



### Features and Benefits

Ensures TIE of <400 nSec for 24 hours  
Standard frequency: 10.0 MHz  
Standard package: 50.8x50.8x19 mm  
Power supply: 5 V  
Analog frequency control

### Typical Applications

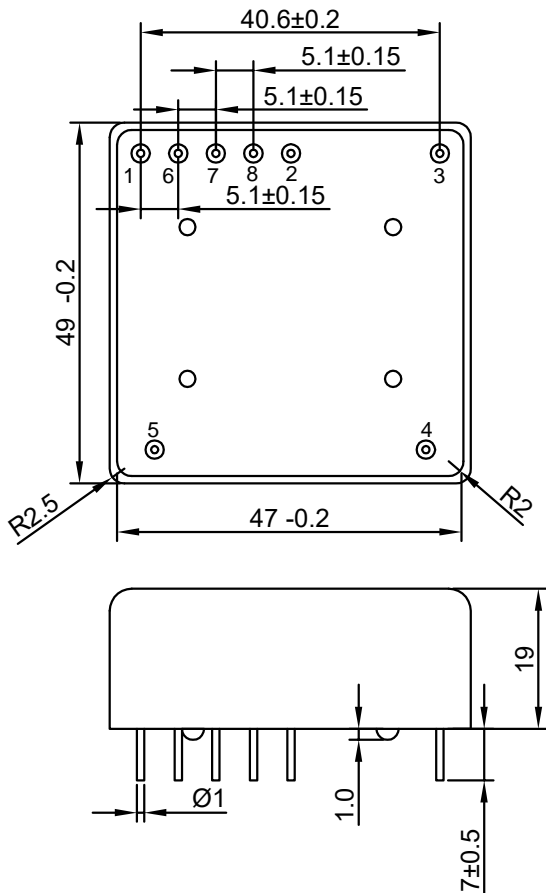
5G  
Telecommunication  
Test & Measurement

### Description

DOCXO5051AN-10MHz-A-V offers high frequency stability, low long-term aging and low phase noise, all in a compact package to suit the different communication needs.

### Mechanical Drawing & Pin Connections

Drawing No: A8 &\$\$\$(\*!%



#### Pin Connections:

Pin#	Function
1	Control Voltage
2	Reference Voltage Output
3	RF Output
4	Ground
5	Supply Voltage
6	GND For Control Voltage Input
7	Not Used
8	Not Used

Unit in mm  
1mm = 0.0394 inches



## Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F <sub>nom</sub>			10		MHz	
<b>RF Output</b>							
Signal Waveform			Sinewave				
Load	R <sub>L</sub>		50ohm±5%				
Level Voltage	V <sub>H</sub>		300			mV	RMS
Harmonics					-30	dBc	
<b>Power Supply</b>							
Supply Voltage	V <sub>s</sub>	±5%		5		V	
Power Consumption		Steady state, +25°C			800	mA	
		Warm-up			2000	mA	
Warm-up Time	T <sub>up</sub>	within accuracy of <±5x10 <sup>-8</sup> @ 25°C			15	min	
<b>Frequency Control</b>							
Frequency pulling range			0.25			ppm	
Control voltage range			0		4.1	V	
Reference voltage				4.1		V	
<b>Frequency Stability</b>							
Versus Operating Temperature Range		0°C to 50°C			0.1	ppb	
Versus Load		±5%			±1x10 <sup>-11</sup>		
Versus supply voltage		±5%			±1x10 <sup>-11</sup>		
Aging		@First year			30	ppb	
Short term stability (Allan deviation)		per 1 sec			2x10 <sup>-12</sup>		
SSB Phase noise		1Hz			-100	dBc	
		10Hz			-130	dBc	
		100Hz			-150	dBc	
		1kHz			-150	dBc	
		10kHz			-155	dBc	
<b>Environmental, Mechanical Conditions</b>							
Operating temperature range	0°C to 50°C						
Storage temperature range	-55°C to 85°C						
Vibration	10 to 200Hz						
Acceleration	5g						
Shock	75 g/ 3±1 ms						
Humidity @ 25°C	98%						