

1 Detailed Description of Proposed Solution(s)

A. Product Specifications & Standards

	Requirements	A	B
1	<p>Does your solution comply with all current COV ITRM Policies and Standards, as applicable, found at: https://www.vita.virginia.gov/it-governance/itrm-policies-standards/.</p> <p>If proposed solution does not, please provide details that specify the Standard/Policy and how Supplier's solution does not comply.</p>	Y	
2	<p>Do your proposed interfaces to Commonwealth systems comply with or have approved exceptions to all applicable Commonwealth Data Standards as found at https://www.vita.virginia.gov/media/vitavirginia.gov/it-governance/docs/COV_Adopted_Standards.xlsx</p> <p>If not, please explain.</p>	Y	
3	<p>Does your solution provide effective, interactive control and use with nonvisual means and provide 508 Compliance in accordance with the following standard regarding IT Accessibility and 508 Compliance: https://www.vita.virginia.gov/media/vitavirginia.gov/it-governance/pdf/ETAITAccessibilityTopicReportGOV103.pdf</p> <p>(Refer to www.section508.gov and www.access-board.gov for further information)</p> <p>If yes, please describe how this functionality is achieved and include a completed Voluntary Product Accessibility Template (VPAT) with your proposal: <i>(The VPAT template is located in APPENDIX C of the Accessibility Standard (GOV103-00)).</i></p>	Y	<p>Section 508 compliance is assured at the manufacturer level for both hardware and software to be sold under the contract stemming from this solicitation, as applicable.</p> <p>Please see enclosed VPATs for proposed Panasonic products. VPATs are located in Section 2 of this document, page 11.</p>

EXHIBIT A – REQUIREMENTS

	<p>If no, does your solution provide alternate accessibility functionality? Please describe.</p> <p>If not applicable to this procurement, mark "N/A."</p>		
4	<p>Does your proposed equipment meet the current U.S. Environmental Protection Agency's and Department of Energy's Energy Star guidelines?</p> <p>If no, please explain.</p> <p>If not applicable to this procurement, mark "N/A."</p>	Y	Proposed products are Energy Star certified.

B. Business Requirements

C.	Requirements	A	B
1	<p>Does your proposal include pricing for all units specified in each of the following categories? (Check all that apply):</p> <p> <input type="checkbox"/> PC, All-In-One, Mini <input type="checkbox"/> Workstation <input type="checkbox"/> Mobile Workstation <input type="checkbox"/> Healthcare <input checked="" type="checkbox"/> Laptop <input type="checkbox"/> Chromebook <input type="checkbox"/> Thin Client <input checked="" type="checkbox"/> Rugged Laptop <input checked="" type="checkbox"/> Rugged Tablet Windows <input checked="" type="checkbox"/> Rugged Tablet Android <input checked="" type="checkbox"/> Android Tablet <input type="checkbox"/> Windows Tablet <input type="checkbox"/> Servers <input type="checkbox"/> Peripherals </p>	Y	<p>We are proposing the following models – their SKUs are identified below:</p> <p>LAPTOP / RUGGED LAPTOP: CF-54G2878VM</p> <p>LAPTOP (Convertible): CF-33LEHAZVM</p> <p>RUGGED TABLET – WINDOWS: FZ-G1U2117VM</p> <p>RUGGED TABLET – ANDROID: FZ-B2D000GAM</p> <p>Information on each of these items is provided beginning on page 15.</p>
2	Does the manufacturer name appear on the computer equipment to be provided?	Y	
3	Will your firm provide the warranty service and maintenance for all proposed products?	Y	<p>MCT facilitates customer access to warranty services and maintenance on Panasonic products, both of which are provided by Panasonic through their Heartland Computer Service</p>

EXHIBIT A – REQUIREMENTS

			centers in Leawood, KS and Elgin, IL (www.heartlandsi.com). See our response to Requirement 2 under C. Sales and Service below. The center's average turn-around time for warranty repair is 1.65 days.
4	<p>Does your firms' Sales and Service personnel undergo training on a semi-annual or annual basis?</p> <p>Please provide details.</p>	Y	MCT staff undergo sales and product training with Panasonic twice per year. This, coupled with the 40+ years of combined product, sales, and customer service experience of the two MCT principals, ensures a comprehensive response to all Commonwealth client inquiries with respect to the products and services we offer.
5	<p>Does your firm charge a re-stocking fee for returned equipment that will be purchased under the resulting contract?</p> <p>Please provide details.</p>	N	MCT accepts returns on a case-by-case basis; however, due to the nature of the products involved, returns are a rare occurrence, though we do not typically charge a restocking fee in such instances.

C. Sales and Service

	Requirements	A	B
1	Does your firm allow users to negotiate bulk quantity discounts for the proposed products and services?	Y	This is facilitated by MCT in direct consultation with our clients as an inherent part of the sales process.
2	Does your proposed solution include provisioning for warranty service to authorized users within 24 hours of notification? If not, please provide details.	Y	<p>Panasonic's Heartland Computer Solutions facilities located in Leawood, KS and Elgin, IL provide warranty service with recent tracking at an average of 1.65 days per warranty repair.</p> <p>All products requiring warranty service are shipped directly to the appropriate facility</p>

EXHIBIT A – REQUIREMENTS

	Requirements	A	B
			<p>depending upon type and need. Upon the item's arrival, the repair process starts immediately. Panasonic's average turnaround time on Toughbook repairs over the past (6) years has been 1.65 days. The 1.65 days does not include the one (1) day for overnight freight to the National Service Center or the one (1) day for return overnight freight back to the client. This figure does also not include the day the unit arrives at the Panasonic NSC, as it may arrive on the early am shipment, or possibly not until later in the work day. Shipping charges for in-warranty repairs are paid for by Panasonic.</p> <p>The Heartland website (http://www.heartlandsi.com) enables customers to check Order Status at any time via RMA number, and has its own Customer Portal to facilitate customer service.</p> <p>Any items requiring repairs or replacement onsite (at the client location) incur an additional charge.</p>
3	Does your proposed solution include provisioning for warranty support services on M-F, from 8:00 am – 5:00 pm Eastern Standard Time? If not, please provide details.	Y	
4	Does your proposed solution include provisioning for qualified technicians to perform services such as installation, configurations, data migrations, etc., as applicable? If not, please provide details.	Y	<p>Installation, configuration, data migration, and other such services are facilitated by Panasonic, using Panasonic-approved and/or -employed personnel. MCT may facilitate such action, but in most cases the customer goes directly to Panasonic. In the event the customer requires additional</p>

EXHIBIT A – REQUIREMENTS

	Requirements	A	B
			<p>support outside of the manufacturer-supplied services, MCT will step in to assist to the greatest extent of our authority.</p> <p>Information on Panasonic's range of professional services is omitted here for space reasons, but has been included in the RPSD 1_SUPPLIER PROFILE document submitted as part of this proposal.</p>
5	<p>Does your solution include provisioning for qualified technicians to perform warranty services for the proposed hardware? If not, please explain how your company will ensure proposed hardware is serviced in accordance with the warranties listed in Exhibit C.</p>	Y	<p>Technician support for warranty services is facilitated by MCT and carried out by Panasonic. MCT supports this process for clients and provides expedient service either telephonically, via email, or in person (onsite) to ensure clients experience excellent warranty service.</p> <p>In the event MCT discovers a client has a major issue on an order (a rare occurrence), we will also step in as needed.</p>
6	<p>Does your proposed solution include a customer support program? If so, please describe your firm's ability to keep users informed of new products, changes in technology, advanced specification documentation and other market information.</p>	Y	<p>MCT and Panasonic provide comprehensive customer support. MCT conducts customer support via multiple methods, including telephonic, email, and face-to-face meetings twice to four times per year, depending on customer needs / requirements.</p> <p>Future product development is based on non-disclosure agreements (NDA), which necessitate face-to-face meetings to discuss specific terms and conditions.</p> <p>Emails go out once per Quarter, and are sent according to the vertical market in which the purchase was made and the subsequent needs of said market for the</p>

