

migra SC/MC 5/3 IPC

Large Format, Graphics Compatible Display with Integrated Industrial PC

User's Manual

migra SC/MC 5/3 IPC

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1 General

The large format, graphics compatible display can be used universally for displaying production data, or as an information board.

The modular design allows for cost-effective models of various sizes.

1.1 General Display Functions

- Data transmission: Ethernet TCP/IP
- Representation of a screen section of the IPC (industrial PC)

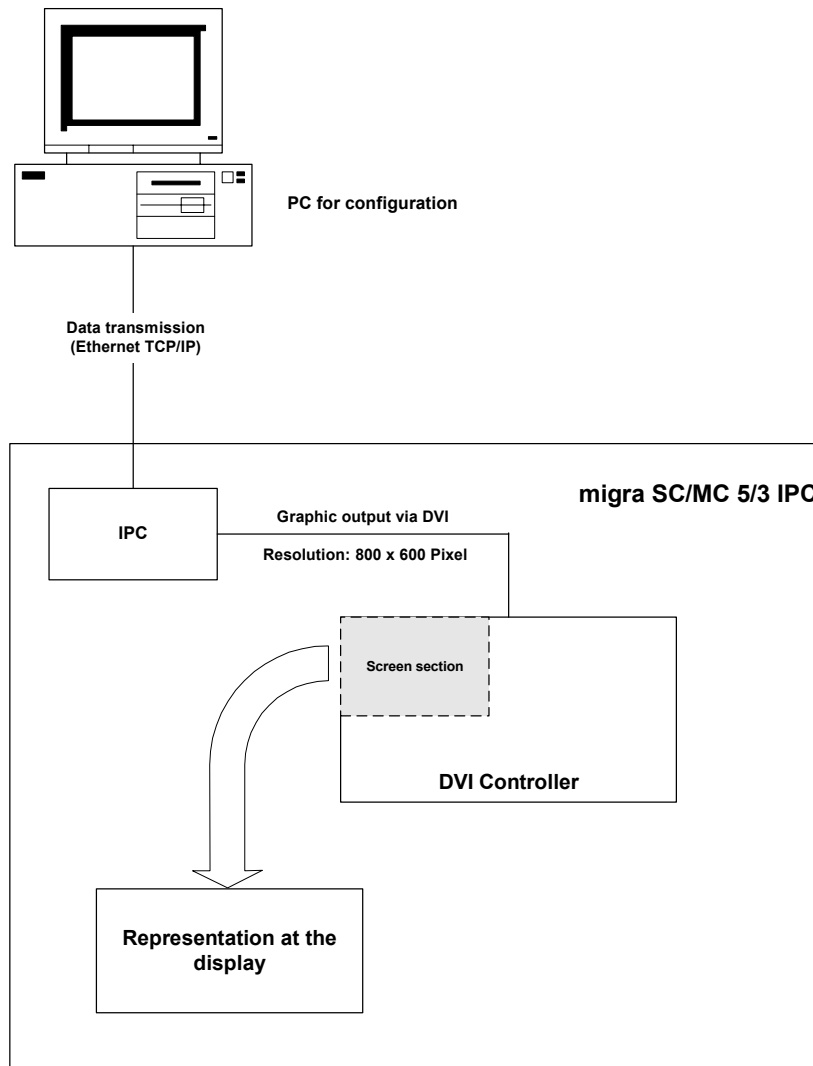
1.2 Configuration Options

- Operating systems: Windows CE / 2000 / XP / XP Embedded / WEPOS
- Industrial PC with/without fan
- Data storage: Hard disk / Compact Flash

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2 System Overview



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3 Technical Data

General Specifications

Display type:	LED dot matrix display
Pixel size:	5 / 3 mm
Display colour:	single colour (SC) or multicolour (MC): red, green, yellow
Operating voltage:	230 V / 50 Hz
Power consumption:	see type label
View:	single or double sided
Representation:	Monitor display
Data input:	Ethernet TCP/IP
Housing:	Industrial version, powder coated aluminium
Housing dimension:	depending on the resolution
Housing colour:	RAL 7016 (anthracite)
Mounting:	articulated arm or hanging mount bracket for wall mounting
Protection:	IP54 or IP65
Operating temp.:	0 to + 50 °C (optionally - 25 to + 50 °C)
Storage temp.:	- 25 to + 70 °C

Integrated Industrial PC

See chapter "Technical Data of the IPC".

