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Real Time Clock Modul · JR8804

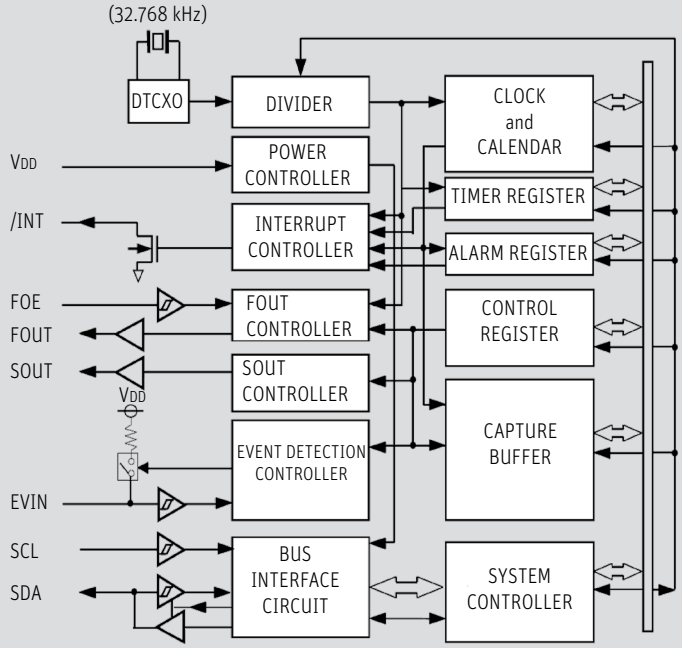
- RTC module with I²C interface, dimension 3.2 x 2.5 mm
- contains 32.768kHz crystal and temperature compensation
- wide supply voltage range 1.6 V - 5.5 V
- very low current consumption 350nA typ.
- seam sealad ceramic/metal package

RoHS compliant · Pb free · REACH compliant · Conflict mineral free

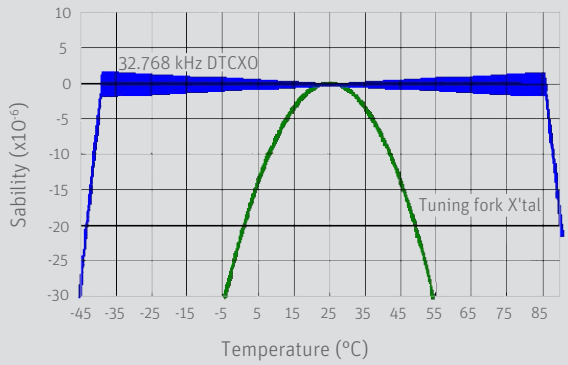
FEATURE LIST

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
I²C-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

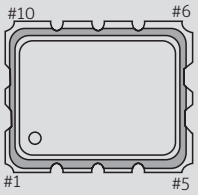
BLOCK DIAGRAM



TEMPERATURE COMPENSATION



PIN CONNECTION



#	1: FOE	#	6: SOUT
#	2: V_{DD}	#	7: SDA
#	3: EVIN	#	8: T2
#	4: FOUT	#	9: GND
#	5: SCL	#	10: /INT

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	I²C 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	I²C 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)

Jauch® THE PULSE OF PROGRESS

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please refer to the JR8804 manual for more functional details

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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 +85°C ~ +105°C TB = ± 5.0 ppm in -40°c ~ +85°C ± 8.0 ppm in +85°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 / 1.5 V ~ 5.5 V
clock supply voltage V_{CLK}		typ. 3.0 V / 1.5 V ~ 5.5 V
falling edge delection 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)

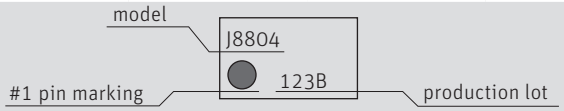
CURRENT CONSUMPTION

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} = 5 V	-	0.40	1.6	µA
	I_{DD2}		V_{DD} = 3 V	-	0.35	1.5	µA

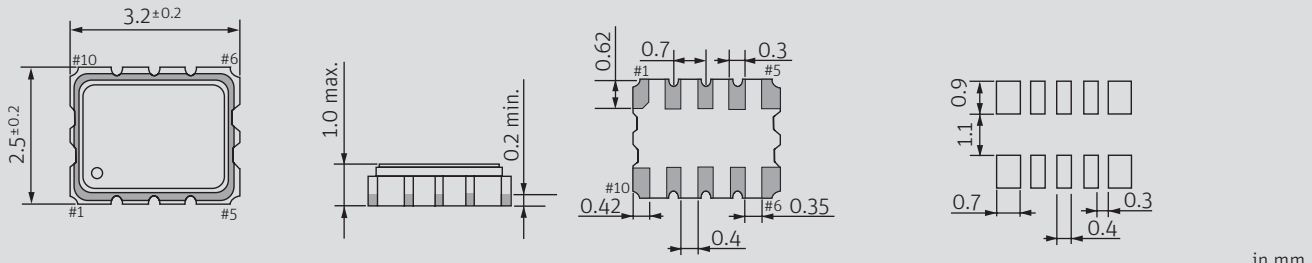
PACKAGING NOTE

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

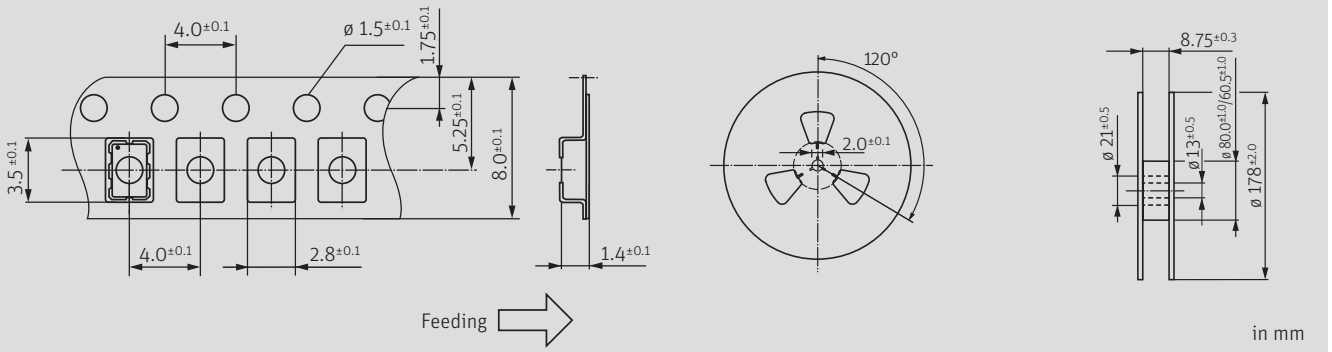
MARKING INFORMATION



DIMENSION



TAPING SPECIFICATION



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