

JANUARY 2023 Version 1.0

PICKIT2 ICSP Programmer

The PICKit2 programmer is a device used to program PIC microcontrollers. It connects to a computer via USB and uses software to transfer the code to the chip. The PICKit2 is easy to use and supports a wide range of PIC microcontrollers, making it a popular choice for hobbyists and professionals alike.



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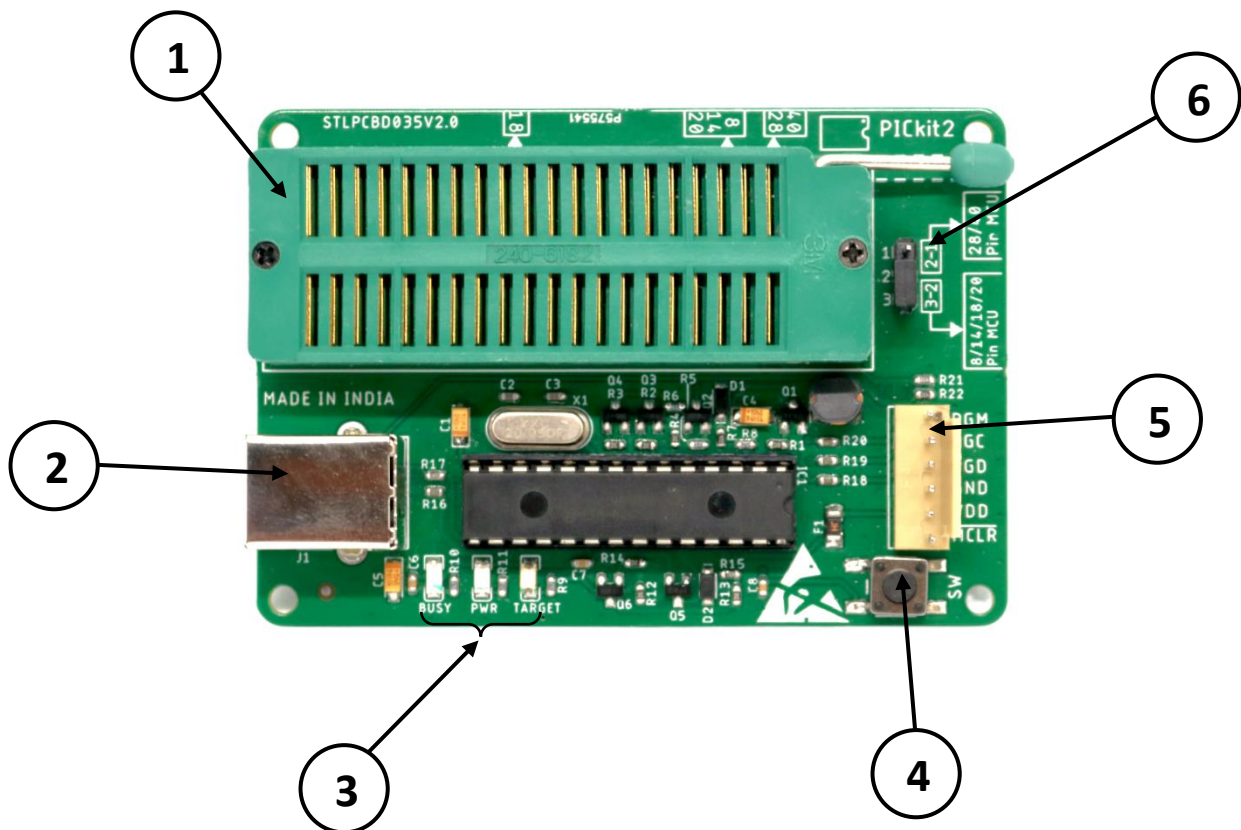
1. PICKit 2 PROGRAMMER CONTENTS

1. The PICKit 2 Programmer
2. USB cable
3. Programming cable

2. PICKit 2 Features

- Support for a wide range of microcontrollers from Microchip
- In-Circuit Serial Programming (ICSP) for programming microcontrollers without removing them from the circuit
- USB-based interface for connection to a computer and Plug and Play function
- Firmware upgradeable to support future devices and features.
- A graphical user interface for easy use
- Compatible with Windows XP, Vista, Win 7, Win 8, Win10 and Win11 (32-bit or 64-bit) .
- Auto load program capability.
- Support 8/14/18/20 pins, 28 pins and 40 pins PIC microcontroller.
- The 40-pin ZIF(Zero Insert Force) socket provide a easy to plug and unplug PIC during development

3. PICKit 2 Hardware details



Legend:

- | | | |
|-------------------------|-----------------|---------------------------|
| 1 – ZIF Socket | 3 – Status LEDs | 5 – Programming Connector |
| 2 – USB Port Connection | 4 – Push Button | 6 – MCU Selection Jumper |



3.1 ZIF Socket

The ZIF socket is designed to minimize the force required to insert or remove an IC from the socket, allowing for safe and easy programming without damaging the IC. The socket usually has a lever mechanism that opens and closes to securely hold the IC in place during programming.

3.2 USB Port Connection

The USB port connection is a USB B connector. Connect the PICKit 2 to the PC using the supplied USB cable.

3.3 Status LEDs

The Status LEDs indicate the status of the PICKit 2.

1. Power (green) - Power is applied to the PICKit 2 via the USB port.
2. Target (blue) - The PICKit 2 is powering the target device.
3. Busy (red) - The PICKit 2 is busy with a function in progress, such as programming.

3.4 Push Button

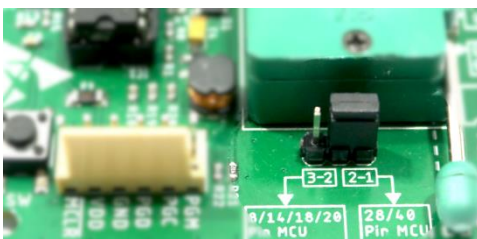
The push button may be used to initiate the Write Device programming function when the **Programmer>Write on PICKit Button** is checked on the PICKit 2 Programmer application menu.

3.5 Programming Connector

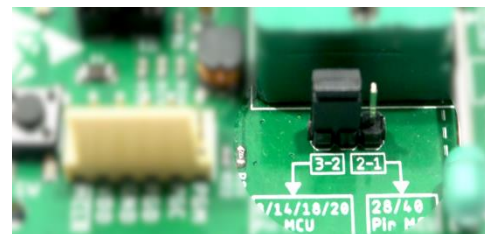
The programming connector is a 6-pin male header (0.100" spacing) that connects to the target device with the supplied cable.

3.6 MCU Selection Jumper

MCU Selection Jumper is for selecting a different type of MCU to be programmed using a ZIF socket. The jumper is not used when programming through ICSP Programming Connector.



