

RabbitFLEX™

Configurable Embedded Hardware

Key Features

- Highly Configurable Platform
- Pre-engineered Circuit Options
- Fast Order Processing
- Supports Future Design Changes
- Accelerates Development Schedules
- Reduces Development Costs
- User-friendly Web Interface

Design Advantages:

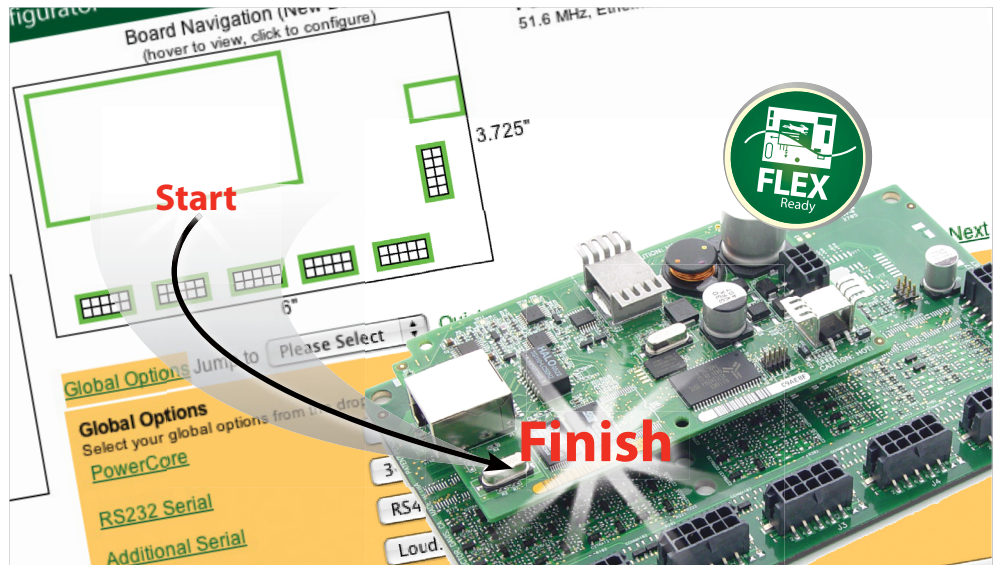
- Ideal for customer-specific I/O configurations
- Pay for what your design really needs
- No NRE design model
- Risk-free engineering flexibility
- Web-based design tool

Applications

- System-level solutions
- Custom-based applications
- Industrial applications
- Network-based embedded systems
- Other key applications

RabbitFLEX Tool Kit:

- Includes Getting Started Instructions
- Programming cable, 10-pin header to DB9 connector with integrated level-matching circuitry
- 48 V AC, 800 mA center-tapped transformer. Compatible with power outlets in continental Europe.
- CD, containing Dynamic C with complete product documentation, including the RabbitFLEX User's Manual.
- Demonstration board with pushbutton switches and LEDs.
- Necessary cables and hardware



RabbitFLEX – From click to ship.

RabbitFLEX is a new patent-pending manufacturing process that accelerates embedded development by giving you the power to seamlessly design, build, and integrate custom-configurable embedded controllers right into your embedded applications.

Until now, engineers have been forced to choose between off-the-shelf single-board computers or custom-designed embedded hardware. Both choices result in high engineering costs and extended development times which can add to the design constraints. RabbitFLEX eliminates these problems by providing a rapid design and manufacturing platform with zero non-recurring engineering costs. You pay only for what you need, and receive the finished product in days instead of months.

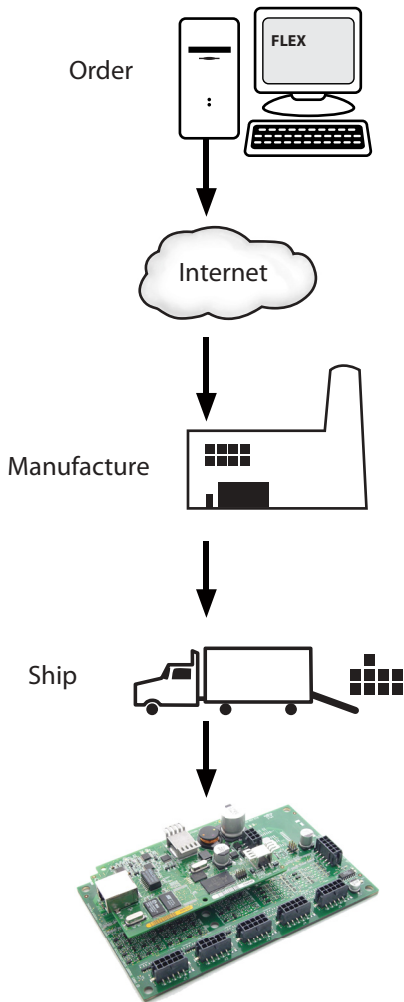
With the introduction of the RabbitFLEX platform, re-designs become a thing of the

past. You can easily make custom-configured controller boards, all from the convenience of the web. RabbitFLEX capitalizes on a proprietary, fast-turn manufacturing process by providing an intuitive web interface for designing and configuring boards based on the precise needs of the project. Changes at any time in the future are easily addressed by simply modifying the original design and ordering the updated board configuration.

