



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



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



Pb Free

RoHS Compliant

Features

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

Table 1

| Freq. Tol. Code | Freq. Tol. $\times 10^{-6}$ | 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 1000pcs./reel)

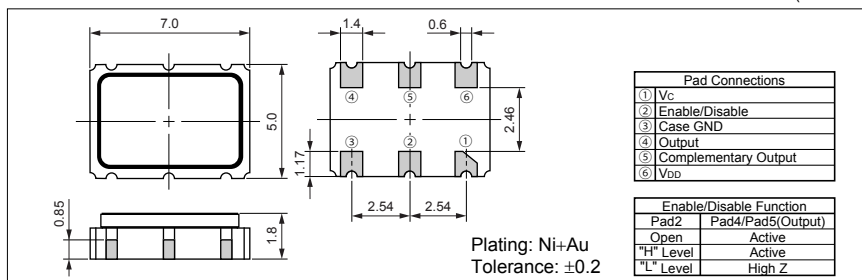
Specifications

| Item | Symbol | Conditions | Min. | Max. | Units | |
|--|------------------|---|-------------------------------------|------------------------|------------------|------------------|
| Output Frequency Range | Fo | | 80 | 200 | MHz | |
| Frequency Tolerance | F _{tol} | Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1year @25°C), Shock and vibration | Op. Temp.: -40 to +85°C | -100 | +100 | $\times 10^{-6}$ |
| | | | Op. Temp.: 0 to +70°C/ -40 to +85°C | -50 | +50 | |
| Aging | Aging | @25°C 20years | +15 | -15 | $\times 10^{-6}$ | |
| Absolute Pull Range | APR | | ± 100 | — | $\times 10^{-6}$ | |
| Linearity | Lin | | -10 | +10 | % | |
| Control Voltage | V _c | | 0 | 3.3 | V | |
| Storage Temperature Range | T _{stg} | | -55 | +90 | °C | |
| Operating Temperature Range | T _{use} | Standard Specifications | 0 | +70 | °C | |
| | | Extend (Option) | -40 | +85 | | |
| Max. Supply Voltage | — | | -0.5 | +7 | V | |
| Supply Voltage | V _{DD} | | 2.97 | 3.63 | V | |
| Current Consumption | I _{DD} | 50 ohm | — | 70 | mA | |
| Disable Current | I _{dis} | | — | 15 | mA | |
| Symmetry | SYM | 50 ohm @50% Output Swing | 45 | 55 | % | |
| Rise/Fall Time (20% V _{DD} to 80% V _{DD}) | Tr/Tf | 50 ohm | — | 0.6 | nS | |
| Output Voltage-"L" | V _{OL} | Op. Temp.: 0 to +85°C/ Typ. 1.600V | V _{DD} -1.810 | V _{DD} -1.620 | V | |
| | | Op. Temp.: -40 to 0°C/ Typ. 1.605V | V _{DD} -1.830 | V _{DD} -1.555 | | |
| Output Voltage-"H" | V _{OH} | Op. Temp.: 0 to +85°C/ Typ. 2.350V | V _{DD} -1.025 | V _{DD} -0.880 | V | |
| | | Op. Temp.: -40 to 0°C/ Typ. 2.295V | V _{DD} -1.085 | V _{DD} -0.900 | | |
| Output Load | L _{ECL} | LV-PECL | 50 | | ohm | |
| Input Voltage Range | V _{IN} | | 0 | V _{DD} | V | |
| Input Voltage-"L" | V _{IL} | | — | 30% V _{DD} | V | |
| Input Voltage-"H" | V _{IH} | | 70% V _{DD} | — | V | |
| Disable Time | — | | — | 200 | nS | |
| Enable Time | — | | — | 200 | nS | |
| Start-up Time | ST | @Minimum Operation Voltage to be 0 sec. | — | 10 | mS | |
| Phase jitter | — | 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)

