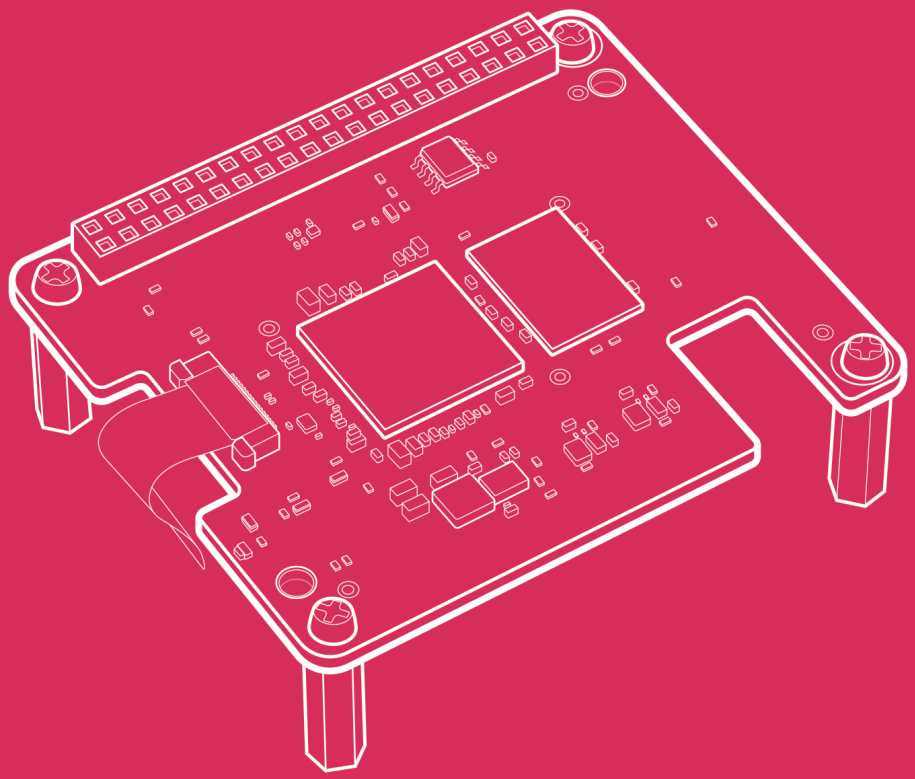
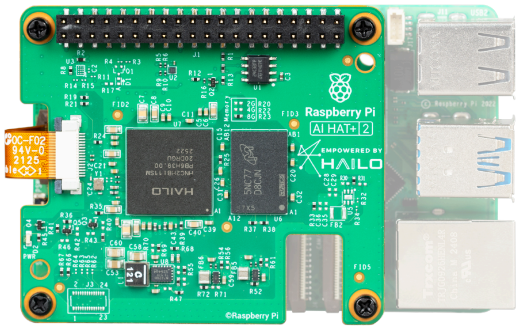
Raspberry Pi AI HAT+ 2

Published April 2026



EMPOWERED BY HAILO

Overview



The Raspberry Pi AI HAT+ 2 is an add-on board based on the Hailo-10H AI accelerator that brings generative AI capability to Raspberry Pi 5. With 8GB of dedicated on-board RAM, the AI HAT+ 2 is ideal for running large language models (LLMs) and vision-language models (VLMs) locally, leaving the host Raspberry Pi 5 free to handle other tasks. The AI HAT+ 2 delivers reliable, low-latency, accelerated generative AI at the edge, making it the perfect choice for applications including offline process control, secure data analysis, facilities management, and robotics.

The AI HAT+ 2 delivers 40 tera-operations per second (TOPS) of INT4 inferencing performance, with computer vision performance equivalent or superior to the 26 TOPS AI HAT+. A set of sample models is provided by Hailo; users can also train custom vision models or fine-tune generative AI models using Low-Rank Adaptation (LoRA) to suit their application, such as speech to text, translation, or visual scene analysis.

