

Product Specification

1000Base-SX / LX SFP PCI Express Ethernet Adapter

ENW-9701

Version 1.0

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Change History:

| Revision: | Date: | Author: | Change List |
|-------------|-----------|-----------|-----------------|
| Version 1.0 | 2011/2/18 | Bryant Wu | Initial Release |

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|--------------|-----------|--------------|-----------|
| Author: | Bryant Wu | Editor: | Bryant Wu |
| Reviewed By: | Kent Kang | Approved By: | Tom Shih |

1. PRODUCT DESCRIPTION



High Performance, Boosts Network Traffic Speed and Flexible Distance Extension

The PLANET ENW-9701 1000Base-X SFP PCI-Express Ethernet adapter will be an ideal for high end servers. The ENW-9701 is an optimal solution for Ethernet applications by providing strict low-power budgets and small form factor. The 1000Base-SX / LX SFP (Small-Form Factor Pluggable) interface support, the deployed distance of the ENW-9701 can be extended from 550 meters (via Multi-mode fiber) up to above 10/20/30/40/50/70/120 kilometers (via Single-mode fiber, respectively). Users can depend on their own request and choose the most suitable SFP Transceiver module.

The ENW-9701 is designed to address high-performance system application requirements. With the innovative PCI Express Bus Architecture, ENW-9701 provides better performance than the network cards which base on 32/64bit PCI architecture. Moreover, ENW-9701 has supported IEEE 802.1Q which allows to operate in a flexible and secure network environment. With 9K Jumbo Frame ability and IEEE 802.3 Flow Control support, it offers wire-speed packet transfer performance without risk of packet loss. The high data throughput of the device makes it ideal for most Gigabit environments.

Seamless Integration

The ENW-9701 operates completely harmony with the OS of the server, enabling simple integration into designs. No any modification to the server's operating system or any special software is needed. The ENW-9701 can take the place of the Ethernet MAC of any conventional TCP connection and the existing TCP/IP stack of server's CPU is still kept intact. It requires only a simple, standard PCI-E driver to connect the ENW-9701 to the software.

2. PRODUCT FEATURES

- One 1000Base-SX / LX SFP slot
- PCI Express x1 Host Bus interface
- 9K Jumbo Frame
- IP, TCP checksum offloading
- IEEE 802.1Q Tagged VLAN
- Low Power Consumption

3. PRODUCT SPECIFICATION

3.1 MAIN COMPONENT

| | | |
|---------------------------|------------------|----|
| LAN Controller | Realtek RTL8168E | X1 |
| 1000Base-SX/LX PHY | VITESSE VSC8211 | X1 |

3.2 FUNCTION SPECIFICATION

| | |
|---------------------------------|---|
| Product | ENW-9701 1000Base-SX / LX SFP PCI Express Ethernet Adapter |
| Hardware Specification | |
| Attachment Interface | PCI Express Host Bus Interface, 1 lane PCI Express Rev 1.1 |
| Media Interface | SFP slot (LC Interface) |
| Cabling Options | SFP LC connector : 50/125µm & 62.5/125µm Multi-Mode fiber cable. 9/125µm Single-Mode cable. |
| Jumbo Frame | 9KBytes |
| LED Indicators | Link / Active per port |
| Advanced Function | |
| Layer 2 Features | <ul style="list-style-type: none"> • IEEE 802.3x Flow Control • IEEE 802.1Q VLAN |
| Performance enhancements | <ul style="list-style-type: none"> • Receive-side scaling (RSS): Optimization for multiple CPUs under Windows OS control • Reduced host bus traffic • IP, TCP and UDP Checksum Offloading • Transmit / Receive On-Chip Buffer Support • IPv4, IPv6 |
| NOS Support | <ul style="list-style-type: none"> • Windows Server 2003, Windows Server 2008 • Windows XP, Windows Vista™, Windows 7 • Linux 2.4, Linux 2.6, Linux 64-bit • Redhat Enterprise Linux 4.7 & 5.3 |
| Standards Conformance | |

| | | |
|-----------------------------|-------------|--------------------------------|
| Standards Compliance | IEEE 802.3z | 1000Base-X Gigabit Ethernet |
| | IEEE 802.3x | Flow Control and Back pressure |
| | IEEE 802.1Q | VLAN Tagging |