EXHIBIT A – REQUIREMENTS

	Requirements	A	B
			products being sold (i.e., Fire Departments get an FD-specific email, Police Departments receive an email specific to their line of business, etc.).
7	Is your firm willing to commit to service level agreements as outlined by Appendix A?	Y	MCT is committed to fulfilling stated SLAs to the greatest extent applicable. Most SLAs apply to the manufacturer (Panasonic). See SLA matrix provided in document RSPD 1_Contracts and Appendix A.
8	Does your firm offer a web catalog that displays real time product availability? If so, please provide details.	Y	MCT current maintains online catalogs for the Arizona Department of Safety and the City of Phoenix; we anticipate no issues with creating a similar catalog with like functionality for the State of Virginia.
9	Does your proposed solution include developing a catalog website that interfaces with eVA and also serve as a punch-out catalog? (Please see the “Load a Catalog” section of the following website for details): https://eva.virginia.gov/i-sell-to-virginia.html If so, please describe and provide screen shots.	Y / F	MCT will utilize the tools provided by eVA to load up the punch-up catalog following contract award and to maintain the interfaced catalog over the life of the contract.
10	Will your firm provide and maintain a URL which identifies a complete listing of all products and services included in the resulting contract? If so, URL should include the following: <ul style="list-style-type: none"> • Category • Product Description • Product Brand • List Price • Discount Range • Discounted Price 	Y	Product listings are possible through collaboration with the manufacturer, as MCT presently does for agencies within the State of Arizona. MCT can accommodate this requirement for the State of Virginia.
11	Does your firm have the resources necessary to supply and service products proposed in response to this	Y	MCT’s position as Panasonic’s number one reseller ensures our ability to procure and

EXHIBIT A – REQUIREMENTS

	Requirements	A	B
	<p>RFP, to the entire Commonwealth of Virginia?</p> <p>If so, please describe how this will be accomplished.</p> <p>If not, please describe limitations.</p>		<p>distribute the proposed products anywhere within the Commonwealth throughout the duration of the VITA contract.</p> <p>Reassurances stem from our good corporate standing with Panasonic, our relationships with Panasonic product and contract representatives, our employees' knowledge of products and the range of usage within our clients' operations, and MCT's overall technical acumen with respect to product installation, implementation, and (if necessary) returns / replacements on a wide scale.</p>
12	<p>Does your firm have the resources necessary to delivery large quantities of equipment to multiple locations? If so, please describe your firms process including delivery time and scheduling procedures.</p>	Y	<p>MCT can assure the Commonwealth of this capability through our status as a trusted liaison between the customer and the manufacturer, the latter of which is the entity that actually facilitates product availability and shipment on a large scale.</p> <p>As the sole distributor of their products, Panasonic has all resources needed to ensure large shipments reach their intended destinations within stipulated timeframes.</p>
13	<p>Does your proposed solution include IT equipment disposal and recycling services? If so, please provide details and pricing for these services in Appendix C (Services/Warranty Tab).</p>	Y	<p>MCT can facilitate returns directly from clients in the event the customer prefers our involvement rather than going directly through Panasonic.</p> <p>This is a relatively rare occurrence, but it falls within our scope of authority as a reseller and can be accomplished without issue.</p>
14	<p>Does your proposed solution include the ability for the end user to track shipments after departure from your warehouse? If</p>	Y	<p>MCT accomplishes this through direct communications with the customer – typically face-to-</p>

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	Requirements	A	B
	so please describe and provide screen shots.		face but also telephonically (as opposed to online).
15	Does your firm ship all in-stock orders same day? Please provide details on shipping timelines and include caveats for delay, etc.	Y	<p>All orders received for items in stock are processed and shipped through MCT's Distribution department on the same day the order is received, unless said order is placed after 7:00 pm (i.e., the shipment cutoff time for major carriers). Any orders received after 7:00 pm are processed by or before 7:00 pm on the following business day.</p> <p>MCT customers are notified during the ordering process that shipping delays may occur for one or more reasons, particularly during holidays or widespread inclement weather (such as hurricanes). In cases where actual delays do occur to placed orders, MCT notifies all affected clients via email immediately upon our receipt of notification of such delay.</p>
16	Does your proposed solution allow the user to keep a failed hard drive while waiting for delivery of a new hard drive that is covered under warranty? If not, please provide details.	Y	<p>This is a rare occurrence that MCT handles on a per-case basis. In the event a customer cannot self-perform uninstallation of a hard drive, the customer contacts MCT for assistance either in person (onsite) or to facilitate replacement via manufacturer representative.</p>
17	Will your firm wipe data from a hard drive to VITA specifications or allow customer to keep hard drive when a unit is returned?	Y	<p>MCT's ability to facilitate this requirement is dependent upon the model of the unit in question – those items with removable hard drives can be accommodated, but those with non-removable drives cannot.</p> <p>In all cases, hard drive data wipes are performed at the Panasonic service center.</p>

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	Requirements	A	B
18	<p>Does your solution offer a provision to “Trade-in and Upgrade”?</p> <p>If so, please provide trade-in/upgrade parameters.</p>	Y	<p>Trade-in and Upgrade actions may be accommodated on a case-by-case basis, depending upon the residual value of the laptop / unit in question. Used laptops rarely retain their value in relation to their original purchase price, so an upgrade program often takes more time and/or money than the customer is willing to spend.</p> <p>MCT can facilitate this process if the customer requests it, but trade-ins and upgrades typically are not the preferred path to take based on the relative value of the hardware.</p>

D. Reports

	Requirements	A	B
1.	Does your proposed solution offer quarterly reports to Authorized Users detailing products that have been placed in any of their locations? If so, please provide details and examples.	Y	MCT offers quarterly purchase reporting for agencies that request such reports. This is common with other contracts held and serviced by Panasonic and MCT. We will work directly with the agency to design a report format and protocol that meets their needs.
2.	Does your proposed solution maintain an electronic service log that is available to Authorized Users? If so, please provide details and examples.	Y	Service logs and tickets can be shared with Authorized Users for warranty and service events. However, we note that due to the size of our typical first responder agency footprint / size, this is not often requested as most agencies have a point of contact that is already kept informed of all ongoing warranty and service actions.
3.	Does your proposed solution include any additional reports that would be a benefit	Y	MCT can provide additional reports in consultation with specific agencies to support

EXHIBIT A – REQUIREMENTS

	to Authorized Users? If so, please provide details and examples.		their acquisitions and technology / asset management efforts. As noted under 1. above, we work direct with the procuring agency to determine their reporting needs and to implement a reporting process.
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E. Account Management

	Requirements	A	B
1.	Does your solution provide personnel to manage the resulting contract throughout its entirety?	Y	All sales and account management is performed through MCT staff, from the start of the process through to the end.
2.	Does your solution include provisioning of personnel to market and promote the resulting contract to schools, universities, local and non-Executive Branch state agencies? If yes, please provide details.	N	The Education vertical is outside of Panasonic's target sector – neither MCT nor Panasonic has dedicated staff to market to this demographic as our ruggedized product offerings are designed primarily for use in the field and with first responder agencies.

2 Voluntary Product Accessibility Template (VPAT) Data



Panasonic

Section 508 Voluntary Product Accessibility Template

The purpose of the Voluntary Product Accessibility Template is to assist Contracting officials in making preliminary assessments regarding the availability of commercial Electronic and Information Technology products and services with features that support accessibility. It is assumed that offerors will provide additional contact information to facilitate more detailed inquiries.

The first table of the Template provides a summary view of the section 508 Standards. The subsequent tables provide more detailed views of each subsection. There are three columns in each table. Column one of the Summary Table describes the subsections of subparts B and C of the Standards. The second column describes the supporting features of the product or refers you to the corresponding detailed table, "e.g., equivalent facilitation." The third column contains any additional remarks and explanations regarding the product. In the subsequent tables, the first column contains the lettered paragraphs of the subsections. The second column describes the supporting features of the product with regard to that paragraph. The third column contains any additional remarks and explanations regarding the product.

Summary Table Voluntary Product Accessibility Template			
<i>Criteria</i>	Supporting Features	Remarks and explanations	
Section 1194.21 Software Applications and Operating Systems	Not Applicable	These are not features applicable to portable PC hardware	
Section 1194.22 Web-based internet information and applications	Not Applicable	These are not features applicable to portable PC hardware	
Section 1194.23 Telecommunications Products	Not Applicable	These are not features applicable to portable PC hardware	
Section 1194.24 Video and Multi-media Products	Not Applicable	These are not features applicable to portable PC hardware	
Section 1194.25 Self-Contained, Closed Products	Not Applicable	These are not features applicable to portable PC hardware	
Section 1194.26 Desktop and Portable Computers	Yes	See Details Below.	
Section 1194.31 Functional Performance Criteria	Yes	Per GSA FAQ, this portion is not required for portable PC hardware. We have chosen to voluntarily complete this section to highlight our product accessibility.	

