

PCIe Accelerator Card with 8 Google Edge TPU, RoHS

Mustang-T100-T5

Quick Installation Guide

Version 1.0

June 28, 2021

Package List

Mustang-T100-T5 package includes the following items:

- 1 x Mustang-T100-T5 accelerator card
- 1 x Full height bracket
- 1 x QIG



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Specifications

- Main Chip: Five Google Coral Edge TPU Accelerator Modules
- Operating Systems
 - Linux: 64-bit version of Debian 10 or Ubuntu 16.04 (or newer), and an x86-64 or ARMv8 system architecture
 - Windows: 64-bit version of Windows 10, and x86-64 system architecture
- Dataplane Interface: PCI Express 2.0 x4
- Power Consumption: Approximate 15W
- Operating Temperature: -20°C~60°C
- Cooling Solution: Active/Passive
- Dimensions:
Standard half-height, half-length, single-slot PCIe card
- DIP Switch/LED indicator: Identify card number
- Support Framework: Tensorflow Lite
- Precision: INT8
- INT8 Performance
 - Up to 20 TOPS, each TPU module up to 4 TOPS.
 - Five TPU modules can provide 20 TOPS.
 - Refer to Google Coral official website for more information (<https://coral.ai/docs/module/datasheet>)
- Supported Topology
 - Image classification, Object detection, Image segmentation
 - Refer to Google Coral official website for more information (<https://coral.ai/models>)

Ordering Information

- **Mustang-T100-T5:**
Computing accelerator card with five Google Coral edge TPU, PCIe 2.0 x4 interface, RoHS

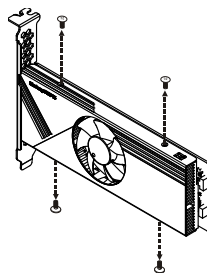
Installation Procedure

WARNING! Disconnect the computer from the power supply to which you will install the Mustang-T100-T5, or you risk damaging the system or experiencing electrical shock.

1. Turn off the computer that you will install the Mustang-T100-T5, and remove the power cord. Then, open the system chassis.
2. Locate an empty PCIe x4 slot. Remove the blank bracket panel that aligns with the empty PCIe slot.

3. [Only needed for full-height installation]

Change the bracket on the Mustang-T100-T5 from low-profile bracket to full-height bracket which is secured by two screws. **NOTE:** Before changing the bracket, the metal enclosure must be removed by removing the four retention screws as shown on the right.



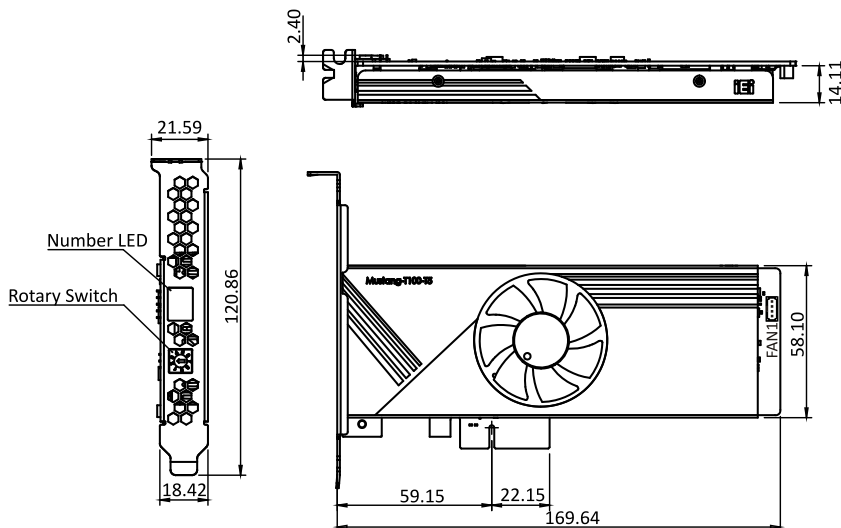
4. Align the Mustang-T100-T5 to the PCIe x4 slot. Press down gently, but firmly, to seat the Mustang-T100-T5 correctly in the slot.
5. Secure the Mustang-T100-T5 to the system's chassis with a retention screw.
6. Assign a card ID to the Mustang-T100-T5 by adjusting the rotary switch. The card ID number assigned here will be shown on the LED display of the card after power-up. See the diagram on the following page for the locations of the rotary switch and the number LED.

NOTE: The LED digit only displays 0 through 7; if switched to 8, the LED will display 0; if switched to F, LED will display 7.

Connector Pinouts

FAN1: Fan Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	3	FAN_TACH
2	+12V	4	+3.3V_PWM

Board Layout: Jumper and Connector Locations (Unit: mm)



All the utilities for the Mustang-T100-T5 are available on IEI Resource Download Center. Type the model name and press Enter to find all the relevant utilities and documentation. To install software from the downloaded ISO file, mount the file as a virtual drive to view its content.

IEI Resource Download Center
<https://download.ieiworld.com>

