



actual size

Real Time Clock Modul · JR8804

- RTC module with I²C interface, dimension 3.2 x 2.5 mm
- contains 32.768kHz crystal and temperature compensation
- wide supply voltage range 1.6 V - 5.5 V
- very low current consumption 350nA typ.
- seam sealed ceramic/metal package



RoHS compliant



Pb free



REACH compliant



Conflict mineral free

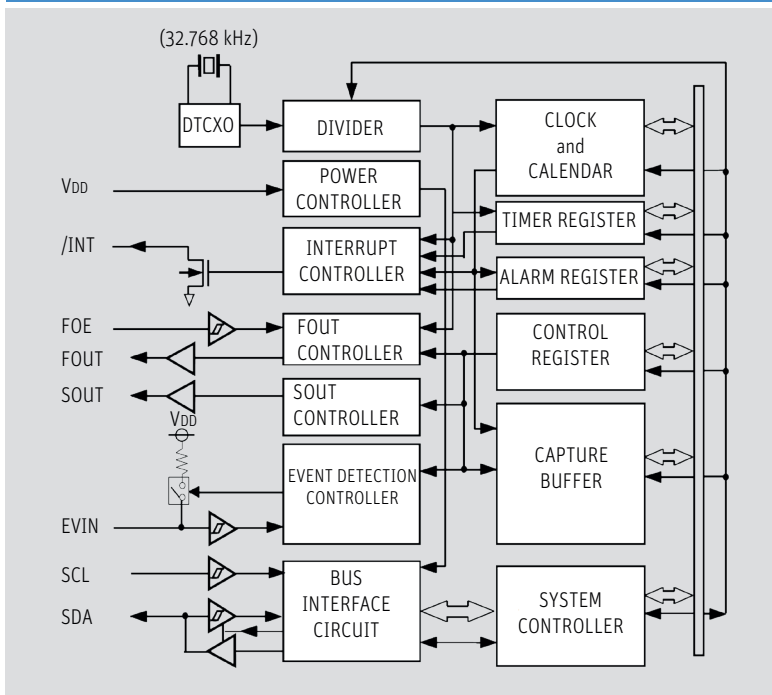
FEATURE LIST

TYPE

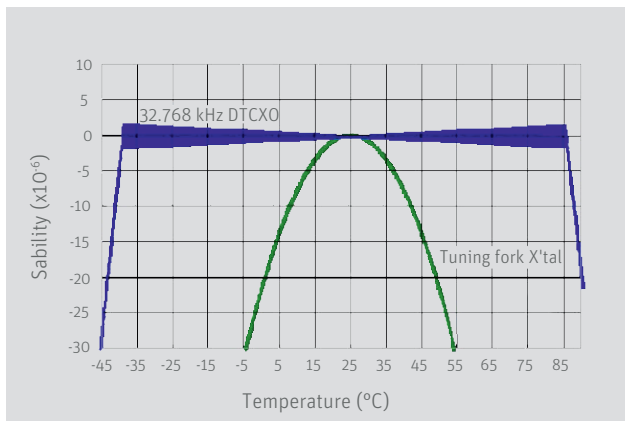
JR8804 temperatur compensated RTC module with I²C I/F

RTC module with built-in 32.768 kHz crystal unit	interrupt output, configurable to every minute or every second
high frequency stability due to temperature compensation	alarm interrupt returns date / day / hour / minute
I ² C-Bus interface with 400 kHz fast mode type	auto repeat wakeup timer interruption
low operation current 350 nA typ. at 3 V, temp. compensation every 2 seconds	wakeup timer function, configurable range from 244 μs to 32 years
event input supports anti-tampering designs	temperature compensated clock output selectable 1 Hz / 1024 Hz / 32768 Hz
fast time setting function for precise time synchronization	timestamp overwriting protection available, to keep record of first event

