

Temperature Compensated Crystal Oscillator 5x3.2 mm 3.3V 5V 16-45 MHz
GK323-1-TK – TCXO GK323-1-UTK – VCTCXO

Electrical Performance

Parameter	Units	Value	
		GK323-1-TK (TCXO)	GK323-1-UTK (VCTCXO)
Frequency range	MHz	16 to 45	
Frequency tolerance	ppm	-	±1.5
Temperature range	°C (code)	-10 ... 60 (A) -30 ... 60 (B) -40 ... 70 (V) -40 ... 85 (C)	
Output Level: - Output waveform (code) - Output voltage - Output Level (Sine Wave)	V	Sine wave (S) 0.8 min	
Phase Noise, max: @ 10 Hz @ 100 Hz @ 1 kHz @ 10 kHz	dBc/Hz	-80 -110 -130 -143	
Tuning Range, $U_0 = (0 \dots 0.6 \dots \text{Up})$ V	ppm	-	-3 ... 5
Stability: - Power Supply, ±5% change - Load : - 10 kohm±10%, 10pF±10%	ppm	±0.2 max	
Supply voltage (Up):	V	3.3±5%; 5.0±5%	
Supply Current: 16 - 20 MHz 20 - 45 MHz	mA	6 max 8.5 max	

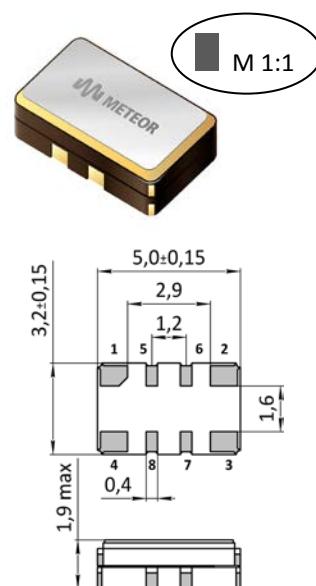
Frequency Stability (Over Operating Temperature range)

For GK323-1-TK (offset from nominal freq. including initial accuracy):

Temperature range, °C (code)	Stability, ppm (code)								
	±1.3 (A1)	±1.5 (B1)	±1.75 (V1)	±2.0 (G1)	±2.5 (D1)	±3.0 (E1)	±3.5 (J1)	±4.0 (I1)	±6.0 (K1)
-10 ... 60 (A)	+	+	+	+	+	+	+	+	+
-30 ... 60 (B)		+	+	+	+	+	+	+	+
-40 ... 70 (V)			+	+	+	+	+	+	+
-40 ... 85 (C)				+	+	+	+	+	+

For GK323-1-UTK (offset from average freq. in range operating temp.):

Temperature range, °C (code)	Stability, ppm (code)									
	±0.3 (A)	±0.5 (B)	±0.75 (V)	±1.0 (G)	±1.5 (D)	±2.0 (E)	±2.5 (J)	±3.0 (I)	±5.0 (K)	
-10 ... 60 (A)	+	+	+	+	+	+	+	+	+	+
-30 ... 60 (B)		+	+	+	+	+	+	+	+	+
-40 ... 70 (V)			+	+	+	+	+	+	+	+
-40 ... 85 (C)				+	+	+	+	+	+	+



Ceramic package with metal lid

Plating: Ni+Au(0,3...1 µm)

Pinout

1	TCXO - Ground VCTCXO - Control Voltage
2	Ground
3	Output
4	Supply Voltage
5, 6, 7, 8	Make No Connection

Environmental
Shock:

test Ea. 1500 gn acceleration for 0.1-0.2 ms duration, half sine pulse, 2 shocks in each direction along three mutually perpendicular axes at octave per minute

Vibration:

test Fc. 50Hz 2.0 mm displacement, 1-2000 Hz at 20 gn, 8 hours in each of three mutually perpendicular axes at 1 octave per minute

Storage temperature:

-40°C to 85°C

Long Term Frequency Stability

- ±5 ppm max for 20 years (+60 °C)
- ±2 ppm max in 1st year, frequency >20 MHz
- ±1 ppm max in 1st year, frequency ≤20 MHz

Ordering Information
TCXO GK323-1-TK-CG1-40M-3,3

Product:
GK323-1-TK
GK323-1-UTK

Temperature range:
A(-10...60); B(-30...60);
V(-40...70); C(-40...85);

Frequency Stability Over Temperature range:
For GK323-1-TK: A1 (±1.3); B1 (±1.5); V1 (±1.75);
G1 (±2); D1 (±2.5); E1(±3); J1(±3.5); I1(±4); K1(±6)
For GK323-1-UTK: A (±0.3); B (±0.5); V (±0.75);
G (±1); D (±1.5); E (±2); J (±2.5); I (±3); K (±5)

Frequency
in MHz

Voltage
Options
3.3 (3.3V)
5 (5 V)