025) Approx. 24 hours with 2nd battery (Mobile Mark™ 2025)
Power Management	Standby function, ACPI BIOS
Hot Swap*	With 2nd Battery
Dimensions (W × H × D)	354 × 301 × 54.4 mm
Weight	Approx. 3.35 kg
Security	TPM (TCG V2.0 compliant) Password security (supervisor password, user password, hard disc lock) Integrated hardware security lock slot
Dust Resistance***	IP6x
Water Resistance***	IPx6
Operating Temperature***	-29 to +63 °C
Standard Configuration	FZ-40mk2, 16 GB RAM, 512 GB SSD, battery pack
Dimensions Module	143.7 × 76 × 34.3 mm (depending on Connectors)
Weight Module	Approx 260 g (depending on Connectors)
Dimensions Main Unit with Module	345 × 342 × 54.4 mm
Weight Main Unit with Module	Approx. 3.6 kg (depending on Connectors)

* Optional

** Exclusive Option, pre-configured or accessory

*** Tested by an independent third party lab following MIL-STD-810H and IEC 60529

Panasonic CONNECT

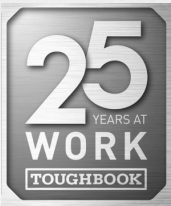
TOUGHBOOK

TOUGHBOOK

G2

FOR DRONE CONTROL

Powerful, rugged, ultra-secure mobile technology engineered to keep track to tightly control drone flight and functionality, and securely stream collected footage.



A product of more than
25 years of world leadership
in rugged technology



intel® Intel®

TOUGHBOOK.EU

BUILT FOR CONTROLLING DRONES & UNMANNED AUTONOMOUS VEHICLES

Meet our next-generation rugged device that enables easy and reliable connection to drones and unmanned autonomous vehicles with wireless GPS and 4G/5G, to streamline mobilisation, carry out surveillance and support military and disaster relief operations.



SUPERIOR SCREEN TECHNOLOGY

For all weathers and any environment

Complete with high-resolution screen technology, the TOUGHBOOK G2 features a low-reflection, outdoor-readable 10-inch display to make moving between environments a breeze. Plus, patented 'rain mode' screen technology enables all weather working.



COMPLETE FLEXIBILITY

Accessible and adaptable

Rain and glove mode means that the operator can control the drone whilst wearing gloves and in the pouring rain.



BUILT FOR ACTION

With superior technology

The TOUGHBOOK G2 has a touchscreen. It comes complete with rear-facing camera to document with ease, while the front-facing camera allows for seamless contact with support teams.



ULTRA-SECURE TECH

With Windows 11

The TOUGHBOOK G2 is one of the first Windows devices with the highest level of hardware, software and identity protection right out of the box. With deeply integrated hardware, firmware and Windows 11 Pro – Windows 10 downgrade possible – it offers protection from highly advanced threats and cyberattacks. Now, and in the future.



STAY CONNECTED

Keep working from
anywhere, any time

Ready for precise positioning tasks with integrated wireless GPS as well as future-proof and 5G ready, with e-SIM support the TOUGHBOOK G2 is built to last.

Enhanced 4G connectivity means there are no delays, even when downloading detailed reports, uploading forms or gathering data. Robust, long-lasting battery life ensures more time is spent on duty than behind a desk.

The perfect device for successful
missions and operations



Scan to learn more

ACCESSORIES FOR YOUR TOUGHBOOK G2



Vehicle Mount



Harness



Detachable Keyboard



Lind MIL-STD
auto adaptor

ADDITIONAL SERVICES

- Optional ProTect PLUS enhanced hardware services available
- Rapid Replacement Service — Replacement devices within 24 hours
- Smart Battery Warranty — proactive battery replacement when capacity reduces
- TOUGHBOOK Smart Essentials — real time device and battery estate health and performance visibility
- Vehicle Integration Services — ensure your vehicle docking solution is safe, secure and fit for purpose

Panasonic is committed to long-term strategic partnerships with our customers and in line with that we offer the following added-value services and capabilities as a standard part of our service to you:

- Full solution consultancy
- Dedicated account team
- Local engineering support
- Comprehensive 3 year standard ProTect warranty
- Road map transparency
- Long-term supportability
- Representative evaluation devices
- Involvement in innovation and future product development

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Intel®



NEED MORE DETAILS? TALK TO TOUGHBOOK

Talk to a Panasonic specialist today to discuss the adaptability, security and fit-for purpose operability benefits the TOUGHBOOK G2 can offer your front line team.



