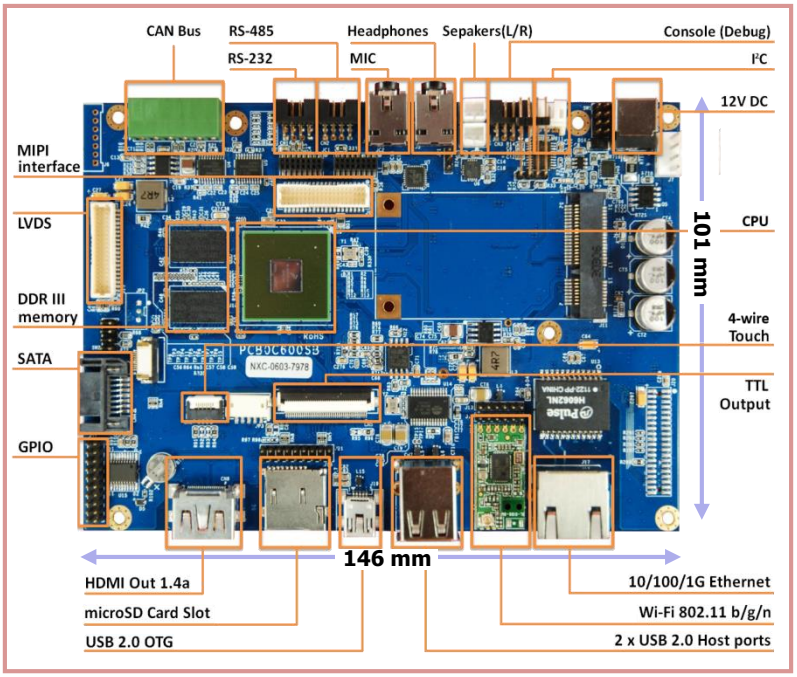
SBC2100/EC2100

ARM Cortex™-A9 Computer



- High-performance ARM quad-core single board computer
- Low power consumption
- Dual channel LVDS to drive 1080p LCD
- Rich interfaces, supports I²C, GPIO
- 9V~36V wide range power input
- Over voltage protection (optional)
- Quad-band WCDMA (3G) module (optional)

SBC2100 Features

- **Powerful, quad-core performance.** Designed with all the major features of the NXP i.MX6 multi-core platform, the SBC2100's onboard quad-/dual-core processor running at 1 GHz provides the ideal platform for developing devices based on a single hardware design.
- **Rich peripheral interfaces.** Numerous interfaces along with accompanying device drivers on the SBC1200 offer abundant and quick software and hardware development capabilities
- **I²C master mode communication.** The onboard I²C bus (master mode) allows application software to access low-speed peripherals such as hardware diagnostic sensors, or low-speed ADC/DAC.
- **Multiple OS support**. The SBC2100 supports Android 4.2 / 4.4 and Yocto, giving you flexible choices for product development.
- **Ultra wide input-voltage range**. The SBC2100 operates over an ultra-wide input range of 9V~36V.
- **Over voltage/current protection**. This feature is designed to protect SBC2100 from a higher voltage/current input. This is a useful feature in a variety of applications such as industrial equipment or vehicle.

SBC2100 Overview

The SBC2100 is a smart, cost-effective single board computer for a wide range of commercial and industrial applications. Integrated with essential system interfaces with ample options for expanding hardware capabilities, the SBC2100 enables fast and easy development of applications, ensuring prompt time-to-market turnaround.