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Panasonic		
508 Voluntary Product Accessibility Template		
Section 1194.26 Desktop and Portable Computers - Detail		
Voluntary Product Accessibility Template		
Criteria	Supporting Features	Remarks and explanations
(a) All mechanically operated controls and keys shall comply with §1194.23 (k) (1) through (4).	Yes	<p>Keys can be touched and discerned without operating them.</p> <p>Product can be opened with one hand. Product can be operated with one hand.</p> <p>Can set a Windows derived delay between activation of keys.</p> <p>Product contains lights to indicate locked functions. Can set Windows derived sound alerts for locked functions.</p> <p>Appl: All Toughbook Models</p>
(b) If a product utilizes touchscreens or touch-operated controls, an input method shall be provided that complies with §1194.23 (k) (1) through (4).	Yes	<p>All units have keyboard input as well.</p> <p>Appl: All Toughbook Models</p>
(c) When biometric forms of user identification or control are used, an alternative form of identification or activation, which does not require the user to possess particular biological characteristics, shall also be provided.	Yes	<p>If and when Panasonic Toughbook is sold with installed Biometric devices, they are inactive by default and can be activated only by user.</p>
(d) Where provided, at least one of each type of expansion slots, ports and connectors shall comply with publicly available industry standards	Yes	<p>All slots, ports and connectors comply with industry standards</p> <p>Appl: All Toughbook Models</p>

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508 Voluntary Product Accessibility Template

Section 1194.31 Functional Performance Criteria - Detail

Voluntary Product Accessibility Template

Criteria	Supporting Features	Remarks and explanations	
(a) At least one mode of operation and information retrieval that does not require user vision shall be provided, or support for Assistive Technology used by people who are blind or visually impaired shall be provided.	Yes	Compatible with commonly used assistive technology. Ex: JAWS Appl: All Toughbook Models	
Criteria	Supporting Features	Remarks and explanations	
(b) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for Assistive Technology used by people who are visually impaired shall be provided.	Yes	Compatible with commonly used assistive technology. Can set Windows derived display settings to enhance visibility. Appl: All Toughbook models	
(c) At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for Assistive Technology used by people who are deaf or hard of hearing shall be provided	Yes	Contains standard headphone connector jack. Appl: All Toughbook models	
(d) Where audio information is important for the use of a product, at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.	Yes	All relevant information is available visually. Appl: All Toughbook models	
(e) At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for Assistive Technology used by people with disabilities shall be provided.	Yes	No operation modes require user speech. Appl: All Toughbook models	
(f) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.	Yes	By using Windows derived accessibility features. Appl: All Toughbook models	

Panasonic

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Information, Documentation and Support - Detail

<i>Criteria</i>	Supporting Features	Remarks and explanation
(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge	Yes	Alternate formats available through NPDC in Kent, WA. Appl: All Toughbook models
(b) End-users shall have access to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.	Yes	All product documentation contained on hard disk, which is compatible with assistive technology. Appl: All Toughbook models
(c) Support services for products shall accommodate the communication needs of end-users with disabilities.	Yes	E-mail and TTY access available.

3 Product Specification Sheets

3.1 Laptop / Rugged Laptop: Panasonic CF-54G2878VM

Panasonic



Panasonic recommends Windows.

TOUGHBOOK 54

- 14" HD (768p) and FHD (1080p) displays
- Available daylight-readable 1000 Nit gloved multi-touch display
- Desktop class performance with available discrete graphics and dual fans
- MIL-STD-810G and IP51 certified magnesium alloy design with built-in handle
- Available 2nd drive, hot-swappable 2nd battery, 2nd LAN, Serial, DVD, antenna pass-through, SmartCard readers and more
- Industry leading driver packages for ease of deployment and support
- Available TPM 2.0 Security¹
- Available with P.180 for seamless global connectivity⁴³

MIL-STD-810G

IP51

3-FOOT DROP RATING

THE WORLD'S LIGHTEST AND THINNEST SEMI-RUGGED LAPTOP IN ITS CLASS.

The Toughbook® 54 laptop from Panasonic uses the latest advances to create a laptop up to 2 lbs. lighter and 0.5" thinner than the competition. It features a spill-resistant, full magnesium alloy design, hard drive heater, backlit keyboard, and is available in four different models to suit every need. The Toughbook 54 has a wide range of integrated options, such as dedicated GPS, 4G LTE mobile broadband with satellite GPS on select models, antenna pass-through, and insertable and contactless SmartCard CAC readers.

P.180

1.800.662.3537

na.panasonic.com/us/toughbook54

TOUGHBOOK

MY2 & MY3

TOUGHBOOK 54

SOFTWARE	<ul style="list-style-type: none"> ■ Windows® 10 Pro 64-bit ■ Panasonic Utilities (including Dashboard, Recovery Partition) ■ Enterprise-ready driver packages including C&B kit and one-click driver bundles
DURABILITY	<ul style="list-style-type: none"> ■ MIL-STD-883C certified (7' drop, shock, vibration, sand, dust, altitude, daylight temperature, high temperature electrical, temperature shock, humidity) ■ IP54 certified ■ Spill-resistant keyboard ■ Magnesium alloy case with handle ■ Storage drive heater ■ Shock-mounted caged storage drive ■ Removable quick-release battery and storage drive ■ Dual Lang II Performance m. o.d. ■ Painted (not replaceable) screen film for LCD protection (Glossed Multi-Touch m. o.d.)
OPERATING SYSTEM	<ul style="list-style-type: none"> ■ 7th Gen CPU models: <ul style="list-style-type: none"> - Intel® Core™ i5-7300U v Pro™ processor - 2.60 Hz with Turbo Boost up to 3.93 Hz, 3M B cache - Intel® Core™ i7-7800U v Pro™ processor - 2.85 Hz with Turbo Boost up to 3.96 Hz, 4M B cache Graphics: <ul style="list-style-type: none"> - Intel® HD Graphics 620 (all models) - AMD Radeon™ Pro WX8150 (Performance m. o.d.) Memory (RAM) - 2 slots (upgradable) <ul style="list-style-type: none"> - Performance model: 16GB up to 32GB Btotal (DDR4-2133MT/s) - Other models: 8GB, 16GB or 32GB Btotal (DDR4-2133MT/s) Storage Drive/Slot: mounted with Heater (quadrant) <ul style="list-style-type: none"> - 500GB HDD (5400rpm, 15mm o.d.) - 256GB B512B vTBS5D, 1TB B7200rpm HDD - Optional 0PAL encrypted SSD Optional 2nd Storage Drive with Heater (trained technician run o.d.) <ul style="list-style-type: none"> - 256GB B512B vTBS5D - 256GB B512B vTBS5D ■ 8th Gen CPU models: <ul style="list-style-type: none"> - Intel® Core™ i5-8300U v Pro™ processor - 2.60 Hz with Turbo Boost up to 3.03 Hz, 3M B cache - Intel® Core™ i7-8800U v Pro™ processor - 2.85 Hz with Turbo Boost up to 3.96 Hz, 4M B cache Graphics: <ul style="list-style-type: none"> - Intel® HD Graphics 620 (all models) - AMD FirePro™ W5100 (Performance m. o.d.) Memory (RAM) - 2 slots (upgradable) <ul style="list-style-type: none"> - Performance model: 8GB, 16GB or 32GB Btotal (DDR4-2400MT/s) - Other models: 4GB, 8GB or 16GB Btotal (DDR4-2400MT/s) Storage Drive/Slot: mounted with Heater (quadrant) <ul style="list-style-type: none"> - 500GB HDD (5400rpm, 15mm o.d.) - 256GB B512B vTBS5D, 1TB B7200rpm HDD - Optional 0PAL encrypted SSD Optional 2nd Storage Drive with Heater (trained technician run o.d.) <ul style="list-style-type: none"> - 256GB B512B vTBS5D - 256GB B512B vTBS5D
DISPLAY	<ul style="list-style-type: none"> ■ Display Size and Resolution <ul style="list-style-type: none"> - Glossed Multi-Touch model: 14.0" FHD 10pt capacitive 1920 x 1080 (1000 nit) - Performance model: 14.0" FHD 1920 x 1080 - Print & Write models: 14.0" HD 1284 x 748 ■ IPS with direct bonding on FHD display ■ Anti-reflective, AR and anti-glare (AR) screen treatments ■ Triple monitor support through HDMI and optional VGA ■ Concealed mode (configurable)
AUDIO	<ul style="list-style-type: none"> ■ Integrated dual microphone ■ Intel® High Definition Audio compliant ■ Integrated speakers ■ Keyboard volume and mute controls
CAMERAS	<ul style="list-style-type: none"> ■ 1080p webcam with dual mic and camera on/off indicator ■ Optional on 8th Gen CPU models, standard on all 7th Gen CPU models except Write m. o.d.
KEYBOARD & INPUT	<ul style="list-style-type: none"> ■ Glossed Multi-Touch m. o.d.: Stylus pen, stylus holder and cleaning cloth are optional ■ Glossed Multi-Touch m. o.d.: Supports glove mode and rain m. o.d. ■ 2 user-definable keys (4 Vkeys) ■ 92-key with dedicated Windows® key ■ Emulative backlit keyboard with 4 adjustable levels ■ Lighted backlit on 8th Gen CPU models, red backlit on 7th Gen CPU m. o.d. ■ Emulative touchpad with multi-touch
DVD DRIVE	<ul style="list-style-type: none"> ■ Optional DVD Super MULTI Drive
INTERFACE & EXPANSION	<ul style="list-style-type: none"> ■ Docking Connector ■ USB 3.0 (x 3) ■ Optional USB 2.0 (x 1) ■ Optional, rugged, faster™ USB (Cone-Series) ■ SD card (SDXC) ■ HDMI ■ Optional VGA ■ 10/100/1000 Ethernet ■ 10/100/1000 2nd LAN (Ethernet) ■ Audio In/Out ■ Optional Serial (True) ■ Optional PC card ■ Mini-SIM
WIRELESS	<ul style="list-style-type: none"> ■ Opt. 60 LTE-Advanced mobile, uniform data bandwidth, satellite GPS (7th Gen CPU models only) - Certified with Verizon, AT&T, Sprint and T-Mobile ■ Optional, dedicated 6 PS (Wi-Fi, 802.11ac, 802.11n) ■ Optional dual-band antenna pass-through ■ Intel® Dual Band Wireless-AC 8265 v1 v1 (802.11ac/b/g/n) (8265 on 7th Gen CPU m. o.d.) ■ Bluetooth® v4.1 - EDR (Class 1) ■ Slide on/off switch
POWER	<ul style="list-style-type: none"> ■ Li-Ion battery pack: <ul style="list-style-type: none"> - Use m. o.d.: lightweight battery: 105Wh, typical 3220mAh, min. 3050mAh - Other m. o.d.s/long life battery: 111Wh, typical 4200mAh, min. 4080mAh ■ Media bay and battery: 111Wh, typical 2880mAh, min. 2830mAh ■ Battery operation: <ul style="list-style-type: none"> - 7th Gen CPU models: <ul style="list-style-type: none"> - Use m. o.d.: 9 hours (16 hours with opt. 2nd battery) - Print & Write model: 12 hours (20 hours with opt. 2nd battery) - Performance & Touch models: 10 hours (17 hours with opt. 2nd battery) - 8th Gen CPU models: <ul style="list-style-type: none"> - Use m. o.d.: 9 hours (16 hours with opt. 2nd battery) - Other m. o.d.s: 11 hours (18 hours with opt. 2nd battery) ■ Hot swap with optional media bay, 2nd battery ■ Battery charging time: 2.5 hours (no battery) - Quick charge: 30% charge in 1 hour ■ AC Adapter: AC 100V-240V 50/60Hz auto-sensing/switching worldwide power supply

