Revolutionary Industrial PC for IoT Era
With innovative i-Modules For flexible expansion
Revolutionary Industrial PCs for the IoT Era
With Innovative i-Modules for Flexible Expansion

Modular IPC for Machine & Factory Automation

<table>
<thead>
<tr>
<th>System Hardware</th>
<th>MIC-7900</th>
<th>MIC-7700</th>
<th>MIC-7500</th>
<th>MIC-7300</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU</td>
<td>Intel® Xeon®</td>
<td>Intel® Core™ i Desktop CPU</td>
<td>Intel® Core™ i Mobile CPU</td>
<td>Intel® Celeron®/Atom™</td>
</tr>
<tr>
<td>Chipset</td>
<td>-</td>
<td>Q170/H110</td>
<td>QM170</td>
<td>-</td>
</tr>
<tr>
<td>Memory</td>
<td>Dual DDR4 Max. 32GB (support ECC)</td>
<td>Dual DDR4 Max. 32GB</td>
<td>Dual DDR4 Max. 32GB</td>
<td>Dual DDR3L Max. 8GB</td>
</tr>
<tr>
<td>Storage</td>
<td>1x 2.5” HDD 1x mSATA SSD 1x CFast</td>
<td>1x 2.5” HDD 1x mSATA SSD 1x CFast with RAID support (Q SKU)</td>
<td>1x 2.5” HDD 1x mSATA SSD 1x CFast with RAID support</td>
<td>1x 2.5” HDD 1x mSATA SSD</td>
</tr>
<tr>
<td>Ethernet Interface</td>
<td>4x GbE</td>
<td>2 x GbE</td>
<td>2 x GbE</td>
<td>2 x GbE</td>
</tr>
<tr>
<td>Display</td>
<td>1x VGA</td>
<td>1x DVI-D 1x VGA</td>
<td>1x DVI-D 1x VGA</td>
<td>1x DVI-D 1x VGA</td>
</tr>
<tr>
<td>USB</td>
<td>4x USB3.0</td>
<td>8x USB3.0 (Q SKU)*</td>
<td>8x USB3.0</td>
<td>2x USB3.0 6x USB2.0</td>
</tr>
<tr>
<td>Front Audio</td>
<td>2x Line-out, 1x Mic-in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-20~50°C</td>
<td>-10~50°C**</td>
<td>-20~60°C</td>
<td>-20~60°C</td>
</tr>
<tr>
<td>Power Input</td>
<td>DC 9-36V</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Dimension (H/W/D)</td>
<td>192x74x230mm</td>
<td>192x78x230mm</td>
<td>192x74x230mm</td>
<td>192x74x230mm</td>
</tr>
</tbody>
</table>

* H SKU: 4x USB3.0, 4x USB2.0
** TDP 35W CPU
## Comprehensive Expansion Options for Various Requirements

<table>
<thead>
<tr>
<th>i-Module</th>
<th>MIC-75M10</th>
<th>MIC-75M20</th>
<th>MIC-73M20</th>
<th>MIC-75M20-01</th>
<th>MIC-75M11</th>
<th>MIC-73M11</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIC-7900</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIC-7500</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIC-7700</td>
<td>1x PCIe x16</td>
<td>1x PCIe x16</td>
<td></td>
<td>2x PCIe x8</td>
<td>1x PCIe x16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1x PCIe x4</td>
<td></td>
<td></td>
<td>1x PCI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIC-7300</td>
<td>-</td>
<td>-</td>
<td>2x PCIe x1</td>
<td>-</td>
<td>-</td>
<td>1x PCIe x1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1x PCI</td>
</tr>
<tr>
<td>MIC + i-Module</td>
<td>192x97x230mm</td>
<td>192x123x230mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimension (HxWxD)*</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>System Fan (Optional)**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
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<td>2x 4cm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>i-Module</th>
<th>MIC-75M13</th>
<th>MIC-73M13</th>
<th>MIC-75M40</th>
<th>MIC-75S20</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIC-7900</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIC-7500</td>
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<td></td>
</tr>
<tr>
<td>MIC-7700</td>
<td>1x PCIe x16</td>
<td></td>
<td>1x PCIe x8</td>
<td>1x PCIe x16</td>
</tr>
<tr>
<td></td>
<td>3x PCI</td>
<td></td>
<td>3x PCIe</td>
<td>1x PCIe x4</td>
</tr>
<tr>
<td></td>
<td>2x 2.5&quot; HDD</td>
<td></td>
<td>2x 2.5&quot; HDD</td>
<td>2x 2.5&quot; Hot Swap HDD</td>
</tr>
<tr>
<td>MIC-7300</td>
<td>-</td>
<td>1x PCIe x1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>3x PCI</td>
<td>1x 2.5&quot; HDD</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MIC + i-Module</td>
<td>192x163x230mm</td>
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<tr>
<td>Dimension (HxWxD)*</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>System Fan (Optional)**</td>
<td>-</td>
<td></td>
<td>1x 8cm</td>
<td></td>
</tr>
</tbody>
</table>

