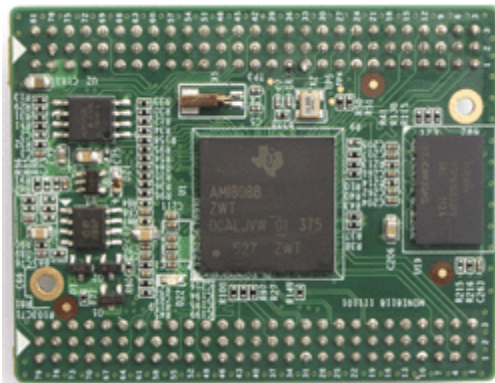


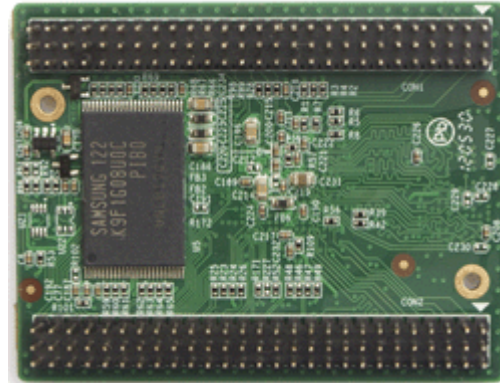
Mini8118 processor card

Order#: Mini8118 (T400321)

- CPU Core Board based on 375MHz TI AM1808 ARM926EJ-S Microcontroller
- On Board 128MB Mobile DDR2 + 128MB Nand Flash + 8Mbit SPI Flash



Top-View



Bottom-View

Features

Mechanical Parameters

- - Dimensions: 58mm x 45mm (6 layer PCB design)
 - Working temperature: -45~85 Celsius
 - Humidity Range: 20% ~ 90%
 - Power Consumption: 125mA @ 12V

Processor

- - TI AM1808 ARM9 microprocessor
 - 375-MHz ARM926EJ-S RISC MPU, also supports 456MHz operation
 - ARM926EJ-S Core
 - ARM9 Memory Architecture
 - Enhanced Direct-Memory-Access Controller 3 (EDMA3)
 - 128K-Byte On-chip Memory
 - 1.8V or 3.3V LVCMOS IOs (except for USB and DDR2 interfaces)
 - Two External Memory Interfaces
 - Three Configurable 16550 type UART Modules
 - LCD Controller
 - Two Serial Peripheral Interfaces (SPI) Each With Multiple Chip-Selects
 - Two MMC/SD Card Interface with Secure Data I/O (SDIO) Interfaces

Memory

-

- 128MByte Mobile DDR2
- 128MByte NAND Flash (on the rear of the board)
- 8Mbit SPI Flash

Onboard Headers and Signals Routed to Pins

- TFT LCD Interface (support 16-bpp parallel RGB Interface LCD)
- Two 8-bit Camera interfaces
- JTAG Debugger Interface
- USB 1.1 OHCI (Host) With Integrated PHY (USB1)
- USB 2.0 OTG Port With Integrated PHY (USB0, Support High-/Full-/Low-Speed)
- Two SPI interfaces (SPI0 multiplexed with MII);
- Two inter-integrated circuit (I2C) Bus interfaces (I2C1 multiplexed with UART2)
- Five UART interfaces;
- A 10/100 Mb/s Ethernet MAC (EMAC) with a Management Data Input/Output (MDIO) module;
- A multichannel buffered serial ports (McBSP) with FIFO buffers;
- Four 64-bit general-purpose timers each configurable (one configurable as watchdog);
- Two 4-line SD/MMC card interfaces;
- GPIO (Up to 9 banks of 16 pins of general-purpose input/output with programmable interrupt/event generation modes, multiplexed with other peripherals)

Description

Measuring only 58mm by 45mm, the Mini8118 processor card is a small and low-cost controller board designed to the core processing component for your next embedded design. It is based on [TI's AM1808](#) ARM9 application processor which is powered by 375-MHz ARM926EJ-S RISC MPU core. The board has 128bytes mobile DDR2, 128Mbytes NAND Flash and 8Mbit SPI Flash and uses two 2.0mm space 3*27-pin dip connectors to bring out many hardware peripheral signals and GPIOs from the CPU.

To help with customers' prototyping and evaluation, Embest has also designed an expansion board for the single board computer called [SBC8118](#). The [SBC8118](#) has exposed many additional hardware interfaces based on the Mini8118 including Serial ports, LCD/TSP, USB Host, Ethernet, RS485, SATA, Camera, SD card, JTAG, etc. It has one 14-pin JTAG interface which can be used with [XDS100v2](#) emulator available from Embest. Embest also offers 4.3" and 7" LCD display with touch screen as optional modules for this board.

The Mini8118 processor card is an industrial-grade module which can work in harsh environment. It is ideal for various applications like medical, industrial, communication, consumer electronics products and etc.

Function Block Diagram

