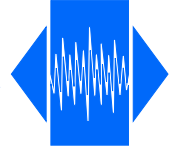


VTO-P9-3SM-HPG

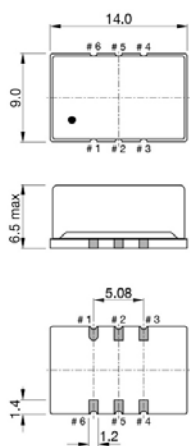


High stability, ultra-low phase noise and low jitter
low G-sensitivity, vibration resistant, Sine wave (VC)TCXO

Application: 5G Repeaters, Link and micro cells, Low noise microwave

Frequency range	40.0 to 200 MHz		
Standard frequencies	50, 60, 70, 72, 80, 100, 120, 125 & 150 MHz		
Frequency stability:			
vs. temperature reference to $(F_{MAX}+F_{MIN})/2$	$\leq \pm 1.0$ ppm $\leq \pm 0.5$ ppm	over -40 to +85 °C over -40 to +85 °C	standard optional (1)
vs. supply voltage changes reference to frequency at nominal supply	$\leq \pm 0.05$ ppm	± 5 %	
vs. load changes reference to frequency at nominal load	$\leq \pm 0.05$ ppm	± 10 %	
vs. aging @ +40 °C	$\leq \pm 1.0$ ppm	1 st year	
G-sensitivity	0.50 ppb/g 0.25 ppb/g	per axis, max. per axis, typ.	optional (2)
Short term stability ADEV	$< 1 \cdot 10^{-10}$	$\tau = 1.0$ s	
Frequency tolerance ex factory	0 ~ +1.0 ppm	@ +25 °C	
Supply voltage	+3.3 V	5.0 V	optional
Current consumption	< 50 mA		
Output signal	Sine wave	3 ~ 6 dBm	
Output load	50 Ω		
Electronic Frequency Control (EFC)	$\Delta F > \pm 5$ ppm	positive slope	
Control voltage Vc	+1.50 V ± 1.0 V	+2.50 V ± 2.0 V	by 5.0 V
Phase noise (typical for 100 MHz)	-78 dBc/Hz -105 dBc/Hz -127 dBc/Hz -150 dBc/Hz -178 dBc/Hz	@ 10 Hz @ 100 Hz @ 1 kHz @ 10 kHz @ 100 kHz	
RMS phase jitter	10 fs (typ.)	12 kHz ~ 20 MHz	
Sub-harmonics	-80 dBc (typ.)	-60 dBc (max.)	
Operating temperature range	-40 ~ +85 °C		
Storage temperature range	-55 ~ +105 °C		
Reflow profiles as per IPC/JEDEC J-STD-020C	≤ 245 °C over 10 s max.		

Notes: 1. For tighter frequency stability ($\leq \pm 0.50$ ppm), consult the factory
2. For lower G-sensitivity (< 0.1 ppb/g) , consult the factory



Pin function

- # 1 Vc (EFC) for (VC)TCXO
GND or NC for TCXO
- # 2 NC or GND
- # 3 GND
- # 4 RF output
- # 5 NC or GND
- # 6 Vcc

Solder pattern



Test circuit

