

RFID Application Development using Atmel SDK

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Abstract

This paper presents RFID technology that became very popular in the last few years, and also an example of an application where this technology can be used. The concept of RFID and its origins are presented in the introductory part. Next, the three major components of an RFID application are explained, and these are: hardware components, middleware components and data user application. The data transfer, based on radio waves, takes place on the layer of hardware components, using a transponder and a transceiver. The transponder, considered the heart on an RFID system, can be found on the market in various sizes and shapes and also having different properties. The transceiver is the devices that convert the radio waves from the transponder in a format that can be transmitted to middleware software. Finally, I developed an application that uses Atmel ATAK2270 kit to simulate an office building access control situation.