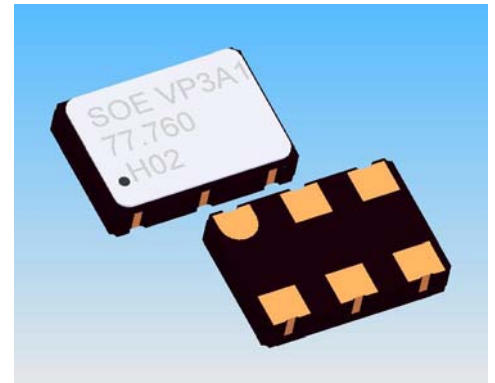


# VP Type VCXO



## Features

- LVPECL differential output VCXO.
- Typical 7.0 x 5.0 x 1.6 mm ceramic metal SMD package.
- Resistance Seam welding for hermetical seal.
- Low jitter performance suited for synchronous system.
- Tape & Reel packaging for automatic assembly.
- **Lead Free and RoHS compliant**

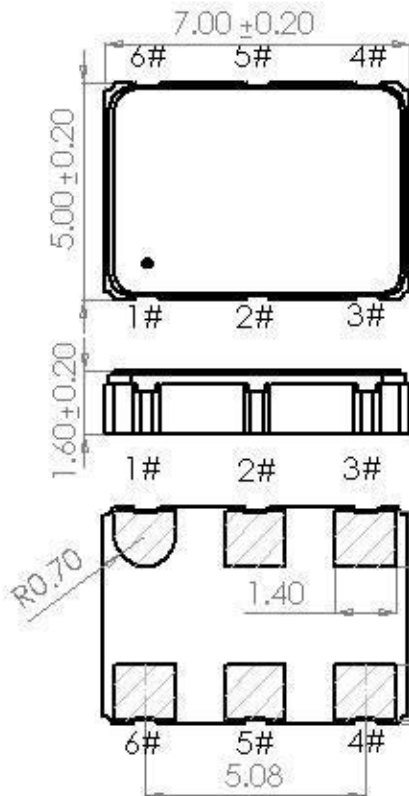
## ORDERING GUIDANCE

| Product Type                  | Supply Voltage (V) | Frequency Stability (ppm)            | Operating Temp. Range (°C)   | —    | APR                              | —    | Frequency (MHz) |
|-------------------------------|--------------------|--------------------------------------|--|------|----------------------------------|------|-----------------|
| Code: Meaning                 | Code: Meaning      | Code: Meaning                        | Code: Meaning  | Dash |                                  | Dash |                 |
| VP: 7X5 SMD<br>LVPECL<br>VCXO | 2: 2.5<br>3: 3.3   | A: ±25<br>B: ±50<br>D: ±20<br>H: ±30 | 1: 0~+70<br>2: -40~+85<br>3: 0~+85<br>4: -20~+70<br>5: -10~+85<br>6: -10~+70 |      | Specify desired APR Value In ppm |      | XXX.XXXXXX      |

Ordering example: VP3A4-50-77.760MHz

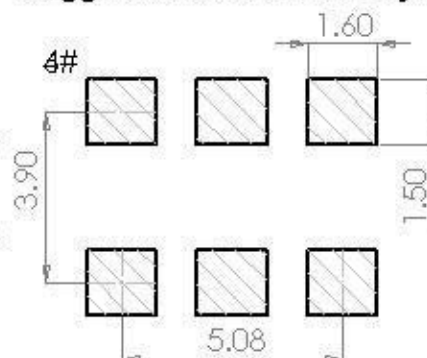
7x5 SMD PECL VCXO, 3.3V, ±25ppm, -20°C~70°C, APR=±50ppm, 77.760MHz

Note: If there're any other particular requirements, they should be specified in customers' order.



| PAD No. | Connection |
|---------|------------|
| #1      | VCONT      |
| #2      | STAND-BY   |
| #3      | GND        |
| #4      | OUTPUT     |
| #5      | OUTPUT     |
| #6      | VDD        |

## Suggested Solder Pad Layout



All Dimensions in mm

## Electrical Specification

| Parameter   | Min   |                       | Max                                  |                       | Unit |
|---|---|-----------------------|--------------------------------------|-----------------------|------|
|   | V <sub>DD</sub> =2.5V   | V <sub>DD</sub> =3.3V | V <sub>DD</sub> =2.5V                | V <sub>DD</sub> =3.3V |      |
| Supply Voltage (V <sub>DD</sub> )±10%                       | 2.25  | 2.97                  | 2.75                                 | 3.63                  | V    |
| Frequency Range   | 1   |                       | 80                                   |                       | MHz  |
| Frequency Stability<br>(V <sub>c</sub> =V <sub>DD</sub> /2) | Refer to Ordering Guidance<br>(Overall condition Inclusive of calibration @ 25 °C , operating temperature change, V <sub>DD</sub> variation, load variation, aging, etc.) |                       |                                      |                       | ppm  |
| Operating Temperature Range                                 | Refer to Ordering Guidance  |                       |                                      |                       | °C   |
| Absolute Pull Range (APR)                                   | ±50, ±75, ±100 typ.   |                       |                                      |                       | ppm  |
| Control Voltage Range                                       | 0   | 0                     | 2.5                                  | 3.3                   | V    |
| Linearity   | -   |                       | 10                                   |                       | %    |
| Supply Current  | Output load 50 ohm terminated to (V <sub>DD</sub> -2.0V)  |                       |                                      |                       | mA   |
| 1MHz =<F <sub>o</sub> <20MHz                                | -   |                       | 50                                   |                       |      |
| 20MHz =<F <sub>o</sub> <80MHz                               | -   |                       | 75                                   |                       |      |
| Duty Cycle (@ 50% of wf)                                    | 45  |                       | 55                                   |                       | %    |
| Output High (V <sub>oh</sub> )                              | 1.475   | 2.275                 | -                                    | -                     | V    |
| Output Low (V <sub>ol</sub> )                               | -   | -                     | 1.095                                | 1.68                  |      |
| Rise Time/Fall Time (tr/ta)                                 | Measured between 20% to 80% of the output waveform  |                       |                                      |                       | nS   |
| 1MHz =<F <sub>o</sub> <20MHz                                | -   |                       | 1.5                                  |                       |      |
| 20MHz =<F <sub>o</sub> <80MHz                               | -   |                       | 1                                    |                       |      |
| Output Load   | 50 ohm terminated to (V <sub>DD</sub> -2.0V)  |                       |                                      |                       |      |
| Tristate Function(input to pin2)                            |   |                       |                                      |                       | V    |
| Output Enable   | 2   | 2.5                   | (With pin2 floating, Output enabled) |                       |      |
| Output Disable(Hi-Z)  |   |                       | 0.5                                  | 0.5                   |      |
| Start Time  | -   |                       | 10                                   |                       | mS   |
| DC Input Impedance @ V <sub>c</sub> pin                     | 2   |                       | -                                    |                       | Mohm |
| Modulation Bandwidth  | 10  |                       | -                                    |                       | KHz  |
| Phase Jitter(RMS, 12KHz to 20MHz)                           | -   |                       | 1                                    |                       | pS   |
| Storage Temperature   | -55   |                       | 125                                  |                       | °C   |