Oracle Quad 10 Gb Ethernet Adapter or Oracle Dual 40 Gb Ethernet Adapter

Introduction
Oracle's latest Ethernet Adapter, the Oracle Quad 10 Gb Ethernet Adapter or Oracle Dual 40 Gb Ethernet Adapter, is the latest high-bandwidth, low-power network interface card (NIC) based on the Intel® Ethernet Controller XL710 controller. This dual-port QSFP+ 3.0 x8 low-profile adapter is designed to provide multi-port network connectivity in data centers. Today's cloud-enabled software-defined data centers require higher networking speeds and higher performance for mission-critical applications, and Oracle Quad 10 Gb Ethernet Adapter or Oracle Dual 40 Gb Ethernet Adapter addresses these needs with two QSFP+ interfaces providing up to 80 Gb/sec bandwidth.

Frequently Asked Questions

Q: What is new in Oracle Quad 10 Gb Ethernet Adapter or Oracle Dual 40 Gb Ethernet Adapter?
A: * Advanced single root I/O virtualization SR-IOV) capabilities with up to 16 physical functions (PFs) and up to 128 virtual functions (VFs)
* Support for network overlay using Network Virtualization using Generic Routing Encapsulation (NVGRE) or Virtual Extensible LAN (VXLA)
* Sophisticated packet header parsing with up to 64 different packet types
* Simplified network convergence by consolidating LAN and SAN (iSCSI)

Q: What are the marketing part numbers?
A: 7114148 Oracle Quad 10 Gb Ethernet Adapter or Oracle Dual 40 Gb Ethernet Adapter (for factory installation)
7114134 Oracle Quad 10 Gb Ethernet Adapter or Oracle Dual 40 Gb Ethernet Adapter (X-option)

Q: What is the adapter default port mode?
A: Oracle Quad 10 Gb Ethernet Adapter or Oracle Dual 40 Gb Ethernet Adapter comes with a factory default port mode of 4x 10 GbE with only the top QSFP port enabled. However, with the software utility download from MyOracleSupport, the ports can be dynamically configured to 2x 40 GbE or 4x 10 GbE. After the software utility is invoked, PCIe reset is required to transition to the new mode completely.

Q: What are the cabling options for the modes?
A: Currently only copper cabling can be used to connect this adapter. Here is a detailed explanation of the required cables:

Copper solution (for 2x 40 Gb mode):
QSFP to QSFP copper cables (available in 1/2/3/5 meters). One end of the QSFP cable plugs into a QSFP port on the NIC, and the other end goes into a QSFP port on a switch or other device.

Copper solution (for 4x 10 Gb mode):
QSFP copper splitter cables (available in 1/3/5 meters). The QSFP end of the cable plugs into the QSFP port on the NIC, and the other four pigtailed can plug into four
Q: Which transceiver is supported with this adapter?
A: Currently there is no transceiver that is supported. In the near future the supported transceiver will be the QSFP optical transceiver option:
(X) 2124A-N QSFP optical SR (supports multimode cables with MPO connector up to 100 m)

Q: Does this adapter support NetQueue?
A: Yes. This adapter supports VMDq for VMware NetQueue and Microsoft's DVMQ.

Q: What network overlay technologies are supported?
A: This adapter supports NVGRE, VXLAN, GENEVE, IPinGRE, and MACi n UDP overlay technologies.

Q: Is FCoE supported on this adapter?
A: No. This adapter does not supports FCoE.

Q: Are jumbo frames supported?
A: Jumbo frames (9,706 bytes) are supported.

Q: Does this card support 802.1 P quality of service (QoS) tagging?
A: Yes. 802.1p QOS tagging is supported. Supports eight VLAN filters per port. Filtering is ignoring the CFI bit and the 802.1P priority bits.

Q: Does it support TCP offload?
A: Yes. TCP segmentation offload (TSO)/large receive offload (LRO) are supported for improved performance.

Q: Does the adapter support PXE boot?
A: Yes. PXE and iSCSI boot capabilities are supported.

Cabling Options

**QSFP to QSFP Direct-Attach Passive Copper Cable Options**

(QSFP transceivers not required)

A: X2121A-1M-N QSFP to QSFP passive copper cable, 1 meter
X2121A-3M-N QSFP to QSFP passive copper cable, 3 meters

X2121A-5M-N QSFP to QSFP passive copper cable, 5 meters

QSFP to 4 SFP+ Passive Copper Splitter Cable Options

X2125A-1M-N Copper splitter cable assembly: 1 meter, QSFP+ to 4 SFP+

X2125A-3M-N Copper splitter cable assembly: 3 meters, QSFP+ to 4 SFP+

X2125A-5M-N Copper splitter cable assembly: 5 meters, QSFP+ to 4 SFP+