

# 10GBase-T PCI Express Server Adapter



### Low Cost, Low Power, 10 Gigabit Performance

To welcome the dawning of the new 10G-network generation, PLANET has released a brand-new 10Gbps PCI Express Server Adapter – the ENW-9803. It comes with one 10GBase-T RJ-45 interface and low-profile PCI Express form factor, and is designed to address system application requirements by offering the best cost, 10Gbps high-performance, low-power consumption and better-quality solution in the 10Gbps network market today. With throughput up to 10 times that of the existing 1000Mbps solutions, PLANET ENW-9803, used for Application Servers and Network Attached Storages (NAS), guarantees extremely high throughput and excellent signal quality for the existing Ethernet infrastructure.

- PCI Express rev. 2.0 specification x4 Interface
- 10Gbps throughput with 100-meter UTP cable
- Backward compatible with 1000Base-T, 100Base-TX network
- IP, TCP, UDP checksum offloading
- IEEE 802.1Q VLAN ID Tagged / IEEE 802.1q Qos
- Reduced CPU utilization and improved throughput
- Wake-on-LAN
- 16K jumbo frame size
- IEEE 802.3x full-duplex flow control
- Complies with Microsoft and Linux platforms



### Cost-effective and Ideal 10G Adapter

Compared with 10G adapter with CX4 and SFP+ interface, PLANET 10GBase-T PCI-E adapter is the best choice in that the ENW-9803 10GBase-T can reach up to 100 meters over Cat.6a or Cat.7 RJ-45 cable, whereas the CX4 interface only can extend up to 15 meters in distance. The cost is too high for having an extra SFP+ interface for the SFP+ transceiver. However, with the ENW-9803, customers only spend on Cat.6a or Cat.7 cable as the ENW-9803 is bundled with RJ-45 connector, thus costing less than the SFP+ transceiver.

10G Spec.	Interface	Media	Maximum Distance	Total Ownership Cost
10GBase-T	RJ-45	Cat.6a / Cat.7 UTP cable	100 meters / 328 ft	Low
10GBase-CX4	CX4	Copper	15 meters / 49 ft	Medium
10GBase-SR	SFP+	Multi-mode fiber cord	300 meters / 984 ft	High
10GBase-LR	SFP+	Single mode fiber cord	10 km / 32808 ft	High

*Server Level Adapter to Expand Networking Environments*

The ENW-9803 is an optimized 10GbE device designed for low-power, low-cost and single-port applications required in application servers, high-end workstations and personal computers. This makes it ideal for enabling 1GbE to 10GbE migration in bandwidth-intensive workstation applications and for low-end to mid-range network appliances. With the innovative PCI Express Bus Architecture, it offers increased bandwidth, reliability and additional functionality compared with standard GbE network cards. The performance of throughput at rates up to 20Gbps is unbelievable, thus eliminating the bottleneck that exists with the current Gigabit network. PLANET ENW-9803 is designed to connect your servers and workstations, guaranteeing extremely high throughput and excellent signal quality.

*Standard 802.1Q VLAN Support*

Moreover, the ENW-9803 supports IEEE 802.1Q VLAN which allows it to operate in a flexible and secure network environment. With 16K jumbo frame ability and IEEE 802.3 flow control support, it further optimizes throughput and wire-speed packet transfer performance without risk of packet loss. The high data throughput of the device makes it ideal for most 10 Gigabit Ethernet environments.

