



OCXO3317AW-80MHz-6-7-7-2-2

Features and Benefits

Supply voltage: 5.0V

Output waveform: Sinewave

Frequency stability vs. operating temperature: $\pm 100\text{ppb}$

Aging: ± 0.2 ppm per year

Operating temperature: -40°C to +85°C

Size: 16x15.3x9.5mm

Typical Applications

Portable Wireless Communications Mobile

Test equipment

Synthesizers

Battery Powered Application

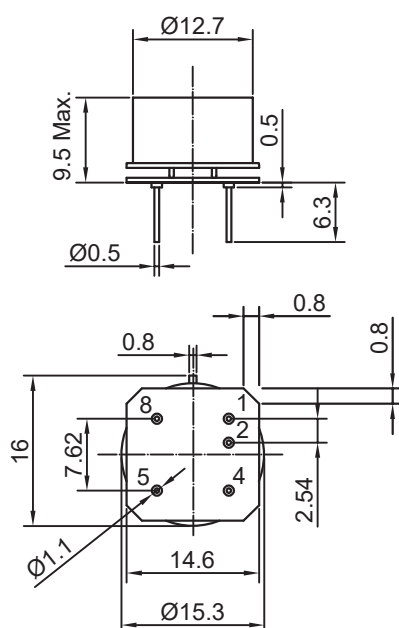
Description

OCXO3317AW-80MHz-6-7-7-2-2 offers high frequency stability, low long-term aging and low phase noise, all in a compact package to suit the different communication needs.

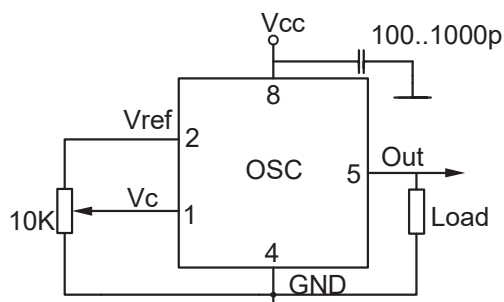
Mechanical Drawing & Pin Connections

Drawing No: MD230038-1

Physical dimensions



Schematic connections



Pin	Signal
1	Electrical tuning
2	Reference voltage
4	GND
5	RF Out
8	+V Supply

Unit in mm

1mm = 0.0394 inches



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	f ₀			80		MHz	
RF Output							
Signal Waveform			Sinewave				
Level			+5.0	+7.0		dBm	+
Load			45	50	55	ohm	
Harmonics level					-25	dBc	
Power Supply							
Reference Voltage	Vref		4.1	4.2	4.3	V	
Output resistance of Vref				91		ohm	
Supply Voltage	Vcc		4.75	5.0	5.25	V	
Warm-up current		V _{CC} =5.0V	140		220	mA	
Continuous current		at +25°C, V _{CC} =5.0V		35	40	mA	
Frequency warm-up time		to df/f=1e-7 at +25°C ref at 1h		60	90	sec	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)	(f _L -f)/f	Vc=0 V			-1	ppm	+
	(f-f)/f	Vc=Vc0		0		ppm	
	(f _H -f)/f	Vc=Vref	+1			ppm	+
EFC voltage	Vc		0		4.2	V	
Input impedance				11kohm//5pF			
Input BW		-3dB level		160		Hz	
Preset control voltage	V _{C0}	disconnected Vc pin	1.9	2.1	2.3	V	
Frequency Stability							
Versus Operating Temperature Range		ref +25°C			±100	ppb	+
Initial Tolerance @+25°C	(f-f ₀)/f ₀	V _C = V _{C0}	-0.2		+0.2	ppm	+
Versus supply voltage		ref V _{CC} typ.			±5	ppb	
Versus load		5% change			±5	ppb	
SSB Phase noise (static values are for reference only and are subject to change.)		10Hz		-95		dBc/Hz	
		100Hz		-125			
		1KHz		-147			
		10KHz		-165			
		100KHz		-168			
Aging Per Day		After 30 days of operation			±2.0	ppb	
Aging 1 st Year					±0.2	ppm	
Maximum ratings, environmental, mechanical conditions							
Operating temperature range	-40°C to +85°C						
Storage temperature range	-60°C to +85°C						
Power voltage	-0.5 to 6.0 V						
Control voltage	-1.0 to 6.0 V						
Air flow velocity	0.5 m/s maximum						
Humidity	Non-condensing 95%						
Mechanical shock	Per MIL-STD-202, 30G, 11ms						
Vibration	RTCA/DO-160,section 8, curve B						
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						

Note: Included in the test data