

- Ultra-miniature 4 pad SMD package
- Frequency range 2.000MHz to 54.0MHz
- CMOS/TTL Output
- Supply Voltage 1.8, 2.8, or 3.3VDC
- Integrated Phase Jitter 1ps typical
- Pull range from ± 80 ppm to ± 90 ppm



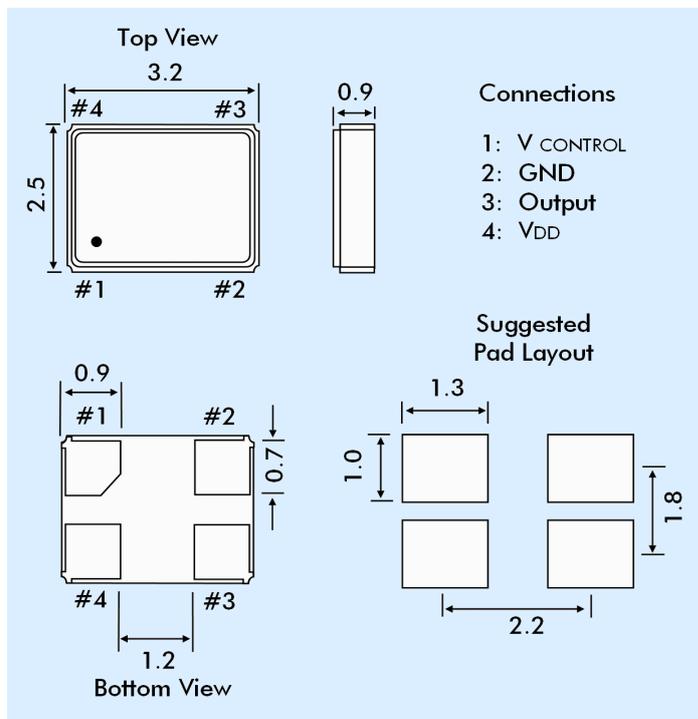
DESCRIPTION

G324 VCXOs are packaged in an ultra-miniature 3.2 x 2.5 x 0.9mm 4 pad SMD package. G series VCXOs use fundamental mode crystal oscillators. Applications include phase lock loop, SONET/ATM, set-top boxes, MPEG, audio/video modulation, video game consoles and HDTV.

SPECIFICATION

Frequency Range:	2.0MHz to 54.0MHz
Supply Voltage:	+1.8, +2.8 or +3.3VDC $\pm 5\%$
Frequency Stability:	from ± 30 ppm over $-10^\circ \sim +70^\circ\text{C}$
Frequency Pulling Range	
Supply = 1.8V, $V_{\text{CON}} = 0.9 \pm 0.9\text{V}$:	± 80 ppm min.
Supply = 2.8V, $V_{\text{CON}} = 1.4 \pm 1.4\text{V}$:	± 90 ppm min.
Supply = 3.3V, $V_{\text{CON}} = 1.65 \pm 1.65\text{V}$:	± 90 ppm min.
Frequency Change	
vs. Input Voltage:	± 5 ppm max. ($V_{\text{DD}} \pm 5\%$)
Operating Temperature:	-10° to $+70^\circ\text{C}$
Input Voltage:	+1.8, +2.8 or +3.3VDC $\pm 5\%$
Control Voltage (V_{CON})	
$V_{\text{DD}} = 1.8\text{V}$:	+0.9V
$V_{\text{DD}} = 2.8\text{V}$:	+1.4V
$V_{\text{DD}} = 3.3\text{V}$:	+1.65V
Absolute Max. Ratings	
Supply Voltage:	-0.5V to +7.0VDC
Storage temperature:	-40° to $+85^\circ\text{C}$
Input Current (no load)	
$V_{\text{DD}} = 1.8\text{V}$:	3mA max.
$V_{\text{DD}} = 2.8\text{V}$:	5mA max.
$V_{\text{DD}} = 3.3\text{V}$:	8mA max.
Symmetry:	40/60% at 50% V_{DD} level
Rise/Fall Times	
2.0 ~ 10.0MHz:	10ns max.
10.0 ~ 54MHz:	6ns max.
Logic HIGH ('1') Level:	90% V_{DD} max.
Logic LOW ('0') Level:	10% V_{DD} min.
Load:	15pF max.
Transfer Slope:	Positive
Modulation bandwidth:	10kHz min. (-3dB)
SSB Phase Noise:	-120dBc/Hz max. at 1kHz offset
V_{CON} Input Impedance:	100k Ω min.
Ageing:	± 5 ppm max. first year (25°C)
Reflow:	+250 $^\circ\text{C} \pm 10^\circ\text{C}$ for 10 seconds +170 $\pm 10^\circ\text{C}$ for 1 to 2 minutes (Preheating)
Standard Frequency:	27.0MHz
Supply Format:	8mm EIA tape, 178mm dia. reel, 1000 pieces per reel

OUTLINE & DIMENSIONS



PART NUMBERING PROCEDURE

