

OCO-M50B

OCXO HCMOS / Sine Wave



QuartzCom
the communications company



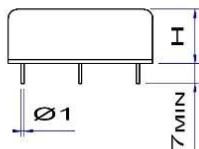
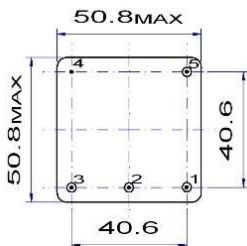
Features

- High Frequency stability versus OTR: $\leq \pm 2 \times 10^{-10}$
- Wide Operating Temperature Range: -40°C to $+85^\circ\text{C}$

Parameter	Specification					
	OCO-M50B_5			OCO-M50B_12		
Frequency Range	8.192 ~ 32.768 MHz					
Standard Frequencies	10MHz 12.8MHz 13MHz 16.384MHz 20MHz					
Operating Temperature Range	Code	EH	GH	JK	NK	NN Z
	$^\circ\text{C}$	0 / +60	-10 / +60	-20 / +70	-40 / +70	-40 / +85 Custom
Frequency Stability	Code	1n0		n50		n20
vs. Operating Temperature Range *Note 2		$\leq \pm 10 \times 10^{-10}$		$\leq \pm 5 \times 10^{-10}$		$\leq \pm 2 \times 10^{-10}$
vs. Supply Voltage change [Vdc] $\pm 5\%$		$\leq \pm 5 \times 10^{-10}$				
vs. Load change $\pm 5\%$		$\leq \pm 5 \times 10^{-10}$				
vs. Aging after 30 days of operation *Note 2		$\leq \pm 2 \times 10^{-8}$ 1 st year				
Short term Stability for Fo 10MHz *Note 2		$\leq 5 \times 10^{-12}$ @ 1s				
Output waveform	Sine wave [S]			HCMOS [H]		
Output Level	> 300 mV RMS			$V_{OL} < 0.5$ V $V_{OH} > 4.0$ V		
Output Load	$50\Omega \pm 5\%$			10k Ω / 30pF		
Harmonics	< -30 dBc			NA		
Supply Voltage [Vdc]	+5.0 V $\pm 5\%$			+12.0 V $\pm 5\%$		
Steady-state current consumption @ $+25^\circ\text{C}$	< 500 mA			< 250 mA		
Warm-up current consumption @ $+25^\circ\text{C}$	< 1500 mA			< 550 mA		
Warm-up time @ $+25^\circ\text{C}$	< 180 s			$< \pm 2 \times 10^{-8}$		
Electronic Frequency Control [EFC] range	$> \pm 4 \times 10^{-7}$			positive slope		
Voltage Control [Vc]	0 ~ +4.5 V			0 ~ +5.0 V		
Reference voltage output [Vref]	+4.5 V			+5.0 V		
Phase Noise @ 10MHz [dBc/Hz]	LN & ULN only for Vdc 12V		SINE		HCMOS	
	Option	LN	ULN			
	1 Hz	≤ -95	≤ -100	≤ -108	≤ -95	
	10 Hz	≤ -125	≤ -130	≤ -137	≤ -125	
	100 Hz	≤ -145	≤ -153	≤ -157	≤ -145	
	1 kHz	≤ -150	≤ -158	≤ -161	≤ -150	
	10 kHz	≤ -155	≤ -160	≤ -162	≤ -155	
Storage temperature range	$-55 \sim +85^\circ\text{C}$					
Environmental test						
Vibration	acceleration: 5 g; 10 Hz up to 500 Hz and down to 10 Hz; all 3 axes					
Shock	75 g, half-sine, 3 ms					

Note 1: unless otherwise specified conditions are @ 25°C still air

Note 2: all combination not possible (consult factory)



Pin function

- Vc
- Vref
- RF out
- GND
- Vdc

H = < 16 mm

Ordering Guide:

OCO-M50BS12-JKn50-ULN-10MHz

Vdc OTR Phase Noise

Connection circuit

