



Features and Benefits

High stability: ± 1 ppb over 0 to +70°C
 Low aging rate: ± 0.5 ppb/day, ± 0.05 ppm/year
 Low Allan variance value – up to $5 \times 10^{-12}/1s$

Typical Applications

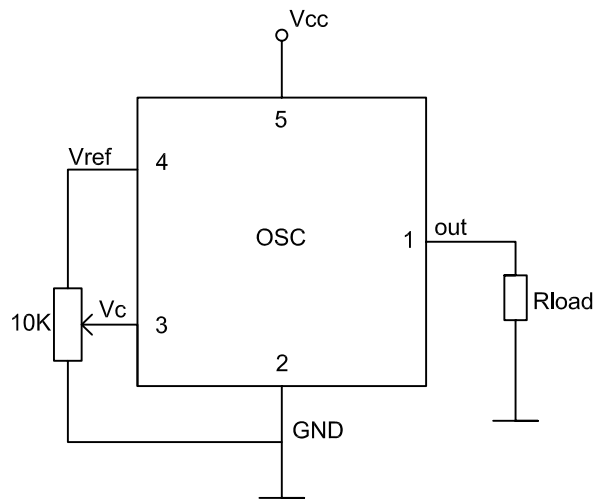
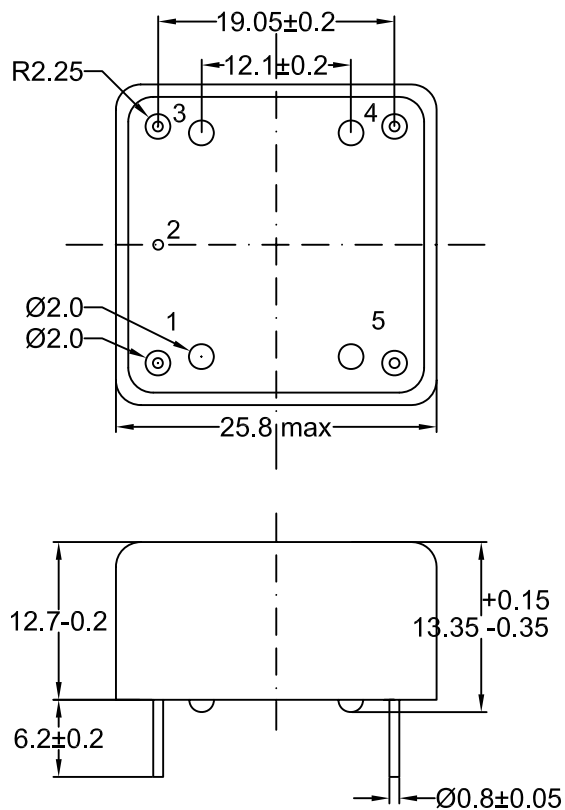
Stratum 3E clock systems
 Cellular Base Stations
 Instrumentation
 Microwave applications
 Radar reference

Description

OCXO2525AW-12.8MHz-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: MD1' 00%-%



Pin connections:

Pin No.	Pin Function
1	Output
2	GND
3	Control Voltage
4	Reference Voltage
5	Supply Voltage

Unit in mm
 1mm = 0.0394 inches



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F _{nom}			12.8		MHz	
RF Output							
Signal Waveform			HCMOS				
Load	R _L		10kohm//15pF				
H-Level Voltage	V _H		3.8			V	
L- Level Voltage	V _L				0.4	V	
Duty Cycle			45		55	%	
Rise/Fall time					10	ns	
Spurious Level					-100	dBc	
Power Supply							
Reference Voltage VREF Output			4.1	4.2	4.3	V	
Supply Voltage	V _s		4.75	5	5.25	V	
Warm-up Time	T _{up}	At +25°C to Δf/f=1e-7			180	s	ref to freq after 15 min of operation
Power Consumption		Steady state, +25°C		1	1.2	W	
		Warm-up		3.2	3.5	W	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)			±0.5	±1		ppm	
EFC voltage	V _c		0		4.2	V	
EFC Slope			positive				
Frequency Stability							
Versus Operating Temperature Range				±1		ppb	
Versus supply voltage	V _s	Ref Vcc typ		±1		ppb	
G-Sensitivity		Worst direction	±0.5		±1.0	ppb/G	
Aging Per Day		After 30 days of operation			±0.5	ppb	
Aging 1 st Year						±0.05	ppm
Allan Variance		1s	5	10		e-12	
SSB Phase noise		1Hz		-95		dBc/Hz	
		10Hz		-125			
		100Hz		-140			
		1kHz		-150			
		10kHz		-160			
		100kHz		-163			
Environmental,Mechanical Conditions							
Operating temperature range	0°C to 70°C						
Storage temperature range	-60°C to 90°C						
Humidity	Hermetically sealed						
Mechanical shock	Per MIL-STD-202,30G half sine pulse,11mS						
Vibration	Per MIL-STD-202, 10G swept sine 10 to 2000Hz						
Soldering conditions	Hand solder only, not reflow compatible. 260°C 10s (on pins)						
Washing conditions	Washing with water or alcohol-based detergent allowed only with final enough drying stage						