



### Features and Benefits

- Low Phase Noise
- Very Low Aging
- High Frequency Stability
- Hermetical sealed THD package
- Short lead time

### Typical Applications

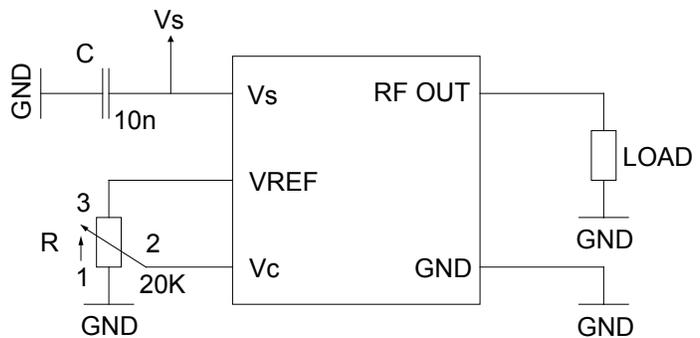
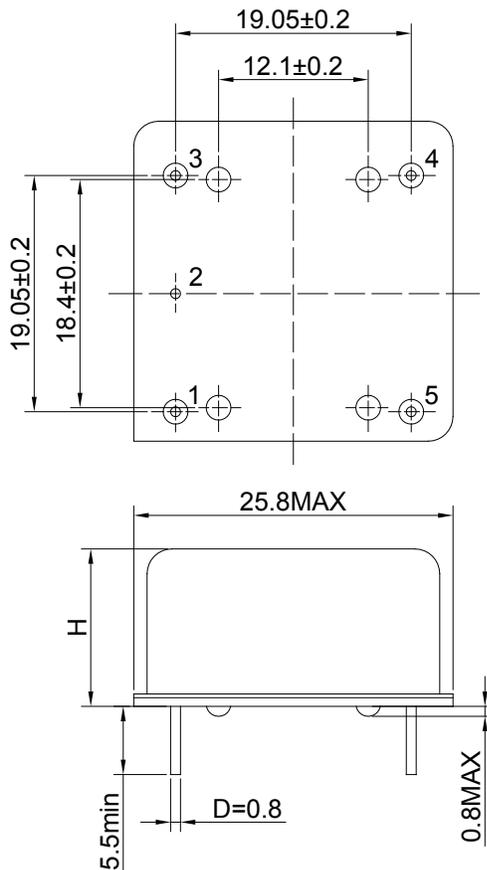
- Ref. for Microwave comm. System
- signal analyzer Reference for internal synthesizers
- SATCOM systems

### Description

OCXO2525L family offers a specially designed 100MHz 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: MD130022-3



#### 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			80		125	MHz	
Standard Frequency	$F_{nom}$			100		MHz	
Operating Temperature			-40		+70	°C	
<b>RF Output</b>							
Waveform :			Sine wave				
Load	$R_L$		50			Ohm	+/-5%
Output level(Note 2)			+10			dBm	
Harmonics					-30	dBc	
Spurious					-90	dBc	
Warm-up time				3	5	min	
G-Sensitivity					1.0	ppb/g	per axis
<b>Frequency adjustment range</b>							
Electronic Frequency Control(EFC)			+/-1	+/-2		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(Note 3)				10.0		V	
<b>Power Supply</b>							
Supply Voltage(Note 3)	$V_s$		11.4	12.0	12.6	V	
Current consumption(Steady state)					150	mA	@ +25°C(Note 4)
Current consumption(Warm-up)					350	mA	(Note 4)
<b>Frequency Stability</b>							
Initial Tolerance		@ 25°C			+/- 300	ppb	$V_c @ V_{ref}/2$
Vs. Supply Voltage variation(pushing)					+/-10	ppb	$V_s +/- 5%$
Vs. Operating temperature range					+/- 500	ppb	
Vs. load change(pulling)					+/-5	ppb	$R_L +/- 5%$
Aging	per day	after 30days of operation		+/-1	+/-2	ppb	
	first year			+/-100	+/-200	ppb	
SSB Phase noise		10 Hz		-90		dBc/Hz	
		100 Hz		-125			
		1 KHz		-155			
		10 KHz		-165			
		>=100 KHz		-175			
<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
Storage Temperature			-55		+125	°C	
<b>Environmental</b>							
Enclosure(See drawing)			25.8x25.8x12.7max			mm	
Weight					20	g	
Packing			Palette				

Notes:

1. Terminology and test conditions are according to IEC60679-1 and MIL-PRF-55310, unless otherwise stated
2. Other output level on request
3. Other supply and reference voltage on request
4. May be higher for wide operating temperature range