Supplementary Figures:



S1 Examples of FT curve in Anaesthetized and Awake Bats

(A) Picture of bat brain with the area of recording in the cerebellum (top) and a vocalizing bat (bottom). Individual examples of receptive fields obtained with spike counts (**B-D**) and the peak-to-peak amplitude of evoked LFP signals (**E-G**).



S2 Characteristic frequency and minimum threshold response in Anaesthetized and Awake Bats

A-D: Distributions of Characteristic Frequencies and Minimum Thresholds for spiking (A, B) and LFP signals (C, D). Thresholds were determined as the nearest intensity to 65% of the maximum activity observed in each receptive field. Note that the characteristic frequency and minimum threshold combination indicate the point of maximum sensitivity in the frequency/level receptive field. E, F: Mean post-stimulus time histogram and event-related potentials, respectively, obtained at the characteristic frequency/minimum threshold combination in awake and anesthetized bats (mean \pm SD). G: Distributions of latencies measured from spiking and LFP responses.