SECURITY FEATURES

- TPM v1.2 (TPM v2.0 available)
- NET BIOS compliant
- Parasense® technology by Absolute embedded in BIOS
- Kensington cable lock slot
- Optional fingerprint reader¹
- Optional insertable SmartCard CAC reader (bottom)
- Optional contactless SmartCard CAC reader²
 - 1356MHz ISO 14443/B compliant

WARRANT

- 3-year limited warranty, parts and labor

DIMENSIONS & WEIGHT

- 10.7" L x 13.6" W x 1.2" H^m
- 4.2 lbs. (Lite model) 4.4 lbs. (Prime model)
- 4.6 lbs. (Performance and Glove Multi-Touch models)

INTEGRATED OPTIONS:

- 4G LTE/5G cellular carrier mobile broadband with satellite 4G PS (7th Gen CPU models)
- Dual antenna pass-through†
- Dedicated GPS (u-blox) or 2nd LAN or 4th USB (2.0) or rugged FlexPort USB*
- PC Card or DVD drive or insertable SmartCard CAC (media bay) or media bay 2nd battery or styluspen holder
- Contactless SmartCard CAC or fingerprint reader*
- Insertable SmartCard CAC reader (bottom)
- Serial†
- VGA†

SELECT ACCESSORIES

- | | |
|--|--------------------|
| AC Adapter 100W (3-prong) | C.F. A687134N |
| Long Life Battery Pack | C.F. A725300UM |
| Lightweight Battery Pack | C.F. A725300UM |
| Moxy Bay and Battery Pack* | C.F. A725300UM |
| Battery Charger | C.F. A038753M |
| AC/DC Converter 120W | C.F. L4002-120 |
| LIN2 Solar Charge System | PM5C T80-4464 |
| ToughMate Always-on St Case | TB56400 CS-P |
| ToughMate on Universal Carrying Case | TB00-UM2-P |
| ToughMate Backpack | TB08PH-P |
| Memory Cards | |
| 4GB DDR2L (8th Gen CPU models) | C.F. B6Z1504 |
| 8GB DDR2L (8th Gen CPU models) | C.F. B6Z1508 |
| 8GB DDR4 (7th Gen CPU models) | C.F. B6Z1708 |
| 16GB DDR4 (7th Gen CPU models) | C.F. B6Z1716 |
| Desktop Docks | C.F. H5B5-1U |
| Vehicle Docks (In-pass-through) | |
| Can bar-Johnson with LIN2 power supply | T70-025D-P |
| Harwinix LIN2 power supply | C.F. FH-PN A422-P |
| Vehicle Docks (out-pass-through) | |
| Can bar-Johnson with LIN2 power supply | T70-025D-P |
| Harwinix LIN2 power supply | C.F. FH-PN A422-P |
| Antenna Rugs Dual LTE & GPS Antenna Kit | |
| Thru-hood Black Mount | AP-P4N NCS PD-Q-BL |
| Thru-hood White Mount | AP-P4N NCS PD-Q-WH |
| Global Mount | C.F. H5B5-1U |
| 160° Gated Night Guard LCD Protective Film | C.F. VPF29U |

Please consult your retailer or Paragon representative before purchasing.

¹ TPI 1.2 is partly default on 34 Core CPU models, but can run TPI20 – see below. Harcourt link for details: <http://www.cheminformatics.com/Products/Software/Support-Tools/Performance-Optimization/Support-Tools>

>Not available on Line

*V2 = 1000 000 000 base. Test results may vary all based on configuration and actual system configuration.

*DAD, PC Card in the SmartCard slot, Media Bay 2nd Drive and adjacent holder are not available to all models. Inq. units are configured with the SmartCard reader (bottom). NOTE: DAD drives are available in 1 and 2 unit configurations. A single cabinet has one corresponding to maximum density.

^aDepleted (DS) in H₂O, (H₂O) 120, (normal) (N) 150 and 2nd (D) 180 are mutually exclusive.

*Contactless SmartCard CMC and magnetic readers are mutually exclusive.

^b Better performance for time with 15 days time and life span criteria according to the model.

computer and battery are used. Battery question and recharge time will vary based on analysis.

businesses, applications, features, price management, better conditioning and other custom

Testing results of Win10 model from Fieldbank 2004 at 100 nt and Win2 model from Fieldbank 2004 at 100 nt

* Requires software and data to be available for protection.

15. <http://www.pennstate.edu/academic/academicaffairs/academicaffairs.htm>

*Access times and Internet throughput are highly dependent on your network configuration. Not

availability and in-house capacity is largely depending on your location, so inquire at once, available. Visit Panasonic.com to form one's conscience and details.

¹⁰ P130 is available only for 2nd Gen CPU models. For more information about P. 130, please visit <http://www.asus.com>.

*Requires special order. Please contact a Panasonic representative for details.



