FME810-100G-Q2

PCI Express X16 Dual QSFP28 Port Fiber 100 Gigabit Ethernet Server Adapter

Product Features

❖ Supports multiple port speeds with a single architecture: 100/50/25/10/1GbE

❖ Application Device Queues (ADQ)

❖ Dynamic Device Personalization (DDP)

❖ Enhanced Data Plane Development Kit (DPDK)

❖ iWARP and RoCEv2 Remote Direct Memory Access (RDMA)

❖ Intel® Ethernet Adaptive Virtual Function (Intel® Ethernet AVF)

❖ Enhanced server virtualization: 256 VFs, 768 VSIs

❖ Optimized Advanced Transmission Scheduler

❖ Extensive Network protocol support

❖ IEEE 1588 Precision Time Protocol (PTP)

❖ Hardware Root of Trust with Firmware Recovery

Description

FME810-100G-Q2 is a dual port fibre adapter, based on intel E810-CAM2 chipset. Each port supports 100G transmission bandwidth and supports PCI-E 4.0/30 X16 standard slot, ensuring high-performance server workloads such asNFV, storage, HPC-AI, andhybrid cloud. In addition, the network card also supports VLAN, QoS policy, flow control and other functions, which is suitable for medium and large LAN applications

Host Interface Features

❖ PCI Express 3.0/4.0 x16, x8

Network Interface Features

❖ Link Establishment State Machine (LESM)

❖ Flexible Ethernet Port Configuration with Ethernet Port Configuration Tool (EPCT)

❖ Up to 2 100Gb/50Gb connections or 4 25Gb connections or 8 10Gb connections

❖ 100Gb: 100GBASE-CR4/KR4, CAUI-4, 100GBASE-CR2/KR2, 100GAUI-2, 100GAUI-4

❖ 50Gb: 50GBASE-CR2/KR2, 50GBASE-CR/KR, 50GAUI-1/-2, LAUI-2

❖ 25Gb: 25GBASE-CR/KR, 25G-AUI C2C/C2M, 25GBASE-CR1/KR1

❖ 10Gb: 10GBASE-KR, 10G SFI/SFP+

Pipeline

❖ Fully programmable pipeline with enhanced Dynamic Device

❖ Personalization (DDP)

Virtualization Features

- ❖ 8 Physical Functions (PF)
- ❖ SR-IOV with up to 256 Virtual Functions (VF)
- ❖ 768 Virtual Station Interfaces (VSI)
- ❖ Microsoft VM Queue (VMQ)
- ❖ VMware NetQueue

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)

Overlay Network Stateless Offload

- ❖ VxLAN
- ❖ GENEVE
- ❖ GRE

Quality of Service (Qos)

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

RDMA

❖ iWARP

❖ RoCEv2

Converged Storage Network

❖ Priority Code Point (PCP)

❖ Differentiated Services Code Point (DSCP)

❖ Data Center Bridging (DCB/DCB-X)

❖ Enhanced Transmission Selection (802.1Qaz)

❖ Priority-based Flow Control (802.1Qbb)

❖ Advanced Transmission Scheduling

Precision Clocks Synchronization

❖ IEEE 1588 Precision Time Protocol, per packet time stamping

Network Boot

❖ Signed UEFI option ROM compatible with HTTPS boot

Management

❖ NC-SI over MCTP

❖ NC-SI over SMBus

❖ MCTP over PCIe

❖ BMC

❖ PLDM and PLDM based firmware update

Environmental

❖ Operating Temperature: 0 °C to 55 °C

❖ Storage Temperature: -40 °C to 70 °C

Operating System Support

- ❖ WindowsServer2016、
- ❖ WindowsServer2016 R2
- ❖ WindowsServer2019
- ❖ WindowsServer2019 R2
- ❖ Ubuntu 16.10 or later
- ❖ Linux RHEL 7.x/8.0
- ❖ Linux SLES 12.x or later
- ❖ Linux Ubuntu 16.x/18.x LTS
- ❖ Linux FreeBSD 11.x/12.x

Ordering Information

Part Number	Product Description
FME810-100G-Q2	Intel E810-CAM2, PCI-E 4.0/30 X16, 100 Gigabit Dual Port, 100Gbps Transmission Rate