# **Control Boards**



Industrial Control Boards for Power Converters

## Industrial

## Renewable Energies Control Board



The fastest and <u>non iterative</u> solution for your new converter control system



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



Fully flexible coding: C/C++ for ARM microprocessors and VDHL/Verilog for FPGA



Remote Controlling and FW update capabilities



Embedded oscilloscope & datalogger and advanced post-processing tools



Large collection of control IPs available in C & VHDL



Web Server operation available powered by Petalinux

Engineering & Consulting services available

### **Features for Renewable Energies Control Board**

#### Digital SOM:

KRIA K26, custom-built XCK26 SoC based on the Zynq® UltraScale+TM MPSoC architecture

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)
- $12~\cdot~{\rm Fast}$  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:

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

#### Industrial connectivity:

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

 $24V - 60W \max$ 



Control Boards already available in PSC's portfolio



## PSC is present during all the Control Boards Development



PSC offers not only Control Board designs and developments

PSC can be present in the complete loop of the Control Boards Development

From development to Operation; from embedded debugging tools to manufacturing quality assurance

## PSC offers <u>high added value controlling solutions</u> for your Power Converter



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