

Panasonic recommends Windows Vista® Business



Centrino®  
Duo

Core™ 2 Duo  
inside™



## THE RUGGED CONVERTIBLE TOUGHBOOK® TOUGHBOOK CF-19

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

Genuine Windows® XP Professional or  
Genuine Windows Vista® Business

Vibration and shock resistant (MIL-STD 810F)

Water and dust resistant (IP54, MIL-STD 810F)

Lightweight at just 2.3kg



High-brightness 10.4" LCD with Touch or  
Digitizer Screen

Long battery life of up to 7 hours

Firewire (IEEE1394a), USB 2.0 and serial port

Bluetooth™ and WLAN integrated

Optional integrated UMTS/HSDPA module

**TOUGHBOOK**

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Information at [www.toughbook.eu](http://www.toughbook.eu)



Featuring a revolutionary LCD screen that transforms from a high-performance notebook to a fully portable tablet PC, the CF-19 Convertible tablet PC is reliable, durable and lightweight at just 2.3kg. The optimised display technology with low reflection allows for perfect visibility even in bright environments. The LCD itself is protected by a durable scratch resistant magnesium alloy case, mounted to the base cabinet with an extremely robust and dust resistant two-dimensional hinge. The data is secured on the hard disk drive – enclosed in a shock-absorbing damper that sits inside an aluminium case. A double waterproof structure ensures a tight durable seal that complies with IP54 water and dust-proofing standards, and a special HDD-heater that counters any adverse temperatures. Boasting these striking features means you can rely on the CF-19, even in extreme conditions.

The Intel® Centrino® Duo Processor Technology with Intel® Core™ 2 Duo Processor promises high performance and efficient energy consumption. Thanks to two antennas located in the top of the display unit an optimum WLAN data transfer can be achieved. The high-power battery allows for a running time of up to 7 hours.

Mobile Computing Platform	Intel® Centrino® Duo Processor Technology – Intel® Core™ 2 Duo Processor U7500 (1.06GHz, 2MB L2 cache, 533MHz FSB) – Mobile Intel® GM965 Express Chipsets – Intel® Wireless WiFi Link 4965AG, supporting IEEE 802.11a/b/g (max. 54Mbps)
OS	Genuine Windows® XP Professional or Genuine Windows® XP Tablet PC Edition or Genuine Windows Vista® Business
RAM	1GB DDR2-533 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 (shock resistant; withstands a 90cm drop)
LCD	10.4" anti-glare XGA Active Matrix (TFT) colour LCD, 1024x768 pixels (XGA), 16 million colours – Touchscreen version with Windows® XP Professional (up to 500cd/m²) – Digitizer Screen version with Windows® XP Tablet PC Edition (up to 550cd/m²)
LCD Cabinet	Full magnesium alloy
Bluetooth™	Version 2.0 + EDR
WLAN	IEEE 802.11a/b/g (max. 54Mbps); slide on/off switch
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	SigmaTel™ STAC9200 (AC-97 V.2.1 compliant), supporting Intel® High Definition Audio Subsystem Monaural speaker (integrated in display cabinet)
Input Devices	Touchscreen or Digitizer, Touchpad and Keyboard
Indicators	9 LEDs (Power, Battery, HDD, Caps Lock, Scroll Lock, Num Lock, SD Card, WWAN, Wireless Data Transfer)
Interfaces	Serial (16550A compatible): Dsub, 9-pin External display (VGA port): Mini Dsub, 15-pin Headphone: Mini-jack, 3.5 DIA Microphone: Mini-jack, 3.5 DIA, stereo DC In: Jack USB 2.0: 2x 4-pin Modem: RJ-11 LAN: RJ-45 Firewire (IEEE1394a): 1x 4-pin External Antennae: 2x (Dedicated 50Ω coaxial connector) Port replicator: 100-pin
Expansion Slots	PC Card: 1x Type I or Type II (3.3V: 400mA, 5V: 400mA) Express Card: 1x ExpressCard/34 or ExpressCard/54 SD Memory Card: 1x (Data transfer rate = 8MB per second) Optional RAM Module: 1x SO-DIMM (200-pin, 1.8V, DDR2 SDRAM, PC2-4200 Compliant)
Power	AC Adapter Input: 100 ~ 240V AC, 50Hz/60Hz; Output: 16V DC, 3.75A Battery: Li-ion (10.65V, 5.7Ah) Battery life: Approx. 7 hours (Mobile Mark™ 2005, Windows® XP model) Charging time: Power off: approx. 4.5 hours
Power Management	Standby function, Hibernation function, ACPI BIOS
Software	Windows® Media Player 10, Adobe® Reader, Intel® Matrix Storage Manager, Intel® PROSet/Wireless Software, Bluetooth™ Stack for Windows® by TOSHIBA, Wireless Switch Utility, Panasonic Hand Writing*, Software Keyboard*, Display Rotation Tool, DMI Viewer, PC Information Viewer, SD Utility, Battery Recalibration Utility, Infineon TPM Professional Package, Recover Pro™ 6 or Recover Pro™ VX, Hard Disk Data Erase Utility, Setup Utility, PC-Diagnostic Utility (* Windows® XP Professional model)
Security Features	TPM (Trusted Platform Module, TCG V1.2 compliant), integrated hardware security lock slot Password security (supervisor password, user password, hard disk lock)
Dimensions (WxHxD)	271mm x 49mm x 216mm / 10.7" x 1.93" x 8.5" (excluding protrusions)
Weight	Touchscreen version: 2.3kg / 5.07lb, Digitizer version: 2.35kg / 5.18lb (including battery)
Integrated Options	GPS, Fingerprint Reader, Smart Card Reader, UMTS/HSDPA module (max. 3.6Mbps)
Accessories	1GB RAM module: CF-WMBA601G 512MB RAM module: CF-WMBA5512C AC adapter: CF-AA1633AE, CF-AA1633AG, CF-AA1633AT Battery charger: CF-VCBTB1W Battery pack: CF-VZSU48U Car-Mount: CF-WEB184B Combo-Drive (USB): CF-VDRRT3U Port-Replicator: CF-VEB181AU
Testing Standards	Water resistance test: IEC529 (JIS C0920) IPX4, MIL-STD 810F 506.4-III Dust resistance test: IEC529 (JIS C0920) IP5X, MIL-STD 810F 510.4-Level Gravity drop resistance test: MIL-STD 810F 516.5 (90cm drop) Vibration resistance test: MIL-STD 810F 514.5 category 24

Specification and configuration may vary depending on country. Accessories may vary depending on your notebook configuration. Consult a Panasonic sales office near you for more details and availability of integrated options.

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.

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