

## Product profile

# CN50

## Mobile Computer



- The industry's most advanced rugged mobile computer
- High performance communication and computing in a small and lightweight ruggedized design that is optimized for highly mobile field workers
- 3.75G wireless WAN technology supports both voice and high-speed uplink and downlink data exchange to help improve worker productivity
- Flexible Network™ radio lets you deploy a single hardware solution on the wireless network that offers the best geographic coverage and lowest cost
- Enhanced Mobile Document Imaging (eMDI) option enables users to capture high quality document images while on their route to help streamline back office operations and improve cash flow
- Integrated digital compass and GPS radio provides instantaneous and real-time directional information to improve navigation for both pedestrian and vehicle-based applications
- Built-in accelerometer senses position of the device to trigger display rotation
- Standard features include both a high performance 3 MP color camera and an area imager for responsive 1D and 2D barcode reading
- Choice of area imagers – EA11 optimized for scan intensive applications, EA21 optimized for document imaging with the capability to scan 1D/2D barcodes
- Bluetooth® v2.1 EDR radio provides secure wireless connectivity to headsets, mobile printers and other Bluetooth compatible devices for simple and convenient connectivity
- Wi-Fi certified 802.11 radio enables fast and secure communications or end-of-day synchronization with your enterprise network
- Integrated cell phone provides high quality voice communications eliminating the need to carry a separate device
- Windows Mobile 6.1 and Windows Embedded Handheld 6.5 operating systems promote ease of integration and intuitive use by developers and users
- Standard 256MB RAM and 512MB Flash Memory allows you to run multiple simultaneous applications – fast
- Available in QWERTY or numeric keyboards
- Medallion® Complete service provides protection against unbudgeted and rising repair costs

The Intermec CN50 is the only 3.75G wireless mobile computer that combines a small and lightweight form factor with a rugged design to deliver the most advanced, high performance voice and data communication solution specifically designed for the highly mobile field worker.

With the class leading capabilities of the CN50 in their mobile workers' hands, enterprises can improve their business processes, expand their service offerings and reduce the cost and complexity of a field mobility solution.

As the first device in the industry to offer a 3.75G wireless WAN Flexible Network™ Radio, the CN50 allows enterprises to finally standardize on a single hardware platform that can be configured for either CDMA or UMTS wireless networks. This gives enterprises the flexibility to choose the network that provides the best geographic coverage and the lowest cost.

With a single hardware solution to deploy, enterprises can simplify application development, lessen verification complexity, reduce deployment costs, and dramatically lower overall cost-of-ownership. As your business needs change or coverage options evolve, the Flexible Network Radio can be re-provisioned to a different carrier network.

The CN50 has the latest 3.75G wireless WAN radio to deliver the fastest data and voice communications available on both CDMA and UMTS wireless networks. With high speed uplink packet access (HSUPA) technology, the CN50 provides fast and

## CN50 Supporting Field-based Applications



Designed specifically for the “hold and carry” activities of the postal, field service, transportation, and commercial delivery worker tasked with delivering high levels of customer service all day long, the lightweight, multi-function CN50 eliminates the need to carry and manage different devices such as cell phones, digital cameras and document scanners reducing operational costs, and improving service quality, accuracy and responsiveness.

reliable data connectivity for uploading large documents, real-time images or synchronization with your enterprise data base. Compared with previous 2.5G radio technology, the CN50 provides improved productivity today, and allows enterprises to realize future benefits as the network capabilities continue to improve.

The CN50 is built on a unique multi-processor architecture with dedicated ARM and DSP processors to deliver robust application processing with nearly instantaneous response, all at the lowest levels of power consumption. The extended life battery provides ample power to drive consistent, full-featured functionality without compromise to the compact and lightweight design.

The EA11 imager provides a familiar “laser-like” aimer and scanning performance that is optimized for scan intensive applications, including small or damaged barcodes. The EA21 imager provides great performance for 1D/2D barcodes as well as Intermec document imaging.

