

## Features

- ▶ Compact 14-pin DIL package (SMD optional)
- ▶ 3.3V supply voltage
- ▶ Sinewave output
- ▶ Very fast warmup
- ▶ Low power consumption
- ▶ Wide temperature range available

## Standard Frequencies

Frequencies in MHz	
10.00000	20.00000
12.00000	26.00000
12.80000	40.00000
14.74600	52.00000
16.00000	54.00000

## Specifications

Parameters	Product	Option Codes
	MCOCXOWS	
<b>Frequency range:</b> 10.0kHz ~ 54.0MHz	■	
<b>Frequency stability:</b> ±0.5ppm max first year ±3.0ppm max in 10 years ±0.1ppm max vs V <sub>DD</sub> ±10ppb max vs load ±10%	■ ■ ■ ■	
<b>Short term stability:</b> 5x10 <sup>-10</sup> , τ 0.1 to 30s 5x10 <sup>-11</sup> typ at 1s	■ ■	
<b>Temperature stability:</b> ±0.075ppm max, 0 to +60°C ±0.15ppm max, -20 to +70°C ±0.25ppm max, -40 to +85°C	□ □ □	A B C
<b>Storage temperature range:</b> -55 to +125°C	■	
<b>Output waveform:</b> Sinewave from 50Ω Harmonics < -10dBc Spurii < -70dBc	■ ■ ■	
<b>Level:</b> ≥ 4dBm / 50Ω (≤20MHz) ≥ 0dBm / 50Ω (>20MHz)	■ ■	
<b>Frequency adjustment:</b> ±3.0ppm min Control voltage 0.5~3.3V, pin 1 Variable resistor 0~10kΩ, pins 1 to 7 None (int accuracy ±1.0ppm) None (int accuracy ±0.5ppm)	■ □ □ □ □	V3 R1 A B
<b>Supply voltage (V<sub>DD</sub>):</b> +3.3V (±0.15V)	■	
<b>Input current:</b> 120mA max @ +25°C 170mA max @ -20°C	■ ■	
<b>Warm up time (secs):</b> current 250mA max @ 25°C to within ±0.1ppm @ 25°C	30 120	
<b>Phase noise (typ @ 10MHz):</b> -110dBc/Hz @ 10Hz -135dBc/Hz @ 100Hz -145dBc/Hz @ 1kHz -150dBc/Hz @ 10kHz	■ ■ ■ ■	
<b>Shock &amp; vibration:</b> 5,000G, 0.3ms ½-sine 10.0 ~ 2,000Hz, 20G	■ ■	
<b>Package:</b> Through hole 14 pin DIL SMD options 1 or 2	■ □	specify

■ Standard. □ Optional - Please specify required code(s) when ordering

## Ordering Information

Product name + option codes + frequency

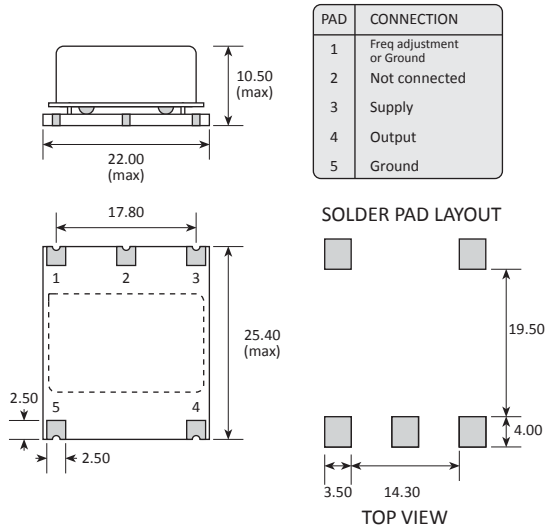
eg: **MCOCXOWS/AR1 10.0MHz** 0.075ppm 0~60°C

**MCOCXOWS/BV3 16.384MHz** 0.15ppm -20+70°C

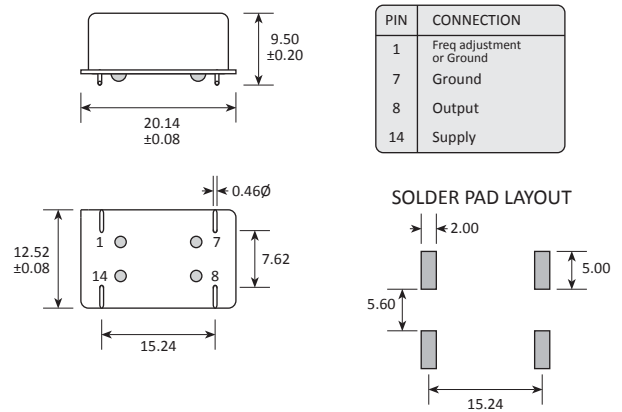
Option code X (eg MCOCXOWS/X) denotes a custom spec.

◆ Product is NOT designed to withstand 260°C reflow processing

## Option D1



## Option D2



## Soldering Profile

