GF14 CMOS VCXO

14 pin Dual-in-Line

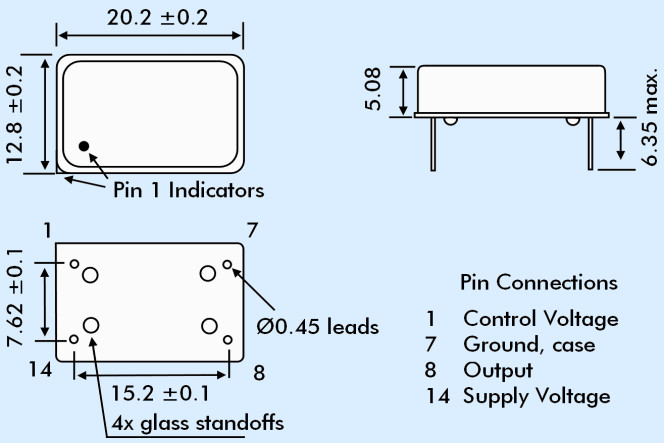
- **Frequency range 50.01MHz to 200MHz (15pF load)**
- **Frequency range 50.01MHz to 320MHz (10pF load)**
- **LVCMOS Output**
- **Supply Voltage 3.3 VDC**
- **Ultra low jitter less than 1ps**

RoHS COMPLIANT 2002 / 95 /EC

DESCRIPTION

GF14 VCXOs, are packaged in an industry-standard, 14 pin Dual in Line package. GF14 VCXOs provide excellent phase jitter performance, less than 1ps.

OUTLINE & DIMENSIONS



SPECIFICATION

Frequency Range	
Load 15pF:	50.01MHz to 200.0MHz
Load 10pF:	50.01MHz to 320.0MHz
Supply Voltage:	3.3 VDC ±5%
Output Logic:	LVCMOS
Integrated Phase Jitter:	0.4ps typical, 0.5ps maximum (for 155.250MHz)
Period Jitter RMS:	3.0ps typical (for 155.250MHz)
Period Jitter Peak to peak:	20ps typical (for 155.250MHz)
Phase Noise:	*See table below*
Initial Frequency Accuracy:	Tune to the nominal frequency with Vc= 1.65 ±0.2VDC
Output Voltage HIGH (1):	90% Vdd minimum
Output Voltage LOW (0):	10% Vdd maximum
Pulling Range:	From ±30ppm to ±150ppm
Temperature Stability:	*See table*
Output Load:	15pF
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	
<100MHz:	30mA maximum (15pF load)
>100MHz:	40mA maximum (15pF load)
Linearity:	10% maximum, 6% typical
Modulation Bandwidth:	25kHz minimum
Input Impedance:	60kΩ 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
Enable/Disable (Tristate):	Not available (*4 pad package*)
RoHS Status:	Fully compliant

PHASE NOISE

Offset	Frequency 155.25MHz
10Hz	-62dBc/Hz
100Hz	-92dBc/Hz
1kHz	-120dBc/Hz
10kHz	-132dBc/Hz
100kHz	-128dBc/Hz
1MHz	-140dBc/Hz
10MHz	-150dBc/Hz

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: 3GF14B-80N-156.25

- Supply Voltage
  - 3 = +3.3V
- Series Designator
  - GF14
- Stability over temperature range
  - (See table)
- Pullability in ±ppm
- Pullability determinator
  - N = minimum
  - M = maximum
  - T = Typical
- Frequency in MHz

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