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

OCXO2525N-17MHz-A

High Stability OCXO

Features and Benefits

Frequency range: 17MHz
Supply voltage: 3.3V
Output waveform: HCMOS
Frequency stability vs. operating temperature: ±10ppb
Aging: ±1.0ppb/day
Phase noise@10KHz: -150dBc/Hz
Operating temperature: -10°C to +70°C
Size: 25.4x25.4x12.7mm

Typical Applications

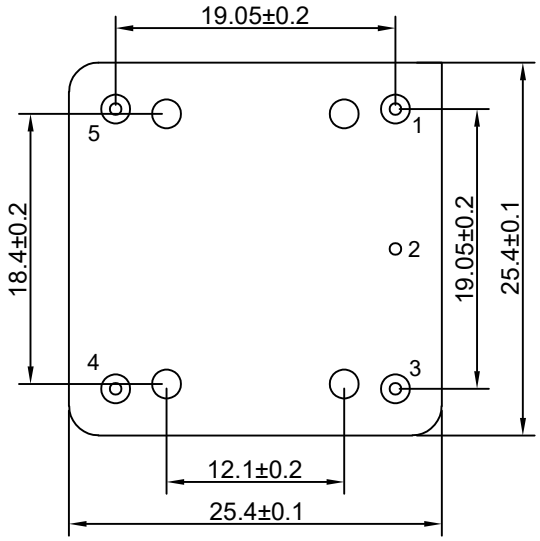
GPS or Beidou Navigation Systems
Test Equipment, and Synthesizers
Communications Systems

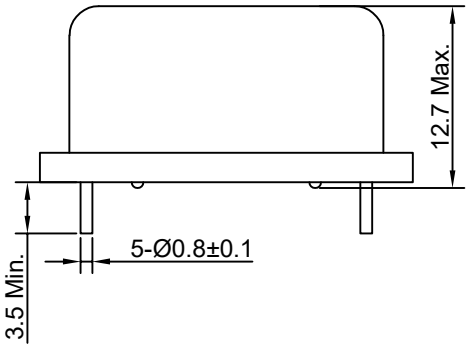
Description

OCXO2525N-17MHz-A is an industry standard configuration offering a small OCXO footprint for high performance applications requiring OCXO type stability and phase noise, but in a smaller profile enclosure.

Mechanical Drawing & Pin Connections

Drawing No: MD240011-1





Pin Connections

Pin	Function
1	Output
2	GND
3	Control Voltage/N.C.
4	REF. Voltage/N.C.
5	Supply Voltage

Unit in mm
1mm = 0.0394 inches

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Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	f_0			17		MHz	
Initial Tolerance		@+25°C±5°C			±100	ppb	
RF Output							
Waveform				HCMOS			
Load				10pF(10kOhm)			
Output Voltage High			2.4			V	
Output Voltage Low					0.4	V	
Duty Cycle			45		55	%	
Rise and Fall Time					10	ns	
Power Supply							
Voltage		±5%		3.3		V	
Power Consumption		Warm-up			4	W	
		Steady state, @+25°C			2.2	W	
Warm-up Time		To within ±50 ppb			300	s	ref. frequency after 30min.
Frequency Control							
Control Voltage Range			0	1.65	3.3	V	*
Tuning Range			±1			ppm	
Slop (Linearity)		Positive			±10	%	
Reference Voltage				None			N.C.
Frequency Stability							
Versus Temperature		-10°C to +70°C ref 25°C			±10	ppb	
Versus Supply Voltage					±5.0	ppb	
Versus Load		±5% change			±5.0	ppb	
Aging – Per day		After 60 days of operation			±1.0	ppb	
Aging – First Year					±0.1	ppm	
Phase Noise		100 Hz			-130	dBc/Hz	
		1 KHz			-145		
		10 KHz			-150		
Short Term Stability		After 1hour			0.01	ppb	
Environmental Conditions							
Operating Temperature Range		-10°C to +70°C					
Storage Temperature range		-55°C to +105 °C					

*Note: If control voltage input (pin 3) is left open (floating) the control voltage is internally held at center voltage. The input impedance is 100kΩ minimum.

Environmental Compliance Information

RoHS COMPLIANCE
We can certify herewith that the product is fully RoHS complaint according the “DIRECTIVE 2002/95/EC OF THE EURPPEAN COUNCIL OF 27. JANUARY 2003 ON THE RESTRICTION OF THE USE OF CERTAIN HAZARDOUS SUBSTANCES” in electrical and electronic equipment (RoHS) and its amendments.
The product contains Lead (Pb) in high melting point solder alloy with >85% Lead and falls under RoHS exemption 7a.

ELECTROSTATIC DISCHARGE (ESD) SENSITIVTY
This product is sensitive to ELECTROSTATIC DISCHARGE (ESD), precautions for handling and storage shall be applied based on suggested internal standards listed below.
(JEITA EIAJ ED-4701 / JSD22 / ANSI-ESD-S20-20 / IEC 61000-4-2)

MOISTURE SENSITIVTY (MSL) CLASSIFICATION [J-STD-020C]
This product in a hermetically sealed package does NOT fall under the classification of moisture sensitivity per above stated standard (standard is for non-hermetically sealed components).
If customer’s system requires an entry in this regard, we suggest using LEVEL 1.