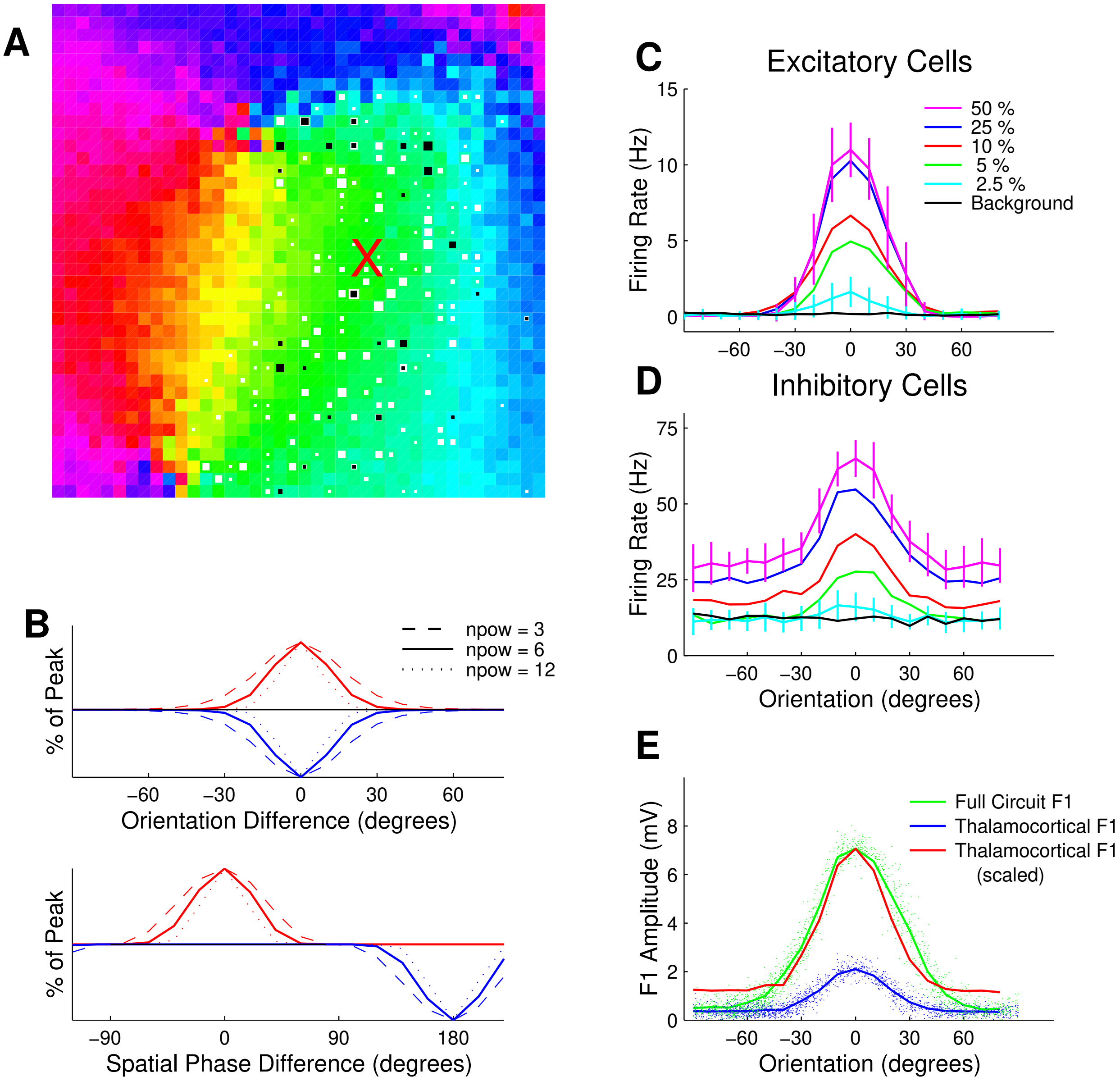

Figure 8. Behavior of the full computational model. **A**. Orientation map used, and typical pattern of intracortical connections. There is one excitatory cell in every location of the cortical map (40×40 lattice) and one inhibitory cell in every fourth location (20×20 lattice). Cells were assigned preferred orientation according to illustrated 40×40 color map (red-green-blue-red representing $0^o - 60^o - 120^o - 180^o$) (map is 2/3 mm x 2/3 mm from measurement in cat V1, provided by Michael Crair and Michael Stryker); RF spatial phases were assigned randomly to each cell, while retinotopic centers progress continuously across the map (described in Methods). Intracortical connections were assigned probabilistically according to RF correlations (excitatory connections, yielding roughly same-phase excitation) or anti-correlations (inhibitory connections, yielding roughly anti-phase inhibition). A typical connectivity pattern is shown by the black and white squares, which illustrate locations of cells making inhibitory or excitatory intracortical synaptic connections, respectively,