

Windows®. Life without Walls™.
Panasonic recommends Windows 7.

Panasonic
ideas for life



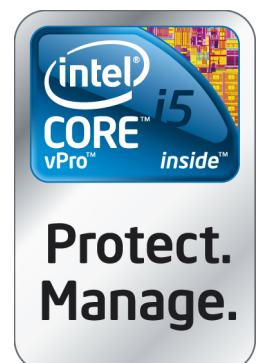
TOUGHBOOK CF-31 HIGH MODEL.

THE FULLY RUGGED, FULL-SIZE NOTEBOOK WITH ADVANCED GRAPHIC CAPABILITIES.

Specifically designed for field-based professionals who work in challenging environments and need advanced graphic performance, the new fully rugged Toughbook CF-31 High-Level Model offers the ultimate combination of graphics delivery and supreme ruggedness. Whether working in adverse weather, wet conditions, underground or where space restrictions would usually hamper productivity, the CF-31 ensures that mobile workers perform to their optimum and can access critical visual data and drawings, at all times.

- Intel® Core™ i5 540M with discreet switchable graphics
- Genuine Windows® 7 Professional
- 13.1" high brightness outdoor display with circular polarizer
- Certified by MIL-STD 810G* and IP65*
- Backwards compatible with CF-30 docking stations and carmounters**
- High flexibility and connectivity through new configurations such as second LAN, camera, 3G, WIMAX or GPS

* Tested by an independent third-party lab following IEC 60529, sections 13.4, 13.6.2, 14.2.5, 14.3
** Limited functionality



TOUGHBOOK When it's worth doing better.

MOBILE BUSINESS EXCELLENCE



FOR FIELD PROFESSIONALS LOOKING FOR ADDITIONAL GRAPHIC POWER.

The CF-31's high performance is provided by the latest Intel® Core™ i5 processor architecture, allowing users to exploit job-specific, cutting-edge software. A 1,100cd/m2, 13.1" LED backlit display (4:3) with circular polarizer also means the CF-31 can be viewed in direct sunlight.



Mobile Computing Platform	- Intel® Core™ i5 with vPro™ technology - Intel® Core™ i5-540M processor (2.53GHz, 3MB Smart Cache) - Intel® 5 series Express chipset QM57 - Intel® Centrino® Advanced-N 6200 AGN WLAN		
Operating System	Genuine Windows® 7 Professional		
RAM	2GB DDR3 SDRAM (max. 4GB)		
Graphic Chip	ATI Mobility Radeon™ HD 5650 (512MB dedicated RAM)		
Storage	250GB HDD (SATA) Test		
LCD	13.1" Active Matrix (TFT) colour LCD (up to 1.100cd/m2) with circular polarizer 1024 x 768 pixels (XGA); 16 million colours, concealed mode		
Cabinet	Full magnesium alloy with integrated carrying handle		
Bluetooth™	Version 2.1 + EDR; slide on/off switch		
WLAN	IEEE 802.11 a/b/g/n compliant; slide on/off switch		
LAN	IEEE 802.3 10 Base-T, IEEE 802.3u 100 Base-TX, IEEE 802.3ab 1000 Base-T		
Modem (optional)	Data: 56 kbps (V.92) FAX: 14.4 kbps		
Audio	WAVE and MIDI playback, Intel® High Definition Audio subsystem support		
Input Devices	Touchscreen, Touchpad and Keyboard with 88 keys		
Interfaces	Serial (16550A compatible)	D-sub, 9-pin	
	External display (VGA port)	Mini D-sub, 15-pin	
	HDMI		
	Headphone	Mini-jack, 3.5 DIA	
	Microphone	Mini-jack, 3.5 DIA, stereo	
	DC-In	Jack	
	USB 2.0	4x 4-pin	
	Modem (optional)	RJ-11	
	LAN (2nd LAN optional)	RJ-45	
	Firewire (IEEE1394a, optional)	1x 4-pin	
	External Antenna	1x (Dedicated 500 coaxial connector)	
	Port Replicator	80-pin	
	Expansion Slots	PC Card	1x Type I or 1x Type II
		Express Card	1x /34 or /54
SD/SDHC Memory Card		1x	
Optional RAM Module		1x SO-DIMM (DDR3 SDRAM)	
Power		AC Adapter	Input: 100 – 240V AC, 50Hz/60Hz; Output: 15.6V DC, 5.0A, 110W
	Battery	Li-ion (10.65V, 8.55Ah)	
	Battery	Li-ion (10.65V, 8.55Ah)	
	Battery Life	Approx. 11.5h (Windows® 7 model, Mobile Mark™ 2007, LCD brightness: 60cd/m2)	
	Charging time	Approx. 4.5h (Power on), 3.5h (Power off), depends on situation	
	Power Consumption	Approx. 100W (maximum when recharging)	
Power Management	Standby function, Hibernation function, ACPI BIOS		
Software	Adobe Reader, PC Information Viewer, Loupe Utility, Bluetooth™ Stack for Windows® by TOSHIBA, Wireless Switch Utility, Wireless Connection Disable Utility, Hotkey Settings, Battery Recalibration Utility, Infineon TPM Professional Package, Protector Suite QL, Aptio Setup Utility, Hard Disk Data Erase Utility, PC Diagnostic Utility, Concealed mode Utility		
Security Features	TPM (Trusted Platform Module, TCG V1.2 compliant), Integrated hardware security lock slot, Password security (supervisor password, user password, HDD lock)		
Dimensions (W x H x D)	302mm x 73.5mm x 292mm, 11.9" x 2.9" x 11.5" (excluding protrusions)		
Weight	Approx. 3.72kg (Approx. 8.2lb.)		
Integrated Options	GPS, Fingerprint Reader, Smart Card Reader, 3G Mobile Broadband (HSPA, up to 7.2Mbps)		
Testing Standards	Water resistance test	IEC529 (JIS C0920) IP-X5*, MIL-STD 810G 506.5- I & III*	
	Dust resistance test	IEC529 (JIS C0920) IP-6X*, MIL-STD 810G 510.5- I & II*	
	Gravity drop resistance test	MIL-STD 810G 516.6 IV* (180cm drop)	
	Vibration resistance test	MIL-STD 810G 514.6- I & II*	
	Accessories	Desktop Port Replicator	CF-VEB311
Car Mounter Kit		CF-WEB301	
AC Adapter		CF-AA5713A	
Battery		CF-VZSU46AU	
DVD Multi Drive (Multimedia Bay)		CF-VDM311U	
Stylus Pen		CF-VNP009U	

As an ENERGY STAR® Partner, Panasonic Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency. 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. HDD 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. * Tested by an independent third-party lab following IEC 60529, sections 13.4, 13.6.2, 14.2.5, 14.3 Panasonic Marketing Europe GmbH, Panasonic Computer Products Europe Headquarters, Hagenauer Straße 43, 65203 Wiesbaden (Germany).