

TOUGHBOOK

CF-52_{Mk2}

Semi Rugged Series



Main Features

Desktop replacement 15.4" wide screen and latest Intel® Centrino® Processor Core™ 2 Duo

Shock-resistant body survives 76-cm free-fall tests*1

Magnesium Alloy casing with easy to carry handle

160 GB SATA Removable Shock Mounted Removable HDD

Moisture and Dust Resistant Keyboard and Touch Pad

Operates with the standard battery for up to 7.5 hours*2

Integrated Bluetooth™ as standard

Sealed port and connector covers for water and dust resistance

Serial, USB 2.0 x 4 and IEEE 1394a connectors as standard

Embedded options:
3G, Fingerprint scanner & Smart Card Reader

Panasonic recommends Microsoft® Windows Vista™ Business.
A Semi Ruggedised, Durable, Powerful, Business PC



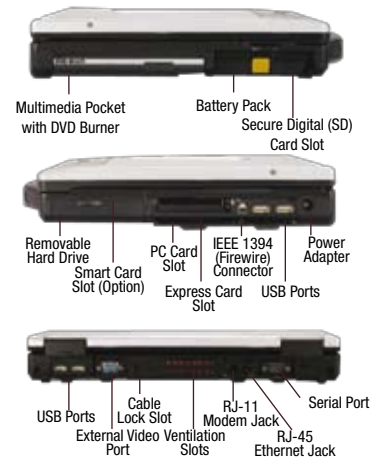
ISO 14001

We implement environment management systems in our factories worldwide and have acquired ISO14001 certification.

ECO

Lead-free solder used for PCB component mounting.

Interface



- Microsoft® Windows® Vista™ Business (XP Downgrade DVD in box)
- Intel® Centrino® Technology:
- Intel® Core™ 2 Duo Processor (Standard Voltage version P8400): 3MB L2 cache, 2.26 GHz, 1066 MHz FSB
- Intel® Shirley Peak PRO/Wireless 4965 (802.11 a/b/g/n)
- HDD: 160 GB³ SATA
- RAM: Standard 1GB⁴ (4 GB max.⁵)
- 15.4" TFT / WXGA resolution



*1 Test conducted in non-operating condition. The shock resistance, vibration resistance, dust-proof, and splash-proof specifications do not guarantee that the product can be operated without damage or malfunction. *2 The period of battery operation time varies according to the operating environment, LCD brightness, and system settings. Measured using BatteryMark™ Ver.4.0.1" (LCD brightness Minimum). *3 1GB = 1,000 MB, in capacity. The actual capacity may be less than displayed, depending on the OS and application software. *4 1MB = 1,048,576 bytes in capacity. *5 When the existing 1GB-MB DIMM is replaced with a 2-GB DIMM. *6 1GB = 1,000 MB, in capacity. Operating system or some application software will report as fewer GB.

