

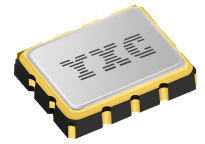
## Real Time Clock Module ( I<sup>2</sup>C-BUS)

# YSN8130

Built-in backup  
battery charge control function



YSN8130E

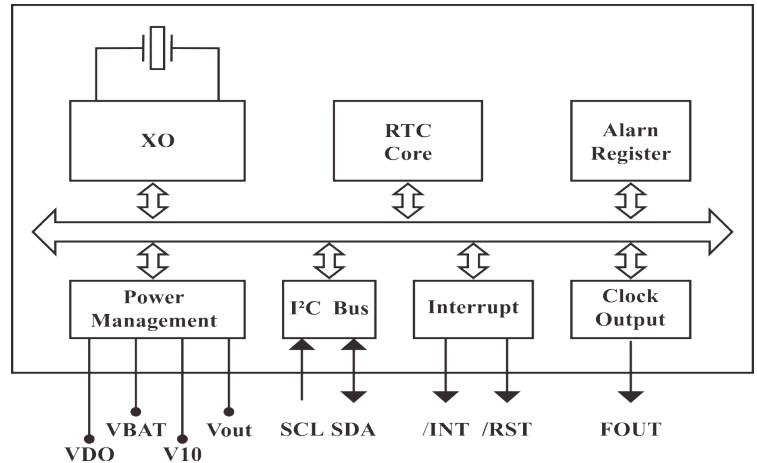


YSN8130C

### Overview

- Low current consumption: 0.9uA(Typ.)
- High stability: <math>5 \pm 23\text{ppm}</math> @ +25
- Build-in XO: 32.768KHz
- Communication interface: I<sup>2</sup>C bus
- Power supply voltage: 1.6V~5.5V
- Operation temperature range: -40 ~ +85
- Leap years autocorrection
- Timer output function with adjustable period
- Package: 3.2mm × 2.5mm × 1.0mm
- Digital offset function
- RoHS2.0, REACH& Halogen-freecompliant

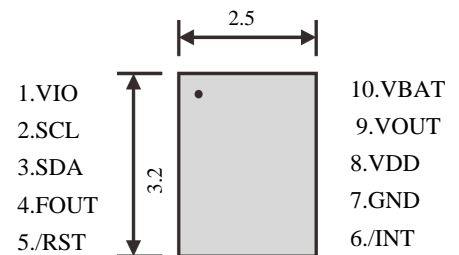
### Block diagram



### Pin Fuction

Pin	PinName	I/O	Description
1	V <sub>IO</sub>	-	Interface power supply pin.
2	SCL	In	I <sup>2</sup> C clock signal
3	SDA	In/Out	I <sup>2</sup> C data signal
4	FOUT	Out	Frequency output.Frequency can be set by FSEL bits.
5	/RST	Out	Reset signal output.After the VDD pressure drop is detected,the pin outputs a negative pulse.
6	/INT	Out	Timing event interrupt output.Open-Drain
7	GND	-	Ground
8	VDD	-	Power supply
9	V <sub>OUT</sub>	Out	Internal voltage output pin.Connect capacitor of 1.0uF to Ground
10	V <sub>BAT</sub>	-	Backup battery pin.VBAT cannot floating,connect to large-capacity capacitors or a backup battery.Connect to VDD when switchover function is not necessary.

### Terminal Connection



YSN8130E(SMD 3225)

### Specifications (Characteristics)

Parameter	Symbol	Value			Unit	Remarks
		Min.	Typ.	Max.		
Power Supply Voltage(normal mode)	VDD	1.2	3.0	5.5	V	/
Interface Voltage(normal mode)	V <sub>IO</sub>	1.6	3.0	5.5	V	If INIEN=1, VDD<V <sub>DET</sub> , the interface is disable
Backup Battery	V <sub>BAT</sub>	1.2	3.0	5.5	V	/
Operation Temperature	TOPR	-40	25	125	°C	/
Frequency stability	Δf/f	5±23			PPM	@25°C, VDD=3.0V:
	Δf <sub>2</sub> /f	-120		10	PPM	VDD=3.0V;-20°C~+70°C;Reference frequency@ 25°C
Oscillation start time	t <sub>STA</sub>			1	S	@25°C
Year Aging	f <sub>a</sub>			±5	PPM	First year@25°C
Average Current1	IDD1		0.9	5.6	μA	SCL=SDA='H',FOUT=OFF,/INT=OFF, VDD=VIO=3.0V, CHGEN=0b or VBAT >=VDET3,-40°C~85°C