



Features and Benefits

- 10 MHz to 40 MHz frequency range
- ±30 ppb stability over -40°C to +85°C
- 14.3 x 9.3 x 6.5 mm dimension
- 6-Pin SMD package
- 0.5 Watts steady-state power typical

Typical Applications

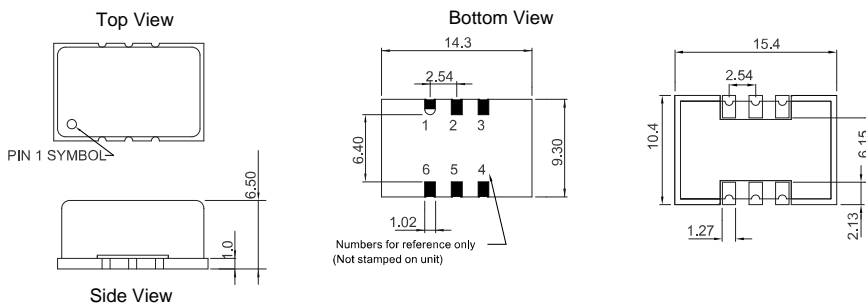
- SDH/SONET, telecommunication base station
- Synthesizers, digital switch, reference timing circuit
- Test and measurement equipment
- SATCOM clock reference
- Mobile radio manpack reference

Description

OCXO914S-SMD series offers high frequency stability vs. temperature with 0.5 Watts steady-state power all in one compact package.

Mechanical Drawing & Pin Connections

Drawing No: MD150098-3



Pin Connection

Pin	Function
#1	Voltage Control
#2	R.F.Enable or N.C.
#3	GND
#4	RF Output
#5	N.C.
#6	Supply Voltage

Unit in mm
1mm = 0.0394 inches



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency Range	F _{nom}		5.0000		40.0000	MHz	
Standard Frequencies			10.00, 12.80, 19.20, 20.00, 25.00, 38.88			MHz	
RF Output							
Output Waveform			Rectangular				
Level			HCMOS				
"1" Level			2.4			V	
"0" Level					0.4		
Load				15		pF	
Duty Cycle		@+1.65V	45	50	55	%	
Spurious					-60	dBc	
Power Supply							
Voltage	V _{cc}		3.135	3.3	3.465	V	5.0 V available
Current Consumption		@ turn on		500	600	mA	
Steady-state		@ +25° C		0.5	0.6	W	
Frequency Control							
Frequency Adjustment Range		VCO @ 0V			-5000	ppb	
		VCO @ 3.3V	+5000				
Frequency Control Voltage	V _c		0	1.65	3.3	V	
Voltage Slope			Positive				
Input Impedance			100			kOhm	
Frequency Stability							
Versus Operating Temperature		-40°C to +85°C, referenced to +25°C	-30		+30	ppb	Refer to table for options
Versus supply voltage change		±5% change	-5		+5	ppb	
Versus load change		±10% change	-10		+10	ppb	
Versus Warm-up		In 5 minutes @+25°C, referenced to 1 hour	-100		+100	ppb	
Versus aging	Daily		-2.0		+2.0	ppb	
	Yearly		-400		+400	ppb	
	10 years		-2000		+2000	ppb	
Phase noise @20 MHz		10 Hz	-98		-92	dBc/Hz	
		100 Hz	-126		-120		
		1 KHz	-145		-140		
		10 KHz	-152		-150		

Temperature Range vs. Frequency Stability		
Frequency Stability (in ppb)	Operating Temperature	
	-20°C to +70°C	-40°C to +85°C
±10	Conditional	Not Available
±20	Available	Conditional
±30	Available	Available
±50	Available	Available

For conditional temperature range vs. frequency stability, please consult Dynamic Engineers for further details.