TOUGHBOOK 33 2-IN-1 DETACHABLE WINDOWS 11 PRO 12" FULLY RUGGED NOTEBOOK

TOUGHBOOK 33 2-IN-1 DETACHABLE, the 12.0" fully rugged notebook with hot swappable twin batteries, detachable keyboard with optional backlit keys, and highly configurable capabilities brings unrivalled flexibility and performance for mobile business computing. Thanks to the detachable keyboard design and 6 usage modes, the TOUGHBOOK 33 2-IN-1 DETACHABLE offers the best of all worlds for mobile workers. Target industries for the device include field service workers, maintenance and service technicians in utilities and telecommunications, as well as government agencies, defence, the police and other emergency services.

- Intel® Core™ i5-10310U vPro™ processor
- Windows 11 Pro / Windows 10 Downgrade Model available
- Next generation Dual-touch (with digitizer) display with 3:2 aspect ratio
- 12.0" QHD (2160 × 1440) anti-reflective high brightness outdoor display (up to 1200cd/m²)
- Capacitive 10 finger multi-touchscreen with glove and rain modes
- Digitiser pen embedded in the tablet part
- Detachable keyboard with various enterprise ports and backlit* keys
- Fully rugged design with Water and dust resistance (IP65)**
- User exchangeable and hot-swappable twin batteries
- Up to 10 hours battery life with standard twin batteries (MobileMark™ 2014)
- Up to 20 hours battery life with extended* twin batteries (MobileMark™ 2014)
- Flexible configuration port***and business expansion module***
- Vehicle mount* available for both notebook and tablet





Yesterday's Legend, Today's Leader.

TOUGH YET VERSATILE

An evolution of the best-selling Panasonic Toughbook 31 notebook, this latest detachable device is powered by the 10th Generation Intel® Core™ i5-10310U vPro™ processor, delivering incredible performance, and is shipping with Windows 11 Pro. It also has a rich set of business interfaces with additional customisable options to meet a worker's needs. With its hot swappable twin batteries and outdoor viewing, glove-enabled touchscreen, it's a versatile yet tough technology companion for mobile workers.



