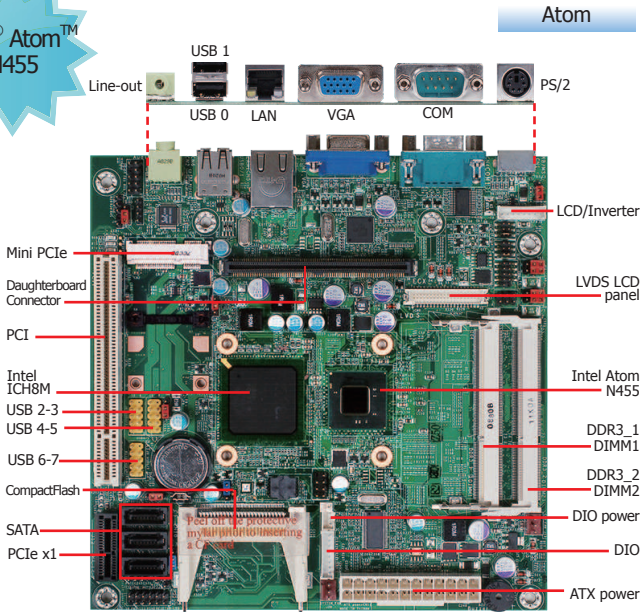
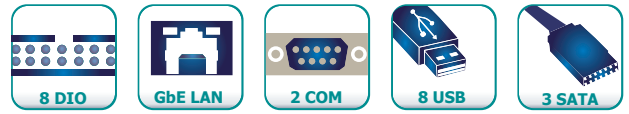


DFI® LR102-B18M Mini-ITX

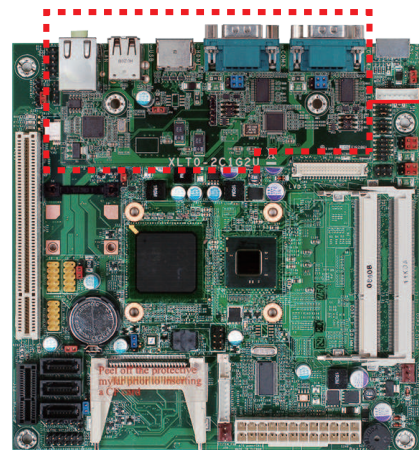


Features

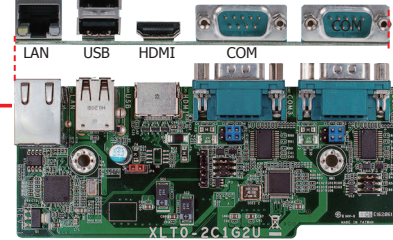
CHIPSET	Intel® ICH8M
CPU	Intel® Atom™ N455 (Single Core)
MEMORY	2 DDR3 667MHz SODIMM up to 2GB
EXPANSION	1 PCIe x1, 1 Mini PCIe, 1 PCI 1 connector for daughterboard expansion
DISPLAY OUTPUTS	1 VGA, 1 LVDS
LAN	1 Gigabit LAN port
COM	2 COM
USB	8 USB 2.0
STORAGE	3 SATA 2.0 1 CF
DIO	8-bit DIO



