



Intel Stratix10 Sx (H-Tile) Dual FMC+ Development Platform

Product Brief (HTK-S10Sx-DFMCP)

Features

- Intel S10 SX SoC FPGA (with H-Tile Transceivers)
- Signal Processing and wireless communications centric design
- Dual FMC plus mezzanine slots for application scalability and flexibility
- Compact 8.15" x 8.4" module
- Complete FPGA support package available
- Rich suite of Ethernet IP cores available
- Available as integrated 19" half width, 1U, 300mm deep standalone SoC FPGA device



Highly Integrated, Scalable, Feature Rich, Signal processing centric development platform

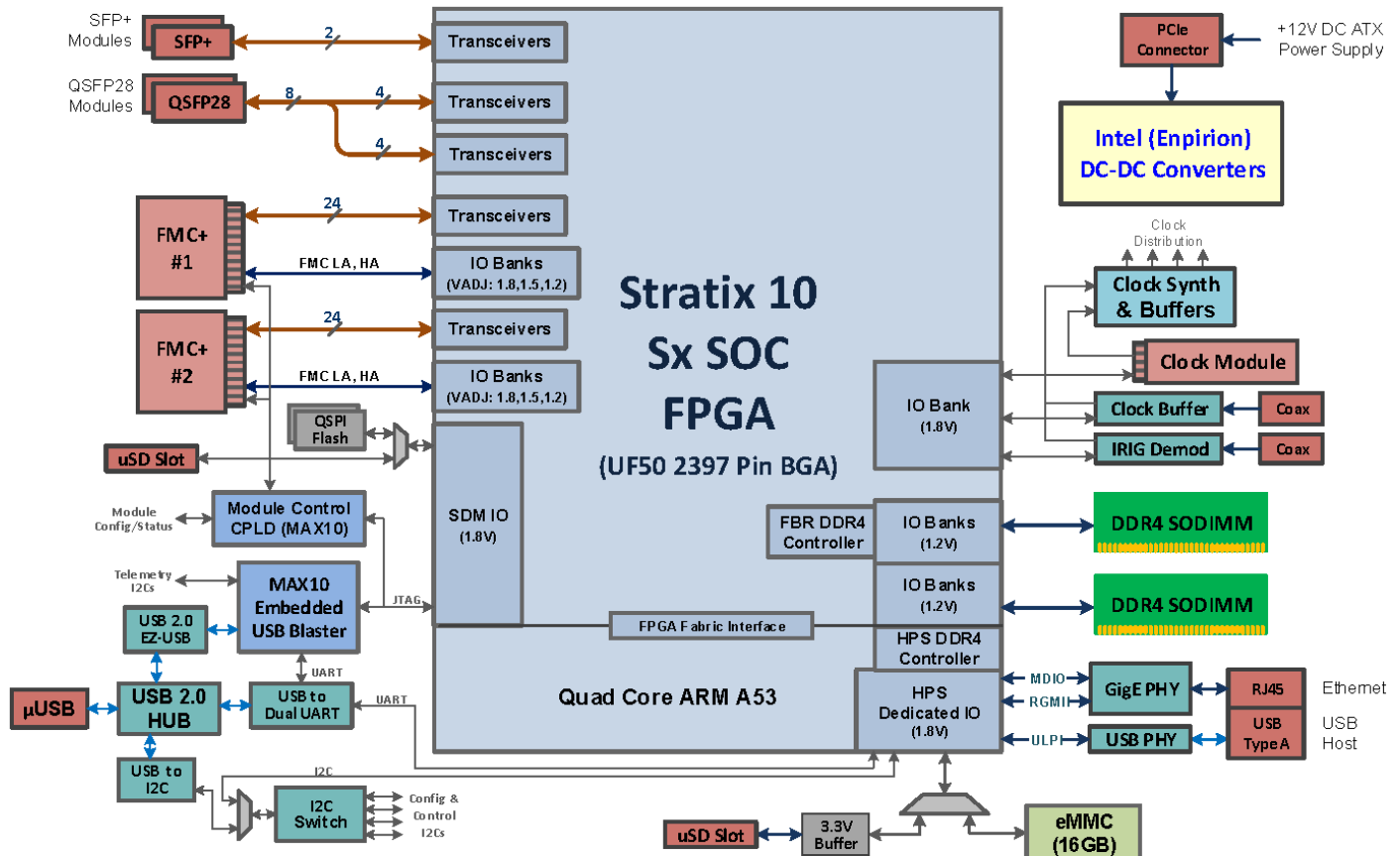
Applications

- Rapid prototyping
- Volume production with Stratix 10 SX SoC FPGA
- OEM and white label devices and platforms

