



Features and Benefits

- Frequency range: 40MHz
- Supply voltage: 3.3V
- Steady current: 450mA Max
- Output waveform: HCMOS
- Frequency stability vs. operating temperature: ± 2 ppb
- Aging: ± 0.02 ppm per year
- Operating temperature: -40°C to $+85^{\circ}\text{C}$
- Size: 35.4x26.7x12.1mm
- Package type: Through hole

Typical Applications

- Wireless Communications
- Test equipment
- Synthesizers

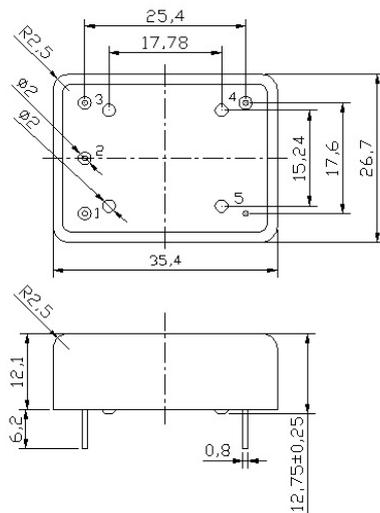
Description

OCXO3627MC-40MHz-A-V offers high frequency stability, good long-term aging and low phase noise, all in a compact package to suit the different communication needs.

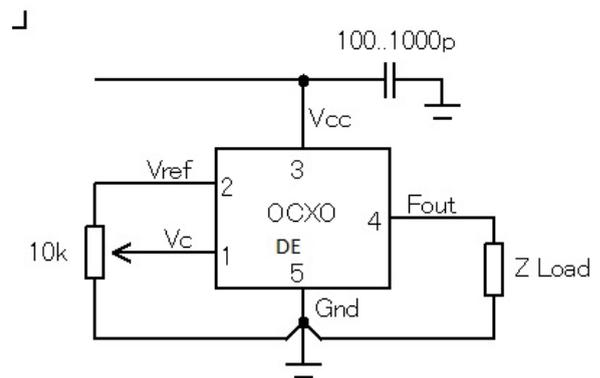
Mechanical Drawing & Pin Connections

Drawing No: MD250005-1

Physical dimensions



Schematic connections





Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	f ₀			40		MHz	
RF Output							
Signal Waveform			HCMOS 2.8V				
High level			2.4			V	
Low level					0.4	V	
Sub-harmonics		f _{SH} =f ₀ ±(n*f ₀ /3) n=1,2,3...			-40	dBc	
Load			10			kohm	
Load					8	pF	
Rise/Fall time		10%-90%			5	ns	
Power Supply							
Reference Voltage	V _{ref}		2.7	2.8	2.9	V	
Supply Voltage	V _{cc}		3.15	3.3	3.45	V	
Warm-up current		V _{cc} =3.3V	850		1100	mA	
Continuous current		at +25°C, V _{cc} =3.3V			450	mA	
Frequency warm-up time		to df/f=1e-7 at +25°C ref at 15 min			180	sec	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)	(f _L -f)/f	V _c =0 V			-0.3	ppm	note
	(f-f)/f	V _c =V _{co}		0		ppm	
	(f _H -f)/f	V _c =V _{ref}	+0.3			ppm	note
EFC voltage	V _c		0		2.8	V	
Input impedance	R _{in}			11		Kohm	
Preset control voltage	V _{co}	disconnected V _c pin	1.1	1.4	1.7	V	
Output resistance of V _{ref}				91		ohm	
Frequency Stability							
Versus Operating Temperature Range		ref +25°C			±2	ppb	note
Initial Tolerance @+25°C	(f-f ₀)/f ₀	V _c = V _{co}	-0.1		+0.1	ppm	note
Versus supply voltage		ref V _{cc} typ.			±1	ppb	
SSB Phase noise (Static. Values are for reference only and are subject to change.)		10Hz		-115		dBc/Hz	
		100Hz		-135			
		1KHz		-145			
		10KHz		-150			
		100KHz		-155			
Aging Per Day		After 30 days of operation			±0.2	ppb	
Aging 1 st Year					±0.02	ppm	
Maximum ratings, environmental, mechanical conditions							
Operating temperature range	-40°C to +85°C						
Storage temperature range	-60°C to +90°C						
Power voltage	-0.5 to 4.0 V						
Control voltage	-1.0 to 4.0 V						
Air flow velocity	0.5 m/s maximum						
Humidity	Hermetically sealed						
Mechanical shock	Per MIL-STD-202, 30G, 11ms						
Vibration	Per MIL-STD-202, 5G to 500Hz						
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