



Measuring system for detecting RFID tags

Solution and its benefits

A measuring system for detecting radio-frequency tags, and a new use for a leaky waveguide. The measuring system comprises a reading device and an antenna, which is connected to reading device in order to produce a radio-frequency exciter signal and in order to receive from the radio-frequency tag the return signal caused by the exciter signal. The invention permits reliable and precise RFID detection, for example, for a results service for sports events, for sports performances, and warehouse management or road traffic control applications.

Competitive advantage

The measuring system permits reliable and precise radio frequency identification (RFID) detection. It makes possible a wireless and automatic results service. A line-of-sight connection is not needed to read the tags and that they can be read through non-metallic materials. The tags can also easily withstand high temperatures and other changes in ambient factors. The information contained in the tags can be both read and edited. Particularly passive tags are cheap and they can be installed anywhere, e.g. laminated in a ski or running shoe already at the factory.

Technical description

Measuring system for detecting radio frequency tags (16) comprises a reading device and an antenna (14) connected to reading device to excite it and to detect the return signal obtained from the tag, a microstrip-type leaky waveguide being used as the antenna. We use of a microstrip-type leaky waveguide as a transmission and reception antenna in a radio frequency identification system.

Intellectual property rights

- JAAKKOLA K; LAJUNEN P; NUMMILA K; VARPULA T: MEASURING SYSTEM AND METHOD FOR DETECTING RADIO-FREQUENCY TAGS
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Additional information

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