The CN50 with EA21 imager, features an optional imaging application called Intermec Enhanced Mobile Document Imaging (eMDI) which gives mobile workers a fast and reliable way to convert paper documents into electronic files. eMDI helps streamline back office operations and improves cash flow by reducing time-to-payment for services rendered because delivery confirmations can be imaged in the field and sent wirelessly to the home office. Customer service and other staff gain real-time access to document images, via the enterprise systems, which can be used to answer customer queries, issue invoices, and update records.

The integrated digital compass provides a real-time indication of directional heading to enhance the functionality of the GPS radio. By improving the accuracy of the turn-by-turn directions, mobile workers are able to deliver better customer service and improve on-time delivery.

A built-in accelerometer allows the CN50 to rotate the display based on the orientation of the device, improving worker efficiency and the user experience during signature capture or similar operations. A bright 3.5” QVGA display provides exceptional viewing indoors and outside.

The CN50 features a Bluetooth® v2.1 EDR radio which provides secure wireless connectivity to headsets, Intermec mobile printers and other Bluetooth compatible devices for simple and convenient connectivity. The Wi-Fi certified 802.11 radio enables fast and secure voice communications or end-of-day synchronization with your enterprise network.

With industry-leading cell phone technology at its core, the small and lightweight CN50 bridges the gap

between a mobile computer and a traditional cell phone to provide high-quality voice communications without the expense of deploying and maintaining a separate device.

The no compromise design includes both a high performance 3 MP color camera with auto-focus and flash, and a dedicated area imager for responsive 1D and 2D barcode reading.

The industry standard platform in the CN50 includes either Microsoft® Windows Mobile 6.1 or Windows Embedded Handheld 6.5 which enables the device to integrate quickly and easily with existing systems and provides familiar operation for end users. These two operating system options provide integrated support for Systems Center Mobile Device Manager (SCMDM), allowing enterprise IT Managers to securely provision, configure, and deploy application software, device settings, and policies for populations of CN50 devices from the convenience of their management consoles.

Developers can access a comprehensive software toolkit through the Intermec Developer Library to simplify application development and shorten time to deployment.

Intermec SmartSystems™ software simplifies remote device management, by automatic staging, applying periodic system and software updates, as well as configuration changes, to keep on-going system maintenance costs low, and your CN50s performing in top condition.

The Intermec CN50 mobile computer is designed specifically for on-the-go field mobility customer service operations that need to be completed faster using only a single device that combines robust application processing, automated barcode data scanning and document capture, digital camera functionality, and 3G wireless WAN voice and data communication in a rugged compact package necessary to achieve better customer service and bottom line results, now and in the future.

## Physical Characteristics

### Dimensions with either standard or extended battery:

15.4 x 7.4 x 2.8 cm (6.05 x 2.93 x 1.09")

### Weight:

With extended battery: 340 gm (12 oz)

## Environmental

**Operating Temp:** -10° C to +50° C (14° F to +122° F)

**Storage Temp:** -20° C to +70° C (-4° F to +158° F)

**Charging Temp:** +5° C to +30° C

**Relative Humidity:** Non-condensing, 95%

**Rain & Dust Resistance:** IP54

**Drop Spec:** 26 drops from 1.5m (5 ft) to concrete across the operating temperature range per MIL-STD 810G

**Tumble Spec:** 1,000 0.5 m (1.6 ft) tumbles at room temperature

**Electrostatic Discharge:** +/- 15kV air discharge, +/- 8kV direct discharge

## Power

**Extended Battery Pack:** 3.7V, 3900 mAh;

Batteries are IEEE 1725 compliant, Li-Ion, removable, rechargeable.

## Operating system

Windows Mobile 6.1 or Windows Embedded Handheld 6.5

Getting started information located at [www.windowsmobile.com/getstarted](http://www.windowsmobile.com/getstarted)

## Microprocessor

Qualcomm MSM 7600, 528 MHz (Multi-processor architecture)

## Memory and Storage

**Memory:** 256 MB RAM

(approx 150MB available for user applications)

**ROM:** 512 MB Flash

(approx 350 MB available for user applications)

Customer-accessible micro-SD slot for removable memory cards up to 32 GB

## Display

- 3.5", 240 x 320 pixel (QVGA) trans-reflective TFT-LCD display
- 65,536 (16bit RGB) colors
- LED backlight
- Touch screen

