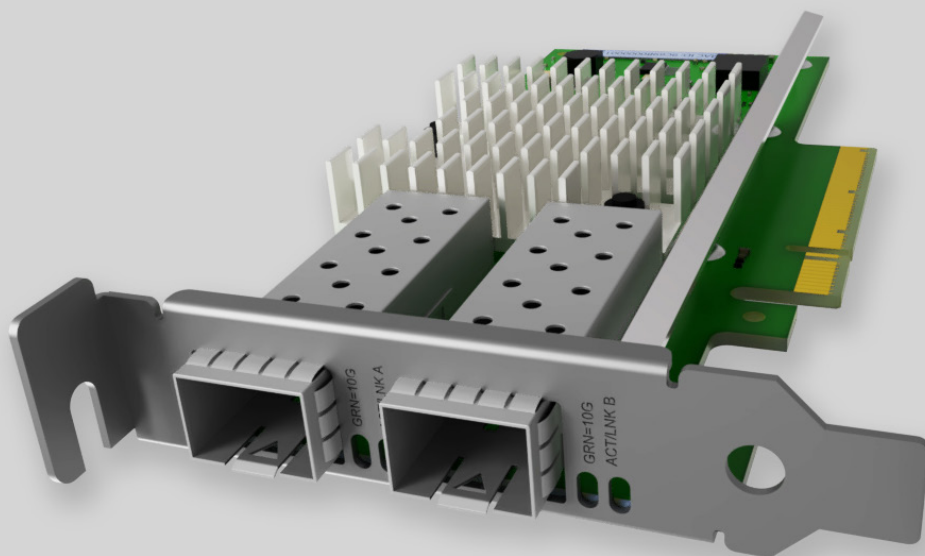


## Key Highlights:

- **NIC Category:** Dual Port 10G SFP+ PCIe
- **Controller:** Intel® 82599ES
- **System Interface Type:** PCIe v2.0 x8  
(5GT/s or 2.5GT/s)
- **Ports:** 2x10G SFP+
- **Data rate per port:** 10/1GbE
- **Network Operating Systems (NOS):**  
Windows 64-bit, Linux, FreeBSD
- **Management:** Intel® PROSet Utility
- **Performance:** Load balancing on multiple CPUs
- **Unified Networking:** iSCSI, FCoE, NFS
- **Clock:** Time Sync (IEEE 1588\*, 802.1as)



## Network Interface Card: 10G-NIC-82599ES-20

### Product Description:

EDGE Optic 10G-NIC-82599ES-20 is Dual Port 10 Gigabit Ethernet SFP+ PCI-Express Network Interface Card which is based on Intel® 82599ES Chip-set. 10G-NIC-82599ES-20 card with use of it's load balancing functions provides superior performance on multi-core processor servers and can offer leading network virtualization features, several remote boot options and wide manageability features. This NIC card provides as well flexibility for LAN and SAN networking by FCoE, iSCSI, NFS protocol support and support synchronization of internal clocks according to a network master clock.

10G-NIC-82599ES-20 can run on most network operating systems and can be used as a compatible alternative for Intel, HPE, Dell, Lenovo, IBM, Cisco, Broadcom, Marvel, Qlogic, Emulex, Mellanox, Supermicro and many other brand Network Interface Cards. When combined with a wide selection of EDGE Optic - Optical Transceiver Modules and Direct-Attach Cables (DAC) can provide superior flexibility in connectivity and network design.

