




Rugged Handhelds

COMPARISON CHART

					
Panasonic Toughbook U1	Motorola 909X-K	Intermec CK31	Psion Teklogix WORKABOUT PRO G2 C	Comments	

RUGGEDNESS FEATURES

Magnesium Alloy Design	•		•		Magnesium alloy case leads to less likelihood of damage resulting from a drop/impact
Shock-mounted Hard Drive or Solid State Drive	•	N/A	N/A	N/A	Reduces likelihood of damage to a hard drive resulting from a drop or shock to the laptop
Removable Drive	•	N/A	N/A	N/A	Removable drive provides added data protection
LCD Mounting Protection	•	•	•	•	
Fanless Design	•	•	•	•	
Sealed All-weather Design	•	•	•	•	
Spill-resistant Keyboard	•	•	•	•	
Drop Test	4 feet (MIL-STD-810F)	6 feet	6 feet	5 feet	Only Panasonic specifies testing according to MIL-STD-810F standards/methodology
Ingress Protection Rating	54	64	64	65	Indicates how well-sealed a product is against intrusion from dust and water
UL1604 Class I Division 2 certified Model	•	•	•		UL1604 Class I Division 2 certification is required in hazardous areas to prevent potential sparks
Sunlight-viewable Display	•	•	•	•	
Anti-glare Screen Treatment	•				Anti-glare treatment improves viewability indoors by reducing glare caused by fluorescent lighting
Anti-reflective Screen Treatment	•				Anti-reflective treatment improves viewability outdoors by reducing the appearance of reflections
Screen Protection Film	•	Option	Option	Option	Protectant film reduces the expense and downtime of having to replace worn LCDs
Carrying Strap	•	•	Option	Option	Strap makes UMPC easier to handle, making it less likely to be dropped
Integrated Hidden (3G) Antenna	•	•			An integrated antenna reduces likelihood of accidental breakage when a unit is dropped or hits another object
Integrated Mobile Broadband (3G) Option	•	•		Requires Attachment	Mobile broadband allows access anywhere there is cell phone coverage, allowing true mobility
Integrated Wi-Fi	A/B/G/Draft-N	Option (A/B/G)	B/G	B/G option	Draft-N is faster and has a wider range than previous standards
Bluetooth® (Class 1 approx. 300' range, Class 2 approx. 33' range)	2.0 (Class 1)	1.2 (Class 2)	1.2 Option (Class 2)	1.2 Option Requires Attachment (Class 2)	Class 1 has approximately 9x the range allowing greater mobility; 2.0 is 3x faster, uses less energy and is backwards compatible
Backlit Keyboard	•	•		•	Backlit keyboards enable easier typing at nighttime as well as in low-light indoor environments
Warranty	3 years	1 year	1 year	1 year	Panasonic offers 3x the warranty period


KEY FEATURES

Screen Size	5.6"	3.8"	3.5"	3.6"	
Screen Resolution	WSVGA 1024 x 600	QVGA 240 x 320	QVGA 240 x 320	VGA 480 x 640	There is no need to scroll horizontally on the U1 and only minimal extra scrolling vertically compared to a regular laptop
Touchscreen	•	•	•	•	
Full QWERTY Keyboard	•				The U1's QWERTY keyboards allow for faster typing
Number of Keys/Buttons (not including power or scanner buttons)	69	51	50	50	The U1 has 35% more buttons, allowing for more PC-like feel and functionality



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KEY FEATURES (CONT.)

Dedicated Programmable Buttons	4	Up to 2		Up to 1	Dedicated programmable buttons allow for increased speed and efficiency
Directional Buttons	•	•	Partial	•	Traditional directional buttons facilitate fast movement in programs like spreadsheets, slides and word processing
Zoom Buttons	•				The U1 has dedicated zoom in and out buttons allowing for easy viewing
Scroll Buttons	•				The U1 has dedicated scroll buttons, allowing for easy navigation
Weight (without options or attachments)	2.3 lbs	1.4 – 1.6 lbs	1.3 lbs	1.3 – 1.7 lbs	
Dimensions (L x W x H) (without attachments)	5.9" x 7.2" x 2.2"	9.1" x 3.6" x 2.2"-2.3"	9.2" x 2.8" x 1.6"	8.8" x 3.9" x 1.7"	
Battery Life (with standard batteries)	5800mAh	2200 mAh	2400 mAh	3000 mAh	mAh is a handheld standard for gauging battery life—U1 has approximately 2x the battery life of all three competitors
Maximum Battery Swap Time	240 minutes	30 minutes	10 minutes	5 minutes	The U1 can support hours of continued uninterrupted operation versus just minutes—ideal for when there are no outlets or charged batteries available and the job still needs to get done
Twin Batteries	•				Interchangeable twin battery design can give users much more time to change batteries without losing data
Windows® XP SP2	•				Only the U1 runs on a full operating system, which allows desktop software to work on it
Windows Vista®	•				Only the U1 runs on a full operating system, allowing desktop software to run on it
Processor	Intel Atom Z520	Marvell Xscale PXA270	Marvell Xscale PXA255	Marvell Xscale PXA270	The U1 utilizes the latest generation of silicon from Intel, the world's leading manufacturer of CPU processors
Processor Clock Speed	1330 MHz	624 MHz	400 MHz	624 MHz	The U1 has more than double the processor speed
L2 Cache	•				L2 Cache allows for faster access time to data than just using RAM
Front Side Bus (FSB)	533 MHz	100 MHz	200 MHz	100 MHz	The U1 has more than 5x the FSB; the larger the FSB, the more data that can go back and forth between the CPU and RAM
Standard Hard Drive	16GB SSD				Only the U1 comes with a hard drive that allows data to be stored
Standard RAM	1024 MB	64 MB	64 MB	128 MB	The U1 has 8x to 16x more RAM providing more storage and improving the access speed
USB / SD / CF Mic or Mic Port / Headphone / Expansion	1 / 1 / 0 1 / 1 / 1	0 / 1 / 0 1 / 0 / 0	0 / 1 / 0 0 / 0 / 0	0 / 1 / 0 1 / 0 / 0	Only the U1 has a USB port; the U1's SD slot is more convenient since it can be accessed without turning off device and/or removing screws
Integrated 1D Barcode Option	•	•	•	Requires Attachment	The 1D barcode is built into the U1, which increases durability and ease of use versus requiring an attachment
Integrated 2D Barcode Option	•	•	•	Requires Attachment	The 2D barcode is built into the U1, which increases durability and ease of use versus requiring an attachment
Integrated RFID Option	Project Driven			Requires Attachment	The RFID reader (project driven) is built into the U1, which increases durability and ease of use versus requiring an attachment
Integrated Camera with LED Light Option	•				The U1 models can be equipped with a dedicated camera, including dual LED light
Integrated Fingerprint Scanner Option	•			Requires Attachment	The fingerprint scanner is built into the U1, which increases durability and ease of use versus requiring an attachment
Integrated GPS Receiver Option	•	Requires Attachment		Requires Attachment	The GPS receiver is built into the U1, which increases durability and ease of use versus requiring an attachment
Integrated SmartCard Reader Option	•				A SmartCard Reader increases the security of the device