



迪拉尼(DEI)发布新型超高稳定度温补晶振(UHS) TCXO

DEI 全新超高稳定性 (UHS) TCXO 系列是基于最新的专有补偿算法, 充分利用精确的晶体制造工艺突破, 以 TCXO 最小功耗提供类似 OCXO 的稳定性。它低功耗特点可以在很多有高性能要求的移动应用领域替代恒温晶振 OCXO。

在-40°C至+105°C的扩展温度范围内, 可以保持优于 ± 100 ppb 的稳定性。在-40°C至+85°C之间可提供高于 ± 50 ppb 的稳定性。

DEI 超高稳定性 (UHS) TCXO 最适合应用高性能小蜂窝基站, 移动无线手提包和 SATCOM 参考时钟。

关于更多产品价格和货期等相关信息, 请联系 DEI 当地代表处或发邮件至 Sales@DynamicEng.com 进行咨询。



Features and Benefits

Ultra High Precision; $\pm 100\text{ppb}$ for -40°C to $+105^\circ\text{C}$

$\pm 50\text{ppb}$ for -40°C to $+85^\circ\text{C}$

14 pin DIP package footprint

Sealed Crystal Package; Sealed Oscillator Package

Typical Applications

Small Cell Base Stations

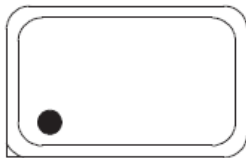
High Performance Mobile Radio Manpack

SATCOM clock reference

Mechanical Drawing & Pin Connections

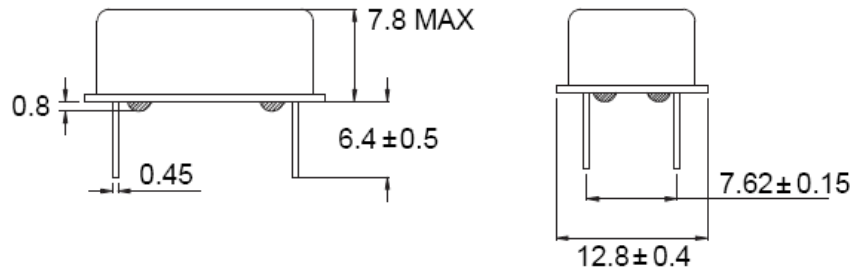
Drawing No:MD170003-1

Top View

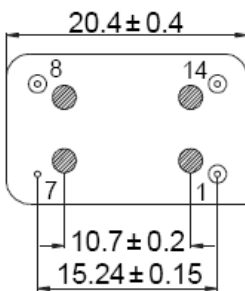


Pin1 Symbol

Side View



Bottom View



Pin#	Function
1	VCON
7	GND
8	Output
14	VDD

Unit: mm
1mm=0.0394inch

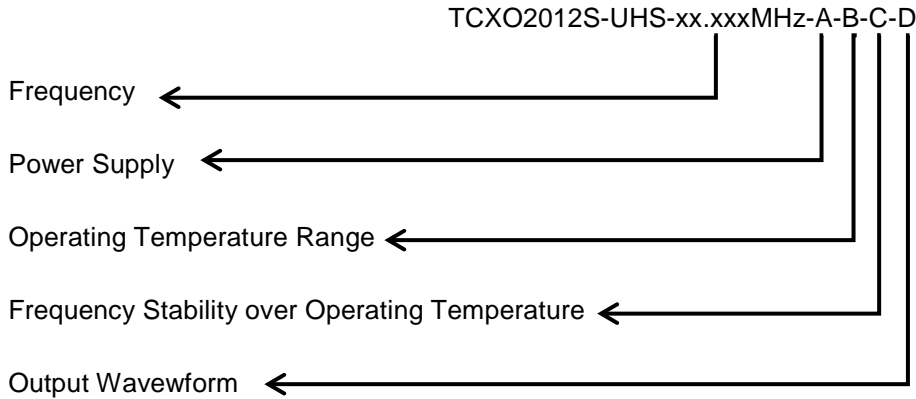


Specifications

Oscillator Specification	Condition	5.0V		3.3V		Unit	Note
		Min.	Max.	Min.	Max.		
Frequency Range		10.00	40.00	10.00	40.00	MHz	
Standard Frequency		10.00, 12.80, 19.2, 19.44, 20.00, 26.00					
RF Output							
Output Wave Form	Clipped Sine Wave	0.8	-	0.8	-	Vp-p	
Output Level	CMOS	3.50	-	2.31	-	V	
Output High (Logic "1")		-	1.50	-	0.99	V	
Output Low (Logic "0")		45	55	45	55	%	
Duty							
Start Time		-	2	-	2	mSec	
Transition Time: Rise / Fall Time	Measured between 10% and 90% or VDD, with an output load of 15pF	6				nSec	
Power Supply							
Supply Voltage Variation	V _{DD} ±5%	4.750	5.250	3.135	3.465	V	
Supply Current		-	15	-	10	mA	
Control Voltage							
Pulling Range		±5.0	-	±5.0	-	ppm	
Frequency Stability							
Frequency Tolerance	Frequency @ +25°C	-	±2.0	-	±2.0	ppm	1 hour after reflow
Over Temperature	-40°C to +85°C	-	±50	-	±50	ppb	
	-20°C to +70°C	-	±30	-	±30		
Supply Voltage Change	±5% change	-	±0.02	-	±0.02	ppm	
Aging (@ 1 st year)		-	±1.0	-	±1.0	ppm/ year	
Phase Noise							
Phase noise @ 10MHz	100 Hz offset	-123				dBcHz	
	1 kHz offset	-143					
	10 kHz offset	-150					
Environmental Conditions							
Parameter	Reference Std.						
Operating temperature range	-40°C to +85°C or -40°C to +105°C						
Storage temperature range	-55°C to +125°C						



Ordering Options



Options Codes	Description	Options
xx.xxx	Frequency up to 3 decimals	Standard Frequencies 10.000MHz, 12.800MHz, 19.200MHz, 19.440MHz, 20.000MHz, 26.000MHz
A	Power Supply	1 = +5V 2 = +3.3V
B	Operating Temperature Range	1 = -40°C to +105°C 2 = -40°C to +85°C
C	Frequency Stability Over Operating Temperature	1 = ±100ppb 2 = ±50ppb**Note: ±50ppb available only with -40°C to +85°C
D	Output Waveform	1 = CMOS 2 = Clipped Sine Wave

Example: TCXO2012S-UHS-19.440MHz-1-2-2-1

Frequency = 19.440MHz

Power Supply = 5V

Operating Temperature Range = -40°C to +85°C

Frequency Stability Over Operating Temperature = ±50ppb

Output Waveform = CMOS