Mobile Computing Platform	Intel® Core™ i5-10310U vPro™ Processor 6 MB cache, 1.7 GHz up to 4.4 GHz with Intel® Turbo Boost Technology	
Operating System	Windows 11 Pro / Windows 10 Downgrade Model available	
RAM	16GB (max. 32GB) DDR4	
Storage	512GB OPAL NVMe SSD (1TB optional) [with heater]	
Graphic Chip	Intel® UHD Graphics	
LCD	12.0" Active Matrix (TFT) colour LCD 2160 x 1440 (QHD) LCD with sunlight-viewable glove-enabled capacitive touchscreen (up to 1.200cd/m²), IP55 Digitiser	
Bluetooth™	5.1 + EDR Class 1	
Wireless LAN	Intel® Wi-Fi 6 AX201	
Mobile Broadband*	4G LTE, supports 3G	
GPS*	U-Blox NEO-M8N	
Sound	WAVE and MIDI playback, Intel® High Definition Audio subsystem support	
Camera	Front:	2 MP with IR / privacy shutter (Windows Hello compliant)
	Rear:	8mpixel with autofocus and LED flash
SD/SDXC Memory Card	x1 (Keyboard)	
Configuration port (Tablet)**	Serial, 2D Barcode Reader, 2nd USB 2.0	
Interface	USB 3.1:	x3 (x1 Tablet, x2 Keyboard)
	USB 3.1 type C PD:	x1
	USB 2.0:	x1 optional (Tablet)**x1 (Keyboard)
	HDMI:	x1 (Tablet)x1 (Keyboard)
	VGA:	x1 (Keyboard)
	LAN:	x1 (Tablet) x1 (Keyboard)
	Native Serial Port:	x1 optional (Tablet)**x1 (Keyboard)
	Headset:	x1 (Tablet)x1 (Keyboard)
	DC In:	x2 (Tablet + Keyboard)
	Port Replicator:	x1 (Keyboard)
Business Expansion Module**	Dual Antenna Connector:	x1 (Keyboard)
	Smart Card Reader, NFC, Fingerprint Reader	
Power	Power Management:	Hot swap, Standby function, ACPI BIOS
	AC Adapter:	Input: 100 V - 240 V AC, 50 Hz/ 60 Hz, Output: 15.6 V DC, 4.06A
	Battery:	Standard: x2 Li-Ion (3 cell, 22Whr)Extended: x2 Li-Ion (6 cell, 45 Whr) optional
	Battery Life:	Standard: Approx. 10 hours (Mobile Mark™ 2014)Extended: Approx. 20 hours (Mobile Mark™ 2014)
Operating Temperature	MIL-STD 810G, -29 °C to 60 °C ***	
Security	TPM (TCG V2.0 compliant) Password security (supervisor password, user password, hard disc lock) Integrated hardware security lock slot	
Dimensions (W x H x D)	Standard Battery: 313.0 mm x 288.4 mm x 46.1 mm / 12.3" x 11.4" x 1.8" Extended Battery: 313.0 mm x 288.4 mm x 56.6 mm / 12.3" x 11.4" x 2.2"	
Weight	Standard Battery: 2.78kg / 6.2lb Extended Battery: 3.14kg / 6.9lb	
Standard Configuration	CF-33mk2, 16GB RAM, 512GB SSD, 2x standard battery pack, IP55 digitiser pen	
Included in the box	Power Supply, Power Cord, Display cleaning cloth and User Manual	
Accessories	AC Adapter	CF-AA5713A2E/G/T/D
	Desktop port replicator	CF-VEB331U
	Standard battery pack (3 cell)	CF-VZSU1AW
	Extended battery pack (6 cell) [main units configured for an extended battery]	CF-VZSU1BW
	4 bay battery charger	CF-VCB331E/G/T/D
	Digitizer Stylus pen	CF-VNP023U
	Water Resistance	IEC529 (JIS C0920) IPx5
Testing Standards***	Dust Resistance:	IEC529 (JIS C0920) IP6x
	Drop Resistance:	MIL-STD 810G, 150cm

TOUGHBOOK 33: January 2023

*Optional; **One option exclusively possible in configuration port / business expansion module; ***Tested by an independent third party lab following MIL-STD-810G and IEC 60529

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www.toughbook.eu

Panasonic recommends Windows 11 Pro for business.

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TOUGHBOOK 55 HD MODEL MAKE IT YOURS

14" RUGGED WINDOWS 11 PRO NOTEBOOK WITH HD DISPLAY

TOUGHBOOK 55 with Windows 11 Pro, magnesium chassis, flexible configurations and universal bay is the most versatile 14" rugged Toughbook ever built, but doesn't compromise on durability, with a unique 'honeycomb' design for improved strength and splash resistant design.

In terms of flexibility, the TOUGHBOOK 55 is equally outstanding. It offers a huge array of flexible configuration options, making it easier for customers to have exactly the device they want.

- Intel® Core™ i5-1145G7 vPro™ Processor
- Windows 11 Pro / Windows 10 Downgrade Model available
- 14" HD Active Matrix LCD
- Lightweight and slim design (approx. 2.08 kg and 32.8mm)
- 8GB DDR4 RAM and 256GB NVMe OPAL SSD as standard
- 2x USB 3.2, 1x Thunderbolt 4, 1x HDMI, 1x LAN and micro SDXC
- Front and Rear Expansion Slot
- TOUGHBOOK Universal Bay
- Long battery life of up to 19 hours (MobileMark 2014)
- Dedicated Global Positioning and 4G LTE with eSIM support optional
- -29 °C to +60 °C operating temperature
- Robust honeycomb-style magnesium casing with carry handle
- IP53 Ingress Protection**
- Withstands drops from a height of 91cm**
- Shock and vibration protected for vehicle docking

** Tested by an independent third party lab following MIL-STD-810H and IEC 60529



TOUGHBOOK

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MAKE IT YOURS

Breaking the mould for rugged notebooks, the TOUGHBOOK 55 is only around 32mm thin. Equipped with Windows 11 Pro and the new 11th-generation Intel® Core™ i5 vPro™ processor which delivers faster computing power, the TOUGHBOOK 55 sets a new benchmark.



