FS-BOX-V3

FIRMWARE UPGRADE TOOL KIT

Quick Start Guide V3.0
1 Introduction

FS Box V3 only works with FS transceivers & DAC/AOC cables. It is designed to solve real-time compatibility needs, wavelength tuning for tunable transceiver and upgrade the transceiver firmware in data center. With its instant online platform fsbox.com and a wide range of configuration choices, FS Box V3 could help engineers configure in a timely and effective way.

2 Supported Transceiver Type

SFP+/SFP28  XFP  QSFP+/QSFP28

SFP+/SFP28  XFP  QSFP+/QSFP28
3 Operation Instructions

1. Login Operation

Step 1: Go to fsbox.com.
Step 2: Download and install the driver.
Step 3: Read and agree to Terms of Use, then log in with your FS account.

You can download the driver on the home page or after sign in.

If you don't have an account, click Create an account to create an account.
Install MacOS Driver

Step 1: After download the driver, double-click the driver file FSInstall_Mac_Beta.dmg.

Step 2: Long click the FS Box and drag to the Application folder.

Step 3: Find the FS Box application on the Launchpad, then double-click it and a system pop-up prompt will appear, click Open.

Step 4: Click Install to enter the Mono download page, then select Mono to download.

Step 5: After download the Mono, double-click the file MonoFramework for installation.
Step 6: After the Mono installation is complete, click to restart.

Step 7: Status displays in green means the driver is successfully installed and activated normally.

Install Windows driver

Step 1: After download the driver, double-click the driver file FSInstaller for installation.

Step 2: FS service will be automatically activated when the driver is installed, and you can check the FS logo 🔄 in the notification bar.

If FS service is not automatically activated, just reload the browser.
### Online Configuration Service

If you only need to reconfigure the compatibility of optics, please operate as follow.

1. **Step 1:** Connect FS Box to your computer and insert your transceiver into corresponding port of FS Box. After successful insertion, the indicator of FS Box will be blinking.
Step 2: Choose the compatible brand and click Start Configuration.

<table>
<thead>
<tr>
<th>Brand</th>
<th>S/N</th>
<th>P/N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F1803004899</td>
<td>QSFP-IR4-40G</td>
</tr>
</tbody>
</table>

Please choose

- Cisco
- Juniper
- Arista
- H3C
- DELL (Force 10)
- Brocade
- Intel
- IBM
- Huawei
- Netgear
- Extreme
- Alcatel-Lucent
- Generic
- Mellanox

More compatible brands, please go to "Box Pro".

Revise S/N

- Yes
- No

Please filling

S/N needs to fill in 5-16 letters or numbers (Cannot contain spaces).

Batch Configuration

Start Configuration

Some special brand or special transceiver type do not support revise serial number in Online Configuration, and the Yes and No buttons cannot be clicked. In this case, you need to apply in Box Pro.

If you need to reconfigure multiple transceivers to same compatible brand, you can turn on the Batch Configuration button, then follow the prompts to insert and remove the transceivers one by one. And if you want to stop batch configuration, turn off the button after configuration succeeds.
Step 3: Configuration succeeds, then pull out the transceiver.
Wavelength Tuning

If you need to configure channels for tunable transceivers, please operate as follow.

Step 1: Connect FS Box to your computer and insert your tunable transceiver into the corresponding port of FS Box. The platform can quickly identify it. Then click Revise.

![Wavelength]

Step 2: Choose the wavelength and click Start.

![Changing wavelength]

Step 3: You can check the updated wavelength and status after configuration succeeds, then click Sign Out and pull out the transceiver.

![Changing wavelength]

The tunable transceiver only supports wavelength tuning for the time being.
〈4〉 Diagnosing Configuration Service

If you need to solve compatibility issues with your problematic optics after the sale, please operate as follow.

Step 1: Connect FS Box to your computer and insert an identical transceiver that works well into the corresponding port of FS Box.
Step 2: Choose the compatible brand of the identical transceiver, and fill in the device model number which the transceiver will be used, then click Start Diagnosing.

[Available FS Transceiver Information ]

QSFP-IR4-40GG P/N

Juniper Compatible Brand

A1920007302 S/N

------------------------------- More Information -----------------------------

Fill in more information to match transceiver accurately.

Juniper EX4300-48P Device Model Number

Please filling Remark

✔ Save the information to My Configurations.

🔗 Start Diagnosing
Step 3: Remove the identical transceiver and insert your problematic FS transceiver after diagnosing succeeds.
Step 4: Click Start Matching after the transceiver is replaced.

- Brand: Juniper
- S/N: Y123456798456
- P/N: QSFP-IR4-40G

Available FS Transceiver Information

Problematic FS Transceiver Information

- QSFP-IR4-40G
- P/N: QSFP-IR4-40G

Revise S/N: Yes or No

Batch Matching: On or Off

Start Matching

If you need to continue matching other transceivers, just turn on the Batch Matching button. Then insert and remove the transceivers one by one.

Step 5: Matching succeeds, then pull out the transceiver.
Box Pro Service

If you need to reconfigure part number of your optics or need to custom compatibility, please operate as follow.

Application Steps

Step 1: Enter Box Pro service and click Request Configuration.

Available Configuration

Step 2: Locate the order in which the optics you need to reconfigure. Then choose the optics and click Apply.

