



PANASONIC TOUGHBOOK H2 COMPETITIVE COMPARISON CHART

	PANASONIC TOUGHBOOK® H2	MOTION COMPUTING® F5v/C5v	PANASONIC ADVANTAGE	
Rugged Features				
Magnesium Alloy Chassis	X	X		
Flexible Hard Drive Connector	X		Less likelihood of damage to the hard drive resulting from a drop/impact.	
Shock Mounted HDD	X		Good shock-mounting protects a hard drive at all times. A Freefall sensor only protects hard drives from drops when it has time to react.	
Heater	X		Enables operation in lower temperatures without limiting productivity.	
LCD Mounting Protection	Protected Glass and Touchscreen	Gorilla Glass	The Toughbook H2 enclosure protects the multi-part system to ensure all components stay functional, not just it's chemically hardened glass.	
Screen Protector	X (installed)	X (not installed)	Protective film reduces the expense and downtime of having to replace worn LCDs. Factory installed films are aligned without bubbles or creases.	
Fanless – Fully Sealed Design	X		The Toughbook H2's fanless design is made possible due to superior thermal dynamics for heat dissipation. The Toughbook H2 uses the latest Intel® processor and it is fully sealed to keep dirt and dangerous pathogens from collecting in the machine and potentially overheating it.	
Covered Ports	X		The Toughbook H2 port cover design enables superior ingress protection from dust or water.	
Ingress Protection	IP65	IP54	A higher rating ensures reliability and increased productivity in a wider range of operating conditions.	
MIL-STD-810G Tests	Drop Test Approved	6 foot (26 drops / 6 sides) 1 unit	5 foot (26 drops / 6 sides) 5 units	Panasonic tested all 26 drops with the same machine. Moreover, the same Toughbook H2 unit survived another 26 drops at 5 feet, and 26 more drops at 4 feet—passing all 78 drops with just 1 unit. The F5v required 5 machines to pass the MIL-STD-810G test of 26 drops at just 5 feet.
	Operating Temperatures	-20°F to 140°F*	+41°F to 95°F	On a 93 degree day, temps in a car can reach 140 degrees in only 40 minutes (NC Dpt Health and Human Services, 1993).
	Vibration	X		Tested to meet MIL-STD-810G standards beyond vehicle vibration and includes tests required for use in helicopters.
	Dust	X		Motion tested dust resistance in accordance with IEC 60529 IP54, whereas Panasonic tested to the military standard. Unlike the MIL-STD-810G test for dust, IEC does not require the unit to be working in order to pass the test.
	Max Altitude Operating	X		Motion tests their products to 10,000 ft. Some Toughbook users require a higher standard and are tested beyond to pass a 15,000 ft. requirement.
	Temperature/Thermal Shock	X		The Toughbook H2 is designed to survive a wide swing in temperatures that can produce thermal shock. Panasonic tests three cycles from 200°F to -60°F, Motion tests from 140°F to -20°F with 12 cycles.
Independent Lab Certified	X		An independent nationally recognized lab certifies that Toughbook computers meet all of the above MIL-STD-810G tests. These reports can be downloaded from the Toughbook website.	

To learn more, visit panasonic.com/toughbook/H2.

