

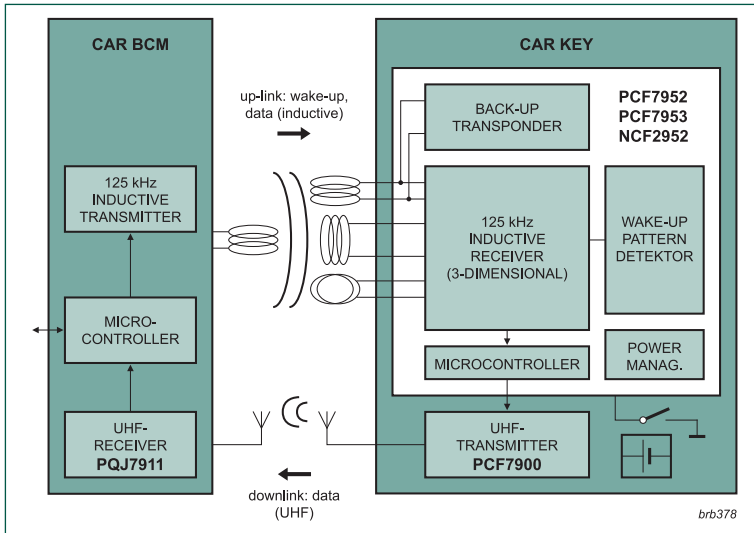
How does keyless entry/go work?

As the driver enters the operating area of the keyless entry/go system and places their hand on the door handle, the car key receives a low-frequency signal from the vehicle and, if this signal matches the stored data, the key is 'woken up'.

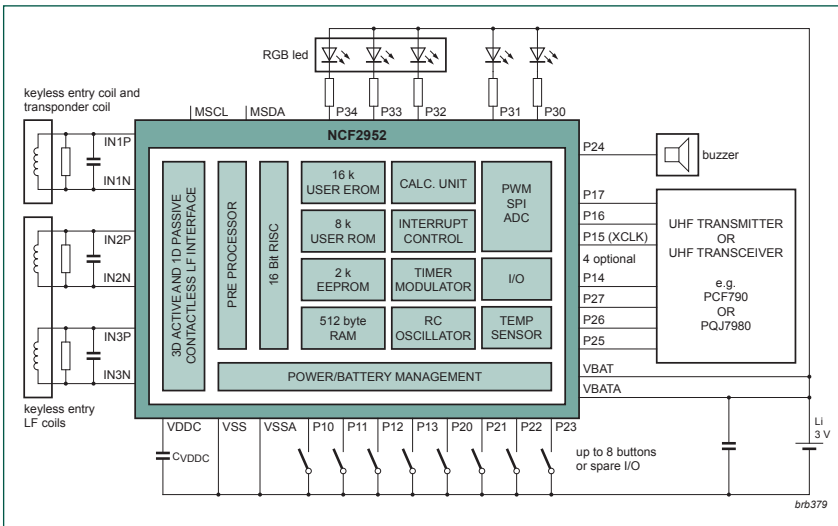
Once woken, the key analyzes the 'challenge' signal from the vehicle and returns an encrypted 'response' signal via the UHF transmitter. The vehicle then compares the response with internally stored information and, if authentication is

successful, unlocks the door. Once the driver is inside the car, the engine can be started by simply pressing the start button. The system first checks that the key is inside the car and not somewhere else, such as on the roof, and then performs the same authentication procedure when the engine is started. The combination of LF challenge and UHF response delivers low power consumption and long battery life. A back-up mode enables the use of the keyless entry/go system even when the battery is low, with power being supplied to the key via an immobilizer basestation.

Keyless entry/go system example



ACTIC-4G 1D (NCF2952) block diagram



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