

## Features

- ▶ Compact 14-pin DIL package (SMD optional)
- ▶ 12.0V 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
	MCOXOS	
<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> ±0.05ppm max, 0 to +60°C ±0.1ppm max, -20 to +70°C ±0.2ppm max, -40 to +85°C	□ □ □	A B C
<b>Storage temperature range:</b> -55 to +125°C	■	
<b>Output waveform:</b> Clipped sine, 1V p-p min Harmonics < -10dBc Spurii < -70dBc	■ ■ ■	
<b>Test load:</b> 1 kΩ // 5pF (±10%)	■	
<b>Start up time:</b> 5ms max	■	
<b>Frequency adjustment:</b> ±3.0ppm min Control voltage 0.5~5.0V, pin 1 Variable resistor 0~10kΩ, pins 1 to 7 None (int accuracy ±1.0ppm) None (int accuracy ±0.5ppm)	■ □ □ □ □	V5 R1 A B
<b>Supply voltage (V<sub>DD</sub>):</b> +12.0V (±0.5V)	■	
<b>Input current:</b> 50mA max @ +25°C 80mA max @ -20°C	■ ■	
<b>Warm up time (secs):</b> current 250mA max @ 25°C to within ±0.1ppm @ 25°C	10 30	
<b>Phase noise (typ @ 10MHz):</b> -100dBc/Hz @ 10Hz -130dBc/Hz @ 100Hz -140dBc/Hz @ 1kHz -145dBc/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

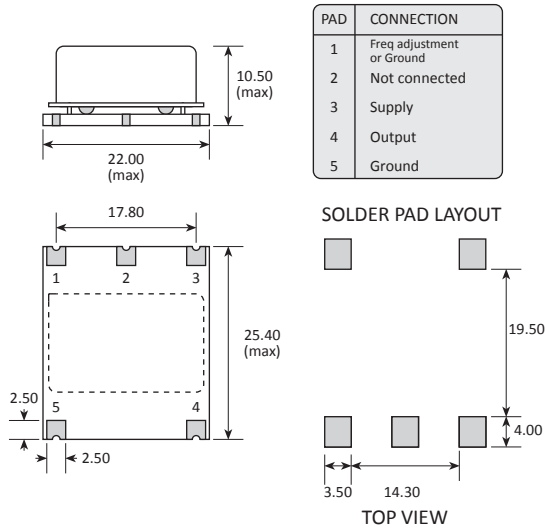
eg: **MCOXOS/AR1 12.80MHz** 0.05ppm 0~60°C

**MCOXOS/BV5 19.44MHz** 0.1ppm -20~70°C

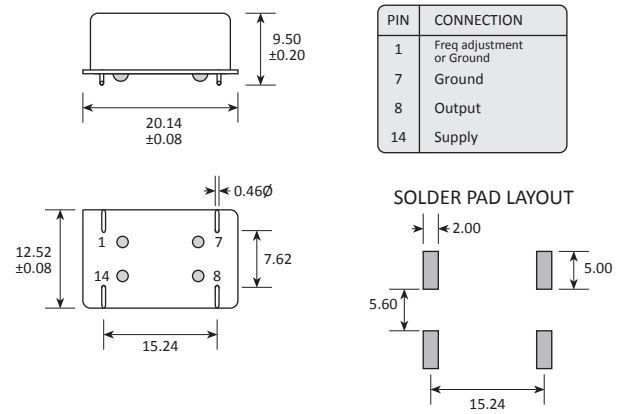
Option code X (eg MCOXOS/X) denotes a custom spec.

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

## Option D1



## Option D2



## Soldering Profile

