Mobile Computer MC 92N0ex RFID for Class I, II, III Div. 2 and ATEX Zone 2/22

MC 92N0ex-G and -K with extended RFID Reader

Description

This unique idea enables a combination of state-of-the-art technologies and so it was possible to integrate barcode data capture and RFID technology in this one device.

Thanks to the modular keyboard and colour display, the data can be processed directly on the mobile computer. The data is transmitted to other corporate divisions via WLAN or Bluetooth. This means that the data is available in real time for further processing.

The software we offer for individual application development is an open source demo version and an SDK file. The SDK file is available for the C# programming language and contains all necessary resources for specific application development.

On the one hand, the open source demo serves to demonstrate the reading and writing of RFID tags; on the other hand, it offers application developers a good basis for customised reader programming.

The MC 92N0ex-IS can be retrofitted with the RFID option in the factory. It cannot be retrofitted by the customer himself.

Features

- International approvals for global usability
- RFID/UHF with a large reading range
- RFID reader and scanner in one device
- WLAN radio standard IEEE 802.11 a/b/g/n
- Easy battery changing in the Ex area
- Expanded storage capacity with replaceable SD card
- Various versions of replaceable keyboards
- Service contracts

Explosion protection

UL Ex protection type
Class I Div. 2 Groups A, B, C, D T6
Class II Div. 2 Groups F, G
Class III

Certification
UL File E321557

ATEX Ex protection type
Ⓔx II 3G Ex nA IIC T6 Gc
Ⓔx II 3D Ex tc IIIC T80 °C Dc
-20 °C ≤ T_a ≤ +50 °C

Ⓔx II 3G Ex nA IIB T6 Gc
Ⓔx II 3D Ex tc IIIB T80 °C Dc
-20 °C ≤ T_a ≤ +50 °C
(with mounted antenna)

Certification
B1-A2A3-7C0001, B1-A2A3-7C0002

Technical data

Keyboard version
- 28 keys, numeric
- 43 keys, numeric with (F) function keys
- 53 keys, alphanumeric

Display
3.7" VGA colour display
with touchscreen 480 x 640 pixels

Barcode options
SE 965: 1D-Standard Range Scan Engine
Reading range: up to 2.5 m

SE 4500: 1D-/2D Imager Engine
Reading range: up to 60 cm

only for MC 92N0ex-G
SE 1524: 1D-Long Range Scan Engine
Reading range: up to 12 m
Other variants available, see user's manual.

Dimensions (height x width x depth)
MC 92N0ex-K
231 mm x 115 mm x 105 mm
(9.1 inch x 4.5 inch x 4.1 inch)

MC 92N0ex-G
231 mm x 115 mm x 193 mm
(9.1 inch x 4.5 inch x 7.6 inch)

Weight
MC 92N0ex-K
approx. 980 g (approx. 34.5 oz)

MC 92N0ex-G
approx. 1120 g (approx. 39.5 oz)

Ambient temperature
-20 °C to +50 °C (-4 °F to +122 °F)

Storage temperature
-40 °C to +70 °C (-40 °F to +158 °F)

Charging temperature
0 °C to +40 °C (+32 °F to +104 °F)

Humidity
5 % to 95 % (non-condensing)

Protection class (EN 60529)
IP 64

Prozessor
TI OMAC 4430 dual-core® processor/1 GHz

Memory
1 GB/2 GB flash RAM/ROM with the option of expansion with SD card: up to 32 GB

Operating system
Windows Embedded Handheld 6.5.3
or Windows CE 7.0

Power supply
Li-ion battery B7-A2Z0-0006
with 7.4 V/2200 mAh

Backup battery
Ni-MH battery (rechargeable)
2.4 V/15 mAh

Interfaces
- RS232
- USB

03-0330-0782-01/2014-BAT-362984/1

Mobile Computer MC 92N0ex RFID for Class I, II, III Div. 2 and ATEX Zone 2/22

Audio System
Integrated microphone and loudspeaker

Voice support
Voice over IP

Wireless data communication (WLAN

Radio standard
IEEE 802.11a/b/g/n

Data rate/frequency range
IEEE802.11a: up to 54 Mbit/s - 5 GHz
IEEE802.11b: up to 11 Mbit/s - 2.4 GHz
IEEE802.11g: up to 54 Mbit/s - 2.4 GHz
IEEE802.11n: up to 600 Mbit/s - 2.4/5 GHz

Output power
100 mW (Germany and International)

Antenna
Integrated in the device

Note
The respective radio frequencies and usable channels depend on the country-specific regulations.

