MC5590 Enterprise Digital Assistant (EDA)

A new level of flexibility and functionality for managers and task workers inside the four walls

Sleek yet rugged pocket-sized lightweight form factor
Built for year round use in nearly any environment, with IP54 sealing and the ability to survive a 4 ft./1.2 m drop to concrete

Powerful microprocessor designed for mobility: XScale PXA270 @ 520 MHz
Desktop-like performance with lower power requirements

Microsoft's latest operating system: Windows Mobile 6.1 Classic
Increased interoperability with existing enterprise infrastructure; enhanced security features; more flexible development platform; improved mobile messaging collaboration

802.11a/b/g WLAN connectivity with flexible VoIP (VoWLAN) support
Cost-effective voice and data connectivity in the office

True pocket-sized rugged handheld computer with advanced voice and data

The MC5590 brings a new level of functionality and flexibility to pocket-sized mobile devices. The smallest and lightest Motorola rugged EDA, the MC5590 packs the power of a walkie-talkie, VoIP phone, mobile computer, bar code scanner and camera into a robust enterprise class device with true consumer styling and ergonomics — and is designed to meet mobile worker, business application and IT requirements. With the MC5590 in hand, task workers such as retail associates and managers, healthcare workers in a hospital, and servers in a restaurant enjoy the cost-effective yet sophisticated mobile voice and data services required to streamline tasks and improve productivity, customer response times and customer service levels. Enterprise class rugged construction, manageability, security and scalability allow the MC5590 to easily meet the most demanding IT policies and mandates. And a broad array of accessories enables easy customization of the MC5590 to meet the unique needs of your business.

Choose the data capture options you need

Automate, enrich and error proof data collection in various areas of your business with a full suite of advanced data capture options, with the flexibility to match the right options to the right workers. For applications with intense bar code scanning requirements, choose a 1D laser scanner for ultimate performance, or a 2D imager to capture 1D and 2D bar codes. For workers who need to document images as well as read bar codes, a 2-megapixel auto-focus high resolution color camera can be added to either the 1D laser scanner or 2D imager, allowing the easy capture of a signature for mobile point of sale — or a photograph at the receiving dock to document a damaged incoming shipment.

Maximum voice quality…and functionality

Designed from the ground up to support voice as well as data, the MC5590 offers a superior voice user experience. Functionality includes push-to-talk (PTT) walkie-talkie style instant communications over the WLAN and support for IP telephony, using partner software to extend deskphone features to the MC5590. This flexibility allows workers to place a private call in sensitive environments, such as healthcare, while managers can easily reach all associates at the press of a button — without using the intrusive overhead paging system or affecting the customer experience. Additionally, handset and speakerphone modes provide workers with the convenience and flexibility to use the voice mode that meets the needs of the job…and the moment. And since voice and data services are delivered over the WLAN, in-building cellular coverage issues that can affect voice quality are eliminated.

WPAN: Bluetooth® v2.0 Enhanced Data Rate (EDR)
Wireless connectivity to modems and printers; v2.0 provides additional throughput, improved security and additional profiles for expanded connectivity to more device types

High quality speakerphone, microphone and transducer
Superior voice quality and performance

Multiple voice modes: handset and speakerphone
Flexibility to use the right mode at the right time

Multi-mode data capture: 1D/2D bar code scanning plus 2 Megapixel auto-focus flash-enabled optional color camera with decode capability
Ability to capture high quality pictures, documents and signatures as well as 1D and 2D barcodes improves workforce automation; increases productivity and reduces data errors

3.5 inch color high definition QVGA display (320 x 240)
Easy to view in virtually any lighting

Easily customize to meet your specific application requirements

A complete line of accessories enables you to tailor the MC5590 to best meet the needs of applications and mobile workers. A broad range of keypads ensures easy operation over a wide variety of applications — alphanumeric keypads enable easy entry of more sophisticated data, the PIM keypad is ideal for basic application functions and numeric keypads are designed for workers who primarily utilize the MC5590 as a smart phone. And the MC5590 system is IEEE 1725 compliant, improving performance and safety for the entire power chain — including power components in the device as well as the battery and power-related accessories, such as power cables and charging cradles.