Mobile Computing Platform	Intel® Core™ i5-1145G7 vPro™ processor (1.1GHz up to 4.4GHz)	
Operating System	Windows 11 Pro	Windows 10 Downgrade Model available
RAM	8GB DDR4 RAM (max. 64GB)	
Graphic Chip	Intel® UHD Graphics, support Intel® Iris® Xe Graphics when 2 RAM Modules installed	
Storage	256GB NVMe OPAL SSD [with heater]	
LCD	14" Active Matrix (TFT) colour LCD 1366 x 768 pixels (HD)	
Sound	WAVE and MIDI playback, Intel® High Definition Audio subsystem support	
Enhanced Voice Recognition*	4 Microphones (included in Front Camera)	
LAN	IEEE 802.3 10Base-T / IEEE 802.3u 100BASE-TX / IEEE 802.3ab 1000BASE-T (2nd GLAN optional)	
Front Camera*	2 MP with IR / privacy shutter (Windows Hello compliant)	
Bluetooth™	5.1	
Wireless LAN	Intel® Wi-Fi 6 AX201	
Mobile Broadband*	4G LTE, EM7455, eSIM support	
Global Positioning*	u-blox NEO-M8N (supports GPS, GLONASS, Beidou, Galileo)	
Interfaces	USB 3.2	x2
	Thunderbolt 4	x1
	Micro SDXC Memory Card	x1
	HDMI	x1
	Headset	x1
	DC In	x1
	Port Replicator	x1
	Dual Path Through Connector*	x1
TOUGHBOOK Universal Bay**	2nd SSD	
	Smart Card Reader	
	DVD Multi Drive	
	Blu Ray Drive	
Front Expansion Slot**	2nd Battery	
	Fingerprint Reader	
	HF-RFID Reader (Contactless Smart Card)	
	Smart Card Reader	
Rear Expansion Slot**	VGA + True Serial + 4th USB 3.2	
	VGA + True Serial + 2nd native GLAN	
	VGA + True Serial + Rugged USB 2.0	
Power	AC Adapter	Input: 100V - 240V AC, 50Hz/ 60Hz, Output: 15.6V DC, 7.05A
	Battery	Lithium-Ion 10.8V, 6500mAh (typ.), 6300mAh (min.)
	Battery Life	Approx. 19 hours (Mobile Mark™ 2014)
		Approx. 38 hours with 2nd battery (Mobile Mark™ 2014)
	Power Management	Standby function, ACPI BIOS
	Hot Swap*	With 2nd Battery
Dimensions (WxHxD)	345mm x 272mm x 32.8mm	
Weight	Approx. 2.08 kg	
Testing Standards***	Drop Resistance	91cm
	Dust Resistance	IP5x
	Water Resistance	IPx3
	Operating Temperature	-29°C to +60°C
Standard Configuration	FZ-55mk2 (HD), 8GB RAM, 256GB SSD, battery pack	
Included in the box	Power Supply, Power Cord, Display cleaning cloth and User Manual	

TOUGHBOOK 55 HD: April 2022

* Optional, **Exclusive option, pre configured or accessory, ***Tested by an independent third party lab following MIL-STD-810H and IEC 60529

Active Matrix colour display conforms to industry standards. Some displays may contain isolated illuminated or dark pixels as an artefact of the manufacturing process (effective pixels: minimum 99.998%). RAM capacity calculated as follows: 1MB = 1,048,576 bytes. Capacity calculated as follows: 1GB = 1,000,000,000 bytes. Toughbook is a brand name and registered trademark of Panasonic Corporation. Acrobat® is a registered trademark of Adobe® Systems Incorporated. Intel, the Intel logo, Intel Core, Intel vPro, Core Inside and vPro Inside are trademarks of Intel Corporation in the U.S. and other countries. Microsoft® and Windows® are registered trademarks of Microsoft® Corporation of the United States and/or other countries. All other brand names shown are the registered trademarks of the relevant companies. All rights reserved. All working conditions, times and figures quoted are optimum or ideal levels and may differ as a result of individual and local circumstances.

