VC20-5

VOLTAGE CONTROLLED CRYSTAL OSCILLATOR (VCXO)

The VC20-3 series provides a range of voltage controlled crystal oscillators operating at +5.0V supply with a HCMOS/TTL compatible output. The control voltage range of ±100ppm minimum ensures an absolute pull range of at least ±50ppm with a typical linearity of ±3%.

ADVANTAGES

- Through hole
- Resistance Welded Hermetic Seal.
- Wide Operating Frequency
- Wide Frequency Adjustment Range

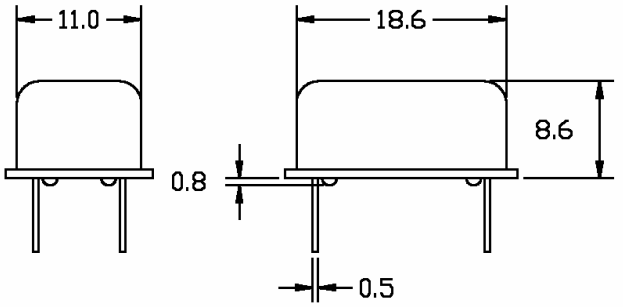
APPLICATIONS

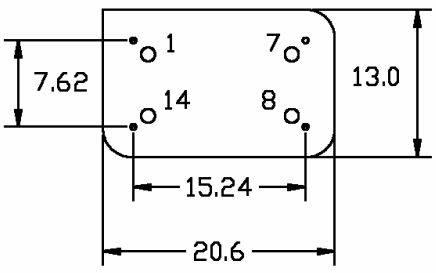
- Telecommunications
- Portable Instrumentation
- Synthesizers.
- Phase Locked Loops.

ELECTRICAL PERFORMANCE (Ta=25°c, C_L = 10kW//10pF and Vcc = +3.3V)

PARAMETER	MINIMUM	MAXIMUM	UNITS
NOMINAL FREQUENCY (Fo)	4.0	160	MHz
CALIBRATION TOLERANCE (With +2.50V on pin 1)	-10	+10	ppm
FREQUENCY STABILITY Over Temperature Range **(See Note 2)** Ageing (per year at +25°C) Over Supply Voltage Variation (Vcc = +5.0V ±5.0%)	 -30 -2.0 -5.0	 +30 +2.0 +5.0	ppm
OPERATING TEMPERATURE RANGE **(See Note 2)**	-40	+85	°C
STORAGE TEMPERATURE RANGE	-55	+105	°C
SUPPLY VOLTAGE (Vcc) **(See Note 2)**	+4.75	+5.25	V
SUPPLY CURRENT (Dependant upon nominal frequency)	5.0	30	mA
OUTPUT WAVEFORM HCMOS/TTL Logic Levels Duty Cycle (@ Vcc/2) Fall and rise times	 0.1Vcc 40 3	 0.9Vcc 60 10	 V % ns
Voltage Control Range +2.50V ±2.0V (Positive polarity)	±100	±200	ppm
Linearity		±10	%
Input Impedance	50,000		Ω
Modulation Bandwidth	10		kHz

Parameter	Standard Observed
Mechanical Shock	MIL-STD-202 Method 213, Condition C
Vibration	MIL-STD-202 Method 201, 204, and 214
Hermeticity	MIL-STD-202, Method 112
Solderability	IPC/EIA-STD-002A





Pin Connections:
1 Vcont.
7 Ground
8 Output
14 Vcc

NOTES 1) To order, state part number and nominal frequency e.g. VC20-3 32.768MHz
2) Other temperature ranges, stabilities and supply voltages are readily available upon request.

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