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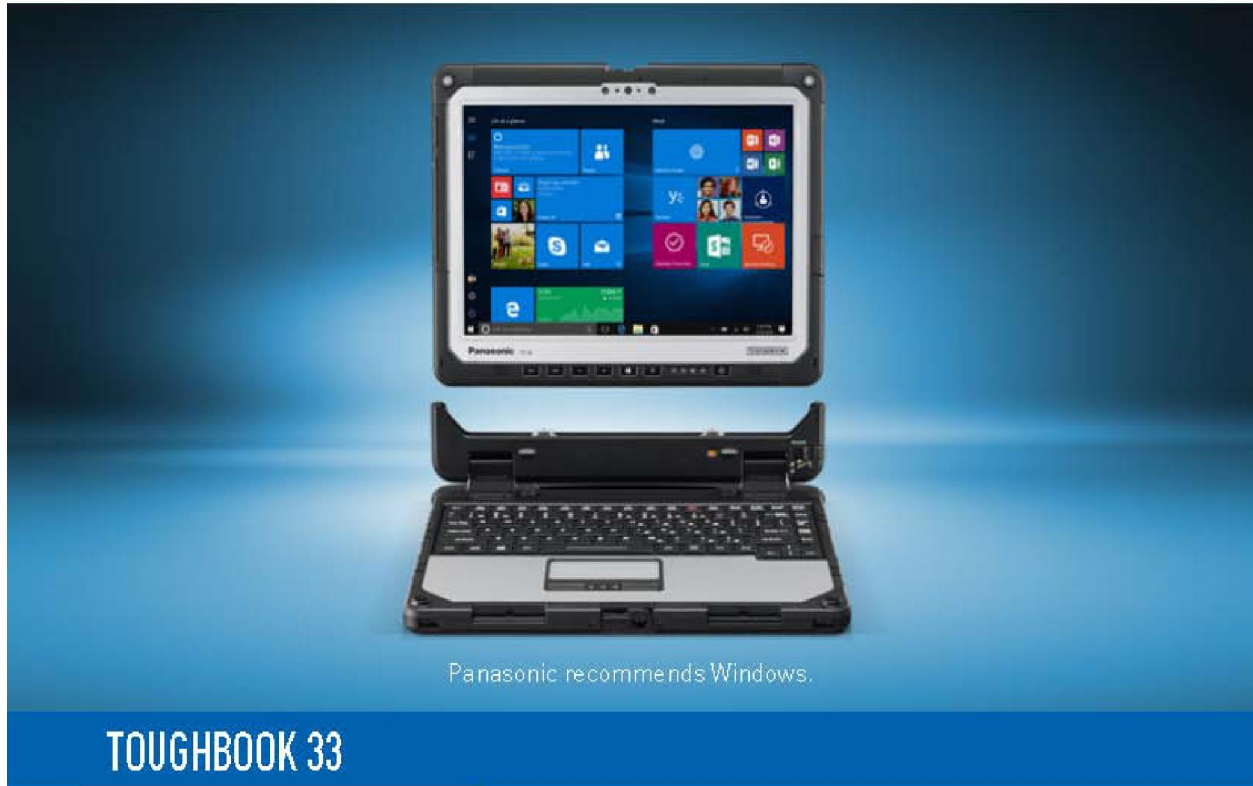
na.panasonic.com/us/toughbook54

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TOUGHBOOK

3.2 Convertible Laptop: Panasonic CF-33LEHAZVM

Panasonic



TOUGHBOOK 33

- First fully rugged product with a 3:2 screen for easier handling and better viewing of business applications
- 3x the resolution, 50% brighter and 15% larger display than any other device in its class¹
- Generation of vehicle dock backwards compatibility²
- Infrared webcam and Windows Hello enables biometric user authentication³
- Twin battery design enables hot-swap battery replacement for continuous use
- LTE-Advanced for faster speeds
- TPM 2.0 Security
- Available with P.180 for seamless global connectivity⁴⁰

MIL-STD-810G

MIL-STD-461F

IP65

4-FOOT
DROP RATING

P.180

ENGINEERED TO EQUIP THE EXTRAORDINARY.

The Panasonic Toughbook® 33 offers unparalleled flexibility in even the most demanding and extreme environments and is the world's first fully rugged 2-in-1 PC with a 3:2 screen. Inspired by the increasing demands of mobile professionals, the Toughbook 33 delivers rugged mobility in a highly customizable package that also includes a generation of backward compatibility². Available accessories include two distinct vehicle docks for new deployments as well as an innovative vehicle dock adapter which allows drop-in placement onto any of Panasonic's large installed base of Toughbook 31 vehicle docks, offering investment protection while saving time and resources. A wide range of integrated options such as serial port, barcode, fingerprint, insertable and contactless SmartCard CAC readers as well as a choice of two keyboards assure Toughbook 33 can be customized to meet the unique needs of a diverse customer base.

1.800.662.3537

na.panasonic.com/us/toughbook33

m61

TOUGHBOOK

TOUGHBOOK 33

Panasonic recommends Windows.

SOFTWARE	<ul style="list-style-type: none"> Windows® 10 Pro 64-bit Panasonic Utilities (including Dashboard), Recovery Partition Enterprise ready driver packages including CAB files and one-click driver bundles
DURABILITY	<ul style="list-style-type: none"> MIL-STD-810G certified 14' drop - 5' tablet only, shock, bench handling, vibration, rain, dust, sand, altitude, freeze/thaw, high/low temperature, temperature shock, solar radiation, contamination by fluids, humidity, explosive atmosphere MIL-STD-461F certified¹ IP65 certified sealed all-weather design^{2,3} Magnesium alloy chassis encased with ABS and elastomer edges Built-in dual purpose handle & kickstand (available on Premium Keyboard) Solid state drive heater Removable battery Removable storage drive⁴ Reinforced locking port covers Raised bezel for LCD impact protection Preinstalled replaceable screen film for LCD protection
CPU & OPERATING SYSTEM	<ul style="list-style-type: none"> 7th Gen CPU models: <ul style="list-style-type: none"> Intel® Core™ i5-7300U vPro™ processor 2.6GHz with Turbo Boost up to 3.5GHz, 3MB cache Intel® Core™ i7-7600U vPro™ processor⁷ 2.8GHz with Turbo Boost up to 3.9GHz, 4MB cache 6th Gen CPU models: <ul style="list-style-type: none"> Intel® Core™ i5-6300U vPro™ processor 2.4GHz with Turbo Boost up to 3.0GHz, 3MB cache Intel® Core™ i7-6600U vPro™ processor⁷ 2.6GHz with Turbo Boost up to 3.4GHz, 4MB cache
STORAGE & MEMORY	<ul style="list-style-type: none"> Factory installed 8GB or 16GB SDRAM (LPDDR3 - 1866MT/s)⁸ 256GB or 512GB removable SSD with heater⁹ Optional OPAL encrypted SSD with heater
DISPLAY	<ul style="list-style-type: none"> 12.0" 3:2 QHD 2160 x 1440 10-point capacitive gloved multi touch & digitizer 2-1200 nit Direct bonding Anti-reflective (AR) screen treatment Intel HD Graphics 620 i5/20 on 6th Gen CPU models 4 monitor support (with Premium Keyboard) Concealed mode (configurable)
AUDIO	<ul style="list-style-type: none"> Integrated dual array microphone Intel® High Definition Audio compliant Integrated speakers (front-facing) On-screen and button volume and mute controls
CAMERAS	<ul style="list-style-type: none"> 1080p webcam with dual array mic and camera on/off indicator Infrared with Windows Hello support¹⁰ 8MP rear camera with autofocus and triple LED flash¹¹
KEYBOARD & INPUT	<ul style="list-style-type: none"> Waterproof IP65 stylus pen with integrated stylus holder, tether and cleaning cloth Supports glove mode and rain mode 7 tablet buttons (5 user-definable including A1/A2 buttons) On-screen QWERTY keyboard Optional keyboards (Lite and Premium)^{12,13} <ul style="list-style-type: none"> Emissive red backlit with 4 adjustable levels 87-key with dedicated Windows® key Pressure-sensitive touchpad with multi touch
INTERFACE & EXPANSION	<ul style="list-style-type: none"> On the tablet: <ul style="list-style-type: none"> Docking Connector USB 3.0 x1 (optional 2nd USB 2.0)¹⁴ MicroSDXC HDMI 10/100/1000 Ethernet Optional Serial (True)¹⁵ Audio In/Out Nano-SIM On the Premium Keyboard: <ul style="list-style-type: none"> Docking Connector USB 3.0 x2, USB 2.0 x1 SDXC HDMI VGA 10/100/1000 Ethernet Serial (USB)
WIRELESS	<ul style="list-style-type: none"> Optional 4G LTE-Advanced multi carrier mobile broadband with satellite GPS Certified with Verizon, AT&T, Sprint and P.180¹⁶ Optional dedicated GPS L1-blox NEO-M8N Dual high-gain antenna pass-through Intel® Dual Band Wireless-AC 8265 Wi-Fi 802.11a/b/g/n/ac Bluetooth® v4.1 (Class 1) + EDR¹⁷
POWER	<ul style="list-style-type: none"> Hot-swappable twin Li-Ion battery packs Standard lightweight batteries: 11.1V, 1990mAh (each battery) Optional long life batteries: 10.8V, 4120mAh (each battery)¹⁸ Battery operation: <ul style="list-style-type: none"> 7th Gen CPU models: 10 hours (20 hours with opt. long life batteries)¹⁴ 6th Gen CPU models: 8 hours (16 hours with opt. long life batteries)¹⁴ Battery charging time: 3 hours (with in parallel charging technology)¹⁴ AC Adapter: AC 100V-240V 50/60Hz, auto sensing/switching worldwide power supply
SECURITY FEATURES	<ul style="list-style-type: none"> TPM v2.0 NIIST BIOS compliant Persistence[®] technology by Absolute embedded in BIOS¹⁹ Kensington cable lock slots x2 (on tablet and Premium Keyboard) Optional fingerprint reader²⁰ Optional insertable SmartCard CAC reader²¹ Optional contactless SmartCard CAC reader 13.56MHz (ISO 14443 A/B compliant)²²
WARRANTY	<ul style="list-style-type: none"> 3-year limited warranty, parts and labor
DIMENSIONS & WEIGHT	<ul style="list-style-type: none"> 12.3" (L) x 11.4" (W) x 1.8" (H)²³ 6.1 lbs¹⁰
HAZARDOUS LOCATION CERTIFICATIONS	<ul style="list-style-type: none"> ANSI/ISA 2.12.01-2013 Optional class I division 2, groups ABCD certified model
INTEGRATED OPTIONS²⁴	<ul style="list-style-type: none"> 4G LTE-Advanced multi carrier mobile broadband with satellite GPS Dedicated GPS L1-blox NEO-M8N Choice on tablet of 1D/2D capable barcode reader (N6603), serial (true), or second USB 2.0 port Choice on tablet of insertable SmartCard CAC, contactless SmartCard CAC, or fingerprint reader
SELECT ACCESSORIES²⁵	<ul style="list-style-type: none"> AC Adapter 100W (3-prong) Standard Lightweight Battery Pack Long Life Battery Pack²⁶ 4-Bay Battery Charger LIND Car Charger 120W LIND Solar Charge System ToughMate ComUniversal Jr. Carrying Case ToughMate Backpack Rotating Hand Strap with stylus holder & kickstand²⁷ Carry Strap Shoulder Strap Desktop Dock (requires Premium Keyboard) Laptop 2-in-1 Vehicle Docks (Requires Premium Keyboard) <ul style="list-style-type: none"> Gamber-Johnson (dual RF) Havis (dual RF) Tablet Lite Vehicle Docks <ul style="list-style-type: none"> Gamber-Johnson (dual RF) Havis (dual RF) 31 Vehicle Dock Adapter (VDA) with Lite Keyboard <ul style="list-style-type: none"> Single Pass Dual Pass Lite Keyboard Premium Keyboard Antenna Plus Dual LTE & GPS Antenna Kit <ul style="list-style-type: none"> Threaded Black Mount Threaded White Mount Multi Touch + Digitizer IP65 Stylus Tether 120" LCD Protector Film

