**10Gtek CB-001**

# 10Gtek SFF-8644 to QSFP (SFF-8436) DDR Hybrid Mini SAS Cable User Manual

Model: CB-001
Brand: 10Gtek

## 1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your 10Gtek SFF-8644 to QSFP (SFF-8436) DDR Hybrid Mini SAS Cable. Please read this manual thoroughly before using the product to ensure optimal performance and safety.

## 2. SAFETY INFORMATION

- Ensure all connected devices are powered off before connecting or disconnecting the cable.

- Avoid bending the cable sharply, as this can damage internal conductors and impair performance.

- Do not expose the cable to extreme temperatures, moisture, or corrosive environments.

- Handle connectors carefully to prevent damage to pins or housing.

## 3. PRODUCT OVERVIEW

The 10Gtek SFF-8644 to QSFP (SFF-8436) DDR Hybrid Mini SAS Cable is designed for high-speed data transfer in enterprise storage, server, and data center applications. It features an SFF-8644 connector on one end and a QSFP (SFF-8436) connector on the other, enabling connectivity between devices with these respective interfaces.

Figure 3.1: Overview of the 10Gtek SFF-8644 to QSFP Hybrid Mini SAS Cable. This image displays the full length of the cable with both connector types visible.
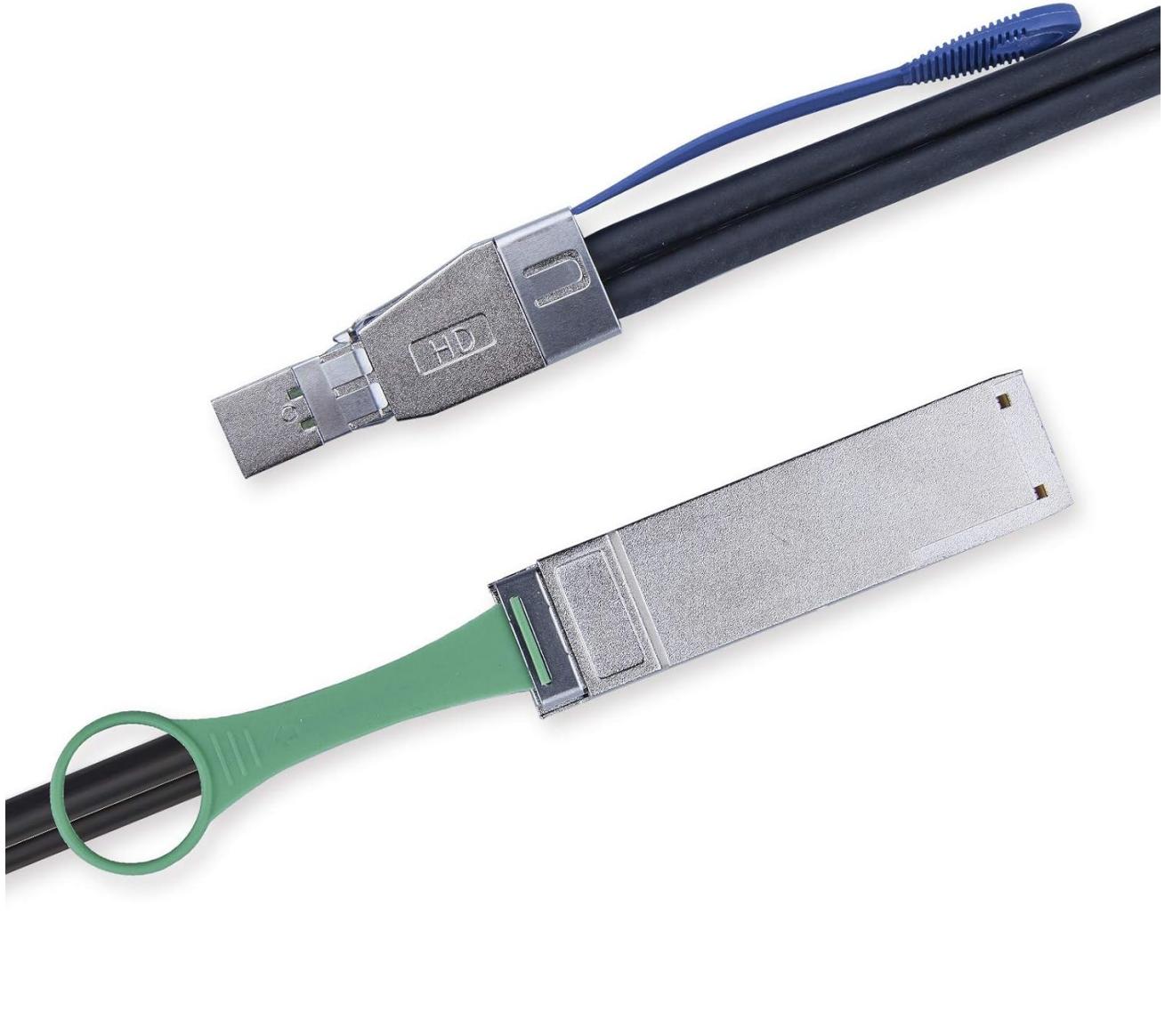
Figure 3.2: Close-up view of the SFF-8644 (left) and QSFP (right) connectors. The SFF-8644 connector features a blue pull tab, while the QSFP connector has a green pull tab.

