

- **ADPT-MX-X4G3-FF-X4G3-SFF**
Firefly to SFF adapter

XIMEA Accessories •
Technical Manual •
Version v250425 •

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

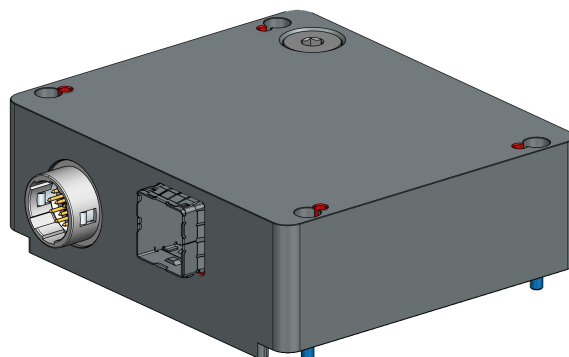


Figure 1: Isometric view of ADPT-MX-X4G3-FF-X4G3-SFF

- Adapter connecting target FireFly X4 interface to SFF host
- PCIe Gen3 x4 bandwidth. Link Speed 32 Gb/s
- For use with **xiX family** camera series (equipped with FireFly X4 connector)

2 Dimensional drawings

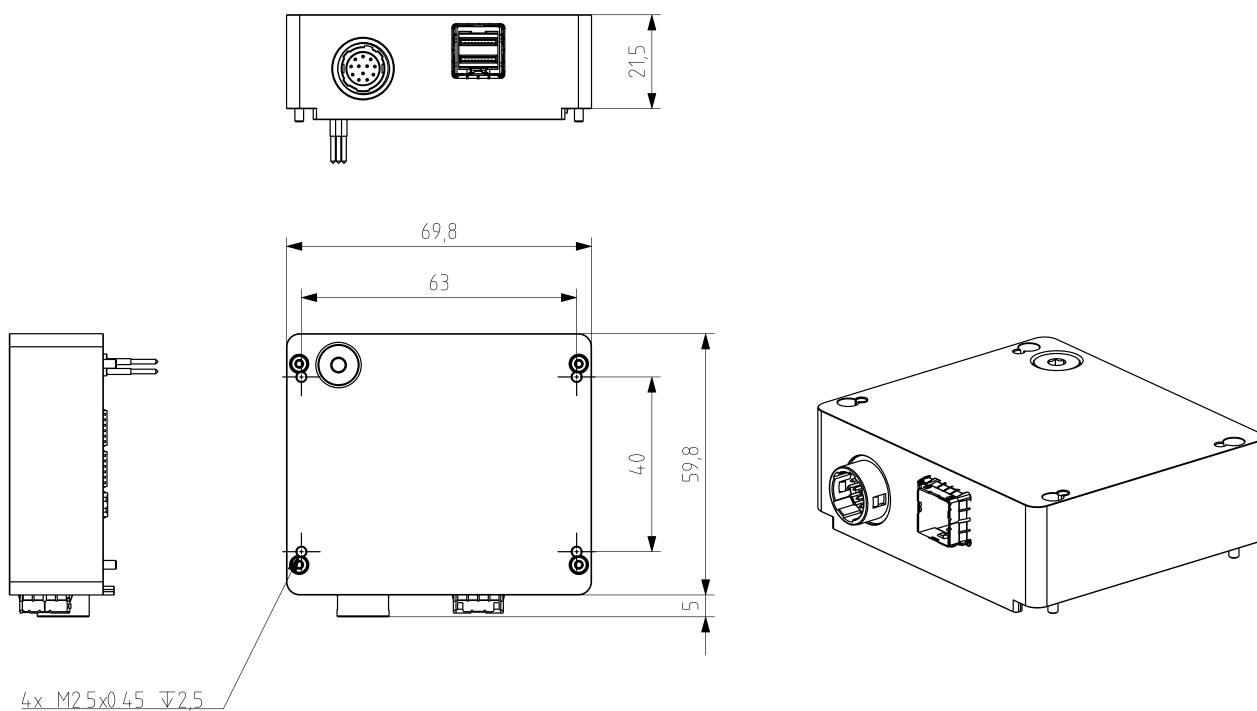


Figure 2: Dimensional drawing

Width [W]	Height [H]	Depth [D]	Mass [M]	Material and technology
69.8 mm	59.8 mm	21.5 mm	122.9 g	Machined Aluminum alloy

