

Product Data Sheet

Features

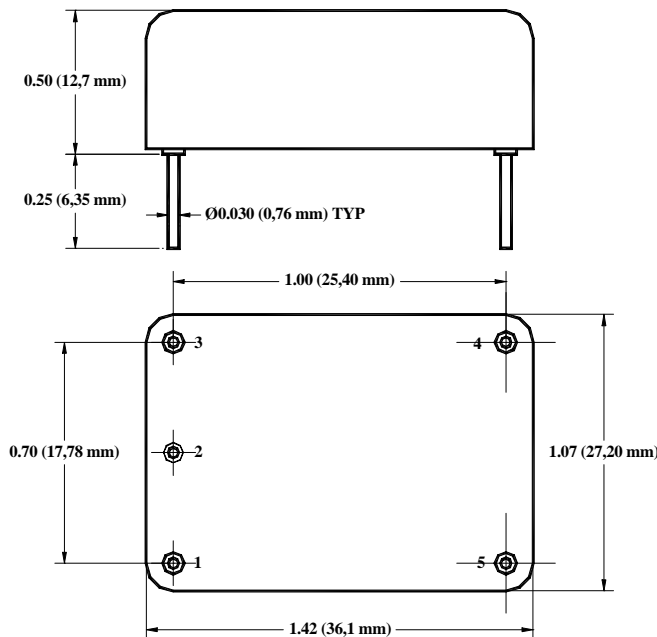
- SC-cut crystal
- Superb Frequency Stability ($\pm 4 \times 10^{-9}$ over temp)
- Low Aging (5×10^{-10} /day, 5×10^{-8} /year)
- Low Phase Noise (-160 dBc/Hz, TYP, floor)
- HCMOS/TTL or Sine Wave output
- Smallest Packages in its class
- Standard Frequencies: 10 MHz, 12.8 MHz, 16.384 MHz



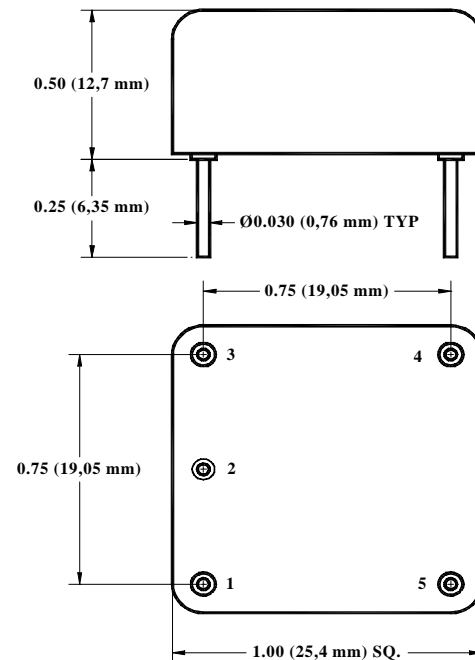
Applications

- Telecommunication Systems
- Data Communications
- Stratum 3E

“Europack” outline



1 Inch square outline



VFTE Series OCXO

Specifications:

Parameter	Symb	Condition	Min	Typ	Max	Unit	Note
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Absolute Maximum Ratings

Input Break Down Voltage	Vcc		-0.5		13.0	V	
Storage temper.	Ts		-40		85	°C	
Control Voltage	Vc		-1		9	V	

Electrical

Frequency	F		8.192	10.000	16.384	MHz	
Frequency stability	$\Delta F/F$	vs. Temp.		± 3	± 4	ppb	
		vs. Supply			1	ppb/V	
Aging		per day			5E-10		after 30 days 5E-8 available
		per year			1E-7		
Allan Variance		.1s to 10s		1E-11			
SSB Phase Noise		10 Hz		-120		dBc/Hz	
		100 Hz		-150			
		10 KHz		-160			
Retrace		After 30 minutes			± 10	ppb	
G-sensitivity		worst direction			± 1.0	ppb/G	
Input Voltage	Vcc		4.75	5.0	5.25	V	12V \pm 5% optional
Power consumption	P	steady state, 25°C		0.5	0.7	W	
		steady state, -30°C		1.0			
		start-up @ -30°C		2.0			
Load	10KOhm//15pF (HCMOS/TTL), 50 Ohm (Sinewave)						
Warm-up time	τ	to 0.1ppm accuracy			3	minutes	
Output Waveform	3.3V HCMOS/TTL compatible or Sinewave (>+7dBm)						-25dBm Harmonics at sine
Control voltage	Vc		0		4.0	V	Option "V"
Pull range		from nominal F	± 0.5	± 1		ppm	Option "V"
Deviation slope		Monotonic, posit		0.4		ppm/V	Option "V"
Setability	Vc0	@25°C, Fnom.	1.0	2.0	3.0	V	Option "V"

All parameters for 10 MHz

Environmental and Mechanical

Operating temp. range	-30°C to 70°C Standard, Other options – see chart below
Mechanical Shock	Per MIL-STD-202, 30G, 11ms
Vibration	Per MIL-STD-202, 5G to 2000 Hz
Soldering Conditions	260°C for 10s Max

Electrical Connections

Pin Out	Pin #1- Output; Pin #2- GND; Pin #3- Vc; Pin #4 - Vref ; Pin#5 - Vcc - 1 inch square Pin #1 – Vc; Pin #2 – Vref; Pin #3 – Vcc; Pin #4 – Output; Pin#5 – GND – "europack"
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Creating a Part Number

