

NITX-300 Series

Ultra Low Power Nano-ITX Motherboards

■ Embedded Computing for
Business-Critical Continuity™

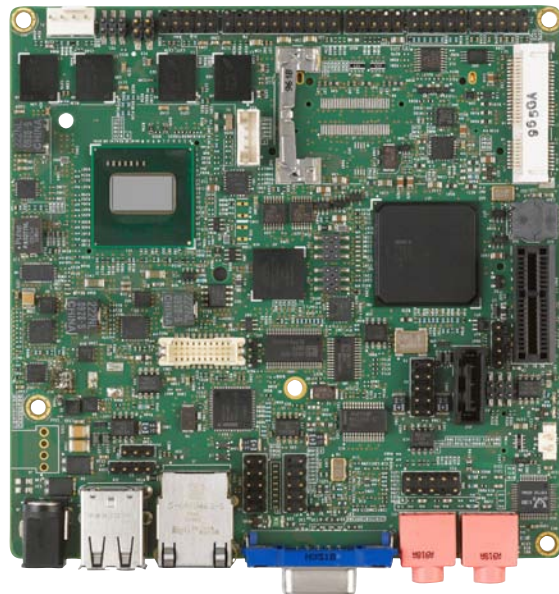
PRELIMINARY DATA SHEET

Easy-to-use Nano-ITX motherboards are ideal for low power embedded applications

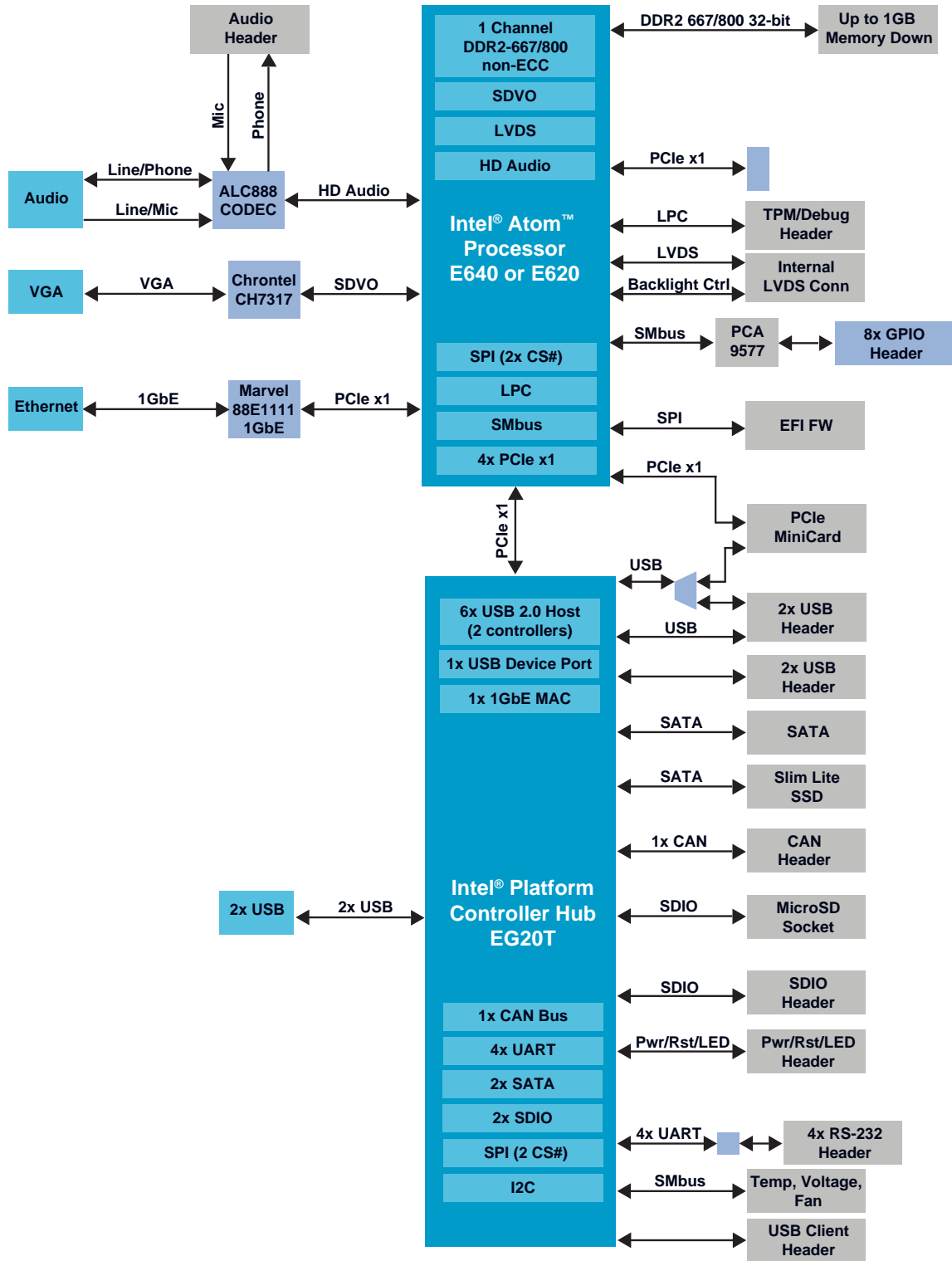
- Ultra low power consumption Architecture Nano-ITX motherboards
- Up to 1.0 GHz Intel Atom processor E6xx series
- Up to 1GB DDR2 memory, soldered on board
- Gigabit Ethernet, SATA and USB
- PCI Express x1 and PCI Express Mini Card slot
- Dual display support
- Four serial ports

