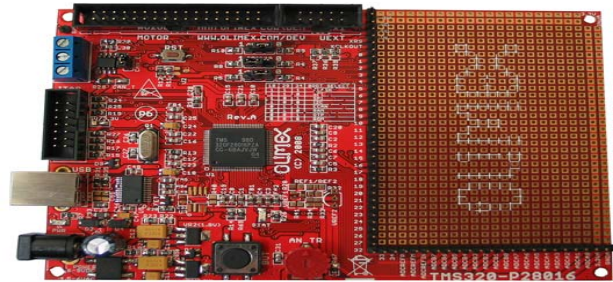




Olimex - TMS320-P28016 - MCU - Development Kit

Product Overview:

TMS320F28016 is known to be the world's lowest cost 32-bit Real Time Microcontroller (DSP) with built-in CAN and cost at only US \$3.60 / 1000 pcs quantity. This is a very good bargain for a 32-bit core running at 60 MHz, delivering 60 MMACS, 32KB Flash, 12 KB RAM, 8 channel PWM 6 of them with enhanced resolution of 150 ps(!), 2 x 8 channels 3.75 MPSP 12-bit ADCs, CAN, RS232, SPI, I2C.



Kit Contents:

- TMS320F28016 development board
- TMS320F28016 microcontroller

Key Features:

- MCU: TMS320F28016 32KB Flash, 12 KB RAM, 3.75 MPSP 2 x 8 channel ADCs, 8 PWM, CAN, SPI, RS232, I2C
- JTAG connector
- USB-to-RS232 converter allows easy power to the board and connection to notebooks and decent computers without an RS232 port
- CAN driver and connector
- UEXT connector with SPI, RS232, I2C for connection to other Olimex modules such as MOD-NRF24Lx, MOD-MP3, etc.
- MOTOR control connector (for add-on modules with ADC, PWM, Interrupt signals available)
- User button
- Trimmer potentiometer connected to Analog input
- power supply LED
- user status LED
- RST button
- external power supply jack for AC or DC power supply
- Voltage regulator + power supply filtering capacitor
- extension headers for each uC pin
- prototype area with 0.1" step, Vcc + GND bus

- PCB: FR-4, 1.5 mm (0,062"), green solder mask, white silkscreen component print
- Dimensions: 100x80 mm (3.9x3.15")

Ordering Information:

Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
TMS320-P28016	Olímex	1701516	25R5137

Associated Products:

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
TMS320F28016PZQ	TI	DSP, C2000, 16K X 16 FLASH, LQFP100	1753343	41M5824
RE471	ROTH	SMT Device Adapter. SMD, FR4, 24-144PIN	1172126	24M6853

Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
TMDSEZD2812	TI	KIT, STARTER, EZ-DSP, F2812	TMS320F28016	1748909	01J0910

Document List:

Datasheets:

Part Number	Description	Size
TMS320-P28016	TMS320-P28016 users manual	910KB

Application Notes:

File Name	Size
Code Composer Studio tutorial how to use TMS320-P28016 board	153KB

Flash programming on TMS320-P28016	574KB
Running an Application from Internal Flash Memory on the TMS320F28xx DSP (Rev. H)	153KB
Spread-Frequency Shift Keying Power Line Modem Software Architecture	122KB
Using Enhanced Pulse Width Modulator (ePWM) Module for 0-100% Duty Cycle Control	71.3KB
Flash Programming Solutions for the TMS320F28xxx DSCs	1.5MB
Optimizing Digital Motor Control Libraries	72.9KB
Configuring the TMS320F280x DSP as an I2C Processor	375KB
Interfacing SD/MMC Cards With TMS320F28xxx DSCs	256KB

Hardware & Software:

File Name	Size
TMS320-P28016 Rev. A schematic	64KB
Blink LED C Source and CCS project files	63.7KB
RS232 echo back C Source and CCS project files	153KB
ADC read C source and CCS project files	122KB
Flash programming blink LED	71.3KB