



### PIC18F85K22 Microcontrollers

## **General Description:**

Featuring nanoWatt XLP Technology, this 8-bit microcontroller is well suited for power-constrained and battery-powered applications. The Charge Time Measurement Unit (CTMU) simplifies the design of capacitive touch applications and can enable other applications requiring precise time and/or temperature measurement. Robust features such as wide operating voltage and temperature ranges and high endurance flash program and data EEPROM make this an excellent microcontroller for rugged automotive and industrial



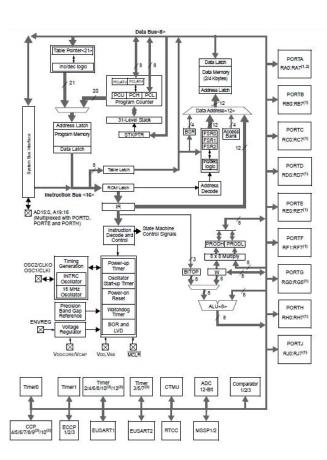
applications. Additional peripherals, such as a 12-bit A/D converter, 3 comparators H/W RTCC, 8 total CCP/ECCP channels, 8 total timers and 69 general purpose I/O, give this cost-effective microcontroller seemingly limitless possibilities in a variety of applications where high performance with low cost is required.

# **Key Features:**

 NanoWatt XLP technology for low sleep, RTCC, LCD and WDT currents

#### Low-Power BOR

- Ultra Low-Power Wake-Up
- Fast Wake-Up
- Low Input Leakage Currents CPU:
- Up to 16 MIPS Performance
- Operating Speed up to 64 MHz
- Operating Voltage Range: 1.8 to 5.5V
- 8 X 8 Single-Cycle Hardware Multiplier
- Three Internal Oscillators: 31 kHz, 500 kHz, 16 MHz Peripherals
- Charge Time Measurement Unit for mTouch Sensing
- A/D Converter
- 12-bit Resolution
- 24 Channels





- 100 ksps
- Eight CCP/ECCP Modules
- Eight 8/16-bit Timer/Counter Modules
- Three Analog Comparators
- Hardware Real-Time Clock and Calendar (RTCC)
- Two Master Synchronous Serial Port Modules

# **Applications:**

- Real-time clock
- Calendar alarm
- Brown-out resets
- · Interrupts and watch-dog timers
- · Low power and space-constrained applications
- Energy harvesting
- Battery Life Estimator

### **Related Products Information:**

| Mfr Part #       | Farnell # | Newark # | Description   |
|------------------|-----------|----------|---|
| PIC18F85K22-I/PT | 1823200   | 25R8354  | 32kB Flash, 2kB RAM, 1kB EE, nano Watt XLP, -40C to |
|                  |           |          | +85C, TRAY, TQFP                                    |
| PIC18F87K90-I/PT | 1823201   | 25R8364  | 128kB Flash, 4kB RAM, 1kB EE, 16MIPS, nano Watt     |
|                  |           |          | XLP, LCD, -40C to +85C, TRAY, TQFP                  |

