



Features and Benefits

- Frequency range: 10MHz
- Supply voltage: 5V
- Steady current: 1500mW
- Output waveform: Sine wave
- Frequency stability vs. operating temperature: ±0.05ppb
- Aging: ±0.05ppm/year
- Phase noise@100KHz: -168dBc/Hz
- Operating temperature: -40°C to +85°C
- Size: 35.4x26.7x15.8mm

Typical Applications

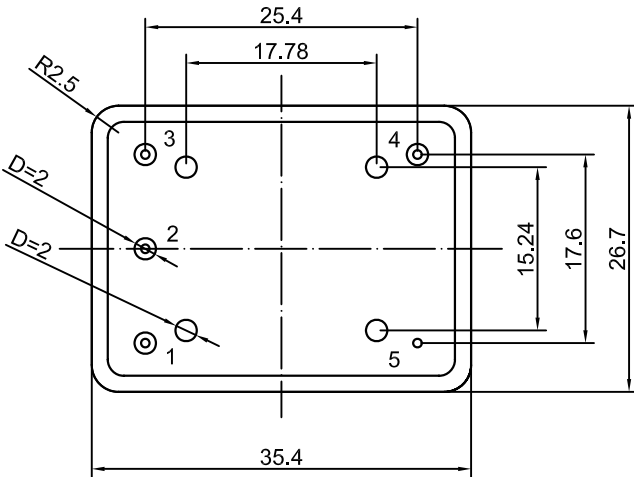
- Rubidium Standard Replacement
- GPS Receivers
- Instrumentation
- Stratum 2 Clock Systems

Description

The DOCXO3627AW-10MHz-B-V operate in 10 MHz frequency, the module concept of the OCXOs design allowed realization of same performance in a variety of small packages on customer choice under various models.

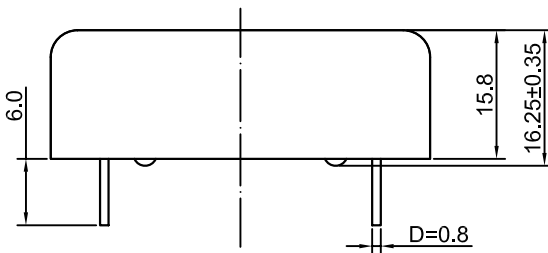
Mechanical Drawing & Pin Connections

Drawing No: A8 % \$\$+- !&



Pin	Signal
1	Electrical tuning
2	Reference voltage
3	+V Supply
4	RF OUT
5	GND

Unit in mm
1mm = 0.0394 inches





Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency	F _{nom}			10		MHz	
RF Output							
Signal Waveform			Sinewave				
Level			+7			dBm	
Load				50		ohm	
Harmonics					-30	dBc	
Power Supply							
Supply Voltage	V _{cc}		4.75	5.0	5.25	V	
Warm-up Time		Δf/f=1e-8 , at +25°C			300	sec	ref. to freq. after 15 min. of operation
Power Consumption		Steady state, +25°C		1500		mW	
		Warm-up		6000		mW	
Frequency Adjustment Range							
Electronic Frequency Control		Compliance with 10 years of aging	±0.3			ppm	positive slope
EFC voltage	V _c		0		4.3	V	
Reference voltage	V _{ref}		4.0		4.3	V	
Frequency Stability							
Versus Operating Temperature Range		ref. 25°C, air flow 0.5 m/s max.			±0.05	ppb	-40°C to +85°C
Initial Tolerance	(f-f ₀)/f ₀	+25°C, V _c =0.5V _{ref}	±0.01	±0.1		ppm	
Versus supply voltage		ref V _{cc} typ		±0.2		ppb	
G – sensitivity		worst direction, 0 – 1kHz vibration BW	±0.5	±1.0		ppb/G	
Retrace		24h work after 24h off			±10	ppb	
Allan deviation		1s	0.5		10	e-12	
Aging Per Day		after 30 days of operation			±0.5	ppb	
Aging 1 st Year					±0.05	ppm	
SSB Phase noise		1Hz	-110		-95	dBc/Hz	
		10Hz	-140		-125	dBc/Hz	
		100Hz	-155		-145	dBc/Hz	
		1kHz	-165		-155	dBc/Hz	
		10kHz	-168		-160	dBc/Hz	
		100kHz	-168		-160	dBc/Hz	
Maximum ratings, Environmental, Mechanical Conditions							
Airflow velocity	0.5 m/s maximum						
Operating temperature range	-40°C to +85°C						
Storage temperature range	-60°C to +85°C						
Mechanical shock	Per MIL-STD-202, 30G half sine pulse, 11ms (100G, 11ms-optionally)						
Soldering conditions	Hand solder only – not reflow compatible. 260°C 10s (on pins)						
Humidity	Hermetically sealed						
Power Voltage	-0.5V to V _{cc} +20%						
Control Voltage	-0.5V to 6V						
Vibration	Per MIL-STD-202, 5G swept sine 0 to 500Hz (10G swept sine 0 to 2000Hz-optionally)						
Washing Conditions	Washing with water or alcohol based detergent allowed only with final enough drying stage						