Whenever a RabbitFLEX order is placed, the real-time manufacturing line processes the board definition directly from the

information associated with the web order. The board is then automatically built, tested, packaged, and shipped right to your door. All within a few days time – from click-to-ship. The RabbitFLEX process truly enables you to deliver custom embedded solutions in days instead of months. Only with RabbitFLEX does such an opportunity exist to sharply reduce development time and cost while bolstering efficiency and design quality. Powerful custom embedded solutions are now just a click away.

Boards developed in RabbitFLEX are programmed using our industry-proven Dynamic C[®] development software. With hundreds of included sample programs, a royalty free TCP/IP stack, and optional software modules, complete embedded solutions can reach the market in no time.



RabbitFLEX

RabbitFlex offers a base level single-board computer with 40 configurable I/O, and is paired with either the PowerCore 3800 or the PowerCore 3810. For specifications please refer to the specification tables below. In the RabbitFLEX web interface the following options are available for placement.

- Choice of a PowerCore 3800 or 3810
- Serial Communications Options
 - (2) RS-232 (3-Wire)
 - (1) RS-232 (5 Wire)
 - (1) RS-485 (2-Wire)
 - (1) RS-422 (RabbitNet Expansion Port)
- Up to 16 A/D channels
- Up to 2 D/A channels
- Up to 40 Digital I/O for many combinations of: Digital Inputs, Sinking Outputs, Sourcing Outputs, Line Drivers, Bidirectional Lines
- Supports matrix keypads
- Supports LCD's with or without backlight and/or contrast control
- Supports Power Routing of 5 V on all user-selectable connectors. 3.45 V on three connectors

RabbitFLEX SBC40 Specifications		
Features	With PowerCore™ 3800	With PowerCore™ 3810
Microprocessor	Rabbit® 3000 at 51.6 MHz	Rabbit® 3000 at 25.8 MHz
EMI Reduction	Spectrum Spreader for reduced EMI (radiated emissions)	
Ethernet Port	10Base-T, RJ-45, 2 LEDs	-
SRAM	512K program (fast SRAM) +512K data	256K data
Flash Memory (program)	512K	512K
Serial Flash	1Mbyte	-
Backup Battery	3 V lithium coin type 2032, 220 mA-h (to support RTC and data SRAM)	
Configurable I/O	40 individually configurable I/O <ul style="list-style-type: none"> • All 40 configurable as digital inputs, sinking or sourcing digital drivers, line drivers, bidirectional logic, or as +5 V DC power points • Up to 24 configurable as +3.45 V DC power points • Up to 16 configurable as analog voltage or current inputs. 	
Analog Output	Up to two analog outputs available, one of which can be configured to drive an 8 Ω loud-speaker.	
Serial Ports	4 serial ports: <ul style="list-style-type: none"> • Two RS-232 (3-wire) or one RS-232 (5-wire with CTS/RTS) • One RS-485 (terminated or unterminated) or one RS-422 RabbitNet™ SPI master port • One serial port dedicated for programming/debug 	
Serial Rate	Max. asynchronous rate = CLK/8, Max. synchronous rate = CLK/2	
Connectors	RJ-45 connectors: One Ethernet and one RabbitNet (if options selected) Friction-lock connectors: Up to six polarized 2 × 5 terminals with 0.1" pitch, one 2 × 3 terminal with 3 mm pitch Programming Port: 2 × 5 IDC, 1.27 mm pitch	
Real-Time Clock	Yes	
Timers	Ten 8-bit timers (6 cascadable, 3 reserved for internal peripherals), One 10-bit timer with 2 match registers	
Watchdog/Supervisor	Yes	
Power	24-60 V AC with center-tapped transformer (draws 13.3 W)	19-57 V AC with center-tapped transformer (draws 6.7 W)
Operating Temperature	-40°C to +70°C	
Humidity	5% to 95%, non-condensing	
Standoffs/Spacers	Provision for 6	
Board Size	3.725" × 6.000" × 1.22" (95 mm × 152 mm × 31 mm)	