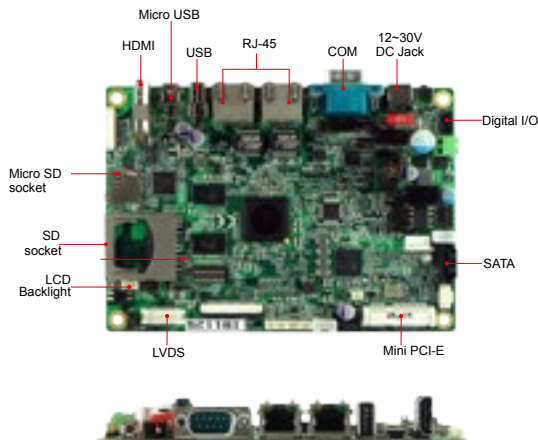


# IB112

Freescale i.MX536 Industrial-Grade Cortex-A8 Single Board Computer

RISC SBC



## Features

- Freescale ARM Cortex-A8, 800MHz industrial-grade processor
- 1GB DDR3 memory on board
- Supports USB-OTG
- Supports SD card/ MicroSD card
- Rich I/O for high expansion capability
- Watchdog timer, Digital I/O

## Specifications

|                              |  |
|------------------------------|--|
| Form Factor                  | 3.5" Disk-Size SBC, 102mm x 147mm (4" x 5.8")  |
| MPU Type Operating Frequency | Freescale Industrial-Grade i.MX536:<br>1GHz Cortex™-A8<br>65nm, LP/GP<br>19x19 0.8mm (TE-BGA)  |
| System Memory                | 1GB DDR3-800 on board  |
| Data Memory                  | Optional 8GB/16 GB eMMC<br>MicroSD slot supports up to 32GB  |
| Display                      | SI9022A HDMI transmitter / LVDS  |
| Video codec                  | Decode: 1080p, 30fps<br>Encode: 720p, 30fps  |
| LAN                          | 1st LAN: 10/100 Base-T Ethernet<br>2nd LAN: 10/100 Base-T Ethernet (IB112S)  |
| USB                          | USB 4x Host via USB HUB  |
| Touch Controller             | Via DA9053 (Resistive Touch Controller)  |
| Audio                        | Pin header for speaker   |
| Watchdog                     | By hardware  |
| NVRAM                        | 32KB (in IB112F, IB112S)   |
| Edge I/O                     | <ul style="list-style-type: none"> <li>• 1x 1st 10/100 LAN / 1x 2nd 10/100 LAN (IB112S)</li> <li>• 1x USB (USB Host, A-type) / USB OTG x1 (mini USB B-type) Default: Device mode</li> <li>• 1x COM2 RS-232</li> <li>• 1x SD / 1x MicroSD</li> <li>• 1x 12-30V DC-in Jack</li> <li>• 1x Boot switch (Boot sequence - eMMC/MicroSD)</li> <li>• 1x HDMI Type A connector</li> </ul>   |
| Headers & Expansion Slots    | <p>Headers:</p> <ul style="list-style-type: none"> <li>• 8x GPIO (IB112F, IB112S)</li> <li>• COM (RS232) x 2 (COM1 / COM3 debug port)</li> <li>• Audio pin header (1x MIC, 1x speaker)</li> <li>• 2x USB 2.0 (2mm pitch)</li> <li>• FPC connector for 4-wire Resistive Touch x1</li> <li>• 2x CAN (Pin header in IB112S, IB112T)</li> <li>• 1x 18 bit LVDS connector</li> <li>• 1x VGA pin header (in IB112F, IB112S)</li> </ul> <p>Slots:</p> <ul style="list-style-type: none"> <li>• 1x SATA connector</li> <li>• 1x Full Size Mini PCIe(x1) socket (USB I/F only)</li> </ul> |
| Power                        | 12~30V DC-in   |
| Operating Temperature        | -20°C~ 70°C (-4°F ~ 158°F)   |
| Communication Devices        | WiFi / GPRS / 3G Module (Optional)   |
| Software Support             | Ubuntu Linux 10.04 (kernel 2.6.35)/ Android 2.3/ Windows CE7   |