Panasonic recommends Windows 11 Pro for business.

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TOUGHBOOK G2

WINDOWS 11 PRO 10.1" FULLY RUGGED TABLET

The TOUGHBOOK G2 is the next generation rugged device for mobile workforces. It offers all the benefits of the latest technology, while maintaining important access to legacy systems.

All of this, wrapped up in a more flexible, secure and ultimately even more useable device.

- Intel® Core™ i5-10310U vPro™ processor
- Windows 11 Pro / Windows 10 Pro Downgrade available
- Next generation IPSa outdoor display technology
- 10.1" high brightness WUXGA (16:10) display (up to 1000cd/m²)
- Capacitive 10 finger multi-touchscreen with glove and rain modes
- Digitiser pen
- 4G or 5G with eSIM support optional
- Tested by an independent third party lab following MIL-STD-810H
- Water and dust resist (IP65)
- Up to 12 hours battery life with user exchangeable battery
- Optional Hot swap function
- Configuration Port (serial, LAN, USB 2.0 or Thermal by FLIR)
- Rear Expansion Area (Smart Card Reader or HF-RFID (NFC) Reader)
- Lightweight design - weighs approx. 1,19kg



TOUGHBOOK

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EVOLVED TO ADAPT

EVOLVED TO ADAPT

An evolution of the best-selling Panasonic Toughbook G1 tablet and 20 detachable, this latest tablet is powered by the 10th Generation Intel® Core™ i5-10310U vPro™ processor, delivering incredible performance, and is shipping with Windows 11 Pro. It also has a rich set of business interfaces with additional customisable options to meet a worker's needs. With its long battery life and outdoor viewing, glove-enabled touchscreen, it's a versatile yet tough technology companion for mobile workers.



Mobile Computing Platform	Intel® Core™ i5-10310U vPro™ Processor 6 MB cache, 1.7 GHz up to 4.4 GHz with Intel® Turbo Boost Technology	
Operating System	Windows 11 Pro / Windows 10 Pro Downgrade available	
RAM	16GB (max. 32GB) DDR4	
Storage	512GB OPAL NVMe SSD (1TB optional) [with heater]	
Graphic Chip	Intel® UHD Graphics	
LCD	10.1" sunlight-viewable WUXGA Active Matrix (TFT) IPSa colour LCD (up to 1000cd/m² brightness)	
Touchscreen	10 finger capacitive multi-touchscreen + digitizer with glove and rain modes	
Bluetooth™	5.1 + EDR Class 1	
Wireless LAN	Intel® Wi-Fi 6 AX201	
Mobile Broadband*	4G or 5G with eSIM support optional	
GPS*	U-Blox NEO-M8N; can not be configured at 5G model	
Sound	Intel® High Definition Audio subsystem support, Stereo speaker	
Camera	Front:	2 MP with IR / privacy shutter (Windows Hello compliant)
	Rear:	8mpixel with autofocus and LED flash
Configuration Port**	Serial, 2D Barcode Reader, 2nd USB 2.0, 2nd LAN, Thermal by FLIR	
Rear Expansion Bay Area**	Smart Card Reader, HF-RFID (NFC) Reader	
Interface	USB 3.1:	x1
	USB 3.1 type C PD:	x1
	LAN:	x1
	DC In:	x1
	Port Replicator:	x1
	Dual Antenna Connector:	x1
Power	Power Management:	Hot swap optional, Standby function, ACPI BIOS
	AC Adapter:	Input: 100 V - 240 V AC, 50 Hz/ 60 Hz, Output: 15.6 V DC, 7.05 A
	Battery:	Standard: Li-ion 11.4V, 4360mAh (50Whr) Extended (optional): Li-ion 10.8V, 6300mAh (68Whr)
	Battery Life:	Standard: Approx. 12 hours (Mobile Mark™ 2014) Extended: Approx. 18.5 hours (Mobile Mark™ 2014)
Security	TPM (TCG V2.0 compliant) Password security (supervisor password, user password, hard disc lock) Integrated hardware security lock slot	
Dimensions (W x H x D)	279mm x 188mm x 23.5 mm / 11.0" x 7.4" x 0.93"	
Weight	Approx. 1.19kg / 2.64lb	
Standard Configuration	FZ-G2mk1, 16GB RAM, 512GB SSD, standard battery pack, IP55 digitiser pen	
Included in the box	Power Supply, Power Cord, Display cleaning cloth and User Manual	
Accessories	AC Adapter	CF-AA5713A2*
	Standard battery pack	FZ-VZSU1TU
	Extended battery pack	FZ-VZSU1UU
	Emissive backlit keyboard (with x1 USB type A and x1 USB type c)	FZ-VEKG21L*
	Desktop port replicator	FZ-VEBG21U
	Digitizer Stylus pen	FZ-VNP026U
	Smart Card Reader	FZ-VSCG211U
	HF-RFID (NFC) Reader	FZ-VRFG211U
Testing Standards***	Water Resistance	IEC529 (JIS C0920) IPx5
	Dust Resistance	IEC529 (JIS C0920) IP6x
	Drop Resistance	MIL-STD 810H, 180cm
	Operating Temperature	MIL-STD 810H, -29 °C to 63 °C

