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

Features and Benefits

10-40MHz Frequency Range 3.3V,5V,12V Supply voltage HCMOS, Sinewave Output waveform Various Temperature Stability Available 25x22x14mm SMD Size -145dBc/Hz @1KHz phase noise value

Typical Applications

SatCom Test equipment Network clock Base station

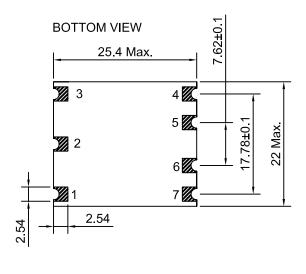
Description

The OCXO2522AN_series are designed for applications where exceptional frequency stability and Á timing is required. It has both excellent temperature performance and short-term stability. Á These characteristics make it an excellent choice for timing applications.

Mechanical Drawing & Pin Connections

Drawing No:

MD160044-3





Pin	Signal
1	Control Voltage
2	Reference Voltage
3	VCC
4	RF Output
5	N.C.
6	N.C.
7	GND

Unit in mm 1mm = 0.039 inches

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Specifications

Oscillator	C	Condition	Value			116-24	Naca	
Specification	Sym	Condition	Min.	Тур.	Max.	Unit	Note	
Frequency Range	F _{nom}		10		40	MHz		
RF Output								
Signal Waveform				HCM				
Load	R_L			10kohm//1	pf			
H-Level Voltage	V _H	Vcc=5V	4.5			V		
	٧H	Vcc=3.3V	3.0			V		
L- Level Voltage	VL	Vcc=5V			0.5	V		
	*-	Vcc=3.3V			0.3	V		
Signal Waveform		1/ /01/		Sinev	vave			
Level		Vcc=12V	0			dBm	>225mV	
_oad		±5%		50		ohm		
Power Supply)		T				
Peak warm-up current		Vcc=5V			600	mA		
		Vcc=3.3V			750	mA		
Steady state current @ 25°C		Vcc=5V			200	mA		
,		Vcc=3.3V		4.5	300	mA		
Reference Voltage		Vcc=5V		4.5		V		
		Vcc=3.3V		3.0		V		
Warm-up Time	T _{up}	at +25°C to Δf/f=1e-			180	sec		
•		7						
Frequency Adjustment Range				<u> </u>	1	1		
		Vcc=5V	0		4.5	V	with Potentiometer 2 kOhm	
EFC voltage	V _c						with Potentiometer 2	
		Vcc=3.3V	0		3.0	V	kOhm	
EFC Slope				positive			KOIIII	
•		Vcc=5V	±0.5	Positive		ppm		
Electronic Frequency Control (EFC)		Vcc=3.3V	±0.5			ppm	10MHz	
Frequency Stability		V 00-0.0 V	±0.0			рріп		
							See ordering	
Versus Operating Temperature Range						ppb	information	
Versus supply voltage		±5% change			±3	ppb		
Versus load		±5% change			±3	ppb		
Aging Per Day								
						ppb	Contact DEI	
Aging 1 st Year						nnm	See ordering	
						ppm	information	
Allan Variance		1s			5	e-12		
Phase noise						dBc/H		
							information	
Environmental, Mechanical Conditions								
Vibration Frequency	10-500 H	Z						
Vibration Acceleration	10gs							
Shock Acceleration	100gs							
Shock Duration	3±1mS	0.500						
Storage Temperature	-55°C to -	+85°C						
RoHs	Option							

Contact DEI for extended environmental conditions.

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Ordering Information

OCXO2522AN	-	10MHz	-	Х	Х	Х	Х	Х	Х
Group				01	02	03	04	05	06

For example, OCXO2522AN-10MHz-1-1-2-2-2-1 denotes the OCXO has the following specifications:

Temperature Range:

Stability Over Temperature:

Aging / per year:

Supply Voltage:

Output:

0°C to +55°C

±50ppb

±0.1ppm

5V

Sinewave

Phase noise: Code 1
Frequency: 10MHz

option 01	Temperature Range	option02	Frequency Stability					
Code	Specification	Code	1 2 3					
			±50ppb	±20ppb	±10ppb	±5ppb		
1	0°C to +55°C		Α	Α	Α	Α		
2	-10°C to +60°C		Α	Α	Α	C		
3	-20°C to +70°C		Α	Α	Α	C		
4	-40°C to +70°C		Α	Α	С	Z		
5	-40°C to +85°C		Α	С	N	N		
	A= Available C=Contact factory. N=Not available.							

option	Availability of certain aging	Standard Frequencies (MHz)				z)	
03	values for certain frequencies	10	12.8	13	16.384	20	
		20	25.6	26	32.768	40	
Code							
1	±2x10 ⁻⁷ /year	Α	Α	Α	Α	Α	
2	±1x10 ⁻⁷ /year	Α	Α	Α	Α	С	
3	±5x10 ⁻⁸ /year	Α	Α	Α	С	N	
4	±3x10 ⁻⁸ /year	Α	С	C	N	N	
	A= Available C=Contact factory. N=Not available.						

option 04	Supply Voltage
Code	Specification
1	3.3V
2	5V

option 05	Output
Code	Specification
1	HCMOS
2	Sinewave



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Option 06	Phase Noise,10MHz, Sinewave(dBc/Hz)								
Fragueray offeet	5V			3.3V					
Frequency offset	Code 0	Code 1	Code 2	Code 0	Code 1	Code 2			
1Hz		<-90	<-100		<-85	<-95			
10Hz	<-120	<-120	<-130	<-115	<-115	<-125			
100Hz	<-135	<-140	<-145	<-130	<-135	<-140			
1KHz	<-145	<-150	<-150	<-140	<-145	<-145			
10KHz	<-150	<-155	<-155	<-145	<-150	<-150			
Contact factory for lower phase noise performance (Code 1 & 2, Sinewaye Only)									

Additional Notes:

- 1) Advise RoHs requirement.
- 2) Contact factory for daily aging values.
- 3) Contact factory for non-standard temperature range 4) Temperature ranges from -60°C to +85°C available. Please Contact DEI.