Cosmic Board

for phyCORE-AM335x – SINGLE BOARD COMPUTER

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.

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:
- 24bppp 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

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

www.phytec.in

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


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.

---

PHYTEC Embedded Pvt. Ltd | #16/9C | 3rd Floor | 3rd Main | 8th Block | Opp: Police Station | Kormangala | Bangalore-560095
Web:www.phytec.in | Ph:+91-80-40867046 – 49 | Mob:+91-9972039671 | Email:sales@phytec.in