

# Wireless Identifying System Based on Nano-tags

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**Abstract**— Currently quite a lot of attention is paid to research in the field of Nano Communications. The use of nanomachines leads to improvement of existing applications. Example of such applications is wireless identifying system based on nano-tags. This article considers system that identifying items using passive nano-tags (harvesting energy from external electromagnetic waves). The article also considers the use THz band to transmit data and the numerical estimation of communication channel characteristics for the first "window of transparency".

**Keyword** — energy harvesting, nanonetworks, nano-tag, THz band

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