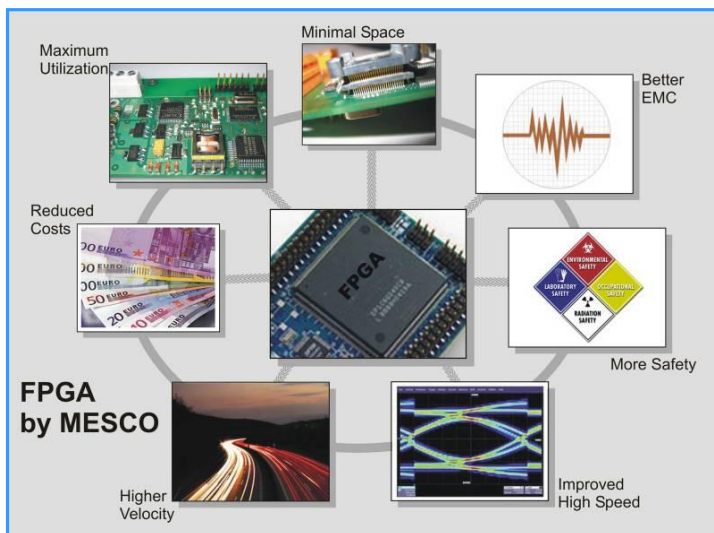


## FPGA - Flexible Solution For Safety Real-Time Systems

Engineering and implementation of application specific FPGA designs by MESCO. A long time experience in Industrial Communication (IEC 61508), EMC and Ex is one of the main capacities of MESCO. FPGAs are used for fast, undelayed and parallel signal processing.

High integration density helps to reduce costs and saves space on board. FPGA embedded processors fill the gap between parallel working hardware and sequential processing software. Flexible adaption to the customer's specific requirement changes is achieved by the use of a FPGA.



### Services

- Customer specific FPGA design development (from specification to verified FPGA design)
- Functional Safety (IEC 61508) support
- Embedded solutions
- Design description in VHDL
- Synthesized and tested VHDL code
- Hardware and software development
- Manufacturing development
- Certification and verification
- Consulting and support
- Feasibility study
- VHDL training

### Benefits

- Computational Power: ASIC similar computing power
- Flexibility: FPGAs can be reconfigured anytime anywhere
- Multifunctional: A variety of commercial IP-Cores can be integrated into customer's design
- Parallelism: Parts of the algorithms or complete applications can be processed to each other
- Costs: Gate-Level simulations using worst-case conditions can be accomplished before any hardware is available.
- Re-use: Developed components (e.g. UART interface) can be re-used in other designs or products
- Efficiency: FPGA built-in IO structures implementing IO standards: LVTTTL, LVDS, LVPECL, GTL and HSTL

### Tools

- HDL Designer
- Leonardo Spectrum
- ModelSim
- by Mentor Graphics™