Please consult your reseller or Panasonic representative before purchasing.

¹ As of May 2017 when comparing fully rugged 2-in-1 laptops, convertibles, detachables and tablets with a 11.0-12.0" display.² Requires purchase of 31 Vehicle Dock Adapter (VDA). VDA has been tested and approved to work with Gamber-Johnson 7140-4318 and Havis PAM-111/112 vehicle docks. Do not use with other vehicle docks without consulting first with your Panasonic representative.³ For 7th Gen CPU models only.⁴ Tested by national independent third party lab following MIL-STD-810G Method 516.6 Procedure IV for transit drop test and IEC 60529 Sections 13.4, 13.6.2, 14.2.5 and 14.3 for IP.⁵ IP rating requires both batteries in tablet.⁶ Requires training, approval and/or purchase of a SSD no return service desk through Panasonic, otherwise any damage incurred will be out of warranty and not eligible for advance exchange. Please contact a Panasonic representative for program details.⁷ Requires special order. Please contact a Panasonic representative for details.⁸ 1GB = 1,000,000,000 bytes. Total usable memory will be less depending upon actual system configuration.⁹ Raw camera does not function on 6th Gen CPU models running Windows 7 Professional.¹⁰ For keys, (10 ports, reverse docking into convertible mode available on Premium Keyboard only).¹¹ Keyboard opens at 180° angle.¹² Barcode, Serial (true) and 2nd USB 2.0 Port are mutually exclusive.¹³ Bluetooth 4.0 (Class 1) + EDR on 6th Gen CPU models.¹⁴ Long Life Batteries increases the overall height 0.4" and prohibits use in convertible mode. Not compatible with 31 Tablet Vehicle Dock when using tablet with Long Life Batteries and CF-VST332U.¹⁵ Battery performance features such as charge time and life span can vary according to the conditions under which the computer and battery are used. Battery operation and recharge times will vary based on many factors, including screen brightness, applications, features, power management, battery conditioning and other customer preferences. Battery testing results from MobileMark 2014 at 150 nit.¹⁶ Requires software and activation to enable tether protection.¹⁷ Insertable SmartCard CAC, Contactless SmartCard CAC, and Fingerprint Readers are mutually exclusive.¹⁸ Includes tablet and Premium Keyboard. Tablet with Lite Keyboard is 12.3" (L) x 9.4" (W) x 1.5" (H).¹⁹ Tablet when detached is 12.1" (L) x 9.4" (W) x 0.9" (H). Optional long life batteries add 0.4" (H).²⁰ Includes tablet and Premium Keyboard. Tablet with Lite Keyboard is 4.8 lbs. Tablet when detached is 3.4 lbs.²¹ Optional long life batteries add 0.8 lbs.²² Accessories and Integrated Options may vary depending on your configuration. Visit the Panasonic website for more accessories and details.²³ For more information about P.180, please visit, PanasonicP180.com.

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na.panasonic.com/us/toughbook33

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TOUGHBOOK

PSC-M17579SS

3.3 Rugged Tablet (Windows): Panasonic FZ-G1U2117VM

Panasonic



Panasonic recommends Windows.

TOUGHPAD FZ-G1

- 7th Generation Intel® Core™ i5 vPro™ Processor
- Daylight-readable Display with Gloved Multi Touch + waterproof digitizer pen
- Up to 22 Hours of Use with an Optional Long Life Battery^{1,4}
- Integrated Bridge Battery⁵, SmartCard⁶, 2D Barcode, Magstripe⁶, RFID⁶, Serial Options and More^{2,3}
- Certified for Use in Hazardous Locations on selected models (Class I Division 2)¹⁰
- 3-year Warranty with Business Class Support
- Thermal Camera option³
- IR Camera option, supports "Windows Hello"⁵

4-FOOT
DROP RATING

IP65

MIL-STD
810G

THE WORLD'S THINNEST AND LIGHTEST FULLY RUGGED 10.1" WINDOWS 10 PRO TABLET

The Toughpad® FZ-G1 Windows 10 Pro tablet offers a fluid user experience while providing crucial port connectivity and feature-rich options in a compact size. Designed for highly mobile field workers, it's the thinnest and lightest fully rugged 10.1" tablet running Windows 10 Pro 64-Bit. Powered by an Intel® Core™ i5 vPro™ processor with a MIL-STD-810G and IP65 certified design, the FZ-G1 leads the way in rugged mobile computing. Add to that an HD daylight-readable 10-point gloved multi touch + waterproof digitizer pen, and it becomes an essential tool for field workers. With added Thermal camera and IR camera options. Can also support "Windows Hello" for enhanced security.

1.800.662.3537
na.panasonic.com/us/ToughbookG1

TOUGHBOOK®

TOUGHPAD FZ-G1

Panasonic recommends Windows.

