

*This checklist must be submitted as a PDF as part of your submission.*

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Name(s) of System Under Test:

DISCO STM32F746  
Nucleo STM32H7A3  
Nucleo STM32L4R5  
Nucleo STM32G0B1RE  
Nucleo STM32U575ZI

Division (check one):

- ☐ Open  
☒ **Closed**

Category (check one):

- ☒ **Available**  
☐ Preview  
☐ Research, Development, and Internal (RDI)

Benchmark(s) (check all that apply):

- ☒ **Visual Wake Words**  
☒ **Keyword Spotting**  
☒ **Anomaly Detection**  
☒ **Image Classification**

Please fill in the following table adding lines as necessary:

System Under Test Name	Benchmark	Accuracy/AUC
DISCO STM32F746	AD	77.4%/0.86
DISCO STM32F746	IC	87.5%/0.98

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DISCO STM32F746	KWS	90.1%/0.99
DISCO STM32F746	VWW	85.4%/0.94
Nucleo STM32G0B1RE	AD	77.4%/0.86
Nucleo STM32G0B1RE	IC	87.5%/0.98
Nucleo STM32G0B1RE	KWS	90.1%/0.99
Nucleo STM32G0B1RE	VWW	85.4%/0.94
Nucleo STM32H7A3	AD	77.4%/0.86
Nucleo STM32H7A3	IC	87.5%/0.98
Nucleo STM32H7A3	KWS	90.1%/0.99
Nucleo STM32H7A3	VWW	85.4%/0.94
Nucleo STM32L4R5	AD	77.4%/0.86
Nucleo STM32L4R5	IC	87.5%/0.98
Nucleo STM32L4R5	KWS	90.1%/0.99
Nucleo STM32L4R5	VWW	85.4%/0.94
Nucleo STM32U575ZI	AD	77.4%/0.86
Nucleo STM32U575ZI	IC	87.5%/0.98
Nucleo STM32U575ZI	KWS	90.1%/0.99
Nucleo STM32U575ZI	VWW	85.4%/0.94

For each SUT, is the benchmark Accuracy/AUC target met? (Not a requirement for the Open division) (check all that apply):

- ☒ **Yes (Visual Wake Words ... 80% Accuracy)**
- ☒ **Yes (Keyword Spotting ... 90% Accuracy )**
- ☒ **Yes (Anomaly Detection ... 0.85 AUC)**
- ☒ **Yes (Image Classification ... 85% Accuracy)**
- ☐ No, for some combination of benchmark, scenario and SUT

For each SUT and benchmark, did the submission run on the whole validation set in accuracy mode? (check one):

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☒ **Yes**

☐ No

For each SUT and benchmark, does the submission use the EEMBC Runner? (check one)

☒ **Yes**

☐ No

For each SUT and benchmark, is the same code run in accuracy and performance modes? (check one)

☒ **Yes**

☐ No

Are the weights calibrated using data outside of the official calibration set? (check one)

☐ Yes

☒ **No**

What numerics does the submission use? (check all that apply)

☐ INT4

☒ **INT8**

☐ INT16

☐ UINT8

☐ UINT16

☐ FP11

☐ FP16

☐ BF16

☐ FP32

☐ Other, please specify:

What backend does the submission use? (check all that apply)

☐ Vendor backend, please name:

☐ TF-Lite Micro

☐ Micro TVM

☒ **Other, please specify: Bosch Hardware-Aware Lowering Engine (HALE) version 1.0**

Which of the following caching techniques does the submission use? (check all that apply, ideally none):

☐ Caching Inputs between iterations

☐ Caching responses between iterations

☐ Caching intermediate computations between iterations

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Which of the following techniques does the submission use? (check all that apply, ideally none if submitting to the closed division.)

- ☐ Quantization aware training
- ☐ Wholesale weight replacement
- ☐ Weight supplements
- ☐ Discarding non-zero weight elements
- ☐ Pruning
- ☐ Modifying weights during the timed portion of an inference run
- ☐ Hard coding the total number of queries
- ☒ None of the above

Is the submission congruent with all relevant MLPerf rules?

- ☒ **Yes**
- ☐ No

If the answer to the above question is no, please explain:

For each SUT, have you filled out the JSON system description file?

- ☒ **Yes**
- ☐ No

For each SUT, does the submission accurately reflect the real-world performance of the SUT?

- ☒ **Yes**
- ☐ No

Does your submission include the following: (check all that apply)

- ☒ **System description file**
- ☒ **Code that implements the benchmarks**
- ☐ Code/scripts that train the model(s) (Open Division)
- ☐ Metadata that describes each system-implementation combination tested
- ☐ Scripts that set up and execute each system implementation tested
- ☒ **Result logs for each system implementation tested**
- ☒ **This Checklist**