ABSTRACT

There is provided a metamaterial textile for providing wireless sensor network and method of designing such. The metamaterial textile comprising a sheet of metamaterial textile cut into a comb shape comprising long base with a plurality of metamaterial textile teeth extending along and from the base, wherein a gap is present between every two adjacent teeth, whereby, the metamaterial textile is configured to enable propagation of radio-surface plasmons wave along the metamaterial textile for providing wireless sensor network. The metamaterial textile is configured to control the height of the radio-surface plasmons wave by changing number of the metamaterial textile teeth, and changing dimensions of the metamaterial textile teeth and changing dimensions of the gaps.

Fig. 1B