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
CY8CPROTO-062-4343W
Renesas RH850F1KMS4-R7F701649

Division (check one):

- ❑ Open
- X Closed

Category (check one):

- X Available
- ❑ Preview
- ❑ Research, Development, and Internal (RDI)

Benchmark(s) (check all that apply):

- X Visual Wake Words
- X Keyword Spotting
- X Anomaly Detection
- X Image Classification

Please fill in the following table adding lines as necessary:

System Under Test Name	Benchmark	Accuracy/AUC
DISCO STM32F476 int8	AD	77.8% / 0.85
DISCO STM32F476 int8	IC	87.5% / 0.98
DISCO STM32F476 int8	KWS	90.1% / 0.99

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DISCO STM32F476 int8	VWW	85.4% / 0.94
DISCO STM32F476 int8 max performance	AD	77.8% / 0.85
Nucleo STM32G0B1RE int8	AD	77.8% / 0.85
Nucleo STM32G0B1RE int8	IC	87.5% / 0.98
Nucleo STM32G0B1RE int8	KWS	90.1% / 0.99
Nucleo STM32G0B1RE int8	VWW	85.4% / 0.94
Nucleo STM32H7A3 int8	AD	77.8% / 0.85
Nucleo STM32H7A3 int8	IC	87.5% / 0.98
Nucleo STM32H7A3 int8	KWS	90.1% / 0.99
Nucleo STM32H7A3 int8	VWW	85.4% / 0.94
Nucleo STM32H7A3 int8 max performance	AD	77.8% / 0.85
Nucleo STM32H7A3 int8 min ram	IC	87.5% / 0.98
Nucleo STM32H7A3 float	AD	81.9% / 0.89
Nucleo STM32H7A3 float	IC	87.0 / 0.98
Nucleo STM32H7A3 float	VWW	85.3% / 0.94
Nucleo STM32L4R5 int8	AD	77.8% / 0.85
Nucleo STM32L4R5 int8	IC	87.5% / 0.98
Nucleo STM32L4R5 int8	KWS	90.1% / 0.99
Nucleo STM32L4R5 int8	VWW	85.4% / 0.94
Nucleo STM32L4R5 int8 max performance	AD	77.8% / 0.85
Nucleo STM32U575ZI int8	AD	77.8% / 0.85
Nucleo STM32U575ZI int8	IC	87.5% / 0.98
Nucleo STM32U575ZI int8	KWS	90.1% / 0.99
Nucleo STM32U575ZI int8	VWW	85.4% / 0.94

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Nucleo STM32U575ZI int8 max performance	AD	77.8% / 0.85
CY8CPROTO-062-4343W int8	AD	77.4% / 0.86
CY8CPROTO-062-4343W int8	IC	87.5% / 0.98
CY8CPROTO-062-4343W int8	KWS	90.1% / 0.99
CY8CPROTO-062-4343W int8	VWW	85.4% / 0.94
CY8CPROTO-062-4343W int8 max performance	AD	77.4% / 0.86
CY8CPROTO-062-4343W float	AD	81.9% / 0.89
CY8CPROTO-062-4343W float	IC	87.0% / 0.98
CY8CPROTO-062-4343W float	VWW	85.3% / 0.94
Renesas RH850F1KMS4-R7F701649 int8	AD	77.8% / 0.85
Renesas RH850F1KMS4-R7F701649 int8	IC	87.5% / 0.98
Renesas RH850F1KMS4-R7F701649 int8	KWS	90.1% / 0.99
Renesas RH850F1KMS4-R7F701649 float	AD	81.9% / 0.89

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Renesas RH850F1KMS4-R7F701649 float	IC	87.0% / 0.98

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

- X Yes (Visual Wake Words … 80% Accuracy)
- X Yes (Keyword Spotting … 90% Accuracy)
- X Yes (Anomaly Detection … 0.85 AUC)
- X 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):

- X Yes (new smaller AD validation set was used
- ❑ No

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

- X Yes
- ❑ No

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

- X Yes
- ❑ No

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

- ❑ Yes
- X No

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

- ❑ INT4
- X INT8
- ❑ INT16
- ❑ UINT8
- ❑ UINT16
- ❑ FP11
- ❑ FP16
- ❑ BF16
- X FP32
- ❑ Other, please specify:

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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 1.0.175

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

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?

- X 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?

- X Yes
- ❑ No

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

- X Yes
- ❑ No

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

- X System description file

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X 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
X Result logs for each system implementation tested
X This Checklist