1-2 Close: For 28/40 Pin MCU



2-3 Close: For 8/14/18/20 Pin MCU

4. Installing the PICKit 2 Hardware and software

4.1 To install the PICKit 2 hardware:

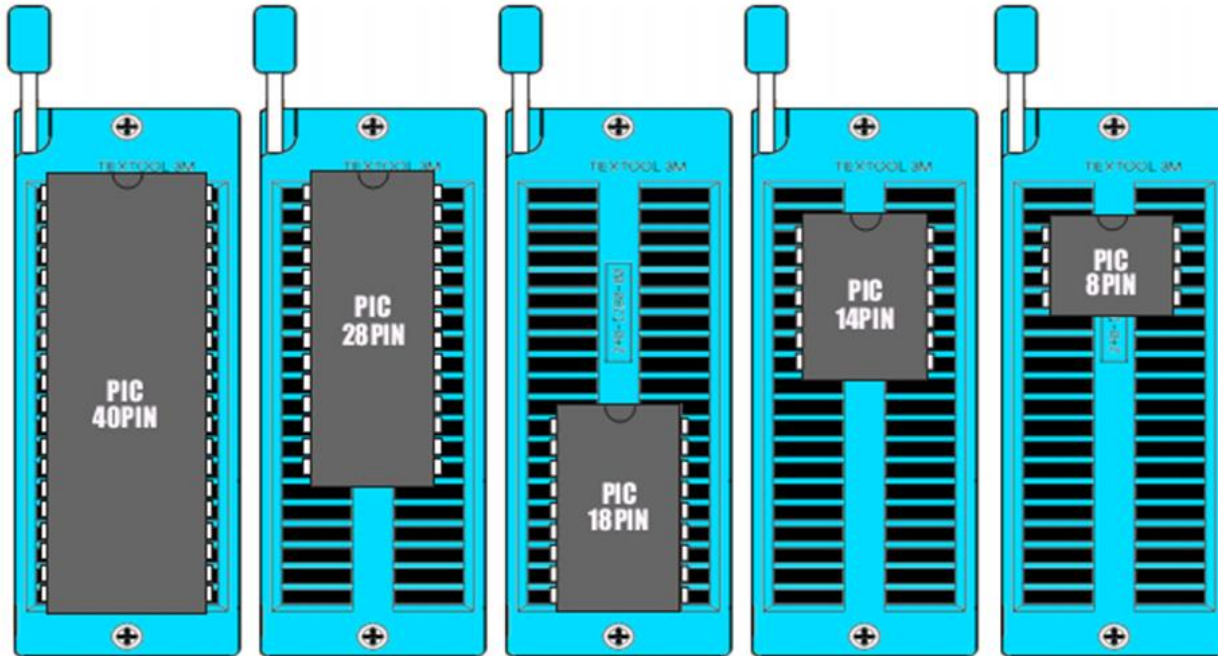
- Plug one end of the USB cable into PICKit 2 USB connector. Plug the other end into a USB port on your PC. Power supply indication green LED will light ON.
- Connect the PICKit 2 to a target board via a 6-pin connector.
- Do not connect the PICKit 2 to a target board that has its own power supply if it is not connected to a powered USB port.

When plugging the PICKit 2 into the USB, it is recommended to disconnect it from any target board first. Similarly, when starting up or rebooting the host PC, ensure it is disconnected from a target.



4.2 Plugging the microcontroller.

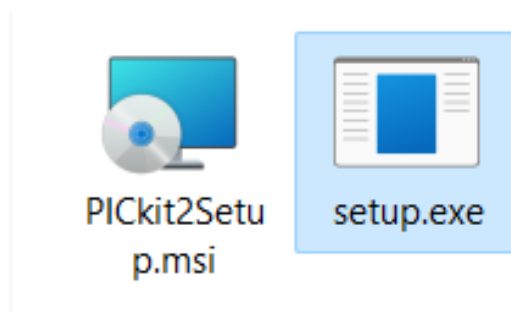
Plug the PIC microcontroller into the ZIF socket as per shown in the below image. Set jumper as per details given in section "3.6 MCU Selection Jumper"



4.3 To install the PICKit 2 Software:

This programmer is compatible with PICKit 2 software, thus PICKit 2 programming software should be installed. Users may download PICKit 2 software from our website www.silicontechnolabs.in.

4.3.1 After finishing downloading, unzip the file and click "**setup**" to run the installation wizard.

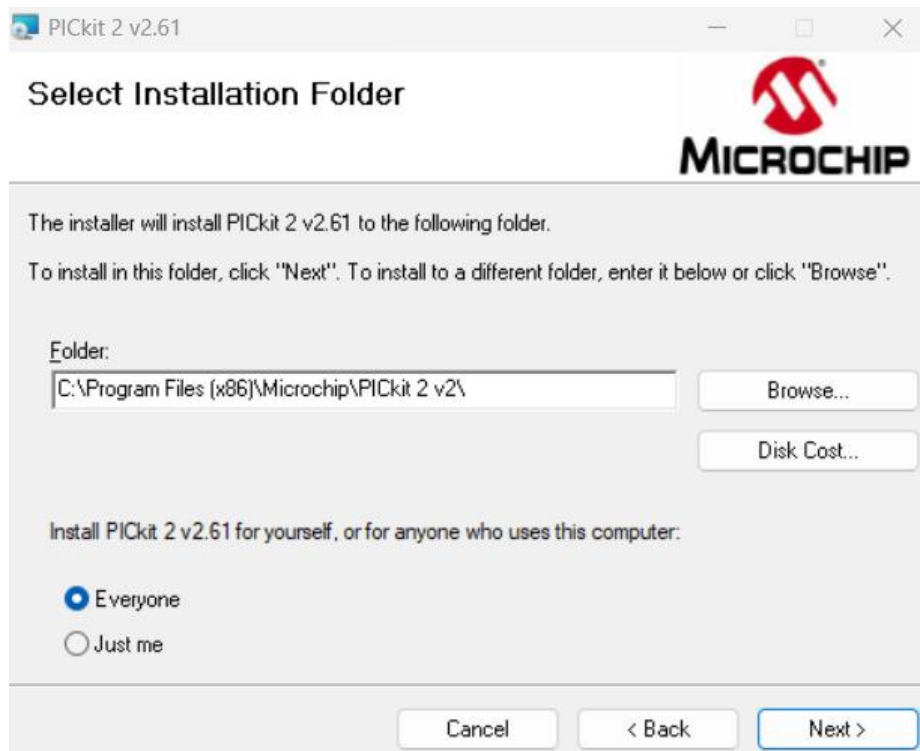




4.3.2 Follow the steps below to set up Microchip PICkit2 Programmer after launching the setup. Click "**Next**"

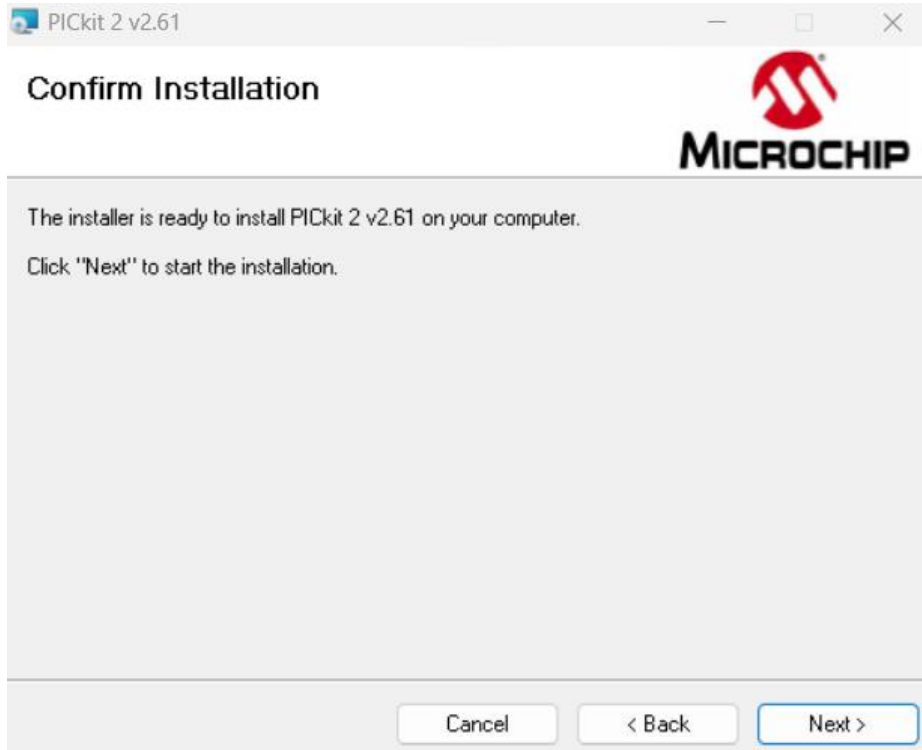


4.3.3 The following window concerns the installation folder. Click browse if you want to change the default destination. and click on "**Next**".

