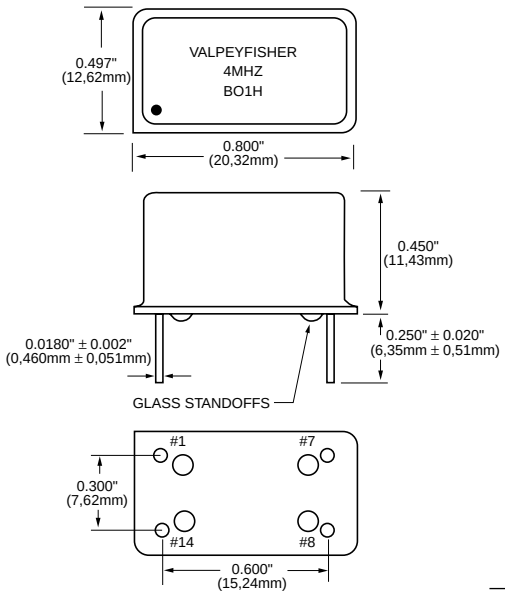
DC130

High Performance Oscillator
14 Pin DIP

FEATURES

- Low Power Consumption
- Small Size
- Low Aging
- Excellent for Stratum III
- Digital Compensation
- High Frequency Stability
- Low Phase Noise



All dimensions are typical unless otherwise specified.

	Parameter	Symb	Condition	Min	Typ	Max	Unit	Note
Absolute Max. Ratings	Input Break Down Voltage	Vcc		–0.5		6.0	V	
	Storage Temp.	Ts		–50		95	°C	
	Control Voltage	Vc		–1		6	V	
Electrical	Frequency Range	Fout		10.0		100	MHz	1
	Frequency Stability	ΔF/ Fout	Vs. Operating Temp. Range		±0.2	±0.30	ppm	2, 7
			vs. Supply		±0.1		ppm/V	5
			vs. Load		±0.02		ppm/ pF	6
	Aging		per day per year 10 years		5E–8	 1E–6 4E–6		4
	SSB Phase Noise		10 Hz 100 Hz 1 KHz 10 KHz		–75 –110 –130 –140		dBc/ Hz	5
	Input Voltage	Vcc		4.75	5.00	5.25	V	3
	Input Current	Icc	F = 25MHz @25°C		10	15	mA	5
	Load	3 HCMOS gates or 15pF max.						
	Output Waveform	HCMOS Squarewave						
	Duty Cycle		@ 0.5 Vcc	40	50	60	%	5,6
	Output Low		"0", as ratio of Vcc			0.1		6
	Output High		"1", as ratio of Vcc	0.9				6
	Control Voltage	Vc		0.5		4.5	V	5
	Pull Range		from nominal Fout		±10		ppm	5
	Deviation/Slope		Monotonic/ positive		5.0		ppm/V	5,8
	Setability (Vc for center freq)	Vc0	Fnom. (specified frequency)	2.0	2.5	3.0	V	5

Environmental and Mechanical	Operating Temperature Range	–40°C to +85°C
	Mechanical Shock	Per MIL–STD–202, 30G, 11ms
	Vibration	Per MIL–STD–202, 5G, 10 to 2000 Hz
	Soldering Conditions	Lead Temperature 260°C, for 10s, Max.
	Hermetic Seal	Leak rate < 1E–7 atm. cc/s of helium
Electrical Connections	Pin Out	Pin #1 – Vc Pin #7 – Case/GND Pin #14 – Vcc Pin #8 – Fout

Notes:
1. Other frequencies available, consult factory.
2. Offset frequency @ +25°C ±3°C to optimize performance, marked on case.
3. Other supply voltages available.
4. After 30 days F=38.88MHz.
5. Standard load, @ 25°C.
6. Vcc=5.0V, @25°C.
7. For all valid Vc, with ref. to +25°C for constant Vc.
8. Negative slope available, consult factory.

All specifications are subject to change without notice.

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