

ActitagTM *Remote Keyless Entry*

Technopuce designs and manufactures an active smart card named ACTI-TAGTM. Based on transponder technology for short distance and radio-frequency for long range data communication, ACTI-TAGTM integrates a patented thin, flexible and high power lithium battery (*Battery on Flex*TM technology).

The credit card size Remote Keyless Entry (R.K.E.) can be safely inserted into a card holder for easy and discrete storage compared to a standard remote control which is bulky, heavy and often easily lost.

Another advantage is the low price achieved through high design integration and mass production.

ACTI-TAGTM Remote Keyless Entry integrates Microchip Keeloq[®] code hopping technology with 32 bit code-hopping portion, two 64 bit transponder keys and two IFF (Identify Friend or Foe) encryption algorithms providing a high degree of security.

Typical Applications :

- **Electronic door locks**
- **Garage and door openers**
- **Alarm activation**
- **Access control**
- **Remote car locks**



Main features :

- Thin flat embedded 3.6V Lithium battery, optimised for pulse discharge
- KEELOQ[®] Code Hopping Encoder and Transponder
- Thin flexible package
- Low cost through mass production
- Transponder vicinity communication
- Radio-Frequency for long range data transmission (up to 300 feet)
- Personalization : both sides are printable

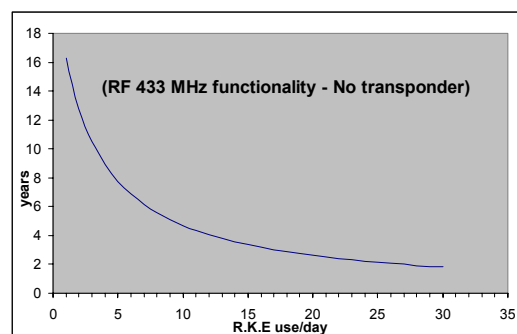
Specifications

Tag size	Length	85.6 mm (3.37 “)
	Width	54 mm (2.12 “)
Tag thickness	Oscillator area (approx. 2 mm ²)	1.2 mm (47 mils)
	Everywhere else	0.8 mm (32 mils)
Secure Data Product	HCS 412 Microchip (other generation products are possible)	
Operating frequencies	Transponder	125 kHz
	RF Transmitter	433 MHz
Transponder RxTx	Modulation	ASK
Communication range	Transponder	Up to 2.6 feet
	RF Transmitter	66 to 300 feet
Memory (HCS 412)	Serial Number	28/32 bits
	User EEPROM	64 bits
Operating temperature	-20 °C to +80 °C	
Storage temperature	-40 °C to +100 °C	
Substrate material	PVC	
Battery	Lithium/Manganese oxide, 3.6 volts	
Operating lifetime	Depending on application and current consumption	

Battery on flex Technology

Technopuce has patented an innovative process for integrating a battery with RF circuitry. The Lithium/Manganese Oxide system is very stable with low self discharge and high power capability.

This chart shows service life of ACTI-TAG™ depending on how often you use it per day.



Typical ACTI-TAG™ service life

Technopuce develops a wide range of applications: remote keyless entry, controlled access and security management, temperature monitoring, asset tracking and authentication management.

For further information, please contact our Sales & Application Department contact@technopuce.com or visit our Web site: <http://www.technopuce.com>.

Photo non-contractual

These specifications are preliminary and can be customized according to customer requirements. Technopuce reserves the right to change this data without prior notice.

ACTI-TAG™ is a trademark of Technopuce s.a.

KEELOQ® is a registered trademark of Microchip Technology, Inc