Enterprise durability, manageability, security and scalability

When it comes to meeting enterprise IT criteria, the MC5590 shines. The sleek consumer-styled device delivers true enterprise class durability. Motorola's industry-leading drop and tumble testing combined with IP54 sealing ensure reliable operation in spite of the inevitable drops, bumps and exposure to the elements. Compatibility with Motorola's Mobility Software Suite provides extraordinary centralized control of all your MC5590 devices, offering remote staging, provisioning, monitoring and troubleshooting of devices: the ability to secure data on the devices as well as during transmission and much more. Support for the latest in wireless security standards provides maximum security for your wireless devices as well as your wireless and wired networks. And you can easily add devices as your workforce expands or to mobilize applications in other areas of your business, providing the scalability to meet growing and changing business needs.

Superior return on investment (ROI)

With a rapid ROI, the MC5590 is easy to cost-justify. This single device replaces as many as five business devices, substantially reducing capital and operational expenses — there are simply fewer devices to purchase and manage. Designed for a five to seven year lifecycle, the MC5590 offers a lifespan two to three times that of the average consumer-grade PDA, preserving your hardware as well as associated application investments. The ability to meet the needs

of many different types of workers with a single device reduces the load on your IT staff — there are fewer devices and operating systems to understand, manage and support. And the ability to cost-effectively deliver voice services over the existing wireless LAN reduces telecommunications charges.

A platform you can count on today…and tomorrow

The MC5590 offers the processing power and memory architecture required to deliver superior performance for a wide variety of voice and data applications. Mobilizing your business applications and integration with your existing network infrastructure are easy with the latest industry standard mobile operating system — Microsoft® Windows Mobile® 6.1 Classic. And since Motorola mobile computers share a common technology platform, applications developed for other Motorola mobile devices are easily ported to the MC5590, improving deployment times and maximizing the return on investment for existing applications.

The Motorola end-to-end advantage

When you choose the Motorola MC5590, you enjoy the advantages of a world-class partner channel, world-class management solutions and world-class services. Our award-winning partner ecosystem offers a best-in-class broad set of ready-to-go and custom applications for the MC5590, minimizing deployment time and cost. To help you protect your investment and maintain peak performance, Motorola recommends Service from the Start with Comprehensive Coverage for the MC5590. This unique service sets the standard for post-deployment support by including normal wear and tear, as well as coverage for internal and external components damaged through accidental breakage — significantly reducing your unforeseen repair expenses. In addition, this truly comprehensive service also covers all the items that ship 'in the box' at no additional charge, including the stylus, screen protector, hand strap and battery door.

For more information on how the MC5590 can empower your workers with mobility, please visit us on the web at www.motorola.com/mc55 or access our global contact directory at www.motorola.com/enterprisemobility/contactus

MC5590 Specifications

Physical Characteristics

Dimensions:	5.78 in. L x 3.03 in. W x 1.06 in. D 147mm L x 77mm W x 27mm D
Weight:	11.1 oz./315g (with rechargeable 2400 mAh Lithium Ion battery)
Display:	Color 3.5 in. QVGA (320x240) Touch Panel
Touch Panel:	Glass analog resistive touch
Display Backlight:	LED backlight
Standard Battery:	Rechargeable Lithium Ion 3.7V, 2400 mAh Smart Battery
Extended Battery:	Rechargeable Lithium Ion 3.7V, 3600 mAh Smart Battery
Expansion Slot:	microSD slot (maximum 2GB)
Communication Interface:	USB 1.1 Host and Client
Notification:	Audible tone plus multi-color LEDs
Keypad Options:	Numeric, QWERTY, AZERTY, QWERTZ and NAV PIM
Audio:	Speaker and microphone

Performance Characteristics

CPU:	XScale™ PXA 270 520 MHz processor
Operating System:	Microsoft® Windows Mobile® 6.1 Classic
Memory:	128 MB SDRAM/256 MB Flash

User Environment

Operating Temperature:	14° F to 122° F/-10° C to 50° C
Storage Temperature:	-40° F to 140° F/-40° C to 60° C
Humidity:	95% non-condensing
Drop Specification:	4 ft./1.2m drop to concrete
Tumble Specification:	250 1.6 ft./.5 m tumbles (equivalent to 500 drops)
Sealing:	IP54
Light Immunity:	Incandescent: 450 ft. candles Sunlight: 8000 ft. candles Fluorescent: 450 ft. candles
Electrostatic Discharge (ESD):	12KV

