

OCO-M50BH

Ultra Low Noise OCXO
HCMOS

QuartzCom
the communications company

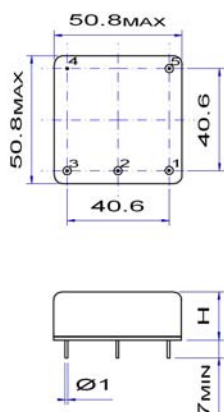


Features

- Applications: Base station
- High frequency stability vs. temperature (up to $\pm 2 \times 10^{-10}$)
- Wide operating temperature range: -40 up to +85 °C

Parameter	Specification	
	OCO-M50BH5-XX	OCO-M50BH12-XX
Frequency range	8.192 ~ 32.7680 MHz	
Standard frequencies	8.192, 10.0, 12.80, 13.00, 15.36, 16.384, 20.00, 26.00, 32.768 MHz	
Frequency stability vs. operating temperature range	$\leq \pm 2.0 \times 10^{-10}$	over -40 ~ +85 °C
	$\leq \pm 5.0 \times 10^{-10}$	over -40 ~ +85 °C
	$\leq \pm 1.0 \times 10^{-9}$	over -40 ~ +85 °C
vs. supply voltage change ($\pm 5\%$)	$\leq \pm 5 \times 10^{-10}$	optional $\leq \pm 2 \times 10^{-10}$
vs. load change ($\pm 5\%$)	$\leq \pm 5 \times 10^{-10}$	optional $\leq \pm 2 \times 10^{-10}$
vs. aging after 30 days of operation	$\leq \pm 2 \times 10^{-8}$	1 st year
Short term stability	$< 6 \times 10^{-13}$	Allan deviation per 1 s
Output waveform	HCMOS	
Output level	$V_{OL} < 0.5 \text{ V}$	$V_{OH} > 4.0 \text{ V}$
Output load	10 k Ω /30 pF	$\pm 5\%$
Rise/Fall time	$< 6 \text{ ns}$	optional $< 3 \text{ ns}$
Supply voltage	+5.0 V $\pm 5\%$	+12 V $\pm 5\%$
Steady-state current consumption @ +25 °C	$< 500 \text{ mA}$	$< 250 \text{ mA}$
Warm-up time	$< 3 \text{ min}$	$< \pm 2 \times 10^{-8}$ @ +25 °C
Frequency pulling range (Vin)	$> \pm 4 \times 10^{-7}$	positive slope
Vcontrol (Vc) via external voltage	0 ~ +4.5 V	0 ~ +5.0 V
Reference voltage output (Vref)	+4.5 V	+5.0 V
Phase noise @ 10 MHz carrier frequency	$< -108 \text{ dBc/Hz}$	@ 1 Hz
	$< -137 \text{ dBc/Hz}$	@ 10 Hz
	$< -157 \text{ dBc/Hz}$	@ 100 Hz
	$< -161 \text{ dBc/Hz}$	@ 1 kHz
	$< -162 \text{ dBc/Hz}$	@ 10 kHz
Operating temperature range	-10 ~ +60 °C, -20 ~ +70 °C, -40 ~ +70 °C or -40 ~ +85 °C	
Storage temperature range	-55 ~ +85 °C	
Case height (H)	10 ~ 16.0 mm	

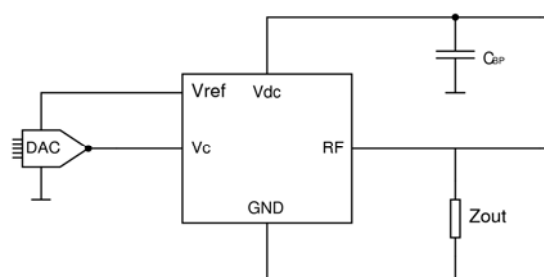
Environmental test	
vibration	acceleration: 5 g; 10 Hz up to 200 Hz and down to 10 Hz; all 3 axes
shock	75 g, half-sine, 3 ms



Pin function

1 #	Vc	Supply voltage
2 #	Vref	Reference output
3 #	RF	Output signal
4 #	GND	Case Ground
5 #	Vdc	+5 V supply

Connection Circuit



Case height H = 10 ~ 16 mm

Zout = 50 Ω

2002/95/EC RoHS compliant

06 Aug. 12

