ENW-9701 1000Base-SX / LX SFP PCI Express Fiber Adapter

High Performance Boosts Network Traffic Speed and Flexible Distance Extension

PLANET ENW-9701 1000Base-X Fiber PCI-Express Ethernet adapter is ideal for high end servers to extend long distance network reliably and flexibly with up to 2000Mbps full-duplex bandwidth capacity. It is an optimal solution for Ethernet applications by providing strictly low-power budgets and small form factor.

Flexible Distance Option

With the 1000Base-SX / LX SFP (Small-Form Factor Pluggable) interface supported by the ENW-9701, the fiber network deployment distance can be extended from 550 meters (via multi-mode fiber) up to above 10/20/30/40/50/70/120 kilometers (via single-mode fibre). Users can choose the most suitable SFP transceiver module depending on their needs. The ENW-9701 connects your servers and workstations, guaranteeing extremely high throughput and excellent signal quality.

More Bandwidth and Advanced Functions

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

Seamless Integration

The ENW-9701 is completely harmonious with most of the servers’ operating systems, enabling simple integration into network designs. There is no need of any modification to the server’s operating system or any special software required for the ENW-9701 to be integrated into the system. The ENW-9701 can take the place of the Ethernet MAC of any conventional TCP connection and have the existing TCP/IP stack of server’s CPU still kept intact. It requires only a simple, standard PCIe driver to connect the ENW-9701 to the software.

Data Sheet

Key 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
**Applications**

**Server NICs**

PLANET ENW-9701 is equipped with one Gigabit SFP fiber connector which allows users to extend the network distances without any limitation and provides ten times performance than the existing Fast Ethernet transmission and PCI Express 1.1 technology. The ENW-9701 can easily act as a server NICs of your networks by wiring to the backbone switches and is right for the mainboard with PCI Express now and in the future. The ENW-9701 is a highly cost-effective solution and the best choice for the upgrade of various Fiber Optic network applications, such as:

- High-end Server / Storage Server
- Terminal Station
- Industrial Computer
- POS Cash Register
- PC-based Video Recorder

**Public/Intranet Network Access**

![Diagram of Public/Intranet Network Access](Image)

**Public/Intranet Network Access**

**Clients**

![Diagram of Network Connections](Image)

### ENW-9701 Application Server

- 1000Base-SX/LX Fiber-optic
- 1000Base-TX UTP

### Clients

- PC
- Ethernet Fiber Switch
- Internet

### Application Server

- Multi-Mode 550m~2km
- Single Mode 60km
- Single Mode 120km

### Clients

- Music Server
- Video Server
- ENW-9701
- ENW-9701
- ENW-9701

### Clients

- Network Connections
- ENW-9701
- ENW-9701
- ENW-9701
**Specifications**

**Product**
1000Base-SX / LX SFP PCI Express Ethernet Adapter

**Model**
ENW-9701

**Hardware Specifications**

**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

**Dimensions (W x D)**
121.4 x 119.5mm

**Advanced Functions**

**Layer 2 Features**
- IEEE 802.3x Flow Control support
- IEEE 802.1Q VLAN support

**Performance Enhancements**
- 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

**OS Support**
- Windows XP, Windows Vista™, Windows 7
- Linux 2.4, Linux 2.6, Linux 64-bit
- Redhat Enterprise Linux 4.7 & 5.3
- Mac OS X 10.4, 10.5 and 10.6 Intel-based Mac computer

**Standards Conformance**

**Regulation Compliance**
FCC Part 15 Class B, CE

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

**Environment**

**Operating**
- Temperature: 0 ~ 65 degrees C
- Relative Humidity: 5 ~ 95% (non-condensing)

**Storage**
- Temperature: -10 ~ 85 degrees C
- Relative Humidity: 5 ~ 95% (non-condensing)

**Ordering Information**

ENW-9701 1000Base-SX / LX SFP PCI Express Ethernet Adapter

**Available Modules**

<table>
<thead>
<tr>
<th>Model</th>
<th>Interface</th>
<th>Speed</th>
<th>Fiber connector and distance</th>
<th>Operating Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGB-SX</td>
<td>1000Base-SX</td>
<td>1000Mbps</td>
<td>LC, Multi-Mode (850nm) - 220m/550m</td>
<td>0 ~ 60 degrees C</td>
</tr>
<tr>
<td>MGB-EQ2</td>
<td>1000Base-SX</td>
<td>1000Mbps</td>
<td>LC, Multi-Mode (1310nm) - 2km</td>
<td>0 ~ 60 degrees C</td>
</tr>
<tr>
<td>MGB-LX</td>
<td>1000Base-LX</td>
<td>1000Mbps</td>
<td>LC, Single Mode (1310nm) - 10km</td>
<td>0 ~ 60 degrees C</td>
</tr>
<tr>
<td>MGB-L30</td>
<td>1000Base-LX</td>
<td>1000Mbps</td>
<td>LC, Single Mode (1310nm) - 30km</td>
<td>0 ~ 60 degrees C</td>
</tr>
<tr>
<td>MGB-L50</td>
<td>1000Base-LX</td>
<td>1000Mbps</td>
<td>LC, Single Mode (1550nm) - 50km</td>
<td>0 ~ 60 degrees C</td>
</tr>
<tr>
<td>MGB-L70</td>
<td>1000Base-LX</td>
<td>1000Mbps</td>
<td>LC, Single Mode (1550nm) - 70km</td>
<td>0 ~ 60 degrees C</td>
</tr>
<tr>
<td>MGB-TX</td>
<td>1000Base-SX</td>
<td>1000Mbps</td>
<td>LC, Multi-Mode (850nm) - 220m/550m</td>
<td>-40 ~ 75 degrees C</td>
</tr>
<tr>
<td>MGB-TLX</td>
<td>1000Base-LX</td>
<td>1000Mbps</td>
<td>LC, Single Mode (1310nm) - 10km</td>
<td>-40 ~ 75 degrees C</td>
</tr>
<tr>
<td>MGB-TL30</td>
<td>1000Base-LX</td>
<td>1000Mbps</td>
<td>LC, Single Mode (1310nm) - 30km</td>
<td>-40 ~ 75 degrees C</td>
</tr>
<tr>
<td>MGB-TL70</td>
<td>1000Base-LX</td>
<td>1000Mbps</td>
<td>LC, Single Mode (1550nm) - 70km</td>
<td>-40 ~ 75 degrees C</td>
</tr>
</tbody>
</table>

**SFP Module List**

Data Sheet