



**Features and Benefits**

- 5-40MHz Frequency Range
- 3.3V or 5V Supply voltage
- HCMOS Output waveform
- ±30ppb Stability Vs -40C --+85C
- 14.32x9.3x6.5mm Size
- Standard Frequencies are 10,12.8,19.2,20,25 and 38.88MHz
- 140dBc/Hz @1KHz phase noise value

**Typical Applications**

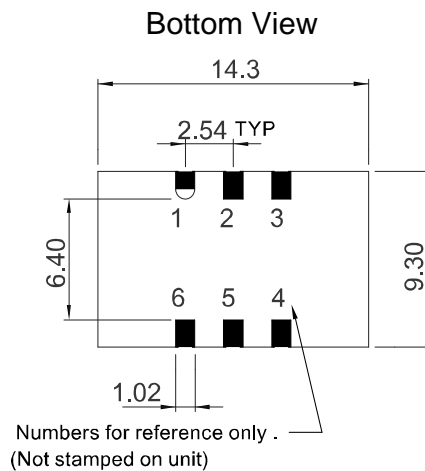
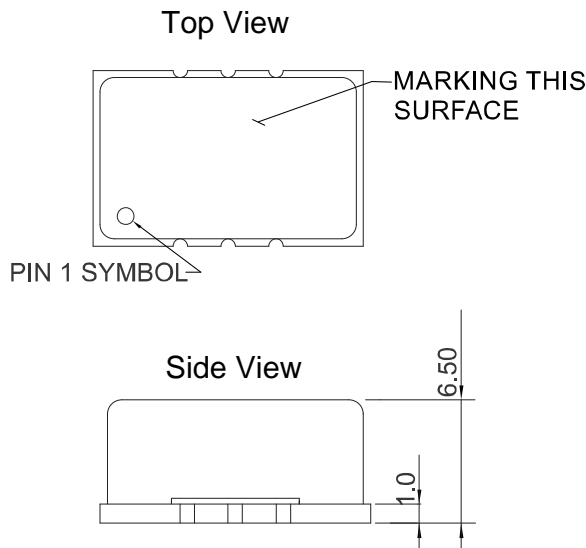
- SDH/SONET, Telecommunication base station
- Test & Measurement
- Synthesizer, Digital Switch, Reference Timing Circuit
- Packet Timing Protocol (e.g.1588)

**Description**

OCXO1490S\_series is a 6 pin SMD package, ±30ppb under -40 to +85C, meet Stratum 3 and multiple frequencies choose high performance OCXO.

**Mechanical Drawing & Pin Connections**

**Drawing No: MD180009-1**



**PIN CONNECTIONS**

PIN	FUNCTION
1 (See NOTE 1)	VCO INPUT or NOT CONNECTED
2 (See NOTE 1)	R.F.ENABLE or NOT CONNECTED
3	0 VOLTS AND CASE
4	R.F. OUTPUT
5	NOT CONNECTED
6	+VDC

**Notes.**

1.If the specification does not specify parameters for PIN 1 ,PIN 2 then that respective PIN is not internally CONNECTED.

Unit in mm  
 1mm = 0.0394 inches



**Specifications**

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F <sub>nom</sub>			20		MHz	
Standard Frequencies			10,12.8,19.2,20,25 and 38.8			MHz	
<b>RF Output</b>							
Signal Waveform			HCMOS				
Load				15		pF	
Level							
“1” Level			2.4			V	
“0” Level					0.4	V	
Duty Cycle		@+1.65V	45	50	55	%	
Spurious					-60	dBc	
<b>Power Supply</b>							
Supply Voltage	V <sub>s</sub>		3.135	3.3	3.465	V	5.0V is available
Warm-up Time	T <sub>up</sub>	@ +25°C, referenced to 1 hour		5		min	Under ±100ppb
Power Consumption		Steady state @+25°C		0.5	0.6	W	power
		Warm-up		500	600	mA	current
<b>Frequency Adjustment Range</b>							
Electronic Frequency Control (EFC)		Refer to Frequency at nominal center voltage	-5		+5	ppm	
EFC voltage	V <sub>c</sub>		0	1.65	3.3	V	
Input Impedance			100			kohm	
EFC Slope			positive				
<b>Frequency Stability</b>							
Versus Operating Temperature Range		-40°C to +85°C		±30		ppb	See stability table
Versus supply voltage	V <sub>s</sub>	±5%change	-5		+5	ppb	
Versus Load		±10%change	-10		+10	ppb	
Aging Per Day			-2.0		+2.0	ppb	After 30days
Aging 1 <sup>st</sup> Year			-0.4		+0.4	ppm	
Aging 10 <sup>th</sup> Year			-2.0		+2.0	ppm	
SSB Phase noise(@20MHz)		10Hz		-98	-92	dBc	
		100Hz		-126	-120	dBc	
		1kHz		-145	-140	dBc	
		10kHz		-152	-150	dBc	

**Stability Table**

Temp	±10ppb	±20ppb	±30ppb	±50ppb
-20-+70C	Conditional	Available	Available	Available
-40-+85C	Not Available	Conditional	Available	Available