

Real Time Clock Serial Clock/Calendar/Alarm/Watchdog Timekeeper/NV SRAM Control 20-Pin TSSOP



Images are for reference only

Manufacturer: [Analog Devices, Inc](#)

Package/Case: TSSOP20

Product Type: Clock & Timer ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

[Inquiry](#)

General Description

The DS1670 portable system controller is a circuit that incorporates many of the functions necessary for low-power portable products integrated into one chip. The device provides a real-time clock (RTC), NV RAM controller, microprocessor monitor, and a 3-channel, 8-bit analog-to-digital converter (ADC). Communication with the DS1670 is established through a simple 3-wire interface. The RTC provides seconds, minutes, hours, day, date, month, and year information with leap year compensation. The RTC also provides an alarm interrupt. This interrupt works when the DS1670 is powered by the system power supply or when in battery-backup operation, so the alarm can be used to wake up a system that is powered down. Automatic backup and write protection of an external SRAM is provided through the V_{CCO}, active-low CEOL, and active-low CEOH pins. The backup energy source used to power the RTC is also used to retain RAM data in the absence of V_{CC} through the V_{CCO} pin. The chip-enable outputs to RAM (active-low CEOL and active-low CEOH) are controlled during power transients to prevent data corruption.

Key Features

Supply voltage range from 2.97V to 3.63V

Operating temperature range from 0°C to 70°C

UL recognized

300nA time keeping current, 0.75mA active supply current and 100µA standby current

Power control circuitry supports system power-on from day/time alarm

Halts microprocessor during power fail & automatically restarts microprocessor after power failure

Monitors pushbutton for external override

Halts and resets an out of control microprocessor

Automatic battery back-up and write protection to external SRAM

VCC trip point of 2.88V and reset active time of 250ms

Recommended For You

DS1244Y-70+

Analog Devices, Inc

DIP

DS1337S+T&R

Analog Devices, Inc

SOP8

DS1683S+

Analog Devices, Inc

SOIC-8

DS1306+

Analog Devices, Inc

DIP

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