



## Microchip - DM240002 - DM240002 Explorer 16 Development Board

### Product Overview:

The Explorer 16 is a low cost, efficient development board to evaluate the features and performance of Microchip's new PIC24 Microcontroller, the dsPIC33 Digital Signal Controller (DSC) families, and the new 32-bit PIC32MX devices. Coupled with the MPLAB ICD 2 In Circuit Debugger or MPLAB REAL ICE, real-time emulation and debug facilities speed evaluation and prototyping of application circuitry.

The **Explorer 16 44-pin (DM240002)** features a Plug-In Module (PIM) for the PIC24FJ64GA004.



### Kit Content:

- The Explorer 16 Development Board.
- A pre-programmed dsPIC33FJ256GP710 PIM
- A pre-programmed PIC24FJ64GA004 PIM
- An RS-232 cable
- The Explorer 16 Development CD ROM, containing:
  - This User's Guide
  - Data Sheets for the PIC24FJ128GA family and dsPIC33FJ256GP family
  - Schematics and PCB drawing files for the PIM modules
  - Example programs for use with the PIC24 and dsPIC33F devices
  - Files detailing general purpose expansion boards that can be used with the explorer 16 board (provided in Gerber format)

### Key Features:

- DM240002: features a PIM for the PIC24FJ64GA004
- Alpha-numeric 16 x 2 LCD display
- Interfaces to MPLAB® ICD 2, MPLAB ICD 3, MPLAB REAL ICE™ and RS-232

- Includes Microchip's TC1047A high accuracy, analogue output temperature sensor
- Full documentation CD includes user's guide, schematics and PWB layout
- Expansion connector to access full devices pin-out and bread board prototyping area
- PICtail™ Plus connector for expansion boards.

## Ordering Information:

### Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
DM240002	Microchip	1754668	54M4471

### Associated Products:

Part Number	Manufacturer	Description	Farnell P/N	Newark P/N
AC164123	Microchip	DEMO BOARD, PICTAIL PLUS ETHERNET	1439831	16M5242
DM240001	Microchip	Explorer 16 kit(100-PIN)	1146554	04M6008
MA320001	Microchip	PIC32MX360F512L PLUG-IN MODULE	1523316	73M8723
AC164137-1	Microchip	MRF49XA PICtail/PICtail Plus Daughter Board (433.92 MHz)	1736502	14R8658
AC164137-2	Microchip	MRF49XA PICtail/PICtail Plus Daughter Board (868/915 MHz)	1736503	14R8659
MA240012	Microchip	PIC24H 100P to 100P TQFP Plug-In Module use w/ Explorer 16 (DM240001 or DM240002)	NA	88K5499
MA240015	Microchip	PIC24F Plug-In Module use w/ Explorer 16 (DM240001 or DM240002)	NA	98M1509
MA330011	Microchip	dsPIC33 GP 100P to 100P TQFP Plug-In Module use w/ Explorer 16 (DM240001)	NA	56K6941

### Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
LM001	LM Technologies	ADAPTER, WI-FI 802.11G, 54MBPS, USB	LM001	1696626	04R7576
LM005	LM	ADAPTER, WI-FI	LM005	1716034	15R1831

	Technologies	802.11N, 300MBPS, USB			
WISMC01BI-01	Ezurio	SERIAL TO WIFI MODULE, 802.11, TCP/IP	WISMC01BI-01	1491592	62M1072
WISDK01BI-02	Ezurio	DEVELOPMENT KIT, SERIAL TO WIFI	WISDK01BI-02	1491596	62M1071
WISMC03BI-01	Ezurio	SERIAL TO WIFI MODULE, 802.11, SLIP	WISMC03BI-01	1491590	NA

## Document List:

## Datasheets:

Part Number	Description	Size
DM240002	<a href="#">dsPIC® Digital Signal Controllers</a>	2.84 MB
PIC24FJ128GA010	<a href="#">PIC24FJ128GA Family</a>	3.51 MB
PIC24F16KA102 Module	<a href="#">PIC24F16KA102 Plug-in Module Information Sheet</a>	93KB
MA240013	<a href="#">PIC24FJ64GA004 PIM (MA240013) Manual</a>	132KB

## Application Notes:

File Name	Size
<a href="#">AN100 How to build a Linux Wireless Sniffer</a>	56KB
<a href="#">100-pin Plug-In Module (PIM) Dimensions</a>	14KB
<a href="#">AN1247 - Communication Device Class (CDC) Host</a>	351KB
<a href="#">AN1192 - MRF24J40 Radio Utility Driver Program</a>	839KB

## Hardware & Software:

File Name	Size
<a href="#">dsPIC33F Demo Files for Explorer 16</a>	25KB
<a href="#">MiWi(TM) P2P for PIC18, PIC24, dsPIC, PIC32</a>	7819KB
<a href="#">MiWi(TM) Protocol Stack for PIC18, PIC24, dsPIC, PIC32</a>	4953KB
<a href="#">PIC24F Demo Files for Explorer 16</a>	46KB
<a href="#">PIC24F16KA102 Demo Files for Explorer 16</a>	278KB
<a href="#">PIC24H Demo Files for Explorer 16</a>	24KB

## Others Resources:

File Name	Size
<a href="#">DM240001 BOM and Schematics</a>	866KB
<a href="#">dsPIC33FJ128GP804 PIM Information Sheet</a>	289Kb
<a href="#">dsPIC33FJ12GP202 PIM Information Sheet</a>	393KB
<a href="#">dsPIC33FJ256GP710 100-pin to 100-pin TQFP Plug-In Module (PIM) Information Sheet</a>	672KB