Like the original Raspberry Pi AI HAT+, the AI HAT+ 2 communicates using Raspberry Pi 5's PCI Express interface. When the host Raspberry Pi 5 is running an up-to-date Raspberry Pi OS image, it automatically detects the on-board Hailo accelerator and makes it available for AI computing tasks. The built-in `rpicam-apps` camera applications in Raspberry Pi OS natively support the AI module, automatically using the accelerator to run compatible post-processing tasks.

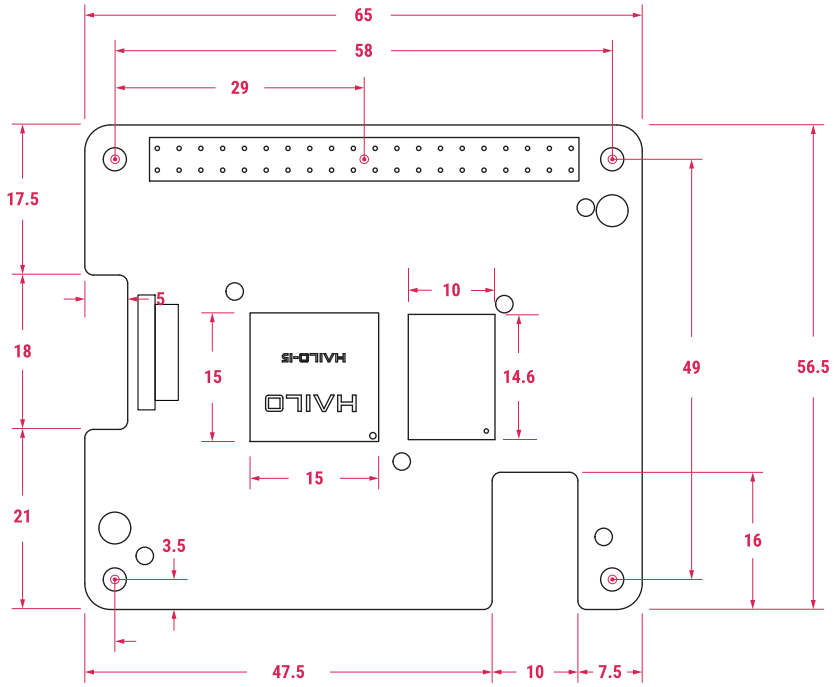
All of the software for compatible generative AI models can be found in Hailo's applications GitHub repo.

Specification

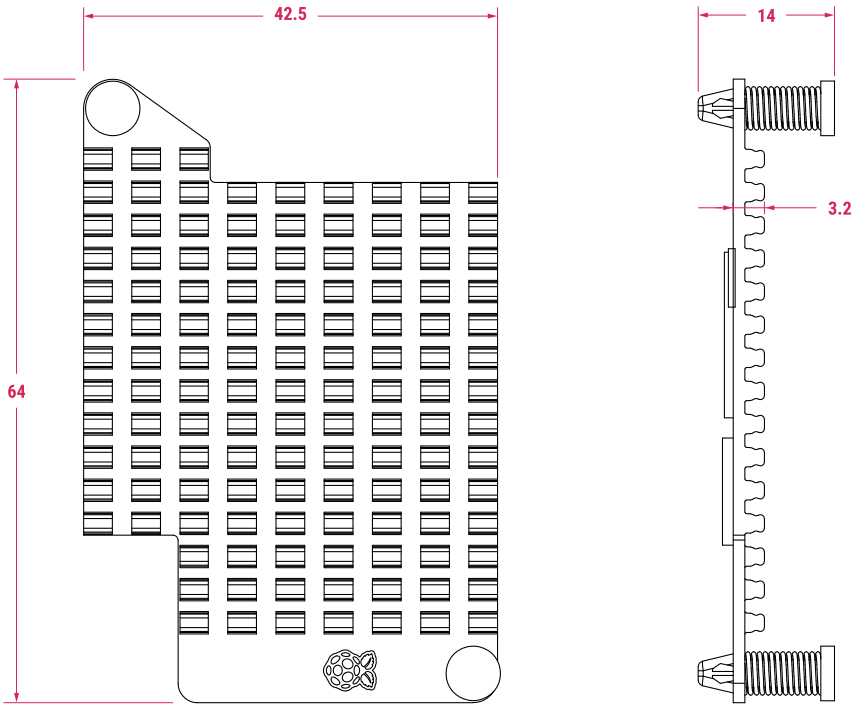
Features:	Hailo-10H AI accelerator delivering 40 TOPS (INT4) inferencing performance Performance for computer vision models comparable to the Raspberry Pi AI HAT+ (26 TOPS) Runs generative AI models efficiently using 8GB on-board RAM Fully integrated into Raspberry Pi's camera software stack Conforms to Raspberry Pi HAT+ specification Supplied with optional heatsink*, and with 16mm stacking header, spacers, and screws to enable fitting on Raspberry Pi 5 with Raspberry Pi Active Cooler in place
Operating temperature:	0°C to 50°C (ambient)
Production lifetime:	The Raspberry Pi AI HAT+ 2 will remain in production until at least January 2036
Compliance:	For a full list of local and regional product approvals, please visit pip.raspberrypi.com
List price:	$180