FZ-G2: April 2022

*Optional, **One option exclusive possible, ***Tested by an independent third party lab following MIL-STD-810H and IEC 60529

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TOUGHBOOK

EVERYTHING PROOF

Including the future



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Intel® Core™ i7 vPro® processor

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TOUGHBOOK

MEET THE TOUGHEST TOUGHBOOK YET

The ultimate C4I tool for Defence forces

14" Fully Rugged Device, designed to meet MIL-STD 810H and MIL-STD-461F, 180cm drop resistant, IP66 water and dust protected.

Introducing

TOUGHBOOK

40



Invincible tech for mission critical work



ADAPTABLE TO ANY MISSION, FLEXIBLE IN ANY CONDITIONS

Update or adapt the notebook quickly thanks to its modular design with 4 expansion areas.

And with an IP rated universal dock for use in military vehicles, the TOUGHBOOK 40 is completely customisable to your needs.



UNINTERRUPTED WORK

Engineered from the ground up to be used on- the-go and in harsh environments, this device is tested to military standards (including MIL-STD-810H, MIL-STD-461F) and is the first TOUGHBOOK notebook that contains a complete IP66 rating. It's also built to withstand drops of up to 180cm as well as knocks, vibrations and extreme temperatures for ultimate reliability in any environment.



FUTURE PROOF PERFORMANCE

It's not only built tougher. It's built smarter, faster and more agile with Intel® Core™ i5 vPro® processor or Intel® Core™ i7 vPro® processor and Windows 11 Pro. With unparalleled connectivity (LTE, 5G, WiFi6, GNSS) and speed, you get real-time access to data in the field – wherever you are.



STEALTH MODE

The TOUGHBOOK 40 has a new all-black clamshell exterior, making it the perfect partner for operations that require some stealth.



ENTERPRISE SECURITY – STRAIGHT OUT OF THE BOX

The TOUGHBOOK 40 is armed with Windows 11 Secured Core PC, limiting the risk of even highly advanced cyber-attacks. In addition, the quick-release OPAL SSD means you can take your sensitive data with you in case of an emergency. We are also developing a ViaSat Eclipt Module which will be available soon.



COMPLEMENTARY ACCESSORIES, VEHICLE MOUNTS AND DOCKS

Rugged and rigorously tested accessories, mounts and docks for maximum convenience and safety out in the field. Built-for-purpose and designed to match the way you work.

BUILT FOR DEFENCE OPERATIONS

The TOUGHBOOK 40's features and unique design make it the perfect device for tactical communications – tailored for defence-ready applications including situational awareness, military transportation, and platform maintenance. The Toughbook 40 allows operators to access mission critical information in the most hostile and demanding environments, without fail.

Talk to a Panasonic specialist to learn more about the TOUGHBOOK 40 today.

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