



H/W Specifications

CPU / Memory

- CPU: ATMEL 400MHz AT91SAM9G45 w/ MMU
- Memory: 128MB SDRAM, 256MB NAND Flash
- DataFlash@: 2MB, for system backup

Network Interface

- Type: 1 x 10/100Mbps Ethernet, RJ45 connector
- Protection: 1.5KV magnetic isolation

TTY (Serial) Ports

- 3 x RS-232 (Port 1, 3, 4)
- 1 x RS-422 / 485 (Port 2)
- Connector: 1 x DB9 and 2 x 10 pins header (male) for RS-232 Terminal Block for RS-422 / 485

TTY (Serial) Port Parameters

- Baud Rate: Up to 921.6Kbps
- Parity: None, Even, Odd, Mark, Space
- Data Bits: 5, 6, 7, 8
- Stop Bits: 1, 1.5, 2
- Flow Control: RTS / CTS, XON / XOFF, None
- RS-485 Direction Control: Auto, by hardware

USB Ports

- Host Ports: 4, USB 2.0 compliant
- Speed: Supports low-speed (1.5Mbps), full-speed (12Mbps) and high-speed (480Mbps)
- Client Port: 1 x USB 2.0
- Speed: High-speed (480Mbps)

Display Interface

- LCD Resolution: Up to 1280 x 860 TFT
- Interface Signal: 24-bit TTL / CMOS and LVDS
- Touch Screen: 4-wire touch screen

GPIO (General-purpose I/Os)

- No. of Pins: 4
- Signal Level: CMOS / TTL compatible
- Each pin can be programmed as input or output

General

- Watchdog Timer: Yes
- Real Time Clock: Yes, with backup battery
- Buzzer: Yes
- Power Input: 12~40VDC
- Power Consumption: 200mA@12VDC
- Board Dimensions (W x H): 146 x 120mm
- Operating Temperature: 0~70°C (32~158°F)

Features

- ATMEL 400MHz AT91SAM9G45 CPU w/ MMU
- Linux kernel 2.6.38 with file system
- 128MB SDRAM and 256MB NAND Flash
- 2MB DataFlash for system recovery
- On-board real-time clock w/ backup battery
- Supports up to 1280 x 860 LCD and touch screen
- Supports LVDS
- 1 x 10/100Mbps Ethernet
- 3 x RS-232 ports, 1 x RS-422 / 485 port
- 4 x USB 2.0 hosts supporting high speed of 480Mbps

S/W Specifications

General

- OS: Linux, kernel 2.6.38
- Boot Loader: U-Boot 1.1.2
- File Systems: UBI, JFFS2, ETX2 / ETX3, VFAT / FAT, NFS

Pre-installed Utilities

- bash, busybox, gtk+, x11, gpe, alsa, madplayer, psplash, sysvinit, wget, ipkg, procps (for webmin), psmics, lighttpd, vsftpd, iptables, ppp, openssh, wireless_tools, util-linux-mount / umount, usbutils, python, jamvm, php, qt4-embedded, mysql, perl, sqlite3, snmp, Artila utility and more

Toolchain for Linux

- GCC: C / C++ PC cross compiler
- GLIBC: POSIX Library
- GUI: GTK+, X window (X11), GPE and QT4-Embedded

USB Host Drivers

- Generic Flash drive
- RS-232 adapters (for Prolific PL-2303 compatibles)
- WiFi dongles (rt2500 / rtl8187 / rt73 / zd1211 chips)

Ordering Information

- **M-506**
Linux-based ARM9 Single Board Computer