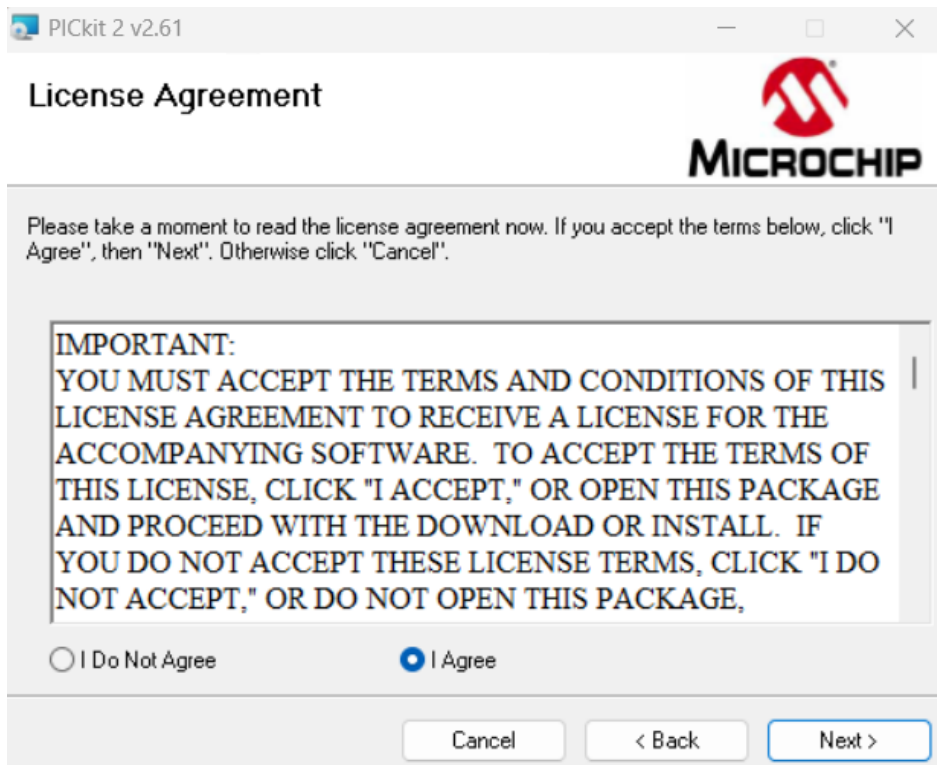




4.3.4 Click "**Next**" to start the installation of the PICKit 2 programming software.

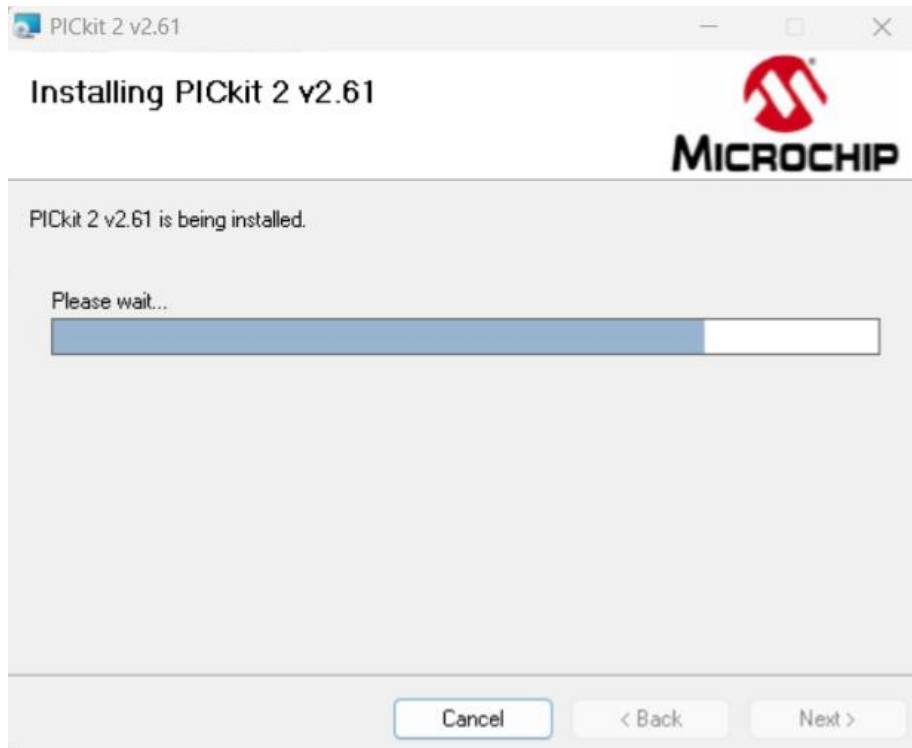


4.3.5 The following license agreement window will appear. To proceed with the installation, read the conditions, select the option "**I Agree**", and click on "**Next**".

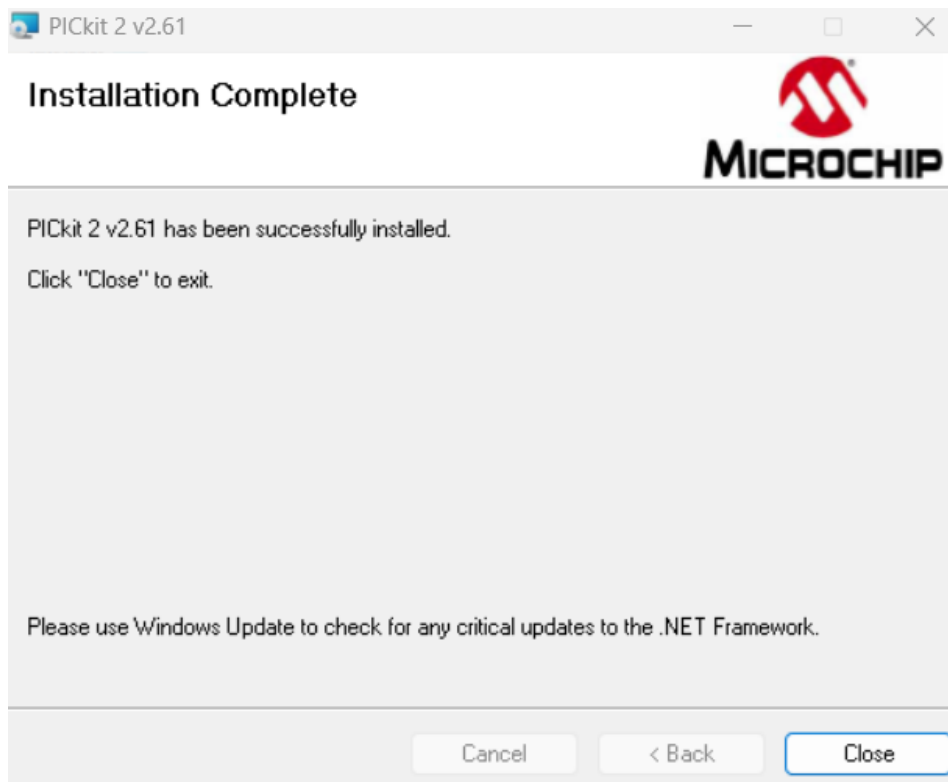




4.3.6 Wait for a few seconds. PICKit 2 is being installed.



4.3.7 After completing the installation, click "**Close**" to exit.





5. How to program using PICkit 2 Programmer ([Video Tutorial](#))

After successful hardware and software installation as described in the preceding section, the PICkit 2 programmer is now operational and ready to interface with the PICkit 2 programming software. The following section provides a comprehensive guide to initiate usage of the PICkit 2 programmer.

