An Offline Signature Verification and Forgery Detection Method Based on a Single Known sample and an Explainable Deep Learning Approach -

1. depthwise dilated convolutions.
2. Voting method

Online signature verification by spectrogram analysis –

1. 250 ms window size, which is proper for signing process, however it could be smaller for better precision.
2. Any window size between 100 ms and 250 ms would give satisfactory outcomes.
3. Hamming window is also not mandatory for windowing the whole signal, so Blackman, Hanning, Kaiser-Bessel, Blackman-Harris, Gaussian or similar windowing functions may change the dynamics of the discrete signal to reach better results.
4. The main kernel is the frequencies disregarding the geometrical features, the EER would be lower when the number of trials increase.