



Vision Stick™

FS-M2X4GMSL2

4x GMSL2 Camera-to-PCIe Bridge Card featuring AMD's Integrated ISP

Fidus — With over 20 years of experience, we know how to transform ideas, visions, and concepts into exceptional products. Our expertise lies in solving complex challenges and delivering reliable solutions within dynamic environments and tight deadlines. We apply our industry knowledge and leverage the talent of our team to ensure your product meets expectations — before it ever leaves the building.

No exceptions.



FIDUS AND AMD: A TRUSTED PARTNERSHIP

We've teamed up with AMD to co-develop a compact and powerful M.2 card that enables vision-based edge computing by bridging up to four (4) GMSL2 cameras to AMD Ryzen™ x86 processors.

SIMPLY VISION-ENABLED

Fidus developed the Vision Stick to accelerate multi-camera applications in automotive, industrial, and edge-AI markets. With its compact M.2 form factor and integrated FPGA (AMD Artix® UltraScale+™), this bridge card delivers low-latency, high-bandwidth image data directly into the processor over PCIe, eliminating USB or Ethernet constraints. AMD's integrated mini-ISP (Image Signal Processor) enhances camera feeds in real-time — unlocking smarter edge performance.

Whether you're building advanced driver assistance systems (ADAS), factory inspection platforms, or AI vision edge nodes, this bridge card makes multi-camera integration easy, fast, and reliable.

APPLICATIONS*

- **Drive It.** Interface up to four GMSL2 automotive-grade cameras to enable the development of your next Ryzen-powered platform.
- **Inspect It.** Enable synchronized video acquisition for industrial machine vision or robotics.
- **Embed It.** Drop into any edge computing system with PCIe M.2 support to enable real-time video input.
- **Prototype It.** Perfect for developers and research teams working with camera-based analytics.
- **Scale It.** Use in production environments where thermal efficiency, form factor, and performance matter.

SPECIFICATIONS

| CATEGORY | SPECIFICATION |
|--------------------------|---|
| Form Factor | M.2 2280 (80mm x 22mm), M-Key |
| Camera Interfaces | 4x GMSL2, AMC4 miniature coaxial connectors. +12V@600mA maximum/camera PoC. |
| Host Interface | PCIe Gen3 x4 |
| FPGA | AMD Artix UltraScale+ (XCAU7P, -2 speed grade) |
| Cooling | Passive heatsink included. Air-flow recommended to achieve full operating temp. range. |
| Op. Temp. Range | TBC. <i>Industrial Grade components are used. Not designed to be integrated 'as-is' in automobiles.</i> |
| Reference Design | Linux-based GUI, AMD FPGA code, and source-ready Fidus software |

*Not designed for in-car use or use in any safety-related application.

WHAT'S IN THE BOX



| QTY | ITEM |
|-----|---|
| 1 | M.2 2280 card featuring Artix US+ w/ heatsink |
| 1 | AMC4-to-FAKRA adapter cable, 0.15m |
| 1 | JTAG adapter, HD connector to AMD 14-pin 2x7 |
| 1 | Power cable, 1m, 1x2 latching connector to unterminated |
| 1 | PDF Documentation (User Manual & Schematic) (Downloadable) |
| 1 | Reference Software + FPGA Code (Compiled & Source) (Downloadable) |

Optional Add-ons:

- Additional AMC4-to-FAKRA cables
- PCIe power-to-header adapter
- GMSL2 cameras

SALES AND SUPPORT

For additional information, questions, or a request for quotation, visit: www.fidus.com

CUSTOMIZE YOUR VISION STICK

Speak with our Design Services team to tailor this platform to your specific application: design@fidus.com

20+

years experience

Collaborating with smart teams is what fuels us every day.

4000+

successful projects

Your unique challenges are our obsession.

400+

customers

Extending your team with our expertise brings designs to market faster.

95%

repeat customers

Customers love to work with us, again and again.

ABOUT FIDUS

Fidus Systems, founded in 2001, specializes in leading-edge electronic product development with offices in Ottawa and Waterloo, Ontario, and San Jose, California. Our hardware, software, FPGA, verification, wireless, mechanical, and signal integrity teams work to innovate, design, and deliver next-generation products for customers in emerging technology markets. Fueled by 20+ years' experience and creativity, along with our collaborative and process-driven approach, we turn complex challenges into well-designed solutions. And with over 400 customers and 4000+ completed projects, we have the expertise to be a seamless extension of your team, providing a clear focus and commitment to getting designs and prototypes to market faster. Once you start working with us, you'll trust us like one of your own. Our hallmark is transparency. Our guiding principle is first time right.

fidus
innovate • design • deliver

fidus.com

The Fidus name and the Fidus logo are trademarks of Fidus Systems Inc.
Other registered and unregistered trademarks are the property of their respective owners.

©Copyright 2026 Fidus Systems Incorporated. All rights reserved. Information subject to change without notice. 20260105