ATMEL
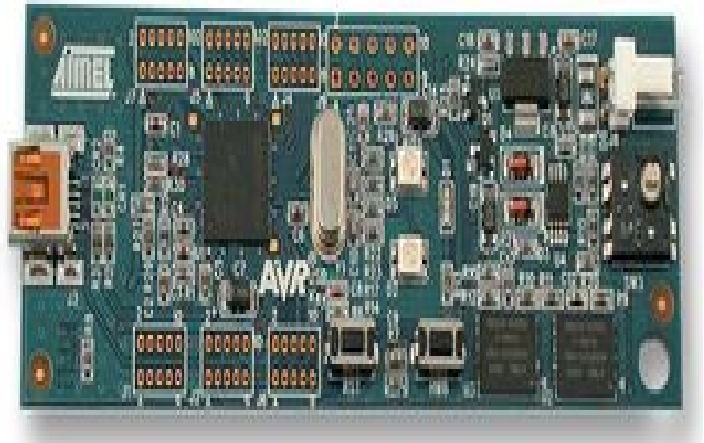
ATMEL - AT90USBKey Low-cost Demonstration Board

Product Overview:

The AT90USBKey is a low-cost demonstration board based on the AT90USB1287 microcontroller. It allows the quick evaluation of AVR microcontrollers and the AT90USB family. The key simply connects to the USB port of a personal computer to retrieve on-board documentation and run AVR programs. Designers can either run demonstration programs or their own application. It also allows hardware developments by giving access to the JTAG port and all the IOs of the microcontroller. An external power supply can be used for USB host or stand-alone operation.

Kit Content:

1) AT90USBKEY: 1 Nos
2) USB cable mini A-B: 1 Nos

Key Features:

- AT90USB QFN64
- AVR Studio® software interface (1)
- USB software interface for Device Firmware Upgrade (DFU bootloader) (2)
- Power supply flagged by "VCC-ON" LED:
  - Regulated 3.3V
  - From an external battery connector (for reduced host or OTG operation)
  - From the USB interface (USB device bus powered application)
- JTAG interface (connector not mounted):
  - For on-chip ISP
  - For on-chip debugging using JTAG ICE
- Serial interfaces:
  - For on-chip ISP
- On-board resources:
  - 4+1-ways joystick

- ▪ 2 Bi-Color LEDs
- ▪ Temperature Sensor
- ▪ Serial Data Flash Memories
- ▪ All microcontroller I/O ports access on 2x8pin headers (not mounted)
- On-board RESET button
- On-board HWB button to force bootloader section execution at reset.
- System clock:
    - ▪ 8 MHz crystal

Ordering Information:

Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
AT90USBKEY	ATMEL	1455078	58M3865

Associated Products:

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
AT90USB1287-AU	Atmel	8BIT MCU, 128K FLASH, USB, WAFFLE45	1748496	26R5676
AT90USB162-16AU	Atmel	AVR USB MCU, 16K FLASH, SMD, TQFP32	1455073	58M3868

Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
ATJTAGICE2-JMS2206	Atmel	TEST BOARD KIT, COMBO	ATmega16, ATmega1280, ATmega649	1526599	73M8851
AT89STK-10	Atmel	AT89STK-10 Starter Kit	AT89C513xA AT8xC5122D	1455064	58M3859
AT91SAM7A3-EK	Atmel	AT91SAM7A3-EK evaluation kit	AT91SAM	1455080	58M3874
ATA2270-EK1	Atmel	Development Tools & Eval/Demo Boards	T5551, e5530, TK5530, T5554	1551852	94M6248
ATSTK600	Atmel	Development Tools & Eval/Demo Boards	AVR32	1562235	94M6265

Document List:

Datasheets:

Part Number	Description	Size
AT90USBKEY	EVALUATION KIT, AVR, USB	486KB
AT90USB1287-16AU	8BIT MCU, 128K FLASH, USB, WAFFLE45	4.66MB
AT90USB162-16AU	AVR USB MCU, 16K FLASH, SMD, TQFP32	2.75MB

Application Notes:

File Name	Size
AVR270: USB Mouse Demonstration on megaAVR with USB	297KB
AVR271: USB Keyboard Demonstration on megaAVR with USB	440.98KB
AVR273: USB Mass Storage Implementation on megaAVR with USB	1.28MB
AVR280: USB Host CDC Demonstration on megaAVR with USB	372KB
AVR287: USB Host HID and Mass Storage Demonstration	293.12KB

Hardware & Software:

File Name	Size
ATAVRDRAGON - EMULATOR, PROGRAMMER, FOR AVR	9.42KB
AVR JTAGICE mkII	347.2KB
AVR32 GNU Toolchain 2.4.2	102MB
AVR32 Studio 2.5	203MB
AVR Studio 4	116 MB

Others Resources:

File Name	Size
AT90USBKey Hardware User Guide	486.83KB
AVR Assembler User Guide	485.35KB
AVR ICE 200 User Guide	3.9MB