Name of Certifying Engineer(s):Jeremy Holleman
Email of Certifying Engineer(s):jeremy@syntiant.com
Name(s) of System Under : NDP9120 (board) with NDP120 (chip)

Division (check one):
    X Open
    ❏ 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
    ❏ Anomaly Detection
    X Image Classification

Please fill in the following table adding lines as necessary:

System Under Test Name	Benchmark	Accuracy/AUC
Syntiant NDP120 at 0.9V/30MHz	KWS	91.1%
Syntiant NDP120 at 0.9V/30MHz	VWW	84.8%
Syntiant NDP120 at 0.9V/30MHz	IC	86.0%
Syntiant NDP120 at 1.1V/98MHz	KWS	91.1%
Syntiant NDP120 at 1.1V/98MHz	VWW	84.8%
Syntiant NDP120 at 1.1V/98MHz	IC	86.0%

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)

❏ Yes (Anomaly Detection … 0.85 AUC)
X Yes (Image Classification ... 85% Accuracy)
X 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
    ❏ 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
    X INT16
    ❏ UINT8
    ❏ UINT16
    ❏ FP11
    ❏ FP16
    ❏ BF16
    ❏ FP32
    ❏ Other, please specify:

What backend does the submission use? (check all that apply)
    X Vendor backend, please name:Syntiant Interface Library
    ❏ TF-Lite Micro
    ❏ Micro TVM
    ❏ Other, please specify:

Which of the following caching techniques does the submission use? (check all that apply, ideally none): 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
- X Code that implements the benchmarks
- ❏ Code/scripts that train the model(s) (Open Division)
- X Metadata that describes each system-implementation combination tested
- X Scripts that set up and execute each system implementation tested
- X Result logs for each system implementation tested
- X This Checklist