

OCO-M25A

OCXO HCMOS / Sine Wave



QuartzCom
the communications company



Features

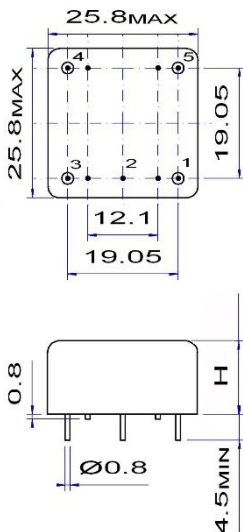
- Frequency: 10MHz to 30 MHz
- Supply Voltage option: 3.3V 5.0V 12.0V

Parameter	Specification				
	OCO-M25A_3	OCO-M25A_5	OCO-M25A_12		
Frequency Range	10.000 ~ 30.000 MHz				
Standard Frequencies	10MHz	12.8MHz	13MHz 16.384MHz 20MHz 25MHz 30MHz		
<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 Code	20n		10n 1n0		
vs <u>Operating Temperature Range</u> *Note 2	$\leq \pm 20 \times 10^{-9}$		$\leq \pm 10 \times 10^{-9}$ $\leq \pm 1 \times 10^{-9}$		
vs. Supply Voltage change [Vdc] $\pm 5\%$	$\leq \pm 5 \times 10^{-9}$				
vs. Load change $\pm 10\%$	$\leq \pm 5 \times 10^{-9}$				
vs. Aging after 30 days of operation *Note 2	$\leq \pm 3 \times 10^{-8}$ 1 st year				
Short term Stability for Fo 13MHz *Note 2	$\leq 1 \times 10^{-11}$ @ 1s				
Output waveform	Sine wave [S]		HCMOS [H]		
Output Level	> 225 mV RMS		V _{OL} < 0.4 V V _{OH} > 2.4 V / 4.0V		
Output Load	50Ω $\pm 10\%$		10 kΩ / 15 pF		
Harmonics	< -30 dBc		NA		
Supply Voltage [Vdc]	+3.3 V $\pm 5\%$	+5.0 V $\pm 5\%$	+12.0 V $\pm 5\%$		
Steady-state current consumption @ +25 °C	< 450 mA	< 200 mA	< 80 mA		
Warm-up current consumption @ +25 °C	< 1000 mA	< 600 mA	< 300 mA		
Warm-up time @ +25 °C	< 120s		< $\pm 1 \times 10^{-7}$		
Electronic Frequency Control [EFC] range	> $\pm 5 \times 10^{-7}$ positive slope				
Voltage Control [Vc]	0 ~ +3.0 V	0 ~ +4.5 V	0 ~ +5.0 V		
Reference voltage output [Vref]	+3.0 V	+4.5 V	+5.0 V		
Phase Noise @ 10MHz [dBc/Hz]		SINE		HCMOS	
	Option	-	LN ≤ 13MHz		
	10 Hz	≤ -120	≤ -125		≤ -120
	100 Hz	≤ -140	≤ -145		≤ -140
	1 kHz	≤ -150	≤ -150		≤ -145
	10 kHz	≤ -155	≤ -155		≤ -150
100 kHz	≤ -155	≤ -155		≤ -150	
Storage temperature range	-55 ~ +80 °C				
Environmental test					
Vibration	acceleration: 10 g; 10 Hz up to 500 Hz and down to 10 Hz; all 3 axes				
Shock	100 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

- 1 # RF output
- 2 # GND
- 3 # Vc
- 4 # Vref
- 5 # Vdc



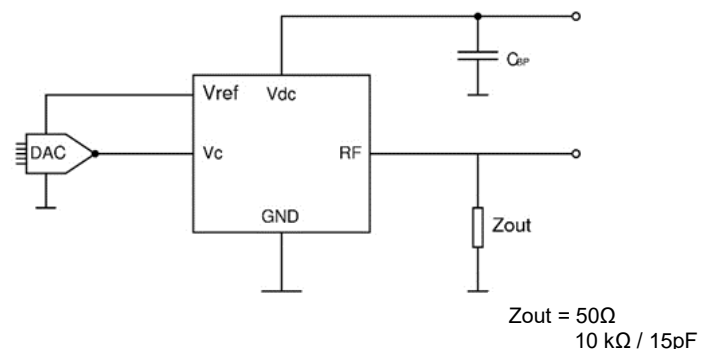
H = 12.7 mm

Ordering Guide:

OCO-M25A55-JK10n-LN-10MHz

Vdc OTR Phase Noise

Connection circuit



Zout = 50Ω
10 kΩ / 15pF