FEATURES

▶ Based on the well established and popular Microchip PIC18LF series of Microcontrollers with 10 MIPS performance and nanoWatt technology

▶ Low power 2.0—5.5 VDC Supply Voltage

▶ 8 Kbytes FLASH, 1636 Bytes SRAM

▶ 2 Buffered Analog Inputs and up to 9 direct Analog Inputs

▶ Up to 21 Digital I/O (Dependant on Run-Time Pin Assignments & Board Configuration)

▶ Up to 2 ECCP/PWM Outputs

▶ Up to 3 External Interrupts and 4 Change Interrupts

▶ Configurable IC2 or SPI Serial Port

▶ 2 General Purpose on-board LED's driven by MCU

▶ 1 Enhanced UART. Can be used with direct TTL I/O, or RS-232 driver

▶ RS-232 Driver can be disabled by MCU for low power operation

▶ On-board Reset Switch

▶ Separate top-side ICD connector for programming or debug

▶ Tiny, industry standard 24-Pin DIP format (0.6" row spacing, 0.1" lead spacing)

▶ -40 to +85°C industrial components with optional High-Reliability version.

▶ Production licenses available for high volumes.

APPLICATIONS

Instrumentation and Monitoring

Data Acquisition

Power Conditioning

Environmental Monitoring

Consumer Audio/Video

Sensor Interfaces

Peripheral Interfaces

Glue Logic
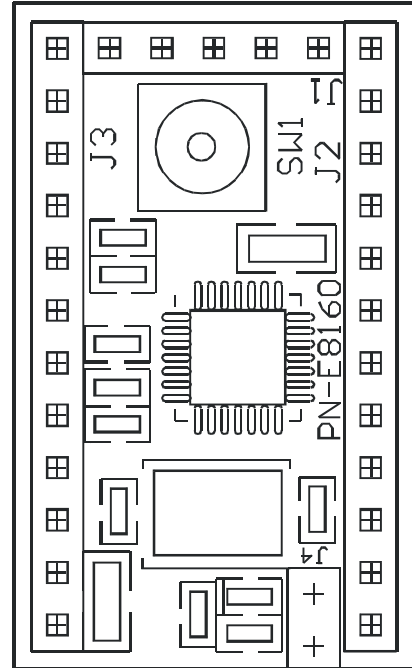
The dsEDGE E8160 is a low cost and flexible microcontroller solution, based on the Microchip 18LF2510 8-bit Microcontroller. The E8160 is designed for use at the application edge and can be placed virtually anywhere to provide low power, local processing for a variety of tasks.

The E8160 includes dual analog input buffers and an integrated RS-232 driver. Innovative features minimize power consumption while retaining full functionality when needed. With battery powered applications in mind, the E8160 is able to run with a wide 2.0 to 5.0VDC supply.

Microchip's rich software support for the PIC18F line also eases integration of the 8160 into your product designs by streamlining code development.

The E8160 is a fully developed solution ideal for immediate integration into a variety of product designs, especially those that are intended for battery powered applications. As a design building block, the E8160 shortens product development cycles, simplifies designs, minimizes design risk, and accelerates time-to-market.

dsEDGE E8160 Specifications (Preliminary)

FUNCTIONAL

CPU:	PIC18LF2510, DC-40MHz
FLASH:	32 Kbytes
RAM:	1636 bytes
Analog Inputs:	Available Configurations of 0 or 2 Buffered Inputs;
	7 or 9 Un-Buffered (Depending on Configuration)
PWM Outputs:	2 (CCP)
Digital I/O:	21 (max. configuration)
Peripherals:	Programmable SPI or I2C
Communications:	Enhanced UART; TTL or RS-232 Driver
	(with MCU controlled power down)
Comparators:	2 (maximum)
Timers:	Maximum 1 (8-Bit) / 3(16-Bit)
LED:	2 MCU Controlled General Purpose

ELECTRICAL

Operating Voltage:	2.0 - 5.5 VDC
Power Consumption:	Operating (No I/O Loading) TBA

