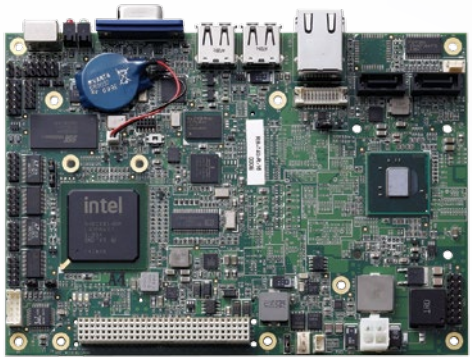
ReadyBoard™ 740

EPIC Single Board Computer with Dual Core Intel® Atom™ Processor



Features

- Single/Dual Core Intel® Atom™ Processor
- Gigabit Ethernet
- 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
Memory	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
Expansion Buses	PCI-104, PCIe Mini Card

I/O Interfaces

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 displayports:	Analog VGA display up to 2048 x 1536 @ 60 Hz
VGA, LVDS, and DVI	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

Form Factor	EPIC
Dimensions	165.1 x 114.3 mm (6.5 x 4.5")
Board Thickness	2.36 mm (0.093")
Operating Temperature	Standard: 0°C to +60°C Industrial: -20°C to +70°C
Storage Temperature	-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 5.5/6.7/6.8/6.9, 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, -20°C to +70°C
RB-740-R-19	Intel® Atom™ D510 1.66GHz, DVI, 24-bit LVDS, 4GB on board SSD, -20°C to +70°C

Accessories

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

Recommended Configurations

Model Number	Description/Configuration
RB-740-R-18, 1G (ETT)	RB-740-R-18, 1G industrial grade RAM, -20°C to +70°C (optional)