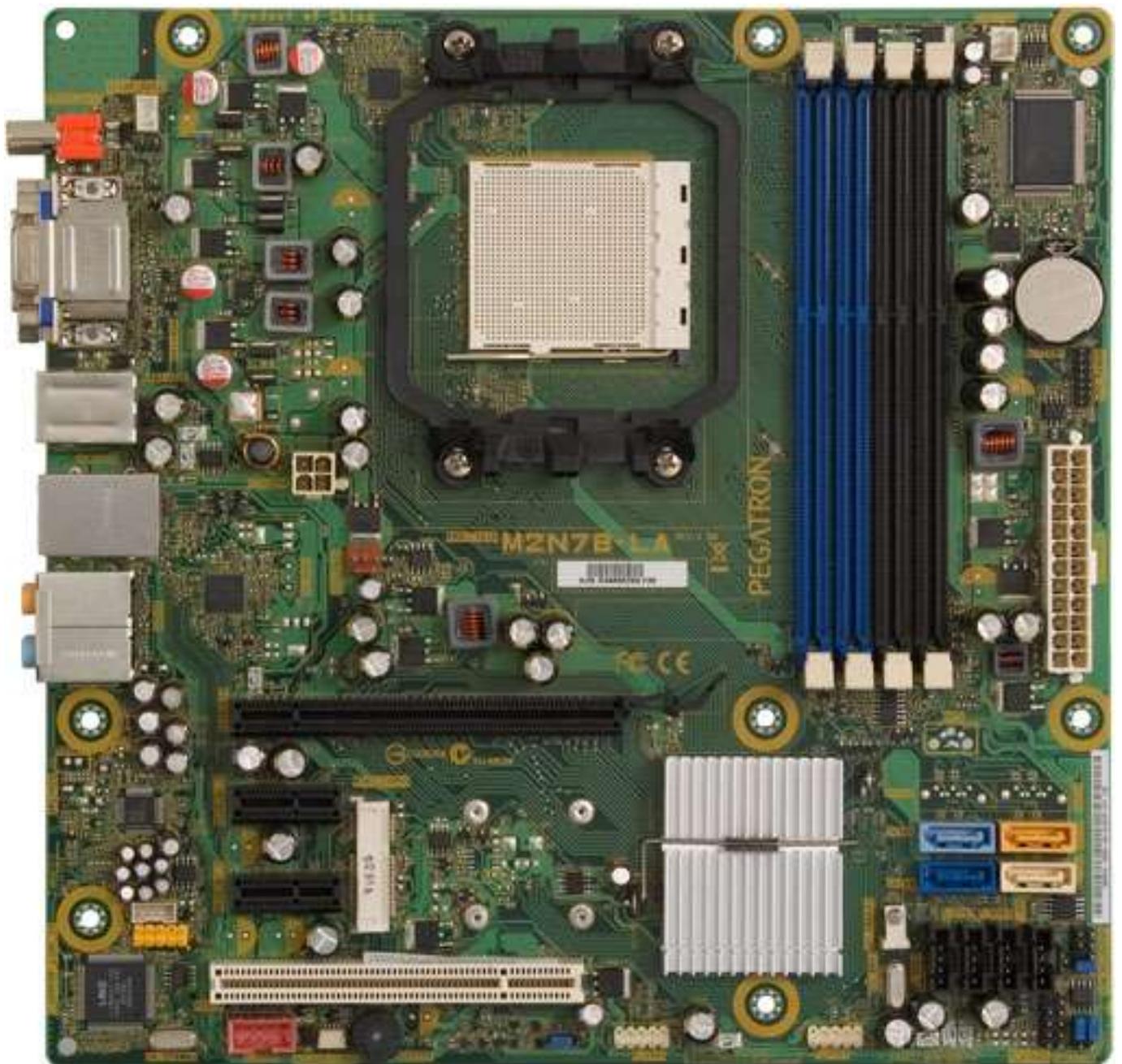# HP and Compaq Desktop PCs - Motherboard Specifications, M2N78-LA (Violet6)

Figure : The M2N78-LA (Violet6) motherboard

Motherboard description

- Manufacturer's motherboard name: Pegatron M2N78-LA

- HP/Compaq name: Violet6-GL8E

Form Factor

- Micro-ATX: 24.4 cm (9.6 inches) x 24.4 cm (9.6 inches)

Chipset

- NVIDIA GeForce 9100

Front-side bus speed

- 5200MT/s (5.2 GT/s)

Processor upgrade information

- This motherboard supports only AM3 processors

- Memory support is limited to DDR3 modules only.

- HyperTransport 3.0

- Split power planes allow separate power management for CPU and integrated memory controller for improved power savings.

