

- **ADPT-MX-X4G3-FF-M2**
Adapter board

XIMEA Accessories ●
 Technical Manual ●
 Version v250804 ●

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

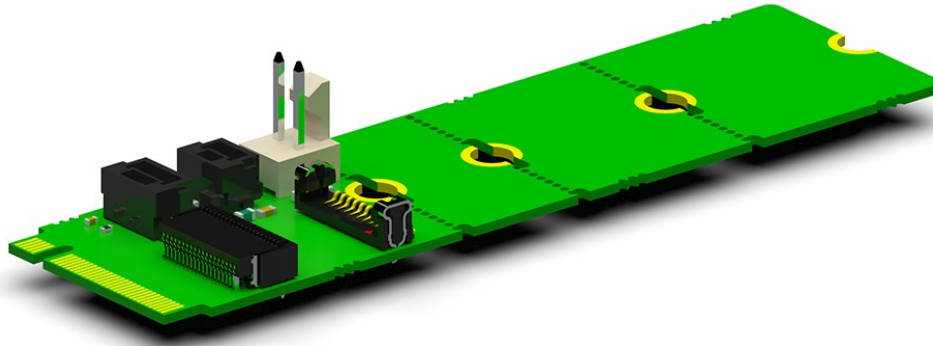


Figure 1: Isometric view of the adapter

A PCIe M.2 adapter designed for X4 Gen. 3 with a FireFly connector supports copper cables. This adapter facilitates the connection of a xiX X4 FireFly camera (X4G2 or X4G3 target) with a FireFly connector to an M.2 slot on a host system. Additionally, the adapter can be shortened by removing specific sections of the board.

2 Dimensional drawings

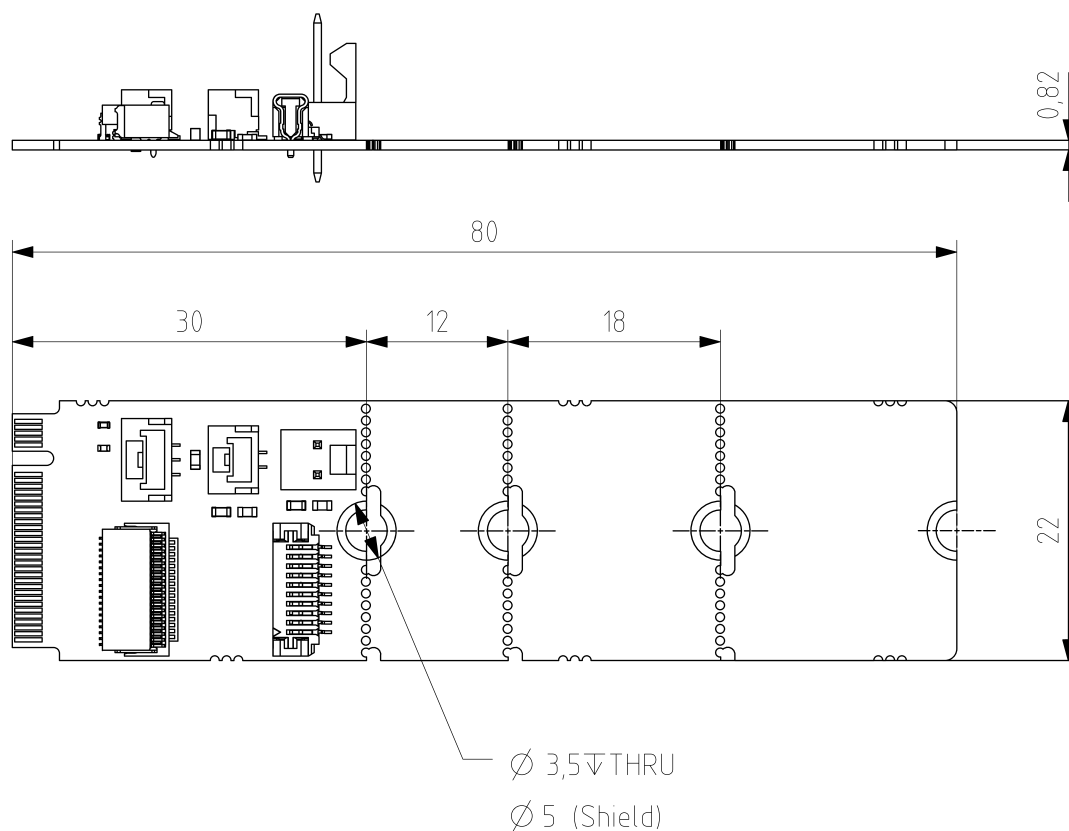


Figure 2: Dimensional drawing of ADPT-MX-X4G3-FF-M2

Width [W]	Height [H]	Depth [D]	Mass [M]	Material and technology
22 mm	0.82 mm	30 to 80 mm	14 g	FR4

