

OCO-M14HLN

Low Phase Noise OCXO HCMOS



QuartzCom
the communications company



Features

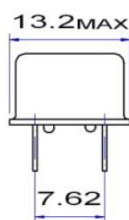
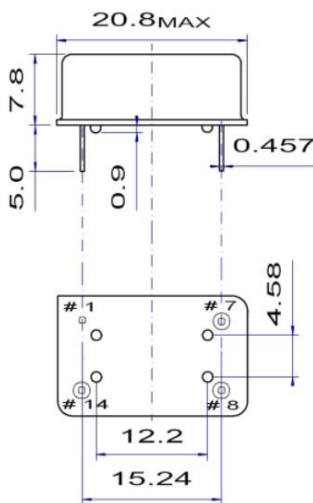
- Ultra Low Phase Noise (-170 dBc/Hz)
- Wide Operating Temperature Range: $\leq \pm 50 \times 10^{-8}$ -40 to +85 °C

Parameter	Specification					
	OCO-M14HLN3			OCO-M14HLN5		
Frequency Range	60 MHz to 120 MHz					
Standard Frequencies	80.000, 100.000 MHz					
<u>Operating Temperature Range</u> Code	EH	GH	JK	NK	NN	Z
°C	0 / +60	-10 / +60	-20 / +70	-40 / +70	-40 / +85	Custom
Frequency Stability						
vs <u>Operating Temperature Range</u> Code	u50		u10		50n	
Note 2	$\leq \pm 50 \times 10^{-8}$		$\leq \pm 10 \times 10^{-8}$		$\leq \pm 5 \times 10^{-8}$	
vs. Supply Voltage change (Vdc $\pm 4\%$)	$\leq \pm 2 \times 10^{-8}$					
vs. Load change ($\pm 10\%$)	$\leq \pm 3 \times 10^{-8}$					
vs. Aging after 30 days of operation 1 st year	$\leq \pm 3 \times 10^{-7}$					
Short term stability (Allan variance @1s)	$< 1 \times 10^{-10}$ (Typ. : 5×10^{-11})					
Output waveform	HCMOS					
Output level	V _{OL} < 0.4 V			V _{OH} > 2.4 V		
Output load	15 pF					
Rise / Fall time	< 7 ns					
Supply Voltage [Vdc]	+3.3 V $\pm 4\%$			+5.0 V $\pm 4\%$		
Warm-up current @ +25 °C still air	< 500 mA			< 500 mA		
Steady-state current @ +25 °C still air	< 250 mA			< 180 mA		
Warm-up time	< 2 min			$< \pm 0.2 \times 10^{-6}$ @ +25 °C		
Electronic Frequency Control [EFC] range	Vdc 3.3V $\leq \pm 2.0 \times 10^{-6}$			Vdc 5.0V $\leq \pm 2.5 \times 10^{-6}$		
Voltage Control (Vc)	0 ~ +3.3 V			0.5 ~ +5.0 V		
Phase Noise @ 100MHz [dBc/Hz]			Vdc 3.3 V		Vdc 5.0 V	
	Option	-	LN	-	LN	ULN
	10 Hz	≤ -80	≤ -85	≤ -85	≤ -90	≤ -95
	100 Hz	≤ -115	≤ -120	≤ -120	≤ -125	≤ -127
	1 kHz	≤ -140	≤ -145	≤ -145	≤ -150	≤ -153
	10 kHz	≤ -150	≤ -155	≤ -155	≤ -162	≤ -167
	100 kHz	≤ -160	≤ -163	≤ -160	≤ -165	≤ -170
Storage temperature range	-55 ~ +85 °C					

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

Note 2: all combination not possible (consult factory)

Dimensions



Pin function

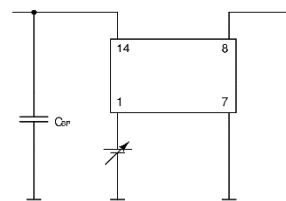
- # 1 Vc
- # 7 GND
- # 8 RF output
- # 14 Vdc

Ordering Guide:

OCO-M14HLN5-JKu10-ULN-100MHz

Vdc OTR Phase Noise

External voltage



External potentiometer

