



PIN	CONNECTION
1	Freq adjustment
7	Ground
8	Output
14	Supply

Scale 1:1

Features

- ▶ Compact 14-pin DIL package
- ▶ 3.3V supply voltage
- ▶ HCMOS compatible 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
	MCOCXOW	
Frequency range: 10.0kHz ~ 20.0MHz	■	
Frequency stability: ±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	■ ■ ■ ■	
Short term stability: 5×10^{-10} , 0.1 to 30s 5×10^{-11} over 1s typ	■ ■	
Temperature stability: ±0.2ppm max, 0 to +60°C ±0.075ppm max, 0 to +60°C ±0.3ppm max, -20 to +70°C ±0.15ppm max, -20 to +70°C ±0.5ppm max, -40 to +85°C ±0.25ppm max, -40 to +85°C	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A TA B TB C TC
Operable temperature range: -40 to +85°C	■	
Storage temperature range: -65 to +125°C	■	
Output waveform: HCMOS compatible '0'=+0.4V max, '1'= V_{DD} -0.5V min 40:60 max	■ ■ ■	
Rise / fall times: 7ns / 7ns max	■	
Frequency adjustment: Control voltage (pin 1) ±4ppm min, 0V ~ 3.3V 'Variable resistor (pins 1 to 7) ±4ppm min, 0 ~ 10kΩ	<input type="checkbox"/> <input type="checkbox"/>	V3 R1
Supply voltage (V_{DD}): +3.3V (±0.15V)	■	
Input current: 100mA max @ +30°C 160mA max @ -20°C	■ ■	
Warm up: within spec after 60s @ 0°C current 250mA max during 30s	■ ■	
Phase noise (typ @ 10MHz): -80dBc/Hz @ 1Hz -110dBc/Hz @ 10Hz -135dBc/Hz @ 100Hz -145dBc/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: **MCOCXOWT-AR1 12.80MHz**

MCOCXOW-BV3 16.3840MHz

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

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