Development Platform and Series

The PXA270-RTG (Ready To Go) Development Kit is a low cost development platform and series for applications that require an embedded controller and are to be deployed quickly in the series.

- With or without a camera, whether with or without a display, all options are possible.
- WinCE6.0 or Embedded LINUX - the BSP is provided for free.

The kit consists firstly of the controller phyCORE-PXA270 module and base board, on all available interfaces and connections are laid out. In addition, on the left side of the base board of the supplied with a build in touch screen and digital CMOS camera are mounted.

All elements of the kit are designed for high volume applications. PHYTEC customers can be realized on the basis of the kit components immediately its own serial production - without any hardware development effort -. The form factor is by simply flipping over the baseboard and adaptable to the application. In the sandwich construction is obtained with 145 x 95 mm, a minimal target system with standard connectors. The flexibility of the kit is also reflected in the possible combination of the same electronics with different types of cameras and displays of various sizes.

The kit idea

The phyCORE-PXA270 module is designed to be attached to a customer's application board, so that can be realized without the development of the core customer-specific application.
On the development of customer software, the phyCORE-PXA270 module is placed on a development board. This base board contains the I / O connector and all the necessary interfaces that are not provided on the phyCORE module itself. After the application software development, the phyCORE module is normally removed from the kit base board and set as the computing core of a customer-developed application board.
If, however, corresponds to the development board of the customer's application board, also accounts for the hardware development costs for this board.
The Embedded Video Kit / PXA-270-RTG is designed exactly for this use as a development and production system was. Thus, the development is already starting the series hardware. Take advantage of this advantage.

The road to the Series
During the development phase, the kit can be made through the fully enclosed accessory right away.
The launch of the software is immediately available through the free provision of the BSPs.
The application board is carved in the middle, so that the "display-makers" from the actual base board can be separated. By folding the two sides can then be easily mounted on top. This results in a compact system that can be integrated into many mechanical conditions.
With or without a camera or display - it creates a compact series hardware without any hardware development costs.
Mounting options allow adaptation of the kit to the application and thus an optimized series price.

Quick Start Instructions
Practical guidance to our Quick Start instructions will lead you step by step example of various programming. First, the coupling of module and base board to a host computer is described. Then you work on practical examples. The Quick Start, you always give an overview of what learning step is processed with what time exactly. You will be able to implement their own projects in the shortest time itself. The Quick Start Instructions are available in advance on the "Documentation" available for download and are naturally present in printed form in the kit.

Commissioning Guarantee
We guarantee that you will have successfully worked through in a short time, our QuickStart Guide. Any questions please refer to this support from our specialists by e-mail or telephone.

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Hardware description of the development / application boards:

- Molex "high density" connector for receiving the phyCORE-PXA270 SBC module
- +9 ... 14V unregulated power supply, the +3.3 V phyCORE-PXA270 module voltage and +5 V USB host voltage is generated internally
- Connectors for 3.5 "QVGA Portrait LCD (Hitachi TX09D71VM1CCA) with LED backlight and touch in the 6:6:6 mode
- Connectors for other display / touch / inverter types are available on the board as a mounting option
- AC97 audio / touch controller (Wolfson WM9712L) (MIC-IN, LINE IN, LINE OUT, PC speaker connector, and a beeper for audio signal)
- A DB-9 connector for RS-232 (FF-UART)
- A 2.54 mm pitch connector for RS-232 or TTL Level (BT-UART)
- RJ-45 Ethernet jack with 100/10 MBit / s
- USB Host standard-A socket for PXA270 USB 1.1 Host Interface
- USB mini-B client socket for the PXA270 USB 1.1 Client Interface
- RTC on the PXA270 I2C bus
- Gold Cap as 3.0 V power reserve of the RTC
- Deep Sleep Powermagement
- User GPIO Connectors
- 4, user-programmable LEDs (1 red / 3 yellow)
- 2 white high-brightness LEDs with individual PWM control
- 5 User buttons (4 of them on the display page)
- A system-reset button
- Interface for a keyboard matrix
- Camera interface for various PHYTEC camera modules (VM-007 with multiplexer and M12 (P-Mount) Lens 2.1 mm in the kit)
- JTAG Interface

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Camera head with APTINA MT9M022 CMOS image sensor (752x480 pixels), M12 (S-Mount) Lens Mount and 2.1 mm lens, with integrated multiplexer for 8-Bit (Live show) 10-bit (calculation) changeover, including FFC connector cable.

- **phyCORE PXA270** **Single Board Computer Module**
- **phyCORE PXA270 development board:** PCM-969 (basic and display board is not yet separated)
- **QVGA 3.5 "color TFT display with integrated touch** (Hitachi TX09D71VM1CCA)
- **Windows Embedded CE 6.0 BSP or Bin OSELAS Embedded LINUX**
- **Pre-installed WinCE *or* Linux Image**
- Serial Cable, Ethernet crossover cable, power supply
- Manuals for the phyCORE PXA270 and Development Board PCM-969
- **Tool CD containing** demo application, driver software, hardware manuals, boot loader, flash programming tool JFlash, further examples.

Note: On the kit can be connected to various sensors, cameras and camera designs. Additional Camera Digital camera sensor boards with boards

To different displays the kit can be connected (eg: 5 7 "320x240 / 8 4" 640x480 / 10 4 "640x480 / 10 4 800x600 / ...)

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