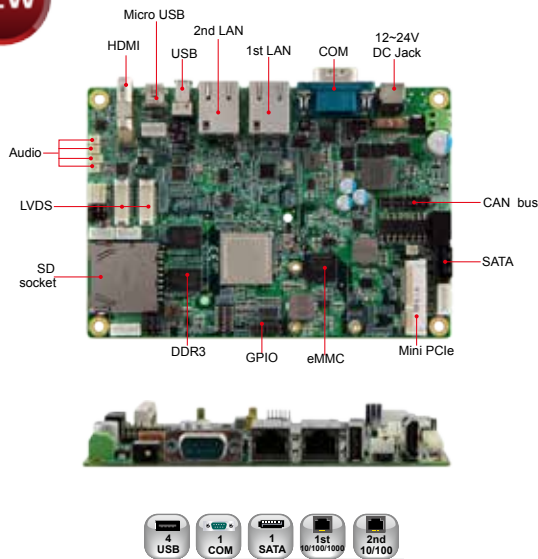


IB113

# ARM-Based SBC with Freescale i.MX6 Cortex-A9 Dual Core 800MHz SoC

NEW



## Features

- Freescale ARM Cortex-A9, 800MHz, automotive-grade processor
- Supports -40°C~ 85°C environment, all industrial-grade components
- Supports DC 12V~24V input voltage
- 1GB DDR3, 4GB eMMC on board
- Supports resistive touch panel (4/5-wires), and capacitive touch interface
- Supports OpenGL ES 2.0 and OpenVG 1.1 hardware accelerators
- Supports COM, CAN Bus, USB-OTG, SD card, HDMI, dual channel LVDS
- Supports rich I/O interface for BOM customization

## Specifications

|                           |                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Form Factor               | 3.5" Disk-Size SBC, 102mm x 147mm                                                                                                                                                                                                                                                                                                                                                        |
| CPU                       | Freescale Cortex™-A9 i.MX6 Dual 800MHz, automotive grade CPU                                                                                                                                                                                                                                                                                                                             |
| System Memory             | 1GB DDR3 on board                                                                                                                                                                                                                                                                                                                                                                        |
| Data Memory               | 4GB eMMC on board<br>SD socket (up to 32GB)                                                                                                                                                                                                                                                                                                                                              |
| Display                   | HDMI<br>18/24 bit dual channel LVDS (up to 1920 x 1080)                                                                                                                                                                                                                                                                                                                                  |
| Video Codec               | Decode: 1080p, 30fps<br>Encode: 1080p, 30fps                                                                                                                                                                                                                                                                                                                                             |
| LAN                       | 1st LAN : 10/100/1000 Base-T Ethernet (Gb LAN)<br>2nd LAN : 10/100 Base-T Ethernet                                                                                                                                                                                                                                                                                                       |
| Touch                     | PM6000 resistive touch IC (4/5-wires) on board<br>USB/ I2C header on board ( for capacitive touch)                                                                                                                                                                                                                                                                                       |
| Audio                     | Audio pin header (1x microphone, 1x speaker)                                                                                                                                                                                                                                                                                                                                             |
| RTC                       | Seiko RTC IC on board                                                                                                                                                                                                                                                                                                                                                                    |
| Watchdog                  | 256 Levels                                                                                                                                                                                                                                                                                                                                                                               |
| Edge I/O                  | 1x 1st 10/100/1000 LAN<br>1x 2nd 10/100 LAN<br>1x USB 2.0 Host (Type-A)<br>1x USB OTG (mini-USB Type-B)<br>1x COM RS-232/422/485<br>1x SD socket (up to 32GB)<br>1x DC-in jack<br>1x HDMI (Type-A)<br>1x Reset button                                                                                                                                                                    |
| Headers & Expansion Slots | Headers:<br>1x GPIOx8 pin header<br>1x Debug port pin header<br>1x USB2.0 Host box header<br>1x I2C pin header<br>1x Resistive touch header (4/5-wires)<br>2x CAN Bus 2.0B ( w/ isolation) pin headers<br>1x Dual channel LVDS box header (supports full HD)<br>1x Audio pin header (1x microphone, 1x speaker)<br>1x SATA header<br>Slots:<br>1x Full size Mini PCIe with USB interface |
| Power                     | 12V~24V DC-in                                                                                                                                                                                                                                                                                                                                                                            |

|                       |                                                |
|-----------------------|------------------------------------------------|
| Operating Temperature | -40°C ~ 85°C (-40°F ~ 185°F)                   |
| Devices               | WiFi / GPS / 3G module (option)                |
| Software Support      | Ubuntu Linux 12.04(kernel 3.0.35)/ Android 4.3 |
| Relative Humidity     | 10%~90% (non-condensing)                       |

## Ordering Information

|                      |                                                                                                                                                                                                                                                     |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IB113                | 3.5-inch SBC w/ Industrial-Grade Freescale i.MX6 dual core (1Ghz), 1GB DDR3, 2x LAN , SD, 1x COM ports, Mini PCI-E(x1) slot, HDMI, 8x GPIO, 2x CAN, 2nd LAN, 4GB eMMC, Resistive touch panel (4/5-wires) support                                    |
| Accessory (Optional) | RF:<br>- 3G+GPS Combo ( Mini PCI-E card)<br>- WIFI+BT Combo (Mini PCI-E card)<br>- WIFI module (USB I/F)<br>- BT module (USB/I/F)<br>Display:<br>- 800 x 600, resistive touch panel (5-wires)<br>- LVDS cable: LCD314<br>Debug cable:<br>- PK1-100A |
| HSB113-BGA-A         | Heatsink for IB113                                                                                                                                                                                                                                  |