

Technical Note

Selection and usage guidelines: SFP+ module, Ethernet I/F card

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JAI has tested the operation of the following Ethernet interface cards and SFP+ modules for use with JAI's SFP+ camera models:

Please check the product specification of each Ethernet interface card for supported OS.

Please check the product specification of each SFP+ module and Ethernet interface card regarding the optical fiber cable to be used.

Ethernet interface card

Mellanox Technologies

Ethernet Adapter Cards ConnectX-3 Pro (MCX311A-XCAT)

Intel

Ethernet Converged Network Adapter X710 DA2(*)

(*) There are restrictions on the modules that can be used with each Ethernet interface card.

Please check each product information beforehand, and select an available SFP+ module.

Vendor lock-in: Restricts the device to accept only genuine SFP+ modules of the same brand, identified by vendor ID.

SFP+ module (10GBase-SR)

It is recommended that the same model of SFP+ module be used on both the PC side and the camera side.

Intel	FTLX8571D3BCV-IT
CISCO	SFP-10G-SR
Fmadio	SFP-10GSR-85
Profitap	PT-10G-SR-85
10Gtek	AXS85-192-M3
Finisar	FTLX8574D3BCL

SFP+ module (10GBase-LR)

It is recommended that the same model of SFP+ module be used on both the PC side and the camera side.

Intel	FTLX1471D3BCV-IT
CISCO	SFP-10G-LR



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1. Precautions for handling fiber optic cable / SFP+ module

If Ethernet Link cannot be established, check the following two points:

Please check that the optical fiber cable is not broken. Connect one end to a working device and hold the other end face of the cable close to a piece of white paper in a dark room. If you can see a spot of light on the paper, the cable is not broken.

Note: Many SFP modules and fiber optic cables are Class 1 laser products. Do not look into connectors and cables when installing or removing. There is a risk of injury to eyes.

If there is no light, there may be a broken fiber or a failure in the SFP device. Just in case, replace the connector with Tx and Rx, and check again.

2. Please check that the cable and connector faces are clean.

If communication between devices is not possible even though light is emitted in check 1, it is possible that the light is being attenuated due to dirt on the end face of the connectors or fiber cable.

Please clean up the end faces of the connectors and fiber cable.

Note:

- Physical damage to the inside of the fiber optic cable cannot be confirmed by looking at the outside of the cable.
- Like the image sensor and the optical lens, the end face of the optical connector can also be affected by very small amounts of dirt. When replacing fiber cables, it is recommended to clean both ends of the cable and the end of the SFP+ module each time.

Products for cleaning optical connectors can be found online by searching for 'Optical connector cleaners' in Google or other search engines. Select a kit or set of products that match the type and size of your connectors and follow all instructions for proper cleaning.

End.



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Revision History

Revision	Date	Changes
1	2019/06/20	New release

