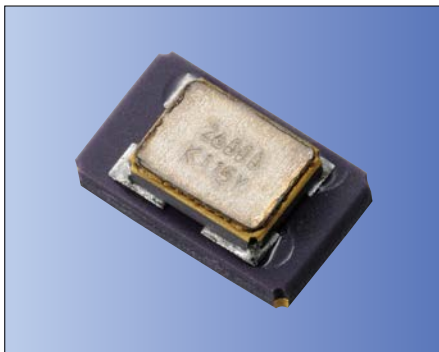


Temperature Compensated Crystal Oscillators (TCXO, VCTCXO)

Surface Mount Type TCXO (LSI Type) KT5032 Series for Femtocell/ Stratum3



5.0×3.2mm



RoHS Compliant

Features

- High stability and high reliability
- 2.3 to 3.63V drive available
- Clipped sine wave or CMOS level output
- Low phase noise

Applications

- Femtocell, Stratum3
- SONENT/ SDH/ Ethernet

How to Order

For Femtocell (Standard Spec.)

Frequency Tolerance (vs Temp.) : $\pm 0.1 \times 10^{-6} / -10^{\circ}\text{C}$ to 70°C

KT5032F 20000 A G T 33 T xx
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧

For Stratum3 (Standard Spec.)

Frequency Tolerance (vs Temp.) : $\pm 0.28 \times 10^{-6} / -40^{\circ}\text{C}$ to 85°C

KT5032F 20000 K A W 33 T xx
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- | | | | |
|-------------------------|---------------------------|----------------------------|--------|
| ① Series | | ⑤ Upper Operating Temp. | |
| ② Output Frequency | | T | +70°C |
| ③ Frequency Tolerance | | W | +85°C |
| A | $+0.1 \times 10^{-6}$ | ⑥ Supply Voltage | |
| K | $\pm 0.28 \times 10^{-6}$ | 33 | 3.3V |
| ④ Lower Operating Temp. | | ⑦ Voltage Control Function | |
| A | -40°C | T | TCXO |
| G | -10°C | Other* | VCTCXO |
| J | 0°C | | |
| | | ⑧ Option Code | |

* Customer Spec.

Packaging (Tape & Reel 1000 pcs./ reel)

Specifications

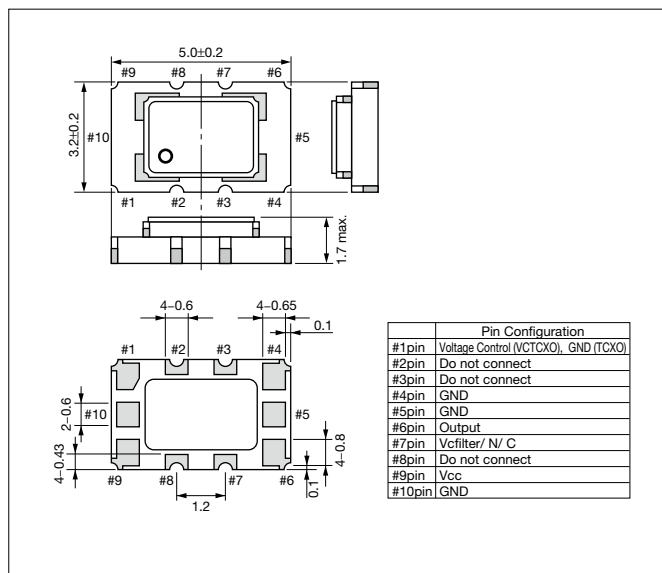
Item	Symbol	Conditions	Min.	Max.	Units	
Output Frequency Range	fo	Standard Frequency: 10, 19.2, 20, 24.576, 26, 30.72, 38.88, 40	10	40	MHz	
Frequency Tolerance	f _{tol}	vs Temperature (-10 to +70°C)	$[\pm(f_{\text{max}}-f_{\text{min}})/2f_0]$	-0.1	+0.1	$\times 10^{-6}$
		vs Temperature (-40 to +85°C)	$[\pm(f_{\text{max}}-f_{\text{min}})/2f_0]$	-0.28	+0.28	
		vs Voltage		-0.1	+0.1	
Supply Voltage	V _{CC}		+2.3	+3.63	V	
Current Consumption	I _{CC}	CMOS output	—	6	mA	
Frequency Aging	f _{age}	20years aging @40°C Including temp characteristics, initial tolerance, rated power supply voltage change and load change.	-4.6	+4.6	$\times 10^{-6}$	
Voltage Control Range	f _{cont}	Positive *100k ohm min	± 5	± 20	$\times 10^{-6}$	
Output Level	V _{pp}	Clipped Sine*, Load: 10k ohm // 10pF	0.8	—	Vp-p	
Low Level Output Voltage	V _{OL}	CMOS, Load: 15pF I _{OL} = 4mA	—	10% V _{CC}	V	
High Level Output Voltage	V _{OH}	CMOS, Load: 15pF I _{OH} = -4mA	90% V _{CC}	—	V	
Rise / Fall Time (10%V _{CC} to 90%V _{CC})	tr/ tf	CMOS, Load: 15pF	—	8	ns	
Symmetry	SYM	50% V _{CC}	45	55	%	
Phase Noise @20MHz	—	- 90 (@10Hz offset) - 120 (@100Hz offset) - 140 (@1kHz offset) - 150 (@10kHz offset) - 150 (@100kHz offset)			dBc/ Hz	

* : A DC-cut capacitor is not embedded in this crystal oscillator. In case of clipped sine output, connect a DC-cut capacitor ($\geq 1\text{nF}$) to the line-out terminal of the oscillator.

* Please contact us for other specifications.

Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)

