

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

XIMEA Accessories •
Technical Manual •
Version v250513 •

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

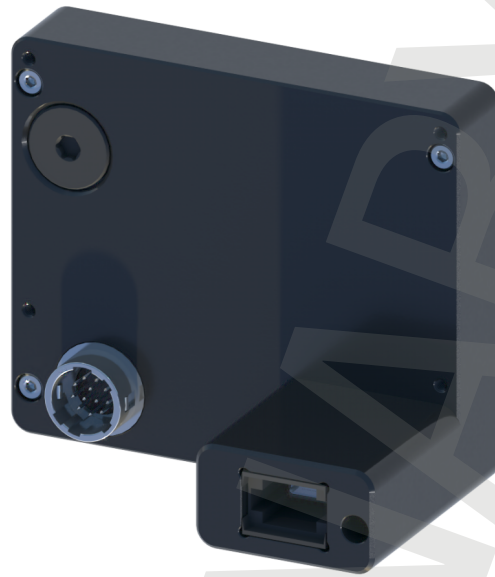


Figure 1: isometric view of ADPT-MX-X4G3-FF-X4G3-MTP

- Back part attachment to connect XIMEA FireFly cameras to MTP cable
- Converts 1x PCIe Gen3 x4 camera
- Copper FireFly connector from camera turns to fiber optic MTP cable
- Offers Power and IO connectors for synchronization and triggering
- Suitable for cameras from: **xiX family**