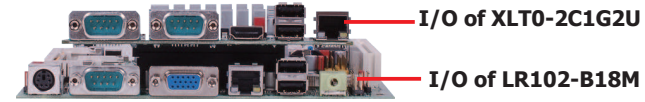
LR102-B18M+
XLTO-2C1G2U



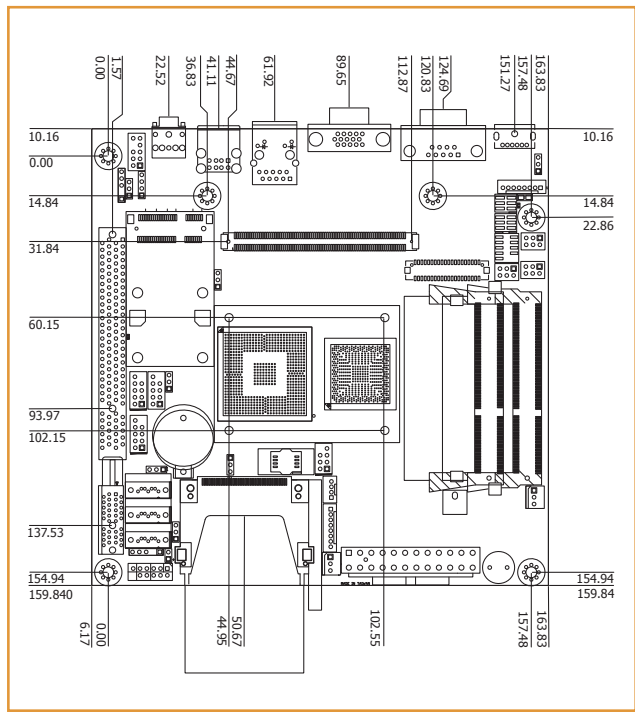
XLTO-2C1G2U Daughterboard (optional)



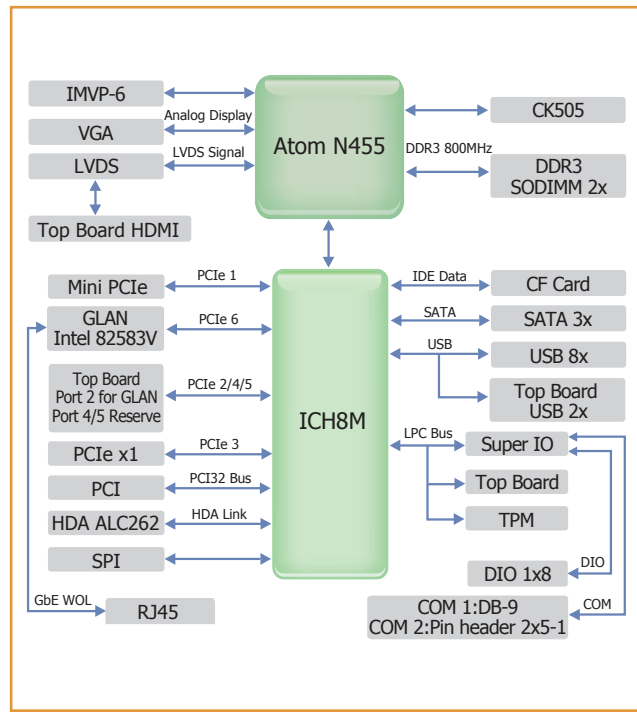
- I/O PORTS**
- 2 DB-9 RS232/422/485 serial ports
 - 1 HDMI port / 2 USB ports / 1 LAN port
- DIMENSIONS**
- 130mm (5.11") x 51mm (2")



Mechanical Drawing



Block Diagram



Specifications

PROCESSOR

- Intel® Atom™ N455 (Single-Core)
- 1.66GHz core frequency
- Cooling option: heat sink (fanless solution)

SOUTHBRIDGE

- Intel® ICH8M I/O Controller Hub

SYSTEM MEMORY

- Two 204-pin SODIMM sockets
- Supports DDR3 667MHz only
- Supports up to 2GB system memory
- Single channel memory interface

ONBOARD GRAPHICS FEATURES

- Intel® GMA 3150
 - Contains a refresh of the 3rd generation graphics core
- 200MHz render clock frequency
- Display ports: LVDS and VGA
 - LVDS: Chrontel CH7036; 18/24-bit single channel; resolution up to 1280x800 or 1366x768, 24bpp
 - VGA: resolution up to 1400x1050 @ 60Hz
- DirectX 9 compliant Pixel Shader 2.0

