Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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Product Profile PCF7991AT

Advanced Basestation IC, ABIC

Features

- Extended system operating range due to powerful AM/PM demodulation technique
- Ideally suited for "Intelligent Antenna" and "Active Antenna" architectures
- High antenna drive capabilities, CW: 200mAp
- Low antenna driver output resistance, 3.5
- Excellent receiver sensitivity, 2mVpp
- Large receiver dynamic range
- Programmable clock divider, modulator, receiver gain and filter characteristics
- Fast "read after write" receiver settling characteristics
- On-chip receive EMI filter
- Antenna failure mode detection
- Few external components
- Operating supply voltage: 4.5 to 5.5 V
- Power down mode: 7 A @ 5.5 V
- 14-pin SO package

General Description

The PCF7991 is a highly integrated and powerful advanced basestation IC, ABIC, ideally suited for vehicle immobilisation applications. The device incorporates all necessary functions to facilitate reading and writing of transponders.

The ABIC, PCF7991 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 ABIC fits "Intelligent Antenna" as well as "Active Antenna" applications.

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 by antenna fail detection features.

Communication with the device and the transponder is provided via the serial microcontroller interface.

Employing CMOS technology, the device features low power operation and supports Idle and Powerdown modes.

Minimum Application Circuitry