

OCO-M20BH

OCXO HCMOS



QuartzCom
the communications company



Features

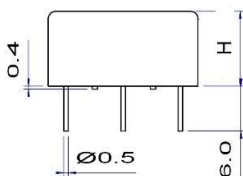
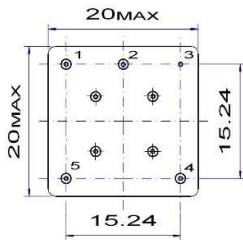
- Frequency: 10MHz to 25 MHz
- Supply Voltage option: 3.3V 5.0V

Parameter	Specification					
	OCO-M20BH3			OCO-M20BH5		
Frequency Range	10.000 ~ 25.000 MHz					
Standard Frequencies	10MHz	12.8MHz	13MHz	16.384MHz	20MHz	
<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	50n		20n		10n	
vs <u>Operating Temperature Range</u> *Note 2	$\leq \pm 50 \times 10^{-9}$		$\leq \pm 20 \times 10^{-9}$		$\leq \pm 10 \times 10^{-9}$	
vs. Supply Voltage change [Vdc] $\pm 5\%$	$\leq \pm 5 \times 10^{-9}$					
vs. Load change $\pm 5\%$	$\leq \pm 5 \times 10^{-9}$					
vs. Aging after 30 days of operation *Note 2			$\leq \pm 3 \times 10^{-8}$		1 st year	
Short term Stability for Fo 10MHz *Note 2			$\leq 1 \times 10^{-11}$		@ 1s	
Output waveform	HCMOS					
Output Level	$V_{OL} < 0.3V$ $V_{OH} > 3.0V$			$V_{OL} < 0.5V$ $V_{OH} > 4.5V$		
Output Load	10k Ω / 15pF					
Supply Voltage [Vdc]	+3.3 V $\pm 5\%$			+5.0 V $\pm 5\%$		
Steady-state current consumption @ +25 °C	< 250 mA			< 150 mA		
Warm-up current consumption @ +25 °C	< 700 mA			< 450 mA		
Warm-up time @ +25 °C	< 180s			< $\pm 1 \times 10^{-7}$		
Electronic Frequency Control [EFC] range	$> \pm 5 \times 10^{-7}$			positive slope		
Voltage Control [Vc]	0 ~ +3.0 V			0 ~ +4.5 V		
Reference voltage output [Vref]	+3.0 V			+4.5 V		
Phase Noise @ 10MHz [dBc/Hz]	HCMOS					
	Option	$\leq 13MHz$		$> 13MHz$		
	10 Hz	≤ -120		≤ -105		
	100 Hz	≤ -140		≤ -125		
	1 kHz	≤ -145		≤ -135		
	10 kHz	≤ -150		≤ -145		
	100 kHz	≤ -150		≤ -145		
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	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)

Pin function

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



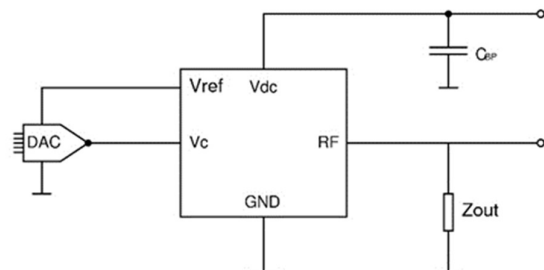
H = 12.7 mm

Ordering Guide:

OCO-M20BH3-NK20n-10MHz

Vdc OTR

Connection circuit



Zout = 10k Ω / 15pF