DNA Chip Carrier Testing Board Documentation

NYU NANOELECTRONICS LAB

Note: Zoom in to see the plots clearly

Contents

1 Introduction

DNA chip carrier board is designed to test the output of DNA testing board. It has 226 testing points connected to the 226 pads on the edge connector. The designed 3D view of the board is as shown in figure 1.

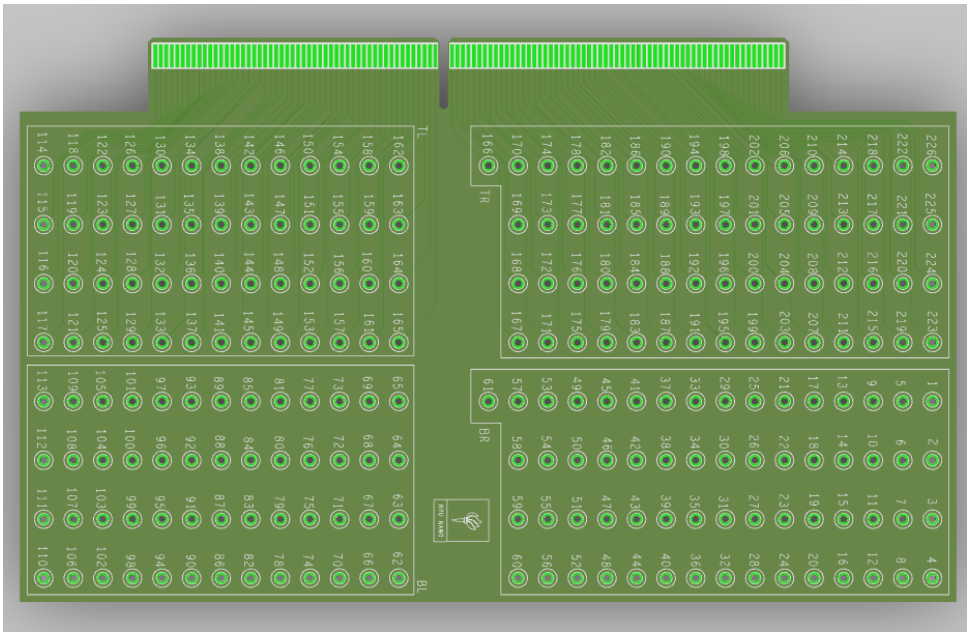
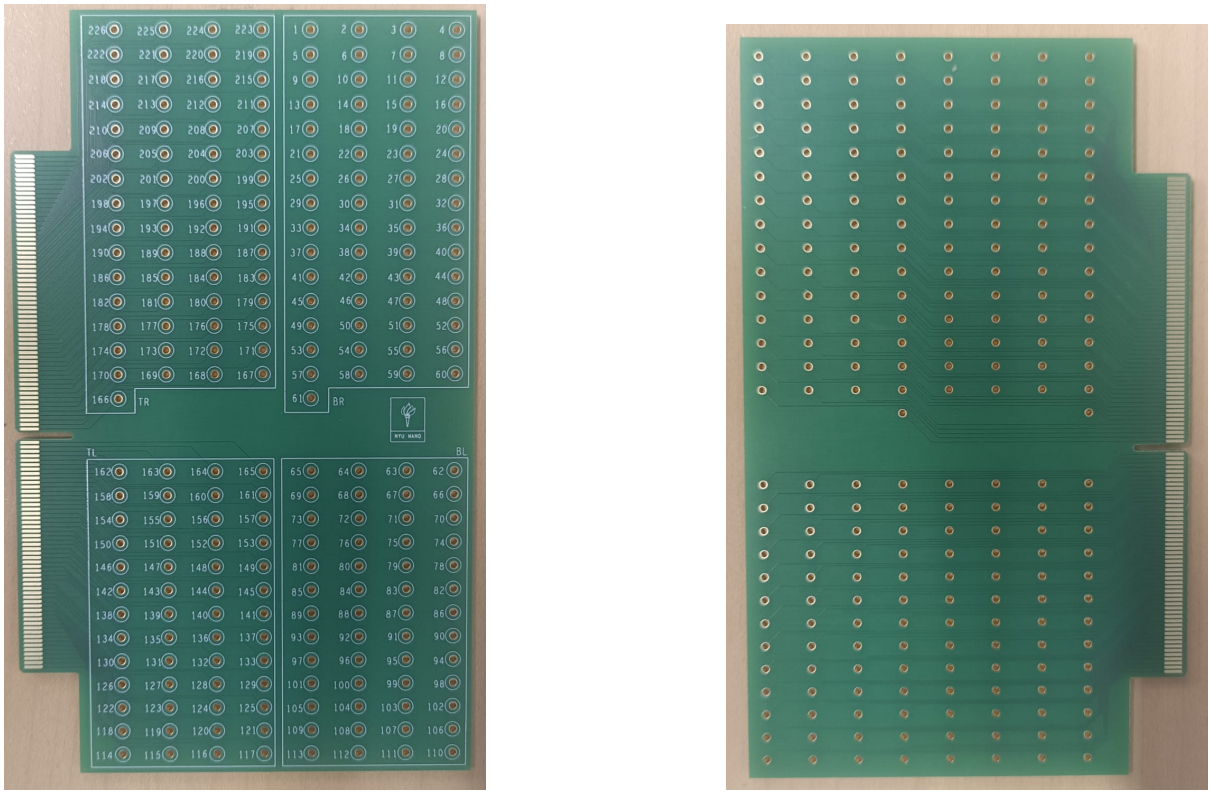


