

# phyCORE<sup>®</sup>-AM335x System on Module - PRODUCT BRIEF

## EASIER

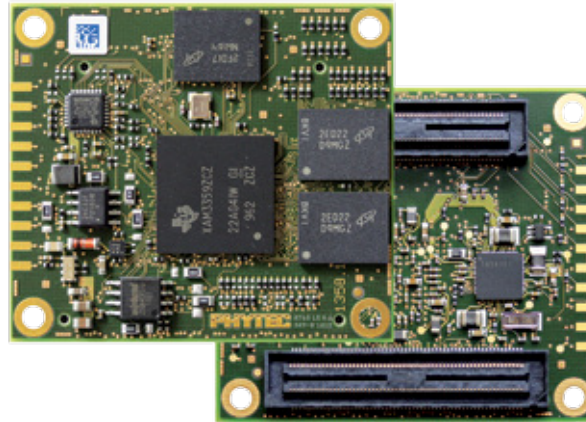
Building a new embedded device from the ground up is an enormous challenge and risk. Embedded development can be made much easier by leveraging existing solutions.

## 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-AM335x SOM

PHYTEC SOMs are designed to accelerate product development for the OEM requiring a high-quality, high-reliability, and long product life-cycle solution, within short development timeline constraints.

The phyCORE-AM335x SOM supports the Texas Instruments AM335x family of processors which feature high processing performance, low power, and a highly integrated peripheral set. The Industrial Communications Subsystem supports standards such as EtherCAT<sup>®</sup>, Ethernet/IP, PROFINET<sup>®</sup>, PROFIBUS<sup>®</sup>, POWERLINK<sup>™</sup>, SERCOS-III, and CANopen<sup>®</sup>. This integrated subsystem eliminates the need for an external ASIC/FPGA, which saves substantial BOM costs.

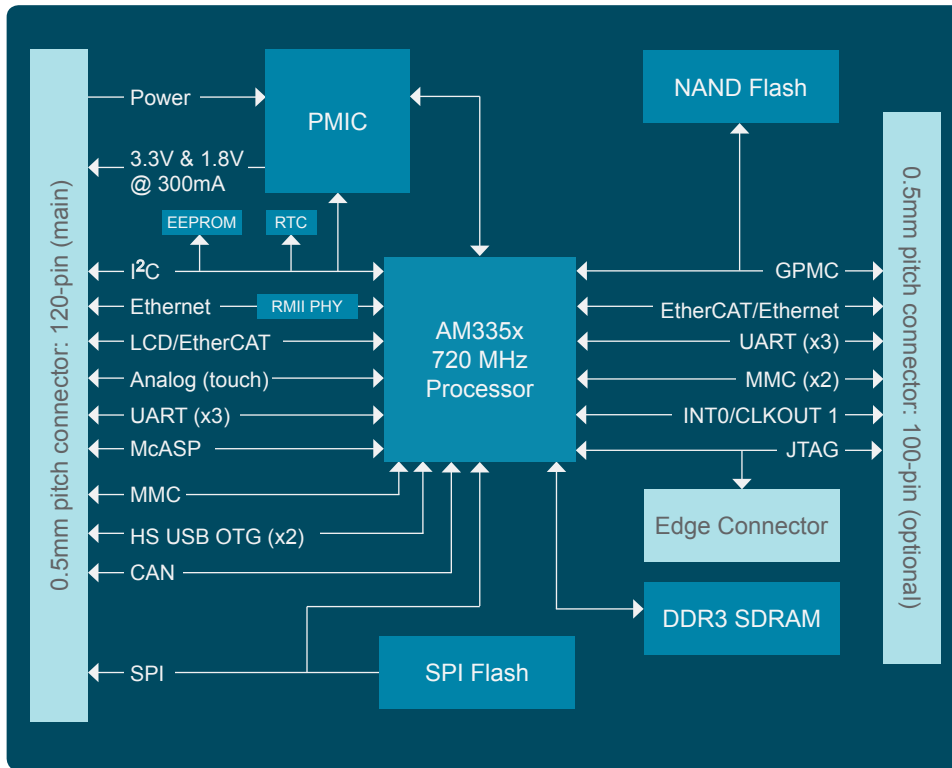
## phyCORE-AM335x Product Highlights:

- // Low cost, feature-packed ARM<sup>®</sup> Cortex<sup>™</sup>-A8 based System on Module (SOM)
- // Tiny form factor: 44 x 50 mm
- // Dual Gbit Ethernet, High Speed USB, and CAN
- // Industrial Communications Subsystem
- // Linux, Android, and Windows Compact 7 BSPs - free source code

The combination of industrial temperature rating, 3.3V I/O, and highly reliable interconnects make it possible for developers to create products that can endure rugged and extreme thermal industrial environments such as industrial automation and control, human machine interface, interactive point-of-service kiosks, Portable Data Terminals, and more.

**PHYTEC**

[www.phytec.com](http://www.phytec.com)  
[www.phytec.de](http://www.phytec.de)



phyCORE-AM335x 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-051:

### Processor

- Texas Instruments AM335x
- 720 MHz ARM® Cortex™-A8
- PowerVR™ SGX530 (AM3359, AM3358, AM3354)

### Memory

- 512 MB DDR3, 1 GB NAND, 8 MB SPI Flash, 32 KB EEPROM

### Expansion

- 3x SD/MMC

### Serial

- 6x UARTs, 3x I<sup>2</sup>C, 2x McASP, 2x SPI, 2x CAN

### USB/Network

- 2x HS USB OTG
- 2x 10/100/1G Ethernet

### Multimedia

- Audio

### Display

- 24 bpp TTL or LVDS
- Touch

### Misc

- RTC, PRU, GPIO, JTAG

### Mechanical

- 44 x 50 mm
- Dual 0.5 mm pitch connectors

### Supply

- 3.6 - 5V

### Temperature

- -40° to +85°C

### Operating Systems - Kit Availability

- Linux – Q3/2012
- Android – Q4/2012
- Windows Embedded Compact 7 – Q3/2012

## DEVELOPMENT KIT

The phyCORE-AM335x 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.