SBC2100 Typical Applications

- **Digital signage**
- **POS, KIOSKs**
- **Gaming devices**
- **Machine control**
- **Data logger**
- **Vehicle Infotainment**
- **Industrial Equipment**

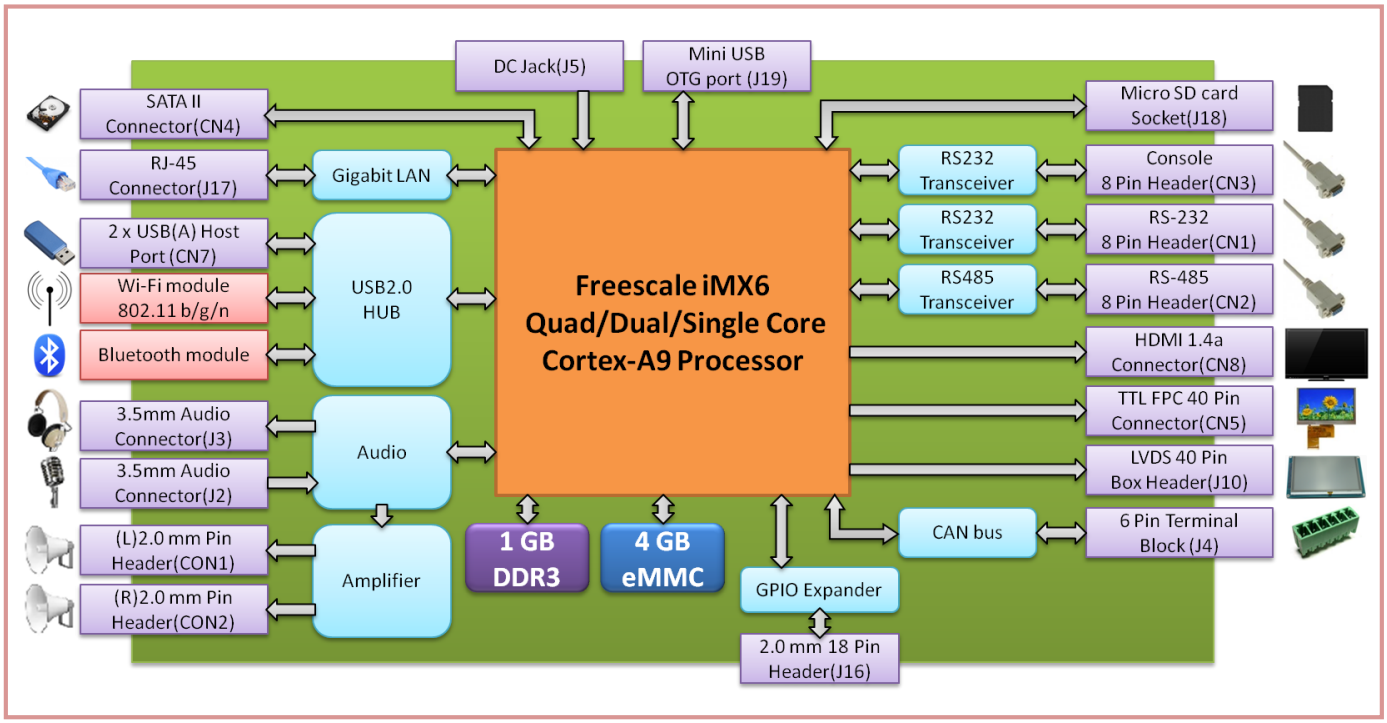
SBC2100/EC2100

ARM Cortex™-A9 Computer

SBC2100 Specifications

CPU	NXP iMX6 Quad / Dual / Solo ARM Cortex™-A9 @ 1GHz	**Storage**	1 × microSD card slot
			1 × SATA 2Gb/s connector
RAM	1GB DDR3 (Dual, Solo) / 2GB DDR3 (Quad)	**I/O Interfaces**	1x miniPCI-e connector (for 3G module)
NAND Flash	4GB flash (eMMC)		1 × USB2.0 OTG port (type B connector)
Display Interface	1 × TTL LCD connector		1 × (2 × 4 header) RS-232 port 1 × (2 × 4 header) RS-485 port 1 × (2 × 4 header) console port
	1 × LVDS connector (2-channel)		
	1 × HDMI 1.4 connector		2 × USB 2.0 host ports (type A connectors)
Touch Interface	1 × 4-wire resistive touch connector		1 × (1 × 3 header) I²C master port
	1 × capacitive touch screen connector		1 × (2 x 10 header) 8-bit GPIO
Audio Interface	1 × mic , 1 × headphone, 1 x Line-in	**Power Adapter**	DC +12 V / 3A
	2 × (L/R) speaker connector	**Dimension**	146 mm × 101 mm × 23 mm
Network	1 × 10/100 /1Gb Ethernet (RJ-45)	**Weight**	Approx. 120 g
OS supported	Android 4.2 / 4.4 , Yocto	**Environment**	Operating temperature: -20 °C to +70 °C

