

# Voltage Controlled Crystal Oscillators (VCXO) Surface Mount Type KV7050W-C3 Series



CMOS/ 3.3V/ 7.0×5.0mm



Ph Free

RoHS Compliant

## Features

- Miniature ceramic package
- Highly reliable with vacuum welding
- CMOS output
- Supply voltage  $V_{cc}=3.3V$
- Low jitter

## How to Order

**KV7050W 74.1758 C 3 0 D 00**  
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Type (7.0×5.0mm SMD VCXO)
- ② Output Frequency
- ③ Output Type (CMOS)
- 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")

Table 1

Freq. Tol. Code	Tolerance	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

Packaging (Tape & Reel 1000 pcs./ reel)

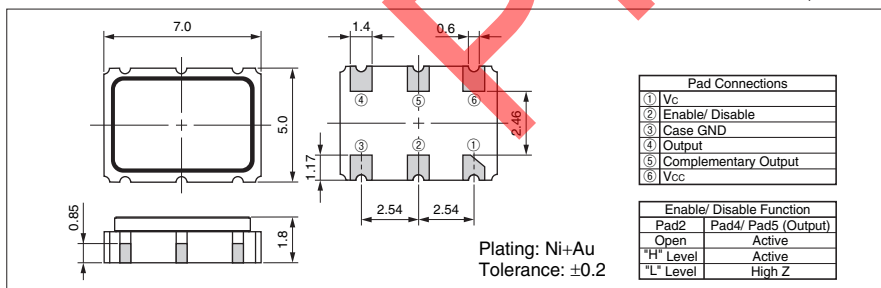
## Specifications

Item	Symbol	Conditions	Min.	Max.	Units	
Output Frequency Range	Fo		40	85	MHz	
Frequency Tolerance	F <sub>tol</sub>	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration	Op. Temp.: -40 to +85°C	-100	+100	×10 <sup>-6</sup>
			Op. Temp.: 0 to +70°C/ -40 to +85°C	-50	+50	
Aging	Aging	@25°C 20 years	—	±15	×10 <sup>-6</sup>	
Absolute Pull Range	APR		±25	±100	×10 <sup>-6</sup>	
Linearity	Lin		-10	+10	%	
Control Voltage	V <sub>c</sub>		0	3.3	V	
Storage Temperature Range	T <sub>std</sub>		-55	+90	°C	
Operating Temperature Range	T <sub>use</sub>	Standard Specifications	0	+70	°C	
		Extend (Option)	-40	+85		
Max. Supply Voltage	—		-0.5	+7	V	
Supply Voltage	V <sub>cc</sub>		2.97	3.63	V	
Current Consumption	I <sub>cc</sub>		—	20	mA	
Disable Current	I <sub>dis</sub>		—	5	mA	
Symmetry	SYM	@50% V <sub>cc</sub>	45	55	%	
Rise/ Fall Time (10% V <sub>cc</sub> to 90% V <sub>cc</sub> )	tr/ tf		—	5	nS	
Low Level Output Voltage	V <sub>OL</sub>		—	10% V <sub>cc</sub>	V	
High Level Output Voltage	V <sub>OH</sub>		90% V <sub>cc</sub>	—	V	
Output Load	—		—	15	pF	
Input Voltage Range	V <sub>IN</sub>		0	V <sub>cc</sub>	V	
Low Level Input Voltage	V <sub>IL</sub>		—	30% V <sub>cc</sub>	V	
High Level Input Voltage	V <sub>IH</sub>		70% V <sub>cc</sub>	—	V	
Modulation bandwidth	—	@-2dB	15	30	kHz	
Input Resistance	—	Standard Specifications	100k	—	ohm	
		Extend (Option)	5M	—		
Disable Time	t <sub>dis</sub>		—	100	nS	
Enable Time	t <sub>ena</sub>		—	100	nS	
Start-up Time	t <sub>str</sub>	@ Minimum operation voltage to be 0 sec.	—	10	mS	
Phase Jitter	J <sub>Phase</sub>	12KHz to 20MHz @74.25MHz	0.25	1	pS	
Phase Noise @155.52MHz	—	- 67 (@10Hz offset) - 97 (@100Hz offset) -124 (@1KHz offset) -140 (@10KHz offset) -152 (@100KHz offset) -158 (@1MHz offset) -160 (@10MHz 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)