Target Markets

- Wideband Wireless and RF Communications
- 5G wireless technology development
- Signal Processing / Image Processing
- 10G/25G/40G/100G networked signal processing devices and platforms

The Intel Stratix 10 SX (up to Sx2800) SoC FPGA based development platform for signal processing and communication centric designs with dual FMC+ mezzanine slots, dual QSFP28 and dual SFP+ front panel interfaces. Integrated quad-core 64-bit A-53 ARM processor complex with network, control and storage peripherals.



Front Panel Interfaces

- Dual FMC+ (Vita 57.4) mezzanine interfaces. All 34 LA diff-pairs, 24 HA diff-pairs and 24 Serdes lanes routed to FPGA. Backwards compatible with FMC (Vita 57.1) modules.
- Max VADJ of 1.8V on LA, HA signals; DIP switch selectable for 1.2V, 1.5V and 1.8V
- Dual QSPF28 ports for 2x100G, 2x40G, 8x25G and 8x10G data plane network interface
- Dual SFP+ ports for fabric 10G/1G control plane network interface. Configurable as COMe 10Gbps network interface with COMe host platform option.
- Micro-USB 2.0 control and configuration port with integrated USB hub for single cable access to integrated USB Blaster II, module management and serial debug consoles
- RJ45 GigE and USB2.0 host interface (with host processor option only)

Fabric Memory and SDM Configuration Interfaces

- Two 64-bit DDR4 SODIMM slots with dual-rank and dual-die support
- SDM configuration options for QSPI, microSD and JTAG
- Dual 512Mbit Micron QSPI Flash memory device boot
- MicroSD slot for FPGA configuration through microSD plug-in memory card

HPS Memory Interfaces

- One 64-bit DDR4 SODIMM slot with dual-rank and dual-die support
- On-board slot for uSD memory card
- On-board 16Gbyte eMMC storage device

Power Tree

- All Intel (Enpirion) power tree conforming to Intel's recommended Stratix10
- ATX power supply (PCIe) 12V power connector
- Remote power management through USB console

For sales or more information:



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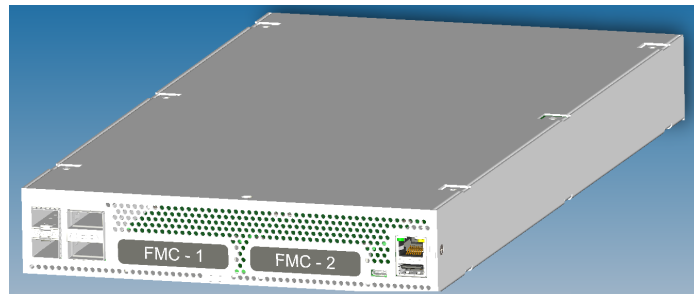
Email: sales@hiteksys.com

Clock and Synchronization functions

- 5–200MHz external reference clock input
- 1PPS or IRIG-A/B/G (DCLS and AM) input
- Flexible clocking tree with Silicon lab Si5345 clock de-jitter and synthesizer
- Flexible FMC+ clock routing and configuration
- Support for application specific clocking including GPS interface through clock mezzanine module

On-board Development and Debug Support

- Integrated USB Blaster II
- Remote module management and control for power, boot and reconfiguration through USB interface
- Module clock configuration management through USB interface
- Temperature monitor and power modules telemetry through USB interface
- Automatic over-temp shut down
- Multiple on-board and front panel diagnostic and status LED's



Low cost, quick turnaround customizations available!

Links

<http://www.hiteksys.com/fpga-soc-development-boards>

<https://hiteksys.com/fpga-soc-development-boards/stratix-10-h-tile>

Product Ordering Codes

PDFMC-S10Gx-02-01: SG280, -1 H-Tile XVRs, -2 fabric, E temp, VID with 2 x 8GB SODIMMs

Contact Sales for other options