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3.1 Operation / Functionality

Attention:

The display must only be operated in vertical position (hanging, upright)!

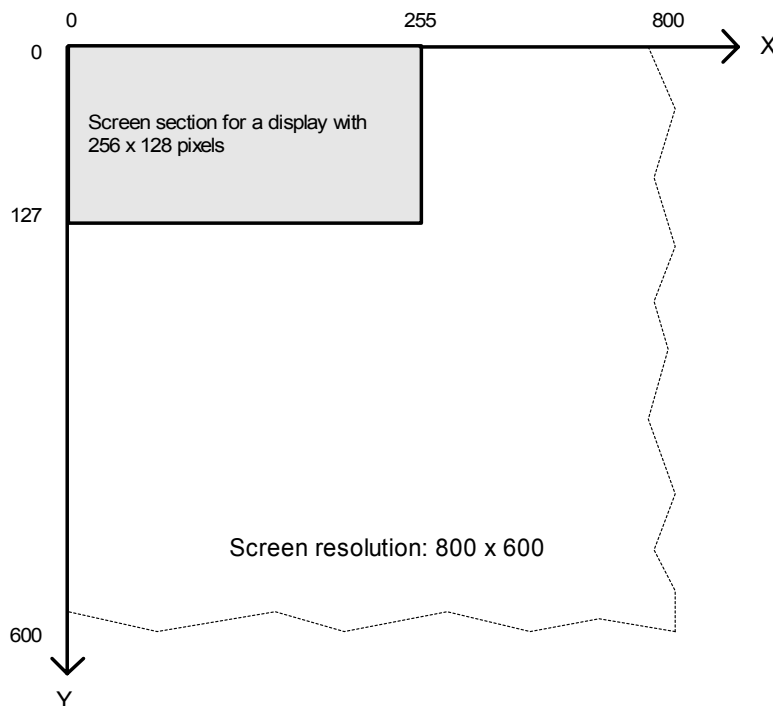
The large format display always represents an adjusted screen section of the integrated IPC (resolution is 800 x 600 pixels).

The upper left corner of the screen has the coordinates (0 / 0).

Please attend to a suitable colouring at the visualisation (red, green, yellow, black) to avoid unrequested display effects. The most significant bit defines the display colour.

Example:

migra single sided, 256 x 128 pixels:

