Olimex - SAM7-EX256 - ARM – Development Board

Product Overview:

SAM7-EX256 is the Development board for ARM7TDMI-S microcontroller.

Key Features:

The SAM7-EX256 has the following features:

- MCU: AT91SAM7X256 16/32 bit ARM7TDMI™ with 256K Bytes Program Flash, 64K Bytes RAM, CAN, USB 2.0, Ethernet 10/100, RTT, 10 bit ADC 384 ksps, 2x UARTs, TWI (I2C), 2x SPI, 3x 32bit TIMERS, 4x PWM, SSC, WDT, PDC (DMA) for all peripherals, up to 55 MHz operation
- standard JTAG connector with ARM 2x10 pin layout for programming/debugging with ARM-JTAG
- NOKIA 6610 128x128 TFT 12 bit COLOR LCD with back light
- Ethernet 10/100 PHY with KS8721BL
- USB connector
- Two channel RS232 interface and drivers
- SD/MMC card connector
- Joystick with 4 direction and push action
- two buttons
- Audio in and Audio Out jacks for microphone and headphones
- on board Speaker with volume control potentiometer
- trim pot connected to ADC
- Thermistor connected to ADC
- on board voltage regulator 3.3V with up to 800mA current
- Single power supply: 6V AC or DC required, board can take power from USB port too
- power supply LED
- power supply filtering capacitor
- RESET circuit , RESET button
- 18.432 Mhz crystal on socket
- extension headers for all uC ports
- PCB: FR-4, 1.5 mm (0,062"), solder mask, silkscreen component print
- Dimensions: 128 x 98 mm (5 x 3.8")

Ordering Information:

Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
SAM7-EX256	Olimex	1701510	25R5020

Associated Products:

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
AT91SAM7X256B-AU	Atmel	MCU, 32BIT, ARM7, 256K FLASH	1748503	26R5683
KSZ8721BL	Micrel	PHY Transceiver	1517240	87H7297
MAX3232IPW	Maxim	RS232 Transceiver	1460375	35K4721
MCP2551-E/P	Microchip	High-Speed CAN Transceiver	1439745	69K7603
MC34063ADG	ON Semiconductor	1.5 A, Step-Up/Down/ Inverting Switching Regulators	1126442	45J1208

Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
SAM7-P256	Olimex	ATMEL AT91SAM7S256 DVB	AT91SAM7 S256	1701511	25R5021

Document List:

Datasheets:

Part Number	Description	Size
AT91SAM7X256B-AU	Highly integrated Flash microcontrollers based on the 32-bit ARM RISC processor	764KB
MC34063ADG	1.5 A, Step-Up/Down/ Inverting Switching Regulators	1.38MB
KSZ8721BL	PHY Transceiver	766KB
MAX3232IPW	RS232 Transceiver	609KB

MCP2551-E/P	High-Speed CAN Transceiver	349KB
MC34063ADG	1.5 A, Step-Up/Down/ Inverting Switching Regulators	159KB

Application Notes:

File Name	Size
Using the Memory Protection Unit (MPU) on AT91SAM7SE Microcontrollers	296KB
Using the Serial Peripheral Interface with AT91SAMxx Devices	194KB
AT91SAM7SE Microcontroller Series Schematic Check List	681KB
AT91SAM7X and AT91SAM7XC Microcontroller Series Schematic Check List	700KB
Using Low Power Modes in AT91SAM7L Microcontrollers	681KB
Using a Real-time Timer with Non-calibrated RC Oscillator as Real-time Clock	210KB
Interfacing Fast Ethernet Transceivers to MAC Processors	122KB
Design Guide for Interchangeability	113KB
A CAN Physical Layer Discussion	258KB
Interface Products Design Guide	781KB
A Simple CAN Node Usiing the MCP2510 and PIC12C67X	334KB
A CAN System Using Multiple MCP25050 I/O Expanders	415KB
Smart Sensor CAN Node using the MCP2510 and PIC16F876	470KB

Hardware & Software:

File Name	Size
SAM7-EX256 REV.B schematic	173KB
TCP-IP code with FreeRTOS	1.66MB
BMP-TO-ARRAY converter for Nokia 6610 LCD	34KB
Open OCD + Eclipse set of projects 1.00 include flash write make file for SAM7-EX256.	2.79MB