



Oven Controlled Crystal Oscillator

OCXO 2050

Features

- Ultra Stable
- Wide Temperature Range
- Fast Warming-up

Specifications		Option Codes
Frequency Range:		10 MHz ~ 40 MHz
Sine Wave	Output Level:	+7 dBm (min.)
	Load:	50 Ω ±5%
	Harmonics:	-35 dBc (max.)
	Spurious:	-70 dBc (max.)
HCMOS	V _{High} :	2.4 V (min.)
	V _{Low} :	0.4 V (max.)
	Duty Cycle:	45% to 55%
	Rise/ Fall Time:	6 ns (max.)
	Load:	15 pF ±5%
Frequency Tolerance @ 25°C:		±0.1 ppm (max.)
Operating Temperature Range (OTR):		Select from Table 1
Temperature Stability:		Select from Table 1
Supply Voltage, V _{dd} :		+5 V ± 5% +12 V ± 5%
Supply Voltage Stability:		± 5 ppb (max.)
Load Stability:		± 5 ppb (max.)
Short-term Stability (1S):		5 × 10 ⁻¹² (max.)
Power consumption @ 25°C:		5 Watts (max.) during warm-up 1.5 Watts (max.) at steady-state
Warm-up Time @ 25°C:		10 minutes (max.) to reach within ±5 ppb
Frequency Adjustment Option:		External Control Voltage None (Fixed Frequency)
Control Voltage Range:		2.5 V ± 2.5 V
Frequency Tuning Range:		± 0.5 ppm (min.)
Frequency Tuning Slope:		Positive
Aging @ 25°C:		±0.5 ppb (max.) per Day ±50 ppb (max.) per Year (After 30 days of continuous operation)
Storage Temperature Range:		-55°C to +125°C

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Mechanical Specifications

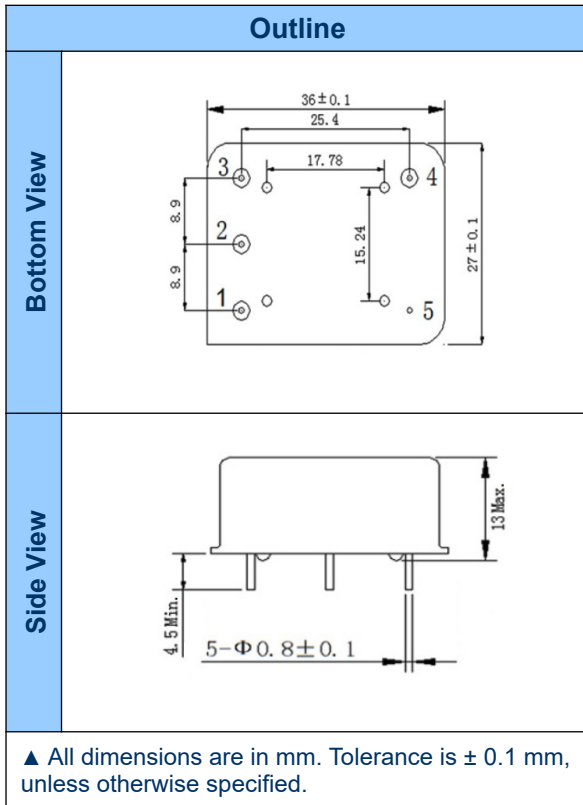


Table 1

OTR Codes	Stability Codes					
	005	010	020	050	W	
Temperature Stability		± 5 ppb	± 10 ppb	± 20 ppb	± 50 ppb	± 100 ppb
C	Operating Temperature Range	-20°C to +70°C				
I5		-40°C to +70°C				
I		-40°C to +85°C				
K1		-55°C to +85°C				

■ Denotes Available □ Denotes not Available

Typical SSB Phase Noise @ 10 MHz

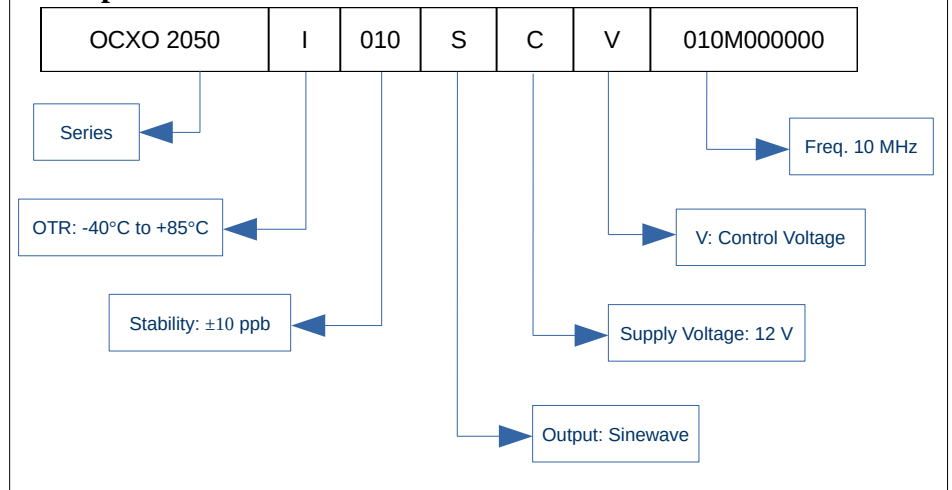
10 Hz Offset	-125 dBc/ Hz
100 Hz Offset	-145 dBc/ Hz
1 KHz Offset	-165 dBc/ Hz
10 KHz Offset	-170 dBc/ Hz
100 KHz Offset	-170 dBc/ Hz

Pin Configuration:

Pin	Description
1	Control Voltage/ No Connection
2	Reference Voltage/ No Connection
3	Supply Voltage
4	Output
5	Ground

Ordering Information

Example



Specifications subject to change without prior notice

Rev. Date: 29th October 2021

Note: Not all combination of options are available. Other specifications may be available upon request.

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