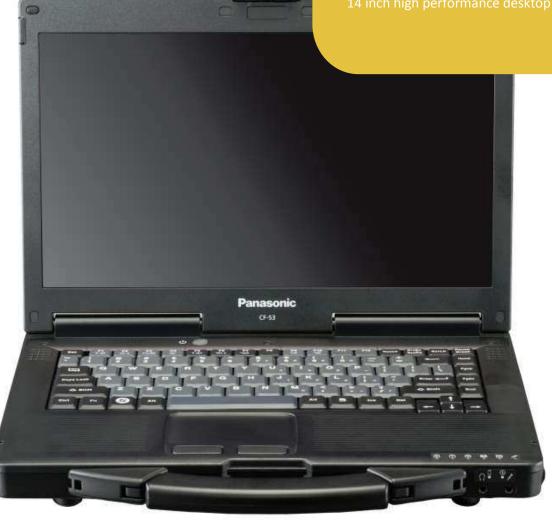


## Rugged Mobility

Panasonic CF-53
Business Rugged
Computer

14 inch high performance desktop replacement PC



# Try dropping any other PC without damaging the hard disk.

## Business Rugged Toughbooks are durable enough for the real world

Any business on the move requires technology that can go the distance. With a mobile PC, the display, hard disk and keyboard are the components that suffer the most damage. It's why Business Rugged Toughbook models really focus on protecting them.

## Sensible protection for the most frequently damaged components

Accidental drink spillages cannot damage the Toughbook Business models because a special drainage system protects the keyboard, touchpad and other sensitive components from splashes – especially on journeys. A full 170 ml glass spilt directly over the keyboard and touchpad simply flows out through the drainage channels, leaving all electronics in the notebook dry and intact.

## Try dropping any other PC without damaging the hard disk

The robust Business Ruggedised Toughbook has been further improved with drop tests. In fact, even in active operation they can withstand falls from a height of up to 76 cm without sustaining damage, with the hard disk remaining safe from harm.

## An unbreakable magnesium case keeps your data safe

Thanks to optimal pressure distribution, the Business Rugged Toughbook Executive models also withstand pressure of up to 100 kg/f. This means the sensitive LCD display is safe from breakages and other damage. Damage to the hard disk from external shocks and vibrations is also prevented, thanks to the integrated, unbreakable magnesium case, equipped with four shock-absorbing pads made from high-tech material.

#### Ruggedisation

- Drop resistant to 76 on 6 faces
- · Spill resistant keyboard
- · Optional hard drive heater
- Magnesium alloy case with handle/hand strap
- Shock-mounted flex-connect hard drive with quickrelease
- Dust covers over ports
- Pre-installed replaceable screen film<sup>1</sup>
- LCD mounting protection
- Anti-glare screen treatment



#### **Specifications**

#### **SOFTWARE**

- Genuine Windows® 7 Professional 32-bit²
   or Genuine Windows® 7 Professional 64-bit²
- Panasonic Utilities, Recovery Partition

#### **FEATURES**

#### CPU<sup>3</sup>

- Intel® Core™ i5-3320M vPro™ Processor
- 2.6GHz with Turbo Boost up to 3.3GHz
- Intel Smart Cache 3MB

#### **STORAGE & MEMORY**

- 4GB SDRAM (DDR3-1333MHz) standard, expandable to 16GB<sup>4,5</sup>
- 500GB 5400rpm hard drive (shock-mounted flex-connect with quick-release)
- Optional 128GB, 256GB and 512GB reinforced flexconnect solid state drive (SSD)<sup>5</sup>

#### **DISPLAY**

- 14" high definition (720p) LED 1366 x 768
- Optional touchscreen
- Panasonic CircuLumin™ technology
- -2 850 nit
- Circular polariser
- Anti-reflective and anti-glare screen treatments
- External video support up to 1920 x 1200 at 16.7 million colours
- ullet Intel® QM77 video controller, max. 1428MB shared VRAM $^{7}$
- Concealed mode

#### **AUDIO**

- Intel® high-definition audio compliant
- Integrated stereo speakers
- Keyboard volume and mute controls

#### **KEYBOARD & INPUTS**

- Optional touchscreen LCD with integrated stylus holder<sup>1</sup>
- 87-key with dedicated Windows® key
- Oversized electrostatic touchpad with multi touch support
- Optional backlit emissive keyboard

#### **EXPANSION SLOTS**

- DVD Super MULTI Drive with Dual Layer Support
- PC card type II x 1
- SD card (SDXC)
- ExpressCard/54 x 1

- Ergonomic design for easy carriage
- Long battery life
- 76 cm free-fall test
- 100 kg of downward foot pressure

#### **INTERFACE**

- Docking connector Dedicated 100-pin
- VGA D-sub 15-pin
- Headphones/speaker Mini-jack stereo
- Microphone/line in Mini-jack stereo
- Serial D-sub 9-pin
- Ext. antenna conn. (x 2) 50 ohm coaxial
- USB 3.0 (x 1), USB 2.0 (x 1)
- IEEE 1394a (FireWire) 4-pin
- 10/100/1000 Ethernet RJ-45
- 56K Modem RJ-11