My Orders

My Applications

Order No: FS190219411555  Order Placed: 2019-06-12 20:53:50  +Apply

Product ID: 11552  Description: Cisco SFP-10G-SR Compatible 10GBASE-SR SFP+ 850nm 300m DOM Transceiver Module

Qty: 100  Brand:  ----  Vendor Name:  ----  Action:  Details

Order No: FS190612620654  Order Placed: 2019-06-12 20:53:50  +Apply
Step 3: Fill the configuration details you need to custom and click Submit.

⚠️ You will receive the auditing result of your application in 1 to 3 business days.

Apply Box-pro > My Orders > Apply

Order No: FS190219411555
Order Placed: 2019-02-19 19:57:06

<table>
<thead>
<tr>
<th>Product Description</th>
<th>P/N</th>
<th>Qty</th>
<th>Wavelength</th>
<th>Max Cable Distance</th>
<th>Interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product: Cisco SFP-10G-SR Compatible 10GBASE-SR SFP+ 850nm 300m DOM Transceiver Module</td>
<td>11552</td>
<td>100</td>
<td>850nm</td>
<td></td>
<td>LC duplex</td>
</tr>
</tbody>
</table>

Congratulations Details

| Ciena | OEM | SFP-10GSR-85 | Y123456789 | 100 | Switch |

Switch OS | Switch Version

Application Note

⚠️ If you need more than one configuration brand for your optics, you could add more but less than three at a time.
Step 4: Check application status and configuration details in My Applications.

<table>
<thead>
<tr>
<th>#</th>
<th>Order No</th>
<th>Application No</th>
<th>Application Note</th>
<th>Date</th>
<th>Status</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FS190219411555</td>
<td>W1568282513520</td>
<td>———</td>
<td>2019-06-12 20:53:50</td>
<td>Unaudited</td>
<td>Details</td>
</tr>
</tbody>
</table>

**Configuration Steps**

Step 1: Connect FS Box to your computer and insert corresponding transceiver into corresponding port.

Step 2: Locate the application which is approved and click Configuration.

**Available Configuration**

- Application No: W1567742227608
  - Application Date: 2019-09-06 03:57:08
  - Order No: FS190903260388

- Application No: W1567654413782
  - Application Date: 2019-09-05 03:33:34
  - Order No: FS190903260388

- Product ID: #11552
  - P/N: SFP-10GSR-85
  - Brand: Cisco
  - Vendor Name: FS
  - Attribute: 850nm

Step 3: After configuration succeeds, you can check the updated information in the reading column. Then pull out the transceiver.

**Batch Configuration Steps**

a. If you need to configure the same type configurations in large amounts, please operate as follow.

Step 1: Connect FS Box to your computer and insert corresponding transceiver into corresponding port.

Step 2: Select the application which is approved and click Batch Configuration.
Step 3: Click Start Configuration, then insert and remove your transceivers one by one.

If you want to stop the batch configuration, just click Stop Batch Configuration after configuration succeeds.

b. If you need to configure multiple types of configurations, please operate as follow.
Step 1: Connect FS Box to your computer and insert corresponding transceiver into corresponding port.

Step 2: Select the applications which are approved and click Batch Configuration.

Available Configuration

<table>
<thead>
<tr>
<th>Application No</th>
<th>Order No</th>
<th>Order Date:</th>
<th>SN</th>
<th>Batch Configuration</th>
<th>Request Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1567742227608</td>
<td></td>
<td>2019-09-06 03:57:08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W1567654413782</td>
<td></td>
<td>2019-09-05 03:33:34</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product ID</th>
<th>P/N</th>
<th>Brand</th>
<th>Vendor Name</th>
<th>Attribute</th>
<th>New S/N</th>
<th>Application Note:</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>#50000</td>
<td>SFP-10GSR-85</td>
<td>Arista</td>
<td>FS</td>
<td>850nm</td>
<td>test1</td>
<td>qqrr</td>
<td>Configuration</td>
</tr>
<tr>
<td>#50000</td>
<td>SFP-10GSR-85</td>
<td>Arista</td>
<td>FS</td>
<td>850nm</td>
<td>test2</td>
<td>qqrr</td>
<td>Configuration</td>
</tr>
</tbody>
</table>

Step 3: Click Start Configuration, and the system will continue to configure according to the selected order. You just need to insert and remove your transceivers.

<table>
<thead>
<tr>
<th>No</th>
<th>P/N</th>
<th>Brand</th>
<th>NewSn</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2</td>
<td>SFP-10GSR-85</td>
<td>Arista</td>
<td>test1</td>
<td>Unused</td>
</tr>
<tr>
<td>2/2</td>
<td>SFP-10GSR-85</td>
<td>Arista</td>
<td>test2</td>
<td>Unused</td>
</tr>
</tbody>
</table>

Please click Start Configuration to reconfigure.

Do not close the page during the configuration process, otherwise the configuration file will be damaged.

Start Configuration
DDM Information

Connect FS Box and insert your transceiver to check the DDM information. It will show voltage, temperature and bias-current values in combination with time based continuous chart for transmit and receive levels.

Transceiver Working Parameters

13.68°C Temperature
3.45V Voltage
0mA Bias Current
TX Power
RX Power

Indicator Light Status

<table>
<thead>
<tr>
<th>Indication</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>FS Box Connected to PC</td>
<td>Breathing White Light</td>
</tr>
<tr>
<td>Reading Succeed</td>
<td>White Light Blinking</td>
</tr>
<tr>
<td>Reading Failed</td>
<td>Red Light On</td>
</tr>
<tr>
<td>Configuration Succeed</td>
<td>Blue Light Blinking</td>
</tr>
<tr>
<td>Configuration Failed</td>
<td>Red Light On</td>
</tr>
</tbody>
</table>