

Voltage Controlled Crystal Oscillators (VCXO) Surface Mount Type KV7050W-P3 Series (K50V-3P Series)



LV-PECL/ 3.3V/ 7.0x5.0mm



Ph Free

RoHS Compliant

Features

- Miniature ceramic package
- Highly reliable with vacuum welding
- LV-PECL output
- Supply voltage $V_{cc}=3.3V$
- With built-in by-pass capacitor
- Low jitter

Table 1

Freq. Tol. Code	Tolerance $\times 10^{-6}$	Operating Temperature Range (°C)	Note
0	± 50	0 to +70	Standard specifications
F	± 100	-40 to +85	With only certain frequencies
G	± 50	-40 to +85	With only certain frequencies

How to Order

KV7050W 155.520 P 3 0 D 00
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Type (7.0x5.0mm SMD VCXO)
- ② Output Frequency
- ③ Output Type (LV-PECL)
- ④ Supply Voltage (3.3V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ Enable Function (45/ 55%, Disable)
- ⑦ Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

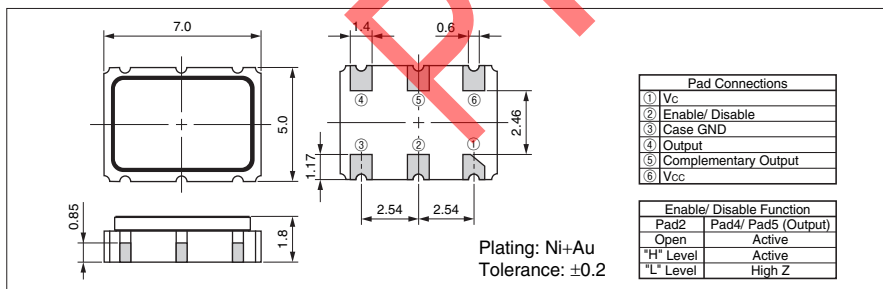
Specifications

Item	Symbol	Conditions	Min.	Max.	Units
Output Frequency Range	Fo		70	180	MHz
Frequency Tolerance	F _{tol}	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration @25°C 20 years	-100	+100	$\times 10^{-6}$
Aging	Aging		—	± 15	$\times 10^{-6}$
Absolute Pull Range	APR		± 100	—	$\times 10^{-6}$
Linearity	Lin		-10	+10	%
Control Voltage	Vc		0	3.3	V
Storage Temperature Range	T _{std}		-55	+90	°C
Operating Temperature Range	T _{use}	Standard Specifications Extend (Option)	0 -40	+70 +85	°C
Max. Supply Voltage	—		-0.5	+7	V
Supply Voltage	V _{cc}		2.97	3.63	V
Current Consumption	I _{cc}	50 ohm	—	60	mA
Disable Current	I _{dis}		—	10	mA
Symmetry	SYM	50 ohm @50% Output Swing	45	55	%
Rise/ Fall Time (20% V _{cc} to 80% V _{cc})	tr/ tf	50 ohm	—	0.6	nS
Low Level Output Voltage	V _{OL}	Op. Temp.: 0 to +85°C/ Typ. 1.600V Op. Temp.: -40 to 0°C/ Typ. 1.605V	V _{cc} -1.810 V _{cc} -1.830	V _{cc} -1.620 V _{cc} -1.555	V
High Level Output Voltage	V _{OH}	Op. Temp.: 0 to +85°C/ Typ. 2.350V Op. Temp.: -40 to 0°C/ Typ. 2.295V	V _{cc} -1.025 V _{cc} -1.085	V _{cc} -0.880 V _{cc} -0.900	V
Output Load	L _{ECL}	LV-PECL	50		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}		—	200	nS
Start-up Time	t _{str}	@Minimum operation voltage to be 0 sec.	—	10	mS
Input Resistance	—		150k	—	ohms
Modulation bandwidth	—		20k	—	Hz
Phase Jitter	J _{Phase}	12KHz to 20MHz @ 155.52MHz	—	1	pS
Phase Noise @155.52MHz	—	- 60 (@10Hz offset) - 90 (@100Hz offset) - 120 (@1KHz offset) - 140 (@10KHz offset) - 147 (@100KHz offset) - 147 (@1Hz offset) - 147 (@10Hz offset)			dBc/ Hz

Note: All electrical characteristics are defined at the maximum load and operating temperature range.
 Please contact us for inquiries about operating temperature range, available frequencies and other conditions.

Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)

