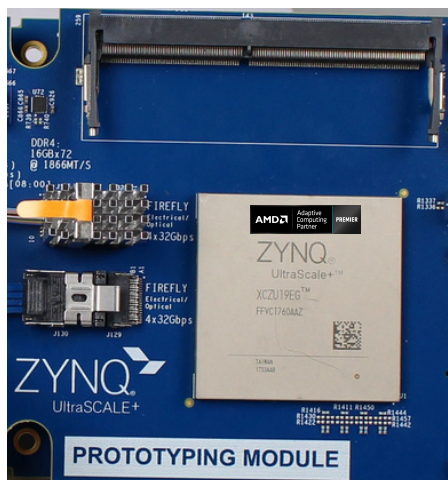


# MANTYSS-DP-32G

## Zynq UltraScale+ Development Board

Fidus – With more than 20 years of experience, we have learned how to transform ideas, visions and concepts into exceptional products. That’s because we are experienced at taking complex problems and delivering solutions against dynamic environments and tight deadlines. We apply our industry experience, and leverage the expertise of our people to make sure your product performs to your expectations before it goes out the door. No exceptions.



The Fidus Mantyss-DP-32G integrates a AMD® Zynq® UltraScale+™ with multiple Arm® processors, 32Gbps transceivers, and a collection of other real-world IO peripherals onto a development platform designed to speed your development and testing of complex RTL, software, and custom IP.

With complete access to the MPSoC, Arm Trace, and flexibility in I/O connections, Mantyss-DP provides an ideal platform to accelerate any project involving high speed protocols or Arm processors.

### FEATURES

#### AMD Zynq UltraScale+ ZU19EG MPSoC

- Quad-core Arm® Cortex-A53 platform with huge FPGA fabric (PL)
- -3 speed grade, verified to 32 Gbps operation

#### High Speed Links

- Samtec FireFly™ 1, 4 lanes x 32Gbps (GTY)
- Samtec FireFly 2, 4 lanes x 32Gbps (GTY)
- Samtec FireFly 3, 4 lanes x 16Gbps (GTH)
- Samtec FireFly 4, 4 lanes x 16Gbps (GTH)
- FMC+, 8 lanes x 32Gbps (GTY), 16 lanes x 16Gbps (GTH)

#### I/O Interfaces

- FMC+ (VITA 57.4), 4 x FireFly (optical or electrical), USB3.0
- GigE, microSD, SD, UART-over-USB serial port
- AMD JTAG, Arm JTAG, Arm Trace (MICTOR-38)
- MMCX clock IO, PMOD, Pushbutton/LED header

#### Memory

- SO-DIMM, 16GB x72, Dual Rank, resource PS
- SD slot, for memory or SD peripherals, PL resource
- USB3.0 port for peripherals or for additional storage

#### HSSIO Connections

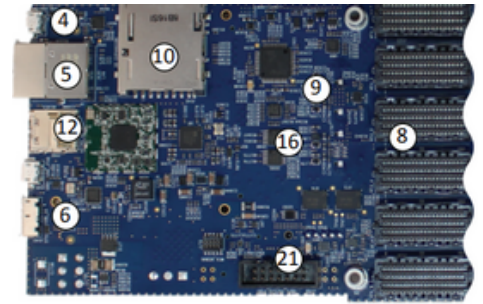
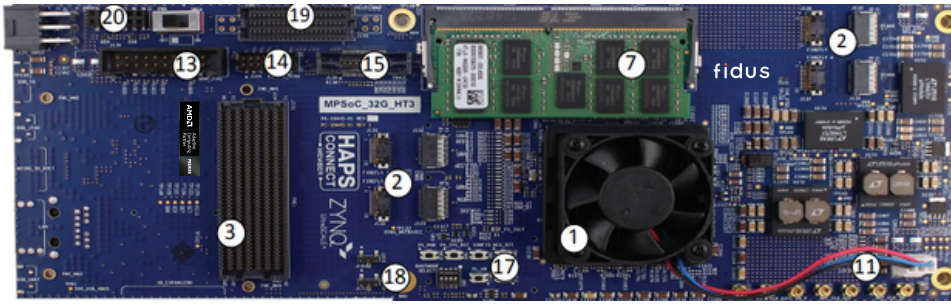
- 300 HSSIO and clocks accessible externally over six Samtec SEAM connectors

### BENEFITS

- Enables development of numerous high-speed links at rates up to 32Gbps
- Provides a quad-core Arm Cortex-A53 Processing Sub-system for software development that has easy access to the Programmable Logic.
- The ultimate in flexibility and convenience with support of common interfaces and debugging ports
- Quick-start your program with available example designs



## SOLUTION



Top Side

Bottom Side

- ① Zynq UltraScale+ MPSoC ZU19EG
- ② Samtec FireFly connectors (support for electrical and optical)
- ③ FMC+ (VITA 57.4 compatible)
- ④ UART-over-USB serial port
- ⑤ Gigabit Ethernet Port
- ⑥ USB 3.0, host or device configurable
- ⑦ DDR4 - SO-DIMM, 16GB x72, Dual Rank @1866MT/s on PS
- ⑧ HSSIO SEAM connectors x 6
- ⑨ Board Controller (control, power and thermal monitoring)
- ⑩ SD expansion port
- ⑪ MMCX clock inputs and outputs
- ⑫ microSD boot programming port
- ⑬ Arm JTAG port
- ⑭ AMD JTAG port
- ⑮ Arm trace port
- ⑯ Multi-clock generators and jitter attenuators
- ⑰ Local pushbuttons
- ⑱ Bootmode select
- ⑲ Additional SEAM connection
- ⑳ PMOD interface
- ㉑ Pushbutton / LED port

## IN THE BOX

- Mantyss-DP circuit card assembly
- microSD Memory Card
- Desktop Adapter
- Cables (ethernet, USB, power)
- Mounting screws

### Sales and Support

For additional information, questions or request for quotation, visit: [www.fidus.com](http://www.fidus.com)

### Customize your Mantyss-DP

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**20+**

years experience

Collaborating with smart teams is what fuels us every day.

**3,000+**

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 3000+ 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

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