Name of Certifying Engineer(s): Jeremy Holleman
Email of Certifying Engineer(s): jeremy@syntiant.com
Name(s) of System Under Test: syntiant_9120_0v9_30mhz

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_0v9_30mhz	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

- ❏ 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