

PROJECT / Advanced Antennas for Radio Frequency Identification and Localization

RFID-Local

Main Objective:

1. Extension of previous work from this team on UHF RFID antennas for smart storeware, to replace or complement current optical bar code solutions, with the added value of enabling automation.
2. Design of dedicated UHF RFID passive tags for application on specific type of objects to enhance its detection, considering omnidirectionality, size, read range and sensitivity to nearby objects. Commercially available passive chips will be integrated into the developed prototypes.
3. Development of antennas for a new generation of ultra wideband impulse radio (IR-UWB) RFID technology at microwaves (3 to 10 GHz). Studies will explore the use of these tags for precise indoor location applications; this includes the development of a demonstration test bed.

Reference: PTDC/EEA-TEL/102390/2008, Funding: FCT/PTDC, Start Date: 01-01-2010

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