

Read only Contactless Identification Device

Description

The EM4026 passive transponder is a single chip with anti-collision features enabled. The free-running algorithm is very well suited to environments sensitive to the potential jamming caused by the reader's modulation. With this feature the reader only sends a Continuous Wave and listens to incoming replies from the tags. In the standard Free-Run operation very few numbers of tags can be counted with high throughput. The Fast Switch-Off and Slow-Down enables the possibility of counting a high number of items, typically for logistics applications.

A single coil is connected to the naked chip in order to make the passive tag.

Applications

- ☐ Logistic
- ☐ Manufacturing automation
- ☐ Anti-counterfeiting
- ☐ Industrial transponder
- ☐ Tracking and tracing

Features

- ☐ Implements free-running anti-collision protocol with FAST SWITCH-OFF and SLOW-DOWN modes
- ☐ Ability to identify a number of transponders higher than 100 (FAST MODE)
- ☐ Factory programmed 64 bit ID number
- ☐ Data rate options from RF/4 to RF/32
- ☐ Manchester data encoding
- ☐ Operating field frequency: 125 kHz
- ☐ On-chip resonant capacitor (250 pF)
- ☐ On-chip rectifier and voltage limiter
- ☐ No external supply buffer capacitor needed
- ☐ Very Low power consumption
- ☐ Pad size for direct bonding 200 x 400 um (bump)
- ☐ -40 to +85 °C operating temperature range

Typical Operating Configuration

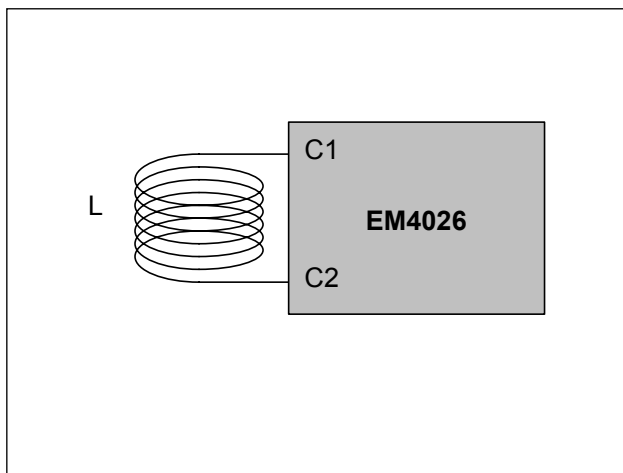


Fig. 1