



FIGURE 2 | Schematic of the connectivity in the neuronal network model. The network model consists of two excitatory populations (E_{up} and E_{down}) and an inhibitory population (I), tonotopically organized. The asymmetric inhibitory feedback leads to an ascending/descending frequency change preference for the E_{up} and E_{down} populations, respectively. Each unit is a local subpopulation, positioned at its characteristic frequency (CF). Activity of each unit is described by a firing rate, whose dynamics are governed by the differential equations (see Equation 2 in Materials and Methods). Red arrows signify recurrent excitation and blue arrows inhibition. The subset of the connections shown illustrates the architecture's qualitative nature: the synaptic footprints from E to E and from E to I are narrow and symmetric; from I to E the footprint is broad and asymmetric.

Network model for change detection.

Huang et al, Front Comput Neurosci, 2015