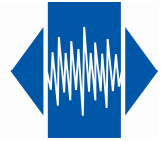


# OCO-M14HLN NEW

Low Phase Noise OCXO HCMOS



**QuartzCom**  
the communications company



## Features

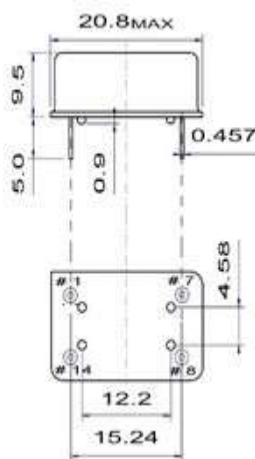
- Ultra Low Phase Noise (-170 dBc/Hz)
- Wide Operating Temperature Range:  $\leq \pm 50 \times 10^{-8}$  -40 to +85 °C

Parameter	Specification						
	OCO-M14HLN3			OCO-M14HLN5			
Frequency Range	60 MHz to 120 MHz						
Standard Frequencies	80.000, 100.000 MHz						
Operating Temperature Range	Code	EH	GH	JK	NK	NN	Z
	°C	0 / +60	-10 / +60	-20 / +70	-40 / +70	-40 / +85	Custom
<b>Frequency Stability</b>							
vs Operating Temperature Range	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 <sup>st</sup> year		$\leq \pm 3 \times 10^{-7}$					
Short term stability (Allan variance @1s)		$< 1 \times 10^{-10}$ (Typ. : $5 \times 10^{-11}$ )					
Output waveform		HCMOS					
Output level		VOL < 0.4 V		VOH > 2.4 V			
Output load		15 pF					
Rise / Fall time		< 7 ns					
<b>Supply Voltage [ Vdc ]</b>		<b>+3.3 V <math>\pm 4\%</math></b>			<b>+5.0 V <math>\pm 4\%</math></b>		
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		
<b>Electronic Frequency Control [ EFC ] range</b>		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		
<b>Phase Noise [ typical value ] dBc/Hz</b>		Vdc 3.3 V			Vdc 5.0 V		
	Option	-	LN	-	LN	ULN	
	10 Hz	-80	-85	-85	-90	-92	
	100 Hz	-115	-120	-120	-125	-127	
	1 kHz	-140	-145	-145	-150	-152	
	10 kHz	-150	-155	-155	-162	-165	
	100 kHz	-160	-162	-165	-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

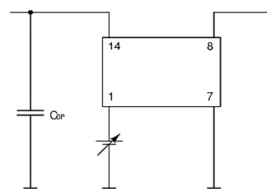
- # 1 Vc
- # 7 GND
- # 8 RF output
- # 14 Vdc

## Ordering Guide:

### OCO-M14HLN5-JKu10-ULN-100MHz

Vdc OTR Phase Noise

## External voltage



## External potentiometer