CF-52 Mk2

CF-52GCMBVAM

Operating System		Microsoft® Windows® Vista Business (XP Downgrade DVD in box)
CPU		Intel® Centrino® Core 2 Duo Processor P8400 (2.26 GHz, 3 MB ¹ L2 cache, 1066 MHz FSB)
Chipset		Intel® GM45
Memory¹		1 GB (4 GB Max.)
Video Memory^{1,2}		UMA (384 MB Max.)
Hard Disk Drive³		160 GB SATA
Display Method		15.4" TFT/WXGA 200 nit
Wireless LAN		Intel® ShirleyPeak 802.11 a/b/g/n
Bluetooth		Version 2.0+EDR
LAN		IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000 Base T (10/100/100)
Modem		Data: 56 kbps (V.92) FAX: 14.4 kbps
Sound		WAVE and MIDI playback, Monaural speaker, Intel® High Definition Audio subsystem support
Security Chip		TPM (TCG V1.2 compliant) ⁴
Card Slot	PC Card ExpressCard HCSD Memory Card Smart Card Reader	Type I or Type II x 1 (3.3 V: 400 mA, 5 V: 400 mA) ExpressCard/34 or ExpressCard/54 x 1 HCSD x 1, Data transfer rate = 8 MB per second ⁵ x 1 Optional
RAM Module Slot		200-pin, 1.8 V, SO-DIMM, DDR2 SDRAM, PC2-4200 Compliant
Interface		USB port (4-pin, USB 2.0) x 4, Serial Port (Dsub 9-pin male), Modem port (RJ-11), LAN port (RJ-45), External display port (Mini Dsub 15-pin female), IEEE1394a Interface Connector (4-pin x 1), Microphone Jack (Miniature jack, 3.5 DIA, Stereo), Headphone Jack (Miniature jack, 3.5 DIA, Impedance 32 Ω, Output Power 4 mW x 2, Stereo) Setup Utility, Hard Disk Data Erase Utility*
Keyboard / Pointing Device		87 keys Water Resistant / Touch Pad
Power Supply		AC adaptor, DC adapter or Battery pack
AC Adaptor		Input: 100 V to 240 V AC, 50 Hz/60 Hz, Output: 16.0 V DC, 3.75 A
Battery Pack	Operating Time ⁶ Charging Time ⁶ (Power off)	Li-ion 9 cell 11.1v 7800mAh Approx. 7.0 hours to 7.5 hours ¹³ (Approx. 7.5 hours ¹⁴) Approx. 4.5 Hours
Power Consumption⁹		Approx. 26 W ¹⁰ / Approx. 55 W (Maximum when recharging in the on state)
Physical Dimensions (W x H x D) (excluding the hand strap/shoulder strap)		355.7 mm x 286.3mm x 8 x 50.7mm - 51.9mm with handle
Weight (excluding the hand strap/shoulder strap)		Approx. 3.35 kg
Operating Environment		Temperature: 5°C to 35°C Humidity: 30% to 80% RH (No condensation)
Storage Environment		Temperature: -20°C to 60°C Humidity: 30% to 90% RH (No condensation)
Utility Programs		DMI Viewer, Adobe Reader, PC Information Viewer, SD Utility, Icon Enlarger, Loupe Utility, WinDVD™ 5 (OEM Version), B's Recorder GOLD8 BASIC, B's CLIP 6, Intel® PROSet/Wireless Software ⁷ , Bluetooth™ Stack for Windows® by TOSHIBA ⁸ , Wireless Switch Utility, Hotkey Settings, Battery Recalibration Utility, Infineon TPM Professional Package ¹⁹ , Recover Pro™ 6*

*1 1 GB = 1,000 MB

*2 A segment of the main memory is allotted automatically depending on the computer's operating status. The size of the Video Memory cannot be set by the user.

*3 1 GB = 1,000,000,000 bytes. Your operating system or some application software will report as fewer GB.

*4 For information on TPM, click [start] - [Run] and input "c:\util\drivers\tpm\README.pdf", and refer to the Installation Manual of "Trusted Platform Module (TPM)".

*5 Operation has been tested and confirmed using Panasonic SD Memory Cards with a capacity of up to 32 GB.

The transfer rate using the SD Memory Card slot on this computer is 8 MB per second. (This is a theoretical value, and differs from actual speeds.)

The transfer rate is 8 MB per second even if you use an SD Memory Card that supports high-speed transfer rates.

Operation on other SD equipment is not guaranteed.

This computer is not compatible with Multi Media Cards. Do not insert these kinds of cards.

*6 Varies depending on usage

*7 Only for model with wireless LAN

*8 Only for model with Bluetooth

*9 Measured using BatteryMark. Version 4.0.1 (LCD brightness: Maximum - Minimum)

*10 Measured using MobileMark. 2005 (LCD brightness: 60 cd/m²)

*11 Approx. 26 W when the battery pack is fully charged (or not being charged) and the computer is OFF.

Approx. 1.2 W when the Wake up from LAN has been enabled.

*12 Rated power consumption 23-E-1

*13 You need to install to use the feature.

*14 The Product Recovery DVD-ROM is required.

Panasonic reserves the right to change design and specifications with out notice.