DELPHI
Automotive Systems

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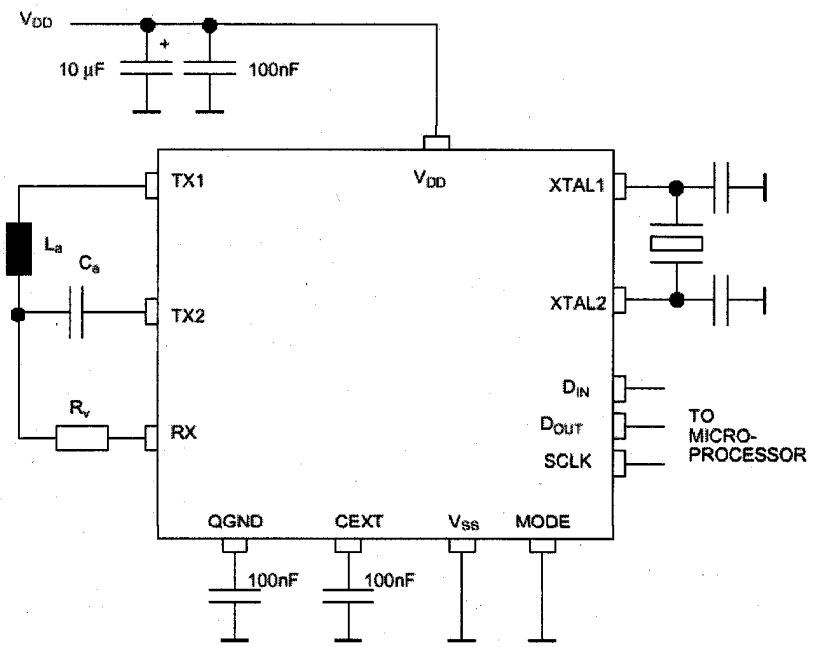
Partner of the Automotive Industry

Block Diagram and Technical Description WFS125SA Transceiver IC

(Source: Phillips Semiconductors)

Block diagram



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Technical Description

The Immobilizer IC (ABIC) incorporates all necessary functions to facilitate reading and writing of transponders. It employs a unique AM/PM demodulation technique that extends the system operating range compared with simple envelope detection.

Optimised to operate with the Philips transponder family (PCF79xx), the ABIC can be used in combination with commonly available transponder that employ ASK modulation. ASK modulation and receive characteristics are widely programmable for powerful system adaptation.

The carrier frequency can be derived from an on-chip oscillator or an external clock source. A wide range of clock frequencies can be applied due to the programmable on-chip clock divider circuitry.
The device enables system diagnostic functions e.g antenna fail detection.
The communication is provided via the serial microcontroller interface.