MICROCHIP

Microchip - MA180024 – USB – Evaluation Kit

Product Overview:

The PIC18F46J50 FS USB Demo Board(MA180024) is a USB 2.0 full speed and low speed demonstration and development board featuring the PIC18F46J50. This PIM is recommended as an initial USB development platform for applications that will be using any of the PIC18F46J50 family microcontrollers. This board can also be used as a Plug-In Module (PIM) to the HPC Explorer Board (DM183022) or the PIC18 Explorer Board (DM183032).

PIC18F46J50 FS USB Demo Board
(Part # MA180024)

The PIM can be operated stand alone, or it may be plugged into the popular PICDEM PIC18 Explorer Board (part number DM183032) for additional functionality. When the board is used in the stand alone configuration, the included RJ-11 to ICSP adapter (part number AC164110) can be used to reprogram the board using RJ-11 based programmers.

Kit Content:

The demonstration board package contains:

- The PIC18F46J50 Full-Speed USB Demonstration Board, pre-programmed with composite USB Human Interface Device (HID) and Mass Storage Device (MSD) class demonstration firmware
- A standard USB A to mini-B cable for power and communication
- A six-pin, in-line ICSP™ to RJ-11 programming adapter board
- The PICDEM™ Starter Kit CD-ROM, containing USB firmware projects, PC application source code, USB drivers and USB specific documentation, such as this user's guide

Key Features:

- USB 2.0 compliance
- Full-speed (12 Mbps) and low-speed (1.5 Mbps) operation
- Support of control, interrupt, bulk and isochronous transfers
- Support of up to 32 endpoints

- 3.8 Kbytes of dual access RAM for USB or general purpose use
- On-chip features for single chip USB implementation, including:

  - USB Serial Interface Engine (SIE)

  - USB transceiver

  - USB pull-up resistors

  - D+ and D- driver output impedance matching resistors

Ordering Information:

Products:

Part Number	Manufacturer	Farnell P/N	Newark P/N
MA180024	Microchip	1706356	07R7710

Associated Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
TC1108-3.3VDB	Microchip	IC CMOS LDO, 3.3V, 300MA	Voltage Regulator CMOS Type	1557422	96K4006
ASMT-RR45-AQ902	Avago Technologies	LED, SMD, 0603, RED	Standard LED / Lamp Size:1.6mm x 0.8mm	1652080	42M4124
NKS7-120-20-E	SARONIX	CRYSTAL, 12MHZ		1210004	97K6524
MCP9701A	Microchip	Temperature Sensor IC		1627203	88K5692
PIC18F46J50-I/PT	Microchip	MCU, 8BIT, 64K FLASH,NANOWATT,44TQFP	PIC18F46J50	1706312	98M1834

Similar Products:

Part Number	Manufacturer	Description	Support Device	Farnell P/N	Newark P/N
DM180021	Microchip	KIT, STARTER, MPLAB, PIC18F	PIC18F46J50	1737240	25R4542
DM183022	Microchip	KIT, PICDEM HPC EXPLORER BOARD	PIC18F8722	1770583	04M6007
MA180023	Microchip	PIC18F46J11 PIM Plug-in Modules	Stand-alone or w/ HPC(DM183022) or PIC18(DM183032)	1706355	14R8813
DM183032	Microchip	KIT, DEMO BOARD, PICDEM PIC18	PIC18	1615691	07P9073
DV164035	Microchip	DV164035 - KIT, EVALUATION, ICD3	PICxx MCUs/ PICxx DSCs	1664878	19P0223
DV164131	Microchip	PICkit 3 Debug Express	Flash based PIC MCUs	1686530	50P9695
DV164126	Microchip	DEV KIT, USB, W/ PICKIT 2	PIC18F14K50, PIC18F13K50	1687477	45P4716
PIC18F13K50-I/P	Microchip	MCU, 8-BIT, 8K FLASH, USB, DIP20	PIC18F13K50	1697073	77M3098
AC244023	Microchip	ADAPTER, PROC EXT PAK, PIC18F1XK50	PIC18F13K50, PIC18F14K50	1699834	04R7529
PG164120	Microchip	PROGRAMMER, PICKIT 2	PICKIT	9847170	51M8937
AC164131	Microchip	USB PICtail Plus Daughter Board	Explorer 16	1558603	88M9288
DM320001	Microchip	STARTER KIT, PIC32	Microchip 32-bit	1523317	71M0037

Document List:

Datasheets:

Part Number	Description	Size
PIC18F46J50	PIC18F46J50 Family Data Sheet	8.31MB
PIC18F4XXXX	PIC18F2XJXX/4XJXX Family Programming Specification	583KB
PIC18F13K50/PIC18LF1XK50	PIC18F1XK50/PIC18LF1XK50 Flash Memory Programming	501KB
PIC18F24XX	PIC18F2450/4450 Data Sheet	5.54MB

Application Notes:

File Name	Size
AN1066 - MiWi Wireless Networking Protocol Stack	634KB
AN1095 - AN1095, Emulating Data EEPROM for PIC18 and PIC24 MCUs and dsPIC DSCs	368KB
AN1204 - Microchip MiWi P2P Wireless Protocol	370KB
AN1229 - Class B Safety Software Library for PIC MCUs and dsPIC DSCs	398KB
AN1267 - nanoWatt & nanoWatt XLP(TM) Technologies: An Introduction to Microchip's Low Power devices	259KB
AN1140 - USB Embedded Host Stack	467KB
AN1189 - Implementing a Mass Storage Device Using the Microchip USB Device Firmware Framework	168KB
AN1212 - Using USB Keyboard with an Embedded Host	485KB
AN950 - Power Management for PIC18 USB Microcontrollers with nanoWatt Technology	259KB

Hardware & Software:

File Name	Size
DEE Emulation 8-bit v1.1.1	312KB
DEE Emulation 16-bit v1.1.2	324KB
Low Pin-Count USB Development Kit Lab Folders	155KB
Low Pin-Count USB Development Kit Project Labs	155kB
AN1229 Source Code	342KB
PIC32 USB Device/Embedded Host Software Stack v1.04	4924KB

Others Resources:

File Name	Size
8-bit Microcontroller Product Selector Guide	2637KB
Solutions for Medical Applications	1.52MB
Microchip Application Libraries	76921KB