ONBOARD AUDIO FEATURES

- Realtek ALC262 2-channel High Definition Audio
- High performance DACs with 100dB SNR
- ADCs with 90dB SNR
- Two stereo DACs support 24-bit PCM format for stereo audio playback
- Three stereo ADCs support 20-bit PCM format for multiple input streaming
- S/PDIF audio interface

ONBOARD LAN FEATURES

- Intel® 82567V Gigabit Ethernet Phy
- Supports 10Mbps, 100Mbps and 1Gbps data transmission
- IEEE 802.3 (10/100Mbps) and IEEE 802.3ab (1Gbps) compliant

SERIAL ATA INTERFACE

- 3 Serial ATA ports compliant with SATA 1.0 specification
- SATA speed up to 3Gb/s (SATA 2.0)

REAR PANEL I/O PORTS

- 1 mini-DIN-6 port for PS/2 mouse and PS/2 keyboard ports
- 1 DB-9 RS232/422/485 serial port
 - Pins 1 and 9 of RS232 function as RS232 signal or power (selectable via jumper)
- 1 DB-15 VGA port
- 1 RJ45 LAN port
- 2 USB 2.0/1.1 ports
- 1 line-out jack

TRUSTED PLATFORM MODULE (TPM) - optional

- Provides a Trusted PC for secure transactions
- Provides software license protection, enforcement and password protection

I/O CONNECTORS

- 3 connectors for 6 external USB 2.0/1.1 ports
- 1 connector for an external RS232/422/485 serial port
- 1 LVDS LCD panel connector
- 1 LCD/inverter power connector
- 1 8-bit DIO connector
- 1 DIO power connector
- 1 SMBus connector
- 1 front audio connector for line-out and mic-in jacks
- 1 CD-in connector
- 1 S/PDIF connector
- 3 Serial ATA connectors
- 1 24-pin ATX power connector
- 1 front panel connector
- 1 chassis intrusion connector
- 2 fan connectors

BIOS

- AMI BIOS
- SPI BIOS

EXPANSION SLOTS

- 1 PCIe x1 slot
- 1 Mini PCIe slot
 - Supports half size and/or full size Mini PCIe card
- 1 PCI slot
- 1 CompactFlash socket
- 1 connector for daughterboard expansion
 - 3 PCIe x1
 - 2 USB 2.0
 - 1 LPC
 - 1 HDMI TMDS 1366x768 (max)
 - 3.3V, 5V, 12V, 3.3V standby, 5V standby, 3V battery

ENERGY EFFICIENT DESIGN

- ACPI v1.0a specification
- System Power Management
- Wake-On-Events include:
 - Wake-On-USB Keyboard/Mouse
 - Wake-On-LAN
 - Wake-On-Ring
 - RTC timer to power-on the system
- AC power failure recovery

DAMAGE FREE INTELLIGENCE

- Monitors CPU/system temperature and overheat alarm
- Monitors 5V/1.05V/1.5V/12V/3VSB/VBAT/VCORE voltages and failure alarm
- Monitors system fan speed and failure alarm
- Read back capability that displays temperature, voltage and fan speed
- Watchdog timer function

POWER CONSUMPTION

- 12.48 W with N455 at 1.66GHz and 1x 2GB DDR3 SODIMM

TEMPERATURE

- 0°C to 60°C

HUMIDITY

- 10% to 90%

DIMENSIONS

- Mini-ITX form factor
- 170mm (6.7") x 170mm (6.7")

CERTIFICATION

- CE
- FCC Class B
- UL
- RoHS

Packing List

- 1 LR102-B18M motherboard
- 1 Bracket mounted with a COM port
- 2 USB cables
- 1 Serial ATA cable
- 1 I/O shield
- 1 CD
- 1 QR (Quick Reference)

Optional Items

- USB port cable
- COM port cable
- Serial ATA data cable
- Serial ATA power cable
- IDE cable
- I/O shield
- heat sink: A71-010012-000G