- Connect the PICkit 2 Programmer as shown in step 4.
- Launch the PICkit 2 programming software through the navigation of
 - **Start > Program > Microchip > PICkit 2**
- The programming interface displays, indicating successful detection and connection of both the PICkit 2 and the target device.
- The programmer has the capability to automatically identify the PIC in the connected target and display it in the Device Configuration window.

The screenshot shows the PICkit 2 Programmer software window titled "PICkit 2 Programmer - STLPICBD035V2.0". The interface includes a menu bar (File, Device Family, Programmer, Tools, View, Help), a Device Configuration section showing "Device: PIC16F877A" and "Configuration: 2FCF", a Status window indicating "PICkit 2 connected. ID = STLPICBD035V2.0 PIC Device Found.", a Progress Bar, and a Device Voltage section set to "5.0". Below these are buttons for "Read", "Write", "Verify", "Erase", and "Blank Check". The "Program Memory" section is enabled and shows a table of memory addresses and values. The "EEPROM Data" section is also enabled and shows a table of EEPROM addresses and values. Annotations with arrows point to various parts of the interface: Menu Bar, Device Configuration, Status window, Progress Bar, Device Voltage, HEX File location, Program Memory, and EEPROM Data.

Program Memory

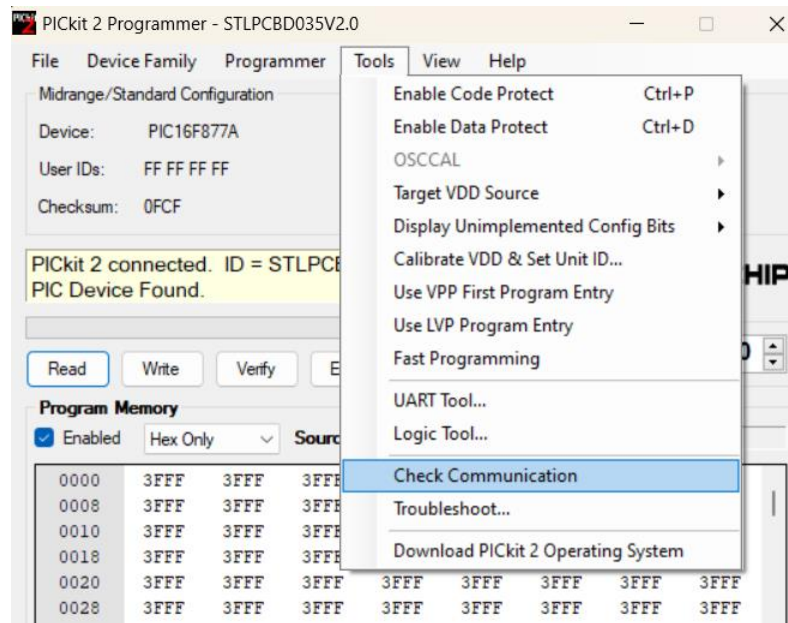
0000	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF
0008	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF
0010	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF
0018	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF
0020	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF
0028	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF
0030	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF
0038	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF
0040	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF
0048	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF
0050	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF
0058	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF	3FFF

EEPROM Data

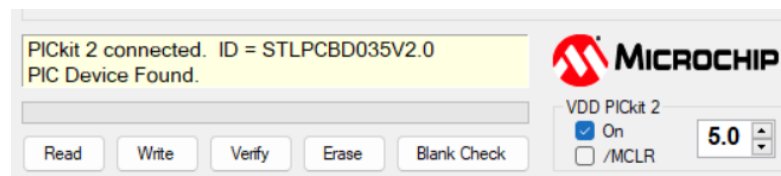
00	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
10	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
20	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF
30	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF	FF



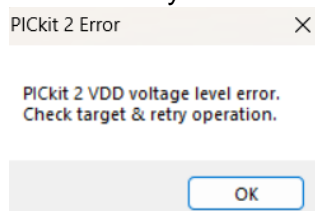
- If PICKit 2 Programmer does not detect the PIC automatically, a user needs to detect it manually. Click "**Tools**" and then "**Check Communication**". PICKit 2 Programmer will detect the device and display it in the device configuration.



- Upon successful detection of the device, the device name will be displayed in the "Device Configuration" section.
- The PICKit 2 has the capability to power the target device, or it can be powered externally. If you plan on utilizing PICKit 2 as the power source for the target board, it's important to not connect any external power supply as PICKit 2 will detect it and the option to use PICKit 2 power will not be available.

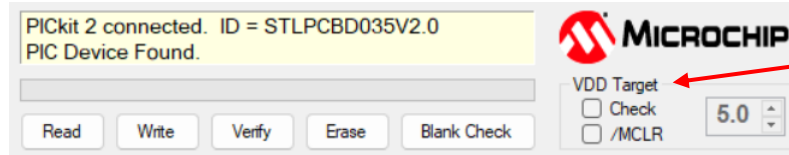


- To enable power to the target device, check the VDD PICKit 2 "ON" checkbox as shown. The default setting is "OFF", i.e., the checkbox is unchecked.
Note: If a target power supply is not detected, the PICKit 2 will always supply power to the target during programming, regardless of the VDD PICKit 2 "ON" checkbox state
- The voltage supplied to the target may be adjusted before or after enabling power by adjusting the VDD PICKit 2 voltage box
- If a short or heavy current load is detected on the programmer-supplied VDD, then you will receive an error and VDD will be automatically disabled. Refer to the below image.



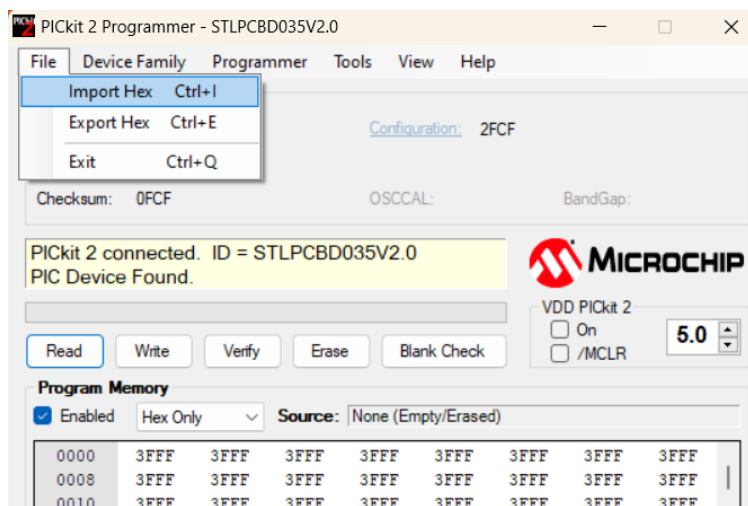


- Your device can also be powered by an outside source. By default, the PICKit 2 will recognize this and show the heading "VDD Target" instead of "VDD PICKit 2". The "On" checkbox will be changed to "Check" and the detected voltage will be displayed in a grayed-out box. You can click the "Check" box to see if there's any voltage and update the displayed voltage. If no voltage is detected, the PICKit 2 will go back to providing power to your device.

