

PHYTEC

# Cosmic Board

for phyCORE-AM335x – SINGLE BOARD COMPUTER

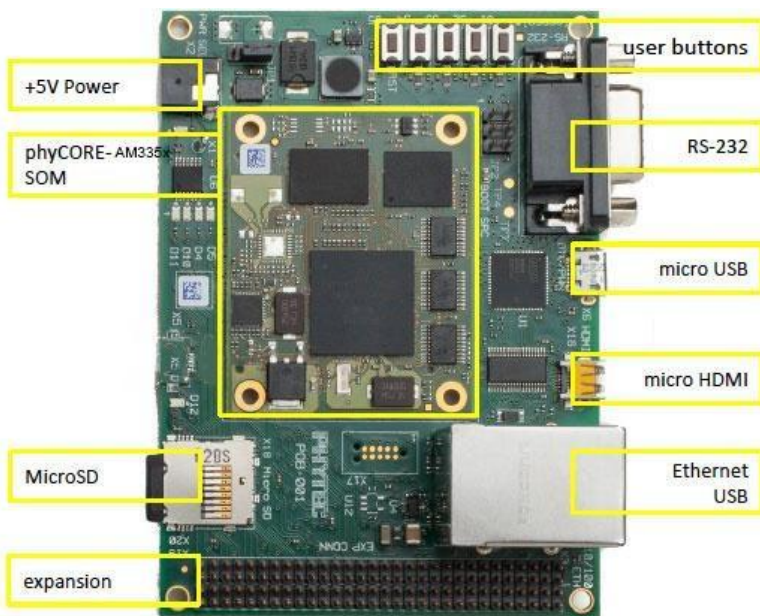


**ORDER NOW!**

Max 3 boards per order

## What is the Cosmic Board?

The Cosmic Board is a richly featured and community-supported development platform for engineers to immediately develop applications with Linux, WinCE & Android.



### Documentation & Software

- Hardware Manual
- Software Manual
- Quick Start Guide

### Optional Accessories

- Power Adapter
- Serial Cable
- LAN Cable
- USB OTG Cable
- 7" LCD with integrated touch

### Package Contents

- Cosmic AM335x Board
- DVD (includes Documents & Board Support Package)

### Support:

- Wiki
- Forum
- Community
- Premium support

### Features

#### SOM:

- PhyCORE-AM335x
- ARM® Cortex™-A8@720MHz
- 512 MB DDR3 RAM
- 512 MB NAND
- 8 MB SPI NOR Flash
- 32 KB EEPROM-(Optional)

#### USB/Network

- 1x USB Host
- 1x USB OTG
- 1x 10/100 Ethernet
- 1xCAN

#### Display Interface

- 24bpp TTL
- Touch

#### Serial

- 1x UART (RS232)
- 5xUART (TTL)

#### Misc Interfaces

- 4 User Leds
- 4 User Buttons
- SDCard

#### Expansion Connectors\*

- WiFi/BT
- 1xADC(8 Channel)
- 77 GPIOs
- JTAG
- 1xSPI

#### General

- Form Factor: Pico-ITX(100 x 72mm)
- Power Requirement(min): 5V DC

Note: \*All the Pins in expansion Connector are multiplexed

[www.phytec.in](http://www.phytec.in)

## Cosmic Board Concept:

The Cosmic Board concept is unique from any other community-supported board because it's much more than a low cost hobbyist tool. At the center of the Cosmic Board is an industrial rated, production-ready, System on Module (SOM). By starting with a SOM-based solution, developers are much closer to product than they imagine. It's possible to have first article prototypes ready in weeks, not months! Sounds out of this world, doesn't it?

## The phyCORE-AM335x System On Module

The phyCORE-AM335x SOM is at the core of the Cosmic Board. With advanced manufacturing technology we have soldered the SOM directly to the Cosmic I/O base board. The 220-pin SOM interconnect allows interfaces such as USB OTG, Ethernet, CAN, and display. These interfaces from the SOM are routed to I/O connectors on the Cosmic Board.

## The AM335x Cortex-A8 Processor Family

The Texas Instruments AM335x family of microprocessors delivers up to 720 MHz high-performance, ultra-low power, and a highly integrated peripheral set. Featuring a Sitara™ ARM® Cortex™-A8 CPU, the AM335x highlights PowerVR™ SGX530 for 2D and 3D graphics acceleration as well as PRU/ICSS supporting real-time protocol standards such as EtherCAT®, PROFINET®, EtherNet/IP, PROFIBUS®, Ethernet Powerlink™ and Sercos.

## Board Support Package (Linux / Android / Win CE)

PHYTEC Board Support Packages (BSPs) are software bundles that implement and support operating systems on our System on Modules. PHYTEC BSPs are application development-ready, offering all essential drivers and board-level feature support. The only task left for you is application integration. This way, you can focus on your core competencies while we take care of the rest.

- GCC C/C++ cross development tool chain
- Build system
- Bootloader, kernel, file system
- Source BSP (Linux – 3.2.0, Android –ICS/Jelly Bean, Windows Embedded Compact 7)
- Qt application support

## Application

PHYTEC SOMs have been deployed in thousands of systems across a wide variety of industrial verticals like:

- Building Automation
- Green Computing
- Medical equipment
- Security
- High-tech farming
- Industrial Automation
- Smart energy system
- Military and Aerospace
- Fitness equipment
- TMI and Transportation

## System Requirements

PC with one RS232-C or USB port Windows 2000/XP/Vista/Windows 7 / Linux One CD or DVD drive 200MB free Hard Disk space 512MB of RAM.

**Our Product range: System on Modules(SOM)** (phyCORE,phyCARD & phyFLEX) built around Cortex™-A5 / Cortex™-M4 ,Cortex™-A8, Cortex-A15, Cortex™-A9, ARM11, ARM9 & PowerPC with Solo, Dual & Quad-Core processors. **Rapid Development Kits** for phyCORE,phyCARD & phyFLEX SOM's. **Single Board Computers** for phyCORE-Vybrid & phyCORE-AM335x. Industrial Cameras & CAN Industrial Networking products.

**Professional Development Solutions:** From initial concept, through manufacturing, we offer end to end solutions for OEMs seeking professional board solutions. Building a new embedded device from the ground up is an enormous challenge and risk, but embedded development is made much easier, faster, and cheaper by leveraging our expertise.

