EUROQUARTZ

G576 VCXO

7.0 x 5.0 x 1.7mm 6 pad SMD — 1.25MHz ~ 50.0MHz

- **Industry-standard 7 x 5mm 6 pad SMD package**
- **Frequency range 1.25MHz to 50.0MHz**
- **CMOS Output**
- **Supply Voltage 1.8, 2.5, 3.3 or 5.0VDC**
- **Integrated Phase Jitter 1ps maximum**

DESCRIPTION & APPLICATIONS

G576 VCXOs are packaged in the industry-standard 7 x 5 x 1.7mm 6 pad SMD package. G series VCXOs use fundamental mode crystal oscillators for low phase noise. Applications include phase lock loop, SONET/ATM, set-top boxes, MPEG , audio/video modulation, video game consoles, Fibre Channel, FPGAs, Data Acquisition and HDTV.

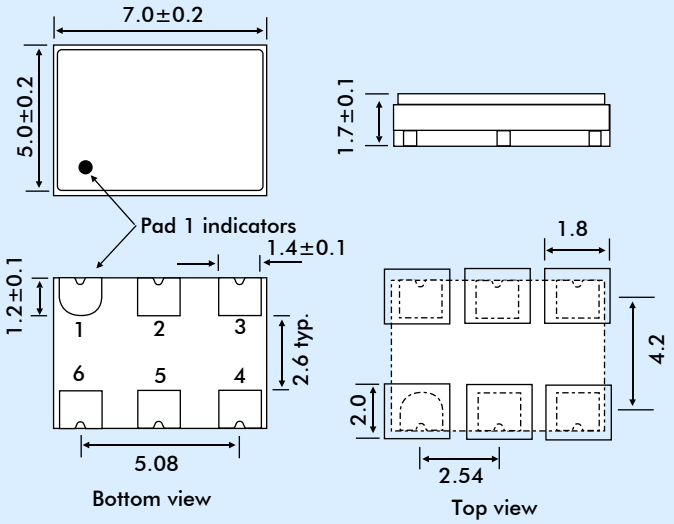
SUPPLY VOLTAGE-DEPENDENT SPECIFICATION

Input Voltage (V_{DD}):	V_{DD} = +1.8VDC ±5%	V_{DD} = +2.5VDC ±5%	V_{DD} = +3.3VDC ±5%	V_{DD} = +5.0VDC ±10%
Frequency Range:	16.0MHz ~ 50.0MHz	1.25MHz ~ 50.0MHz	1.25MHz ~ 50.0MHz	1.25MHz ~ 50.0MHz
Output Waveform:	CMOS	CMOS	CMOS	CMOS
Initial Frequency Accuracy (at 25°C):	To tune to nominal fr. with Vc=0.9±0.15V	To tune to nominal fr. with Vc=1.25±0.2V	To tune to nominal fr. with Vc=1.65±0.2V	To tune to nominal fr. with Vc=2.5±0.2V
Output Logic HIGH '1'	1.62V (min.)	2.25V (min.)	2.97V (min.)	4.5V (min.)
Output Logic LOW '0'	0.183V (max.)	0.25V (max.)	0.33 (max.)	0.5V (max.)
Frequency Deviation Range:	Standard: ±80ppm (min.)	Standard: ±80ppm (min.)	Standard: ±80ppm (min.)	Std: ±80ppm (min.) ±200ppm available
Control Voltage Centre	0.9V	1.25V	1.65V	2.5V
Control Voltage Range:	0.0V to 1.8V	0.25V to 2.25V	0.3V to 3.0V	0.5V to 4.5V

GENERAL SPECIFICATION

Frequency Stability:		*See table*
Input Voltage:		+1.8V ±5%, +2.5V ±5%, +3.3V ±5% or 5.0V ±10%
Output Load:		15pF
Rise/Fall Time:		6ns max, 4ns typ. (20%~80% Vdd)
Duty Cycle:		50 ±10% standard, 50 ±5% option
Integrated Phase Jitter:		1ps maximum (12kHz to 20MHz)
Start-up time:		10ms max., 3ms typical
Current Consumption:		10 to 45mA, frequency dependant (27MHz: 10mA typical at 3.3V, 20mA typical at 5.0VDC)
Linearity:		6% typical, 10% maximum
Modulation Bandwidth:		10kHz min. measured at Vcont = 1.65V or 2.5V
Input Impedance:		5MΩ typical
Slope Polarity:		Monotonic and Positive, increasing control voltage increases output frequency
Ageing:		±3ppm per year max.
RoHS Status:		RoHS Compliant and lead (Pb) free
OE Control:	Enable:	70% of V_{DD} min. OE time: 2ms max.
	Disable:	30% of V_{DD} max. (High impedance) Disable time: 100ns

OUTLINE & DIMENSIONS



Pad Connections
1 Voltage Control
2 Tri State
3 Ground
4 Output
5 Not Connected
6 Supply Voltage

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PHASE NOISE

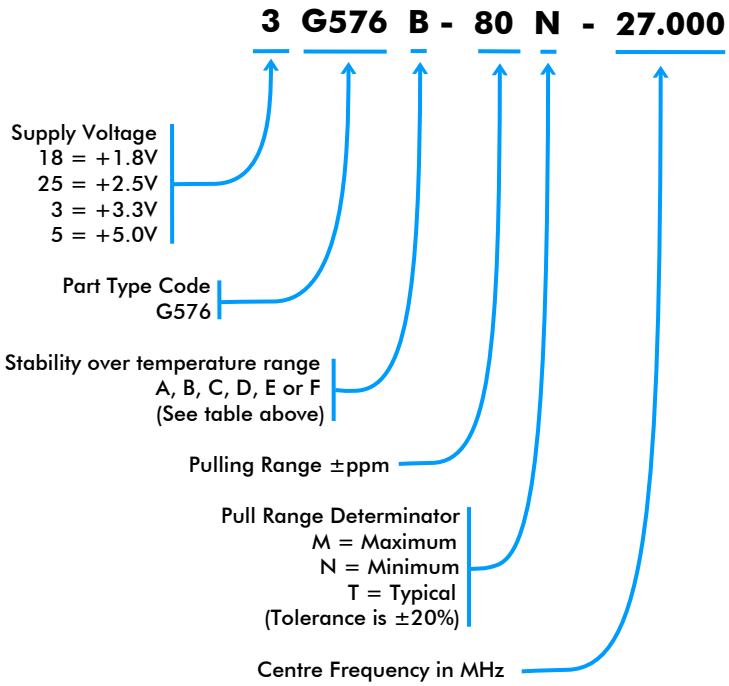
27.0MHz 3.3V supply	Offset:	10Hz	100Hz	1kHz	10kHz	100kHz	1MHz
		-40dBc/Hz	-104dBc/Hz	-132dBc/Hz	-147dBc/Hz	-152dBc/Hz	-150dBc/Hz

FREQUENCY STABILITY OVER OPERATING TEMPERATURE RANGE PART NUMBER CODES

Stability	±25ppm	±50ppm	±100ppm
Commercial 'C' -10° to +70°C	A	B	C
Industrial 'I' -40° to +85°C	D	E	F

PART NUMBERING PROCEDURE

Example = 3G576B-80N-27.000



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