Panasonic recommends Windows.

TOUGHBOOK CF-31
THE FULLY RUGGED, FULL-SIZE NOTEBOOK THAT DELIVERS DESKTOP PERFORMANCE.

Specifically designed for field-based professionals working in challenging environments, the new fully rugged Toughbook CF-31 offers the ideal balance between the latest technology and supreme ruggedness. Whether working in adverse weather, wet conditions, underground or where space restrictions would usually hamper productivity, the CF-31 ensures that mobile workers perform to their optimum, at all times.

- Intel® Core™ i5-5300U vPro™ Processor
- Windows 8.1 Pro
- Intel HD 5000 graphics
- Vibration and shock resistant (MIL-STD 810G)*
- Water and dust resistant (IP65, MIL-STD 810G)*
- 13.1” high brightness outdoor display (up to 1200cd/m²) with circular polarizer
- USB 3.0 SuperSpeed port
- Up to 18 hours battery life
- 4G mobile broadband optional (LTE, up to 100Mbps)
- Concealed Mode to switch PC into “silent mode”
- Backwards compatible with CF-30 docking stations and Car Mounter Kit**
- High flexibility and connectivity through new configurations such as second LAN, camera or GPS

* Tested by an independent third party lab following MIL-STD-810G and IEC 60529, Sections 13.4, 13.6.2, 14.2.5 and 14.3
** Limited functionality

www.toughbook.eu
MOBILE BUSINESS EXCELLENCE
FOR FIELD PROFESSIONALS WHO FACE THE TOUGHEST CHALLENGES

The CF-31’s desktop level performance is provided by the 5th generation Intel® Core™ Processor architecture, allowing users to exploit job-specific, cutting-edge software.

<table>
<thead>
<tr>
<th>Mobile Computing Platform</th>
<th>Intel® Core™ i5-5300U vPro™ processor (2.3GHz, 3MB Intel® Smart Cache)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating System</td>
<td>Windows 8.1 Pro</td>
</tr>
<tr>
<td>RAM</td>
<td>4GB DDR3 5300Mhz (Max. 16GB)</td>
</tr>
<tr>
<td>Storage</td>
<td>500GBHDD (SATA)</td>
</tr>
<tr>
<td>LCD</td>
<td>13.1” sunlight-viewable VGA Active Matrix (TFT) colour LCD up to 1.200cd/m², with circular polarizer, concealed mode</td>
</tr>
<tr>
<td>Camera</td>
<td>Full magnesium alloy with integrated carrying handle</td>
</tr>
<tr>
<td>Bluetooth®</td>
<td>Version 4.0 + EDR Class 1</td>
</tr>
<tr>
<td>WLAN</td>
<td>ARM Dual Band Wireless-AC 7265 slide on/off switch</td>
</tr>
<tr>
<td>Audio</td>
<td>WAVE and MIDI playback, Intel® High Definition Audio subsystem support</td>
</tr>
<tr>
<td>Input Devices</td>
<td>Resisitive Touchscreen, Touchpad and Keyboard with 88 keys</td>
</tr>
</tbody>
</table>

### Interfaces

- **Serial (15500A compatible):** DB-9, 9-pin
- **External display (VGA port):** Mini D-sub, 15-pin
- **HDMI:** x1
- **Headphone:** Mini jack, 3.5-DIA
- **Microphone:** Mini jack, 3.5-DIA, stereo
- **DC Input:** Jack
- **USB 2.0:** x2, 4-pin
- **USB 3.0:** x1, 9-pin
- **LAN (2nd LAN optional, project based):** RJ-45
- **Firewire (IEEE1394a, optional, project based):** x1, 4-pin
- **External Antenna:** x1, Dedicated 50 ohms coaxial connector
- **Docking Port Replicator:** 80-pin

### Expansion Slots

- **PC Card:** x1, Type I or Type II, Allowable current 3.3V, 400mA, 5V: 400mA
- **Express Card:** x1, Express Card/54 or Express Card/64
- **SD/SDHC Memory Card:** x1
- **RAM Module (optional):** x1 DDR3, 8GB RAM

### Power

- **AC Adapter:** Input: 100 ~ 240V AC, 50Hz/60Hz; Output: 15.6V DC, 7.05.0A
- **Battery:** Li-ion (10.65V, Typical 8550 mAh / Minimum 8100mAh)
- **Battery Life:** Approx. 18h (Mobile Mark™ 2007, LCD brightness: 60cd/m²)

### Power Management

- **Standby function, Hibernation function, ACPI BIOS**

### Security Features

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

### Dimensions (W x H x D)

- **620mm x 175mm x 35mm (excluding protrusions)**

### Weight

- **Approx. 3.72kg / 8.2lb (including battery)**

### Integrated Options

- **GPS, Fingerprint Reader, Smart Card Reader, 4G Mobile Broadband (LTE, up to 100Mbps)**

### Accessories

- **AC Adapter:** CF-AA573A
- **Battery Charger:** CF-VB920W
- **Battery Pack:** CF-VZSA4A
- **Battery Pack (Multimedia Bay):** CF-VZSU46AU
- **Car Charger:** CF-AC1212A (120W, 24V)
- **Car Power Kit:** CF-PA635T
- **Docking Port Replicator:** CF-VEB3111
- **DVD Multi Drive (Multimedia Bay):** CF-VDM512U
- **Stylus Pen:** CF-VNP009U
- **Display Protection Film:** CF-VFP015U
- **Carrying and CDS Docking Solutions:** Please visit www.toughbook.eu

### Testing Standards

- **Water resistance test:** IEC60529 IP69K IP 65+, MIL-STD 810G 516.6, 50*
- **Dust resistance test:** IEC60529 IP69K IP 65+, MIL-STD 810G 516.6, Lower**
- **Gravity drop resistance test:** MIL-STD-810G 516.6 713C drop**
- **Vibration resistance test:** MIL-STD-810G 516.6, category 20B 24"