

T89 Development Kit 1.0

High performance computer board for 1080p multimedia applications

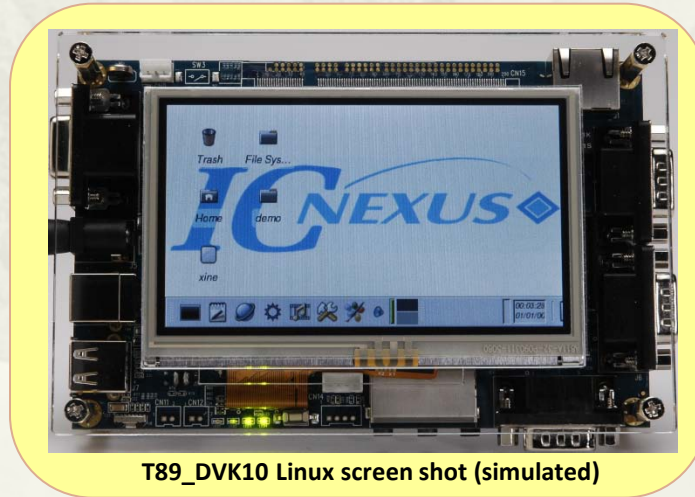
T89_DVK10 Kit

The T89_DVK10 (T89 Development Kit V1.0) is a compact-sized computer board with a rich set of features. It is a flexible, high performance and inexpensive development kit designed for multimedia applications especially in 1080p video playback.

The T89_DVK10 hardware comprises a CPU card, a baseboard, a USB2.0 hub card and a TFT LCD display. Each T89_DVK10 can be pre-installed with either Windows CE 6.0, Linux 2.6 OS or Android 2.1 for instant evaluation.



T89_DVK10 WinCE screen shot (simulated)



T89_DVK10 Linux screen shot (simulated)

CPU Card

PCBOA100 CPU Card is a system on module in small form factor, low power consumption and high performance. The ARM1176JZF-based processor is able to run at frequency higher than 600Mhz.

TFT-LCD Display

The standard T89_DVK10 kit comes with a 7-inch LCD module at 800x480 resolution and a resistance type touch screen to make the evaluation and development tasks easier. Optional LCD size at 4.3-inch (480x272) is also supported.

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CPU Card Specifications

CPU

ARM1176JZF @ 500Mhz / 600Mhz
16KB/16KB cache, 16KB/16KB TCM

Memory

128MB DDR2 SDRAM (32-bit)
128MB NAND Flash (8-bit)

Bus / Interfaces / IO

LCD Interface
8-bit SRAM-like system bus
HDMI 1.3
SATA / SDMMC / USB2.0 OTG
10/100 Ethernet Controller
TV Out
Touch Panel Interface

Bus / Interfaces / IO

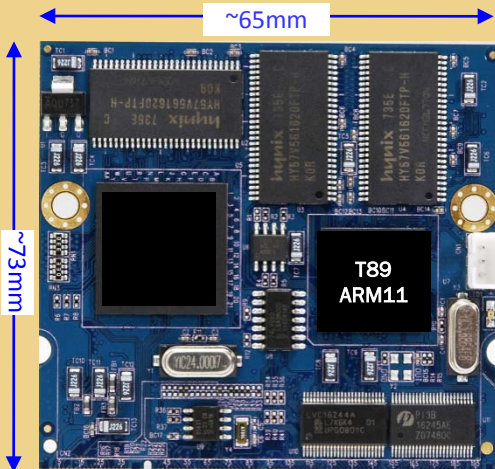
Camera Interface
I²S / I²C / UART / PWM / RTC / GPIO

Supported OS

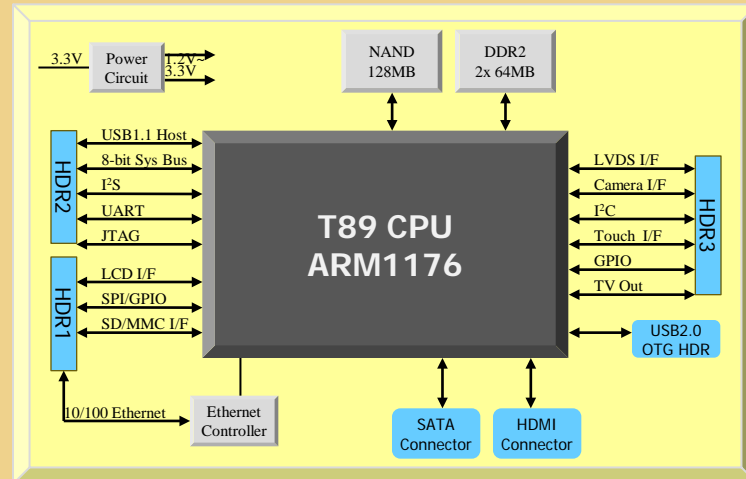
WinCE 6.0
Linux 2.6.x
Android 2.1

Video File Format (1080p)

MPEG4 → AVI, MP4
MPEG1/2 → MPG, VOB, TS, TP, M2TS, MKV
H.264 → AVI, MP4, M2TS, MOV
WMV9 → ASF, M2TS
RV → RMVB



(Simulated Picture)



PCB0A100 CPU Card Block Diagram

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Base Board Specifications

The baseboard is a standard reference environment. It is designed to realize the I/O interfaces from CPU Card.

The I/O and interface features built on the baseboard are :

1. Digital LCD connectors x2 (for 4.3" and 7")
2. Touch Screen Interface
3. HDMI connector x1 (on CPU card)
4. TV Out connector x1
5. SATA connector x1 (on CPU card)
6. USB2.0 Host x4 (with a 4-port Hub Card)
7. USB2.0 Device x1
8. SD/MMC/SDIO card holder x1
9. Audio Codec, Amplifier and connectors
10. 10/100 Ethernet RJ45 connector
11. Camera Input header x1
12. Video Input connector x1
13. UART (DB9) x2
14. Expansion Bus connector x2

Base Board Block Diagram