2 Dimensional drawings

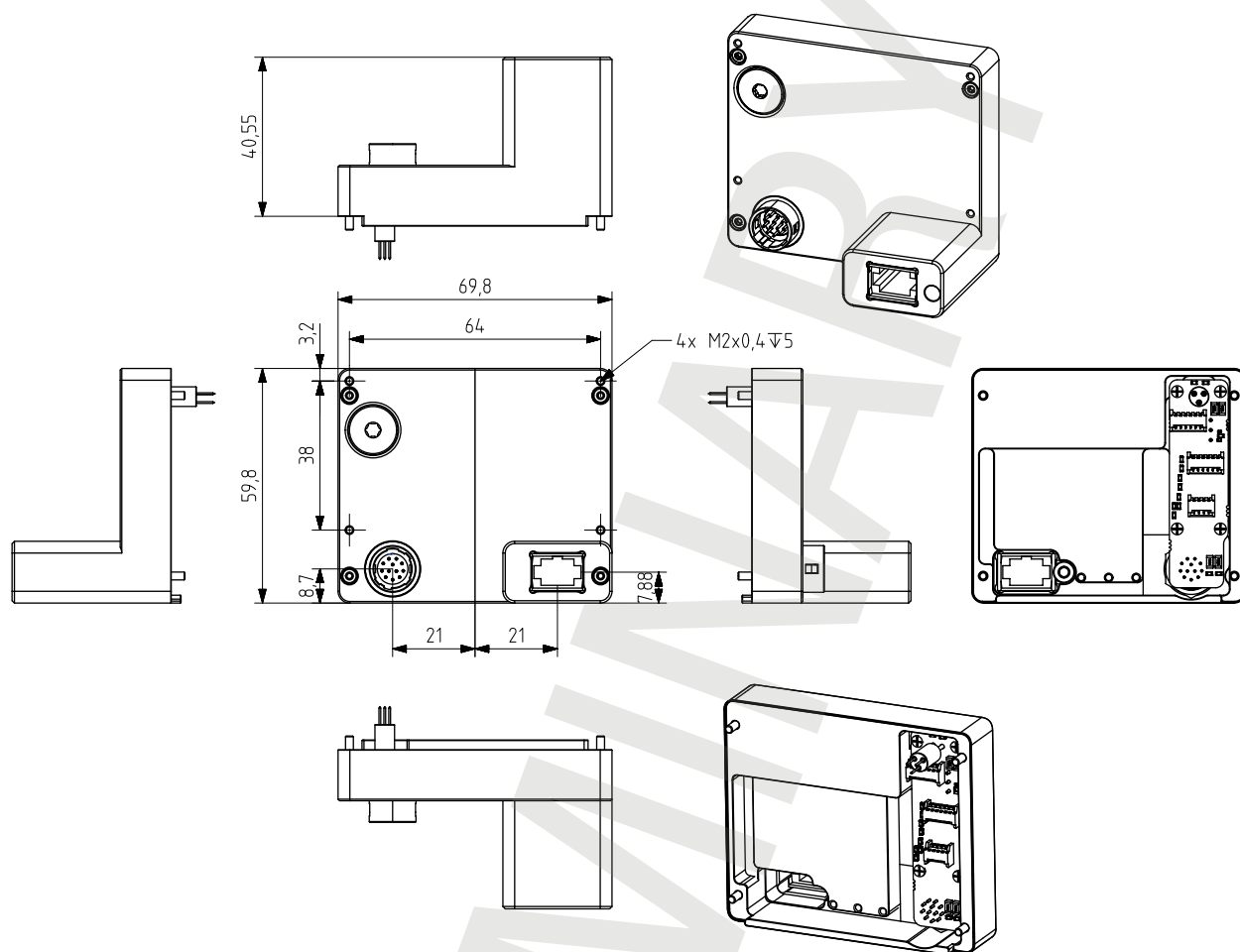


Figure 2: dimensional drawing

Width [W]	Height [H]	Depth [D]	Mass [M]	Material and technology	Cooling options
69.8 mm	59.8 mm	40.55 mm	154 g ¹	Machined Aluminum alloy	air / water cooled heatsink

¹This weight is for mainbody

Table 1: parameters

3 Connectors

3.1 Location of connectors

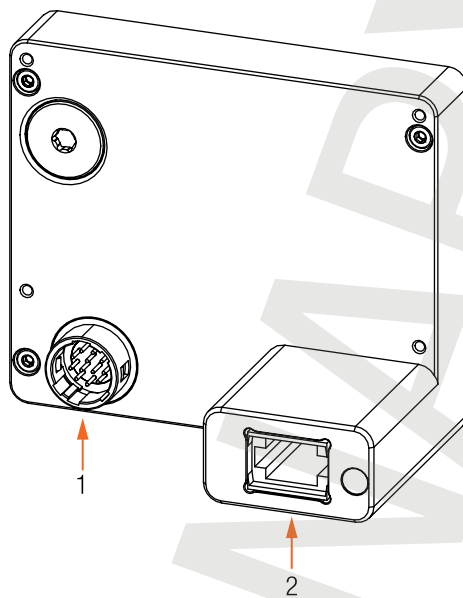


Figure 3: connectors location

num.	connector
1	IO connector
2	MTP optical connector

Table 2: connectors location

3.2 Data interfaces

3.2.1 GPIO

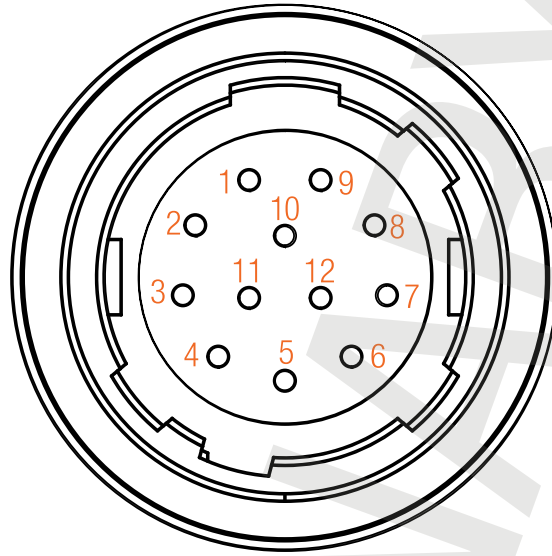


Figure 4: IO connector

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 3: pin assigment

4 Usages

4.1 Mounting points

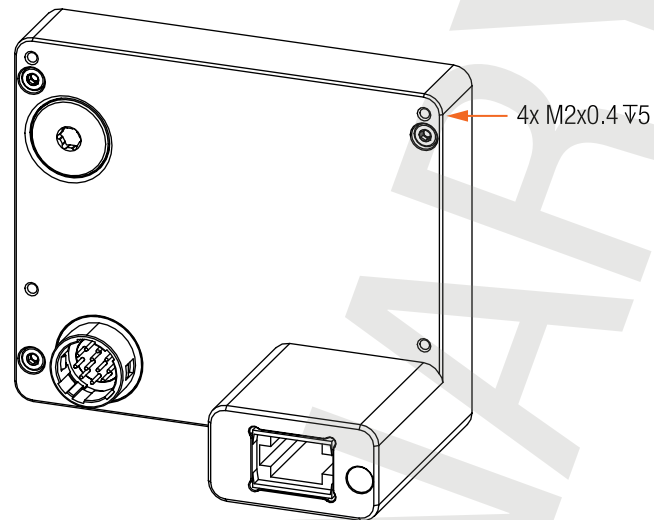


Figure 5: mounting points

5 Additional information

5.1 Cooling possibilities

Back part attachment is compatible with ADPT-MX-MTP-FAN-COOLER or ADPT-MX-MTP-WAT-COOLER.

