



*Decrease Your TCO; Increase Your ROI*

## Altera Industrial Solutions

**TCO is an estimate of all costs over the lifetime of a product**

Industrial trends such as the migration of proprietary fieldbus systems to Industrial Ethernet systems and the need for integrated functional safety features are impacting the total cost of ownership (TCO) decisions of many equipment manufacturers. After all, you need to get your designs to market quickly to meet demands—but these designs must also meet constantly changing standards while reducing costs.

Design with Altera® industrial solutions to decrease your TCO and increase your ROI. You'll see a positive impact on your bottom line.

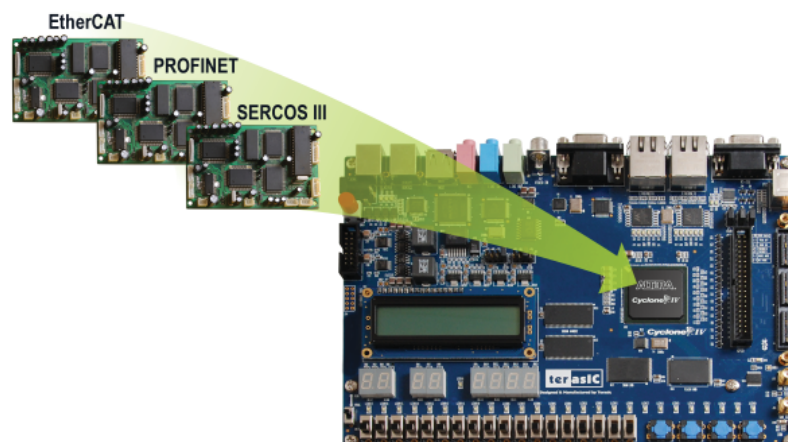
Our solution portfolio for industrial applications includes FPGAs, design software, and intellectual property (IP) cores. Use our FPGAs to significantly reduce your TCO:

- Accelerate your hardware performance and leverage your software, with no external devices.
- Use one flexible FPGA platform to adapt to changing features and protocols without designing additional boards.
- Integrate all system functions into one FPGA to increase reliability and lower your manufacturing and maintenance costs.
- Use the same FPGA design to deploy multiple products for a faster time to market.
- Take advantage of the FPGA's long life cycle to reduce the risk of obsolescence and to lower replacement costs.

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**You Can Build Many Different End Products from a Single FPGA-Based Board**

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## Increase System Performance

FPGAs often provide far more performance than discrete MCUs and digital signal processing (DSP) devices. In fact, they excel as the complexity of your design increases. For example you can increase system performance through embedded processors and hardware acceleration (using DSP blocks). In the end you can integrate all functions into a single device.

## Reduce TCO Through Integration

You can use a single FPGA to meet all of your logic requirements and achieve the flexibility to fix bugs, upgrade design features, or meet evolving standards at any time. Thus, your product stays in the marketplace longer. Plus, with planning, one FPGA platform can support multiple product lines, providing a way to quickly deploy new products.

## Decrease Time to Market for Faster Deployment

You can design, simulate, prototype, and debug more quickly with Altera FPGAs than with any other method—it's a verifiable fact. This means you can get your product to market much faster while reducing your up-front costs, which makes resources available for other projects. Complex IP for industrial solutions such as processors and peripherals are all available, saving you time and effort.

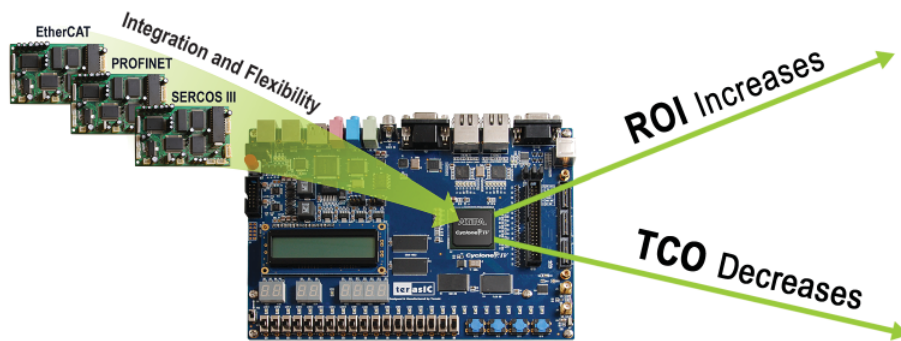
## Gain Peace of Mind Through Reliability and Longevity

With fewer components and manufacturing steps, your FPGA design will be inherently more reliable than one requiring many more components—plus it will be far easier to manufacture and test. And, if you plan for a long product life, you must also plan for a long-term supply of FPGAs. Altera has you covered with 15-20 year product life cycles—much longer than typical discrete devices.

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### Integration Drives TCO Down and ROI Up

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## Want to Dig Deeper?

To learn more about Altera's industrial solutions, visit us at [www.altera.com/industrial](http://www.altera.com/industrial) or contact your local sales representative.

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