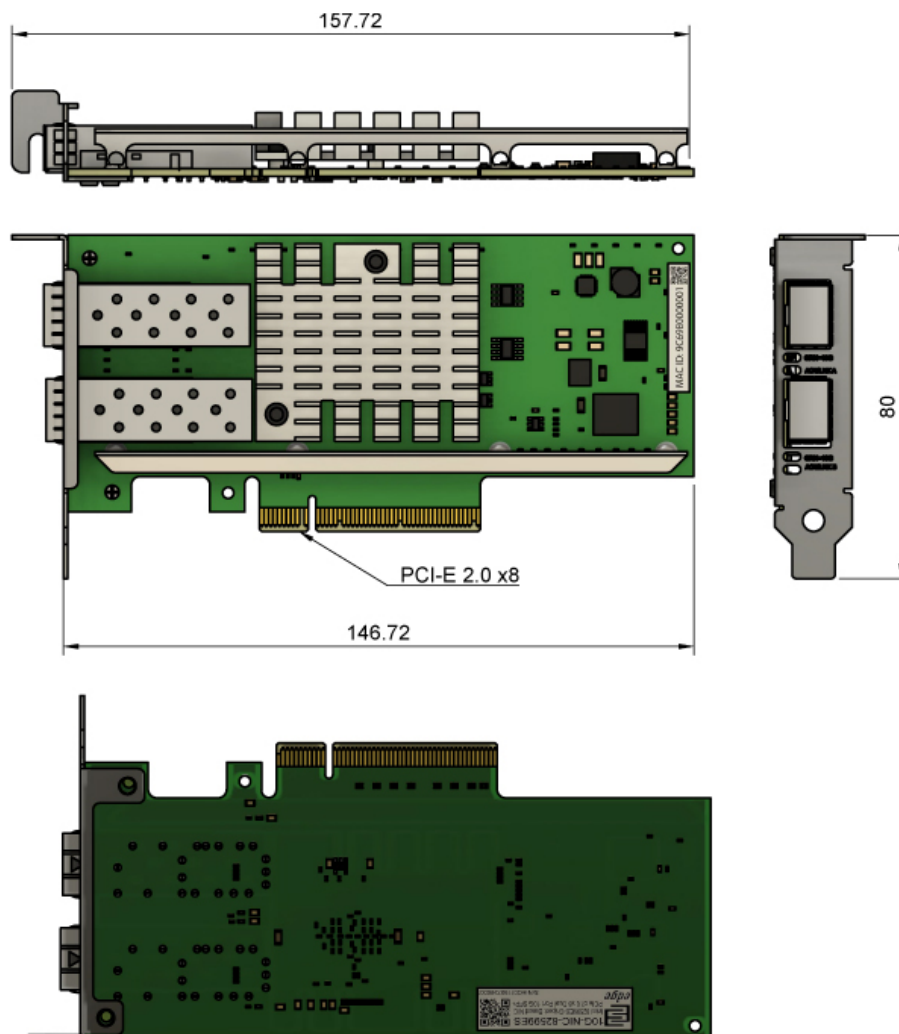


## Product Specification:

Parameter	Value
Product type:	Network Interface Cards
NIC Category:	Dual Port 10G SFP+ PCIe
Controller:	Intel® 82599ES
Controller type:	Ethernet
Connector type:	SFP+
Number of ports:	2
Data rate per port:	10/1GbE
Interconnection Distance:	Per SFP+ used
Bus interface:	PCI-E 2.0 x8
Bus transfer rate:	5GT/s or 2.5GT/s
Unified Networking:	iSCSI, FCoE, NFS
Clock:	Time Sync (IEEE 1588*, 802.1as)
Network Operating Systems (NOS):	<ul style="list-style-type: none"> <li>Windows 64-bit: 7, 2008 R2, 8, 2012, 8.1, 2012 R2, 10, 2016, 2019</li> <li>Linux: RHEL 6.x/7.x, SUSE 11.x/12.x, Ubuntu 14.x/16.x</li> <li>FreeBSD: 10.x/11.x</li> </ul>
LED Status Indicators:	<ul style="list-style-type: none"> <li>LINK (solid) and ACTIVITY (blinking)</li> <li>LINK SPEED (green=10 Gbps; yellow=1 Gbps)</li> </ul>
Power:	<ul style="list-style-type: none"> <li>Power consumption (max): 6W</li> <li>Operating voltage: 3.3V and 12V</li> </ul>
Environmental Specifications:	<ul style="list-style-type: none"> <li>Operating temperature: 0 °C to 55 °C</li> <li>Air Flow Minimum of 100 LFM required</li> <li>Storage temperature: -40 °C to 70 °C</li> <li>Relative Humidity: 5% to 90% (non-condensing)</li> </ul>
Physical Characteristics:	<ul style="list-style-type: none"> <li>Dimensions (W x H): 146mm x 69mm</li> <li>Ships with low-profile bracket attached to interface card. Standard bracket included in packaging.</li> </ul>
I/O, Virtualization, Manageability and Advanced Software Features:	As per NIC controller
Compliance:	CE, FCC, ROHS



## Mechanical Dimensions:



## Supported Optical Modules And Cables:

10G-NIC-82599ES-20 network interface card supports wide variety of 10G/1G optical modules and cables. Below are listed some of the most popular ones:

