

8-Bit CMOS Microcontroller with A/D Converter and LIN-BUS Transceiver

Devices Included in this Product Brief:

- PIC16C733

High-Performance RISC CPU:

- Only 35 single word instructions to learn
- All instructions are single-cycle (400 ns) except for program branches which are two-cycle
- Operating speed: DC - 10 MHz clock input
DC - 400 ns instruction cycle

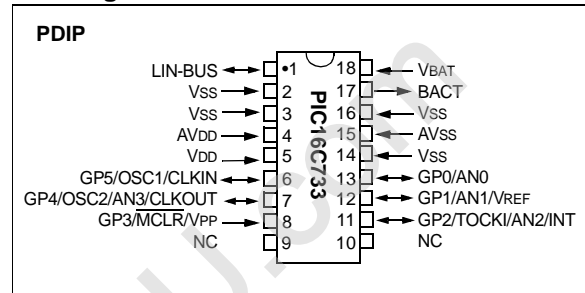
| Device | Memory | |
|-----------|-----------|----------|
| | Program | Data RAM |
| PIC16C733 | 2048 x 14 | 128 x 8 |

- 14-bit wide instructions
- 8-bit wide data path
- Interrupt capability
- Special function hardware registers
- 8-level deep hardware stack
- Direct, indirect and relative addressing modes for data and instructions

Peripheral Features:

- Four-channel, 8-bit A/D converter
- 8-bit real time clock/counter (TMR0) with 8-bit programmable prescaler
- Integrated LIN-BUS Transceiver
- Wake-up on Bus activity
- 12-V Battery operation for Transceiver

Pin Diagram



Special Microcontroller Features:

- In-Circuit Serial Programming (ICSP™)
- Internal 4 MHz oscillator with programmable calibration
- Selectable clockout
- Power-on Reset (POR)
- Power-up Timer (PWRT) and Oscillator Start-up Timer (OST)
- Watchdog Timer (WDT) with its own on-chip RC oscillator for reliable operation
- Programmable code protection
- Power saving SLEEP mode
- Interrupt-on-pin change (GP0, GP1, GP3)
- Internal pull-ups on I/O pins (GP0, GP1, GP3)
- Internal pull-up on MCLR pin
- Selectable oscillator options:
 - INTRC: Precision internal 4 MHz oscillator
 - EXTRC: External low-cost RC oscillator
 - XT: Standard crystal/resonator
 - HS: High speed crystal/resonator
 - LP: Power saving, low frequency crystal

CMOS Technology:

- Low-power, high-speed CMOS EPROM/HV-CMOS technology
- Fully static design
- Wide operating voltage range
 - 2.5V to 5.5V
- Commercial, Industrial and Extended temperature ranges
- Low power consumption
 - < 2.0 mA @ 5V, 4.0 MHz
 - 15 µA typical @ 3.0V, 32 kHz
 - < 1.0 µA typical standby current



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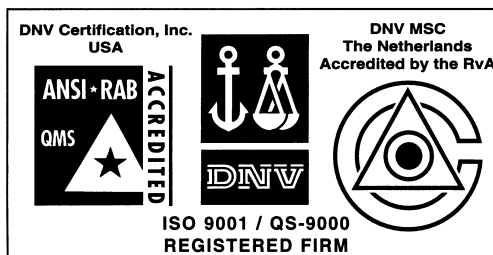
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