

# UPTOOL2070PIC

#### Pic Programmer Adapter for Tag-Connect TC2070-IDC

## 1. Description

UPTOOL2070PIC is a PCB that makes it easy to program and debug your PIC microcontrollers-based prototypes.

The PCB bridges the popular Tag-Connect TC2070-IDC cable (which saves space and cost on your PCB) with any PIC programmer.

The UPTOOL2070PIC uses the 14-pin connector, but for PIC programming only 5 pins are needed (MCLR, VDD, GND, PGD and PGC). So, you still have 9 free pins for your design needs.

Typically, the UART of the PIC will be routed to the free pins, that can be used to debug your firmware on a terminal software. Also, you can route a GPIO to run a special routine like a hardware test and validation for the production stage of your product. Other typical signals that are routed to the free pins are buses like I2C, SPI or analog signals. That saves a lot of cables and probes on your prototype and makes it easy for you to debug and startup your prototype.









## 2. Pinouts

#### 2.1. Global Pinout Concordance

Symbol and footprint	UPTOOL2070PIC	PIC Programmer (PICkit, SNAP, ICD)	
1 MCLR 14 2 PGD 13 3 PGC 12 4 4 4 11 11 5 5 10 10 6 6 9 9 7 VDD GND 8 8 8 9 9 8 8 8 8 8 8 8 8 8 8 8 8 8	United Protocols   UPTOLOGOPCE Nor by Cased Price Prin Carrelation   1 1 1   2 2 1   1 1 4   2 2 1   1 1 5   3 5 5   4 4 1   9 1 1   13 1 1   14 12 6   1 1 1	Pin 1 Indicator	
1	J2 pin 1	PicKit pin 1 (MCLR)	
2	J2 pin 2 (User available pin)	-	
3	J2 pin 3	PicKit Pin 5 (PGC)	
4 J2 pin 4		PicKit Pin 4 (PGD)	
5 J2 pin 5 (User available pin)		-	
6	J2 pin 6 (User available pin)	-	
7	J2 pin 7	PicKit Pin 2 (V <sub>DD</sub> )	

## 2.2. TC2070 pinout concordance

Symbol	Footprint	TC2070 Target End	TC2070 IDC End
± MCLR 2 PGD 3 PGD 4 ±4 4 ±4 13 ±3 13 ±3 12			



UPTOOL2070PIC

## 3. Schematic



### 4. PCB