Physical specification

AI HAT+ 2



Heatsink



Note:

All dimensions in mm

All dimensions are approximate and for reference purposes only. The dimensions shown should not be used for producing production data

The dimensions are subject to part and manufacturing tolerances

Dimensions may be subject to change

Heatsink application instructions

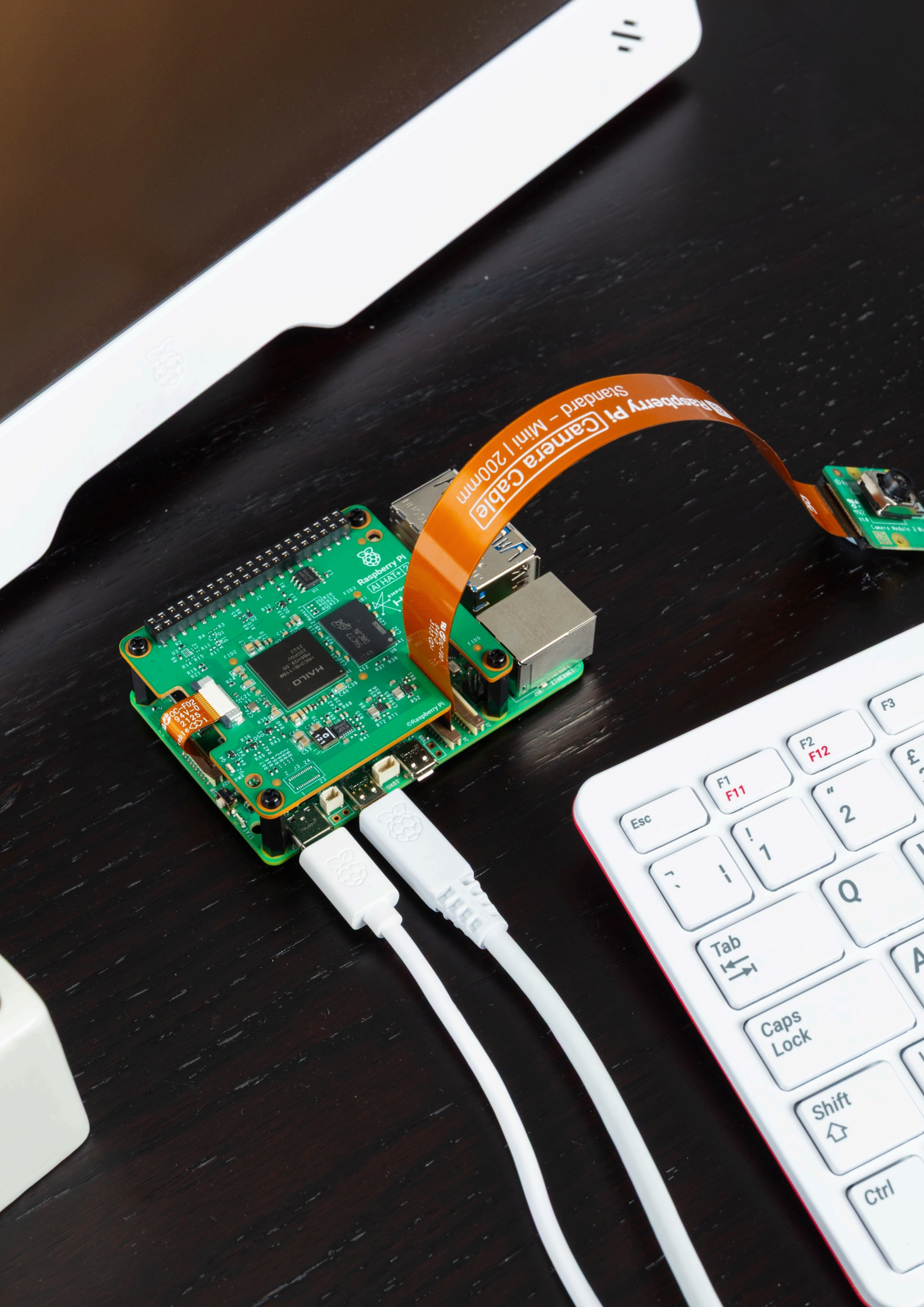
***While the heatsink supplied is optional, users running benchmarks or very intensive AI workloads are advised to install it to prevent thermal throttling.**

