



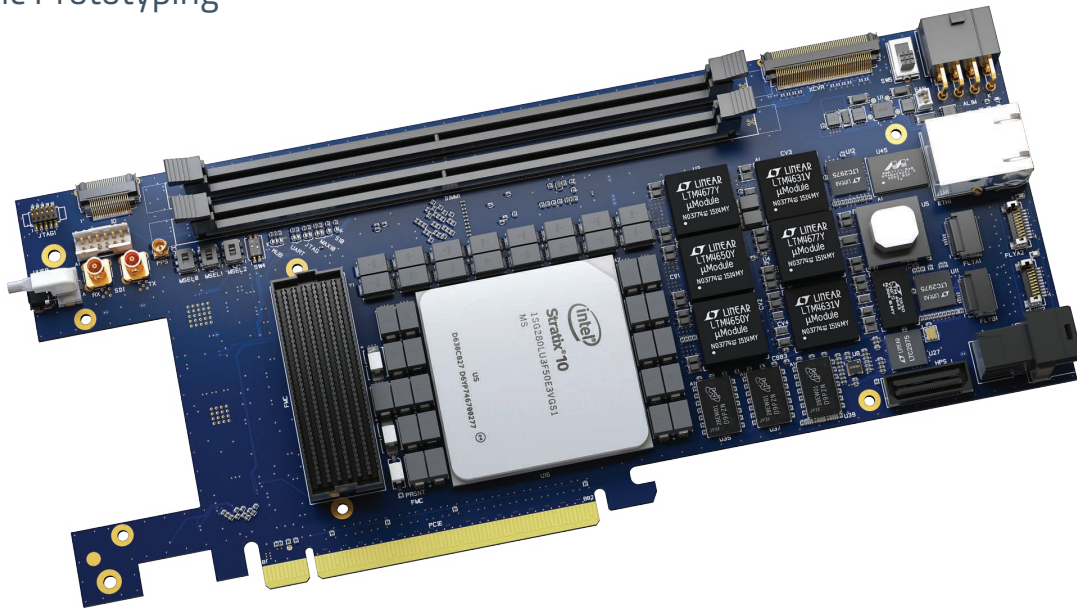
Instant-DevKit Stratix 10 FPGA FMC+ IDK

The Stratix 10 FPGA FMC+ Instant-Development Kit provides to developers the best Out-Of-The box experience, combining the Best-In Class compact hardware platform and the most efficient intuitive software environment.

Target markets:

High Performance Computing
IP & Asic Prototyping

Its unique install and GUI interface allows an immediate start, and its reference designs enable fast turn-around designs, shortening and securing the developments.



Kit Ordering information :

Development Kit / RXCS10X280LAF50-IDK00A (GX, ES version, L-Tile)

DevKitInvasion

ATTILA
Arria 10 FPGA FMC IDK

ALARIC
Arria 10 SoC FMC IDK

ACHILLES
Arria 10 SoC SoM IDK

SARGON
Stratix 10 FPGA FMC+ IDK



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SARGON Instant-DevKit

Stratix 10 FPGA FMC+ IDK

Featured Device

Stratix 10 GX or SX 2800 KLEs

- Intel Stratix 10 GX or SX 2800 KLEs, speed grade -2
- PCIe Gen3 x16, Gen4 x8 capable
- Board Management Controller (BMC) for monitoring, EPCQ and clock programming, IPMI features
- 1x FMC+ (VITA57.4) with 20 XCVR up to 28Gb/s, 4 XCVR up to 17.4Gb/s, 8 XCVR connected to the 2x Hard IP 100G transceivers blocks
- 2x banks DDR4 vertical RDIMM, 16-32GBytes capable each, x72bit, up to 2400MT/s
- 1x bank DDR4, bus x72, 8GBytes up to 2400MT/s (HPS bank mutual with FPGA)
- 2x FireFly SAMTEC quad connector (28Gb/s each XCVR)
 - 1 FireFly connected to 100G IP
- MiniSAS quad connector (1 HD SAS, 4 SATA HDD, NVMe interface capable)
- GPIO extension connector : 9 LVDS usable as 18 LVCMOS
- XCVR extension connector : 10 XCVR, 8 LVDS, Clock In&Out
- 48 dedicated HPS IO connector (daughter board for SX)
- 1x Ethernet SGMII interface (to FPGA), Marvel Phy 88E11

Board Programming

- L-tile and H-tile compatible
- Max10 USB Blaster on board, UART over USB interface
- 1x Nor Flash 1GB quad SPI FPGA AS configuration
- 1x Nor Flash 1GB for configuration mode ST8

Board Size

- Length : 254 mm (10 inches)
- Height : 111.15 mm (4.38 inches) / Standard Height PCIe
- Dual slot PCIe

Power & Environmental

- Power : Max 240W, delivered with active heat-sink
- Environmental : 0°C / +70°C

Clock Circuitry

- Programmable PLL oscillator (Si5341), output clocks frequency between 0.0001 MHz to 750 MHz.
- High precision oscillator, clock accuracy 20MHz- 0.01ppm for Precision Time Protocol (PTP) IEEE 1588.
- One coax connector for PPS (pulse per second)

Kit Content

- Full height two slots PCIe board with active heat-sink
- Power adapter (US, UK, EU, JP) and user cables
- FMC+ Loop back board
- Board Support Package (Starter Guide, Reference Manual, Test Designs)
- REFLEX CES innovative software interface (GUI) on USB Key/Windows64 with Test Designs
- One year Quartus Prime Pro DKE / OpenCL SDK licence

