



*MC 95xx<sup>ex</sup>-NI*  
for ATEX Zone 2 and 22

**Features**

- Option of WWAN-GSM-HSDPA/CDMA-EVDO
- GPS
- WLAN radio standard IEEE 802.11 a/b/g Tri-mode radio standard
- Comprehensive voice-over IP support
- Various barcode applications with different scan engines
- Option of a 3-megapixels camera
- Easy battery changing
- Expanded storage capacity due to replaceable Micro SD card
- Various keypad variants
- Compatibility with the MC95xx from Motorola

**Description**

The MC 95xx<sup>ex</sup>-NI offers the characteristic features of the robust MC 9090<sup>ex</sup> mobile computer series and numerous new capabilities in addition. These were modified specially by BARTEC for use in ATEX Zone 2 and 22 hazardous areas.

The result is a device which sets new standards both in technology and in design: it is an innovative product with an unsurpassed selection of functions which take mobile computing innovation to a completely new level.

The MC 95xx<sup>ex</sup>-NI offers a more robust design, extended options for data capture, more intelligent functions, greater processing power and better ergonomics.

Thanks to the ergonomically mounted scan triggers on the MC 95xx<sup>ex</sup>-NI, data can be captured

easily in one-hand operation. Several technologies are available for data communication with other systems and company divisions.

- Wireless WAN (WWAN)
- Wireless LAN (WLAN)
- Wireless PAN (WPAN) (Bluetooth)
- IrDA connection

These modules, which are integrated in the device, allow a seamless transmission of voice and data and are easy to integrate into the company's network.

Further advantages when using it are its robust construction, easy-to-read 3.7" VGA colour display with touch technology and a high-performance lithium ion battery.

In the MC 95xx<sup>ex</sup>-NI, the Marvell PXA320 processor with 806 MHz ensures fast process execution and the Microsoft® Windows Mobile® 6.5 operating system in conjunction with the Enterprise Mobility Developer Kit (EMDK) from Motorola facilitates an easy development of applications.

256 MB RAM integrated in the device and 1 GB flash memory are available for storing user-defined applications and data. For larger applications and volumes of data, BARTEC offers micro SD memory cards.

Market	Applications	Users
<b>Automobile industry</b> Automobile industry (suppliers of paintwork, for paint shops, etc.)	Material flow monitoring Production control Supplier chain management	<b>Dispatch, receiving and stock management departments</b> Personnel who have been instructed on the handling of potentially explosive substances
<b>Food and beverages</b> Suppliers of aromatic substances, etc.	Incoming/outgoing goods, inventory management Safety tests	<b>Maintenance and repair</b> Personnel who have been instructed on work in potentially explosive substances.
<b>Petrochemicals</b> from production through further processing to delivery	Spare parts tracking Maintenance/repair work	<b>Production area</b> Personnel who have been instructed on the handling of potentially explosive substances.
<b>Pharmaceuticals</b> (suppliers of the individual components required for the production of e. g. medication)	Workshop communication Conformity verification Task allocation	



The MC 95xx<sup>ex</sup>-NI Mobile Computer recognises the following bar codes with the 1D Standard Range Scan Engine or the 1D/2D Imager Engine:

1D codes:

Code 11	Interleaved 2 of 5
Code 39	MSI
Code 93	UPCA
Code 128	UPCE
Codabar	UPC/EAN supplementals
Coupon Code	Trioptic 39
Chinese 2 of 5	RSS-14
Discrete 2 of 5	RSS Expanded
EAN-8	RSS Limited
EAN-13	Webcode

2D codes: (only 1D/2D Imager Engine)

Aztec	(Macro) Micro PDF-417
Australian 4-state	Micro PDF-417
Canadian 4-state	microQR
Composite AB	Maxi Code
Composite C	QR Code
Chinese 2 of 5	TLC39
Data Matrix	UK 4-state
Dutch Kix	US Planet
Japanese 4-state	US Postnet
Macro PDF-417	USPS 4-state (US4CB)

➔ Explosion protection

Ex protection type

- Ex II 3G Ex ic IIC T6 Gc
- Ex II 3D Ex tD A22 IP64 T90°C

Certification

EC Declaration of Conformity  
No. B1-A293-7C0001

➔ Technical data

■ Physical features

Dimensions (length x width x depth)

234 mm x 89 mm x 51 mm  
9.2 inch x 3.5 inch x 2 inch

Weight (including battery)

623 g (approx. 22 oz.)

Display

3.7" VGA colour display (TFT) with  
640 x 480 pixels

Touchscreen

analog-resistive touchscreen made of  
polycarbonate

Display backlighting

LED technology

Keyboard options modular

- alpha keypad
- numeric (telephony version)
- numeric (calculator version)
- alphanumeric

Notifications

Programmable LEDs  
Audio notifications  
Vibrator alert

Performance characteristics

CPU Marvell PXA320 at 806 MHz  
  
Operating system Windows Mobile® 6.5  
(Classic and Professional)

Memory

256 MB RAM/1 GB Flash  
with the option of expansion with  
Micro SD card: up to 32 GB

■ User environment

Operating temperature

-20 °C to +50 °C (-4 °F to +122 °F)