Figure 3.3: Detailed view of the SFF-8644 connector, showing its metallic housing and the blue pull tab for easy removal.
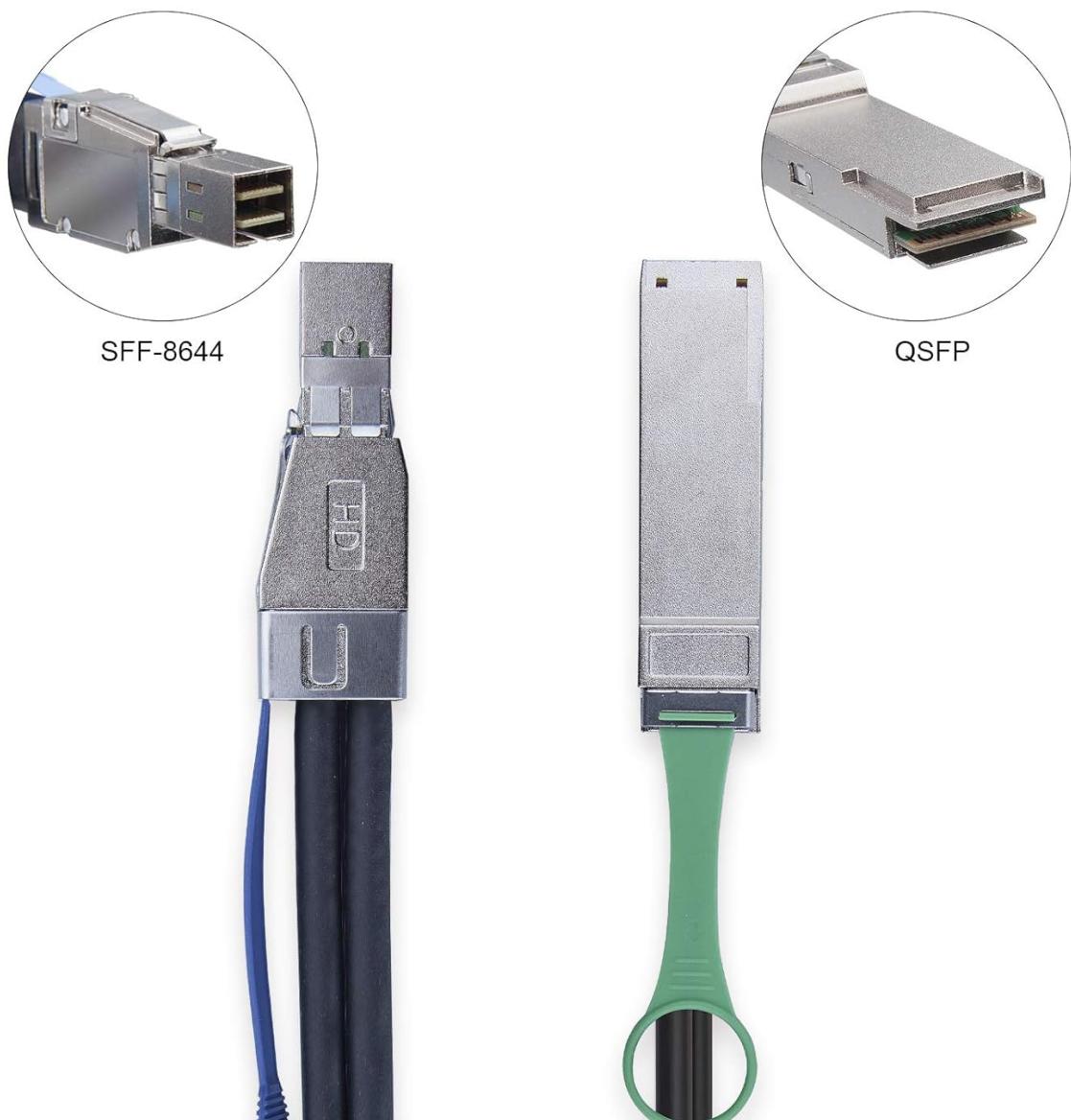
SFF-8644

QSFP

Figure 3.4: Detailed view of the QSFP (SFF-8436) connector, highlighting its metallic body and the green pull tab.

