



FPGA Appliances

Product Brief (ADFCM-S10L-01-06-01)

Features

- Rack mountable 1U - Can mount one or two units side by side in 1U rack space.
- Customizable front panel to support any FMC/ FMC+ based application
 - Power Supply Specifications:
 - 100 to 240V, 50/60 Hz
 - Max 180W
- Optional redundant supplies
- Dimensions: 1U, 1/2 Width, 18" deep
- 3x fans with speed control based on FPGA die temperature
- Stratix10 Dual FMC+ development Platform based appliance (Click below for more info on)
 - [Stratix 10 Dual FMC+ \(L-Tile\)](#)
 - [Stratix 10 Dual FMC+ \(H-Tile\)](#)
- Type10 COMe or Stratix10 Sx ARM host processor support

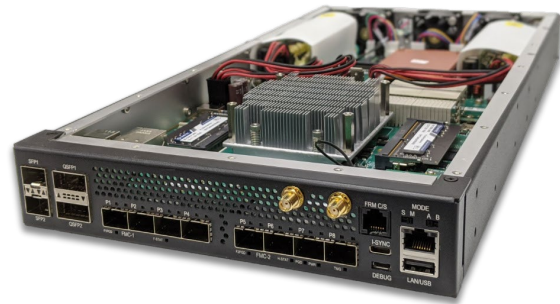
Stratix 10 FPGA appliance provides following features based on Type10 COMe or S10 Sx host selection.

Type10 COMe Host:

- For applications with higher CPU/ storage requirements (optional)
- Optional Type10 COMe host support for applications with higher CPU/storage requirements
- 3x front panel GiGE ports
- 1x front panel USB2.0 host interface
- Front panel COMe serial port
- Gen2 x1 PCIe host interface to Stratix10 FPGA
- M.2 SATA connector for storage
- x1 mPCIe slot
- USB blaster II interface for S10 FPGA
- UART/I2C interfaces for module control/status

S10 Sx Host:

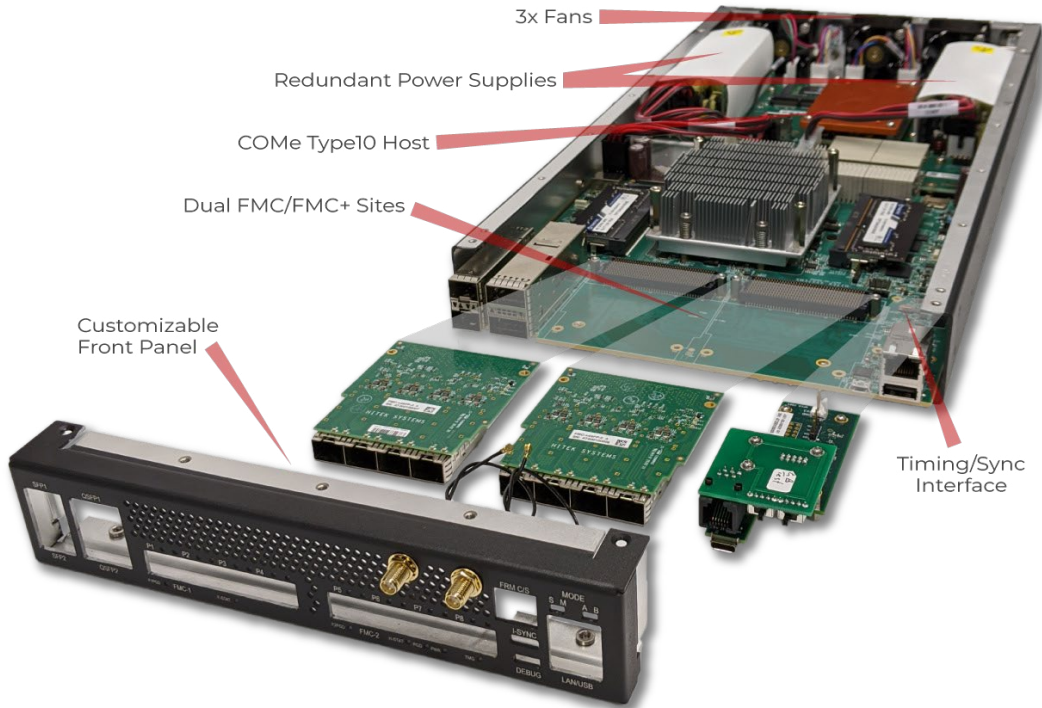
- Integrated quad core 64-bit ARM Cortex-A53 processor
- 1x front panel GiGE port
- 1x front panel USB2.0 host interface
- 16GB eMMC flash
- 64-bit dual-rank, dual-die DDR4 SODIMM slot
- 1x front panel Micro-USB interface for USB BlasterII.
- UART/I2C interfaces for module control/status



