

NP101-D16C

Intel® 945GSE Mini-ITX Board with 12V DC-in

PROCESSOR

- Intel® Atom™ N270 processor & Passive HS onboard
- 1.6GHz core frequency, 1.10V voltage
- 2.5W thermal design power
- 512KB on-die second level cache
- 533-MT/s FSB
- 22x22 mm, 1.0 mm ball pitch and 437 balls FCBGA

CHIPSET

- Intel® chipset
 - Intel® 945GSE Graphics Memory Controller Hub (GMCH)
 - Intel® 82801GBM I/O Controller Hub (ICH7M)

SYSTEM MEMORY

- One 240-pin DDR2 DIMM socket
- Maximum memory supports up to 2GB
- Supports 400MHz and 533MHz DDR2 SDRAM

EXPANSION SLOTS

- 1 PCI Express x1 slot
- 1 PCI slot

ONBOARD GRAPHICS FEATURES

- 133/166MHz internal graphics core render frequency at 1.05V core voltage
- One SDVO port (Port B)
 - SDVO slot reversal not supported
- Supports 18-bit dual-channel LVDS
- Supports CRT resolutions up to SXGA+

Note: [click here for ACES-NPI-DVI, SDVO to DVI Daughterboard](#)

Note: [click here for ACES-NPI-LVDS, SDVO to LVDS Daughterboard](#)

ONBOARD AUDIO FEATURES

- Realtek ALC262 2-channel High Definition Audio
- 2x 6W for 8ohm speaker
- Two 24-bit stereo DACs and three 20-bit stereo ADCs
- S/PDIF input/output interface

ONBOARD LAN FEATURES

- Two Realtek RTL8111C PCI Express Gigabit controllers
- Supports 10Mbps, 100Mbps and 1Gbps data transmission
- IEEE 802.3 (10/100Mbps) and IEEE 802.3ab (1Gbps) compliant

SERIAL ATA INTERFACE

- Two SATA ports with independent DMA operation supported on ports 0 and 2
- Two-mode operation supports legacy mode using I/O space or an AHCI mode using memory space
- SATA and PATA can be used in a combined function mode (When SATA is used with PATA, AHCI mode is not supported.)

IDE INTERFACE

- Bus Master IDE (PATA) controller
- Supports up to two IDE devices
- Ultra ATA 100/66/33

REAR PANEL I/O PORTS

- 1 mini-DIN-6 PS/2 mouse port
- 1 mini-DIN-6 PS/2 keyboard port
- 1 1-pin DC 12V jack
- 1 4-pin DC 12V jack or 4-pin ATX 12V power connector (optional)
 - ◆ -12V power is optional
- 1 DB-9 serial port
- 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

- 2 connectors for 4 additional external USB 2.0/1.1 ports
- 1 connector for an additional external serial port
- 1 speaker-out connector with amplifying feature
- 1 SDVO connector for DFI NP1-LVDS (24-bit / 2 channels external LVDS) or NP1-DVI (external DVI-D) daughterboard
- 1 LVDS LCD panel connector
- 1 LCD/inverter power connector
- 1 DIO connector
- 1 front audio connector for line-out and mic-in jacks
- 1 CD-in internal audio connector
- 1 S/PDIF connector
- 2 Serial ATA connectors
- 1 44-pin IDE connector
- 1 FDD connector (FPC type) - optional
- 1 4-pin power connector for the SATA drive
- 1 front panel connector
- 1 chassis intrusion connector
- 1 fan connector

BIOS

- Award BIOS
- 8Mbit SPI interface BIOS

ENERGY EFFICIENT DESIGN

- Supports ACPI specification 2.0/1.0
- Supports ACPI STR (Suspend to RAM) function
- Wake-On-Events include:
 - Wake-On-PS/2 Keyboard/Mouse
 - Wake up by PCI card
 - PCI Express PME
 - USB KB/MS wake up from S3
 - Wake-On-Ring
 - RTC timer to power-on the system
- Enhanced Intel® SpeedStep Technology
- AC power failure recovery

DAMAGE FREE INTELLIGENCE

- Monitors CPU/system temperature and overheat alarm
- Monitors CPU(V)/3.3V/5V/12V/VBAT(V) 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

- 6-layers, Mini-ITX form factor
- 17cm (6.7") x 17cm (6.7")

SAFETY

- UL, cUL, FCC Class B, CE

REAR PANEL I/O PORTS

