

OCO-M20A

OCXO HCMOS / Sine Wave



QuartzCom
the communications company



Features

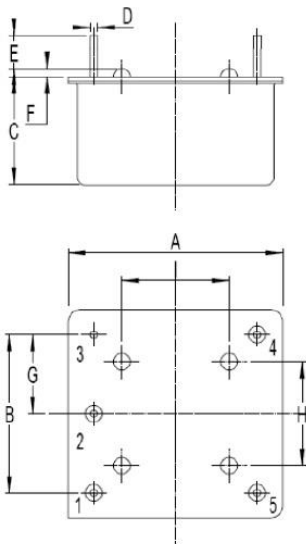
- Frequency: 8.192MHz to 20 MHz
- Supply Voltage option: 5.0V 12.0V

Parameter	Specification					
	OCO-M20A5			OCO-M20A12		
Frequency Range	8.192 ~ 20.000 MHz					
Standard Frequencies	10MHz 12.8MHz 13MHz 16.384MHz 20MHz					
<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	5n0		2n0		1n0	
vs <u>Operating Temperature Range</u> *Note 2	$\leq \pm 5 \times 10^{-9}$		$\leq \pm 2 \times 10^{-9}$		$\leq \pm 1 \times 10^{-9}$	
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	$\leq \pm 3 \times 10^{-8}$ 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} > 4.0V		
Output Load	50Ω $\pm 5\%$			10kΩ / 30pF		
Harmonics	< -30 dBc			NA		
Supply Voltage [Vdc]	+5.0 V $\pm 5\%$			+12.0 V $\pm 5\%$		
Steady-state current consumption @ +25 °C	< 250 mA			< 100 mA		
Warm-up current consumption @ +25 °C	< 650 mA			< 400 mA		
Warm-up time @ +25 °C	< 180s			< $\pm 2 \times 10^{-8}$		
Electronic Frequency Control [EFC] range	> $\pm 4 \times 10^{-7}$			positive slope		
Voltage Control [Vc]	0 ~ +4.0 V					
Reference voltage output [Vref]	+4.0 V					
Phase Noise @ 10MHz [dBc/Hz]		SINE		HCMOS		
	Option	-	LN [Vdc 12V]			
	10 Hz	≤ -125	≤ -130	≤ -120		
	100 Hz	≤ -145	≤ -150	≤ -140		
	1 kHz	≤ -150	≤ -155	≤ -145		
	10 kHz	≤ -155	≤ -160	≤ -150		
100 kHz	≤ -155	≤ -160	≤ -150			
Storage temperature range	-55 ~ +85 °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)

Dimensions:



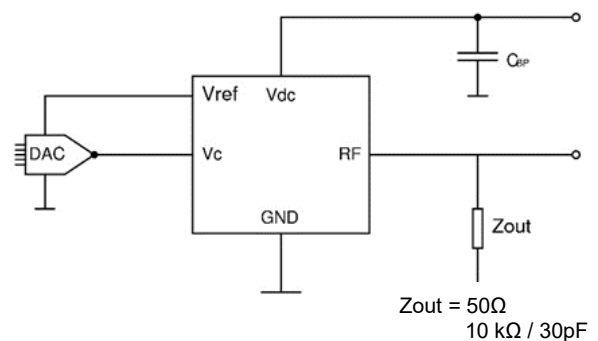
Symbol	Dimension (mm)	
	Min	Max
A		21.6
B	14.74	15.74
C		11
D	0.4	0.6
E	4.0	5.0
F	0.5	0.7
G	7.52	7.72
H	10.1 nominal	
I	10.1 nominal	

Ordering Guide:

OCO-M20AS12-JK2n0-LN-10MHz

Vdc OTR Phase Noise

Connection circuit



OCO-M20A Rev 3.docx

2011/65/EU RoHS compliant

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