MICROCHIP

PIC16F1826 Flash Microcontrollers with nanoWatt XLP Technology

General Description:

As more electronic applications require low power or battery power, energy conservation becomes paramount. Today's applications must consume little power, and in extreme cases, last for up to 15-20 years, while running from a single battery. To enable applications like these, products with Microchip's nanoWatt XLP Technology offer the industry's lowest currents for Sleep, where extreme low power applications spend 90%-99% of their time. Benefi ts of nanoWatt XLP Technology:

- Sleep currents down to 20 nA
- Brown-out Reset down to 45 nA
- Watch-dog Timer down to 400 nA
- Real-time Clock/Calendar down to 500 nA

Key Features:

- Enhanced Mid-range Core with 49 Instruction, 16 Stack Levels
- Flash Program Memory with self read/write capability
- Internal 32MHz oscillator
- Integrated Capacitive mTouch Sensing Module
- Data Signal Modulator Module
- MI2C, SPI, EUSART w/auto baud
- ECCP (Enhanced/Capture Compare PWM)
- Comparators with selectable Voltage Reference
- 12 Channel 10b ADC with Voltage Reference
- 25mA Source/Sink current I/O
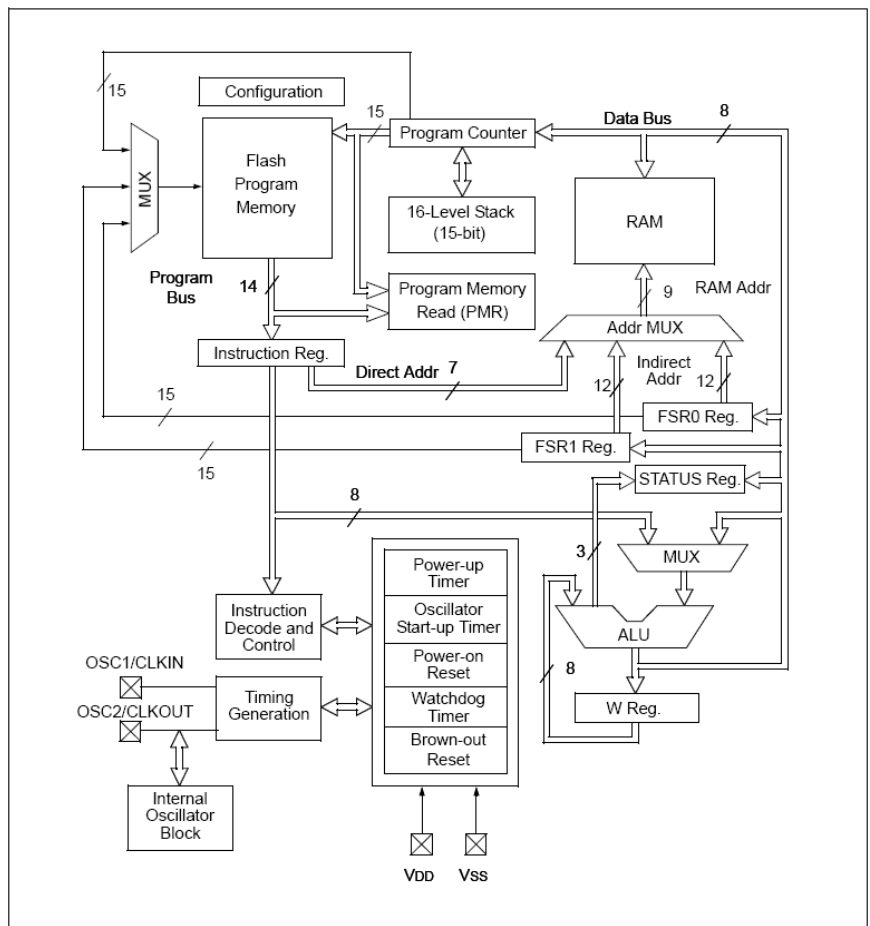
- Four 8-bit Timers (TMR0/TMR2/TMR4/TMR6)
- One 16-bit Timer (TMR1)
- Extended Watchdog Timer (EWDT)
- Enhanced Power-On/Off-Reset
- Brown-Out Reset (BOR)
- In Circuit Serial Programming (ICSP)
- On Board In-Circuit Debug
- Wide Operating Voltage (1.8V – 5.5V)
- Low Power PIC16LF182x variants (1.8V – 3.6V)
- Standby Current (PIC16LF182X): 30 nA @ 1.8V, typical

Applications:

- Lighting Solutions
- Automotive Solutions
- Capacitive Sensing Module
- Low power remote transmitters/receivers
- Capacitive Touch Using Only an ADC (CVD)
- An I2C Boot loader for the PIC16F1XXX Enhanced Core
- Real-Time Clock and Calendar Using PIC16F1827

Related Products Information:

Mfr Part #	Farnell #	Newark #	Description
PIC16F1826-I/ML	1778439	24R7062	MCU, 8BIT, 3.5K FLASH, 16 I/O, 28QFN
PIC16F1826-I/MQ	1778440	24R7063	MCU, 8BIT, 3.5K FLASH, 16 I/O, 28QFN