



Dynamic Engineers Inc.

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

TCXO914Z-101.75MHz-A-V
High Stability extended temperature
CMOS TCXO

Features and Benefits

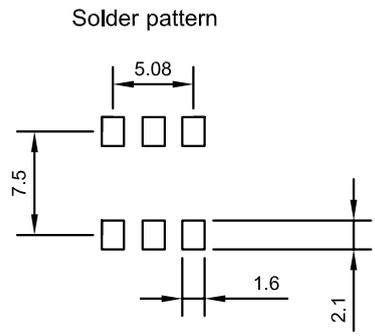
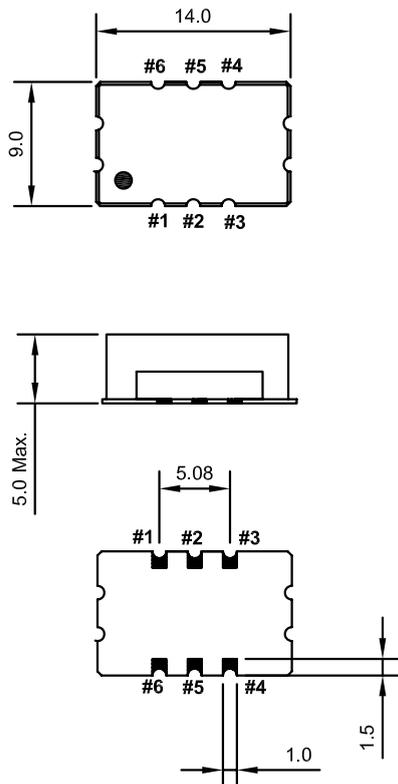
- High frequency stability (up to $\pm 1\text{ppm}$ over -40°C to $+85^\circ\text{C}$)
- Extended operating temperature -55°C to $+85^\circ\text{C}$
- Low power consumption at 35mA max
- HCMOS output

Typical Applications

- Harsh environment where extended temperature is required
- Mobile radio
- Communication equipment

Mechanical Drawing & Pin Connections

Drawing No: MD150098-2



- Pin Connections:**
- #1. Vc (Voltage Control)
 - #2. N.C.
 - #3. GND
 - #4. RF Output
 - #5. N.C.
 - #6. Vdc

unit: mm
1mm=0.0394inch

Dynamic Engineers reserves the right to make changes to the company datasheet(s) along with other information contained inside; such as data tables and graphs without notification to potential customers who may have earlier revisions in their possession.



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency Range	F _{nom}			101.7500		MHz	
Output Signal			HCMOS				
Output Level	V _{OH}			>0.9		V _{CC}	
	V _{OL}			<0.1			
Output Load				15		pF	
Symmetry (Duty)		@ ½ Vdc	45		55	%	
Rise / Fall Time				<3		ns	
Input Impedance				>100		kΩ	
Sub harmonics				<-35		dBc	
Power Supply							
Supply Voltage	V _{dc}			+3.3		V	
Current Consumption					35	mA	
Frequency Control*							
Voltage Control	V _c			1.50		V	±1.00 V
Frequency Tuning Range		Linearity 5%		>±5		ppm	
Frequency Stability							
Versus Temperature Reference to (F _{MAX} +F _{MIN}) / 2		Over -40° C to +85° C Over -55° C to -40° C		<±1.0 <±2.5		ppm	
Tolerance ex works		@ +25° C & V _c = 1.5V		≤±1.0		ppm	
Versus 5% change in Supply Voltage Reference to frequency at nominal supply				<±0.2		ppm	±5%
Versus load changes Reference to frequency at nominal load				<±0.1		ppm	±5%
Versus Aging		1 st year		<±1.0		ppm	
SSB Phase noise (typ.) @101.75 MHz HCMOS output (will be defined after samples made)		10 Hz		<-77		dBc/Hz	
		100 Hz		<-100			
		1 KHz		<-120			
		10 KHz		<-138			
		100 KHz		<-148			
	1 MHz		<-155				
Short-Term Stability ADEV		T = 1.0 s		<5 x 10 ⁻¹⁰			
Environmental Conditions							
Operating temperature range		-55° C to +85° C					
Storage temperature range		-55° C to +105° C					

IR reflow soldering temperature profile

