

TK Type Voltage Controlled Temperature Compensated Crystal Oscillator

RoHS Compliant Optional

FEATURE

1. Frequency vs Temperature: ± 1.0 ppm @ $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$.
2. Pulling: ± 30 ppm max. (Optional)
3. Aging: ± 1 ppm/year.
4. Packing: Tape & Reel, 500 pcs per Reel, 1~99 pcs per Bulk/Tape.



ORDERING INFORMATION

T	K	G	A	D	C	J	—	N	L	—	?
TCXO	Package (mm)	Supply Voltage(V) & Pin Form	Pulling Range (ppm)	Freq. Stability (ppm)	Temp. Range ($^{\circ}\text{C}$)	Output Logic and Symmetry	Dash	Appearance	Lead Free	Dash	Freq.(MHz)
	14.3x8.7	G: 5.0 SMD F: 2.8~3.3 SMD	A: ± 5 B: ± 8 C: ± 10 D: ± 12 E: ± 15 F: ± 20 G: ± 25 T: TCXO	A: ± 0.5 B: ± 1.0 C: ± 2.0 D: ± 2.5 E: ± 3.0 F: ± 4.0 P: ± 1.5 G: ± 5.0	W: $0 \sim +55$ C: $-10 \sim +60$ I: $0 \sim +70$ E: $-20 \sim +70$ H: $-30 \sim +75$ U: $-40 \sim +85$	50 \pm 5% 50 \pm 10% 10TTL 15pF CMOS 15pF CMOS 50pF S: Clipped Sine 10K//10pF		N: Normal	F: RoHS Compliant L: Not RoHS Compliant		xx.xxxxxx

Ordering Example: TKGADCJ-NL-10.000000 MHz

VCTCXO K-TYPE; V_{DD} : 5V; Pulling Range: ± 5 ppm; Freq. Stability: ± 2.5 ppm; Temp. Range: -10°C to $+60^{\circ}\text{C}$; CMOS 15pF, Duty: $50 \pm 5\%$; Normal Appearance; Not RoHS Compliant; Freq. 10.000000MHz.

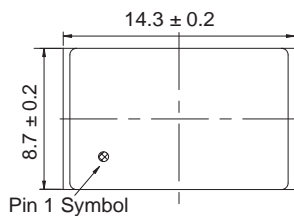
FREQ. STABILITY vs. TEMP. RANGE

Temp. ($^{\circ}\text{C}$)	ppm	A: ± 0.5	B: ± 1.0	P: ± 1.5	C: ± 2.0	D: ± 2.5
W	$0 \sim +55$	○	○	○	○	○
C	$-10 \sim +60$	△	○	○	○	○
E	$-20 \sim +70$	X	○	○	○	○
U	$-40 \sim +85$	X	○	○	○	○

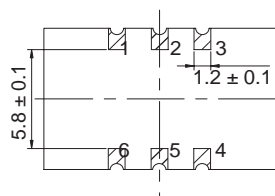
○: Standard △: Available (case by case) ×: Not available

OUTLINE DRAWING

[TOP VIEW]

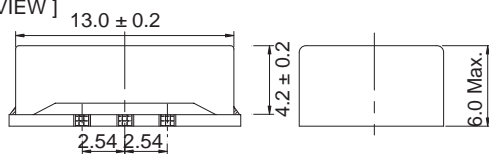


[BOTTOM VIEW]



Pin	Function
#1	VC
#2	NC (or Null)
#3	GND
#4	OUTPUT
#5	NC (or Null)
#6	V_{DD}

[SIDE VIEW]



UNIT : mm

VCTCXO / TCXO

ELECTRICAL SPECIFICATION

Parameter	Min.		Max.		Unit
	5.0	2.8	5.0	2.8	
Supply Voltage Variation(V _{DD}) 5%	4.75	2.66	5.25	2.94	V
Frequency Range (for TTL/CMOS output)	1.250		36.000		MHz
Frequency Range (for Clipped Sine output)	10		36.000		MHz
Operating Temp. Range	Refer to Ordering Information				°C
Frequency Stability	Refer to Ordering Information				ppm
Frequency Stability					
Vs Supply Voltage(±5%) change	—		±0.2		ppm
Vs Load(±10%) change	—		±0.2		
Vs Aging	—		±1.0		ppm/year
Supply Current (for TTL/CMOS output)					
1.2500MHz Fo < 10.000MHz	—		10	7	mA
10.000MHz Fo < 15.000MHz	—		15	10	
15.000MHz Fo < 26.000MHz	—		20	15	
10.000MHz Fo < 15.000MHz	—		25	20	
Supply Current (for Clipped Sine output)					
10.000MHz Fo < 15.000MHz	—		1.5		mA
15.000MHz Fo < 26.000MHz	—		2.0		
26.000MHz Fo < 36.000MHz	—		2.5		
Output Level (TTL/CMOS output)					
High Level("1")	90% V _{DD} or 2.4V		—		V
Low Level ("0")	—		10% V _{DD} or 0.4V		
Duty	40%		60%		
Output Level (for Clipped Sine output)	0.8		—		Vp-p
Vc Input Impedance	100		—		KΩ
Phase Noise @13.0MHz					
100Hz			-115		dbc/Hz
1KHz			-135		
10KHz			-148		
Start Time	—		2		mSec
Storage Temp. Range	-55		125		°C