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(12) **Patent Application Publication** Schütz

(54) TRANSPONDER TAG THAT IS OPERABLE BY A MOBILE TELEPHONE, PORTABLE OBJECT, MOBILE TELEPHONE, AND CORRESPONDING METHODS

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(57) ABSTRACT

The present invention relates to a transponder tag (10) that is operable by a mobile telephone, a mobile telephone for operating such a transponder tag (10), a method of operating the transponder tag (10), and a method for detecting the presence of a portable object. The transponder tag comprises a receiving unit (20) for receiving a wireless input signal. The transponder tag (10) is configured to obtain energy (EG) from the received input signal and to use the energy (EG) obtained from the input signal for transmitting by way of a wireless short-range connection a wireless output signal (SSR) that corresponds to a tag information (ITG) of the transponder tag (10). The receiving unit (20) is configured to receive a wireless input signal (STUP) at a frequency of at least one uplink band of a mobile telephone network. In this way, radiation energy of the mobile phone is used to achieve an energy-efficient and reliable operation of the transponder tag as long as the latter is located within a short distance of the mobile phone. This is useful for numerous applications. For example a person may use his/her mobile telephone to obtain a quick overview and/or a reliable confirmation that all his/her personnel belongings, e.g. keys or medical box, are "on board" at the moment the person leaves home.

