Zynq Intelligent Drives Kit II
High Performance SoC Motor Control

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

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)

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

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Resale</th>
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</thead>
<tbody>
<tr>
<td>AES-ZIDK2-ADI-G</td>
<td>Zynq-7000® All Programmable SoC / Zynq Intelligent Drives Kit II</td>
<td>$1950.00 USD</td>
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<tr>
<td>AES-ZIDK2-ADI-DYN0-G</td>
<td>Zynq-7000® All Programmable SoC / Zynq Intelligent Drives Kit II with Dynamometer System</td>
<td>$2550.00 USD</td>
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<tr>
<td>AES-ZIDK2-ADI-DYN0-G-MATW-ANUL</td>
<td>Zynq IDK-II with Dynamometer plus MathWorks Zynq Motor Control Design Package – Annual License</td>
<td>Call for Quote</td>
</tr>
<tr>
<td>AES-ZIDK2-ADI-DYN0-G-MATW-PERP</td>
<td>Zynq IDK-II with Dynamometer plus MathWorks Zynq Motor Control Design Package – Perpetual License</td>
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### Related Parts

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<tr>
<td>AD-FCMCMTCON2-EBZ</td>
<td>Analog Devices High Performance Servo System FMC Module</td>
<td>Call for Quote</td>
</tr>
</tbody>
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### Countries Available for Purchase
- Americas
- EMEA
- Asia
- Japan

### Contact Information
- **North America**
  - 2211 South 47th Street
  - Phoenix, Arizona 85034
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