

# SYMBOL MC70

ENTERPRISE DIGITAL ASSISTANT

**ISIS**  
integration

## The first rugged enterprise digital assistant

The flagship MC70 Enterprise Digital Assistant (EDA) is a rugged handheld mobile device that incorporates a mobile phone, PDA, computer, scanner and imager in a single unit designed for the rigors of all-day, everyday usage. This compact, lightweight device combines multi-mode wireless networking, voice and data communications, and advanced data capture in an enterprise productivity tool that can support nearly any application in any environment. Superior voice functionality includes outstanding acoustic performance and voice quality, handset, headset and speakerphone modes, as well as push to talk capability (if supported by your WLAN application or WWAN carrier). Your mobile workers will have everything they need to increase productivity and efficiency inside and outside your four walls — from field workers reading meters and repairing equipment to drivers delivering packages, hospital workers checking lab results and medication orders, and more.

## Rugged construction delivers a low TCO

The industry leading innovative mechanical design and technology platform offer superior construction and expandability, delivering outstanding investment protection and a low TCO. Engineered to withstand rigorous use in extreme environments and working conditions, the MC70, including the internal WLAN and external WWAN antennas, can endure multiple drops, a wide range of temperatures, moisture, dust and more and still deliver reliable performance.

## Built-in WWAN/WLAN/WPAN

The MC70 offers robust and cost-effective anytime, anywhere voice and data connectivity. For workers outside of your facility, support for eGPRS (EDGE) networks delivers global coverage, fast wireless data speeds that enable rich applications, and enterprise level security. Inside your facility, the MC70 connects to your wireless LAN for voice and data communications, providing better control over wireless WAN usage —and costs. And wireless PAN functionality, via Bluetooth, further increases employee productivity through wireless printing and more.

## Reduce the cost and complexity of mobility

The versatile, effective MC70 is a smart investment, providing a cell phone, PDA and more - all in a single rugged device. Capital expenditures and IT support costs are significantly reduced. Superior manageability enables you to easily and remotely provision, track and support all your MC70 devices from one central location through Motorola's Mobility Services Platform. A full suite of accessories provides maximum application flexibility. And comprehensive maintenance and support services — required for even the most rugged products — ensure maximum uptime and value for your investment.



## FEATURES

Industry-leading double impact testing (drop and tumble), IP54 sealing, integrated antennas

Intel's latest processor, designed for mobility: XScale PXA270 @ 624 MHz

Microsoft's latest operating system: Windows Mobile 5.0 Premium or Phone Edition

WWAN: GSM/EDGE and CDMA-EVDO Rev. 0 compatibility

WLAN: 802.11a/b/g tri-mode radio; comprehensive VoIP support

WPAN: Bluetooth v1.2, Class II

High quality speakerphone microphone and transducer

On-board advanced data capture: 1D and 2D bar code scanning from near contact to 139cm

3.5 in. QVGA colour screen

Multiple keyboard options: QWERTY or numeric

Support for standard and extended cards

Multiple battery options: standard and extended

## BENEFITS

Lightweight yet rugged; built for year-round use in nearly any environment

Desktop-like multimedia performance with lower power requirements

Integrated multimedia, persistent memory and FIPS- 140-2 security certification

Voice and high-speed wireless data

Cost-effective voice and data connectivity in the office

Wireless modem, printing synchronization, and more

Superior voice quality and performance

Automate and error proof data collection and increase productivity

Easy to view in any lighting

Flexibility to meet diverse user and application needs

Provides additional memory and expandable functionality

Ample power for full shifts in nearly any environment

## MC70 Specifications

### Physical Characteristics

Dimensions:	15.3 cm L x 7.6 cm W x 3.7 cm D CDMA/EVDO Rev 0 configurations: 15.3 cm L x 7.9 cm W x 4.4 cm D
Weight L(inc. standard battery):	LAN/PAN configurations: 314 g WAN/LAN/PAN configurations: 336 g
Display:	CDMA/EVDO Rev 0 configurations: 400g Transflective colour 3.5" QVGA with backlight, TFT-LCD, 65K colours, 240 W x 320 L
Touch Panel:	Glass analog resistive touch
Backlight:	LED backlight
Main Battery:	Rechargeable Lithium Ion 3.7V, 1900 mAh Smart Battery
Extended Cap. Battery:	Optional 3.7V, 3800 mAh Smart Battery
Backup Battery:	Ni-MH battery (rechargeable) 20mAh 1.2V, 2 cells (not user-accessible)
Expansion Slot:	User accessible SDIO slot (with secure cover); accommodates extended cards (with cover re- moved); NOTE: terminals with extended cards cannot be accommodated in the charging cradle and will not be sealed
Network Connections:	Ethernet (via cradle); high-speed USB, host or client
Notification:	Vibrator and LED
Keypad Options:	26 Numeric key; 44 QWERTY key
Audio:	Speaker, receiver, microphone, headset jack, software support for full duplex record and playback (stereo)

### Performance Characteristics

CPU:	Intel® XScale™ 624 Mhz processor
Operating System:	Microsoft® Windows™ Mobile 5.0 Premium, Microsoft® Windows™ Mobile 5.0 Premium Phone Edition
Memory:	64MB RAM/128MB ROM or 128MB RAM/128MB ROM
Interface/Communications:	RS-232, USB 1.1

