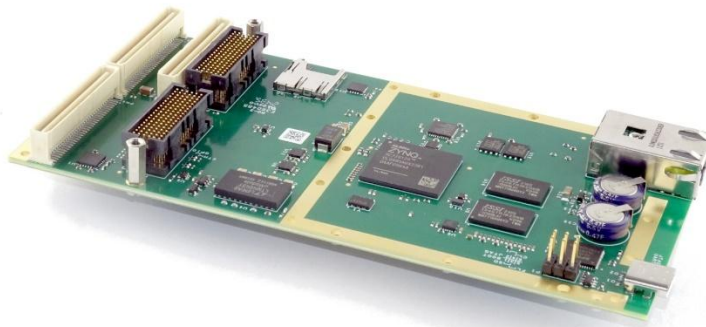


IOM777 – Processor PMC/XMC with Zynq-7000 SoC for flexible solutions

By AcQ International



The IOM777 is a reconfigurable computing module designed for demanding embedded systems that require both high performance and flexibility. It is available in a PMC and XMC form factor. Powered by a AMD Zynq-7000 SoC, which integrates an ARM Cortex-A9® (dual or single-core), and high-performance FPGA fabric, delivering a powerful combination of software programmability and hardware acceleration.

In combination with a carrier board, the IOM777 is designed for seamless integration into a variety of platforms, including VME, VPX, CompactPCI, and PCI Express. It offers I/O interfaces such as Gigabit Ethernet, PCI 3.0 / PCIe Gen1, CANbus, UART and JTAG (for debugging purposes). Furthermore, the IOM777 has 40 freely configurable GPIO pins to the backplane, which can be configured for various interfaces, such as I2C, UART and SPI.

This module is not only high-performing but also cost-effective, making it an excellent solution for low-budget applications without sacrificing flexibility or computing power. The reconfigurable FPGA fabric enables custom processing algorithms and hardware acceleration, making it perfect for applications like signal processing, image processing and data acquisition.

The IOM777 is specifically engineered to excel in the most demanding and rugged conditions. The power-efficient architecture is making it very suitable for power-constrained embedded applications. Built to handle extreme environments, it operates flawlessly in temperatures ranging from -40°C to +85°C. The IOM777 comes in an air- and conduction-cooled variant and conformal coating is available on request.

Extensive software support is offered through tools like Vivado for hardware and software co-design, along with support for Linux and custom FPGA firmware development. This ensures that developers can efficiently leverage both the ARM processor and FPGA to meet the needs of diverse and demanding embedded system applications.

General Information

- PMC or XMC board
- AMD Zynq-7000 XC7Z012S or XC7Z015
- 1 bank of DDR3
 - 1 GByte 32-bit
- Dual QSPI NOR Flash
 - 32 Mbyte
- SD 2.0 Micro-SD card slot
- RTC with GoldCap option
- On-board temperature monitoring
- Operation temperature of components 40 ... +85° Celsius

Interfaces

- PCIe Gen1 4 lanes (XMC)
- 32-bit, 33MHz PCI 3.0 (PMC)
- Ethernet 10/100/1000 BASE-T (rear or front)
- 2x CAN bus interfaces (rear)
- RS232 level UART (rear)
- Rear JTAG interface (only on Conduction Cooled)
- Front USB for UART/JTAG (only on Air Cooled)
- 40x configurable GPIO pin (rear)

Ordering Information

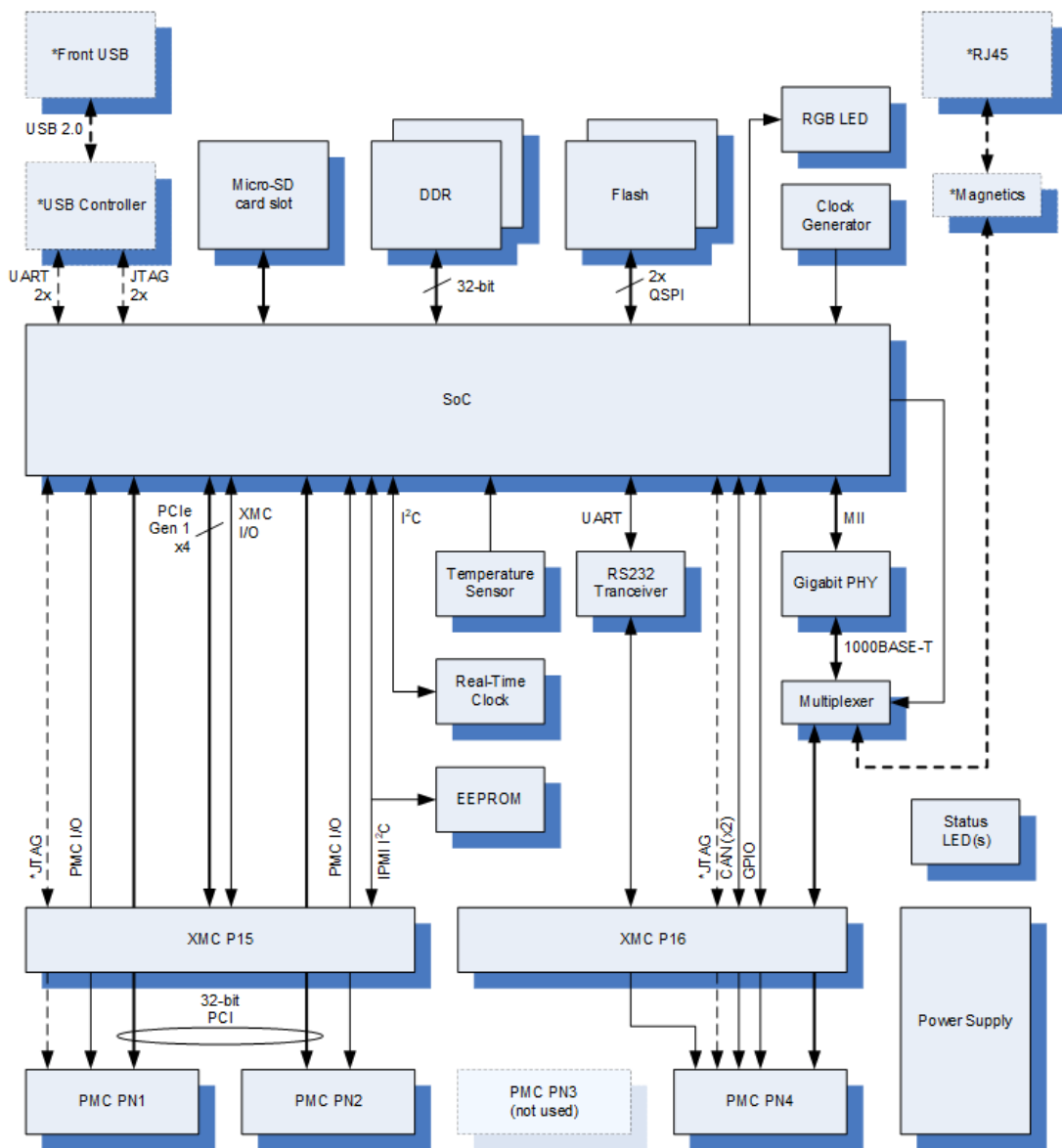
Contact us for details to determine the optimal configuration for your needs.

Configuration options include:

- PMC or XMC board,
- Type of SoC FPGA,
- Air-cooled or conduction cooled

Conformal coating on request.

For more information about available carrier boards (VPX, VME) visit www.acq.nl.



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