#### **WIRELESS**

- Optional integrated 4G LTE mobile broadband
- Optional integrated 3G Gobi™3000 mobile broadband
- Intel® Centrino® Advanced-N 6235 802.11a/b/g/n
- Bluetooth® v4.0 + EDR (Class 1)
- Security
- Authentication: LEAP, WPA, 802.1x, EAP-TLS, EAP-FAST, PEAP
- Encryption: CKIP, TKIP, 128-bit and 64-bit WEP, Hardware
- Dual high-gain antenna pass-through
- Slide on/off switch

#### **POWER SUPPLY**

- Lithium ion battery pack (10.65V, typical 5700mAh, minimum 5400mAh)
- Battery operation: 10 hours (touchscreen), 9.5 hours (dual touch)<sup>7</sup>
- Battery charging time: 3.5 hours<sup>7</sup>
- AC Adapter: AC 100V-240V 50/60Hz, auto sensing/switching worldwide power supply

#### **POWER MANAGEMENT**

Suspend/Resume Function, Hibernation, Standby, ACPI BIOS

#### **SECURITY FEATURES**

- Password Security: Supervisor, User, Hard Disk Lock
- Cable lock slot
- Trusted platform module (TPM) security chip v.1.2
- Computrace® theft protection agent in BIOS<sup>10</sup>
- Intel® Anti-Theft Technology
- Optional fingerprint reader<sup>6,11</sup>
- Optional SmartCard reader/RFID Reader<sup>6,11</sup>
- ISO 15693 and 14443 A/B compliant

#### **WARRANTY**

• 3-year limited warranty, parts and labour

#### **DIMENSIONS AND WEIGHT**

- 340mm (L) x 281mm (W) x 46-55mm (H)
- 2.65Kg (2.95kg touchscreen model)

#### INTEGRATED OPTIONS<sup>12</sup>

- 4G LTE mobile broadband
- 3G Gobi™3000 mobile broadband (EV-DO Rev. A, HSPA)
- GPS receiver<sup>6,8</sup>
- 1.3MP webcam and digital mic6
- Backlit emissive keyboard
- 2nd LAN (10/100) or FireWire or RJ-11 Modem or Dual antenna pass-through6,8
- Insertable SmartCard reader
- Contactless SmartCard/RFID reader<sup>6,11</sup>
- Fingerprint reader6,11
- Hard drive heater
- 128GB, 256GB and 512GB solid state drives (SSD) with heaters

#### **OPTIONAL ACCESSORIES**

- AC Adapter (3-prong) CF-AA5713AM
- Long Life Battery Pack CF-VZSU71U
- Lightweight Battery Pack CF-VZSU72U
- Battery Charger CF-VCBTB2W
- LIND 3-Bay Battery Charger PACH329-1857-P
- LIND Car Adapter 120W CF-LNDDC120
- LIND Car Adapter 120W
- Mounting Bracket CF-LNDBRK120
- LIND Shutdown Timer CF-LNDLPT
- ToughMate ComUniversal
- Carrying Case (large capacity) TBCCOMUNV-P
- ToughMate ComUniversal Roller TBCRLR-P
- ToughMate Backpack TBCBPK-P
- ToughMate Always-on 53 Case TBC53AOCS-P
- Memory Card
- -4GB DDR3 CF-WMBA1104G
- Desktop Dock CF-VEB531U
- Gamber-Johnson Vehicle Docks
- no electronics 7160-0415

- no pass-through 7160-0393-00-P
- dual pass-through 7160-0393-02-P
- Havis Vehicle Docks
- no pass-through DS-PAN-411-P
- -dual pass-through DS-PAN-411-2-P
- Touchscreen Replacement Stylus CF-VNP009U
- Tether CF-VNT002U
- 14.0" LCD Protector Film CF-VPF17U

Please consult your reseller or Panasonic representative before purchasing. 1Touchscreen model only.

2A full set of Windows XP drivers are available at

panasonic.com/toughbook/support.

3An Intel® Core™ i7 processor is also available.

4Total usable memory will be less depending upon actual system configuration.

51GB = 1,000,000,000 bytes.

6Not available on Lite model.

7The size of the VRAM cannot be set by the user and varies by operating system as well

as size of RAM. Windows 7 64-bit max. VRAM is 1696MB with 4GB of memory.

8GPS comes standard with dual pass. GPS is not available with FireWire, RJ-  $11\ \text{or}\ 2\text{nd}\ \text{LAN}.$ 

9Battery performance features such as charge time and life span can vary according to  $\,$ 

the conditions under which the computer and battery are used. Battery operation and

recharge times will vary based on many factors, including screen brightness, applications,

features, power management, battery conditioning and other customer preferences.

Battery testing results from MobileMark 2007.

10Requires software and activation to enable theft protection.

11Fingerprint and contactless SmartCard are mutually exclusive.

 $12\mbox{Accessories}$  and Integrated Options may vary depending on your notebook configuration.

Visit Panasonic website for more accessories and details.