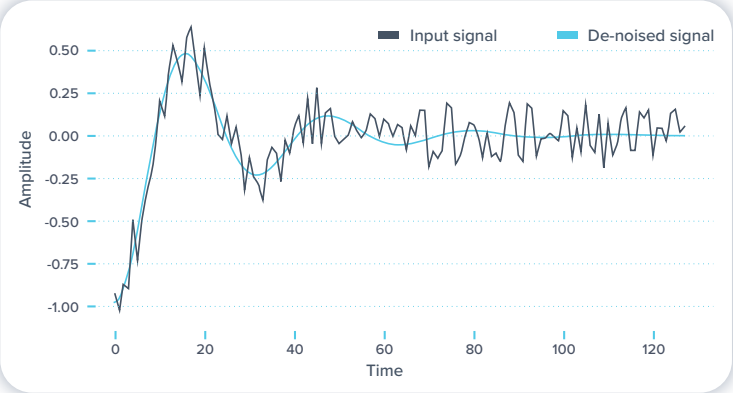
Moku Neural Network guide

How to train and deploy a neural network to Moku:Pro

Generate training data and the network model

1. Use the provided Python script as a starting point to build your network model.
2. Produce example signal inputs and desired output through simulation or using Moku to generate and capture real data.
3. Build the network model with the desired configuration. **Choose:**
   a. Number of dense layers
   b. Number of neurons per layer
   c. Activation functions



Ringdown signals

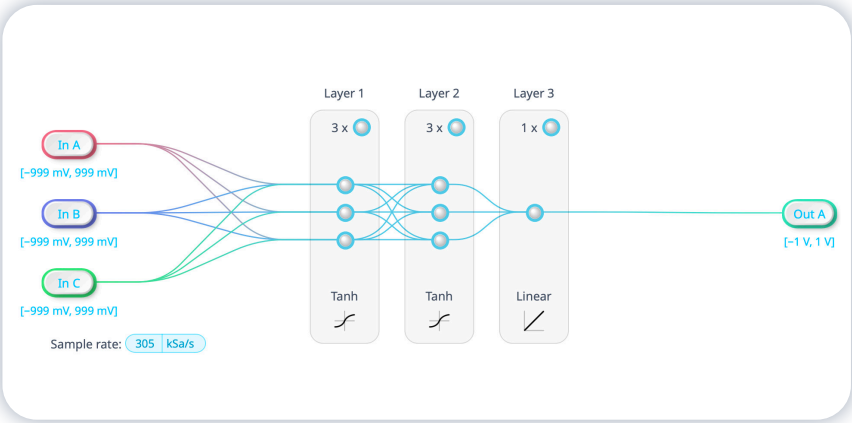
Training history

Train the model and export the configuration

1. Train the model using the Python script. Plot the losses to assess the success of the training.
2. If desired, you can also plot the models predictions against your expected output to test the performance of your model.
3. Export the model and upload to the Moku Neural Network instrument as a .linn file.

Upload it to the Moku Neural Network on Moku:Pro

1. Upload the .linn file to the Moku Neural Network instrument on Moku:Pro in Multi-instrument Mode.
2. Configure your network time and voltage scaling to match your experiment and check layer and activation configurations for inference.
3. Use and evaluate your neural network model alongside the Moku suite of instruments.



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