

LF Base Station IC TMS3705ADR



The LF base station IC TMS3705ADR allows efficient development and production of RFID readers for vehicle immobilizers. This base station IC drives the antenna of a TI-RFid transponder system to send data modulated on the antenna signal, and to detect and demodulate the response from the transponder. It allows also minimizing the external component count.

Key functions:

- Low current consumption in sleep mode
- Automatic transponder frequency measurement and adaptation
- Diagnosis function
- Full bridge antenna driver
- Built in band-pass filter and limiter
- Digital FSK demodulator
- High speed data transmission in synchronous mode
- Power on reset
- PLL
- Short circuit protection
- Support of all TI-RFID LF transponder functions

Specifications:

| Part Number | RI-TMS3705ADR |
|-----------------------------------|---|
| Operating Frequency | Typical 134.2kHz, FSK |
| Operating Voltage | 4.5V to 5.5V DC |
| Current Consumption | Charge Phase (without antenna load) typical 8 mA; max. 20mA Sleep Mode (without I/O currents) typical 15 μ A; max. 0.2mA |
| Interface to Micro Controller | Two wire multifunctional serial interface, 15625 baud |
| Antenna Inductivity | 400 μ H - 700 μ H recommended |
| ESD Protection (MILSTD 883, HBM) | -2000V to +2000V |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -40°C to +100°C (125°C up to 1000hrs over lifetime) |
| Package / Pin count | SO 16 (10 mm x 6 mm) |
| Packing / Delivery | Tape on Reel, 2500 units per reel |

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>

Texas Instruments reserves the right to change its products and services at any time without notice. TI provides customer assistance in various technical areas, but does not have full access to data concerning the uses and applications of customers products. Therefore, TI assumes no responsibility for customer product design or for infringement of patents and/or the rights of third parties, which may result from assistance provided by TI.