

phyCORE®-OMAP5 System on Module - **PRODUCT BRIEF**

EASIER

Building a new embedded device from the ground up is an enormous challenge and risk. Embedded development can be made much easier by leveraging existing solutions.

FASTER

Deploy a production-ready SOM and BSP and eliminate 6-12 months from your development timeline.

CHEAPER

Save substantial non-recurring engineering costs by eliminating specification, parts selection, schematic, layout, validation, and Operating System porting efforts. Use an off-shelf SOM and BSP instead.



phyCORE-OMAP5 SOM

The phyCORE-OMAP5430 System on Module (SOM) is based on the OMAP5430 processor from Texas Instruments Incorporated (TI). The OMAP5430 processor is an advanced architecture which includes a dual-core ARM® Cortex™-A15 MPCore foundation, complemented by multiple graphics accelerators and dual Cortex-M4 cores for low-power offload and real-time responsiveness. Multi-core POWERVR™ SGX544-MPx graphics accelerators drive 3D gaming and 3D user interfaces on the processor, while other features include: a dedicated 2D graphics engine, hardware accelerators for full HD 1080p60fps and 1080p30fps 3D, support of simultaneous cameras and displays, and high-performance peripheral interfaces.

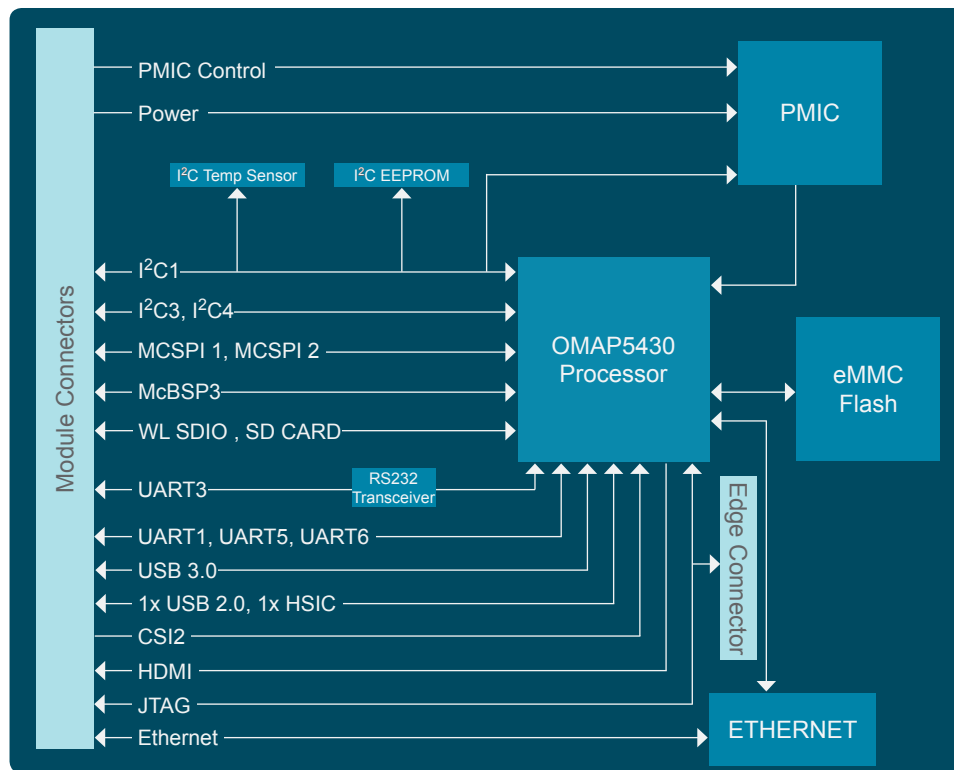
phyCORE-OMAP5 Product Highlights:

- // Seamless upgrade path from phyCORE-OMAP4
- // Dual ARM Cortex™-A15 cores
- // Dual ARM Cortex™-M4 processors
- // Multi-core POWERVR™ SGX544-MPx
- // Full HD 1080p60
- // Linux support

PHYTEC production-ready SOM technology, combined with operating system board support packages, provides a critical foundation so embedded designers do not have to develop their application from the ground up. Designing in a SOM reduces the complexity and scope of product developments, allowing OEMs to significantly reduce cost, time-to-market and design risk. The phyCORE-OMAP5430 provides a perfect balance of power efficiency and high performance and is well suited for deployment in markets with high-end, feature-intensive products leveraging wireless embedded applications for industrial, medical and video or imaging solutions.

PHYTEC

www.phytec.com
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phyCORE-OMAP5 SOM BLOCK DIAGRAM

SERVICES

Product developers with aggressive timelines or limited resources can employ PHYTEC's full range of design services, which include hardware board design, customized software board support packages, and complete turnkey design.

PHYTEC

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SOM FEATURES / Part No. PCM-053:

Processor

- TI's OMAP5430 processor
- 2x ARM Cortex™-A15 cores
- 2x ARM Cortex™-M4 processors
- Multi-core POWERVR™ SGX544-MPx 3D graphics accelerator
- IVA-HD multimedia accelerator
- Supports imaging sensors up to 24MP, video record up to 1080p60

Memory

- up to 4 GB LPDDR2 RAM
- 64+ GB eMMC Flash
- Flash Expansion - 2x SDIO/MMC

Network

- 10/100 Mbit/s Ethernet

Other I/O

- 1x USB 3.0 SuperSpeed Dual-Role-Device (DRD)
- 1x USB 2.0 High-Speed Host, 1 x HSIC
- 4x UARTS (one RS-232)
- 3x I2C / 1x 1-Wire / 1x McBSP / 2x MCSPI

Display

- 1x Display Serial Interface (DSI)
- 1x Display Parallel Interface
- 1x HDMI

Mechanical

- 55 x 45 mm
- Dual 0.5 mm pitch connectors

Supply

- 3.3V, 1.8V I/O

Temperature

- -40° to +85°C

Operating Systems

- Linux and Android

DEVELOPMENT KIT

The phyCORE-OMAP5 SOM is available in a development kit that includes the SOM, a carrier board, optional LCD, optional WiFi, and all accessories required for immediate start-up.