*When an i-module is assembled with MIC-7700, total width will be increased by 4 mm.

** Fan must be added if expansion cards exceed 45W power consumption.
Next-Generation Industrial PCs with Innovative i-Modules for Flexible Expansion

The MIC-7000 Series comprises compact modularized systems that support the innovative i-Module for flexible expansion to satisfy diverse application requirements. The MIC-7000 Series can be widely employed for factory and machine automation. The fanless and ruggedized design ensures that these systems can withstand the demands of harsh industrial environments. Furthermore, comprehensive modularized options and the ease of configuration effectively reduce lead times for Advantech’s configure-to-order service (CTOS).

Modularized

- i-Module support for flexible expansion
- CTOS service for minimal lead times

Ruggedized

- Compact and fanless design
- Supports wide DC input range and operating temperature

Customized

- 20 standard PCIe lanes for I/O customization and expansion
- Rapid development cycles and simple validation process

Optimized

- Available with various processors to satisfy specific application requirements
Next-Generation Industrial PCs

MIC-7000 Series
Compact Fanless System with Multiple CPU Options
- Supports i-Modules
- Multiple display options
- Features isolation COM / 32-bit GPIO / Secondary DVI / HDMI
- Multiple CPU options
- 2 x RS-232/422/485 serial ports and 4 x RS-232 (expansion via cable) ports

Vision Guidance Robotics

PCE-USB4
PCI Express x4, 4-Port
USB 3.0 Expansion Card

PCIE-1674E
4-Port 10/100/1000 BaseT(X)
802.3af (PoE) Compliant
PCI Express Communication Card with Ethernet Ports

PCI-1245E
DSP-Based, 4-Axis
Stepping/Servo Motor
Control Universal PCI Card

PCIE-1245
PCI Express x4, 4-Port

MIC-7500+
MIC-75M13

Cameras (PoE or USB interface)

Robotic Arm
Wind Farm SCADA Compact Virtual Server

- **EKI-1224-BE**
  - Integration of Modbus TCP and Modbus RTU/ASCII networks
  - 2 x 10/100 Mbps Ethernet ports for LAN redundancy
  - 4-port Modbus Gateway
  - Software selectable RS-232/422/485 communication

### Supports Expansion Window
- 32-bit GPIO
- RS-422/485 Isolation
- TPM2.0
- Secondary DVI / HDMI

### Diagram
- **RAID Card** for Data Storage, supporting RAID 0/1/5/10
- **MIC-7900 + MIC-75S20**
- **Modbus Gateway**
- **Graphic Card**
- **Multi-Display**
- **5x SSD inside (2x Hot Swappable)**
- **Modbus TCP/IP**
- **Modbus RTU/ASCII**
- **Meter**
- **Relay**
- **Motor**
- **Other Equipment**
Vehicle Braking Test System

TEXOL Dynagator
Analyzes disc quality through frequency domain conversion

PCIE-1802
Dynamic Signal Acquisition
PCI Express Card

PCIE-1816
1 MS/s, 16-Bit, 6-Channel
PCI Express Multifunction DAQ Card

MIC-7700 + MIC-75M20

DAQNavi
Advantech's next-generation data acquisition software development tool

The vibrations generated by the hammer hitting the disc are measured using an accelerometer. This data is then transmitted to PCIE-1802 for analysis.

PCIE-1802
8-Channel, 24-Bit, 216 kS/s Dynamic Signal Acquisition PCI Express Card