

LR100-N18M

Intel[®] Atom[™] N455 Mini-ITX Board

PROCESSOR

- Intel[®] Atom[™] N455
- On die 1 x 512KB, 8-way L2 cache
- C0/C1(E)/C2(E)/C4(E) C-states
- 1.66GHz core frequency, 1.10V voltage
- IA 32-bit and Intel[®] 64 architecture
- Micro-FCBGA8 packaging technologies
- Cooling option: heat sink (fanless solution)

SOUTHBRIDGE

- Intel[®] ICH8M I/O Controller Hub

SYSTEM MEMORY

- Two 200-pin SODIMM sockets
- Supports DDR2 667MHz only
- Supports up to 2GB system memory
- Single channel memory interface
- Supports x16 devices

EXPANSION SLOTS

- 1 PCIe x1 slot
- 1 PCI slot
- 1 CompactFlash socket

ONBOARD GRAPHICS FEATURES

- Intel[®] GMA 3150
 - Contains a refresh of the 3rd generation graphics core
- 200MHz render clock frequency
- Display ports: LVDS and RGB
 - Integrated single LVDS channel supports resolution up to 1280x800 or 1366x768
 - Analog RGB display output up to resolution 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 and Realtek RTL8111C PCI Express Gigabit Ethernet controller
- Integrated 10/100/1000 transceiver
- Supports Full Duplex flow control (IEEE 802.3x)
- Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab
- Supports power down / link down power saving

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 PS/2 mouse port
- 1 mini-DIN-6 PS/2 keyboard port
- 3 DB-9 RS232 serial ports
 - Pins 1 and 9 of COM2 functions as RS232 signal or power (selectable via jumper)
- 1 DB-15 VGA port
- 2 RJ45 LAN ports
- 4 USB 2.0/1.1 ports
- Mic-in, line-in and line-out

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 front audio connector for line-out and mic-in jacks
- 1 CD-in audio connector
- 1 S/PDIF connector
- 3 Serial ATA connectors
- 1 40-pin IDE connector
- 1 24-pin ATX power connector
- 1 front panel connector
- 1 chassis intrusion connector
- 2 fan connectors

BIOS

- AMI BIOS
- SPI BIOS

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/1.8V/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

TEMPERATURE

- 0°C to 60°C

HUMIDITY

- 10% to 90%

PCB

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

REAR PANEL I/O PORTS