### User Environment

Operating Temperature:	-10°C to 50° C
Storage Temperature:	-40° C to 60° C (w/o battery)
Humidity:	95% non-condensing
Drop Specification:	4 ft. drop to concrete, 6 drops per 6 sides over operating temperature range; 5 ft. drop to concrete, 2 drops per 6 sides at ambient temperature 23° C
Tumble Specification:	1,000 0.5 m tumbles (2,000 drops)
Sealing:	IP54
Electrostatic Discharge(ESD):	+/-15kV air discharge, +/-8kV direct discharge

### Wireless WAN Data and Voice Communications

Wireless Wide Area (WWAN) radio:	GSM/EDGE (850, 900, 1800 and 1900 MHz) CDMA-EVDO Rev. 0
----------------------------------	--

### Wireless LAN Data and Voice Communications

Wireless Local Area (WLAN) radio:	Tri-mode IEEE® 802.11a/b/g
Data Rates Supported:	1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps
Operating Channels:	Chan 8-169 (5040 – 5845 MHz) (4920 – 4980 MHz) Japan only Chan 1-13 (2412-2472 MHz) Chan 14 (2484 MHz) Japan only Actual operat- ing frequencies depend on regulatory rules and certification agency
Security:	WPA2, WEP (40 or 128 bit), TKIP, TLS, TTLS (MS- CHAP), TTLS (MS-CHAP v2), TTLS (CHAP), TTLS- MD5, TTLS-PAP, PEAP-TLS, PEAP (MS-CHAP v2), AES, LEAP
Spreading Technique:	Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency Division Multiplexing (OFDM)
Antenna:	Internal for LAN, External for WAN
Voice Communication:	Integrated Voice-over-IP ready (P2P, PBX, PTT), Wi-Fi™- certified, IEEE 802.11a/b/g direct sequence wireless LAN

### Wireless PAN Data and Voice Communications

Bluetooth:	Class II, v 1.2
------------	-----------------

### Data Capture Specifications

Options: 1D linear, 2D imager

#### Linear 1D Scanner (SE 950)

Optical Resolution:	102 micron minimum element width
Roll:	+/- 35° from vertical
Pitch Angle:	+/- 65° from normal
Skew Tolerance:	+/- 50° from normal
Ambient Light: Sunlight:	10,000 ft. candles
Scan Rate:	104 (+/-12) scans/sec (bidirectional)
Scan Angle:	47° +/- 3° (default) / 35° +/- 3° (reduced)

#### 2D Imager Engine (SE 4400) Specifications

Optical Resolution:	640 H x 480 V pixels (gray scale)
Roll:	360°
Pitch Angle:	+/- 60° from normal
Skew Tolerance:	+/- 50° from normal
Ambient Light:	Total darkness to 9,000 ft. candles (96,900Lux)
Focal Distance from Front of Engine:	Near: 12cm, Far: 22cm
Aiming Element (VLD):	650 nm +/- 5 nm
Illumination Element (LED):	635 nm +/- 20 nm
Field of View:	Horizontal - 32.2°, Vertical - 24.5°

### Peripherals and Accessories

Comm. and Charging Cables:	Serial and USB v1.1 charging cables, printer cables, vehicle charging cable, power/ charging cable
Battery Chargers:	4-slot battery charger (1X and 2X), universal battery charger (requires adapters for 1X and 2X capacity batteries)
Vertical-specific attachments:	Snap-on magnetic stripe reader, snap-on trig- ger handle, rigid case

### Regulatory

Electrical Safety:	Certified to UL / cUL 60950-1, IEC / EN60950-1
Environment:	RoHS-compliant
WLAN and Bluetooth: USA:	USA: FCC Part 15.247, 15.407; Canada: RSS-210; EU: EN 300 328-1, EN 301 893; Japan: ARIB STD-T33, ARIB STD-T66, ARIB STD- T71; Australia: AS/NZS 4268
Quad Band eGPRS / GSM(850, 900, 1800 and 900 bands) 800 and 900 bands):	Global: 3GPP TS 51.010, GCF approved module USA: FCC Part 22, Part 24 Canada: RSS-132, RSS-133 EU: EN301 511 Australia: AS/ACIF S 018, AS TS 001
RF Exposure:	USA: FCC Part 2, FCC OET Bulletin 65 Supple- ment C Canada: RSS-102 EU: EN 50360 Austr- alia: AS/NZ 2772.1, ARPANSA Verizon/Sprint/AllTel/Bell Mobility For latest information, contact Isis.
CDMA-EVDO Rev. 0:	North America: FCC Part 15 Canada: ICES 003 Class B EU: EN55022 Class B, EN 301 489-1, EN 301 489-7, EN 310 489-17, EN 60601-1-2 Australia: AS/NZS CISPR 22
EMI/RFI:	IEC Class2/FDA Class II in accordance with IEC60825-1/EN60825-1
Laser Safety:	

*Specifications are subject to change without  
notice.*

### Contact Details

Isis Integration Ltd  
6 Cantelupe Mews  
Cantelupe Road  
EAST GRINSTEAD  
RH19 3BG

Tel: 01342 410542  
Email: info@isisi.co.uk  
Web: www.isisi.co.uk