

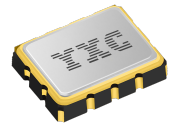
Real Time Clock Module (I²C-BUS)

YSN8900

High stability:Build-in TCXO



YSN8900E

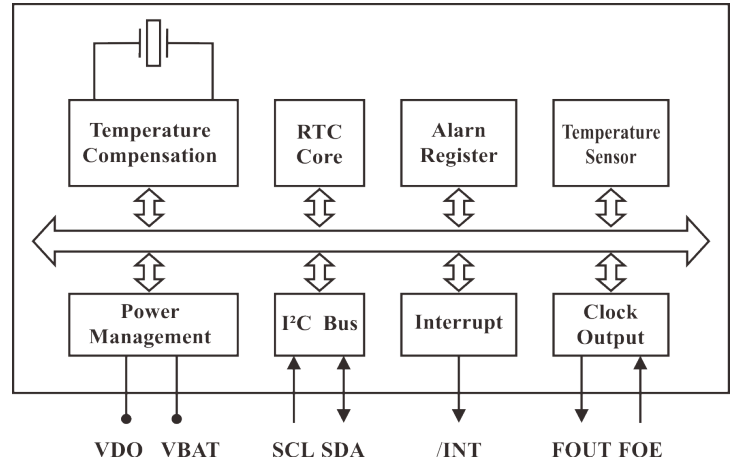


YSN8900A

Overview

- Low current consumption: 1.0uA (Typ.)
- Communication Interface: I2C bus
- Power Supply Voltage: 1.6V ~ 5.5V
- Operation Temperature Range: -40 ~ +85
- Leap years auto correction
- Backup battery switchover function
- Build-in TCXO: 32.768KHz
- Timer output function with adjustable period
- Build-in temperature sensor
- High stability: $\pm 5\text{ppm}/\pm 3.4\text{ppm}$ @ -40 ~ +85
- Package: 3.2mm \times 2.5mm \times 1.0mm

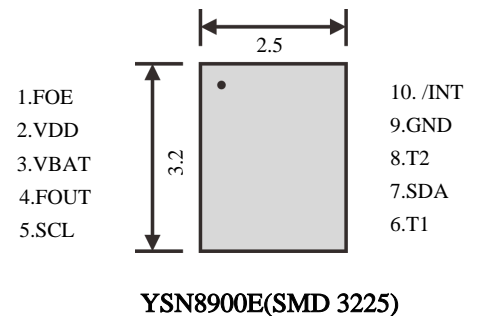
Block diagram



Pin Fuction

Pin	PinName	I/O	Description
1	FOE	In	FOUT output control pin."1"-enable FOUT,"0"-FOUT Hi-Z
2	VDD	-	Power supply
3	V _{BAT}	-	Backup battery pin.Connect to large-capacity capacitors or a backup battery.Connect to VDD when switchover function is not necessary.
4	FOUT	Out	Controlled by FOE.Frequency can be set by FSEL bits.
5	SCL	In	I ² C clock signal
6	T1	-	Manufacturer test only.Ensure to be floating
7	SDA	In/Out	I ² C data signal
8	T2	-	Manufacturer test only.Ensure to be floating
9	GND	-	Ground
10	/INT	Out	Interrupt Output,Open-Drain;Waveforms can be output in backup mode.

Terminal Connection



YSN8900E(SMD 3225)

Specifications (Characteristics)

Parameter	Symbol	Value			Unit	Remarks
		Min.	Typ.	Max.		
Power Supply Voltage (Normal mode)	VDD	2.5	3.0	5.5	V	/
Power Supply Voltage In case of single supply(VDD=VBAT)	VDD	1.6	3.0	5.5	V	/
Backup Battery	VBAT	1.2	3.0	5.5	V	/
Operation Temperature	TOPR	-40	25	85	°C	/
Frequency stability	$\Delta f/f$	± 3.4			PPM	YSN8900EP3:@-40°C~85°C
		± 5			PPM	YSN8900EP5:@-40°C~85°C
Oscillation start time	t _{STA}			1	S	@25°C
Year Aging	f _a			± 3	PPM	First year@25°C
Average Current1	IDD1		1.25	5.1	μA	f=0Hz,FOE=GND,/INT=VDD SCL; VDD=VBAT;FOUT off(High-Z); Compensation interval 2s;VDD voltage detection time 2ms
Average Current2	IDD2		1	4.9		