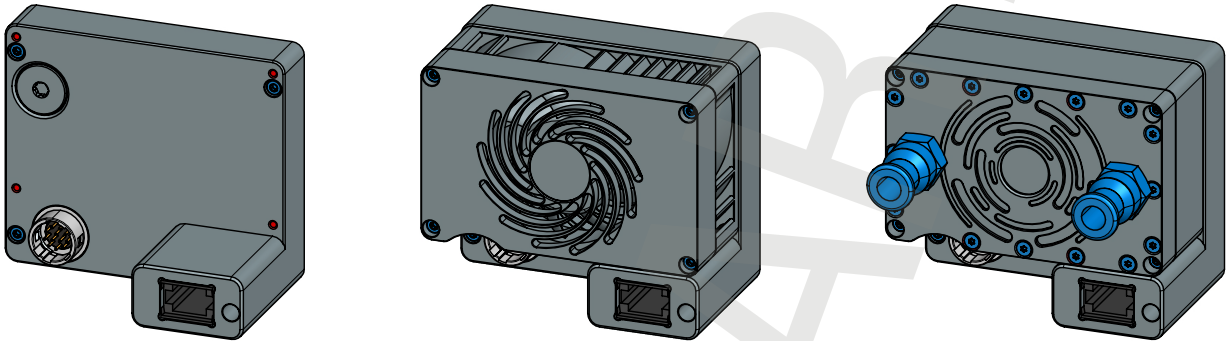


Figure 6: adapter cooling options

To attach or detach the fan module, you will need four M2x0.4 screws.

5.1.1 ADPT-MX-MTP-WAT-COOLER connection

Please refer to the pictures and steps below for the correct connection of the water cooler.

Ring inserting

The insert ring is designed to prevent deformation of the tube. A soft tube can be connected to the Fitting.

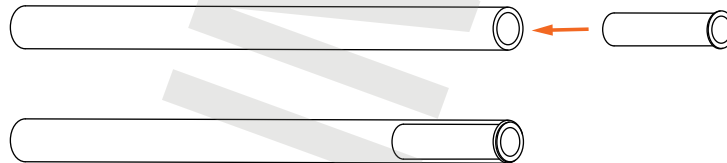


Figure 7: inserting the ring into the tube

Tube insertion

Insert the tube into the Push-In Fitting until it reaches the end. The collet will secure the tube automatically, while the elastic sleeve creates a seal around it.

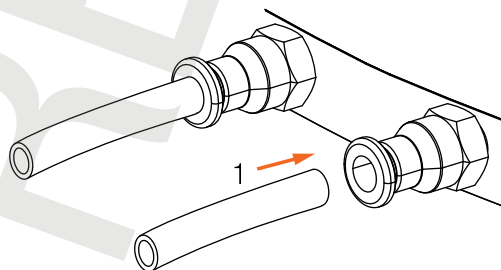


Figure 8: tube insertion

Tube disconnection

To disconnect the tube, simply push the collet. Ensure that the water supply is halted before disconnecting the tube.

- Step 1.** Push the collet.
- Step 2.** Pull the tube out.

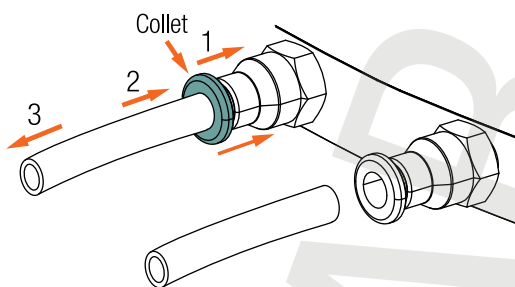


Figure 9: tube disconnection

6 Quickstart guide

6.1 Hardware setup

6.1.1 Essential components

- camera with adapter
- host PC
- optical MTP cable
- CBL-MT-PWR-SYNC-3M0

6.1.2 Connecting the components

- Step 1.** Connect optical MTP cable (CBL-PCUO-MTP-cable) to adapter (ADPT-MX-X4G3-FF-X4G3-MTP)
- Step 2.** Connect optical MTP cable (CBL-PCUO-MTP-cable) to PC
- Step 3.** Connect power/sync cable (CBL-MT-PWR-SYNC-3M0) to adapter

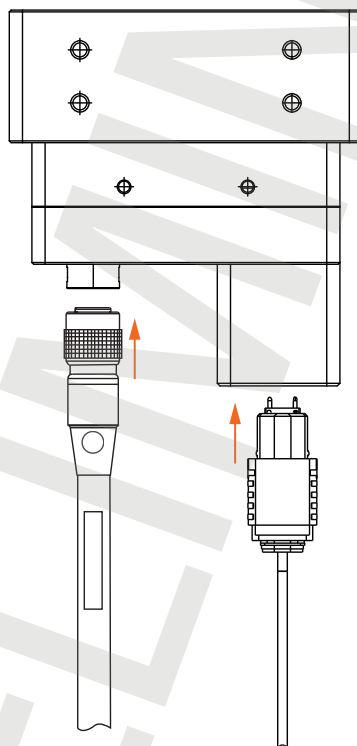


Figure 10: connection steps

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

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