The NITX-300 series of Nano-ITX motherboards from Emerson Network Power feature the Intel® Atom™ processor E6xx series. These ultra low power motherboard solutions offer passive cooling capability for reliable operation. They are designed for use in a variety of applications such as embedded instruments, medical carts, audio visual display systems, and other applications that require an easy-to-use Nano-ITX motherboard with support for a variety of operating systems.

With a size format of 120 mm x 120 mm, Nano-ITX form factor motherboards are very suitable for low power embedded applications. The NITX-300 series has a low height profile to fit into most enclosures and has a wide range of built-in connectivity including LCD and/or CRT displays; SATA for physical or solid state disks; a PCI Express x1 expansion slot and a PCI Express Mini Card slot for Wi-Fi/WiMAX; USB and Gigabit Ethernet networks; audio; and multiple serial ports.



NITX-300 Series Block Diagram



Hardware Specifications

PROCESSOR

- 1.0 or 0.6 GHz Intel® Atom processor E640 or E620

CHIPSET

- Intel® Platform Controller Hub EG20T

MEMORY

- 512MB or 1GB soldered down DDR2

VIDEO

- Supports dual display outputs with a single channel LVDS and VGA connectivity. LVDS resolution up to 1280 x 768, VGA resolution up to 1280 x 1024 pixels at 60 Hz

STANDARD REAR I/O

- One (1) Gigabit Ethernet
- Two (2) USB 2.0
- One (1) VGA
- Two (2) audio jacks
- One (1) 12V power input socket

INTERNAL I/O EXPANSION

- One (1) PCI Express x1 slot
- One (1) PCI Express Mini Card slot for WiFi/WiMAX wireless module
- Four (4) USB headers
- One (1) USB Client header
- One (1) GPIO header
- Four (4) Serial headers
- One (1) LVDS header
- One (1) CAN header
- One (1) Audio header
- One (1) SATA connector
- One (1) Bottom-mounted Slim-Lite SSD connector
- One (1) Bottom-mounted MicroSD memory card connector
- One (1) LPC header

COMPLIANCE AND CERTIFICATION INFORMATION

- EMC and Safety
 - ▲ Class B (FCC, VCCI, MIC, AS/NZ)
 - ▲ UL, CSA, Ctick

Firmware and Operating System Support

BIOS

- UEFI BIOS

OS COMPATIBILITY:

- Microsoft® Windows® XP
- Windows® Windows® 7
- Microsoft® Windows® Embedded Standard
- Meego Linux

Package Contents

- Nano-ITX Motherboard
- Drivers CD
- Cable Pack (SATA power and data, USB)

Ordering Information

Part Number	Description
NITX-315	1.0 GHz Intel Atom processor E640, 1GB memory
NITX-300	0.6 GHz Intel Atom processor E620, 512MB memory

SOLUTION SERVICES

Emerson Network Power provides a portfolio of solution services optimized to meet your needs throughout the product lifecycle. Design services help speed time-to-market. Deployment services include global 24x7 technical support. Renewal services enable product longevity and technology refresh.

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