



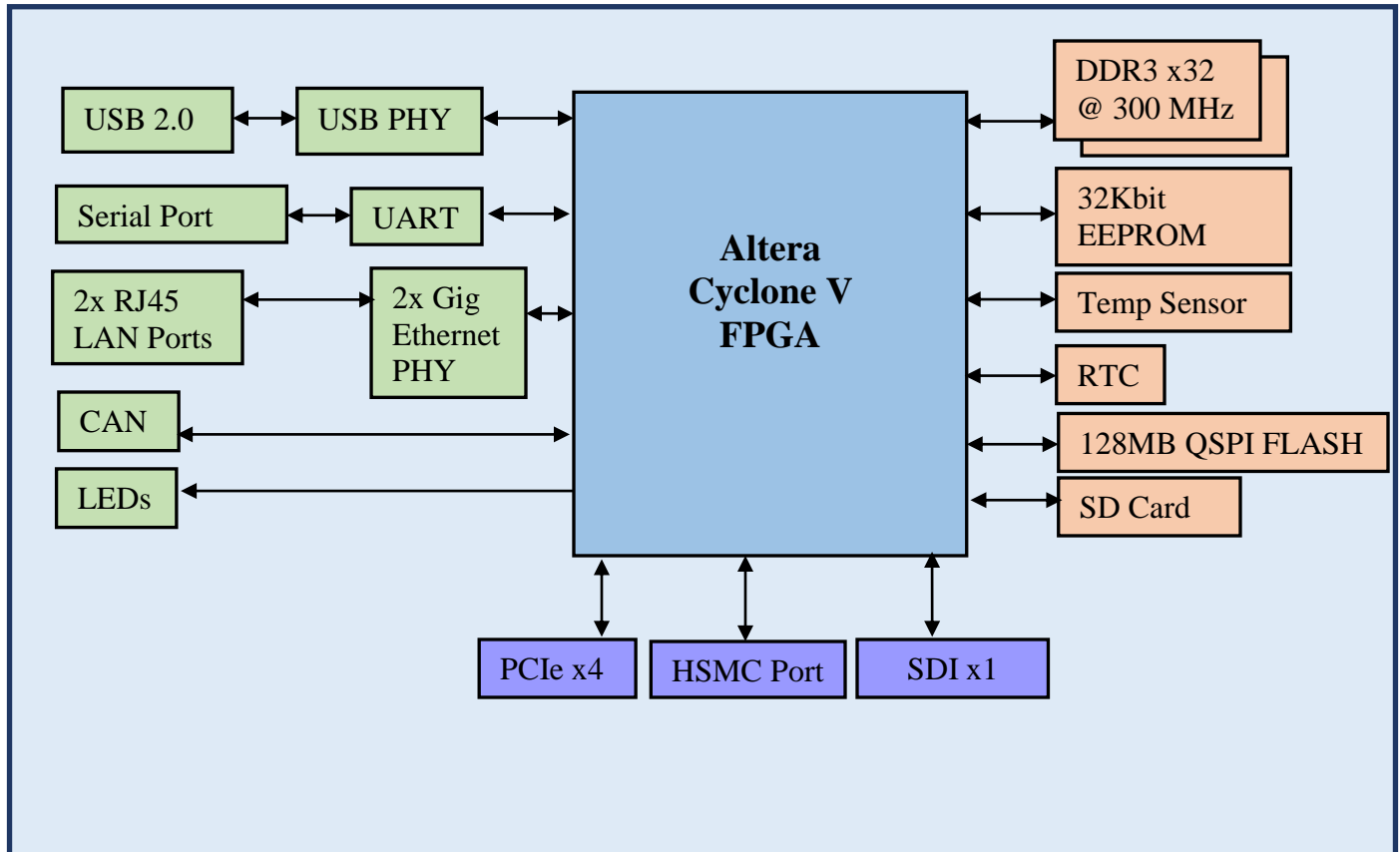
# Altera Cyclone V SoC Board Reference Design

## Product Brief

Introduction	Applications
<p>The Altera SoC Processor Board Reference Design is a highly flexible board design that can be used in many different types of applications. It has a Nios II processor which can be easily configured for your design. With an available family of FPGA devices that allows you to scale up or down so that this platform may be modified to fit your design and cost requirements.</p>	<ul style="list-style-type: none"> <li>• Acceleration of image- and video-processing applications</li> <li>• Medical devices</li> <li>• Telecommunication</li> <li>• Data communications</li> <li>• Consumer products which have embedded processors. Industrial networking protocols</li> <li>• Motor control applications</li> </ul>
Features	
<p>This board reference design is based on the Altera Cyclone V FPGA comes with many different interfaces which can be configured from the list below.</p> <ul style="list-style-type: none"> <li>• Nios II processor with performance of 300 MIPS* (Dhrystones 2.1 benchmark)</li> <li>• Memory Interfaces: DDR3, 1Gb Synchronous FLASH.</li> <li>• Gigabit Ethernet controller.</li> <li>• High Speed Mezzanine Card (HSMC Slot)</li> <li>• Serial Digital Interface (SDI) port</li> <li>• PCI Express® (PCIe®) x4</li> <li>• USB controller (USB 2.0)</li> <li>• I2C Controllers</li> <li>• LED, LCD panel and Touch Panels.</li> <li>• DO-254 compliance</li> </ul>	
Software Support	Benefits
<ul style="list-style-type: none"> <li>• Quartus II Software</li> <li>• Nios II Embedded Software Development</li> <li>• Embedded Linux Support</li> </ul>	<ul style="list-style-type: none"> <li>• Highly customizable design</li> <li>• Reduced time-to-market by leveraging existing Schematics and Design Documentation</li> <li>• Feature rich platform</li> </ul>


## Block Diagram

The block diagram below shows a typical setup which can be customized to meet your design needs.



## Service and Support

Innovaide's highly experienced team will ensure that your board design meets all of your requirements. We can take your requirements from Specification to Schematics and finally board bring-up and MFG release. Our Software Team can provide you the Diagnostic Support and both the High & Low Level Driver support. Send us a RFQ to [sales@innovaide.com](mailto:sales@innovaide.com).

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