

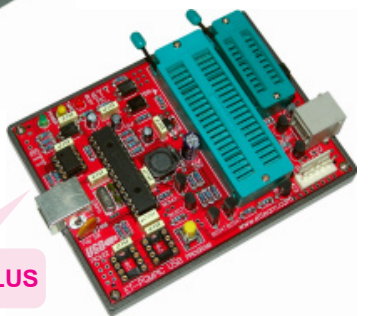
ET-PGM PIC USB V1

(P-ET-A-00326)

ET-PGM PIC USB V1 PLUS

(P-ET-A-00327)

ET-PGM PIC USB is a PIC Microcontroller Programmer of MICROCHIP Co, Ltd., and its specifications are equivalent to PICKIT 2 Programmer of MICROCHIP. It can program many numbers of PIC Microcontroller that is FLASH MEMORY (see more detailed from READ ME of Program PICKIT 2 of MICROCHIP). **ET-PGM PIC USB** can interface with computer PC through PORT USB; use POWER SUPPLY from USB PORT, be high speed for programming. Moreover, it can upgrade new Firmware versions or new numbers from WEB by self (www.microchip.com). Furthermore, ETT designs additional ADAPTER for programming into MCU of MICROCHIP directly, so it is unnecessary to have any Connector on Board for programming. It makes user more convenient to develop program because user does not take off any IC component or design Connector for programming. Now, there are 6 types of ADAPTER and it can be used with MCU DIP TYPE 40 PIN, 28 PIN (WIDE PIN), 28 PIN (NARROW PIN), 20 PIN, 18 PIN, and 14 PIN.

**ET-PGM PIC USB V1****ET-PGM PIC USB V1 PLUS**

It can be used with various MICROCHIP versions such as:

VERSION 12 BIT/ 14 BIT**PIC10FXX, PIC12FXX****PIC16FXX, VERSION PIC18FXX****VERSION PIC18FXJXX****VERSION PIC18FXKXX****VERSION PIC24XX****VERSION dsPIC33XX**

• The method to interface **ET-PGM PIC V1/ V1 PLUS** with ADAPTER MODULE.

- Support applications of PIC Microcontroller and its specifications are equivalent to PICKIT 2 of MICROCHIP
- Interface through USB PORT
- Use POWER SUPPLY from USB Port
- Can program MCU by using TEXT TOOL 40 PIN and 20 PIN for version ET-PGM PIC USB PLUS and it can be used with MCU sizes from 8 PIN to 40 PIN
- There's no any part of TEXT TOOL 40 PIN and 20 PIN for version ET-PGM PIC USB
- There are 2 Connector types for IN-CIRCUIT SERIAL PROGRAMMING:
 - Connector MODULAR JACK RJ11 under standard of MICROCHIP Co., Ltd. (ICD2) can interface with PIC USB Board of ETT
 - Connector WAFER 2.54 mm. 6 PIN and its specifications are as same as ICD2
- Can program by pressing Switch PROGRAM on programmer
- Can directly interface with ADAPTER MODULE for EMULATOR Programming with TARGET Board
- PCB size: 10 x 7.5 cm. with plastic Base
- Use with Program PICKIT 2 of MICROCHIP CO., Ltd.; operate with computer PC and run on OS WINDOWS XP
- **ET-PGM PIC USB V1** consists of
 1. ET-PGM PIC USB V1 Board
 2. Cable USB TYPE A/B
 3. Cable RJ-ICD2
 4. CD-ROM



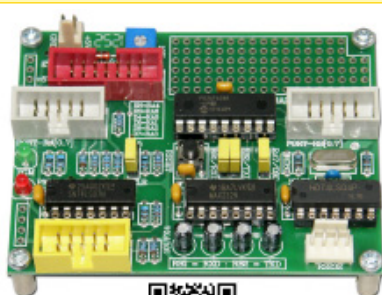
- **ET-PGM PIC USB V1 PLUS** consists of
 1. ET-PGM PIC USB V1 PLUS Board
 2. Cable USB TYPE A/B
 3. Cable RJ-ICD2
 4. CD-ROM

**ET-ICDX V1.0 (P-ET-A-00361)**

ET-ICDX V1.0 is the device for IN-CIRCUIT DEBUGGER and PROGRAMMER CPU in the PIC and DsPIC family from MICROCHIP. Its capability is equivalent to MPLAB ICD2; moreover, it can be used with Program MPLAB.

**Specifications of ET-ICDX V1.0**

- Interface with computer PC through USB PORT (FULL SPEED 2 M BIT/S)
- Can program and debug Microcontroller PIC, dsPIC, PIC32 as REAL-TIME to test the operating results of program
- Can be used with Program MPLAB IDE (can download new version from WEB of MICROCHIP)
- Can upgrade new data in ET-ICDX V1.0 to be used with new Microcontrollers from MICROCHIP through computer by self
- Can be used with Board and Microcontroller that run in the range of 2.0V - 6.0V
- LED to display operating results of POWER, BUSY, ERROR
- Can read and write data into memory and EEPROM of the connecting Microcontroller
- Can program values in the part of CONFIGURATION BITS
- Use RJ11 6 PIN Connector and it is arranged under the standard ICD2 Connector of MICROCHIP; so, it can be connected with MICROCHIP Boards and ETT Boards without any problem such as CP-PIC V4 (ICD2), ET-BASE PIC8722 (ICD2)
- Can be connected with ADAPTER MODULES in the MICROCHIP family of ETT to expand operations; for example, TEXT TOOLS is used to add CPU to be COPY CPU of MICROCHIP such as ET-PGM PIC TEXT TOOLS; or using with MICROCHIP Boards that has not any ICD2 on board, it can be used ADAPTER MODULES of ETT instead such as ET-ADAPTER PIC USB-40A, 28A, 28B, 20A, 18A, and 14A
- Design circuit as SMD and contain in mini plastic box size 7.5 x 2.5 x 5.0 cm. to protect it from dust and short-circuit
- **ET-ICDX V1.0** includes...
 1. Board with box
 2. USB Cable TYPE A/B
 3. RJ-ICD2 Cable
 4. RJ-ICD2-FH Cable
 5. CD-ROM

**ET-BASE PIC16F628 V1 (P-ET-A-00277)**

ET-BASE PIC16F628 V1 which is board PIC family from MICROCHIP Co, LTD. is small size and very cheap. There's circuit cable download, so we can write program on computer PC, and then can download program into board directly. We can use it for general purpose or for interfacing with ET-BASIC I/O V1.

- CPU PIC16F628A DIP 18 PIN

- FLASH MEMORY 2KWORD, RAM 224 BYTE, EEPROM 128 BYTE
- RUN X'TAL 10 MHz, 2 PORT I/O 10 PIN ET PORT A, B
- 14 PIN LCD PORT AS CHARACTER TYPE, 10 PIN ET-PSPI FOR DOWNLOADING
- POWER SUPPLY 5VDC (CAN USE ET-SWITCHING ADAPTER 5V 2A TYPE H OPTION)
- CAN DOWNLOAD PROGRAM INTO INTERNAL FLASH MEMORY BY USING ET-CAP10 THROUGH PORT PRINTER DB 25 PIN FROM COMPUTER PC
- PCB SIZE 6.2 x 8.1 CM., 4 PIN RS232 PORT
- **ET-BASE PIC16F628 V1** INCLUDES...
 1. BOARD ET-BASE PIC16F628 V1
 2. CABLE DOWNLOAD ET-CAP10P V2
 3. CD-ROM OF USER MANUAL FOR RUNNING ON WINDOWS 98/ME/XP/2000