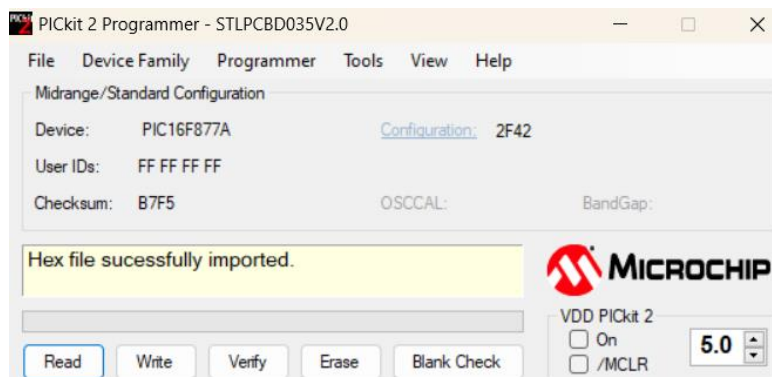


CAUTION: The USB port current limit is set to 150 mA. If the target plus the PICKit 2 exceed this current limit, the USB port may turn off. The target may be powered externally if more power is required.

- Import the Hex file by choosing "**File**" and clicking "**Import Hex**".

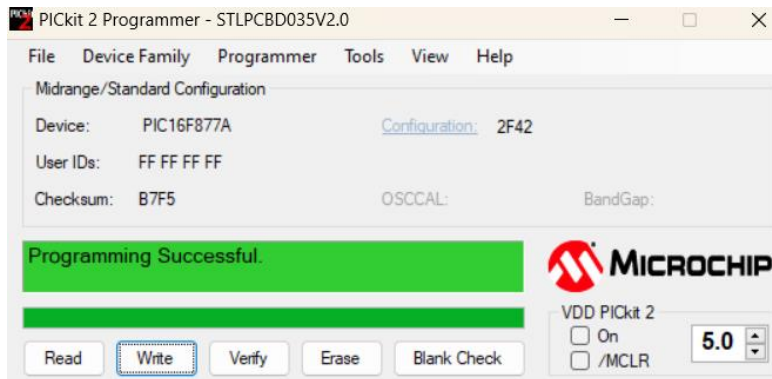


- Find the hex file, click on "**Open**". The code will show in two windows: Program Memory and EEPROM Data. The name of the hex file will appear in the Source Block under Program Memory. The name of the hex file will be based on the project name, not the C file name.



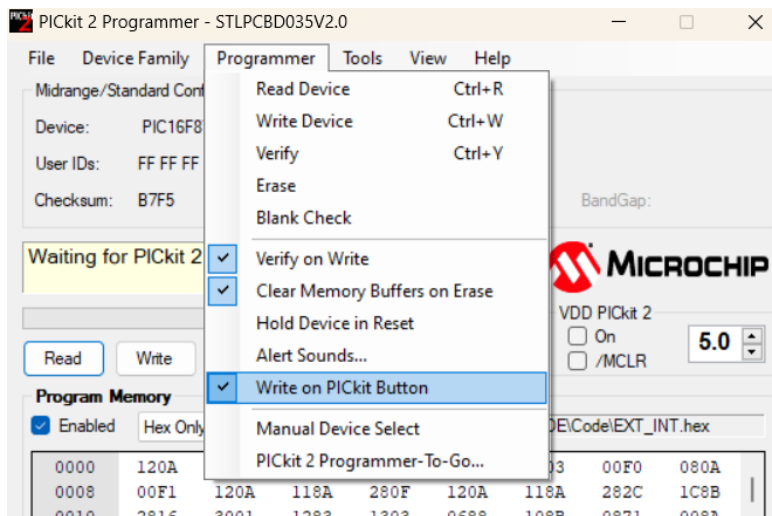


- After selecting the device family, Import the hex file, and click the **"Write"** button. This will erase the device and fill it with the hex code from the imported file.



- To check if the programming was successful, look at the status bar under the Device Configuration window. If the programming was successful, the status bar will turn green and show the message **"Programming Successful"**.
- To automatically reload the hex file, follow these steps:
 1. Make sure the **"Programmer>Write on PICKIT Button"** option is checked
 2. Use the push button **"SW"** on the PICKIT 2 board

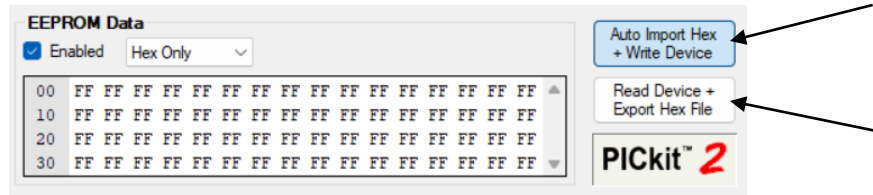
This will reload the hex file without the need to manually import it again through the software.



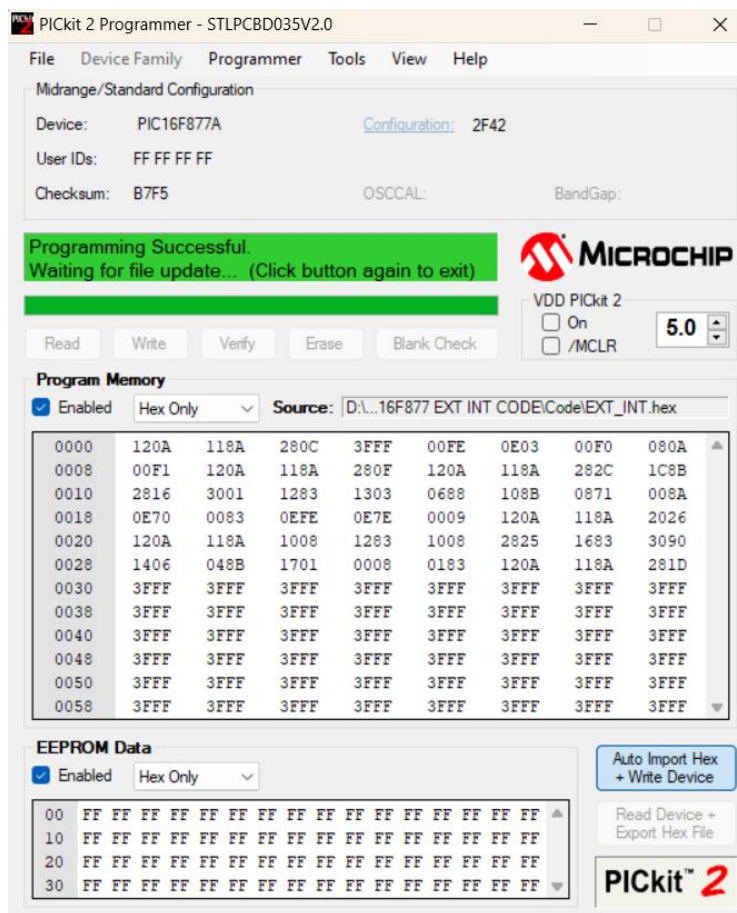
- The push button makes it easy to update the hex file on the target device. After you have made changes to the program and converted them into a hex file, you can press the push button and the PICKIT 2 will automatically reload the new hex file and program it into the target device.
- The "Verify" function checks if the program on the device matches the imported hex file. The "Read" function allows you to view the code written to the PIC. The code will be displayed in the Program Memory and Data EEPROM Memory. If all zeros are displayed, the target device may be code-protected. The "Erase" button completely erases the program memory, data EEPROM memory, ID, and Configuration bits, regardless of the "Enabled" status. The "Blank Check" button checks if the entire device has been erased, including Program Memory, EEPROM Data Memory, User ID, and Configuration bits.



- The "Auto Import Hex + Write Device" feature lets you automatically import and write the updated hex file to the connected device, for example, when a new firmware build is available. To use this feature, click the icon, which will open an "Import Hex File" dialog. The "Read Device + Export Hex File" button reads the target device and opens an "Export Hex File" dialog, allowing you to save a copy of the code on the device.



- Once a file is selected, the hex code will be written to the target device and the PICKit 2 will keep track of the selected file for updates. If the file is updated (for example, after being recompiled), the PICKit 2 will automatically import the new hex file and write it to the target device. To turn off this feature, simply click the icon again.