- Supports the following processors:

  - AMD Phenom II X4 9xx/9xxe/8xx Quad-Core (Deneb)

  - AMD Phenom II X3 7xx/7xxe Triple-Core (Heka)

  - AMD Phenom II X2 5xx (Callisto)

  - AMD Athlon II X4 6xx/6xxe (Propus)

  - AMD Athlon II X3 4xx/4xxe (Rana)

  - AMD Athlon II X2 2xx/2xxe (Regor)

Memory upgrade information

- Dual channel memory architecture

- Four DDR3 DIMM (240-pin) sockets

- Supported DIMM types:

  - PC3-10600 (DDR3-1333)

  - PC3-8500 (DDR3-1066)

- Non-ECC memory only, unbuffered

- Supports 4GB DDR3 DIMMs

- Supports up to 16 GB on 64-bit PCs

- Supports up to 4 GB* on 32-bit PCs

NOTE:

* 32-bit operating PCs cannot address a full 4.0 GB of memory.

Due to AMD limitation, DDR3-1333 modules will run at 1066 MHz if three or more modules are installed.

Video

Integrated graphics using nVidia GeForce 9100

*Integrated graphics is not available if a graphics card is installed.

- Integrated graphics using nVidia GeForce 9100

- Also supports PCI Express x16 graphics cards

Audio

Integrated Realtek ALC888S Audio

*Integrated audio is not available if a sound card is installed

- Audio CODEC: Realtek ALC888S

- High Definition 8 channel audio

- Supports one S/PDIF digital connection

Network

LAN: 10-Base-T

- Interface: Integrated into motherboard

- Technology: Realtek RTL8201N

- Data transfer speeds: up to 10/100 Mb/s

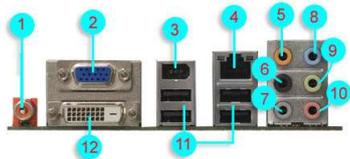- Transmission standards: 10-Base-T Ethernet

Expansion slots

- One PCI Express x16 graphics

- Two PCI Express x1

- One PCI slot

- One PCI Express x1 minicard socket

I/O Ports

Back I/O ports

Figure : Back I/O panel

1. **S/PDIF coaxial out**
2. **Video Graphics Adapter**
3. **IEEE 1394**
4. **RJ-45 Network (LAN)**
5. **Audio: Center/Subwoofer (yellow orange)**
6. **Audio: Rear Speaker Out (black)**
7. **Audio: Line In (gray)**
8. **Audio: Line Out (light blue)**
9. **Audio: Microphone (lime)**
10. **Audio: Side Speaker Out (pink)**
11. **USB 2.0: 4**
12. **DVI**

Internal Connectors

- One CPU fan connector

- One 24-pin ATX power connector

- One 4-pin ATX power connector

- Four SATA connectors

- One ROM recovery connector

- One jumper for resetting BIOS settings

- One jumper to clear the BIOS password

- One front panel connector

- Six USB headers, supporting 8 USB connections

- One AC Power Loss Restart Selector

- One Wlan LED connector

- One 1394 header

- One front audio connector

- One internal audio connector

- One PCIE x16 slot

- Two PCIEx1 slots

- One PCI 1 slot

- One mini card connector

- One PC fan connector

- One S/PDIF out connector

Motherboard layout

Figure : layout
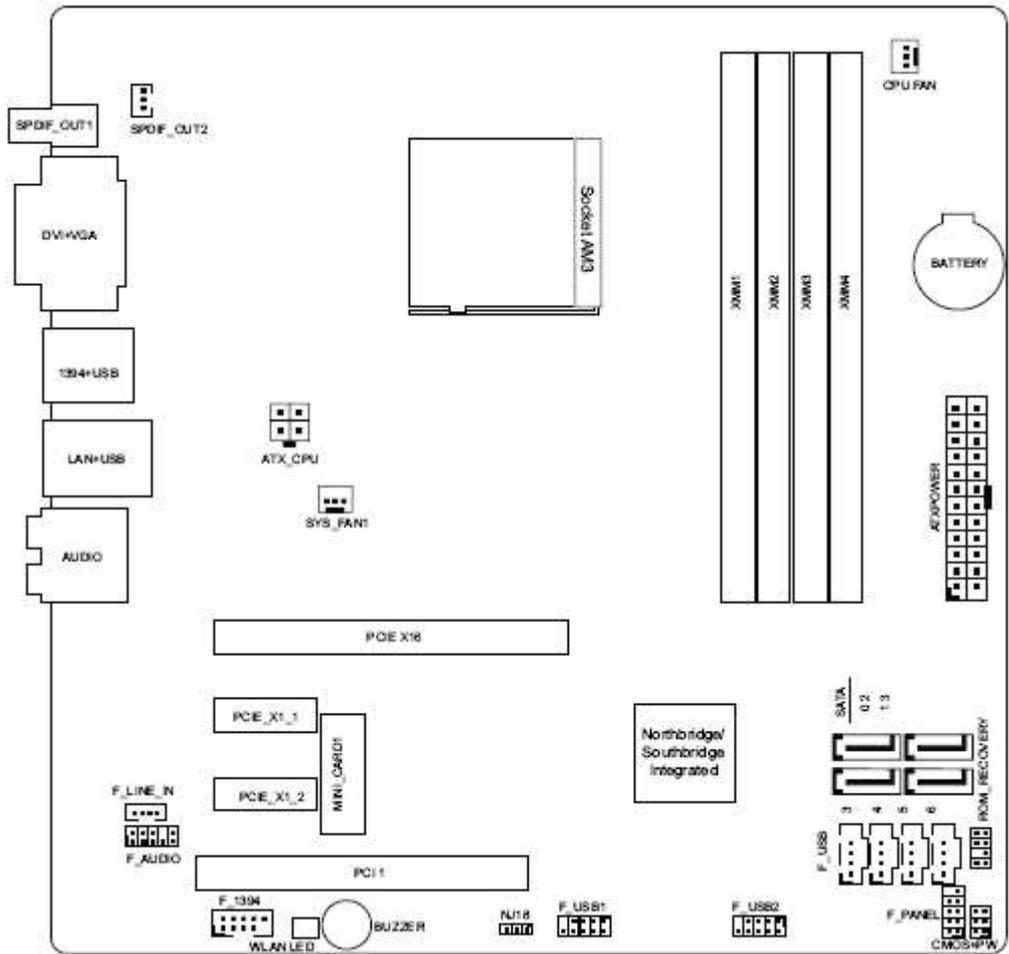
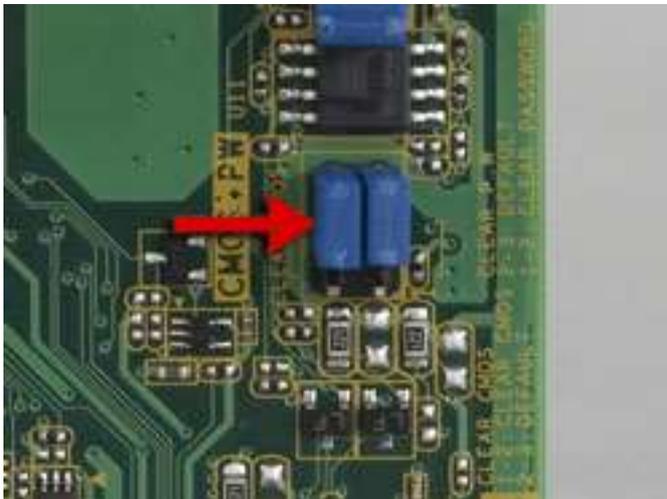# Clearing the CMOS settings

