PRODUCTS **Voltage Controlled Crystal Oscillator (Through Hole)**

Typical Applications:

- **Digital Communications**
- **Instrumentation**
- **Set-top Box**

VC10 Series
(Through Hole Voltage Controlled Crystal Oscillator Series)

Part Number: VC10 Series - Waveform - Stability- Freq - Vcc - Pulling

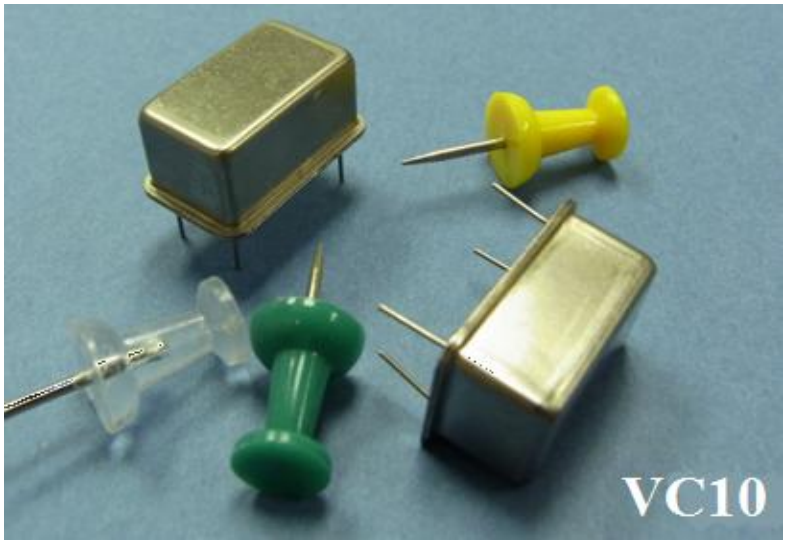
Example: VC10SA-10.000-5.0V-D

■ Specification

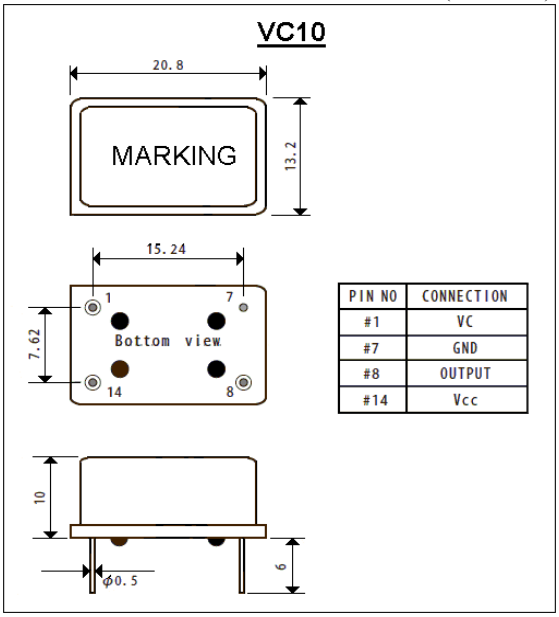
Part No.	Example
VC10 Series - Waveform - Stability - Freq - Vcc - Pulling	VC10SA-10.000-5.0V-D

Specification	VC10	
Frequency Range	10.000 ~ 40.000MHz	
Output Waveform	HCMOS / TTL	Clipped Sinewave
Load	15pF / 4 TTL	10 Kohms / 10pF
Frequency Stability vs. Temperature (Typical)	A: ±0.5ppm -40 ℃ to +85 ℃	C: ±0.1ppm -40 ℃ to +85 ℃
	B: ±0.28ppm -20 ℃ to +70 ℃	D: ±0.05ppm -20 ℃ to +70 ℃
Short Term Stability	$2x10^{-10}$ / sec	$2x10^{-11}$ / sec
Rise and Fall Time	10 nsec max. (10% / 90% Vout)	
Frequency Stability vs. Load Deviation	±0.1ppm max. @ ±10% variation from standard load	
Frequency Stability vs. Supply Deviation	±0.1ppm max. @ ±5% variation from nominal supply	
Frequency Stability vs. Aging	±0.5ppm/year or ±1.0ppm/year	
Supply Voltage (Vcc)	12V, 5V, 3.3V(optional) ±5%	
Current	10mA max.	
Duty Cycle (Typical)	40 / 60% (at 50% Vcc)	
Pulling	N: No frequency adjustment / D: ±8ppm (typ.)	
Phase Noise (@1KHz)	-130dBc / Hz (No PLL)	-120dBc / Hz (PLL)

Note: This is a typical parameter spec., please contact us for detail specification sheet.



■ Dimension (Unit: mm)



PIN NO	CONNECTION
#1	VC
#7	GND
#8	OUTPUT
#14	Vcc

HIGH PRECISION OSCILLATOR