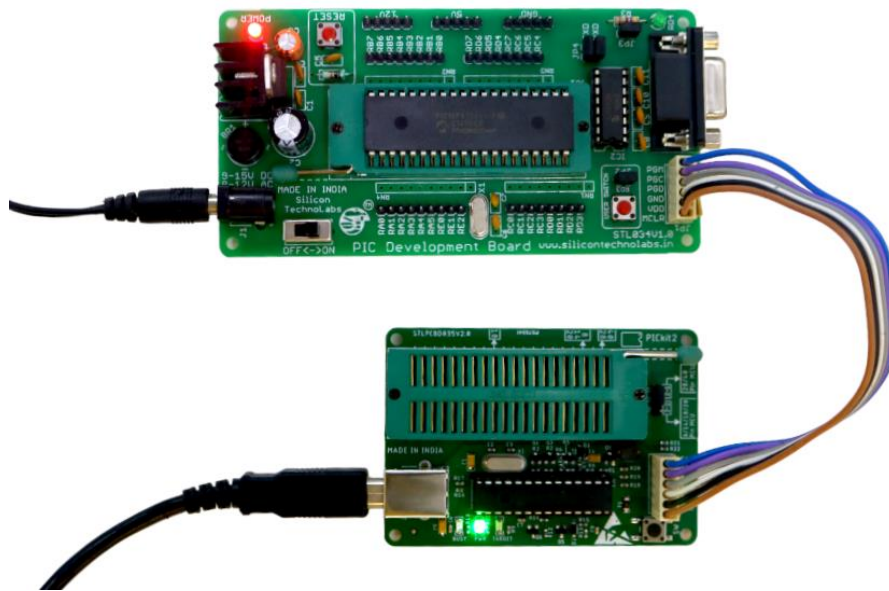




6. How to use PICKit 2 with Development Board

- Connect the A-type USB end of the cable to a computer's USB port.
- Connect the USB-B end of the cable to the PICKit 2 USB port, the green LED will turn on indicating power.
- Connect the programming cable to the PICKit 2 and the development board, and use external power for the board. The PICKit 2 can't handle large power usage.

Beware: The USB port has a current limit of 150mA. Exceeding this limit can damage the PICKit 2, so the target board must be powered externally.

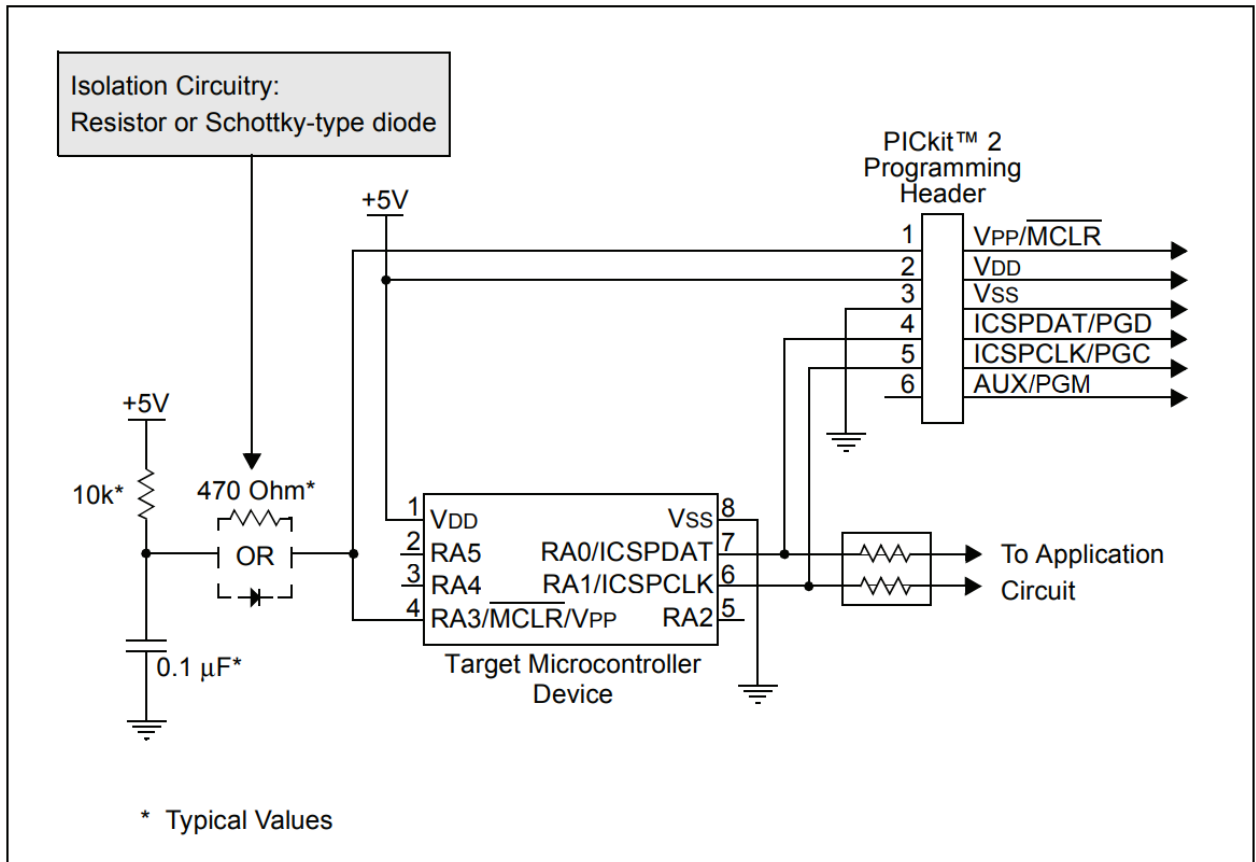


The PICKit 2 can be used to program a PIC microcontroller on a development board using In-Circuit Serial Programming (ICSP). This method needs five signals to work.

- VPP - stands for Programming Voltage. When applied, the device enters programming mode.
- ICSPCLK/PGC - is the Programming Clock, a one-way serial clock line from the programmer to the target device.
- ICSPDAT/PGD - is the Programming Data line, a two-way serial data line for communication between the programmer and the target device.
- VDD (3.3V/5V) - is the positive voltage for the power supply. It can be sourced from the programmer or application circuit and is optional for the target PIC device. If the target PIC is powered externally, it is recommended not to connect this pin to the target PIC.
- VSS (Gnd) – Power supply ground reference.



- In order to successfully program a device using ICSP, it's important to ensure that the application circuit allows all the programming signals to be connected without distortion. A typical circuit can be used as a starting point when designing the application circuit, as shown in the below figure. For successful ICSP programming, the precautions in the following sections need to be followed.



- **ISOLATE VPP/MCLR/PORT PIN**

When programming, it's recommended to separate the supervisory circuit connected to the MCLR pin using a Schottky or high switching diode or limiting resistor as shown in Figure to prevent the VPP voltage rise rate from slowing down and exceeding the specified rise time (usually 1μs). Avoid connecting capacitive components directly to the MCLR pin.

- **ISOLATE ICSPCLK OR PGC AND ICSPDAT OR PGD PINS**

The PGD or PGC pins are suggested to control non-critical devices like LEDs, LCDs, 7 segments. To isolate ICSP signals from the application circuit, it's recommended to use series resistors (220 ohms or Higher) as shown in the figure. Isolation circuitry will vary according to the application. Additionally, avoid connecting capacitive components directly to these two pins.



- **VDD**

When using ICSP programming, the PIC microcontroller must be powered. It's recommended to power the target device externally as USB may not be able to provide enough power. If the target PIC is externally powered, the VDD (3.3V/5V) pin should not be connected to the target PIC.

