

QM9700 and QM9790 InfiniBand Switch Systems Quick Installation Guide

Table of contents

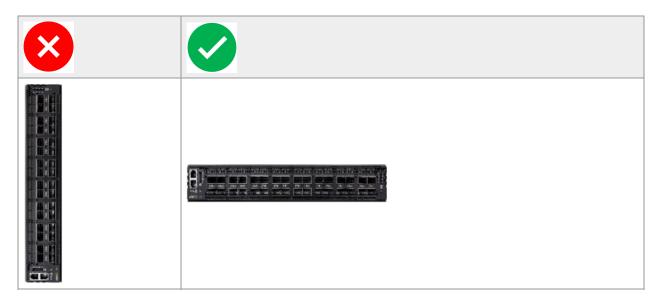
1 1 11 12 17	· · · · · · · · · · · · · · · · · · ·	_
Installation and (Ontiduration	7
ii istaliation and t	Offiguration	- (



Models: QM9700, QM9790

Pay Attention!

- At least **two people** are required to safely mount the system in the rack.
- All servers and systems in the rack should be planned with the airflow direction. All FRU components must have the same air flow direction. A mismatch in the air flow will affect the heat dissipation.
- The part of the system to which you choose to attach the rails will determine the system's adjustable side. The system's part to which the brackets are attached will be adjacent to the cabinet.
- The **FRU side is extractable**. Mounting the rack brackets inverted to the FRU side will allow you to slide the FRUs, in and out.
- Due to thermal considerations, the switch systems must be installed in a horizontal position. do not install the systems vertically.



Package Contents (System and Rail-Kit)

• 1 x System

- 1 x Rail kit for 23.6-31.5" (600-800mm) racks
- 4 x Power cables Type C14-C15
- 1 x Harness: RS232 2M cable DB9 to RJ-45 (only in QM9700)
- 2 x Cable retainers
- 32 x OSFP thermal caps



It e m	Quantity	Item
Powercables-TypeC14-C15	X4	
Harness: RS2322Mcable	X1	

It e m	Quantity	ltem
- DB9 t oRJ45 (onlyinQM9700)		
C a bl e re t ai n e rs	X2	
O S F P t h e r m al	X32	

It e m	Quantity	Item
С		
а		
р		
S		

If anything is damaged or missing, contact your NVIDIA representative at Networking-support@nvidia.com.

Installation and Configuration

Installation Instructions



Note

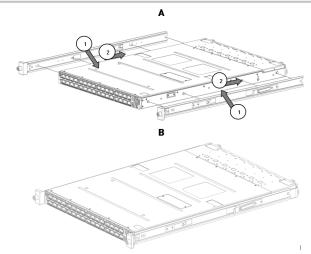
The following steps include illustrations that show front side (ports) installation, yet all instructions apply to all installation options.

1. Attach the switch to the left and right system rails (Part A)

holes, until a click is heard and locking occurs.

2. Secure the assembly by pushing the chassis' pins through the slider key

Illustration



Install the rack rails (Part B) on the rack.

1.

- 1. Mount both of the rack rails (Part B) into the rack by angularly inserting the brakes located at the rails edges into the designated slots in the rack unit.
- 2. Align both rack rails (Part B) to sit horizontally in parallel to the rack assembly.
- 3. Pull the rack rails' telescopic extensions all the way to the rack's opposite side, and insert the latches at the rails' free edges to the rack's slots. A click should be heard as the spring latches are fully inserted and locking occurs.

Mount the chassis onto the rack.



Note

At least two people are required to safely mount the system in the rack.

4

3

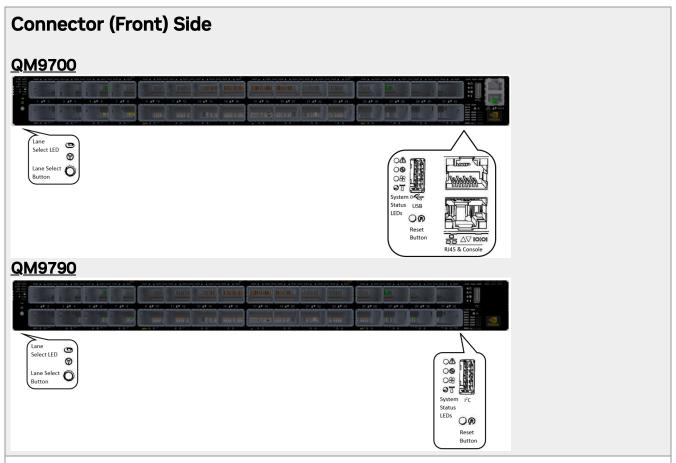
1.

- 1. Slide the rails installed on the system into the channels in the rack rails.
- 2. Tighten the captive screws on both sides to further secure the system to the rack's posts.

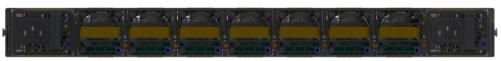
Illustration

A cable retainer should be used to secure the power cord when plugging it into each power socket (located on the rear side of the switch). To secure the power cord inside the retainer, press the small tab on the retainer strip to loosen the loop and pull. (The following diagram is for general illustration; the rear view does not necessarily match that of the actual system).

