Flexibility counts

FPGAs have become more and more powerful over the last years, e.g. running at higher frequencies and offering more FPGA logic. Embedded multicore CPU subsystems allow more system flexibility by partitioning hardware and software for various applications.

Customers benefit from long term availability, short time to market and device flexibility.

Dream Chip Technologies supports its customers from specification to production, either with RTL support only or with delivery of the final product. Our multi decade experience in designing complex ASICs/SoCs, is the key factor for delivering high quality and reliable FPGA netlists or source RTL.

For Algorithm development we use MATLAB/Simulink, so we have a fast prototyping path with the tools e.g. Altera provides to create RTL directly for the chosen FPGA device, a similar flow is used for OpenCL to RTL.

With our IP portfolio and available other IP from the market, Dream Chip Technologies can quickly realize your design.
FPGA Development

Project Examples:

**Arria 10 SoM development board**
- Arria 10 SoC FPGA
- DDR4, 64bit@1200MHz
- Interfaces:
  - PCIe Gen3 x4
  - 10 Gbit/s Ethernet
  - DisplayPort 4 Lane In/Out
  - FMC Connector for LVDS/GPIO
  - 2x USB, RJ-45
  - Integrated USB Blaster II

**Camera pre-processing board for 4x 4K resolution**
- Kintex-7 FPGA
- DDR3, 64bit@1600 MHz, 2 Gbyte
- SPI Flash for FPGA config. 128 MB
- Power Supply

**SDI Image Processor**
- RAW to YUV converter
- ISP integration
- Remote control application
- Custom RTL implementation

**Laser Control Module**
- Custom RTL implementation
- Utilization of FPGA hard macros for feature realization
- Drivers and API implementation
- Test application