

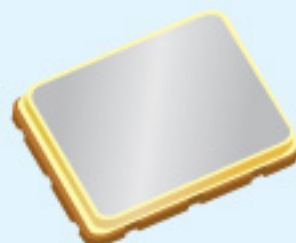
# VCXO



HUAFENG  
CRYSTAL

## HVG, HVH Series

- Voltage controlled crystal oscillator
- Ceramic SMD package
- 5.0V / 3.3V supply voltage
- HCMOS output
- Available on tape and reel
- Available on tri-state (SVH)



### ELECTRICAL SPECIFICATIONS

Frequency Range	2.000 to 60.000MHz		
Operating Temperature Range	0 to +70°C or -40 to +85°C		
Storage Temperature Range	-40 to +85°C		
Supply Voltage(V <sub>cc</sub> )	5.0V <sub>cc</sub> ± 5%		3.3V <sub>cc</sub> ± 5%
Aging(at 25°C)	± 3ppm/year Max		
Load Drive Capability	15pF HCMOS Load		
Start Up Time	10msec Max		
Frequency Deviation/	2.5V <sub>cc</sub> ± 2.0V <sub>cc</sub>	± 10, ± 30, ± 50, ± 100ppm Min	
Pin 1 Control Voltage	2.5V <sub>cc</sub> ± 2.5V <sub>cc</sub>	± 10, ± 30, ± 50, ± 100, ± 150ppm Min	
	1.65V <sub>cc</sub> ± 1.65V <sub>cc</sub> (or ± 1.5V <sub>cc</sub> )	± 10, ± 30, ± 50, ± 100, ± 150ppm Min	
Linearity	± 20, ± 15, ± 10, ± 5%(Optional)		
Input Current	2.000 to 20.000MHz	10mA Max	10mA Max
	20.001 to 40.000MHz	20mA Max	15mA Max
	40.001 to 60.000MHz	30mA Max	25mA Max
Frequency Stability	± 50, ± 25, ± 20, ± 10ppm (See table 1.)		
Output Voltage Logic High(V <sub>OH</sub> )	w/HCMOS Load	90% of V <sub>cc</sub> Min	
Output Voltage Logic Low(V <sub>OL</sub> )	w/HCMOS Load	10% of V <sub>cc</sub> Max	
Duty Cycle	at 50% of Waveform	50 ± 10%(STD)	
	w/HCMOS Load	50 ± 5%(Optional)	
Rise / Fall Time	5nsec Max		
Pin 2 Tri-State Input Voltage	NO Connection	Enables Output	
or	V <sub>IC</sub> ≥ 2.0V <sub>cc</sub>	Enables Output	
Pin 5 Tri-State Input Voltage	V <sub>IL</sub> ≤ 0.8V <sub>cc</sub>	Disables Output:High Impedance	
Period Jitter: Absolute	± 100ps Max ≤ 60.000MHz		
Period Jitter: One Sigma	± 10ps Max ≤ 60.000MHz		