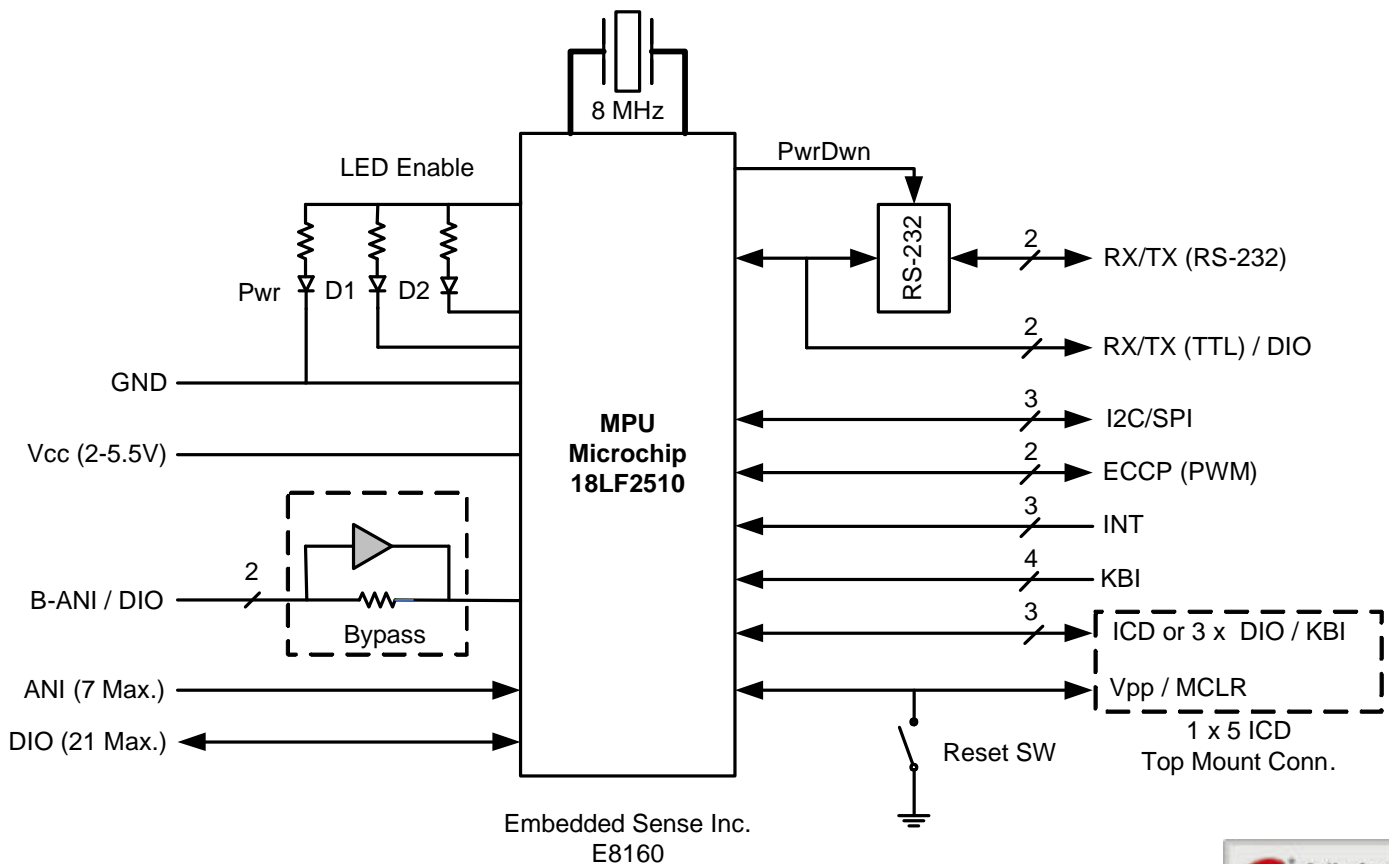## MECHANICAL

Dimensions:	0.768 W x 1.272 L x 0.725 H in.
	19.5 W x 32.3 L x 18.4 H mm.
Top Clearance:	0.33 in (8.4 mm.)
Bottom Clearance:	0.33 in (8.4 mm.)
Connectors:	0.025 Dia. Header Pin, 0.100 Spacing

ENVIRONMENTAL

Operating / Storage:	-25 to +85 °C
	95% Humidity (Non-Condensing)
High Reliability Option:	-40 to +85 °C, 100% Humidity
	Conformal Coated
	100% Burn-In & Temperature Testing

SOFTWARE TOOLS

- 100% compatible with Microchip Integrated Development Environments & Compilers, and all Software Libraries and Application Development Tools.
- In-circuit debug (ICD) and In-circuit serial programming (ICSP) supported through 1 x 5 top-side header.
- Ships with Pre-Installed Embedded Sense boot loader.

Embedded Sense Inc.
E8160

Authorized Design House