

MimicTurbo™ GT FPGA PROTOTYPING CARD

ASIC Prototyping at the Desktop

The Corigine MimicTurbo GT Prototyping card simplifies FPGA based prototyping, enabling rapid desktop deployment and easy accessibility to engineers working on silicon verification and pre-silicon software development.



Corigine MimicTurbo GT Card

DEPLOYMENT EASE

The Corigine MimicTurbo GT card is designed for quick installation in a PCI Express system, delivering prototyping capability at the desktop thus speeding up software and silicon development and verification. The card is designed with the necessary interfaces and pre-built connectors that would enable the users to quickly deploy the hardware environment with the Xilinx® Virtex® UltraScale+™ FPGA XCVU19P. To further ease deployment the card can be configured as benchtop standalone platform as well.

PERFORMANCE

The Corigine MimicTurbo GT offers automated FPGA partitioning and interconnect while leveraging the high-speed Xilinx GT (GigaHertz Transceiver) I/O connection between multiple FPGAs to deliver multi-gigabits per second performance. The card provides GT pin muxing and automatic clock control, and features a sixteen-lane PCI Express interface along with DDR4 component memory for performance with single and multiple inter-connected MimicTurbo GT cards.

SCALABILITY

The Corigine MimicTurbo GT provides the utmost in modular upgradability, from the entry point of a single FPGA card with 48 million gates to multiple cards deployed in one or multiple PCI Express systems. With the state-of-the-art automated partitioning and the simple cabling interconnect, the cards can be configured to utilize multiple VU19P FPGAs, making the cards well suited for the prototyping of an enterprise's ASICs family of AI, Processor, Vision, Communication and other SOCs.



Corigine MimicTurbo GT

Features	Benefits
Pluggable quad small form-factor double density connector (QSFP-DD)	High throughput connection between cards and to the network for higher performance and faster test cycles
16-lane PCI Express® interface	Compatible with current and legacy PCI Express systems
DDR4 component memory	Sufficient memory for a variety of application needs
Automated partitioning	Eliminates manual partitioning workload, and automatically implements the GT pin-muxing
GT pin muxing	Provides a high-speed interconnect between FPGAs
Multiple Clock sources and control	Support designs involving multiple asynchronous clocks that are typical in ASIC designs
Multiple I/O interfaces	Offers flexibility to test a multitude of devices interfacing with the test system
FMC & FMC+ connectors	For instant compatibility with existing cards
Supports up to 48M ASIC gates	For supporting large designs and large IP subsystems
Support for standalone bench-use mode when in a PCI-E slot	Flexibility to run as a simple standalone for designs that do not require a PC to run an application
Multiple Boot Configuration options	Provides easier portability for the design system with multiple flexible boot options

Specifications:

- Virtex UltraScale+ XCVU19P
- Arm® SimpleLink™ MCUs
- 16Gb DDR4 SDRAM component memory
- 2Gb Quad SPI flash memory
- Multiple clock sources
- 64 GTY transceivers (16 Quads)
- QSFP-DD connectors
- PCIe 16-lane edge connector
- PCI Express endpoint connectivity
- Ethernet PHY SGMII interface with RJ-45
- Multiple boot/Configuration options



- VITA 57.4 FMC+ HSPC connector J31
- VITA 57.1 FMC HPC1 connector J32
- Dual USB-to-UART bridge
- PMOD 2x6 connectors
- USB JTAG interface
- I2C bus

The MimicTurbo GT card extends the Corigine EDA family that has been designed to close the gap between the software and hardware verification tools. For more info, please contact marketing@corigine.com.