Table 1: Parameters and mass

3 Connectors

3.1 Location of connectors

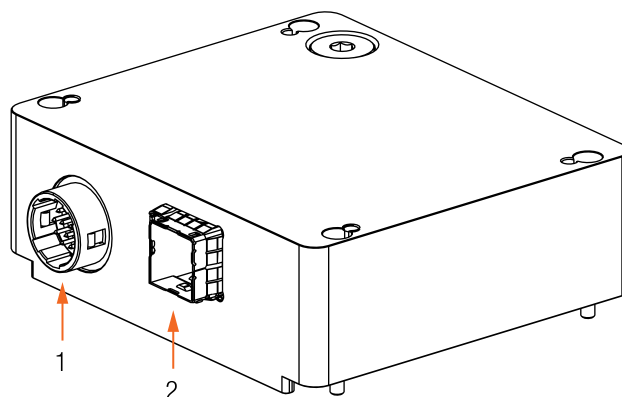


Figure 3: Connectors location

Num.	Connector
1	I/O & Power 12-pin Alysium 60-30-1112
2	1x port for SFF-8644

Table 2: Connectors description

3.2 Data interfaces

3.2.1 GPIO

Item	Value
Connector	ALYSIUM 60-30-1112
Signal	Digital Input and Output interface type
Mating connector	Alysium 60-41-1012, 60-41-1112, 60-01-1012, 60-01-1112, 60-03-1012, 60-03-1112

Table 3: IO connector description

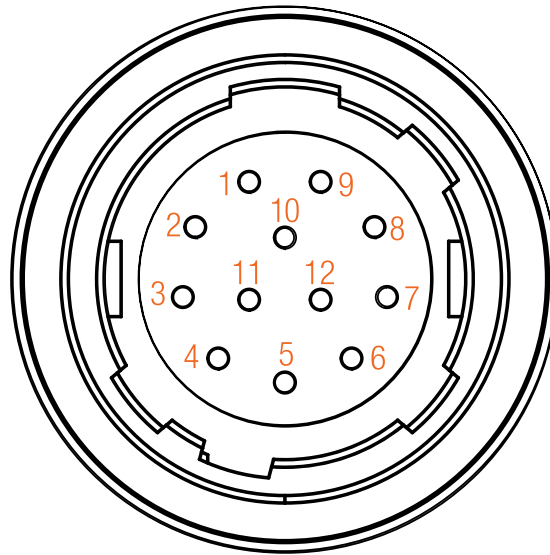


Figure 4: IO connector pinout

Pin	Name	Signal	Technical description
1	IN2	Opto-isolated Input 2	(<0.8 Low; 4-24 High)
2	IN1	Opto-isolated Input 1	(<0.8 Low; 4-24 High)
3	OUT2	Opto-isolated Output 2	Open collector
4	OUT1	Opto-isolated Output 1	Open collector
5	AUX PWR	Power supply input	12-24 V
6	GND	External grounds for power and non-isolated I/O	-
7	INOUT1	Non-isolated I/O	LVTTL(3.3, 50 μ A)
8	INOUT3	Non-isolated I/O	LVTTL(3.3, 50 μ A)
9	INOUT2	Non-isolated I/O	LVTTL(3.3, 50 μ A)
10	IN GND	Ground for Opto-Isolated Inputs (IN1, IN2)	-
11	OUT GND	Ground for Opto-Isolated Out (OUT1, OUT2)	-
12	INOUT4	Non-isolated I/O	LVTTL(3.3, 50 μ A)

Table 4: IO pin assigment

4 Quickstart guide

4.1 Hardware setup

4.1.1 Essential components

NOTE: It is important that the power is turned off when inserting/detaching the cable. General ESD precautions need to be applied. Failing this requirement may lead to camera damage.