SOFTWARE	<ul style="list-style-type: none"> Windows 10 Pro 64 bit
DURABILITY	<ul style="list-style-type: none"> MIL-STD-883C certified I4' drop, shock, vibration, rain, dust, sand, altitude, freeze/thaw, high/low temperature, temperature shock, humidity, explosive atmosphere IP65 certified sealed all-weather design Optional ANSI/ISA 2.12.01-2013 Class 1 Division 2 on selected models¹⁹ Solid state drive heater Magnesium alloy chassis encased with ABS and elastomer corner guards Optional hand strap or rotating hand strap Port covers Raised bezel for LCD impact protection Pre-installed replaceable screen film for LCD protection
CPU	<ul style="list-style-type: none"> Intel® Core™ i5-7300U vPro™ Processor <ul style="list-style-type: none"> ~2.6 GHz up to 3.5 GHz with Intel® Turbo Boost Technology Intel Smart Cache 3MB Intel® Core™ i7-7600U vPro™ processor [Optional] <ul style="list-style-type: none"> ~2.8 GHz up to 3.9 GHz with Intel® Turbo Boost Technology Intel Smart Cache 4MB
STORAGE & MEMORY	<ul style="list-style-type: none"> 8GB DDR4L SDRAM²⁰ 256GB solid state drive (SSD) with heater²¹ Optional 512GB and 1TB Option
DISPLAY	<ul style="list-style-type: none"> 10.1" WUXGA 1920 x 1200 with LED backlighting 10-point capacitive multi touch + Waterproof Digitizer pen daylight-readable screen <ul style="list-style-type: none"> ~2,800 nit IPS display with direct bonding Anti-reflective and anti-glare screen treatments Ambient light sensor, digital compass, gyro and acceleration sensors Automatic screen rotation Intel® HD Graphics 620 (Built-in CPU) video controller
AUDIO	<ul style="list-style-type: none"> Integrated microphone Intel® High Definition Audio subsystem support Integrated Monaural speaker On-screen and button volume and mute controls
KEYBOARD & INPUT	<ul style="list-style-type: none"> 10-point glove multi touch + digitizer screen <ul style="list-style-type: none"> Supports bare-hand touch and gestures and electronic waterproof stylus pen Supports glove mode and wet-ouch mode 7 tactile buttons (2 user-definable) Integrated stylus holder On-screen QWERTY keyboard
CAMERAS	<ul style="list-style-type: none"> 2 MP (1920 x 1080 pixels), 30fps (Video), Monaural Microphone <ul style="list-style-type: none"> Infrared Sensor with Windows Hello support²² 8MP rear camera with autofocus and LED flash
INTERFACE	<ul style="list-style-type: none"> Docking connector: 24-pin Type A HDMI: Type A Headphones/speaker: Mini-jack stereo USB 3.0 x 1²³: Type A Optional second USB 2.0²⁴: Type A Optional 10/100/1000 Ethernet²⁵: RJ-45
WIRELESS	<ul style="list-style-type: none"> Optional integrated 4G LTE multi carrier mobile broadband with satellite GPS <ul style="list-style-type: none"> Sierra Wireless™ EM7455 Intel® Dual Band Wireless-AC 8265 (IEEE 802.11a/b/g/n/ac) Bluetooth v4.2 - Classic mode/ Low Energy mode, Class 1 Optional dedicated GPS (Li-bbox)²⁶ Dual, high-gain antennas pass-through
POWER SUPPLY	<ul style="list-style-type: none"> Li-ion battery pack: <ul style="list-style-type: none"> Standard battery: Li-ion 11.1 V, 4200 mAh (typ.), 4080 mAh (min.) Optional long life battery²⁷: Li-ion 10.8V, 9300mAh (typ.), 8700mAh (min.) Battery operation²⁸: <ul style="list-style-type: none"> Standard battery: 11 hours Optional long life battery²⁹: 22 hours Battery charging time³⁰: <ul style="list-style-type: none"> Standard battery: 2.5 hours off, 3 hours on Optional long life battery³¹: 3 hours off, 4 hours on Optional bridge battery³² (1 minute swap time) AC Adapter: Input: 100 V ~ 240 V AC, 50 Hz/ 60 Hz; Output: 16 V DC, 4.06A
SECURITY FEATURES	<ul style="list-style-type: none"> Password Security: Supervisor, User, Hard Disk Lock Kensington cable lock slot Trusted platform module (TPM) security chip v2.0³³ Computrace® theft protection agent in BIOS³⁴ Optional Inseparable SmartCard reader³⁵ Optional Contactless SmartCard/HF RFID reader³⁶ <ul style="list-style-type: none"> ISO 14443 A/B compliant

WARRANTY

- 3-year limited warranty, parts and labor

DIMENSIONS & WEIGHT³⁷

- 10.6" (L) x 7.4" (W) x 0.8" (H)
- 2.4 lbs. (standard battery)
- 2.9 lbs. (optional long life battery)³⁸

INTEGRATED OPTIONS³⁹

- 4G LTE multi carrier mobile broadband with satellite GPS
- Choice of LED or Laser 2D barcode reader (EA15 or EA21), GPS, Serial Dongle, Ethernet, MicroSDXC or second USB 2.0 port⁴⁰
- Choice of bridge battery, magstripe reader, inseparable SmartCard reader, inseparable SmartCard reader with bridge battery, contactless SmartCard/HF-D-HF reader or UHF 900MHz RFID reader⁴¹
- Thermal camera option⁴²

ACCESSORIES⁴³

- AC Adapter (3 prong): CF-AA6413CM
- Standard Battery Pack: FZ-VZSJB42U
- Long Life Battery Pack⁴⁴: FZ-VZSJB6U
- MIL-461F version of standard battery (Required to be 461F compliant): FZ-VZSJB72U
- Long Life Battery Bundle (Includes rotating hand strap and corner guard set): FZ-BNDCU1LL1ST1C34
- Single Battery Charger Bundle: FZ-BNDCU1BATCHR6
- LiND 3-Bay Battery Charger: FZ-LND3BAW61
- LiND Car Adapter 120W: CF-LNDCD170
- LiND Car/AC Adapter 90W (with USB port): CF-LNDCDC90
- LiND Car Adapter 90W MIL-STD: CF-LNEMLDC90
- Tall Corner Guard Set: FZ-WC69-11
- Rotating Hand Strap and Tall Corner Guard Set Bundle: FZ-BNDCU1ST1C34
- ToughMate G1 Always-On Case (with hand strap): FZ-BG1AQN1-P
- ToughMate G1 Professional Portfolio: FZ-BG1PI1LO-BLK-P
- ToughMate G1 X² Hand Strap: FZ-BG1XSTP-P
- Desktop Cradle: FZ-VEG31AU
- Vehicle Docks (1st pass-through): 7160-0486-00-P
- Camber Johnson: CF-H-PAN-702-P
- Havis with LiND power supply: 7160-0486-02-P
- Vehicle Docks (dual pass-through): CF-H-PAN-702-2-P
- Camber Johnson: FZ-VNPG12U
- Havis with LiND power supply: FZ-VNPG11U
- Waterproof digitizer pen: FZ-VNPG11U
- Tether: FZ-VNPG11U
- 10.1" LCD Protective Film: FZ-VNPG11U
- Payment sleeve for Verifone e355: FZ-VNPG11U

Please consult your reseller or Panasonic representative before purchasing.

Caution: Do not expose bare skin to this product when handling it's unit in extreme hot or cold environments. Approximate time, battery operating and recharge times will vary based on many factors, including screen brightness, applications, features, power management, battery conditioning and other customer preferences. Battery testing results from MobileMark 2014.

² Bridge battery, magstripe reader, inseparable SmartCard reader, inseparable SmartCard reader with bridge battery, contactless SmartCard reader and HF-RFID reader are mutually exclusive. Please note, USB 2.0 port, HDMI port and Audio Jack cannot be accessed when the unit is equipped with the magstripe reader, but optional USB 2.0 port can be accessed.

³ GPS, Serial Dongle, Ethernet, Barcode Reader, Thermal sensor, MicroSDXC and second USB 2.0 port are mutually exclusive options.

⁴ 1GB = 1,000,000,000 bytes. Total usable memory will be less depending upon actual system configuration.

⁵ Power GPS or second USB is integrated, the wireless software cannot be installed.

⁶ Magstripe reader, inseparable SmartCard reader, inseparable SmartCard reader with bridge battery, long life battery and UHF-RFID reader include tall corner guards and rotating hand strap. Bridge battery (without SmartCard reader) includes medium corner guards and rotating hand strap.

⁷ Requires software and activation to enable theft protection.

⁸ Design measurements do not include anti-static. Weight varies with options and digitizer pen.

⁹ Accessories and Integrated Options may vary depending on your configuration. Visit the Panasonic website for more accessories and details.

¹⁰ Headsets listed on certain features may not apply to all configurations. Consult your Panasonic representative for availability.



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3.4 Rugged Tablet (Android): Panasonic FZ-B2D000GAM

Panasonic



TOUGHPAD FZ-B2

- MIL-STD-810G, 5' Drop and All-weather IP65 Dust and Water-resistant Design
- User-replaceable Battery, Optional Bridge Battery and Optional Long Life Battery
- USB 3.0, Optional SmartCard, Magnetic Stripe Reader, Wired LAN, USB Type-C, ANSI rated and Barcode Reader¹²
- Wi-Fi with GPS, Bluetooth® and Optional 4G LTE Mobile Broadband with Satellite GPS
- 3-year Warranty with Business Class Support

5-FOOT
DROP RATING

IP65

MIL-STD-
810G

THE MOST POWERFUL FULLY RUGGED 7" HIGH PERFORMANCE INTEL®-BASED ANDROID™ TABLET BUILT FOR ENTERPRISE.