System Interfaces



FRU (Rear) Side



* It may take up to five minutes to turn on the system.

If the System Status LED shows amber after five minutes, unplug the system and contact your NVIDIA representative.

** Certain systems have a single management port.

* It may take up to five minutes to turn on the system. If the System Status LED shows red/amber after five minutes, unplug the system and contact your NVIDIA representative.

LED Assignments

Symbol	Description	Normal Status
\triangle	System health	Green/Flashing
\$ \$	Fan health	Green
0	Power supply health	Green
=0=	dentifier LED Off/Blue	
R	Reset button	

Configuration

- 1. Connect the host PC to the Console (RJ-45) port.
- 2. Configure a serial terminal program.

Parameter	Settings
Baud rate	115200
Data bits	8
Stop bits	1
Parity	None
Flow control	None

3. Login:

OS	Username	Password
Onyx (MLNX-OS)	admin	admin

4. Initial configuration in Onyx (MLNX-OS): Go through the configuration wizard. For further information, please refer to https://docs.nvidia.com/networking/software/switch-software/index.html.

For full installation instructions, go to https://docs.nvidia.com/networking/display/QM97X0PUB.

Notice

This document is provided for information purposes only and shall not be regarded as a warranty of a certain functionality, condition, or quality of a product. NVIDIA Corporation ("NVIDIA") makes no representations or warranties, expressed or implied, as to the accuracy or completeness of the information contained in this document and assumes no responsibility for any errors contained herein. NVIDIA shall have no liability for the consequences or use of such information or for any infringement of patents or other rights of third parties that may result from its use. This document is not a commitment to develop, release, or deliver any Material (defined below), code, or functionality.

NVIDIA reserves the right to make corrections, modifications, enhancements, improvements, and any other changes to this document, at any time without notice.

Customer should obtain the latest relevant information before placing orders and should verify that such information is current and complete.

NVIDIA products are sold subject to the NVIDIA standard terms and conditions of sale supplied at the time of order acknowledgement, unless otherwise agreed in an individual sales agreement signed by authorized representatives of NVIDIA and customer ("Terms of Sale"). NVIDIA hereby expressly objects to applying any customer general terms and conditions with regards to the purchase of the NVIDIA product referenced in this document. No contractual obligations are formed either directly or indirectly by this document.

NVIDIA products are not designed, authorized, or warranted to be suitable for use in medical, military, aircraft, space, or life support equipment, nor in applications where failure or malfunction of the NVIDIA product can reasonably be expected to result in personal injury, death, or property or environmental damage. NVIDIA accepts no liability for inclusion and/or use of NVIDIA products in such equipment or applications and therefore such inclusion and/or use is at customer's own risk.

NVIDIA makes no representation or warranty that products based on this document will be suitable for any specified use. Testing of all parameters of each product is not necessarily performed by NVIDIA. It is customer's sole responsibility to evaluate and determine the applicability of any information contained in this document, ensure the product is suitable and fit for the application planned by customer, and perform the necessary testing for the application in order to avoid a default of the application or the product. Weaknesses in customer's product designs may affect the quality and reliability of the NVIDIA product and may result in additional or different conditions and/or requirements beyond those contained in this document. NVIDIA accepts no liability related to any default, damage, costs, or problem which may be based on or attributable to: (i) the use of the NVIDIA product in any manner that is contrary to this document or (ii) customer product designs.

No license, either expressed or implied, is granted under any NVIDIA patent right, copyright, or other NVIDIA intellectual property right under this document. Information published by NVIDIA regarding third-party products or services does not constitute a license from NVIDIA to use such products or services or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property rights of the third party, or a license from NVIDIA under the patents or other intellectual property rights of NVIDIA.

Reproduction of information in this document is permissible only if approved in advance by NVIDIA in writing, reproduced without alteration and in full compliance with all applicable export laws and regulations, and accompanied by all associated conditions, limitations, and notices.

THIS DOCUMENT AND ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS, AND OTHER DOCUMENTS (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED "AS IS." NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY, OR OTHERWISE WITH RESPECT TO THE MATERIALS, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES OF NONINFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT WILL NVIDIA BE LIABLE FOR ANY DAMAGES, INCLUDING WITHOUT LIMITATION ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES, HOWEVER CAUSED AND REGARDLESS OF THE THEORY OF LIABILITY, ARISING OUT OF ANY USE OF THIS DOCUMENT, EVEN IF NVIDIA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Notwithstanding any damages that customer might incur for any reason whatsoever, NVIDIA's aggregate and cumulative liability towards customer for the products described herein shall be limited in accordance with the Terms of Sale for the product.

Trademarks

NVIDIA and the NVIDIA logo are trademarks and/or registered trademarks of NVIDIA Corporation in the U.S. and other countries. Other company and product names may be trademarks of the respective companies with which they are associated.

© Copyright 2024, NVIDIA. PDF Generated on 09/29/2024