## Standard Communications

USB – High Speed 2.0

## Software

**Device Management:** Contains Intermec Smart Systems Client and is compatible with most popular 3rd party device management solutions

**Application Development:** Support Windows APIs and Intermec Developer Libraries

## Integrated Radios

**Wireless WAN:** (Contains the Flexible Network™ radio that can be reprogrammed to convert between the UMTS and CDMA radio formats)

- 3.75G UMTS / HSUPA
- 3.5G CDMA: 1xEV-DO Rev. A

**UMTS Frequencies Supported - MHz:** 850, 1700, 1900, 2100

**GSM/GPRS Frequencies Supported - MHz:** 850, 900, 1800, 1900

**Technology Class UMTS:** 3.75G HSUPA

**Max Speeds:** Uplink - 2.0 Mbps; Downlink - 7.2 Mbps

**Technology Class CDMA:** 3.5G EV-DO Rev A

**Max Speeds:** Uplink - 1.8 Mbps; Downlink - 3.1 Mbps

**Antenna:** Internal

**Wireless LAN:** IEEE®802.11 b/g

**Data rates:** 1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48 and 54 Mbps

**Operating channels:** 1 to 13 (2412-2472 MHz) and 14 (2484 MHz)

**Regulatory compliance:** As per IEEE® 802.11d

**Antenna:** Internal

**Security:** WiFi Certified for WPA/WPA2 operation.

**Authentication:** PEAP/MS-CHAPv2, EAP-TLS

**Encryption:** WEP (64 or 128 bit), AES, TKIP

**Wireless PAN:** Integrated Bluetooth Class II, Ver 2.1+EDR

**Operating channels:** 0 to 78 (2402-2480 MHz)

**Data Rates:** 1, 2, 3 Mbps

**Antenna:** Internal

## Global Positioning System and Digital Compass

12 channel Integrated GPS; Supports Autonomous mode with extended ephemeris data; Supports assisted operation via WAN Carrier; Network independent; <3m accuracy.

Integrated, independent Digital Compass provides directional information based on earth's magnetic field.

## Accelerometer

Embedded accelerometer enables automatic or application specific features such as "screen rotation" or system suspend/resume

## Audio Support

Support for Speech recognition / PTT applications; Front and rear speakers; rear speaker has >70dB at 40cm (15.7 in); Front panel microphone for voice communication; Wireless Bluetooth headset support

## Integrated Scanner

EA11 Imager with "laser like" linear line aimer that is capable of scanning 5 mil 1D and 5 mil 2D barcodes

EA21 Imager with 1 megapixel area imager with laser aimer/framer, 8 bit grayscale, capable of scanning 6 mil 1D and 10 mil 2D barcodes. Supports Enhanced Mobile Document Imaging (eMDI) – optional Intermec software application

## Integrated Camera

3.1 Megapixel color camera with autofocus; includes flash

## Keypad Options

Numeric or QWERTY with backlit keypad

## Intermec Global Services Support :

[www.intermec.com](http://www.intermec.com) --> Support --> Knowledge Central Telephone support available in the USA & Canada (1-800-755-5505). Outside of this area, contact your local representative.

Medallion Maintenance contracts available at many locations world wide. Current listing of service locations can be found at:

[www.intermec.com](http://www.intermec.com) --> Support --> Returns and Repairs --> Repair Locations

## Accessories

Desktop AC adapter/Comm adapter (with USB port); Vehicle power adapter; Vehicle holder; RAM mount; Single dock, USB Host/Client (optional Ethernet module); Quad battery charger; Four-bay multi-docks (charge only or charge and Ethernet); Magnetic stripe reader (snap-on)

## Regulatory Approvals and Compliance

**Safety:** cULus Listed, CDRH, D, CE, NOM

**EMC:** Class B – FCC/ICES/CE

**Radio:** FCC ID, Industry Canada TAC, CE0984, A-tick (AU), C-tick (NZ), NCC, OFTA, IDA

**HAC:** FCC

**Others:** HKS1, BSM1, ICASA, POSTEL, NTC, ETA, GOST, SIRIM, ANATEL, EU Directives –WEEE, RoHS, Batteries & Accumulators, Packaging & Waste Packaging

  
SmartSystems™



  
Integration with SAP NetWeaver®

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