

***Abstract***—This paper presents a new antenna design suitable for cognitive radio communication. It consists of two structures incorporated together into the same substrate. The first structure is an ultra wideband antenna covering the spectrum from 3.1 GHz to 11 GHz for channel sensing. The second structure is a frequency reconfigurable triangular shaped patch for establishing communication with another RF device. The antenna reconfigurability is achieved via a rotational motion. A prototype antenna was fabricated and tested in order to validate the suggested method.