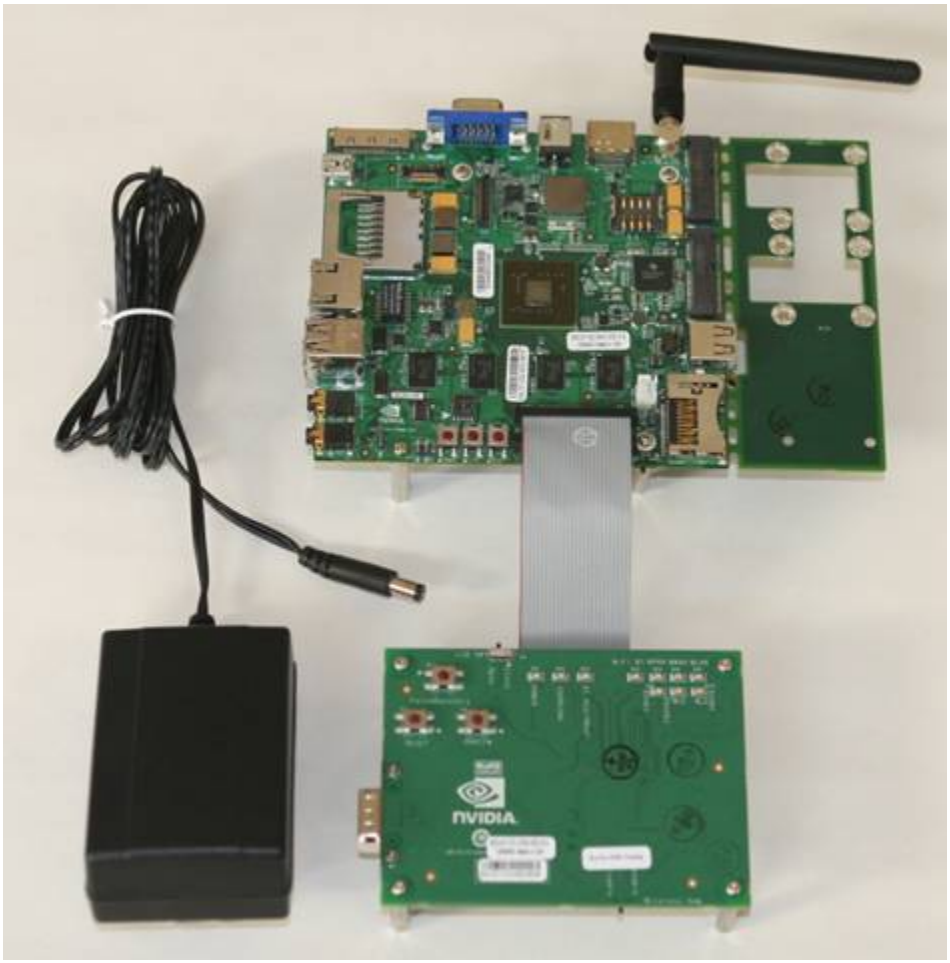
Supplier: NVIDIA
Part Number: 940-81180-2000-000
Description: Harmony Tegra 2 Developer Kit

Features

The NVIDIA Harmony Tegra 2 Developer Kit ships with the following items in the box (as shown in the photograph):

- A Tegra 250 main board containing the Tegra processor, flash memory, power, reset and “recovery” buttons, SD card slots and associated connectors
- A Tegra 250 mini-expansion (or satellite) board containing status LEDs, configuration switches, replicated power, reset and “recovery buttons”, and an RS-232 serial port.
- A detachable, foldable WiFi antenna
- A 120-240V AC power adapter

Photo



Data Sheet

NVIDIA® Tegra™ 250

- Dual-core ARM® Cortex-A9 MPCore™ processor
- 3D Graphics processor with OpenGL ES2.0
- Image signal processor up to 12 Mpixel sensor support
- Ultra low power audio processor
- Advanced Power Management
- Dynamic voltage and frequency scaling
- Multiple clock and power domains

DRAM Memory

- 1GB DDR2–667 system RAM

Flash Memory

- 512MB 8-bit SLC NAND (onboard)
- External SD/MMC card slot: standard 4-bit SD/MMC socket allows SD/MMC/SDIO cards to be inserted/removed by user.
- Internal SD/MMC card slot: combination 8-bit MMC and 4-bit SD/MMC socket intended for use as boot device and/or mass storage. Should not be used as removable storage. 2-pin header needs to be shorted to supply power when eMMC module is installed in socket.

Display Interfaces

- Dual display controller (integrated LCD + external)
- Single Channel 18 BPP LVDS with DDC and Integrated Backlight Power
- HDMI 1.3 resolution support up to 1920 x 1080
- VGA support up to 1600 x 1200

Audio

- Wolfson WM8903 L Codec
- Stereo headphone jack
- External and Internal Microphone connectors
- Left/Right Speaker Amps

PCI Express

- 2 x internal PCIe Mini-Card slots[1]
- Slot 0: routes to SIM/UIM card socket and is intended to support compatible 3G Modem modules.
- Slot 1: can be used for Solid-State drives, a different WiFi solution, or other peripherals

USB and Ethernet

- 3 x USB Type-A Host ports: LAN9514
- USB Host port (PCIe Slot #1): LAN9514
- USB Mini Type-B connector: for Recovery Mode
- Ethernet RJ-45 Jack: LAN 9514

2 Dual Row Expansion Headers

- 16 x 8 matrix keyboard interface
- Touchpad interface with left and right buttons
- I2C interface for touch sensor
- I2C interface for external embedded controller

Buttons, Switches

- POWER, F. R. (Force Recovery) and RESET buttons
- AC/DC detect emulation switch

Power Options

- External AC adapter (15V @ 30W)
- 3 cell series 3.7V 2200mAHr Li battery (not included): minimum 24WHr
- Level 2 Smart Battery charge controller

Wireless

- Murata WiFi and Bluetooth module
- Bluetooth: CSR BC6
- 802.11g WiFi: Atheros 6002
- SMA Antenna Connector

CSI Two Data Lane Camera Module Connector
Debug Port (JTAG, UART, SPI)
Miscellaneous Devices

- Keyboard and Embedded Controller: SMSC MEC1308
- Temperature Sensor: ADT7461ARMZ RL7
- USB hub with integrated 10/100 Ethernet controller: SMSC LAN9514
- Hi-Speed USB Transceiver with 1.8V-3.3V ULPI Interface: SMSC USB3317