Figure 3.5: A close-up of the cable's label, displaying model information such as "MiniSAS QSFP to 8644 DAC Cable" and a serial number.

## 4. Setup

Follow these steps to properly connect your 10Gtek SFF-8644 to QSFP (SFF-8436) DDR Hybrid Mini SAS Cable:

1. **Identify Ports:** Locate the SFF-8644 port on your host adapter (e.g., SAS controller) and the QSFP (SFF-8436) port on your target device (e.g., NetApp DS4243, DS4246, DS2246 storage shelf).

2. **Connect SFF-8644:** Gently insert the SFF-8644 connector into the corresponding port on your host adapter until it clicks securely into place. The blue pull tab should be accessible.

3. **Connect QSFP:** Gently insert the QSFP (SFF-8436) connector into the corresponding port on your target device until it clicks securely into place. The green pull tab should be accessible.

4. **Secure Connections:** Ensure both connectors are fully seated and locked. Do not force the connectors.

5. **Power On:** Once connections are secure, power on your devices. The cable should be recognized automatically.

For a visual guide on connecting similar Mini SAS HD Hybrid Cables, please refer to the video below:

Video 4.1: This video demonstrates the connection process for an External Mini SAS HD Hybrid Cable, similar to the 10Gtek SFF-8644 to QSFP cable. It illustrates how to properly insert and secure the connectors into compatible ports.

## 5. OPERATING INSTRUCTIONS

Once the cable is properly connected and devices are powered on, the 10Gtek SFF-8644 to QSFP cable facilitates high-speed data transfer between the connected devices. The cable supports up to 10 Gbps transfer rate per channel and is fully compliant with the latest QSFP MSA (Multi-Source-Agreement) and SAS3.0 standards.

- **Data Transfer:** The cable enables direct attach copper connectivity, allowing for efficient and reliable data exchange between your SAS controller and storage devices.

- **System Recognition:** Ensure your operating system or device firmware recognizes the connected storage or server components. Refer to your device's documentation for specific configuration steps.

## 6. MAINTENANCE

Proper maintenance ensures the longevity and reliable performance of your cable:

- **Cleaning:** Keep connectors free from dust and debris. Use a soft, dry, lint-free cloth to gently wipe the metallic parts of the connectors if necessary.

- **Storage:** When not in use, store the cable in a clean, dry environment, away from direct sunlight and extreme temperatures. Avoid coiling the cable too tightly.

- **Inspection:** Periodically inspect the cable and connectors for any signs of physical damage, such as cuts, kinks, or bent pins.

## 7. TROUBLESHOOTING

If you encounter issues, consider the following troubleshooting steps:

- **No Device Recognition:**
  - Ensure both ends of the cable are fully and securely connected.
  - Verify that the host adapter and target device are powered on and functioning correctly.
  - Check the device's BIOS/UEFI or operating system for proper configuration and driver installation.
  - Try connecting the cable to different compatible ports if available.

- **Intermittent Connection/Slow Speed:**
  - Inspect the cable for any visible damage or kinks.
  - Ensure connectors are clean and free of debris.
  - Verify that the cable length is appropriate for your setup and within recommended specifications.

- **Compatibility Issues:**
  - Confirm that your devices are compatible with SFF-8644 and QSFP (SFF-8436) interfaces.
  - If your brand is not explicitly listed as compatible, contact 10Gtek support for assistance.

## 8. SPECIFICATIONS

| Feature | Specification |
|---|---|
| Model Number | CB-001 |

| Feature | Specification |
|---|---|
| Connector Type | SFF-8644 to QSFP (SFF-8436) |
| Cable Type | Direct Attach Copper Twinax Cable |
| Impedance | 100 Ohms |
| Transfer Rate | Up to 10 Gbps per channel |
| Compliance | QSFP MSA, SAS3.0 |
| Compatible Devices | Servers, Storage (e.g., NetApp DS4243, DS4246, DS2246) |
| Special Feature | Data Transfer |
| Length | 0.5-Meter (1.6-ft) |

## 9. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the official 10Gtek website or contact their customer service directly. Keep your purchase receipt for warranty claims.
You can visit the 10Gtek store for more products and support:10Gtek Store