

OCO-SMAH

SMD OCXO
HCMOS

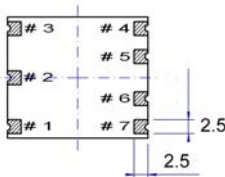
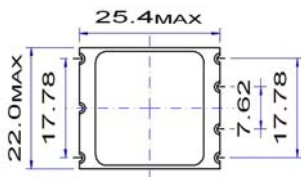
QuartzCom
the communications company



Features

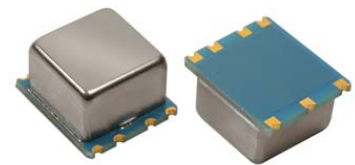
- Applications: GPS, CDMA, 3G, networking, instrumentation
- SMD packaged precision OCXO
- High frequency stability vs. temperature
- Supply voltage: 3.3 V or 5.0 V

Parameter	Specification	
	OCO-SMAH3	OCO-SMAH5
Frequency range	10.0000 ~ 40.0000 MHz	
Standard frequencies	10.000, 12.800, 13.00, 20.000, 25.600, 26.000, 32.768 & 40.000 MHz	
Frequency stability vs. operating temperature range	$\leq \pm 2 \times 10^{-8}$	over -40 ~ +70 °C
	$\leq \pm 1 \times 10^{-8}$	over -20 ~ +70 °C
	$\leq \pm 1 \times 10^{-9}$	over 0 ~ +50 °C
vs. supply voltage change	$\leq \pm 3 \times 10^{-9}$	±5 %
vs. load change	$\leq \pm 3 \times 10^{-9}$	±5 %
vs. aging after 30 days of operation	$\leq \pm 3 \times 10^{-8}$	1 st year
Short term stability	$< 2 \times 10^{-11}$	Allan deviation per 1 s
Output waveform	HCMOS	$V_{OH} > 0.9 V_{dc}$ $V_{OL} < 0.1 V_{dc}$
Output load	10 kΩ // 15 pF	
Supply voltage	+3.3 V ±5 %	+5.0 V ±5 %
Peak current consumption during warm-up time	< 750 mA	< 600 mA
Steady-state current consumption @ +25 °C	< 300 mA	< 200 mA
Warm-up time	< 3 min	$< \pm 1 \times 10^{-7}$ @ +25 °C
Frequency pulling range	$> \pm 0.5 \times 10^{-7}$	positive slope
Vcontrol (Vc) via external voltage	0 ~ +2.8 V	0 ~ +4.5 V
Vcontrol (Vc) via external potentiometer	20 kΩ	
Reference voltage output (Vref)	+2.8 V	+4.5 V
Phase noise @ 10 MHz carrier frequency	< -120 dBc/Hz @ 10 Hz < -135 dBc/Hz @ 100 Hz < -145 dBc/Hz @ 1 kHz < -150 dBc/Hz @ 10 kHz < -155 dBc/Hz @ 100 kHz	
Operating temperature range	0 ~ +55 °C, -20 ~ +70 °C or -40 ~ +70 °C	
Storage temperature range	-55 ~ +85 °C	
Case height (H)	14.0 mm	

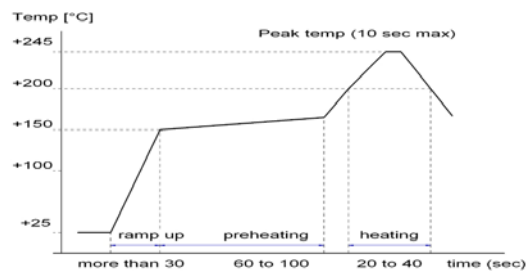


Pin function

- # 1 Vc
- # 2 Vref
- # 3 Vdc
- # 4 RF output
- # 5 not connected
- # 6 not connected
- # 7 GND



Example for IR reflow soldering temperature



2002/95/EC RoHS compliant

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ISO 9001
BUREAU VERITAS
Certification



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