



BLIDENT – OPERATIONAL DESCRIPTION

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BLident: inductive RFID system at 13.56MHz with integrated antennas using passive tag's.

Energy and data will be transferred from the transceiver to the tag by an inductive coupling. The carrier at 13.56MHz is always on and will be modulated to transfer data to the tag. As modulation 10% ASK is used, with a modulation pulse length of 9.44µs typically every 75.52µs as long as data are transferred.

The tag will be activated at a specific fieldstrength, encouraging him to answer to the transceiver-request by modulating the carrier amplitude as well with a specific modulation frequency of $f_{mod} = 424\text{kHz}$, generating two sidebands at $(13.56\text{MHz}+f_{mod})$ and $(13.56\text{MHz}-f_{mod})$.