



Multi-mode RFID tag

LS1123

The LS1123 Multi-mode RFID Tag is an advanced, active RFID tag, which can be configured to solve almost any RFID challenge. The tag has been designed with maximum versatility in mind while at the same time incorporating features that will ensure a very long battery life. Every time the tag communicates its ID to the reader, the data message also includes information about the event (motion, excitation or regular heartbeat) that initiated the transmission and the battery status.

The tag has four configurable modes of operation, which can be used separately or in combination:

Motion mode: The tag will transmit its ID when moved, shaken or otherwise put into motion and instantly report when the tagged item is moved.

Beacon mode: The tag automatically transmits its ID at a configurable time interval, e.g. every 10 seconds.

Excitation mode: The tag can operate as a semi-active tag, meaning that a low-frequency RF field generated by an exciter can wake up the tag. The tag will then transmit its ID together with the ID of the exciter that turned it on.

Deep sleep: When the tag is not moving it will enter into deep sleep state of low power consumption. The tag can be configured to wake up and transmit a heartbeat signal at configurable intervals, e.g. every 2 hours.

BENEFITS

- Enables asset tracking
- Compatible with existing LS RFID technology
- Easy and low-cost deployment design

FEATURES

- Operates with existing LS readers and exciters
- Battery power saving by means of motion sensor
- Instant asset overview
- Long battery life – up to 10 years



Technical specifications

Tag technology	RF - active
Battery capacity	540 mAh
Power consumption (idle)	Max. 3.0uA (sleep)
Power consumption (during transmission)	Max. 10mA
Transmission power	Max. 10 uW
Data read rate (tag to reader)	38.4 Kbps
Write data rate (reader to tag)	1.2 Kbps
Tag transmission frequency.	433.92 MHz
Tag excitation frequency range	122-135 KHz
Excitation range up to approx	8ft 2in
Read range in open space approx.	98ft 7in
Dimensions (LxWxH)	2.4in X 1.14in x 0.75in
Weight	0lb 1.0582oz
Housing material	Polycarbonate (Lexan)
Operation temperature	-13 F to 131 F
Storage temperature	-40 F to 158 F
Humidity	93% +104 F
IP rating	IP65
Product compatibility	S95, S21, S23
Conformity	FCC Part 15, I-ETS 300-220, I-ETS 300-330, AMQM, IPC, UPU, RSS210

