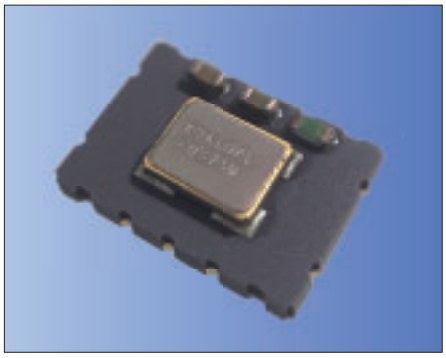
Temperature Compensated Crystal Oscillators (TCXO, VCTCXO)
Surface Mount Type TCXO (LSI Type) KT7050 Series for Smallcell/ Stratum3

7.0×5.0mm



RoHS Compliant

Features
- High stability and high reliability
- 2.7 to 5.5V drive available
- Clipped sine wave or CMOS level output
- Low phase noise
- Disable Function (KT7050A)

Applications
- 5G, Smallcell, Stratum3
- SONET/ SDH/ Ethernet

- Compliant to the GR1244-Core & GR253-Core
- Recommended in Microsemi's ZLAN-68 app. note for Stratum3 applications based on tests performed by Kyocera.

How to Order

KT7050 □ 20000 □ A □ 33 T xx
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Series
② Land Type

A	10Pads
B	4Pads

③ Output Frequency
④ Freq. Temp. Chrst.
⑤ Lower Operating Temp.
⑥ Upper Operating Temp.

	④	⑤	⑥
KAW	±0.28×10⁻⁶	−40°C	+85°C
KAY	±0.28×10⁻⁶	−40°C	+105°C
AAY	±0.10×10⁻⁶	−40°C	+105°C

⑦ Supply Voltage

33	3.3V

⑧ Voltage Control Function

T	TCXO
Spec. Code*	VCTCXO

*Please contact us for Spec. Code.

⑨ Individual Specification

Packaging (Tape & Reel 1000 pcs./ reel)

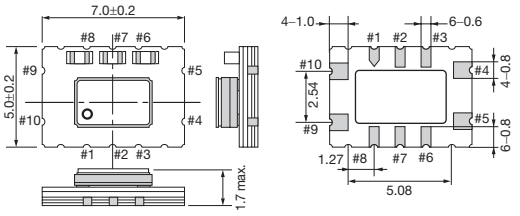
Specifications

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 +105°C) [±(fmax-fmin)/ 2fo]		−0.1	+0.1	×10⁻⁶
		vs Temperature (−40 to +85°C/ +105°C) [±(fmax-fmin)/ 2fo]		−0.28	+0.28	
		vs Voltage		−0.1	+0.1	
Supply Voltage	Vcc			+2.7	+5.5	V
Current Consumption	Icc	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	×10⁻⁶
Voltage Control Range	f_cont	Positive *100k ohm min		±5	±20	×10⁻⁶
Output Level	Vpp	Clipped Sine, Load: 10k ohm // 10pF		0.8	—	Vp-p
Low Level Output Voltage	VOL	CMOS, Load: 15pF IOL = 4mA		—	10% Vcc	V
High Level Output Voltage	VOH	CMOS, Load: 15pF IOH = −4mA		90% Vcc	—	V
Rise / Fall Time (10%Vcc to 90%Vcc)	tr/ tf	CMOS, Load: 15pF		—	8	ns
Symmetry	SYM	50% Vcc		45	55	%
Phase Noise	—	@20MHz	@10Hz offset	—	−90	dBc/ Hz
			@100Hz offset	—	−120	
			@1kHz offset	—	−140	
			@10kHz offset	—	−150	
			@100kHz offset	—	−150	

* Please contact us for other specifications.

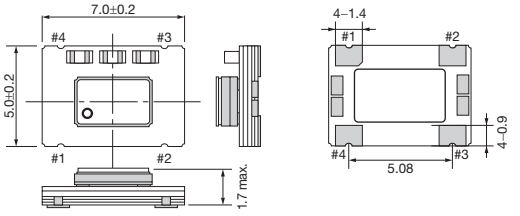
Dimensions

KT7050A



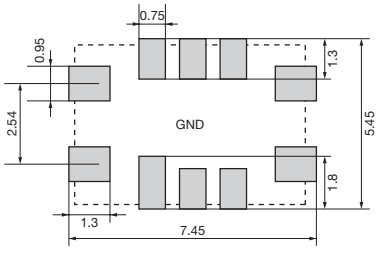
Pin Connection	
#1	Do not connect (Pin1)
#2/3	Do not connect
#4	GND
#5	Output
#6/7	Do not connect
#8	Tri-state Enable/ Disable connect
#9	Vcc
#10	Voltage Control (VCTCXO), GND (TCXO)

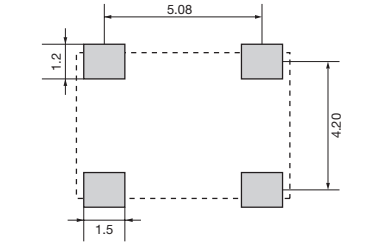
KT7050B



Pin Connection	
#1	Voltage Control (VCTCXO), GND (TCXO)
#2	GND
#3	Output
#4	Vcc

Recommended Land Pattern (Unit: mm)





As of March 2018