DYNAMIC SOLUTIONS

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PIC18F45K22 8-Bit Microcontroller IC

Features:

The PIC18F45K22 Microcontroller IC is an 8-bit PIC microcontroller with a C compiler optimized architecture, 32KB program memory, 1536 bytes RAM, 256 bytes data EEPROM, and 40-pin package. It supports operation from 1.8V to 5.5V, up to 16 MIPS performance, flexible oscillator options, 10-bit ADC with 28 channels, two comparators, SPI, I2C, timers, PWM functions, ICSP programming, in-circuit debug, and low power sleep modes for embedded control applications.

Specifications	
Part Number	PIC18F45K22
Device Type	8-bit microcontroller IC
Program Memory	32KB
RAM	1536 bytes
Data EEPROM	256 bytes
Pin Count	40
Operating Voltage	1.8V to 5.5V
Maximum Operating Voltage	5.5V
Minimum Operating Voltage	1.8V
Performance	Up to 16 MIPS
Instruction Width	16-bit
Data Path	8-bit
Program Memory Addressing	Linear addressing up to 64KB
Data Memory Addressing	Linear addressing up to 4KB
Hardware Stack	31-level software accessible
Hardware Multiplier	8 x 8 single-cycle
ADC Resolution	10-bit
ADC Channels	28
Comparators	2 rail-to-rail analog comparators
SPI	2
I2C	2
PWM	Up to two CCP modules with one, two, or four PWM outputs
Timers	Up to four 16-bit timers/counters and up to three 8-bit timers/counters
External Interrupts	3
Weak Pull-ups	Individually programmable
Interrupt-on-Change	Individually programmable
Oscillator	Flexible oscillator structure

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Internal Frequency Range	31kHz to 16MHz software selectable
PLL Performance	64MHz available using PLL
Crystal Modes	Four crystal modes up to 64MHz
External Clock Modes	Two external clock modes up to 64MHz
PLL	4X Phase Lock Loop
Timer1 Oscillator	Secondary oscillator using Timer1 at 32kHz
Resets	Power-on Reset, Power-up Timer, Oscillator Start-up Timer, Brown-out Reset
Watchdog Timer	Extended WDT with on-chip oscillator and software enable
Low Power	Sleep mode 100nA typical, Watchdog Timer 500nA typical, Timer1 oscillator 500nA typical at 32kHz
Programming	In-Circuit Serial Programming via two pins
Debug	In-Circuit Debug via two pins
Code Protection	Programmable code protection
Communication	Supports RS-232, RS-485 and LIN 2.0
Auto Features	Auto-Baud Detect and Auto Wake-up on Start bit
Voltage Detection	Programmable High/Low Voltage Detection module
Zero Cross Detect	FALSE
Dimensions	5.1x1.7x0.8cm
Usage	Embedded control, sensor input, communication, timing, PWM control, and low power electronic applications

Pinouts: