Chapter 2. Mechanical Specification

The Raspberry Pi Pico is a single sided 51x21mm 1mm thick PCB with a micro-USB port overhanging the top edge and dual castellated/through-hole pins around the remaining edges. Pico is designed to be usable as a surface mount module as well as being in Dual Inline Package (DIP) type format, with the 40 main user pins on a 2.54mm (0.1") pitch grid with 1mm holes and hence compatible with veroboard and breadboard. Pico also has 4x 2.1mm (+/- 0.05mm) drilled mounting holes to provide for mechanical fixing, see Figure 3.

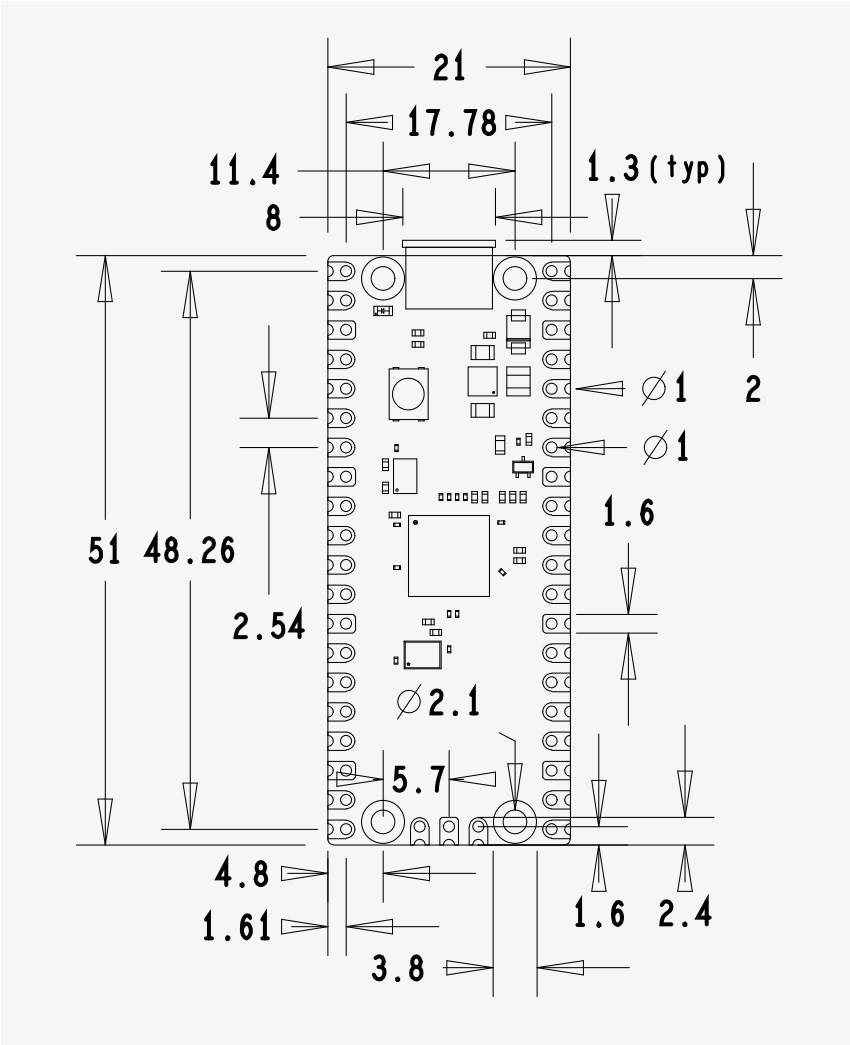

Figure 3. The dimensions of the Raspberry Pi Pico Rev3 board.

2.1. Raspberry Pi Pico Pinout

The Pico pinout has been designed to directly bring out as much of the RP2040 GPIO and internal circuitry function as possible, while also providing a suitable number of ground pins to reduce EMI (Electro Magnetic Interference) and signal crosstalk. This is important in general but especially for RP2040 which is built on a modern 40nm silicon process and hence the digital IO edge rates are very fast.