# **Industrial RCP**



Rapid Control Prototyping Solution

## Industrial

## **Rapid Control Prototyping**



Choose white when black-box approaches is not an option



PWM modulation features are fully controlled as they are defined in C or VHDL

The code validated by RCP can be **exported directly** into the real Control Unit



**Remote Controlling** capabilities

Embedded **oscilloscope** & **datalogger** and advanced post-processing tools

**Large collection** of **control IPs** available in C & VHDL

User Interface to manage the operation of the system

Engineering & Consulting services available

## KRIA K26, the brain of the system

### Computational core at the edge of technology:

KRIA K26 features an exclusive, custom-built XCK26 SoC based on the Zynq® UltraScale+ $^{TM}$  MPSoC architecture



## Huge FPGA + 6 high end ARM microprocessors



 $\ensuremath{\textbf{Unlimited}}$  access to all  $\ensuremath{\textbf{FPGA}}$  resources and microprocessor coding

Nowadays advanced modulator or control techniques require more tight time control. FPGA side offers all the power and the certainty required



## Connections

## Analog and Digital Front End:

- 32 · Digital inputs 0-24V (Isolated Read rate = 20kHz)
- 32 · Digital outputs 0-24V (Isolated Update rate = 20kHz)
- 36 · PWM output channels (RJ45 0.5V RS422 Differential Isolated ts < 10ns)
- 12 · Fast analog input channels (12bits 3Ms/s)
- 12 · Slow input analog channels (12bits 500ks/s)
- 16 · Analog output channels (16bits 500ks/s)

## High-speed serial connectivity:

- $1 \cdot \text{Ethernet} (1\text{GB} \text{RJ45})$
- 4 · USB 2.0
- 2 · ETH RJ45 to parallel converters (ETH ring)

### Industrial connectivity:

- $2~\cdot~{\rm CAN}$  bus
- $2 \cdot \text{UART}$  (USB converted)
- $2 \cdot \text{RS485}$  (Full-duplex)
- $1~\cdot~{\rm MicroSD}$  card

### Power requirements:

 $24V - 60W \max$ 



#### Power Smart Control SL

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