

Dynamic Engineers Inc.

2550 Gray Falls Dr., Suite#128, Houston, TX, 77077 USA TEL: 1-281-870-8822 EMAIL:Sales@DynamicEng.com

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

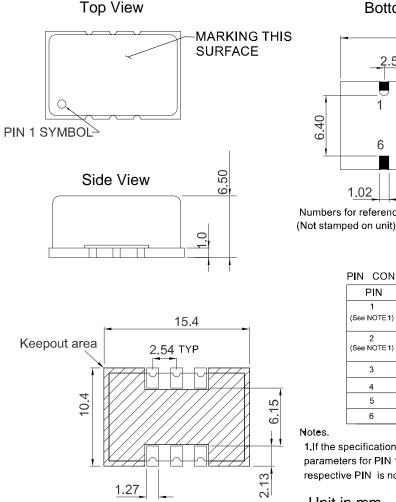
Typical Applications

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



Bottom View 14.3 2.54 TYP 1 2 3 07 6 5 4 1.02 Numbers for reference only .

OCXO1490S_series

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PIN CONNECTIONS

FUNCTION
VCO INPUT
or NOT CONNECTED
R.F.ENABLE
or NOT CONNECTED
0 VOLTS AND CASE
R.F. OUTPUT
NOT CONNECTED
+VDC

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

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Rev.1

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MD180009-1

Drawing No:



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Specifications

Oscillator	Sym	Condition	Value				
Specification			Min.	Тур.	Max.	Unit	Note
Operational Frequency	Fnom			20		MHz	
Standard Frequencies			10,12.8,	19.2,20,25	5 and 38.8	MHz	
RF Output			, , ,	, ,			
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	
Power Supply							
Supply Voltage	Vs		3.135	3.3	3.465	V	5.0V is avaliable
Warm-up Time	T _{up}	@ +25°C,referenced to1 hour		5		min	Under ±100ppb
Power Consumption		Steady state @+25°C		0.5	0.6	W	power
		Warm-up		500	600	mA	current
Frequency Adjustment Range	•						
Electronic Frequency Control (EFC)		Refer to Frequency at nominal center voltage	-5		+5	ppm	
EFC voltage	Vc		0	1.65	3.3	V	
Input Impedance			100			kohm	
EFC Slope			positive				
Frequency Stability							
Versus Operating Temperature Range		-40°C to +85°C		±30		ppb	See stability table
Versus supply voltage	Vs	±5%change	-5		+5	ppb	
Versus Load		±10%change	-10		+10	ppb	
Aging Per Day			-2.0		+2.0	ppb	After 30days
Aging 1 st Year			-0.4		+0.4	ppm	
Aging 10 th 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

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