BROADCOM

Product Brief

Broadcom Ethernet NIC

OCP NIC 3.0 Ethernet Adapters

Key Features

- OCP NIC 3.0-compliant
- Line-rate throughput from 1 Gb/s to 400 Gb/s
- 1-port, 2-port, and 4-port adapters
- Copper and fiber connectivity
- PCIe 3.0/4.0 and 5.0 host interface
- 50/100G PAM-4 and 10/25 NRZ SerDes
- TruFlow™-configurable packet processor for virtual switch acceleration
- Broadcom security technology provides Silicon Root of Trust, secure boot and SPDM attestation
- On-chip tunneling protocol processing for Geneve, VXLAN, and NVGRE
- Multi-host with ECN marking
- Hardware-based low-latency RoCE v2
- SR-IOV up to 1K VFs
- Peer Memory Direct
- PXE, UEFI network boot
- LSO/LRO/TSO/RSS

Overview

Designed for today's cloud-scale and enterprise environments, the Broadcom Ethernet NIC network adapters are the ideal solution for high-performance virtualization, intelligent flow processing, secure data center connectivity, and machine learning.

Open Compute Project (OCP) NIC 3.0 allows cloud providers and server OEMs to utilize compact server designs that can accommodate higher power density for high-performance NICs with advanced hardware acceleration capabilities. The form-factor also simplifies operations to lower the total cost of ownership.

Broadcom offers a complete OCP NIC 3.0 Ethernet portfolio supporting the full range of speeds and feeds, from 1G to 400G, on one same Small Form Factor (SFF). This portfolio leverages Broadcom's comprehensive family of low-power Ethernet controller ASICs.

Broadcom's Ethernet network controllers deliver best-in-class performance and hardware acceleration and offload capabilities that result in higher throughput, higher CPU efficiency, and lower workload latency for TCP/IP as well as RoCE traffic.

Broadcom OCP NIC 3.0 Ethernet adapters utilize the market-leading 100/50G PAM-4 and PCIe 4.0/5.0 SerDes technology, enabling extended length Direct Attach Copper (DAC) cables, ensuring seamless interoperability with Broadcom's market-leading Top-of-Rack switch and PCIe Express switch solutions that also use the same SerDes technology.

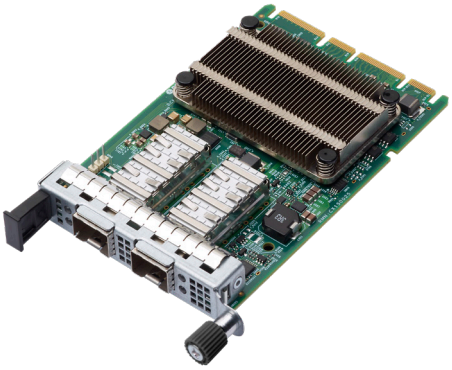
Broadcom Ethernet adapters support SPDM-compliant attestation. Attestation enables data center operators to securely verify the authenticity and conformity of the hardware and software deployed in their data center.

Broadcom Ethernet adapters are supported with a full suite of drivers for all major operating system distributions and versions. The latest firmware, drivers, and tools can be downloaded from www.broadcom.com.

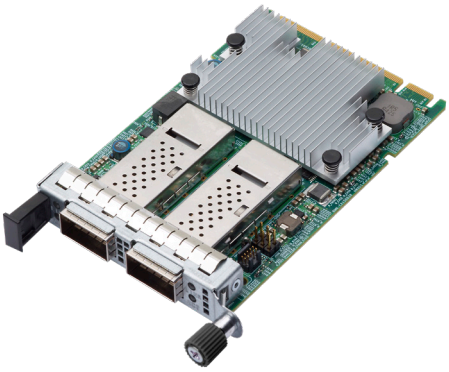
Applications

- GPU server networking (scale-out and front-end)
- Artificial Intelligence (AI) and Machine Learning (ML)
- High performance computing (HPC)
- Storage servers
- Cloud and enterprise data center servers
- Network Function Virtualization
- NVMe storage disaggregation
- Mobile Edge Computing

