ABSTRACT

This application provides a multi-band antenna system and a base station, to implement a multi-band architecture layout with good system performance. The multi-band antenna system includes: a plurality of radiating element arrays, feeding networks separately corresponding to the plurality of radiating element arrays, at least one layer of a frequency selective surface (FSS), and a reflection panel, where the plurality of radiating element arrays are located above the reflection panel, and all or some of the plurality of radiating element arrays are stacked; the at least one layer of the FSS is located between the stacked radiating element arrays; and a feeding network corresponding to at least one radiating element array in the stacked radiating element arrays is electrically connected to the at least one layer of the FSS, or the feeding network corresponding to the at least one radiating element array is integrated on the at least one layer of the FSS.