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mantyss™
DEVELOPMENT PLATFORM 32G

The Fidus Mantyss-DP-32G integrates a Xilinx® 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

Xilinx 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
- Xilinx 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
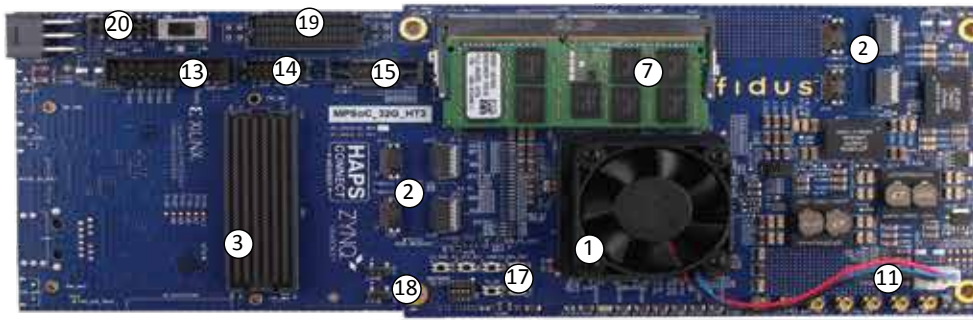- USB3.0 port for peripherals or for additional storage

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

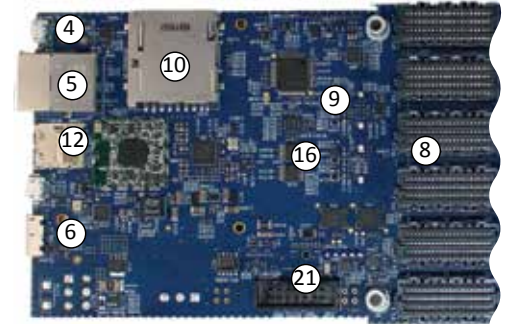- Quick-start your program with available **example designs**

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

XILINX®
ALLIANCE PROGRAM
PREMIER MEMBER

Solution

Top Side

Bottom Side

① Zynq UltraScale+ MPSoC ZU19EG
② Samtec FireFly connecters (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 Xilinx 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: fidus.com/products/mantyss-dp/

Customize your Mantyss-DP
For additional information, questions or request for quotation, visit: design@fidus.com

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 and signal integrity teams architect, design, and deliver next-generation products for clients in emerging technology markets. We build long-term relationships by consistently exceeding expectations.

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