The Panasonic Toughpad® FZ-B2 is a rugged 7" tablet powered by Android® for field-based workforces. With durability, power and a range of configurability options—at a price within reach of any business—the Toughpad FZ-B2 tablet is an ideal tool for field service professionals. Offering enterprise-grade features including a quick-charging, user-replaceable full-shift battery, the thin and lightweight Toughpad FZ-B2 tablet has a fully rugged and sealed design built for long-lasting durability even when used in harsh environments.

1.800.662.3537
us.panasonic.com/B2

PSC-M1626055

TOUGHPAD®

TOUGHPAD FZ-B2

SOFTWARE	<ul style="list-style-type: none"> Android 6.0.1 (Marshmallow)¹ Panasonic Utilities (including Dashboard)
DURABILITY	<ul style="list-style-type: none"> MIL-STD-810G design (S' drop, shock, vibration, rain, dust, sand, altitude, freeze/thaw, high/low temperature, temperature shock, humidity, explosive atmosphere)² IP65 certified sealed all-weather fanless design Magnesium alloy chassis encased with ABS and elastomer corner guards Hand strap or optional rotating hand strap Port covers Raised bezel for LCD impact protection Pre-installed replaceable screen film for LCD protection
CPU	<ul style="list-style-type: none"> Intel® Atom™ x5-Z8550 Processor (1.44 GHz up to 2.4 GHz) 2MB cache
STORAGE & MEMORY	<ul style="list-style-type: none"> 2GB SDRAM³ 32GB eMMC⁴ Up to 32GB total storage available with optional microSDHC card⁵
DISPLAY	<ul style="list-style-type: none"> 7" WXGA 1280 x 800 65536/16,777,216 colors LED backlighting⁷ 10 finger multi touch (2 finger in rain sensing model) daylight-readable screen ~ 500 nit Display with direct bonding Anti-reflective screen treatment Automatic screen rotation
SENSORS	<ul style="list-style-type: none"> Ambient light Digital compass Gyro Acceleration
AUDIO	<ul style="list-style-type: none"> Integrated dual microphone Integrated monaural speaker On-screen and button volume controls
KEYBOARD & INPUT	<ul style="list-style-type: none"> 10-point multi touch (2 point in water sensing model) Supports gloved touch and gestures 6 tablet buttons (2 user-definable) Passive stylus pen with integrated holder in rotating hand strap On-screen QWERTY keyboard
CAMERAS	<ul style="list-style-type: none"> 720p webcam with mic 8MP rear camera with auto focus and LED light
EXPANSION	<ul style="list-style-type: none"> MicroSDHC
INTERFACE	<ul style="list-style-type: none"> Docking connector Headphones/speaker USB 3.0⁸ (x 1) and stand-alone USB Type-C⁹ configuration available or Wired LAN Optional SIM card slot (x 1) 24-pin Mini-jack stereo 4-pin
WIRELESS	<ul style="list-style-type: none"> Optional integrated 4G LTE mobile broadband with satellite GPS⁶ Intel® Dual Band Wireless AC1200 WLAN 802.11a/b/g/n/ac Bluetooth® v4.2 (Class II) + EDR Security <ul style="list-style-type: none"> Authentication: LEAP, WPA, 802.1x, EAP-TLS, EAP-FAST, PEAP Encryption: CKIP, TKIP, 128-bit and 64-bit WEP, Hardware AES Optional dual high-gain antenna pass-through
POWER SUPPLY	<ul style="list-style-type: none"> Li-ion battery pack: <ul style="list-style-type: none"> Standard battery: 7.2V, typical 3220mAh, minimum 3050mAh Long life battery: 7.2V, typical 7100mAh, minimum 6800mAh Battery operation:¹⁰ <ul style="list-style-type: none"> Standard battery: 8 hours Optional Long life battery: 16 hours Bridge battery: Approx. 60 seconds Battery charging time:¹¹ <ul style="list-style-type: none"> Standard battery: 2.5 hours off, 4 hours on Optional Long life battery: 4.5 hours off, 6.5 hours on
POWER MANAGEMENT	<ul style="list-style-type: none"> Suspend/Resume function, standby
SECURITY FEATURES	<ul style="list-style-type: none"> Kensington cable lock slot Optional insertable SmartCard reader¹ Security suite: encryption, screen lock, verification boot, secure boot Mobile device management supported by industry leading providers
WARRANTY	<ul style="list-style-type: none"> 3-year limited warranty, parts and Labor
DIMENSIONS & WEIGHT	<ul style="list-style-type: none"> 7.98" (L) x 5.20" (W) x 0.71" (H)¹² 1.2 lbs.¹³
INTEGRATED OPTIONS¹⁴	<ul style="list-style-type: none"> 4G LTE mobile broadband with satellite GPS or Wi-Fi with stand-alone GPS available in all the below configurations Stand-alone USB 3.1 Type-C with On-The-Go support (no bridge battery or options)¹⁵ Dual high-gain antenna pass-through for WWAN and GPS optional with all below configurations¹⁶ Bridge battery optional with all below configurations Configuration area #1 (Choose one) <ul style="list-style-type: none"> 1D/2D barcode reader (EA20)¹⁷ Wired LAN Configuration area #2 (Choose one) <ul style="list-style-type: none"> SmartCard reader¹ Magnetic stripe reader¹
ACCESSORIES¹⁴	<ul style="list-style-type: none"> AC Adapter (3-prong)¹⁸ Standard battery (2 cell) Extended life battery (4 cell) 4-bay battery Charger Standard hand strap with stylus holder and tether Rotating hand strap with stylus holder and tether Hand strap for mag stripe reader Shoulder strap Toughmate B2 always-on case Toughmate B2 portfolio Toughmate B2 holster Toughmate arm strap Toughmate B2 shoulder strap and case Toughmate kneebag/strap Replacement passive stylus Replacement tether Replacement protection film 1-bay life-function desktop cradle <ul style="list-style-type: none"> Gamber-Johnson life vehical port replicator (no pass-through) Gamber-Johnson life vehical port replicator (with dual pass-through) CF-AA6373AM FZ-VZSU94W FZ-VZSU95W FZ-VGBM11U FZ-VSTM11U FZ-VSTM12U FZ-VSTM13U FZ-VNSM12U TBOM1A0-P TBOM1PFLD-BLK-P TBOM1HSTR-P TBOARMSTP-P TBOM1SSTP-P TBOKNEESTP-P FZ-VNPM11U CF-VNTO02U FZ-VPRM13U FZ-VGBM11AU 7160-0531-00-P 7160-0531-02-P

Please consult your reseller or Panasonic representative before purchasing.

¹ Caution: Do not expose the skin to this product when using the product in a hot or cold environment. When using in hot or cold environment, some peripherals may fail to work properly. Check the operation environment of the peripherals. When using in low temperature environment, startup may become slow or battery operation time may become short. The computer consumes power when the hard disk is warming up during startup. Therefore, if you are using battery power and the remaining power is low, the computer may not start up.

² Exclusively configurable by selecting one from SmartCard reader or magnetic reader.

³ Exclusively configurable by selecting one from Stand-alone USB Type-C, wired LAN port or barcode reader.

⁴ Operations of this computer are not guaranteed except for the pre-installed OS.

⁵ 1MB = 1,048,576 bytes/1GB = 1,073,741,824 bytes.

⁶ 1TB = 1,000,000 bytes/1GB = 1,000,000,000 bytes. Your operating system or some application software will report as fewer GB.

⁷ Operation has been tested and confirmed using Panasonic microSD Memory Card with a capacity of up to 32 GB.

⁸ A 16,777,216 color display is achieved by using the dithering function.

⁹ Does not guarantee operation of all USB-compatible peripherals.

¹⁰ Only for model with Wireless WAN. The specifications may differ depending on the models.

¹¹ Approx. 8.5 W when the battery pack is fully charged (or not being charged) and the computer is OFF. Even when the AC adapter is not connected to the computer, power is consumed (Max. 0.3 W) simply by having the AC adapter plugged into an AC outlet.

¹² Figures depending on the usage condition.

¹³ May differ depending on models and options.

¹⁴ Average value. May differ depending on models and options.

¹⁵ Accessories and Integrated Options may vary depending on your configuration. Visit Panasonic website for more accessories and details.

¹⁶ The AC adapter is compatible with power sources up to 24W AC.

¹⁷ USB Type-C of this model does not support USB PD, Display Port, or Thunderbolt.

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