



### Features and Benefits

- Low Phase Noise
- Very Low Aging
- High Frequency Stability

### Typical Applications

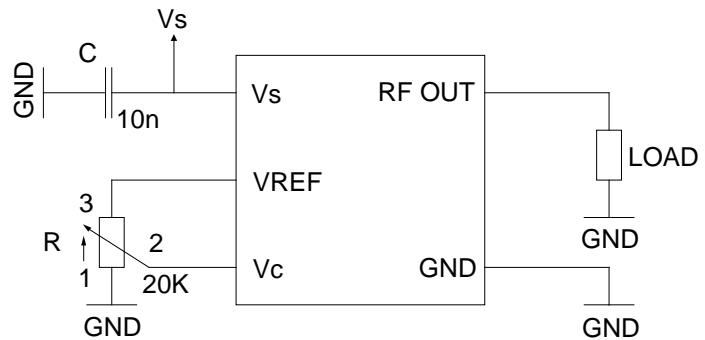
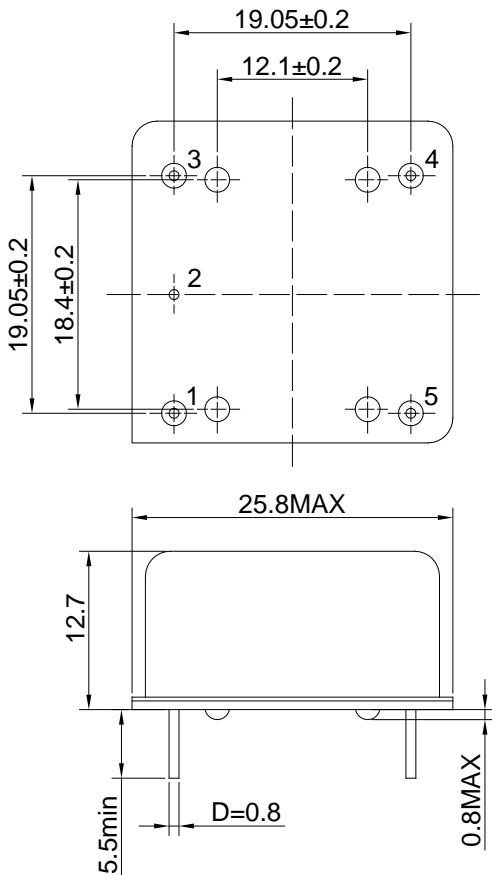
- Ref. for Microwave comm. System
- signal analyzer Reference for internal synthesizers
- SATCOM systems

### Description

OCXO2525L family offers a specially designed SC-cut crystal impedance matched to the oscillator and amplifier circuits to deliver consistent world class phase noise on all production shipments

### Mechanical Drawing & Pin Connections

Drawing No: MD13022-3



#### Pin connections

PIN #	Symbol	Function
1	RF OUT	RF Output
2	GND	Ground, case
3	Vc	Control Voltage(EFC)
4	VREF	Reference Voltage
5	Vs	Supply Voltage

Unit = mm  
 1mm=0.03937inch



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	$F_{nom}$			80		MHz	
Initial Tolerance		$V_c@V_{REF}/2$		$\pm 100$	$\pm 300$	ppb	
<b>RF Output</b>							
Output Wave Form :			Sine wave				
Load	$R_L$		50			Ohm	+/-5%
Output level			+7			dBm	
Harmonics					-30	dBc	
Spurious					-90	dBc	
Warm-up time		$\Delta f_{final}/f_0 < \pm 0.1 \text{ ppm}$		3	5	min	
<b>Power Supply</b>							
Supply Voltage	$V_s$		11.4	12.0	12.6	V	
Current consumption(Steady state)					150	mA	@ +25°C
Current consumption(Warm-up)					350	mA	
<b>Frequency adjustment range</b>							
Electronic Frequency Control(EFC)			$\pm 1$			ppm	
EFC Voltage	$V_c$		0	$V_{ref}/2$	$V_{ref}$	V	
EFC Slope			positive				
EFC input impedance			100			kOhm	
Reference voltage $V_{ref}$ output				10.0		V	
<b>Frequency Stability</b>							
Vs. Temperature		From -20°C to +70°C			$\pm 50$	ppb	Steady state
Vs. Supply Voltage Variation		$V_s \pm 5\%$			$\pm 10$	ppb	Pushing
Vs. load change		$R_L \pm 5\%$			$\pm 5$	ppb	Pulling
Aging	per day	after 30days of operation			$\pm 2$	ppb	
	first year				$\pm 100$	$\pm 200$	ppb
G-Sensitivity				0.5	1	ppb/G	
<b>Phase Noise</b>							
SSB Phase noise		@ 10 Hz			-95	dBc/Hz	
		@ 100 Hz			-125		
		@ 1 KHz			-155		
		@ 10 KHz			-160		
		@ 100 KHz			-165		
<b>Absolute Maximum Ratings</b>							
Supply Voltage	$V_s$		-0.5		$V_s + 10\%$	V	$V_s$ to GND
Control Voltage	$V_c$		-0.5		15	V	$V_c$ to GND
<b>Environmental</b>							
Operating Temperature			-20		+70	°C	
Storage Temperature			-55		+105	°C	
Weight					20	g	
Packing			Palette				