



ATMEL - ATEVK1105 - AVR32 EVK1105 Evaluation Kit

Product Overview:

The AVR32 EVK1105 is an evaluation kit for the AT32UC3A3256 which combines Atmel's state of art AVR32 microcontroller with an unrivalled selection of communication interface like USB device including On-The-Go functionality, SDcard, NAND flash with ECC and stereo 16-bit DAC.



The AVR32 EVK1105 is an evaluation kit for the AT32UC3A0512 which demonstrates Atmel's state-of-the-art AVR32 microcontroller in Hi-Fi audio decoding and streaming applications.

Kit Contents:

The kit contains reference hardware and software for generic MP3 player docking stations.

Key Features:

- High Performance, Low Power AVR@32 UC 32-Bit Microcontroller
- Multi-Layer Bus System
- Internal High-Speed Flash
- Internal High-Speed SRAM
- Interrupt Controller
- Power and Clock Manager Including Internal RC Clock and One 32KHz Oscillator
- Two Multipurpose Oscillators and Two Phase-Lock-Loop (PLL),
- Watchdog Timer, Real-Time Clock Timer
- External Memories
- MultiMediaCard (MMC), Secure-Digital (SD), SDIO V1.1
- CE-ATA, FastSD, SmartMedia, Compact Flash
- Memory Stick: Standard Format V1.40, PRO Format V1.00, Micro
- IDE Interface
- One Advanced Encryption System (AES) for AT32UC3A3256S, AT32UC3A3128S and AT32UC3A364S
- Universal Serial Bus (USB)
- One 8-channel 10-bit Analog-To-Digital Converter, multiplexed with Digital IOs.

- Two Three-Channel 16-bit Timer/Counter (TC)
- Four Universal Synchronous/Asynchronous Receiver/Transmitters (USART)
- Two Master/Slave Serial Peripheral Interfaces (SPI) with Chip Select Signals
- One Synchronous Serial Protocol Controller
- Two Master/Slave Two-Wire Interface (TWI), 400kbit/s I2C-compatible
- On-Chip Debug System (JTAG interface)
- 110 General Purpose Input/Output (GPIOs)
- 144-pin TBGA and LQFP
- Single 3.3V Power Supply

Ordering Information:

Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
ATEVK1105	Atmel	1715478	15R0261

Associated Products:

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
AVRONE-PSU	Atmel	PSU for AVRONE	1715521	15R0340
ATJTAGICE2	Atmel	Development Kit, Debug Tool	9171100	23M5050
ATJTAGICE2 - JMS2206	Atmel	Test Board Kit, Combo	1526599	73M8851
AT32UC3A3256-AL UT	Atmel	MCU,32BIT,AVR32,256K FLASH, 144LQFP	1715452	15R0316
AT45DB642D-TU	Atmel	Data Flash 64MB	1095799	89K8481
MT48LC16M16A2P-75:D	Micron	SDRAM 256MB	1216280	97K6120
TPS2112APW	TI	Multiplexer IC	1412179	01J0958
TPS61020DRCRG4	TI	Boot converter	9969160	79K3407
DP83848IVV/NOPB	NS	Ethernet Transceiver	1654352	69K2089
TPA6130A2RTJR	TI	138-mW Direct path stereo headphone amplifier with I2C volume Control	1697156	34M0132
TLV320AIC23BIPW	TI	Codec audio	1212374	32H6514
QT1081-ISG	Atmel	Touch sensor	1361791	50M4745
AT32UC3B1256-AUT	Atmel	32-Bit Microcontroller	1715454	15R0318
TPS2021D	TI	Power distribution switches	1755292	62M0669

Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
ATEVK1100	Atmel	KIT, Evaluation for AVR32 AT32UC3A	AVR32 AT32UC3A	1629540	02P6232
ATEVK1104	Atmel	KIT, Evaluation for AVR32 AT32UC3A	AVR32 AT32UC3A	1715477	15R0260
ATSTK600	Atmel	ATSTK600 - Development Tools & Eval/Demo	AT32UC3B164, Tmega168, AT32UC3A0512	NA	94M6265

Document List:

Datasheet:

Part Number	Description	Size
AT32UC3A0512	AVR32 32-Bit Microcontroller	655.6KB
AT45DB642D	AT45DB642D 64-megabit 2.7V Dual-interface DataFlash	1.37MB
MT48LC16M16A2	MT48LC16M16A2 Synchronous Dram	1.5MB
TPS2112	TPS2112Autoswitching Power Aux	164KB
TPS61020DRCRG4	96% Efficient synchronous boot converter	548KB
DP83848I	10/100 Mb/s Ethernet Physical Layer Transceiver	3MB
TSM6866SDCARV	20V Dual N-Channel MOSFET	397KB
TPA6130A2RTJ	138-mW Directpath sterei headphone amplifer with I2C volume Control	1.16MB
TLV320AIC23BIPW	Stereo audio codec 8 to 96Khz with integrated headphone amplifier	232KB
QT1081	8-KEY Qtouch sensor IC	246KB
AT32UC3B1256-AUT	32-Bit Microcontroller	989KB
TPS2021D	Power distribution switches	378KB

Application Notes:

File Name	Size
AVR32100Using the AVR32 USART	45.87KB
AVR32101onfiguring the AVR32 interrupt controller	50.96KB
AVR32102Using the AVR32 SDRAM controller	57.87KB
AVR32105Master and Slave SPI Driver	112.25KB

AVR32107: Using TWI as a Master on the AVR32	72.66KB
AVR32108: Peripheral Direct Memory Access Driver	55.69KB
AVR32110: Using the AVR32 Timer/Counter	63.11KB
AVR32111: Using the AVR32 PIO Controller	46.04KB
AVR32113: Configuration and Use of the Memory Management Unit	67.95KB
AVR32114: Using the AVR32 LCD Controller	147.99KB
AVR32 UC3 USB DFU Bootloader	853.33KB
AVR32717: Compatibility Note AT32UC3Ax Revision E to Revision H or later	194.60KB
AVR32733: AVR32 UC3 Placing data and the heap in external SDRAM	207.59KB
AVR32758: AVR32 UC3 USB Host Mass Storage Bootloader	228.02KB
AVR32760: AVR32 UC3 USB DFU Bootloader Protocol	191.76KB

Hardware & Software:

File Name	Size
Atmel QTouch Library 3.0	124MB
AVR QTouch Studio 2.0.1	8MB
AVR32 GNU Toolchain 2.2.1 - Windows	55MB
AVR32 GNU Toolchain 2.2.1 - Linux Ubuntu 9.04	31MB
AVR32 Studio 2.2 for Windows	266MB
AVR32 Studio 2.2 for Linux (x86_64)	250MB
AVR32 UC3B Software Framework 1.4.0	57MB
FLIP 3.3.4 for Windows	20MB
EVK1105 Schematics and BOM	NA