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

Name of Certifying Engineer(s): Jeremy Holleman
Email of Certifying Engineer(s): jeremy@syntiant.com
Name(s) of System Under Test: syntiant_9120_1v1_98mhz

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
syntiant_9120_1v1_98mhz	KWS	91.1%

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. (with the #define EE_CFG_ENERGY_MODE changed)
- ❑ 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: Syntiant TDK (Training Development Kit)
- ❑ TF-Lite Micro
- ❑ Micro TVM
- ❑ Other, please specify:

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

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- ❑ 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