



Panasonic CF-19 Info Pack

CF-19

Rugged Notebook

Introduction

The Panasonic Toughbook CF-19 is the perfect 2-in-1 solution. Built from the ground up as a full rugged convertible PC, the Panasonic CF-19 can be used at all times, even in extreme levels of damp, dust, heat, cold or vibration. The optimised display technology with extra low reflection rate ensures excellent clarity of display even in bright ambient light. The integrated Intel® Core 2 Duo Technology promises the highest performance with efficient energy consumption and the high performance lithium-ion battery provides an operating time of up to 8 hours.



The industrial-design magnesium-alloy top panel with black hard rubber bumpers offers excellent protection against all manner of harsh environments. All of the ports on the back and sides are protected behind hinged plastic doors. An ingeniously placed clasp on the front panel can clamp down the screen in either Tablet or notebook mode and can be hidden out of the way when not needed.

The CF-19 is based around a 1.6-GHz Intel Core 2 Duo processor and an 80GB hard drive, however a wealth of additional wireless connectivity options are also available to expand its operational performance.

Convertible LCD Display

The CF-19 ruggedised convertible tablet features a revolutionary LCD screen transforming easily from a high performance rugged notebook to touchscreen tablet PC via a robust bilateral hinge. It can be used as a notebook, or the screen can be rotated and then folded down flat onto the keyboard, LCD facing up.

CF-19



Embedded 3G wireless broadband

The optional embedded 3G wireless broadband allows you to stay connected at fast speeds wherever you are in the country, keeping you more productive for longer. The internally embedded modem and inbuilt wireless antennas ensure crystal clear reception while not compromising the rugged features of the unit.

Trusted Platform Module (TPM)

The CF-19 features enhanced security to protect your valuable data. An embedded Trusted Platform Module (TPM) 1.2 chipset prevents your HDD from being read, while the optional fingerprint reader gets rid of clumsy and insecure passwords. The CF-19 also features a cable lock slot to physically secure the unit.



Trust Platform Module is a micro controller that follows the standard formed by Trusted Computing Group (TCG) in enhancing security by combining software and hardware functions to encrypt and decrypt protected files. A user can apply a private key and a public key simultaneously for double protection. This gives the user the ability to share files without being exposed to other unauthorized users. The M230's TPM 1.2 security solution provides complete security from theft or software attack.

Rugged, daylight readable LCD

The screen itself is as tough as it is clear. It has an extra bright active matrix (TFT) colour LCD panel surrounded with dampers and mounted in a shock absorbing magnesium display casing. An exchangeable anti-reflective foil ensures you have a clear and glare-free view, even under outdoor conditions.

Normally, a standard LCD is often difficult to view due to reflections from direct sunlight and its low brightness. The CF-19 sunlight readable solution increases the LCD brightness by improving efficiency of the LCD backlight without increasing power consumption. Reflections caused by direct sunlight or other light sources are simultaneously reduced. By combining these two enhancements, the CF-19 sunlight readable LCD can meet the requirements for rugged use.



The 10.4-inch screen on the CF-19 has an extremely fine pixel density to enable the display to support an XGA native resolution. This results in an extremely sharp image.

Rugged Durability



The CF-19 has a fan-less design to avoid dust and other particles being sucked into the body of the computer. In addition, the individually sealed keyboard, touchpad and display are water and dust resistant to prevent any damage to the interior circuits. All key areas of the casing are sealed with a flexible elastomer sealant, ensuring all the seals are tight and durable to meet IP54 water and dust resistance standards.

The hinges can handle the most punishing use thanks to their 2mm thick fixings and ultra-strong screws. They are also completely sealed from dust, and have been opened and closed 50,000 times to thoroughly test their durability.