Battery Performance

User Profiles:	8 hours based on 600 scans and WLAN transmits per hour with display on and standard capacity battery

Data Capture Options

Options:	Four configurations available: 1D laser scanner; 2D imager; Camera + 1D laser; Camera + 2D imager

Color Camera

Resolution:	2 megapixel
Illumination:	User controllable flash
Lens:	Auto focus

1D Laser Scanner (SE950)

Range on 100% UPCA:	24 in./60 cm
Resolution:	4 Mil minimum element width
Roll:	±35° from vertical
Pitch Angle:	± 65° from normal
Skew Tolerance:	± 50° from normal
Ambient Light Immunity:	10,000 ft. candles/107,640 lux
Scan Rate:	104 (+/- 12) scans/sec (bi-directional)
Scan Angle:	47° ± 3° default; 35° ± 3° narrow

2D Imager Engine (SE4400)

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/96,900 lux
Range on 100% UPCA:	16 in./40 cm
Aiming Element (VLD):	650 nm ± 5 nm
Illumination Element (LED):	635 nm ± 20 nm
Field of View:	Horizontal: 32.2°; Vertical: 24.5°

Wireless LAN Voice and Data Communications

Radio:	Tri-mode IEEE® 802.11a/b/g
Security:	WEP (40 or 128 bit), TKIP, AES, WPA (Personal or Enterprise), WPA2 (Personal or Enterprise), 802.1x, EAP-TLS, TTLS (CHAP, MS-CHAP, MS-CHAPv2, PAP or MD5), PEAP (TLS, MS-CHAPv2, EAP-GTC), LEAP, EAP-FAST (TLS, MS-CHAPv2, EAP-GTC)
Antenna:	Internal
Data Rates Supported:	1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps
Operating Channels:	Chan 8-165 (5040 – 5825 MHz), Chan 1-13 (2412-2472 MHz), Chan 14 (2484 MHz) Japan only, Actual operating channels/frequencies depend on regulatory rules and certification agency
Voice Communication:	Voice-over-IP ready, Wi-Fi™-certified, IEEE 802.11a/b/g direct sequence wireless LAN, Wi-Fi Multimedia™ (WMM), Motorola Voice Quality Manager (VQM)

Wireless PAN Data

Bluetooth:	Class II, v 2.0 Enhanced Data Rate (EDR); integrated antenna

Peripherals and Accessories*

Communication and Charging Cables:	Charge only cable, auto charge cable, USB charge/sync cable
Battery Chargers/Cradles:	4 slot battery charger toaster, 4-slot charge only cradle, single slot USB cradle, vehicle holder using auto charge cable, vehicle cradle with charging capabilities
Soft Goods:	Rigid and soft case holsters, headsets

Regulatory

Electrical Safety:	Certified to UL / cUL 60950-1, IEC / EN60950-1
Environmental:	RoHS-compliant
WLAN and Bluetooth (PAN):	**USA:** FCC Part 15.247, 15.407 **Canada:** RSS-210, RSS 310 **EU:** EN 300 328, EN 300 440-2, EN 301 893 **Japan:** ARIB STD-T33, ARIB STD-T66, ARIB STD-T70 & T71 **Australia:** AS/NZS 4268
RF Exposure:	**USA:** FCC Part 2, FCC OET Bulletin 65 Supplement C **Canada:** RSS-102 **EU:** EN 50392 **Australia:** Radio communications Standard 2003
EMI/RFI:	**North America:** FCC Part 15, Class B **Canada:** ICES 003 Class B **EU:** EN55022 Class B, EN 301 489-1, EN 301 489-17, EN 301 489-19, EN 60601-1-2 **Australia:** AS/NZS CISPRA-22
Laser Safety:	IEC/Class 2/FDA II in accordance with IEC60825-1/EN 60825-1

Warranty

The MC5590 is warranted against defects in workmanship and materials for a period of 12 months from date of shipment, provided that the product remains unmodified and is operated under normal and proper conditions

Recommended Services

Customer Services: Service from the Start with Comprehensive Coverage

*Visit www.motorola.com/mc55 for a complete list of available peripherals and accessories

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