- host PC with supported SFF host adapter card (e.g. Ximea HA-2P-X4G3-SFF-X4G3) inside
- SFF-8644 fiber optic cable (e.g. Ximea CBL-SFF-X4G3-10M0)
- Power cable CBL-MT-PWR-SYNC-3M0
- any xiX camera equipped with ADPT-MX-X4G3-FF-X4G3-SFF adapter

4.1.2 Connecting the components

- Step 1.** Make sure the DIP switches on the host adapter card are in position for x4 ports
- Step 2.** Connect SFF-8644 fiber optic cable to the camera adapter ADPT-MX-X4G3-FF-X4G3-SFF
- Step 3.** Connect the cable from the port on the host adapter to the port on the HA-2P-X4G3-SFF-X4G3
- Step 4.** Connect CBL-MT-PWR-SYNC-3M0 to the ADPT-MX-X4G3-FF-X4G3-SFF

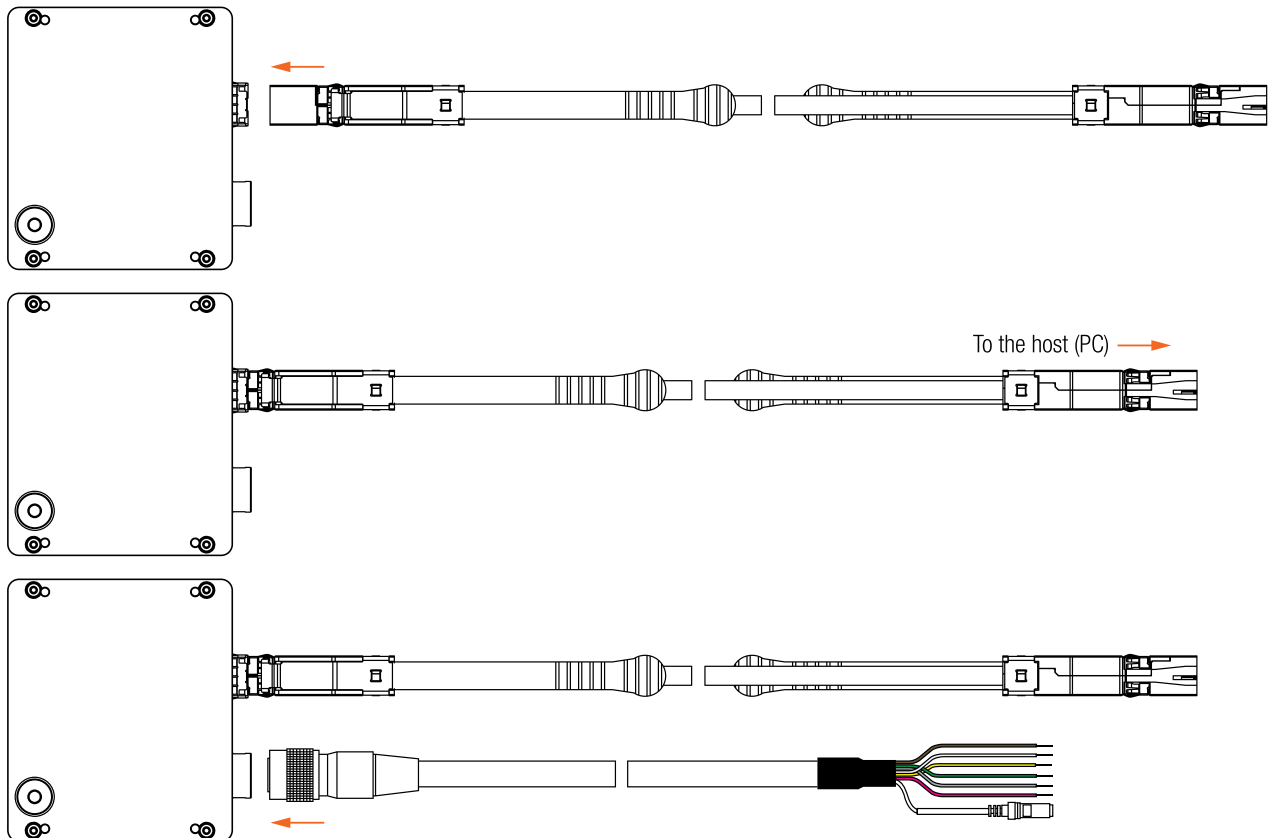


Figure 5: Connecting steps

For more information about ADPT-MX-X4G3-FF-X4G3-SFF please contact: sales@ximea.com.

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