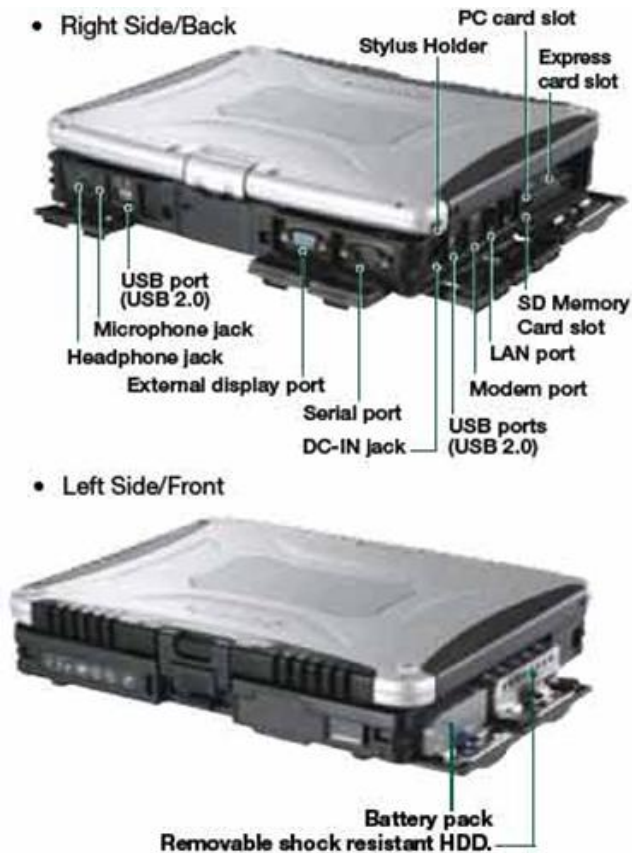
The fully ruggedized CF-19 Toughbook has port connections that sit deeper in the casing than before. This offers a stronger connection and avoids the risk of them being knocked out and damaged if the CF-19 is moved around whilst connected. The connections themselves are tested 20,000 times. Integral connector covers keep out dust and moisture to make sure you are able to work outside in all conditions.

Weighing just 2.2Kgs, the CF-19 is amongst the most portable and lightweight fully rugged notebooks in its class.

Battery Life

The CF-19 provides up to 8 hours of battery life with the standard battery. It also includes a unique sensor to measure the temperature. This lets the unit charge to the best level for those conditions, allowing the user to get the most out of your battery.

Panasonic CF-19 Connectivity



Key Features of the CF-19

Mobile Computing

Intel® Core 2 Duo Processor Technology

Platform

Intel® Core™ 2 Duo Processor ULV U752400 (1.06GHz, 2MB L2 cache, 533MHz FSB)

Intel® 945GM Chipset

Intel® PRO/Wireless 3945ABG network connection, supporting IEEE 802.11a/b/g (max. 54Mbps)

OS Genuine

Windows® XP Professional (Service Pack 2 with Advanced Security Technologies)

RAM

512MB DDR2-533 SDRAM (expandable to 4096MB)

Graphic Chip

Intel® 945GM graphic controller, UMA (unified memory architecture) up to 128MB

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 460cd)

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 10 Base-T, IEEE 802.3u 100 Base-TX

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), software control of sound volume (FN + F5/F6 keys)

Input Devices

Touchscreen, Touchpad and Keyboard (82-key with dedicated Windows® key)

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 D-sub, 15-pin

Headphone: Mini-jack, 3.5 DIA

Microphone: Mini-jack, 3.5 DIA, mono

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. 4.5 - 8 hours (Battery Mark 4.01 – max./min. brightness)
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® PRO/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 ProTM 6, Hard Disk Data Erase Utility, Setup Utility, PC-Diagnostic Utility (* Windows® XP Professional model)

Security Feature

TPM (Trusted Platform Module, TCG V1.2 compliant)
Password security (supervisor password, user password, hard disk lock)
Integrated hardware security lock slot

Dimensions

(WxHxD) 271mm x 49mm x 216mm / 10.7" x 1.93" x 8.5" (excluding protrusions)

Weight

Touchscreen version: 2.25kg (including battery)