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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 200 Gb/s
- 1-port, 2-port, and 4-port adapters
- Copper and fiber connectivity
- PCIe 3.0, PCIe 4.0 host interface
- 25G, 50G PAM-4 SerDes
- TruFlow™-configurable packet processor for virtual switch acceleration
- Broadcom security technology provides Silicon Root of Trust, secure boot and SPDM 1.1-compliant attestation
- TruManage™ for cloud-scale manageability
- On-chip tunneling protocol processing for Geneve, VXLAN, and NVGRE
- Multi-host with ECN marking
- Hardware-based low-latency RoCE v1/v2
- SR-IOV up to 1K VFs
- Peer Memory Direct acceleration
- 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 200G, on one same Small Form Factor (SFF). Broadcom utilizes its highest-performance market-leading silicon solutions for this portfolio, including Thor - the market's first 200G Ethernet controller.

Broadcom's Ethernet network controller delivers 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 50G PAM-4 and PCIe 4.0 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 which also use the same SerDes technology.

Broadcom Ethernet adapters are the first in the industry offering attestation support, compliant to SPDM 1.1. 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.

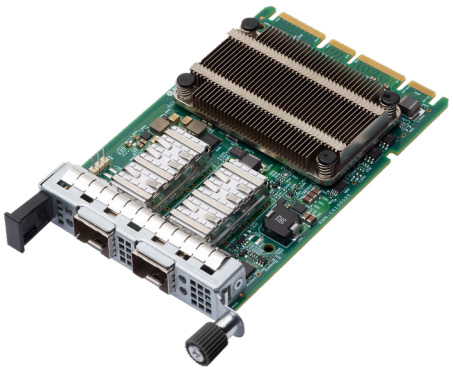
Applications

- Hyperscale and Enterprise server connectivity
- High-performance data center virtualization, NFV
- Virtual switch acceleration
- Low-latency hyperconverged infrastructure
- Ethernet-based HPC, machine learning

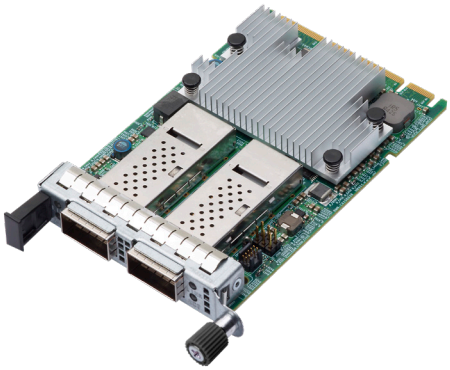
Portfolio and Ordering Information

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

N225P

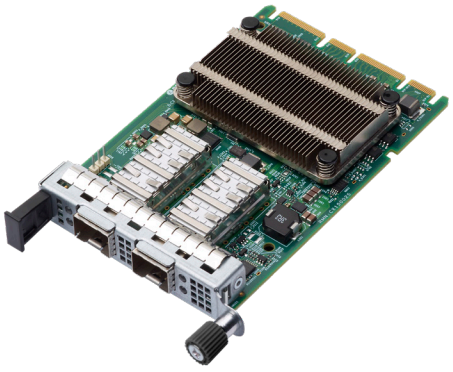


N2100G



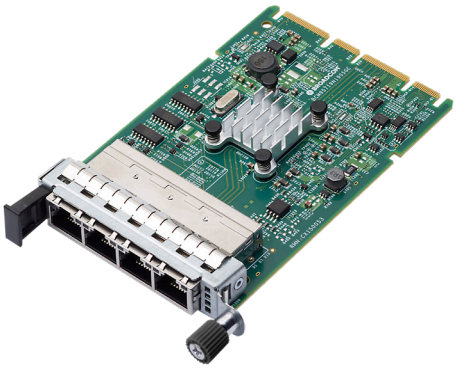
N425G

N210P



N210TP

N41T



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For more product information: broadcom.com

OCPNIC3-2-PB106 June 19, 2023