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Rugged Features (cont.)			
Historic Failure Rate	1%	Not published	The Toughbook H series is among the most reliable computer products in the industry. Panasonic publishes failure rates of all Toughbook products on its website so managers can plan for service and repair and calculate a Total Cost of Ownership.
Standard Warranty ¹	3 Years	1 Year	Toughbook is able to offer a 3 year warranty at no additional cost because the failure rate for this product is significantly low.
Key Features			
Screen Size	10.1"	10.4"	While the screen size is slightly smaller, the resolution is the same as the F5v. The smaller dimension allows for a protective bezel around the display, which helps to achieve its 6ft drop specification.
Screen Resolution	XGA (1024 x 768)	XGA (1024 x 768)	
Glove Touchscreen	X		The Toughbook H2 has an intuitive dual mode display that allows for both touch screen and active digitizer input. This is particularly helpful for use with gloves.
Digitizer	X	X	The digitizer improves accuracy and enables features like signature capture, and it can be disabled if the stylus is lost or damaged, keeping the user working if necessary.
Brightness (NIT)	Up to 6000 (In direct sunlight)	310	The Toughbook H2 outshines the F5v using just its indoor LED backlight to produce a brilliant 500 nits. Outdoors, in the direct sunlight, the Toughbook H2's standard TransflectivePlus with Circular Polarizer and Anti- Reflective display harnesses the sun's rays to produce up to 6000 nits, surprising even the optional ViewAnywhere outdoor display of the F5v.
Screen Technology	Transflective	Optically enhanced	The Toughbook H2 provides brilliant performance indoors and out without sacrificing battery life. The F5v requires a \$300 upgrade and does not offer a significant improvement to brightness.
Circular Polarizer	X		
Anti-Reflective LCD Treatment	X		
Anti-Glare Treatment	X		
Starting Weight	3.5 lbs	3.3 lbs	The Toughbook H2 has a significant performance advantage for only a slight weight difference.
Battery Life (with standard batteries)	6.5 hours	4 hours	The Toughbook H2 provides even more processing power and 63% more battery life than the F5v.
Windows® 7 Professional	X (32-bit and 64-bit)	X (32-bit)	The Toughbook H2 is the first handheld tablet with enough processing power to support a 64 bit OS.
Twin Batteries	X		Interchangeable twin battery design can give users much more time to change batteries without losing data. Motion's bridge battery lasts up to 1 minute and is not field replaceable.
Hot Swappable Duration	180 min	1 min	"Hot-swappable" capability provides limitless battery life by allowing users to change batteries at anytime without docking or shutting down.

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Key Features (cont.)				
Intel® CPU Technology	Starting CPU	i5-2557UM (1.7GHz)	i3-380UM (1.33GHz)	The Toughbook H2 use the next generation Intel® i5 processor for faster speeds and better battery performance.
	Introduced by Intel	2011 Q2	2010 Q2	Only Panasonic is using the latest generation Intel® processor. The series used by Motion's F5v is over 12 months old.
	Hyper-Threading	X	X	Allows for greater performance allowing the CPU to do multiple calculations at one time.
	Turbo Boost	X	Not available on i3	Adjusts the speed of CPU depending on the task, allowing it to conserve battery life by saving the highest performance for the tasks that need it the most.
	vPro™	X	Not available on i3 and i5	Intel®'s vPro technology is an essential for device security and support.
	Anti-Theft	X	Not available on i3 and i5	Locks down a stolen PC at a pre-boot level, even if it never connects to the internet. If the laptop is found, the PC can be unlocked.
	Standard Hard Drive	320GB 7200rpm Shock-mounted	160GB HHD	
	Solid State Drive (Optional)	128GB SSD	128GB SSD	
	Standard Memory (RAM)	4GB	1GB	
	Expandable up to	8GB	4GB	
Connectivity	USB	2	1	The Toughbook H2 offers a number of interface options, the F5v offers only 1 USB port.
	True Serial	1		
	LAN	1		
	Barcode Reader	Optional		
	RFID Reader	X	X	The integrated RFID reader can decode wireless ID tags from close range using the 13.56MHz frequency.
	Fingerprint Reader	X	X	The Toughbook H2 has a 75% wider fingerprint reader providing a larger surface area for more accurate scans.
	Contactless SmartCard Reader	X		
	Insertable SmartCard Reader	X	X	The Toughbook H2's insertable SmartCard reader is easier to use and the card can be completely enclosed in the case to decrease the chance of accidental damage. The F5v's SmartCards protrude from the back of the computer.

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Key Features (cont.)				
Connectivity	GPS	Optional	aGPS only	The built-in GPS receiver, when combined with GPS software, allows for tracking of resources and provides convenient on-screen navigation for field personnel.
	Integrated Camera	X	X	Both camera's offer a high quality auto-focus feature.
	Integrated Camera LED Light	X		LED lighting allows the unit to illuminate dark objects.
	3G Mobile Broadband (WWAN)	Gobi™2000	Gobi™ (Verizon and Sprint Only)	Gobi™ mobile broadband allows users to select or change to the best carrier for any coverage area. F5v is not certified for AT&T networks.
	4G Mobile Broadband (WWAN)	LTE (Fall 2011)		If equipped with a 4G wireless ready antenna, the Toughbook H2 can be upgraded to support the latest 4G broadband technology from all of the major carriers.
Wi-Fi	a/b/g/n (And optional 100mW)	a/b/g/n	The optional 100mW radio increases coverage area. Motion F5v only goes up to 30mW.	

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