ReadyBoard™ 850

Single Board Computer with SUMIT™ Expansion and Intel® Core™2 Duo Processor



Features

- Intel® Core™ 2 Duo Processor supported
- Dual Channel DDR3 SODIMM up to 4GB
- PCI-104 and SUMIT expansion
- Dual Gigabit Ethernet
- Single/Dual channel 18/24-bit LVDS and analog VGA

Specifications

Core System

CPU	Intel® Core™ 2 Duo up to 2.26GHz (Socket P)
Cache	3MB L2 Cache
Memory	Up to 4GB Dual Channel DDR3 800/1066 SODIMM
Chipset	Intel® GM45 Express GMCH/ICH9-M
FSB	1066MHz
BIOS	AMI with CMOS backup in 16 Mbit SPI flash with ACPI 2.0
Hardware Monitor	Supplies voltages and CPU temperature
Expansion Buses	PCI-104, SUMIT™

I/O Interfaces

SATA	2 devices
USB	4 USB 2.0 Ports, plus 4 more on SUMIT-A
Serial	2 are RS-232/422/485
LED & Reset	Power, IDE(CF) active, SATA active, reset button
Keyboard/Mouse	PS/2 interface
GPIO	8 general-purpose digital I/O pins
Audio	High Definition Audio

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Dual Intel® 82574L Gigabit Ethernet ports

Video

Mobile Intel® Graphic Media Accelerator 4500MHD
Intel® Clear Video Technology
Graphics core speeds up to 533MHz
Dual panel display with two independent pipelines
Single/Dual channel 18/24-bit LVDS
VGA resolutions up to QXGA

Power

Input Power	AT mode (12 V +/- 5%), ATX mode (12 V and 5 Vsb +/- 5%)
Power States	Supports S0, S1, S3, S4, S5

Mechanical and Environmental

Form Factor	EPIC
Dimensions	165.1 x 114.3 mm (6.5 x 4.5"); EPIC form factor
Board Thickness	1.6 mm (0.062")
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
Shock	15G peak-to-peak, 11ms duration, non-operation
Vibration	Non-operating: 1.88 Grms, 5-500 Hz, each axis Operating: 0.5 Grms, 5-500 Hz, each axis

Operating Systems

Standard Support	Windows XP, Linux	
Extended Support (BSP)	Win XPe, WES 2009, Win CE 6.0, VxWorks 6.7, QNX 6.3/6.4	

Ordering Information

Modules

Model Number	Description/Configuration
RB-850-S	ReadyBoard™ 850, Socket, dual Gigabit Ethernet, no RAM
RB-850-S-P8400	ReadyBoard™ 850, 2.26 GHz CPU, dual Gigabit Ethernet, no RAM
RB-850-L-P8400	Quick Start Kit (ReadyBoard™ 850, 2.26 GHz, 1GB RAM, cable kit, software, documentation)

Accessories

Model Number	Description/Configuration
DDR3 memory	Verified industrial grade 1GB, 2GB, 4GB DDR3
	SODIMM memory available

