

The FLEX boards are accompanied by:

ERIKA Enterprise for Microchip dsPIC® DSC

A small, efficient, and modular open source real-time kernel for embedded applications.

Main features:

- Full support for the Microchip C30 compiler, the MPLAB IDE debugging environment, and the Microchip ICD2 debugger
- Full support for dsPIC (R) DSC series 30 and 33, and PIC24
- Complete software support for FLEX boards and daughter boards
- Support for the 802.15.4 (ZigBee) wireless communication

Scilab/Scicos

An Open Source development flow for the design, simulation and automatic code generation of control systems.

Main features:

- Design of a control system in Scilab/Scicos (more than 100 blocks available!)
- Simulation and tuning of the control system in Scicos
- Single-click code generation for Erika Enterprise for FLEX
- Automatic flashing of the FLEX board
- Integration in the Scicos HIL support using the FLEX USB/wireless connection

Join the FLEX community!

Many Companies and Universities around the world are using FLEX boards. A growing number of freely available- demos, application notes, and ready to compile applications, permit the users to put FLEX directly in use.
www.evidence.eu.com/community

To buy your FLEX contact our official distributors at
www.evidence.eu.com/store

Manufacturer Catalogue

Product code	PRODUCT NAME
FLEX001	KIT, DSPIC FLEX LIGHT BASE BOARD
FLEX003	KIT, DSPIC FLEX FULL FEATURE BOARD
FLEX100	DAUGHTER BOARD, FLEX THRUHOLE
FLEX101	DAUGHTER BOARD, MULTIBUS BASE
FLEX102	MODULE, MULTIBUS, ETHERNET
FLEX103	MODULE, MULTIBUS, RS232
FLEX104	MODULE, MULTIBUS, RS485
FLEX105	MODULE, MULTIBUS, RS422
FLEX106	MODULE, MULTIBUS, CAN
FLEX107	MODULE, MULTIBUS, SPI
FLEX108	MODULE, MULTIBUS, SERIAL TTL
FLEX109	DAUGHTER BOARD, FLEX DEMO

Also available FLEX Fast track suite, ideal for training and education.

The FLEX platform is a result of synergistic effort of two Italian companies working in the field of embedded systems: Evidence Srl and Embedded Solutions Srl. These two companies combined their respective skills on real-time systems and electronic boards development to create this complete and easy-to-use compact solution for creating complex applications based on the Microchip dsPIC® DSC microcontroller.

For more information

on the FLEX Board please visit our web sites:

www.evidence.eu.com
www.es-online.it



EMBEDDED SOLUTIONS

Images courtesy of www.sparkfun.com

FLEX

Modular Boards

for rapidly developing
embedded applications





Exploit the potential of the Microchip dsPIC® DSC family

FLEX Boards enable easy and fast development of embedded applications for the **Microchip dsPIC® DSC** microcontroller. The modular architecture provided by FLEX allows compounding of number of boards, to achieve the desired application with different features on one single device. FLEX Boards are **small in dimension**, they are equipped with **resettable safety fuses**, and currently they can be directly programmed using the standard microchip debug connector. Programming using the USB port would be made available very soon.

The basic configuration of a FLEX device is made by the main board only. The FLEX Base Board mounts a Microchip dsPIC® DSC microcontroller, and exports almost all the pins of the microcontroller. The user can easily connect the desired components to the dsPIC® DSC ports in order to build the specific application. FLEX can be readily used for **quickly developing applications** in the field of electronics, mecatronics, robotics, control engineering, simulation, etc.



FLEX Boards

Hardware

FLEX Base Boards

FLEX Full and FLEX Light

The FLEX Base Boards are designed to export all the connections of a standard Microchip dsPIC® DSC microcontroller. The boards have standard **2.54mm pitch connections**, for easy piggybacking of FLEX or home-made daughter boards.

The FLEX Base Boards are available in two versions: FLEX Full and FLEX Light. The connectors of both the versions are fully compatible and an application developed in one version can be easily moved on to the other with fewer or no modifications.

	FLEX FULL	FLEX LIGHT
Microchip dsPIC® DSC microcontroller dsPIC33FJ256MC710	●	●
Microchip PIC18® PIC18F2550 microcontroller for USB connection (and Programming using the USB port would be made available very soon)	●	
ICD2 in-circuit program connector	●	●
USB connector for communication	●	
Set of LEDs for monitoring the board functioning status	●	●
Set of connectors for Daughter boards piggybacking	●	●
Power supply connectors	●	●
Power supply circuitry with resettable fuses	●	●
Simplified power supply (7-12V)		●
Extra-robust switching power supply (9-36V)	●	



FLEX Full
Product code:
FLEX003



FLEX Light
Product code:
FLEX001

FLEX Daughter Boards

FLEX Daughter Boards contain specialized features that can be added on top of a FLEX Base Board to obtain complex devices for various applications.

Demo Board

The Demo Board adds-on a lot of commonly used features, which makes it a suitable candidate for educational purposes.

Main features:

- 2 DAC outputs
- 3-axis accelerometer
- Direct support for an encoder
- Set of 4 Push buttons, 8 LEDs, 16x2 LCD
- Buzzer and Potentiometer
- Thermal and light sensors
- InfraRed receiver and transmitter
- ZigBee connector
- Multibus UART expansion slot
- Scilab support

Demo Board
Product code:
FLEX109



Multibus Board

The Multibus Board is a base daughter board on which various modules can be mounted to simplify communication between peripherals integrated in the Microchip dsPIC® DSC. For mounting the Multibus modules, the Multibus Board has 7 slots:

- 2 UART slots
- 2 CAN slots
- 1 I2C slot (selectable channel)
- 1 SPI slot (selectable channel)
- 1 Ethernet slot (10 Mbit)

Multibus modules

Currently, Ethernet, RS232, RS485, RS422, TTL, CAN, and SPI Multibus modules are readily available for the Multibus Board.

Thru Hole Prototyping Board

The Thru Hole Prototyping Board has several common pinholes of standard 2.54mm, 1.27mm, 5.08mm patterns, that allows development of small, homemade, custom circuits, which can be transparently interfaced with the FLEX Base Boards.

Custom Daughter Boards

FLEX Boards can be extended using Custom Daughter Boards to accommodate number of additional functionalities e.g. sensors, network connections, actuators, etc. Custom Daughter Boards are made per order.