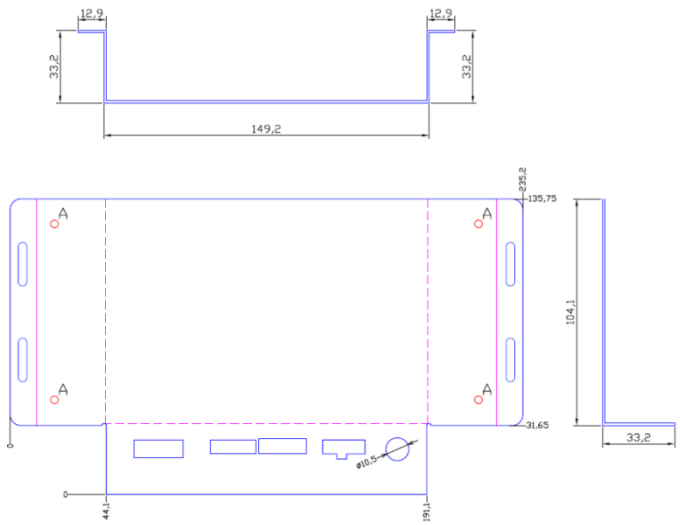
SBC2100 Block Diagram



SBC2100/EC2100

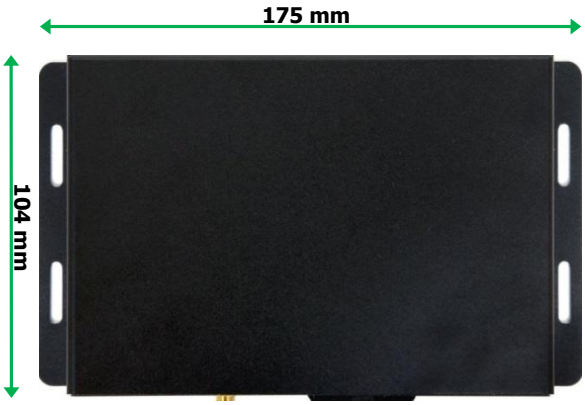
ARM Cortex™-A9 Computer

EC2100 Outline Drawing (Top)

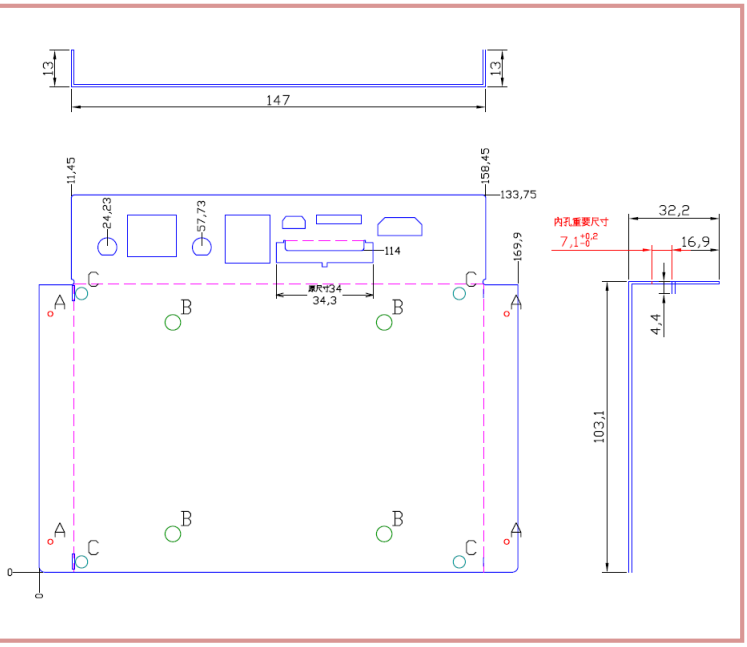


EC2100 Overview

The EC2100 is a compact-sized embedded computer based on the SBC2100 single board computer. The light weight aluminum enclosure enables users to rapidly deploy the EC2100 in a wide range of commercial and industrial applications.



