

Real Time Clock Serial 96byte Clock/Calendar/Alarm 16-Pin PDIP N



Images are for reference only

[Inquiry](#)

Manufacturer: [Analog Devices, Inc](#)

Package/Case: DIP

Product Type: Clock & Timer ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

General Description

The DS1306 serial alarm real-time clock (RTC) provides a full binary coded decimal (BCD) clock calendar that is accessed by a simple serial interface. The clock/calendar provides seconds, minutes, hours, day, date, month, and year information. The end of the month date is automatically adjusted for months with fewer than 31 days, including corrections for leap year. The clock operates in either the 24-hour or 12-hour format with AM/PM indicator. In addition, 96 bytes of NV RAM are provided for data storage. An interface logic-power supply input pin (VCCIF) allows the DS1306 to drive SDO and 32kHz pins to a level that is compatible with the interface logic. This allows an easy interface to 3V logic in mixed supply systems. The DS1306 offers dual-power supplies as well as a battery-input pin. The dual-power supplies support a programmable trickle charge circuit that allows a rechargeable energy source (such as a super cap or rechargeable battery) to be used for a backup supply. The VBAT pin allows the device to be backed up by a non-rechargeable battery. The DS1306 is fully operational from 2.0V to 5.5V. Two programmable time-of-day alarms are provided by the DS1306. Each alarm can generate an interrupt on a programmable combination of seconds, minutes, hours, and day. "Don't care" states can be inserted into one or more fields if it is desired for them to be ignored for the alarm condition. A 1Hz and a 32kHz clock output are also available. The DS1306 supports a direct interface to SPI serial data ports or standard 3-wire interface. An easy-to-use address and data format is implemented in which data transfers can occur 1-byte at a time or in multiple-byte Burst Mode.

Key Features

Completely Manages All Timekeeping Functions

1Hz and 32.768kHz Clock Outputs

Supports Motorola SPI (Serial Peripheral Interface) Modes 1 and 3 or Standard 3-Wire Interface

Burst Mode for Reading/Writing Successive Addresses in Clock/RAM

Recommended For You

[DS1244Y-70+](#)

Analog Devices, Inc

DIP

[DS1337S+T&R](#)

Analog Devices, Inc

SOP8

[DS1683S+](#)

Analog Devices, Inc

SOIC-8

DS1670E+

Analog Devices, Inc

TSSOP20

DS1501YZ+

Analog Devices, Inc

SOIC(W)

DS1308U-18+T

Analog Devices, Inc

UMAX-8

DS1100U-50

Analog Devices, Inc

USOP-8

DS1004C-305

Analog Devices, Inc

SOP8

DS1100LZ-20/T+MOT

Analog Devices, Inc

8-SOIC

DS1100M-25

Analog Devices, Inc

DIP8

DS1308U-3+T

Analog Devices, Inc

UMAX-8

DS1685Q-5+

Analog Devices, Inc

PLCC-28

DS1100Z-25/T&R

Analog Devices, Inc

SOP8

DS1023S-25+T

Analog Devices, Inc

SOIC(W)-16

DS1685-5+

Analog Devices, Inc

DIP24