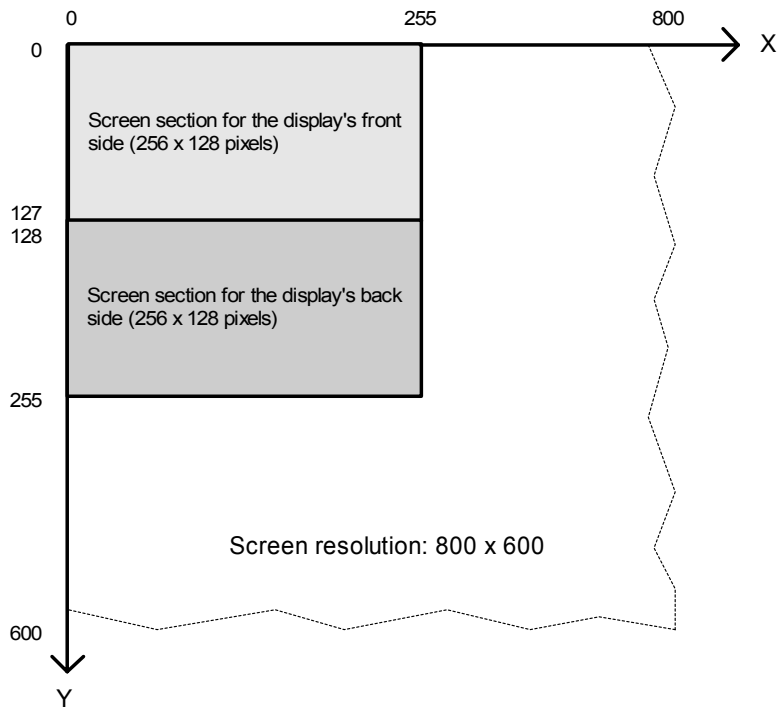


As shown in the drawing above, the display area is the screen section between the coordinates (0 / 0) to (255 / 127).

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Example:
migra double sided, 256 x 128 pixels:



As shown in the drawing above, the display area of the front side is the screen section between the coordinates (0 / 0) to (255 / 127).

The back side of the display shows the screen data of the coordinates (0 / 128) to (255 / 255).

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3.2 Temperature Control

The large format display is equipped with a temperature control. If a temperature of 55 °C inside the housing is exceeded, the brightness of the display is reduced automatically. This does not interfere the functionality but serves for protection of the device against excess temperature.

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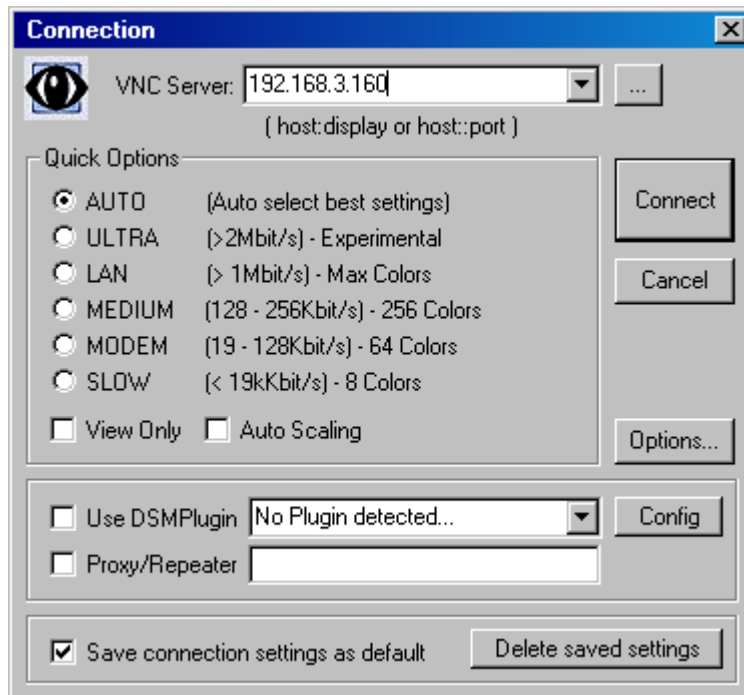
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3.3 Software / Installation

The PC configuration with the Ethernet interface (RJ45) happens either via the network or with a direct connection to a PC (crosslink cable). The IP address can be taken from the label at the housing. The remote control software UltraVNC is already installed in order to configure the internal PC. It's an open source product, which you can use for free. You can download UltraVNC at www.sourceforge.net/projects/ultravnc.

In addition, you must install this software at the configuration PC for the communication with the display.