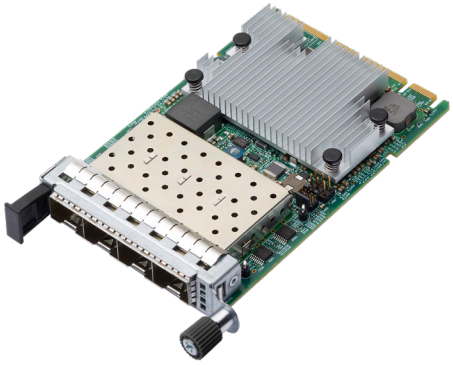
N225P



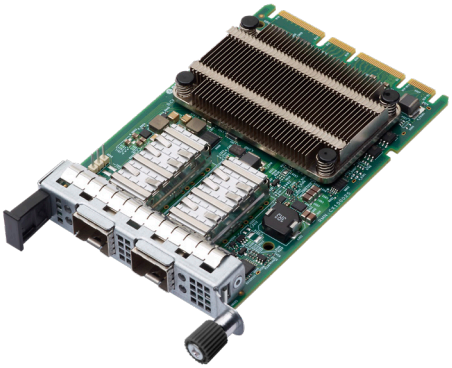
N2100G



N425G

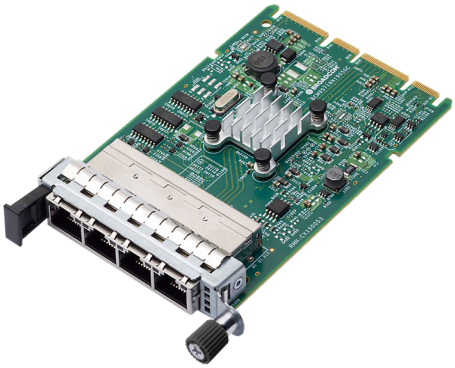


N210P

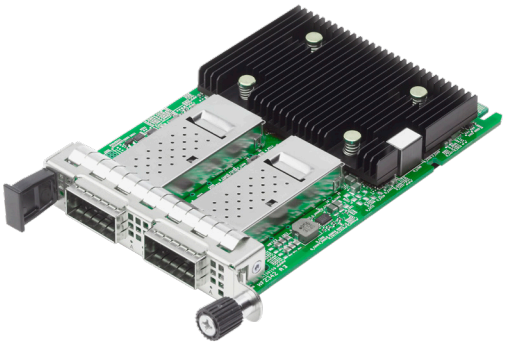


N210TP

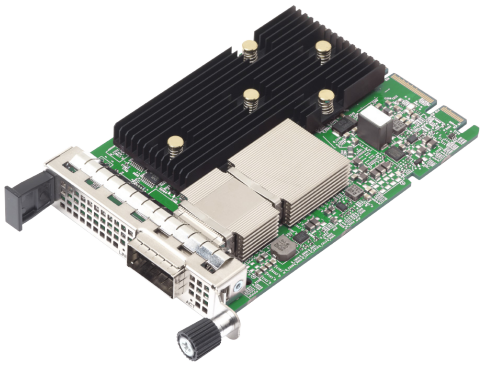
N41T



N2200G



N1400GD



Portfolio and Ordering Information

Part Number	Name	Port Speed	I/O	Host I/F	Multihost	Attestation
BCM95719-N1905C	N41T	4x 1G	RJ-45	PCIe 2.0 x4	No	No
BCM957412-N4120C	N210P	2x 10G	SFP+	PCIe 3.0 x8	No	No
BCM957416-N4160C	N210TP	2x 10GBASE-T	RJ-45	PCIe 3.0 x8	No	No
BCM957414-N4140C	N225P	2x 25G	SFP28	PCIe 3.0 x8	No	No
BCM957504-N425G	N425G	4x 25G	SFP28	PCIe 4.0 x16	Yes	Yes
BCM957504-N1100G	N1100G	1x 100G	QSFP56	PCIe 4.0 x16	Yes	Yes
BCM957504-N1100GD	N1100GD	1x 100G	DSFP	PCIe 4.0 x16	No, Multiroot only	Yes
BCM957508-N1200G	N1200G	1x 100G	QSFP56	PCIe 4.0 x16	Yes	Yes
BCM957508-N2100G	N2100G	2x 100G	QSFP56	PCIe 4.0 x16	Yes	Yes
BCM957608-N2200GQP00	N2200G	2x200G/1x400G	QSFP112	PCIe 5.0 x16	Yes	Yes
BCM957608-N1400GDP00	N1400GD	1x400G	QSFP112-DD	PCIe 5.0 x16	Yes	Yes

BROADCOM®
connecting everything®

For more product information: broadcom.com

OCPNIC3-2-PB107 May 18, 2024