



SAW Clock Oscillators Surface Mount Type KC7050T-L3 Series



LVDS/ 3.3V/ 7.0×5.0mm



Pb Free

RoHS Compliant

Features

- Low Voltage 3.3V
- Low Jitter
- LVDS output
- Operation at Fundamental high frequency

Table 1

Freq. Tol. Code	$\times 10^{-6}$	Operating Temperature Range (°C)	Note
0	± 50	0 to +70	
1	± 100	0 to +70	Standard specifications
A	± 100	-5 to +85	

How to Order

KC7050T 312.500 L 3 1 E 00
① ② ③ ④ ⑤ ⑥ ⑦

- ① Type (7.0×5.0mm SMD)
- ② Output Frequency
- ③ Output Type (LVDS)
- ④ Supply Voltage (3.3V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ Enable Function (45/ 55%, Stand-by)
- ⑦ Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

Specifications

Item	Symbol	Conditions		Min.	Max.	Units
Output Frequency Range (Note1)	f _o			125	700	MHz
Frequency Tolerance	f _{tol}	Initial tolerance, Operating temperature range, Rated power supply voltage change, Aging (1 year @25°C), Shock and vibration	Op. Temp.: 0 to +70°C	−50	+50	×10 ^{−6}
			Op. Temp.: 0 to +70°C	−100	+100	
			Op. Temp.: −5 to +85°C	−100	+100	
Storage Temperature Range	T _{stg}			−55	+125	°C
Operating Temperature Range	T _{use}	Standard Specifications		0	+70	°C
Max. Supply Voltage	—			−0.5	+5	V
Supply Voltage	V _{CC}	3.3V		3.14	3.46	V
Current Consumption (Standard Loaded)	I _{CC}			—	70	mA
Symmetry	SYM			45	55	%
Rise/ Fall Time (20% to 80% Output Level Standard Loaded)	tr/ tf			—	600	pS
Low Level Output Voltage (Note2)	V _{OL}	Typ. 1.1V		0.9	—	V
High Level Output Voltage (Note2)	V _{OH}	Typ. 1.43V		—	1.6	V
Diffrential Output Voltage (Note2)	V _{OD}	Typ. 330mV		247	454	mV
Diffrential Output Voltage Error (Note2)	dV _{OD}	dV _{OD} = V _{OD1} −V _{OD2}		—	50	mV
Offset Voltage	V _{OS}	Typ. 1.25V		1.125	1.375	V
Offset Voltage Error	dV _{OS}	dV _{OS} = V _{OS1} −V _{OS2}		—	50	mV
Output Load	R _L	LVDS Output		100		ohm
Input Voltage Range	V _{IN}			0	V _{CC}	V
Low Level Input Voltage	V _{IL}			—	30% V _{CC}	V
High Level Input Voltage	V _{IH}			70% V _{CC}	—	V
Disable Time	t _{dis}			—	200	nS
Enable Time	t _{ena}			—	10	mS
Start-up Time	t _{str}	@Minimum operating voltage to be 0 sec.		—	10	mS
Deterministic Jitter (DJ)	DJ	Measured with Wavecrest DTS-2079 V/S/ 6.3.1		0.2 typ.		pS
1 Sigma Jitter	J _{Sigma}			2 typ.		pS
Peak to Peak Jitter	J _{PK-PK}			20 typ.		pS

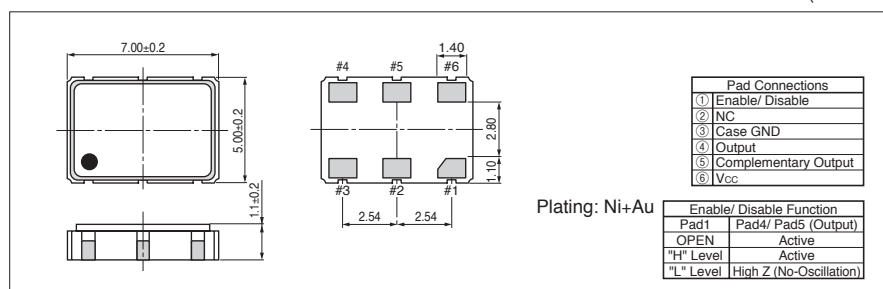
Note : All electrical characteristics are defined at the standard load and operating temperature range.

Note1: Please contact us for inquiry about operating temperature range, available frequencies and other conditions.

Note2: DC characteristic

Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)

