

OCO-M25A

OCXO HCMOS / Sine Wave



QuartzCom
the communications company



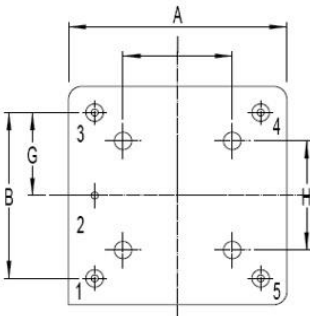
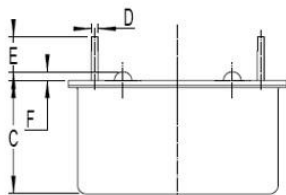
Features

- 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 °C	EH 0 / +60	GH -10 / +60	JK -20 / +70 NK -40 / +70 NN -40 / +85 Z Custom	
Frequency Stability Code	20n		10n	
vs <u>Operating Temperature Range</u> *Note 2	$\leq \pm 20 \times 10^{-9}$		$\leq \pm 10 \times 10^{-9}$	
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 ~ +4.0 V	0 ~ +5.0 V	
Reference voltage output [Vref]	+3.0 V	+4.0 V	+5.0 V	
Phase Noise @ 10MHz [dBc/Hz]		SINE		HCMOS
	Option	-	LN ≤ 13MHz	
	10 Hz	≤ -120	≤ -125	
	100 Hz	≤ -140	≤ -145	
	1 kHz	≤ -150	≤ -150	
	10 kHz	≤ -155	≤ -155	
100 kHz	≤ -155	≤ -155		≤ -150
Storage temperature range	-55 ~ +85 °C			
Environmental test				
Vibration	acceleration: 10 g; 10 Hz up to 500 Hz and down to 10 Hz; all 3 axes			
Shock	50 g, half-sine, 3 ms			

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

Note 2: all combination not possible (consult factory)



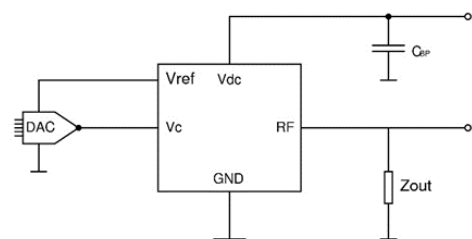
Symbol	Dimension (mm)	
	Min	Max
A		25.6
B	18.80	19.20
C		12.5
D	0.70	0.90
E	4.6	6.2
F	0.4	0.7
G	9.4	9.6
H	11.5 nominal	
I	11.5 nominal	

Pin No.	Pin Function
1	Output
2	GND
3	Vc
4	Vref
5	Vdc

OCO-M25A55-JK10n-LN-10MHz

Vdc OTR Phase Noise

Connection circuit



Zout = 50Ω
10 kΩ / 15pF