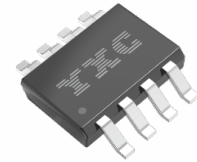


YSN8563 Realtime Clock Module (I²C-BUS)



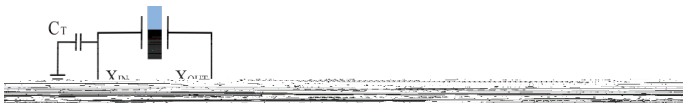
YSN8563MS(SOP-8)

1 Features

- Provides year, month, day, weekday, hours, minutes, and seconds based on a 32.768 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 T_{amb} = 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, and 1 Hz)
- Alarm and timer functions
- Integrated oscillator capacitor
- Internal Power-On Reset (POR)
- I²C-bus slave address: read A3h and write A2h
- Open-drain interrupt pin

4 Block Diagram

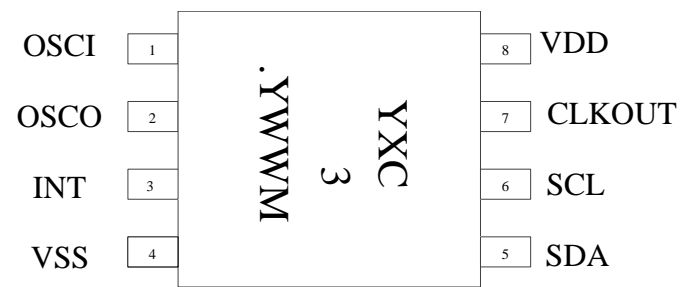
Crystal 32.768KHZ (Recommended use YST310S/YSX2012SK)



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



YSN8563MS(SOP-8)

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