

# DNC10 Series

## PCI-Express 10 Gigabit Network Adapter

Allied Telesis DNC10 Series 10 Gigabit PCI-Express Network Adapters provide the performance and bandwidth that today's high throughput applications need.

### Power efficiency

The DNC10 Series features an energy-efficient Aquantia (Marvell) AQC10x Series chipset, which offers significantly reduced power consumption vs. comparable cards. This increased power efficiency (<2W for fiber cards, <6W for copper cards, at normal operation) helps minimize heat generated by the card, keeping the operating temperature to a minimum in your server or desktop device.

### Network speed

With the rising strain on network resources due to large file transfers, multimedia content and an increase in network users, more bandwidth is required from the network. With up to 10Gbps bandwidth, these adapters allow for more data transfer at faster speeds. They are an ideal fit for your network.

### Unique features

Each of the cards in this series has its own unique feature:

- DNC10T features Multi-Gig support (100/1G/2.5G/5G/10GT) for ultimate flexibility.
- DNC10SP supports 1G and 10G optics for future upgrade paths.
- DNC10LC has a fixed optic for enhanced physical security.

### More bandwidth with PCIe

The PCI-Express (PCIe) design provides the maximum possible bandwidth and bus efficiency. Other benefits include Wake-On-Lan (WoL) capability, and low power consumption.

### Performance and reliability

Allied Telesis network adapters are validated over a variety of operating systems and platforms, ensuring compatibility. The DNC10 Series takes full advantage of the PCIe bus architecture to maximize network throughput.



### Key Features

- 802.1Q VLAN tagging & filtering
- 802.1p QoS traffic prioritization
- Flow Control
- WoL
- VLAN support
- Link aggregation (LACP)
- Failover
- Jumbo frames (up to 16348 bytes)
- PCIe v3
- PXE/UEFI Boot with SecureBoot (Microsoft CA Key)
- IPv6
- Receive side scaling (up to 8 queues)
- DeviceGuard compatible

## SPECIFICATIONS

### Bus Type

- PCIe x 4

### Connectors

- DNC10T - RJ45
- DNC10SP - SFP+
- DNC10LC - LC

### Network Type

- 10Gb Ethernet

### Speed

- DNC10T 100/1G/2.5G/5G/10GT
- DNC10SP 1G/10G (dep. on SFP+ module)
- DNC10LC 10G

### Management Features

- WMI
- ACPI 1.1
- PXE 2.1 Boot ROM
- SNMP
- VLAN
- LACP
- Failover
- 802.1Q VLAN tagging & filtering
- 802.1p QoS traffic prioritization
- 2005 Flow control support

### Ethernet Standards

- IEEE 802.1p QoS
- IEEE 802.1Q VLANs
- IEEE 802.2 LLC
- IEEE 802.3ac MAC

- IEEE 802.3ae 10Gbps Ethernet Task Force
- IEEE 802.3 Ethernet
- IEEE 802.3x Flow control auto-negotiation
- IEEE 802.3ad Link aggregation
- IEEE 802.1Qaz Enhance Transmission Selection (ETC)
- IEEE 802.1Qbb PFC
- IEEE 801.1Qau Quantized Congestion Notification (QCN)

### Compatible with Drivers:

- Windows 11
- Windows 10
- Windows Server 2022
- Windows Server 2019
- Linux

## Status Indicators

- DNC10SP and DNC10LC have a single Link/Act LED
- LED for SFP+ slots:  
LINK/ACT  
Off: Empty slot or the transceiver has not established a link to a remote device  
Steady On: The transceiver has established a link to a remote device  
Blinking: The transceiver is transmitting or receiving network traffic
- DNC10T has two LEDs:  
LED 1: solid green link, blinking green activity  
LED 2: solid green 10G, solid yellow <10G

## Power Consumption (max)

- DNC10T 6W
- DNC10SP 2W
- DNC10LC 2W
- Operating voltage 3.3V

## Environmental Specifications

- Operating temperature  
DNC10SP/DNC10LC 0°C to 50°C (32°F to 122°F)  
DNC10T 0°C to 40°C (32°F to 104°F)
- Relative humidity 5% to 90% (non-condensing)
- Storage temp. -25°C to 70°C (-13°F to 158°F)

## Physical Characteristics

- Dimensions (W x H)  
DNC10SP 9.14 x 6.86 x 1.27 cm  
(3.6 x 2.7 x 0.5 in)  
DNC10LC 9.65 x 6.86 x 1.27 cm  
(3.8 x 2.7 x 0.5 in)  
DNC10T 8.89 x 6.86 x 1.27 cm  
(3.5 x 2.7 x 0.5 in)
- Weight: 78.0 g (2.8 oz)

Ships with low-profile bracket attached to interface card.  
Standard bracket included in packaging.

## Compliance

- RoHS
- UL 62368-1
- FCC/EN55032 Class B
- TUV IEC 62368-1
- EN55035
- CE
- VCCI

## ORDERING INFORMATION

AT-DNC10T-901	100/1G/2.5G/5G/10GT Adapter Card, TAA <sup>1</sup>
AT-DNC10SP-901	SFP+ (1g/10g) Adapter Card, TAA <sup>1</sup>
AT-DNC10LC-901	10G/LC MM Adapter Card, TAA <sup>1</sup>

Compatible 10G SFP Modules	
AT-SP10SR	10GSR 850 nm short-haul, 300m with MMF
AT-SP10LRa/I	10GLR 1310 nm long-haul, 10km with SMF, TAA <sup>1</sup>
AT-SP10ER40a/I	10G 1270/1330, 10km, I-Temp, TAA <sup>1</sup>
AT-SP10BD10/I	10GSR 850 nm short-haul, 300m with MMF
AT-SP10BD20	10G 1270/1330, 20km, TAA <sup>1</sup>
AT-SP10BD40/I	10G 1270/1330, 40km, I-Temp, TAA <sup>1</sup>
AT-SP10T	10GBase-T 20m copper

Direct Attach Cable (DAC)	
AT-SP10TW1	1 meter SFP+ direct attach cable
AT-SP10TW3	3 meter SFP+ direct attach cable
AT-SP10TW7	7 meter SFP+ direct attach cable
1G Modules	
AT-SPSX	1000SX GbE multi-mode 850 nm fiber up to 550m
AT-SPSX/I	1000SX SFP, LC, MMF, 850 nm, I-Temp
AT-SPTX	10/100/1000T SFP, RJ-45 (100m)

<sup>1</sup> Trade Act Agreement compliant