**Note S2. Calculation of the filter delay caused by Axon 700B.** Based on the datasheet of the AXON patch-clamp amplifier produced by Molecular Devices, there designs a variable Scaled Output Filters (SOF) in the circuit, which can be configured to a 4-pole Bessel filter or a 4-pole Butterworth filter. Since SOF is the most influential component, we simply modeled the total signal delay (*t*delay) for the AXON 700B in the following way:

 (10)

Where, *tep* is the empirical delay value for the whole amplifier excluding the SOF. For MultiClamp 700B, *tep* has the approximate value of 0.06 ms. The cutoff frequency of “Bessel” SOF of 700B ranges from 2 to 30 kHz, while that of “Butterworth” SOF ranges from 3 to 45 kHz. We calculated *t*SOF for typical settings over the full range (Tabel S4).