EC2100 Outline Drawing (Bottom)



SBC2100/EC2100

ARM Cortex™-A9 Computer

EC2100 Specifications

CPU	NXP iMX6 Quad / Dual / Solo ARM Cortex™-A9 @ 1GHz	**I/O Interfaces**	1 × microSD card slot
			1 x MIC / 1 x headphone
RAM (DDR3)	1GB (Dual, Solo) / 2GB (Quad)		GPIO x 8-bit
NAND Flash	4GB flash (eMMC)		1 × USB2.0 OTG port (type B connector)
Display	1 × HDMI 1.4 connector		2 × USB 2.0 host ports (type A connectors)
Network	1 × 10/100 /1Gb Ethernet (RJ-45)	**Weight**	Approx. 280 g
OS supported	Android 4.2 / 4.4 , Yocto	**Environment**	Operating temperature: -20 ºC to +70 ºC
Power Adapter	+12V / 3A	**Dimension**	175mm x 104mm x 33mm

SBC2100 Ordering Information

(** Note: Not all models are available now. Contact our sales representative for more details.)

Part No.	OS	CPU	RAM	CAN Bus	GPIO	Over-Voltage /Current Protection	Common Specifications
SBC2100FD-QY	Yocto	iMX6Q Quad-Core	2GB DDR3	NO	8-bit	NO	4GB NAND Flash, LCD / LVDS / HDMI Touch I/F (resistive/capacitive) Audio LAN / USB host / USB OTG RS232 / RS485, MicroSD / SATA I2C master port Power adapter (+12V)
SBC2100FD-QA	Android						
SBC2100FD-QY-V	Yocto			YES	16-bit	YES	
SBC2100FD-QA-V	Android						
SBC2100FD-DY	Yocto	iMX6D Dual-Core	1GB DDR3	NO	8-bit	NO	
SBC2100FD-DA	Android						
SBC2100FD-DY-V	Yocto			YES	16-bit	YES	
SBC2100FD-DA-V	Android						

SBC2100 Optional Modules

Part No.	Description
WLS-006	(BL-8723 WiFi + BT) + Antenna (8cm/2dBi, SMA plug reverse)
D100	4-ch Video capture (NTSC/PAL) module
D120	4xCOM port module (4x RS232/RS422 module)
WCDMA-002	Quad Band 3G (WCDMA) module + GPS + Antenna

EC2100 Ordering Information

(** Note: Not all models are available now. Contact our sales representative for more details.)

Part No.	OS	CPU	RAM	CAN Bus	GPIO	Over-Voltage / Current Protection	Aluminum Case	Common Specifications
EC2100FD-QY	Yocto	iMX6Q Quad-Core	2GB DDR3	NO	8-bit	NO	YES	4GB NAND Flash, HDMI Audio (MIC, Ear-Phone) LAN / USB host / USB OTG RS232 / RS485, MicroSD I2C master port Power adapter (+12V)
EC2100FD-QA	Android							
EC2100FD-QY-V	Yocto			YES	16-bit	YES		
EC2100FD-QA-V	Android							
EC2100FD-DY	Yocto	iMX6D Dual-Core	1GB DDR3	NO	8-bit	NO		
EC2100FD-DA	Android							
EC2100FD-DY-V	Yocto			YES	16-bit	YES		
EC2100FD-DA-V	Android							

EC2100 Optional Modules

Part No.	Description
WLS-006	(BL-8723 WiFi + BT) + Antenna (8cm/2dBi, SMA plug reverse)

Last Update: June, 2016