1. Remove the backing paper from the underside of the product.
2. Make sure your Raspberry Pi AI HAT+ 2 is powered off. Position the heatsink carefully in the correct space on the AI HAT+ 2, making sure not to hit any of the connectors.
3. Align the two black push pins with the two dedicated heatsink holes.
4. When correctly positioned, press evenly on the tops of the two push pins simultaneously until they click, indicating that they are clipped onto the board.
5. **We recommend that the heatsink is not removed once it is fitted to the Raspberry Pi AI HAT+ 2**. Removal of the heatsink will cause the push pins and thermal pads to degrade and is likely to lead to product damage.
6. Ensure the push pins are undamaged and securely clipped onto the AI HAT+ 2 before use.

Safety warnings

To avoid malfunction or damage to this product, please observe the following:

- The Raspberry Pi AI HAT+ 2 shall only be connected to a Raspberry Pi 5 via the PCIe interface and GPIO header.
- This product should be operated in a well-ventilated environment, and if used inside a case, the case should not be covered.
- Whilst in use, this product should be firmly secured, and should not be contacted by conductive items.
- All peripherals used with this product should comply with relevant standards for the country of use and be marked accordingly to ensure that safety and performance requirements are met.
- The cables and connectors of all peripherals used with this product must have adequate insulation so that relevant safety requirements are met.
- Operation of this device requires adult supervision.
- Do not expose to water or moisture, or place on a conductive surface whilst in operation.
- Do not expose to heat from any source; Raspberry Pi computers and the Raspberry Pi AI HAT+ 2 are designed for reliable operation at normal ambient temperatures.
- Take care whilst handling to avoid mechanical or electrical damage to the printed circuit board and connectors.
- Whilst it is powered, avoid handling the printed circuit board, or only handle it by the corners to minimise the risk of electrostatic discharge damage.


Raspberry Pi
Camera Cable
Standard – Mini | 200mm
Raspberry Pi
AI HAT+
HAILO
©Raspberry Pi
Esc
F1
F11
F2
F12
F3
Tab
Q
Caps Lock
Shift
Ctrl

Raspberry Pi

Raspberry Pi Ltd