# YSN8563 Realtime Clock Module ( I²C-BUS)

YSN8563MS(SOP-8)

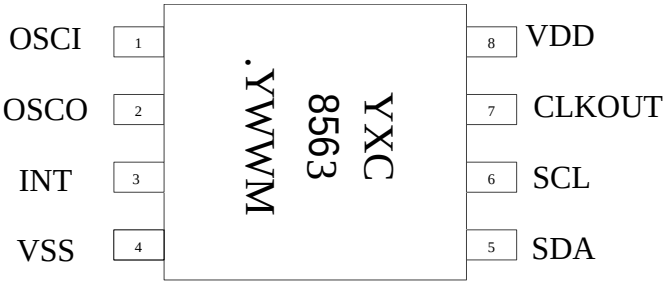
## 1 Features

- Provides year, month, day, weekday, hours, minutes, and seconds based on a32.768 kHz quartz crystal
- Century flag
- Clock operating voltage: 1.0 V to 5.5 V at room temperature
- Low backup current; typical 0.25μA at $V_{DD}$ = 3.0V and Tamb = 25
- 400 kHz two-wire I2C-bus interface (at $V_{DD}$ = 1.8 V to 5.5V )
- Programmable clock output for peripheral devices (32.768 kHz, 1.024 kHz, 32 Hz, and1 Hz)
- Alarm and timer functions
- Integrated oscillator capacitor
- Internal Power-On Reset (POR)
- I²C-bus slave address: readA3h and writeA2h
- Open-drain interrupt pin

## 2 Description

The YSN8563 is a CMOS Real-Time Clock (RTC) and calendar optimized for low power consumption. A programmable clock output, interrupt output, and voltage-low detector are also provided.
All addresses and data are transferred serially via a two-line bidirectional I2C-bus. Maximum bus speed is 400 kbit/s. The register address is incremented automatically after each written or read data byte.

## 3 Pinning Information

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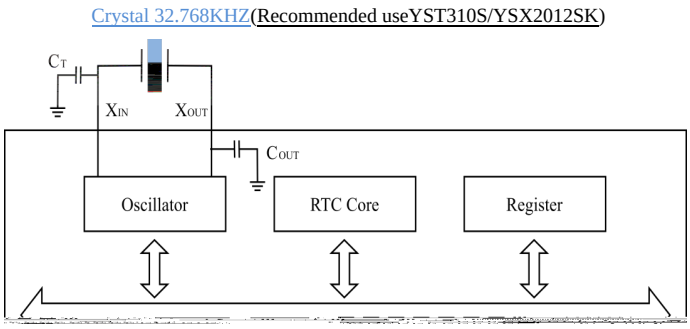
## 4 Block Diagram




## 5 Pin Description

| SYMBOL | PIN | DESCRIPTION |
|---|---|---|
| OSCI | 1 | oscillator input |
| OSCO | 2 | oscillator output |
| INT | 3 | interrupt output (open-drain; active LOW) |
| $V_{SS}$ | 4 | ground |
| SDA | 5 | serial data input and output |
| SCL | 6 | serial clock input |
| CLKOUT | 7 | clock output, open-drain |
| $V_{DD}$ | 8 | supply voltage |
| n.c. | - | not connected; do not connect and do not use as feed |

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