



**THE DATASHEET OF
EK-Z7-ZC706-G**





ENABLING A COMPLETE EMBEDDED
PROCESSING PLATFORM

ZYNQ-7000 SOC ZC706 EVALUATION KIT

➤ **Xilinx Solution Highlight**

- Productivity boosting kit, including silicon, development tools, IP and reference designs
- Wide feature set, with abundant I/O expandability, to develop solutions for most markets
- Foundation for high-end, high-performance applications using the Zynq-7000 SoC
- Best –in-class tools, operating system support, and ecosystem (including ARM® community)

➤ **A New Class of Devices: Zynq-7000 System-on-Chip**

- ARM dual-core Cortex™-A9 processor meets Xilinx 28nm programmable logic
- ASIC-like performance and power with the flexibility of an FPGA and ease of programming of a microprocessor
- Flexibility to create a custom ARM based ASSP by adding peripherals and accelerators to the programmable logic

The Zynq™-7000 All Programmable SoC ZC706 Evaluation Kit includes all the basic components of hardware, design tools, IP, and pre-verified reference designs including a targeted design. This makes it a complete embedded processing platform and 12.5 Gbps transceiver for high-end applications that require higher performance and high I/O throughput. The included pre-verified reference designs and industry-standard FPGA Mezzanine Connectors (FMC) allow scaling and customization with daughter cards.

The Zynq-7000 AP SoC PCI Express Targeted Reference Design demonstrates PCI Express communication with a host system at PCI Express x4 GEN2 speed. In this PCI Express Targeted Reference Design, the input of the video processing pipeline is generated by an application on the host computer at 1080p60 resolution and transmitted to the ZC706 board via PCI Express. The data is processed by the video pipeline implemented in Programmable Logic and passed back to the host system via PCI Express. As full 1080p60 video stream only take up around 4Gbps, an additional data generator and a checker are implemented and connected to channel 1 of the PCI Express DMA showcasing the maximum PCI Express x4 GEN2 bandwidth achieved by the hardware.

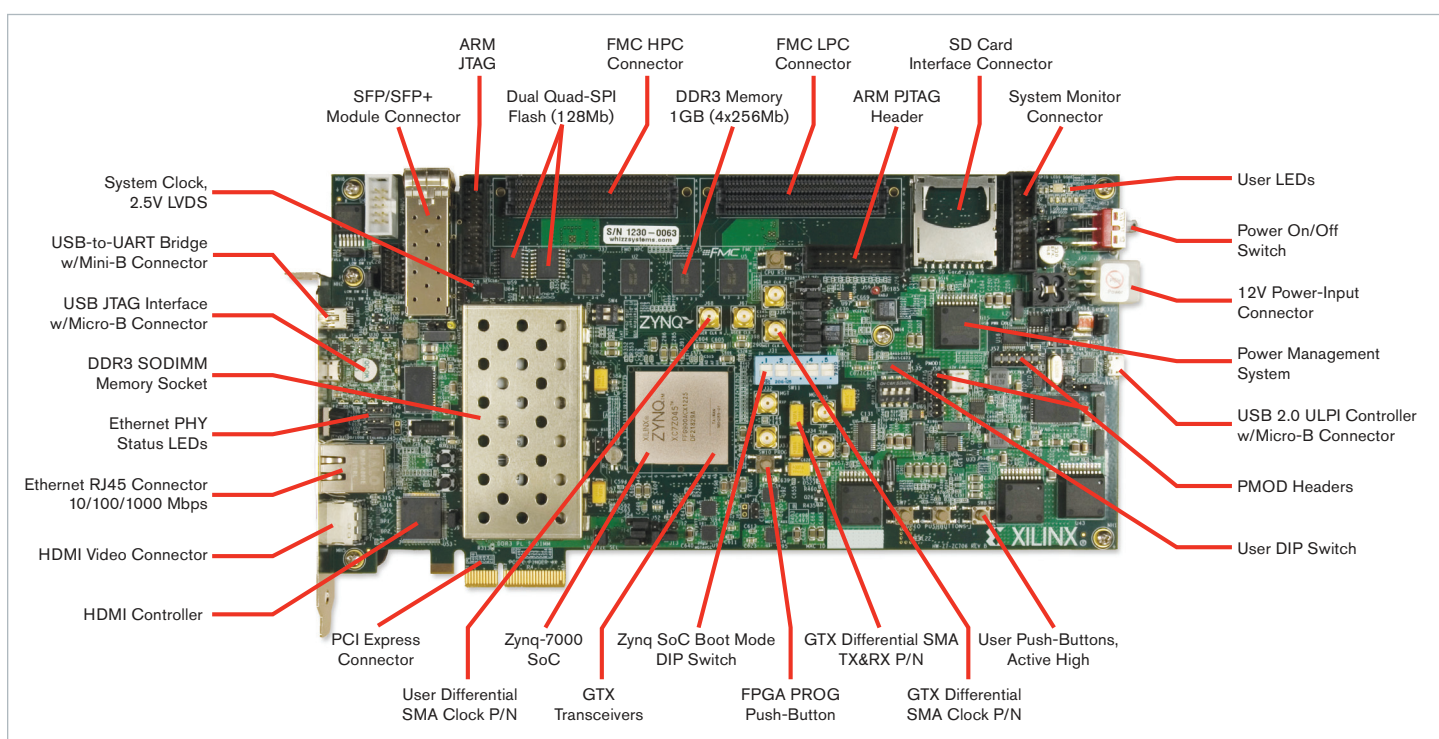
What's Inside the ZC706 Evaluation

- ZC706 Evaluation Board featuring the XC7Z045 FFG900 -2 SoC
- Full seat ISE Design Suite Embedded Edition
 - Device Locked to the Zynq XC7Z045
- Cables and Power Supply
 - Universal 12V power supply
 - USB Cables
 - Ethernet Cable
- USB Flash Drive (contains documents, designs and demos)

Documentation, Designs and Demos

- Step-by-step Getting Started Guide
- Hardware Users Guide
- Reference Design and Design Example User Guide
- Schematics and PCB Files

ZC706 EVALUATION BOARD



Take the NEXT STEP

For more information about the ZC706 Evaluation Kit, please visit: www.xilinx.com/zc706

For more information about the Zynq-7000 SoC product family, please visit: www.xilinx.com/zynq

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