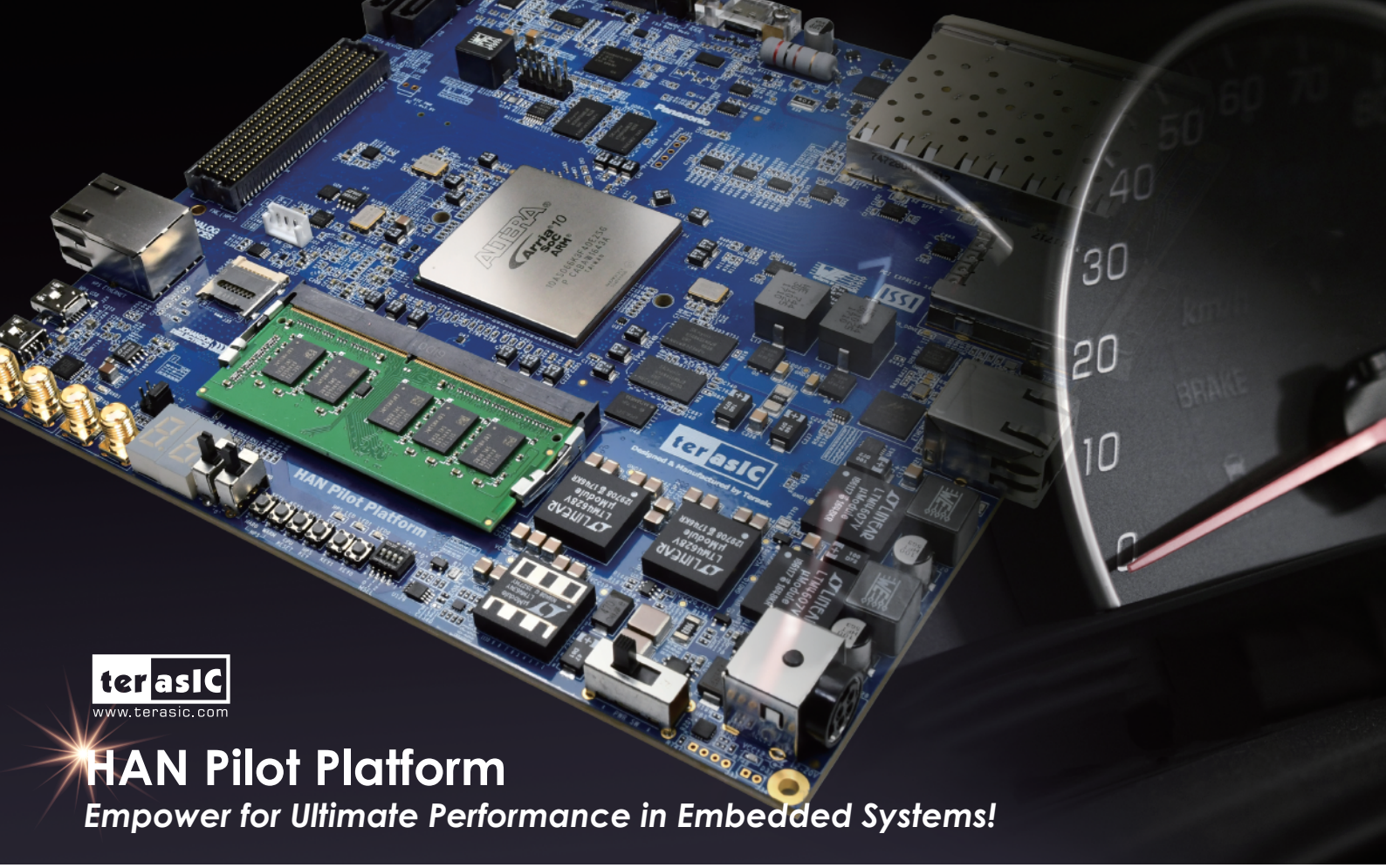

Introduction

Terasic's HAN Pilot Platform is a high-performance flagship development kit based on Intel Arria 10 SoC FPGAs. With the goal of "being the pilot platform for HPC, Automotive, and Networking applications (HAN)," the board is purpose built for performance-demanding industrial embedded applications.

The Arria 10 SoC on the board features a dual-core ARM Cortex-A9 MPCore Hard Processor System and up to 660K of low-power FPGA logic elements, while providing the reconfigurability and performance of an FPGA and flexibility and ease of development of a CPU. The board itself combines a number of high-end hardware interfaces such as high-capacity and high-bandwidth DDR4 SDRAM (up to 8GB), 10GbE SFP+ and PCIe x4 ports for communication, and USB Type-C and HDMI interfaces for video and data processing, FMC connectors for I/O expansion.

