

AS Transponders

The AS Transponders are available in different designs up to 12 m recognition distance with the additional feature to trace the position of the transponders permanently in a pre-defined area.

The technology is already proven in mass production and therefore compared to other similar solutions available for a reasonable price and well known due to its reliability.

The system is easy upgradeable with further transponders and allows to be operated in anti-collision mode.

Features

- + Uplink 125kHz based
- + Downlink 433 based
- + Read Range up to 12 m
- + Various transponder designs available
- + HITAG 2 compatible
- + Works also in passive mode (HITAG)
- + Data Encryption Key Handling
- + Easy system integration
- + Optional functional buttons

In addition the transponders can be equipped optionally with functional buttons, which allow sending different signals to the reader system to enrich the overall functionality, which is already supported by the Demo Software included by the AS Evaluation Kit.

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The drawings below show the working principle and advanced block diagram of the AS reader.

Transponder Specifications:

Operating frequency: 125kHz for uplink, 433 MHz for downlink

Operating distance: up to 12 m, downlink by push button up to 50m

Air Interface: Manchester Coding for LF and UHF

3,9 kHz or 7,8 kHz LF baudrate, 31,2 kHz UHF baudrate

User Memory max.: 408 Bytes (102 pages of 4 Byte)

32 bit unique serial number

Battery status indication

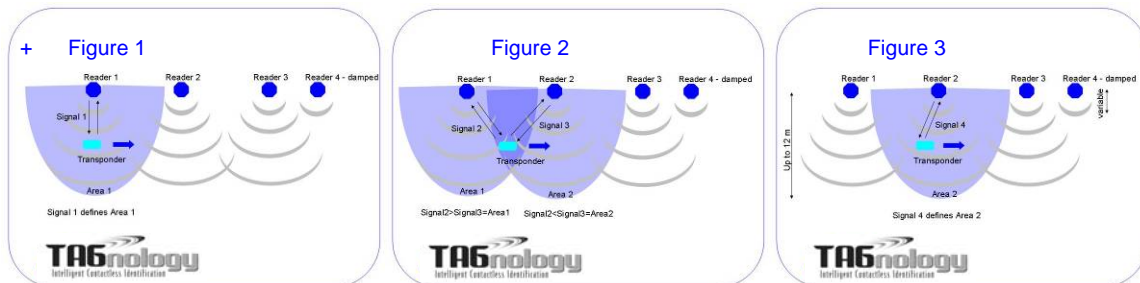
Low power management guarantees a battery lifetime of 3 years (at 30 wake-up's a day) depending on application

Operating Temperature: -25°C.....+85°C

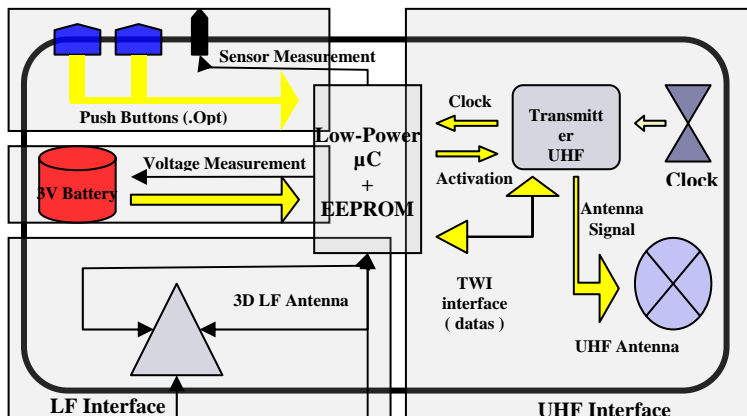
Storage Temperature: -55°C.....+125°C

+ **The working principle**

- + Figure 1: transponder communicates with reader 1 under signal 1 = transponder located in area 1
- + Figure 2: transponder communicates either with signal 2 to reader 1 and signal 3 to reader 2
- + Figure 2: if signal 2 > signal 3 = transponder in area 1- if signal 3 > signal 2 = transponder in area 2
- + Figure 3: transponder communicates with reader2 under signal 4 = transponder located in area 2



Block Diagram:



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