

# PCIe 10 Gigabit Ethernet Fiber Network Interface Card

1000Base-X/10GBase-SR/LR SFP+



The N-TGE-SFP-02 is a Fiber 10Gigabit Ethernet to PCIe bus adapter that supports a 1Gbps/10Gbps link and fully complies with IEEE 802.z and 802.3ae standards. The open SFP slots can be used with 1000Base-X SFPs or 10GBase-SR/LR SFP+ modules. The NIC provides up to 20 Gbps full-duplex bandwidth capacity to support high-end servers. In addition, with advanced functions like VLAN

filtering packet processing, link aggregation and smart load balancing, the adapter provides enhanced performance, flexible configuration and secure networking for users in a standard-based environment. The NIC is suitable for high resolution or high speed data transfer, fiber-to-the-desk, data center, SMB and cloud computing applications. Two LED indicators (LINK/ACT and SPEED) per port on the bracket will help to oversee the board link, activity status and connection speed.

# **Ordering Information**

#### N-TGF-SFP-0

(2) 1000Base-X/10GBase-SR/LR SFP+ slots (empty)

**Optional Accessories** (Sold Separately)

**SFP Modules** 

#### **Features**

- High bandwidth 10Gbps network speed
- Supports 1Gbps SFPs with DMI
- Supports IEEE 802.3x Full-Duplex flow control
- IPv4 and IPv6
- Compliant with PCle 3.0x8 interface
- Supports Jumbo Frames 9014 and 4088 byte options in Windows>Advanced Properties tab
- Supported transmission distance based on the SFP/SFP+ modules and fiber type used (1Gbps SFP modules must support DMI)
- Supports IEEE 802.3ad Link Aggregation (LACP)
- IEEE 802.1Q VLAN support
- IEEE 802.1p QoS
- Checksum offload (IP/TCP/UDP)
- Teaming
  - Adapter Fault Tolerance (AFT)
  - Adaptive Load Balancing (ALB)
  - IEEE 802.3ad Dynamic Link Aggregation
  - Switch Fault Tolerance (SFT)
  - Static Link Aggregation (SLA)
  - Virtual Machine Load Balancing (VMLB)

# **Specifications**

Standards	IEEE 802.3-2008 IEEE 802.3z IEEE 802.3ad IEEE 802.1p	IEEE 802.3ae IEEE 802.3x IEEE 802.1Q
Bus Slot	PCIe 3.0 x8	
Cable	Fiber (multimode): 50/125,62.5/125μm Fiber (single mode): 9/125μm	
Data Rate	10 Gbps: 14,880,000 pps 1 Gbps: 1,190,476 pps	
Status LEDs	LINK/ACT (Link/Activity): On = communication link Flashing = activity on link Off = link fail SPEED: On = 10G, Off = 1G	
Software Support	Windows 10 Professional Windows 8 Professional *Windows 7 Professional *Windows Server 2008 R2 Windows Server 2019 Windows Server 2016 Windows Server 2012 and 2012 R2 Linux Support  *Requires Intel Network Connections Software v25.0 or earlier)	
Dimensions	Width: 2.525" [64.135 mm] Depth: 6.173" [156.79 mm] Height: 0.75" [19.05 mm]	
Power Consumption	2.5 Watts without SFPs	
Environment	Operating: 0°C to +50°C Storage: -15°C to 65°C Humidity: 5% to 95% (non-condensing) Altitude: 0 – 10,000 ft.	
Weight	0.55 lbs. [0.25 kg]	
MTBF	4,636,228 hours	
Certifications	EN 55032-2012/AC:2013 FCC 47 CFR Part 15 Subpart B ISED ICES-003 Issue 6:2016, Updated April 2019 Class B EN 55024:2010/A1:2015 EN 61000-3-2:2014 (<16A) EN 61000-3-3:2013 (16A) CE Mark	
Warranty	Lifetime	

### **Features Continued**

- Virtualization/Hypervirtualization
- SR-IOV
- RSS/TSS
- MSI/MSI-X
- LED status indicator
- Supports PXE remote, remote boot
- RoHS compliance
- Standard bracket attached, low-profile bracket included