Figure 1: Top View

The manufactured board is as shown in figure 2



(a) Top View

(b) Bottom View

Figure 2: Manufactured Board

2 Pin Numbering

The pin numbering is as shown in figure 3

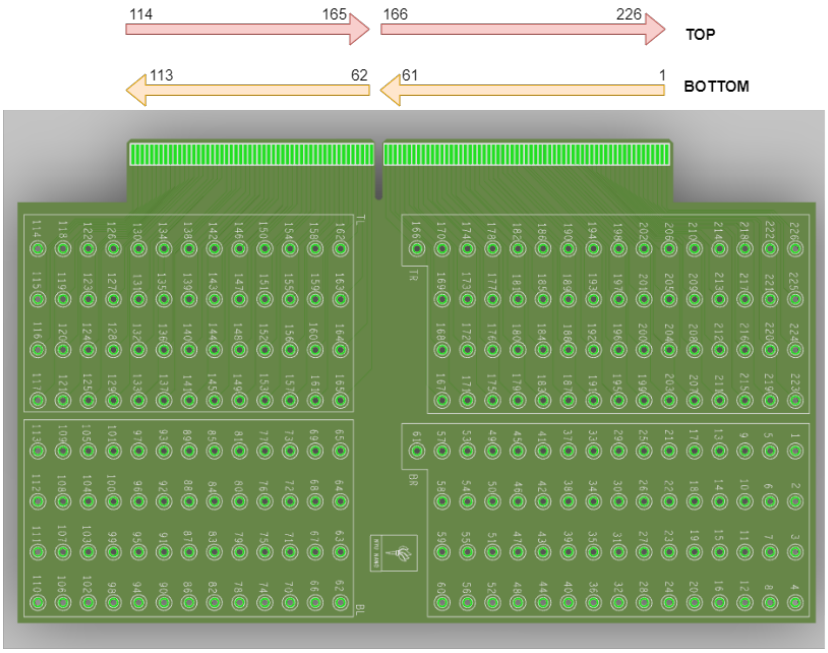


Figure 3: DNA Chip Carrier Testing Board Pin Numbering

3 PCB Cross Section

This board employs a 2-layer PCB design. The lower pads are linked to testing points within the lower conductor, while the upper pads are connected to testing points in the upper conductor layer. The cross-sectional view is depicted in Figure 4.

Figure 4: PCB cross section

4 Testing Points

There are 226 testing points. Each testing point 1.5mm wide with a hole diameter of 1mm. This is created using Orcad Padstack Editor.