

## TCXOVHP1000

Advanced Compensation Technology TCXO

### Features

Frequency Range 6.4 to 26 MHz  
Rugged DIP Ledged Package  
Stability as good as +/- 50 PPB  
Excellent phase noise

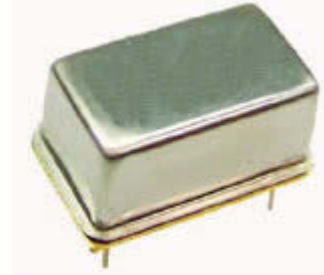
### Typical Applications

Satellite Communications, Femtocell  
Mobile radio, Digital Switching  
GPS Timing / Synchronization

### Description

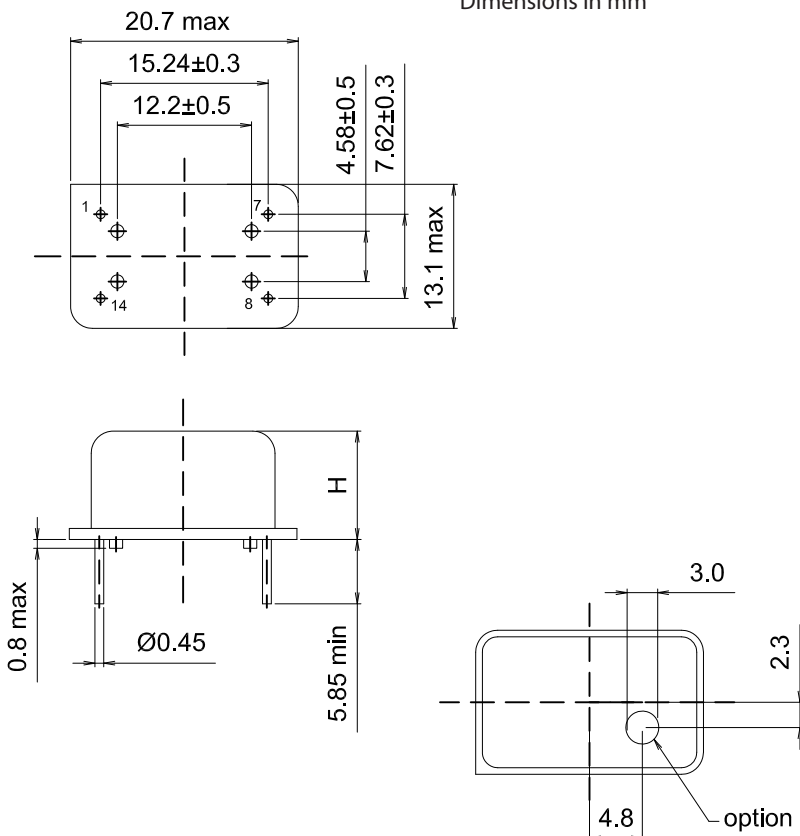
The TCXOVHP1000 represents a high precision TCXO technology that can replace OCXOs for many applications where overall system power consumption must be set to a minimum without compromising Overall Frequency stability.

### Picture of Part



### Physical Dimensions

Dimensions in mm



### Pin Connections

TCXOVHP1000	
Height "H"	Pin Length "L"
8.5 max	NA

Pin Connections	
1	Control Voltage Input (Vc)
7	Ground (Case)
8	RF-Output
14	Supply Voltage Input (Vs)

**Specification**

TCXO Specification	Sym.	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
<b>Operational Frequency Range</b>	f <sub>0</sub>		6.4		26	MHz	
HCMOS compatible option	Load		13.5	15.0	16.5	pF	
	H - level voltage	V <sub>H</sub>	2.6 4.5			V V	For 3.3V supply For 5.0 V supply
	L - level voltage	V <sub>L</sub>			0.5	V	
	Rise & Fall time				5.0	ns	
	Duty cycle		45	50	55	%	
<b>Power supply</b>							
Voltage	V <sub>cc</sub>		3.15	3.3	3.45	V	5V supply available
Current consumption	I <sub>cc</sub>				12	mA	CMOS
<b>Frequency control*</b>							
Control voltage range	V <sub>c</sub>		0.30 0.50	1.65 2.50	3.00 4.50	V V	For 3.3V supply For 5.0 V supply
Tuning range			+/- 5.0			ppm	Positive Slope
Input Impedance			80	100	120	Kohm	
<b>Frequency stability</b>							
vs. temperature		-40°C to +85°C, ref 25°C	-140		+140	PPB	
vs. 5% change in supply voltage		ref V <sub>cc</sub> typ.	-10.0		+10.0	PPB	
<b>SSB Phase noise For 10 MHz HCMOS Typical</b>		10 Hz		-92	-80	dBc/Hz	for 10 MHz HCMOS Typical
		100 Hz		-117	-110		
		1 kHz		-139	-130		
		10 kHz		-150	-145		
		100 kHz		-152	-150		
Integrated Phase Jitter		12KHz to 20 MHz		0.20		PS rms	
<b>Aging</b>	Per Year	Projected aging after 30 days operation			+/-1.0	ppm	
	Per 10 Years				+/-3.0	ppm	
<b>Environmental, mechanical conditions.</b>							
Operating temperature range		<b>-40°C to +85°C maximum range available that is standard</b>					
Storage temperature range		<b>-40°C to 90°C</b>					

## Ordering Information

TCXOVHP1000- XX.XXXXXX-W-Y

1. Field “ XX.XXXXXX “ is the Output Frequency to six decimals in MHz
2. Field “ W “ is Operating Temperature Range and Freq. Stability :
  - a. “ 0 “ for -20°C to +70°C and +/- 50 PPB
  - b. “ 1 “ for -20°C to +70°C and +/- 100 PPB
  - c. “ 2 “ for -40°C to +85°C and +/- 140 PPB\*\* NOT all stability options available with all frequencies.  
Please consult factory for custom frequency stability requirement
3. Field “ Y “ is 3.3 V or 5.0 V supply voltage options
  - a. “ 0 “ 3.3 V
  - b. “ 1 “ 5.0 V

## Part Number Example

TCXOVHP1000 -10.000000-0-1

10.000000 MHz Operating Frequency

Operating Temperature of -20°C to +70°C

+/- 50 PPB Frequency Stability

5.0 V supply voltage