

# Configuring Port Mapping On S4148 Series Switch

This document is only available for S4148 series switch.

- [Procedure](#)
- [Configuration Example](#)
- [Verify the configuration](#)

The six interfaces of QSFP+ and QSFP28 on the switch, with port numbers from 25 to 30, form an interface group. You can configure the port mapping mode of this interface group as required, the value could be **6 x 40G** or **4 x 100G**.

- **6 x 40G:** This is the default port mapping mode. In this mode, all the six interfaces work at 40G mode. The interface names are xe-1/1/1, xe-1/1/2, xe-1/1/3, xe-1/1/4, xe-1/1/5 and xe-1/1/6.
- **4 x 100G:** In this port mapping mode, the four QSFP28 interfaces numbering 25, 26, 29 and 30 work at 100G mode and the other two QSFP+ interfaces numbering 27 and 28 are unavailable. In this mode, the interface names of the four QSFP28 interfaces are xe-1/1/1, xe-1/1/2, xe-1/1/3 and xe-1/1/4.

## Procedure

- From the Linux shell prompt, run the following command.

```
admin@XorPlus:~$ sudo picos_boot port-layout
Configure the front panel QSFP interfaces port map options:
[1] 6x40G_QSFP * default
[2] 4x100G_QSFP
Enter your choice(1,2):
```

Type the option number at the “**Enter your choice(1,2):**” prompt and press Enter to select the port mapping mode.

### NOTE:

- Run this command in Linux shell.
- To run this command, you need root privileges.
- The default setting is 6x40G\_QSFP.
- After changing the port mapping mode, you need to restart PICOS to make the setting take effect.
- Manually remove the user configuration files `/pica/config/pica_startup.boot` and `/pica/config/pica.conf` after changing port mapping mode and before restarting PICOS. Be cautious that all the user configurations will be lost after these operations. We suggest you backup the configuration file before proceeding with these operations.
- Hardware limitation – if power cycle the switch, wait for 10 - 30 seconds before power on.

## Configuration Example

The example below shows the steps for configuring the port mapping mode as 4 x 100G.

**Step1** From the Linux shell prompt, run `picos_boot port-layout` command to configure the port mapping mode to 4x100G.

```
admin@XorPlus:~$ sudo picos_boot port-layout
Configure the front panel QSFP interfaces port map options:
[1] 6x40G_QSFP * default
[2] 4x100G_QSFP
Enter your choice(1,2):
```

**Step2** Type “**2**” and press Enter to set the port mapping mode to 4x100G\_QSFP. By default, the port mapping mode is set to 6x40G\_QSFP.

**Step3** Manually remove the user configuration files.

After changing the port mapping mode and before restarting PICOS, you need to manually remove the user configuration files `/pica/config/pica_startup.boot` and `/pica/config/pica.conf`.

```
admin@XorPlus:~$ sudo rm /pica/config/pica_startup.boot
admin@XorPlus:~$ sudo rm /pica/config/pica.conf
```

**Step4** After changing the port mapping mode, you need to restart PICOS to make the setting take effect.

```
admin@XorPlus:~$ sudo systemctl restart picos
```

## Verify the configuration

- After the system boots, run **run show interface brief** command to view the interface information.

In 4x100G\_QSFP mode, we can see that the four QSFP28 interfaces numbering 25, 26, 29 and 30 are working at 100G, and the other two QSFP+ interfaces numbering 27 and 28 are unavailable. The interface names of the four QSFP28 interfaces are xe-1/1/1, xe-1/1/2, xe-1/1/3 and xe-1/1/4.

```
admin@XorPlus# run show interface brief
Interface  Management  Status  Flow Control  Duplex  Speed  Description
-----
xe-1/1/1   Enabled     Up       Disabled      Full    Auto
xe-1/1/2   Enabled     Down     Disabled      Full    Auto
xe-1/1/3   Enabled     Down     Disabled      Full    Auto
xe-1/1/4   Enabled     Down     Disabled      Full    Auto
```