



PIN	CONNECTION
1	Freq adjustment
7	Ground
8	Output
14	Supply

Scale 1:1

Features

- ▶ Compact 14-pin DIL package
- ▶ 12.0V supply voltage
- ▶ Sinewave output
- ▶ Very fast warmup
- ▶ Low power consumption
- ▶ Wide temperature range available

Standard Frequencies

Frequencies in MHz	
10.00000	16.38400
12.80000	19.44000
16.00000	20.00000

Specifications

Parameters	Product	Option Codes
	MCOXOS	
Frequency range: 10.0 ~ 20.0MHz (20.1~40.0MHz under development)	■	
Frequency stability: ±0.7ppm max first year ±4ppm max in 10 years ±0.1ppm over V_{DD} ±0.5V ±0.01ppm over load min to max	■ ■ ■ ■	
Short term stability: 5x10 ⁻¹⁰ , 0.1 to 30s 5x10 ⁻¹¹ over 1s typ	■ ■	
Temperature stability: ±0.05ppm max, 0 to +60°C ±0.1ppm max, -20 to +70°C ±0.2ppm max, -40 to +85°C	□ □ □	A B C
Operable temperature range: -40 to +85°C	■	
Storage temperature range: -65 to +125°C	■	
Output waveform: Clipped sine, 1 ~ 2V p-p Harmonics -10dBc max Spurious -70dBc max	■ ■ ■	
Test load: 1 kΩ // 5pF (±10%)	■	
Frequency adjustment: Control voltage (pin 1) ±4ppm min, 2.5V ±2.5V *Variable resistor (pins 1 to 7) ±4ppm min, 0 ~ 10kΩ	□ □	V5 R1
Supply voltage (V_{DD}): +12.0V (±0.5V)	■	
Input current: 25mA max @ +30°C 40mA max @ -20°C	■ ■	
Warm up: within spec after 30s @ 0°C current 250mA max during 10s	■ ■	
Phase noise: < -70dBc/Hz @ 1Hz < -100dBc/Hz @ 10Hz < -130dBc/Hz @ 100Hz < -140dBc/Hz @ 1kHz	■ ■ ■ ■	
Shock & vibration: 2,000G, 0.3ms ½-sine 10.0 ~ 2,000Hz, 10G	■ ■	

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

Ordering Information

Product name +model code (if standard) + frequency

eg: **MCOXOS-AR1 12.80MHz**

MCOXOS-BV5 19.44MHz

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

◆ Other combinations of calibration and temperature stability/range are available.