Intel E810 Series Ethernet Network Adapters Datasheet

Overview

Intel® Ethernet 800 Series supports up to 100Gb/s throughput for a variety of workloads.

Enterprise

- Broad physical interfaces support, thorough test and validation with ecosystem devices for compatibility
- Extensive Microsoft solution support

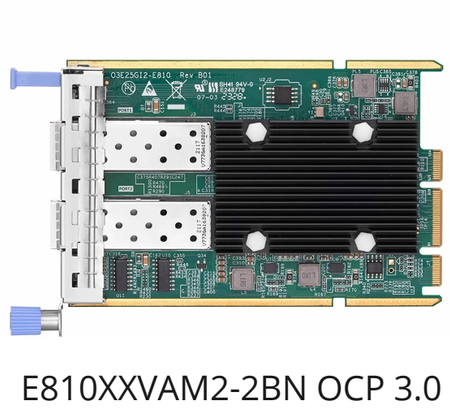
Communications

- Flexible Ethernet Port Configuration with link modes supporting different fan-in or fan-out connections
- Leveraging the Intel Ethernet 800 Series' fully programmable pipeline, DDP can add or modify protocols on-demand improving packet processing efficiency
- Enhanced DPDK for Network Functions Virtualization acceleration, advanced packet forwarding, and highly effective packet processing
- Supports both IEEE 1588 PTP v1 and v2 with per-packet time stamping

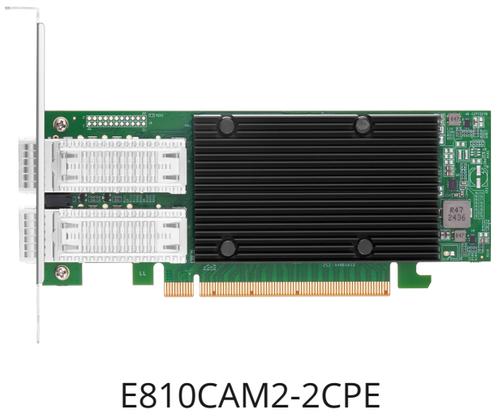
Cloud

- Up to 100Gb/s throughput for diverse workloads in modern data centers
- Support both iWARP and RoCEv2 RDMA, selectable via software per port for low-latency, high-throughput workloads
- Application Device Queues (ADQ) to increase application predictability, reduce application latency and improve application throughput

E810XXVAM2-2BPE



E810XXVAM2-2BN OCP 3.0



E810CAM2-2CPE

Product Specifications

Attribute	E810XXVAM2-2BPE	E810XXVAM2-2BN	E810CAM2-2CPE
Ports	Dual	Dual	Dual
Data Rate Per Port	1/10/25GbE	1/10/25GbE	1/10/25/50/100GbE
System Interface Type	PCIe 4.0 x8	PCIe 4.0 x8	PCIe 4.0 x16
Link Rate	16 GT/s	16 GT/s	16 GT/s
Power Consumption	20.8W	20.8W	20.8W
Adapter Type	PCIe NIC	OCP 3.0	PCIe NIC
Bracket Height	Full Height and Low Profile	Thumbscrew (Pull-tab) Bracket	Full Height and Low Profile
Card PCB Dimensions (WxD)	5.91"x2.68" (150x68mm) (without bracket)	5.91x2.52" (150x64mm) (with bracket)	6.61x2.68" (168x68mm) (without bracket)
Operating Temperature	0 °C to 55 °C (32 °F to 131 °F)	0 °C to 55 °C (32 °F to 131 °F)	0 °C to 55 °C (32 °F to 131 °F)
Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)	-40 °C to 70 °C (-40 °F to 158 °F)	-40 °C to 70 °C (-40 °F to 158 °F)

Features

RDMA

iWARP

RoCEv2

Overlay Network Stateless Offload

- VxLAN
- GENEVE
- GRE

Virtualization Interface Features

- 8 Physical Functions (PF)
- SR-IOV with up to 256 Virtual Functions (VF)
- 768 Virtual Station Interfaces (VSI) Microsoft VM Queue (VMQ)
- Network Virtualization: VxLAN, GENEVE, MACinUDP, NVGRE, IPinGRE, DDP, DPDK
- VMware NetQueue
- Intel® Data Direct I/O Technology

- **Traffic Steering**

Receive Side Scaling (RSS)

Intel® Ethernet Flow Director

Application Device Queues

Stateless Offloads

- TCP Segment Offload (TSO)
- UDP Segment Offload (USO)
- Large Segment Offload (LSO)
- Checksum Offload (TCP/UDP/IP)

Quality of Service (Qos)

- Priority Code Point (PCP)
- Differentiated Services Code Point (DSCP)
- Data Center Bridging (DCB/DCB-X)
- Priority-based Flow Control (802.1Qbb)
- Advanced Transmission Scheduling
- Enhanced Transmission Selection (802.1Qaz)

Converged Storage

- iSCSI
- SMB Direct
- iSER
- NVMe over RDMA (iWARP and RoCEv2)
- Storage Performance Development Kit (SPDK)
- NVMe over TCP

Management

- NC-SI over MCTP
- NC-SI over SMBus
- MCTP over PCIe
- BMC
- PLDM and PLDM based firmware update

Order Information

Part No.	Product ID	Product Description
E810XXVAM2-2BPE	332313	Intel E810-XXVAM2 Based Ethernet Network Interface Card, 25G Dual-Port SFP28, PCIe 4.0 x 8, Comparable to Intel E810-XXVDA2, Full Height&Low Profile
E810XXVAM2-2BN	327367	Intel E810-XXVAM2 Based Ethernet Network Interface Card, 25G Dual-Port SFP28, OCP 3.0, PCIe 4.0 x 8 , Comparable to Intel E810-XXVDA2 OCP 3.0, Thumbscrew (Pull-tab) Bracket
E810CAM2-2CPE	332315	Intel E810-CAM2 Based Ethernet Network Interface Card, 100G Dual-Port QSFP28, PCIe 4.0 x 16, Comparable to Intel E810-CQDA2, Full Height&Low Profile

- Supported Operating Systems: Linux, Windows, and FreeBSD. For more information, read the Supported Operating Systems for Intel-based Ethernet Adapter Cards
- Supported Transceivers/Cables: Transceivers, DACs and AOCs Supported on Intel Based NICs

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