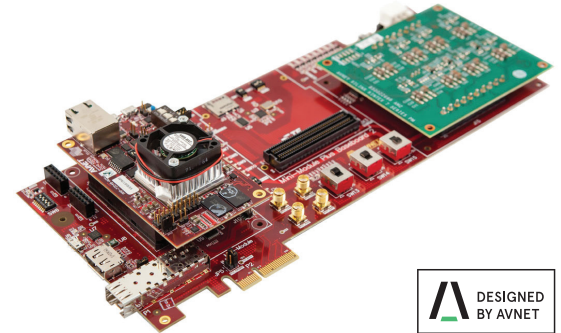


# Xilinx® Zynq®-7000 All Programmable SoC Mini-Module Plus Development Kit



The Xilinx Zynq®-7000 All Programmable SoC Mini-Module Plus Development Kit is a completely customizable development kit, perfect for system architects and embedded designers looking for a flexible, high performance and upgradeable platform. The Avnet Mini-Module Plus system consists of a modular baseboard with three slots supporting a Zynq-7000 AP SoC module, a power supply module and an optional FPGA Mezzanine Card (FMC) application module. The Zynq-7000 AP SoC module is a complete system on a module, packaging all the necessary functions needed for an embedded processor system onto a small footprint. The Xilinx Zynq-7000 AP SoC version of the kit is the second of two planned kit offerings, along with the existing Xilinx Kintex®-7 FPGA module.



## FEATURES

### Zynq-7000 AP SoC Mini-Module Plus

- Xilinx Zynq-7000 AP SoC XC7Z045-1FFG900 or XC7Z100-2FFG900
- 1 GB DDR3 SDRAM
- 128 MB of parallel Flash
- 32 MB of QSPI Flash
- 8 KB of I2C EEPROM
- Micro SD card interface
- Real-time clock
- 10/100/1000 Ethernet interface
- USB 2.0 interface
- USB-UART interface
- Programmable LVDS clock source (GTX reference clock)
- 200 MHz LVDS oscillator (system clock)
- JTAG programming/configuration port
- Processor PJTAG header
- 8 GTX ports
- 132 user I/O pins

### Mini-Module Plus Baseboard II

- One Mini-Module Plus Slot
- One FMC LPC slot (2.5 or 3.3 V VADJ)
- PCIe x4 edge connector
- One SFP socket
- DisplayPort® output
- One general-purpose MGT via SMA connectors
- Two PMOD™ headers
- Micro SD card interface
- Programmable LVCMOS clock source
- Programmable LVDS clock source (MGT reference clock input)
- USB-UART bridge
- Five user LEDs
- One 8-position DIP switch
- Four user push-button switches
- Digilent JTAG-SMT1 module
- PC4 JTAG header
- Power module connector

## KIT CONFIGURATION OPTIONS

- Zynq-7000 AP SoC Mini-Module Plus
  - Zynq-7000 AP SoC XC7Z045-1FFG900 or XC7Z100-2FFG900
- Mini-Module Plus Baseboard II
  - 12 V Power Supply (US/UK/Euro AC cords)
  - Two USB A-mini-B cables (2)
  - Ethernet cable
- One power module
- Xilinx ISE® Design Suite: Embedded Edition (device locked to XC7Z045)
  - Bundled with the Zynq-7000 AP SoC Mini-Module Plus

## TARGET APPLICATIONS

- PCI Express
- Embedded controllers
- General-purpose prototyping
- Networking and communications
- Storage and servers
- Ethernet/Internet applications

Features cont...

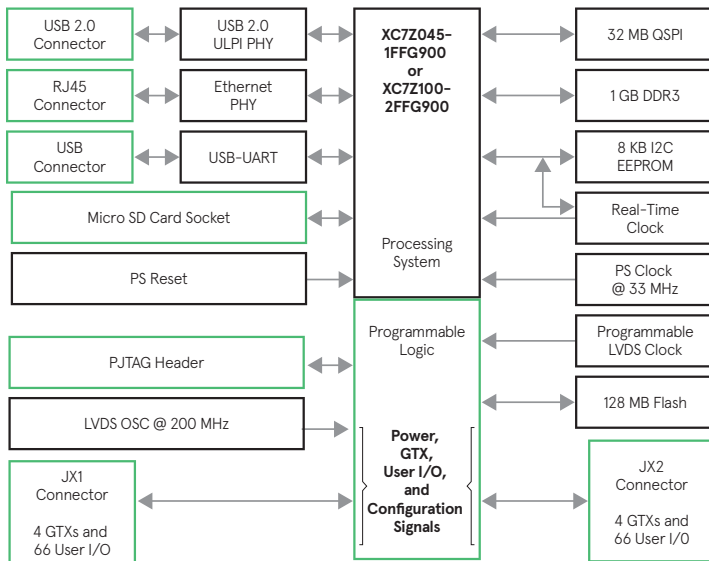
**Power Module**

- Designed to meet a common specification
- Accepts a 12 V DC input
- Generates all required voltage rails to power the FPGA module, FMC slot and baseboard circuits

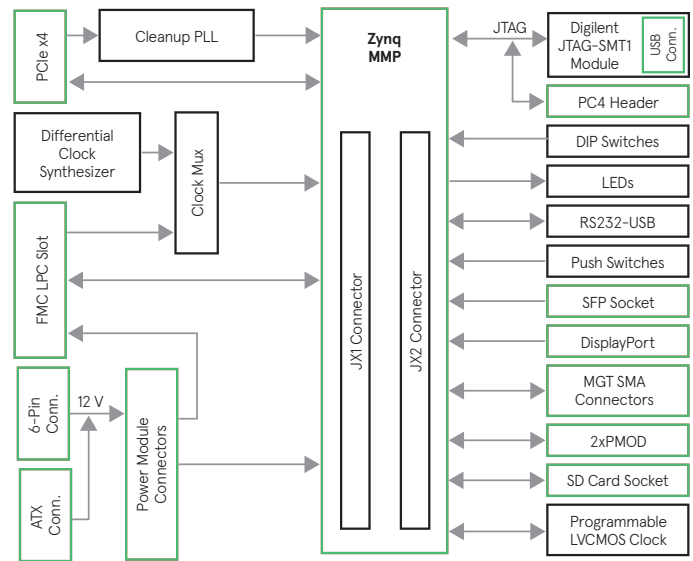
- Available power modules:

- Analog Devices
- GE Power
- Maxim Integrated
- STMicroelectronics
- Texas Instruments
- Texas Instruments SIMPLE SWITCHER®

**BLOCK DIAGRAM**



Zynq-7000 AP SoC Mini-Module



Mini-Module Plus Baseboard II

**FEATURED MANUFACTURERS**



**PARTS**

Part Number	Description	Resale
AES-MMP-7Z045-G	Xilinx Zynq-7000 AP SoC Mini-Module Plus with XC7Z045	\$1,295 USD
AES-MMP-7Z100-G	Xilinx Zynq-7000 AP SoC Mini-Module Plus with XC7Z100	\$1,495 USD
AES-MMP-BB2-G	Avnet Mini-Module Plus Baseboard II	\$500 USD
Multiple	Power Module	\$300 USD *Call for Volume Pricing

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

To purchase this kit, visit [avnet.com/us/MMP-7Z045-G](http://avnet.com/us/MMP-7Z045-G)

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