

## HPC Optics JH232A-HPC

# HPC Optics JH232A 40GBASE-LR4 QSFP+ Transceiver User Manual

## 1. INTRODUCTION

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This manual provides essential information for the proper installation, operation, and maintenance of the HPC Optics JH232A 40GBASE-LR4 QSFP+ Transceiver. This module is designed for high-speed data communication applications, offering reliable 40 Gigabit Ethernet connectivity over singlemode fiber. The JH232A transceiver is fully compatible with HPE Aruba JH232A equipment (including 57/59/83/84 Series) and supports 40GBASE-LR4 40G Ethernet at 40Gbps. It operates at a 1310nm wavelength, providing a reach of up to 10km using a Duplex LC connector. It is a hot-pluggable module, allowing for installation and removal without powering down the host equipment.

## 2. SETUP AND INSTALLATION

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Follow these steps for safe and effective installation of the QSFP+ transceiver module:

- Preparation:** Ensure the host equipment (e.g., network switch, router) is powered on and configured for QSFP+ module detection. Verify that the fiber optic cables are clean and free of dust or damage.
- Module Insertion:** Carefully align the QSFP+ transceiver with the port on the host equipment. The module is designed to be hot-pluggable, meaning it can be inserted while the equipment is operational. Gently push the module into the port until it clicks into place. Do not force the module.
- Fiber Connection:** Remove the dust caps from the Duplex LC connectors on the transceiver and the fiber optic cable. Connect the appropriate singlemode fiber (SMF) cables to the Duplex LC ports on the transceiver. Ensure the transmit (Tx) port on the transceiver connects to the receive (Rx) port on the remote device, and vice-versa.
- Verification:** After connecting the fiber cables, check the link status indicators on the host equipment. A stable link light typically indicates a successful connection. Refer to your host equipment's documentation for specific indicator meanings.

*Note: Always handle optical transceivers and fiber optic cables with care to prevent damage to the optical*

interfaces.

### 3. OPERATING INSTRUCTIONS

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Once installed and connected, the HPC Optics JH232A QSFP+ transceiver operates automatically as part of your network infrastructure. It facilitates high-speed data transmission over singlemode fiber optic cables.

- **Data Transmission:** The module converts electrical signals from the host equipment into optical signals for transmission over fiber and vice-versa.
- **Wavelength:** It operates at a 1310nm wavelength, optimized for long-reach singlemode fiber applications.
- **Distance:** Supports reliable data transmission up to 10 kilometers (6.2 miles) over compatible singlemode fiber.
- **Compatibility:** Designed for seamless integration with HPE Aruba JH232A compatible network devices.

No user configuration is typically required directly on the transceiver module itself, as its operation is managed by the host network equipment.

### 4. MAINTENANCE

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Proper maintenance ensures the longevity and optimal performance of your QSFP+ transceiver.

- **Cleaning Optical Interfaces:** The most critical maintenance task is keeping the optical connectors clean. Dust and contaminants can significantly degrade optical performance. Use only approved fiber optic cleaning tools and methods (e.g., lint-free wipes, fiber optic cleaning pens) to clean the LC connectors on both the transceiver and the fiber cables.
- **Dust Caps:** Always replace dust caps on the transceiver's optical ports when not in use or when fiber cables are disconnected. This prevents dust accumulation.
- **Handling:** Handle the transceiver by its body, avoiding contact with the optical ports. Store unused transceivers in their protective packaging.
- **Environmental Conditions:** Ensure the operating environment adheres to the recommended temperature and humidity ranges specified by your host equipment manufacturer.

### 5. TROUBLESHOOTING

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If you encounter issues with your QSFP+ transceiver, consider the following troubleshooting steps:

- **No Link Light:**
  - Verify the transceiver is fully seated in the port.
  - Check that fiber cables are correctly connected (Tx to Rx, Rx to Tx).
  - Inspect and clean all fiber optic connectors on both ends of the link.
  - Ensure the fiber cable type (singlemode) matches the transceiver requirements.
  - Test the fiber cable for continuity and damage.
  - Confirm the host equipment port is enabled and configured correctly.
- **Intermittent Link or Poor Performance:**
  - Clean all fiber optic connectors thoroughly.

- Check for excessive bends or damage in the fiber optic cable.
- Ensure the link distance does not exceed the 10km maximum for this transceiver.
- Verify that the power levels of the optical signal are within acceptable ranges (requires specialized equipment).

- **Module Not Recognized:**

- Remove and re-insert the module firmly.
- Ensure the host equipment firmware is up to date and supports the QSFP+ module.
- Try the module in a different compatible port or host equipment if available.

If issues persist after performing these steps, contact technical support.

## 6. SPECIFICATIONS

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Feature	Description
Model Number	JH232A-HPC
Compatibility	Fully Compatible with HPE Aruba JH232A (57/59/83/84 Series Equipment)
Form Factor	QSFP+ (Quad Small Form-Factor Pluggable Plus)
Data Rate	40Gbps
Protocol	40GBASE-LR4 40G Ethernet
Fiber Type	Singlemode Fiber (SMF)
Wavelength	1310nm
Max Reach	Up to 10km (6.2 miles)
Connector Type	Duplex LC
Features	Hot-Pluggable
Item Weight	0.8 ounces

## 7. WARRANTY AND SUPPORT

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The HPC Optics JH232A QSFP+ Transceiver comes with a **LIFETIME WARRANTY**, ensuring long-term reliability and peace of mind. For warranty claims or technical assistance, please refer to the contact information provided by your vendor or the HPC Optics official support channels.

When contacting support, please have the following information ready:

- Product Model Number: JH232A-HPC
- ASIN: B01IMF6TKE
- Description of the issue
- Steps already taken to troubleshoot

