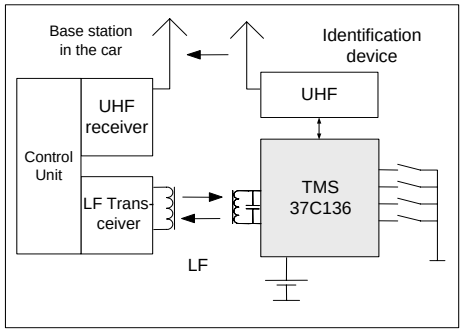
Controller Entry Transponder IC TMS37C136 / TMS37F136

The Controller Entry Transponder (CET) combines a low-power 16bit microcontroller with the proven TI DST+ transponder plus a sophisticated power management; it is the ideal device for Remote Keyless Entry applications for automotive.
The embedded DST+ transponder offers a high level of security through its encryption, mutual authentication and after-theft diagnosis features; it operates without battery. The low-power microcontroller MSP430 offers a 16bit RISC architecture, 8kByte ROM and 11 I/O ports. The power management features battery charge and battery check functions, which can be used for charging of the battery through the transponder LF field.
The CET is available as flash (TMS37F136) and ROM (TMS37C136) version.



Specifications:

Part Number	TMS 37C136
Features	Immobilizer plus micro controller plus power management
	Immobilizer compatible to DST+ (E9WK)
	16bit RISC ultra low-power microcontroller MSP430
	Battery Check / Charge function
Supply Voltage	1.8 … 3.6 V
Current consumption	Active: 350 µA (Vcc=3V/ f_{osc}=1MHz), Stand-by: 0.3 µA
Transponder	
Transmission Principle	HDX (Half Duplex), FDX (Full Duplex using amplitude Modulation)
Operating Frequency	134.2 kHz
Security	TI Challenge/Response, Mutual Authentication, Secure Issuer Access Mode
Modulation Downlink (to the TRP)	100% AM, Bit Coding PWM or PPM
Datarate Downlink	PWM: typ. 1,3kBit / PPM: typ. 2kBit
EEPROM Memory	127Byte (lockable) for User data, 25Byte for Encryption Keys, serial#, configuration
Microcontroller	
Memory	8kByte ROM, 256Byte RAM
I/O ports	11
Other	On Chip Oscillator (accuracy +/- 4%)
Operating Temperature	-40 to +85°C
Storage Temperature	-40 to +125°C
Package	30 Pin TSSOP DBT

For more information, contact the sales office or distributor nearest you. This contact information can be found on our web site at: http://www.ti-rfid.com