

- HA-2P-X4G3-SFF-X8G3
Host adapter

Ximea accessories ●
Technical Manual ●
Version v240830 ●

Introductions

About this manual

Dear customer,

Thank you for purchasing a product from XIMEA.

We hope that this manual can answer your questions, but should you have any further queries or if you wish to claim a service or warranty case, please contact your local dealer or refer to XIMEA Support on our website:

www.ximea.com/support

The purpose of this document is to provide a description of Ximea accessories and to describe the correct way to install related software, drivers and run it successfully. Please read this manual thoroughly before operating your new Ximea accessories for the first time. Please follow all instructions and observe the warnings.

This document is subject to change without notice.

About XIMEA

XIMEA is one of the worldwide leaders for innovative camera solutions with a 30-year history of research, development and production of digital image acquisition systems. Based in Slovakia, Germany and the US, with a global distributor network, XIMEA offers their cameras worldwide. In close collaboration with customers XIMEA has developed a broad spectrum of technologies and cutting-edge, highly competitive products.

XIMEA's camera centric technology portfolio comprises a broad spectrum of digital technologies, from data interfaces such as USB 2.0, USB 3.1 and PCIe to cooled digital cameras with CCD, CMOS and sCMOS sensors, as well as X-ray cameras.

XIMEA has three divisions – generic machine vision and integrated vision systems, scientific imaging and OEM/custom.

Our broad portfolio of cameras includes thermally stabilized astronomy and x-ray cameras, as well as specialty cameras for medical applications, research, surveillance and defense.

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1 General description

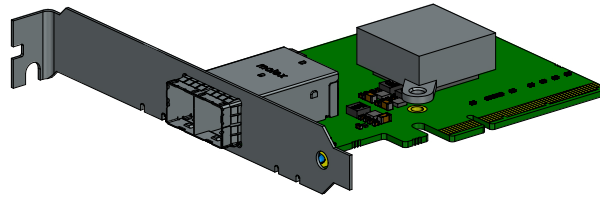


Figure 1: isometric view of the host adapter

- X8 gen 3. PCIe host adapter with dual ports for SFF-8644 fiber optic cables with lengths of up to 100 m
- Requires PCIe Gen.3 x8 slot on the computer side
- The supported bandwidth is 64 Gbps
- For use with xiB-64 and xiX family camera series or xSWITCH

LED Description

LED	Description
PERST	ON when not active
PORT_GOOD0	Upstream port speed ¹
PORT_GOOD1	Downstream port 1 speed ¹
PORT_GOOD2	Downstream port 2 speed ¹
PORT_GOOD3	Downstream port 3 speed ¹
PORT_GOOD4	Downstream port 4 speed ¹

¹Trained speed: OFF - Link is down
 Blinking 1 Hz (512 ms ON / 512 ms Off) - Link is up, 2.5 GT/s, any negotiated link width
 Blinking 2 Hz (256 ms ON / 256 ms Off) - Link is up, 5.0 GT/s, any negotiated link width
 ON - Link is up, 8.0 GT/s, any negotiated Link Width

