**VOLTAGE-CONTROLLED CRYSTAL OSCILLATOR (VCXO)**

**OUTPUT : CMOS**

**VG2520CAN**  
**VG7050CAN**

- **Frequency range**: 30.72 MHz  
- **Supply voltage**: 3.3 V  
- **Absolute pull range**: ±50 × 10^6 Min.  
- **Operation temperature**: +85 °C / +105 °C  
- **Output**: CMOS

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**Specifications (characteristics)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Symbol</th>
<th>Specifications</th>
<th>Conditions / Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output frequency range</td>
<td>f₀</td>
<td>30.72 MHz</td>
<td>Please contact us about available frequencies. (1.25 MHz to 80 MHz)</td>
</tr>
<tr>
<td>Supply voltage</td>
<td>Vcc</td>
<td>3.3 V ±0.165 V</td>
<td></td>
</tr>
<tr>
<td>Storage temperature range</td>
<td>T_stg</td>
<td>-40 °C to +125 °C</td>
<td>Storage as single product</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>T_use</td>
<td>G: -40 °C to +85 °C, H: -40 °C to +105 °C</td>
<td></td>
</tr>
<tr>
<td>Current consumption</td>
<td>Icc</td>
<td>15 mA Max.</td>
<td>CL=15pF</td>
</tr>
<tr>
<td>Frequency tolerance *1</td>
<td>T_tol</td>
<td>±50 × 10^6 Max.</td>
<td></td>
</tr>
<tr>
<td>Frequency control range</td>
<td>F_cont</td>
<td>±100 × 10^6 Min.</td>
<td>Vc= 1.65 V ±1.65 V</td>
</tr>
<tr>
<td>Absolute pull range *2</td>
<td>APR</td>
<td>±50 × 10^6 Min.</td>
<td>Vc= 1.65 V ±1.65 V</td>
</tr>
<tr>
<td>Modulation band width</td>
<td>BW</td>
<td>10 kHz Min.</td>
<td>±3 dB (refer to response at 1kHz)</td>
</tr>
<tr>
<td>Input resistance</td>
<td>Rin</td>
<td>10 MΩ Min.</td>
<td>DC level</td>
</tr>
<tr>
<td>Frequency change polarity</td>
<td>—</td>
<td>Positive</td>
<td>Vc= 1.65 V ±1.65 V</td>
</tr>
<tr>
<td>Symmetry</td>
<td>SYM</td>
<td>45 % to 55 %</td>
<td>50 % Vcc level</td>
</tr>
<tr>
<td>Output voltage</td>
<td>Voh</td>
<td>90 % Vcc Min.</td>
<td></td>
</tr>
<tr>
<td>Output load condition</td>
<td>VOL</td>
<td>10 % Vcc Max.</td>
<td></td>
</tr>
<tr>
<td>Rise/Fall times</td>
<td>TR/TF</td>
<td>5 ns Max.</td>
<td>at 20 % to 80 % Vcc level</td>
</tr>
<tr>
<td>Start-up time</td>
<td>T_str</td>
<td>10ms Max.</td>
<td>t=0 at 90 % Vcc</td>
</tr>
</tbody>
</table>

*1 Frequency tolerance includes initial frequency tolerance, temperature variation, supply voltage variation, reflow drift, and aging (+25°C, 10 years).

*2 Absolute pull range = Frequency control range - Frequency tolerance

Please keep Vc pin open or ground while powering up Vcc.

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**External dimensions**  
(Unit: mm)

**Footprint (Recommended)**  
(Unit: mm)

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**Pin map**

- ST pin = "H" or "open": Specified frequency output.  
- ST pin = "L": Output is high impedance.
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► Complies with EU RoHS directive.
  *About the products without the Pb-free mark. Contains Pb in products exempted by EU RoHS directive. (Contains Pb in sealing glass, high melting temperature type solder or other.)

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