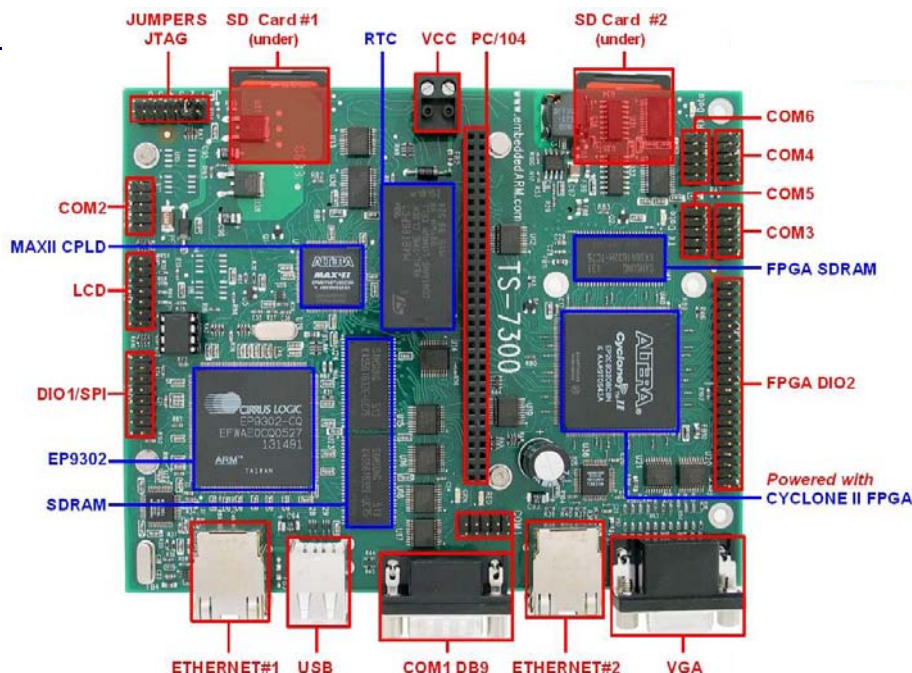


## OVERVIEW

The **TS-7300** is a compact full-featured Single Board Computer (SBC) based upon the Cirrus **EP9302** ARM9 CPU, which provides a standard set of on-board peripherals. The EP9302 features an advanced **ARM920T 200 MHz** processor design with **MMU**. In addition, TS-7300 is powered with two **SD Card** flash sockets and the high performance **TS-VIDCORE** video interface with Linux **framebuffer**.

The TS-7300 is a multipurpose board designed for customers needing **extreme design security and reliability** in applications such as gaming machines, building security equipment and network gateways or firewalls.



## LINUX FPGA

The inclusion of an Altera Cyclone II **FPGA**, with over **8000** logic elements, provides many unique possibilities. The default **TS-BITSTREAM** provides the hardware logic for the 8 serial ports, 2nd 10/100 ethernet port, 2nd SD Card slot, VGA video and up to 35 DIO lines. In addition, the user is able to **reprogram** the FPGA **on-the-fly** through the ARM9 CPU running Debian Linux if an additional real-time soft co-processor, DSP, or specific logic is needed.

## SD CARD SECURITY

The TS-7300 hardware is able to first **checksum** the boot SD flash Card in its entirety before executing a single instruction of code from it. One may also hardware **lock** and **password** protect the SD Card so that it is only bootable/readable on a specific board. SD Cards can also be made **read-only permanently** and irreversibly once your product is finalized.

## SD CARD RELIABILITY

SD Card technology is already extremely reliable compared to hard drives, and with **2 hot-swappable** SD Cards sockets running Debian Linux, you have the option to use **RAID** on your flash devices to **protect** against individual flash write wearout failures.

## FEATURES

- runs **Debian Linux** Operating System for ARM
- **200Mhz ARM9** CPU with **MMU**
- User-programmable Altera **2C8 Cyclone II** FPGA
- **2 SD Card** flash sockets
- **32 MB SDRAM** (64 or 128 MB optional)
- **TS-VIDCORE** VGA video (8MBRAM, up to 800x600)
- **2 10/100 Ethernet** ports
- **2 USB 2.0** Compatible OHCI ports (12 Mbit/s Max)
- **10 RS232 serial ports** (more possible if TTL only)
- **55 DIO** ports (up to 35 **TS-XDIO** capable)
- **PC/104** expansion bus
- **Fanless -40° to +70°C, +85°C** w/ CPU@166Mhz
- **1.8 watts** power at full-speed
- **Fast boot** to Linux shell in **1.69 secs**
- Optional Battery Backed Real Time Clock (**RTC**)
- Optional Linux Supported **USB 802.11g WIFI**
- Visit [TS-7300 webpage](http://www.embeddedARM.com) for further information

## LINUX FOR ARM

TS-7300 makes use of the **Debian Linux** OS for ARM installed by default in a **256MB SD Card** (sold separately). It is a full featured **real-time** capable Linux system that enables **quick time to market** of end-users applications.



**We have been in business over 20 years!**

We've built our business on **excellent products, low prices and exceptional support**. We sell a wide variety of off-the-shelf PC/104 SBC's and peripherals, and offer custom configurations and designs with excellent pricing and turn around time.

**Technologic Systems** has **never discontinued a product**. You can count on long term availability when you include our SBC's and peripherals in your design.