

Zynq® Intelligent Drives Kit II High Performance SoC Motor Control



Combining the Xilinx Zynq®-7000 All Programmable SoC ARM® dual-core Cortex™-A9 + 28 nm programmable logic with the latest generation Analog Devices high-precision data converters and digital isolation, this kit enables high performance motor control and industrial networking connectivity. A brushless DC motor control reference design featuring Analog Devices Linux framework provides an ideal infrastructure for quickly adding custom control algorithms. Model-Based Design for Zynq is supported using Simulink®, Embedded Coder®, and HDL Coder™ from MathWorks.

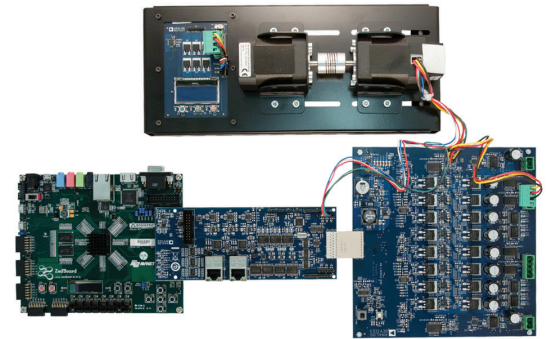
FEATURES

- Analog Devices AD-FMCMOTCON2-EBZ high performance servo module
- Drive 2 BLDC / PMSM / Brushed DC / Stepper motors up to 48 V @ 20 A
- AD7403/5 Isolated 20 MHz Σ - Δ modulators for precise voltage and current measurement
- ADuM5000/7640 power and digital signal isolation
- ADuM5230 Isolated Half-Bridge Driver for High Frequency Switching
- Integrated over-current and reverse-voltage protection
- Dual Gigabit IEEE1588 Ethernet PHYs for high speed industrial communication
- Isolated Xilinx XADC interface
- Sensored or sensoreless position measurement
- Encoder support includes BISS, EnDAT, Hall Sensor, and resolver

KIT INCLUDES

- Avnet ZedBoard Z7020
- Xilinx Vivado™ Design Edition voucher
- Analog Devices AD-FMCMOTCON2-EBZ Module
- Brushless DC motor: 24V, 4000 RPM, Hall Sensors and 1250 CPR indexed encoder
- 8 GB SD card programmed with application
- Ethernet cable
- HDMI cable
- Micro USB cable
- 12V ZedBoard power supply
- 24V AD-FMCMOTCON2-EBZ power supply
- Linux drivers, applications software, HDL source, reference designs, full schematics and Gerbers
- MathWorks Motor Control Design Package (optional, North America only)
- Dynamometer dynamically adjustable load system (optional)

To purchase this kit, visit www.zedboard.org/product/zynq-idk-ii



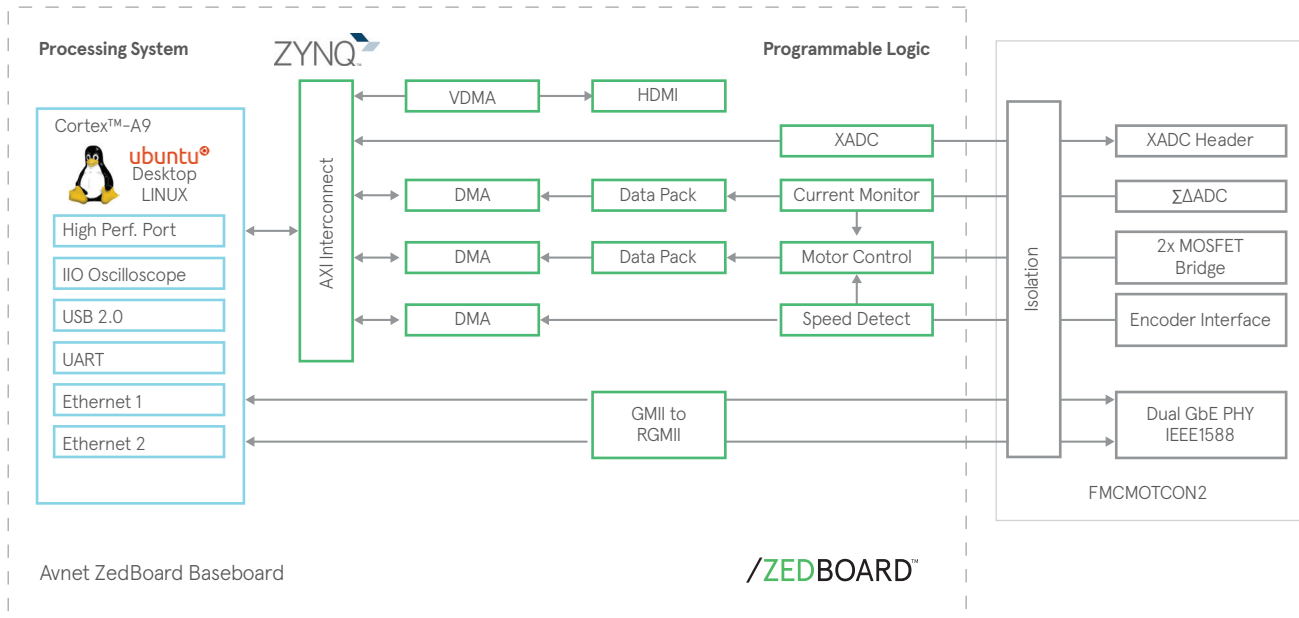
COMPATIBLE WITH

/ZEDBOARD™

TARGET APPLICATIONS

- Industrial servos and drives
- Manufacturing, assembly, and automation
- Medical diagnostic
- Surgical assist robotics
- Video surveillance and machine vision
- Power efficient drives
- for transportation

BLOCK DIAGRAM



FEATURED MANUFACTURERS



PARTS

Part Number	Description	Resale
AES-ZIDK2-ADI-G	Zynq-7000 AP SoC / Analog Devices Intelligent Drives Kit II	\$1,950 USD
AES-ZIDK2-ADI-DYNO-G	Zynq-7000 AP SoC / Analog Devices Intelligent Drives Kit II with Dynamometer System	\$2,550 USD
AES-ZIDK2-ADI-DYNO-G-MATW-ANUL	Zynq IDK-II with Dynamometer plus MathWorks Zynq Motor Control Design Package - Annual License	Call for Quote
AES-ZIDK2-ADI-DYNO-G-MATW-PERP	Zynq IDK-II with Dynamometer plus MathWorks Zynq Motor Control Design Package - Perpetual License	Call for Quote

RELATED PARTS

Part Number	Description	Resale
AD-FMCMOTCON2-EBZ	Analog Devices High Performance Servo System FMC Module	Call for Quote

Countries Available for Purchase: Americas, EMEA, Asia, Japan

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