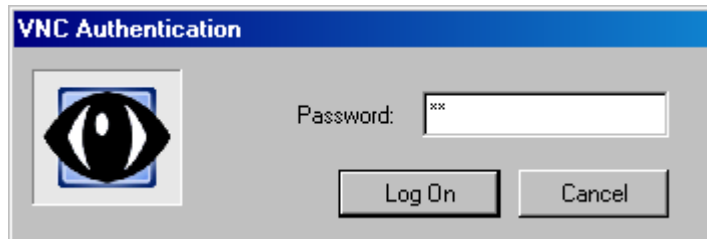
- Connect the display with your network or directly with a PC.
- Install the software UltraVNC at the configuration PC by following the instructions at the screen.
- Start the software UltraVNC Viewer after the installation. The following dialog appears:



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- Input the IP address of the display, which you are connected to (see the label at the housing).
- After this, press the button „Connect“. You must enter a password:



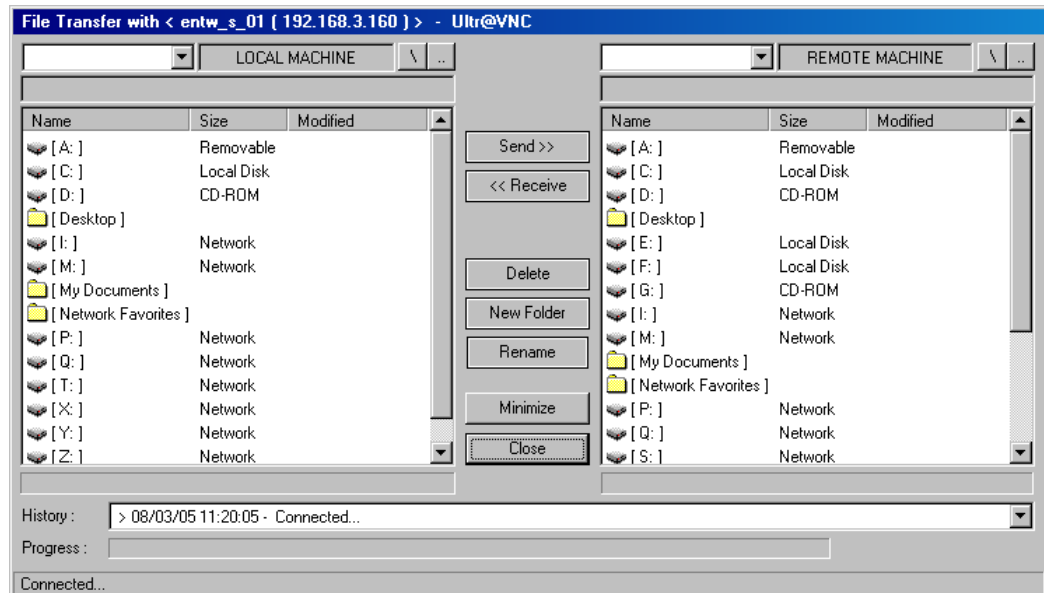
- Input the password „migra“ and confirm this with the button “Log On“.
- The connection to the display is established and the current screen content of the IPC is displayed.
- The data exchange between the configuration PC and the IPC happens with the button “Open File Transfer“ (toolbar):



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- The following dialog is opened:



The left section (LOCAL MACHINE) shows the content of the configuration PC, the right section (REMOTE MACHINE) displays the content of the IPC.

- Mark the file, which shall be transmitted, in the left section
- Mark the destination folder in the right section.
- Use the button “Send >>“ to copy the selected file of the configuration PC to the destination folder of the IPC.

Note:

It's not allowed to change the system configuration (screen resolution, drivers etc.) of the integrated PC.

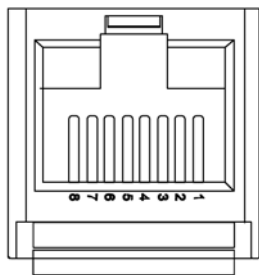
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4 Connector Pin Assignments

Ethernet Socket

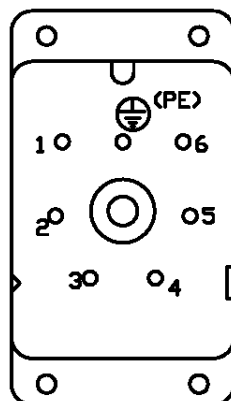
This socket serves for the connection of the display to the Ethernet (for configuration or control).