Storage temperature

-40 °C to +70 °C at 95 % RH  
-40 °F to +158 °F at 95 % RH

Protection class

IP 67

Air humidity

5 to 95 %, non-condensing

Light immunity

Readability

Incandescent lamps	4,844 lux
Sunlight	86,111 lux
Fluorescent lamps	4,844 lux

■ Battery

Capacity

Rechargeable lithium ion battery  
4800 mAh at 3.7 V and state  
of charge and health indicators

Standby time

150 hours

Talk time

8 hours (minimum/suspend mode)

■ Voice and data communication over wireless WAN

WWAN wireless module GPS

option of GSM-HSDPA or CDMA-EVDO  
  
Integrated stand-alone or assisted GPS  
(A-GPS) through SUPL;  
SiRFstarIII GSC3f/L chip set

■ Voice and data communication over wireless LAN

WLAN wireless module

Tri-mode IEEE® 802.11a/b/g



**Supported data transmission rates**

1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps

**Operating channels**

Channels 8 - 165 (5040 - 5825 MHz)  
Channels 1 - 13 (2412 - 2472 MHz)  
Channel 14 (2484 MHz) Japan only

The actual operating channels and frequencies depend on the applicable rules and certification authorities.

**Security**

WPA2, WEP (40 or 128 bits), TKIP, TLS, TTLS (MS-CHAP), TTLS (MS-CHAP Ver. 2), TTLS (CHAP), TTLS-MD5, TTLS-PAP, PEAP-TLS, PEAP (MS-CHAPv2), AES LEAP, CCXv4 certification, FIPS-140-2 certification

**Antenna**

internal

**Interactive Sensor Technology**

**Motion sensor**

Three-axis accelerometer for motion-sensing applications for dynamic screen orientation, power monitoring and free-fall detection.

■ **Data capture options**

**Available options**

1D Laser scanner  
1D/2D Imager  
1D Laser scanner and camera  
1D/2D Imager and camera

■ **Colour camera**

**Resolution**

3 megapixels

**Illumination**

Flash (user-controllable)

**Lens**

Autofocus

■ **1D laser scanner (SE950)**

**Range on 100 % UPC-A**

60 cm

**Resolution**

4 mm minimum width

**Roll**

± 35° from the vertical

**Pitch angle**

± 65° from normal

**Skew tolerance**

± 50° from normal

**Ambient light immunity**

107,640 lux

**Scan rate**

104 (± 12) scans/sec. (bi-directional)

**Scan angle**

47° ± 3° standard

35° ± 3° reduced

■ **1D/2D Imager (SE4500SR)**

**Focal distance**

From the centre of the scan window:  
SR - 19 cm

**Sensor resolution**

752 x 480 pixels

**Field of view**

Horizontal 40°

Vertical 25°

**Skew tolerance**

± 60°

**Pitch tolerance**

± 60°

**Roll tolerance**

360°

**Ambient light immunity**

96,900 lux

**Aiming LED (VLD)**

655 ± 10 Nm lasers

**Illumination element (LED)**

625 ± 5 Nm LEDs (2 x)



**Selection chart MC 9590<sup>ex</sup>-NI without WWAN**

Data capture	Code no.	Version Keyboard	Code no.
SE950 1D Laser Scan Engine	<b>A</b>	Alpha Numeric Primary Wide	<b>B</b>
SE4500 1D/2D Imager	<b>B</b>	Alpha Primary	<b>C</b>
SE950 1D Laser with camera	<b>C</b>	Numeric Telephony	<b>D</b>
SE4500 1D/2D Imager with camera	<b>D</b>	Numeric Calculator	<b>E</b>

➔ **Complete order no. B7-A293-0**  **OD/A**  **100000**  
**MC 9590<sup>ex</sup>-NI without WWAN** including Li-ion battery (1 pc.)  
 Please insert correct code.

**Selection chart MC 9596<sup>ex</sup>-NI with GSM-HSDPA**

Data capture	Code no.	Version Keyboard	Code no.
SE950 1D Laser Scan Engine	<b>A</b>	Alpha Numeric Primary Wide	<b>B</b>
SE4500 1D/2D Imager	<b>B</b>	Alpha Primary	<b>C</b>
SE950 1D Laser with camera	<b>C</b>	Numeric Telephony	<b>D</b>
SE4500 1D/2D Imager with camera	<b>D</b>	Numeric Calculator	<b>E</b>

➔ **Complete order no. B7-A293-6**  **AE/A**  **100000**  
**MC 9596<sup>ex</sup>-NI with GSM-HSDPA** including Li-ion battery (1 pc.)  
 Please insert correct code.

**Selection chart MC 9598<sup>ex</sup>-NI with CDMA-EVDO**

Data capture	Code no.	CDMA-EVDO	Code no.	Version Keyboard	Code no.
SE950 1D Laser Scan Engine	<b>A</b>	Verizon	<b>B</b>	Alpha Numeric Primary Wide	<b>B</b>
SE4500 1D/2D Imager	<b>B</b>			Alpha Primary	<b>C</b>
SE950 1D Laser with camera	<b>C</b>	Sprint	<b>C</b>	Numeric Telephony	<b>D</b>
SE4500 1D/2D Imager with camera	<b>D</b>			Numeric Calculator	<b>E</b>

➔ **Complete order no. B7-A293-8**   **E/A**  **100000**  
**MC 9598<sup>ex</sup>-NI with CDMA-EVDO** including lithium ion battery (1 battery).  
 Please insert correct code.