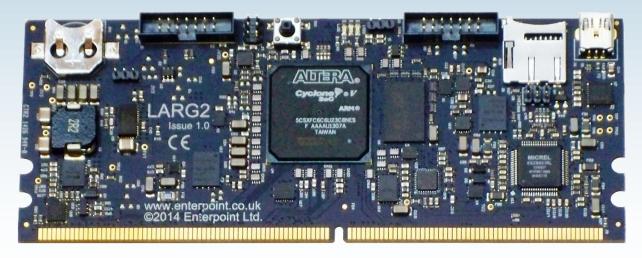


## Altera® SoC SOLUTIONS



## Larg2

S.O.M. DIMM Board Format

Altera SoC with ARM Cortex -A9

Linux<sup>TM</sup> operating system support

Processor boot from SPI Flash or SD card

3 x LEDs (HPS Controlled)

1 x H/W MAC Address

1 x Battery Holder

1 x Remote Reset Switch Header

1 x Push Switch For Warm Reset

25K (Opt 40/85/110K) LE Programmable Logic

512 M Byte DDR3

2 x SPI Flash

1 x 25 MHz Oscillator (HPS I/P)

132 x FPGA I/O (DIMM)

4 x Expander I/O (DIMM)

1 x Expander Interrupt (I/O Event)

4 x Single / 2 Differential Clock O/P (DIMM)

1 x 10/100/1000 Ethernet I/F (DIMM)

1 x USB OTG I/F (DIMM)

 $2 \times I^2 C I/F (DIMM)$ 

1 x SPI I/F (DIMM)

3 x LEDs (HPS Controlled)

1 x MicroSD<sub>®</sub> Card Socket

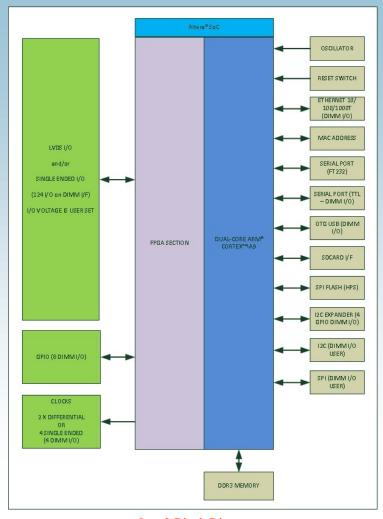
Main Power Input 7-28V (5V Option)

1 x FT232 USB I/F supporting Debug COM port I/O Power Input Provided From Host (1.8-3.3V)

Larg2 is aimed at control applications either in standalone operation or slaved to a hosting device (e.g. via USB COM or Ethernet interfaces). The marriage of the powerful dual-core ARM Cortex-A9 processor, a user programmable FPGA fabric and Linux operating systems make the Larg2 a very cost effective, high performance, high accuracy, and low power computing platform.

The small 52mm x 134mm (2.0" x 5.3") size of the Larg2 allows it to fit into those often small corners of your system enclosure. The wide range power input has enough compliance range to allow stable operation from a small stack of standard batteries for this remote location applications.

Larg2 can offer high accuracy control not possible in a more generic processing systems. The large array of I/O direct from FPGA part of the Altera SoC allows the timing of signals to resolution of a few nanoseconds for those ultra-critical functions.



Larg2 Block Diagram





The Larg Breakout Board supports your development process and it also allows FMC modules to used in conjunction with Larg2. This low cost design demonstrates of the cost effectiveness of Larg2 in real applications.

A competitively priced custom breakout board design service is available to customers. Typically¹ designs or prototypes can be delivered in 1-6 weeks. Email us for details of this service on boardsales@enterpoint.co.uk .

1 - Assumes parts are available in time frame and design is of similar complexity to design shown.

## OEM Board Options and Semi-Custom Derivative Boards Designs

As with all Enterpoint development products the Larg2 design can either be offered in a custom BOM configuration or even a customised derivative product to suit individual customer needs. Both manufacturing licensing and turnkey manufacture options are available to customers on such designs. For turnkey manufacturing options there is no minimum order quantity. Equally we can offer middle, high and very high volume manufacturing of designs to suit your individual needs. For these options and our ultra high speed design and manufacturing services email us on boardsales@enterpoint.co.uk.



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