CAUTION:

Do not change any jumper setting while the computer is on. Damage to the motherboard can result.

This motherboard has a jumper to clear the Real Time Clock (RTC) RAM in CMOS.

To clear CMOS, follow these steps:

1. Temporarily set jumper CLEAR_CMOS to pins 1-2.

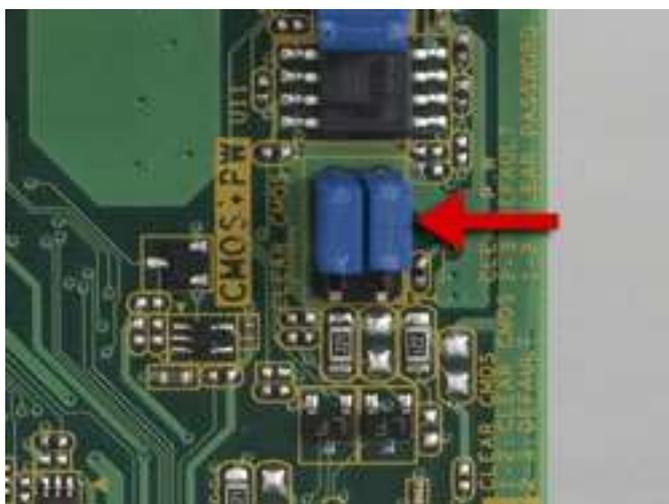2. Wait 5-10 seconds and then return the jumper to pins 2-3.

3. You may now restart the PC.

Clearing the PASSWORD settings

The BIOS password is used to protect BIOS settings from unwanted changes. If you have forgotten your password you may disable password checking.

To erase the BIOS password follow these steps:

1. Turn OFF the computer and unplug the power cord.

2. Locate the jumper labeled CLEAR P.W.

3. Move the jumper CLEAR P.W. to pins 1-2.

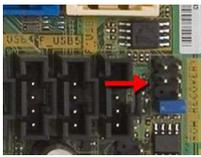4. Wait approximately 10 seconds and then return the jumper to to pins 2-3

5. Plug in the power cord and turn ON the computer.
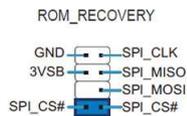
ROM Recovery header

This connector allows qualified technicians to reload firmware into the SPI boot flash in case there is problem with the data.

This jumper should not be changed.

The ROM Recovery Header on the motherboard.

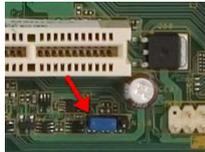ROM Recovery Header chart.

AC Power Loss Restart Selector - NJ18 Header

The NJ18 jumper allows the user to set whether or not to start the PC after power interruptions.

If the jumper is set in the [Disabled] configuration the selector leaves your PC off. If the jumper is set in the [Enabled] configuration the selector starts the PC.

The NJ18 jumper on the motherboard.

NJ18 Header chart.