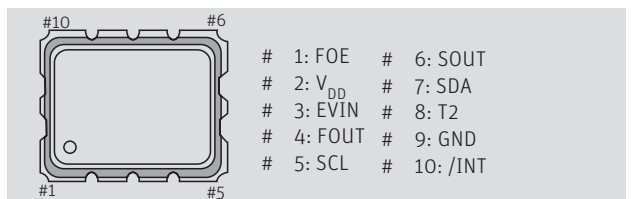
BLOCK DIAGRAM



TEMPERATURE COMPENSATION



PIN CONNECTION



PIN DESCRIPTION

Signal Name	Pin	I / O	Function	Information
FOE	#1	I	control pin for FOUT	to enable the FOUT signal output
V _{DD}	#2	-	power supply pin	V _{DD} supply voltage
EVIN	#3	I	external event input pin	with software controlled polarity and pull-up selection
FOUT	#4	O	frequency output pin (CMOS)	according to frequency selection: 32.768 kHz, 1024 Hz, 1 Hz
SCL	#5	I	serial clock input pin	I ² C serial clock input
SOUT	#6	O	internal state output pin	SOUT directly reflects the user-selected internal flags like timer / alarm / event in / voltage low and more
SDA	#7	I / O	serial data input and output pin	I ² C serial data input / output
T2	#8	-	test pin for factory use	leave this pin unconnected
GND	#9	-	ground pin	
/INT	#10	O	interrupt output	occurring at alarm, wakeup timer or time update events even in backup mode (N-channel open drain)

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ORDER INFORMATION

JR	type	dimension	interface	frequency stability code	temp. range
Jauch RTC module	8804	32 = 3225	I2C	TA = ± 3.4 ppm in -40°C ~ +85°C ± 8.0 ppm in -40°C ~ +105°C TB = ± 5.0 ppm in -40°C ~ +85°C ± 8.0 ppm in -40°C ~ +105°C	T(-40/+105)

Example: JR8804-32-I2C-TA-T(-40/+105)-LF (Suffix LF = RoHS compliant / Pb free)

OPERATING CONDITIONS

Type	JR8804	
operating supply voltage V_{DD}	typ. 3.0V / 1.6V ~ 5.5V	
temp. compensation voltage V_{TEMP}	typ. 3.0V / 1.5V ~ 5.5V	
clock supply voltage V_{CLK}	typ. 3.0V / 1.5V ~ 5.5V	
falling edge detection of V_{DD}	2.4 V typ / 2.3 V min. 2.5 V max.	
temperature range	operating	-40°C ~ +105°C
	compensation	-40°C ~ +105°C
frequency stability ref. to f at +25°C	two options, see order information	
start-up time max.	1 s (if $V_{DD} > 2.75V$)	

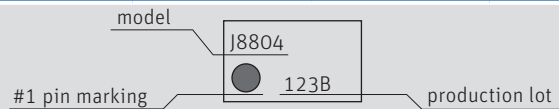
CURRENT CONSUMPTION

Item	Symbol	Conditions	Min.	Typ	Max.	Unit	
current consumption	I_{DD1}	SCL, SDA inactive, /INT = "H", FOE = "L", FOUT off, temperature compensation interval 2 seconds	$V_{DD} = 5V$	-	0.40	1.6	μA
	I_{DD2}		$V_{DD} = 3V$	-	0.35	1.5	μA

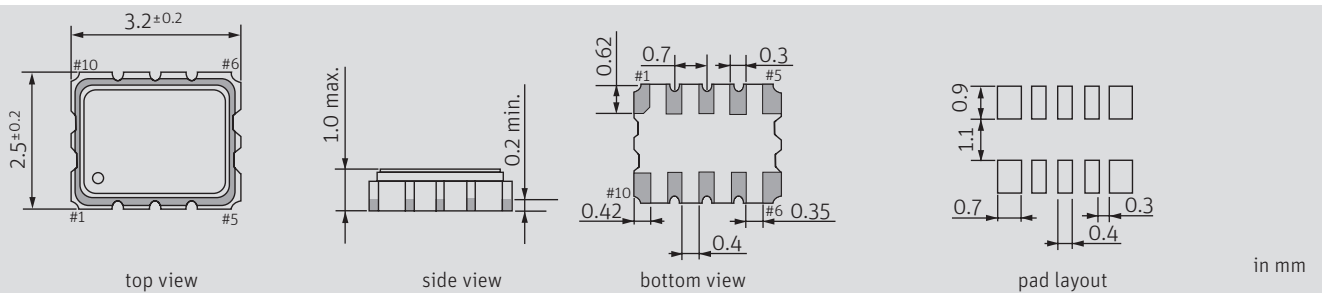
PACKAGING NOTE

standard packing unit is 2000 pieces per reel
250 pieces per reel optional

MARKING INFORMATION



DIMENSION



TAPING SPECIFICATION