Table 1: Parameters and mass

3 Connectors

3.1 Location of connectors

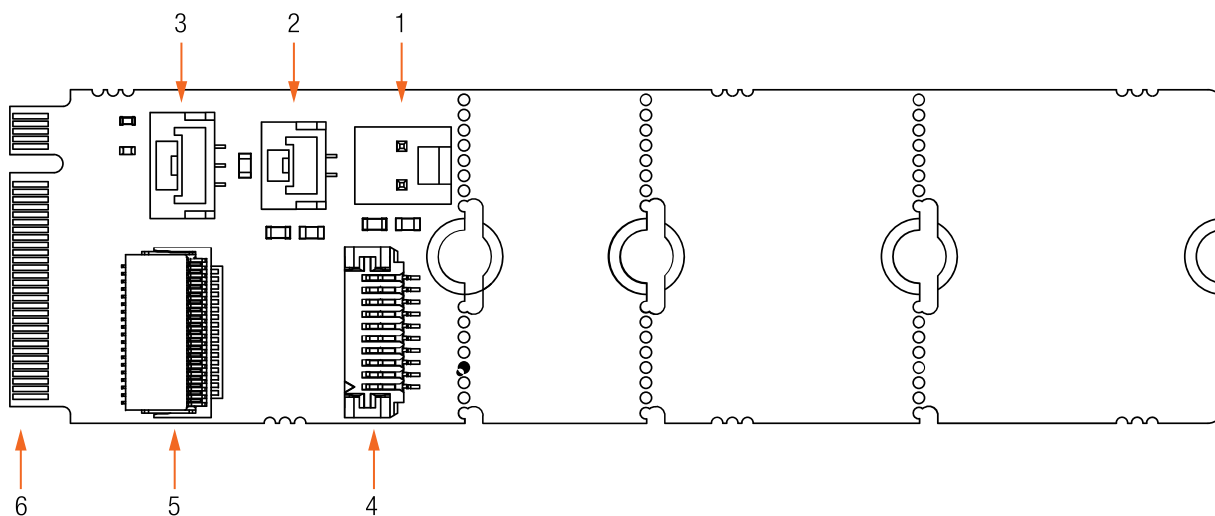


Figure 3: ADPT-MX-X4G3-FF-M2 location of connectors

num.	connector
1	Power - HEADER 1x2 Polarized
2	Power - BM02B
3	IO - BM03B
4	Samtec UCC8-010-1-H-S-1-A
5	Samtec UEC5-019-1-H-D-RA-1-A
6	M.2

Table 2: ADPT-MX-X4G3-FF-M2 connectors description

3.2 HEADER 1x2 Polarized

Pin	Signal	Description
1	VCC_IN	Power
2	GND	Ground return

Table 3: HEADER 1x2 polarized pin assignment

3.3 BM02B

Pin	Signal	Description
1	VCC_IN	Power
2	GND	Ground return

Table 4: BM02B pin assignment

3.4 BM03B / GPIO

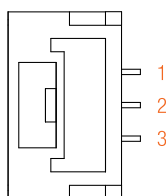


Figure 4: BM03B pinout

Pin	Signal	Description
1	ISO_GPI	Opto-isolated input 1
2	ISO_GND	(common) Isolated Ground for the IO subsystem
3	ISO_GPO	Opto-isolated output 1

Table 5: BM03B pin assignment

4 Quickstart guide

4.1 Hardware setup

4.1.1 Essential components

- Host PC with M.2 PCIe slot (Spread Spectrum Clock operation needs to be disabled)
- Any ECUE cable (e.g. CBL-ECUE-12-015-T1-FF-011)
- Any xiX camera equipped with FireFly connector

4.1.2 Connecting the components

- Step 1.** Deploy the host adapter to the turned-off PC and ensure the PC is also unplugged from the power source
- Step 2.** Connect an FF cable to the FF port on the adapter
- Step 3.** Connect an FF cable to the turned-off camera
- Step 4.** Power up the connected device
- Step 5.** Power up the PC

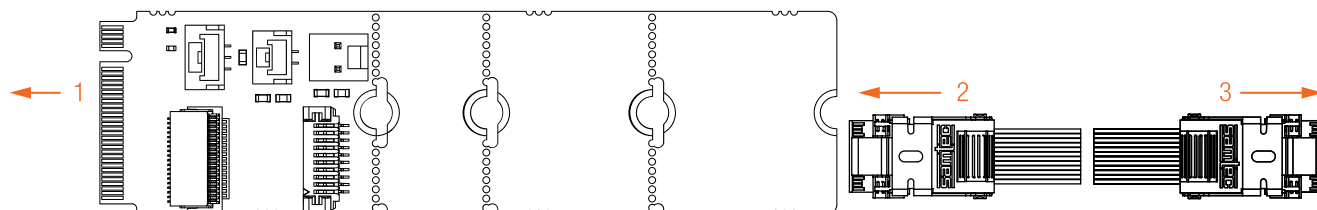


Figure 5: Connecting steps

For more information about ADPT-MX-X4G3-FF-M2 please contact: sales@ximea.com.

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