

# Specifications for the X2069-R6 Quad-Port 6-Gb/12-Gb SAS Host Bus Adapter

You can use the X2069-R6 Quad-Port 6-Gb/12-Gb SAS Host Bus Adapter (HBA) in initiator mode. See the *NetApp Hardware Universe* at *support.netapp.com* for system-specific information and slot assignments.

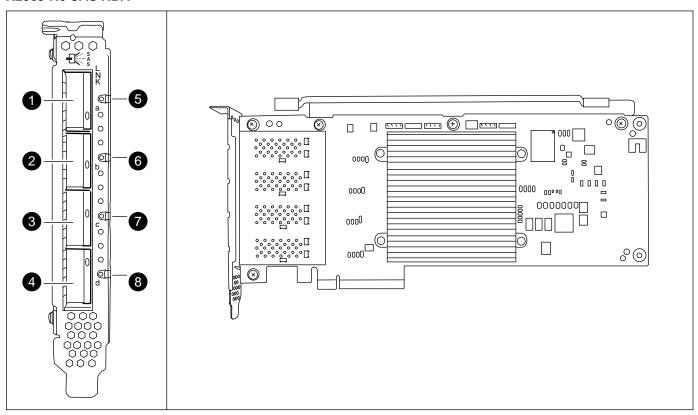
Media type	Ports	PCI slot type	Connector type	Version of software supported
QSFP	Four ports	PCIe	QSFP	Data ONTAP 8.2.3 and later
				(Not supported in Data ONTAP 8.3.0)

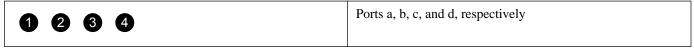
**Attention:** You must remove the adapter from the system before you revert to an unsupported version of Data ONTAP.

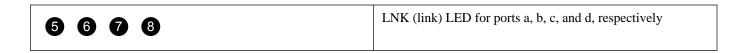
# Location of the LEDs and ports

You must connect the X2069-R6 HBA through SAS ports with copper or optical QSFP-to-QSFP SAS cables.

#### **X2069-R6 SAS HBA**







### What the LEDs mean

The X2069-R6 has one LED per port. The LEDs provide the status of the port connections.

НВА	LED label	Status indicator	Description
X2069-R6	LNK	Off	There is no storage connection present.
		Green	A valid storage connection is established.

## Information on HBA installation

You can find the most up-to-date installation, cabling, and configuration information about the HBA and your platform online.

Information about installing the appropriate HBA in your platform is found in the PCIe replacement flyer for your platform at *mysupport.netapp.com/documentation/productsatoz/index.html*.

You can find information about PCIe slot placement and other platform-specific details in the *Hardware Universe* at *hwu.netapp.com*.

HBA and port configuration information for your specific release of Data ONTAP is in the *Data ONTAP Storage Management Guide for 7-Mode* or the *Clustered Data ONTAP Physical Storage Management Guide* at *mysupport.netapp.com*.

If you cannot access *mysupport.netapp.com*, contact technical support at +1 (888)-463-8277 (North America), 00-800-44-NETAPP (Europe), or +800-800-80-800 (Asia/Pacific) for help with the replacement procedure.