With today's fast paced development cycles and shorter time to market requirements system designers and engineers are constantly looking for reusable and custom of the shelf (COTS) hardware solutions and FPGA IP cores to fulfill their needs and be competitive. These off the shelf hardware solutions are often not flexible enough or customizable to meet the growing customer requirements. Stratix 10 Dual FMC+ FPGA 1U (half-width) appliance from Hitek Systems solves this problem by providing a complete and flexible hardware/ mechanical solution with benefits of an off the shelf hardware but also giving flexibility of a customer specific customizable solution. The dual FMC/FMC+ interfaces on the appliance combined with ability to customize the front panel and use of Intel's high performance 14nm Stratix 10 FPGA, provides flexibility of implementing a wide range of applications. All LA/HA Differential pairs and all 24 SERDES transceiver lanes are routed to Stratix 10 FPGA to allow implementation of any standard or custom SERDES protocol. In addition, the appliance also provides option of using the Stratix 10 SOC quad code ARM Cortex A-53 host processor or a COMe Type10 carrier host for applications requiring higher processing power. A complete and verified FPGA firmware/C API board support package (BSP) is also provided so customers can concentrate on their secret sauce with ease.

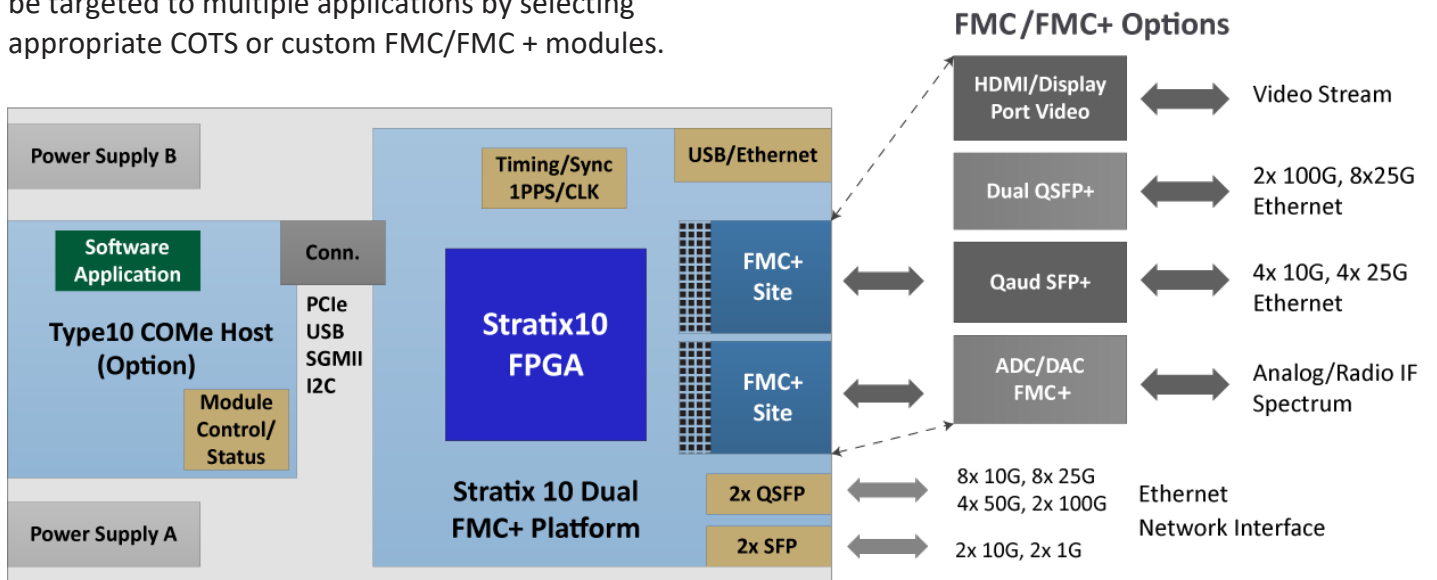
Target Applications

- Video Over Ethernet
- RF Radio Over Ethernet (ROE)
- Waveform Generator/Capture
- Ethernet Delay Emulator
- Ethernet Network Filtering
- Ethernet Network Monitor
- Encryption/Decryption Offload



Appliance Block Diagram

As shown in figure below, FPGA appliance can be targeted to multiple applications by selecting appropriate COTS or custom FMC/FMC + modules.



Links

<http://www.hiteksys.com/fpga-appliances>

Product Ordering Codes

(ADFMC-S10L-01-06-01)

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