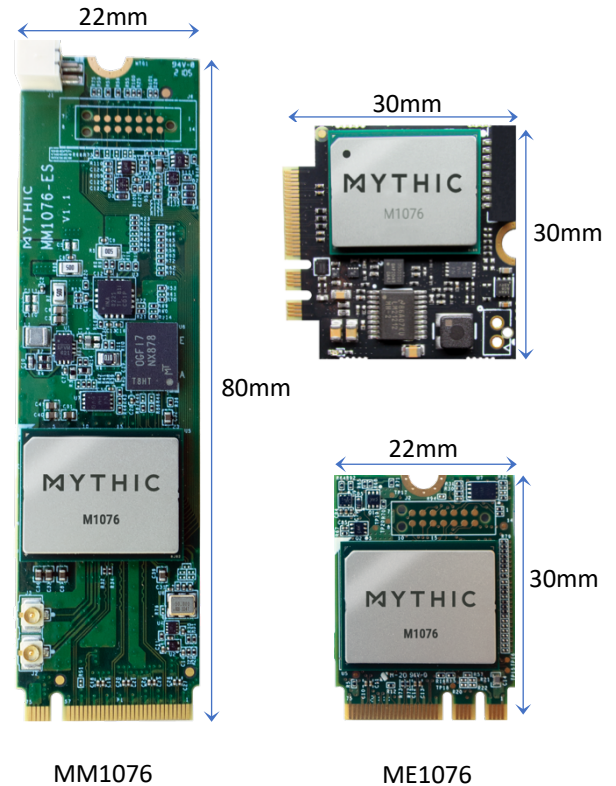## Overview

The Mythic Analog Matrix Processor (Mythic AMP™) M.2 Accelerator cards enable high performance, yet power-efficient AI inference for edge devices and edge servers. The M.2 compact form-factor and its ubiquity simplify the integration efforts into many different systems. The M.2 cards are designed with the M1076 Mythic AMP™ which is arranged in an array of AMP tiles, each featuring a Mythic Analog Compute Engine (Mythic ACE™). The M.2 AMP card is ideal for processing deep neural network (DNN) models in a variety of applications, including video surveillance, industrial machine vision, drone, AR/VR, and edge servers.

MM1076   ME1076

Features

- o M1076 Mythic AMP™
- o Support for up to 80 million weights on-chip
- o Performance of up to 25 TOPs
- o Model parameters stored and matrix operations executed on-chip by AMP tiles
- o No external DRAM required
- o 2/4-lane PCIe 2.1 for up to 2GB/s bandwidth
- o SMBus for EEPROM and PMIC access
- o Support for standard frameworks, including PyTorch, TensorFlow 2.0, and Caffe
- o Pre-qualified networks including object detectors, classifiers, pose estimators, with more being added
- o OS Support: Ubuntu, NVIDIA L4T, and Windows (future release)
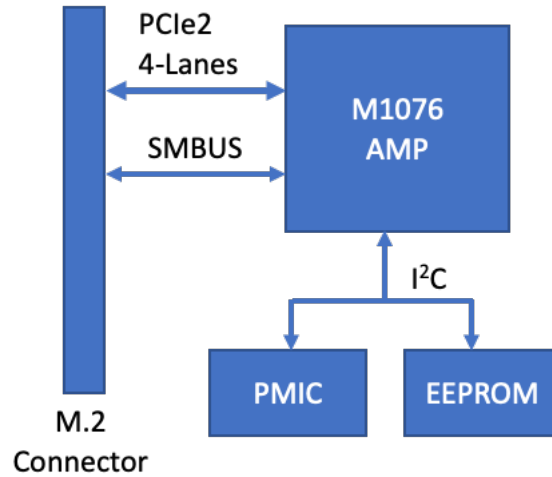
Target Applications

- o Video Surveillance
- o Industrial Machine Vision
- o UAV/Drones
- o AR/VR
- o Edge Servers

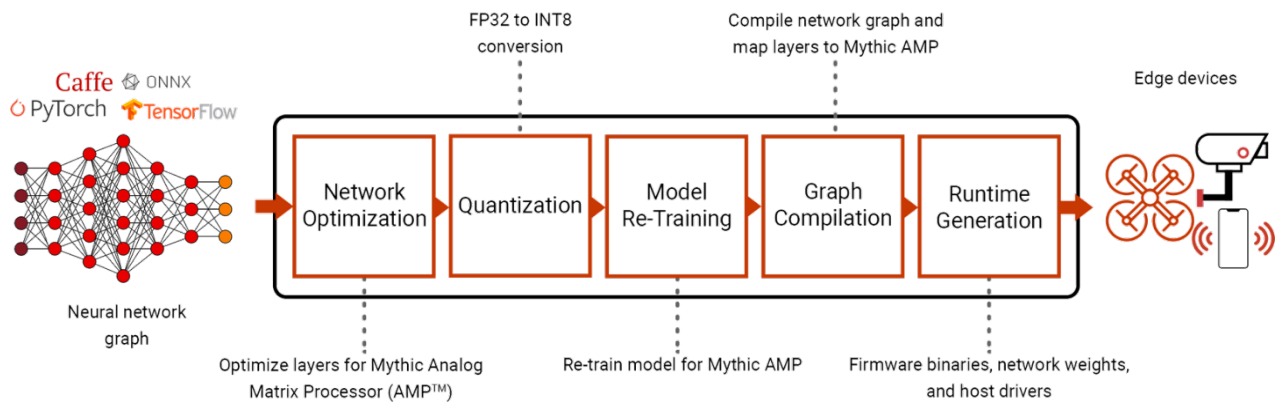## Physical Specification

- o Dimensions
  - • 22mm x 80mm (M key)
  - • 22mm x 30mm (A+E key)
  - • 30mm x 30mm (A+E key)
- o Operating Temperature: -40°C – 85°C
- o Typical Power Consumption: 3.5 W

AI Software Workflow

Ordering Information

Part Number	Description
MM1076	M1076 M.2 Card (M key) 22mm x 80mm
ME1076-2	M1076 M.2 Card (A+E key) 22mm x 30mm
ME1076-3	M1076 M.2 Card (A+E key) 30mm x 30mm

ABOUT MYTHIC

Mythic has developed a unified hardware and software platform featuring its unique Mythic Analog Compute Engine (Mythic ACE™) to deliver revolutionary power, cost, and performance that shatters digital barriers preventing AI innovation at the edge. The Mythic Analog Matrix Processor (Mythic AMP™) makes it much easier and more affordable to deploy powerful AI solutions, from the data center to the edge device. The company has raised over $165.2 million to-date and has offices in Redwood City, CA and Austin, TX.

www.mythic-ai.com