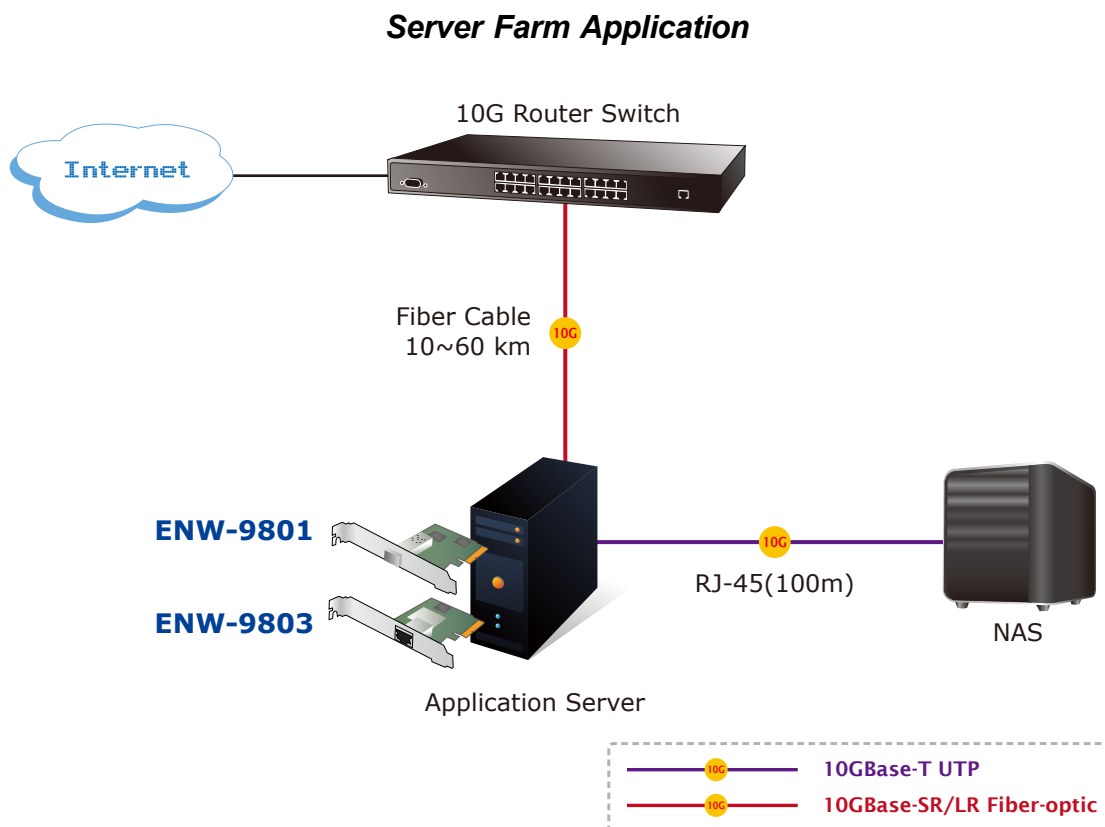
*Multiple OS Support*

The ENW-9803 operates completely well with most of the popular and latest operating systems including Microsoft Windows Server, Linux and VMware, 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-9803 to be integrated into the system.

## Applications

*Server NICs*

PLANET ENW-9803 is equipped with one 10 Gigabit RJ-45 interface, giving 10 times more performance than the existing Gigabit transmission. Thus, the ENW-9803 can easily act as a server NIC of your networks by wiring to the backbone switches. With one PCI Express rev. 2.0 specification x4 Interface, the ENW-9803 is an ideal solution for the mainboard with PCI Express interface now and in the future.



## Specifications

Model	<b>ENW-9803</b> 10GBase-T PCI Express Server Adapter	
<b>Hardware Specifications</b>		
Attachment Interface	PCI Express rev. 2.0 specification x4 interface	
Media Interface	RJ-45 connector	
Memory	1Mbit internal memory	
Jumbo Frame	9K / 16K Bytes	
LED Indicators	Link Speed: 10GBase-T: Orange 1000Base-TX: Green 100Base-T: None Active: Green	
Dimensions (W x D x H)	82 x 120 x 22 mm	
Weight	51g	
Typical Power Consumption	5 watts	
<b>Advanced Functions</b>		
Layer 2 Features	IEEE 802.3x flow control support IEEE 802.1Q VLAN support	
Operating System Support	Windows Server 2008R2 32/64bits Windows Server 2012 32/64bits Windows 7 32/64bits Windows 8 32/64bits Linux 2.6.x, Linux 3.x VMware® 5.x	
<b>Standards Conformance</b>		
Regulation Compliance	FCC Part 15 Class B, CE	
Standards Compliance	IEEE 802.3an IEEE 802.3x IEEE 802.1Q	10GBase-T Ethernet Flow control and back pressure VLAN tagging
<b>Environment</b>		
Operating	Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing)	
Storage	Temperature: -10 ~ 85 degrees C Relative Humidity: 5 ~ 95% (non-condensing)	
<b>Package</b>		
Package Contents	ENW-9803 Server Adapter Quick Installation Guide CD-ROM(Driver & User's Manual) Low Profile Bracket	

## Ordering Information

ENW-9803	10Gbase-T PCI Express Server Adapter
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## Related Products

ENW-9801	10Gbps SFP+ PCI Express Server Adapter
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