Pin	Assignment
1	Tx +
2	Tx -
3	Rx +
4	n.c.
5	n.c.
6	Rx -
7	n.c.
8	n.c.

Mains Plug (230 VAC)

This plug serves for the power connection of the display (230 VAC / 50 Hz.)



Pin	Assignment
1	L1
2	N
⊥	PE

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5 Appendix

5.1 Technical Data of the IPC

Processor:	Intel® Prozessor 600 MHz, fanless
Chipset:	Intel® 855GME/ICH4
Graphics:	Intel Extreme Graphics 2 engine, 2x32 MB VRAM UMA for VGA & LCD
Interfaces:	LVDS (JILI), CRT, LVDS (JILI) to DVI, 10/100 Base-T, 1x COM, 2x USB 2.0, LPT, IDE, JFLEX extension, DDR-SDRAM-DIMM-sock
Memory:	256 / 512 MB DDR-RAM
Data storage:	HDD / Compact Flash
Operating system:	Windows 2000 / Windows XP / Windows XP Embedded / WEPOS

Subject to change without notice!

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5.2 Maintenance and Care

Observe the following instructions in order to assure best possible performance of the display:

- Make sure that the housing can be opened for adjustment and maintenance even after the display has been installed. Allow for adequate clearance at the back, front and top of the display unit in order to allow for sufficient ventilation (if vent slots are included).
- Display quality is impaired by direct illumination with bright light sources and/or direct sunlight.
- The display must be switched off before cleaning.
- Protect the display from excessive humidity, extreme vibration, direct sunlight and extreme temperatures. Non-observance may lead to malfunctioning or destruction of the device. Under certain circumstances electrical shock, fire and explosion may occur as well. Information concerning allowable ambient conditions, including recommended temperature ranges, can be found in the chapter entitled "Technical Data".
- The display may not be placed into service if the device and/or the power cable are known to be damaged.
- Do not attempt to repair the device yourself. The guarantee is rendered null and void if unauthorised persons tamper with the device.
- Observe all notes and instructions included in this user's manual.

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5.3 Declaration of Conformity

microSYST Systemelectronic GmbH, Zur Centralwerkstätte 10,
92637 Weiden, Germany

does hereby declare that the product described in this user's manual,

“migra SC/MC 5/3 IPC”

to which this declaration makes due reference,
is in compliance with the following standards or normative documents:

Interference emission: generic standard EN 50081 - 2, issued July 1993
Product standard: EN 55011; group 1/2; class A, issued March 1991
Limit values identical to EN 55022

Interference immunity: generic standard EN 50082 - 2, issued March
1995
Basic specification per table

In accordance with regulations specified by guideline 89/336/ EWG (and
EMVG).

Weiden, 15 June 2005

microSYST Systemelectronic GmbH

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5.4 Guarantee

The display is guaranteed for the duration described in the “General Terms and Conditions regarding manufactured products and services rendered for the electrical industry” against defects which existed at the time the device was delivered to the buyer.

The device is subject to technical change without notice. Errors and omissions are excepted. No claims can be honoured for the shipment of a new product. The buyer is required to make notification of defects within 2 weeks after identification of such. Non-observance of notification requirements is equated with acceptance of the defect.

Defects and their symptoms must be described as accurately as possible in order to allow for reproducibility and elimination. The buyer must provide for access to all required and/or useful information regarding defects at no charge, as well as to the affected devices, and must make all of the required data and machine time available free of charge.

The guarantee does not cover defects, which result from non-observance of the specified conditions of use, or from improper handling.

If the device has been placed at the disposal of the buyer for test purposes and has been purchased subsequent to such testing, both parties agree that the product is to be considered “used” and that it has been purchased “as is”. No guarantee claims may be made in such cases.

The “General Terms and Conditions” regarding manufactured products and services rendered for the electrical industry apply as well.

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5.5 Versions Overview

Ver.	Date	Remark, Description
1.00	11/7/05	Kreuzer: Document created

Certified per **DIN EN ISO 9001:2000**.