EURO QUARTZ

G576 VCXO
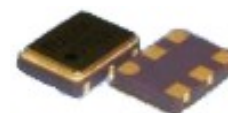
CMOS SMD 7 x 5 x 1.8mm, 6 pad

625.0kHz ~ 50.0MHz

- Frequency range 0.625MHz to 50.0MHz
- CMOS/TTL Output
- Supply Voltage 5.0 V or 3.3 VDC
- Integrated Phase Jitter 1ps typical
- Low cost unit

RoHS ✓

DESCRIPTION

G576 VCXOs, are packaged in a miniature 7mm x 5mm x 1.8mm 6 pad SMD package. Typical phase jitter for G series VCXOs is <1ps, output CMOS/TTL. G series VCXOs use fundamental mode crystal osccillators. Applications include phase lock loop, SONET/ATM, set-top boxes, MPEG , audio/video modulation, video game consoles and HDTV.
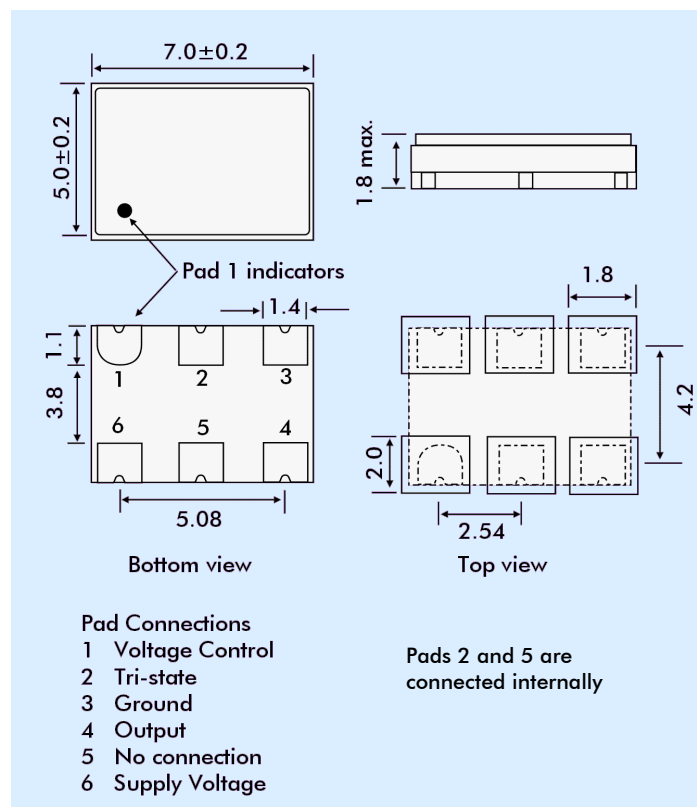
SPECIFICATION

Frequency Range	
Vdd = +3.3VDC:	0.625MHz to 50.0MHz
Vdd = +5.0VDC:	1.0MHz to 50.0MHz
Supply Voltage:	+3.3 VDC ±5% or +5.0VDC±5%
Output Logic:	TTL/HCMOS
Integrated Phase Jitter:	1.0ps maximum 12kHz to 20MHz
Period Jitter RMS:	2.0ps typical
Period Jitter Peak to Peak:	14ps maximum
Phase Noise:	*See table below*
Initial Frequency Accuracy	
Tune to the nominal frequency with:	
+3.3VDC:	Vc= 1.65V ±0.2V
+5.0 VDC:	Vc= 2.5V ±0.2V
Output Voltage HIGH (1):	90% Vdd minimum
Output Voltage LOW (0):	10% Vdd maximum
Control Voltage Centre	
+3.3VDC:	1.65V
+5.0VDC:	2.5V
Control Voltage Range	
+3.3VDC:	0.3V to 3.0V
+5.0VDC:	0.5V to 4.5V
Pulling Range	
+3.3VDC	±80ppm to ±120ppm (standard)
+5.0VDC:	±80ppm to ±150ppm (±200ppm available)
Temperature Stability:	*See table*
Output Load:	CMOS = 15pF, TTL = 2 gates
Start-up Time:	10ms maximum, 5ms typical
Duty Cycle:	50% ±5% measured at 50% Vdd
Rise/Fall Times:	0.7ns typical (15pF load)
Current Consumption:	10 to 45mA, frequency dependent
Linearity:	10% maximum, 6% typical
Modulation Bandwidth:	10kHz minimum
Input Impedance:	1 MΩ minimum
Slope Polarity: (Transfer function)	Monotonic and Positive. (*An increase of control voltage always increases output frequency.*)
Storage Temperature:	-50° to +100°C
Ageing:	±5ppm per year maximum
RoHS Status:	Fully compliant

PHASE NOISE

Offset	Frequency 27.0MHz
10Hz	-70dBc/Hz
100Hz	-105dBc/Hz
1kHz	-132dBc/Hz
10kHz	-142dBc/Hz
1MHz	-150dBc/Hz

OUTLINE & DIMENSIONS

7.0±0.2
5.0±0.2
1.8 max.

Pad 1 indicators

1.4
1.1
3.8
5.08

Bottom view

| 1 | 2 | 3 |
| 6 | 5 | 4 |

1.8
4.2
2.0
2.54

Top view

Pads 2 and 5 are connected internally

Pad Connections
1 Voltage Control
2 Tri-state
3 Ground
4 Output
5 No connection
6 Supply Voltage

FREQUENCY STABILITY

Stability Code	Stability ±ppm	Temp. Range
A	25	0°~+70°C
B	50	0°~+70°C
C	100	0°~+70°C
D	25	-40°~+85°C
E	50	-40°~+85°C
F	100	-40°~+85°C

If non-standard frequency stability is required Use 'I' followed by stability, i.e. I20 for ±20ppm

PART NUMBERING

Example: 3G576B-80N-27.000

Supply Voltage
3 = +3.3V
5 = +5.0V

Series Designator
G576

Stability over temperature range
(*See table*)

Pullability in ±ppm

Pullability determinator
N = minimum
M = maximum
T = Typical

Frequency in MHz