

PIN	CONNECTION
1	Freq adjustment
7	Ground
8	Output
14	Supply

Scale 1:1

## 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
12.80000	26.00000
16.00000	40.00000
16.38400	50.00000
19.44000	52.00000

## Specifications

Parameters	Product	Option Codes
	MCOCXOWS	
<b>Frequency range:</b> 10.0 ~ 54.0MHz	■	
<b>Frequency stability:</b> ±0.7ppm max first year ±4ppm max in 10 years ±0.1ppm over $V_{DD} \pm 0.15V$ ±0.01ppm over 10% change in load	■ ■ ■ ■	
<b>Short term stability:</b> $5 \times 10^{-10}$ , 0.1 to 30s $5 \times 10^{-11}$ over 1s typ	■ ■	
<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>Operable temperature range:</b> -40 to +85°C	■	
<b>Storage temperature range:</b> -65 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> Control voltage (pin 1) ±4ppm min, 0V ~ 3.3V Variable resistor (pins 1 to 7) ±4ppm min, 0 ~ 10kΩ	□ □	V3 R1
<b>Supply voltage (<math>V_{DD}</math>):</b> +3.3V (±0.15V)	■	
<b>Input current:</b> 110mA max @ +30°C 170mA max @ -20°C	■ ■	
<b>Warm up:</b> within spec after 30s @ 0°C current 250mA max during 10s	■ ■	
<b>Phase noise (typ @ 10MHz):</b> -110dBc/Hz @ 10Hz -135dBc/Hz @ 100Hz -145dBc/Hz @ 1kHz -150dBc/Hz @ 10kHz	■ ■ ■ ■	
<b>Shock &amp; vibration:</b> 2,000G, 0.3ms ½-sine 10.0 ~ 2,000Hz, 10G	■ ■	
<b>Package:</b> Through hole 14 pin DIL 25x22mm SMD carrier PCB Formed leads SMD	■ □ □	D1 D2

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

## Ordering Information

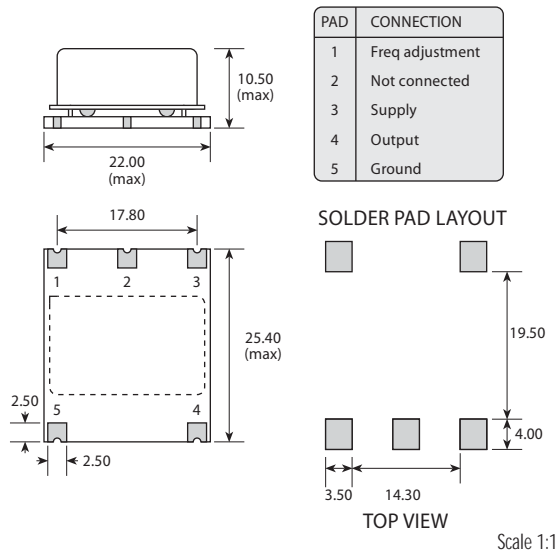
Product name + option codes + frequency

eg: **MCOCXOWS-AR1 10.0MHz**

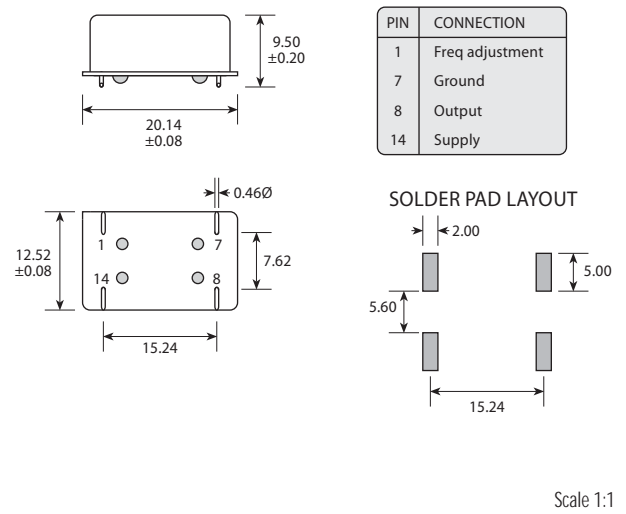
**MCOCXOWS-BV3 16.384MHz**

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

## Option D1



## Option D2



## Soldering Profile

