

TRITON STARTER-KIT III

The Starter-Kit III is a ready-to-use development system for building applications based on the TRITON 270 embedded processor board.

Base Board

- DIMM200 TRITON socket
- Compact Flash type II socket, selectable true-IDE or CF mode
- SD/MMC-card socket
- 3x RS232 on 10pin flat cable headers
- USB-Device connector
- USB-Host connector
- D-SUB 15 VGA connector
- UCB1400 audio codec & touchscreen controller
- 2x 3.5mm audio connectors (stereo line in, headphone)
- JTAG interface
- All pins of the TRITON socket are connected to flat cable headers
- daughter board slot for easy application design-in
- 10/100 Mbit/s Ethernet (LAN91C111)
- 3,3V single supply design, 5V also available onboard
- Operating Voltage Range: 8-24VDC
- Transient protected for automotive applications
- 100mm x 160mm, overall height 17mm
- Schematics of the base board are included for reference.



Display (available as a cost-option)

- XENARC 700TSV™
- 7" TFT LCD Monitor & Touch Screen
- Screen Size: Diagonal 7" (16:9)
- Physical Resolution:
800 (H) x 480 (V)
- Supported Resolution:
640 x 480 ~ 1600 x 1200
- Display Brightness 300 cd/m²
- Touch Screen Interface: USB port
- Operating Voltage Range:
DC 11V ~ 24V, 1A
- Power Supply: DC 12V
- Power Consumption: <8W
- Operating Temperature: -5°C~70°C
- FCC, CE, E13 Certification
- No dead Pixel Guarantee



Software (Linux kernel and Windows CE BSP)

In addition to the pre-installed RedBoot™ firmware, the Starter-Kit III is available with either a pre-installed Linux kernel, Windows CE 5.0 BSP or Windows Embedded CE 6.0 BSP. The Linux™ kernel and the Windows CE BSP support all of the Starter-Kit III peripherals to ensure that the TRITON-270 module can be easily integrated into existing platforms to minimise the development time and costs. As standard the Linux™ kernel is supplied with all code sources so that it is possible to modify, compile and install the complete Linux™ or parts of it. Sources for the Windows CE BSP are available as a cost-option.

The Linux kernel and both Windows CE BSP will be delivered with the Starter-Kit III.

Linux driver list

- PCMCIA/Compact Flash
- IDE/ATA
- Serial ports (for PXA internal and/or external UARTs)
- USB Host Controller (OHCI)
- Sound via UCB1400
- Touchscreen via UCB1400
- MTD (Flash Rom)
- I2C via dedicated PXA I2C interface (NOT Power Management I2C)
- I2C via GPIO pins
- SSP (kernel internal API available)
- LCD framebuffer driver
- RTC (with DS1339 as backup)
- Watchdog
- CPU frequency scaling

The following drivers may have limited functionality.

- USB device (may not work with certain endpoint configurations)
- MMC/SD (tested with SD memory cards only)

Windows CE driver list

- Ethernet NDIS Miniport driver (SMSC LAN91C111)
- LCD driver
 - Rotation support for 90, 180 and 270 degrees
 - LCD configuration through the system registry
 - Monochrome LCD support (color conversion "CCIR 601")
 - 8bpp and 16bpp color LCD support
- Audio driver (UCB1400 AC97 audio codec and touch controller)
- Touchscreen driver (UCB1400)
- USB host driver (USB HIDs, Mass Storage Devices, RNDIS)
- USB function driver (USB Serial, USB RNDIS)
- Kernel debugger support (Ethernet KITL)
- SD Card driver (SD memory cards)
- PC Card driver (CompactFlash memory cards)
- Touch Screen driver (Xenarc LCD touch screen)
- Battery backed RTC support (DS1339)
- Clock and power management support
 - IDLE mode support
 - SLEEP mode support
 - Configurable wake sources
 - Core clock and voltage control
 - Core clock config demo application
- Serial port driver
- Windows CE profiler support (including "Monte Carlo Profiling" mode)
- GPIO control API
- I2C driver (PXA270 I2C)
- I2C EEPROM driver (M24C16WMN6)
- Keypad driver (PXA270 keypad controller)
- Power button driver

Not included and against separate quotation:

- PWM driver / Buzzer API
- Ethernet NDIS Miniport driver (CS8900)
- SSP driver
- A/D converter driver
- Single wire driver (e.g. DS2430)
- Serial eeprom driver (connected to I2C)
- Temperature sensor driver (connected to I2C)
- Battery driver

TRITON Module



TRITON 270