- The minimum required connections between the PICkit 2 and the target board or PIC are four, including **VPP, PGD, PGC, and Vss (ground)**.
- Therefore, the 3.3V/5V connection from the PICkit 2 is optional. If the target board is powered externally, there's no need to connect this pin from the PICkit 2 to the target board.



7. Device Support List

```
=====
= NOTE: This list shows support for the PICkit 2 Programmer =
= software application. It does not show support for using the =
= PICkit 2 within MPLAB IDE. For a list of MPLAB supported =
= parts, see the MPLAB IDE PICkit 2 Readme. =
= (Typically in C:\Program Files\Microchip\MPLAB IDE\Readmes) =
=====
```

* Indicates new parts supported in this release with v1.61 of the device file.

+ Indicates parts that require 4.75V minimum VDD for programming. PICkit 2 may not be able to generate sufficiently high VDD, so an external 5.0v power supply may be required.

indicates Midrange parts that support low Vdd programming

Baseline Devices

```
-----
PIC10F200  PIC10F202  PIC10F204  PIC10F206
PIC10F220  PIC10F222
PIC12F508  PIC12F509  PIC12F510  PIC12F519
PIC16F505  PIC16F506  PIC16F526
PIC16F54   PIC16F57   PIC16F59
```

Midrange/Standard Devices

```
-----
>> All 'LF' versions of devices are supported
PIC12F609  PIC12HV609
PIC12F615  PIC12HV615
PIC12F629  PIC12F635#  PIC12F675  PIC12F683#
PIC16F610  PIC16HV610  PIC16F616  PIC16HV616
PIC16F627  PIC16F628  PIC16F639
PIC16F627A PIC16F628A  PIC16F648A
PIC16F630  PIC16F631  PIC16F636#  PIC16F676
PIC16F677  PIC16F684#  PIC16F685#  PIC16F687#
PIC16F688# PIC16F689#  PIC16F690#
PIC16F72+
PIC16F73+  PIC16F74+  PIC16F76+  PIC16F77+
PIC16F716
PIC16F737+ PIC16F747+  PIC16F767+  PIC16F777+
PIC16F785  PIC16HV785
PIC16F84A  PIC16F87#  PIC16F88#
PIC16F818# PIC16F819#
PIC16F870  PIC16F871  PIC16F872
```



PIC16F873	PIC16F874	PIC16F876	PIC16F877
PIC16F873A	PIC16F874A	PIC16F876A	PIC16F877A
PIC16F882#			
PIC16F883#	PIC16F884#	PIC16F886#	PIC16F887#
PIC16F913#	PIC16F914#	PIC16F916#	PIC16F917#
PIC16F946#			

Midrange/1.8V Min Devices

PIC16F722	PIC16LF722		
PIC16F723	PIC16LF723	PIC16F724	PIC16LF724
PIC16F726	PIC16LF726	PIC16F727	PIC16LF727
PIC16F1933	PIC16F1934	PIC16F1936	PIC16F1937
PIC16F1938	PIC16F1939		
PIC16LF1933	PIC16LF1934	PIC16LF1936	PIC16LF1937
PIC16LF1938	PIC16LF1939		

PIC18F Devices

>> All 'LF' versions of devices are supported

PIC18F242	PIC18F252	PIC18F442	PIC18F452
PIC18F248	PIC18F258	PIC18F448	PIC18F458
PIC18F1220	PIC18F1320	PIC18F2220	
PIC18F1230	PIC18F1330	PIC18F1330-ICD	
PIC18F2221	PIC18F2320	PIC18F2321	PIC18F2331
PIC18F2410	PIC18F2420	PIC18F2423	PIC18F2431
PIC18F2450	PIC18F2455	PIC18F2458	PIC18F2480
PIC18F2510	PIC18F2515	PIC18F2520	PIC18F2523
PIC18F2525	PIC18F2550	PIC18F2553	PIC18F2580
PIC18F2585			
PIC18F2610	PIC18F2620	PIC18F2680	PIC18F2682
PIC18F2685			
PIC18F4220	PIC18F4221	PIC18F4320	PIC18F4321
PIC18F4331	PIC18F4410	PIC18F4420	PIC18F4423
PIC18F4431	PIC18F4450	PIC18F4455	PIC18F4458
PIC18F4480			
PIC18F4510	PIC18F4515	PIC18F4520	PIC18F4523
PIC18F4525	PIC18F4550	PIC18F4553	PIC18F4580
PIC18F4585			
PIC18F4610	PIC18F4620	PIC18F4680	PIC18F4682
PIC18F4685	PIC18F6310	PIC18F6390	PIC18F6393
PIC18F6410	PIC18F6490	PIC18F6493	PIC18F6520
PIC18F6525	PIC18F6527		
PIC18F6585	PIC18F6620	PIC18F6621	PIC18F6622
PIC18F6627	PIC18F6628	PIC18F6680	PIC18F6720
PIC18F6722	PIC18F6723		
PIC18F8310	PIC18F8390	PIC18F8393	PIC18F8410



PIC18F8490	PIC18F8493		
PIC18F8520	PIC18F8525	PIC18F8527	PIC18F8585
PIC18F8620	PIC18F8621	PIC18F8622	PIC18F8627
PIC18F8628			
PIC18F8680	PIC18F8720	PIC18F8722	PIC18F8723

PIC18F_J_ Devices

PIC18F24J10	PIC18LF24J10		
PIC18F24J11	PIC18LF24J11	PIC18F24J50	PIC18LF24J50
PIC18F25J10	PIC18LF25J10		
PIC18F25J11	PIC18LF25J11	PIC18F25J50	PIC18LF25J50
PIC18F26J11	PIC18LF26J11	PIC18F26J50	PIC18LF26J50
PIC18F44J10	PIC18LF44J10		
PIC18F44J11	PIC18LF44J11	PIC18F44J50	PIC18LF44J50
PIC18F45J10	PIC18LF45J10		
PIC18F45J11	PIC18LF45J11	PIC18F45J50	PIC18LF45J50
PIC18F46J11	PIC18LF46J11	PIC18F46J50	PIC18LF46J50
PIC18F63J11	PIC18F63J90	PIC18F64J11	PIC18F64J90
PIC18F65J10	PIC18F65J11	PIC18F65J15	PIC18F65J50
PIC18F65J90			
PIC18F66J10	PIC18F66J11	PIC18F66J15	PIC18F66J16
PIC18F66J50	PIC18F66J55	PIC18F66J60	PIC18F66J65
PIC18F66J90			
PIC18F67J10	PIC18F67J11	PIC18F67J50	PIC18F67J60
PIC18F67J90			
PIC18F83J11	PIC18F83J90	PIC18F84J11	PIC18F84J90
PIC18F85J10	PIC18F85J11	PIC18F85J15	PIC18F85J50
PIC18F85J90			
PIC18F86J10	PIC18F86J11	PIC18F86J15	PIC18F86J16
PIC18F86J50	PIC18F86J55	PIC18F86J60	PIC18F86J65
PIC18F86J90			
PIC18F87J10	PIC18F87J11	PIC18F87J50	PIC18F87J60
PIC18F87J90			
PIC18F96J60	PIC18F96J65	PIC18F97J60	

PIC18F_K_ Devices

PIC18F13K22	PIC18LF13K22	PIC18F14K22	PIC18LF14K22
PIC18F13K50	PIC18LF13K50	PIC18F14K50	PIC18LF14K50
PIC18F14K50-ICD			
PIC18F23K20	PIC18F24K20	PIC18F25K20	PIC18F26K20
PIC18F43K20	PIC18F44K20	PIC18F45K20	PIC18F46K20

PIC24 Devices

PIC24F04KA200	PIC24F04KA201
PIC24F08KA101	PIC24F08KA102
PIC24F16KA101	PIC24F16KA102



NOTE: To program PIC24F-KA- devices with MCLR used as IO,
Tools > Use High Voltage Program Entry must be enabled.

