

VMOC10M-2525-S-05-I-PC

FEATURES

- ◆ High Frequency Stability
- ◆ Low Power Consumption
- ◆ Low Phase Noise
- ◆ Lead-free



TYPICAL APPLICATIONS

- ◆ Test & Measurement
- ◆ Microwave Communication
- ◆ Reference Clock and Microwave Signal Generator
- ◆ Radar

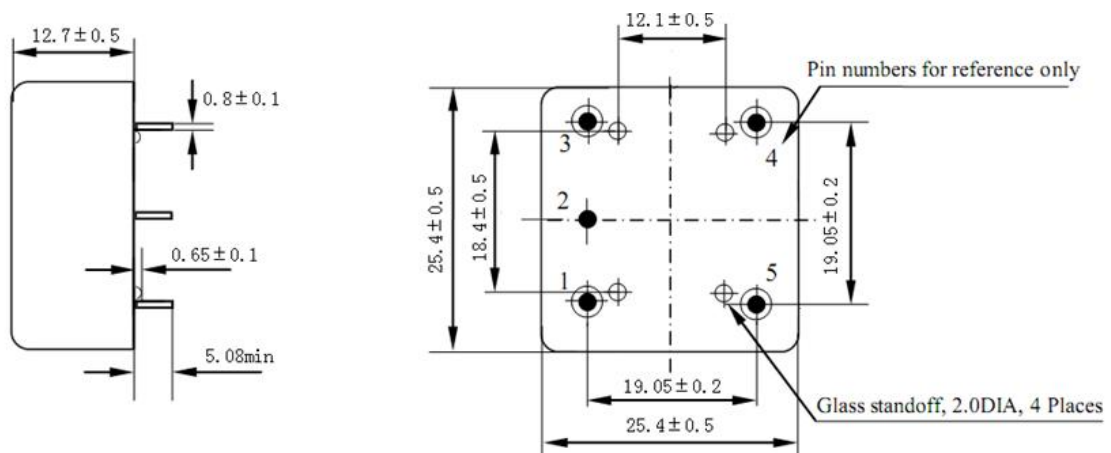
SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit	Test Condition
Frequency Output Characteristics					
Frequency	10.000			MHz	
Initial Frequency Accuracy	-0.1		+0.1	ppm	Measured 60 min after power-on Vco = +5 V
Waveform	Sine				
Output Power	+8	+10	+12	dBm	
Load		50		Ω	
Harmonic Rejection	30			dBc	
Spurious Rejection	75			dBc	
Frequency Stability					
Temperature Stability	$\pm 1 \times 10^{-8}$				Relative to 25 °C
Operating Temperature	-40		+70	°C	
Daily Aging	-0.5		+0.5	ppb	After 30 days
Annual Aging	-50		+50	ppb	
Supply Voltage Sensitivity	-1		+1	ppb	$\pm 5\%$ supply variation
Short-Term Stability		2×10^{-12}		@1s	@ +25 ± 1 °C Measured 90 min after power-on Vco = +2.5 V
Load Sensitivity	-1		+1	ppb	$\pm 5\%$ load variation
Warm-up Deviation	-50		+50	ppb	
Phase Noise		ULP		dBc/Hz	
		-114			1Hz

		-143			10Hz
		-158			100Hz
		-168			1KHz
		-171			10KHz
		-172			100KHz
		-172			1MHz
Frequency Tuning					
Tuning Range	±0.4			ppm	At nominal center tuning voltage
Slope		Positive			
Center Tuning Voltage		+2.5		V	
Control Voltage Linearity	-10		+10	%	
Power Supply and Power Consumption					
Supply Voltage	+4.75	+5	+5.25	V	
Current at Steady State			400	mA	@ +25 °C, Operating Range: -40 °C ~ 70 °C
Current During Warm-up			800	mA	@ +25 °C, Operating Range: -40 °C ~ 70 °C
Reference Voltage					
Output Voltage	+4		+5	V	
Output Source Impedance			100	Ω	
Load Impedance	10			kΩ	
Environmental Conditions					
Operating Temperature	-40		+70	°C	
Storage Temperature	-50		+95	°C	

Note: Custom OCXO options are available for special frequencies, custom dimensions, wider temperature range (-55 °C ~ +85 °C), and lower phase-noise performance.

SIZE and PIN DEFINITIONS (Unit: mm)



Pin Assignments:

1. Output
2. Ground
3. Voltage-Controlled Tuning
4. N/C (or Reference Voltage Output)
5. Power Supply