TCXO / VC-TCXO

ULTRA HIGH STABILITY

TG-5501CA

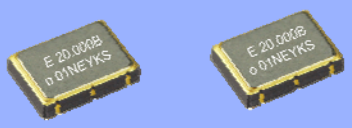
NEW

Pb Free RoHS Compliant

Product Number (Please contact us)
X1G003901xxxx00

Feature

- Frequency range : 10 MHz to 50 MHz
- Supply voltage : 3.3 V
- Frequency / temperature characteristics
  : ±0.28 x 10^{-6} Max.(for Stratum3)
  : ±1.0 x 10^{-6} Max.(for Microwave BTS)
- Frequency aging : ±3.0 x 10^{-6} Max./20years (for Stratum3)
  : ±5.0 x 10^{-6} Max./10years (for Microwave BTS)
- External dimensions : 7.0 × 5.0 × 1.5 mm (4-pins)
- Applications : Network system, Stratum3, Microwave BTS
- Features : Ultra high stability



Actual size



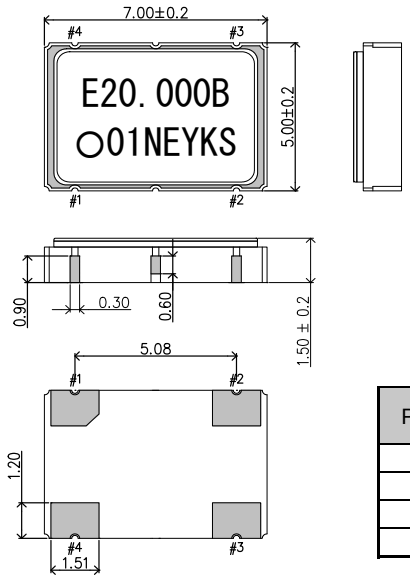
Specifications (characteristics)

Item	Symbol	CMOS		Clipped sine wave		Conditions / Remarks
		VC-TCXO	TCXO	VC-TCXO	TCXO	
Output frequency range	f0	10 MHz to 50 MHz				
		10MHz, 12.8MHz, 16.368MHz, 19.2MHz, 20MHz, 25.6MHz, 26MHz, 32.736MHz, 40 MHz, 50MHz				Standard frequency
Supply voltage	V_{CC}	3.3 V± 0.165V (Supply voltage range :2.7 V to 5.5 V)				
Storage temperature	T_stg	-40 ºC to +90 ºC				Storage as single product.
Operating temperature	T_use	-40 ºC to +85 ºC				
Frequency tolerance	f_tol	±1.0 × 10^{-6}Max.				After reflow, +25 ºC
Frequency/temperature characteristics	f0-Tc	±0.28 × 10^{-6} Max.(12.8 MHz≦f0≦50 MHz)				-40 ºC to +85 ºC
		±1.0 × 10^{-6} Max.(10 MHz≦f0≦50 MHz)				
Frequency/load coefficient	f0-Load	±0.1 ×10^{-6} Max.				Load ±10 %
Frequency/voltage coefficient	f0-Vcc	±0.1 ×10^{-6} Max.				Vcc=3.3 V ± 0.165 V
Frequency aging	f_age	±0.5 ×10^{-6} Max.				+25 °C , First year
		±3.0 ×10^{-6} Max. (for Stratum3)				+25 °C , 20 years
		±5.0 ×10^{-6} Max. (for Microwave BTS)				+25 °C , 10 years
Current consumption	Icc	5.0 mA Max.				10 MHz≦ f0 ≦26 MHz
		6.0 mA Max.				26 MHz < f0 ≦50 MHz
Input resistance	Rin	100 kΩ Min.	—	100 kΩ Min.	—	Vc- GND (DC)
Frequency control range	f_cont	±5.0 × 10^{-6} to ±12.0 ×10^{-6}	—	±5.0 × 10^{-6} to ±12.0 ×10^{-6}	—	Vc=1.65 V ± 1.65 V
Frequency change polarity	—	Positive polarity	—	Positive polarity	—	
Symmetry	SYM	45 % to 55 %		—		GND level (DC cut)
Output voltage	VOH	90 % Vcc Min.		—		
	VOL	10 % Vcc Max.		—		
Output load condition	Load	15 pF Max.		10 kΩ//10 pF		

* Note : Please contact us for requirements not listed in this specification.

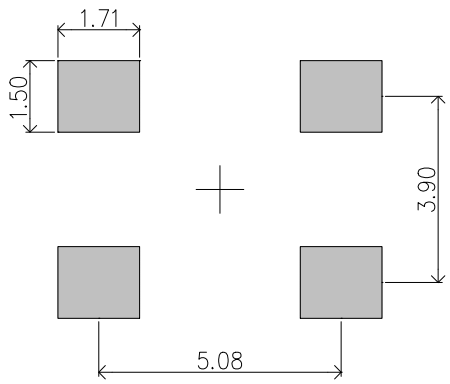
Product Name (Standard form): TG-5501 CA 20.000000MHz ***
① ② ③ ④
①Model ②Package type ③Frequency ④Spec segment (Please contact us)

External dimensions (Unit :mm)



Pin	Connection	
	VC-TCXO	TCXO
1	Vc	N.C.
2	GND	
3	OUT	
4	Vcc	

Footprint (Recommended) (Unit :mm)



To maintain stable operation, provide a 0.01 µF to 0.1 µF by-pass capacitor at a location as near as possible to the power source terminal of the crystal product (between Vcc - GND).

PROMOTION OF ENVIRONMENTAL MANAGEMENT SYSTEM CONFORMING TO INTERNATIONAL STANDARDS

At Seiko Epson, all environmental initiatives operate under the Plan-Do-Check-Action (PDCA) cycle designed to achieve continuous improvements. The environmental management system (EMS) operates under the ISO 14001 environmental management standard.

All of our major manufacturing and non-manufacturing sites, in Japan and overseas, completed the acquisition of ISO 14001 certification.

ISO 14000 is an international standard for environmental management that was established by the International Standards Organization in 1996 against the background of growing concern regarding global warming, destruction of the ozone layer, and global deforestation.

WORKING FOR HIGH QUALITY

In order provide high quality and reliable products and services than meet customer needs,

Seiko Epson made early efforts towards obtaining ISO9000 series certification and has acquired ISO9001 for all business establishments in Japan and abroad. We have also acquired ISO/TS 16949 certification that is requested strongly by major automotive manufacturers as standard.

ISO/TS16949 is the international standard that added the sector-specific supplemental requirements for automotive industry based on ISO9001.

►Explanation of the mark that are using it for the catalog

Pb Free	►Pb free.
RoHS Compliant	►Complies with EU RoHS directive. *About the products without the Pb-free mark. Contains Pb in products exempted by EU RoHS directive. (Contains Pb in sealing glass, high melting temperature type solder or other.)
For Automotive	►Designed for automotive applications such as Car Multimedia, Body Electronics, Remote Keyless Entry etc.
Automotive Safety	►Designed for automotive applications related to driving safety (Engine Control Unit, Air Bag, ESC etc).

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