



Read/Write analog front end for 125 kHz RFID Basestation

General Description

The EM4095 (previously named P4095) chip is a CMOS integrated transceiver circuit intended for use in an RFID basestation to perform the following functions:

- | antenna driving with carrier frequency
- | AM modulation of the field for writable transponder
- | AM demodulation of the antenna signal modulation induced by the transponder

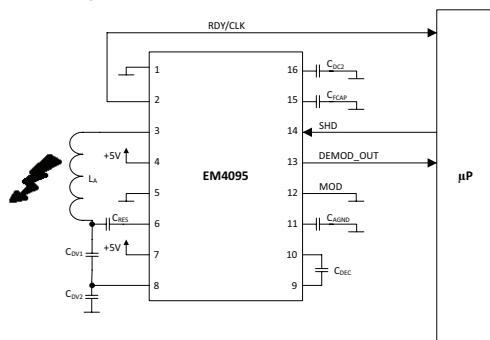
communicate with a microprocessor via simple interface.

Applications

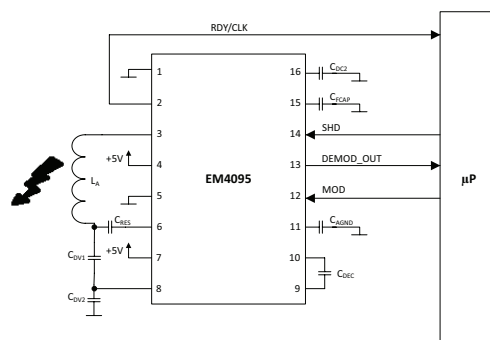
- | Car immobiliser
- | Hand held reader
- | Low cost reader

Typical Operating Configuration

Read Only Mode



Read/Write Mode



Features

- | Integrated PLL system to achieve self adaptive carrier frequency to antenna resonant frequency
- | No external quartz required
- | 100 to 150 kHz carrier frequency range
- | Direct antenna driving using bridge drivers
- | Data transmission by OOK (100% Amplitude Modulation) using bridge driver
- | Data transmission by Amplitude Modulation with externally adjustable modulation index using single ended driver
- | Multiple transponder protocol compatibility (Ex: EM4102, EM4200, EM4450 and EM4205/EM4305)
- | Sleep mode 1µA
- | USB compatible power supply range
- | -40 to +85 °C temperature range
- | Small outline plastic package SO16

Pin Assignment

