

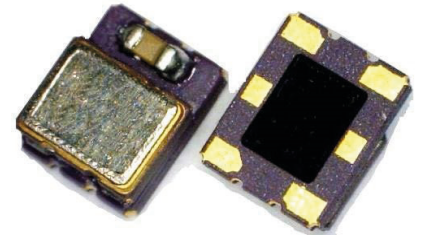
SX3LVTQ

LVDS SURFACE MOUNT VCTCXO

FEATURES

- Miniature package
- Low jitter

3.2 x 2.5 x 1.7 mm



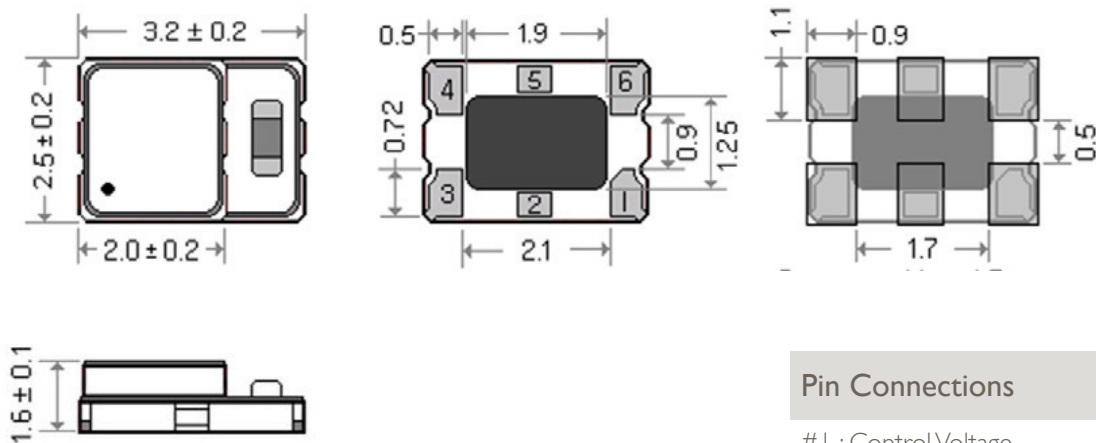
| Item | Specification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--------------------------------|--------------------------------|--------------------------------|-----------------------|-------------|-------------|-------------------------|-------------|---|-----------|----------|---|----------------|----------|---|-----------------|-----------|---|----------------------|--------------------------|---|---|---|---|---------------|---|---|---|---|---|
| Frequency Range | 10 MHz ~ 1450.0 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Output Signal | LVDS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supply Voltage Vdd | +2.5V ±5% +3.3V ±5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supply Current Idd | 35.0 mA max , Frequency dependent | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Tolerance | ±2.0 ppm at 25°C ±2°C (one hour after reflow) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Stability vs Temperature (see options) | <table border="1"> <thead> <tr> <th></th> <th>±0.5 ppm</th> <th>±1.0 ppm</th> <th>±1.5 ppm</th> <th>±2.0 ppm</th> <th>±2.5 ppm</th> </tr> </thead> <tbody> <tr> <td>-20° to +70°C</td> <td>○</td> <td>○</td> <td>○</td> <td>○</td> <td>○</td> </tr> <tr> <td>-30° to +75°C</td> <td>○</td> <td>○</td> <td>○</td> <td>○</td> <td>○</td> </tr> <tr> <td>-30° to +85°C</td> <td>○</td> <td>○</td> <td>○</td> <td>○</td> <td>○</td> </tr> <tr> <td>-40° to +85°C</td> <td>◇</td> <td>○</td> <td>○</td> <td>○</td> <td>○</td> </tr> </tbody> </table> <p>○ = available ◇ = please contact us X = not available</p> | | ±0.5 ppm | ±1.0 ppm | ±1.5 ppm | ±2.0 ppm | ±2.5 ppm | -20° to +70°C | ○ | ○ | ○ | ○ | ○ | -30° to +75°C | ○ | ○ | ○ | ○ | ○ | -30° to +85°C | ○ | ○ | ○ | ○ | ○ | -40° to +85°C | ◇ | ○ | ○ | ○ | ○ |
| | ±0.5 ppm | ±1.0 ppm | ±1.5 ppm | ±2.0 ppm | ±2.5 ppm | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -20° to +70°C | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -30° to +75°C | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -30° to +85°C | ○ | ○ | ○ | ○ | ○ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -40° to +85°C | ◇ | ○ | ○ | ○ | ○ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Stability vs Aging | ±1.0 ppm max. per year at 25°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Stability vs Voltage Change | ±0.2 ppm max. , for a ±5% input voltage change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Stability vs Load Change | ±0.2 ppm max. , for a ±10% load condition change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Output Voltage HIGH VOH | 1.43 V typ.; 1.6 V max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Output Voltage LOW VOL | 1.1 V typ.; 0.9 V min. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Output Load | 50 ohm from each output | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Symmetry | 45 / 55 % | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rise / Fall time Fr/Ff | 0.4 ns max. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tri-state function | pin #2 = high or open pin #4 - #5 ==> oscillation pin#2 = low pin #4 - #5 ==> high impedance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Start-up Time | 5 ms max. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Integrated Phase Jitter (12 kHz to 20 MHz band) | 0.8 ps typical | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Voltage Control Function | <table border="1"> <thead> <tr> <th>Supply Voltage (Vdd)</th> <th>Vdd +2.5V ,Vcon Center = +1.5V</th> <th>Vdd +3.3V ,Vcon Center = +1.5V</th> </tr> </thead> <tbody> <tr> <td>Control voltage range</td> <td>+1.5V ±1.0V</td> <td>+1.5V ±1.0V</td> </tr> <tr> <td>Frequency pulling range</td> <td colspan="2">±8 ppm min.</td> </tr> <tr> <td>Linearity</td> <td colspan="2">10 % max</td> </tr> <tr> <td>Slope polarity</td> <td colspan="2">Positive</td> </tr> <tr> <td>Input impedance</td> <td colspan="2">1 MΩ typ.</td> </tr> <tr> <td>Modulation bandwidth</td> <td colspan="2">10 kHz min. (at -3 dB)</td> </tr> </tbody> </table> | Supply Voltage (Vdd) | Vdd +2.5V ,Vcon Center = +1.5V | Vdd +3.3V ,Vcon Center = +1.5V | Control voltage range | +1.5V ±1.0V | +1.5V ±1.0V | Frequency pulling range | ±8 ppm min. | | Linearity | 10 % max | | Slope polarity | Positive | | Input impedance | 1 MΩ typ. | | Modulation bandwidth | 10 kHz min. (at -3 dB) | | | | | | | | | | |
| Supply Voltage (Vdd) | Vdd +2.5V ,Vcon Center = +1.5V | Vdd +3.3V ,Vcon Center = +1.5V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Control voltage range | +1.5V ±1.0V | +1.5V ±1.0V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency pulling range | ±8 ppm min. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Linearity | 10 % max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Slope polarity | Positive | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Input impedance | 1 MΩ typ. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Modulation bandwidth | 10 kHz min. (at -3 dB) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Packing Unit | 1000pcs / reel | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Soldering Condition | 260°C , 10 sec x2 max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

OPTIONS & ORDERING INFORMATION

| SX3LVTQ | | | | | | | MHz |
|---------|--------------------------|--|--|------------------------|--------------------|------------------|-------------------------------------|
| | Supply Voltage * | Operating Temp. * | Temperature Stability * | Tri-state Function | Package type | Pulling * | Frequency in MHz |
| | 25 = +2.5V 33 = +3.3V | F = -20° / +70°C G = -30° / +75°C H = -30° / +85°C K = -40° / +85°C | 0.5 = ±0.5 ppm 1.0 = ±1.0 ppm 1.5 = ±1.5 ppm 2.0 = ±2.0 ppm 2.5 = ±2.5 ppm | E2 = Tri-state , pin 2 | 6P = 6-pad version | 08 = ±8 ppm min. | Please specify the frequency in MHz |

* Note : Not all combinations are possible , please consult us.

OUTLINE DIMENSIONS (MM)



Pin Connections

- #1 : Control Voltage
- #2 : E/D
- #3: GND
- #4 : Output
- #5 : Complementary Output
- #6 :Vdd