

## THE SEMI RUGGEDIZED NOTEBOOK WITH WIDE-SCREEN. TOUGHBOOK CF-52

Intel® Centrino® Duo Processor Technology with Intel® Core™ 2 Duo Processor

Genuine Windows® XP Professional or Genuine Windows Vista® Business

15.4" WXGA Active Matrix (TFT) colour LCD

Robust magnesium alloy display case



Shock-protected, easily removable HDD Integrated DVD Multi Drive

Firewire (IEEE1394), USB 2.0 and serial port

Battery life up to 7.5 hours

Withstands drops from a height of 76cm\*

TOUGHBOOK

Panasonic ideas for life

Information at www.toughbook.eu





The CF-52 is the ideal all-round notebook when you are on the move or in the office. As a Toughbook, it comes up with a range of "ruggedised" features protecting its key components against vibrations and even falls from a height of up 76cm\*. The display is surrounded by dampers and is mounted in a durable magnesium case. The hard disk drive is embedded in a shock-absorbing foam and is connected to the motherboard by flexible cabling. The splash resistant keyboard and touchpad helps to stop water or any other liquid from entering the casing and causing internal damage, while rubber port covers protect all sensitive external connections.

The CF-52 has a bright 15.4" widescreen LCD in 16:10 format with WXGA resolution – particularly beneficial when displaying complex graphics. The maximum 4GB RAM (2 x 2GB DIMM), Intel® Centrino® Duo processor technology, a weight of only 3.3kg and the integrated carrying handle provide maximum working flexibility. Two Diversity WLAN antennas ensure optimal reception at all times, and finally, state-of-the-art energy-saving components combined with the CF-52's durable battery enable a running time of up to 7.5 hours.



Mobile Computing	Intel® Centrino® Duo Processor Technology		
Platform	- Intel® Core™ 2 Duo Processor T7100 (1.8GHz, 2MB L2 cache, 800MHz FSB)		
	- Mobile Intel® GM965 Express Chipset		
	- Intel® Wireless WiFi link 4965 AGN (802.11 a/b/g)		
OS	Genuine Windows® XP Professional or		
	Genuine Windows Vista® Business		
RAM	1GB DDR2-667 SDRAM (expandable to 2GB + 2GB on project basis)		
Graphic Chip	Intel® GM965 graphics controller; UMA (Windows® XP: max. 384MB; Windows Vista®: max. 251MB)		
HDD	80GB S-ATA (shock resistant; withstands a 90cm drop)		
Optical Drive	DVD Multi Drive (DVD-R/RW & CD-R/RW)		
LCD	Bright 15.4" Active Matrix (TFT) colour LCD		
	1280x800 pixels (WXGA)		
LCD Cabinet	Magnesium alloy		
Bluetooth®	Version 2.0 + EDR		
WLAN	IEEE 802.11a/b/g (max. 54Mbps)		
LAN	IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T		
Modem	Data: 56kbps (V.92) FAX: 14.4kbps		
Sound	Analog Devices AD1884 (conforms to Intel® High Definition Audio)		
	Integrated stereo speakers		
Input Devices	Touchpad and keyboard (both splash resistant)		
Indicators	11 LEDs (2x Power, Battery, HDD, Multimedia Pocket,NumLK, CapsLK, ScrLK, SD, WWAN, Wireless ready)		
Interfaces	Serial (16550A compatible): Dsub, 9-pin		
	External display (VGA port): Mini Dsub, 15-pin		
	Headphones: Mini-jack, 3.5 DIA, stereo		
	Microphone: Mini-jack, 3.5 DIA, stereo		
	DC input: Jack		
	USB 2.0: 4x 4-pin		
	E: : (IEEE4001)		





Analog Devices AD1884 (conforms to Intel® High Definition Audio)		
Integrated stereo speakers		
Touchpad and keyboard (both splash resistant)		
11 LEDs (2x Power, Battery, HDD, Multimedia Pocket, NumLK, CapsLK, ScrLK, SD, WWAN, Wireless ready)		
Serial (16550A compatible):	Dsub, 9-pin	
External display (VGA port):	Mini Dsub, 15-pin	
Headphones:	Mini-jack, 3.5 DIA, stereo	
Microphone:	Mini-jack, 3.5 DIA, stereo	
DC input:	Jack	
USB 2.0:	4x 4-pin	
Firewire (IEEE1394):	1x 4-pin	
Modem:	RJ-11	
LAN:	RJ-45	
Port replicator:	100-pin	
PC Card**:	1x Type I or Type II (3.3V: 400mA, 5V: 400mA)	
ExpressCard**:	1x ExpressCard/34 or ExpressCard/54	
SD Memory Card:	1x (Data transfer rate = 8MB per second)	
Optional RAM Module:	200-pin, 1.8V, SO-DIMM, DDR2 SDRAM, PC2-5300 Compliant	
AC Adapter:	Input: 100V ~ 240V, 50Hz/60Hz; Output:15.6V, 8.0A	
Battery:	Lithium-Ion (11.1V, 7.65Ah)	
Battery life:	Approx. 7.5 hours (MobileMark™ 2005 – 60cd)	
Charging time:	Approx. 4.0 (Power on)	
Standby function, ACPI BIOS		
Adobe® Reader, installation program, DMI viewer, online reference handbook, Recovery Pro 6, PC Diagnostic		
TPM (Trusted Platform Module – TCG V1.2 compliant)		
Password security (supervisor password, user password, hard disk lock)		
Integrated hardware security lock slot		
) 355.7mm × 286.8mm × 50.7~51.9mm	m / 14.0" × 11.3" × 2.0" (including carrying handle)	
3.3kg (including carrying handle)		
Fingerprint Reader, Smart Card Reader, UMTS/HSDPA module		
1GB RAM module:	CF-WMBA601G	
2GB RAM module:	CF-WMBA602G	
AC adapter:	CF-AA1683A	
Battery charger:	CF-VCBTB1U	
Battery pack:	CF-VZSU29AU	
Port replicator:	CF-VEB521W	
MIL-STD 810F		
	Integrated stereo speakers Touchpad and keyboard (both splain 11 LEDs (2x Power, Battery, HDD, Serial (16550A compatible): External display (VGA port): Headphones: Microphone: DC input: USB 2.0: Firewire (IEEE1394): Modem: LAN: Port replicator: PC Card**: ExpressCard**: SD Memory Card: Optional RAM Module: AC Adapter: Battery life: Charging time: Standby function, ACPI BIOS Adobe® Reader, installation progration (and the second point of the s	



near you for more details and availability of integrated options.

\* Non-operating, 6 surfaces (tested at Panasonic laboratory; no guarantee that unit never gets broken)
\*\* Config. A: 2x PC Card Type I or II, no ExpressCard — Config. B: 1x PC Card Type I or II + 1x ExpressCard

As an ENERGY STAR® Partner, Matsushita Electric Industrial Co., Ltd. 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. Panasonic and Toughbook are brand names and registered trademarks of Matsushita Electric Industrial Co., Ltd. Acrobat® is a registered trademark of Adobe® Systems Incorporated. Intel, Intel Inside, the Intel Inside logo, Core, Intel Centrino, and the Intel Centrino logo are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States 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.

**Panasonic** ideas for life

www.toughbook.eu