

VCXO (Voltage-Controlled Crystal Oscillator)

Thru-hole Type

NVCFS (Full-size)
[20.4×13.1×6.0 mm]

NVCHS (Half-size)
[12.9×12.9×5.5 mm]

VCXO

Output

CMOS

Supply Voltage

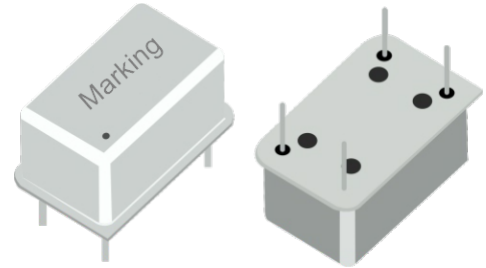
3.3V / 5.0V

Frequency Range

1 MHz~200 MHz

Features

- All metal welded DIP-14 (full-size) or DIP-8 (half-size) package.
- Voltage Controlled Crystal Oscillator (VCXO)
- CMOS output, frequency range from 1 MHz to 220 MHz
- 5V / 3.3V operating voltage
- RoHS Compliant
- Low phase noise
- Phase jitter is less than 0.5pS
- Applications: Test equipment, Avionics, Electronic instruments, Smart grid, Inverter, and more



Standard Specifications

Item / Type	NVCFS (DIP-14 Thru-hole VCXO)	NVCHS (DIP-8 Thru-hole VCXO)
Dimensions	20.4×13.1×6.0 mm	12.9×12.9×5.5 mm
Output	CMOS	
Output load	15pF, or specify	
Output frequency range	1 MHz~200 MHz	
Supply voltage	3.3 V / 5.0 V	
Frequency tolerance	±25 ppm, ±50 ppm, ±100 ppm	
Operating temperature	-20~+70°C, -40~+85°C	
Supply current	40 mA max. (@3.3V)	45 mA max. (@5.0V)
Symmetry	45 % to 55 %	
Output voltage Voh (min.) / Vol (max.)	90% Vcc min. / 10% Vcc max.	
Rise time /Fall time	6ns max.	
Start-up time	10ms max.	
RMS phase jitter (12kHz~20MHz)	1 pS max.	
Phase noise (27MHz@1kHz)	-132dBc/Hz	-120dBc/Hz
Storage temperature	-55~+125°C	
Absolute pulling range (APR)	±80ppm min., or specify	
Control voltage range	0.3V~3.0V@3.3V, 0.5V~4.5V@5.0V	
Linearity	10% max.	
Input impedance	1 MΩ Typ.	
Modulation bandwidth (BW)	10 kHz min.	

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VCXO

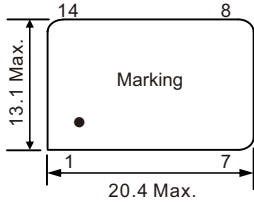
Output
CMOS

Supply Voltage
3.3V / 5.0V

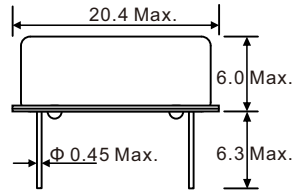
Frequency Range
1 MHz~200 MHz

Outline Dimensions (Unit: mm)

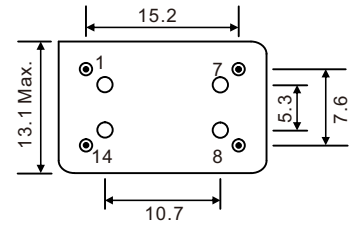
NVCFS (DIP-14 full-size VCXO)



Top View

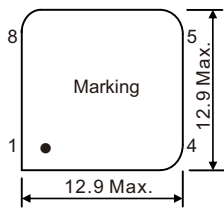


Side View

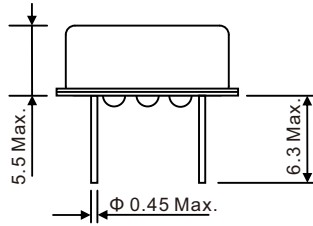


Bottom View

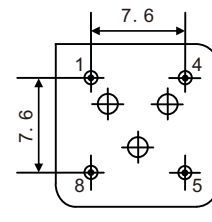
NVCHS (DIP-8 half-size VCXO)



Top View



Side View



Bottom View

Pin Map

Pin	Connection	Function
1	Vcont	Control voltage
7 / 4	GND	Ground
8 / 5	OUT	Clock output
14 / 8	Vcc	Power supply