Table 1: LED status

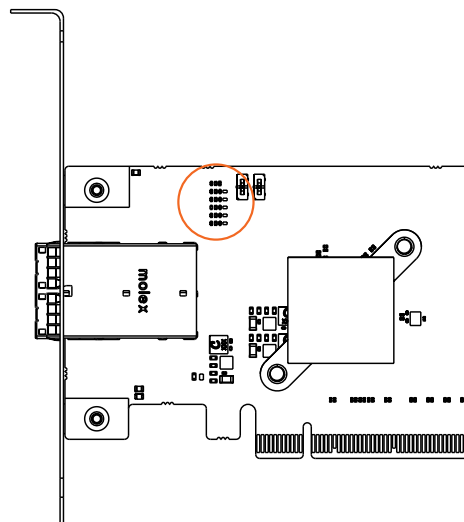


Figure 2: LED position

2 Dimensional drawings

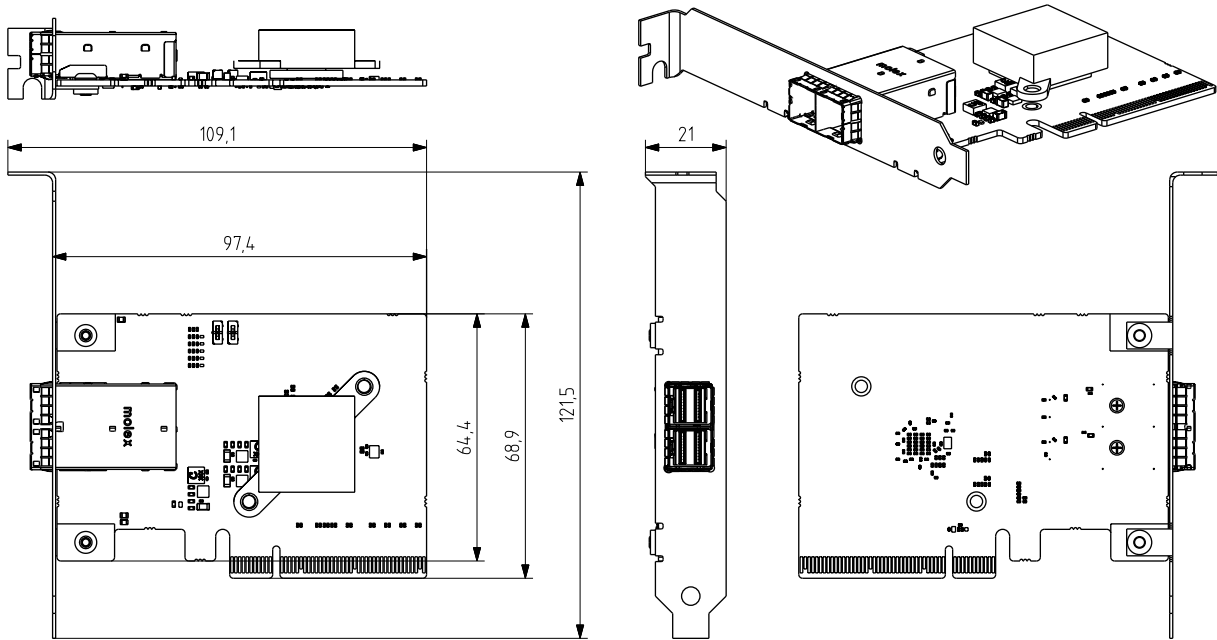


Figure 3: host adapter dimensional drawing

Width [W]	Height [H]	Depth [D]	Mass [M]	Cooling options	Material
109 mm	121.5 mm	21 mm	TBD	Passive heatsink	Stainless steel

Table 2: parameters

3 Configuration

3.0.1 DIP switches

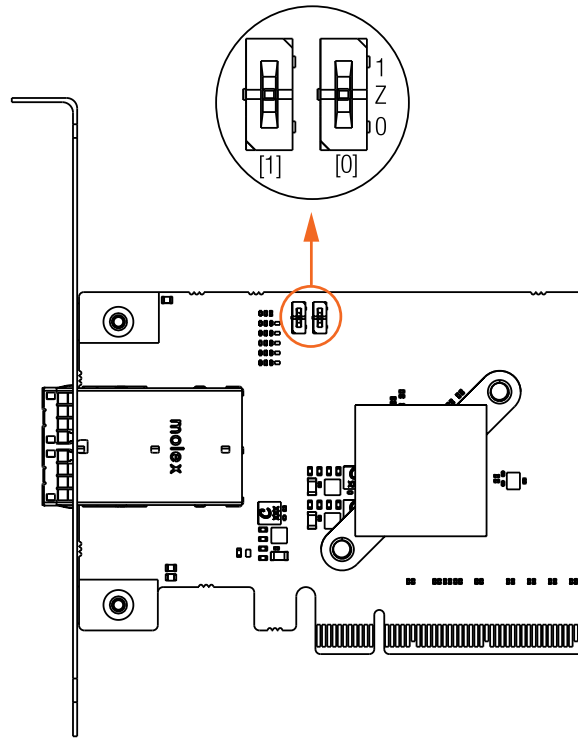


Figure 4: DIP switches

Switches			
DIP switch 1 status	0	Z	Z
DIP switch 2 status	1	0	1
Lines			
PCIe blade lines	x8	x8	8x
SFF PORT A lines	(A+B)=x8	x4	x2, x2
SFF PORT B lines	(A+B)=x8	x4	x2, x2
PCIe PORT configurations	Port A/B - Port 1 ¹	Port A - Port 1, Port B - Port 2	Port A - Port 1/Port 2, Port B - Port 3/Port 4

