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

Name of Certifying Engineer(s): **Cedric Nugteren**
Email of Certifying Engineer(s): **cedric@plumerai.com**
Name(s) of System Under Test:
NUCLEO_L4R5ZI, CY8CPROTO_062_4343w, DISCO_F746NG

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
NUCLEO_L4R5ZI	VWW	Top-1: 84.9% (target = 80%)
NUCLEO_L4R5ZI	KWS	Top-1: 90.2% (target = 90%)
NUCLEO_L4R5ZI	AD	AUC: 0.86 (target = 0.85)
NUCLEO_L4R5ZI	IC	Top-1: 88.0% (target = 85%)
CY8CPROTO_062_4343w	VWW	Top-1: 84.9% (target = 80%)
CY8CPROTO_062_4343w	KWS	Top-1: 90.2% (target = 90%)
CY8CPROTO_062_4343w	AD	AUC: 0.86 (target = 0.85)
CY8CPROTO_062_4343w	IC	Top-1: 88.0% (target = 85%)
DISCO_F746NG	VWW	Top-1: 84.9% (target = 80%)
DISCO_F746NG	KWS	Top-1: 90.2% (target = 90%)
DISCO_F746NG	AD	AUC: 0.86 (target = 0.85)
DISCO_F746NG	IC	Top-1: 88.0% (target = 85%)

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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):

- ✓**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: **Plumerai Inference Engine**
- ☐ TF-Lite Micro
- ☐ Micro TVM
- ☐ Other, please specify:

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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?

- ✓**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**