PIC24FJ16GA002	PIC24FJ16GA004	
PIC24FJ32GA002	PIC24FJ32GA004	
PIC24FJ32GA102	PIC24FJ32GA104	
PIC24FJ48GA002	PIC24FJ48GA004	
PIC24FJ64GA002	PIC24FJ64GA004	
PIC24FJ64GA102	PIC24FJ64GA104	
PIC24FJ64GA006	PIC24FJ64GA008	PIC24FJ64GA010
PIC24FJ96GA006	PIC24FJ96GA008	PIC24FJ96GA010
PIC24FJ128GA006	PIC24FJ128GA008	PIC24FJ128GA010
PIC24FJ128GA106	PIC24FJ128GA108	PIC24FJ128GA110
PIC24FJ192GA106	PIC24FJ192GA108	PIC24FJ192GA110
PIC24FJ256GA106	PIC24FJ256GA108	PIC24FJ256GA110
PIC24FJ32GB002	PIC24FJ32GB004	
PIC24FJ64GB002	PIC24FJ64GB004	
PIC24FJ64GB106	PIC24FJ64GB108	PIC24FJ64GB110
PIC24FJ128GB106	PIC24FJ128GB108	PIC24FJ128GB110
PIC24FJ192GB106	PIC24FJ192GB108	PIC24FJ192GB110
PIC24FJ256GB106	PIC24FJ256GB108	PIC24FJ256GB110
PIC24HJ12GP201	PIC24HJ12GP202	
PIC24HJ16GP304		
PIC24HJ32GP202	PIC24HJ32GP204	
PIC24HJ32GP302	PIC24HJ32GP304	
PIC24HJ64GP202	PIC24HJ64GP204	
PIC24HJ64GP206	PIC24HJ64GP210	
PIC24HJ64GP502		
PIC24HJ64GP504	PIC24HJ64GP506	PIC24HJ64GP510
PIC24HJ128GP202	PIC24HJ128GP204	
PIC24HJ128GP206	PIC24HJ128GP210	
PIC24HJ128GP306	PIC24HJ128GP310	
PIC24HJ128GP502	PIC24HJ128GP504	
PIC24HJ128GP506	PIC24HJ128GP510	
PIC24HJ256GP206	PIC24HJ256GP210	PIC24HJ256GP610

dsPIC33 Devices

dsPIC33FJ06GS101	dsPIC33FJ06GS102	dsPIC33FJ06GS202
dsPIC33FJ16GS402	dsPIC33FJ16GS404	
dsPIC33FJ16GS502	dsPIC33FJ16GS504	
dsPIC33FJ12GP201	dsPIC33FJ12GP202	
dsPIC33FJ16GP304		
dsPIC33FJ32GP202	dsPIC33FJ32GP204	
dsPIC33FJ32GP302	dsPIC33FJ32GP304	
dsPIC33FJ64GP202	dsPIC33FJ64GP204	
dsPIC33FJ64GP206	dsPIC33FJ64GP306	dsPIC33FJ64GP310



dsPIC33FJ64GP706	dsPIC33FJ64GP708	dsPIC33FJ64GP710
dsPIC33FJ64GP802	dsPIC33FJ64GP804	
dsPIC33FJ128GP202	dsPIC33FJ128GP204	
dsPIC33FJ128GP206	dsPIC33FJ128GP306	dsPIC33FJ128GP310
dsPIC33FJ128GP706	dsPIC33FJ128GP708	dsPIC33FJ128GP710
dsPIC33FJ256GP506	dsPIC33FJ256GP510	dsPIC33FJ256GP710
dsPIC33FJ128GP802	dsPIC33FJ128GP804	
dsPIC33FJ12MC201	dsPIC33FJ12MC202	
dsPIC33FJ16MC304		
dsPIC33FJ32MC202	dsPIC33FJ32MC204	
dsPIC33FJ32MC302	dsPIC33FJ32MC304	
dsPIC33FJ64MC202	dsPIC33FJ64MC204	
dsPIC33FJ64MC506	dsPIC33FJ64MC508	dsPIC33FJ64MC510
dsPIC33FJ64MC706	dsPIC33FJ64MC710	
dsPIC33FJ64MC802	dsPIC33FJ64MC804	
dsPIC33FJ128MC202	dsPIC33FJ128MC204	
dsPIC33FJ128MC506	dsPIC33FJ128MC510	dsPIC33FJ128MC706
dsPIC33FJ128MC708	dsPIC33FJ128MC710	
dsPIC33FJ256MC510	dsPIC33FJ256MC710	
dsPIC33FJ128MC802	dsPIC33FJ128MC804	

dsPIC30 Devices

dsPIC30F2010	dsPIC30F2011	dsPIC30F2012
dsPIC30F3010	dsPIC30F3011	dsPIC30F3012
dsPIC30F3013	dsPIC30F3014	
dsPIC30F4011	dsPIC30F4012	dsPIC30F4013
dsPIC30F5011^	dsPIC30F5013^	dsPIC30F5015
dsPIC30F5016		
dsPIC30F6010A	dsPIC30F6011A	dsPIC30F6012A
dsPIC30F6013A	dsPIC30F6014A	dsPIC30F601

^ These 2 devices are not supported for low VDD programming.

dsPIC30 SMPS Devices

dsPIC30F1010	
dsPIC30F2020	dsPIC30F2023

PIC32 Devices

PIC32MX320F032H	PIC32MX320F064H	PIC32MX320F128L
PIC32MX320F128H		
PIC32MX340F128H	PIC32MX340F128L	
PIC32MX340F256H		
PIC32MX340F512H*		
PIC32MX360F256L	PIC32MX360F512L	
PIC32MX420F032H		
PIC32MX440F128L	PIC32MX440F128H	
PIC32MX440F256H	PIC32MX440F512H	
PIC32MX460F256L	PIC32MX460F512L	



8. Troubleshooting

This section will discuss error messages from the PICKit 2 programming software, the potential causes, and methods to resolve them.

1. When the PICKit 2 is connected to a USB port, if a message appears in the bottom right corner saying "**Unrecognized USB device**", it means there's a problem with the connection or the device driver.
 - Check if the USB cable is properly connected to both the computer and the PICKit 2.
 - Try connecting the PICKit 2 to a different USB port or computer.
 - Please try to use another USB cable.
 - If the problem still occurs, please contact us at info@silicontechnolabs.in
2. If the status window shows "**PICKit 2 not found. Check USB connections and use Tools->Check Communication to retry**" it means that the PICKit 2 software is unable to detect the device.
 - Check the USB cable connection and make sure it is securely connected to both the computer and the PICKit 2.
 - Make sure that the correct device driver is installed for the PICKit 2.
 - If the power LED on the PICKit 2 is off, it indicates a hardware issue with the device. Check the power source, USB cable, and try a different USB port to troubleshoot.
3. The Status Window shows: "**No device detected**" while the Device shows: "**No Device Found**".
 - Make sure the device is powered with 5V for proper functioning.
 - Check that PGC and PCD are connected to the right pins on the device.
 - Ensure the Vss (GND) of PICKit 2 and the device are connected.
4. The device shows: "**Unsupported part**".
 - Ensure the Vss (GND) of PICKit 2 and the device are connected.
 - Check if the device is on the list of supported devices.

9. Dimension and Weight

- 81mm x 56mm x 15mm
- Weight: 50 Gram

10. Warranty

- The product comes with a 12-month warranty.
- This warranty only covers manufacturing defects and does not include damage caused by improper use.
- The warranty does not cover the cost of shipping for sending or receiving the product for warranty repair or replacement.



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