

## OTP 8-Bit CMOS MCU with LIN-BUS Transceiver

### Devices included in this Product Brief:

- PIC16C432

### High Performance RISC CPU:

- Only 35 instructions to learn
- All single-cycle instructions (200 ns), except for program branches which are two-cycle
- Operating speed:
  - DC - 20 MHz clock input
  - DC - 200 ns instruction cycle

Device	Program Memory	RAM Data Memory
PIC16C432	2048 x 14	128 x 8

- Interrupt capability
- 16 special function hardware registers
- 8-level deep hardware stack
- Direct, Indirect and Relative addressing modes

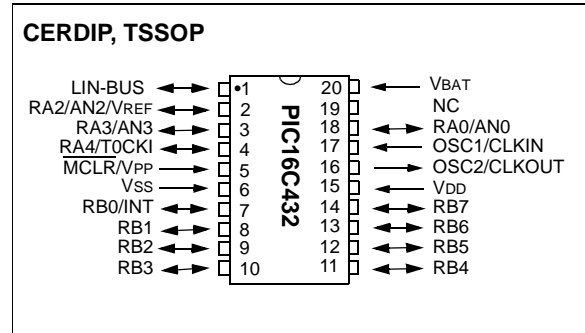
### Peripheral Features:

- Integrated LIN-BUS Transceiver
- 12 I/O pins with individual direction control
- High current sink/source for direct LED drive
- Analog comparator module with:
  - Two analog comparators
  - Programmable on-chip voltage reference (VREF) module
  - Programmable input multiplexing from device inputs and internal voltage reference
  - Comparator outputs can be output signals
- Timer0: 8-bit timer/counter with 8-bit programmable prescaler
- Wake-up on Bus activity
- 12-V Battery operation for Transceiver

### Special Microcontroller Features:

- In-Circuit Serial Programming (ICSP™) (via two pins)
- Power-on Reset (POR)
- Power-up Timer (PWRT) and Oscillator Start-up Timer (OST)
- Brown-out Reset
- Watchdog Timer (WDT) with its own on-chip RC oscillator for reliable operation

### Pin Diagram



### Special Microcontroller Features (cont'd)

- Programmable code protection
- Power saving SLEEP mode
- Selectable oscillator options
- Four user programmable ID locations

### 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 range
- Low power consumption
  - < 2.0 mA @ 5.0V, 4.0 MHz
  - 15 µA typical @ 3.0V, 32 kHz
  - < 1.0 µA typical standby current @ 3.0V



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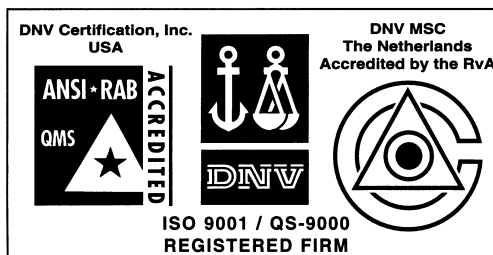
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