Built-in 32.768 kHz-DTCXO, High Stability
I²C-Bus INTERFACE REAL TIME CLOCK MODULE

RX – 8025T

- Built in frequency adjusted 32.768 kHz crystal unit and DTCXO.
- Interface Type : I²C-Bus Interface (400 kHz)
- Interface voltage range : 1.8 V to 5.5 V
- Temp.compensated voltage range: 2.2 V to 5.5 V
- Wide Timekeeper voltage range : 1.6 V to 5.5 V
- 32.768 kHz frequency output function : C-MOS output With Control Pin
- The various functions include full calendar, alarm, timer.

* The I²C-Bus is a trademark of NXP Semiconductors

RoHS Compliant

Product Number (Please contact us)
RX-8025T : X1B0000120010

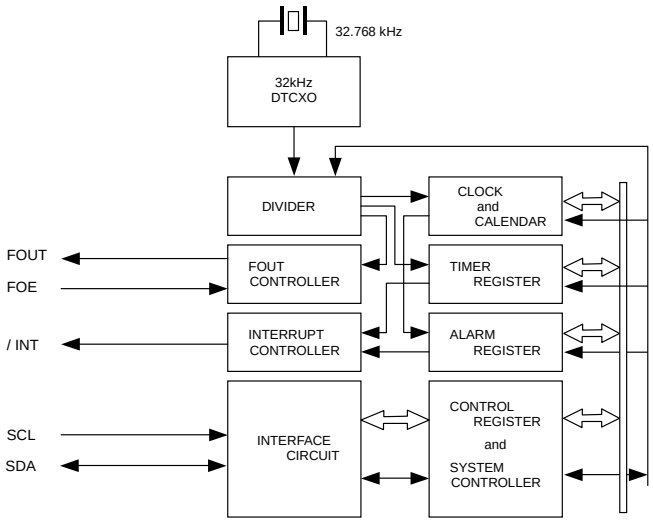


Actual size



NEW

Block diagram



Overview

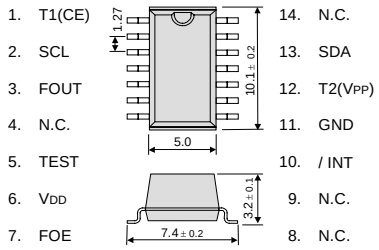
- High Stability
  - UA
    - ± 1.9 x 10^{-6} / 0 ºC to +40 ºC
      (Equivalent to 5 seconds of month deviation)
    - ± 3.4 x 10^{-6} / -40 ºC to +85 ºC
      (Equivalent to 9 seconds of month deviation)
  - UB
    - ± 3.8 x 10^{-6} / 0 ºC to +50 ºC
      (Equivalent to 10 seconds of month deviation)
    - ± 5.0 x 10^{-6} / -40 ºC to +85 ºC
      (Equivalent to 13 seconds of month deviation)
- 32.768 kHz frequency output function
  - FOUT pin output (C-MOS output), CL=30 pF
  - Output selectable
    < 32.768 kHz, 1024 Hz, 1 Hz >
- The various interrupt
  - Timer Function can be set up between 1/ 4096 second and 255 minutes.
  - Alarm Function can be set to day of week, day, hour, or minute.

Pin Function

Signal Name	Pin No.	I / O	Function
T1(CE)	1	input	* Use by the manufacture for testing. (Do not connect externally.)
SCL	2	input	Serial clock input pin
FOUT	3	Output	The pin outputs the refarence clock signal. (CMOS output)
TEST	5	input	* Use by the manufacture for testing. (Do not connect externally.)
VDD	6	-	Connected to a positive power supply
FOE	7	input	The input pin for the FOUT output control.
/ INT	10	Output	Interrupt output (N-ch open drain)
GND	11	-	Connected to a ground
T2(VPP)	12	-	* Use by the manufacture for testing. (Do not connect externally.)
SDA	13	I / O	Data input and output pin

Terminal connection / External dimensions (Unit:mm)

RX – 8025T



SOP – 14 pin

Metal may be exposed on the top or bottom of this product.
This will not affect any quality, reliability or electrical spec.

Specifications (characteristics)

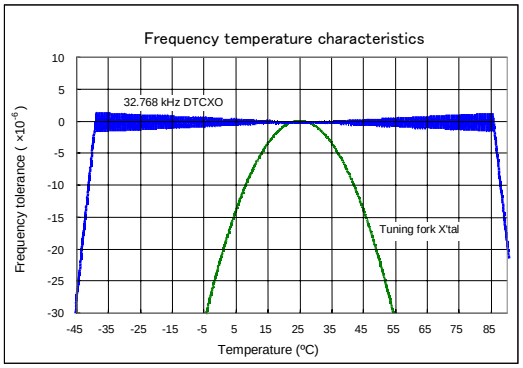
* Refer to application manual for details.

■ Electrical Characteristics

Item	Symbol	Condition		Min.	Typ.	Max.	Unit
Interface voltage	VDD	Interface voltage		1.8	3.0	5.5	V
Temp. compensated voltage	VTEM	Temp. compensated voltage		2.2	3.0	5.5	V
Clock voltage	VCLK	-		1.6	3.0	5.5	V
Operating temperatue	TOPR	-		–40	+25	+85	°C
Stability	Δ f / f	UA	Ta = 0 ºC to +40 ºC		±1.9 *1		× 10^{-6}
			Ta = -40 ºC to +85 ºC		±3.4 *2		
		UB	Ta = 0 ºC to +50 ºC		±3.8 *3		
			Ta = -40 ºC to +85 ºC		±5.0 *4		
Current consumption (1)	IBK1	Backup Mode FOE = GND, /INT = VDD FOUT output : OFF	VDD = 5 V	-	1.2	3.4	µA
Current consumption (2)	IBK2		VDD = 3 V	-	0.8	2.8	

*1) Equivalent to 5 seconds of month deviation. *2) Equivalent to 9 seconds of month deviation.
*3) Equivalent to 10 seconds of month deviation. *4) Equivalent to 13 seconds of month deviation.

■ 32.768 kHz-DTCXO Frequency temperature characteristics (Example)



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Entegreci, Eskişehir merkezli, Türkiye geneline satış yapan bir elektronik komponent mağazasıdır. Entegreler (IC), mikrodenetleyiciler, transistörler, diyotlar, pasif elemanlar, konnektörler, modüller ve geliştirme kartları tek adetten seri üretim adetlerine kadar satılır. Ürün sayfalarında güncel stok durumunu, fiyatı ve datasheet bağlantısını bulabilirsiniz.

Parça koduyla arama

Üretici parça numarasını yazın; stok ve fiyatı hemen görün.

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Ürün kategorileri

Entegreden kapasitöre tüm elektronik komponent kategorileri.

Kategorilere göz atın

Üreticiler

Aradığınız üreticinin ürünlerini tek sayfada inceleyin.

Üreticileri görün

Toplu alım ve teklif

Listede olmayan ya da yüksek adetli parçalar için teklif isteyin.

Teklif isteyin

www.entegreci.com | **destek@entegreci.com** | **0850 305 90 34**

Entegreci is an online electronic components store based in Türkiye. Search by manufacturer part number to see stock, prices and datasheets for integrated circuits, microcontrollers, transistors, passive components and connectors, or request a quote for parts that are not listed.

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