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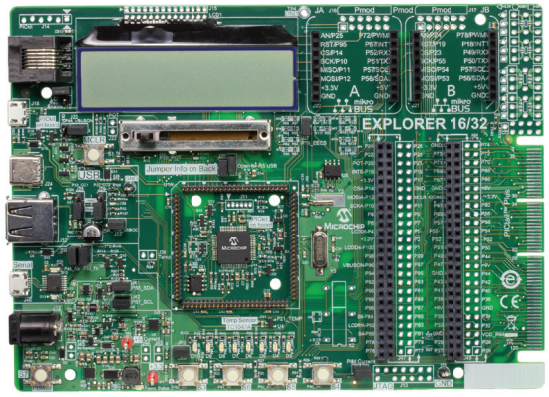
Explorer 16/32 Development Board

A Perfect Platform for Discovering the Full Capabilities of PIC® MCUs and dsPIC® DSCs

Summary

The Explorer 16/32 Development Board is a flexible development system for Microchip's 16-bit and 32-bit PIC® microcontrollers. It is a refreshed and cost-effective version of Explorer 16 Development Board (DM240001) with several new features. This board supports devices from the PIC24 and PIC32 MCU families and dsPIC® DSC families as Processor Plug-In Modules (PIMs), allowing you to develop various applications quickly.

The Explorer 16/32 Development Board provides a perfect platform to prototype applications using several function expansion capabilities through its wide ecosystem support. The board can be a starting point for all your embedded projects by developing a rapid proof of concept before migrating to actual design.



Flexible

Convenient

Ready to Start

16-bit PIC24 MCUs and dsPIC DSCs

32-bit PIC32 MCUs

Enhanced Features

Larger Ecosystem

Backwards Compatible

Key Features

- 100-pin plug-in module socket
- Integrated PICkit™-On-Board (PKOB) Programmer/Debugger
- MPLAB® ICD3 and MPLAB REAL ICE™ In-Circuit Debugger/Programmer support for advanced operations
- Multiple power options
  - USB power for convenience
  - 9–15V DC supply for higher power requirement
- Communication
  - USB host/device support
  - Serial (UART/I²C) communication via on-board USB-serial bridge
- Wide ecosystem with mikroBUS™, PICtail™ Plus and Pmod™ interfaces
- Alphanumeric LCD, push buttons, LEDs, potentiometer, temperature sensor, debug connectors and more

Backwards Compatibility

The new Explorer 16/32 Development Board is backwards compatible with the classic Explorer 16 Development Board in using existing codes, libraries, prototypes, PIMs and all the PICtail Plus daughter cards interfaced via the side PICtail Plus connector. Reuse the PICtail Plus daughter cards interfaced via the vertical PICtail Plus connector by using an additional PICtail Plus Expansion Board.

What's New in the Explorer 16/32 Development Board

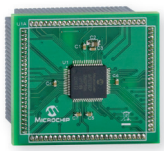
	Classic Explorer 16 Development Board	New Explorer 16/32 Development Board
Device Families Supported Via PIMs	PIC24, dsPIC® DSC, PIC32	PIC24, dsPIC DSC, PIC32
9–15V DC Power Supply Support	✓	✓
PICkit™ 3, MPLAB® ICD3 and MPLAB REAL ICE™ In-Circuit Programmer/Debugger Support	✓	✓
LCD, User LEDs, Push Buttons, Potentiometer, Temperature Sensor	✓	✓
PICtail™ Plus Daughter Cards	✓	✓ (Using optional PICtail Plus Expansion Board)
USB Power Support	–	✓
Integrated PICkit™-On-Board Programmer/Debugger	–	✓
On-Board USB for Application	–	✓
On-Board USB to Serial Communication Bridge	–	✓
Current Measurement Capability	–	✓
mikroBUS™ Interface and Pmod™ Footprint	–	✓

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Wide Ecosystem for All Your Application Needs

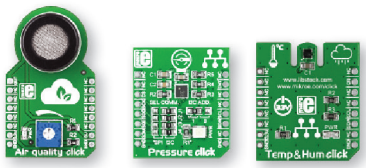
The Explorer 16/32 Development Board provides a complete platform for all you embedded design. Designed to expand its capabilities as your needs grow, it can be operated as an all-in-one development platform or it can be customized to suit your specific needs. This can be achieved with the board's wide ecosystem support that offer a variety of options for function expansion.

Plug-In Modules



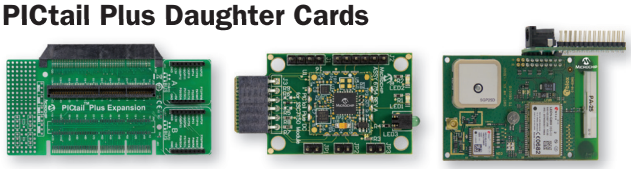
Choose PIMs supporting over 45 families of 16-bit MCUs and DSCs and 32-bit MCUs to explore the innovative features of the device you are interested in. For more information, please visit www.microchip.com/PIMs.

Add-On Boards via mikroBUS Interface



Add new functionality using MikroElektronika's mikroBus connector. Interface with hundreds of plug-and-play Click™ boards supporting a range of functions. Explore the options at www.mikroe.com/click and www.mikroe.com/mikrobus.

PICtail Plus Daughter Cards



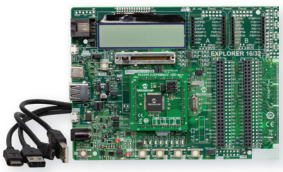
Microchip offers a range of complementary products using over 50 PICtail Plus Daughter Cards directly via the side PICtail Plus connector or the vertical PICtail Plus Connector with the additional PICtail Plus Expansion Board (AC240100). Add new functionality such as communication, graphics, audio, biometric sensor, machine-to-machine and more to your prototype. For more information, please visit www.microchip.com/PictailPlusCards.

Extensive Libraries and Code Examples

The Explorer 16/32 Development Board is supported by an extensive array of software libraries and code examples for quickly starting your design.

Get Started with the Explorer 16/32 Development Platform

Explorer 16/32 Development Board with PIC24FJ1024GB610 PIM (DM240001-3)

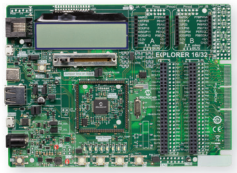


This kit provides everything you need to get started with evaluation and prototype right away. The kit contains:

- Explorer 16/32 Development Board
- PIC24FJ1024GB610 PIM
  - 16-bit PIC24F superset device with USB interface and 1 MB Flash and 32 KB RAM
- Two USB cables (Type-C™ and micro-B cables)

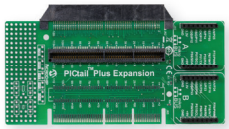
For more information, visit www.microchip.com/Explorer1632.

Explorer 16/32 Development Board (DM240001-2)



Get the development board and choose from a wide variety of PIMs available at www.microchip.com/PIMs. This option also serves well when migrating from the classic Explorer 16 Development Board, while the necessary accessories like PIMs and cables are already available. For more information this development board, visit www.microchip.com/Explorer1632Board.

PICtail Plus Expansion Board (AC240100)



Connect vertical PICtail Plus Daughter Cards to the Explorer 16/32 Development Board using this PICtail Plus Expansion Board. This board also features a prototyping area and two mikroBUS interfaces. For more information, visit www.microchip.com/PICtailPlusExpansion.

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www.microchip.com/Explorer1632

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