MC 75Ax^{ex}-NI
for Class I, II Div. 2, Class III

Features

- Option of WWAN-GSM-HSDPA/ CDMA-EVDO

- Optional GPS (only Geräte with GSM, HSDPA or CDMA EVDO)

- 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 3.2 megapixels camera

- Easy battery changing

- Expanded storage capacity due to replaceable Micro SD card

- Various keypad variants

- Compatibility with the MC75Ax from Motorola

Description

The MC 75Ax^{ex}-NI Mobile Computer is a 3.5G Worldwide Enterprise Digital Assistant (EDA) device and was specially modified by supplier for use in UL Class I, II Division 2 and Class III hazardous areas. This means that the extensive communication options which are already standard in other areas are available to the user in hazardous areas also.

Its ergonomic design and easy operation make it an ideal support in attaining fast data availability in enterprise processes. A keypad is available in various variant versions for manual data capture.

Other available data capture options are an integrated 1D or 1D/2D Scan Engine for capturing bar codes and an optional 3.2 megapixel camera.

The ergonomically mounted scan triggers on the MC 75Ax^{ex}-NI allow data to 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 3.5" VGA colour display with touch technology and a high-performance lithium ion battery.

In the MC 75Ax^{ex}-NI, the 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, we offer micro SD memory cards.

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

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The MC 75Ax^ex-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	UPCA
Code 39	UPCE
Code 93	UPC/EAN supplementals
Code 128	Trioptic 39
Codabar	GS1 Databar
Coupon Code	GS1 Databar Expanded
Chinese 2 of 5	GS1 Databar Expanded Stacked
Discrete 2 of 5	GS1 Databar Stacked
EAN-8	GS1 Databar Stacked Omni
EAN-13	GS1 Databar Limited
Interleaved 2 of 5	GS1 Databar Truncated

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

MSI	Webcode
Aztec	(Macro) Micro PDF-417
Australian 4-state	Micro PDF-417
Canadian 4-state	PDF 417
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)

➡ Explosionsschutz

Ex protection type
Class I, Groups A, B, C and D
Class II, Groups F and G
Class III
Temperature class T6

Certification
UL File E321557 Vol. 1 Sec. 3

➡ Technical data

■ Physical features

Dimensions (height x width x depth)
WWAN: 7 inch x 3.3 inch x 1.7 inch
178 mm x 84 mm x 44 mm
WLAN: 6 inch x 3.3 inch x 1.7 inch
152 mm x 84 mm x 44 mm

Weight (including 1.5 x battery)
WWAN version:
approx. 423 g (approx. 14.9 oz.)
WLAN version:
approx. 398 g (approx. 14.0 oz.)

Display
transflective colour 3.5" VGA display
(480 x 640 pixels)

Touchscreen
glass analog-resistive touchscreen

Backlighting
LED technology

Battery (1.5 x)
Rechargeable lithium ion battery
(3.7 V, 3600 mAh, smart battery management)

optional: Battery (2.5 x)
(3.7 V, 4800 mAh, smart battery management)

Backup battery
NiMH battery (rechargeable),
15 mAh, 2.4 V (not accessible from outside)

Network connections
Ethernet (via charging station);
Full-speed USB, host or client

Signalling
Vibrator and LED

Keyboard options
Numeric, QWERTY

Audio
VoWWAN; VoWLAN;
TEAM express-compatible; Support for
wired and wireless (Bluetooth) headsets;
Headset, handset and speaker modes

Interactive Sensor Technology

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

■ Performance characteristics

CPU
PXA320 processor with 806 MHz

Operating system
Microsoft® Windows Mobile® 6.5
MC 75A0^ex-NI: Classic
MC 75A6^ex-NI: Professional
MC 75A8^ex-NI: Professional

Memory
256 MB RAM; 1 GB Flash

Extension slot
Micro SD slot with SDHC support
(up to 32 GB)

Interface
RS232, USB 1.1

Mobile Computer MC 75Ax^{ex}-NI for Class I, II Div. 2, Class III

■ **User environment**

Operating temperature
-10 °C to +50 °C (+14 °F to +122 °F)

Storage temperature
-40 °C to +70 °C (without battery)
-40 °F to +158 °F

Air humidity
5 % to 95 %, non-condensing

Protection class
IP 54

IrDA
Infrared port for connection
to printers and other devices

Light immunity (readability)

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

■ **Battery performance**

Standby time
150 hours

Talk time
5 hours

■ **Voice and data communication over wireless WAN**

WWAN wireless modul GPS
option of GSM-HSDPA or CDMA-EVDO

Integrated stand-alone or assisted GPS
(A-GPS) through SUPL;
SiRFstarIII GSC3f/L chip set

■ **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 for LAN, external for WAN

Voice communication
Voice-over IP integrated and ready
(P2P, PBX, PTT),
WLAN to IEEE 802.11a/b/g with
Wi-Fi™ certification and DSSS

■ **over Wireless PAN**

Bluetooth
Class II, Version 2.1 with EDR
(Enhanced Data Rate); integrated antenna

■ **Data capture options**

Scanning
1D Laser Scanner; 1D/2D Imager;
autofocus flash-enabled colour camera
(3.2-megapixels) and decoding software
for bar codes

Four available options
1D Laser Scanner
1D/2D Imager
1D Laser Scanner and camera
1D/2D Imager and camera

■ **Colour camera**

Resolution
3.2 megapixels

Illumination
Flash (user-controllable)

Lens
Autofocus

■ **1D Laser Scanner (SE950)**

Range on 100 % UPC-A
60 cm

Resolution
4 mil minimum width

Roll
± 35° from the vertical

Pitch angle
± 65° from normal

Skew tolerance
± 50° from normal

Ambient light immunity
107,644 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 (H x V grayscale)

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 laser

Illumination element (LED)
625 ± 5 Nm LEDs (2 x)

Delivery includes
1 x MC 75Ax^{ex}-NI
1 x battery 1.5 x
1 x battery door
1 x Stylus
1 x User Manual

➡ **Order no. B7-A272-** ☐ ☐ ☐ **S/W** ☐ **RA9W00**
MC 75Ax^{ex}-NI including Li-ion battery 1.5 x (1 pc.) and battery door.
The complete order number can be requested by your local sales representative.