Part Number	Description
10G-SFP-T	Copper 10G SFP Module (10GBASE-T/1000BASE-T/100BASE-T Ethernet, up to 30m using Cat6a/7 cable, RJ45 Interface, Temp. 0-70C)
10G-SFP-300	Double Fiber 10G SFP+ Module (Tx/Rx 850/850nm, 1.25-10.31 Gbps, Max. 300m over MMF, 4.6 dB, Temp. 0-70C)



Part Number	Description
10G-SFP-20	Double Fiber 10G SFP+ Module (Tx/Rx 1310/1310nm, 1.25-10.31 Gbps, Max. 20km over SMF, 9 dB, Temp. 0-70C)
BIDI-10G-SFP-20A	Single Fiber 10G SFP+ Module (Tx/Rx 1270/1330nm, 1.25-10.31 Gbps, Max. 20km over SMF, 9 dB, Temp. 0-70C)
BIDI-10G-SFP-20B	Single Fiber 10G SFP+ Module (Tx/Rx 1330/1270nm, 1.25-10.31 Gbps, Max. 20km over SMF, 9 dB, Temp. 0-70C)
10G-PDAC-SFP-0.5	10G SFP+ to SFP+ Twinax Passive Copper Cable (1.0625-10.52 Gbps, Max. 0.5m, AWG 30, Temp. 0-70C)
10G-PDAC-SFP-1	10G SFP+ to SFP+ Twinax Passive Copper Cable (1.0625-10.52 Gbps, Max. 1m, AWG 30, Temp. 0-70C)
10G-PDAC-SFP-2	10G SFP+ to SFP+ Twinax Passive Copper Cable (1.0625-10.52 Gbps, Max. 2m, AWG 30, Temp. 0-70C)
10G-PDAC-SFP-3	10G SFP+ to SFP+ Twinax Passive Copper Cable (1.0625-10.52 Gbps, Max. 3m, AWG 30, Temp. 0-70C)
10G-PDAC-SFP-5	10G SFP+ to SFP+ Twinax Passive Copper Cable (1.0625-10.52 Gbps, Max. 5m, AWG 30, Temp. 0-70C)
10G-PDAC-SFP-7	10G SFP+ to SFP+ Twinax Passive Copper Cable (1.0625-10.52 Gbps, Max. 7m, AWG 24, Temp. 0-70C)
10G-AOC-SFP-10	10G SFP+ to SFP+ Active Optical Cable (1.0625-10.52 Gbps, Max. 10m, MMF, OM2, DDM/DOM supported, Temp. 0-70C)
10G-AOC-SFP-15	10G SFP+ to SFP+ Active Optical Cable (1.0625-10.52 Gbps, Max. 15m, MMF, OM2, DDM/DOM supported, Temp. 0-70C)

For any assistance in selecting optical modules, DAC/AOC cables for your network interface card or if you didn't find an exact match for your project in above table please contact: [sales@edgeoptic.com](mailto:sales@edgeoptic.com)

## Compatibility:

EDGE Optic 10G-NIC-82599ES-20 can be used as a compatible alternative for many Network Interface Cards which are manufactured by Intel, HPE, Dell, Lenovo, IBM, Cisco, Broadcom, Marvel, Qlogic, Emulex, Mellanox, Supermicro, Allied Telesis, Chelsio, Dlink, Silicom, Solarflare, Startech and others brands. If Network Interface Card from these brands use same Intel® 82599ES Controller, EDGE Optic 10G-NIC-82599ES-20 Card is 100% compatible alternative. Additionally if other manufacturer Network Interface Card has similar main technical characteristics, 10G-NIC-82599ES-20 can be used as a compatible alternative.

For any questions will 10G-NIC-82599ES-20 be compatible with your server or will it work as 100% alternative for your current Network Interface Card please write us to: [sales@edgeoptic.com](mailto:sales@edgeoptic.com)



## Drivers:

10G-NIC-82599ES-20 card use Intel® 82599ES Controller. Before using please acquire latest Intel® Ethernet Adapter Complete Driver Pack. Please follow this link to do so: <https://downloadcenter.intel.com/download/22283/-?product=83967>

## Warranty:

EDGE Optic's provides a limited warranty for **sixty (60)** months from Purchaser's receipt of the Equipment represented in this data sheet against defective design or workmanship.

