


Mobile Computer MC 9090^{ex} RFID/LF for Class I Div 1 or Class I, II, III Div 1


Mobile Computer MC 9090^{ex}-K and -G with external RFID Reader

Features

- International approvals for global usability
- WLAN radio standard IEEE 802.11 a/b/g
- Battery can be changed easily by the user
- Expanded storage capacity with replaceable SD card
- Choice of various replaceable keyboard variants
- Service contracts

Description

The MC 9090^{ex} Mobile Computer is a robust device for reliably scanning barcodes and reading RFID tags in hazardous areas.

The scan trigger is positioned in such a way that barcodes and RFID tags can be captured very conveniently. The integrated radio module enables real time data access to your host system.

The MC 9090^{ex} combines the strength of Microsoft's Pocket PC platform with the power of the Intel® XScale™ PXA270 processor with 624 MHz.

A further highlight is the large easy-to-read 1/4 VGA color display with touchscreen technology.

The MC 9090^{ex} is working with the IEEE802.11 a/b/g (Direct sequence).

Explosion protection

Type

Class I Div 1 GP C, D T4 Ex ia
or
Class I Div 1 GP C, D T4 Ex ia
Class II Div 1 GP F, G
Class III

Certification

UL for USA/Kanada
File No. E226123

Other variants are available for:

- Europe, Brazil, Japan, Canada, Russia, South Africa
- Mining EU

Technical data

Keyboard version

28, 33, 43 and 53 keys

Display

3.8", 1/4 VGA colour display with touchscreen
240 x 320 pixels

LF Reader

Nominal read/write range
approx. 5 cm (1.9 inch)

Antenna
integrated in the modul

Frequency range
125/134 KHz
(automatic switched by the reader)

Barcode options

MC 9090^{ex}-K

SE 950: 1D-Standard Range Scan Engine
Reading range: approx. 10 cm up to 120 cm

SE 4400: 1D-/2D-Imager Engine
Reading range: approx. 6 cm up to 50 cm

MC 9090^{ex}-G

SE 1524: 1D-Long Range Scan Engine
Reading range: approx. 10 cm up to 12 m

SE 4400: 1D-/2D-Imager Engine
Reading range: approx. 6 cm up to 50 cm

Dimensions (length x width x height)

MC 9090^{ex}-K

231 mm x 91 mm x 105 mm
(9.1 inch x 3.6 inch x 4.1 inch)

MC 9090^{ex}-G

231 mm x 91 mm x 193 mm
(9.1 inch x 3.6 inch x 7.6 inch)

Weight

MC 9090^{ex}-K

approx. 1040 g (approx. 40 oz)

MC 9090^{ex}-G

approx. 1170 g (approx. 41 oz)

Ambient temperature

-20 °C up to +40 °C (-4 °F up to +104 °F)

Surface temperature

-40 °C up to +70 °C (-40 °F up to +158 °F)

Charging temperature

0 °C up to +40 °C (+32 °F up to +104 °F)

Humidity

5 % to 95 % (non-condensing)

Protection class

IP 64

CPU

Intel® XScale™ PXA270 processor/624 MHz

Memory

128/128 MB RAM/ROM
option of expansion with SD card:
512 MB, 1 GB or 2 GB

Operating system

Windows Mobile 2005
Upgrade to Windows Mobile 6.1 possible

Power supply

Li-ion battery 17-A1Z0-0002
with 7.4 V/ 2200 mAh
Battery can be changed in the Ex area!

Backup Battery

Ni-MH battery (rechargeable)
3.6 V/15 mAh

Interfaces

- RS232
- USB

Application development

SDK available through Motorola Developer
Central Web site


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Audio system

integrated microphone and loudspeaker

Wireless data communication (WLAN)
Radio standard

IEEE 802.11a/b/g

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

Output power

100 mW (international)

Note

The use of channels and frequencies is subject to country-specific regulations.

Bluetooth (WPAN)

Bluetooth Version 1.2 with BT Explorer (manager included)

Maximum data rate

1 Mbit/s

Firmware	FW Type	Tag	Frequenz
Btrw-rw. V.1.40.frm			
	Type 1	HITAG S/HITAG 1-RW	125 kHz
	Type 3	Q5/ATA5557/ATA5567-RW	125 kHz
	Type 5	HITAG2-RW	125 kHz
	Type 6	EM4305-RW	125 kHz/134 kHz
Btrw-hdx. V.1.40.frm			
	Type 0	EM 41xx (UNIQUE)-RO	125 kHz
	Type 2	FDX-B ISO 11784/5-RO	134 kHz
	Type 4	HDX Transponder (TI)-RW	134 kHz
Btrw-ti. V.1.40.frm			
	Type 0	EM 41xx (UNIQUE)-RO	125 kHz
	Type 2	FDX-B ISO 11784/5-RO	134 kHz
	Type 7	EM4450/4550 (TITAN)-RW	125 kHz

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:

Aztec	(Macro) Micro PDF-417
Australian 4-state	Micro PDF-417 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)

Selection chart

Type		Mobile Computer	Barcode	Code no.	Version	Code no.	SD memory card	Code no.
Class I Div 1	2	MC 9090 ^{ex} -G Gun	G	J	28 keys, numeric	A	without SD card	00
					33 keys, numeric	L		
				K	43 keys, alphanumeric	F	SD card with 512 MB	01
					53 keys, alphanumeric	E		
Class I, II, III Div 1	6	MC 9090 ^{ex} -K Brick	K	A	53 keys with layout for VT emulation	G	SD card with 1 GB	02
					53 keys with layout for 3270 emulation	H		
				K	53 keys with layout for 5250 emulation	J	SD card with 2 GB	03
					53 keys with layout for 5250 emulation	J		

Complete order no. **17-A1** ☐ **9-R** ☐ ☐ **1/HC** ☐ **FA6** ☐ ☐

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including Li-ion battery (1 pc.)

Please insert correct code. Technical data subject to change.

Note: All variants without accessories.