Bluetooth (WPAN)

Bluetooth version 2.1 with BT Explorer (including manager)

Max. data rate
2.1 Mbit/s

Antenna
Integrated in the device

LF Reader extended and internal		
Supported standards		HITAG S256, HITAG S 2 kbit, HITAG 1, HITAG 2, Q5, ATA5567, EM4305, HDX - RO, HDX (Multipage), EM4xxx (UNIQUE), FDX-B, BDE, ISO 117845, ISO Animal, EM 4450/4550, EM4xxx (UNIQUE), FDX-B, BDE, ISO 11784/5, ISO Animal
Nominal reading/writing distance		approx. 5 cm/approx. 1.9 inches
Antenna		ferrite antenna or air coil antenna
Frequency range		125/134 kHz
Transmitting power		100 mW ± 2dB
HF Reader extended		
Supported standards		HF ISO 15693 e.g. I-Code SLI, Tag-IT HFI, my-d vicinity, STM LRI512 HF ISO 14443 e.g. mifare, mifare Ultra Light, my-d proximity, I-Code 1 (optional)
Nominal reading/writing distance HF ISO 15693 HF ISO 14443		 approx. 7 to 12 cm/approx. 2.75 to 4.72 inch approx. 1 to 6 cm/approx. 0.4 to 2.36 inch (with tags in cheque card format)
Antenna		integrated
Frequency range		13.56 MHz
Transmitting power		250 mW ± 2 dB
UHF Reader extended		
Supported standards		EPC Class 1 Gen 2 tag
Nominal reading range		approx. 30 to 50 cm/approx. 11.8 to 19.6 inch
Nominal writing distance		approx. 30 to 50 cm/approx. 11.8 to 19.6 inch
Antenna		integrated
Frequency range	Europa USA	865.6 to 867.5 MHz (EN 302 208) 902.0 to 928.0 MHz (FCC CFR 47 part 15.247)
Transmitting power		200 mW ± 2dB
UHF reader extended with mounted antenna		
Supported standards		EPC Class 1 Gen 2 tag
Nominal reading range		approx. 150 cm/approx. 59 inches
Nominal writing distance		approx. 150 cm/approx. 59 inches
Antenna		external (UPM Raflatac)
Frequency range	Europa USA	865.6 to 867.5 MHz (EN 302 208) 902.0 to 928.0 MHz (FCC CFR 47 part 15.247)
Transmitting power		200 mW ± 2dB

Selection chart MC 92N0ex-NI with extended and internal RFID Reader

Barcode options	Code no.	RFID options	Code no.	Version	Code no.	Operating system	Code no.
none**	0	RFID LF Reader internal*	1	28 keys, numeric	A	Windows Embedded Handheld 6.5.3	Q
		RFID LF Reader	2	43 keys, numeric with (F) function keys	F		
SE 965 1D-Standard Range Scan Engine	A	RFID HF Reader	4	53 keys, alphanumeric	E		
		RFID UHF (US) Reader	5	53 keys, alphanumeric with layout for VT emulation	G		
SE 4500-SR 1D-/2D Imager Engine	3	RFID UHF (EU) Reader	6	53 keys, alphanumeric with layout for 3270 emulation	H	Windows CE 7.0	Y
SE 1524 1D Long Range Scan Engine (only MC 92N0ex-G)	J	RFID UHF (US) Reader and mounted antenna	7	53 keys, alphanumeric with layout for 5250 emulation	J		
		RFID UHF (EU) Reader and mounted antenna	8				

* available only without the scan engine

** combinable only with internal RFID LF reader.

Complete order no. MC 92N0ex

Version GUN B7-A2A4-RG□□/SY□□A600

Version BRICK B7-A2A4-RK□□/SY□□A600

including Li-ion battery (1 piece). Note: All variants without accessories. You will find the accessories with order details on the accessories pages. Please insert correct code. Technical data subject to change without notice.

03-0330-0782-01/2014-BAT-362984/2