

# Intel® Neural Compute Stick 2

More Cores. More AI Inference.



## Introduction

Bringing computer vision and artificial intelligence to your IoT and edge device prototypes is now easier than ever with the enhanced capabilities of the new Intel® Neural Compute Stick 2 (Intel® NCS 2).

Whether you're developing a smart camera, a drone with gesture-recognition capabilities, an industrial robot, or the next, must-have smart home device, the Intel NCS2 offers what you need to prototype smarter.

What looks like a standard USB thumb drive hides much more inside. It's built on the latest Intel® Movidius™ Myriad™ X VPU which features the neural compute engine—a dedicated hardware accelerator for deep neural network inferences. With more compute cores than the original version and access to the Intel® Distribution of OpenVINO™ toolkit, the Intel NCS 2 delivers 8X performance boost over the previous generation.<sup>1</sup>

## Product Features

- Powered by Intel® Movidius™ Myriad™ X Vision Processing Unit
- Up to 8X the performance of Intel® Movidius™ Neural Compute Stick<sup>1</sup>
- Supported by the Intel® Distribution of OpenVINO™ toolkit
- Real-time, on device inference - cloud connectivity not required
- Run multiple devices on the same platform to scale performance

Learn more about Intel® Neural Compute Stick 2 at [developer.movidius.com](https://developer.movidius.com)

<sup>1</sup>Testing by Intel as of October 12th, 2018  
Deep Learning Workload Configuration. Comparing Intel® Movidius™ Neural Compute Stick based on Intel® Movidius™ Myriad™ 2 VPU vs. Intel® Neural Compute Stick 2 based on the Intel® Movidius™ Myriad™ X VPU with Asynchronous Plug-in enabled for (2xNCE engines). As measured by images per second across GoogleNetV1. Base System Configuration: Intel® Core™ i7-8700K 95W TDP (6C12T at 3.7GHz base freq and 4.7GHz max turbo freq), Graphics: Intel® UHD Graphics 630 Total Memory 65830088 kB Storage: INTEL SSDSC2BB24 (240GB), Ubuntu 16.04.5 Linux-4.15.0-36-generic-x86\_64-with-Ubuntu-16.04-xenial, deeplearning\_deploymenttoolkit\_2018.0.14348.0, API version 1.2, Build 14348, myriadPlugin, FP16, Batch Size = 1. Software and workloads used in performance tests may have been optimized for performance only on Intel® microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more complete information visit [www.intel.com/bench-marks](https://www.intel.com/bench-marks). Performance results are based on testing as of October 12th, 2018 and may not reflect all publicly available security updates. See configuration disclosure for details. No product can be absolutely secure.