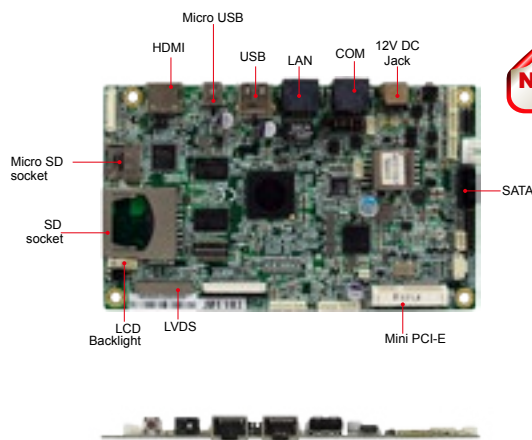
## Ordering Information

|        |  |
|--------|--|
| IB112  | 3.5-inch SBC w/ Industrial-Grade Freescale i.MX536 (800Mhz), 1GB DDR3, 10/100 LAN, SD, Micro-SD, 3 COM ports, Mini-PCIe(x1) slot   |
| IB112F | 3.5-inch SBC w/ Industrial-Grade Freescale i.MX536 (800Mhz), 1GB DDR3, 10/100 LAN, SD, Micro-SD, 3 COM ports, Mini-PCIe(x1) slot, HDMI,GPIO x8, VGA, 32K NVRAM, SATA                   |
| IB112S | 3.5-inch SBC w/ Industrial-Grade Freescale i.MX536 (800Mhz), 1GB DDR3, 10/100 LAN, SD, Micro-SD, 3 COM ports, Mini-PCIe(x1) slot, HDMI, GPIO x8, CAN x2, 2nd LAN, 32K NVRAM, 16GB eMMC |
| IB112T | 3.5-inch SBC w/ Industrial-Grade Freescale i.MX536 (800Mhz), 1GB DDR3, 10/100 LAN, SD, Micro-SD, 3 COM ports, Mini-PCIe(x1) slot, HDMI, CAN x2, 8GB eMMC                               |

# IB110

Freescale i.MX535 Consumer-Grade Cortex-A8 Single Board Computer

RISC SBC



## Features

- Freescale ARM Cortex-A8, 1GHz consumer-grade processor
- 1GB DDR3 memory on board
- Supports USB-OTG
- Supports SD card/ MicroSD card
- Rich I/O for high expansion capability
- Watchdog timer, Digital I/O

## Specifications

|                              |  |
|------------------------------|--|
| Form Factor                  | 90mm x 150mm (3.5" x 5.9")   |
| MPU Type Operating Frequency | Freescale Consumer-Grade i.MX535<br>1GHz Cortex™-A8<br>65nm, LP/GP<br>19x19 0.8mm PoP (Consumer)   |
| System Memory                | 1GB DDR3-800 on board  |
| Data Memory                  | MicroSD slot supports up to 32GB   |
| Display                      | SI9022A HDMI Transmitter / LVDS / TTL  |
| Video codec                  | Decode : 1080p, 30fps<br>Encode : 720p, 30fps  |
| LAN                          | 10/100 Base-T Ethernet   |
| USB                          | USB 4x Host via USB hub  |
| Touch Controller             | Via DA9053 (Resistive Touch Controller)  |
| Audio                        | Pin header for speaker   |
| Watchdog                     | By hardware  |
| Edge I/O                     | <ul style="list-style-type: none"> <li>• 1x 10/100 LAN (RJ45)</li> <li>• 1x USB (USB host, A-type)</li> <li>• 1x USB OTG (mini USB B-type) Default: device mode</li> <li>• 1x COM2 RS-232(RJ45 connector)</li> <li>• 1x SD</li> <li>• 1x MicroSD</li> <li>• 1x 12V DC-in Jack</li> <li>• 1x Boot switch (Boot sequence: eMMC/MicroSD)</li> <li>• 1x HDMI Type A connector</li> </ul>   |
| Headers & Expansion Slots    | <p>Headers:</p> <ul style="list-style-type: none"> <li>• 8x GPIO (IB110H, IB110F)</li> <li>• 2x COM (RS232) (COM1 / COM3 debug port)</li> <li>• Audio pin header (1x speaker)</li> <li>• 2x USB 2.0 (2.0mm pitch)</li> <li>• 1x FPC connector for 4-wire Resistive Touch</li> <li>• VGA, 18-bit TTL panel and LVDS header (IB110F)</li> </ul> <p>Slots:</p> <ul style="list-style-type: none"> <li>• 1x SATA connector (IB110F)</li> <li>• 1x Full Size Mini PCIe(x1) socket (USB I/F only)</li> </ul> |
| Power                        | 12V DC-in  |
| Operating Temperature        | 0°C~ 60°C (32°F ~ 140°F)   |
| Communication Devices        | WiFi / GPRS / 3G module (optional)   |
| Software Support             | Ubuntu Linux 10.04 (kernel 2.6.35)/ Android 2.3/ Windows CE7   |

## Ordering Information

|        |  |
|--------|--|
| IB110  | RISC SBC w/ Consumer-Grade Freescale i.MX535 (1GHz), DDR3 1GB, 10/100 LAN, SD, Micro-SD, 3 COM ports, Mini-PCIe(x1) slot   |
| IB110F | RISC SBC w/ Consumer-Grade Freescale i.MX535 (1GHz), DDR3 1GB, 10/100 LAN, SD, Micro-SD, 3 COM Ports, Mini-PCIe(x1) slot, HDMI, GPIO x8, SATA, VGA, 18-bit TTL Panel header, LVDS header |
| IB110H | RISC SBC w/ Consumer-Grade Freescale i.MX535 (1GHz), DDR3 1GB, 10/100 LAN, SD, Micro-SD, 3 COM ports, Mini-PCIe(x1) slot, HDMI,GPIO x8, 8GB eMMC (option)                                |



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