3.3 PHYSICAL SPECIFICATIONS:

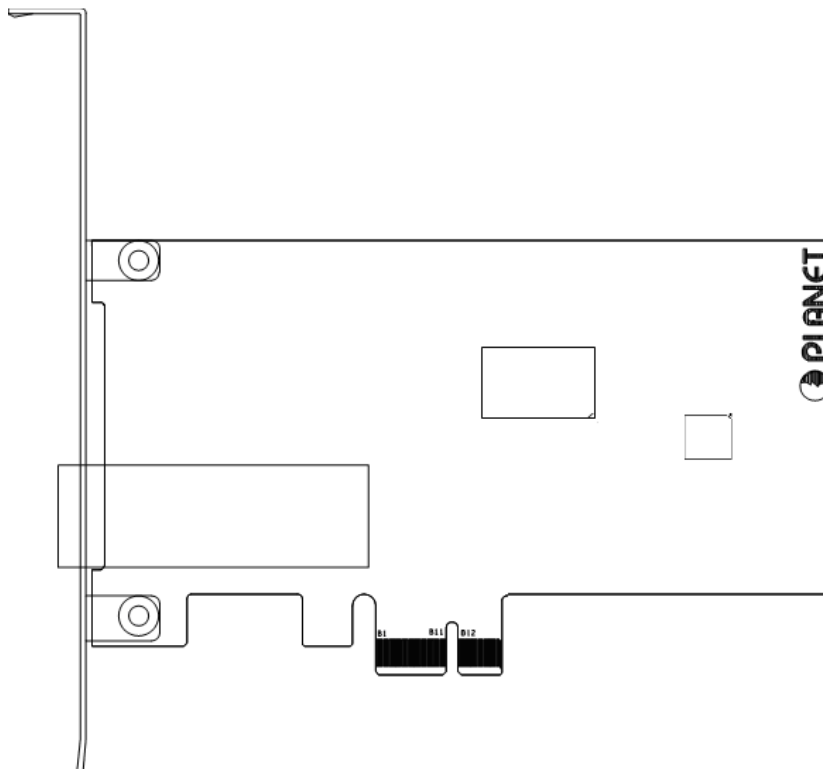
Dimensions:

121.4 x 119.5mm (W x D)

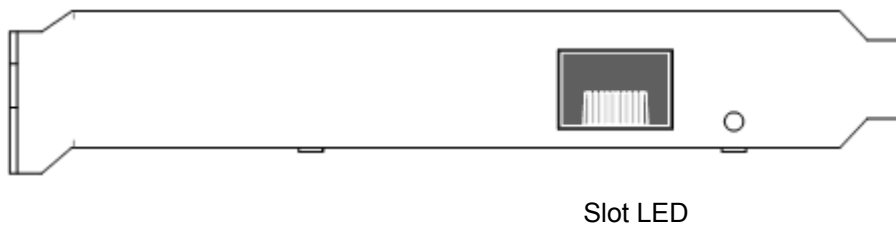
Weight:

50g

■ **Top Panel:**



■ **LED Definition**



| LED | Description |
|-----------|--|
| LNK / ACT | Lights: Indicates ENW-9701 is work with 1000Mbps. Blink: Indicates ENW-9701 is transferring and receiving data. |

3.4 ENVIRONMENTAL SPECIFICATION

Operating:

Temperature: 0°C ~ 50 Degree C
Relative Humidity: 5% ~ 95% (non-condensing)

Storage:

Temperature: -10°C ~ 85 Degree C
Relative Humidity: 5% ~ 95% (non-condensing)

3.5 ELECTRICAL SPECIFICATION

| Status | Power Consumption |
|-----------------------|-------------------|
| Steady | 3 Watts / 10 BTU |
| SFP SLOT Full Loading | 7 Watts / 23 BTU |

3.6 REGULATORY COMPLIANCE

FCC Class B, CE.

3.7 REALIABILITY

MTBF > 50,000 hrs @ 25 Degree C

3.8 BASIC PACKAGING

- ENW-9701 Gigabit PCI-E adapter X1
- Quick Installation Guide X1
- Driver / User's Manual CD X1

3.9 PACKING DIMENSION

Dimension: 410mm (W) x 310mm (D) x 265mm (H)
Weight: 145g (Gross Weight)
18pcs in one carton