

# VT3-801-S3M-HPG

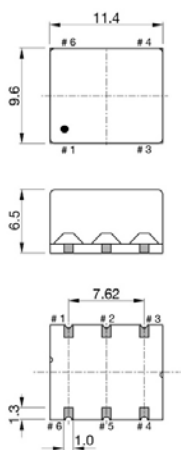
High stability, ultra-low phase noise and low jitter  
low G-sensitivity, vibration resistant, Sine wave (VC)TCXO



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

<b>Frequency range</b>	<b>50 to 150 MHz</b>		
<b>Standard frequencies</b>	<b>50, 75, 100, 125 MHz</b>		
<b>Frequency stability:</b>			
vs. temperature reference to (F <sub>MAX</sub> +F <sub>MIN</sub> )/2	≤ ±1.0ppm ≤ ±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	≤ ±0.05 ppm	±5%	
vs. load changes reference to frequency at nominal load	≤ ±0.05 ppm	±10%	
vs. aging	≤ ±1.0 ppm	1 <sup>st</sup> year @+40 °C	
Short term stability ADEV	< 1*10 <sup>-10</sup>	τ = 1 sec.	
G-sensitivity	0.50 ppb/g 0.25 ppb/g	per axis, max. per axis, typ.	optional (2)
Frequency tolerance ex factory	0 ~ +1 ppm	@+25 °C	
Supply voltage	3.3 V	or 5.0 V	
Current consumption	< 45 mA	without load	
Output signal	Sine wave	3 ~ 6 dBm	
Output load	50 Ω		
Electronic Frequency Control (EFC)	ΔF > ±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 value for 125 MHz)	-105 dBc/Hz -128 dBc/Hz -150 dBc/Hz -170 dBc/Hz -175 dBc/Hz	@ 100 Hz @ 1 kHz @ 10 kHz @ 100 kHz @ 1'000 kHz	
RMS phase jitter	10 fs (typ.)	12 kHz ~ 20 MHz	
Sub-harmonics	< -60 dBc		
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 sec. Max.		

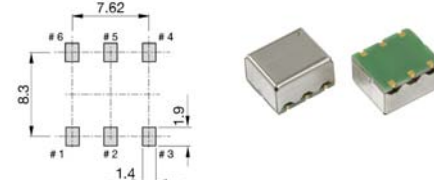
Notes: 1. For tighter frequency stability (≤ ±0.50 ppm), consult the factory  
2. For lower G-sensitivity (< 0.2 ppb/g), consult the factory



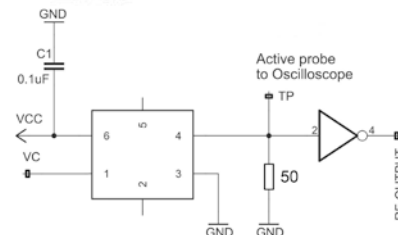
### Pin function

- # 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



2011/65/EU RoHS compliant

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