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With the rich hardware resource, HAN is the perfect platform for applications such as HPC & Analytics, Intelligent vision & Video processing, Automotive, Test & Measurement and Medical applications.

Target Application

- Data center acceleration
- Automotive
- Test & Measurement
- High frequency trading
- Avionics simulator
- AI and Deep Learning
- Medical

OpenCL™ Services

- Support OpenCL™ (HPC and SoC) board support package (BSP)

As Intel certified service provider for OpenCL services and development, Terasic also provides customized service to meet the exact needs of our clients.

Customized Services

Hardware and Software Solution

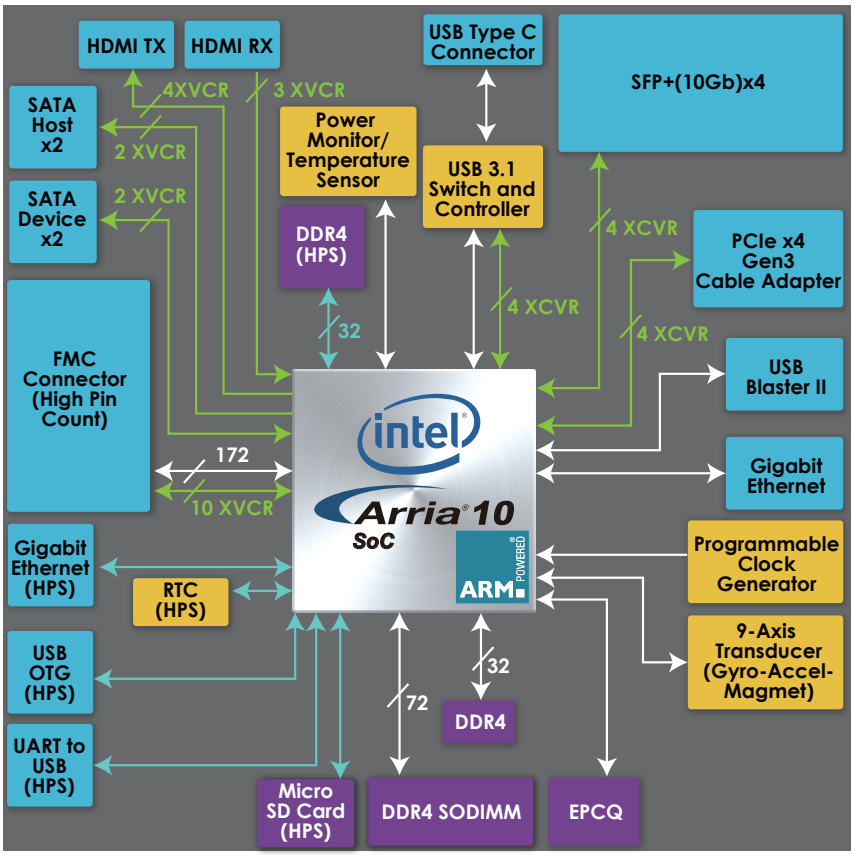
- Terasic has a strong design expertise in FPGA hardware and software.

- Terasic creates FPGA-based products to meet our clients' specific requirements. We excel at delivering ready-to-use and highly optimized systems. Terasic rugged FPGA systems have been deployed in various extreme environments, such as Wall Street's zero-downtime data center and 5G base station in desert.

Consultancy Services

- At Terasic, we offer assistance to our clients in aspects such as porting, optimization and benchmarking of applications executed on Terasic FPGA Boards. Our support includes software upgrade and OpenCL design services.

Block Diagram



Major Specs and Interfaces

- Arria 10 SoC FPGA with Dual-Core ARM Cortex A9 1.5GHz CPU and 660K FPGA logic elements
- Support DDR4 SO_DIMM socket (support ECC) and 1GB On-board DDR4 memory for FPGA, and 1GB On-board DDR4 memory for HPS.
- 4 SFP+ interface provides 40Gbps throuput
- USB Type-C Interface for DisplayPort TX and USB 3.0 (5Gbps) application
- High Pin Count FMC Connector and support adjustable VCCIO voltage
- Support HDMI / Ethernet / PCIe / SATA interface

Power and Thermals

- 80W TDP and 100W peak power
- 55 °C TLA