¹SFF ports A and B together work as a single X8G3 PCIe port

Table 3: DIP switches

4 Connectors

4.1 Location of connectors

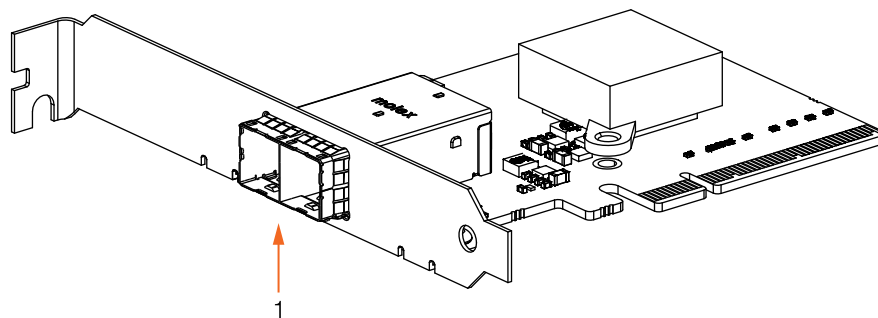


Figure 5: HA-2P-X4G3-SFF-X4G3 connectors

num.	connector
1	2x ports for SFF-8644 fiber optic cables

Table 4: connectors location

Note: Port 1 is the port located further from the PCIe edge connector (PCIe blade).

5 Quickstart guide

5.1 Hardware setup

5.1.1 Essential components

- host PC (adapter requires PCIe Gen.3 x8 slot on the computer side)
- host adapter
- SFF-8644 fiber optic cables

5.1.2 Connecting the components

- Step 1.** Deploy host adapter to PC
- Step 2.** Connect SFF-8644 fiber optic cables to the host adapter
- Step 3.** Connect SFF-8644 fiber optic cables to the camera

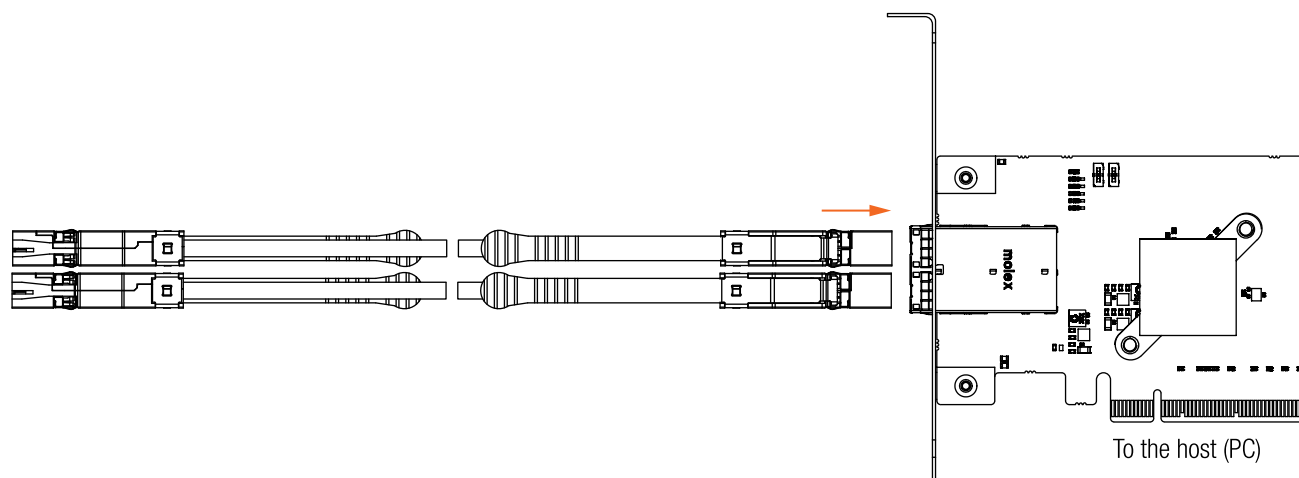


Figure 6: host adapter connecting

For more information about HA-2P-X4G3-SFF-X8G3 please contact: sales@ximea.com.

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