



Features

- Intel® Dual Core Atom™ Processor
- Gigabit Ethernet
- H.264 Hardware Video Decoder
- Analog VGA, LVDS and DVI-D display
- PCI Express Mini Card socket
- Onboard SSD

Specifications

Core System

CPU	Intel® Atom™ N450, 1.66GHz, 5.5 W (1 core/2 threads) Intel® Atom™ D510, 1.66GHz, 13 W (2 cores/4 threads)
Cache	1MB, 8-way L2 cache for D510 dual-core processor, 512KB, 8-way L2 cache for N450/D410 single-core processor
DRAM	Up to 2GB single channel DDR2 667/800 SODIMM
Chipset	Intel® ICH8-M
BIOS	AMI with CMOS backup in 16 Mbit SPI flash with ACPI 2.0
Hardware Monitor	Supply voltages and CPU temperature

Bus Interfaces

PCI-104, PCIe Mini Card

Multi I/O and Storage

SATA	2 devices
USB	6 USB 2.0 ports, 4 ports through pin headers
Serial	4 configurable ports for RS-232/422/485
LED & reset	Power, SATA active, reset button
Keyboard/Mouse	PS/2 interface
GPIO	8
Audio	High Definition Audio
Storage	Onboard SSD

Ethernet

Intel® 82574L Gigabit Ethernet ports

Video

DVMT 4.0, 400 MHz core render clock
 DirectX 9 compliant Pixel Shader v2.0
 Intel® Clear Video Technology
 – MPEG2 Hardware Acceleration
 – ProcAmp
 3 display ports: VGA, LVDS, and DVI
 – Analog VGA display up to 2048 x 1536 @ 60 Hz
 – Single channel 24-bit LVDS up to 1366 x 768
 – DVI-D interface up to UXGA (1600 x 1200)
 H.264 Video Decoder (optional)
 – PCIe Broadcom BCM70015
 – High Definition Video (1080p) playback

Power

Input Power	AT mode (12 V +/- 5%), ATX mode (12 V and 5 Vsb +/- 5%)
Power States	Supports S0, S1, S3, S5

Mechanical and Environmental

Size	165.1 x 114.3 mm (6.5 x 4.5"); EPIC form factor
Board Thickness	0.093" (2.36 mm)
Operating Temperature	Standard: 0°C to +60°C Extended: -20°C to +70°C
Storage Temperature	Storage: -20°C to +75°C
Humidity	90% at 60°C

Operating Systems

Standard Support	Win 7, Windows XP, Linux
Extended Support (BSP)	Win XPe, WES 2009, Win CE 6.0, VxWorks 5.5/6.7, QNX 6.4

Ordering Information

Modules

Model Number	Description/Configuration
RB-740-R-18	Intel® Atom™ N450 1.66GHz, Integrated Graphics, 18-bit LVDS, 4GB on board SSD, 0°C to 60°C
RB-740-R-17	Intel® Atom™ N450 1.66GHz, H.264 decoder, DVI, 24-bit LVDS, 4GB on board SSD, -20°C to +70°C
RB-740-R-16	Intel® Atom™ D510 1.66GHz, H.264 decoder, DVI, 24-bit LVDS, 4GB on board SSD, -20°C to +70°C
RB-740-L-16	Quick Start Kit (Intel® Atom™ D510 1.66GHz board, cable kit, 2GB RAM, DVI, 24-bit LVDS, drivers & software)

Accessories

Model Number	Description/Configuration
DDR2 Memory	Verified industrial grade 1GB, 2GB DDR2 SODIMM memory available