

SXoM MS2-K7

System-on-Module
compliant with SMARC™ 2.0 specification

SXoM MS2-K7 is a complete System-on-Module (SoM) compliant with the SMARC™ (Smart Mobility ARChitecture) 2.0 specification by SGET. The board is designed to function as the system core of modular platforms for high-performance DSP applications.

SXoM MS2-K7 Low Power

The core of SXoM MS2-K7 is a **Xilinx® Zynq® Z-7030/7035/7045 SoC** (System-on-a-Chip) that combines a Kintex®-7 FPGA fabric featuring up to 350K logic elements with an ARM-based dual-core hard processor system running at up to 1 GHz, powerful enough to handle real-time processing of 4K video data.

Applications

Motion capturing & analysis

Security and surveillance

Traffic monitoring

Medical & scientific imaging

High-end machine vision

Airborne imaging

Key Features

- + System-on-Module compliant with SMARC™ 2.0 specification by SGET
- + Ultra-compact form factor: 82 mm x 50 mm
- + Powered by Xilinx® Zynq® Z-7030/7035/7045 SoC
- + Linux® board support package (BSP) available on request
- + FPGA IP cores and implementation support available on request



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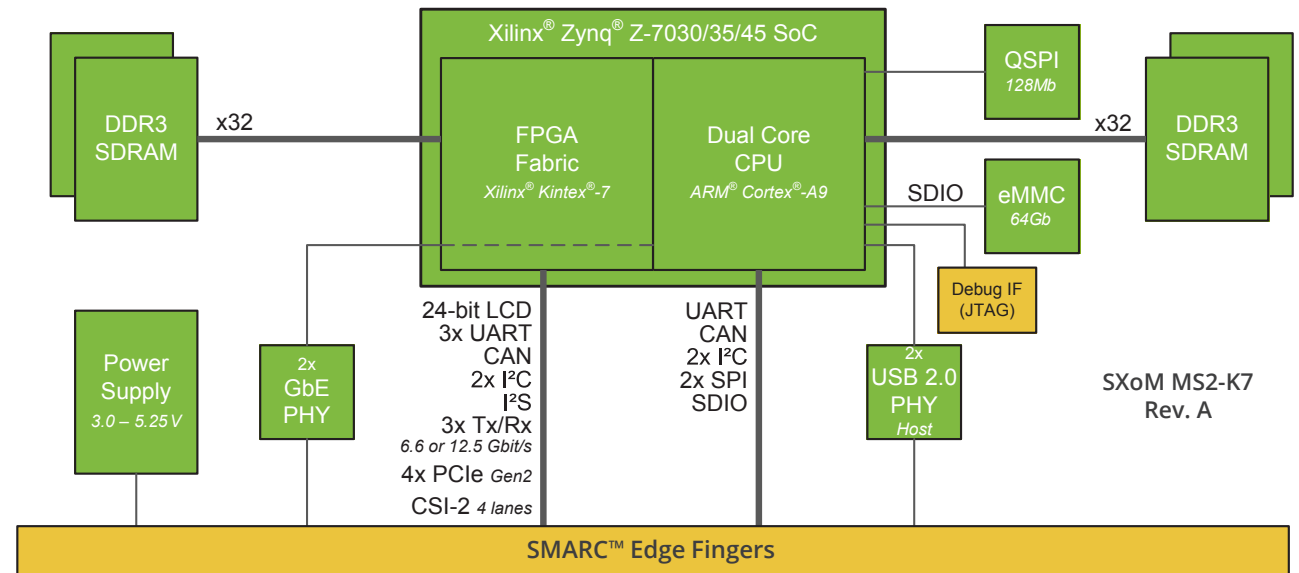
FPGA Fabric Features

Kintex®-7 FPGA fabric
125K - 350K logic elements
9.3 - 19.1 Mbit block memory
400 - 900 DSP blocks
1 GByte DDR3 SDRAM x32 bit for the FPGA

CPU Features

Dual-core ARM® Cortex™-A9 MPCore™ processor, 667 – 1000 MHz clock frequency
5,000 DMIPS (Dhrystone 2.1) at 1,000 MHz (two cores)
32 KByte of L1 instruction cache and 32 KByte of L1 data cache per processor
512 KByte of shared L2 cache
256 KByte of on-chip RAM
512 MByte DDR3 SDRAM x32 bit for the CPU

Block Diagram & Interfaces



Designed as System Core for Modular DSP Platforms

- + Flexible heterogeneous many-core architecture
- + Ideal for real-time high-performance image processing and analysis tasks
- + FPGA and embedded software framework

Further available from Solectrix:

- + SMARC™ carrier board SXoM CBS2
- + Board support package (BSP)
- + FPGA IP cores and implementation support



solectrix GmbH
Fürther Str. 244b
"Auf AEG"
90429 Nürnberg
Germany



Fon +49 (0) 911 - 30 91 61 - 0
Fax +49 (0) 911 - 30 91 61 - 299



sales@solectrix.de

www.solectrix.de
www.fpga.sx