

- Micro-miniature 6 pad SMD package VCXO
- Frequency range 1.25MHz to 50.0MHz
- CMOS/TTL Output
- Supply Voltage 1.8V, 2.5V, or 3.3V or 5.0VDC
- Integrated Phase Jitter 200fs typical, 1ps max
- Fundamental mode crystals for best phase noise performance



SUPPLY VOLTAGE DEPENDENT SPECIFICATION

Model:	'G' Series			
Input Voltage:	Vdd = +1.8VDC±5%	Vdd = +2.5VDC±5%	Vdd = +3.3VDC±5%	Vdd = +5.0VDC±10%
Frequency Range*:	16.0MHz ~ 50.0MHz	1.25MHz ~ 50.0MHz	1.25MHz ~ 50.0MHz	1.25MHz ~ 50.0MHz
Output Wave Form:	CMOS/TTL			
Initial Freq. Accuracy	Tune with Vc = 0.9V±0.15V	Tune with Vc = 1.25V±0.2V	Tune with Vc = 1.65V±0.2V	Tune with Vc = 2.5V±0.2V
Output Logic High '1'	1.62V minimum	2.25V minimum	2.97V minimum	4.5V minimum
Output Logic Low '0'	0.183V maximum	0.25V maximum	0.33V maximum	0.5V maximum
Frequency Deviation Range:	Standard ±80ppm min.	Standard ±80ppm min.	Standard ±80ppm min.	Standard ±80ppm min. ±200ppm min. available
Control Voltage Centre:	0.9VDC	1.25VDC	1.65 VDC	2.5 VDC
Control Voltage Range:	0.0V to 1.8V	0.25V to 2.25V	0.3V to 3.0V	0.5V to 1.5V

GENERAL SPECIFICATION

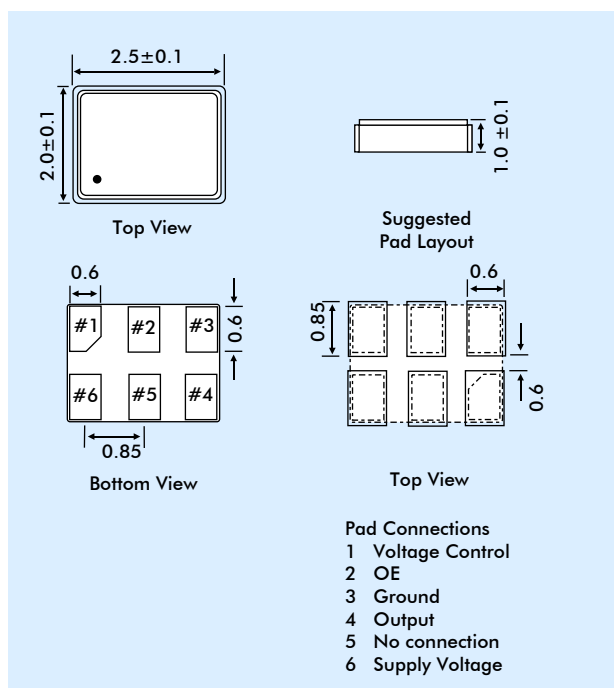
Frequency Stability:	See table
Output Load	TTL: 2 TTL gates CMOS: 15pF
Rise/Fall Times	TTL: 6ns max., 4ns typical Measured between 0.4V to 2.4V CMOS: 6ns max., 4ns typical Measured between 20% to 80% of wave form, (CL = 15pF)
Duty Cycle:	50%±10% standard, 50%±5% is available, add 'S' to part number
Integrated Phase Jitter:	200fs typ, 1ps max. (12kHz to 20MHz)
Start-up Time:	10ms max., 5ms typical
Current Consumption:	10~45mA, freq. dependant e.g. 27MHz: 10mA @ 3.3V 27MHz: 20mA @5.0V
Linearity:	6% typical, 10% max.
Modulation Bandwidth:	10kHz min. Measured at -3dB with V control at 1.65V or 2.5V
Input Impedance:	5MΩ typical
Slope Polarity:	Monotonic and positive (An increase of control voltage increases output frequency.)
Ageing:	±3ppm per year max.
Tri-state	Enable high: No connection or VDD-0.5V min. is applied to Tri-state pin to enable. Disable: Ground +0.5V max. disables output. (High impedance)

PHASE NOISE

Characteristics typical of 27MHz, +3.3V supply.

Offset	10Hz	100Hz	1kHz	10kHz	100kHz	1MHz
dBc/Hz	-40	-104	-132	-147	-152	-150

OUTLINE AND DIMENSIONS



FREQUENCY STABILITY OVER TEMPERATURE*

Frequency Stability over Operating Temp. Range**	±25ppm	±50ppm	±100ppm
Commercial -10° to +70°C	A	B	C
Industrial -40 to +85°C	D	E	F

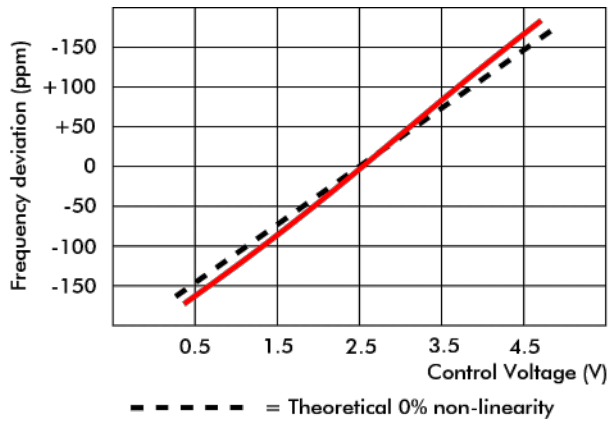
* See ordering information

** If non-standard temperature stability is required enter the required stability (in ppm) after either 'C' (-10° to +70°) or 'I' (-40° to +85°C)

Example: 'C20' = ±20ppm over -10 to +70°C

TRANSFER FUNCTION

Typical response of 3G226-C-150N-27.000
(at 25°C, positive transfer)



PART NUMBER SCHEDULE

