

## H-TAG-LDn operational description

### General description

Tag is a unit mounted on a collar on the animal neck, used for the following:

1. Identification of animal using 2.4 GHz transceiver and optical IRDA receiver and/or NFC reader unit.
2. Measure various animal parameters, processes and transmit them via 2.4 GHz to the base unit (BU500/E) and/or local IDUxx.

The tag initiates transmissions of few messages each hour by predefine sequence or upon request from IDUxx via IRDA receiver or BUxx units via 2.4 GHz link.

Outdoor installation, sealed unit, powered from internal 3.6V battery.

### 2.4 GHz Transceiver Parameters

**RF Transceiver:** Atmel AT86RF233

**RF Frequency:** 2.405-2.48GHz

**Modulation type:** QPSK

**RF Channels:** 5MHz separation 16ch

**Baud Rate:** 250K Bit/Sec (Not configurable)

**Output power:** 3.5dBm

**Antenna type:** PCB Omni-directional

**Antenna gain:** Average 0dBi (Max gain: 1.5dBi)

**Average RF data:** 3 messages/hour, 1mSec/message, ~30bytes/message.

### Optic Parameters

IRDA Receiver – using to initialize tag parameters and ID transmission via 2.4GHz link in aim to identify specific animal in specific location as milking station or passing gate.