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The innovative design of the wireless sensor
Apart from the new sensor design, we also present the application of this wireless, passive, resonant-circuit for monitoring of water content in building materials, clay brick and autoclaved aerated concrete block, which are widely used in civil engineering

A completely new approach to design passive wireless sensors is presented. The whole LC sensor is made in one conductive layer and there is no need for any post-soldering process or adding extra conductive layers. This simplifies the fabrication and measurement process as well as reduces the sensor's ultimate cost.


Resonant frequency as a function of time
during drying brick at room temperature.

G. Stojanović, M. Radovanović, M. Malešev, V. Radonjanin, "Monitoring of Water Content in Building Materials Using a Wireless Passive Sensor", Sensors (IF: 1.774), vol. 10, no. 5, pp. 4270-4280, 2010, ISSN 1424-8220, https://doi:10.3390/s100504270.

